DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
SEISMOLOGICAL FIELD SURVEY
75 APPRAISERS' BUILDING
SAN FRANCISCO, CALIF.

FILE NO.
G-7

February 24, 1939

Professor Perry Byerly
University of California
Department of Geological Sciences
Seismograph Station
Berkeley, California

Dear Professor Byerly:

There are enclosed copies of our interpretations of earthquake reports from Salt Lake City under dates of February 3, 8, 1939, and January 20, 25, 30, 1939.

The original seismograms and reports were forwarded to the Washington office.

Respectfully yours,

Franklin P. Ulrich

Franklin P. Ulrich, Chief
Seismological Field Survey

FPU:P

Enclosure

| Date | Station |
|---|---|
| Jan. 20, 1939 GMT | Salt Lake City |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| R | 20 44 57 | R | ? ? |
| :P | 20 44 57 | P | 20:44:57 |
| eS | 50 18 | eS | 20:50:19 |

Remarks

Parallax not known.

(Probably Alaska - Office file only)

| Date | Station |
|---|---|
| Jan. 25, 1939 GMT | Salt Lake City |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| R | 03:43:57 | R | 03:44:30 |
| eP | 44:46 | eP | 44:46 |
| i | 45:23 | eS | 55:00 |
| eS | 55:01 | iS | 55:10 |
| i | 55:36 | $SR_1$ | 04:00:48 |
| $SR_1$ | 04:01:05 | $SR_2$ | :04:36 |
| SR | 04:43 | L | 04:08.0 - |
| F | 06:30 | | |

Remarks

Great Chilean Earthquake

| Date | Station |
|---|---|
| Jan. 30, 1939 GMT | Salt Lake City |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| R | 2 31 45 | R | 2 31 38 |
| eP | 2 32 15 | eP | 2 31 58 |
| e | 43 15 | eS | 42 12 |
| | | F | 5:00 |

Remarks

| Date | Station |
|---|---|
| | |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|

Remarks

FORM 438A—EARTHQUAKE REPORT—INSTRUMENTAL

U. S. GOVERNMENT PRINTING OFFICE: 1934

| Date | Station | Date | Station |
|---|---|---|---|
| Feb. 3, 1939 | Salt Lake City | Feb. 8, 1939 | Salt Lake City |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. | Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|---|---|---|---|
| R | 5 31 43 | R | 5 39 32 | | | | |
| * eP? | 5 31 53 | | | | | | |
| e | 5 43 53 | eP | 5 39 42 | e | 6:46 - | e | 6:46 - |
| eS | 5 50 01 | eS | 5 50 30 | | | | |
| e | 5 50 30 | | | | | | |
| F | 7 30 | F | 7:30 | | | | |

*Phases difficult to distinguish from microseisms. The E-W reading checks with U.S. C.&G.S. time.

Remarks South Seas Earthquake 37S
US C & G S 0 = 5 h 26m /
P-O(EW) = 13 m 06S
S(NS) - P(EW) = 10 m 19S

Remarks
Surface waves of distant earthquake. P & S indistinguishable from microseisms.

| Date | Station |
|---|---|
| Feb. 27,1939 | Salt Lake City |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| R | 00 29 47 | R | 00 29 56 |
| eP | 00 30 35 | eP | 00 30 36 |
| eS | 00 33 42 | eS | 00 33 44 |
| | | | |
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Remarks

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
SEISMOLOGICAL FIELD SURVEY
75 APPRAISERS' BUILDING
SAN FRANCISCO, CALIF.



FILE NO.
C-7

April 8, 1939

Professor Perry Byerly
University of California
Department of Geological Sciences
Seismograph Station
Berkeley, California

Dear Professor Byerly:

There is enclosed a copy of earthquake report of March 21, 1939, recorded at Salt Lake City.

Only one earthquake was recorded at Salt Lake City during the month of March. This, apparently, was a long distant shock and the phases were rather indistinct. However, I did manage to obtain about the same time on each component.

A copy of a letter addressed to Professor Schneider is enclosed.

Respectfully yours,

Franklin P. Ulrich

Franklin P. Ulrich, Chief
Seismological Field Survey

FPU:P

Enclosures

Copy for Dr. Byerly.



G-7

April 8, 1939

Professor Hyrum Schneider
Department of Geology
University of Utah
Salt Lake City, Utah

Dear Professor Schneider:

In looking over your seismograms for March, it is noted that the driving clocks have again developed a rather irregular rate. It would be very desirable to keep the driving clocks regulated so that the drum makes exactly one turn per hour. Apparently, the adjustment of the driving clock is not simple. It is also possible that these clocks have passed their usefulness and should be replaced. This is a point which Mr. Nelson will, no doubt, discuss in his appraisal of the Salt Lake Station.

There is enclosed a copy of our interpretation of the earthquake of March 21. I am hoping that eventually Mr. Anderson will be able to work up these earthquake records at Salt Lake City.

Respectfully yours,

Franklin P. Ulrich, Chief
Seismological Field Survey

Enclosures

FPU:P

| Date | Station |
|---|---|
| March 21, 1939 | Salt Lake City |

| Phase | N-S h. m. s. | Phase | E-W h. m. s. |
|---|---|---|---|
| R.M. | 1:33:43 | R.M. | 1:33:49 |
| e | 1:34:05 | e | 1:34:0 |
| e | 1:48:01 | e | 1:47:5 |
| e | 1:51:57 | e | 1:51:5 |
| e | 2:12:05 | e | 2:11:5 |
| e | 2:18:13 | e | 2:14:0 |
| F | 3:49 - | F | 3:26 - |

Remarks

Phases very faint.

| Date | Station |
|---|---|
| Apr. 5, 1939 | Salt Lake City |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| R | 17 04 45 | R | 17 04 49 |
| | | e? | 17 04 41 |
| e? | 17 04 37 | i? | 17 05 00 |
| e | 17 06 43 | i? | 17 05 36 |
| | | i | 17 06 46 |
| Remainder | | i | 17 08 55 |
| lost while | | e | 17 12 50 |
| changing record | | e | 17 17 52 |
| | | L | 17 27.5 |

Remarks

Changing records took rather long. Important phases lost in interim. Origin probably in South Seas.

| Date | Station |
|---|---|
| Apr. 18, 1939 | Salt Lake City |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| R | 6:34:03 | R | 6:34:04 |
| | | e? | 6:34:26 |
| P | 6:34:26 | eP | 6:34:43 |
| iS | 6:44:22 | S | 6:44:36 |
| SR | 6:49:33 | SR | 6:49:40 |
| L | 7:01.0 | L | 6:57.1 |
| F | 9:00 | | |

Remarks

| Date | Station |
|---|---|
| April 30, 1939 | Salt Lake City |

| Phase | N-S h. m. s. | Phase | E-W h. m. s. |
|---|---|---|---|
| R | 03:08:43 | No record. | |
| ip | 03:09:15 | | |
| S | 19:43 | | |
| L | 34.7 | | |
| F | 7:20 | | |
| | | | |
| | | | |
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Remarks

Heavy distant shock of long duration. Distance about 90° .

| Date | Station |
|---|---|
| May 1, 1939 | Salt Lake City |

| Phase | N-S h. m. s. | Phase | E-W h. m. s. |
|---|---|---|---|
| R | 6:09:43 | R | 6:09:43 |
| e | 6:10:17 | e | 6:10:17 |
| iP | 6:10:28 | iP | 6:10:28 |
| S | 6:20:10 | S | 20:10 |
| F | 7:30 | | |
| | | F | 7:30 |
| | | | |
| | | | |

Remarks

Weak distant shock.

| Date | Station |
|---|---|
| May 1, 1939 | Salt Lake City |

| Phase | N-S h. m. s. | Phase | E-W h. m. s. |
|---|---|---|---|
| R | 23:55:45 | R | 23:55:29 |
| eP | 23:56:04 | eP | 23:56:05 |
| eS | 23:58:23 | eS | 23:58:18 |
| IS | 23:58:33 | iS | 23:58:36 |
| F | 24:15 | F | 24:13 |
| | | | |
| | | | |
| | | | |

Remarks

Felt in San Diego

| Date | Station |
|---|---|
| May 2, 1939 | Salt Lake City |

| Phase | N-S h. m. s. | Phase | E-W h. m. s. |
|---|---|---|---|
| R | 13:16:47 | R | 13:17:31 |
| iP | 13:17:37 | eP | 13:17:41 |
| i | 13:17:56 | | |
| iPR | 13:18:28 | i | 13:17:56 |
| $L_1$ | 13:20:17 | i | 13:18:26 |
| $iL_2$ | 13:20:50 | eS or $L_1$ | 13:19:54 |
| M or $L_3$ | 13:21.4 | $iL_2$ | 13:20:50 |
| F | 15:20 | M | 13:21.3 |
| | | F | 15:20 |

Remarks Very heavy shock. Epicenter in Northern Mexico or Gulf of California. $P_E$ $S_N$ and $M_E$ indistinct. High speed surface waves and S seem to come in together.

FORM 438A—EARTHQUAKE REPORT—INSTRUMENTAL

U. S. GOVERNMENT PRINTING OFFICE: 1934

Burbach
Ryder

| Date | Station |
|---|---|
| May 6, 1939 | Salt Lake City |

| Phase | N-S h. m. s. | Phase | E-W h. m. s. |
|---|---|---|---|
| R | 06:05:37 | R | 06:03:34 |
| e | 06:05:41 | eP | 06:04:14 |
| eS | 06:14:43 | e | 06:05:40 |
| L | 06:22.7 | eS | 06:14:44 |
| F | 07:15 | | |

Remarks

Faint trace of distant earthquake. Epicenter in Pacific near Panama.

| Date | Station |
|---|---|
| May 8, 1939 | |

| Phase | N-S h. m. s. | Phase | E-W h. m. s. |
|---|---|---|---|
| R | 01:56:38 | R | 01:56:33 |
| eP | 01:56:48 | e<br>iP | 01:56:49<br>01:57:38 |
| iP | 01:57:38 | i | 01:58:47 |
| eS | 02:06:12 | eS | 02:06:15 |
| L | 02:17.1 | L | 17.3 |
| F | 03:15 | F | 03:10.0 |

Remarks

Epicenter in Atlantic near Azores.

| Date | Station |
|---|---|
| May 11, 1939 | Salt Lake City |

| Phase | N-S h. m. s. | Phase | E-W h. m. s. |
|---|---|---|---|
| R | 18:06:32 | R | 18:06:35 |
| eP | 18:06:32 | iP | 18:06:32 |
| iP | 18:06:39 | i | 18:07:26 |
| eS | 18:07:38 | iS | 18:07:38 |
| iS | 18:07:39 | | |
| L | 18:07:54 | L | 18:07:58 |
| F | 18:28 | F | 18:25 |

Remarks

Felt in Southern Nevada.
Epicenter near Tonopah.

| Date | Station |
|---|---|
| | |

| Phase | N-S h. m. s. | Phase | E-W h. m. s. |
|---|---|---|---|

Remarks

FORM 438A—EARTHQUAKE REPORT—INSTRUMENTAL

U. S. GOVERNMENT PRINTING OFFICE: 1934

FORM 438A—EARTHQUAKE REPORT—INSTRUMENTAL

| Date | Station |
|---|---|
| 5/22/39 | Salt Lake City |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| | | | |
| | | | |
| e | 2:23 | | |
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Remarks

Surface waves from a distant earthquake

| Date | Station |
|---|---|
| | |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| | | | |
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Remarks



| Date | Station |
|---|---|
| | |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| | | R | 02:55:03 |
| eP | 02:55:27 | eP? | 02:55:17 |
| eS | 02:59:27 | eS | 02:59:27 |
| L | 03:03:00 | L | 03:03:00 |
| | | | |
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Remarks

P - phase indistinct. Trace is weak.

| Date | Station |
|---|---|
| 5/24/39 | Salt Lake City |

| Phase | N–S h. m. s. | Phase | E–W h. m. s. |
|---|---|---|---|
| | 20:16:00 | | 20:16:00 |
| e | 20:16:40 | e | 20:16:30 |
| | | | |
| | | | |
| | | | |
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Remarks

Weak trace with surface waves.

| Date | Station |
|---|---|
| 5/25-26/39 | Salt Lake City |

| Phase | ~~N-S~~ h. m. s. | Phase | ~~E-W~~ h. m. s. |
|---|---|---|---|
| | M.S.T. | | M.S.T. |
| Start | 8:50:44 | | |
| Finish | 8:53:30 | Start | 13:17:45 |
| | | Finish | 13:18:46 |
| Start | 9:30:00 | Start | 13:28:27 |
| Finish | 9:32:30 | Finish | 13:29:30 |
| | | Start | 13:37:25 |
| | | Finish | 38:25 |
| Start | 9:45:10 | Start | 14:46:16 |
| Finish | 9:47:10 | Finish | 54:00 |

Remarks

Groups of high frequency vibration noted on this record, time of outstanding groups recorded above. Probably machinery operating nearby, or other local disturbances.

U. S. GOVERNMENT PRINTING OFFICE: 1931

| Date | | Station | |
|---|---|---|---|
| 5/26/39 | | Salt Lake City | |
| Phase | N–S<br>h. m. s. | Phase | E–W<br>h. m. s. |
| R | 18:15:00 | R | 18:15:00 |
| i | 15:18 | i | 18:15:18 |
| L | 39.0 | L | 39.0 |

Remarks Record is largely of semi-soidal surface waves of a distant earthquake. Beginning and end lost in microseisms.