

Ricard Observatory
 University of Santa Clara,
 Santa Clara, Calif.

January 1951.



| | | | | |
|-----------|-----------|-------------------------------------|--|-------------------------------------|
| 3. | GV | iPNZ eSIN eLZ | 12:26:51 12:31:22 12:36:25 | USCGS 18N 106W |
| 3. | GV | ePZ eSE eLZ | 13:09:41 13:14:15 13:19:11 | USCGS 18N 106W |
| 6. | GV | ePZ epPZ e Z e Z e E | 05:34:55 05:35:43 05:45:35 05:44:52 05:46:10 | |
| 6. | GV, VA, W | iPZ eSEINZ MINZ | 08:00:05 08:07:05 08:17:30 | USCGS 7 $\frac{1}{2}$ N 81W |
| 13. | GV, VA | ePN eSE eLE | 20:52:06 20:55:55 20:54:53 | USCGS 40 $\frac{1}{2}$ N 125W |
| 14. | GV | e E | 10:54:17 | USCGS 23S 176 $\frac{1}{2}$ W 100km |
| 15. | GV | ePNZ ipPNZ eSE esSE eLZ | 04:24:32 04:25:25 04:34:50 04:35:45 04:56:40 | USCGS 15S 167E 150km |
| 18. | GV | ePNZ eSE eLE | 21:31:16 21:34:37 21:36:44 | USCGS 52N 177W 60km |
| 22. | GV, VA, W | ePIN iSIN | 15:15:33 15:16:02 | Felt Reno. |
| 23. | GV #12 | e E e E ME | 07:24:46 07:33:37 07:46:54 | USCGS 55S 136W |
| 24. | GV, VA, W | ePIN iSIN MIN | 07:19:09 07:21:07 07:21:07 | USCGS 53N 115 $\frac{1}{2}$ W |
| 25. | GV, VA | ePIN | 21:00: | 12Mi. South of Berkeley. |
| 29. | GV | ePN eSE ME | 05:46:04 05:47:31 05:48:23 | USCGS 45N 128W |
| 30. | GV | MEZ | 11:35:36 | USCGS 15 $\frac{1}{2}$ N 99W |
| #16 { 30. | GV | ePZ eSE eLE | 19:06:40 19:13:32 19:18:20 | USCGS 15 $\frac{1}{2}$ N 99W |

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Ricard Observatory
 University of Santa Clara
 Santa Clara, Calif.



February 1951.

| | | | | |
|-----|-----------|-----------------------------------|--|-------------------------------|
| 2. | GW, WA, V | ePIN eSIN | 20:02:40 20:02:51 | |
| 3. | GW, WA, V | ePIN eSIN | 21:29:54 21:29:54 | |
| 10. | GW | ME | 04:26:14 | |
| 12. | GW | e L ME | 03:55:16 03:57:04 | |
| 12. | GW | eSE ME | 17:40:47 17:55:30 | USCGS 66N 136E |
| 13. | GW | ePINZ eSINZ ME | 12:06:58 12:15:58 12:28:02 | USCGS 15S 175W 250km |
| 13. | GW | eLE | 14:27:57 | |
| 13. | GW, WA, V | ePINZ eSIN eLE | 22:19:04 22:24:08 22:26:29 | USCGS 56N 155 $\frac{1}{2}$ W |
| 15. | GW, WA | ePN e N iSN | 10:50:12 10:51:08 10:51:21 | |
| 15. | GW, WA | ePN iSN | 10:52: 10:53:19 | |
| 17. | GW | iPINZ iP'INZ iSKSIN eLEZ | 21:20:19 21:24:09 21:50:38 21:57:34 | USCGS 21 7N 146E 100km |
| 19. | GW | ePN ME | 22:36:31 22:40:10 | |
| 19. | GW, WA | ePIN iSEI | 22:37:27 22:37:57 | |
| 23. | GW | ME | 03:01:05 | |
| 23. | GW, WA | ePIN iSIN iN | 20:02:55 20:05:10 20:05:18 | |
| 27. | GW | ME | 18:48:31 | |

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 University of Santa Clara
 Santa Clara, Calif.



March 1951.

| | | | | |
|---------|--------|--|--|--|
| 4. | GW | oPNZ i NZ i NZ | 11:28:30 11:28:44 11:28:53 | |
| 5. | GW, WA | iSIN | 20:24:21 | |
| 9. | GW | o I oLEZ | 20:17:15 20:46:09 | USCGS 8S 124 $\frac{1}{2}$ E |
| 10. | WA | o IN | 08:11:17 | |
| 10. | WA | oPN iSIN | 10:20:25 10:20:51 | |
| 10. | GW, WA | oPINZ ipPNZ iSINZ oSJ oLIZ | 22:09:55 22:10:52 22:21:11 22:21:58 22:41:15 | USCGS 15 $\frac{1}{2}$ S 167 $\frac{1}{2}$ E 200km |
| 13. | GW, WA | oPIN iSIN | 20:04:55 20:05:53 | |
| 13. | GW, WA | oPIN iSIN | 22:17:12 22:17:19 | |
| 14. | GW, WA | oPIN iSN | 20:02:41 20:02:57 | |
| 18. | WA | o N i N eSN | 17:55:09 17:55:26 17:56:40 | |
| 20. | WA | oPN o N o N iSN | 09:28:51 09:29:29 09:29:53 09:29:40 | |
| 23. | GW | iPNZ iSE | 21:51:13 22:01:24 | USCGS 31S 180W 300km |
| #37 23. | GW | iPZ oSE | 24:29:53 24:41:06 | USCGS 11S 166E 150km |
| 27. | GW | oPE oSE oLE | 12:08:32 12:08:42 12:09:16 | |

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Richard Observatory
University of Santa Clara,
Santa Clara, Calif.

April 1951.



| | | | | | |
|-----|-----------|------------------------------------|--|------------------------------------|----------------|
| 1. | GW, VA | cPINZ iSINZ | 19:22:14 19:23:30 | USCGS 40 $\frac{1}{2}$ N 125W | |
| 2. | GW | iPZ oSE ME | 00:20:50 00:26:47 00:36:54 | USCGS 13N 90W | |
| #42 | | | | | |
| 9. | GW, VA, V | cPIN iSN | 23:55:01 23:55:12 | | |
| 10. | GW | MEZ | 11:27:58 | USCGS 15S 173 $\frac{1}{2}$ W | |
| 11. | GW | ME | 23:32:04 | | |
| 12. | GW | ME | 04:51:04 | | |
| #46 | 12. | GW | ME | 06:36:26 | USCGS 52N 113W |
| 14. | GW | iPNZ ipPZ iSE isSE oLE | 00:37:13 00:58:05 01:07:03 01:08:04 01:15:15 | USCGS 24S 66 $\frac{1}{2}$ W 250km | |
| #48 | | | | | |
| 14. | GW | cPNZ eSE oLE | 13:43:48 13:52:09 14:05:08 | USCGS 61N 156E | |
| #49 | | | | | |
| 16. | GW, VA | cPINZ iSIN | 20:04:13 20:04:24 | | |
| 22. | GW | MEZ | 12:59:58 | USCGS 13:76N 73W | |
| 23. | GW | cPNZ eSE oLEZ | 00:59:12 01:04:52 01:07:40 | USCGS 19N 155 $\frac{1}{2}$ W | |
| #53 | | | | | |
| 27. | GW, VA, V | cPIN i N iSIN | 11:55:12 11:55:16 11:55:26 | | |
| 27. | GW, VA | cPN iSIN | 11:45:58 11:45:47 | | |
| 30. | GW | ME | 16:16:11 | | |

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13:40:13
13:50:30
13:51:19
13:52:01
07:55:10
07:55:50
07:56:30
07:57:10
07:57:50
07:58:30
07:59:10
07:59:50

Ricard Observatory
University of Santa Clara
Santa Clara, Calif.



May 1951.

| | | | | |
|---------|-----------|-----------------------------------|--|------------------------------------|
| 1. | GW #68 | oPZ oPSL oLE | 05:22:35 05:39:22 06:08:38 | USCGS 50 $\frac{1}{2}$ S 149E |
| 2. | GW | oLHZ | 17:57:12 | USCGS 42S 80E |
| 6. | GW | oLHZ | 23:24:13 | USCGS 13 $\frac{1}{2}$ N 88W 150km |
| 7. | GW | MJ | 20:44:13 | USCGS 13 $\frac{1}{2}$ N 88W 150km |
| 20. | GW | MJ | 14:51:02 | |
| 20. | GW | MJ | 15:38:16 | |
| 21. | GW | iPZ ipPZ i P i P oLHZ | 08:40:03 08:40:43 08:50:42 08:57:43 09:16:18 | USCGS 6S 134 $\frac{1}{2}$ E 150km |
| 25. | WA | oPIN iSN | 19:02:57 19:03:09 | |
| #79 29. | GW | MJZ | 06:54:58 | |
| 31. | GW #81 | iPE ipPE oSE osSE oLE | 21:20:06 21:20:30 21:22:15 21:22:46 21:25:50 | |

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 SANTA CLARA, CALIF.



June 1951.

| | | | | | |
|-----|-----|-----------|----------|----------|----------------------------------|
| #87 | 5. | GV | i Z | 17:10:17 | USCGS 50N 152E 100 km |
| | | | e E | 17:20:53 | |
| | | | ME | 17:59:22 | |
| #88 | 6. | GV | iPZ | 16:21:09 | USCGS 71 $\frac{1}{2}$ N 8W 60km |
| | | | ipPZ | 16:21:28 | |
| | | | eSE | 16:29:34 | |
| | | | eLE | 16:41:57 | |
| #89 | 7. | GV | ePZ | 23:11:37 | USCGS 27 $\frac{1}{2}$ S 176W |
| | | | eSE | 23:21:54 | |
| | | | ME | 24:07:32 | |
| | 13. | GV | iSN | 13:45:52 | |
| | 13. | GV | ME | 15:09:54 | |
| | 16. | GV, WA, V | ePINZ | 05:54:07 | USCGS 58E 116 $\frac{1}{2}$ W |
| | | | iSINZ | 05:54:56 | |
| #92 | 16. | GV | ePH | 23:50:42 | USCGS 44 $\frac{1}{2}$ N 150W |
| | | | i E | 23:52:01 | |
| | | | ME | 23:55:47 | |
| | 17. | GV | ePHZ | 09:42:56 | USCGS 44 $\frac{1}{2}$ N 150W |
| | | e E | 09:45:35 | | |
| | | ME | 09:45:01 | | |
| | 19. | GV, WA | ePLN | 06:14:21 | |
| | | | iSIN | 06:14:39 | |
| | 23. | GV | ME | 03:38:56 | |
| | 24. | GV | e E | 11:34:32 | |
| | | | ME | 11:43:32 | |
| | 21. | WA | ePIN | 14:45:35 | |
| | | | iSIN | 14:45:43 | |
| | 25. | GV | eME | 16:25:49 | USCGS 61N 150W 100km |
| | 25. | GV, WA, V | ePIN | 19:46:40 | |
| | | | iSIN | 19:47:32 | |
| | 25. | WA, WA | iSE | 22:53:07 | |
| | 26. | GV, WA | ePIN | 01:30:51 | |
| | | | iSIN | 01:31:31 | |
| | 26. | GV, WA | ePIN | 10:11:41 | |
| | | | iSIN | 10:12:12 | |
| | 27. | GV, WA | ePIN | 01:30:03 | |
| | | | iSIN | 01:30:07 | |
| | 28. | GV, WA | ePIN | 06:53:04 | |
| | | | iSIN | 06:53:12 | |

by John A. Weber, SJ

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 University of Santa Clara
 Santa Clara, Calif.

July 1951.



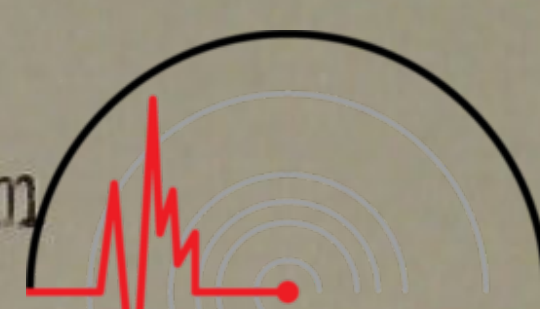
| | | | | |
|-----|-----------|--|--|--|
| 8. | GU | e B eLNZ | 06:08:42 06:34:24 | USCGS 11N 122E |
| 9. | GU | ePE eSI MEZ | 00:10:34 00:15:14 00:21:11 | USCGS 16N 96W 60Im |
| 9. | GU, VA, V | ePIN iSIN | 05:00:38 05:00:43 | |
| 9. | GU | iPIN iSIN | 08:18:56 08:19:05 | |
| 10. | GU, VA, V | ePIN iSIN | 07:06:44 07:06:48 | |
| 11. | GU, VA | ePIN epPIN eSIN esSIN eLNZ | 18:55:14 18:55:07 18:42:48 18:45:49 18:56:14 | USCGS 28 $\frac{1}{2}$ N 139 $\frac{1}{2}$ W 550km |
| 16. | GU | e Z e B ME | 10:57:23 11:00:46? 11:03:54 | USCGS 6S 146E 200km |
| 18. | GU | ePE e B i B e B eLNZ | 09:19:38 09:23:39 09:26:08 09:30:14 09:53:06 | USCGS 1N 27W |
| 19. | GU | e B e B ME | 20:55:16 21:00:58 21:02:49 | USCGS 51 $\frac{1}{2}$ N 177 $\frac{1}{2}$ W 60km |
| 24. | GU, VA | ePIN iSIN | 05:25:39 05:25:46 | |
| 24. | GU, VA, V | ePIN iSIN | 06:03:49 06:03:56 | |
| 24. | GU | ME | 17:57:34 | |
| 26. | GU, VA | ePIN iSIN | 04:58:25 04:58:29 | |
| 26. | GU | e B ME | 11:20:21 11:34:55 | |
| 29. | GU, VA, V | ePIN iSIN | 11:54:07 11:54:22 | |
| 29. | GU, VA | ePIN iSIN | 13:13:54 13:14:07 | |
| 29. | GU, VA | ePIN iSIN | 22:40:49 22:41:03 | |

by John A. Weber, SJ

Ricard Observatory
 University of Santa Clara,
 Santa Clara, Calif.

August 1951.

| | | | | |
|----|-----------|------|----------|-------------------------------------|
| 1. | GV | ME | 03:52:05 | USCGS 51N 84W 100km |
| 2. | GV | ePHZ | 03:54:14 | USCGS 48 154 $\frac{1}{2}$ E 500km |
| | | i E | 04:02:07 | |
| | #136 | i E | 04:02:24 | |
| | | ME | 05:08:04 | |
| 2. | GV, VA, V | ePHZ | 05:09:48 | |
| | | iSHH | 05:10:01 | |
| 2. | GV | ePHZ | 10:32:18 | |
| | | e E | 10:39:59 | |
| | | eLHZ | 10:57:12 | |
| 2. | GV | e E | 20:57:37 | USCGS 15N 87 $\frac{1}{2}$ W 100km |
| | | eLHZ | 20:50:24 | |
| 3. | GV | e E | 00:37:45 | USCGS 15N 87 $\frac{1}{2}$ W 100km |
| | | eLHZ | 00:44:05 | |
| 3. | GV | e E | 05:42:15 | USCGS 13N 87 $\frac{1}{2}$ W 100km |
| | | eLHZ | 05:48:59 | |
| 3. | GV, VA | ePHZ | 15:17:32 | |
| | | iSHH | 15:17:35 | |
| 3. | GV | ME | 17:06:51 | |
| 3. | GV | ME | 16:04:17 | USCGS 15 $\frac{1}{2}$ S 176W 300km |
| 5. | GV | eLE | 08:30:03 | USCGS 13N 87 $\frac{1}{2}$ W 100km |
| 6. | GV, VA, V | ePHZ | 13:05:22 | |
| | | iSHH | 13:05:34 | |
| 6. | GV, VA | ePHZ | 13:54:47 | |
| | | iSHH | 13:54:59 | |
| 6. | GV | e E | 15:34:39 | USCGS 4S 152E |
| | | e E | 15:36:18 | |
| | | eLE | 15:51:47 | |
| 8. | GV | ME | 01:51:10 | |
| 8. | GV | e E | 12:48:53 | USCGS 49N 129W |
| | | ME | 12:50:10 | |
| 8. | GV, VA, V | ePHZ | 16:55:44 | |
| | | iSHH | 16:55:53 | |
| 8. | GV | ePE | 22:31:26 | USCGS 44N 128W |
| | | e E | 22:32:18 | |
| | #140 | eLE | 22:33:55 | |



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Ricard Observatory,
University of Santa Clara,
Santa Clara, Calif.

August 1951, Contd.

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|-----|-------------------|--------------------|----------------------------------|-----------------|
| 12. | GV | ME | 21:55:45 | USCGS 24S 141E |
| 13. | GV | e L e L eLE | 18:58:53 19:05:20 19:19:41 | USCGS 43N 324E |
| 20. | GV #146 | ePTZ eSE eLE | 05:54:29 05:57:45 05:58:59 | USCGS 254N 108W |
| 21. | GV, VA, V #148 | ePTZ iSE eLN | 11:05:30 11:09:27 11:11:41 | USCGS 198N 156W |
| 22. | GV | ME | 06:06:11 | USCGS 10N 83W |
| 25. | GV, VA | ePTZ iSIN | 00:12:31 00:12:44 | |
| 25. | GV | eLE | 10:48:52 | |
| 26. | GV | eLE | 19:45:59 | |



International
Seismological
Centre

by John A. Weber, SJ

RICARD OBSERVATORY
UNIVERSITY OF SANTA CLARA
SANTA CLARA, CALIF.

September 1951.

| | | | | |
|-----|-----------|-----------------------|----------------------------------|----------------------|
| 1. | GW | ME | 05:16:12 | USCGS 33S 110W |
| 1. | GW | e B eLNZ | 09:09:13 09:24:12 | USCGS 33S 110W |
| 2. | GW, VA | ePIN eSIN eLI | 16:30:20 16:51:25 16:31:44 | |
| 5. | GW | ME | 08:36:04 | USCGS Marianna Isls. |
| 9. | GW | eLI | 05:16:51 | USCGS 16N 173W |
| 16. | GW | eLI | 11:58:27 | USCGS 20N 155½W |
| 17. | GW | ePZ ipPINZ ME | 12:09:17 12:09:26 12:33:04 | USCGS 18S 173W |
| 19. | GW, VA | ePIN iSIN | 11:19:17 11:19:27 | |
| 20. | GW | ME | 01:55:23 | USCGS Kernadecs. |
| 21. | GW | e B ME | 19:26:37 19:32:46 | USCGS 28½S 178W |
| 24. | GW | e B ME | 14:28:57 14:37:29 | |
| 27. | GW, VA, V | iPINZ i LNZ iME | 19:27:21 19:27:57 19:30:00 | |
| 28. | GW | ME | 02:08:40 | |
| 28. | GW | ePI eLI | 12:14:55 12:30:12 | |
| 28. | GW | ePINZ e B eLI | 14:58:47 15:14:58 15:18:44 | |
| 28. | GW | ME | 23:18:48 | |
| 28. | GW | ePINZ eSI eLI | 23:41:15 23:51:47 24:11:24 | |
| 29. | GW, VA | iSIN | 12:33:16 | |
| 30. | GW | ME | 05:05:59 | |

by John A. Weber, SJ



RICARD OBSERVATORY
 UNIVERSITY OF SANTA CLARA
 SANTA CLARA, CALIF.

OCTOBER 1951.



| | | | | | |
|-----|-----------|---------------------------------|--|------|-------------------------------|
| 1. | GW | eLE | 10:27:52 | | USCGS 55N 166W |
| 3. | GW, WA | ePEN iSEN | 13:09:42 13:09:55 | | |
| 3. | GW, WA | ePEN iSEN | 14:45:29 14:45:41 | | |
| 5. | GW | e E eLE | 12:15:42 12:28:41 | | USCGS 28 $\frac{1}{2}$ S 177W |
| 5. | GW | e E e E eLE | 04:03:47 04:07:32 04:10:53 | | USCGS 28 $\frac{1}{2}$ S 177W |
| 8. | GW, WA, V | iPE iSENZ | 04:11:25 04:12:46 | | USCGS 40N 125W |
| 11. | GW | iPE eLEZ | 02:01:06 02:19:01 | | USCGS 5S 152E |
| 18. | GW, WA | ePENZ iSE ME | 08:37:58 08:46:47 09:01:52 | | USCGS 42N 142E 100km |
| 21. | GW, WA, V | ePEN eSEN | 01:19:31 01:19:36 | | |
| 21. | GW, | e Z i E i E i E eLE | 21:47:50 21:57:47 22:19:12 22:21:23 22:38:05 | Dil | USCGS 24N 122E |
| 22. | GW | e Z i E i E i E eLE | 03:43:08 03:53:46 04:12:03 04:13:51 04:30:27 | Com | USCGS 24N 122E |
| 22. | GW | ME | 16:29:06 | | |
| 23. | GW | ME | 02:13:35 | | |
| 23. | GW | ME | 09:53:23 | | |
| 23. | GW, WA, V | ePEN iSEN | 15:47:33 15:47:40 | | |
| 26. | GW, WA | ePEN iSEN | 01:55:13 01:55:22 | | |
| 28. | GW | eLE | 07:43:50 | | |
| 30. | GW, WA, V | ePENZ iSEN | 19:55:26 19:55:35 | Dil. | |
| 30. | GW, WA, V | ePENZ iSEN | 19:59:30 19:59:38 | Dil. | |
| 30. | GW, WA, V | ePENZ iSEN | 21:09:00 21:09:08 | Dil. | |
| 31. | GW | eLE | 08:01:57 | | |
| 31. | GW, WA, V | ePENZ iSENZ | 20:58:31 20:58:39 | Dil. | |

by John A. Weber, SJ

Ricard Observatory
 University of Santa Clara
 Santa clara, Calif.

November 1951.

| | | | | |
|-----|-----------|------------------------------|--|---|
| 1. | GW, WA | ePEN iSEN | 08:08:44 08:08:52 | |
| 1. | GW, WA | ePEN iSEN | 20:01:18 20:01:26 | |
| 2. | GW | ME | 22:55:50 | USCGS 44N 45E |
| 4. | GW | ME | 11:58:57 | USCGS 11 $\frac{1}{2}$ N 125E |
| 6. | GW | iPEZ iSE eLE | 16:50:21 16:58:23 17:05:06 | Comp USCGS 47N 154E |
| 8. | GW | ePEZ iSE ME | 13:51:37 13:56:18 13:59:14 | USCGS 54 $\frac{1}{2}$ N 160W |
| 8. | GW | eLE | 19:49:52 | USCGS 19N 155 $\frac{1}{2}$ W |
| 9. | GW | ME | 08:26:15 | USCGS 46 $\frac{1}{2}$ N 154E |
| 9. | GW | ePZ ipPENZ eSE esSE | 22:19:42 22:20:18 22:29:35 22:30:20 | Comp USCGS 22S 68W 100km |
| 10. | GW | e E ME | 05:53:27 06:34:16 | USCGS Fiji |
| 12. | GW | ePEZ eSE eLE | 08:19:42 08:27:41 08:36:06 | USCGS 47N 154E |
| 13. | GW, WA | ePEN iSEN | 11:26:53 11:27:52 | USCGS 50 $\frac{1}{2}$ N 125W |
| 14. | GW, WA, V | ePEN iSEN | 08:40:53 08:41:43 | USCGS 40 $\frac{1}{2}$ N 125W |
| 15. | GW | ME | 10:57:48 | USCGS 52 $\frac{1}{2}$ N 160 $\frac{1}{2}$ E |
| 15. | GW | eLE | 20:09:23 | USCGS 52 $\frac{1}{2}$ N 160 $\frac{1}{2}$ E |
| 16. | GW | e E ME | 15:18:20 15:47:46 | USCGS 52 $\frac{1}{2}$ N 160 $\frac{1}{2}$ E 60km |
| 16. | GW | e E eLE | 18:12:39 18:18:44 | |
| 18. | GW, WA, W | ePZ ePSE eLENZ | 09:54:23 10:08:32 10:32:47 | Dil. USCGS 31N 90 $\frac{1}{2}$ E |
| 22. | GW | eLE | 02:47:43 | USCGS 5S 151 $\frac{1}{2}$ E |
| 22. | GW | ME | 10:00:46 | |
| 22. | GW | ME | 13:40:13 | |
| 24. | GW | ePEZ iSKKSE eLE | 19:03:50 19:14:42 19:35:37 | Comp. USCGS 23N 121 $\frac{1}{2}$ E |
| 26. | WA | ePEN eSEN | 07:22:28 07:22:33 | |
| 30. | WA | ePEN eSEN | 07:54:57 07:55:14 | |
| 30. | GW | ME | 08:29:13 | |



Ricard Observatory
 University of Santa Clara
 Santa Clara, Calif.



International
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December 1951.

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|-----|-----------|--------------------------------------|--|-------------------------------------|
| 8. | GU, VA, W | ePENZ ePENZ i EN MEN MEN | 04:34:34 Dil. 04:40:12 Dil. 05:01:11 05:54:32 06:06:00 | USCGS 34S 56 $\frac{1}{2}$ E 100km |
| 12. | GU, VA, W | iPENZ ipPENZ iSEN isSEN | 01:43:56 Comp 01:44:56 Comp 01:52:29 01:53:53 | USCGS 17N 94 $\frac{1}{2}$ W 100km |
| 13. | GU, VA, W | ePENZ iSEN | 20:42:40 20:42:52 | |
| 16. | GU | e E ME | 19:54:40 20:08:20 | USCGS 18S 168 $\frac{1}{2}$ W |
| 18. | GU, VA | ePEZ epPEZ eSE esSE | 14:20:44 Dil. 14:21:04 14:30:49 14:31:32 | USCGS 19S 174 $\frac{1}{2}$ W 60km |
| 21. | GU | ME | 09:57:41 | USCGS 26 $\frac{1}{2}$ N 100E |
| 22. | GU | e E ME | 15:10:46 15:30:18 | |
| 23. | GU | ePN ME | 00:33:44 01:07:28 | USCGS 24 $\frac{1}{2}$ S 177W 100km |
| 23. | GU | ME | 07:29:49 | USCGS 15N 61W 100km |
| 24. | GU | e E MEN | 05:59:11 06:05:44 | |
| 26. | GU, VA, W | ePENZ iSEN | 00:48:17 Dil 00:49:25 | USCGS 32.6N 118.7W |
| 28. | GU, VA, W | ePENZ iSEZ | 02:50:13 Dil 02:50:32 | |
| 28. | GU, W | ePEZ iSE ME | 09:26:27 Com 09:31:22 09:34:22 | USCGS 17N 98 $\frac{1}{2}$ W |
| 30. | GU | eLE | 22:52:08 | |

by John A. Weber, SJ