

- #103 September 3, 1948
20.7 S., 68.5 W., H 09-39-29 Depth about 125 km.
- #104 September 6, 1948
23.4 S., 71.3 W., H 08-10-36 Depth about 200 km.
- #105 September 6, 1948
15.2 N., 93.4 W., H 16-35-16 Depth about 100 km
- #106 September 8, 1948
21.0 S., 174.2 W., H 15-09-14
- #107 September 10, 1948
43.3 N., 146.6 E., H 13-48-35 slightly deep

Ross R. Heinrich
23 September 1948

J.S.A

2636/-5 OCTO 1948

JESUIT SEISMOLOGICAL ASSOCIATION
CENTRAL STATION
3621 Olive Street
Saint Louis 8, Missouri

PRELIMINARY BULLETINS

- #108 September 13, 1948
14.0 N., 92.9 W. H 21-07-42
- #109 September 18, 1948
9.5 N., 84.7 W. H 08-36-12
- #110 September 19, 1948
49.3 N., 179.5 W. H 06-14-02 Depth about 50 km



2840/ 19 OCTO 1948

19 OCTO 1948

JESUIT SEISMOLOGICAL ASSOCIATION
CENTRAL STATION
3621 Olive Street
Saint Louis 8, Missouri

PRELIMINARY BULLETINS

- #111 September 22, 1948
~~23.9 S., 66.0 W., H 07-18-02
Depth about 200 km.~~
- #112 September 28, 1948
~~22.9 N., 94.4 E., H 21-36-53
Depth about 100 km~~
- #113 September Supplement - Not completed

3217/29 NOV 1948

JESUIT SEISMOLOGICAL ASSOCIATION
CENTRAL STATION
3621 Olive Street
Saint Louis 8, Missouri

PRELIMINARY BULLETINS 1948

- #118 ~~October 21, 1948~~ 7.2 S., 156.0 E. H 05h01m40s
- #119 ~~October 27, 1948~~ 17.1 N., 61.4 W. H 18h37m22s
- #120 ~~October 29, 1948~~ 5.9 N., 100.6 W. H 11h07m22s

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2986/ -3 NOVE 1948

JESUIT SEISMOLOGICAL ASSOCIATION
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3621 Olive Street
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PRELIMINARY BULLETINS 1948

✓ #116 October 15, 1948

Region: 60 S., 19 W. H 22h43m50s

#117 October 21, 1948

Region: 13.2 ~~S.~~ ^W, 88.0 W. H 04h50m15s



20110
#129 December 4, 1948
21.5 N., 106.1 W., H 00h22m47s

#130 December 4, 1948

33. CORRECTION PRELIMINARY BULLETIN DATA

Some details in Palm Springs, Twenty-nine Palms,
#130 December 4, 1948 33.9 N., 116.5 W.

H 23h43m17s
Near S. Heinrich
18 December 1948

3489 / 3 JANV 1949

#131 Earthquake of December 5, 1948

57 S., 162 E. Region H 06-25-37
depth ?

398 / 14 FEVR 1949

SS
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CENTRAL STATION
3621 Olive Street
Saint Louis 8. Missouri

PRELIMINARY BULLETIN FOR 1948

#139 Supplement for December 1948 will contain with later additions.

December 10, 1948 53.0 N., 160.0 W. ?
H 09-42-10 Depth about 100

December 16, 1948 20 S., 177 W.
H 07h18.3m

December 21, 1948 19.1 N., 68.3 W.
H 20-13-28



519/ 31 MARS 1949

JESUIT SEISMOLOGICAL ASSOCIATION
CENTRAL STATION
3621 Olive Street
Saint Louis 8, Missouri

PRELIMINARY BULLETIN FOR 1948

#139 Supplement for December 1948, contains regions

December 6, 1948	16 S., 168 E., H 12-10-26	
December 10, 1948	53.0 N., 160.0 W., H 09-42-10	h 100 km
December 16, 1948	20 S., 177 W., H 07h18.3m	
December 17, 1948	7.4 N., 81.3 W. H 11-31-31	
December 21, 1948	19.1 N., 68.3 W. H 20-13-28	

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222/
25 JAN 1949

PRELIMINARY BULLETINS FOR 1948

- #132 December 7, 1948
Region: 19.0 N., 69.4 W. H 09h15m24s
- #133 December 12, 1948
Region: 52.2 N., 178.2 E., H 13h17m32s
Depth of focus about 60 km
- #134 December 15, 1948
Region: 22.0 N., 142.4 E., H 19h11m50s
Depth about 250 km.
- #135 December 23, 1948
Tentative: 55.4 N., 166.7 E. H 08-41-25
Depth about 100 km
- #136 December 26, 1948
Region : 22.9 S., 68.5 W. H 07-12-30
Depth about 75 Km
- #137 December 29, 1948
Tentative: 39.5 N., 120.1 W. H 12-53-28
Felt in Nevada and California
USA
- #138 December 30, 1948
Region: 51.5 N., 130.0 W. H 23-49-53

Note: All bulletins for 1948 have been completed
except: #128 Supplement for November 1948
#139 Supplement for December 1948

Ross R. Heinrich
19 January 1949

460/21 FEVR 1949

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CENTRAL STATION
3621 Olive Street
Saint Louis 8, Missouri

PRELIMINARY BULLETINS

#128 SUPPLEMENT FOR NOVEMBER 1948 , contains the following
epicentral regions;

November 1, 1948 : 28 N., 109 W., H 11h44m50s

November 13, 1948: 19.6 S., 175.1 W., H 07h00m30s

November 14, 1948: 39.0 N., 141.8 E., H 06h15m40s
Depth about 50 Kms.

November 20, 1948: 18 N., 106 W., H 08h21m32s



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PRELIMINARY BULLETINS 1948

- 3416 / 18 DEC 1948
- #123 November 3, 1948
Region 19.0 S., 169.0 E., H 05h18m54s
- #124 November 19, 1948
Tentative 9.8 N., 83.9 W., H 01h04m26s
Depth of focus about 100 km



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3621 Olive Street
Saint Louis 8, Missouri

PRELIMINARY BULLETINS FOR 1948

- #125 November 21, 1948
13.1 S., 166.4 E., H 19h10m34s
Depth of focus about 200 Km
- #126 November 22, 1948
48.8 N., 178.5 E., H 09h06m47s
Depth ?
- #127 November 26, 1948
5.0 S., 145.8 E., H 05h36m36s
- #128 November Supplement - Not Completed
- 3437/



JESUIT SEISMOLOGICAL ASSOCIATION,
CENTRAL STATION
3621 Olive Street
Saint Louis 8, Missouri

PRELIMINARY BULLETINS 1948

- #113 Supplement for September 1948 contains data on:
- ~~September 1~~ Region 23 N., 119 W. H 19h53.0m
 - ~~September 2~~ Region 9.5 N., 124.5 E., H 23h34m55s
 - ~~September 11~~ Region 37 N., 23 E., H 08h52m40s
Depth about 100 km
 - ~~September 22~~ Region 17.8 N., 81.9 W., H 21h29m48s
 - ~~September 23~~ Region 41 N., 142 E., H 00h52m40s
- #115 October 5, 1948 Region 36.1 N., 58.5 E. H 20h12m00s
Poor agreement of the data
- Preliminary Readings Saint Louis Station



PRELIMINARY READINGS SAINT LOUIS STATION

June 27, 1948

~~iP Z 12h53m05s~~

~~iS N 57-08~~

June 27, 1948

~~eP Z 21h47m31s~~

~~iS E 54-09~~

June 28, 1948

~~iP Z 07-26-37~~

~~iPP Z 30-25~~

~~iSKS N 37-03~~

June 29, 1948

iP Z 10-41-51

iPP Z 45-02

iSKKS N 52-38

iSSS N 11-02-10

June 29, 1948

iP Z 16-19-29

e(SKS) 30-24

No Surface

June 30, 1948

iP Z 12h33m31s

iS N 43-36

eSS N 48-54

Surface small

Ross R. Heinrich
June 30, 1948

arrive 5 juillet

Revised

2080/24 JUL 1948

JESUIT SEISMOLOGICAL ASSOCIATION
CENTRAL STATION
3621 Olive Street
Saint Louis 8, Missouri

We have recently completed the following preliminaries

No.	Date	Epicenter	Origin
70	1948 June 18	6.4 S., 155.9 E. Depth about 50 Km	00h53m58s
73	June 27	56½ N., 154 W.	21h39m25s
74	June 28	35.8 N., 136.2 E.	07h13m32s

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SAINT LOUIS RECORD

SAINT LOUIS, MISSOURI

CORRECTIONS OF PREVIOUS READINGS SENT. (TIME ERROR)

June 18, 1948

i
 eP' 01-12-28
 ePP 13-13
 epPP 13-34
 e 13-45
 e 18-24
 eSKKS 20-17
 i 22-07
 eSS 28-57
 eL 45009

June 27, 1948

iP 12h53m16s
 is 57-19

June 27, 1948

eP 21-47-44
 is 54-22

June 28, 1948

iP 07-26-49 isKS 07-37-15
 iPP 30-37

Ross R. Heinrich
19 July 1948

NGS SAINT LOUIS

December 4, 1948

Strong Seismogram

i P Z 00-27-42

i Z 27-51
large

H = 22 37

i S N 31-41

i S Z 31-51

i L Z 33-51

i M Z 36-35

December 4, 1948

e P Z 02-48-25

i S E 52-35
aftershock of above

Ross R. Heinrich
4 December 1948



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PRELIMINARY READINGS SAINT LOUIS STATION

December 4, 1948

i P Z 16-39-48

i S E 16-47-22

December 4, 1948

i P Z 23-48-09

i S N 23-52-09

i L NE 53-18

December 5, 1948

e Z 06-45-23

i Z 47-54

e N 48-30

e E 57-44

e E 07-01-36

i E 10-46

December 6, 1948

i E 12-39-08

e E 44-55

e L E 13-03

December 7, 1948

e Z 09-21-04

December 10, 1948

i P Z 09-53-11

i S E 10-02-17

Large microseisms

December 12, 1948

e (P) Z 13-27-41

e S E 35-59

Ross R. Heinrich
December 14, 1948

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Preliminary Readings Saint Louis

15 December 1948

e P Z 19-29-07

i P Z 29-11

i S E 35-10

e E 38-51

Deep - No Surface

17 December 1948

i P Z 11-38-03

e E 45-45

21 December 1948

e P Z 20-19-23

i S E 24-05

23 December 1948

i P Z 08-51-56

i Z 52-32

i S E 09-00-43

i E 03-45

23 December 1948

e (P) Z 15-41-31

e (S) E 46-49

28 December 1948

Ross R. Heinrich

BEST WISHES FOR A HAPPY YEAR IN
1949

INSTITUTE OF TECHNOLOGY

SAINT LOUIS READINGS

December 29, 1948

e P E 12-58-32
i P E 58-33

i P E 12-58-34

i S E 13-02-46

Damage at Verdi, Nevada

December 30, 1948

e P Z 23-55-52
i P E 23-56-11

i S E 24-01-06

i S N 24-01-16

December 31, 1948

e P Z 07-14-45

e L E 07-23-58

Ross R. Heinrich
4 January 1949

November 26, 1948

e	Z	05h55m42s
i	Z	56-46
i	Z	57-02
i	E	06-02-12
i	E	06-35

-546 15

November 27, 1948

i	P	Z	06-42-40
			Other phases ?

November 30, 1948

i	P	Z	02-39-30
i		Z	42-29
i	S	E	48-05
i		E	48-40

Deep - no other phases

-545⁵⁰ 44
h.P. x 56
Pw 4448

NEW DATA

November 1, 1948

e P Z 10-02-31
e S N 06-21
e L N 08-33

November 1, 1948

i P Z 11-49-16
e S N 53-13
e L N 55-37

November 1, 1948

i P Z 12-16-46
i S N 25-37

November 2, 1948

i P Z 00-01-26
i Z 01-42
Superimposed on surface
waves of another shock!

November 3, 1948

e Z 05-38-03
large Microseisms

November 4, 1948

i P Z 13-29-04
Large Microseisms

November 9, 1948

i P Z 20-43-18
e S N 47-30
i M N 50-14

Another quake of
similar character
in surface waves.

November 13, 1948

i (S) N 23-13-31
F 24h30m

November 14, 1948

(eP) Z 06-28-28
e P Z 06-28-40
e S E 39-22

Ross R. Heinrich
November 18, 1948

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3621 OLIVE STREET
SAINT LOUIS, MISSOURI

Saint Louis Readings

November 19, 1948

i P Z 01-10-21
i Z 10-43
i Z 11-32

i S N 01-15-18
i N 17-04

Near 10 N., 85 W.

November 20, 1948

i P Z 08-26-58
i Z 27-03
i Z 27-13
i Z 27-29

e S N 08-31-25
i S N 31-35
i E 32-25
i M N 35-05

November 20, 1948

i P Z 10-21-55
i S E 10-31-33

no other phases!

November 21, 1948

(e) E 19-28-33
e Z 29-44
e E 34-53
e E 36-17
e N 37-50

November 22, 1948

i P Z 09-17-08
i Z 09-17-57
i S N 09-25-24
i N 09-26-40

H 06 52

Ross R. Heinrich
24 November 1948

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SAINT LOUIS, MISSOURI

PRELIMINARY SAINT LOUIS READINGS

October 23, 1948

~~i Z 15-56-47~~

~~i N 16-10-32~~

October 27, 1948

~~i P Z 18-43-57~~

~~e (S) N 49-25~~

October 28, 1948

~~i P Z 20-58-32~~

~~i pP Z 58-46~~

~~e S E 21-09-00~~

~~i sS E 09-26~~

~~i E 09-52~~

October 29, 1948

~~e P Z 03-17-25~~

~~i S N 26-24~~

~~i E 26-36~~

~~e sS N 27-06~~

~~e E 27-23~~

*Vain
Correction*

October 29, 1948

~~e (P) Z 11-14-11
weak~~

Missouri

~~i (sP) N 15-34~~

~~* i (S) N 19-30
strong!~~

~~i (sS) N 21-31~~

Ross R. Heinrich
30 October 1948

64/-8, JAN 1949

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3621 Olive Street
Saint Louis 8, Missouri

PRELIMINARY BULLETINS 1948

#121 Supplement for October contains:

10 October 1948

34.8 N., 22.9 E., H 17-43-08

18 October 1948

36 N., 28 E., H 08-59-52

28 October 1948

32.6 N., 141.1 E., H 20-45-38
depth about 100 km

29 October 1948

16.5 S., 71 W., H 03-07-35
depth ?

#121 Supplement for October 1948 is not fully
completed but will contain among other data

October 28, 1948

37.6 N., 141.1 E. H 20h45m38s
Depth about 100 km.

October 29, 1948

16.5 S., 71 W Region H 03h07m35s
Possibly deeper than normal

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621 OLIVE STREET

ST. LOUIS, MISSOURI

yr 26.8

yr 305



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2521 OLIVE STREET
SAINT LOUIS, MISSOURI

PRELIMINARY SAINT LOUIS DATA

CORRECTION

October 29, 1948

e	P	Z	03-17-25
i	S	E	25-36
i		N	26-24
i		E	26-23
e		N	27-06

3202/24 NOVE 1948

24 NOVE 1948

October 15, 1948

e Z 23-09-38
e E 10-28
e E 11-19
weak secondary waves

October 16, 1948

i P Z 04-55-36
i S N 05-02-44

October 18, 1948

i P Z 09-12-34
e S N 23-00
i S N 23-13

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SAINT LOUIS, MISSOURI

October 21, 1948

ni P Z 04-55-43
i N 56-04
i S E 05-00-50

October 21, 1948

^{KP}
e (P) E 05-20-48
i (SKS) E 30-46
e N 30-51
e N 36-38

Weak surface during
09hour

2918 / 26 OCTO 1948

Ross R. Heinrich
23 October 1948

SAINT LOUIS READINGS

October 8, 1948

i P Z 09-18-28

e N 26-59

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SAINT LOUIS, MISSOURI

October 10, 1948

e P Z 17-55-38

e S E 18-06-08

#114 October 1, 1948

17.4 N., 99.2 W. H 11-33-11
Depth about 100 km.

Miss E. Heinrich
15 October 1948

2839/

19 OCTO 1948

SAINT LOUIS UNIVERSITY
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SAINT LOUIS RECORD
SAINT LOUIS, MISSOURI

2750/ 12 OCTO 1948

PRELIMINARY READINGS SAINT LOUIS

October 1, 1948

i P Z 11-38-03

i pP Z 38-18

i S NE 42-10

Near 17 N., 99 W.
H 11-33-03
h about 100 km

October 2, 1948

e (P) Z 00-17-11

e N 21-38

e M N 00-25.0

October 2, 1948

i P E 04-57-43

i Z 05-00-53

October 2, 1948

i P Z 14-46-16

e L E 15-12.5

October 2, 1948

i P Z 16-05-02

e S N 09-37

e L N 12-37

October 3, 1948

(e) N 04-48-20

Wood Anderson

i Z 51-35

October 3, 1948

e (S) E 07-14-26

October 4, 1948

e N 06-22-07

e N 25-37

e N 26-47

e (L)E 52-37

October 5, 1948

e P Z 20-25-46

e P N 25-51

e P E 25-54

iPP Z 29-38

iPP NE 29-57

iSKS NE 36-17

iSP E 38-37

i E 42-37

Distance about 100°
Iran?

Ross R. Heinrich
7 October 1948

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SAINT LOUIS RECORD SIGS
SAINT LOUIS, MISSOURI

2489 / 16 SEPT 1948

PRELIMINARY DATA SAINT LOUIS

8 SEPTEMBER 1948

e P Z 07-09-20
(eS) E 16-46
e E 18-18

8 SEPTEMBER 1948

e P Z 15-22-50
i P Z 15-22-51
i pP Z 23-14
i PP Z 15-26-45
i pPP Z 27-11
i SKS N 33-11
e S E 33-55

AFTERSHOCK

e P Z 17-00-54

9 SEPTEMBER 1948

i (S)?
(PS)? N 06-34-14
e N 06-40-34
e M E 06-58.8

9 SEPTEMBER 1948

Weak Surface 12 Hour

Weak Surface 14-15 Hour

10 SEPTEMBER 1948

Weak Surface 13 Hour

10 SEPTEMBER 1948

i P Z 14-00-58
i Z 01-12
i PP Z 14-04-23
i SE 11-14
i N 11-35

11 September 1948

Weak; Surface Waves 00 Hour

11 SEPTEMBER 1948

i P Z 09-04-55
i pP Z 05-21
i S E 09-15-05

Ross R. Heinrich
11 September 1948
15h00m GMCT

SAINT LOUIS UNIVERSITY

DEPARTMENT OF GEOPHYSICS

SAINT LOUIS RECORD
SAINT LOUIS, MISSOURI

Preliminary readings Saint Louis

24 September 1948

e(P) Z 21-01-54
e(S) N 10-36
e(SSS) E 16-42
e E 29-02

30 September 1948

(e) Z 02-16-39
e S N 28-07
e M N 54-39

27 September 1948

i P Z 21-33-15 Strong
i pP Z 35-59 "
e N 21-39-18 Weak
e N 47-00
e E 54-20

Ross R. Heinrich
30 September 1948

28 September 1948

e(P) Z 21-55-29
i Z 56-45
i(S) E 22-04-32
i N 06-39
i N 13-15
M E 22-30

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SAINT LOUIS RECORD
SAINT LOUIS, MISSOURI

10 SEPT 1948

2423

PRELIMINARY READINGS ST. LOUIS

1 September 1948

e (P) Z 19-21-50
i Z 22-20
i S E 26-20
i M E 28-52

1 September 1948

i P Z 19-57-59
i Z 58-13
i Z 58-38
i S E 20-02-08
i M E 04-40

1 September 1948

i P Z 20-40-56
i S N 44-50
i M E 47-39

2 September 1948

e Z 23-53-42
i Z 55-13
e NE 24-00-35
i N 02-49
i N 05-33
i N 15-19

3 September 1948

i P Z 09-48-41
ipP Z 49-07
i S N 57-11
i N 58-13

4 September 1948

i Z 15-28-47
e N 49-29
e N 51-37
i N 57-21

6 September 1948

i P Z 08-20-52
i S E 29-25
i sS E 30-45
i E 33-40
i E 36-30

6 September 1948

i P Z 16-40-20
i Z 40-38
i Z 40-46
i S E 44-26

Ross R. Heinrich
7 September 1948
16h10m GCT

09, 4

21540 / 23 SEPT 1948

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SAINT LOUIS, MISSOURI

PRELIMINARY DATA ST. LOUIS

12 September 1948

e S N 02-47-52
No P phases apparent

13 September 1948

i P Z 21-13-06
e S N 17-28
i S N 17-35
i sS N 18-01

14 September 1948 Weak shock surface waves 08 hour

