

N E S A B U L L E T I N S



January 1-31, 1949

Bulletin No. 217

***** (January 1) *****

Weston

eS 21 17 47

***** (January 2) *****

Weston

eS 17 15 02

***** (January 4) *****

Weston

iS₂(?) 20 10 22.2
iS_n 10 29

***** (January 5) *****

Ottawa

P_n 17 01 07.5
P₂ 01 09.0
S_n 01 24.0
S₂ 01 27.7
Dist. = 135 km. (83 mi.)
H = 17 00 45

Weston

1 20 13 17.6
S or L of a blast

Weston

iP₁ 20 31 22
iS₁ 31 33
Dist. = 87 km. (54 mi.)
H = 20 31 07.8 - blast

***** (January 6) *****

Weston

e 21 35 11

- 2 -

***** (January 7) *****

Ottawa

Pn 16 21 54.8
P2 21 56.6
Sn 22 12.5
S2 22 15.5
e 22 20.0
Dist. = 150 km. (93 mi.)
H = 16 21 31

Weston

eS₁ 18 52 15

Weston

e 19 14 27

***** (January 8) *****

Weston

iS₁ 18 42 20

***** (January 12) *****

Ottawa

P₂ 13 38 01.5
e 38 07
S₂ 38 14.5
S₁ 38 17.6

Dist. = 110 km. (69 mi.)
H = 13 37 43

***** (January 13) *****

Ottawa

P₂ 17 02 17.0
Sn 02 33.8
S₂ 02 37.5

Dist. = 142 km. (88 mi.)
H = 17 01 54

***** (January 14) *****

Ottawa

e 03 51 10.5
e 52 24

Weston

e 03 08 30
i 08 45

Weston

e 20 06 21.6

- 3 -

***** (January 15) *****

Weston

1 20 44 53

***** (January 17) *****

Weston

eS 19 58 29

Weston

iS₁ 20 10 12 blast

Weston

iP₁ 21 54 14
iS₁ 54 24.4
Dist. = 82 km. (51 mi.)
H = 21 54 00.6 blast

***** (January 18) *****

Weston

iS 19 28 31.3 blast

***** (January 20) *****

Weston

iP₁ 20 55 03
iS₁ 55 17

Dist. = 111 km. (69 mi.)
H = 20 54 45 blast

***** (January 24) *****

Weston

eS 20 14 46.5

***** (January 25) *****

Ottawa

P₂ 18 16 01.8
S_n 16 23.3
S₂ 16 25.8

Dist. = 220 km. (136 mi.)
H = 18 15 28

***** (January 27) *****

Weston

eS 03 05 43

***** (January 31) *****

Weston

IS 13 43 33

Ottawa

Pn 19 22 17.0

P2 22 18.8

P1 22 21.8

Sn 22 34.2

S2 22 37.8

e 22 42

Dist. = 140 km. (86 mi.)

H = 19 21 54

John F. Devane, S.J.

NESEA BULLETIN

February 1-28, 1949

Bulletin No. 218

***** (February 1) *****

Weston

eS_n(?) 21 20 56
iS₁ 21 09

***** (February 2) *****

Ottawa

P₂ 17 12 31
S_n 12 47
S₁ 12 51.5

Dist. = 137 km. (85 mi.)
H = 17 12 08

***** (February 3) *****

Ottawa

P₁ 01 31 47.5
S₁ 31 49.0
S₂ 31 49.2

Dist. = 10 km. (6 mi.)
Probably N.E. of station
near Rockcliffe

***** (February 5) *****

Weston

i 15 08 47.4
iS₁ 15 09 32
i(G) 09 38

Harvard

e 15 08 39.5
e 08 56
i 09 25
iS₁ 09 31

TVA blast at 36°31.56' N., 82°05.10' W. H = 15 04 14.25

Weston

iP 20 23 42
iS 27 33

Dist. = 22°
West Indies

- 2 -

***** (February 8) *****

Weston

iP 04 38 38
iS 41 14
Dist. = 25°
West Indies

Ottawa

P₂ 21 02 51
S_n 03 10
S₁ 03 15
Doubtful interpretation

Weston

iS₁ 20 51 38 blast

***** (February 9) *****

Ottawa

P₂ 17 12 08.5
S_n 12 26.5
S₁ 12 28.6
Dist. = 148 km. (91 mi.)
H = 17 11 44

Weston

iP₁ 16 41 17.5
iS₁ 41 27.2
Dist. = 76 km. (47 mi.)
H = 16 41 05.2 - blast

***** (February 12) *****

Weston

eP(?) 17 40 09
eS₁ 40 34

***** (February 14) *****

Weston

iS₁ 16 21 38

***** (February 15) *****

Weston

eS 20 13 27

Weston

iP 14 14 12
iS 18 05
Dist. = 22°
West Indies

- 3 -

***** (February 16) *****

Weston

iS₁ 21 09 58

***** (February 17) *****

Ottawa

P₂ 19 35 39

S₂ 35 59

S₁ 36 03

Dist. = 176 km. (109 mi.)

H = 19 35 10

Weston

e 19 29 95

eS₁ 19 29 13

***** (February 18) *****

Weston

iP 09 06 49

iS 10 36

Dist. = 22°

West Indies

Weston

e 19 34 26

Weston

eS 21 20 28

***** (February 19) *****

Weston

iS₁ 16 11 31 blast

***** (February 21) *****

Ottawa

P₂ 17 12 16.0

S_n 12 34

S₁ 12 36.5

Dist. = 150 km. (93 mi.)

H = 17 11 52

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***** (February 22) *****

Ottawa

Pn 14 35 03.0
e 35 04.5
P1 35 07
Sn 35 20.0
S1 35 23.0
e 35 28
Dist. = 148 km. (91 mi.)
H = 14 34 39

Weston

e 20 24 24
iS1 24 35.5

***** (February 23) *****

Weston

iP2 21 04 12.1
iP1 04 12.7
iS2 04 33
iS1 04 35
Dist. = 178 km. (110.6 mi.)
H = 21 03 59.7

Weston

iS1 22 00 43 local blast

***** (February 25) *****

Weston

e 21 26 11
eS1 26 16 blast

***** (February 26) *****

Ottawa

Pn 20 53 19.2
P2 53 20.6
Sn 53 37.0
e 53 45
Dist. = 148 km. (91 mi.)
H = 20 52 55

John F. Devane, S.J.

N E S A B U L L E T I N

March 1-31, 1949

Bulletin No. 219

***** (March 2) *****

Weston

iS₁ 21 34 16

***** (March 4) *****

Weston

eS₁ 22 00 48.6

***** (March 9) *****

Weston

iS₁ 20 21 29 blast

Weston

iS₁ 21 18 28.2 blast

***** (March 10) *****

Weston

iS₁ 01 15 05.5
possible underwater explosion

Weston

iS₁ 17 27 10.6 blast

***** (March 11) *****

Ottawa

P₂ 17 02 31.0
S_n 02 48.0
S₂ 02 51.5

Dist. = 140 km. (86 mi.)
H = 17 02 08

***** (March 16) *****

Weston

e 01 24 36

***** (March 17) *****

Weston

iS₁ 17 18 06.4 blast

- 2 -

***** (March 18) *****

Weston

iP₁ 16 49 51.4
iS₁ 50 02.7
Dist. = 90 km. (56 mi.)
H = 16 49 36.7 - blast

Weston

iS₁ 17 45 24.0 blast

Weston

iS₁ 19 19 44.7 blast

***** (March 21) *****

Weston

eS 09 56 30

Weston

e 17 59 46

***** (March 23) *****

Weston

iP 09 35 20.5
iS 39 24.5

Dist. = 23°2
West Indies

***** (March 25) *****

Weston

iS₁ 16 42 31.5 local blast

***** (March 26) *****

Weston

iS₁ 16 12 57

***** (March 29) *****

Weston

e 15 51 36.5

Weston

iP₁ 20 41 54.8
iS₁ 42 06.8
iL 42 13
Dist. = 95 km. (59 mi.)
H = 20 41 39.4 - blast

***** (March 30) *****

Weston

iP₁ 17 11 46.8
iS₁ 58.0
Dist. = 89 km. (55 mi.)
H = 17 11 32.4 - blast

Weston

e 17 29 20 possible underwater explosion

Weston

e 19 39 59

Weston

iP₁ 22 36 13
iS₂ 36 30.4
iS₁ 36 31.3
iL 36 40.8
Dist. = 145 km. (90 mi.)
H = 22 36 09.4 - blast

***** (March 31) *****

Weston

iP₁ 19 00 36.7
iS₁ 00 39.8
Dist. = 24 km. (14.9 mi.)
H = 19 00 32.8 - blast

Weston

iP₁ 19 10 36.8
iS₁ 10 59.8
Dist. = 23 km. (14.3 mi.)
H = 19 10 33 - blast

Weston

iP₁ 20 07 54.8
iS₁ 07 58.0
Dist. = 28 km. (17.4 mi.)
H = 20 07 49.8 - blast

John F. Devane, S.J.

N E S A B U L L E T I N

April 1-30, 1949

Bulletin No. 220

***** (April 1) *****

Weston

iS₁ 16 54 43.9 local blast

Weston

eS 21 30 08

Weston

iP₂ 19 10 42

iP₁ 10 43

iS₂ 11 01.4

iS₁ 11 03

Dist. = 160 km. (99.4 mi.)

H = 19 10 16.8

***** (April 2) *****

Weston

e 17 09 14.7

Ottawa

P₂ 17 23 11.3

S_n 23 28.5

S₂ 23 31.5

Dist. = 140 km. (86 mi.)

H = 17 22 48

***** (April 3) *****

Weston

e 16 44 21 short period activity continuing for nearly 30 minutes

***** (April 5) *****

Weston

eS 20 07 07.3

Weston

iS₁ 22 28 25 local blast

***** (April 6) *****

Weston

i 21 10 32.1

- 2 -

***** (April 7) *****

Ottawa

P₂ 19 35 30.0
P₁ 35 32
S_n 35 47.0
S₂ 35 50.5
Dist. = 150 km. (93 mi.)
H = 19 35 06

Weston

iS₁ 15 58 57.7 blast

***** (April 8) *****

Weston

iS₁ 15 31 10.5 local blast

Weston

e 20 04 54.3

Weston

iS₁ 19 52 47.5 local blast

Weston

iS₁ 20 34 30.3

***** (April 11) *****

Weston

e 20 04 35

***** (April 12) *****

Weston

e 08 47 55

Weston

iS₁ 20 39 50.7

Weston

e 19 32 12.2

***** (April 14) *****

Weston

e 20 00 04.8

- 3 -

***** (April 16) *****

Weston

e 16 10 16
i 10 30

***** (April 17) *****

Weston

e 23 19 50
i 20 42

Weston

iS₁ 15 30 40.6 local blast

***** (April 20) *****

Weston

iS₁ 15 31 27 local blast

Weston

iP₂ 20 19 17.1
iP₁ 19 17.4
iS₂ 19 36
iS₁ 19 37.4
Dist. = 160 km. (99.4 mi.)
H = 20 18 51.2 - blast

***** (April 21) *****

Weston

iS₁ 22 30 59.3 local blast

Weston

e 22 53 30

***** (April 22) *****

Weston

e 16 37 05.7
i 37 28.6

Weston

iS₁ 19 43 45 local blast

Weston

iS₁ 19 53 45 local blast

***** (April 23) *****

Weston

e 19 29 35.2

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***** (April 24) *****

Weston

e 19 01 19.2

***** (April 26) *****

Weston

1 19 17 20.6

***** (April 27) *****

Weston

iP₁ 18 30 57
iS₁ 31 18.4
Dist. = 171 km. (106 mi.)
H = 18 30 29.1 - blast

Weston

iP_n 19 35 01
iS₁ 35 47.4
Dist. = 317 km. (197 mi.)
H = 19 34 15.6
probable blast

Weston

iS₁ 19 13 09.7

***** (April 28) *****

Weston

e 18 10 20.4 possible underwater explosion.
1 10 49

***** (April 29) *****

Weston

iS₁ 16 02 01.2 local blast

Weston

iS₁ 19 14 45.8 local blast.

John F. Devane, S.J.

N E S A B U L L E T I N

May 1-31, 1949

Bulletin No. 221

***** (May 1) *****

Weston

e 13 15 16
i 16 00.2 possible quake
iS₁(?) 16 12

***** (May 2) *****

Weston

e 03 54 39.8

Weston

e 14 30 53.6

***** (May 4) *****

Weston

e 04 16 38.1 possible quake

Weston

e 20 38 47.3

***** (May 5) *****

Weston

e 02 06 17.2
i 06 34

Weston

eS₁ 19 01 49.6

Weston

iS₁ 18 37 51.9

Weston

e 19 16 48

Weston

iS₁ 18 52 42.2

Weston

eS₁ 19 33 06.8

Weston

iS₁ 20 44 31

***** (May 6) *****

Weston

iP 11 37 53
iS 41 44.5
Dist. = 21.4
West Indies

Weston

e 16 45 47.2

Weston

iP₁ 17 31 03.9
iS₂ 31 20.8
iS₁ 31 21.3
Dist. = 140 km. (87 mi.)
H = 17 30 41.2
Probably a blast

***** (May 7) *****

Weston

iS₁ 21 17 37.7

***** (May 8) *****

Weston

e 11 02 28
iS₁ 04 23 quake

***** (May 9) *****

Weston

iS₁ 16 02 40.2 local blast

***** (May 10) *****

Weston

iP₁ 14 07 23
iS₁ 07 31
Dist. = 63 km. (39 mi.)
H = 14 07 12.8 blast

Weston

iP₁ 14 07 36.8
iS₁ 07 45
Dist. = 64 km. (39.8 mi.)
H = 14 07 26.4 blast

***** (May 11) *****

Weston

iP₁ 16 59 41.4
iS₁ 59 58.6
Dist. = 136 km. (84.5 mi.)
H = 16 59 19.3 blast

***** (May 14) *****

Weston

iS₁ 16 55 55 blast

***** (May 16) *****

Weston

iP₁ 20 30 24 blast
iS₁ 30 26.1

***** (May 17) *****

Weston

iP₁ 17 26 48.7 blast
iS₁ 26 55.0

Weston

e 20 24 10.7
i 24 13.6

Weston

e 19 36 12.3 blast
iS₁ 36 38

***** (May 19) *****

Weston

iP₂ 14 19 49
iP₁ 19 54
iS₂ 20 08.7
iS₁ 20 08.9

Dist. = 157 km. (97.5 mi.)
H = 14 19 23.6
blast

***** (May 20) *****

Weston

i 00 45 24.5

***** (May 21) *****

Ottawa

P_n 22 33 19.0
P₂ 33 20
S_n 33 37.7
S₂ 33 40
S₁ 33 42

Dist. = 175 km. (108.7 mi.)
H = 22 32 51.4

Weston

e 22 34 19
iS₁ 34 29
Dist. = 339 km.
(210.6 mi.)
(S₁ - H)

***** (May 24) *****

Weston

e 20 07 13.4

***** (May 25) *****

Weston

iP₂ 23 29 05.4
iP₁ 29 06
iS₂ 29 24.8
iS₁ 29 26.1

Dist. = 160 km. (99.4 mi.)
H = 23 28 40
blast

***** (May 26) *****

Weston

iP₂ 22 02 51.8
iP₁ 02 52.2
iS₃ 03 10.1
iS₂ 03 10.5
iS₁ 03 11.7

Dist. = 155 km. (96 mi.)
H = 22 02 27
blast

***** (May 28) *****

Weston

e 01 01 18

Weston

e 01 30 04 short period activity lasting for 70 seconds

***** (May 30) *****

Weston

e 10 07 22 possible quake
i 07 56.5

***** (May 31) *****

Ottawa

Pn 14 08 52.0
Sn 09 18.5
S₁ 09 23.0
Dist. = 235 km. (146 mi.)

Weston

e 19 43 55.5
e 44 15.8
i 44 19.8

John F. Devane, S.J.

N E S A B U L L E T I N

June 1-30, 1949

Bulletin No. 222

***** (June 1) *****

Weston

eS 18 38 32

Ottawa

e 18 38 47

***** (June 2) *****

Weston

e 19 04 55.5
e 20 18 38.5

S or L phases of a distant blast

***** (June 3) *****

Weston

e 22 32 30

S or L phases

***** (June 4) *****

Weston

e 15 11 41
1P 23 31 53
1S 35 49

S of distant blast
West Indies
Dist. = 23°

***** (June 6) *****

Weston

e 16 19 06

Ottawa

P₂ 22 03 13.0
S_n 03 29.5
S₂ 03 33

***** (June 7) *****

Weston

e 11 01 06

Undecipherable disturbance of 50 sec.
duration

1S₁ 19 04 02.8

Probable blast

***** (June 16) *****

Ottawa

P₂ 22 09 47.0
S_n 10 04.5
S₂ 10 07

Dist. = 150 km.

***** (June 20) *****

Ottawa

P_n 18 43 01.5
P₂ 43 03
S_n 43 32.0
S₂ 43 34

Dist. = 290 km.

***** (June 23) *****

Ottawa

P₂ 21 49 56.0
S_n 50 15.0
S₂ 50 17.5

Dist. = 167 km.

Note: On June 8 movement of the Weston Observatory to a new building was begun, causing a suspension of operations.

COLUMBIA UNIVERSITY UNDERWATER EXPLOSIONS

<u>Date</u>	<u>Shot Time GMT</u>	<u>Lat. N</u>	<u>Long. W</u>
June 8	16 01 43.48	39°16'	70°46!5
	17 04 05.81	39 19	70 50
	18 04 35.44	39 23.5	70 51
	19 05 35.37	39 29	70 54
	20 04 39.51	39 35.8	70 58
June 9	11 05 28.74	39°44!5	70°58!5
	12 03 55.2	39 51.6	70 57
	13 02 41.86	39 59.7	70 57.5
	14 03 53.44	40 08	70 58
	15 04 05.24	40 16	70 58

All explosions were 300 lb., TNT depth charges.
Information supplied to NESÁ through the courtesy of Mr. Samuel Katz of Columbia University.

John F. Devane, S.J.

N E S A B U L L E T I N

July 1-31, 1949

Bulletin No. 223

***** (July 3) *****

Harvard

i 00 23 01
i 10

***** (July 11) *****

Ottawa

P₂ 19 01 23.0
S₂ 01 40.0
e 01 48

Dist. = 150 km.

***** (July 12) *****

Ottawa

P₂ 16 04 37
S₂ 04 53
e 05 05

Dist. = 145 km.

Harvard

iP 21 45 28
iS 26 08.4

Dist. = 167 km.
H = 21 25 20
Blast

***** (July 13) *****

Harvard

e(S) 12 59 23
eL 59 27

Harvard

iP 18 53 12
iS 53 30
Dist. = 152 km.
H = 19 52 47.5

***** (July 14) *****

Ottawa

Pn 14 55 14.5
P2 55 16
Sn 55 33.5
e 55 40
Dist. = 150 km.

Ottawa

P2 18 38 01.5
Sn 38 20.5
e 38 26

Ottawa

P2 20 58 02.5
S2 58 18
e 58 24
Dist. = 150 km.

Harvard

1S 15 43 11
1S 20 44 55.5
e(L) 21 26 44

***** (July 16) *****

Harvard

1S 13 42 13
1S1S1 16.5
eLR 18
Dist. = 84.5 km.
Blast

Harvard

1(P) 18 31 40
1(S) 32 10
Blast

Harvard

ePn 18 57 13.5
1P1 22
eSn 57 53
eS1 58 06
Dist. = 380 km.
H = 18 56 21.5

Ottawa

e 18 58 31

***** (July 18) *****

Harvard

e 16 34 18
e 34 36

Ottawa

e 16 34 47

***** (July 19) *****

Harvard

1(S) 05 23 47

Possible local quake

Harvard

e(S) 13 10 02
1L 10 03

Harvard

1(S) 15 25 23
26

Ottawa

P_n 22 07 08.0
P₂ 07 09.5
S_n 07 25.5
S₂ 07 30
Dist. = 150 km.

***** (July 21) *****

Harvard

1 12 12 25
1 26
1 27

***** (July 25) *****

Harvard

eP 06 31 23
eS 31 32

Dist. = 73.8 km.
H = 06 31 10.7

Ottawa

P₂ 22 05 30
S_n 05 47.5
S₂ 05 50.5

Dist. = 150 km.

***** (July 26) *****

Harvard

1P 20 10 24
1S 10 28.5
1L 10 30
Dist. = 28.7 km.
H = 20 10 19.3

Harvard

1P 16 01 49.5
1S 01 56
1L 01 57.5
Dist. = 53.3 km.
H = 16 01 40.8

***** (July 27) *****

Harvard

e 19 14 30.5

***** (July 28) *****

Harvard

1P 19 30 59.5

1S 31 12.5

1L 31 21.0

Dist. = 107 km.

H = 19 30 42.0

Blast at Westfield, Mass.

John F. Devane, S.J.

***** (July 30) *****

Ottawa

Pn 17 58 33

P2 58 36

Sn 59 05

S1 59 18

Dist. = 305 km.

***** (July 31) *****

Harvard

1 16 08 12.5

1 08 15.5

COLUMBIA UNIVERSITY UNDERWATER EXPLOSIONS

(mk. 6 Depth Charge, 300 lb. TNT)

<u>Date</u>	<u>Shot Time GMT</u>	<u>Lat. N</u>	<u>Long. W</u>
July 7	17 59 26.51	40°10'	69°29'
	21 00 51.71	39°57'	69 12
	22 00 14	39 52	69 08
	23 00 37.57	39 46.5	68 58
July 8	00 00 31.22	39°42'5	68°51'5
	01 00 31.66	39 37	68 42
	02 02 11.34	39 31	68 36
	03 01 02.47	39 24	68 27

Information supplied to NESAC by Mr. Samuel Katz of Columbia University.

N E S A B U L L E T I N



August 1-31, 1949

Bulletin No. 224

***** (August 1) *****

Harvard

iP₂ 15 30 01.5
iS 30 17.5

Dist. = 131.3 km.
H = 15 29 39.7

***** (August 2) *****

Harvard

iS 02 01 01.5

possibly a quake

***** (August 3) *****

Ottawa

P_n 17 16 05.0
P₂ 16 06.5
S_n 16 22.0
e 16 29
Dist. = 150 km.

Ottawa

P_n 22 10 35.5
P₂ 10 36.5
S_n 10 53.0
S₂ 11 05
Dist. = 150 km.

Harvard

e 14 19 00

***** (August 5) *****

Ottawa

iP_n 15 56 57.0
iP₂ 56 59.5
iS_n 57 14.5
iS₂ 57 18.5
iS₁ 57 21
Dist. = 150 km.

Harvard

e 18 50 26
e 19 07 19
i 22 24 53

***** (August 6) *****

Ottawa

P₂ 16 27 19.5
S_n 27 36.5
e 27 47

Dist. = 150 km.

***** (August 8) *****

Harvard

e 00 03 41.5

***** (August 10) *****

Harvard

e 15 59 51

short-period activity for nearly one and a half minutes

Ottawa

Pn 18 48 09
P2 48 11
Sn 48 26
e 48 34

Dist. = 150 km.

***** (August 11) *****

Harvard

1P2 10 02 08
1Pn 10 31 00
iPn 11 00 51.3
iPn 11 31 20.3
iPn 12 00 45.0
iPn 12 30 32.5
iPn 13 00 46.5
iPn 14 00 37
ePn 14 30 46.5
eS 15 01 27
eS 16 31 37
iPn 16 01 03
eS 16 30 26
eS 17 01 03
eS 17 30 59
1 18 01 04.5
eS 18 30 51
e 19 00 50
eS 19 31 21
eS 20 01 20

Dist. = 173 km.
Dist. = 194 km.
Dist. = 187 km.
Dist. = 197 km.
Dist. = 209 km.
Dist. = 209 km.
Dist. = 220 km.
Dist. = 247 km.
Dist. = 228 km.
Dist. = 228 km.
Dist. = 228 km.
Dist. = 287 km.
Dist. = 287 km.
Dist. = 287 km.

Possibly a series of underwater blasts

***** (August 13) *****

Harvard

i 00 51 16

Ottawa

Pn 16 11 49
P2 11 51
Sn 12 05.5
S2 12 09
Dist. = 150 km.

***** (August 16) *****

Harvard

iP 15 28 26.5
iS 36

Dist. = 77.8 km.
H = 15 28 13.7
Blast

***** (August 18) *****

Harvard

i 01 34 39.5

Local?

***** (August 19) *****

Harvard

i 14 25 17.5

Possibly blasts

i 16 08 46.5
58

i 20 06 39

***** (August 21) *****

Ottawa

Pn 17 52 20.0
P2 52 22.5
Sn 52 37.5
e 52 45

Dist. = 150 km.

***** (August 23) *****

Harvard

1 14 00 22.5
1 16 30 23
1 19 08 33
08 48.5
08 58

Harvard

iP 19 51 17
iS 51 29.5
iL 51 24
Dist. = 104 km.
H = 19 51 05.7

***** (August 24) *****

Ottawa

Pn 18 26 51.2
Sn 27 09.0
e 27 17
Dist. = 150 km.

Harvard

i 18 40 22
i 37.5

***** (August 25) *****

Harvard

1 14 33 18
1 15 53 55
1 59

Probable blasts

***** (August 26) *****

Harvard

1 15 41 24
1 15 55 57
1 16 07 16.5
1 16 10 17
1 19 07 57
1 20 38 56.5

Blasts of locals

***** (August 29) *****

Harvard

1 18 50 27

Blast or local

***** (August 30) *****

Harvard

i 17 35 05.0
i 17.3
i 20.4

Blast or local

iP₁ 17 05 41.2
iS₁ 06 00.5

Dist. = 56 km.
H = 17 05 34.3
Blast

***** (August 31) *****

Ottawa

P_n 04 51 35.0
e 51 39
S_n 51 51
i 51 54
e 51 59

Dist. = 150 km.

Harvard

i 17 50 26

Probable blast

Note: During the past two months the Weston Observatory instruments were in operation sporadically, but lack of time control renders accurate reading impossible,

John F. Devane, S.J.

N E S A B U L L E T I N



September 1-30, 1949

Bulletin No. 225

***** (Sept 2) *****

Weston

iP₁ 05 48 37
iS₂ 48 55.9
iS₁ 48 57.5
Dist. = 164 km.

Harvard

iP₂ 05 48 34.6
iP₁ 48 35.2
iS₂ 48 52.2
iS₁ 48 53.2
Dist. = 150 km.

Epicentre: 43.8N 71.8W H = 05 48 10.2
Felt by several residents of South Tamworth N.H.

***** (Sept. 2) *****

Harvard

iP 20 30 34.5
eS 46.2
eL 56.0

Blast at Westfield Mass.

***** (Sept. 4) *****

Harvard

iP 00 01 22.3
iS 05 14.7

H = 23 56 24.3
Dist. = 2500 km.
West Indies

***** (Sept. 6) *****

Harvard

e 05 26 05

***** (Sept. 7) *****

Harvard

iP₁ 20 52 33.0
iS₁ 47.3
Dist. = 107.5 km.
H = 20 52 15.1

Weston

iS₁ 20 52 50.2
Blast

- 2 -

***** (Sept. 7) *****

Ottawa

i 23 09 17
i 23 10 27
i 23 11 25
i 23 13 10
i 23 21 47

All of local origin of about
a half minute duration

***** (Sept. 8) *****

Harvard

iP₁ 19 07 18.5
iS₁ 32.5

Dist. = 115 km.
H = 19 06 59.3
Blast

***** (Sept. 12) *****

Harvard

eP 16 49 05.5
eS 52 22.5

H = 16 44 55.5
Dist. = 2000 km.
West Indies

***** (Sept. 13) *****

Harvard

i 20 15 13
i 15 16

Appears more like a quake than
a blast

***** (Sept. 14) *****

Ottawa

iP 15 57 03.5
i 57 05.5
iS 57 20.0
Dist. = 131 km.
H = 16 56 42

Harvard

i 15 58 23.2
i 24.7
i 28.5
Quake?

- 3 -

***** (Sept. 14) *****

Harvard

iP₁ 16 44 55.7
iS₁ 45 12.5
Dist. = 149 km.
H = 16 44 30.8

Harvard

iP₁ 20 24 32.4
iS₁ 50.5
Dist. = 149 km.
H = 20 24 07.5

Blasts

Harvard

iP₁ 20 41 05.5
iS₁ 23.0
Dist. = 147 km.
H = 20 40 41.6

Harvard

iP₁ 23 30 24.5
iS₁ 44.0
Dist. = 152.5 km.
H = 23 29 59.8

***** (Sept. 15) *****

Harvard

iP₂ 00 30 29.0
iP₁ 29.9
i 44.0
i 47.5

Harvard

i 01 30 27
quake?

Harvard

iP₂ 16 55 20
iP₁ 20.8
iS₂ 38.5
Dist. = 155 km.
H = 16 54 54.9
Blast

Harvard

iP₁ 19 55 38.3
iS₂ 55.8
Dist. = 155 km.
H = 19 55 13.2
Blast

***** (Sept. 16) *****

Harvard

iP 19 04 51
eS 08 07
Dist. = 180.4
H = 19 10 35

Weston

eP 19 04 45
eS 08 02
Dist. = 180.3
West Indies

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***** (Sept. 17) *****

Harvard

iP₁ 18 35 23.5
iS₁ 38.0

Dist. = 118 km.
H = 18 35 04.5
Blast

***** (Sept. 19) *****

Harvard

eP 13 14 27.5
eS 18 38.5
Dist. = 23.8
H = 13 09 04.5

Weston

eP 13 14 21
eS 18 34
Dist. = 23.0
West Indies

***** (Sept. 19) *****

Harvard

iP₁ 20 00 19.5
iS₁ 32.5

Dist. = 108 km.
H = 20 00 01.5
Blast

***** (Sept. 26) *****

Harvard

iP₁ 17 43 44.8
iP₁ 17 44 01
iP₁ 17 44 26.3

iS₁ 17 44 02.0 Dist. = 137 km. H = 17 43 22
iS₁ 17 44 18.1 Dist. = 136 km. H = 17 43 36
iS₁ 17 44 44.1 Dist. = 141 km. H = 17 44 03

Possible underwater explosions

***** (Sept. 26) *****

Harvard

iP₁ 17 50 08.2
iS₁ 25.0
Dist. = 139 km.
H = 17 49 46.3

Harvard

iP₁ 17 50 26.0
iS₁ 42.5
Dist. = 131 km.
H = 17 50 04.7

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***** (Sept. 26) *****

Harvard

iP ₂	18 40	25.7
iP ₁		26.1
iS ₂		42.1
iS ₁		43.9

Dist. = 137.5 km.
H = 18 40 03.2
Blast

***** (Sept. 29) *****

Ottawa

iP	13 49	17.0
e		20.5
iS		36.5

Dist. = 151 km.
H = 13 48 52.4

***** (Sept. 29) *****

Weston

e 22 11 12

Activity lasting for two minutes

Note: The shocks listed on August 11, 1949 are the recordings of 300 pound depth charges which were detonated in the Gulf of Maine. (Courtesy of Samuel Katz, Columbia University.)

John F. Devane, S.J.

N E S A B U L L E T I N

October 1-31, 1949

Bulletin No. 226

***** (Oct. 3) *****

Weston

eS 13 36 31

***** (Oct. 4) *****

Weston

e 08 23 59
i 24 05
10

***** (Oct. 5) *****

Weston

iPn 02 34 27.1
iP2 30.7
iP1 33.0
iS3 59.7
iS2 35 02.8
iS1 08.7
Dist. = 284 km.

Harvard

iPn 02 34 26.3
iP1 35.1
iSn 56.0
iS2 35 00.7
Dist. = 273 km.

Ottawa

Pn 02 34 42.2
P1 54.1
Sn 35 24
S2 36.0
S1 42.5
Dist. = 420 km.

Shawinigan Falls

P 02 34 24.5
Sn 52.4
S3 53.8
Dist. = 255 km.

Seven Falls

Pn 02 34 25.8
P2 28
Sn 53.5
S2 57.4
Dist. = 263 km.

Fordham

P 02 35 00
P 10
Sn 52
Dist. = 475 km.

Epicentre in region 44.8N H = 02 33 47.5
70.5W

Widely felt in Maine. Intensity on Rossi-Forel scale 5

***** (Oct. 5) *****

Weston

iS1 20 05 57

- 2 -

***** (Oct. 7) *****

Weston

eS	19 42 56
eS	20 06 18

***** (Oct. 8) *****

Harvard

iP ₁	20 15 05.2
iS ₁	18.8

Dist. = 114 km.
H = 20 14 46.2

***** (Oct. 9) *****

Weston

e	01 11 31
i	59.5

***** (Oct. 11) *****

Seven Falls

P ₁	09 36 05.8
S ₁	14.5

Dist. = 70 km.

***** (Oct. 11) *****

Weston

e	19 59 03
iS ₁	17

Does not appear to be a blast

***** (Oct. 12) *****

Weston

e	02 07 18
i	21.5

***** (Oct. 14) *****

Weston

iS ₁	20 58 19.5
-----------------	------------

Blast

- 3 -

***** (Oct. 16) *****

Ottawa

iP₁ 23 33 56.0
iS₁ 34 04.7
Dist. = 69 km.

Seven Falls

P₂ 23 34 40.5
P₁ 44
S_n 35 13.5
Dist. = 362 km.

Shawinigan Falls

P_n 23 34 16.1
P₁ 34 19.1
S_n 39.8
Dist. = 212 km.

Near Alexandria, Ontario, Canada

Weston

P_n 23 34 44
P₂ 52
S_n 35 29
S₂ 41

Epicentre = 74°8W 40°4N
H = 23 33 44.8

***** (Oct. 17) *****

Weston

i 20 58 58
i 59 10
i 59 36

Does not appear to be a blast

***** (Oct. 21) *****

Harvard

i 01 16 36.3

Weston

i 01 16 40
Quake?

***** (Oct. 27) *****

Harvard

e 20 35 31.0
e 36 24.0
i 36.5

Harvard

i 21 43 10.8
i 20

Weston

i 21 43 16
20.4

Ottawa

e 21 44 01

Quake?

- 4 -

***** (Oct. 28) *****

Harvard

Weston

i 21 46 06

e 21 46 03
1 13

Activity lasting for nearly two minutes at both
stations but phases not clear.

***** (Oct. 29) *****

Harvard

e 01 32 05

e 16 33 08

***** (Oct. 30) *****

Harvard

e 10 28 28

Ottawa

Shawinigan Falls

Weston

Pn 20 52 01
P1 06.5
S2 38
S1 42
Dist. = 170 km.

P1 20 51 21.8
S1 28.0
Dist. = 50 km.
H = 20 51 13.6

e 20 53 27
e 53 54
Probably not the same
shock.

John F. Devane, S.J.

N E S A B U L L E T I N



November 1-30, 1949

Bulletin No. 227

***** (Nov. 2) *****

Weston

eP 02 12 31
eS 16 41
Dist. = 23.8
H = 02 07 15

Harvard

eP 02 12 35
eS 16 42
Dist. = 24.1
West Indies

***** (Nov. 2) *****

Harvard

i 19 36 45
iS 20 08 27.2
iS 21 30 38.5

Blast

Blast

***** (Nov. 3) *****

Weston

iS₁ 20 42 29
i 21 31 03
iS 21 56 53.2

Harvard

Blast i 21 31 02.5 short period activity for 1 1/2 min.
iP 21 56 33.0
iS₂ 49.1 Dist. = 141 km.
Blast iS₁ 49.9 H = 21 56 09.5

***** (Nov. 4) *****

Harvard

iP₂ 16 32 56.4
iP₁ 56.8
iS₂ 33 13.8
iS₁ 15.0
Dist. = 148 km.
H = 16 32 32.3

Weston

iS₁ 16 33 14.5 Blast

***** (Nov. 7) *****

Harvard

iS 19 50 02.3
i 20 15 20.5

- 2 -

***** (Nov. 9) *****

Harvard

iS 19 17 11.5
Blast

Weston

e 18 54 19

***** (Nov. 10) *****

Harvard

iP 15 22 34.0 Dist. = 122 km.
iS 48.6 H = 15 22 15

iP 15 22 40.9 Dist. = 122 km.
iS 55.4 H = 15 22 22

Weston

iP 15 22 31
iS 45.6 Dist. = 116 km.

iP 15 22 37.9
iS 52.5 Dist. = 116 km.

***** (Nov. 12) *****

Ottawa

P₂ 16 19 08
S_n 26
S₁ 30
Dist. = 155 km.
H = 16 18 43

Weston

e 16 21 49

***** (Nov. 12) *****

Harvard

iP 17 29 34.2
iS 48.3
Dist. = 115 km.
H = 17 29 15

Weston

iS 17 29 52.4
Blast

***** (Nov. 14) *****

Weston

eP 22 02 27
eS 06 35
eT 25 57
Dist. = 23.4
West Indies

Harvard

i 22 02 29.5
i 06 33.5
i 25 45.5

- 3 -

***** (Nov. 15) *****

Weston

e 00 08 18
e 00 38 17
e 00 46 17

Harvard

i 00 08 12.5
i 00 38 16.5
i 00 46 09.5

***** (Nov. 16) *****

Ottawa

P_n 21 38 31
P₁ 34
S_n 55
S₁ 39 02
Dist. = 215 km.
H = 21 37 58.6

Harvard

iS₁ 21 39 10.5

quake?

Weston

e 21 39 18

***** (Nov. 18) *****

Ottawa

P_n 17 16 43
P₁ 45
S_n 17 04
S₁ 09
Dist. = 185 km.
H = 17 16 14.2

Ottawa

P_n 20 13 49
S_n 14 09
S₂ 14 12
Dist. = 175 km.
H = 20 13 21

***** (Nov. 19) *****

Ottawa

P_n 16 24 52
S_n 25 10

Dist. = 155 km.
H = 16 24 27

***** (Nov. 20) *****

Ottawa

P_n 20 16 28
P₁ 30
S_n 49

Dist. = 185 km.
H = 20 15 29

- 4 -

***** (Nov. 23) *****

Weston

iP 06 19 54
eS 24 07

Dist. = 240
West Indies

***** (Nov. 24) *****

Ottawa

Pn 17 10 58
Sn 11 17.5
S2 19
S1 21
Dist. = 170 km.
H = 17 10 31

Harvard

iS1 19 37 15.1

***** (Nov. 25) *****

Ottawa

Pn 22 25 33
Sn 50
S1 56

Dist. = 145 km.
H = 22 25 09

***** (Nov. 26) *****

Harvard

i 14 58 40
i 56.5

Weston

i 14 58 55
i 59
Does not appear to be a blast

***** (Nov. 27) *****

Harvard

i 19 35 27.2
i 36 23.2

Weston

i 19 36 32

***** (Nov. 28) *****

Ottawa

Pn 17 38 23
S1 51

H = 17 37 52
Dist. = 205 km.

- 5 -

***** (Nov. 28) *****

Harvard

i 19 26 14.8

***** (Nov. 29) *****

Weston

i 19 12 06

***** (Nov. 30) *****

Weston

e 19 44 22

***** (Nov. 30) *****

Weston

e 20 03 34

Harvard

i 20 03 20.8
i 34.2

John F. Devane, S.J.

N E S A B U L L E T I N

December 1-31, 1949

Bulletin No. 228

***** (Dec. 1) *****

Weston

i 11 59 06

***** (Dec. 1) *****

Ottawa

Pn 12 25 31
Sn 51

Dist. = 174 km.
H = 12 25 03.5

Weston

iS 20 25 10
iS 21 03 40

Harvard

iS 21 03 23.5
i 37.8

***** (Dec. 2) *****

Weston

e 20 01 05

Harvard

i 22 07 44.5
i 53.0

***** (Dec. 5) *****

Ottawa

Pn 17 24 32
Sn 54

Dist. = 195 km.
H = 17 24 02

***** (Dec. 6) *****

Weston

i 14 51 22

Harvard

i 14 51 18.8

- 2 -

***** (Dec. 7) *****

Harvard

i 19 33 28.2
iS 20 06 10.3
i 20 27 36.3

Ottawa

P 22 44 39
S₂ 45 01
Dist. = 183 km.
H = 22 44 10.5

***** (Dec. 8) *****

Ottawa

P_n 18 40 56
S₂ 41 28
S₁ 31
Dist. = 258 km.
H = 18 40 18.5

Weston

i 18 41 29
i 36

Harvard

i 18 56 26
i 32.7

Harvard

i 20 05 32.1
i 39.5

Ottawa

P_n 23 01 51
S₂ 02 14.5
S₁ 16.5
Dist. = 195 km.
H = 23 01 21

Ottawa

P_n 23 25 04
S_n 24.5
S₁ 27.5
Dist. = 180 km.
H = 23 24 36

***** (Dec. 9) *****

Harvard

i 21 13 23.5

***** (Dec. 11) *****

Weston

i 17 29 59.5

A minute of short period activity

- 3 -

***** (December 12) *****

Weston

1 21 20 24.8

Harvard

e 21 20 16
Does not appear to be a blast

***** (Dec. 14) *****

Weston

1 17 12 20.3

1 21 26 30.6

Harvard

1 17 12 15

1 21 26 27.5

Blasts

***** (Dec. 14) *****

Ottawa

P_n 23 11 57
S_n 12 17
Dist. = 173 km.
H = 23 11 29

Ottawa

P_n 23 13 45
S₂ 14 06.5
Dist. = 180 km.
H = 23 13 17

***** (Dec. 15) *****

Harvard

1 15 01 43

1 16 52 02

Ottawa

P_n 17 28 16
S₂ 39
Dist. = 190 km.
H = 17 27 46.5

***** (Dec. 16) *****

Harvard

1 22 13 34
1 59

Weston

1 22 13 59
1 14 02.5
Does not appear to be a blast

***** (Dec. 20) *****

Weston

e 23 52 24

***** (Dec. 21) *****

Weston

e 08 25 11

1P 12 36 41
es 40 30

A minute of short period activity

Dist. = 21.4

H = 12 31 50

West Indies

***** (Dec. 26) *****

Ottawa

P_n 07 29 15
S_n 29 56

Dist. = 390 km.

H = 07 28 22

***** (Dec. 29) *****

Harvard

e 16 41 06
i 17

***** (Dec. 30) *****

Weston

e 08 18 01

John F. Devane, S.J.