The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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# The International Seismological Summary.

## 1952 July, August, September.

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INTERNATIONAL GEODETIC AND GEOPHYSICAL UNION.

ASSOCIATION OF SEISMOLOGY.

FORMERLY THE BULLETIN OF

THE BRITISH ASSOCIATION SEISMOLOGY COMMITTEE.

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**The Director of the I.S.S. wishes to express his thanks to U.N.E.S.C.O. and H.M. Treasury for financial support, which has covered the cost and preparation of this volume.**

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The third quarter for 1952 contains 340 epicentres, 255 of which are repetitions from previous epicentres. 117 have been attributed to abnormal focal depth.

Thanks are also due to the Director of the Meteorological Office and the Superintendent of Kew Observatory for hospitality extended to the staff and assistance with the administration.

**KEW OBSERVATORY,**
**Richmond,**
**SURREY.**

**June, 1960.**

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# 1952 JULY, AUGUST, SEPTEMBER.

July 1d. 17h. 59m. 51s. Epicentre 36°·8N. 71°·4E. Depth of focus 0·015.
(as on 1952, June 28d.).

U.S.S.R. gives epicentre as adopted.

A = +·2560, B = +·7607, C = +·5964 ; $\delta$ = −11 ; $h$ = +0 ;
D = +·948, E = −·319 ; G = +·190, H = +·565, K = −·803.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Khorog | | 0·7 | 13 | i 0 22 | + 1 | i 0 38 | + 2 | — | — |
| Kulyab | | 1·7 | 311 | i −1 49? | ? | i −1 25? | ? | — | — |
| Obi-garm | | 2·3 | 325 | i 0 38 | 0 | i 1 8 | + 1 | — | — |
| Dzhergetal | | 2·4 | 357 | i 0 42 | + 2 | i 1 13 | + 3 | — | — |
| Garm | | 2·4 | 338 | e 0 40 | 0 | e 1 10 | 0 | — | — |
| Murgab | | 2·5 | 52 | i 0 44 | + 3 | i 1 16 | + 4 | — | — |
| Stalinabad | | 2·7 | 310 | i 0 42 | − 2 | i 1 16 | − 1 | — | — |
| Fergana | | 3·6 | 5 | i 0 57 | + 1 | i 1 40 | + 2 | e 1 35 | S |
| Andijan | | 4·0 | 11 | e 1 4 | + 3 | i 1 51 | + 4 | — | — |
| Samarkand | | 4·5 | 312 | 1 7 | − 1 | 2 0 | + 1 | e 1 42 | ? |
| Tashkent | | 4·8 | 341 | — | — | 2 9 | + 2 | — | — |
| Tchimkent | | 5·7 | 347 | — | — | i 2 28 | 0 | — | — |
| Naryn | | 5·8 | 36 | e 1 27 | + 2 | i 2 28 | − 3 | — | — |
| Frunse | | 6·5 | 21 | 1 37 | + 2 | i 2 52 | + 4 | — | — |
| Przhevalsk | | 7·8 | 41 | e 1 49 | − 3 | — | — | — | — |
| New Delhi | | 9·5 | 147 | e 2 7 | − 8 | i 3 47 | −13 | i 3 43 | ? |
| Ashkabad | | 10·4 | 280 | — | — | 4 18 | − 4 | — | — |
| Upsala | z. | 41·0 | 322 | i 7 33 | + 1 | — | — | — | — |
| Kiruna | z. | 42·0 | 334 | i 7 41 | + 1 | — | — | — | — |
| Pretoria | z. | 74·3 | 220 | — | — | e 25 8? | SS | — | — |
| Kimberley | z. | 78·5 | 221 | — | — | e 27 6? | SS | — | — |

July 2d. 16h. 57m. 13s. Epicentre 54°·6N. 163°·5E. (as on 1952, June 28d.).

A = −·5579, B = +·1653, C = +·8133 ; $\delta$ = +3 ; $h$ = −7 ;
D = +·284, E = +·959 ; G = −·780, H = +·231, K = −·582.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| College | | 25·9 | 47 | i 5 39 | + 4 | — | — | — | — | — |
| Nanking | z. | 38·7 | 254 | e 7 13 | −14 | — | — | — | — | — |
| Victoria | | 43·9 | 66 | 8 18 | + 8 | — | — | — | — | — |
| Tinemaha | z. | 54·4 | 75 | e 9 32 | + 1 | e 10 14 | ? | e 9 45 | pP | — |
| Kiruna | | 54·8 | 344 | i 9 29a | − 5 | — | — | i 9 37 | pP | e 32·8 |
| China Lake | z. | 55·6 | 74 | e 9 40 | 0 | — | — | i 9 52 | pP | — |
| Pasadena | z. | 56·5 | 77 | e 9 46 | 0 | — | — | e 9 57 | pP | — |
| Boulder City | | 57·0 | 73 | e 9 51 | + 1 | — | — | e 10 1 | pP | — |
| Riverside | z. | 57·1 | 77 | e 9 58 | + 8 | — | — | — | — | — |
| Palomar | z. | 57·8 | 76 | e 9 55 | 0 | — | — | e 10 2 | pP | — |
| Tucson | | 62·0 | 73 | e 10 34 | +10 | — | — | — | — | — |
| Upsala | z. | 62·7 | 342 | i 10 23a | − 6 | — | — | i 10 28 | pP | — |
| Fayetteville | z. | 67·9 | 58 | i 11 1 | − 1 | — | — | e 14 16 | PP | — |
| Collmberg | z. | 71·6 | 341 | e 11 19 | − 6 | e 13 1 | ? | e 11 55 | ? | — |
| Morgantown | | 71·6 | 47 | i 11 25 | 0 | — | — | e 12 31 | ? | — |
| Jena | | 72·2 | 342 | e 11 25 | − 4 | e 11 54 | ? | e 11 33 | pP | — |
| Harvard | | 72·5 | 39 | e 11 28 | − 2 | — | — | — | — | — |
| Weston | | 72·7 | 39 | e 11 30 | − 2 | — | — | — | — | — |
| Strasbourg | | 75·2 | 344 | i 11 42a | − 4 | — | — | i 11 52 | P | — |
| Paris | | 75·7 | 348 | e 11 45 | − 4 | — | — | e 12 10 | PcP | — |
| Triest | z. | 76·9 | 340 | i 11 50a | − 6 | i 12 5 | PcP | e 12 39 | ? | — |
| Istanbul | | 77·0 | 327 | e 11 50 | − 6 | — | — | — | — | 42·8 |
| Ksara | | 81·1 | 318 | e 12 13 | − 5 | e 22 2 | −26 | — | — | — |
| Tamanrasset | z. | 100·6 | 340 | 17 18 | ? | — | — | e 17 41 | PP | — |
| Kimberley | z. | 140·6 | 292 | e 19 19 | [−13] | — | — | — | — | — |

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July 2d. 18h. 36m. 14s. Epicentre 46°·3N. 7°·5E. (as on 1952, May 9d.).

Intensity V in Central Valais and Bernese Oberland.

E. Wanner.
Jahresbericht des Erdbebendienstes der Schweiz im Jahre, 1952, Zürich, 1953, p.2, with macroseismic chart separate from text. Epicentre as adopted.

$A = +\cdot6874$, $B = +\cdot0905$, $C = +\cdot7206$; $\delta = -3$; $h = -4$;
$D = +\cdot131$, $E = -\cdot991$; $G = +\cdot714$, $H = +\cdot094$, $K = -\cdot693$.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Neuchatel | | 0·8 | 332 | i 0 17 | − 1 | i 0 28 | − 3 | i 0 32 | S | — |
| Oropa | | 0·8 | 155 | i 0 17 | − 1 | i 0 28 | − 3 | i 0 21 | ? | — |
| Zürich | | 1·3 | 35 | e 0 26a | + 1 | i 0 44 | 0 | — | — | — |
| Chur | | 1·5 | 68 | e 0 30 | + 2 | e 0 48 | − 1 | — | — | — |
| Pavia | | 1·6 | 134 | — | — | 0 57 | + $4_g$ | e 1 30 | ? | — |
| Ravensburg | | 2·1 | 44 | e 0 40 | + 3 | e 1 7 | + 3 | i 1 14 | $S_g$ | — |
| Strasbourg | | 2·3 | 5 | i 0 39k | − 1 | i 1 11 | + 2 | i 0 47 | $P_g$ | e 1·4 |
| Stuttgart | | 2·7 | 24 | e 0 44 | − 1 | e 1 15 | − 4 | e 0 52 | $P_g$ | e 1·6 |
| Karlsruhe | | 2·8 | 13 | e 0 46 | − 1 | e 1 20 | − 2 | 2 32 | $S_g$ | — |
| Clermont-Ferrand | | 3·1 | 260 | i 1 3 | + $1_g$ | i 1 48 | + $6_g$ | — | — | — |
| Paris | | 4·2 | 308 | e 1 7 | 0 | i 2 1 | + 4 | i 1 24 | $P_g$ | i 2·5 |
| Triest | z. | 4·4 | 97 | e 1 50 | ? | e 2 25 | $0_g$ | 2 32 | SS | — |
| Jena | | 5·3 | 29 | e 1 43? | − $3_g$ | e 2 25 | 0 | e 2 51 | $S_g$ | e 3·2 |
| Prague | | 6·0 | 48 | e 1 54 | − $6_g$ | 2 30 | −13 | e 3 14 | $S_g$ | — |
| Collmberg | z. | 6·2 | 34 | e 1 50 | + 1* | e 3 24 | − $1_g$ | e 2 0 | $P_g$ | e 4·2 |
| Raciborzu | | 8·1 | 58 | — | — | e 4 20 | − $8_g$ | — | — | — |

July 3d. 0h. 52m. 24s. Epicentre 5°·7N. 77°·4W. (as on 1951, December 6d.).

$A = +\cdot2171$, $B = -\cdot9712$, $C = +\cdot0987$; $\delta = +10$; $h = +7$;
$D = -\cdot976$, $E = -\cdot218$; $G = +\cdot022$, $H = -\cdot096$, $K = -\cdot995$.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Sypp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Chinchina | | 1·9 | 96 | i 0 19? | −15 | i 0 58 | − 1 | i 1 19 | ? | — |
| Bogota | | 3·5 | 108 | i 1 2 | + 5 | i 1 40 | 0 | i 2 2 | $S_g$ | — |
| Balboa Heights | | 3·9 | 327 | i 1 0 | − 2 | i 1 48 | − 2 | — | — | — |
| Galerazamba | | 5·5 | 23 | i 0 53 | −32 | i 1 39 | −51 | i 2 50 | S* | — |
| Kingston | | 12·2 | 3 | e 3 33 | +35 | e 5 54 | +38 | — | — | — |
| San Juan | | 16·7 | 40 | e 3 58 | + 1 | e 7 18 | +15 | — | — | — |
| Huancayo | | 17·7 | 173 | e 4 8 | − 2 | e 7 41 | SS | — | — | e 8·3 |
| Fort de France | | 18·3 | 61 | e 4 18 | + 1 | i 8 3 | SS | — | — | e 9·9 |
| La Paz | | 23·9 | 156 | i 5 12a | − 4 | i 9 40 | +10 | i 5 52 | PP | i 12·5 |
| Puebla | | 24·2 | 306 | e 5 22 | + 3 | — | — | — | — | — |
| Tacubaya | | 25·2 | 305 | i 5 33 | + 4 | — | — | e 11 22 | SSS | — |
| Bermuda | | 29·1 | 24 | — | — | e 11 2 | + 6 | e 12 17 | SS | — |
| Morgantown | | 33·8 | 358 | i 6 48 | + 2 | — | — | e 8 2 | PPP | — |
| Fayetteville | z. | 33·9 | 336 | i 6 46k | − 1 | e 13 10 | ScP | e 7 56 | PP | — |
| Palisades | | 35·3 | 7 | e 7 9 | +10 | e 12 44 | +11 | — | — | — |
| Cleveland | | 35·8 | 356 | i 7 4k | + 1 | i 12 42 | + 1 | i 8 28 | PP | — |
| Lubbock | | 35·8 | 324 | e 7 3 | 0 | — | — | e 7 41 | ? | — |
| Weston | | 36·9 | 9 | i 7 13a | + 1 | — | — | — | — | e 18·6 |
| Harvard | | 37·0 | 9 | i 7 15k | + 2 | — | — | — | — | — |
| Ottawa | | 39·6 | 3 | i 7 35a | 0 | 13 41 | + 3 | 9 16 | PP | — |
| Shawinigan Falls | N. | 40·9 | 7 | e 7 47 | + 1 | — | — | — | — | — |
| Tucson | | 40·9 | 315 | i 7 45 | − 1 | e 13 56 | − 2 | e 9 22 | PP | — |
| Kirkland Lake | z. | 42·4 | 358 | e 7 58a | 0 | — | — | — | — | — |
| Boulder City | | 45·7 | 317 | e 8 24 | 0 | — | — | — | — | — |
| Palomar | z. | 45·8 | 313 | e 8 25 | 0 | — | — | — | — | — |
| Riverside | z. | 46·5 | 314 | e 8 31 | 0 | — | — | — | — | — |
| Pasadena | | 47·1 | 314 | i 8 36 | + 1 | — | — | — | — | e 28·5 |
| China Lake | z. | 47·5 | 316 | e 8 45 | + 7 | — | — | — | — | — |
| Tinemaha | z. | 48·6 | 316 | e 8 47 | 0 | — | — | — | — | — |
| Fresno | z. | 49·5 | 315 | e 8 54 | 0 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Butte | | 50·4 | 330 | e 8 59 | − 2 | — | — | — | — | — |
| Reno | | 50·9 | 318 | e 9 5k | 0 | e 9 18 | ? | e 9 54 | ? | — |
| Lick | z. | 51·1 | 315 | i 9 7k | + 1 | — | — | — | — | — |
| Santa Clara | z. | 51·3 | 315 | e 9 17 | + 9 | — | — | — | — | — |
| Berkeley | | 51·8 | 315 | i 9 12k | 0 | e 16 36 | + 3 | — | — | e 31·0 |
| Mineral | z. | 52·5 | 318 | e 9 14 | − 3 | — | — | — | — | — |
| Hungry Horse | | 52·7 | 331 | e 9 3 | −15 | — | — | — | — | — |
| Shasta | z. | 53·2 | 319 | e 9 20 | − 2 | — | — | — | — | — |
| Victoria | | 57·8 | 326 | 9 53 | − 2 | — | — | — | — | — |
| Malaga | | 73·0 | 53 | i 11 35 | + 2 | e 21 18 | +18 | — | — | 37·5 |
| Scoresby Sund | | 73·6 | 17 | — | — | e 21 12 | + 5 | — | — | 37·6 |
| Toledo | | 73·6 | 50 | i 11 39a | + 2 | e 12 31 | ? | e 12 53 | ? | — |
| Granada | | 73·7 | 53 | i 11 37k | − 1 | 21 24 | +16 | 26 0 | SS | 40·8 |
| Rathfarnham Castle | | 74·2 | 36 | — | — | e 21 17 | + 3 | — | — | — |
| Almeria | | 74·6 | 53 | 11 50 | + 7 | 21 52 | PS | 22 12 | ScS | 42·8 |
| Alicante | | 76·2 | 52 | 12 1 | + 9 | — | — | — | — | 38·2 |
| College | | 76·6 | 336 | e 11 53 | − 1 | i 21 40 | 0 | — | — | e 33·2 |
| Kew | | 77·5 | 38 | i 11 59 | 0 | e 21 55 | + 5 | i 12 13 | PcP | e 37·6 |
| Paris | | 79·1 | 41 | e 12 7 | − 1 | i 22 7 | 0 | e 23 14 | PPS | e 42·6 |
| Clermont-Ferrand | | 79·3 | 45 | i 12 10 | + 1 | — | — | (22 36) | ScS | 22·6 |
| De Bilt | | 81·0 | 38 | e 12 18 | 0 | — | — | — | — | e 34·6 |
| Tamanrasset | z. | 81·3 | 68 | i 12 21k | + 1 | e 13 47 | ? | e 15 20 | PP | — |
| Witteveen | z. | 81·9 | 37 | i 12 18a | − 5 | — | — | — | — | — |
| Strasbourg | | 82·6 | 42 | e 12 26 | 0 | — | — | i 12 31 | PcP | — |
| Stuttgart | | 83·5 | 42 | e 12 30 | − 1 | e 24 18 | PPS | e 26 6 | ? | e 46·6 |
| Jena | E. | 85·0 | 39 | e 12 39 | + 1 | — | — | e 13 7 | ? | — |
| Florence | | 85·1 | 46 | — | — | e 23 13 | + 5 | — | — | — |
| Copenhagen | | 85·2 | 34 | i 12 41 | + 2 | 23 17 | ScS | — | — | — |
| Collmberg | z. | 85·8 | 39 | e 12 42 | 0 | — | — | e 12 47 | PcP | — |
| Rome | | 86·1 | 48 | e 12 40 | − 4 | i 23 20 | + 2 | — | — | e 41·6 |
| Prague | N. | 86·8 | 40 | e 12 50 | + 3 | e 13 27 | ? | e 15 47 | PP | — |
| Triest | | 86·8 | 44 | e 12 48 | + 1 | e 23 27 | + 2 | i 12 55 | PcP | — |
| Upsala | z. | 87·6 | 30 | i 12 51 | 0 | — | — | i 12 56 | PcP | — |
| Kiruna | | 87·7 | 23 | i 12 51a | − 1 | e 23 37? | + 4 | i 13 5 | PcP | — |
| Messina | E. | 88·8 | 52 | — | — | e 24 44 | +60 | — | — | e 48·3 |
| Ksara | | 105·8 | 54 | e 12 16 | ? | e 21 51 | PKS | — | — | — |

July 4d. 4h. 46m. 3s. Epicentre 20°·5S. 179°·0W. Depth of focus 0·090.
(as on 1951, March 9d.).

A = −·9373, B = −·0164, C = −·3481 ; δ = −3 ; h = +5 ;
D = −·017, E = +1·000 ; G = +·348, H = +·006, K = −·937.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 9·6 | 47 | i 2 16 | + 1 | i 4 1 | − 3 | — | — | — |
| Auckland | N. | 17·2 | 197 | e 6 1 | ? | i 6 18 | + 1 | e 7 13 | SS | — |
| Karapiro | N. | 18·0 | 194 | 3 32 | − 4 | e 6 32 | + 2 | — | — | — |
| Tuai | N. | 18·6 | 190 | e 3 32 | −10 | 6 23 | −17 | — | — | — |
| Wellington | | 21·4 | 193 | 4 1 | − 7 | i 7 24 | − 2 | e 14 8 | ScS | — |
| Cobb River | E. | 21·7 | 197 | 5 4 | +54 | — | — | — | — | — |
| Kaimata | N.E. | 23·4 | 198 | e 5 20 | +54 | — | — | — | — | — |
| Brisbane | Z. | 26·4 | 250 | i 4 52 | 0 | e 8 45 | 0 | i 5 56 | PP | — |
| Kurilsk | | 72·0 | 336 | 10 27 | + 2 | — | — | — | — | — |
| Yuzno-Sakhlinsk | | 75·5 | 334 | 10 47 | + 2 | e 19 49 | +11 | — | — | — |
| Uglegorsk | | 77·5 | 336 | 10 54 | − 2 | 20 3 | + 4 | 13 10 | pP | — |
| Vladivostok | | 77·7 | 326 | 11 1 | + 4 | 20 12 | +11 | — | — | — |
| Hong Kong | | 77·9 | 300 | — | — | e 20 10 | + 7 | — | — | — |
| Berkeley | | 78·8 | 43 | e 11 3k | 0 | e 20 17 | + 5 | i 11 15 | PcP | — |
| Lick | z. | 78·9 | 43 | i 11 3k | 0 | e 14 14 | sP | e 13 15 | pP | — |
| Nanking | | 79·2 | 310 | i 11 6k | + 1 | i 20 23 | + 7 | i 14 18 | PP | — |
| Pasadena | | 79·4 | 47 | i 11 5 | − 1 | e 20 32 | +14 | i 13 18 | pP | — |
| Fresno | | 79·7 | 45 | e 11 7k | 0 | e 20 29 | + 8 | e 13 22 | pP | — |
| Palomar | | 79·8 | 48 | i 11 8k | 0 | i 20 31 | + 9 | i 13 22 | pP | — |
| Riverside | z. | 79·8 | 47 | e 11 8 | 0 | — | — | e 13 22 | pP | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| China Lake | | 80·7 | 46 | i 11 13k | + 1 | i 20 36 | + 5 | i 13 23 | pP | — |
| Mineral | z. | 80·7 | 40 | i 11 13k | + 1 | i 13 29 | ? | i 13 23 | pP | — |
| Tinemaha | | 80·9 | 45 | i 11 14 | + 1 | i 20 42 | + 9 | — | — | — |
| Reno | | 81·3 | 42 | e 11 17k | + 2 | e 20 44 | + 7 | e 13 32 | pP | — |
| Boulder City | | 82·7 | 47 | i 11 23 | + 1 | e 20 53 | + 2 | — | — | — |
| Tucson | | 83·6 | 52 | i 11 28 | + 1 | i 16 27 | PPP | e 13 40 | pP | — |
| Victoria | | 84·7 | 33 | 11 32 | 0 | — | — | — | — | — |
| Seattle | | 84·7 | 35 | i 11 34a | + 2 | e 15 46 | sP | i 13 47 | pP | — |
| College | | 88·4 | 13 | i 11 49 | − 1 | e 21 19 | [− 2] | i 14 3 | pP | e 32·3 |
| Butte | | 89·3 | 40 | e 11 54 | 0 | — | — | — | — | — |
| Kabansk | | 96·8 | 323 | — | — | e 22 9 | [+ 2] | — | — | — |
| Fayetteville | z. | 97·8 | 55 | i 12 33 | 0 | — | — | e 16 39 | PP | — |
| La Paz | | 102·8 | 113 | e 12 25 | −30 | — | — | — | — | — |
| Stalinabad | | 119·6 | 304 | e 19 14 | PP | — | — | — | — | — |
| Grahamstown | z. | 121·2 | 206 | i 17 24 | [−21] | — | — | — | — | — |
| Sverdlovsk | | 123·5 | 326 | e 19 39 | PP | e 23 58 | [+ 2] | — | — | — |
| Kimberley | z. | 125·9 | 207 | i 17 54 | [ 0] | — | — | — | — | — |
| Pretoria | z. | 127·0 | 211 | e 17 55? | [− 1] | — | — | — | — | — |
| Ashkabad | | 127·8 | 303 | e 20 11 | PP | — | — | — | — | — |
| Kiruna | | 131·1 | 351 | e 17 51 | [−13] | i 20 34 | SKP | i 21 26 | PKS | — |
| Baku | | 134·1 | 308 | e 20 49 | PP | — | — | — | — | — |
| Shemakla | | 135·0 | 309 | e 20 42? | PP | — | — | — | — | — |
| Lenkoran | | 135·2 | 305 | e 20 59 | PP | — | — | — | — | — |
| Moscow | | 135·5 | 331 | i 21 49 | PKS | — | — | — | — | — |
| Pulkovo | | 135·5 | 339 | e 20 51 | PP | e 26 49 | SKKS | e 21 28 | PKS | — |
| Goris | | 136·9 | 307 | e 20 56 | PP | — | — | — | — | — |
| Tiflis | | 137·5 | 311 | e 20 53 | PP | — | — | — | — | — |
| Gori | | 137·9 | 311 | e 21 2? | PP | — | — | — | — | — |
| Piatigorsk | | 138·0 | 315 | 20 56 | PP | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 138·5 | 311 | e 21 2 | PP | — | — | — | — | — |
| Abastumanj | | 138·9 | 311 | e 21 5 | PP | — | — | — | — | — |
| Upsala | z. | 138·9 | 348 | i 18 9 | [−10] | i 21 0 | SKP | i 21 20 | PP | — |
| Zugdidi | | 139·3 | 313 | e 20 59? | SKP | — | — | e 21 27? | PP | — |
| Sotchi | | 140·4 | 316 | e 21 3 | SKP | — | — | — | — | — |
| Theodosia | | 142·4 | 319 | i 18 22 | [− 4] | — | — | — | — | — |
| Simferopol | | 143·4 | 320 | i 18 24 | [− 4] | e 21 30 | PP | e 20 50 | pPKP | — |
| Yalta | | 143·6 | 319 | i 18 27 | [− 1] | e 27 32 | SKKS | — | — | — |
| Copenhagen | | 143·8 | 351 | i 18 26k | [− 2] | i 21 13 | SKP | i 21 22 | ? | — |
| Kishinev | | 145·2 | 327 | i 18 30 | [ 0] | — | — | e 20 50 | pPKP | — |
| Lwow | | 145·5 | 334 | i 18 33 | [+ 2] | e 22 8 | PKS | e 20 55 | pPKP | — |
| Ksara | | 146·4 | 301 | i 18 37 | [+ 5] | 21 53 | sPKP | 20 55 | pPKP | — |
| Potsdam | z. | 146·8 | 347 | e 18 36 | [+ 3] | e 18 47 | $PKP_a$ | e 20 57 | pPKP | — |
| Rathfarnham C. | z. | 146·8 | 8 | i 18 35k | [+ 2] | i 23 36 | ? | e 20 56 | pPKP | — |
| Uzhgorod | | 147·1 | 334 | i 18 38 | [+ 5] | e 18 49 | $PKP_a$ | e 21 0 | pPKP | — |
| Witteveen | z. | 147·4 | 355 | i 18 37 | [+ 3] | — | — | — | — | — |
| Raciborzu | z. | 147·5 | 340 | e 18 34 | [ 0] | i 18 44 | $PKP_a$ | e 22 13 | PP | — |
| Collmberg | | 147·8 | 347 | i 18 38 | [+ 4] | e 22 10 | PP | e 20 57 | pPKP | — |
| Jena | | 148·5 | 347 | e 18 35? | [ 0] | e 22 17 | PP | e 21 4 | pPKP | — |
| Istanbul | z. | 148·6 | 317 | e 18 40 | [+ 5] | e 25 29 | [+44] | e 21 5 | pPKP | — |
| Prague | | 148·6 | 343 | e 18 40 | [+ 5] | e 22 16 | PP | e 21 6 | pPKP | — |
| Kew | | 149·1 | 1 | e 18 37 | [+ 1] | — | — | — | — | — |
| Stuttgart | | 151·0 | 350 | e 18 38 | [− 1] | e 32 9 | PSKS | e 21 10 | pPKP | — |
| Helwan | z. | 151·1 | 295 | e 18 44 | [+ 5] | — | — | e 21 9 | pPKP | — |
| Strasbourg | | 151·4 | 351 | i 18 48a | [+ 9] | e 36 2 | PPS | i 21 12 | pPKP | — |
| Paris | | 151·7 | 358 | i 18 47 | [+ 7] | e 22 38 | PP | i 21 12 | pPKP | — |
| Zürich | | 152·5 | 351 | e 18 39a | [− 2] | — | — | e 18 47 | ? | — |
| Triest | | 152·8 | 342 | e 18 45 | [+ 4] | e 28 31 | SKKS | e 21 28 | pPKP | — |
| Florence | | 155·3 | 343 | e 18 46 | [+ 1] | i 19 13 | $PKP_a$ | e 21 10 | pPKP | — |
| Rome | | 156·5 | 338 | e 22 6? | PKS | e 25 26? | [+31] | — | — | — |
| Messina | | 158·3 | 329 | e 19 27 | [+38] | e 23 6 | PP | e 35 47 | SPP | — |
| Tamanrasset | z. | 175·2 | — | i 19 2a | [+ 1] | e 24 33 | PP | e 21 26 | pPKP | — |

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July 4d. 8h. 15m. 22s. Epicentre 38°·6N. 69°·3E. (as on 1945, September 10d.).

U.S.S.R. gives epicentre as 38°·6N. 69°·4E.

A = +·2770, B = +·7329, C = +·6213 ; δ = −11 ; h = −1 ;
D = +·935, E = −·353 ; G = +·220, H = +·581, K = −·784.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Obi-garm | 0·3 | 72 | i 0 6 | $0_g$ | — | — | — | — |
| Stalinabad | 0·4 | 263 | i 0 9 | + $1_g$ | i 0 16 | 0* | — | — |
| Kulyab | 0·6 | 151 | i −1 12? | P | i −1 1? | S | — | — |
| Garm | 0·9 | 63 | i 0 15 | − 5 | i 0 25 | − 9 | — | — |
| Dzhergetal | 1·6 | 67 | i 0 30 | 0 | 0 54 | + $1_g$ | — | — |
| Khorog | 2·1 | 122 | e 0 36 | − 1 | 1 7 | + 1* | — | — |
| Fergana | 2·6 | 47 | — | — | e 1 24 | − $2_g$ | — | — |
| Tashkent | 2·7 | 359 | e 0 52 | − $2_g$ | e 1 40 | +$11_g$ | — | — |
| Andijan | 3·2 | 46 | e 0 55 | + 3 | i 1 44 | − $2_g$ | i 0 59 | P* |
| Frunse | 5·9 | 41 | — | — | i 3 19 | + $4_g$ | — | — |
| Naryn | 5·9 | 59 | — | — | i 3 16 | + $1_g$ | — | — |
| Rybach'e | 6·4 | 51 | — | — | i 3 8 | − 6* | — | — |

July 4d. 20h. 35m. 11s. Epicentre 44°·2N. 11°·8E. (as on 1950, August 4d.).

Felt in the provinces of Forli and Florence, intensity VI near the epicentre.
Epicentre 44°N. 11°47′E.
Monthly Seismic Bulletin of the I.N.G., Rome, for July, 1952, p. 4.

A = +·7041, B = +·1471, C = +·6947 ; δ = 0 ; h = −3 ;
D = +·204, E = −·979 ; G = +·680, H = +·142, K = −·719.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Padova | | 0·3 | 12 | e 0 26 | +15 | i 0 43 | +25 | i 0 37 | ? | — |
| Bologna | | 0·4 | 312 | i 0 14 | + 1 | 0 22 | + 1 | e 1 35 | ? | — |
| Florence | | 0·6 | 222 | i 0 12 | $0_g$ | i 0 17 | − $3_g$ | — | — | — |
| Prato | | 0·6 | 238 | i 0 11 | − $1_g$ | i 0 17 | − $3_g$ | — | — | — |
| Salo | N. | 1·7 | 327 | i 0 37 | + $3_g$ | i 0 53 | − 1 | i 0 59 | $S_g$ | — |
| Triest | | 2·0 | 43 | i 0 35$_a$ | 0 | i 1 2 | 0 | e 0 38 | P* | e 1·2 |
| Pavia | | 2·2 | 298 | e 0 42 | − $2_g$ | i 1 5 | − 1 | i 1 29 | ? | — |
| Rome | | 2·4 | 168 | e 0 42 | + 1 | i 1 16 | + 1* | i 0 51 | $P_g$ | — |
| Rocca di Papa | | 2·5 | 164 | i 0 43 | 0 | i 1 20 | + 2* | i 1 46 | ? | — |
| Chur | | 3·1 | 330 | e 0 55 | − 1* | i 1 36 | 0* | i 1 15 | ? | — |
| Oropa | | 3·1 | 299 | e 0 55 | − 1* | i 1 47 | + $5_g$ | i 1 2 | $P_g$ | — |
| Ravensburg | | 3·9 | 338 | e 1 4? | + 2 | e 2 26 | +$17_g$ | e 1 14 | $P_g$ | — |
| Zürich | | 3·9 | 326 | e 0 59 | − 3 | e 1 33 | ? | e 1 20 | $P_g$ | — |
| Neuchatel | | 4·4 | 311 | i 1 10 | 0 | e 2 3 | + 1 | — | — | — |
| Basle | | 4·5 | 320 | e 1 9 | − 2 | — | — | — | — | — |
| Stuttgart | | 4·9 | 340 | e 1 17 | 0 | i 2 15 | 0 | e 1 39 | $P_g$ | — |
| Vienna | | 5·1 | 37 | e 1 20 | 0 | e 2 37 | + 2* | e 1 29 | P* | — |
| Strasbourg | | 5·2 | 329 | i 1 21 | 0 | e 2 19 | − 3 | i 2 55 | $S_g$ | — |
| Karlsruhe | | 5·3 | 335 | e 1 31 | − 2* | i 2 27 | + 2 | i 3 4 | $S_g$ | — |
| Taranto | | 5·5 | 131 | e 1 2 | −23 | e 2 12 | −18 | e 2 0 | ? | — |
| Kalossa | | 5·6 | 63 | e 2 24 | S | 3 5 | 0$_g$ | 2 39 | SS | 3·5 |
| Cheb | | 5·9 | 4 | e 2 8 | +10$_g$ | 2 37 | − 3 | e 3 3 | S* | — |
| Budapest | E. | 6·0 | 55 | e 2 15 | ? | e 3 15 | − $3_g$ | 2 51 | SS | 4·8 |
| Prague | | 6·1 | 16 | e 1 35 | + 1 | e 2 44 | − 1 | e 2 3 | $P_g$ | — |
| Belgrade | | 6·2 | 81 | e 2 17 | +13$_g$ | e 3 21 | − $4_g$ | e 2 31 | ? | — |
| Szeged | | 6·2 | 68 | e 2 38 | ? | 2 58 | +10 | e 3 19 | SS | — |
| Clermont-Ferrand | | 6·4 | 287 | e 1 49 | − 3* | i 3 37 | + $5_g$ | — | — | — |
| Messina | | 6·6 | 153 | e 1 41 | 0 | e 3 3 | + 5 | e 3 34 | $S_g$ | — |
| Jena | | 6·7 | 359 | e 1 42 | 0 | e 2 59 | − 1 | e 1 55 | P* | i 4·7 |
| Timisoara | | 6·9 | 74 | e 2 29 | +11$_g$ | e 3 0 | − 5 | — | — | i 4·0 |
| Collmberg | z. | 7·1 | 6 | e 1 46 | − 2 | e 3 13 | + 3 | 2 27 | $P_g$ | — |
| Raciborzu | | 7·3 | 34 | e 2 53 | ? | i 3 40 | − 1* | e 4 0 | $S_g$ | — |
| Paris | | 7·9 | 309 | 2 3? | + 4 | e 3 23 | − 7 | e 2 20 | P* | — |
| De Bilt | | 9·1 | 233 | — | — | e 4 49 | −12$_g$ | — | — | — |
| Witteveen | z. | 9·3 | 340 | — | — | e 5 19 | +12$_g$ | — | — | — |
| Kew | | 10·9 | 316 | — | — | e 4 49? | + 5 | — | — | — |
| Almeria | | 13·1 | 241 | 3 16 | + 6 | — | — | — | — | 8·7 |
| Granada | | 13·6 | 244 | 2 53 | −24 | 5 31 | −19 | — | — | 8·5 |
| Upsala | z. | 16·1 | 11 | i 3 52 | + 3 | — | — | — | — | — |
| Tamanrasset | z. | 22·0 | 196 | i 4 57k | − 1 | — | — | e 5 7 | ? | — |
| Kiruna | z. | 24·1 | 8 | e 5 26 | + 8 | — | — | — | — | — |

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July 4d. 21h. 30m. 25s. Epicentre 44°·2N. 11°·8E. (as at 20h.).

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Padova | | 0·3 | 12 | 0 28 | +17 | 0 45 | +27 | i 0 58 | ? | — |
| Bologna | | 0·4 | 312 | e 0 13 | 0 | i 0 25 | + 4 | — | — | — |
| Florence | | 0·6 | 222 | i 0 10 | + 2g | i 0 15 | − 5g | — | — | — |
| Prato | | 0·6 | 238 | i 0 13 | 0* | i 0 18 | − 2g | — | — | — |
| Salo | | 1·7 | 327 | e 0 38 | + 4g | i 1 1 | + 5g | i 1 8 | ? | — |
| Triest | | 2·0 | 43 | 0 34? | − 1 | i 1 1 | − 1 | e 0 40 | Pg | — |
| Pavia | | 2·2 | 298 | e 0 49 | + 5g | e 1 11 | − 2g | i 1 28 | ? | — |
| Rome | | 2·4 | 168 | i 0 42k | + 1 | i 1 17 | − 2g | 1 4 | S | — |
| Rocca di Papa | | 2·5 | 164 | e 0 43 | 0 | i 1 22 | − 1g | i 1 46 | ? | — |
| Oropa | | 3·1 | 299 | 0 57 | + 1* | i 1 25 | − 4 | i 1 51 | Sg | — |
| Ravensburg | | 3·9 | 338 | e 1 22? | + 4g | e 2 15 | + 6g | e 2 24 | ? | — |
| Zürich | | 3·9 | 326 | e 1 4 | + 2 | — | — | e 1 7 | P* | — |
| Basle | | 4·5 | 320 | e 1 14 | + 3 | (e 2 29) | 0g | — | — | e 2·5 |
| Stuttgart | | 4·9 | 340 | e 1 16 | − 1 | i 2 15 | 0 | e 1 38 | Pg | — |
| Strasbourg | | 5·2 | 329 | e 1 22 | + 1 | e 2 26 | + 4 | e 1 45 | Pg | i 3·1 |
| Karlsruhe | | 5·3 | 335 | e 1 20 | − 2 | i 3 6 | +11g | — | — | — |
| Taranto | | 5·5 | 131 | e 1 58 | + 8g | — | — | 0 58 | ? | — |
| Cheb | | 5·9 | 4 | e 1 59 | + 1g | e 3 8 | − 7g | e 3 41 | ? | — |
| Prague | | 6·1 | 16 | e 1 44 | − 3* | e 2 38 | − 7 | e 2 3 | Pg | — |
| Szeged | | 6·2 | 68 | — | — | e 3 24 | − 1g | e 3 37 | ? | — |
| Clermont-Ferrand | | 6·4 | 287 | e 2 5 | − 3g | e 3 1 | + 8 | — | — | — |
| Messina | | 6·6 | 153 | e 1 42 | + 1 | e 3 35 | − 3g | — | — | — |
| Jena | | 6·7 | 359 | e 2 26 | +12g | e 3 24 | + 1* | e 3 44 | Sg | e 4·4 |
| Timisoara | | 6·9 | 74 | — | — | e 3 53 | + 5g | e 3 35 | S* | e 4·1 |
| Collmberg | z. | 7·1 | 6 | e 1 46 | − 2 | e 4 0 | + 5g | e 3 0 | S | — |
| Raciborzu | z. | 7·3 | 34 | — | — | e 3 33 | − 8* | i 4 6 | Sg | — |
| Paris | | 7·9 | 309 | e 1 58 | − 1 | e 3 31 | + 1 | i 2 37 | Pg | — |
| Tamanrasset | z. | 22·0 | 196 | e 4 56 | − 2 | — | — | — | — | — |

July 5d. 17h. 19m. 51s. Epicentre 36°·7N. 70°·5E. Depth of focus 0·030. (as on 1952, June 9d.).

Intensity VII at Srinagar and Gulmerg. Felt less strongly at Peshawar, Lahore, and Nathiagali.
Epicentre: 36°·5N. 70°·5E. (Strasbourg). Depth 200km.
36°·9N. 70°·8E. (U.S.S.R.).
Seismo. Bull. Government of India Meteorological Department, July, 1952, pp. 2 and 11.

$A = +·2683$, $B = +·7576$, $C = +·5951$; $\delta = +9$; $h = 0$;
$D = +·943$, $E = -·334$; $G = +·199$, $H = +·561$, $K = -·804$.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Khorog | | 1·2 | 48 | i 0 29 | − 5 | i 0 52 | − 8 | — | — | — |
| Stalinabad | | 2·3 | 323 | i 0 44 | 0 | — | — | — | — | — |
| Dzhergetal | | 2·6 | 12 | i 0 45 | − 2 | i 1 18 | − 5 | — | — | — |
| Fergana | | 3·8 | 15 | i 0 59 | − 2 | — | — | — | — | — |
| Samarkand | | 4·1 | 319 | i 1 4 | 0 | — | — | — | — | — |
| Andijan | | 4·3 | 20 | i 1 4 | − 3 | i 1 53 | − 6 | 1 49 | ? | — |
| Tashkent | | 4·7 | 349 | i 1 12 | 0 | i 2 6 | − 2 | — | — | — |
| Tchimkent | | 5·6 | 354 | i 1 23 | 0 | — | — | — | — | — |
| Naryn | | 6·4 | 41 | e 1 27 | − 6 | — | — | — | — | — |
| Frunse | | 6·9 | 26 | i 1 37 | − 3 | 2 54 | − 4 | 2 26 | ? | — |
| Quetta | | 7·1 | 205 | i 1 39 | − 3 | i 2 52 | −10 | i 2 57 | S | — |
| Rybach'e | | 7·2 | 35 | i 1 40 | − 4 | — | — | 2 30 | ? | — |
| Almata | | 8·2 | 35 | i 1 53 | − 4 | i 3 24 | −14 | i 2 43 | ? | — |
| Almata II | | 8·4 | 37 | i 1 56 | − 3 | — | — | — | — | — |
| Przhevalsk | | 8·4 | 44 | i 1 54 | − 5 | — | — | — | — | — |
| Ili | | 8·8 | 33 | i 1 59 | − 5 | — | — | — | — | — |
| Dehra Dun | N. | 9·0 | 133 | e 0 48 | ? | e 1 21 | ? | — | — | — |
| Ashkabad | | 9·8 | 281 | i 2 18 | + 1 | — | — | 3 6 | ? | — |
| New Delhi | | 9·8 | 143 | 2 9 | − 8 | i 3 55 | −10 | 2 16 | PP | — |
| Kizyl-Arvat | | 11·5 | 286 | i 2 40 | + 1 | — | — | e 2 43 | ? | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Semipalatinsk | | 15·4 | 24 | c 3 25 | − 2 | — | — | 4 16 | ? | — |
| Baku | | 16·5 | 289 | i 3 45 | + 5 | i 6 57 | +21 | — | — | — |
| Lenkoran | | 17·3 | 284 | 3 51 | + 2 | e 7 5 | +12 | — | — | — |
| Shemakla | | 17·5 | 292 | 3 55 | + 4 | — | — | — | — | — |
| Bombay | | 17·8 | 172 | e 3 54 | 0 | i 7 11 | + 8 | 4 6 | PP | — |
| Poona | E. | 18·3 | 170 | i 3 57 | − 3 | i 7 11 | − 1 | 4 12 | PP | 8·1 |
| Makhach-Kala | | 18·7 | 297 | i 4 7 | + 3 | i 7 35 | +15 | i 4 50 | PP | — |
| Goris | | 19·2 | 286 | i 4 13 | + 4 | e 7 50 | +20 | — | — | — |
| Kirovobad | | 19·2 | 289 | i 4 12 | + 3 | e 7 46 | +16 | 5 8 | PP | — |
| Grozny | | 20·0 | 297 | i 4 22 | + 5 | — | — | — | — | — |
| Hyderabad | | 20·4 | 158 | i 4 19 | − 2 | i 7 51 | − 1 | i 7 58 | S | 10·2 |
| Tiflis | | 20·5 | 293 | i 4 27 | + 5 | i 8 12 | +19 | — | — | — |
| Erevan | | 20·6 | 288 | i 4 27 | + 4 | — | — | 5 29 | PPP | — |
| Calcutta | N. | 20·9 | 128 | i 4 25 | − 1 | i 8 5 | + 5 | 4 43 | PP | 8·2 |
| Gori | | 21·0 | 295 | 4 32 | + 5 | — | — | — | — | — |
| Leninakan | | 21·1 | 290 | 4 34 | + 6 | — | — | — | — | — |
| Sverdlovsk | | 21·2 | 345 | i 4 31 | + 2 | i 8 16 | +10 | i 5 5 | pP | — |
| Shillong | E. | 21·3 | 115 | i 4 25 | − 5 | i 8 6 | − 2 | 4 44 | PP | 9·1 |
| Tsikhlis-Dzhvari | | 21·5 | 292 | 4 38 | + 6 | — | — | — | — | — |
| Abastumanj | | 22·0 | 293 | i 4 43 | + 6 | — | — | — | — | — |
| Piatigorsk | | 22·1 | 299 | 4 41 | + 4 | e 8 49 | +27 | 5 13 | PP | — |
| Zugdidi | | 22·7 | 294 | 4 49 | + 6 | — | — | — | — | — |
| Sotchi | | 24·4 | 297 | i 5 1 | + 2 | — | — | i 5 40 | pP | — |
| Madras | E. | 25·2 | 157 | i 5 0 | − 7 | i 9 6 | − 7 | 5 20 | PP | 10·7 |
| Kodaikanal | E. | 27·1 | 166 | c 6 34 | sP | e 10 30 | sS | — | — | — |
| Theodosia | | 27·5 | 298 | i 5 30 | + 2 | — | — | i 6 9 | pP | — |
| Ksara | | 28·3 | 275 | i 5 39 | + 4 | 11 39 | SS | 6 20 | pP | — |
| Irkutsk | | 28·4 | 46 | 6 16 | pP | — | — | — | — | — |
| Simferopol | | 28·5 | 299 | i 5 39 | + 2 | — | — | i 6 19 | pP | — |
| Kyakhta | | 29·1 | 49 | 6 22 | pP | — | — | — | — | — |
| Moscow | | 29·2 | 322 | i 5 45 | + 2 | i 10 26 | + 8 | i 6 25 | pP | — |
| Kabansk | | 29·7 | 46 | 6 28 | pP | — | — | — | — | — |
| Istanbul | | 32·3 | 291 | i 6 13 | + 3 | e 11 9? | + 3 | e 6 56 | pP | — |
| Kishinev | | 32·4 | 304 | 6 13 | + 2 | e 7 16 | sP | i 6 54 | pP | — |
| Helwan | | 33·3 | 270 | e 6 22 | + 4 | — | — | e 7 27 | sP | e 16·4 |
| Bucharest | | 34·3 | 297 | e 6 32 | + 5 | e 9 0 | ? | e 7 16 | pP | — |
| Pulkovo | | 34·5 | 327 | i 6 31 | + 2 | i 11 47 | + 7 | e 7 12 | pP | — |
| Lwow | | 35·7 | 307 | i 6 43 | + 4 | e 12 3 | + 5 | — | — | — |
| Sofia | | 36·4 | 295 | e 6 49 | + 4 | e 8 34 | PPP | e 9 16 | PcP | — |
| Uzhgorod | | 36·8 | 305 | i 6 46 | − 2 | e 12 10 | − 5 | — | — | — |
| Athens | | 36·9 | 287 | i 6 51a | + 2 | — | — | i 7 35 | pP | — |
| Helsinki | | 37·2 | 326 | i 6 53 | + 2 | e 12 22 | + 1 | e 7 36 | pP | — |
| Timisoara | | 37·6 | 301 | i 7 0 | + 5 | e 8 50 | PPP | e 8 12 | sP | — |
| Belgrade | N.W. | 38·2 | 298 | e 7 22a | +22 | e 8 43 | PP | e 9 35 | PcP | — |
| Szeged | | 38·3 | 302 | e 7 6 | + 6 | 14 0 | sS | 7 57 | pP | — |
| Budapest | | 39·0 | 303 | i 7 9 | + 3 | e 8 39 | PP | i 8 14 | pP | — |
| Kalossa | | 39·1 | 302 | 7 11 | + 4 | e 8 23 | PP | 7 57 | pP | — |
| Raciborzu | | 39·5 | 308 | i 7 13 | + 3 | e 13 0 | + 4 | i 7 49 | pP | e 19·8 |
| Ogyalla | | 39·6 | 304 | 7 22 | +11 | e 12 50 | − 7 | e 8 25 | sP | e 18·5 |
| Upsala | | 40·7 | 321 | i 7 22a | + 2 | e 14 31 | sS | i 8 6 | pP | e 20·6 |
| Vienna | | 40·8 | 305 | e 7 24 | + 3 | e 8 59 | PP | e 8 29 | sP | — |
| Taranto | | 41·3 | 292 | e 8 32 | pP | — | — | — | — | — |
| Kiruna | | 41·7 | 334 | i 7 30a | + 2 | e 13 32 | + 4 | i 8 13 | pP | i 20·9 |
| Prague | | 41·9 | 308 | 7 33a | + 3 | e 13 27 | − 4 | e 8 17 | pP | e 19·4 |
| Collmberg | Z. | 42·8 | 309 | i 7 39 | + 2 | e 9 23 | PP | e 8 24 | pP | — |
| Triest | | 42·8 | 302 | e 7 41 | + 4 | e 13 47 | + 3 | e 8 22 | pP | i 17·9 |
| Copenhagen | | 43·0 | 316 | i 7 42a | + 3 | 13 57 | +10 | i 8 25 | pP | — |
| Messina | | 43·1 | 290 | i 7 41a | + 1 | e 15 26 | ? | i 8 27 | pP | e 17·9 |
| Cheb | | 43·2 | 308 | e 7 37 | − 3 | e 13 58 | + 8 | e 8 18 | pP | e 21·3 |
| Jena | | 43·7 | 308 | i 7 46 | + 1 | i 8 52 | sP | i 8 30 | pP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Rocca di Papa | N. | 44·3 | 296 | i 7 52 | + 3 | — | — | — | — | — |
| Rome | | 44·5 | 296 | i 7 53 | + 2 | e 14 18 | +10 | i 8 37 | pP | — |
| Bologna | | 44·7 | 299 | e 7 56a | + 4 | e 9 24 | PP | e 9 16 | sP | — |
| Florence | Z. | 44·9 | 299 | i 7 57 | + 3 | i 10 0 | PP | i 8 49 | pP | — |
| Prato | | 45·0 | 300 | i 7 57 | + 2 | e 15 45 | SS | — | — | — |
| Salo | | 45·1 | 302 | i 8 0 | + 4 | — | — | e 9 49 | PP | — |
| Chur | | 45·5 | 303 | e 7 58 | − 1 | — | — | e 8 46 | pP | — |
| Stuttgart | | 45·5 | 306 | i 8 1a | + 2 | i 9 7 | sP | e 8 45 | pP | e 23·2 |
| Karlsruhe | Z. | 45·9 | 308 | i 8 5a | + 3 | i 9 12 | sP | e 8 48 | pP | — |
| Pavia | Z. | 46·1 | 303 | e 8 8 | + 4 | e 9 13 | sP | e 8 51 | pP | — |
| Zürich | | 46·1 | 304 | e 8 5a | + 1 | e 14 9 | −22 | e 8 50 | pP | — |
| Strasbourg | | 46·4 | 306 | i 8 8a | + 2 | i 9 16 | sP | i 8 53 | pP | e 23·0 |
| Witteveen | Z. | 46·5 | 313 | i 8 9 | + 2 | i 9 16 | PcP | i 8 53 | pP | — |
| Basle | | 46·7 | 304 | e 8 10a | + 2 | — | — | — | — | — |
| Oropa | E. | 46·8 | 302 | e 8 7 | − 2 | — | — | — | — | — |
| Neuchatel | | 47·2 | 304 | i 8 14 | + 2 | — | — | — | — | — |
| De Bilt | | 47·5 | 312 | i 8 19 | + 5 | e 9 26 | PcP | i 9 3 | pP | — |
| Paris | | 49·8 | 307 | i 8 31 | − 1 | i 9 39 | sP | i 9 17 | pP | e 20·0 |
| Manila | | 49·9 | 103 | e 8 29 | − 4 | — | — | — | — | — |
| Clermont-Ferrand | | 50·1 | 303 | i 8 36 | + 2 | i 9 44 | sP | i 9 24 | pP | — |
| Kew | | 51·0 | 311 | i 8 43a | + 2 | 9 49 | sP | i 9 30 | pP | e 20·2 |
| Durham | E. | 51·1 | 316 | i 8 44 | + 2 | — | — | i 9 30 | pP | — |
| Tortosa | | 53·4 | 298 | i 8 59 | 0 | — | — | — | — | 21·5 |
| Rathfarnham C. | Z. | 54·1 | 315 | i 9 4a | 0 | i 11 49 | PP | i 9 50 | pP | — |
| Alicante | | 55·0 | 296 | i 9 7 | − 3 | 17 32 | +59 | 10 29 | PcP | — |
| Almeria | | 57·0 | 295 | i 9 25 | + 1 | 17 30 | +30 | 10 14 | PcP | — |
| Toledo | | 57·0 | 298 | i 9 27a | + 3 | e 11 35 | PP | i 10 16 | pP | — |
| Tamanrasset | Z. | 57·1 | 277 | i 9 27k | + 2 | e 10 34 | sP | i 10 15 | pP | — |
| Granada | | 57·7 | 296 | e 8 54 | −35 | 14 28 | PcS | — | — | 21·8 |
| Malaga | | 58·5 | 296 | i 9 35 | 0 | e 17 17 | − 2 | — | — | 22·2 |
| Resolute Bay | | 68·5 | 356 | i 10 38a | − 2 | 19 28 | + 6 | 24 6 | SS | — |
| Pretoria | Z. | 73·8 | 220 | i 11 41a? | +29 | — | — | — | — | — |
| College | | 74·4 | 17 | i 11 14 | − 1 | — | — | i 12 3 | pP | — |
| Pietermaritzburg | Z. | 76·0 | 216 | i 11 24 | 0 | — | — | — | — | — |
| Kimberley | Z. | 78·0 | 220 | i 11 35a | 0 | — | — | — | — | — |
| Grahamstown | Z. | 80·8 | 217 | i 11 50 | 0 | — | — | — | — | — |
| Shawinigan Falls | N. | 90·8 | 336 | e 12 40 | + 1 | — | — | — | — | — |
| Kirkland Lake | Z. | 91·5 | 341 | e 12 43k | + 1 | — | — | — | — | — |
| Ottawa | | 92·8 | 337 | i 12 49k | + 1 | 24 35 | SP | 13 41 | pP | — |
| Harvard | | 93·9 | 333 | i 12 55k | + 2 | — | — | i 13 50 | pP | — |
| Weston | | 93·9 | 333 | e 12 55 | + 2 | — | — | — | — | — |
| Hungry Horse | | 95·2 | 4 | e 16 50 | PP | — | — | — | — | — |
| Seattle | | 95·2 | 9 | i 13 2a | + 3 | e 14 16 | sP | e 13 54 | pP | — |
| Shasta | Z. | 102·1 | 11 | e 17 44 | PKP | — | — | — | — | — |
| Mineral | Z. | 102·5 | 10 | e 17 45 | PKP | — | — | — | — | — |
| Reno | Z. | 103·5 | 8 | e 17 47 | PKP | — | — | e 18 1 | PP | — |
| Lick | Z. | 105·5 | 11 | e 17 53 | [− 2] | — | — | e 18 21 | PP | — |
| Fayetteville | Z. | 106·2 | 348 | i 13 50 | P | e 17 43 | PKP | i 14 45 | pP | — |
| Tinemaha | Z. | 106·2 | 8 | i 18 11 | [+15] | — | — | — | — | — |
| Fresno | Z. | 106·3 | 9 | e 18 7 | [+10] | — | — | — | — | — |
| Boulder City | | 107·5 | 5 | e 17 57 | [− 2] | — | — | — | — | — |
| China Lake | Z. | 107·5 | 8 | e 13 56 | P | i 18 14 | PKP | e 14 47 | pP | — |
| Pasadena | Z. | 109·1 | 8 | e 18 15 | [+13] | — | — | e 19 24 | PP | — |
| Riverside | Z. | 109·3 | 8 | e 18 5 | [+ 2] | — | — | — | — | — |
| Palomar | Z. | 110·0 | 7 | e 18 23 | [+19] | — | — | 19 58 | PP | — |
| Tucson | | 111·4 | 2 | e 29 55 | PKKP | — | — | — | — | — |
| La Paz | | 138·3 | 288 | e 19 2 | [+ 3] | i 22 25 | PKS | 21 47 | PP | — |
| Huancayo | | 140·7 | 300 | e 19 1 | [− 2] | — | — | e 22 23 | PP | — |

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July 5d. 21h. 0m. 10s. Epicentre 42°·7N. 75°·0E. (as on 1952, May 20d.).

A = +·1908, B = +·7121, C = +·6757 ; δ = +6 ; h = −3 ;
D = +·966, E = −·259 ; G = +·175, H = +·653, K = −·737.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Frunse | | 0·4 | 301 | e 0 10 | 0* | i 0 17 | + 1* | — | — | |
| Rybach'e | | 0·8 | 107 | i 0 17 | + $1_g$ | e 0 30 | − 1 | — | — | |
| Almata | | 1·5 | 68 | — | — | i 0 55 | + 6 | i 1 0 | ? | |
| Naryn | | 1·5 | 150 | e 0 29 | + 1 | i 0 49 | 0 | — | — | |
| Almata II | | 1·8 | 72 | e 0 36 | + $6_g$ | e 1 0 | $0_g$ | — | — | |
| Ili | | 2·0 | 50 | i 0 38 | + 1* | i 1 8 | + $2_g$ | — | — | |
| Kurmenty | | 2·4 | 82 | e 0 46 | − $2_g$ | 1 22 | + $3_g$ | — | — | |
| Przhevalsk | | 2·5 | 95 | 0 45 | 0* | e 1 21 | − $2_g$ | — | — | |
| Chilisk | | 2·7 | 71 | e 0 49 | 0* | i 1 27 | − $2_g$ | — | — | |
| Andijan | | 2·8 | 225 | 0 47 | 0 | i 1 26 | − 1* | — | — | |

July 5d. 23h. 6m. 17s. Epicentre 30°·5S. 70°·0W.

Felt in Chile between South Latitudes 27° and 29°. Epicentre from Strasbourg.

F. Greve.
Boletin del año, 1952. Instituto Sismológico, Universidad de Chile, Santiago, p. 19.

A = +·2952, B = −·8110, C = −·5050 ; δ = −11 ; h = +2 ;
D = −·940, E = −·342 ; G = −·173, H = +·475, K = −·863.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Santa Lucia | E. | 3·0 | 192 | e 0 48 | − 2 | i 1 26 | − 1 | i 0 55 | P* | — |
| Copiapo | N. | 3·2 | 354 | e 0 55 | + 3 | i 1 52 | + $6_g$ | i 1 8 | $P_g$ | — |
| Antofagasta | E. | 6·8 | 357 | — | — | e 3 20 | − 6* | — | — | — |
| Concepción | N. | 6·8 | 201 | e 1 7 | ? | 2 40 | −23 | — | — | 3·5 |
| Buenos Aires | | 10·5 | 116 | e 2 47 | +12 | 4 54 | +19 | — | — | — |
| La Plata | | 11·1 | 116 | i 2 55 | +12 | 5 7 | +18 | — | — | 5·8 |
| La Paz | | 14·1 | 7 | i 3 23 | 0 | 6 19 | +17 | 3 37 | PP | 7·0 |
| Huancayo | | 19·0 | 344 | e 4 25 | − 1 | e 7 55 | 0 | — | — | e 8·9 |
| Bogota | | 35·1 | 353 | e 6 55 | − 2 | e 12 31 | + 1 | — | — | e 19·4 |
| Chinchina | | 35·7 | 351 | e 7 3 | + 1 | e 12 37 | − 2 | — | — | 16·7 |
| Fayetteville | Z. | 70·0 | 340 | i 11 7 | − 8 | — | — | i 11 15 | P | — |
| Palisades | | 71·2 | 358 | e 11 16 | − 7 | e 20 35 | − 5 | — | — | e 36·0 |
| Harvard | | 72·7 | 359 | i 11 28 k | − 4 | — | — | — | — | — |
| Palomar | Z. | 77·4 | 322 | e 12 2 | + 4 | — | — | e 12 32 | ? | — |
| Riverside | Z. | 78·2 | 322 | e 12 4 | + 1 | — | — | e 12 57 | ? | — |
| Pasadena | | 78·7 | 321 | e 12 7 | + 1 | — | — | — | — | e 39·7 |
| Kirkland Lake | Z. | 78·8 | 354 | e 12 1 | − 5 | — | — | — | — | — |
| Grahamstown | Z. | 78·9 | 122 | e 13 8 | +61 | — | — | — | — | e 42·6 |
| China Lake | Z. | 79·7 | 323 | e 12 2 | − 9 | — | — | — | — | — |
| Kimberley | Z. | 79·7 | 117 | i 12 12 | + 1 | — | — | — | — | — |
| Tinemaha | Z. | 81·0 | 323 | e 12 9 | − 9 | — | — | e 12 44 | ? | — |
| Pietermaritzburg | Z. | 83·5 | 120 | i 12 33 | + 2 | — | — | — | — | — |
| Pretoria | Z. | 83·8 | 116 | i 13 3 | +31 | — | — | — | — | — |
| Tamanrasset | Z. | 89·7 | 63 | e 13 2 | + 1 | — | — | — | — | — |
| Rome | | 104·6 | 50 | — | — | e 25 1 | [+12] | — | — | e 57·5 |
| Messina | E. | 105·0 | 55 | e 20 51 | PPP | — | — | — | — | e 55·9 |
| Istanbul | | 115·7 | 56 | — | — | e 29 43? | PS | — | — | 53·7 |
| Ksara | | 118·5 | 66 | e 20 5 | PP | e 33 43 | ? | — | — | — |

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July 6d. 6h. 10m. 47s. Epicentre 0°·5N. 17°·0W. (as on 1939, April 23d.).

A = +·9563, B = −·2924, C = +·0087 ; δ = +8 ; h = +7 ;
D = −·292, E = −·956 ; G = +·008, H = −·003, K = −1·000.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| M'Bour | | 13·9 | 0 | i 3 3 | −18 | 16 13? | ScS | — | — | — |
| Tamanrasset | z. | 31·2 | 43 | i 6 23 | 0 | e 11 33 | + 4 | e 7 31 | PP | 15·2 |
| Angra do Heroismo | E. | 39·1 | 347 | — | — | e 16 39 | SSS | — | — | — |
| Algiers Univ. | z. | 40·6 | 26 | i 7 44 a | + 1 | e 13 58 | + 4 | e 9 20 | PP | — |
| Tortosa | | 43·2 | 20 | i 8 7 | + 3 | e 14 29 | − 3 | — | — | — |
| Messina | | 48·0 | 35 | i 8 43k | 0 | e 15 50 | + 9 | e 10 34 | PP | — |
| Clermont-Ferrand | | 48·4 | 19 | i 8 47 | + 1 | e 15 54 | + 8 | e 10 35 | PP | 24·2 |
| Rome | | 49·0 | 30 | i 8 49 | − 1 | 15 1 | −54 | e 10 44 | PP | e 25·0 |
| Kimberley | z. | 49·4 | 129 | i 8 49 | − 4 | — | — | — | — | — |
| Florence | | 49·9 | 27 | e 8 58 | + 1 | e 16 24 | PPS | e 10 54 | PP | — |
| Oropa | | 50·0 | 22 | e 9 3 | + 5 | — | — | — | — | — |
| Taranto | | 50·5 | 34 | — | — | e 17 50 | ? | — | — | — |
| Pretoria | z. | 50·8 | 124 | i 8 35? | −29 | — | — | — | — | — |
| Paris | | 51·0 | 16 | i 9 4 | − 2 | e 16 34 | SP | e 11 3 | PP | e 24·2 |
| San Juan | | 51·4 | 293 | e 9 26 | +17 | — | — | — | — | — |
| Zürich | z. | 51·7 | 21 | e 9 2 | − 9 | — | — | — | — | — |
| Triest | | 52·5 | 27 | i 9 16 a | − 1 | e 16 42 | − 1 | e 11 13 | PP | — |
| Strasbourg | | 52·5 | 20 | e 9 18 | + 1 | e 16 52 | PS | e 11 22 | PP | e 25·2 |
| Kew | | 52·7 | 13 | — | — | e 16 50 | + 4 | — | — | e 25·2 |
| Grahamstown | z. | 53·0 | 133 | i 10 15? | +54 | — | — | — | — | — |
| Stuttgart | | 53·1 | 21 | e 9 20 | − 1 | e 16 53 | + 2 | e 12 23 | PPP | e 26·2 |
| Pietermaritzburg | z. | 53·6 | 127 | e 9 35? | +10 | — | — | — | — | — |
| Helwan | z. | 54·4 | 53 | e 9 30 | − 1 | — | — | — | — | — |
| De Bilt | | 54·7 | 16 | e 9 37 | + 4 | e 17 25 | +12 | — | — | e 28·2 |
| Bermuda | | 55·0 | 310 | — | — | e 17 28 | +11 | — | — | e 23·8 |
| Belgrade | z. | 55·2 | 32 | e 9 37 a | 0 | — | — | e 11 39 | PP | — |
| Witteveen | z. | 55·8 | 17 | e 9 41 | 0 | — | — | — | — | — |
| Jena | | 55·8 | 22 | e 9 40 | − 1 | e 9 55 | ? | e 11 42? | PP | — |
| Prague | | 56·2 | 23 | e 9 42 | − 2 | e 22 31 | SS | e 11 21 | ? | e 32·2 |
| Collmberg | z. | 56·6 | 22 | e 9 44 | − 3 | — | — | e 11 46 | PP | — |
| Bogota | | 57·1 | 276 | — | — | e 17 51 | + 6 | e 21 59 | SS | e 27·9 |
| Istanbul | | 58·0 | 39 | e 9 55 | − 2 | (24 13) | SSS | — | — | 24·2 |
| Huancayo | | 59·2 | 256 | e 10 7 | + 2 | e 24 13 | SSS | — | — | e 28·5 |
| Ksara | | 59·5 | 50 | e 10 7 | 0 | e 18 31 | PS | — | — | — |
| Copenhagen | | 60·0 | 18 | i 10 0 | −11 | — | — | — | — | — |
| Weston | | 64·0 | 319 | e 10 39 | + 1 | — | — | — | — | — |
| Harvard | | 64·2 | 319 | i 10 41 a | + 2 | — | — | — | — | — |
| Upsala | z. | 65·0 | 18 | i 10 42 a | − 2 | — | — | i 10 50 | ? | — |
| Palisades | | 65·2 | 316 | e 10 46 | + 1 | e 19 31 | + 3 | — | — | e 29·8 |
| Ottawa | | 68·2 | 320 | e 11 2 | − 2 | 20 19 | +15 | — | — | — |
| Kirkland Lake | z. | 71·9 | 321 | e 11 27 | 0 | — | — | — | — | — |
| Kiruna | | 72·0 | 15 | i 11 26 a | − 2 | e 20 54 | + 5 | i 11 41 | PcP | e 38·2 |
| Fayetteville | z. | 79·4 | 307 | i 12 7 a | − 2 | — | — | — | — | — |
| Resolute Bay | | 86·3 | 346 | e 12 43 | − 2 | 23 25 | + 5 | — | — | 42·2 |

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July 6d. 9h. 17m. 4s. Epicentre 41°·0N. 143°·3E. Depth of focus 0·010.
(as on 1951, January 24d.).

Intensity II-III at Yabukawa. Epicentre 40°·8N. 143°·3E. Depth about 20km. Macroseismic radius 100-200km. (Tokyo).
Seismo. Bull. of Cent. Met. Obs., Japan, for July, 1952, Tokyo, 1952, p. 266, with macroseismic chart.

A = −·6069, B = +·4523, C = +·6535 ; $\delta$ = −3 ; $h$ = −2 ;
D = +·598, E = +·802 ; G = −·524, H = +·391, K = −·757.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Urakawa | | 1·2 | 342 | e 0 25 | + 2 | 0 43 | + 3 |
| Hatinohe | | 1·4 | 251 | 0 20 | − 5 | 0 39 | − 5 |
| Miyako | | 1·7 | 216 | e 0 24 | − 5 | 0 45 | − 6 |
| Aomori | | 1·9 | 264 | 0 34 | + 2 | 1 7 | +12 |
| Obihiro | N. | 1·9 | 358 | e 0 43 | +11 | 1 14 | +19 |
| Morioka | | 2·1 | 232 | i 0 34 a | 0 | 1 0 | 0 |
| Mori | E. | 2·3 | 298 | 0 40 | + 3 | 1 7 | + 2 |
| Mizusawa | E. | 2·5 | 222 | 0 41 | + 1 | 1 9 | − 1 |
| | N. | 2·5 | 222 | e 0 39 | − 1 | 1 6 | − 4 |
| Sapporo | | 2·5 | 325 | e 0 45 | + 5 | — | — |
| Akita | E. | 2·8 | 242 | 0 45 | + 1 | 1 19 | + 2 |
| Sendai | | 3·3 | 214 | e 0 50 | − 1 | 1 34 | + 5 |
| Hukusima | | 3·9 | 214 | e 1 0 | + 1 | 1 48 | + 4 |
| Inawasiro | | 4·2 | 217 | e 1 3 | 0 | — | — |
| Shirakawa | | 4·6 | 213 | e 1 29 | +20 | 2 14 | +13 |
| Mito | | 5·1 | 206 | e 1 15 | − 1 | 2 14 | 0 |
| Utunomiya | | 5·2 | 212 | e 1 18 | + 1 | — | — |
| Kumagaya | | 5·7 | 213 | e 1 26 | + 2 | 2 39 | +11 |
| Tokyo | | 6·0 | 206 | 1 26 | − 2 | — | — |
| Kohu | | 6·5 | 216 | e 1 37 | + 2 | — | — |

July 7d. 1h. 38m. 1s. Epicentre 37°·1N. 68°·4E.

A = +·2943, B = +·7434, C = +·6006 ; $\delta$ = −2 ; $h$ = −1 ;
D = +·930, E = −·368 ; G = +·221, H = +·558, K = −·800.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kulyab | 1·4 | 54 | i 0 13? | −14 | e 0 33? | −13 | — | — | — |
| Stalinabad | 1·5 | 11 | i 0 29 | − $1_g$ | i 0 50 | $0_g$ | — | — | — |
| Obi-garm | 1·9 | 32 | e 0 37 | − $1_g$ | e 1 0 | + 1 | — | — | — |
| Garm | 2·4 | 38 | e 0 46 | − $2_g$ | e 1 16 | + 1* | — | — | — |
| Khorog | 2·6 | 82 | e 0 49 | + 2* | i 1 23 | + 2* | — | — | — |
| Samarkand | 2·8 | 337 | 0 49 | + 2 | 1 25 | + 3 | — | — | — |
| Dzhergetal | 3·1 | 45 | e 0 55 | − 1* | e 1 39 | + 3* | — | — | — |
| Fergana | 4·2 | 38 | e 1 17 | + 2* | e 2 21 | + $2_g$ | — | — | — |
| Tashkent | 4·3 | 9 | — | — | i 2 27 | + $5_g$ | — | — | — |
| Andijan | 4·8 | 39 | e 1 16 | + 1 | e 2 10? | − 2 | e 2 22 | − 4* | — |
| Tchimkent | 5·3 | 10 | e 1 20 | − 2 | 2 35 | − 6* | — | — | — |
| Quetta | 7·0 | 191 | e 2 48 | S | (e 2 48) | +20 | — | — | — |
| Naryn | 7·3 | 51 | e 1 56 | + 6 | 4 8 | + $7_g$ | — | — | — |
| Frunse | 7·5 | 37 | e 1 53 | 0 | — | — | — | — | — |
| Ashkabad | 8·0 | 279 | 1 59 | − 1 | e 3 24 | − 9 | — | — | — |
| Almata | 9·0 | 44 | e 2 12 | − 1 | — | — | — | — | — |
| Almata II | 9·2 | 45 | e 2 14 | − 2 | — | — | — | — | — |
| Przhevalsk | 9·4 | 52 | e 2 21 | + 3 | — | — | — | — | — |
| Ili | 9·5 | 41 | e 2 17 | − 3 | — | — | — | — | — |
| New Delhi | 11·2 | 136 | e 2 43? | − 1 | e 4 58 | + 6 | 5 24 | SSS | 4·8 |

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July 7d. 2h. 48m. 8s. Epicentre 35°·1N. 138°·4E.

Intensity IV at Shizuoka, Ajiro, Okitu, Okoti, and Matusaki; II-III at Misima, Hunatu, Iida, Hikone, Ugusu, Ito, Hirata, and Manazuru.
Epicentre as adopted. Macroseismic radius 100-200km.
Seismo. Bull. of Cent. Met. Obs., Japan, for July, 1952, Tokyo, 1952, p. 266, with macroseismic chart.

A = −·6132, B = +·5444, C = +·5724; $\delta$ = +3; $h$ = 0;
D = +·664, E = +·748; G = −·428, H = +·380, K = −·820.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Shizuoka | | 0·1 | 180 | i 0 4 a | 0* | 0 6 | − 1* |
| Misima | | 0·4 | 88 | i 0 9 k | + 1 g | 0 15 | − 1* |
| Hunatu | | 0·5 | 37 | 0 10 | 0 g | 0 22 | − 1 |
| Kohu | N. | 0·5 | 14 | i 0 12 | − 2 | 0 21 | − 2 |
| Omaesaki | | 0·5 | 197 | 0 10 | 0 g | 0 18 | − 1* |
| Ajiro | | 0·6 | 95 | i 0 11 | − 1 g | 0 20 | 0 g |
| Iida | | 0·6 | 312 | e 0 12 | 0 g | 0 20 | 0 g |
| Hamamatu | | 0·7 | 236 | i 0 11 | − 3 g | 0 20 | − 3 g |
| Osima | | 0·9 | 113 | e 0 16 | − 2 g | 0 29 | − 1 g |
| Yokohama | | 1·1 | 72 | 0 21 | − 1 | — | — |
| Matumoto | E. | 1·2 | 343 | i 0 24 | 0 | 0 39 | − 2 |
| Mera | | 1·2 | 99 | 0 21 | − 3 | 0 34 | − 7 |
| Nagoya | | 1·2 | 273 | 0 21 | − 3 | 0 35 | − 6 |
| Oiwake | | 1·2 | 6 | e 0 27 | + 3 | 0 42 | + 1 |
| Kumagaya | | 1·3 | 37 | 0 25 | 0 | 0 45 | + 1 |
| Tokyo | | 1·3 | 62 | e 0 24 | − 1 | 0 39 | − 5 |
| Gihu | | 1·4 | 283 | 0 25 | − 2 | 0 40 | − 6 |
| Maebasi | | 1·4 | 22 | e 0 27 | 0 | 0 46 | 0 |
| Matusiro | | 1·5 | 354 | e 0 26 | − 2 | 0 45 | − 4 |
| Kameyama | | 1·6 | 261 | 0 30 | 0 | 0 51 | 0 |
| Nagano | E. | 1·6 | 354 | e 0 29 | − 1 | 0 49 | − 2 |
| Hikone | | 1·8 | 275 | 0 33 | + 1 | 0 56 | 0 |
| Tsuruga | | 2·0 | 286 | 0 34 | − 1 | 0 59 | − 3 |
| Mito | | 2·1 | 52 | e 0 40 | + 3 | 1 7 | + 3 |
| Owase | | 2·1 | 240 | e 0 38 | + 1 | 1 2 | − 2 |
| Kyoto | | 2·2 | 268 | e 0 38 | 0 | 1 5 | − 1 |
| Kobe | | 2·7 | 261 | 0 54 | 0 g | 1 20 | + 1 |
| Wakayama | | 2·8 | 252 | e 1 4 | + 8 g | 1 39 | + 7 g |
| Toyooka | | 3·0 | 279 | e 0 54 | 0* | 1 25 | − 2 |
| Takamatu | | 3·7 | 259 | 1 9 | + 3* | 2 10 | + 8 g |
| Fayetteville | z. | 94·0 | 40 | i 17 22 | PP | — | — |

July 7d. 2h. 52m. 59s. Epicentre 54°·2N. 164°·5W. (as on 1950, February 18d.).

A = −·5662, B = −·1570, C = +·8092; $\delta$ = +4; $h$ = −6;
D = −·267, E = +·964; G = −·780, H = −·216, K = −·588.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Mitchell Field | | 7·6 | 258 | i 1 53 | − 2 | i 3 13 | −10 | — | — | — |
| College | | 13·6 | 31 | 3 18 | + 1 | 6 7 | SS | — | — | — |
| Klyuchi | | 19·8 | 290 | i 4 33 | − 2 | 8 2 | −11 | — | — | — |
| Petropavlovsk | | 21·7 | 282 | e 4 53? | − 2 | — | — | — | — | — |
| Victoria | | 26·0 | 86 | i 5 36 k | 0 | — | — | — | — | — |
| Seattle | | 27·1 | 87 | e 5 49 | + 3 | e 11 38 | SS | e 6 30 | PP | — |
| Shasta | z. | 31·0 | 98 | i 6 21 | 0 | i 6 36 | ? | e 7 33 | PPP | — |
| Mineral | z. | 31·7 | 98 | i 6 26 | − 1 | i 6 35 | ? | i 9 15 | PcP | — |
| Uglegorsk | | 32·9 | 283 | e 6 43? | + 5 | — | — | — | — | — |
| Berkeley | | 33·0 | 102 | i 6 38 | − 1 | e 12 1 | + 4 | — | — | e 14·0 |
| Reno | z. | 33·3 | 96 | e 6 41 k | 0 | — | — | — | — | — |
| Resolute Bay | | 33·4 | 26 | 6 44 | + 2 | 12 4 | + 1 | 17 2 | ScS | 14·1 |
| Yuzno-Sakhlinsk | | 33·6 | 280 | e 6 41 | − 3 | — | — | — | — | — |
| Lick | z. | 33·7 | 102 | i 6 44 k | − 1 | e 8 15 | PPP | i 9 22 | PcP | — |
| Fresno | z. | 35·2 | 100 | e 6 56 k | − 2 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tinemaha | | 35·8 | 99 | i 7 2k | − 1 | e 12 48 | + 7 | — | — | — |
| China Lake | | 37·1 | 99 | i 7 13k | − 1 | e 13 3 | + 2 | e 13 16 | ScP | e 16·8 |
| Pasadena | | 37·9 | 101 | i 7 20k | 0 | e 13 19 | + 6 | i 8 38 | PP | e 17·7 |
| Riverside | z. | 38·5 | 101 | i 7 24 | − 2 | — | — | — | — | — |
| Boulder City | | 38·6 | 97 | i 7 26 | 0 | — | — | i 7 35 | ? | — |
| Palomar | | 39·3 | 102 | i 7 30k | − 2 | — | — | — | — | — |
| Kabansk | | 49·9 | 306 | e 8 56 | − 1 | — | — | — | — | — |
| Kirkland Lake | z. | 50·3 | 60 | e 8 59 | − 1 | — | — | — | — | — |
| Fayetteville | z. | 50·6 | 80 | i 8 59a | − 3 | i 10 46 | PP | e 12 15 | ? | — |
| Irkutsk | | 50·9 | 307 | e 9 3 | − 2 | — | — | — | — | — |
| Kyakhta | | 51·1 | 305 | e 9 4 | − 2 | — | — | — | — | — |
| Scoresby Sund | | 52·7 | 15 | — | — | e 17 4 | +18 | 21 37 | SSS | 29·0 |
| Cleveland | z. | 54·0 | 66 | i 9 26a | − 2 | — | — | i 11 44 | PP | — |
| Ottawa | | 54·3 | 60 | i 9 29k | − 1 | 17 7 | 0 | 10 33 | PcP | 28·3 |
| Buffalo | | 54·4 | 63 | e 9 30 | − 1 | — | — | — | — | — |
| Shawinigan Falls | N. | 55·0 | 56 | i 9 35 | 0 | — | — | — | — | — |
| Morgantown | | 56·1 | 67 | i 9 42 | − 1 | — | — | e 10 36 | PcP | — |
| Kiruna | | 58·2 | 357 | i 9 57 | − 1 | i 13 33 | ? | i 10 10 | ? | e 29·0 |
| Palisades | | 58·4 | 62 | e 9 59 | − 1 | e 18 4 | + 2 | — | — | e 30·3 |
| City College, N.Y. | | 58·5 | 62 | e 9 58 | − 2 | e 18 4 | + 1 | — | — | — |
| Fordham | | 58·5 | 62 | e 9 59 | − 1 | e 18 9 | + 6 | — | — | — |
| Harvard | | 58·5 | 59 | e 9 59k | − 1 | e 18 21 | PS | — | — | e 28·1 |
| Weston | | 58·7 | 59 | i 10 0k | − 2 | e 18 4 | − 2 | — | — | — |
| Tacubaya | | 60·1 | 97 | i 10 11a | 0 | — | — | — | — | — |
| Sverdlovsk | | 63·4 | 334 | 10 34 | 0 | 19 2 | − 4 | — | — | — |
| Upsala | z. | 66·3 | 359 | i 10 53a | + 1 | i 10 57 | ? | i 11 29 | PcP | — |
| Moscow | | 68·9 | 347 | e 11 9 | 0 | — | — | — | — | — |
| Almata | | 69·7 | 317 | i 11 14 | 0 | — | — | — | — | — |
| Bermuda | | 69·7 | 62 | i 11 13 | − 1 | e 20 19 | − 3 | e 11 25 | pP | e 35·7 |
| Copenhagen | | 70·4 | 3 | i 11 20 | + 2 | — | — | — | — | — |
| Rybach'e | | 70·7 | 317 | — | — | e 20 42? | + 8 | — | — | — |
| Frunse | | 70·9 | 318 | i 11 21 | 0 | 20 31 | − 5 | — | — | — |
| Tchimkent | | 73·3 | 322 | — | — | i 21 5 | + 1 | — | — | — |
| Andijan | | 73·6 | 318 | i 11 36 | − 1 | — | — | — | — | — |
| Fergana | | 74·2 | 318 | e 11 39 | − 1 | — | — | — | — | — |
| Tashkent | | 74·3 | 321 | — | — | i 21 15 | 0 | — | — | — |
| Collmberg | z. | 74·9 | 2 | e 11 44 | 0 | — | — | e 12 19 | ? | — |
| Jena | | 75·2 | 3 | e 11 46 | 0 | e 12 24 | ? | e 13 27 | ? | — |
| Lwow | | 76·1 | 354 | e 11 53 | + 2 | e 21 38 | + 3 | — | — | — |
| Prague | | 76·1 | 1 | e 11 58 | + 7 | e 13 45 | ? | e 15 42 | ? | — |
| Samarkand | | 76·6 | 322 | e 11 55 | + 1 | e 21 39 | − 1 | — | — | — |
| Paris | | 76·8 | 10 | i 11 56 | + 1 | e 12 14 | PcP | e 31 38 | Q | e 38·0 |
| Stuttgart | | 77·3 | 5 | e 11 58 | 0 | — | — | — | — | e 49·0 |
| Strasbourg | | 77·4 | 6 | e 12 0 | + 2 | e 12 11 | PcP | e 12 55 | ? | — |
| Uzhgorod | | 77·4 | 355 | e 12 0 | + 2 | e 21 50 | + 1 | — | — | — |
| Cernauti | | 77·5 | 352 | e 12 1 | + 2 | — | — | — | — | — |
| Kishinev | | 78·5 | 351 | e 12 6 | + 2 | — | — | — | — | — |
| Piatigorsk | | 79·4 | 341 | 12 11 | + 2 | — | — | — | — | — |
| Grozny | | 79·5 | 339 | e 12 10 | 0 | — | — | — | — | — |
| Clermont-Ferrand | | 79·9 | 10 | e 12 14 | + 2 | — | — | — | — | — |
| San Juan | | 80·1 | 73 | i 12 12 | − 1 | — | — | — | — | — |
| Triest | | 80·5 | 1 | e 12 16 | + 1 | e 22 25? | + 3 | e 12 25 | PcP | — |
| Zugdidi | | 81·0 | 341 | e 12 25 | PcP | — | — | — | — | — |
| Gori | | 81·1 | 339 | 12 21 | + 3 | — | — | — | — | — |
| Tiflis | | 81·2 | 338 | 12 21 | + 2 | e 22 32 | + 3 | — | — | — |
| Belgrade | z. | 81·3 | 357 | e 12 20k | 0 | e 12 31 | PcP | e 13 21 | ? | — |
| Shemakha | | 81·3 | 335 | e 12 30? | +10 | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 81·5 | 339 | e 12 25 | + 4 | — | — | — | — | — |
| Abastumanj | | 81·6 | 339 | e 12 22 | + 1 | — | — | — | — | — |
| Florence | | 82·3 | 4 | i 12 23 | − 2 | e 22 46 | + 6 | — | — | e 40·4 |
| Goris | | 83·0 | 335 | e 12 29 | + 1 | e 22 51 | + 4 | — | — | — |
| Rome | | 84·2 | 2 | e 12 28 | − 6 | e 22 59 | 0 | — | — | e 41·9 |
| Ksara | | 90·6 | 343 | — | — | e 24 17 | +17 | e 33 22 | SSS | — |
| Tamanrasset | z. | 102·8 | 9 | e 18 23 | PP | — | — | — | — | 50·6 |
| Pretoria | z. | 150·1 | 336 | i 20 22 | $PKP_2$ | — | — | — | — | — |
| Pietermaritzburg | z. | 153·2 | 330 | i 20 2? | [+10] | — | — | — | — | — |
| Kimberley | z. | 153·7 | 341 | e 19 54 | [+ 1] | — | — | i 20 8 | $PKP_2$ | — |

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July 7d. 4h. 43m. 53s. Epicentre 42°·6N. 145°·0E. (as on 1938, August 10d.).

Intensity V at Kusiro and Shiranuka; IV at Akan, Arekinai, Nisisumbetu, and Kanebetu; II-III at Nemuro, Kawayu, and Nuibetu. Epicentre 42°·5N. 144°·8E. Macroseismic radius 100-200km.
Seismo. Bull. of Cent. Met. Obs., Japan, for July, 1952, Tokyo, 1952, p. 267, with macroseismic chart.

A = −·6048, B = +·4235, C = +·6744; $\delta = -5$; $h = -3$;
D = +·574, E = +·819; G = −·552, H = +·387, K = −·738.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Kusiro | | 0·6 | 311 | i 0 21 | + 6 | 0 28 | + 2 |
| Nemuro | | 0·8 | 30 | e 0 28 | +10 | 0 39 | + 8 |
| Abashiri | | 1·5 | 340 | 0 35 | + $5_g$ | 0 53 | + $3_g$ |
| Urakawa | | 1·7 | 255 | e 0 34 | $0_g$ | 0 54 | 0 |
| Sapporo | | 2·7 | 280 | e 0 49 | 0* | 1 25 | + 1* |
| Hatinohe | | 3·3 | 231 | e 0 55 | + 2 | 1 28 | − 7 |
| Mori | E. | 3·3 | 262 | 0 56 | + 3 | 1 33 | − 2 |
| Aomori | | 3·6 | 241 | e 1 3 | − 1* | 1 50 | − 1* |
| Miyako | | 3·7 | 218 | e 1 8 | + 2* | 1 40 | − 5 |
| Morioka | | 4·1 | 225 | e 1 8 | + 3 | 1 48 | − 7 |
| Mizusawa | | 4·6 | 221 | 1 19 | − 3* | 2 0 | − 7 |
| Sendai | E. | 5·3 | 217 | e 1 38 | + 5* | 2 20 | − 5 |
| Hukusima | | 6·0 | 217 | e 1 53 | − $7_g$ | 2 53 | +10 |
| Upsala | Z. | 69·1 | 335 | i 11 10 a | 0 | — | — |
| Fayetteville | Z. | 84·9 | 44 | e 12 38 | 0 | — | — |

July 8d. 0h. 59m. 22s. Epicentre 41°·5N. 130°·5E. Depth of focus 0·090. (as on 1949, April 5d.).

A = −·4879, B = +·5712, C = +·6601; $\delta = +5$; $h = -2$;
D = +·760, E = +·649; G = −·429, H = +·502, K = −·751.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | s. |
| Wazima | | 6·4 | 128 | e 1 48 | + 3 | e 3 13 | + 4 | — | — |
| Toyama | Z. | 7·1 | 131 | 1 54 | + 2 | e 2 32 | −48 | — | — |
| Nagano | N. | 7·7 | 127 | e 1 58 | + 1 | 3 31 | + 1 | — | — |
| Takamatu | | 7·7 | 158 | 2 4 | + 7 | 3 41 | +11 | — | — |
| Matusiro | | 7·8 | 127 | e 1 58 | 0 | e 3 32 | 0 | — | — |
| Aomori | | 7·8 | 92 | e 1 53 | − 5 | — | — | — | — |
| Oiwake | | 8·1 | 127 | e 1 53 | − 8 | — | — | — | — |
| Nagoya | | 8·1 | 139 | e 2 5 | + 4 | — | — | — | — |
| Iida | | 8·3 | 134 | e 2 7 | + 4 | e 3 45 | + 4 | — | — |
| Morioka | | 8·3 | 99 | e 1 58 | − 5 | e 3 29 | −12 | — | — |
| Maebasi | | 8·4 | 125 | e 2 4 | 0 | — | — | — | — |
| Mizusawa | E. | 8·4 | 102 | 2 1 | − 3 | 2 44 | −58 | — | — |
| Hukusima | | 8·5 | 113 | e 2 3 | − 1 | 3 48 | + 4 | — | — |
| Kohu | | 8·6 | 130 | e 2 8 | + 3 | e 3 45 | − 1 | — | — |
| Sendai | | 8·6 | 109 | e 2 1 | − 4 | e 3 36 | −10 | — | — |
| Shirakawa | | 8·7 | 117 | e 2 4 | − 2 | e 3 42 | − 6 | — | — |
| Kumagaya | | 8·8 | 125 | e 2 14 | + 7 | e 3 46 | − 3 | — | — |
| Utunomiya | | 8·8 | 121 | e 2 3 | − 4 | e 3 40 | − 9 | — | — |
| Miyako | | 8·9 | 98 | e 2 3 | − 5 | e 3 38 | −13 | — | — |
| Urakawa | | 9·2 | 82 | e 2 2 | − 9 | e 3 40? | −16 | — | — |
| Misima | | 9·2 | 131 | e 2 11 | 0 | e 3 57 | + 1 | — | — |
| Tukubasan | | 9·2 | 122 | e 2 8 | − 3 | e 3 48 | − 8 | — | — |
| Mito | | 9·3 | 120 | e 2 8 | − 4 | e 3 52 | − 6 | — | — |
| Onahama | | 9·3 | 116 | e 2 15 | + 3 | i 3 53 | − 5 | — | — |
| Tokyo | N. | 9·3 | 126 | e 2 16 | + 4 | e 3 56 | − 2 | — | — |
| Osima | | 9·7 | 131 | e 2 17 | + 1 | e 3 55 | −10 | — | — |
| Nanking | Z. | 13·3 | 228 | e 3 10 | +19 | i 5 35 | +26 | — | — |
| College | | 50·0 | 34 | i 7 57 | − 5 | — | — | i 9 44 | pP |
| Kiruna | Z. | 59·1 | 335 | i 9 6k | 0 | i 11 25 | PP | i 10 57 | pP |
| Victoria | | 69·2 | 44 | i 10 7a | − 2 | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Copenhagen | | 69·9 | 328 | i 10 15 | + 2 | — | — | i 12 59 | PP |
| Brisbane | z. | 71·7 | 159 | i 10 32 | + 8 | — | — | i 10 41 | ? |
| Collmberg | z. | 72·8 | 325 | e 10 32 | + 2 | e 11 5 | PcP | e 13 15 | PP |
| Jena | | 73·7 | 324 | e 10 38 | + 3 | e 11 27 | PcP | e 12 35 | pP |
| Hungry Horse | | 74·0 | 39 | i 10 33 | − 3 | — | — | — | — |
| Witteveen | z. | 74·3 | 329 | i 10 42 | + 4 | — | — | — | — |
| Shasta | z. | 74·9 | 49 | i 10 41a | − 1 | — | — | e 12 40 | pP |
| Mineral | z. | 75·6 | 49 | i 10 44a | − 1 | — | — | — | — |
| Butte | | 76·3 | 40 | e 10 48 | − 1 | — | — | — | — |
| Stuttgart | | 76·3 | 324 | i 10 52k | + 3 | — | — | e 12 53 | pP |
| Berkeley | z. | 76·9 | 51 | i 10 52a | 0 | — | — | — | — |
| Strasbourg | | 77·1 | 325 | e 10 40 | −14 | — | — | i 10 57 | P |
| Reno | z. | 77·1 | 49 | e 10 54a | 0 | — | — | — | — |
| Lick | z. | 77·6 | 51 | i 10 56a | 0 | — | — | — | — |
| Fresno | z. | 79·1 | 50 | e 11 3a | − 1 | — | — | — | — |
| Paris | | 79·1 | 328 | i 11 5 | + 1 | e 11 54 | ? | i 13 7 | pP |
| Tinemaha | z. | 79·7 | 49 | i 11 8a | + 1 | — | — | — | — |
| China Lake | z. | 81·0 | 49 | i 11 13a | − 1 | — | — | i 13 15 | pP |
| Pasadena | | 81·8 | 51 | i 11 18 | 0 | — | — | e 11 22 | P |
| Boulder City | | 82·4 | 48 | i 11 22 | + 1 | — | — | — | — |
| Riverside | z. | 82·4 | 51 | i 11 21a | 0 | — | — | — | — |
| Palomar | z. | 83·1 | 51 | i 11 23 | − 1 | — | — | — | — |
| Kirkland Lake | z. | 86·7 | 20 | e 11 42 | 0 | — | — | — | — |
| Tucson | | 87·4 | 48 | i 11 46 | + 1 | — | — | — | — |
| Ottawa | | 90·4 | 19 | i 11 58 | − 1 | — | — | — | — |
| Fayetteville | z. | 92·6 | 35 | i 12 10a | + 1 | — | — | e 14 15 | pP |
| Harvard | | 94·0 | 16 | i 12 16a | 0 | — | — | — | — |
| Weston | | 94·2 | 16 | e 12 19k | + 3 | — | — | — | — |
| Tamanrasset | z. | 98·2 | 310 | 16 35 | ? | — | — | e 16 49 | PP |

July 8d. 12h. 56m. 25s. Epicentre 36°·4N. 141°·1E. Focus at Base of Superficial Layers. (as on 1952, January 19d.).

Intensity V at Mito, Minato, Manabe, and Ryugasaki; IV at Tukubasan, Tyosi, Kashiwa, Tokyo, Onahama, Kannomineyama, Hitachi, and Hokota. Epicentre 36°·2N. 140°·9E. Depth 30km. Macroseismic radius 200-300km. (Tokyo).
Seismo. Bull. of Cent. Met. Obs., Japan, for July, 1952, Tokyo, 1952, p. 268, with macroseismic chart.

$A = -·6279$, $B = +·5067$, $C = +·5908$; $\delta = +5$; $h = 0$;
$D = +·628$, $E = +·778$; $G = -·460$, $H = +·371$, $K = -·807$.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Mito | | 0·5 | 268 | 0 10k | 0 | 0 17 | − 1 |
| Onahama | z. | 0·6 | 343 | i 0 13 | + 1 | 0 23 | + 2 |
| Tyosi | N. | 0·7 | 196 | i 0 11a | − 2 | 0 17 | − 6 |
| Tukubasan | | 0·8 | 257 | 0 12k | − 3 | 0 21 | − 5 |
| Shirakawa | | 1·0 | 315 | 0 21k | + 3 | 0 33 | + 2 |
| Utunomiya | | 1·0 | 279 | i 0 16k | − 2 | 0 28 | − 3 |
| Kashiwa | | 1·1 | 239 | i 0 16k | − 3 | 0 27 | − 6 |
| Tokyo | z. | 1·3 | 237 | i 0 18k | − 4 | 0 30 | − 8 |
| Kumagaya | | 1·4 | 260 | i 0 21k | − 2 | 0 35 | − 6 |
| Inawasiro | | 1·4 | 326 | e 0 25 | + 2 | 0 49 | + 8 |
| Hukusima | | 1·4 | 339 | i 0 25k | + 2 | 0 44 | + 3 |
| Yokohama | | 1·5 | 231 | 0 22 | − 2 | 0 45 | + 1 |
| Maebasi | | 1·6 | 270 | i 0 25k | − 1 | 0 41 | − 5 |
| Titibu | | 1·7 | 256 | i 0 25 | − 3 | 0 41 | − 8 |
| Mera | | 1·8 | 215 | 0 29 | 0 | — | — |
| Sendai | z. | 1·9 | 355 | 0 32 | + 1 | 0 58 | + 4 |
| Isinomaki | | 2·0 | 1 | 0 34 | + 2 | 1 1 | + 5 |
| Yamagata | | 2·0 | 342 | e 0 33 | + 1 | 1 5 | + 9 |
| Oiwake | N. | 2·1 | 268 | e 0 34 | + 1 | — | — |
| Ajiro | | 2·1 | 230 | 0 33 | 0 | 0 58 | − 1 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Osima | | 2·1 | 221 | e 0 32 | − 1 | 0 54 | − 5 |
| Hunatu | | 2·1 | 245 | 0 33 | 0 | 0 55 | − 4 |
| Kohu | | 2·2 | 249 | e 0 32 | − 3 | 0 55 | − 6 |
| Misima | | 2·2 | 234 | e 0 34 | − 1 | 1 3 | + 2 |
| Sakata | | 2·3 | 238 | 1 5 | S | (1 5) | + 1 |
| Matusiro | | 2·3 | 274 | i 0 35 | − 1 | 1 8 | + 4 |
| Nagano | E. | 2·3 | 277 | 0 36 | 0 | 1 5 | + 1 |
| Takada | | 2·4 | 287 | 0 40 | + 2 | 1 10 | + 4 |
| Matumoto | E. | 2·5 | 266 | i 0 38 | − 1 | 1 5 | − 4 |
| Shizuoka | | 2·6 | 237 | 0 40 | − 1 | 1 11 | 0 |
| Aikawa | | 2·8 | 305 | e 0 41 | − 2 | 1 20 | + 4 |
| Iida | | 2·8 | 252 | e 0 43 | 0 | 1 24 | + 8 |
| Mizusawa | E. | 2·9 | 0 | 0 51 | + 6 | 1 21 | + 2 |
| Omaesaki | | 3·0 | 232 | e 0 50 | + 4 | — | — |
| Takayama | | 3·2 | 265 | e 0 48 | − 1 | — | — |
| Hamamatu | | 3·2 | 239 | e 0 55 | + 6 | — | — |
| Toyama | Z. | 3·2 | 275 | 0 48k | − 1 | 1 33 | + 6 |
| Miyako | | 3·3 | 12 | e 0 54 | + 3 | 1 33 | + 4 |
| Morioka | | 3·3 | 1 | i 0 54a | + 3 | 1 31 | + 2 |
| Hatidyozima | | 3·4 | 198 | e 0 59 | + 7 | — | — |
| Akita | | 3·4 | 346 | e 0 59 | + 7 | 1 40 | + 8 |
| Wazima | | 3·5 | 289 | e 0 53 | 0 | — | — |
| Nagoya | | 3·5 | 250 | e 0 56 | + 3 | 1 32 | − 2 |
| Gihu | | 3·7 | 256 | 1 0 | + 4 | 1 45 | + 6 |
| Hikone | | 4·1 | 255 | 1 4 | + 2 | — | — |
| Kameyama | | 4·1 | 249 | e 1 4 | + 2 | 2 0 | +11 |
| Hatinohe | | 4·1 | 4 | e 1 6 | + 4 | 2 4 | +15 |
| Tsuruga | | 4·2 | 261 | e 1 1 | − 2 | 2 2 | +10 |
| Aomori | | 4·4 | 357 | 1 17 | +11 | 2 6 | + 9 |
| Kyoto | | 4·6 | 254 | e 1 19 | +10 | 2 1 | − 1 |
| Owase | | 4·6 | 242 | e 1 19 | +10 | 2 22 | +20 |
| Osaka | | 4·9 | 252 | e 1 22 | + 9 | 2 42 | +32 |
| Kobe | Z. | 5·1 | 252 | e 1 15 | − 1 | — | — |
| Toyooka | | 5·2 | 262 | e 1 18 | 0 | 2 36 | +19 |
| Wakayama | | 5·3 | 247 | e 1 30 | +11 | 2 30 | +10 |
| Mori | E. | 5·7 | 356 | e 1 29 | + 5 | 2 47 | +17 |
| Urakawa | | 5·9 | 12 | e 1 44 | +17 | 2 44 | + 9 |
| Takamatu | | 6·1 | 252 | 1 50 | +20 | 3 17 | +37 |
| Sapporo | | 6·7 | 1 | e 1 50 | +11 | 3 13 | +18 |
| Hamada | | 7·5 | 260 | e 2 38 | +48 | 3 33 | +18 |
| Kiruna | Z. | 67·0 | 339 | i 10 49 | − 3 | — | — |
| Upsala | Z. | 73·4 | 335 | i 11 29a | − 1 | i 11 46 | PcP |
| Stuttgart | | 85·0 | 330 | e 12 32 | − 1 | — | — |
| Fayetteville | Z. | 91·5 | 42 | i 13 4a | 0 | i 13 16 | pP |

July 8d. 15h. 40m. 4s. Epicentre 18°·6S. 174°·0W.

A = −·9432, B = −·0991, C = −·3170 ; $\delta$ = −6 ; $h$ = +4 ;
D = −·105, E = +·995 ; G = +·315, H = +·033, K = −·948.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. | m. |
| Apia | | 5·2 | 24 | e 1 22 | + 1 | i 2 12 | −10 | — | — | — |
| Karapiro | N. | 21·3 | 204 | e 4 49 | − 1 | — | — | — | — | — |
| Tuai | N. | 21·6 | 200 | e 4 51 | − 3 | e 8 18 | −31 | — | — | — |
| Wellington | | 24·6 | 201 | 5 21 | − 2 | e 9 38 | − 4 | — | — | — |
| Cobb River | E. | 25·1 | 204 | e 5 30 | + 2 | e 9 53 | + 2 | — | — | — |
| Kaimata | N.E. | 26·9 | 204 | e 5 47 | + 2 | — | — | — | — | — |
| Brisbane | Z. | 31·5 | 248 | e 6 26 | 0 | 1 6 33 | ? | i 6 45 | ? | — |
| Berkeley | Z. | 74·3 | 40 | e 11 42 | + 1 | — | — | — | — | — |
| Lick | Z. | 74·3 | 40 | e 11 49 | + 8 | — | — | — | — | — |
| Pasadena | | 74·7 | 45 | 1 11 43 | 0 | — | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Riverside | z. | 75·1 | 45 | e 11 46 | 0 | — | — | e 12 0 | PcP | — |
| Palomar | z. | 75·1 | 47 | i 11 46 | 0 | — | — | — | — | — |
| Fresno | z. | 75·1 | 42 | e 11 46 | 0 | — | — | — | — | — |
| Shasta | z. | 76·0 | 37 | e 11 51 | 0 | — | — | — | — | — |
| China Lake | z. | 76·0 | 44 | i 11 52 | + 1 | — | — | e 12 20 | ? | — |
| Tinemaha | z. | 76·3 | 43 | i 11 54 | + 2 | — | — | — | — | — |
| Mineral | z. | 76·3 | 38 | e 11 52 | 0 | — | — | — | — | — |
| Reno | z. | 76·8 | 40 | e 11 56 | + 1 | — | — | — | — | — |
| Boulder City | | 77·9 | 45 | i 12 3 | + 2 | — | — | — | — | — |
| Victoria | | 80·6 | 32 | 12 18 | + 2 | — | — | — | — | — |
| College | | 85·6 | 11 | 12 42 | + 1 | — | — | — | — | — |
| Fayetteville | z. | 92·9 | 53 | i 13 16a | 0 | — | — | — | — | — |
| La Paz | n. | 99·2 | 111 | 16 53 | ? | — | — | — | — | — |
| Palisades | | 109·5 | 52 | — | — | e 28 35 | PS | — | — | e 51·6 |
| Kiruna | z. | 129·9 | 353 | i 19 13 | [+ 1] | — | — | — | — | — |
| Upsala | z. | 137·9 | 352 | i 19 17 | [−10] | — | — | — | — | — |
| Rathfarnham Castle | | 144·1 | 12 | e 19 46? | [+ 8] | — | — | — | — | e 77·9 |
| Potsdam | | 145·8 | 354 | i 19 46 | [+ 5] | — | — | — | — | — |
| Witteveen | z. | 145·8 | 359 | i 19 46k | [+ 5] | — | — | — | — | — |
| Kew | | 146·8 | 7 | e 19 46 | [+ 4] | — | — | — | — | e 74·9 |
| Collmberg | z. | 146·9 | 352 | i 19 46 | [+ 4] | — | — | e 20 6 | ? | — |
| Raciborzu | z. | 147·1 | 347 | i 19 50 | [+ 7] | — | — | — | — | — |
| Jena | | 147·4 | 352 | e 19 44 | [+ 1] | e 20 40 | ? | i 19 51 | $PKP_2$ | — |
| Prague | | 147·9 | 350 | e 19 54 | [+10] | e 22 24 | ? | e 19 58 | $PKP_2$ | — |
| Ksara | | 149·3 | 307 | e 15 12 | ? | — | — | e 17 28 | ? | — |
| Karlsruhe | z. | 149·6 | 358 | 19 50 | [+ 3] | — | — | e 19 54 | $PKP_2$ | — |
| Paris | | 149·7 | 5 | i 19 56 | $PKP_2$ | e 31 10 | {+54} | e 23 26 | PP | e 72·9 |
| Stuttgart | | 149·8 | 356 | e 19 49 | [+ 2] | i 19 56 | $PKP_2$ | e 20 14 | ? | — |
| Strasbourg | | 150·0 | 357 | e 19 52 | [+ 5] | e 22 8 | ? | i 20 2 | $PKP_2$ | — |
| Istanbul | z. | 150·1 | 324 | e 19 56 | [+ 8] | — | — | — | — | — |
| Triest | z. | 152·3 | 349 | e 19 53 | [+ 2] | — | — | e 20 9 | $PKP_2$ | — |
| Clermont-Ferrand | | 152·8 | 5 | e 19 56 | [+ 4] | — | — | — | — | — |
| Granada | | 159·6 | 23 | 20 29k | [+29] | — | — | 21 11 | $PKP_2$ | 83·7 |
| Tamanrasset | z. | 175·8 | — | e 20 14 | [+ 2] | e 21 54 | $PKP_2$ | e 25 45 | PP | — |

July 8d. 20h. 58m. 37s. Epicentre 36°·2N. 21°·9E.

A = +·7505, B = +·3017, C = +·5880 ; $\delta$ = +2 ; $h$ = −1 ;
D = +·373, E = −·928 ; G = +·546, H = +·219, K = −·809.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Athens | | 2·3 | 40 | e 0 42 | 0* | i 1 8 | − 1 | i 0 45 | $P_g$ | i 1·4 |
| Messina | z. | 5·4 | 293 | e 1 24 | 0 | i 2 30 | + 2 | i 2 38 | S* | — |
| Sofia | | 6·6 | 9 | e 1 45 | + 4 | e 3 31 | +11* | e 4 4 | $S_g$ | — |
| Istanbul | | 7·4 | 47 | e 1 52 | 0 | e 3 10 | − 8 | — | — | — |
| Bucharest | | 8·8 | 20 | — | — | e 3 47 | − 6 | e 4 56 | $S_g$ | e 5·1 |
| Triest | | 11·3 | 329 | e 2 44 | − 2 | e 4 50 | − 4 | e 5 14 | SS | e 6·2 |
| Ksara | | 11·7 | 98 | — | — | e 4 9? | −55 | — | — | — |
| Prague | | 14·9 | 341 | e 3 36 | + 2 | e 6 9 | −11 | e 4 1 | PPP | e 7·8 |
| Stuttgart | | 15·6 | 327 | e 3 44 | + 1 | e 6 53 | SS | e 3 53 | PP | e 9·4 |
| Strasbourg | | 16·2 | 324 | e 3 59 | PP | — | — | e 4 56 | ? | — |
| Collmberg | z. | 16·4 | 340 | e 3 53 | 0 | — | — | e 4 1 | PP | — |
| Jena | | 16·5 | 336 | e 4 7? | PP | — | — | e 4 12? | PPP | — |
| Paris | | 19·0 | 318 | e 4 27 | + 1 | e 8 1 | + 6 | e 4 39 | PP | — |
| Tamanrasset | z. | 19·5 | 231 | e 4 29 | − 2 | — | — | — | — | e 9·4 |
| Copenhagen | | 20·5 | 345 | i 4 43 | + 1 | — | — | — | — | — |
| Upsala | z. | 23·8 | 355 | i 5 14 | − 1 | e 9 29 | + 1 | — | — | — |
| Kiruna | z. | 31·7 | 359 | e 6 24 | − 3 | — | — | — | — | — |

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July 9d. 7h. 37m. 20s. Epicentre 38°·6N. 70°·5E. (as on 1952, June 26d.).

$A = +·2615$, $B = +·7386$, $C = +·6213$; $\delta = -7$; $h = -1$;
$D = +·943$, $E = -·334$; $G = +·207$, $H = +·586$, $K = -·784$.

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Garm | 0·4 | 339 | i 0 8 | $0_g$ | e 0 13 | $0_g$ | — | — |
| Obi-garm | 0·6 | 279 | i 0 16 | + 1 | i 0 28 | + 2 | — | — |
| Dzhergetal | 0·8 | 42 | i 0 12 | − $4_g$ | — | — | — | — |
| Kulyab | 0·9 | 219 | i 0 21 | + 1 | — | — | — | — |
| Stalinabad | 1·4 | 268 | i 0 30 | + $2_g$ | i 0 54 | + 8 | — | — |
| Khorog | 1·4 | 142 | e 0 26 | − 1 | e 0 46 | 0 | — | — |
| Fergana | 2·0 | 29 | e 0 34 | − 1 | e 1 0 | − 2 | — | — |
| Andijan | 2·6 | 34 | i 0 44 | 0 | i 1 19 | + 2 | — | — |
| Tashkent | 2·9 | 341 | e 0 50 | + 2 | e 1 26 | + 2 | — | — |
| Samarkand | 2·9 | 291 | e 0 52 | 0* | — | — | — | — |
| Tchimkent | 3·8 | 352 | e 1 1 | 0 | — | — | — | — |
| Naryn | 5·1 | 54 | e 1 15 | − 5 | i 2 45 | − $3_g$ | — | — |
| Frunse | 5·3 | 35 | e 1 22 | 0 | i 2 15 | −10 | e 1 32 | P* |
| Rybach'e | 5·7 | 46 | i 1 44 | + 4* | 3 4 | − $4_g$ | — | — |
| Almata | 6·8 | 44 | e 1 41 | − 3 | — | — | — | — |
| Almata II | 7·0 | 46 | e 1 46 | 0 | — | — | — | — |
| Ashkabad | 9·6 | 270 | — | — | e 4 7 | − 5 | — | — |

July 9d. 10h. 26m. 30s. Epicentre 35°·6N. 140°·0E. Depth of focus 0·005.
(as on 1952, June 10d.).

Intensity IV at Tokyo, Machida, Setagaya, and Ageo; II-III at Tukubasan, Onagigawa, Nishiikuta, Sengokubara, Ninomiya, and Nikko. Epicenrre 35°·5N. 139°·5E. Depth 55km. Macroseismic radius 100-200km. (Tokyo).
Seismo. Bull. of Cent. Met. Obs., Japan, for July, 1952, Tokyo, 1952, p. 269, with macroseismic chart.

$A = -·6243$, $B = +·5239$, $C = +·5795$; $\delta = +4$; $h = 0$;
$D = +·643$, $E = +·766$; $G = -·444$, $H = +·373$, $K = -·815$.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Tokyo | z. | 0·2 | 298 | i 0 11 | 0 | 0 18 | − 1 |
| Yokohama | | 0·3 | 240 | i 0 13 | + 1 | 0 21 | + 1 |
| Tukubasan | | 0·6 | 7 | e 0 18 | + 4 | 0 28 | + 3 |
| Tyosi | N. | 0·7 | 79 | e 0 26 | S | (e 0 26) | − 1 |
| Mera | | 0·7 | 191 | 0 18 | + 3 | 0 27 | 0 |
| Titibu | | 0·8 | 297 | e 0 27 | S | (e 0 27) | − 2 |
| Kumagaya | z. | 0·8 | 318 | i 0 15 | − 2 | 0 25 | − 4 |
| Mito | | 0·9 | 26 | e 0 22 | + 4 | 0 36 | + 5 |
| Ajiro | | 0·9 | 233 | e 0 24 | + 6 | — | — |
| Misima | E. | 1·0 | 241 | e 0 12 | − 7 | 0 27 | − 6 |
| Osima | | 1·0 | 211 | e 0 19 | 0 | 0 29 | − 4 |
| Utunomiya | | 1·0 | 354 | e 0 19 | 0 | 0 34 | + 1 |
| Maebasi | | 1·1 | 317 | i 0 20 | 0 | 0 32 | − 4 |
| Kohu | | 1·2 | 272 | e 0 20 | − 2 | 0 30 | − 8 |
| Oiwake | | 1·4 | 302 | i 0 25 | + 1 | — | — |
| Onahama | | 1·5 | 29 | e 0 44 | S | (e 0 44) | − 1 |
| Nagano | N. | 1·8 | 306 | e 0 30 | 0 | — | — |
| Sendai | | 2·8 | 15 | e 0 55 | +11 | 1 30 | +13 |

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July 9d. 11h. 42m. 35s. Epicentre 36°·9N. 70°·8E. Depth of focus 0·025.
(as on 1952 May 28d.).

A = +·2636, B = +·7570, C = +·5978 ; $\delta$ = −10; $h$ = −1 ;
D = +·944, E = −·329 ; G = +·197, H = +·565, K = −·802.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Khorog | | 0·9 | 48 | i 0 27 | − 1 | i 0 49 | − 3 | — | — |
| Garm | | 2·1 | 350 | i 0 37 | − 2 | e 1 9 | − 1 | — | — |
| Obi-garm | | 2·2 | 335 | i 0 38 | − 3 | i 1 9 | − 3 | — | — |
| Dzhergetal | | 2·3 | 8 | i 0 43 | + 1 | i 1 18 | + 4 | — | — |
| Stalinabad | | 2·3 | 316 | i 0 42 | 0 | i 1 15 | + 1 | — | — |
| Fergana | | 3·6 | 12 | 0 57 | 0 | i 1 42 | + 1 | — | — |
| Andijan | | 4·0 | 17 | e 1 3 | + 1 | i 1 53 | + 3 | — | — |
| Tashkent | | 4·6 | 346 | e 1 11 | + 1 | i 2 5 | + 1 | — | — |
| Tchimkent | | 5·5 | 351 | 1 22 | 0 | 2 25 | 0 | — | — |
| Naryn | | 6·1 | 40 | — | — | i 2 41 | + 2 | — | — |
| Frunse | | 6·6 | 25 | e 1 37 | + 1 | i 2 53 | + 3 | — | — |
| Rybach'e | | 6·9 | 35 | e 1 41 | + 1 | — | — | — | — |
| Almata | | 7·9 | 35 | e 1 53 | 0 | — | — | — | — |
| Almata II | | 8·1 | 36 | i 1 56 | + 1 | — | — | — | — |
| Przhevalsk | | 8·1 | 44 | e 1 56 | + 1 | — | — | — | — |
| New Delhi | | 9·9 | 145 | e 2 10 | − 9 | 4 10 | + 2 | i 3 59 | S |
| Upsala | z. | 40·7 | 322 | i 7 23a | 0 | — | — | — | — |

July 9d. 18h. 15m. 16s. Epicentre 7°·1N. 82°·4W. (as on 1947, September 15d.).

Felt strongly by the British steamer " Agamemnon " at 7°20′N. 82°20′W. ; intensity II at Balboa Heights. Epicentre 7°·5N. 82°W. (U.S.C.G.S.).

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 50.

A = +·1313, B = −·9839, C = +·1214 ; $\delta$ = +4 ; $h$ = +7 ;
D = −·991, E = −·132 ; G = +·016, H = −·120, K = −·993.

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Balboa Heights | 3·4 | 55 | i 0 55 | 0 | i 1 36 | − 1 | — | — | — |
| Chinchina | 7·0 | 108 | i 1 44 | − 2 | i 3 6 | − 2 | i 1 53 | P* | — |
| Galerazamba | 8·0 | 61 | i 1 58 | − 2 | i 3 32 | − 1 | i 4 1 | S* | — |
| Bogota | 8·6 | 104 | i 2 8 | − 1 | i 3 42 | − 6 | i 4 53 | $S_g$ | — |
| Swan Island | 10·4 | 352 | i 3 6 | +32 | — | — | — | — | — |
| Kingston | 12·2 | 26 | e 3 19 | +21 | e 5 34 | +18 | — | — | — |
| Merida | 15·5 | 334 | e 3 41 | − 1 | e 6 49 | +14 | — | — | — |
| Oaxaca | 17·2 | 310 | e 4 3 | 0 | e 6 51 | −23 | — | — | e 8·6 |
| Vera Cruz | 18·0 | 314 | e 4 22 | + 9 | — | — | — | — | e 9·4 |
| Miami | 18·9 | 5 | i 4 30 | + 6 | e 8 21 | +28 | — | — | — |
| San Juan | 19·5 | 53 | i 4 28 | − 3 | — | — | — | — | e 9·2 |
| Puebla | 19·5 | 309 | e 4 28 | − 3 | e 8 26 | SS | — | — | e 10·1 |
| Rossevelt Roads | 19·8 | 52 | i 4 32 | − 3 | — | — | — | — | 9·7 |
| Huancayo | 20·2 | 161 | i 4 37 | − 2 | i 8 31 | +10 | — | — | e 9·8 |
| Tacubaya | 20·4 | 309 | i 4 45a | + 4 | i 8 35 | +10 | — | — | — |
| Fort de France | 22·2 | 69 | i 4 58 | − 2 | i 9 14 | +14 | — | — | e 11·6 |
| Milton | 23·9 | 350 | i 5 24 | + 8 | e 9 42 | +12 | — | — | — |
| Mobile | 24·1 | 348 | 5 20 | + 2 | e 9 41 | + 7 | — | — | — |
| Manzanillo | 24·4 | 302 | — | — | e 10 49 | SSS | — | — | — |
| Columbia | 26·9 | 2 | i 5 45 | 0 | i 10 41 | +21 | — | — | — |
| La Paz | 27·3 | 148 | i 5 46a | − 2 | i 10 26 | − 1 | i 6 33 | PP | 12·7 |
| Bermuda (Navy) | 30·0 | 31 | i 5 11 | −61 | — | — | — | — | — |
| Bermuda | 30·1 | 31 | i 5 12 | −61 | i 10 16 | −56 | — | — | e 12·7 |
| Fayetteville z. | 30·9 | 342 | i 6 15a | − 5 | e 11 4 | −20 | i 9 19 | PcP | — |
| Lubbock | 32·0 | 329 | 6 28 | − 2 | — | — | e 8 59 | ? | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Morgantown | | 32·5 | 4 | i 6 33 | − 1 | e 11 49 | 0 | — | — | — |
| Philadelphia | | 33·4 | 11 | i 4 53? | ? | e 10 14? | ? | — | — | — |
| Cleveland | | 34·3 | 2 | i 6 51a | + 1 | i 12 15 | − 2 | — | — | — |
| City College, N.Y. | | 34·5 | 12 | i 6 53 | + 1 | e 12 15 | − 5 | — | — | — |
| Fordham | | 34·5 | 12 | i 7 0 | + 8 | e 12 28 | + 8 | — | — | — |
| Palisades | | 34·7 | 12 | i 6 52 | − 2 | i 12 24 | 0 | e 7 52 | PP | e 16·6 |
| Chicago | | 34·9 | 353 | e 6 52 | − 3 | e 11 54 | −33 | — | — | — |
| Buffalo (Larkin) | | 35·9 | 5 | i 7 2 | − 2 | e 12 37 | − 5 | — | — | — |
| Tucson | | 36·5 | 317 | i 7 9 | 0 | e 12 53 | + 2 | e 8 34 | PP | e 15·9 |
| Weston | | 36·6 | 14 | i 7 8k | − 2 | e 12 46 | − 7 | — | — | — |
| Harvard | | 36·6 | 14 | i 7 8k | − 2 | i 12 53 | 0 | — | — | e 17·2 |
| Ottawa | | 38·7 | 8 | i 7 25a | − 2 | 13 22 | − 3 | 9 18 | PPP | 19·7 |
| Shawinigan Falls | N. | 40·3 | 11 | e 7 38 | − 2 | 13 37 | ScP | 9 16 | PP | — |
| Kirkland Lake | Z. | 41·0 | 3 | i 7 44a | − 2 | — | — | i 7 47 | P | — |
| Palomar | Z. | 41·3 | 314 | i 7 50a | + 1 | e 13 42 | ScP | i 9 26 | PP | — |
| Boulder City | | 41·4 | 319 | i 7 50 | 0 | — | — | — | — | — |
| Riverside | | 42·0 | 314 | i 7 55 | + 1 | e 13 45 | ScP | — | — | — |
| Pasadena | | 42·6 | 314 | i 8 0a | + 1 | i 14 29 | + 6 | e 9 39 | PP | e 20·9 |
| China Lake | | 43·1 | 318 | i 8 4a | 0 | e 14 38 | + 8 | e 13 49 | ScP | — |
| Tinemaha | | 44·3 | 318 | i 8 14a | + 1 | e 14 53 | + 5 | — | — | — |
| Fresno | | 45·1 | 317 | e 8 19a | − 1 | e 15 9 | +10 | — | — | — |
| Reno | | 46·6 | 320 | i 8 32a | 0 | e 15 30 | + 9 | — | — | — |
| Lick | Z. | 46·7 | 316 | i 8 32a | 0 | — | — | e 10 24 | PP | — |
| Butte | | 46·7 | 332 | i 8 31 | − 1 | — | — | — | — | — |
| Santa Clara | | 46·9 | 316 | e 8 38 | + 4 | e 15 33 | + 8 | e 18 53 | SS | e 25·8 |
| Buenos Aires | | 47·2 | 152 | e 8 34? | − 2 | 15 27? | − 2 | — | — | — |
| Berkeley | | 47·3 | 316 | e 8 37a | 0 | e 15 31 | 0 | e 10 16 | PP | e 25·3 |
| La Plata | | 47·7 | 152 | 8 38 | − 2 | 15 32 | − 4 | 19 2 | SS | 25·3 |
| Shasta | Z. | 48·9 | 320 | e 8 46a | − 4 | — | — | — | — | — |
| Hungry Horse | | 49·1 | 333 | i 8 50 | − 1 | e 14 13 | ScP | — | — | — |
| Corvallis | Z. | 51·6 | 323 | e 9 11 | + 1 | — | — | — | — | — |
| Seattle | | 52·8 | 327 | i 9 19a | 0 | e 16 49 | + 2 | i 9 28 | pP | — |
| Victoria | | 53·9 | 327 | i 9 25 | − 2 | — | — | — | — | — |
| Angra do Heroismo | E. | 58·7 | 49 | — | — | e 18 24 | PPS | — | — | — |
| Resolute Bay | | 68·0 | 357 | i 11 1a | − 2 | 19 58 | − 4 | 20 44 | PPS | 33·7 |
| College | | 73·4 | 336 | i 11 32 | − 4 | 21 2 | − 3 | 14 15 | PP | e 30·4 |
| Scoresby Sund | | 73·8 | 17 | — | — | e 21 6 | − 3 | — | — | 31·7 |
| Rathfarnham Castle | | 76·1 | 37 | e 11 52 | + 1 | e 21 32 | − 3 | e 30 14 | Q | e 32·7 |
| Malaga | | 76·2 | 53 | i 11 54 | + 2 | e 21 50 | +14 | 14 48 | PP | — |
| Toledo | | 76·6 | 51 | i 11 55 | + 1 | e 21 45 | + 5 | e 34 21 | Q | 35·9 |
| Granada | | 76·9 | 53 | i 11 56k | 0 | i 21 46 | + 3 | 12 16 | PcP | 33·5 |
| Almeria | | 77·8 | 54 | i 12 1 | 0 | i 21 53 | 0 | 15 1 | PP | 39·2 |
| Aberdeen | | 78·9 | 33 | e 14 51 | PP | e 22 2 | − 3 | e 26 46 | SS | e 34·0 |
| Alicante | | 79·4 | 52 | 12 13 | + 4 | e 22 13 | + 3 | 12 23 | PcP | 37·3 |
| Kew | | 79·6 | 39 | i 12 8 | − 2 | i 22 9 | − 3 | — | — | e 33·7 |
| Tortosa | | 80·1 | 50 | 12 13 | 0 | i 22 20 | + 2 | — | — | — |
| Paris | | 81·4 | 42 | i 12 19 | − 1 | i 22 30 | − 1 | i 12 33 | pP | e 36·7 |
| Clermont-Ferrand | | 81·9 | 45 | e 12 21 | − 2 | e 22 38 | + 2 | e 23 50 | PPS | 36·7 |
| Algiers Univ. | Z. | 82·2 | 54 | e 12 21 | − 3 | e 22 48 | + 9 | e 15 27 | PP | 38·7 |
| De Bilt | | 83·0 | 38 | i 12 29 | + 1 | e 22 55 | + 8 | e 15 35 | PP | e 38·7 |
| Basle | | 84·9 | 43 | e 12 16 | −22 | — | — | — | — | — |
| Strasbourg | | 84·9 | 41 | e 12 36 | − 2 | e 23 7 | + 1 | e 12 40 | PcP | 41·0 |
| Karlsruhe | Z. | 85·3 | 41 | 12 38 | − 2 | e 12 42 | PcP | e 16 6 | PP | — |
| Oropa | N. | 85·3 | 44 | e 13 21 | +41 | — | — | — | — | — |
| Tamanrasset | Z. | 85·4 | 68 | i 12 41a | + 1 | e 23 3 | [ 0] | e 15 57 | PP | e 40·7 |
| Zürich | | 85·6 | 43 | e 12 35 | − 6 | e 23 11 | − 2 | — | — | — |
| Stuttgart | | 85·8 | 41 | e 12 40 | − 2 | e 23 14 | − 1 | e 16 4 | PP | e 39·7 |
| Copenhagen | | 87·0 | 34 | e 12 51 | + 3 | 23 29 | + 2 | — | — | 35·7 |
| Jena | | 87·1 | 39 | e 12 48 | − 1 | e 13 1 | PcP | e 16 12? | PP | — |
| Cheb | | 87·7 | 39 | e 12 56 | + 4 | e 23 24 | {− 1} | e 25 9 | PPS | — |
| Florence | | 87·8 | 46 | e 12 55 | + 3 | e 23 37 | + 3 | — | — | — |
| Potsdam | | 87·8 | 37 | e 12 56 | + 4 | i 23 36 | + 2 | e 24 52 | PPS | e 35·7 |
| Kiruna | | 88·4 | 22 | i 12 52 | − 3 | i 23 35 | − 5 | e 30 25 | PKKP | e 36·3 |
| Rome | | 89·0 | 48 | e 12 55 | − 3 | i 23 45 | 0 | e 23 19 | SKS | — |
| Prague | | 89·0 | 39 | e 13 2 | + 4 | e 23 47 | + 2 | e 16 25 | PP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Upsala | | 89·0 | 30 | i 12 55 | − 3 | e 23 11 | [−16] | i 16 28 | PP | e 35·7 |
| Triest | | 89·3 | 44 | e 12 56 | − 3 | i 23 50 | + 2 | e 23 20? | SKS | — |
| Messina | | 91·9 | 51 | e 13 43 | +32 | e 23 43 | [− 1] | e 17 17 | PP | 43·7 |
| Timisoara | | 94·4 | 43 | 14 44? | ? | — | — | 15 44? | ? | 38·7 |
| Uzhgorod | | 94·4 | 40 | e 17 17 | PP | e 24 46 | +13 | — | — | — |
| Pulkovo | | 95·1 | 28 | e 17 14 | PP | e 24 20 | {+ 1} | — | — | — |
| Moscow | | 100·4 | 30 | e 17 51 | PP | — | — | — | — | — |
| Petropavlovsk | | 101·1 | 327 | e 17 53 | PP | — | — | — | — | — |
| Istanbul | | 101·3 | 46 | e 17 59? | PP | e 24 14 | [−19] | e 20 18? | PPP | — |
| Simferopol | | 103·3 | 41 | e 18 26 | PP | e 25 22 | {+ 4} | e 20 26 | PPP | — |
| Yalta | | 103·5 | 41 | e 18 18 | PP | e 24 24 | [−20] | e 27 30 | PS | — |
| Theodosia | | 104·0 | 40 | e 18 26 | PP | e 27 32 | PS | — | — | — |
| Helwan | z. | 106·7 | 56 | e 18 50 | PP | — | — | — | — | — |
| Sotchi | | 107·5 | 40 | e 18 46 | SS | e 24 50 | [−12] | — | — | — |
| Ksara | | 108·9 | 51 | e 18 56 | PP | — | — | — | — | — |
| Piatigorsk | | 109·3 | 38 | e 19 3 | PP | i 25 13 | [+ 4] | 28 23 | PS | — |
| Sverdlovsk | | 109·5 | 21 | e 18 58 | PP | 26 18 | S | e 34 20 | SS | — |
| Abastumauj | | 110·4 | 41 | e 19 4 | PP | — | — | — | — | — |
| Tiflis | | 111·6 | 40 | e 19 17 | PP | e 28 52? | PS | — | — | — |
| Uglegorsk | | 112·0 | 331 | e 18 24 | [−13] | — | — | — | — | — |
| Yuzno-Sakhlinsk | | 113·0 | 329 | e 19 29 | PP | — | — | — | — | — |
| Goris | | 113·8 | 41 | e 19 48 | PP | — | — | — | — | — |
| Irkutsk | | 120·7 | 356 | e 20 14? | PP | — | — | — | — | — |
| Kabansk | | 120·7 | 354 | e 20 17? | PP | e 30 1 | PS | — | — | — |
| Vladivostok | | 121·2 | 331 | e 20 33 | PP | — | — | e 22 52 | PPP | — |
| Kyakhta | | 122·3 | 353 | e 20 23? | PP | — | — | — | — | — |
| Riverview | | 123·9 | 234 | e 31 4 | PS | e 38 2 | SSP | — | — | e 59·0 |
| Tchimkent | | 124·7 | 25 | e 19 1 | [− 1] | — | — | e 20 48 | PP | — |
| Tashkent | | 125·3 | 26 | e 20 48 | PP | — | — | e 23 38 | PPP | — |
| Frunse | | 126·1 | 21 | e 19 12 | [+ 8] | e 26 17 | [+ 8] | e 22 44 | PKS | — |
| Almata | | 126·5 | 18 | e 21 3 | PP | — | — | — | — | — |
| Rybach'e | | 127·0 | 20 | e 19 8 | [+ 2] | — | — | e 20 53 | PP | — |
| Andijan | | 127·1 | 24 | e 19 8 | [+ 2] | e 21 10 | PP | e 23 54 | PPP | — |
| Fergana | | 127·2 | 24 | e 19 9 | [+ 2] | — | — | — | — | — |
| Stalinabad | | 127·3 | 28 | e 19 7 | [ 0] | — | — | — | — | — |
| Obi-garm | | 127·6 | 27 | e 19 22? | [+15] | — | — | — | — | — |
| Dzhergetal | | 127·9 | 26 | e 19 22? | [+14] | — | — | — | — | — |
| Kulyab | | 128·3 | 28 | e 21 20 | PP | — | — | — | — | — |
| Khorog | | 129·5 | 27 | e 19 18 | [+ 7] | — | — | — | — | — |
| Quetta | | 132·8 | 37 | — | — | e 22 54 | PKS | — | — | — |
| Manila | | 148·4 | 314 | e 19 52 | [+ 7] | — | — | — | — | — |

July 9d. 20h. 36m. 46s. Epicentre 7°·1N. 82°·4W. (as at 18h.).

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Balboa Heights | 3·4 | 55 | i 0 55 | 0 | i 1 35 | − 2 | — | — | — |
| Chinchina | 7·0 | 108 | i 1 47 | + 1 | i 3 8 | 0 | i 3 42 | S* | — |
| Galerazamba | 8·0 | 61 | i 2 14 | − 6* | i 3 48 | −14* | i 4 48 | $S_g$ | — |
| Bogota | 8·6 | 104 | i 2 9 | 0 | i 3 41 | + 3 | e 3 4 | ? | — |
| Kingston | 12·2 | 26 | e 3 18 | PPP | 5 48 | SSS | — | — | — |
| Merida | 15·5 | 334 | e 3 45 | + 3 | e 6 54 | SS | — | — | — |
| Oaxaca | 17·2 | 310 | e 4 14 | PP | e 7 58 | SSS | — | — | — |
| Vera Cruz | 18·0 | 314 | e 4 22 | + 9 | — | — | e 4 47 | PPP | e 11·3 |
| San Juan | 19·5 | 53 | i 4 28 | − 3 | — | — | e 8 51 | PcP | — |
| Puebla | 19·5 | 309 | e 4 29 | − 2 | — | — | — | — | — |
| Huancayo | 20·2 | 161 | e 4 40 | + 1 | e 8 32 | +11 | — | — | e 9·9 |
| Tacubaya | 20·4 | 309 | e 4 45 | + 4 | e 8 35 | +10 | e 8 55 | SS | — |
| Fort de France | 22·2 | 69 | e 4 58 | − 2 | i 9 10 | +10 | — | — | e 11·5 |
| Mobile | 24·1 | 348 | 5 17 | − 1 | 9 32 | − 2 | — | — | — |
| Columbia | 26·9 | 2 | i 5 44 | − 1 | — | — | — | — | — |

*Continued on next page*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| La Paz | | 27·3 | 148 | i 5 54 | + 6 | i 10 38 | +11 | i 6 43 | PP | 13·6 |
| Bermuda | | 30·1 | 31 | i 5 21 | −52 | e 10 16 | −56 | — | — | e 13·2 |
| Fayetteville | z. | 30·9 | 342 | i 6 14a | − 6 | i 11 19 | − 5 | e 7 29 | PPP | — |
| Lubbock | | 32·0 | 329 | e 6 28 | − 2 | — | — | e 7 27 | PP | — |
| Morgantown | | 32·5 | 4 | i 6 33 | − 1 | — | — | i 7 42 | PP | — |
| Philadelphia | | 33·4 | 11 | e 4 52? | ? | e 10 14? | ? | — | — | — |
| Cleveland | | 34·3 | 2 | i 6 50k | 0 | i 12 15 | − 2 | — | — | — |
| City College, N.Y. | | 34·5 | 12 | 6 52 | 0 | e 12 19 | − 1 | — | — | — |
| Fordham | | 34·5 | 12 | e 7 2 | +10 | i 12 23 | + 3 | — | — | — |
| Palisades | | 34·7 | 12 | e 7 3 | + 9 | e 12 23 | − 1 | — | — | e 16·5 |
| Buffalo (Larkin) | | 35·9 | 5 | e 6 59 | − 5 | e 12 37 | − 5 | — | — | — |
| Tucson | | 36·5 | 317 | e 7 8 | − 1 | e 12 55 | + 4 | e 8 31 | PP | e 17·1 |
| Weston | | 36·6 | 14 | i 7 9a | − 1 | e 12 53 | 0 | — | — | — |
| Harvard | | 36·6 | 14 | i 7 9a | − 1 | i 12 54 | + 1 | — | — | e 17·7 |
| Ottawa | | 38·7 | 8 | i 7 25a | − 2 | 13 18 | − 7 | 9 1 | PP | 19·6 |
| Shawinigan Falls | N. | 40·3 | 11 | e 7 38 | − 2 | — | — | — | — | — |
| Kirkland Lake | z. | 41·0 | 3 | i 7 44a | − 2 | — | — | — | — | — |
| Palomar | z. | 41·3 | 314 | i 7 51 | + 2 | i 15 34 | ? | i 16 21 | ? | — |
| Boulder City | | 41·4 | 319 | i 7 50 | 0 | — | — | e 12 20 | ? | — |
| Riverside | z. | 42·0 | 314 | i 7 54 | 0 | i 12 25 | ? | — | — | — |
| Pasadena | | 42·6 | 314 | i 8 1 | + 2 | i 14 35 | +12 | e 19 32 | Q | e 21·6 |
| China Lake | | 43·1 | 318 | i 8 4 | 0 | e 14 40 | +10 | i 12 35 | ? | — |
| Tinemaha | z. | 44·3 | 318 | i 8 13 | 0 | i 13 53 | ScP | i 12 44 | ? | — |
| Fresno | | 45·1 | 317 | e 8 20k | 0 | e 15 8 | + 9 | — | — | — |
| Reno | | 46·6 | 320 | e 8 32k | 0 | e 15 29 | + 8 | — | — | — |
| Lick | z. | 46·7 | 316 | e 8 32a | 0 | — | — | — | — | — |
| Butte | | 46·7 | 332 | e 8 32 | 0 | — | — | — | — | — |
| Santa Clara | | 46·9 | 316 | e 8 47 | +13 | e 15 39 | +14 | — | — | e 25·8 |
| Berkeley | | 47·3 | 316 | e 8 38a | + 1 | i 15 41 | +10 | e 24 8 | Q | e 26·4 |
| Shasta | z. | 48·9 | 320 | e 8 48k | − 2 | — | — | — | — | — |
| Hungry Horse | | 49·1 | 333 | i 8 51 | 0 | — | — | — | — | — |
| Seattle | | 52·8 | 327 | i 9 19a | 0 | — | — | — | — | — |
| Victoria | | 53·9 | 327 | 9 26 | − 1 | — | — | — | — | — |
| Resolute Bay | | 68·0 | 357 | e 10 59 | − 4 | 19 58 | − 4 | (24 14) | SS | 24·2 |
| College | | 73·4 | 336 | i 11 33 | − 3 | 20 58 | − 7 | — | — | e 31·0 |
| Rathfarnham Castle | | 76·1 | 37 | e 11 43 | − 8 | e 21 24 | −11 | — | — | — |
| Malaga | | 76·2 | 53 | i 11 52 | 0 | e 21 48 | +12 | — | — | — |
| Toledo | | 76·6 | 51 | i 11 56 | + 2 | e 21 51 | +11 | — | — | 35·9 |
| Granada | | 76·9 | 53 | i 12 8a | PcP | i 21 50 | + 7 | 22 20 | PS | 36·4 |
| Almeria | | 77·8 | 54 | 12 7 | + 6 | 22 7 | +14 | 15 7 | PP | 42·6 |
| Aberdeen | | 78·9 | 33 | — | — | e 22 6 | + 1 | — | — | e 35·1 |
| Alicante | | 79·4 | 52 | 12 12 | + 3 | e 22 27 | ScS | — | — | 36·8 |
| Kew | | 79·6 | 39 | e 12 9 | − 1 | e 22 9 | − 3 | — | — | e 33·2 |
| Tortosa | | 80·1 | 50 | i 18 23 | ? | — | — | — | — | e 35·2 |
| Paris | | 81·4 | 42 | e 12 20 | 0 | e 22 31 | 0 | e 15 27 | PP | e 36·2 |
| Clermont-Ferrand | | 81·9 | 45 | e 12 21 | − 2 | e 22 43 | + 7 | e 22 58 | ScS | 38·2 |
| Algiers Univ. | z. | 82·2 | 54 | e 12 22 | − 2 | e 22 39 | 0 | e 15 31 | PP | 37·2 |
| De Bilt | | 83·0 | 38 | e 12 32 | + 4 | e 22 56? | + 9 | — | — | e 38·2 |
| Witteveen | z. | 83·9 | 37 | e 12 34 | + 1 | — | — | — | — | — |
| Strasbourg | | 84·9 | 41 | e 12 42 | + 4 | e 23 6 | 0 | e 12 48 | PcP | e 35·2 |
| Karlsruhe | z. | 85·3 | 41 | e 12 48 | + 8 | — | — | e 13 49 | ? | — |
| Oropa | N. | 85·3 | 44 | e 12 58 | +18 | — | — | — | — | — |
| Tamanrasset | z. | 85·4 | 68 | e 12 41 | + 1 | e 23 13 | + 2 | e 16 3 | PP | 40·2 |
| Stuttgart | | 85·8 | 41 | e 12 43 | + 1 | e 23 16 | + 1 | e 12 52 | PcP | e 40·2 |
| Copenhagen | | 87·0 | 34 | e 12 59 | +11 | 23 29 | + 2 | — | — | 38·2 |
| Jena | | 87·1 | 39 | e 12 49 | 0 | e 13 6 | ? | e 14 38? | ? | — |
| Florence | | 87·8 | 46 | e 13 2 | +10 | e 24 22 | PS | — | — | — |
| Potsdam | | 87·8 | 37 | e 12 56 | + 4 | i 23 38 | + 4 | — | — | e 36·2 |
| Kiruna | | 88·4 | 22 | i 12 54 | − 1 | e 23 41? | + 1 | e 30 28 | PKKP | e 36·2 |
| Rome | | 89·0 | 48 | e 12 56 | − 2 | e 23 46 | + 1 | e 29 42 | SS | — |
| Prague | | 89·0 | 39 | e 13 20 | +22 | e 23 56 | +11 | e 25 32 | PPS | e 43·2 |
| Upsala | z. | 89·0 | 30 | i 12 57 | − 1 | — | — | i 16 30 | PP | — |
| Triest | | 89·3 | 44 | e 12 54 | − 5 | i 23 50 | + 2 | e 13 7 | ? | 42·4 |
| Messina | | 91·9 | 51 | e 13 54 | +43 | 24 20 | + 9 | e 25 28 | PS | — |
| Istanbul | | 101·3 | 46 | — | — | e 24 14? | [−19] | e 27 14? | PS | — |

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July 9d. 20h. 52m. 6s. Epicentre 18°·6S. 174°·0W. (as on 8d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 5·2 | 24 | e 1 20 | − 1 | 2 16 | − 6 | — | — | — |
| Mount Wilson | z. | 74·8 | 45 | e 11 43 | − 1 | — | — | — | — | — |
| Palomar | z. | 75·1 | 47 | e 11 48 | + 2 | — | — | e 12 2 | PcP | — |
| Riverside | z. | 75·1 | 45 | e 11 53 | + 7 | — | — | — | — | — |
| China Lake | z. | 76·0 | 44 | e 11 51 | 0 | — | — | — | — | — |
| Tinemaha | z. | 76·3 | 43 | e 11 53 | + 1 | — | — | — | — | — |
| Fayetteville | z. | 92·9 | 53 | e 13 8 | − 8 | — | — | — | — | — |
| Upsala | z. | 137·9 | 352 | i 21 55 | ? | — | — | i 22 5 | PP | — |
| Potsdam | | 145·8 | 354 | e 19 40 | [− 1] | — | — | — | — | — |
| Witteveen | z. | 145·8 | 359 | i 19 39 | [− 2] | — | — | — | — | — |
| De Bilt | | 146·5 | 0 | i 19 42 | [ 0] | — | — | e 23 4 | PP | — |
| Jena | | 147·4 | 352 | e 19 42 | [− 1] | e 20 14 | ? | e 20 39 | ? | — |
| Prague | | 147·9 | 350 | e 19 45 | [+ 1] | e 21 55 | ? | e 20 8 | $PKP_2$ | — |
| Ksara | | 149·3 | 307 | e 19 40? | [− 6] | — | — | — | — | — |
| Paris | | 149·7 | 5 | e 19 43 | [− 4] | e 19 47 | PKP | e 20 8 | $PKP_2$ | e 81·9 |
| Stuttgart | | 149·8 | 356 | e 19 43 | [− 4] | — | — | — | — | — |
| Strasbourg | | 150·0 | 357 | i 19 50 | [+ 3] | e 20 2 | $PKP_2$ | e 20 24 | ? | — |
| Triest | z. | 152·3 | 349 | e 19 48 | [− 3] | e 20 3 | $PKP_2$ | e 20 21 | ? | — |
| Tamanrasset | z. | 175·8 | — | e 20 20 | [+ 8] | — | — | e 22 1 | $PKP_2$ | — |

July 10d. 15h. 45m. 27s. Epicentre 19°·9S. 179°·0W. Depth of focus 0·100.
(as on 1952, January 10d.).

A = −·9409, B = −·0164, C = −·3384; δ = +8; h = +5;
D = −·017, E = +1·000; G = +·338, H = +·006, K = −·941.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 9·2 | 50 | i 2 14 | + 2 | i 4 0 | + 2 | — | — | — |
| Auckland | N. | 17·7 | 197 | — | — | e 6 8 | −14 | i 12 14 | ? | — |
| Karapiro | N. | 18·6 | 195 | e 3 39 | − 1 | e 6 18 | −19 | 13 43 | ScS | — |
| New Plymouth | E. | 20·0 | 197 | e 6 34 | ? | e 6 57 | − 3 | e 9 2 | ? | — |
| Wellington | | 22·0 | 195 | 4 8 | − 3 | e 7 25 | − 7 | i 13 58 | ScS | — |
| Cobb River | E. | 22·3 | 197 | e 4 13 | − 1 | e 7 30 | − 6 | e 13 55 | ScS | — |
| Kaimata | N.E. | 24·0 | 199 | e 4 26 | − 2 | e 7 54 | − 9 | e 14 3 | ScS | — |
| Christchurch | | 24·6 | 196 | e 4 35 | + 1 | e 7 30 | −42 | 14 11 | ScS | — |
| Brisbane | | 26·7 | 248 | i 4 51 | − 1 | i 8 40 | − 5 | — | — | — |
| Riverview | | 29·9 | 236 | i 5 18k | − 1 | i 9 29 | − 5 | i 12 45 | sS | — |
| Guam | | 48·7 | 309 | i 10 47 | PPP | i 18 2 | SS | — | — | — |
| Osima | | 67·2 | 324 | e 9 51 | − 1 | — | — | — | — | — |
| Misima | | 67·7 | 324 | e 9 53 | − 2 | e 18 0 | − 3 | — | — | — |
| Tokyo | N. | 67·7 | 325 | — | — | e 18 3 | 0 | e 18 57 | ? | — |
| Omaesaki | | 67·8 | 323 | e 9 49 | − 7 | 17 58 | − 6 | — | — | — |
| Manila | | 68·0 | 296 | e 9 56 | − 1 | e 17 58 | − 8 | — | — | — |
| Kumagaya | | 68·2 | 325 | e 10 3 | + 5 | e 18 9 | + 1 | e 12 45 | PP | — |
| Kohu | | 68·3 | 324 | e 9 58 | − 1 | e 18 9 | − 1 | — | — | — |
| Utunomiya | | 68·3 | 326 | — | — | e 18 8 | − 2 | — | — | — |
| Iida | | 68·6 | 323 | — | — | e 18 15 | + 2 | — | — | — |
| Maebasi | | 68·6 | 325 | e 10 0 | − 1 | e 18 9 | − 4 | — | — | — |
| Kameyama | | 68·9 | 322 | e 10 0 | − 2 | — | — | — | — | — |
| Nagoya | | 68·9 | 323 | e 10 5 | + 3 | 18 19 | + 3 | — | — | — |
| Sendai | | 69·0 | 328 | e 10 2 | − 1 | e 18 15 | − 3 | e 12 44 | PP | — |
| Matusiro | | 69·2 | 325 | i 10 2 | − 2 | i 18 17 | − 3 | e 23 18 | SS | — |
| Niigata | | 69·7 | 326 | e 10 13 | + 6 | i 18 45 | ScS | — | — | — |
| Toyama | | 69·8 | 324 | 10 8 | 0 | e 18 27 | + 1 | e 11 20 | ? | — |
| Akita | | 70·5 | 328 | e 10 11 | − 1 | e 18 32 | − 2 | — | — | — |
| Ooita | | 70·8 | 317 | e 10 15 | + 1 | e 18 38 | 0 | — | — | — |
| Kurilsk | | 71·5 | 335 | 10 17 | − 1 | 18 47 | + 1 | — | — | — |
| Mitchell Field | | 71·6 | 2 | i 10 16 | − 2 | — | — | — | — | — |
| Sapporo | | 72·5 | 331 | e 10 23 | 0 | e 18 55 | − 2 | — | — | — |
| Yuzno-Sakhlinsk | | 75·0 | 333 | 10 38 | + 1 | 19 24 | 0 | 12 54 | pP | — |
| Petropavlovsk | | 75·3 | 347 | e 10 37 | − 2 | i 19 22 | − 5 | i 12 55 | pP | — |
| Zô Sè | z. | 76·6 | 310 | i 10 43k | − 3 | e 19 36 | − 4 | i 13 1 | pP | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Uglegorsk | | 76·9 | 335 | i 10 33? | −14 | i 19 28? | −16 | 12 51? | pP | — |
| Vladivostok | | 77·3 | 325 | 10 48 | − 2 | 19 49 | + 1 | 13 7 | pP | — |
| Hong Kong | | 77·6 | 299 | — | — | 19 50 | − 1 | — | — | — |
| Klyuchi | | 77·8 | 350 | — | — | 19 48 | − 5 | — | — | — |
| Santa Clara | | 78·3 | 43 | e 10 57 | + 2 | i 20 3 | + 5 | — | — | — |
| Berkeley | | 78·4 | 43 | i 10 57a | + 2 | i 20 3 | + 4 | e 13 17 | pP | — |
| Lick | z. | 78·5 | 43 | i 10 57a | + 1 | i 13 58 | PP | i 13 18 | pP | — |
| Nanking | | 78·8 | 310 | i 10 57k | − 1 | i 20 3 | 0 | i 13 14 | pP | — |
| Pasadena | | 79·0 | 47 | i 10 59a | + 1 | i 20 10 | + 5 | i 14 9 | PP | — |
| Fresno | | 79·3 | 44 | i 11 1a | + 1 | e 21 13 | SP | e 14 14 | PP | — |
| Riverside | z. | 79·4 | 47 | i 11 2a | + 1 | — | — | — | — | — |
| Palomar | z. | 79·5 | 49 | i 11 3a | + 2 | i 14 15 | PP | i 13 38 | ? | — |
| Shasta | | 80·0 | 40 | i 11 4a | 0 | e 20 18 | + 3 | e 13 27 | pP | — |
| China Lake | z. | 80·3 | 46 | i 11 6a | + 1 | e 20 24 | + 6 | i 14 19 | PP | — |
| Tinemaha | z. | 80·5 | 45 | i 11 8a | + 2 | e 20 27 | + 7 | i 12 48 | pP | — |
| Reno | | 80·9 | 42 | i 11 10a | + 2 | e 20 30 | + 6 | e 40 14 | PKP.SKP | — |
| Corvallis | z. | 81·8 | 37 | i 11 14 | + 1 | — | — | — | — | — |
| Boulder City | | 82·3 | 47 | i 11 16 | + 1 | e 11 56 | ? | e 13 42 | pP | — |
| Tucson | | 83·3 | 52 | i 11 22 | + 2 | e 20 57 | + 9 | i 13 55 | sP | — |
| Victoria | | 84·2 | 34 | i 11 25a | 0 | — | — | — | — | — |
| Seattle | | 84·3 | 35 | i 11 27 | + 2 | e 21 3 | + 6 | i 13 51 | pP | — |
| Tacubaya | | 87·4 | 68 | i 11 46k | + 6 | — | — | — | — | — |
| College | | 87·8 | 12 | i 11 39 | − 3 | e 21 3 | [− 4] | i 14 3 | pP | — |
| Puebla | | 88·1 | 68 | e 11 47 | + 4 | e 30 15 | ? | — | — | — |
| Butte | | 88·9 | 39 | i 11 47 | 0 | — | — | — | — | — |
| Hungry Horse | | 89·2 | 37 | i 11 48 | 0 | e 21 14 | [− 2] | e 21 43 | S | — |
| Vera Cruz | | 90·0 | 69 | i 11 53 | + 1 | — | — | — | — | — |
| Lubbock | | 90·7 | 54 | e 11 55 | 0 | — | — | e 15 38 | PP | — |
| Kabansk | | 96·3 | 323 | — | — | e 21 51 | [− 3] | 22 45 | SKKS | — |
| Fayetteville | z. | 97·4 | 54 | i 12 26a | 0 | e 16 30 | PP | i 14 53 | pP | — |
| Irkutsk | | 97·7 | 323 | 16 43 | PP | 22 55 | + 1 | 21 56 | SKS | — |
| Huancayo | | 98·5 | 106 | e 15 47 | ? | e 25 48 | PS | e 29 5 | PKKP | — |
| La Paz | | 103·1 | 113 | e 12 59 | + 8 | — | — | i 17 27 | PP | — |
| Bogota | | 105·6 | 90 | i 17 31 | PP | i 27 29 | PS | — | — | — |
| Morgantown | | 109·2 | 54 | e 17 15 | [− 1] | — | — | — | — | — |
| Kirkland Lake | z. | 110·4 | 45 | e 17 19 | [ 0] | — | — | — | — | — |
| Buffalo (Larkin) | | 110·7 | 50 | i 18 10 | PP | — | — | — | — | — |
| Ottawa | | 113·1 | 48 | i 17 23 | [ 0] | — | — | — | — | — |
| Almata | | 113·5 | 310 | e 17 23 | [− 1] | i 23 7 | [− 3] | i 18 27 | PP | — |
| Naryn | | 114·0 | 308 | i 18 33 | PP | i 23 11 | [− 1] | — | — | — |
| Rybach'e | | 114·0 | 309 | i 17 24 | [− 1] | i 23 11 | [− 1] | i 24 22 | SKKS | — |
| Frunse | | 115·1 | 309 | e 17 27 | [ 0] | i 23 15 | [− 1] | i 24 29 | SKKS | — |
| Shawinigan Falls | N. | 115·2 | 47 | e 17 44 | [+17] | — | — | — | — | — |
| Harvard | | 115·9 | 51 | i 17 29k | [ 0] | — | — | — | — | — |
| Andijan | | 116·6 | 306 | i 17 29 | [− 1] | i 23 20 | [− 2] | i 24 39 | SKKS | — |
| San Juan | | 117·0 | 78 | i 17 30 | [− 1] | — | — | e 18 54 | PP | — |
| Obi-garm | | 118·6 | 305 | e 17 34 | [ 0] | i 23 27 | [− 2] | e 24 51 | SKKS | — |
| Tchimkent | | 118·8 | 308 | e 17 33 | [− 1] | e 23 28 | [− 2] | e 19 19 | PP | — |
| Tashkent | | 119·0 | 307 | e 19 7 | PP | i 23 29 | [− 1] | i 21 43 | PPP | — |
| Stalinabad | | 119·3 | 304 | e 17 37 | [+ 1] | e 23 32 | [+ 1] | e 24 58 | SKKS | — |
| Bermuda | | 120·5 | 63 | i 16 38 | [−60] | — | — | i 18 20 | ? | — |
| Grahamstown | z. | 121·7 | 206 | i 17 41 | [+ 1] | — | — | — | — | — |
| Pietermaritzburg | z. | 123·2 | 212 | i 17 44 | [+ 1] | — | — | — | — | — |
| Kimberley | z. | 126·5 | 206 | i 17 51 | [+ 2] | — | — | — | — | — |
| Pretoria | z. | 127·6 | 212 | i 17 22? | [−29] | — | — | — | — | — |
| Kiruna | | 130·5 | 351 | i 17 54 | [− 3] | i 24 2 | [− 2] | i 20 19 | SKP | e 44·6 |
| Baku | | 133·7 | 308 | i 20 33 | pPKP | — | — | — | — | — |
| Lenkoran | | 134·8 | 304 | 20 34 | pPKP | — | — | — | — | — |
| Makhach-Kala | | 134·9 | 312 | i 20 45 | PP | — | — | — | — | — |
| Moscow | | 134·9 | 332 | i 18 4 | [− 2] | i 26 35 | SKKS | i 20 35 | pPKP | — |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | L. |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | m. |
| Pulkovo | | 135·0 | 339 | e 18 4 | [− 2] | i 24 12 | [− 2] | i 20 35 pPKP | — |
| Grozny | | 136·0 | 313 | i 20 38 | pPKP | — | — | — — | — |
| Goris | | 136·6 | 306 | e 18 10 | [+ 1] | — | — | e 20 41 pPKP | — |
| Tiflis | | 137·1 | 311 | e 18 10 | [+ 1] | — | — | i 20 42 pPKP | — |
| Gori | | 137·5 | 311 | e 18 12 | [+ 2] | — | — | e 20 45 pPKP | — |
| Piatigorsk | | 137·6 | 314 | i 20 51 | pPKP | 24 24 | [+ 6] | i 26 53 SKKS | — |
| Upsala | z. | 138·4 | 349 | i 18 2k | [−10] | i 20 55 | PP | i 20 44 pPKP | — |
| Abastumanj | | 138·5 | 311 | e 18 17? | [+ 5] | — | — | — — | — |
| Zugdidi | | 138·9 | 312 | e 18 12 | [− 1] | — | — | e 20 49 pPKP | — |
| Sotchi | | 140·0 | 315 | i 18 13 | [− 2] | e 24 27 | [+ 5] | e 27 3 SKKS | — |
| Theodosia | | 142·1 | 320 | i 18 15 | [− 5] | i 27 19 | SKKS | e 21 30 PP | — |
| Simferopol | | 142·9 | 321 | i 18 18 | [− 3] | — | — | — — | — |
| Yalta | | 143·1 | 319 | i 18 19 | [− 2] | e 24 35 | [+ 8] | e 21 56 PKS | — |
| Copenhagen | | 143·2 | 350 | i 18 18 | [− 3] | 24 35 | [+ 8] | i 20 58 pPKP | — |
| Kishinev | | 144·7 | 328 | i 18 25 | [+ 1] | — | — | i 20 53 pPKP | — |
| Lwow | | 145·0 | 334 | i 18 25 | [+ 1] | — | — | — — | — |
| Cernauti | | 145·3 | 331 | 18 25 | [ 0] | — | — | — — | — |
| Ksara | | 146·1 | 302 | i 18 26 | [ 0] | 22 0 | PP | i 21 0 pPKP | — |
| Potsdam | | 146·2 | 347 | i 18 27 | [+ 1] | i 27 44 | SKKS | i 21 6 pPKP | — |
| Rathfarnham C. | z. | 146·2 | 8 | i 18 27a | [+ 1] | e 21 54 | PP | e 20 58 pPKP | — |
| Uzhgorod | | 146·6 | 335 | i 18 26 | [− 1] | — | — | — — | — |
| Raciborzu | | 146·9 | 340 | e 18 26 | [− 1] | e 27 36 | SKKS | e 21 52 PP | — |
| Witteveen | z. | 146·9 | 354 | i 18 27k | [ 0] | i 18 30 | $PKP_3$ | i 21 3 pPKP | — |
| Skalnate Pleso | | 147·0 | 337 | e 18 36 | [+ 9] | e 19 57 | ? | e 21 6 pPKP | — |
| Collmberg | z. | 147·3 | 346 | e 18 26 | [− 1] | i 18 30 | $PKP_2$ | i 21 6 pPKP | — |
| De Bilt | | 147·7 | 355 | i 18 28k | [ 0] | — | — | i 21 1 pPKP | — |
| Jena | z. | 147·9 | 347 | e 18 27 | [− 1] | i 18 32 | $PKP_2$ | 21 1 pPKP | — |
| Istanbul | | 148·1 | 318 | e 18 27 | [− 2] | e 24 19 | [−15] | e 20 59 pPKP | — |
| Prague | | 148·1 | 344 | e 18 29 | [ 0] | e 28 45 | SKKKS | i 21 5 pPKP | — |
| Kew | | 148·5 | 2 | i 18 30 | [+ 1] | i 18 40 | $PKP_3$ | i 21 7 pPKP | — |
| Cheb | | 148·6 | 347 | e 18 35 | [+ 6] | e 18 55 | ? | e 21 10 pPKP | — |
| Ogyalla | | 148·8 | 338 | e 18 42 | $PKP_2$ | e 21 58 | PP | e 21 11 pPKP | — |
| Vienna | | 149·1 | 340 | e 18 31 | [+ 1] | e 21 13 | $pPKP_2$ | e 21 2 pPKP | — |
| Timisoara | | 149·3 | 332 | i 18 38 | $PKP_2$ | e 19 55 | ? | e 21 16 $pPKP_2$ | — |
| Karlsruhe | z. | 150·4 | 350 | i 18 32a | [ 0] | i 18 38 | $PKP_2$ | e 21 12 pPKP | — |
| Stuttgart | | 150·5 | 349 | i 18 32a | [ 0] | e 40 51 | SS | e 21 10 pPKP | — |
| Helwan | | 150·8 | 295 | e 18 33 | [+ 1] | 31 36 | SKSP | 21 5 pPKP | — |
| Strasbourg | | 150·9 | 350 | i 18 33a | [ 0] | e 22 34 | PP | e 21 5 pPKP | — |
| Paris | | 151·1 | 358 | i 18 33 | [ 0] | e 28 12 | SKKS | e 21 7 pPKP | — |
| Basle | | 151·9 | 351 | e 18 33a | [− 1] | e 18 42 | $PKP_3$ | e 20 13 ? | — |
| Zürich | | 151·9 | 350 | e 18 34a | [ 0] | — | — | e 18 41 $PKP_2$ | — |
| Triest | | 152·2 | 342 | e 18 39 | [+ 5] | i 28 16 | SKKS | e 21 14 pPKP | — |
| Neuchatel | | 152·5 | 351 | e 18 34a | [− 1] | — | — | — — | — |
| Oropa | | 153·7 | 351 | e 18 46 | [+ 9] | e 24 52 | [+11] | e 28 29 SKKS | — |
| Clermont-Ferrand | | 154·2 | 357 | i 18 38 | [+ 1] | e 41 29 | SS | e 47 33? SSS | — |
| Florence | z. | 154·7 | 343 | i 18 41 | [+ 3] | e 28 16 | SKKS | e 21 14 pPKP | — |
| Rome | | 156·0 | 339 | i 18 42 | [+ 2] | e 24 46 | [+ 3] | i 21 15 pPKP | — |
| Toledo | | 159·6 | 12 | i 18 45a | [+ 1] | i 19 30 | $PKP_3$ | i 23 16 PP | — |
| Alicante | | 161·6 | 4 | 18 51 | [+ 5] | 25 43 | [+55] | 37 7 PPS | 78·9 |
| Granada | | 162·3 | 13 | i 18 49a | [+ 2] | i 25 46 | [+57] | 21 28 pPKP | e 76·0 |
| Malaga | | 162·6 | 14 | i 18 46 | [− 1] | 25 52 | [+63] | i 23 28 PP | — |
| Almeria | | 162·9 | 10 | i 18 48 | [+ 1] | 25 46 | [+57] | 19 34 $PKP_2$ | 77·3 |
| Algiers Univ. | z. | 163·1 | 354 | e 18 48 | [+ 1] | e 27 4 | sPP | e 21 24 pPKP | — |
| Tamanrasset | z. | 174·9 | — | i 18 56k | [+ 1] | i 30 16 | SKKS | e 21 35 pPKP | — |

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July 10d. 16h. 12m. 49s. Epicentre 48°·2N. 9°·0E. (as on 1951, October 18d.).

Intensity V in the vicinity of Raichberg. Epicentre 48°·3N. 9°·0E. (Strasbourg).
Stuttgart Monthly Seismic. Bulletin for July, 1952.

A = +·6609, B = +·1046, C = +·7432 ; δ = +8 ; h = −5 ;
D = +·156, E = −·988 ; G = +·734, H = +·116, K = −·670.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Ebingen | | 0·0 | — | i 0 4k | + 1* | i 0 6 | + 3* | — | — |
| Ravensburg | | 0·6 | 135 | e 0 13 | 0* | e 0 23 | + 2* | — | — |
| Stuttgart | | 0·6 | 13 | i 0 10k | − 2g | i 0 19 | − 1g | i 0 11 | P* |
| Karlsruhe | Z. | 0·9 | 335 | i 0 26 | + 6 | 0 30 | 0g | — | — |
| Strasbourg | | 0·9 | 295 | i 0 26 | + 6 | i 0 30 | 0g | i 0 32 | S |
| Zürich | | 0·9 | 198 | e 0 19k | − 1 | i 0 31 | 0* | — | — |
| Basle | | 1·2 | 235 | e 0 24 | 0g | e 0 39 | − 1g | — | — |
| Chur | | 1·4 | 165 | e 0 27 | 0 | e 0 48 | + 2 | i 0 30 | Pg |
| Neuchatel | | 1·8 | 229 | e 0 36 | 0g | e 0 50 | − 6 | — | — |
| Jena | N. | 3·2 | 32 | e 1 16 | +12g | e 1 40 | + 1* | i 1 43 | Sg |
| Collmberg | | 4·0 | 38 | e 1 17 | − 3g | e 2 11 | − 1g | e 2 8 | S* |
| Prague | E. | 4·0 | 62 | — | — | e 2 6 | + 3* | e 2 8 | Sg |

July 11d. 4h. 32m. 54s. Epicentre 23°·2S. 63°·0W.

A = +·4177, B = −·8198, C = −·3917 ; δ = −3 ; h = +4 ;
D = −·891, E = −·454 ; G = −·178, H = +·349, K = −·920.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| La Paz | | 8·2 | 323 | i 2 52a | Pg | i 4 15 | + 8* | i 4 34 | Sg | — |
| Buenos Aires | | 12·0 | 162 | e 2 58 | + 3 | — | — | — | — | — |
| La Plata | | 12·5 | 160 | 3 0 | − 2 | i 6 24 | L | 3 54 | ? | (i 6·4) |
| Huancayo | | 16·2 | 311 | i 3 15 | −35 | i 5 54 | −57 | — | — | e 7·3 |
| Bogota | | 29·7 | 338 | i 6 16 | + 6 | i 10 24 | −42 | — | — | e 13·0 |
| Galaerazamba | | 35·8 | 340 | — | — | i 12 0 | −41 | — | — | — |
| Fort de France | | 37·7 | 4 | i 7 25 | + 6 | i 12 25 | −45 | — | — | — |
| San Juan | | 41·4 | 357 | i 7 52 | + 2 | e 13 17 | −48 | — | — | — |
| Bermuda | | 55·3 | 359 | i 8 38 | −60 | — | — | — | — | — |
| Morgantown | | 64·5 | 346 | i 10 40 | − 1 | — | — | — | — | — |
| Weston | | 65·7 | 354 | i 10 48k | 0 | — | — | — | — | — |
| Harvard | | 65·9 | 354 | i 10 49k | − 1 | — | — | — | — | — |
| Fayetteville | Z. | 65·9 | 333 | i 10 48k | − 2 | — | — | — | — | — |
| Ottawa | | 69·2 | 351 | i 11 10k | 0 | — | — | — | — | — |
| Shawinigan Falls | N. | 70·0 | 354 | e 11 14 | − 1 | — | — | — | — | — |
| Tucson | | 71·6 | 319 | i 11 25 | 0 | — | — | — | — | — |
| Kirkland Lake | Z. | 72·6 | 349 | i 11 30k | − 1 | — | — | — | — | — |
| Palomar | Z. | 76·1 | 316 | i 11 51k | 0 | — | — | — | — | — |
| Boulder City | | 76·6 | 320 | i 11 54 | 0 | — | — | — | — | — |
| Riverside | Z. | 76·9 | 316 | i 11 56k | 0 | — | — | — | — | — |
| Grahamstown | Z. | 77·3 | 120 | i 12 10 | PcP | — | — | — | — | — |
| Kimberley | Z. | 77·4 | 117 | i 12 10 | PcP | — | — | — | — | — |
| Pasadena | | 77·5 | 316 | i 11 59k | 0 | — | — | — | — | — |
| China Lake | Z. | 78·2 | 318 | i 12 2k | − 1 | — | — | — | — | — |
| Tinemaha | Z. | 79·4 | 318 | i 12 10k | + 1 | — | — | — | — | — |
| Fresno | Z. | 80·1 | 318 | e 12 12k | − 1 | — | — | — | — | — |
| Tamanrasset | Z. | 80·8 | 60 | e 12 23 | + 6 | e 22 53 | +28 | e 15 35 | PP | — |
| Pretoria | Z. | 81·3 | 114 | i 12 0? | −20 | — | — | — | — | — |
| Lick | Z. | 81·7 | 317 | i 12 32k | +10 | e 14 19 | ? | e 15 33 | PP | — |
| Reno | Z. | 81·9 | 320 | e 12 22k | − 1 | — | — | — | — | — |
| Butte | | 82·2 | 328 | i 12 24 | 0 | — | — | — | — | — |
| Berkeley | Z. | 82·4 | 317 | e 12 25 | 0 | — | — | — | — | — |
| Mineral | Z. | 83·5 | 319 | i 12 29k | − 2 | — | — | — | — | — |
| Shasta | Z. | 84·2 | 319 | e 12 37k | + 3 | — | — | — | — | — |
| Paris | | 92·4 | 38 | i 13 15 | + 1 | — | — | — | — | — |
| Stuttgart | | 96·2 | 40 | e 13 32 | + 1 | — | — | — | — | — |

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July 11d. 5h. 35m. 9s. (I) } Epicentre 40°·7N. 48°·3E.
6h. 18m. 59s. (II) } (as on 1952, May 13d.).

Epicentre given by stations of U.S.S.R.

A = +·5058, B = +·5677, C = +·6495 ; $\delta$ = −3 ; $h$ = −2 ;
D = +·747, E = −·665 ; G = +·432, H = +·485, K = −·760.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| II | Shemakla | 0·3 | 105 | i 0 7 | + $1_g$ | i 0 12 | + $2_g$ | — | — |
| I | Baku | 1·3 | 105 | e 0 26 | + 1 | — | — | — | — |
| II | | 1·3 | 105 | e 0 27 | + 2 | — | — | — | — |
| I | Kirovobad | 1·5 | 271 | i 0 28 | 0 | 0 50 | + 1 | — | — |
| II | | 1·5 | 271 | 0 28 | 0 | 0 49 | 0 | — | — |
| I | Lenkoran | 2·0 | 169 | 0 36 | + 1 | 1 4 | + 2 | — | — |
| II | | 2·0 | 169 | 0 36 | + 1 | 1 4 | + 2 | 0 38 | P* |
| I | Makhach-Kala | 2·3 | 345 | i 0 42 | + 2 | i 1 15 | − $1_g$ | — | — |
| II | | 2·3 | 345 | i 0 42 | + 2 | i 1 15 | − $1_g$ | — | — |
| I | Tiflis | 2·8 | 291 | e 0 48 | + 1 | e 1 24 | + 2 | — | — |
| II | | 2·8 | 291 | e 0 54 | − $2_g$ | 1 31 | − $1_g$ | — | — |
| I | Erevan | 2·9 | 260 | — | — | 1 36 | $0_g$ | — | — |
| II | | 2·9 | 260 | — | — | 1 37 | + $1_g$ | — | — |
| I | Grozny | 3·2 | 325 | e 0 55 | + 3 | 1 49 | + $3_g$ | — | — |
| II | | 3·2 | 325 | 0 57 | + 5 | 1 50 | + $4_g$ | — | — |
| I | Akhalkalaki | 3·7 | 282 | e 1 2 | + 2 | — | — | — | — |
| II | | 3·7 | 282 | e 1 6 | 0* | 1 53 | − 1* | — | — |
| I | Tsikhlis-Dzhvari | 3·8 | 287 | e 1 3 | + 2 | i 2 7 | + $1_g$ | — | — |
| II | | 3·8 | 287 | — | — | 1 57 | 0* | 2 8 | $S_g$ |
| I | Abastumani | 4·3 | 286 | e 1 19 | + 3* | — | — | — | — |
| II | | 4·3 | 286 | — | — | 2 11 | − 1* | — | — |
| I | Piatigorsk | 5·1 | 312 | 1 17 | − 3 | 2 14 | − 6 | — | — |
| II | | 5·1 | 312 | — | — | 2 17 | − 3 | — | — |
| II | Zugdidi | 5·1 | 292 | — | — | 2 39 | + 4* | — | — |
| I | Kizyl-Arvat | 6·4 | 103 | e 1 34 | − 4 | e 2 43 | −10 | — | — |
| II | | 6·4 | 103 | 1 41 | + 3 | — | — | — | — |
| I | Ashkabad | 8·3 | 106 | e 1 58 | − 6 | — | — | — | — |
| II | Tchimkent | 16·0 | 77 | e 3 41 | − 7 | — | — | — | — |
| I | Fergana | 17·8 | 82 | e 4 8 | − 3 | — | — | — | — |
| II | | 17·8 | 82 | 4 6 | − 5 | — | — | — | — |
| I | Frunse | 19·7 | 74 | e 4 34 | 0 | — | — | — | — |
| II | | 19·7 | 74 | 4 31 | − 3 | — | — | — | — |
| II | Rybach'e | 20·8 | 75 | e 4 44 | − 1 | — | — | — | — |
| I | Pulkovo | 22·2 | 335 | e 4 55 | − 5 | e 9 2 | + 2 | — | — |
| I | Kiruna | z. 31·1 | 340 | i 6 17 | − 5 | — | — | — | — |
| II | | z. 31·1 | 340 | i 6 18 | − 4 | — | — | — | — |

July 11d. 21h. 48m. 38s. Epicentre 47°·3N. 11°·3E. (as on 1945 December 25d.).

Intensity IV at Solbad Hall. Epicentre 47°·3N. 11°·5E. Macroseismic area 1500 sq. km. Makroseismische Beobachtungen, 1952. Jahrbücher der Zentralanstalt für Meteorologie und Geodynamik, Jahrgang 1952, Neue Folge, 89, Band, Vienna, 1953, p. E1. Macroseismic chart p. E.2.

A = +·6674, B = +·1334, C = +·7326 ; $\delta$ = −8 ; $h$ = −4 ;
D = +·196, E = −·981 ; G = +·718, H = +·144, K = −·681.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Ravensburg | | 1·2 | 293 | e 0 24 | 0 | 0 42 | + 1 | e 1 2 | ? |
| Zürich | | 1·9 | 272 | e 0 35 | + 1 | e 1 1 | + 2 | — | — |
| Stuttgart | | 2·0 | 316 | e 0 39? | + 2 | i 1 10 | + $4_g$ | e 1 5 | S |
| Triest | z. | 2·4 | 134 | — | — | e 1 12 | 0 | e 1 17 | $S_g$ |
| Basle | | 2·5 | 275 | e 0 50 | $0_g$ | e 1 24 | + $1_g$ | i 1 28 | ? |
| Strasbourg | | 2·7 | 298 | — | — | e 1 26 | + 2* | e 1 33 | $S_g$ |
| Prague | | 3·5 | 35 | e 1 3 | 0* | 1 34 | − 6 | i 1 51 | $S_g$ |
| Jena | | 3·6 | 1 | — | — | e 1 38 | − 4 | e 1 54 | $S_g$ |

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July 12d. 2h. 46m. 30s. Epicentre 3°·8S. 77°·4W.

A = +·2177, B = −·9738, C = −·0658; δ = +1; h = +7;
D = −·976, E = −·218; G = −·014, H = +·064, K = −·998.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Huancayo | | 8·4 | 166 | e 2 3 | − 3 | e 3 58 | +15 | — | — | e 4·3 |
| Chinchina | | 8·9 | 12 | e 2 15 | + 3 | e 3 57 | + 2 | e 3 20 | ? | — |
| Bogota | | 9·0 | 22 | i 2 17 | + 4 | i 4 4 | + 6 | i 3 28 | ? | — |
| Galerazamba | | 14·6 | 9 | — | — | e 4 46 | ? | — | — | — |
| La Paz | | 15·6 | 145 | i 3 44 | + 1 | i 7 45 | + 8 | i 4 30 | ? | — |
| San Juan | | 24·7 | 26 | i 5 21 | − 3 | — | — | i 7 57 | PP | — |
| Fayetteville | z. | 42·7 | 340 | i 7 56 | − 4 | — | — | — | — | — |
| Morgantown | | 43·3 | 357 | i 8 1 | − 4 | — | — | — | — | — |
| Weston | | 46·3 | 7 | i 8 26k | − 3 | — | — | — | — | — |
| Harvard | | 46·4 | 7 | i 8 26k | − 4 | — | — | — | — | — |
| Buffalo (Larkin) | | 46·5 | 359 | i 8 27 | − 4 | — | — | — | — | — |
| Tucson | | 47·9 | 321 | i 8 41 | − 1 | — | — | — | — | — |
| Ottawa | | 49·0 | 2 | e 8 45a | − 5 | — | — | — | — | — |
| Boulder City | | 52·8 | 322 | e 10 4 | ? | — | — | — | — | — |
| Riverside | z. | 53·2 | 318 | e 9 23 | + 1 | — | — | — | — | — |
| Pasadena | z. | 53·8 | 318 | i 9 28 | + 2 | — | — | — | — | — |
| Tinemaha | z. | 55·6 | 320 | i 9 42 | + 2 | — | — | e 10 21 | ? | — |
| Lick | z. | 58·0 | 319 | i 9 57 | 0 | — | — | — | — | — |
| Shasta | z. | 60·4 | 322 | e 10 53 | PcP | — | — | — | — | — |
| Tamanrasset | z. | 84·9 | 67 | i 12 47k | + 9 | — | — | e 13 32 | ? | — |
| College | | 85·2 | 336 | e 12 40 | + 1 | — | — | — | — | — |
| Stuttgart | | 90·6 | 41 | e 13 9 | + 4 | — | — | — | — | — |

July 13d. 2h. 49m. 52s. (I) } Epicentre 22°·3S. 170°·0E.
7h. 24m. 8s. (II) } (as on 1952, January 4d.).

A = −·9121, B = +·1608, C = −·3773; δ = +14; h = +4;
D = +·174, E = +·985; G = +·372, H = −·066, K = −·926.

| | | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| I | Auckland | N. | 15·1 | 165 | e 4 24 | +48 | e 6 41 | +16 | — | — | e 7·3 |
| II | | N. | 15·1 | 165 | e 3 27 | − 9 | e 6 22 | − 3 | e 6 40 | SS | e 7·2 |
| I | Brisbane | | 16·2 | 248 | i 3 53 | + 3 | i 7 5 | +14 | i 4 8 | PP | i 8·1 |
| II | | | 16·2 | 248 | i 3 53 | + 3 | i 7 12 | +21 | i 4 9 | PP | — |
| I | Karapiro | N. | 16·3 | 164 | i 3 52 | 0 | — | — | — | — | — |
| II | | N. | 16·3 | 164 | e 3 49 | − 3 | — | — | — | — | — |
| I | Tuai | N. | 17·5 | 162 | e 4 14 | + 7 | e 7 29 | + 8 | — | — | — |
| II | | N. | 17·5 | 162 | — | — | e 7 33 | +12 | — | — | — |
| I | Cobb River | E. | 18·9 | 174 | — | — | e 8 17 | SS | — | — | — |
| II | | E. | 18·9 | 174 | e 4 25 | + 1 | e 8 9 | +16 | — | — | — |
| I | Wellington | | 19·3 | 169 | 4 24 | − 5 | e 8 0 | − 2 | e 8 28 | SS | e 10·1 |
| II | | | 19·3 | 169 | 4 22 | − 7 | 7 57 | − 5 | 8 28 | SS | e 10·1 |
| I | Riverview | | 20·2 | 231 | i 4 37a | − 2 | i 8 33 | +12 | i 5 4 | PP | e 10·3 |
| II | | | 20·2 | 231 | i 4 37k | − 2 | i 8 32 | +11 | i 5 3 | PP | e 9·9 |
| I | Kaimata | N.E. | 20·2 | 117 | e 5 42 | +63 | — | — | — | — | — |
| II | | N.E. | 20·2 | 117 | e 4 36 | − 3 | e 7 58 | −23 | — | — | — |
| I | Christchurch | | 21·3 | 175 | e 4 50 | 0 | 8 50 | + 7 | — | — | e 10·0 |
| II | | | 21·3 | 175 | 5 0 | +10 | i 8 50 | + 7 | — | — | e 11·9 |
| II | Lick | Z. | 87·5 | 48 | e 12 44 | − 7 | — | — | — | — | — |
| II | Fresno | Z. | 88·4 | 49 | e 12 48 | − 7 | — | — | — | — | — |
| II | Shasta | Z. | 88·7 | 45 | e 12 48 | − 9 | — | — | — | — | — |
| II | Palomar | Z. | 88·9 | 54 | e 12 48 | −10 | — | — | — | — | — |
| II | Riverside | Z. | 88·9 | 52 | e 12 49 | − 9 | — | — | — | — | — |
| II | Mineral | Z. | 89·0 | 46 | e 12 53 | − 5 | — | — | — | — | — |
| I | China Lake | Z. | 89·6 | 51 | e 12 52 | − 9 | — | — | — | — | — |
| II | | Z. | 89·6 | 51 | e 12 54 | − 7 | — | — | — | — | — |
| I | Tinemaha | Z. | 89·7 | 50 | e 12 54 | − 7 | — | — | — | — | — |
| II | | Z. | 89·7 | 50 | e 12 53 | − 8 | — | — | e 12 58 | ? | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| I Helwan | Z. | 142·3 | 291 | e 19 38 | [+ 3] | — | — | — | — | — |
| I Potsdam | Z. | 145·1 | 336 | e 19 34 | [− 5] | — | — | — | — | — |
| II | Z. | 145·1 | 336 | e 19 34 | [− 5] | — | — | — | — | — |
| I Collmberg | Z. | 146·0 | 334 | e 19 35 | [− 6] | e 24 26 | ? | e 19 52 | ? | — |
| II | Z. | 146·0 | 334 | e 19 36 | [− 5] | — | — | e 19 49 | ? | — |
| II Prague | | 146·3 | 332 | e 21 38 | ? | — | — | e 23 4 | PP | — |
| I Jena | E. | 146·8 | 335 | e 19 42 | [ 0] | — | — | e 19 54 | ? | — |
| II | E. | 146·8 | 335 | e 19 41 | [− 1] | e 20 23 | ? | e 21 24 | ? | — |
| I Stuttgart | Z. | 149·5 | 335 | e 19 46 | [− 1] | — | — | e 19 52 | ? | — |
| II | Z. | 149·5 | 335 | e 19 46 | [− 1] | — | — | e 19 51 | ? | — |
| II Triest | Z. | 149·7 | 328 | i 19 45$_a$ | [− 2] | e 20 27 | ? | e 19 58 | ? | — |
| I Strasbourg | | 150·2 | 337 | e 19 47 | [− 1] | — | — | — | — | — |
| I Paris | | 151·8 | 344 | e 19 52 | [+ 2] | — | — | e 20 1 | $PKP_2$ | e 81·1 |
| I Tamanrasset | Z. | 165·7 | 277 | e 20 4 | [− 2] | e 24 49 | PP | e 21 0 | $PKP_2$ | — |
| II | Z. | 165·7 | 277 | e 20 4 | [− 2] | e 24 51 | PP | e 21 4 | $PKP_2$ | — |

July 13d. 7h. 9m. 46s. Epicentre 39°·3N. 22°·4E. (as on 1942, June 1d.).

Intensity VI at Ladikon; V at Lamia and Hypati; III at Amphissa and Galaxidion. Epicentre 39°N. 22°·5E.

A. Galanopoulos.
Seismo. Institute Bulletin, 1952, Athens, 1953, p. 29.

A = +·7174, B = +·2957, C = +·6308; $\delta$ = +1; $h$ = −1;
D = +·381, E = −·925; G = +·583, H = +·240, K = −·776.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Athens | | 1·7 | 142 | e 0 31$_a$ | 0 | i 0 50 | − 4 | — | — | i 1·0 |
| Sofia | | 3·5 | 12 | e 1 3 | 0* | e 2 1 | + 5$_g$ | — | — | — |
| Messina | Z. | 5·4 | 261 | e 1 23 | − 1 | e 2 21 | − 7 | i 2 38 | S* | — |
| Triest | | 9·0 | 318 | e 3 19 | ? | e 4 19 | +21 | e 5 20 | SS | — |
| Stuttgart | | 13·4 | 319 | e 3 32? | +18 | — | — | — | — | e 7·2 |
| Tamanrasset | Z. | 21·8 | 226 | e 4 52 | − 4 | — | — | — | — | — |

July 13d. 9h. 36m. 8s. Epicentre 38°·6N. 70°·5E. (as on 9d.).

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Garm | 0·4 | 339 | i 0 6 | − 2$_g$ | i 0 10 | − 3$_g$ | — | — |
| Obi-garm | 0·6 | 279 | i 0 13 | − 2 | — | — | — | — |
| Dzhergetal | 0·8 | 42 | e 0 13 | − 3$_g$ | — | — | — | — |
| Kulyab | 0·9 | 219 | e 0 23 | + 3 | — | — | — | — |
| Khorog | 1·4 | 142 | e 0 30 | + 3 | e 0 54 | + 8 | — | — |
| Stalinabad | 1·4 | 268 | i 0 28 | + 1 | i 0 51 | + 5 | — | — |
| Fergana | 2·0 | 29 | e 0 35 | 0 | i 1 7 | + 1$_g$ | — | — |
| Andijan | 2·6 | 34 | i 0 44 | 0 | i 1 18 | + 1 | e 1 29 | $S_g$ |
| Namangan | 2·6 | 21 | e 0 46 | + 2 | 1 16 | − 1 | — | — |
| Murgab | 2·7 | 95 | e 0 51 | + 2* | — | — | — | — |
| Tashkent | 2·9 | 341 | — | — | e 1 26 | + 2 | — | — |
| Samarkand | 2·9 | 291 | i 0 52 | + 4 | 1 32 | + 2* | — | — |
| Tchimkent | 3·8 | 352 | e 1 1 | 0 | — | — | — | — |
| Rybach'e | 5·7 | 46 | e 2 24 | S | (e 2 24) | −11 | 3 29 | ? |

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July 13d. 10h. 48m. 57s. Epicentre 16°·7S. 173°·5W. (as on 1952, June 1d.).

Pasadena suggests depth 100km.

A = −·9522, B = −·1085, C = −·2856 ; $\delta$ = +2 ; $h$ = +5 ;
D = −·113, E = +·994 ; G = +·284, H = +·032, K = −·958.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Apia | | 3·3 | 30 | i 0 56 | + 3 | i 1 27 | − 8 | — | — |
| Karapiro | N. | 23·2 | 205 | 5 11 | + 2 | — | — | — | — |
| Wellington | | 26·5 | 201 | e 5 40 | − 1 | e 10 30 | +16 | — | — |
| Cobb River | E. | 27·1 | 205 | e 5 47 | + 1 | — | — | — | — |
| Kaimata | N.E. | 28·8 | 205 | e 6 2 | 0 | — | — | — | — |
| Christchurch | | 29·2 | 202 | 6 3? | − 2 | — | — | — | — |
| Lick | Z. | 72·6 | 41 | i 11 29k | − 2 | — | — | — | — |
| Pasadena | | 73·0 | 46 | i 11 31k | − 2 | — | — | — | — |
| Fresno | Z. | 73·4 | 42 | e 11 33k | − 3 | — | — | — | — |
| Palomar | Z. | 73·4 | 47 | i 11 33k | − 3 | — | — | — | — |
| Riverside | Z. | 73·4 | 46 | e 11 33k | − 3 | — | — | — | — |
| Shasta | Z. | 74·2 | 38 | i 11 38 | − 2 | — | — | e 11 43 | P |
| China Lake | Z. | 74·3 | 44 | i 11 40k | − 1 | — | — | e 14 25 | PP |
| Mineral | Z. | 74·5 | 39 | e 11 39k | − 3 | i 11 51 | ? | i 12 3 | ? |
| Tinemaha | Z. | 74·6 | 43 | i 11 41 | − 2 | — | — | — | — |
| Reno | Z. | 75·1 | 40 | e 11 44k | − 2 | — | — | — | — |
| Boulder City | | 76·3 | 46 | i 11 51 | − 1 | — | — | — | — |
| Tucson | | 77·2 | 50 | i 11 56 | − 1 | — | — | — | — |
| Tacubaya | | 81·4 | 67 | e 34 20 | PK KS | e 34 38 | ? | — | — |
| Butte | | 83·1 | 38 | i 12 27 | − 2 | — | — | — | — |
| College | | 83·6 | 11 | 12 27 | − 4 | — | — | i 12 56 | pP |
| Fayetteville | Z. | 91·4 | 53 | i 13 7k | − 2 | — | — | e 16 32 | PP |
| Collmberg | Z. | 145·1 | 354 | e 20 35 | [+56] | — | — | e 20 43 | ? |
| Jena | | 145·6 | 355 | e 19 38 | [− 2] | e 21 41? | ? | e 20 6 | pPKP |
| Prague | | 146·1 | 352 | i 19 40a | [− 1] | e 20 19 | sPKP | e 20 7 | pPKP |
| Paris | | 147·8 | 5 | i 19 45 | [+ 1] | e 19 53 | $PKP_2$ | i 20 15 | ? |
| Stuttgart | | 147·9 | 356 | e 19 40? | [− 4] | — | — | e 19 45 | PKP |
| Strasbourg | | 148·2 | 358 | i 19 47k | [+ 2] | — | — | e 20 15 | ? |
| Basle | | 149·2 | 358 | e 19 51 | [+ 5] | — | — | — | — |
| Zürich | | 149·4 | 358 | e 19 49k | [+ 3] | — | — | — | — |
| Clermont-Ferrand | | 150·9 | 5 | i 19 53 | [+ 4] | — | — | — | — |
| Rome | | 154·4 | 350 | e 41 33? | ? | e 51 23? | ? | — | — |
| Tamanrasset | Z. | 173·9 | — | e 20 12 | [+ 1] | — | — | i 21 36 | $PKP_2$ |

July 13d. 11h. 58m. 38s. Epicentre 18°·7S. 170°·3E. Depth of focus 0·040.
(as on 1947, June 30d.).

A = −·9343, B = +·1597, C = −·3187 ; $\delta$ = −1 ; $h$ = +5 ;
D = +·168, E = +·986 ; G = +·314, H = −·054, K = −·948.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 17·9 | 77 | i 3 58 | + 7 | 7 18 | +21 | — | — | e 8·2 |
| Brisbane | | 18·1 | 237 | i 3 50 | − 3 | i 6 57 | − 4 | i 4 37 | PPP | — |
| Auckland | N. | 18·5 | 168 | i 4 2 | + 5 | 7 22 | +13 | e 15 5 | ScS | — |
| Karapiro | N. | 19·7 | 169 | 4 9 | 0 | e 7 41 | +10 | e 5 8 | PP | — |
| New Plymouth | E. | 20·6 | 171 | e 4 25 | + 7 | e 8 4 | +17 | — | — | — |
| Tuai | N. | 20·9 | 165 | 4 23 | + 2 | 8 0 | + 8 | i 15 11 | ScS | — |
| Cobb River | E. | 22·4 | 176 | e 4 38 | + 2 | e 8 28 | +10 | e 15 9 | ScS | — |
| Riverview | | 22·8 | 224 | i 4 33a | − 6 | i 8 24 | 0 | i 5 13 | pP | — |
| Wellington | | 22·8 | 171 | i 4 40 | + 1 | e 8 27 | + 3 | 4 57 | PP | — |
| Kaimata | N.E. | 23·8 | 178 | 4 49 | 0 | e 8 45 | + 4 | — | — | — |
| Christchurch | | 24·8 | 176 | i 5 0 | + 2 | i 8 58 | + 1 | i 5 53 | pP | — |
| Honolulu | | 50·5 | 39 | i 8 33 | + 2 | e 15 29 | + 7 | — | — | — |
| Manila | | 58·8 | 301 | i 9 25 | − 5 | i 17 7 | − 5 | e 9 51 | pP | — |
| Mera | | 60·7 | 331 | 9 43 | 0 | i 17 35 | − 1 | (e 18 16) | pS | e 18·3 |
| Osima | | 60·8 | 331 | e 9 45 | + 1 | e 17 37 | 0 | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Misima | | 61·2 | 331 | e 9 38 | − 9 | i 17 42 | 0 | — | — | — |
| Omaesaki | | 61·2 | 330 | e 9 48 | + 1 | e 17 45 | + 3 | — | — | — |
| Tokyo | | 61·4 | 332 | e 9 43 | − 5 | i 17 44 | − 1 | i 18 52 | ScS | — |
| Mito | | 61·6 | 333 | e 9 51 | + 2 | e 17 50 | + 3 | — | — | — |
| Kohu | | 61·8 | 331 | e 9 51 | + 1 | i 17 51 | + 1 | — | — | — |
| Bandong | | 61·9 | 273 | e 9 48 | − 3 | e 17 45 | − 6 | — | — | — |
| Kumagaya | | 61·9 | 332 | 9 50 | − 1 | i 17 51 | 0 | — | — | — |
| Onahama | | 61·9 | 334 | e 9 42 | − 9 | i 17 51 | 0 | e 17 42 | ? | — |
| Utunomiya | | 62·0 | 333 | e 9 50 | − 2 | e 17 41 | −11 | — | — | — |
| Kameyama | | 62·2 | 329 | 9 52 | − 1 | i 17 55 | 0 | 12 13 | PP | 24·0 |
| Nagoya | | 62·2 | 330 | 9 42 | −11 | i 17 55 | 0 | — | — | — |
| Maebasi | | 62·3 | 332 | i 9 52 | − 2 | i 17 55 | − 1 | — | — | — |
| Shirakawa | | 62·3 | 334 | 9 54 | 0 | 17 48 | − 8 | — | — | — |
| Oiwake | | 62·4 | 332 | e 9 46 | − 8 | e 17 54 | − 3 | — | — | — |
| Gihu | | 62·5 | 330 | 9 54 | − 1 | 17 58 | 0 | — | — | — |
| Osaka | | 62·5 | 328 | e 10 5 | +10 | e 18 0 | + 2 | — | — | — |
| Matumoto | N. | 62·6 | 331 | e 9 56 | 0 | e 18 0 | 0 | — | — | — |
| Sumoto | | 62·6 | 328 | 9 52a | − 4 | i 17 57 | − 3 | — | — | — |
| Kobe | | 62·7 | 328 | e 9 56 | 0 | e 18 0 | − 1 | e 12 24 | PP | — |
| Koti | | 62·7 | 326 | e 9 55 | − 1 | e 17 54 | − 7 | — | — | — |
| Hukusima | | 62·8 | 334 | e 9 56 | − 1 | e 18 2 | 0 | e 14 22 | PcS | — |
| Inawasiro | | 62·8 | 334 | e 9 54 | − 3 | e 18 0 | − 2 | — | — | — |
| Matusiro | | 62·8 | 332 | 9 53 | − 4 | i 18 1 | − 1 | 11 49 | PP | — |
| Djakarta | | 62·9 | 273 | e 9 50 | − 8 | e 17 55 | − 8 | — | — | — |
| Nagano | | 62·9 | 332 | e 9 56 | − 2 | e 18 3 | 0 | e 11 1 | pP | — |
| Sendai | | 63·0 | 335 | e 9 59 | + 1 | 18 6 | + 1 | e 10 58 | pP | — |
| Takamatu | | 63·0 | 327 | 9 58 | 0 | e 18 0 | − 5 | e 11 23 | pP | — |
| Tsuruga | | 63·0 | 330 | 9 57 | − 1 | 18 3 | − 2 | — | — | — |
| Yamagata | | 63·2 | 335 | e 10 0 | 0 | i 18 7 | 0 | — | — | — |
| Toyama | | 63·3 | 331 | 9 59 | − 1 | 18 10 | + 2 | e 10 15 | pP | — |
| Kanazawa | | 63·5 | 331 | e 9 40 | −22 | i 18 12 | + 1 | — | — | — |
| Niigata | | 63·5 | 334 | 10 3 | + 1 | 18 14 | + 3 | 19 36 | ScS | — |
| Ooita | | 63·5 | 324 | e 10 4 | + 2 | i 17 41 | −30 | e 11 15 | pP | — |
| Mizusawa | | 63·7 | 336 | 10 1 | − 2 | 18 12 | − 1 | — | — | — |
| Miyako | | 63·8 | 336 | e 10 3 | − 1 | e 18 12 | − 2 | — | — | — |
| Hirosima | | 63·9 | 325 | e 9 50 | −14 | 18 0 | −16 | — | — | — |
| Wazima | | 64·0 | 331 | e 10 4 | − 1 | 18 19 | + 2 | — | — | — |
| Morioka | | 64·1 | 336 | e 10 4 | − 2 | i 18 18 | 0 | — | — | — |
| Hukuoka | | 64·4 | 324 | e 10 5 | − 2 | e 18 25 | + 3 | — | — | — |
| Akita | | 64·6 | 335 | 10 9 | 0 | i 18 26 | + 2 | 18 56 | sS | — |
| Aomori | | 65·3 | 336 | 10 15 | + 2 | i 18 35 | + 2 | — | — | — |
| Urakawa | | 65·7 | 339 | e 11 15 | +59 | e 16 23 | ? | — | — | e 22·2 |
| Mori | | 66·4 | 337 | e 10 24 | + 4 | 18 51 | + 5 | — | — | — |
| Abashiri | | 66·8 | 340 | e 10 23 | 0 | e 18 53 | + 2 | — | — | — |
| Sapporo | | 67·0 | 338 | e 10 24 | 0 | e 18 49 | − 4 | e 23 16 | SS | e 25·5 |
| Wakkanai | | 68·9 | 339 | e 11 9 | +33 | e 19 20 | + 4 | e 21 20 | ? | e 23·1 |
| Yuzno-Sakhlinsk | | 69·9 | 340 | 10 42 | 0 | 19 29 | + 2 | — | — | — |
| Nanking | | 70·6 | 315 | 10 45a | − 1 | i 19 33 | − 2 | i 12 2 | pP | — |
| Vladivostok | | 70·9 | 331 | i 10 44 | − 4 | i 19 40 | + 1 | — | — | — |
| Mitchell Field | | 71·3 | 9 | i 10 49 | − 1 | e 19 44 | + 1 | — | — | — |
| Uglegorsk | | 72·0 | 342 | i 10 55 | + 1 | 19 54 | + 3 | — | — | — |
| Petropavlovsk | | 72·2 | 351 | e 10 54 | − 1 | i 19 54 | + 1 | — | — | — |
| Klyuchi | | 75·2 | 355 | i 11 13 | 0 | 20 29 | + 2 | — | — | — |
| Santa Clara | | 84·6 | 47 | i 12 8k | + 6 | i 22 4 | + 1 | i 13 40 | ? | — |
| Berkeley | Z. | 84·7 | 47 | i 12 6a | + 3 | i 15 25 | PP | e 12 54 | pP | — |
| Lick | | 84·8 | 47 | i 12 7a | + 4 | e 22 6 | + 1 | i 13 17 | pP | — |
| Fresno | | 85·9 | 49 | i 12 12a | + 3 | e 22 10 | − 6 | e 15 38 | PP | — |
| Pasadena | | 85·9 | 52 | i 12 12a | + 3 | i 22 11 | − 5 | i 12 15 | PcP | e 34·8 |
| Mineral | | 86·3 | 45 | i 12 13a | + 2 | e 22 12 | [+ 5] | i 13 22 | pP | — |
| Riverside | | 86·5 | 52 | i 12 14a | + 2 | e 22 17 | − 5 | i 12 17 | PcP | — |

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Palomar | Z. | 86·6 | 53 | i 12 15a | + 3 | e 22 18 | − 5 | e 15 44 | PP | — |
| Shasta | | 86·8 | 44 | i 12 12a | − 1 | e 22 10 | [ 0] | i 15 36 | PP | — |
| China Lake | Z. | 87·1 | 51 | i 12 18a | + 3 | e 22 19 | [+ 7] | i 15 47 | PP | — |
| Reno | | 87·1 | 47 | i 12 18a | + 3 | e 22 16 | [+ 4] | e 13 22 | pP | — |
| Tinemaha | | 87·1 | 49 | i 12 8a | − 7 | e 22 20 | − 7 | i 15 48 | PP | — |
| Corvallis | Z. | 87·2 | 42 | i 12 18 | + 3 | e 22 19 | [+ 6] | e 15 49 | PP | — |
| Shillong | E. | 88·0 | 298 | e 12 17 | − 2 | i 22 20 | [+ 2] | 13 23 | pP | — |
| Sitka | | 88·0 | 27 | i 12 21 | + 2 | i 22 24 | [+ 6] | — | — | — |
| Kyakhta | | 88·7 | 325 | 12 19 | − 3 | 22 39 | − 3 | — | — | — |
| Victoria | | 89·1 | 38 | i 12 26a | + 2 | 22 25 | [ 0] | e 24 31 | PS | — |
| Boulder City | | 89·2 | 51 | i 12 28 | + 4 | — | — | — | — | — |
| College | | 89·2 | 17 | i 12 23 | − 1 | e 22 26 | [+ 1] | i 22 50 | ScS | — |
| Seattle | | 89·3 | 39 | i 12 29a | + 4 | i 22 34 | [+ 8] | i 13 27 | pP | — |
| Kabansk | | 89·5 | 326 | i 12 24 | − 2 | i 22 49 | 0 | — | — | — |
| Calcutta | E. | 89·9 | 294 | e 13 37 | ? | i 22 33 | [+ 4] | 17 40 | PPP | e 40·2 |
| Irkutsk | | 90·8 | 326 | 12 29 | − 3 | i 23 0 | − 1 | — | — | — |
| Tucson | | 90·8 | 56 | i 12 36 | + 4 | i 22 59 | − 2 | i 13 51 | pP | e 38·1 |
| Colombo | E. | 92·6 | 276 | — | — | 22 44 | [− 1] | e 29 6 | SS | e 40·9 |
| Madras | E. | 94·2 | 282 | — | — | i 22 57 | [+ 4] | i 23 35 | S | — |
| Hungry Horse | | 94·6 | 40 | i 12 52 | + 3 | i 22 58 | [+ 3] | 16 44 | PP | — |
| Kodaikanal | E. | 95·9 | 279 | — | — | i 23 5 | [+ 3] | i 23 49 | S | — |
| Tacubaya | | 96·5 | 72 | e 13 20 | +22 | e 23 16 | [+10] | e 17 17 | PP | — |
| Hyderabad | | 97·1 | 286 | e 12 44 | −17 | i 23 7 | [− 2] | i 23 55 | S | 40·7 |
| Puebla | | 97·3 | 72 | — | — | e 23 17 | [+ 7] | — | — | — |
| Lubbock | | 98·4 | 57 | e 13 10 | + 3 | — | — | 17 28 | PP | — |
| Vera Cruz | | 99·2 | 72 | e 22 43 | ? | e 23 30 | [+11] | e 24 34 | S | — |
| Saskatoon | | 100·4 | 38 | 13 17 | + 1 | (23 22?) | [− 3] | e 17 28 | PP | 23·4 |
| New Delhi | | 101·4 | 296 | e 13 18 | − 2 | i 23 26 | [− 4] | i 24 18 | SKKS | — |
| Poona | E. | 101·6 | 286 | 17 27 | PP | i 23 31 | [ 0] | i 24 36 | S | — |
| Bombay | | 102·7 | 286 | e 17 41 | PP | i 23 35 | [− 1] | 19 50 | PPP | — |
| Przhevalsk | | 103·8 | 311 | — | — | i 23 44 | [+ 3] | — | — | — |
| Semipalatinsk | | 104·2 | 319 | e 17 44 | PP | — | — | — | — | — |
| Almata | | 105·0 | 311 | e 13 37 | P | i 23 45 | [− 1] | e 17 52 | PP | — |
| Fayetteville | Z. | 105·1 | 56 | i 13 40 | P | 27 28 | PPS | i 18 3 | PKP | — |
| Naryn | | 105·3 | 309 | 17 57 | PP | i 23 49 | [+ 1] | 25 4? | S | — |
| Rybach'e | | 105·4 | 310 | i 17 59 | PP | i 23 49 | [+ 1] | i 24 35 | SKKS | — |
| Frunse | | 106·6 | 310 | — | — | i 23 54 | [ 0] | i 24 44 | SKKS | — |
| Andijan | | 107·9 | 307 | — | — | i 24 2 | [+ 3] | i 24 51 | SKKS | — |
| Fergana | | 108·2 | 307 | — | — | e 24 0 | [− 1] | i 24 50 | SKKS | — |
| Huancayo | | 108·4 | 110 | e 19 11 | PP | e 25 6 | S | e 25 37 | ? | e 44·5 |
| Namangan | | 108·4 | 307 | e 18 19 | PP | e 24 3 | [+ 2] | i 24 53 | SKKS | — |
| Resolute Bay | | 109·2 | 16 | 13 55 | P | (27 46) | PS | 18 28 | PP | 27·8 |
| La Plata | | 109·7 | 139 | e 18 16 | [+20] | 29 16 | PPS | 22 40 | ? | 58·3 |
| Tchimkent | | 110·1 | 309 | — | — | i 25 6 | SKKS | — | — | — |
| Tashkent | | 110·2 | 308 | 19 14 | pPKP | e 24 6 | [− 3] | 25 6 | SKKS | — |
| Quetta | | 110·4 | 296 | e 17 11 | ? | — | — | e 18 11 | PP | 31·4 |
| Chicago | | 111·1 | 51 | e 18 46 | PP | e 26 7 | S | — | — | — |
| Samarkand | | 111·8 | 306 | 18 54 | PP | — | — | — | — | — |
| La Paz | | 112·7 | 118 | i 18 30 | [+28] | i 26 30 | SKKS | i 28 32 | PS | 55·6 |
| Columbia | | 115·4 | 60 | e 19 18 | PP | e 26 44 | SKKS | — | — | — |
| Cleveland | | 115·6 | 52 | i 18 9k | [+ 1] | i 24 32 | [+ 2] | i 19 16 | PP | — |
| Galerazamba | | 116·4 | 87 | — | — | e 23 48 | [−45] | e 65 22 | ? | — |
| Morgantown | | 116·7 | 54 | i 18 11 | [+ 1] | — | — | i 19 25 | PP | — |
| Kirkland Lake | Z. | 116·8 | 45 | i 18 11k | [+ 1] | — | — | i 19 24 | pPKP | — |
| Buffalo (Larkin) | | 117·8 | 51 | i 18 14 | [+ 2] | e 24 38 | [ 0] | — | — | — |
| Grahamstown | Z. | 117·8 | 214 | i 18 13 | [+ 1] | i 28 36 | PS | — | — | — |
| Pietermaritzburg | Z. | 118·3 | 220 | i 18 15 | [+ 2] | i 28 37 | PS | — | — | — |
| Ashkabad | | 118·4 | 303 | e 18 13 | [ 0] | e 26 7 | SKKS | — | — | — |
| Washington | | 118·9 | 55 | i 18 17 | [+ 3] | — | — | i 19 42 | PP | — |
| Ottawa | | 119·8 | 47 | i 18 16a | [ 0] | 24 48 | [+ 3] | 19 46 | PP | 49·7 |

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|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kizyl-Arvat | | 120·0 | 305 | e 18 21 | [+ 4] | i 26 17 | SKKS | — | — | — |
| City College, N.Y. | | 121·3 | 53 | i 18 21 | [+ 2] | — | — | i 19 52 | PP | — |
| Fordham | | 121·4 | 53 | e 18 21 | [+ 2] | e 24 54 | [+ 4] | — | — | — |
| Palisades | | 121·4 | 53 | e 14 52 | P | i 24 52 | [+ 2] | i 18 19 | PKP | — |
| Shawinigan Falls | N. | 121·8 | 46 | e 18 20 | [ 0] | 25 2 | [+11] | 19 55 | PP | — |
| Kimberley | Z. | 122·2 | 216 | i 18 20 | [− 1] | — | — | i 18 12 | ? | — |
| Pretoria | Z. | 122·5 | 222 | i 18 22 | [+ 1] | i 28 22 | ? | — | — | — |
| Harvard | | 123·0 | 51 | i 18 23a | [+ 1] | e 25 0 | [+ 5] | e 20 8 | PP | — |
| Weston | | 123·2 | 51 | i 18 24k | [+ 1] | 26 40 | SKKS | 36 34 | SS | — |
| Baku | | 124·9 | 307 | e 20 6 | PP | — | — | — | — | — |
| Lenkoran | | 125·8 | 305 | 18 28 | [ 0] | — | — | — | — | — |
| Shemakla | | 125·8 | 308 | e 18 32 | [+ 4] | — | — | 22 3 | PKS | — |
| Makhach-Kala | | 126·4 | 310 | i 18 30 | [+ 1] | — | — | i 19 44 | pPKP | — |
| San Juan | | 126·7 | 80 | i 18 31 | [+ 2] | — | — | 20 36 | PP | — |
| Kiruna | | 127·3 | 346 | i 20 30 | PP | e 24 49 | [−19] | e 21 48 | PKS | e 55·4 |
| Kirovobad | | 127·5 | 308 | 18 32 | [+ 1] | 27 2 | SKKS | 19 43 | pPKP | — |
| Goris | | 127·7 | 306 | e 18 32 | [+ 1] | e 25 2 | [− 7] | e 22 11 | PKS | — |
| Scoresby Sund | | 127·7 | 5 | i 18 32 | [+ 1] | 28 21 | ? | i 20 36 | PP | — |
| Tiflis | | 128·6 | 309 | e 18 34 | [+ 1] | — | — | — | — | — |
| Moscow | | 128·8 | 328 | 18 33 | [− 1] | 22 13 | PKS | 19 45 | pPKP | — |
| Erevan | | 129·0 | 307 | i 18 35 | [+ 1] | 27 12 | SKKS | — | — | — |
| Gori | | 129·0 | 309 | i 18 30 | [− 4] | — | — | i 22 12 | PKS | — |
| Bermuda | | 129·1 | 63 | i 17 35 | [−59] | e 22 42 | PKS | i 20 32 | PP | — |
| Leninakan | | 129·4 | 308 | e 18 41 | [+ 6] | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 129·6 | 309 | 18 46 | [+11] | e 25 11 | [− 3] | e 22 13 | PKS | — |
| Pulkovo | | 130·0 | 335 | i 18 35 | [− 1] | i 21 59 | PKS | i 20 53 | PP | — |
| Zugdidi | | 130·5 | 311 | 18 38 | [+ 1] | — | — | — | — | — |
| Fort de France | | 130·7 | 87 | i 18 40 | [+ 3] | i 21 40 | PKS | — | — | — |
| Helsinki | | 131·7 | 338 | e 22 3 | PKS | e 37 52 | SS | e 23 15 | ? | — |
| Sotchi | | 131·8 | 312 | 18 38 | [− 1] | 22 14 | PKS | — | — | — |
| Reykjavik | Z. | 133·8 | 8 | i 18 44 | [+ 1] | i 21 48 | PP | e 19 58 | pPKP | — |
| Theodosia | | 134·4 | 315 | e 18 45 | [+ 1] | e 38 52 | SS | — | — | — |
| Upsala | | 134·4 | 341 | i 18 33 | [−11] | e 25 29 | [+ 4] | e 21 19 | PP | e 34·2 |
| Simferopol | | 135·2 | 316 | e 18 47 | [+ 1] | e 30 57 | SKSP | 21 29 | PP | — |
| Yalta | | 135·4 | 315 | 18 45 | [− 1] | e 27 51 | SKKS | i 21 27 | PP | — |
| Ksara | | 136·7 | 300 | i 18 53 | [+ 5] | 21 57 | PP | i 20 3 | pPKP | — |
| Bergen | N. | 137·0 | 349 | — | — | e 34 57 | ? | — | — | — |
| Kishinev | | 137·7 | 321 | 18 48 | [− 2] | 28 6 | SKKS | e 20 1 | pPKP | — |
| Lwow | | 138·9 | 327 | e 18 45 | [− 7] | i 21 47 | PP | e 20 5 | pPKP | — |
| Copenhagen | | 139·4 | 341 | e 18 47 | [− 6] | 21 47 | PP | e 20 7 | pPKP | — |
| Istanbul | Z. | 140·1 | 313 | e 18 48? | [− 6] | e 24 12 | sPKS | e 19 56 | pPKP | — |
| Bucharest | N. | 140·6 | 319 | 18 58 | [+ 3] | — | — | e 21 52 | PP | — |
| Aberdeen | | 141·2 | 353 | i 21 8 | ? | 32 10 | PSKS | i 22 25 | PP | e 61·2 |
| Helwan | Z. | 141·2 | 295 | 18 50 | [− 7] | 22 8 | PKS | 20 7 | pPKP | — |
| Skalnate Pleso | | 141·2 | 329 | e 18 53 | [− 4] | e 25 27 | [− 9] | e 20 12 | pPKP | — |
| Raciborzu | | 141·6 | 332 | e 18 54 | [− 3] | e 25 36 | [− 1] | e 22 1 | PP | — |
| Potsdam | | 142·0 | 338 | i 18 53k | [− 5] | e 22 16 | PKS | e 20 12 | pPKP | e 62·4 |
| Collmberg | | 142·8 | 336 | e 18 55 | [− 5] | e 29 29 | SKKS | e 19 41 | ? | e 41·5 |
| Timisoara | | 142·8 | 323 | i 18 57a | [− 3] | e 21 34 | ? | e 20 22? | ? | — |
| Ogyalla | | 143·1 | 328 | e 19 3 | [+ 3] | e 33 55 | PS | e 21 3 | sPKP | — |
| Szeged | | 143·1 | 325 | 19 0 | [ 0] | 22 31 | PP | 23 18 | PKS | — |
| Prague | | 143·2 | 334 | e 18 56a | [− 4] | 27 58 | SKKS | e 20 23 | pPKP | — |
| Sofia | | 143·2 | 318 | e 19 0 | [ 0] | — | — | — | — | — |
| Kalocsa | | 143·6 | 327 | e 19 1 | [ 0] | e 22 13 | PP | e 20 7 | pPKP | — |
| Witteveen | Z. | 143·6 | 344 | i 18 59 | [− 2] | — | — | — | — | — |
| Jena | | 143·7 | 336 | e 18 59 | [− 2] | e 22 43 | PKS | e 22 32 | PP | — |
| Vienna | | 143·7 | 330 | e 19 0 | [− 1] | e 19 14 | PKP, | e 20 4 | pPKP | — |
| Belgrade | | 143·8 | 322 | e 18 59a | [− 2] | e 19 18 | PKP, | e 22 47 | PKS | e 41·0 |
| Cheb | | 144·1 | 336 | 19 0k | [− 2] | e 25 16 | [−25] | e 20 2 | pPKP | — |
| De Bilt | | 144·7 | 344 | i 19 3a | [ 0] | e 22 25 | PP | e 20 40 | sPKP | — |

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|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Athens | | 145·1 | 310 | i 19 2a | [− 1] | — | — | i 19 5 | PKP | — |
| Rathfarnham Castle | | 145·4 | 356 | i 19 3a | [− 1] | e 22 16 | PP | i 20 9 | pPKP | — |
| Stuttgart | | 146·3 | 338 | i 19 5a | [ 0] | e 26 52 | [+68] | i 20 20 | pPKP | e 66·4 |
| Karlsruhe | z. | 146·4 | 338 | e 19 6 | [ 0] | e 22 34 | PP | e 20 21 | pPKP | — |
| Kew | | 146·5 | 349 | i 19 6a | [ 0] | i 24 7 | [−97] | i 22 33 | PP | e 56·4 |
| Triest | | 146·8 | 329 | i 19 7 | [+ 1] | e 29 8 | SKKS | i 20 18 | pPKP | — |
| Strasbourg | | 147·0 | 339 | e 19 6a | [ 0] | i 21 59 | SKP | i 20 23 | pPKP | e 58·9 |
| Zürich | | 147·7 | 337 | e 19 6a | [− 2] | e 22 39 | PP | e 20 22 | pPKP | — |
| Chur | | 147·8 | 335 | e 19 8a | [ 0] | — | — | e 20 11 | pPKP | — |
| Basle | | 148·0 | 338 | e 19 8a | [ 0] | — | — | e 22 43 | PP | — |
| Taranto | | 148·3 | 319 | 19 16 | [+ 8] | 42 6 | SS | e 20 56 | pPKP | — |
| Paris | | 148·4 | 345 | i 19 9 | [ 0] | i 29 2 | SKKS | i 20 26 | pPKP | — |
| Salo | | 148·4 | 333 | e 19 13? | [+ 4] | e 33 17? | PS | e 19 57 | ? | — |
| Neuchatel | | 148·6 | 337 | e 19 10 | [+ 1] | — | — | e 19 14 | ? | — |
| Padova | | 148·6 | 330 | e 20 12 | pPKP | e 42 15 | SS | — | — | — |
| Jersey | E. | 149·0 | 350 | e 19 19 | [+ 9] | e 41 39 | SS | — | — | — |
| Pavia | | 149·3 | 334 | e 19 9k | [− 1] | i 27 21 | ? | e 20 27 | pPKP | — |
| Florence | z. | 149·4 | 329 | i 19 10 | [ 0] | i 22 32 | PKS | i 20 25 | pPKP | — |
| Oropa | | 149·4 | 336 | i 19 3 | [− 7] | — | — | e 49 10 | ? | — |
| Prato | | 149·4 | 329 | i 18 35 | [−35] | e 34 52 | PPS | — | — | — |
| Rocca di Papa | N. | 150·1 | 326 | e 19 12 | [+ 1] | — | — | e 41 43 | SS | — |
| Rome | | 150·1 | 327 | i 19 10a | [− 1] | e 34 42 | PPS | 41 50 | SS | 69·4 |
| Messina | | 150·7 | 317 | e 19 12a | [ 0] | e 22 51 | PKS | e 29 23 | SKKS | 70·1 |
| Clermont-Ferrand | | 151·0 | 342 | e 19 14 | [+ 1] | e 31 43 | PKKS | e 20 27 | pPKP | — |
| Angra do Heroismo | E. | 154·9 | 34 | e 19 51 | [+33] | — | — | — | — | — |
| Tortosa | | 156·3 | 339 | i 19 52 | [+32] | — | — | i 23 30 | PKS | — |
| Toledo | | 158·3 | 348 | i 19 24a | [+ 2] | e 25 22 | [−36] | i 20 0 | $PKP_2$ | 53·4 |
| Algiers Univ. | z. | 158·8 | 331 | i 19 24 | [+ 1] | i 23 43 | PP | i 20 2 | $PKP_2$ | — |
| Alicante | | 158·8 | 341 | 19 12 | [−11] | 26 24 | [+26] | 20 31 | $PKP_2$ | 73·9 |
| Almeria | | 160·8 | 342 | i 19 26 | [+ 1] | 30 38 | SKKS | i 20 10 | $PKP_2$ | 76·8 |
| Granada | | 160·8 | 346 | i 19 26a | [+ 1] | 26 46 | [+46] | 20 10 | $PKP_2$ | 74·6 |
| Malaga | | 161·4 | 347 | i 19 30 | [+ 4] | 30 40 | SKKS | i 20 14 | $PKP_2$ | 73·2 |
| Tamanrasset | z. | 165·2 | 289 | i 19 32k | [+ 3] | e 25 54 | [−10] | e 20 42 | pPKP | — |

July 13d. 17h. 3m. 51s. Epicentre 41°·6N. 72°·9E. (given by stations of the U.S.S.R.).

A = +·2205, B = +·7168, C = +·6614 ; $\delta$ = −13 ; $h$ = −2 ;
D = +·956, E = −·294 ; G = +·194, H = +·632, K = −·750.

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | |
| Andijan | 0·9 | 205 | e 0 14 | − 6 | i 0 27 | − 7 | — | | — |
| Fergana | 1·5 | 215 | e 0 25 | − 3 | i 0 47 | − 2 | — | | — |
| Frunse | 1·8 | 44 | i 0 33 | + 1 | i 1 0 | + 4 | — | | — |
| Naryn | 2·3 | 94 | e 0 41 | + 1 | i 1 19 | + $3_g$ | — | | — |
| Rybach'e | 2·5 | 70 | i 0 45? | + 2 | i 1 25? | + $2_g$ | — | | — |
| Tchimkent | 2·6 | 286 | e 0 41 | − 3 | 1 15 | − 2 | e 1 4 | ? | |
| Tashkent | 2·7 | 264 | — | — | e 1 21 | + 2 | — | | — |
| Dzhergetal | 2·7 | 208 | 0 45 | 0 | 1 21 | + 2 | — | | — |
| Garm | 3·3 | 217 | — | — | e 1 34 | − 1 | — | | — |
| Murgab | 3·3 | 166 | e 1 5 | − $1_g$ | — | — | — | | — |
| Almata | 3·4 | 59 | e 1 0 | − 1* | i 1 49 | − $3_g$ | — | | — |
| Almata II | 3·7 | 62 | i 0 59 | − 1 | — | — | — | | — |
| Obi-garm | 3·8 | 222 | e 1 3 | + 2 | e 1 47 | 0 | — | | — |
| Ili | 3·9 | 51 | e 1 3 | + 1 | — | — | — | | — |
| Kurmenty | 4·2 | 68 | i 1 15 | 0* | — | — | — | | — |
| Przhevalsk | 4·2 | 76 | — | — | i 2 14 | − $5_g$ | — | | — |
| Stalinabad | 4·4 | 228 | e 1 21 | + 3* | — | — | — | | — |

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July 13d. 17h. 34m. 32s. Epicentre 3°·1S. 127°·4E. Focus at Base of Superficial Layers.

Intensity III-IV at Amboina.
Suggested epicentre : 3°·0S. 127°·0E. (Strasbourg).
3°·5S. 129°·0E. (U.S.S.R.).
3°·1S. 127°·4E. (Djakarta).
Earthquakes in Indonesia, 1948-1955, Meteorological and Geophysical Institute, Djakarta, Series A, No. 45, p. 35.

$A = -·6065$, $B = +·7933$, $C = -·0537$ ; $\delta = +5$ ; $h = +7$ ;
$D = +·794$, $E = +·607$ ; $G = +·033$, $H = -·043$, $K = -·999$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Manila | | 18·7 | 340 | i 4 17 | − 1 | i 7 30 | −12 | e 4 35 | PP | — |
| Bandong | | 20·0 | 290 | i 4 30 | − 2 | i 8 15 | + 4 | — | — | — |
| Djakarta | | 20·7 | 291 | e 4 35a | − 5 | e 8 21 | − 3 | — | — | — |
| Yakusima | | 33·5 | 5 | e 6 48 | +10 | — | — | — | — | — |
| Brisbane | | 34·5 | 137 | e 6 47 | 0 | i 12 6 | − 6 | i 8 4 | PP | i 17·0 |
| Miyazaki | | 35·0 | 7 | e 6 50 | − 1 | e 12 22 | + 2 | — | — | 20·0 |
| Nanking | | 35·9 | 347 | e 7 0k | + 1 | i 12 33 | − 1 | i 7 4 | P | — |
| Ooita | | 36·4 | 6 | e 7 6 | + 3 | i 12 44 | + 2 | e 8 10 | PP | e 18·7 |
| Hukuoka | | 36·6 | 5 | e 7 4 | − 1 | 12 39 | − 6 | — | — | e 15·6 |
| Koti | | 36·9 | 8 | e 7 8 | + 1 | e 12 51 | + 1 | e 7 35 | ? | — |
| Siomisaki | | 37·2 | 13 | e 7 11 | + 1 | e 13 0 | + 6 | — | — | 15·6 |
| Hirosima | | 37·6 | 7 | 6 58 | −15 | 12 52 | − 8 | — | — | — |
| Riverview | | 37·8 | 147 | i 7 14a | − 1 | i 13 4 | + 1 | i 7 23 | pP | e 15·6 |
| Sumoto | | 37·9 | 11 | i 7 16 | 0 | i 13 9 | + 4 | — | — | i 19·0 |
| Hamada | | 38·0 | 6 | 7 18 | + 1 | e 12 59 | − 7 | — | — | e 18·3 |
| Kobe | | 38·3 | 11 | e 7 20 | + 1 | e 13 12 | + 1 | e 8 54 | PP | e 14·8 |
| Osaka | | 38·3 | 11 | e 7 33 | +14 | e 13 15 | + 4 | — | — | — |
| Kameyama | | 38·7 | 13 | 7 22 | 0 | i 13 16 | − 1 | 9 16 | PP | 18·1 |
| Nagoya | | 39·1 | 13 | 7 27 | + 1 | i 13 27 | + 4 | — | — | — |
| Osima | | 39·3 | 16 | e 7 36 | + 9 | e 13 30 | + 4 | — | — | — |
| Kohu | | 39·9 | 15 | e 7 33 | + 1 | e 13 41 | + 6 | — | — | — |
| Tokyo | | 40·3 | 15 | e 7 39 | + 3 | 13 50 | + 9 | e 13 9 | ? | e 16·3 |
| Matumoto | N. | 40·4 | 13 | e 7 39 | + 3 | e 13 46 | + 4 | — | — | — |
| Kumagaya | | 40·6 | 14 | e 7 50 | +12 | e 13 42 | − 3 | — | — | — |
| Oiwake | | 40·6 | 13 | e 7 42 | + 4 | e 13 44 | − 1 | — | — | — |
| Toyama | | 40·6 | 12 | 7 38 | 0 | 13 46 | + 1 | e 7 56 | pP | — |
| Matusiro | | 40·7 | 13 | i 7 37 | − 2 | 13 43 | − 4 | 10 14 | PP | 16·9 |
| Maebasi | | 40·8 | 13 | e 7 48 | + 8 | e 14 10 | +22 | — | — | — |
| Nagano | | 40·8 | 13 | e 7 39 | − 1 | 13 47 | − 1 | i 14 13 | ? | e 17·8 |
| Mito | | 41·1 | 15 | e 7 50 | + 8 | 13 56 | + 3 | — | — | — |
| Wazima | | 41·1 | 11 | e 7 46 | + 4 | e 13 57 | + 4 | — | — | — |
| Onahama | | 41·8 | 15 | e 7 49 | + 1 | e 13 58 | − 5 | e 8 16 | pP | e 21·0 |
| Inawasiro | | 42·2 | 14 | e 7 53 | + 2 | e 14 10 | + 1 | — | — | — |
| Hukusima | | 42·4 | 14 | e 7 54 | + 1 | e 14 8 | − 4 | e 11 59 | ? | — |
| Yamagata | | 42·8 | 14 | e 7 57 | + 1 | e 14 21 | + 3 | — | — | — |
| Sendai | | 43·0 | 15 | e 7 58 | 0 | 14 26 | + 5 | e 18 2 | SS | e 19·5 |
| Mizusawa | | 43·9 | 15 | 8 7 | + 2 | 14 33 | − 1 | — | — | — |
| Akita | | 44·2 | 14 | 8 9 | + 1 | e 14 42 | + 4 | e 18 10 | SS | — |
| Morioka | | 44·4 | 15 | e 8 10 | + 1 | e 14 44 | + 3 | — | — | — |
| Miyako | | 44·6 | 15 | e 8 11 | 0 | e 14 52 | + 8 | — | — | — |
| Shillong | E. | 44·7 | 311 | i 8 12 | 0 | 14 42 | − 3 | 9 51 | PP | — |
| Aomori | | 45·4 | 14 | i 8 21 | + 4 | i 15 6 | +10 | — | — | — |
| Calcutta | N. | 45·9 | 306 | i 8 31 | +10 | i 15 11 | + 8 | 18 22 | SS | — |
| Vladivostok | | 46·2 | 5 | i 8 22 | − 2 | i 15 8 | + 1 | — | — | — |
| Mori | | 46·6 | 13 | 8 32 | + 5 | 15 17 | + 4 | — | — | — |
| Urakawa | | 47·2 | 16 | e 8 35 | + 4 | e 15 9 | −12 | e 10 11 | PP | e 18·9 |
| Sapporo | | 47·6 | 14 | e 8 34 | 0 | e 15 27 | 0 | e 18 52 | SS | i 19·6 |
| Colombo | E. | 48·5 | 282 | 8 43 | + 1 | 15 35 | − 4 | — | — | 25·2 |
| Madras | E. | 49·5 | 290 | i 8 54 | + 5 | i 16 14 | +21 | 10 47 | PP | 24·8 |
| Kodaikanai | E. | 51·4 | 286 | e 9 2 | − 2 | e 16 14 | − 6 | 14 16 | PcS | 23·4 |
| Yuzno-Sakhlinsk | | 51·6 | 13 | 9 3 | − 2 | — | — | — | — | — |
| Hyderabad | | 52·4 | 294 | i 9 13 | + 2 | i 16 32 | − 1 | 11 21 | PP | 24·1 |
| Uglegorsk | | 53·5 | 13 | 9 20 | + 1 | 16 51 | + 3 | — | — | — |
| Auckland | N. | 55·0 | 134 | 9 30 | 0 | 16 10 | −58 | 18 31 | ? | e 22·0 |
| Cobb River | E. | 55·5 | 139 | e 9 32 | − 2 | e 17 17 | + 2 | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kaimata | N.E. | 55·5 | 141 | e 9 38 | + 4 | — | — | — | — | — |
| Karapiro | N. | 55·9 | 135 | e 9 35 | − 2 | — | — | — | — | — |
| Kyakhta | | 56·2 | 344 | 9 36 | − 3 | 17 22 | − 3 | — | — | — |
| Christchurch | | 56·7 | 142 | i 9 44 | + 1 | i 17 31 | 0 | 19 35 | ScS | — |
| Poona | | 56·9 | 294 | i 9 45 | + 1 | i 17 29 | − 5 | 10 49 | PcP | 24·1 |
| Wellington | | 57·0 | 138 | 9 42 | − 3 | e 17 29 | − 6 | 17 48 | PS | e 23·2 |
| New Delhi | | 57·5 | 307 | e 9 46 | − 2 | i 17 36 | − 6 | 12 7 | PP | 26·8 |
| Tuai | N. | 57·5 | 135 | e 9 46 | − 2 | e 17 37 | − 5 | — | — | — |
| Kabansk | | 57·7 | 345 | e 9 48 | − 2 | 17 45 | + 1 | — | — | — |
| Bombay | | 58·0 | 294 | e 9 53 | + 1 | i 17 46 | − 2 | 11 57 | PP | 26·5 |
| Irkutsk | | 58·5 | 343 | e 9 53 | − 2 | 17 57 | + 2 | — | — | — |
| Petropavlovsk | | 61·9 | 20 | i 10 18 | 0 | i 18 38 | 0 | — | — | — |
| Przhevalsk | | 63·4 | 322 | i 10 27 | − 1 | i 19 2 | + 5 | — | — | — |
| Kurmenty | | 63·7 | 323 | e 10 29 | − 1 | — | — | — | — | — |
| Murgab | | 64·3 | 316 | i 10 28 | − 6 | e 19 2 | − 6 | — | — | — |
| Naryn | | 64·3 | 319 | e 10 36 | + 2 | i 19 11 | + 3 | — | — | — |
| Almata II | | 64·4 | 322 | e 10 37 | + 2 | — | — | — | — | — |
| Almata | | 64·7 | 322 | i 10 37 | 0 | i 19 14 | + 1 | — | — | — |
| Rybach'e | | 64·8 | 320 | e 10 37 | − 1 | i 19 17 | + 3 | — | — | — |
| Ili | | 65·0 | 323 | e 10 36? | − 3 | e 19 20? | + 3 | — | — | — |
| Klyuchi | | 65·2 | 20 | i 10 40 | 0 | 19 25? | + 5 | — | — | — |
| Khorog | | 65·5 | 313 | i 10 44 | + 2 | i 19 26 | + 3 | — | — | — |
| Frunse | | 66·0 | 320 | i 10 46 | + 1 | i 19 29 | 0 | — | — | — |
| Andijan | | 66·4 | 317 | e 10 46 | − 2 | i 19 38 | + 4 | — | — | — |
| Quetta | | 66·4 | 305 | i 10 49 | + 1 | i 19 34 | 0 | i 12 50 | PP | 30·5 |
| Dzhergetal | | 66·6 | 315 | e 10 52 | + 3 | — | — | — | — | — |
| Fergana | | 66·7 | 317 | e 10 48 | − 2 | i 19 37 | − 1 | — | — | — |
| Semipalatinsk | | 66·8 | 330 | e 10 48 | − 2 | — | — | — | — | — |
| Namangan | | 67·0 | 317 | e 10 51 | − 1 | i 19 43 | + 2 | — | — | — |
| Obi-garm | | 67·4 | 315 | i 10 50 | − 4 | i 19 42 | − 4 | — | — | — |
| Stalinabad | | 68·0 | 314 | e 10 55 | − 3 | i 19 53 | 0 | — | — | — |
| Tashkent | | 68·8 | 317 | i 11 0 | − 3 | e 20 1 | − 2 | — | — | — |
| Tchimkent | | 69·0 | 318 | i 11 4 | 0 | i 20 9 | + 4 | — | — | — |
| Samarkand | | 69·7 | 314 | 11 8 | 0 | — | — | — | — | — |
| Mitchell Field | | 72·3 | 33 | i 11 34 | +10 | i 20 44 | 0 | — | — | — |
| Ashkabad | | 75·6 | 310 | e 11 45 | + 2 | e 21 27 | + 6 | — | — | — |
| Kizyl-Arvat | | 77·4 | 312 | 11 56 | + 3 | 21 42 | + 2 | — | — | — |
| Tananarive | | 79·4 | 251 | e 12 5 | + 1 | e 22 7 | + 5 | 22 31 | ScS | 38·5 |
| Baku | | 82·5 | 311 | 12 25 | + 4 | e 22 39 | + 5 | — | — | — |
| Lenkoran | | 83·0 | 309 | 12 24 | + 1 | 22 37 | − 2 | — | — | — |
| Shemakla | | 83·5 | 311 | i 12 29 | + 3 | i 22 48 | + 4 | — | — | — |
| Goris | | 85·1 | 310 | 12 33 | − 1 | 23 4 | + 5 | — | — | — |
| Kirovobad | | 85·2 | 311 | 12 36 | + 2 | — | — | — | — | — |
| Grozny | | 86·0 | 314 | e 12 36 | − 2 | i 22 57 | [− 2] | — | — | — |
| Tiflis | | 86·5 | 312 | i 12 41 | 0 | e 23 10 | − 3 | — | — | — |
| Erevan | | 86·6 | 310 | i 12 44? | + 3 | 23 12? | − 2 | — | — | — |
| Leninakan | | 87·1 | 311 | 12 48 | + 4 | 23 12 | − 7 | — | — | — |
| Tsikhlis-Dzhvari | | 87·5 | 312 | i 13 1? | +15 | 23 28? | + 5 | 16 25? | PP | — |
| Abastumanj | | 88·0 | 312 | e 12 50 | + 2 | — | — | — | — | — |
| Piatigorsk | | 88·1 | 314 | 12 50 | + 2 | 23 30 | + 2 | — | — | — |
| Zugdidi | | 88·8 | 312 | e 12 53 | + 1 | i 23 26 | − 9 | — | — | — |
| Sotchi | | 90·4 | 314 | i 12 58 | − 1 | i 23 47 | − 2 | e 16 31 | PP | — |
| College | | 90·6 | 25 | e 12 59 | − 1 | e 23 21 | [− 6] | i 13 43 | pP | — |
| Moscow | | 92·4 | 326 | 13 8 | − 1 | 23 36 | [− 1] | 16 54 | PP | — |
| Ksara | | 93·0 | 304 | i 13 15?k | + 4 | 26 59 | PPS | 17 9 | PP | — |
| Theodosia | | 93·6 | 315 | e 13 13 | − 1 | e 23 46 | [+ 2] | — | — | — |
| Simferopol | | 94·5 | 315 | i 13 18 | 0 | e 23 53 | [+ 4] | e 16 59 | PP | — |
| Yalta | | 94·5 | 314 | 13 16 | − 2 | 23 49 | [ 0] | e 16 55 | PP | — |
| Pulkovo | | 96·2 | 330 | e 13 28 | + 2 | i 23 59 | [ 0] | e 17 35 | PP | — |
| Sitka | | 96·5 | 33 | e 13 33 | + 6 | e 24 4 | [+ 4] | — | — | — |
| Helwan | z. | 96·8 | 300 | e 13 28 | − 1 | 24 33 | −12 | 17 16 | PP | — |
| Kishinev | | 98·1 | 317 | 13 38 | + 4 | 24 13 | [+ 5] | 17 40 | PP | — |
| Istanbul | | 98·3 | 311 | e 13 39 | + 4 | e 24 21? | [+12] | e 17 43 | PP | — |
| Helsinki | | 98·9 | 331 | — | — | e 24 36 | [+24] | e 28 52 | ? | — |
| Kiruna | | 99·2 | 338 | i 13 38 | − 2 | i 24 16 | [+ 2] | i 17 12 | PP | e 41·5 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kimberley | Z. | 99·5 | 241 | i 13 41 | 0 | — | — | — | — | — |
| Bucharest | N. | 100·2 | 315 | e 13 56 | +12 | e 24 27 | [+ 8] | i 24 43 | SKKS | — |
| Lwow | | 101·0 | 320 | e 13 51 | + 3 | i 24 17 | [− 6] | i 18 2 | PP | — |
| Uzhgorod | | 102·3 | 319 | i 14 13 | pP | 24 54 | [+25] | 18 32 | PP | — |
| Upsala | | 102·5 | 331 | e 13 57 | + 3 | e 24 30? | [ 0] | e 20 34 | PPP | e 48·5 |
| Athens | | 102·7 | 308 | — | — | e 24 33? | [+ 2] | i 24 46 | sSKS | — |
| Timisoara | | 103·3 | 317 | e 14 16 | +18 | e 24 40 | [+ 7] | — | — | — |
| Skalnate Pleso | | 103·5 | 320 | e 18 6 | PKP | e 24 40 | [+ 6] | e 18 32 | PP | — |
| Resolute Bay | | 104·4 | 11 | 14 15 | +12 | (24 34) | [− 4] | 18 19 | PP | 24·6 |
| Budapest | | 104·6 | 318 | e 18 28 | PP | e 24 43 | [+ 4] | 20 28 | PPP | — |
| Raciborzu | | 104·6 | 322 | e 14 7 | + 3 | e 24 46 | [+ 7] | e 18 34 | PP | — |
| Kalossa | | 104·9 | 318 | e 19 2 | PP | 24 51 | [+11] | 20 59 | PPP | — |
| Victoria | | 105·0 | 41 | 18 20 | [+ 2] | — | — | — | — | — |
| Ogyalla | | 105·1 | 319 | e 19 2 | P' | 24 54 | [+13] | e 25 42 | SKKS | — |
| Seattle | | 105·9 | 42 | e 18 42 | PP | i 24 52 | [+ 7] | i 27 49 | PS | — |
| Vienna | | 106·2 | 320 | e 18 35 | PP | i 24 55 | [+ 9] | e 21 3 | PPP | — |
| Copenhagen | | 106·4 | 328 | 18 40 | PP | 24 55 | [+ 8] | 26 13 | S | 43·5 |
| Prague | | 107·0 | 322 | e 14 18 | P | e 24 49 | [− 1] | e 18 9 | PKP | e 51·5 |
| Potsdam | | 107·1 | 325 | e 14 15 | P | i 24 58 | [+ 8] | e 21 7 | PPP | e 51·5 |
| Shasta | Z. | 107·3 | 49 | e 14 22 | P | e 18 50 | PP | e 17 48 | PKP | — |
| Collmberg | | 107·5 | 323 | e 14 29 | P | e 24 54 | [+ 2] | e 19 0 | PP | e 42·6 |
| Berkeley | Z. | 107·9 | 52 | e 18 56 | PP | — | — | — | — | — |
| Mineral | Z. | 108·0 | 49 | e 14 22 | P | — | — | e 18 37 | PKP | — |
| Bergen | | 108·1 | 335 | — | — | e 33 37 | SS | — | — | e 52·0 |
| Santa Clara | | 108·2 | 52 | e 18 59 | PP | e 28 9 | PS | i 34 18 | SS | e 50·0 |
| Cheb | | 108·3 | 323 | e 19 3 | PP | e 25 4 | [+ 8] | e 25 50 | SKKS | — |
| Jena | | 108·5 | 323 | e 18 12? | [−13] | e 26 33 | +11 | e 19 2 | PP | — |
| Lick | Z. | 108·5 | 52 | e 14 25 | P | i 18 35 | PP | e 17 56 | PKP | — |
| Triest | | 108·6 | 318 | e 14 21 | P | 26 26 | + 4 | 18 26? | PKP | 58·3 |
| Messina | | 109·0 | 310 | e 14 35 | P | e 28 31 | PS | e 19 1 | PP | — |
| Reno | Z. | 109·5 | 49 | e 14 34 | P | — | — | e 18 6 | PKP | — |
| Scoresby Sund | | 109·8 | 350 | e 19 11 | PP | e 25 7 | [+ 5] | e 25 58 | SKKS | — |
| Fresno | Z. | 110·1 | 52 | e 14 37 | P | e 18 32 | PKP | e 18 1 | ? | — |
| Padova | | 110·2 | 317 | e 19 3 | PP | e 25 15 | [+11] | e 37 43 | SSS | — |
| Rocca di Papa | N. | 110·3 | 314 | e 18 20? | [− 8] | e 34 29 | SS | — | — | e 60·5 |
| Rome | | 110·5 | 314 | e 14 29 | P | i 26 46 | S | e 19 2 | PP | — |
| Stuttgart | | 110·6 | 322 | e 18 6? | [−23] | e 26 44 | S | e 19 18 | PP | e 52·5 |
| Florence | Z. | 110·8 | 316 | e 14 33 | P | i 26 47 | S | e 18 58 | PP | — |
| Hungry Horse | | 111·0 | 39 | e 18 43 | [+13] | — | — | — | — | — |
| Karlsruhe | Z. | 111·0 | 323 | e 18 57 | PP | — | — | e 19 35 | pPP | — |
| Tinemaha | Z. | 111·2 | 52 | i 14 43 | P | i 19 11 | PP | i 18 33 | PKP | — |
| Zürich | | 111·5 | 321 | e 18 12 | [−19] | e 27 17 | ? | — | — | — |
| Strasbourg | | 111·6 | 323 | e 18 0 | [−31] | e 26 49 | S | e 19 17 | PP | e 53·5 |
| De Bilt | | 111·8 | 326 | e 19 22 | PP | e 26 58 | S | e 34 58 | SS | e 60·5 |
| Pasadena | | 111·9 | 55 | e 14 47 | P | e 25 16 | [+ 6] | e 18 35 | PKP | e 49·5 |
| China Lake | Z. | 112·0 | 52 | i 14 49 | P | — | — | i 18 36 | PKP | — |
| Basle | | 112·1 | 321 | e 18 21 | [−11] | e 28 56 | PS | e 27 25 | S | — |
| Oropa | | 112·5 | 318 | — | — | e 26 17 | SKKS | — | — | — |
| Riverside | Z. | 112·7 | 55 | i 14 46 | P | — | — | i 18 36 | PKP | — |
| Aberdeen | | 113·0 | 333 | — | — | i 25 26 | [+11] | i 27 14 | S | e 51·6 |
| Palomar | Z. | 113·1 | 55 | i 19 36 | PP | — | — | — | — | — |
| Boulder City | | 114·1 | 52 | e 18 41 | [+ 5] | — | — | — | — | — |
| Paris | | 114·7 | 324 | e 14 50 | P | i 27 26 | S | e 18 41 | PKP | e 54·5 |
| Kew | | 115·1 | 327 | e 19 48 | PP | e 35 33 | SS | e 21 47 | PPP | e 45·5 |
| Clermont-Ferrand | | 115·6 | 321 | e 18 50 | [+11] | e 29 30 | PS | e 19 49 | PP | 60·5 |
| Rathfarnham Castle | | 117·2 | 332 | e 19 48 | PP | e 30 4 | PPS | e 35 58 | SS | — |
| Tucson | | 118·3 | 55 | e 18 46 | [+ 2] | e 26 6 | [+31] | e 20 10 | PP | e 48·8 |
| Algiers Univ. | Z. | 119·0 | 311 | e 18 48 | [+ 2] | e 25 45 | [+ 7] | e 19 45 | PP | e 45·5 |
| Tortosa | | 119·3 | 316 | e 20 15 | PP | — | — | — | — | e 64·5 |
| Tamanrasset | Z. | 120·5 | 295 | e 18 51 | [+ 3] | e 27 58 | S | e 20 10 | PP | 41·5 |
| Alicante | | 121·0 | 314 | 18 56 | [+ 7] | 26 0 | [+16] | 20 36 | PP | 58·6 |
| Toledo | | 122·9 | 317 | e 18 57 | [+ 4] | e 37 18 | SSP | e 20 36 | PP | 63·0 |
| Almeria | | 123·1 | 313 | e 18 56 | [+ 3] | 26 8 | [+17] | 20 42 | PP | 65·1 |
| Granada | | 123·7 | 314 | 18 58a | [+ 3] | 26 53 | SKKS | i 20 40 | PP | 70·8 |
| Lubbock | | 125·0 | 51 | e 18 59 | [+ 2] | — | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kirkland Lake | z. | 129·2 | 24 | e 19 6 | [+ 1] | — | — | — | — | — |
| Fayetteville | z. | 129·5 | 45 | i 19 6 | [ 0] | e 22 29 | PKS | i 21 14 | PP | e 66·0 |
| Tacubaya | | 131·7 | 67 | e 19 26 | [+16] | e 22 43 | PKS | — | — | — |
| Shawinigan Falls | N. | 133·3 | 19 | e 19 5 | [− 8] | 26 8 | [−11] | 22 38 | PKS | — |
| Ottawa | | 133·4 | 23 | i 19 15a | [+ 2] | 26 19 | [ 0] | 21 42 | PP | 54·5 |
| Cleveland | | 133·8 | 31 | e 19 14k | [ 0] | i 22 44 | PKS | e 21 51 | PP | — |
| Buffalo (Larkin) | | 134·1 | 27 | e 19 15 | [+ 1] | — | — | e 22 42 | PKS | — |
| Morgantown | | 136·0 | 31 | i 19 20 | [+ 2] | — | — | i 22 49 | PKS | — |
| Harvard | | 137·3 | 20 | e 19 15 | [− 5] | i 22 55 | PKS | e 22 14 | PP | — |
| Weston | | 137·5 | 20 | e 19 17 | [− 4] | e 22 54 | PKS | e 40 14 | SS | e 66·3 |
| Angra do Heroismo | E. | 137·7 | 330 | — | — | e 22 56 | PKS | — | — | — |
| Palisades | | 137·7 | 24 | e 19 9 | [−12] | e 28 55 | SKKS | i 22 15 | PP | e 69·2 |
| City College, N.Y. | | 137·8 | 24 | e 19 24 | [+ 3] | — | — | i 22 55 | PKS | — |
| Fordham | | 137·8 | 24 | 19 18 | [− 3] | — | — | 22 53 | PKS | — |
| Washington | | 138·0 | 28 | i 19 24 | [+ 2] | — | — | i 22 21 | PP | — |
| La Plata | | 141·9 | 173 | 22 22 | PP | 23 4 | PKS | 31 46 | PS | 70·5 |
| Bermuda | | 148·7 | 20 | e 19 33 | [− 7] | e 23 17 | PKS | e 42 55 | SS | e 78·1 |
| Huancayo | | 152·9 | 125 | e 19 52 | [+ 6] | e 29 42 | SKKS | e 23 38 | PP | e 65·3 |
| La Paz | | 155·2 | 143 | i 19 50k | [+ 1] | 26 50 | [− 1] | 20 8 | $PKP_2$ | 73·5 |
| Galerazamba | | 156·3 | 70 | — | — | e 25 42 | [−70] | e 36 40 | PPS | — |
| Chinchina | | 157·0 | 83 | i 19 54 | [+ 2] | e 24 7 | PP | i 20 32 | $PKP_1$ | — |
| Bogota | | 158·5 | 85 | i 19 58 | [+ 4] | i 27 26 | [+32] | i 24 26 | PP | 74·5 |
| San Juan | | 159·8 | 40 | i 19 58 | [+ 3] | — | — | 24 32 | PP | — |
| Fort de France | | 165·7 | 36 | e 20 10 | [+ 9] | e 35 30 | PS | — | — | — |

**July 15d. 6h 6m. 24s. Epicentre 14°·5N. 92°·3W. Focus at Base of Superficial Layers.**
**(as on 1952, May 16d.).**

Felt at Tapachula and Suchiate in the State of Chiapas.
Epicentre 14°32′N. 92°19′W. Depth 100km.
Monthly Seismo. Bull. Tacubaya, July, 1952, p. 4.

$A = -·0389$, $B = -·9678$, $C = +·2488$; $\delta = +5$; $h = +6$;
$D = -·999$, $E = +·040$; $G = -·010$, $H = -·249$, $K = -·969$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Oaxaca | | 4·9 | 300 | e 1 16 | + 3 | i 2 22 | +12 | — | — | — |
| Vera Cruz | | 5·9 | 323 | e 1 30 | + 3 | i 2 44 | + 9 | — | — | — |
| Merida | | 6·9 | 20 | e 1 43 | + 2 | i 2 55 | − 5 | i 3 8 | S | — |
| Puebla | | 7·2 | 309 | e 1 45 | − 1 | i 3 12 | + 5 | i 1 50 | P | i 3·5 |
| Tacubaya | | 8·2 | 307 | i 2 3a | + 3 | i 3 38 | + 6 | — | — | 4·0 |
| Kingston | | 15·3 | 75 | i 3 56 | PPP | i 7 16 | SSS | — | — | e 9·0 |
| Galerazamba | | 17·0 | 99 | e 4 24 | +27 | e 7 32 | +29 | — | — | — |
| Chinchina | | 19·0 | 116 | i 4 17 | − 5 | i 7 55 | + 7 | i 4 35 | PP | — |
| Bogota | | 20·5 | 117 | i 4 36 | − 2 | i 8 32 | +12 | i 14 58 | ? | — |
| Lubbock | | 20·9 | 338 | e 4 44 | + 2 | — | — | e 5 36 | ? | — |
| Fayetteville | z. | 21·6 | 357 | i 4 50 | + 1 | e 8 58 | PcP | i 5 6 | pP | — |
| Columbia | | 21·9 | 25 | i 4 55 | + 3 | i 9 3 | sS | — | — | — |
| Tucson | | 24·5 | 320 | i 5 19 | + 2 | e 9 50 | sS | — | — | — |
| San Juan | | 25·4 | 77 | e 5 57 | +31 | e 10 15 | +27 | — | — | — |
| Morgantown | | 27·3 | 21 | i 5 44 | 0 | — | — | i 6 51 | PPP | — |
| Chicago | | 27·5 | 7 | e 5 26 | −19 | e 11 11 | SS | — | — | — |
| Washington | | 27·8 | 26 | e 5 52 | + 4 | — | — | i 6 46 | PP | — |
| Cleveland | | 28·5 | 17 | i 5 54a | 0 | e 10 53 | +15 | — | — | — |
| Palomar | | 29·1 | 315 | i 6 2 | + 2 | — | — | — | — | — |
| Boulder City | | 29·4 | 321 | i 6 4 | + 2 | — | — | — | — | e 16·0 |
| Riverside | z. | 29·8 | 315 | i 6 6k | 0 | — | — | e 9 4 | PcP | — |
| Fort de France | | 30·1 | 85 | e 9 29 | ? | — | — | — | — | e 15·4 |
| Pasadena | | 30·5 | 315 | i 6 12k | 0 | e 11 16 | + 6 | e 7 18 | PP | e 13·5 |
| Buffalo (Larkin) | | 30·6 | 20 | i 6 13 | 0 | — | — | — | — | — |
| City College, N.Y. | | 30·7 | 28 | e 6 13 | − 1 | e 11 21 | + 8 | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Bermuda | | 30·8 | 49 | i 6 14 | − 1 | — | — | — | — | e 12·6 |
| Fordham | | 30·8 | 28 | e 6 17 | + 2 | e 11 23 | + 8 | — | — | — |
| Palisades | | 30·9 | 28 | i 6 15 | − 1 | e 11 18 | + 2 | — | — | e 16·9 |
| China Lake | z. | 31·1 | 319 | i 6 18k | + 1 | — | — | — | — | e 16·4 |
| Huancayo | | 31·3 | 147 | i 6 15 | − 4 | e 11 27 | + 4 | e 13 36 | SSS | e 16·2 |
| Tinemaha | z. | 32·2 | 319 | i 6 28 | + 1 | (e 13 30) | SS | — | — | e 13·5 |
| Fresno | z. | 33·0 | 318 | e 6 34k | 0 | — | — | — | — | — |
| Harvard | | 33·1 | 29 | e 6 34k | − 1 | e 12 0 | + 9 | — | — | e 17·1 |
| Weston | | 33·2 | 29 | e 6 35 | − 1 | e 12 0 | + 8 | — | — | — |
| Ottawa | | 33·8 | 21 | i 6 41k | 0 | 12 9 | + 7 | 14 6 | SS | — |
| Lick | z. | 34·6 | 317 | i 6 49k | + 1 | — | — | i 7 0 | pP | — |
| Reno | z. | 34·7 | 322 | e 6 50k | + 1 | — | — | — | — | — |
| Santa Clara | | 34·8 | 317 | e 6 51a | + 1 | e 12 36 | sS | — | — | e 18·2 |
| Kirkland Lake | z. | 35·1 | 15 | e 6 51k | − 1 | — | — | — | — | — |
| Berkeley | z. | 35·3 | 317 | e 6 54 | 0 | — | — | — | — | — |
| Shawinigan Falls | N. | 35·9 | 23 | e 6 58 | − 1 | 8 28 | PP | 17 31 | ScS | — |
| Mineral | z. | 36·3 | 321 | i 7 3k | + 1 | — | — | — | — | — |
| Shasta | z. | 37·0 | 321 | e 7 6k | − 2 | — | — | — | — | — |
| Hungry Horse | | 38·2 | 337 | i 7 20 | + 2 | — | — | — | — | — |
| La Paz | | 39·0 | 141 | i 7 23k | − 2 | i 13 26 | + 5 | i 8 56 | PP | i 19·3 |
| Saskatoon | | 39·3 | 346 | (9 0) | PP | — | — | — | — | 9·0 |
| Seattle | | 41·4 | 330 | i 7 46k | + 1 | e 14 6 | + 9 | i 9 20 | PP | — |
| Victoria | | 42·5 | 330 | i 7 54k | 0 | 14 28 | +15 | — | — | 23·4 |
| Resolute Bay | | 60·2 | 359 | e 10 3 | − 4 | 18 17 | 0 | 10 43 | PcP | 29·6 |
| College | | 62·7 | 337 | 10 22 | − 2 | i 22 29 | SS | — | — | — |
| Scoresby Sund | | 69·9 | 19 | — | — | e 20 39 | sS | — | — | 34·6 |
| Kew | | 80·0 | 39 | e 12 11 | + 3 | — | — | — | — | e 33·6 |
| Granada | | 80·4 | 54 | i 12 12k | + 2 | — | — | — | — | — |
| Paris | | 82·4 | 42 | e 12 17 | − 3 | e 22 35 | + 2 | e 12 30 | pP | e 42·6 |
| De Bilt | | 83·2 | 38 | e 12 26 | + 2 | e 22 41 | 0 | e 22 51 | PS | e 43·6 |
| Clermont-Ferrand | | 83·5 | 45 | e 12 35 | PcP | e 23 10 | sS | e 24 6 | PPS | 42·1 |
| Kiruna | z. | 84·9 | 22 | i 12 36? | + 3 | — | — | — | — | — |
| Algiers Univ. | z. | 85·7 | 54 | e 12 37 | 0 | e 24 7 | PS | e 20 20 | ? | — |
| Strasbourg | | 85·8 | 41 | e 12 35 | − 2 | e 23 10 | + 4 | e 12 54 | pP | e 43·6 |
| Copenhagen | | 86·2 | 34 | e 12 36 | − 3 | 23 9 | − 1 | — | — | 44·6 |
| Stuttgart | | 86·6 | 41 | e 12 42 | + 1 | e 23 12 | − 2 | e 24 39 | PPS | 44·6 |
| Oropa | | 86·8 | 44 | 12 40 | − 2 | — | — | — | — | — |
| Jena | E. | 87·4 | 38 | e 12 47? | + 2 | — | — | e 13 26 | ? | — |
| Potsdam | | 87·8 | 36 | e 12 52 | + 5 | e 23 27 | + 1 | e 23 32 | S | e 39·6 |
| Prague | | 89·4 | 38 | e 13 53 | +58 | e 23 36 | − 4 | e 32 15 | ? | e 52·1 |
| Florence | | 89·6 | 45 | e 13 11 | pP | e 24 10 | sS | — | — | — |
| Triest | | 90·6 | 43 | e 23 44 | SKKS | 23 35 | [+ 8] | e 24 3 | S | — |
| Rome | | 91·1 | 46 | e 13 0 | − 3 | e 24 1 | + 5 | e 30 6 | SS | — |
| Tamanrasset | z. | 91·5 | 66 | e 13 4 | 0 | e 16 33 | PP | e 18 33 | PPP | 42·6 |
| Istambul | | 102·6 | 41 | — | — | e 25 36? | + 3 | — | — | 54·6 |
| Ksara | | 111·1 | 45 | e 18 36? | [+ 6] | — | — | — | — | — |
| Grahamstown | z. | 121·8 | 120 | i 18 54 | [+ 3] | — | — | — | — | — |

July 15d. 19h. 3m. 35s. Epicentre 13°·8N. 104°·6W.

A = −·2449, B = −·9401, C = +·2370; $\delta$ = −7; $h$ = +6;
D = −·968, E = +·252; G = −·060, H = −·229, K = −·972.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Guadalajara | | 6·9 | 10 | — | — | e 2 49 | −16 | (e 3 17) | S* | e 3·3 |
| Tacubaya | | 7·6 | 42 | e 1 54 | − 1 | e 3 24 | + 1 | e 4 21 | S | e 5·6 |
| Puebla | | 8·0 | 49 | — | — | e 3 37 | + 4 | e 3 41 | ? | e 4·0 |
| Vera Cruz | | 9·7 | 55 | — | — | e 4 41 | +26 | (4 56) | S* | 4·9 |
| Tucson | | 19·2 | 343 | i 4 25 | − 3 | i 7 57 | − 2 | — | — | — |
| Lubbock | | 19·9 | 7 | 4 33 | − 3 | 8 8 | − 7 | — | — | — |
| Palomar | z. | 22·4 | 332 | i 5 1 | − 1 | — | — | — | — | — |
| Riverside | z. | 23·2 | 332 | e 5 11 | + 2 | — | — | — | — | — |
| Pasadena | | 23·7 | 332 | e 5 15 | + 1 | — | — | e 9 5 | PcP | — |
| Boulder City | | 23·9 | 339 | e 5 15 | − 1 | — | — | — | — | — |

*Continued on next page.*

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| | | ∠ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Fayetteville | Z. | 24·1 | 20 | i 5 16k | − 2 | — | — | — | — | — |
| China Lake | Z. | 24·8 | 335 | e 5 25 | 0 | — | — | — | — | — |
| Tinemaha | Z. | 26·2 | 335 | e 5 39 | + 1 | — | — | — | — | — |
| Lick | Z. | 27·9 | 330 | e 5 54 | 0 | — | — | — | — | — |
| Santa Clara | E. | 28·1 | 330 | — | — | e 10 45 | + 5 | — | — | e 13·9 |
| Mineral | Z. | 30·4 | 333 | e 6 13 | − 3 | — | — | — | — | — |
| Chicago | | 31·6 | 23 | — | — | e 11 27 | − 8 | — | — | — |
| City College, N.Y. | | 37·9 | 38 | — | — | e 13 15 | + 2 | — | — | — |
| Ottawa | | 39·9 | 31 | e 7 38 | + 1 | 13 41 | − 2 | e 9 3 | PP | 20·0 |
| Harvard | | 40·4 | 38 | e 7 44 | + 3 | — | — | — | — | — |
| Bermuda | | 40·8 | 56 | e 9 32 | PP | — | — | — | — | e 21·2 |
| Rome | | 99·9 | 42 | — | — | e 23 45? | [−42] | e 28 15 | ? | — |

July 16d. 0h. 32m. 0s. Epicentre 39°·2N. 70°·7E. (as on 1952, June 18d.).
A = +·2568, B = +·7334, C = +·6295; δ = +9; h = −1;
D = +·944, E = −·331; G = +·208, H = +·594, K = −·777.

| | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. |
|---|---|---|---|---|---|---|
| Dzhergetal | 0·4 | 88 | i 0 6 | − $2_g$ | e 0 11 | − $2_g$ |
| Garm | 0·4 | 237 | i 0 11 | + $3_g$ | i 0 18 | + 2* |
| Obi-garm | 0·9 | 237 | i 0 21 | + 1 | e 0 35 | + 1 |
| Fergana | 1·4 | 31 | e 0 26 | − 1 | e 0 44 | − 2 |
| Kuiyab | 1·5 | 209 | i 0 33 | + $3_g$ | i 0 57 | + $7_g$ |
| Stalinabad | 1·6 | 247 | i 0 35 | + $3_g$ | i 1 1 | + $8_g$ |
| Khorog | 1·9 | 158 | i 0 40 | + $2_g$ | i 1 8 | + $5_g$ |
| Namangan | 1·9 | 22 | 0 37 | − $1_g$ | i 1 5 | + $2_g$ |
| Andijan | 2·0 | 39 | e 0 37 | 0* | i 1 4 | + 1* |
| Tashkent | 2·4 | 334 | e 0 46 | + 2* | e 1 16 | + 1* |
| Samarkand | 2·9 | 279 | 0 55 | + 3* | 1 36 | $0_g$ |
| Frunse | 4·7 | 38 | i 2 13 | S | i 2 34 | − $1_g$ |
| Almata II | 6·4 | 49 | e 1 42 | + 4 | — | — |

July 16d. 1h. 31m. 9s. Epicentre 28°·1N. 112°·6W. (as on 1951, March 27d.).
A = −·3397, B = −·8161, C = +·4675; δ = −3; h = +2;
D = −·923, E = +·384; G = −·180, H = −·432, K = −·884.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Tucson | | 4·5 | 20 | i 1 12 | + 1 | i 2 21 | +16 | — | — | — |
| La Jolla | N. | 6·3 | 321 | e 1 29 | − 7 | i 2 39 | −11 | — | — | — |
| Palomar | Z. | 6·4 | 326 | i 1 30 | − 8 | i 2 51 | − 2 | — | — | — |
| Riverside | | 7·2 | 326 | i 1 45 | − 4 | i 3 24 | +11 | — | — | — |
| Pasadena | | 7·7 | 323 | i 1 50 | − 6 | i 3 31 | + 6 | — | — | — |
| Boulder City | | 8·1 | 347 | e 2 0 | − 2 | — | — | — | — | — |
| China Lake | Z. | 8·8 | 333 | e 2 8 | − 3 | i 4 22 | L | — | — | (i 4·4) |
| Tinemaha | | 10·2 | 333 | i 2 28 | − 3 | i 5 13 | L | — | — | (i 5·2) |
| Fresno | | 10·6 | 327 | e 2 33 | − 3 | e 5 11 | L | — | — | (e 5·2) |
| Lubbock | | 10·8 | 57 | 2 51 | +12 | 5 59 | L | — | — | (6·0) |
| Lick | Z. | 12·0 | 323 | i 2 59 | + 4 | — | — | — | — | — |
| Reno | | 12·9 | 324 | e 3 7 | 0 | e 6 31 | L | — | — | (e 6·5) |
| Mineral | Z. | 14·4 | 331 | e 3 26 | − 1 | — | — | — | — | — |
| Shasta | Z. | 15·0 | 330 | e 3 33 | − 2 | — | — | — | — | — |
| Fayetteville | Z. | 17·5 | 58 | i 4 16a | + 9 | — | — | — | — | e 9·6 |
| Rapid City | | 17·7 | 24 | e 4 24 | +14 | e 9 32 | L | — | — | (e 9·5) |
| Butte | | 18·0 | 1 | e 4 14 | + 1 | — | — | — | — | — |
| Hungry Horse | | 20·3 | 359 | e 4 41 | + 1 | — | — | — | — | — |
| Victoria | | 22·1 | 342 | 4 57 | − 2 | — | — | — | — | — |
| Morgantown | | 29·3 | 58 | e 6 17 | +11 | — | — | — | — | i 15·7 |
| Ottawa | | 33·9 | 50 | e 6 53 | + 6 | 12 31 | +20 | 9 32 | PcP | 18·1 |
| Harvard | | 36·1 | 55 | i 7 14k | + 9 | — | — | — | — | e 19·0 |
| College | | 43·0 | 339 | e 8 3 | 0 | — | — | — | — | e 24·4 |
| San Juan | | 43·6 | 92 | i 8 22 | +14 | — | — | — | — | — |
| Stuttgart | | 87·6 | 34 | e 12 54 | + 3 | — | — | — | — | — |

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July 16d. 1h. 59m. 46s. Epicentre 39°·2N. 20°·0E. (as on 1951, February 12d.).

Felt in Isle of Corfu. Intensity V at Kynopiastes, Leukimi, Argyrades, and Egoumenitsa; IV at Karoussades, Avliotes, and Margaritiou; III at Corfu. Epicentre 39°·5N. 20°·2E. (Strasbourg).

A. Galanopoulos.
Seismo. Inst. Bull., 1952, Athens, 1953, p.30.

$A = +\cdot7302$, $B = +\cdot2658$, $C = +\cdot6295$; $\delta = +11$; $h = -1$;
$G = +\cdot342$, $E = -\cdot940$; $G = +\cdot591$, $H = +\cdot215$, $K = -\cdot777$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Taranto | | 2·5 | 301 | 0 42 | − 1 | e 1 50 | ? | — | — | — |
| Athens | | 3·2 | 113 | e 0 55 | + 3 | i 1 34 | + 2 | e 1 2 | $P_g$ | — |
| Messina | z. | 3·6 | 256 | i 1 1k | + 3 | i 1 45 | + 3 | i 1 21 | $P_g$ | — |
| Sofia | | 4·3 | 35 | e 1 9 | + 1 | e 2 22 | $0_g$ | — | — | — |
| Belgrade | | 5·6 | 3 | e 1 46k | − $6_g$ | e 2 24 | − 9 | e 3 8 | $S_g$ | — |
| Rome | | 6·3 | 298 | — | — | e 2 31 | −19 | — | — | e 3·4 |
| Bucharest | | 6·9 | 39 | 1 44 | − 1 | e 3 34 | + 5* | — | — | — |
| Szeged | N. | 7·0 | 1 | — | — | 3 52 | + $1_g$ | — | — | — |
| Istanbul | z. | 7·2 | 72 | i 1 48 | − 1 | e 3 18 | + 5 | — | — | 4·3 |
| Florence | | 8·0 | 308 | e 2 41 | + $1_g$ | — | — | — | — | e 5·0 |
| Ogyalla | | 8·8 | 352 | e 2 38 | P* | e 3 48 | − 5 | e 4 40 | $S_g$ | — |
| Prague | | 11·6 | 342 | e 2 46 | − 4 | 4 42 | −19 | — | — | e 5·6 |
| Zürich | | 11·6 | 318 | e 3 5 | +15 | e 5 14 | +13 | — | — | — |
| Basle | | 12·3 | 317 | e 3 24 | +25 | e 5 37 | +19 | — | — | — |
| Stuttgart | | 12·3 | 325 | e 2 53 | − 6 | e 5 3 | −15 | — | — | e 7·2 |
| Strasbourg | | 12·9 | 321 | e 3 4 | − 3 | — | — | — | — | — |
| Collmberg | z. | 13·1 | 340 | e 3 11 | + 1 | e 5 50 | +12 | — | — | e 7·2 |
| Jena | | 13·1 | 336 | e 4 46? | ? | e 6 5 | SSS | — | — | e 6·7 |
| Paris | | 15·8 | 313 | e 3 53 | + 8 | — | — | e 4 9 | PP | e 9·2 |
| Tamanrasset | z. | 20·5 | 221 | e 4 45 | + 3 | — | — | e 5 20 | PP | — |
| Upsala | z. | 20·7 | 357 | i 4 40 | − 4 | — | — | — | — | — |

July 16d. 2h. 42m. 26s. Epicentre 49°·9N. 19°·4E. (Given by Strasbourg).

$A = +\cdot6100$, $B = +\cdot2148$, $C = +\cdot7628$; $\delta = +10$; $h = -5$;
$D = +\cdot332$, $E = -\cdot943$; $G = +\cdot719$, $H = +\cdot253$, $K = -\cdot647$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | |
| Bytom | | 0·5 | 325 | 0 14 | 0 | — | — | — | — | |
| Raciborzu | | 0·8 | 283 | i 0 21$_g$ | + 3 | e 0 29 | − 2 | — | — | |
| Skalnate Pleso | | 0·9 | 143 | e 0 20 | 0 | e 0 36 | + 2 | i 0 24 | $P_g$ | |
| Ogyalla | | 2·2 | 201 | — | — | e 1 4 | − 2 | e 1 16 | $S_g$ | |
| Uzhgorod | | 2·3 | 124 | i 0 53 | + $7_g$ | i 1 34 | +$18_g$ | — | — | |
| Lwow | | 3·0 | 91 | e 1 6 | + $6_g$ | e 1 14 | ? | — | — | |
| Prague | | 3·2 | 273 | e 0 58 | 0* | i 1 28 | − 4 | e 1 2 | $P_g$ | |
| Collmberg | | 4·3 | 292 | e 1 22 | − $4_g$ | e 1 59 | − 1 | e 1 39 | ? | |
| Potsdam | | 4·7 | 305 | — | — | e 2 34? | − $1_g$ | — | — | |
| Jena | | 5·1 | 285 | e 1 38? | − $4_g$ | e 2 37 | + 2* | e 2 49 | $S_g$ | |
| Stuttgart | | 6·7 | 265 | e 2 9 | − $5_g$ | e 3 42 | + $1_g$ | e 3 23 | S* | |
| Karlsruhe | z. | 7·2 | 267 | — | — | e 3 16 | + 3 | — | — | |
| Zürich | | 7·6 | 255 | e 2 20 | + 7* | e 3 55 | + 5* | — | — | |
| Strasbourg | | 7·7 | 265 | — | — | e 3 26 | + 1 | e 4 16 | $S_g$ | |
| Basle | | 8·2 | 258 | e 3 21 | ? | e 4 22 | − $9_g$ | — | — | |
| Upsala | z. | 10·0 | 355 | i 2 19 | − 8 | i 4 46 | S* | i 5 26 | $S_g$ | |

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July 17d. 4h. 42m. 7s. Epicentre 23°·2S. 63°·0W. (as on 11d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Copiapo | N. | 7·8 | 237 | e 2 55 | +57 | i 4 28 | +10$_g$ | — | — |
| La Paz | | 8·2 | 323 | i 2 55 | +11$_g$ | i 4 16 | + 9* | i 4 24 | S$_g$ |
| Huancayo | | 16·2 | 311 | e 4 14 | PP | — | — | — | — |
| Bermuda | | 55·3 | 359 | i 9 37 | − 1 | — | — | — | — |
| Weston | | 65·7 | 354 | i 11 47k | +59 | — | — | — | — |
| Fayetteville | z. | 65·9 | 333 | i 10 49$_a$ | − 1 | — | — | — | — |
| Harvard | | 65·9 | 354 | i 10 48k | − 2 | — | — | — | — |
| Ottawa | | 69·2 | 351 | i 11 9k | − 1 | — | — | — | — |
| Kirkland Lake | z. | 72·6 | 349 | i 11 29k | − 2 | — | — | — | — |
| Mount Wilson | z. | 77·4 | 316 | i 11 59 | + 1 | — | — | — | — |
| China Lake | z. | 78·2 | 318 | i 12 1 | − 2 | — | — | e 13 56 | ? |
| Tinemaha | z. | 79·4 | 318 | i 12 9 | 0 | — | — | — | — |
| Tamanrasset | z. | 80·8 | 60 | i 12 22$_a$ | + 5 | — | — | e 12 43 | PcP |

July 17d. 16h. 9m. 50s. Epicentre 34°·4N. 135°·8E. Depth of focus 0·005.

Intensity VII-VIII at Tarao, Katata, Iwada, and Tojima; VI at Kashiwara, Kyoto, Tu, Osaka, Owase, Kobe, Kameyama, and in very many other localities; 9 killed, 136 injured, 20 buildings demolished, and 298 partially demolished; slight damage to roads, bridges, and railways.
Epicentre 34°26′9N. ±00′, 135°48′7E. ±06′. Depth 70km. Macroseismic radius greater than 300km.
Seismo. Bull. Cent. Met. Obs., Japan, for July, 1952, Tokyo, 1952, p. 270, with macroseismic chart.

$A = -·5928$, $B = +·5765$, $C = +·5624$; $\delta = +6$; $h = 0$;
$D = +·697$, $E = +·717$; $G = -·403$, $H = +·392$, $K = -·827$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | L. |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | m. |
| Osaka | | 0·3 | 319 | i 0 12k | 0 | 0 20 | 0 | — | — |
| Owase | | 0·5 | 135 | i 0 14 | + 1 | 0 22 | − 1 | — | — |
| Wakayama | | 0·5 | 252 | i 0 14 | + 1 | 0 22 | − 1 | — | — |
| Kyoto | N. | 0·6 | 355 | i 0 14?$_a$ | 0 | 0 24? | − 1 | — | — |
| Kobe | z. | 0·6 | 299 | i 0 15k | + 1 | 0 25 | 0 | — | — |
| Kameyama | | 0·7 | 51 | i 0 16k | + 1 | 0 26 | − 1 | — | — |
| Sumoto | | 0·8 | 266 | i 0 17 | 0 | 0 28 | − 1 | — | — |
| Siomisaki | E. | 0·9 | 182 | e 0 20$_a$ | + 2 | 0 32 | + 1 | — | — |
| Hikone | | 0·9 | 23 | i 0 19 | + 1 | 0 32 | + 1 | — | — |
| Maizuru | | 1·1 | 346 | i 0 20$_a$ | 0 | 0 34 | − 2 | — | — |
| Himeji | | 1·2 | 275 | i 0 21 | − 1 | 0 34 | − 4 | — | — |
| Nagoya | E. | 1·2 | 51 | i 0 23$_a$ | + 1 | 0 40 | + 2 | — | — |
| Gihu | | 1·3 | 39 | i 0 22$_a$ | − 1 | 0 37 | − 3 | — | — |
| Tsuruga | | 1·3 | 10 | i 0 25$_a$ | + 2 | 0 40 | 0 | — | — |
| Toyooka | | 1·4 | 324 | i 0 24$_a$ | 0 | 0 39 | − 4 | — | — |
| Takamatu | | 1·4 | 267 | i 0 25k | + 1 | 0 42 | − 1 | — | — |
| Hamamatu | | 1·6 | 79 | i 0 28k | + 1 | 0 49 | + 2 | — | — |
| Okayama | E. | 1·6 | 280 | i 0 29 | + 2 | 0 49 | + 2 | — | — |
| Hukui | N. | 1·7 | 13 | i 0 28$_a$ | 0 | 0 50 | 0 | — | — |
| Tottori | | 1·7 | 310 | i 0 30k | + 2 | 0 53 | + 3 | — | — |
| Muroto | | 1·8 | 229 | i 0 32$_a$ | + 2 | 0 49 | − 3 | — | — |
| Iida | | 2·0 | 56 | i 0 32$_a$ | 0 | 0 55 | − 2 | — | — |
| Koti | | 2·1 | 246 | i 0 35$_a$ | + 1 | 0 56 | − 3 | — | — |
| Takayama | | 2·1 | 34 | i 0 32k | − 2 | 0 51 | − 8 | — | — |
| Kanazawa | | 2·2 | 18 | i 0 36$_a$ | + 1 | 0 55 | − 7 | — | — |
| Shizuoka | | 2·2 | 75 | i 0 38k | + 3 | 1 3 | + 1 | — | — |
| Yonago | | 2·3 | 297 | i 0 35k | − 2 | 1 2 | − 2 | — | — |
| Matsue | | 2·5 | 295 | i 0 35k | − 4 | 1 7 | − 2 | — | — |
| Toyama | | 2·6 | 27 | i 0 39$_a$ | − 2 | — | — | — | — |
| Matumoto | E. | 2·6 | 44 | i 0 42 | + 1 | 1 10 | − 2 | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Matuyama | | 2·6 | 257 | i 0 41k | 0 | 1 9 | − 3 | — | — | — |
| Kohu | | 2·6 | 62 | i 0 42a | + 1 | 1 16 | + 4 | — | — | — |
| Misima | | 2·7 | 75 | i 0 41k | − 1 | 1 13 | − 1 | — | — | — |
| Saigo | | 2·7 | 311 | e 0 41 | − 1 | 1 13 | − 1 | — | — | — |
| Hunatu | | 2·7 | 66 | i 0 44a | + 2 | 1 15 | + 1 | — | — | — |
| Ajiro | | 2·8 | 76 | i 0 44 | 0 | 1 15 | − 2 | — | — | — |
| Hirosima | | 2·8 | 269 | i 0 44k | 0 | 1 16 | − 1 | — | — | — |
| Simidu | | 2·8 | 235 | i 0 46a | + 2 | 1 11 | − 6 | — | — | — |
| Matusiro | | 2·9 | 43 | 0 47a | + 2 | 1 22 | + 3 | — | — | — |
| Uwazima | | 2·9 | 247 | i 0 46k | + 1 | 1 16 | − 3 | — | — | — |
| Nagano | | 3·0 | 41 | i 0 47a | 0 | 1 18 | − 4 | — | — | — |
| Oiwake | E. | 3·0 | 50 | i 0 46 | − 1 | — | — | — | — | — |
| Osima | | 3·0 | 83 | i 0 46 | − 1 | 1 21 | − 1 | — | — | — |
| Titibu | | 3·1 | 60 | i 0 49a | + 1 | 1 27 | + 3 | — | — | — |
| Wazima | | 3·1 | 18 | i 0 48a | 0 | 1 27 | + 3 | — | — | — |
| Maebasi | | 3·3 | 52 | i 0 52a | + 1 | 1 33 | + 4 | — | — | — |
| Yokohama | | 3·3 | 71 | i 0 52a | + 1 | 1 30 | + 1 | — | — | — |
| Kumagaya | | 3·4 | 58 | i 0 53a | + 1 | 1 34 | + 2 | — | — | — |
| Takada | | 3·4 | 36 | 0 52 | 0 | — | — | — | — | — |
| Tokyo | Z. | 3·5 | 67 | i 0 55a | + 1 | 1 34 | 0 | — | — | — |
| Ooita | | 3·7 | 252 | i 0 56k | 0 | 1 54 | +15 | — | — | — |
| Kashiwa | | 3·7 | 66 | i 0 57a | + 1 | 1 52 | +13 | — | — | — |
| Utunomiya | | 4·0 | 56 | i 1 1 | 0 | 1 51 | + 4 | — | — | — |
| Aikawa | | 4·1 | 28 | i 1 0a | − 2 | 1 50 | + 1 | — | — | — |
| Simonoseki | | 4·1 | 265 | 1 5a | + 3 | 1 46 | − 3 | — | — | — |
| Mito | | 4·3 | 61 | 1 5a | 0 | 2 7 | +13 | — | — | — |
| Miyazaki | | 4·4 | 237 | i 1 9a | + 3 | 1 57 | 0 | — | — | — |
| Niigata | | 4·4 | 36 | i 1 12a | + 6 | 1 58 | + 1 | — | — | — |
| Tyosi | E. | 4·4 | 70 | e 1 4a | − 2 | 1 59 | + 2 | — | — | — |
| Hukuoka | | 4·5 | 261 | i 1 10 | + 3 | 1 57 | − 2 | — | — | — |
| Kumamoto | | 4·5 | 242 | i 1 11a | + 4 | 2 13 | +14 | — | — | — |
| Shirakawa | | 4·5 | 52 | 1 8a | + 1 | 2 7 | + 8 | — | — | — |
| Inawasiro | | 4·7 | 46 | i 1 10a | 0 | 2 2 | − 2 | — | — | — |
| Saga | | 4·7 | 258 | i 1 11k | + 1 | 2 20 | +16 | — | — | — |
| Unzendake | | 4·9 | 252 | i 1 14a | + 1 | 2 23 | +14 | — | — | — |
| Onahama | | 4·9 | 57 | i 1 13a | 0 | 2 20 | +11 | — | — | — |
| Hukusima | | 5·0 | 47 | i 1 9 | − 5 | 2 8 | − 4 | — | — | — |
| Kagosima | | 5·2 | 239 | 1 20 | + 3 | 2 40 | +23 | — | — | — |
| Yamagata | | 5·3 | 42 | i 1 20a | + 1 | 2 36 | +17 | — | — | — |
| Ituhara | | 5·4 | 270 | 1 20k | 0 | 2 32 | +10 | — | — | — |
| Torisima | | 5·4 | 135 | i 1 24 | + 4 | 2 26 | + 4 | — | — | — |
| Sakata | | 5·5 | 34 | 1 23 | + 2 | 3 1 | +37 | — | — | — |
| Sendai | | 5·6 | 45 | i 1 22a | − 1 | 2 24 | − 3 | — | — | — |
| Isinomaki | | 6·0 | 46 | i 1 29a | + 1 | 2 52 | +15 | — | — | — |
| Yakusima | | 6·0 | 230 | i 1 29a | + 1 | 3 23 | +46 | — | — | — |
| Tomie | | 6·1 | 255 | i 1 34a | + 4 | 3 31 | +52 | — | — | — |
| Akita | | 6·3 | 31 | i 1 34a | + 2 | — | — | — | — | — |
| Mizusawa | | 6·4 | 40 | 1 33 | − 1 | 3 1 | +15 | 1 36 | P | — |
| Morioka | | 6·8 | 37 | i 1 42a | + 3 | 3 13 | +17 | — | — | — |
| Miyako | | 7·2 | 42 | i 1 44 | − 1 | 3 13 | + 7 | — | — | — |
| Aomori | | 7·5 | 30 | 1 50a | + 1 | 3 28 | +14 | — | — | — |
| Hatinohe | | 7·6 | 35 | i 1 52 | + 2 | 3 29 | +13 | — | — | — |
| Mori | E. | 8·6 | 25 | i 2 6a | + 2 | 4 1 | +20 | — | — | — |
| Suttsu | | 9·1 | 21 | i 2 12a | + 1 | 3 56 | + 3 | — | — | — |
| Sapporo | | 9·7 | 25 | e 2 22a | + 3 | 3 32 | −36 | — | — | — |
| Obi-hiro | N. | 10·3 | 32 | e 2 27 | 0 | 4 18 | − 4 | — | — | — |
| Asahigawa | | 10·7 | 27 | e 2 35 | + 2 | — | — | — | — | — |
| Kusiro | | 10·9 | 36 | i 2 31 | − 5 | 4 32 | − 5 | — | — | — |
| Nemuro | Z. | 11·7 | 38 | e 2 42a | − 4 | 4 48 | − 8 | — | — | — |
| Wakkanai | N. | 11·9 | 20 | 2 42 | − 7 | 5 26 | +25 | — | — | — |
| Zô Sè | | 12·7 | 259 | 2 58 | − 2 | 5 20 | 0 | — | — | — |
| Yuzno-Sakhlinsk | | 13·6 | 21 | i 3 9 | − 2 | — | — | — | — | — |
| Nanking | | 14·4 | 265 | i 3 25k | + 3 | i 6 4 | + 4 | — | — | — |
| Guam | | 22·4 | 155 | i 4 55 | + 1 | i 8 56 | + 5 | — | — | — |
| Hong Kong | | 22·5 | 243 | 4 57 | + 2 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Manila | | 23·8 | 218 | i 5 10a | + 2 | i 9 27 | +12 | e 5 29 | pP | — |
| Petropavlovsk | | 24·8 | 32 | i 5 16 | − 1 | i 9 34 | + 2 | — | — | — |
| Kyakhta | | 26·7 | 316 | 5 32 | − 3 | 10 7 | + 3 | — | — | — |
| Kabansk | | 27·3 | 318 | 5 39 | − 2 | 10 19 | + 5 | — | — | — |
| Klyuchi | | 27·8 | 29 | i 5 44? | − 1 | i 10 16? | − 6 | — | — | — |
| Irkutsk | | 28·7 | 318 | 5 53 | 0 | 10 44 | + 8 | — | — | — |
| Shillong | E. | 38·8 | 269 | i 7 21 | + 1 | 13 8 | − 5 | i 7 37 | pP | — |
| Calcutta | N. | 43·0 | 267 | i 8 5 | +10 | i 14 19 | + 4 | 9 43 | PP | — |
| Semipalatinsk | | 43·0 | 309 | i 7 53 | − 2 | — | — | — | — | — |
| Kurmenty | | 44·9 | 299 | i 8 22? | +12 | — | — | — | — | — |
| Przhevalsk | | 44·9 | 298 | i 8 10 | 0 | 14 45 | + 3 | — | — | — |
| Almata II | | 45·5 | 300 | i 8 14 | − 1 | — | — | — | — | — |
| Ili | | 45·6 | 301 | i 8 15 | − 1 | — | — | i 8 34 | pP | — |
| Almata | | 45·9 | 300 | i 8 18 | 0 | i 14 59 | + 2 | — | — | — |
| Rybach'e | | 46·6 | 298 | e 8 22 | − 1 | — | — | i 8 43 | pP | — |
| Naryn | | 46·9 | 297 | i 8 27 | + 1 | — | — | — | — | — |
| Frunse | | 47·6 | 299 | i 8 31 | 0 | i 15 23 | + 2 | i 8 52 | pP | — |
| Dehra Dun | N. | 48·4 | 282 | e 7 52? | −45 | e 15 22 | −10 | — | — | e 23·7 |
| Djakarta | | 48·8 | 219 | e 8 40 | − 1 | i 15 43 | + 5 | — | — | — |
| Bandung | | 49·0 | 217 | e 8 40 | − 2 | e 15 40 | 0 | — | — | — |
| New Delhi | | 49·7 | 280 | i 8 47 | 0 | i 15 49 | − 1 | i 16 17 | sS | 22·5 |
| Andijan | | 49·7 | 297 | i 8 47 | 0 | i 15 52 | + 2 | i 9 8 | pP | — |
| Fergana | | 50·2 | 296 | i 8 50 | − 1 | i 15 58 | + 1 | i 9 12 | pP | — |
| Namangan | | 50·2 | 297 | i 8 52 | + 1 | i 16 0 | + 3 | — | — | — |
| Khorog | | 51·2 | 293 | i 8 59 | 0 | i 16 17 | + 6 | — | — | — |
| Tchimkent | | 51·3 | 299 | i 8 59 | − 1 | i 16 15 | + 3 | — | — | — |
| Tashkent | | 51·8 | 298 | e 9 3 | 0 | e 16 20 | + 1 | — | — | — |
| Obi-garm | | 52·2 | 295 | i 9 6 | 0 | i 16 26 | + 1 | i 9 27 | pP | — |
| Kulyab | | 52·4 | 294 | i 9 8 | 0 | i 16 31 | + 4 | i 17 2 | sS | — |
| Stalinabad | | 53·0 | 295 | i 9 12 | 0 | i 16 36 | 0 | — | — | — |
| Hyderabad | N. | 53·6 | 267 | i 9 14 | − 3 | i 16 45 | + 1 | — | — | 25·2 |
| College | | 53·7 | 30 | i 9 17 | − 1 | i 16 46 | + 1 | i 10 1 | pP | e 22·6 |
| Samarkand | | 54·0 | 297 | 9 18 | − 2 | 16 48 | − 1 | — | — | — |
| Sverdlovsk | | 54·1 | 319 | i 9 20 | 0 | i 16 50 | 0 | — | — | — |
| Madras | E. | 54·5 | 261 | i 9 20 | − 3 | i 16 58 | + 2 | 11 32 | PP | 22·9 |
| Poona | | 56·9 | 270 | i 9 41 | 0 | i 17 26 | − 2 | 10 3 | pP | 27·7 |
| Quetta | | 57·3 | 286 | i 9 42 | − 2 | i 17 32 | − 1 | i 10 5 | pP | 30·2 |
| Bombay | | 57·5 | 271 | i 9 46 | + 1 | i 17 40? | + 4 | 11 55 | PP | 27·2 |
| Colombo | E. | 58·2 | 255 | 9 52 | + 2 | 17 54 | + 9 | — | — | 29·0 |
| Kodaikanal | E. | 58·2 | 260 | i 9 46 | − 4 | i 17 45 | 0 | — | — | — |
| Honolulu | | 59·0 | 83 | i 9 58 | + 3 | i 18 2 | + 7 | — | — | — |
| Ashkabad | | 60·9 | 298 | i 10 10 | + 2 | e 18 21 | + 1 | — | — | — |
| Sitka | | 61·2 | 37 | e 10 12 | + 2 | i 18 30 | + 7 | — | — | — |
| Kizyl-Arvat | | 62·0 | 300 | 10 15 | − 1 | 18 36 | + 2 | — | — | — |
| Brisbane | | 63·7 | 162 | i 10 28 | + 1 | i 18 59 | + 4 | i 10 52 | pP | — |
| Baku | | 65·9 | 303 | i 10 43 | + 2 | i 19 28 | + 6 | — | — | — |
| Resolute Bay | | 66·2 | 13 | i 10 42k | − 1 | 19 14 | −11 | i 10 59 | pP | 28·2 |
| Moscow | | 66·6 | 322 | i 10 43 | − 3 | i 19 27 | − 3 | i 11 5 | pP | — |
| Shemakha | | 66·7 | 304 | i 10 43 | − 3 | i 19 31 | 0 | — | — | — |
| Kiruna | | 67·3 | 337 | i 10 49k | − 1 | i 19 38 | − 1 | i 11 9 | pP | e 33·2 |
| Lenkoran | | 67·4 | 301 | 10 50 | − 1 | — | — | 11 11 | pP | — |
| Grozny | | 67·4 | 307 | i 10 49 | − 2 | i 19 38 | − 2 | — | — | — |
| Pulkovo | | 68·1 | 328 | i 10 54 | − 1 | i 19 46 | − 2 | i 11 15 | pP | — |
| Kirovobad | | 68·2 | 305 | i 10 54 | − 2 | i 19 48 | − 1 | — | — | — |
| Perth | | 68·6 | 197 | 13 13 | PP | 19 59 | + 5 | i 15 2 | PPP | — |
| Goris | | 68·8 | 304 | i 10 57 | − 2 | 19 57 | 0 | — | — | — |
| Tiflis | | 68·8 | 306 | i 10 59 | 0 | i 19 58 | + 1 | — | — | — |
| Piatigorsk | | 68·8 | 309 | 10 58 | − 1 | — | — | — | — | — |
| Gori | | 69·1 | 307 | e 11 1 | 0 | e 20 1 | + 1 | — | — | — |
| Riverview | | 69·4 | 166 | i 11 5k | + 2 | i 20 9 | + 5 | i 11 21 | pP | e 21·1 |
| Erevan | | 69·7 | 305 | i 11 4 | − 1 | 20 8 | + 1 | — | — | — |
| Tsikhlis-Dzhvari | | 69·7 | 307 | i 11 17? | +12 | — | — | — | — | — |
| Leninakan | | 69·8 | 306 | i 11 7 | + 2 | — | — | — | — | — |
| Abastumanj | | 70·1 | 307 | 11 7 | 0 | 20 13 | + 1 | — | — | — |
| Helsinki | | 70·1 | 330 | i 11 5 | − 2 | e 20 9 | − 3 | e 11 25 | pP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Zugdidi | | 70·3 | 308 | i 11 8 | − 1 | i 20 14 | 0 | — | — | — |
| Sotchi | | 71·2 | 310 | i 11 9 | − 5 | i 20 19 | − 6 | — | — | — |
| Victoria | | 71·5 | 43 | i 11 17 a | + 1 | 20 29 | + 1 | i 11 39 | pP | — |
| Melbourne | | 72·4 | 171 | i 21 21 | ScS | i 20 41 | + 3 | i 21 12 | sS | — |
| Seattle | | 72·6 | 43 | i 11 26 a | + 4 | i 20 48 | + 7 | i 11 50 | pP | — |
| Theodosia | | 73·1 | 313 | i 11 25 | 0 | i 20 44 | − 2 | — | — | — |
| Upsala | | 73·2 | 332 | i 11 24 k | − 2 | i 20 43 | − 4 | i 11 45 | pP | e 33·2 |
| Simferopol | | 73·9 | 314 | i 11 28 | − 2 | — | — | i 11 30 | pP | — |
| Yalta | | 74·1 | 312 | i 11 30 | − 1 | e 20 54 | − 3 | — | — | — |
| Scoresby Sund | | 74·2 | 352 | i 11 32 | 0 | i 21 0 | + 1 | i 21 33 | sS | 34·2 |
| Kishinev | | 75·8 | 318 | 11 39 | − 2 | 21 12 | − 4 | — | — | — |
| Shasta | z. | 76·2 | 49 | e 11 44 | + 1 | e 21 24 | + 3 | i 12 3 | pP | — |
| Cernauti | | 76·6 | 319 | i 11 45 | 0 | — | — | — | — | — |
| Lwow | | 76·7 | 321 | i 11 45 | − 1 | i 21 24 | − 2 | — | — | — |
| Hungry Horse | | 76·8 | 39 | i 11 47 | + 1 | e 21 29 | + 2 | e 14 46 | PP | — |
| Bergen | | 77·2 | 337 | e 11 48 | − 1 | e 21 32 | 0 | e 32 34 | Q | e 34·2 |
| Berkeley | | 78·0 | 52 | e 11 54 k | + 1 | i 21 42 | + 2 | i 12 18 | pP | e 33·0 |
| Copenhagen | | 78·1 | 331 | i 11 53 k | − 1 | i 21 40 | − 1 | i 12 13 | pP | 32·2 |
| Uzhgorod | | 78·3 | 321 | i 11 53 | − 2 | e 21 40 | − 3 | — | — | — |
| Santa Clara | | 78·5 | 52 | e 12 0 a | + 4 | e 21 46 | + 1 | — | — | e 33·2 |
| Reno | z. | 78·6 | 49 | e 11 57 k | + 1 | e 21 48 | + 1 | e 12 24? | pP | — |
| Lick | z. | 78·7 | 52 | i 11 58 k | + 1 | e 15 14 | pPP | e 12 22 | pP | — |
| Ksara | | 78·9 | 302 | i 11 57 k | − 1 | i 22 36 | PS | i 12 19 | pP | — |
| Bucharest | | 78·9 | 316 | e 12 0 | + 2 | i 21 52 | + 2 | e 14 59 | PP | 36·2 |
| Skalnate Pleso | | 79·0 | 323 | 12 1 k | + 2 | e 21 51 | 0 | e 12 22 | pP | e 38·2 |
| Istanbul | | 79·2 | 312 | i 11 59 | − 1 | i 21 53 | 0 | i 12 24 | pP | 41·2 |
| Raciborzu | | 79·4 | 324 | i 11 57 | − 4 | e 21 50 | − 5 | i 12 16 | pP | e 39·2 |
| Auckland | N. | 79·7 | 148 | 12 11 | + 9 | 22 10 | +12 | i 22 34 | sS | e 33·9 |
| Bozeman | | 80·0 | 40 | e 12 7 | + 3 | i 22 4 | + 3 | — | — | — |
| Fresno | | 80·2 | 51 | e 12 6 a | + 1 | e 22 0 | − 3 | — | — | — |
| Reykjavik | | 80·2 | 350 | i 12 5 | 0 | e 22 10 | + 7 | i 12 27 | pP | — |
| Potsdam | | 80·2 | 328 | i 12 5 k | 0 | i 22 3 | 0 | i 12 26 | pP | e 40·2 |
| Timisoara | | 80·7 | 319 | e 12 12 | + 4 | e 22 14 | + 5 | e 22 45 | sS | — |
| Karapiro | N. | 80·9 | 148 | 12 17 | + 8 | e 22 16 | + 5 | — | — | — |
| Ogyalla | | 80·9 | 322 | e 12 11 | + 2 | e 22 13 | + 2 | e 12 33 | pP | e 39·2 |
| Collmberg | | 81·0 | 327 | i 12 7 | − 2 | e 22 10 | − 2 | e 12 26 | pP | e 36·7 |
| Tinemaha | | 81·1 | 51 | i 12 11 | + 1 | i 22 16 | + 3 | i 12 34 | pP | — |
| Prague | | 81·2 | 326 | e 12 10 | 0 | e 22 14 | 0 | i 12 31 | pP | e 38·2 |
| Kalossa | N. | 81·4 | 321 | 12 32 | pP | e 22 18 | + 2 | e 15 29 | PP | — |
| Sofia | | 81·5 | 316 | e 12 12 | 0 | e 22 17 | 0 | e 22 53 | PS | — |
| Vienna | | 81·6 | 323 | e 12 12 | 0 | e 22 49 | sS | e 12 33 | pP | — |
| Belgrade | | 81·8 | 318 | e 12 25 a | PcP | e 22 21 | + 1 | i 12 34 | pP | e 38·5 |
| Jena | | 81·9 | 328 | e 12 13 | − 1 | e 22 18 | − 3 | e 12 34 | pP | e 40·2 |
| Aberdeen | E. | 82·1 | 338 | i 12 16 | + 1 | i 22 20 | − 3 | i 12 35 | pP | e 37·8 |
| Cheb | | 82·1 | 328 | e 12 21 | + 6 | e 22 22 | − 1 | e 12 38 | pP | e 40·7 |
| Cobb River | E. | 82·5 | 152 | e 12 19 | + 2 | e 22 27 | 0 | — | — | — |
| Witteveen | Z. | 82·5 | 331 | i 12 18 a | + 1 | — | — | i 12 40 | pP | — |
| Pasadena | | 82·8 | 53 | i 12 19 | + 1 | i 22 32 | + 2 | i 12 40 | pP | i 34·2 |
| Kaimata | N.E. | 83·2 | 153 | e 12 23 | + 2 | e 22 34 | 0 | — | — | — |
| Riverside | | 83·4 | 53 | e 12 24 | + 2 | — | — | — | — | — |
| Wellington | | 83·4 | 150 | i 12 22 | 0 | i 22 33 | − 3 | i 12 40 | pP | e 34·2 |
| Edinburgh | E. | 83·5 | 337 | — | — | 22 33 | − 4 | — | — | — |
| De Bilt | | 83·6 | 331 | i 12 21 | − 2 | i 22 37 | − 1 | i 12 41 | pP | e 37·2 |
| Boulder City | | 83·9 | 50 | i 12 26 | + 2 | — | — | e 15 54 | pPP | — |
| Durham | | 83·9 | 336 | i 12 26 | + 2 | i 22 39 | − 2 | i 12 38 | PcP | — |
| Palomar | | 84·2 | 53 | i 12 15 | −11 | i 12 40 | PcP | i 15 49 | PP | — |
| Helwan | | 84·3 | 302 | i 12 25 k | − 1 | 22 40 | − 5 | i 12 46 | pP | — |
| Athens | | 84·3 | 312 | i 12 25 k | − 1 | i 22 47 | + 2 | e 23 39 | PS | — |
| Christchurch | | 84·5 | 153 | i 12 30 | + 3 | 22 46 | − 1 | e 15 42 | PP | e 36·2 |
| Stuttgart | | 84·5 | 327 | i 12 26 k | − 1 | e 22 48 | + 1 | i 12 54 | sP | 43·2 |
| Karlsruhe | | 84·7 | 328 | i 12 28 k | 0 | i 12 50 | + 1 | i 12 49 | pP | 39·2 |
| Triest | | 84·7 | 323 | i 12 27 k | − 1 | i 22 47 | − 2 | i 12 48 | pP | 42·6 |
| Rapid City | | 85·2 | 38 | e 12 31 | 0 | i 22 49 | [+ 3] | — | — | — |
| Strasbourg | | 85·3 | 327 | i 12 31 k | 0 | i 22 55 | 0 | i 12 52 | pP | e 38·2 |
| Chur | | 85·8 | 325 | e 18 33 k | − 1 | — | — | e 12 54 | pP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | | L. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | | m. |
| Zürich | | 85·8 | 327 | e 12 32k | − 2 | e 23 1 | + 1 | e 12 51 | | pP | — |
| Kew | | 86·2 | 333 | i 12 35k | 0 | i 23 1 | − 3 | i 12 56 | | pP | e 44·2 |
| Basle | | 86·2 | 327 | e 12 34k | − 1 | e 23 3 | − 1 | e 12 57 | | pP | — |
| Salo | | 86·3 | 324 | e 12 38 | + 2 | e 18 27 | pPPP | e 12 59 | | pP | — |
| Taranto | | 86·4 | 317 | e 12 44 | + 8 | 22 50 | [− 4] | 28 10 | | SS | — |
| Padova | | 86·4 | 323 | e 12 27 | − 9 | e 22 27 | [−27] | — | | — | — |
| Bologna | | 86·7 | 323 | i 12 39k | + 1 | e 23 12 | + 4 | — | | — | — |
| Rathfarnham Castle | | 86·7 | 338 | i 12 37k | − 1 | e 22 59 | [+ 3] | i 12 58 | | pP | e 43·2 |
| Neuchatel | | 86·8 | 327 | e 12 38 | 0 | e 23 10 | + 1 | — | | — | — |
| Pavia | | 87·2 | 325 | i 12 40k | 0 | i 23 12 | − 1 | i 13 3 | | pP | — |
| Prato | | 87·2 | 322 | e 12 43 | + 3 | i 23 15 | + 2 | — | | — | — |
| Florence | | 87·2 | 322 | i 12 39 | − 1 | i 23 16 | + 3 | i 13 2 | | pP | e 39·2 |
| Paris | | 87·3 | 331 | i 12 40 | − 1 | i 23 10 | − 4 | i 13 1 | | pP | e 39·2 |
| Oropa | | 87·4 | 326 | e 12 43 | + 2 | i 23 16 | + 1 | — | | — | e 42·2 |
| Rome | | 88·0 | 320 | i 12 42k | − 2 | i 23 21 | 0 | 13 4 | | pP | e 42·2 |
| Jersey | E. | 88·7 | 333 | e 13 10 | pP | e 23 25 | − 2 | — | | — | 35·7 |
| Tucson | | 88·8 | 50 | i 12 50 | + 2 | e 23 33 | + 5 | i 16 36 | | PP | e 36·3 |
| Messina | | 89·0 | 317 | e 12 47 | − 2 | i 23 29 | − 1 | e 13 12 | | pP | — |
| Clermont-Ferrand | | 89·5 | 328 | e 12 51 | 0 | e 23 34 | 0 | e 13 13 | | pP | 39·2 |
| Kirkland Lake | Z. | 91·8 | 23 | e 12 58k | − 4 | e 23 58 | + 3 | i 13 24 | | pP | — |
| Lubbock | | 93·4 | 44 | 13 11 | + 2 | 24 16 | + 7 | — | | — | — |
| Barcelona | | 93·4 | 326 | e 25 58 | PPS | e 23 40 | [+ 4] | e 37 23 | | Q | e 45·6 |
| Chicago | | 94·4 | 31 | e 13 41 | sP | e 23 42 | [ 0] | — | | — | — |
| Tortosa | | 94·6 | 327 | i 13 35 | pP | i 24 15 | − 4 | — | | — | — |
| Shawinigan Falls | N. | 95·4 | 18 | e 13 38 | pP | e 24 27 | + 1 | e 23 45 | | SKS | — |
| Ottawa | | 95·6 | 21 | e 13 19k | 0 | 23 46 | [− 2] | 13 39 | | pP | 39·4 |
| St. Louis | | 95·7 | 34 | 13 23 | + 3 | 23 58 | [+ 9] | — | | — | — |
| Fayetteville | Z. | 95·8 | 39 | i 13 22k | + 2 | i 13 54 | sP | i 13 42 | | pP | — |
| Algiers Univ. | Z. | 96·4 | 323 | e 13 21 | − 2 | i 30 59 | SS | i 13 44 | | pP | — |
| Buffalo (Larkin) | | 96·9 | 24 | i 13 25 | 0 | — | — | — | | — | — |
| Alicante | | 97·0 | 326 | 13 20 | − 6 | e 25 28 | +48 | 17 25 | | PP | 46·5 |
| Cleveland | | 97·1 | 27 | i 13 27a | + 1 | i 23 56 | [ 0] | i 13 49 | | pP | — |
| Toledo | | 97·3 | 329 | e 13 27 | 0 | e 24 28 | sSKS | e 13 48 | | pP | 42·7 |
| Pittsburgh | | 98·6 | 26 | — | — | i 25 31 | sS | — | | — | — |
| Almeria | | 99·1 | 327 | i 13 55 | pP | 25 3 | + 6 | 17 59 | | PP | 47·1 |
| Morgantown | | 99·3 | 27 | i 13 36 | 0 | — | — | i 13 57 | | pP | — |
| Granada | | 99·4 | 328 | i 13 57a | pP | 24 6 | [− 2] | 24 51 | | S | 46·5 |
| Halifax | | 99·4 | 13 | 24 43 | S | 24 8 | [ 0] | 31 52 | | SS | 39·8 |
| Harvard | | 99·5 | 19 | e 13 38 | + 1 | e 24 9 | [+ 1] | i 13 58 | | pP | e 45·5 |
| Weston | | 99·6 | 19 | e 13 38a | 0 | e 24 10 | [+ 1] | i 13 58 | | pP | — |
| Malaga | | 100·1 | 328 | i 13 38 | − 2 | e 25 11 | + 5 | i 17 45 | | PP | 56·9 |
| Palisades | | 100·1 | 22 | i 13 42 | + 2 | i 24 13 | [+ 2] | i 26 38 | | PS | e 47·3 |
| City College, N.Y. | | 100·3 | 22 | e 17 27 | PP | e 24 13 | [+ 1] | — | | — | — |
| Fordham | | 100·3 | 22 | e 14 3 | pP | e 24 20 | [+ 8] | — | | — | — |
| Philadelphia | | 100·7 | 23 | e 18 3 | PKP | e 24 13 | [− 1] | — | | — | — |
| Washington | | 101·0 | 24 | e 14 1 | pP | — | — | — | | — | — |
| Columbia | | 103·7 | 30 | e 18 17 | PKP | e 24 28 | [− 1] | — | | — | — |
| Tacubaya | | 105·2 | 53 | e 18 44 | pPP | — | — | e 19 4 | | ? | — |
| Tamanrasset | Z. | 106·1 | 313 | e 14 7 | + 1 | e 27 25 | SP | e 14 30 | | pP | — |
| Bermuda | | 110·8 | 18 | e 18 56 | PP | e 28 26 | PS | e 19 25 | | pPP | e 46·2 |
| Swan Island | | 116·1 | 41 | e 19 45 | PP | e 29 51 | SPP | — | | — | — |
| Pretoria | Z. | 117·9 | 257 | i 18 41a | [+ 2] | — | — | — | | — | — |
| Pietermaritzburg | Z. | 117·9 | 52 | i 18 41 | [+ 2] | — | — | — | | — | — |
| Guantanamo Bay | | 118·5 | 32 | i 20 18 | PP | e 24 36 | [+ 8] | — | | — | — |
| Kimberley | Z. | 122·0 | 254 | i 18 48a | [+ 1] | — | — | i 19 9 | | pPKP | — |
| Grahamstown | Z. | 122·4 | 250 | i 18 49a | [+ 1] | — | — | e 19 21 | | sPKP | — |
| San Juan | | 123·5 | 24 | e 18 51 | [+ 1] | — | — | — | | — | — |
| Galerazamba | | 126·3 | 38 | e 34 10 | ? | — | — | — | | — | — |
| Fort de France | | 128·5 | 21 | e 18 49 | [−11] | — | — | — | | — | — |
| Chinchina | | 130·9 | 42 | e 19 8 | [+ 4] | e 22 34 | PKS | e 38 58 | | SS | — |
| Bogota | | 132·1 | 40 | i 19 14 | [+ 7] | i 22 41 | PKS | i 31 49 | | PS | 57·2 |
| Huancayo | | 144·0 | 58 | i 19 30 | [+ 2] | e 26 52 | sSKS | e 22 52 | | PP | e 59·7 |
| La Paz | | 152·1 | 54 | i 19 46 | [+ 5] | 26 36 | [− 4] | i 20 2 | | PKP$_3$ | 74·2 |
| La Plata | | 168·7 | 97 | 25 4 | PPP | 31 34 | SKKS | 45 58 | | SS | 52·3 |

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July 18d. 0h. 43m. 51s. Epicentre 37°·5N. 50°·1E.

Epicentre given by U.S.S.R. stations.

A = +·5101, B = +·6101, C = +·6062; $\delta$ = −10; $h$ = −1;
D = +·767, E = −·641; G = +·389, H = +·465, K = −·795.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Lenkoran | | 1·6 | 322 | 0 32 | $0_g$ | 0 53 | $0_g$ | — | — |
| Baku | | 2·9 | 357 | e 0 58? | $0_g$ | i 1 32? | + 2* | — | — |
| Shemakla | | 3·3 | 340 | 0 58 | − 1* | 1 1 38 | + 3 | — | — |
| Goris | | 3·6 | 305 | 1 0 | + 2 | — | — | — | — |
| Kirovobad | | 4·3 | 319 | 1 14 | − 2* | 2 4 | + 4 | — | — |
| Erevan | | 5·1 | 303 | — | — | 2 39 | + 4* | — | — |
| Kizyl-Arvat | | 5·1 | 70 | e 1 18 | − 2 | e 2 14 | − 6 | — | — |
| Makhach-Kala | | 5·8 | 341 | i 1 33 | + 4 | i 2 40 | + 2 | — | — |
| Ashkabad | | 6·5 | 84 | e 1 41 | + 2 | i 2 55 | 0 | — | — |
| Tsikhlis-Dzhvari | | 6·6 | 311 | 1 49 | + 8 | — | — | — | — |
| Grozny | | 6·7 | 332 | e 1 43 | + 1 | — | — | — | — |
| Ksara | | 12·1 | 257 | e 4 3 | ? | 6 48? | L | — | — |
| Obi-garm | | 15·5 | 79 | i 3 41 | − 1 | — | — | — | — |
| Quetta | | 15·8 | 113 | e 8 30 | PcP | — | — | — | — |
| Istanbul | z. | 16·7 | 289 | e 9 9? | PcP | — | — | — | — |
| Dzhergetal | | 16·7 | 77 | e 3 58 | + 1 | — | — | — | — |
| Fergana | | 17·1 | 73 | e 4 0 | − 2 | — | — | — | — |
| Namangan | | 17·1 | 72 | 4 2 | 0 | — | — | — | — |
| Andijan | | 17·6 | 73 | 4 7 | − 1 | 7 19 | − 4 | — | — |
| Frunse | | 19·4 | 66 | e 4 30 | 0 | — | — | — | — |
| Rybach'e | | 20·5 | 67 | e 4 43 | + 1 | — | — | — | — |
| Almata II | | 21·5 | 74 | e 4 51 | − 1 | — | — | — | — |
| Przhevalsk | | 22·1 | 76 | e 4 59 | 0 | — | — | — | — |
| Messina | z. | 27·2 | 282 | e 5 47 | 0 | — | — | — | — |
| Collmberg | z. | 29·5 | 308 | e 6 7 | − 1 | — | — | e 6 11 | P |
| Kiruna | z. | 34·6 | 340 | i 6 52 | − 1 | — | — | i 7 41 | ? |
| Tamanrasset | z. | 40·9 | 262 | e 7 44 | − 2 | — | — | i 8 39 | ? |

July 18d. 2h. 41m. 31s. Epicentre 39°·5N. 73°·0E. (as on 1944, March 15d.).

A = +·2262, B = +·7399, C = +·6335; $\delta$ = −6; $h$ = −1;
D = +·956, E = −·292; G = +·185, H = +·606, K = −·774.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Fergana | 1·3 | 313 | e 0 24 | − 1 | e 0 42 | − 2 | — | — |
| Andijan | 1·4 | 339 | i 0 26 | − 1 | 0 46 | 0 | — | — |
| Dzhergetal | 1·4 | 258 | 0 23 | − 4 | — | — | — | — |
| Namangan | 1·8 | 326 | — | — | i 1 1 | + $1_g$ | — | — |
| Khorog | 2·3 | 209 | e 0 37 | − 3 | i 1 6 | − 3 | — | — |
| Obi-garm | 2·7 | 253 | i 0 47 | + 2 | i 1 23 | − 1* | — | — |
| Kulyab | 3·0 | 238 | 0 56 | + 2* | 1 36 | − $3_g$ | — | — |
| Naryn | 3·0 | 49 | e 0 56 | + 2* | i 1 43 | + $4_g$ | — | — |
| Stalinabad | 3·4 | 256 | e 0 54 | − 1 | e 1 52 | $0_g$ | 1 1 | P* |
| Tashkent | 3·4 | 304 | e 1 1 | 0* | e 1 50 | − $2_g$ | — | — |
| Frunse | 3·6 | 19 | e 1 1 | + 3 | i 1 46 | + 4 | e 1 53 | S* |
| Rybach'e | 3·8 | 37 | — | — | i 2 7 | + $1_g$ | — | — |
| Tchimkent | 3·8 | 318 | e 1 6 | − 2* | 2 2 | − $4_g$ | — | — |
| Samarkand | 4·6 | 274 | 1 15 | + 3 | — | — | — | — |
| Almata | 4·8 | 37 | e 1 18 | + 3 | 1 2 35 | − $4_g$ | i 1 30 | P* |
| Almata II | 5·0 | 40 | e 1 15 | − 3 | — | — | — | — |
| Przhevalsk | 5·1 | 52 | i 1 21 | + 1 | — | — | — | — |
| Ili | 5·4 | 33 | e 1 23 | − 1 | — | — | — | — |

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July 18d. 5h. 17m. 35s. Epicentre 16°·7S. 173°·5W. (as on 13d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 3·3 | 30 | i 0 59 | 0* | i 1 41 | − 1* | — | — | 2·4 |
| Auckland | N. | 22·6 | 206 | i 5 1 | − 2 | 9 13 | + 6 | e 5 49 | PPP | e 12·0 |
| Pasadena | Z. | 73·0 | 46 | e 11 32 | − 1 | — | — | — | — | e 36·8 |
| Palomar | Z. | 73·4 | 47 | e 11 37 | + 1 | — | — | — | — | — |
| Riverside | Z. | 73·4 | 46 | e 11 38 | + 2 | — | — | — | — | — |
| China Lake | Z. | 74·3 | 44 | e 11 43 | + 2 | — | — | e 11 52 | ? | — |
| Tinemaha | Z. | 74·6 | 43 | e 11 44 | + 1 | — | — | e 12 5 | ? | — |
| Fayetteville | Z. | 91·4 | 53 | e 13 9 | 0 | — | — | — | — | — |
| Potsdam | | 144·0 | 353 | e 19 43 | [+ 6] | — | — | — | — | e 82·4 |
| Kew | | 144·9 | 7 | i 19 44 | [+ 5] | — | — | — | — | e 77·4 |
| Jena | | 145·6 | 355 | e 19 48 | [+ 8] | — | — | e 20 4 | ? | — |
| Prague | | 146·1 | 352 | e 19 49 | [+ 8] | e 20 6 | ? | e 20 34 | ? | — |
| Karlsruhe | Z. | 147·7 | 358 | e 19 53 | $PKP_2$ | e 20 1 | ? | e 20 50 | ? | — |
| Paris | | 147·8 | 5 | e 19 51 | [+ 7] | e 20 14 | sPKP | e 20 6 | pPKP | e 80·4 |
| Stuttgart | | 147·9 | 356 | e 19 48 | [+ 4] | e 20 15 | ? | e 23 37 | PP | — |
| Strasbourg | | 148·2 | 358 | e 19 53 | [+ 8] | i 20 13 | ? | e 20 3 | $PKP_2$ | — |
| Ksara | | 148·6 | 309 | e 19 52 | [+ 7] | — | — | e 23 34 | PP | — |
| Istanbul | | 148·9 | 326 | e 19 25? | [−21] | e 23 43 | ? | e 24 19 | ? | — |
| Clermont-Ferrand | | 150·9 | 5 | e 19 59 | [+10] | — | — | — | — | 82·4 |
| Florence | Z. | 152·7 | 352 | e 19 56 | [+ 5] | — | — | — | — | — |
| Helwan | Z. | 153·8 | 305 | e 20 24 | $PKP_2$ | — | — | i 23 58 | PP | — |
| Messina | E. | 157·1 | 343 | — | — | e 34 11 | SKSP | e 37 21 | SS | e 51·2 |
| Algiers Univ. | Z. | 159·8 | 8 | e 20 43 | $PKP_2$ | — | — | — | — | — |
| Tamanrasset | Z. | 173·9 | — | e 20 15 | [+ 4] | — | — | — | — | — |

July 18d. 15h. 19m. 21s. Epicentre 39°·2N. 71°·5E. (as on 1952, June 3d.).

A = +·2465, B = +·7368, C = +·6295 ; $\delta$ = −9 ; $h$ = −1 ;
D = +·948, E = −·317 ; G = +·200, H = +·597, K = −·770.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Dzhergetal | 0·2 | 274 | i 0 14 | + 4 | 0 16? | 0 | — | — |
| Fergana | 1·2 | 11 | e 0 19 | − 5 | e 0 34 | − 7 | — | — |
| Andijan | 1·7 | 23 | i 0 31 | 0 | i 0 53 | − 1 | i 1 55 | ? |
| Khorog | 1·7 | 177 | e 0 37 | + $3_g$ | e 1 0 | + $4_g$ | — | — |
| Namangan | 1·8 | 4 | — | — | e 0 57 | 0* | — | — |
| Kulyab | 1·9 | 226 | e 0 35 | + 1 | e 0 59 | 0 | — | — |
| Stalinabad | 2·2 | 253 | e 0 37 | − 1 | i 1 4 | − 2 | — | — |
| Tashkent | 2·7 | 322 | — | — | i 1 18 | − 1 | — | — |
| Tchimkent | 3·4 | 335 | e 0 54 | − 1 | i 1 40 | + 3 | — | — |
| Samarkand | 3·5 | 289 | — | — | 1 44 | − 4* | — | — |
| Naryn | 4·0 | 58 | — | — | e 2 16 | + $4_g$ | — | — |
| Frunse | 4·4 | 31 | — | — | e 2 26 | + $1_g$ | — | — |
| Rybach'e | 4·7 | 45 | — | — | e 2 39 | + $4_g$ | — | — |
| Almata II | 6·0 | 46 | e 1 33 | + 1 | — | — | — | — |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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July 18d. 18h. 39m. 42s. Epicentre 22°·7S. 114°·5W.

$A = -·3830$, $B = -·8403$, $C = -·3837$; $\delta = +2$; $h = +4$;
$D = -·910$, $E = +·415$; $G = +·159$, $H = +·349$, $K = -·924$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Concepción | N. | 38·3 | 119 | — | — | 15 18 | ? | — | — | — |
| Huancayo | | 38·7 | 81 | i 7 30 | + 3 | e 13 36 | +11 | e 9 10 | PP | e 16·4 |
| La Paz | | 44·0 | 90 | i 8 10a | − 1 | i 14 48 | + 5 | i 9 40 | PP | 21·1 |
| Puebla | | 45·2 | 22 | e 10 22 | PP | — | — | e 11 22 | ? | e 22·5 |
| Vera Cruz | | 45·3 | 25 | e 10 35 | PPP | — | — | 21 55 | Q | e 22·5 |
| Chinchina | | 46·9 | 58 | e 8 34 | 0 | e 15 29 | + 4 | — | — | — |
| Bogota | | 47·9 | 60 | i 8 44 | + 2 | i 15 46 | + 7 | i 10 36 | PP | 22·3 |
| La Plata | | 50·5 | 117 | 9 24 | +22 | 16 12 | − 4 | — | — | 20·8 |
| Tucson | | 54·7 | 4 | i 9 35 | + 2 | e 17 28 | +15 | e 13 28 | PPP | e 26·3 |
| Palomar | Z. | 55·8 | 358 | i 9 42 | + 1 | — | — | — | — | — |
| Riverside | Z. | 56·4 | 357 | i 9 48 | + 3 | — | — | — | — | — |
| Pasadena | | 56·6 | 357 | i 9 50 | + 3 | e 18 11 | PPS | e 21 36 | SS | e 26·8 |
| Lubbock | | 57·3 | 13 | 9 51 | − 1 | 17 51 | + 4 | — | — | — |
| China Lake | Z. | 58·6 | 358 | i 10 0 | − 1 | — | — | — | — | — |
| Fresno | Z. | 59·3 | 356 | e 10 7a | + 1 | — | — | e 39 44 | P′P′ | — |
| Tinemaha | | 59·5 | 357 | i 10 10a | + 3 | e 12 24 | PP | e 39 45 | P′P′ | e 28·9 |
| Lick | Z. | 60·1 | 353 | i 10 13a | + 2 | — | — | e 12 32 | PP | — |
| Santa Clara | | 60·1 | 353 | i 10 13a | + 2 | — | — | — | — | e 28·8 |
| Berkeley | | 60·7 | 353 | i 10 16a | + 1 | e 18 44 | +12 | e 25 57 | Q | e 28·8 |
| Wellington | | 61·2 | 234 | e 10 18 | − 1 | 18 26 | −12 | 18 45 | PS | e 25·6 |
| Fayetteville | Z. | 61·5 | 19 | i 10 20a | − 1 | — | — | i 11 3 | PcP | e 33·0 |
| Reno | Z. | 62·1 | 356 | i 10 27 | + 2 | — | — | — | — | — |
| Christchurch | | 62·5 | 231 | — | — | e 19 14 | PS | — | — | 28·9 |
| San Juan | | 62·5 | 53 | e 10 27 | − 1 | — | — | — | — | — |
| Shasta | Z. | 63·5 | 354 | e 10 34 | 0 | — | — | — | — | — |
| Fort de France | | 64·1 | 60 | e 10 36 | − 2 | e 19 20 | + 6 | — | — | — |
| Chicago | | 68·8 | 21 | e 11 8 | 0 | e 20 14 | + 3 | — | — | — |
| Morgantown | | 69·9 | 28 | i 11 14 | − 1 | — | — | e 12 37 | ? | — |
| Seattle | | 70·4 | 355 | e 11 18 | 0 | — | — | — | — | — |
| Pittsburgh | | 70·6 | 27 | i 11 41 | PcP | e 21 1 | ScS | — | — | — |
| Hungry Horse | | 70·7 | 1 | e 11 20 | 0 | — | — | — | — | — |
| Cleveland | | 70·8 | 26 | i 11 19a | − 1 | e 20 37 | + 2 | e 21 28 | ScS | — |
| Philadelphia | | 72·3 | 31 | e 11 27 | − 2 | e 20 55 | + 3 | — | — | — |
| Bermuda | | 72·6 | 43 | i 11 31 | 0 | e 21 1 | + 5 | e 29 23 | Q | e 34·6 |
| Buffalo (Larkin) | | 73·1 | 27 | i 11 34 | 0 | — | — | — | — | — |
| Fordham | | 73·6 | 31 | e 11 34 | − 3 | e 21 14 | + 7 | — | — | — |
| Palisades | | 73·7 | 31 | i 11 33 | − 5 | i 21 11 | + 3 | i 16 11 | PPP | e 35·7 |
| Harvard | | 76·0 | 31 | e 11 50 | − 1 | e 21 38 | + 4 | e 14 36 | PP | e 36·9 |
| Weston | | 76·0 | 31 | i 11 52 | + 1 | e 21 36 | + 2 | — | — | — |
| Ottawa | | 76·4 | 27 | e 11 53k | 0 | 21 36 | − 2 | 14 48 | PP | 31·8 |
| Kirkland Lake | Z. | 77·0 | 23 | e 11 55 | − 1 | — | — | — | — | — |
| Shawinigan Falls | N. | 78·6 | 28 | e 12 3 | − 2 | — | — | 16 54 | PPP | — |
| Riverview | | 81·1 | 237 | — | — | i 22 34 | + 6 | — | — | e 38·1 |
| Halifax | | 81·5 | 34 | e 12 23 | + 2 | 22 34 | + 2 | 28 6 | SS | — |
| Brisbane | | 81·9 | 244 | i 12 23 | 0 | — | — | — | — | e 39·0 |
| College | | 91·0 | 346 | i 13 6 | − 1 | e 23 42 | [+ 3] | e 16 42 | PP | e 37·2 |
| Resolute Bay | | 98·0 | 5 | e 13 39 | 0 | 24 23 | [+ 6] | 26 34 | PS | — |
| Petropavlovsk | | 106·0 | 321 | 18 41 | PP | i 27 53 | PS | — | — | — |
| Scoresby Sund | | 112·0 | 21 | e 19 18 | PP | e 25 30 | [+10] | 34 48 | SS | 53·3 |
| Yuzno-Sakhlinsk | | 114·5 | 313 | e 19 41 | PP | — | — | — | — | — |
| Uglegorsk | | 115·5 | 316 | e 19 50 | PP | — | — | — | — | — |
| Malaga | | 118·9 | 59 | 20 14 | PP | 27 30 | {+24} | e 24 8 | ? | 66·2 |
| Granada | | 119·6 | 59 | 20 6a | PP | 28 6 | S | 30 3 | PS | 60·8 |
| Almeria | | 120·5 | 60 | 20 12 | PP | 26 26 | [+34] | 38 0 | ? | 63·4 |
| Aberdeen | E. | 120·9 | 36 | — | — | i 37 21 | SSP | e 60 18 | Q | e 65·3 |
| Alicante | | 122·3 | 58 | 19 0 | [+ 3] | 26 0 | [+ 2] | 37 4 | SS | 48·9 |
| Kew | | 122·4 | 43 | e 20 40 | PP | e 30 20 | PS | — | — | e 58·3 |
| Paris | | 124·4 | 46 | e 19 2 | [+ 1] | e 30 46 | PS | e 20 48 | PP | 58·3 |
| Algiers Univ. | Z. | 124·9 | 60 | e 20 21 | ? | e 32 13 | PPS | e 20 49 | PP | — |
| Clermont-Ferrand | | 125·0 | 49 | e 20 30 | ? | e 31 15 | PS | e 38 18 | SSP | 59·3 |

*Continued on next page.*

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| | | △ | Az. | P. | | O−C. | S. | | O−C. | Supp. | | | L. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. | s. | s. | m. | s. | s. | m. | s. | | m. |
| Tamanrasset | z. | 125·0 | 77 | e 19 | 4 | [+ 2] | e 32 | 39 | PPS | e 20 | 52 | PP | 63·3 |
| De Bilt | | 125·7 | 41 | e 20 | 48 | PP | e 31 | 6 | PS | e 25 | 28 | ? | e 55·3 |
| Kiruna | | 127·1 | 20 | i 21 | 5 | PP | i 22 | 24 | PKS | e 23 | 20? | PPP | e 62·3 |
| Strasbourg | | 127·9 | 45 | e 21 | 8 | PP | e 38 | 21 | SS | e 30 | 58 | PS | e 60·3 |
| Karlsruhe | z. | 128·3 | 44 | 21 | 6 | PP | — | | — | — | | — | — |
| Stuttgart | | 128·8 | 45 | e 19 | 10 | [ 0] | e 22 | 38 | SKP | e 21 | 14 | PP | e 61·3 |
| Copenhagen | | 129·1 | 35 | 21 | 22 | PP | 22 | 34 | SKP | — | | — | 51·3 |
| Jena | z. | 129·9 | 42 | e 19 | 12 | [ 0] | e 26 | 12 | [− 8] | e 21 | 19 | PP | — |
| Upsala | | 130·1 | 30 | e 20 | 59 | ? | i 22 | 32 | PKS | i 21 | 24 | PP | e 68·3 |
| Potsdam | | 130·4 | 39 | e 19 | 18 | [+ 5] | i 22 | 46 | PKS | e 21 | 27 | PP | e 62·3 |
| Florence | | 131·0 | 51 | e 19 | 15 | [+ 1] | — | | — | e 22 | 1 | PP | — |
| Prague | | 131·9 | 42 | e 19 | 36 | ? | i 22 | 45 | PKS | e 21 | 42 | PP | — |
| Rome | | 132·1 | 53 | i 19 | 16 | [ 0] | i 22 | 47 | SKP | e 21 | 50 | PP | e 62·3 |
| Triest | | 132·4 | 48 | i 19 | 16k | [− 1] | e 28 | 4 | (−30) | e 39 | 26 | SS | — |
| Messina | | 134·8 | 58 | e 19 | 44 | ? | e 22 | 50 | SKP | e 40 | 7 | SSP | — |
| Pulkovo | | 135·5 | 25 | e 19 | 24 | [+ 2] | e 26 | 41 | [+ 9] | e 22 | 0 | PP | — |
| Taranto | | 135·8 | 55 | 21 | 18 | ? | 32 | 18 | PS | — | | — | 62·3 |
| Kabansk | | 137·0 | 324 | e 19 | 28? | [+ 3] | e 23 | 3? | PKS | e 22 | 10? | PP | — |
| Uzhgorod | | 137·2 | 42 | e 19 | 24 | [− 1] | — | | — | e 22 | 11 | PP | — |
| Timisoara | | 137·5 | 46 | 19 | 18? | [− 8] | 34 | 18? | PPS | — | | — | — |
| Kyakhta | | 137·8 | 322 | e 19 | 27? | [ 0] | e 23 | 1? | PKS | e 22 | 12? | PP | — |
| Lwow | | 137·8 | 40 | e 19 | 28 | [+ 1] | e 29 | 21 | (+13) | e 22 | 23 | PP | — |
| Irkutsk | | 138·1 | 326 | 19 | 29? | [+ 2] | e 23 | 4 | PKS | 22 | 17? | PP | — |
| Kishinev | | 141·9 | 42 | e 19 | 29 | [− 5] | — | | — | e 22 | 34 | PP | — |
| Istanbul | | 144·4 | 50 | e 19 | 37 | [− 1] | e 21 | 53 | ? | e 24 | 33 | ? | — |
| Sverdlovsk | | 145·7 | 5 | i 19 | 42 | [+ 2] | e 29 | 46 | (− 8) | i 23 | 6 | PP | — |
| Simferopol | | 146·1 | 42 | 19 | 40 | [− 1] | — | | — | 23 | 3 | PP | — |
| Yalta | | 146·4 | 43 | e 19 | 41 | [− 1] | — | | — | 23 | 2 | PP | — |
| Theodosia | | 146·8 | 41 | i 19 | 46 | [+ 4] | — | | — | — | | — | — |
| Helwan | z. | 148·6 | 70 | 19 | 44 | [− 1] | 23 | 18 | PKS | 23 | 32 | PP | — |
| Semipalatinsk | | 150·0 | 342 | e 19 | 48 | [+ 1] | — | | — | — | | — | — |
| Sotchi | | 150·2 | 40 | e 19 | 47 | [− 1] | e 23 | 22 | PKS | — | | — | — |
| Ksara | | 151·8 | 62 | e 19 | 53 | [+ 3] | e 34 | 1 | PSKS | — | | — | — |
| Piatigorsk | | 151·8 | 36 | e 19 | 41? | [− 9] | — | | — | — | | — | — |
| Zugdidi | | 152·1 | 39 | e 19 | 59 | [+ 8] | — | | — | — | | — | — |
| Abastumanj | | 153·1 | 40 | e 19 | 57 | [+ 5] | — | | — | — | | — | — |
| Gori | | 153·7 | 38 | e 19 | 56 | [+ 3] | — | | — | — | | — | — |
| Grozny | | 153·7 | 34 | i 19 | 53 | [ 0] | — | | — | — | | — | — |
| Leninakan | | 154·3 | 41 | e 20 | 3 | [+ 9] | — | | — | — | | — | — |
| Tiflis | | 154·3 | 38 | e 19 | 56 | [+ 2] | — | | — | — | | — | — |
| Makhach-Kala | | 154·9 | 33 | i 19 | 57 | [+ 3] | — | | — | i 20 | 20 | PKP | — |
| Erevan | | 155·1 | 40 | e 19 | 58 | [+ 3] | — | | — | — | | — | — |
| Kirovobad | | 155·8 | 38 | e 19 | 56 | [ 0] | — | | — | — | | — | — |
| Goris | | 156·6 | 39 | e 19 | 56 | [− 1] | — | | — | — | | — | — |
| Shemakha | | 157·1 | 36 | i 20 | 1 | [+ 4] | — | | — | — | | — | — |
| Almata II | | 157·3 | 340 | e 20 | 1 | [+ 3] | — | | — | — | | — | — |
| Baku | | 158·0 | 34 | e 20 | 6? | [+ 8] | — | | — | — | | — | — |
| Rybach'e | | 158·4 | 340 | e 20 | 1 | [+ 2] | — | | — | e 24 | 15 | PP | — |
| Frunse | | 158·5 | 343 | i 20 | 1 | [+ 2] | i 24 | 24 | PP | i 20 | 38 | $PKP_2$ | — |
| Lenkoran | | 158·6 | 38 | 20 | 0 | [+ 1] | — | | — | — | | — | — |
| Naryn | | 159·3 | 338 | e 20 | 2 | [+ 2] | — | | — | — | | — | — |
| Tchimkent | | 160·2 | 352 | e 19 | 59 | [− 2] | e 23 | 27 | PKS | e 24 | 25 | PP | — |
| Namangan | | 161·0 | 346 | 20 | 4? | [+ 2] | e 24 | 32 | PP | 20 | 47 | $PKP_2$ | — |
| Andijan | | 161·1 | 345 | i 20 | 3 | [+ 1] | e 34 | 57 | SKSP | i 24 | 31 | PP | — |
| Tashkent | | 161·2 | 352 | e 20 | 3 | [+ 1] | e 24 | 31 | PP | i 20 | 46 | $PKP_2$ | — |
| Fergana | | 161·6 | 345 | i 20 | 4 | [+ 2] | e 24 | 34 | PP | e 20 | 50 | $PKP_2$ | — |
| Dzhergetal | | 162·8 | 347 | i 20 | 7 | [+ 3] | — | | — | — | | — | — |
| Samarkand | | 163·0 | 356 | e 20 | 8 | [+ 4] | — | | — | 24 | 41 | PP | — |
| Obi-garm | | 163·6 | 348 | i 20 | 8 | [+ 4] | — | | — | — | | — | — |
| Stalinabad | | 163·9 | 351 | i 20 | 2 | [− 3] | — | | — | i 24 | 47 | PP | — |
| Kulyab | | 164·4 | 347 | e 20 | 7 | [+ 2] | — | | — | i 24 | 47 | PP | — |
| Quetta | | 172·4 | 350 | e 20 | 19 | [+ 8] | — | | — | e 21 | 55 | $PKP_2$ | 93·3 |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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July 18d. 21h. 41m. 16s. Epicentre 37°·6N. 71°·6E. Depth of focus 0·020.
(as on 1952, June 28d.).

$A = +·2507$, $B = +·7537$, $C = +·6076$; $\delta = +9$; $h = -1$;
$D = +·949$, $E = -·316$; $G = +·192$, $H = +·577$, $K = -·794$.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 0·1 | 180 | i 0 18 | − 4 | i 0 34 | − 4 |
| Dzhergetal | 1·6 | 349 | i 0 35 | + 3 | i 1 0 | + 4 |
| Obi-garm | 1·9 | 306 | i 0 35 | 0 | i 1 3 | + 1 |
| Stalinabad | 2·4 | 293 | i 0 42 | + 1 | i 1 15 | + 3 |
| Fergana | 2·8 | 3 | i 0 48 | + 2 | 1 23 | + 2 |
| Andijan | 3·2 | 11 | 0 53 | + 2 | i 1 32 | + 2 |
| Namangan | 3·4 | 0 | — | — | e 1 36? | + 1 |
| Samarkand | 4·1 | 302 | 1 5 | + 2 | — | — |
| Tashkent | 4·1 | 336 | — | — | i 1 54? | + 3 |
| Tchimkent | 4·9 | 343 | — | — | i 2 12 | + 2 |
| Naryn | 5·1 | 41 | e 1 15 | − 1 | i 2 14 | 0 |
| Frunse | 5·8 | 23 | i 1 25 | 0 | i 2 30 | − 1 |
| Rybach'e | 5·9 | 34 | i 1 27 | + 1 | — | — |
| Almata | 7·0 | 35 | i 1 39 | − 2 | — | — |
| Przhevalsk | 7·1 | 45 | i 1 42 | 0 | i 3 2 | 0 |
| Kurmenty | 7·5 | 41 | e 1 46 | − 2 | e 3 6 | − 6 |
| Ili | 7·6 | 32 | e 1 46 | − 3 | — | — |

July 18d. 23h. 1m. 50s. Epicentre 19°·0N. 102°·5W. (as on 1941, June 13d.).

$A = -·2048$, $B = -·9238$, $C = +·3236$; $\delta = +7$; $h = +5$;
$D = -·976$, $E = +·216$; $G = -·070$, $H = -·316$, $K = -·946$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. | m. |
| Manzanillo | | 1·7 | 272 | 0 38 | + $4_g$ | 1 0 | + $4_g$ | — | — | — |
| Guadalajara | | 1·9 | 331 | 0 40 | + $2_g$ | 1 2 | − $1_g$ | — | — | — |
| Puebla | | 4·1 | 90 | 1 16 | + 3* | 2 16 | $0_g$ | — | — | — |
| Oaxaca | | 5·8 | 109 | 1 37 | − 5* | 2 55 | − 1* | — | — | 3·1 |
| Vera Cruz | | 6·0 | 88 | 1 42 | − 3* | e 2 59 | − 3* | e 2 1 | $P_g$ | e 3·2 |
| Lubbock | | 14·5 | 2 | 3 25 | − 3 | 7 30 | L | — | — | (7·5) |
| Tucson | | 15·2 | 332 | e 3 37 | − 1 | e 6 26 | − 2 | — | — | — |
| Fayetteville | z. | 18·5 | 21 | i 4 14 | − 5 | — | — | — | — | e 9·8 |
| Palomar | z. | 19·2 | 322 | e 4 35 | + 7 | — | — | — | — | — |
| Boulder City | | 20·1 | 331 | e 4 31 | − 7 | e 10 36 | L | — | — | (e 10·6) |
| Pasadena | z. | 20·6 | 322 | e 4 43 | 0 | — | — | e 5 4 | PP | — |
| China Lake | z. | 21·4 | 326 | i 4 51 | 0 | — | — | — | — | — |
| Tinemaha | z. | 22·7 | 327 | i 5 6 | + 2 | — | — | — | — | — |
| Fresno | z. | 23·3 | 324 | e 5 11 | + 1 | — | — | — | — | — |
| Columbia | | 24·3 | 46 | e 5 23 | + 3 | e 9 34 | − 3 | — | — | — |
| Lick | z. | 24·8 | 322 | e 5 25 | 0 | — | — | — | — | — |
| Reno | z. | 25·3 | 328 | e 5 30 | 0 | — | — | — | — | — |
| Chicago | | 26·0 | 24 | — | — | e 10 10 | + 4 | — | — | e 13·9 |
| Morgantown | | 28·3 | 37 | i 5 52 | − 5 | — | — | — | — | — |
| Huancayo | | 40·8 | 136 | e 7 39 | − 6 | — | — | — | — | — |
| College | | 54·8 | 338 | i 9 30 | − 4 | — | — | — | — | — |

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July 19d. 1h. 16m. 16s. Epicentre 46°·8N. 75°·7W.

Epicentre suggested by Ottawa.

$A = +·1697$, $B = -·6657$, $C = +·7267$; $\delta = +5$; $h = -4$;
$D = -·969$, $E = -·247$; $G = +·179$, $H = -·704$, $K = -·687$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Ottawa | | 1·4 | 185 | i 0 27 | 0 | 0 46 | 0 | — | — |
| Shawinigan Falls | N. | 2·0 | 97 | e 0 37 | 0* | 1 2 | 0 | e 1 6 | $S_g$ |
| Kirkland Lake | Z. | 3·2 | 296 | e 0 51 | − 1 | 1 39 | 0* | e 1 27 | S |
| Buffalo (Larkin | | 4·5 | 209 | — | — | i 2 16 | − 2* | — | — |
| Weston | | 5·4 | 143 | e 1 25 | + 1 | i 2 54 | − $4_s$ | — | — |
| Palisades | | 5·9 | 167 | i 1 32 | + 1 | e 3 3 | + 4* | i 1 36 | PP |
| Morgantown | | 7·8 | 205 | — | — | e 4 0 | + 4* | e 3 12 | ? |
| Fayetteville | Z. | 17·5 | 239 | e 7 9 | S | (e 7 9) | −12 | e 8 4 | SSS |

July 19d. 22h. 10m. 15s. Epicentre 16°·7S. 173°·5W. Focus at Base of Superficial Layers. (as on 18d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 3·3 | 30 | e 0 54? | + 3 | i 1 29 | 0 | — | — | — |
| Wellington | | 26·5 | 201 | e 5 34 | − 2 | — | — | — | — | — |
| Kaimata | N.E. | 28·8 | 205 | e 5 54 | − 3 | — | — | — | — | — |
| Brisbane | Z. | 32·7 | 246 | i 6 28 | − 3 | — | — | i 6 37 | pP | — |
| Mount Wilson | Z. | 73·1 | 46 | e 11 27 | − 2 | — | — | — | — | — |
| Palomar | Z. | 73·4 | 47 | e 11 29 | − 1 | — | — | — | — | — |
| China Lake | Z. | 74·3 | 44 | e 11 37 | + 1 | — | — | — | — | — |
| Fayetteville | Z. | 91·4 | 53 | e 13 3 | − 1 | — | — | — | — | — |
| De Bilt | | 144·7 | 0 | e 19 33 | [ 0] | — | — | — | — | — |
| Collmberg | Z. | 145·1 | 354 | e 19 33 | [− 1] | — | — | e 20 11 | ? | — |
| Raciborzu | Z. | 145·4 | 348 | e 19 37 | [+ 2] | — | — | e 19 45 | pPKP | — |
| Jena | Z. | 145·6 | 355 | e 19 35 | [ 0] | — | — | — | — | — |
| Prague | | 146·1 | 352 | e 19 39 | [+ 3] | e 21 47 | ? | e 19 54 | ? | — |
| Paris | | 147·8 | 5 | e 19 41 | [+ 2] | — | — | e 19 51 | pPKP | e 82·8 |
| Stuttgart | Z. | 147·9 | 356 | e 19 40 | [+ 1] | — | — | — | — | — |
| Strasbourg | | 148·2 | 358 | e 19 44 | [+ 5] | e 20 11 | ? | e 20 25 | ? | — |
| Ksara | | 148·6 | 309 | (e 19 45) | [+ 5] | e 19 45 | PKP | — | — | — |
| Triest | Z. | 150·5 | 350 | e 19 47 | [+ 4] | e 20 13 | ? | e 21 11 | ? | — |
| Clermont-Ferrand | | 150·9 | 5 | e 19 46 | [+ 3] | — | — | — | — | — |
| Tamanrasset | Z. | 173·9 | — | e 20 8 | [+ 2] | — | — | — | — | — |

July 20d. 5h. 34m. 23s. Epicentre 28°·2S. 176°·9W. Depth of focus 0·010. (as on 1949, July 27d.).

$A = -·8813$, $B = -·0477$, $C = -·4701$; $\delta = -4$; $h = +2$;
$D = -·054$, $E = +·999$; $G = +·469$, $H = +·025$, $K = -·883$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Auckland | N. | 11·1 | 217 | — | — | e 4 57 | +17 | — | — | 5·6 |
| Tuai | N. | 11·7 | 204 | — | — | e 4 45 | − 9 | — | — | — |
| Wellington | | 14·7 | 205 | e 3 23 | − 1 | e 5 52 | −13 | e 4 0 | ? | e 7·6 |
| Cobb River | E. | 15·4 | 211 | — | — | e 6 12 | − 9 | — | — | — |
| Kaimata | N.E. | 17·2 | 210 | e 4 15 | PP | e 6 58 | − 4 | — | — | — |
| Brisbane | | 26·6 | 265 | i 5 33 | + 2 | — | — | — | — | e 13·3 |
| Riverview | | 27·9 | 251 | — | — | i 9 31 | −47 | — | — | e 13·8 |
| Lick | Z. | 83·3 | 42 | e 12 18 | + 1 | — | — | — | — | — |
| Mount Wilson | Z. | 83·4 | 46 | e 12 19 | + 1 | — | — | — | — | — |
| Palomar | Z. | 83·6 | 47 | 12 47 | pP | — | — | e 10 44 | ? | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Fresno | z. | 84·0 | 43 | e 12 21 | 0 | — | — | — | — | — |
| Tinemaha | z. | 85·1 | 44 | e 12 25 | − 1 | — | — | e 10 57 | ? | — |
| Reno | z. | 85·8 | 42 | e 12 55 | pP | — | — | — | — | — |
| Boulder City | | 86·5 | 47 | e 12 33 | 0 | — | — | — | — | — |
| Tucson | | 86·9 | 51 | e 12 37? | + 2 | — | — | — | — | — |
| College | | 95·5 | 12 | e 13 12 | − 3 | — | — | — | — | — |
| Kiruna | z. | 139·0 | 350 | e 19 14 | [− 1] | — | — | — | — | — |
| Upsala | z. | 146·8 | 347 | i 19 31 | [+ 2] | — | — | — | — | — |
| Ksara | | 151·4 | 289 | e 19 50? | $PKP_2$ | — | — | — | — | — |
| Collmberg | z. | 155·7 | 345 | e 19 41 | [− 1] | — | — | e 19 52 | $PKP_2$ | — |
| Jena | z. | 156·4 | 346 | e 20 12? | $PKP_2$ | — | — | e 20 43 | $pPKP_2$ | — |
| Stuttgart | | 158·9 | 349 | e 20 0? | [+14] | — | — | — | — | e 91·6 |
| Granada | | 169·4 | 32 | 20 19k | $pPKP_2$ | — | — | — | — | 90·7 |
| Tamanrasset | z. | 174·2 | — | e 20 2 | [+ 4] | e 25 33 | PP | i 28 32 | PcP,PKP | — |

July 20d. 11h. 5m. 27s. Epicentre 34°·5N. 26°·5E. (as on 1951, Oct. 1d.).

$A = +·7391$, $B = +·3685$, $C = +·5638$; $\delta = -7$; $h = 0$;
$D = +·446$, $E = -·895$; $G = +·505$, $H = +·252$, $K = -·826$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Athens | | 4·1 | 328 | e 1 7a | + 2 | e 2 3 | − 3* | e 1 16 | P* | i 2·5 |
| Helwan | z. | 6·2 | 137 | e 1 51 | + 2* | e 2 41 | − 7 | e 3 13 | S* | — |
| Istanbul | | 6·9 | 17 | e 1 42? | − 3 | e 3 30? | + 1* | e 2 24 | $P_g$ | — |
| Ksara | | 7·8 | 93 | e 2 2 | + 4 | — | — | — | — | — |
| Messina | z. | 9·6 | 296 | e 2 31 | +10 | e 4 1 | −11 | — | — | — |
| Prague | | 17·9 | 336 | e 4 10 | − 2 | e 4 25 | PP | e 5 1 | ? | — |
| Stuttgart | | 19·2 | 325 | e 4 28 | 0 | e 8 15 | +16 | — | — | e 11·6 |
| Collmberg | z. | 19·4 | 334 | e 4 33 | + 3 | — | — | e 4 42 | PP | — |
| Jena | | 19·7 | 333 | e 4 34 | 0 | — | — | — | — | — |
| Strasbourg | | 19·8 | 323 | e 4 27 | − 8 | e 8 19 | + 6 | e 5 2 | PPP | — |
| Tamanrasset | z. | 21·8 | 244 | e 4 54 | − 2 | e 8 37 | −15 | e 5 17 | PP | — |
| Paris | | 22·8 | 317 | e 5 4 | − 1 | e 5 16 | ? | e 5 27 | PP | — |
| Upsala | z. | 26·0 | 350 | i 5 37 | + 1 | — | — | i 6 6 | PP | — |
| Kiruna | z. | 33·6 | 357 | i 6 40 | − 4 | — | — | i 6 52 | P | — |

July 21d. 8h. 9m. 20s. Epicentre 39°·8N. 77°·4E. (as on 1952, March 12d.).

$A = +·1681$, $B = +·7518$, $C = +·6376$; $\delta = -1$; $h = -2$;
$D = +·976$, $E = -·218$; $G = +·139$, $H = +·622$, $K = -·770$.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Naryn | 1·9 | 327 | i 0 34 | 0 | i 0 58 | − 1 | — | — |
| Przhevalsk | 2·8 | 16 | 0 49 | + 2 | 1 27 | 0* | — | — |
| Rybach'e | 2·8 | 339 | i 0 48 | + 1 | 1 23 | + 1 | — | — |
| Murgab | 3·1 | 242 | e 0 52? | + 1 | e 1 29? | 0 | — | — |
| Kurmenty | 3·3 | 11 | i 0 55 | + 2 | i 1 43 | + 1* | — | — |
| Almata | 3·5 | 354 | e 0 57 | 0 | i 1 46 | − 2* | — | — |
| Almata II | 3·5 | 0 | 0 57 | 0 | e 1 47 | − 1* | — | — |
| Frunse | 3·7 | 326 | i 1 1 | + 1 | e 1 52 | − 2* | e 1 41 | S |
| Chilisk | 3·8 | 11 | i 1 4 | + 3 | — | — | —. | — |
| Andijan | 4·0 | 285 | e 1 5 | + 1 | i 1 48 | − 4 | — | — |
| Ili | 4·2 | 357 | i 1 5 | − 2 | e 2 4 | − 5* | — | — |
| Fergana | 4·3 | 279 | e 1 15 | − 1* | — | — | — | — |
| Khorog | 5·1 | 245 | e 1 21 | + 1 | — | — | — | — |
| Obi-garm | 6·1 | 262 | e 1 30 | − 4 | — | — | — | — |
| Tashkent | 6·3 | 286 | — | — | e 3 24 | − $4_g$ | — | — |
| Tchimkent | 6·4 | 295 | — | — | i 2 50 | − 3 | — | — |
| Stalinabad | 6·8 | 262 | e 1 38 | − 6 | — | — | — | — |
| Ashkabad | 15·0 | 269 | e 3 37 | + 2 | — | — | — | — |

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July 21d. 11h. 52m. 13s. Epicentre 35°·0N. 119°·0W.

Intensity XI in the area from Bealville to Tehachapi; 12 dead, 18 seriously hurt, several hundred others slightly hurt. Serious damage amounted to more than 50 million dollars.
Intensity IX-X in several parts of the San Joaquin Valley, to the S. of Arvin, and along the foothills of the Bear Mountain; much damage to concrete irrigation works and destruction of concrete tunnels near Caliente. Vertical movements along the length of the "White Wolf Fault," caused fissures and subsidencies. Intensity VIII at Arvin, Bakersfield, Caliente, and Glenville.
Epicentre 35°00′N. 119°02′W. Macroseismic area 160,000 miles².
Principal shock of the series of Kern County earthquakes, the most important quake in the United States since 1906, was followed by 118 repetitions of a magnitude greater than 4 in a period of two months, of which 47 were on the same day.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington 1954, p.15-34, with isoseismic chart p.16.

J. P. Buwalda and P. St. Amand.
The recent Arvin Tehachapi, Southern California Earthquake, Science Vol. 116, Dec. 12, 1952, No. 3024, p.645-650., 8 figures.

H. Benioff, J. P. Buwalda, B. Gutenberg, and C. F. Richter.
The Arvin Earthquake of July 21, 1952. Mineral Information Service, Vol. 5, No. 9, Sept. 1, 1952, 7 pages, 6 figures.

H. Benioff, B. Gutenberg, and C. F. Richter.
Progress Report, Seismological Laboratory, California Institute of Technology, 1952. Transactions, American Geophysical Union, Vol. 34, No. 5, Oct., 1953, p.785-787, with list of the epicentres of the repetitions of the Kern County quake, and vol. 35, Dec., 1954, p.979-981, with 6 figures.

K. V. Steinbrugge and D. F. Moran.
An Engineering Study of the Southern California Earthquake of July 21, 1952, and its aftershocks. Bulletin of the Seismological Society of America, Vol. 44, 1954, p.198-462, with 346 figures.

K. V. Steinbrugge and D. F. Moran.
Preliminary Report Southern California Earthquake of July 21, 1952, Pacific Fire Rating Bureau pamphlet, 5 pages, 1 chart, San Francisco, 1952.

Olaf P. Jenkins.
Earthquake in Kern County, California, 1952 (symposium) State of California, Department of Natural Resources, division of Mines, Bulletin 171, San Francisco, Nov., 1955, 283 pages, with numerous photographs, tables, and charts.

$A = -\cdot3980$, $B = -\cdot7181$, $C = +\cdot5710$; $\delta = +11$; $h = 0$;
$D = -\cdot875$, $E = +\cdot485$; $G = -\cdot277$, $H = -\cdot499$, $K = -\cdot821$.

| | | Δ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Santa Barbara | z. | 0·8 | 226 | 0 16 | − 2 | — | — | — | — | — |
| Pasadena | z. | 1·1 | 141 | 0 21 | − 1 | — | — | — | — | — |
| Mount Wilson | z. | 1·1 | 135 | 0 21 | − 1 | — | — | — | — | — |
| China Lake | z. | 1·4 | 54 | 0 26 | − 1 | — | — | — | — | — |
| Haiwee | z. | 1·4 | 36 | 0 28 | + 1 | — | — | — | — | — |
| Riverside | z. | 1·7 | 126 | 0 30 | − 1 | — | — | — | — | — |
| Fresno | z. | 1·9 | 340 | 0 32k | − 2 | — | — | — | — | — |
| Big Bear | z. | 1·9 | 114 | 0 33 | − 1 | — | — | — | — | — |
| Tinemaha | z. | 2·2 | 17 | 0 38 | 0 | — | — | — | — | — |
| Palomar | z. | 2·4 | 133 | 0 39 | − 2 | — | — | — | — | — |
| San Diego | | 2·7 | 147 | i 0 44 | − 1 | — | — | — | — | — |
| Barratt | z. | 3·0 | 139 | 0 48 | − 2 | — | — | — | — | — |
| Lick | z. | 3·1 | 318 | i 0 49k | − 2 | — | — | — | — | — |
| Santa Clara | z. | 3·3 | 315 | i 0 52 | − 1 | — | — | — | — | — |
| Branner | z. | 3·4 | 316 | e 0 54k | − 1 | — | — | — | — | — |
| Boulder City | | 3·6 | 73 | i 0 56 | − 2 | — | — | — | — | — |
| Berkeley | z. | 3·9 | 318 | i 0 58k | − 4 | — | — | — | — | — |
| San Francisco | | 3·9 | 314 | e 1 0 | − 2 | — | — | — | — | — |
| Reno | | 4·6 | 352 | i 1 12k | 0 | — | — | — | — | — |
| Shasta | z. | 6·3 | 336 | e 1 34 | − 2 | — | — | — | — | — |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Ferndale | E. | 6·9 | 325 | e 1 27 | −18 | — | — | — | — | — |
| Tucson | | 7·3 | 110 | i 1 50 | 0 | i 3 13 | − 2 | i 3 34 | S* | — |
| Carvallis | Z. | 10·1 | 342 | e 2 30 | + 1 | e 4 7 | −18 | — | — | — |
| Butte | | 12·0 | 22 | e 2 58 | + 3 | — | — | — | — | — |
| Bozeman | | 12·3 | 27 | e 3 1 | + 2 | — | — | i 3 4 | P | — |
| Chihuahua | | 12·7 | 116 | i 3 5k | 0 | — | — | — | — | — |
| Seattle | | 12·9 | 350 | i 3 7a | 0 | — | — | i 3 11 | P | — |
| Hungry Horse | | 13·8 | 14 | i 3 21 | + 2 | 7 11 | L | — | — | (7·2) |
| Victoria | | 13·9 | 348 | i 3 19a | − 2 | i 6 25 | SSS | i 3 22 | P | — |
| Lubbock | | 14·3 | 91 | e 3 27 | + 1 | — | — | — | — | — |
| Horseshoe Bay | | 14·7 | 349 | 3 32 | + 1 | — | — | — | — | — |
| Alberni | | 14·9 | 345 | 3 35 | + 1 | — | — | — | — | — |
| Rapid City | | 15·2 | 49 | i 3 52 | PP | i 7 1 | SSS | — | — | — |
| Lincoln | | 18·6 | 64 | i 4 19 | − 2 | i 7 16 | −30 | — | — | — |
| Saskatoon | | 19·3 | 23 | 4 29 | 0 | 8 3 | + 1 | — | — | — |
| Guadalajara | | 19·8 | 132 | i 4 29k | − 6 | i 8 19 | + 6 | i 8 50 | SSS | i 10·6 |
| Fayetteville | Z. | 20·2 | 80 | i 4 37a | − 2 | — | — | — | — | — |
| St. Louis | | 23·3 | 72 | i 5 14 | + 4 | i 9 29 | + 9 | — | — | — |
| Tacubaya | | 23·4 | 126 | 5 13k | + 2 | i 9 33 | +12 | i 8 56 | PcP | i 13·9 |
| Puebla | | 24·4 | 125 | i 5 26k | + 5 | i 9 54 | +15 | — | — | i 12·0 |
| Sitka | | 24·7 | 339 | i 5 23 | − 1 | — | — | i 8 31 | ? | — |
| Chicago | | 25·4 | 64 | i 5 31? | 0 | i 9 57? | + 1 | — | — | — |
| Vera Cruz | | 25·7 | 121 | i 5 43 | +10 | i 10 34 | +33 | i 10 57 | ? | — |
| Milton | | 27·2 | 90 | i 5 59 | +12 | — | — | — | — | — |
| Cincinnati | | 27·7 | 70 | i 5 52 | 0 | — | — | — | — | — |
| Ann Arbor | | 28·4 | 64 | i 5 59 | + 1 | — | — | — | — | — |
| Merida | | 29·3 | 110 | e 6 10 | + 4 | i 11 8 | + 9 | i 7 15 | PPP | i 14·8 |
| Cleveland | | 30·0 | 66 | i 6 11a | − 1 | e 11 22 | +12 | — | — | — |
| Columbia | | 31·2 | 79 | i 6 22 | − 1 | i 11 27 | − 2 | — | — | — |
| Morgantown | | 31·2 | 69 | i 6 22 | − 1 | — | — | — | — | — |
| Pittsburgh | | 31·2 | 67 | i 6 29 | + 6 | i 12 26 | +57 | — | — | — |
| Kirkland Lake | Z. | 31·6 | 53 | e 6 27a | + 1 | — | — | — | — | — |
| Buffalo (Larkin) | | 32·0 | 63 | i 6 30 | 0 | — | — | — | — | — |
| Pennsylvania | | 32·7 | 67 | i 6 43 | + 7 | i 11 57 | + 5 | i 9 19 | PcP | e 12·8 |
| Guatemala City | | 32·8 | 120 | 6 39 | + 2 | — | — | — | — | — |
| Washington | | 33·5 | 70 | i 6 44 | + 1 | i 11 50 | −15 | — | — | — |
| Ottawa | | 34·3 | 58 | i 6 49a | − 1 | 12 25 | + 8 | 9 27 | PcP | — |
| Miami | | 34·4 | 93 | i 6 53 | + 2 | — | — | 7 47 | PP | — |
| College | | 34·6 | 339 | i 6 50 | − 3 | i 12 33 | +11 | i 8 8 | PP | i 14·2 |
| Philadelphia | | 34·9 | 68 | e 6 54 | − 1 | i 12 26 | − 1 | — | — | — |
| Swan Island | | 35·6 | 108 | i 7 2 | + 1 | — | — | — | — | — |
| City College, N.Y. | | 35·7 | 66 | i 7 2 | 0 | — | — | — | — | — |
| Palisades | | 35·7 | 66 | i 7 3 | + 1 | e 12 40 | + 1 | e 15 19 | SSS | e 18·5 |
| Fordham | | 35·8 | 66 | i 6 58 | − 5 | e 12 40 | − 1 | — | — | — |
| Shawinigan Falls | N. | 36·4 | 57 | e 7 7 | − 1 | 12 58 | + 8 | 9 30 | PcP | 18·0 |
| Honolulu | | 36·6 | 259 | e 7 11 | + 1 | — | — | — | — | — |
| Harvard | | 37·4 | 63 | e 7 15 | − 1 | — | — | — | — | — |
| Weston | | 37·5 | 63 | i 7 18a | + 1 | i 13 11 | + 4 | 8 41 | PP | — |
| Kingston | | 41·1 | 103 | 7 48 | + 1 | e 13 56 | − 5 | i 9 50 | PcP | — |
| Resolute Bay | | 41·5 | 8 | i 7 47a | − 3 | 13 54 | −13 | — | — | — |
| Guantanamo Bay | | 41·5 | 99 | i 7 50 | 0 | — | — | — | — | — |
| Halifax | | 42·9 | 59 | i 8 6 | + 4 | 14 36 | + 9 | 9 48 | PP | 19·9 |
| Mitchell Field | | 43·9 | 312 | i 8 9 | − 1 | e 14 38 | − 4 | — | — | — |
| Balboa Heights | | 44·4 | 115 | e 8 15 | + 1 | — | — | — | — | — |
| Bermuda | | 44·8 | 77 | i 8 17a | 0 | e 14 58 | + 3 | i 10 0 | PcP | e 25·6 |
| San Juan | | 49·5 | 95 | i 8 52 | − 2 | i 16 4 | + 2 | — | — | — |
| Bogota | Z. | 51·3 | 115 | i 9 8 | 0 | — | — | — | — | — |
| Fort de France | | 55·5 | 96 | i 9 37 | − 2 | i 17 23 | − 1 | e 10 12 | ? | e 26·8 |
| Klyuchi | | 56·5 | 319 | i 9 25? | −21 | — | — | — | — | — |
| Petropavlovsk | | 58·6 | 316 | i 10 0 | − 1 | i 18 8 | PS | i 12 10 | PP | — |
| Scoresby Sund | | 59·7 | 23 | i 10 5a | − 4 | i 18 2 | −17 | e 14 3 | ? | 28·8 |
| Reykjavik | | 62·1 | 29 | e 10 25 | 0 | e 18 55 | + 6 | i 14 14 | PPP | e 28·1 |
| Huancayo | | 62·5 | 130 | i 10 27 | − 1 | — | — | — | — | — |
| Apia | | 69·7 | 235 | e 11 8 | − 6 | e 20 23 | + 1 | 21 26 | ScS | e 32·3 |
| Uglegorsk | | 69·7 | 316 | i 11 13 | − 1 | — | — | — | — | — |

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| La Paz | | 70·4 | 127 | i 11 19 a | + 1 | i 20 57 | PS | i 11 35 | PcP | 43·5 |
| Angra do Heroismo | E. | 70·4 | 56 | i 11 17 | − 1 | i 20 22 | − 8 | — | — | — |
| Yuzno-Sakhlinsk | | 70·4 | 314 | i 11 17 | − 1 | — | — | — | — | — |
| Obihiro | | 72·2 | 310 | e 11 27 | − 2 | e 20 53 | + 2 | — | — | — |
| Urakawa | | 72·9 | 310 | e 11 32 | − 1 | e 20 57 | − 2 | e 11 53 | PcP | — |
| Kiruna | | 73·1 | 15 | i 11 32 a | − 2 | i 21 0 | − 1 | i 14 23 | PP | e 35·0 |
| Sapporo | | 73·3 | 311 | e 11 34 | − 1 | e 21 5 | + 1 | e 11 53 | pP | i 32·6 |
| Aberdeen | | 74·0 | 30 | i 11 37 | − 2 | i 21 9 | − 2 | i 14 28 | PP | 36·2 |
| Edinburgh | E. | 74·3 | 32 | 11 39 | − 2 | 21 15 | 0 | i 14 32 | PP | — |
| Mori | E. | 74·3 | 310 | 11 41 | 0 | 21 24 | + 9 | — | — | — |
| Rathfarnham Castle | | 74·5 | 35 | i 11 41 a | − 1 | i 21 17 | 0 | i 11 56 | PcP | e 38·6 |
| Bergen | | 74·6 | 25 | e 11 41 k | − 2 | i 21 21 | + 3 | i 11 59 | PcP | i 35·2 |
| Miyako | | 74·7 | 308 | e 11 43 | 0 | e 21 24 | + 5 | — | — | e 35·6 |
| Mizusawa | E. | 75·5 | 308 | 11 48 | 0 | e 21 35 | + 7 | — | — | — |
| Durham | | 75·8 | 32 | i 11 49 | − 1 | i 21 33 | + 2 | i 14 39 | PP | — |
| Akita | | 75·9 | 308 | 11 49 | − 1 | e 21 32 | 0 | — | — | e 36·5 |
| Sendai | | 76·2 | 307 | e 11 51 | − 1 | e 21 37 | + 1 | e 14 38 | PP | e 35·6 |
| Yamagata | | 76·6 | 307 | e 11 53 | − 1 | e 21 39 | − 1 | — | — | e 35·3 |
| Hukusima | | 76·8 | 307 | 11 54 | − 1 | 21 43 | + 1 | e 17 9 | ? | — |
| Onahama | | 76·9 | 306 | e 11 54 | − 2 | e 21 47 | + 4 | — | — | e 31·9 |
| Utunomiya | | 77·8 | 307 | e 11 58 | − 3 | e 21 49 | − 4 | — | — | e 39·4 |
| Tokyo | | 78·3 | 305 | i 12 4 | + 1 | 21 49 | −10 | e 30 20 | SSS | e 36·1 |
| Kumagaya | | 78·4 | 306 | 12 3 | − 1 | 22 1 | + 1 | 32 36 | Q | 36·8 |
| Maebasi | | 78·4 | 306 | i 12 3 | − 1 | e 22 5 | + 5 | i 15 22 | PP | 36·8 |
| Kew | | 78·5 | 34 | i 12 4 a | 0 | i 22 4 | + 3 | i 15 8 | PP | e 34·8 |
| Yokohama | | 78·6 | 305 | i 12 5 a | 0 | 22 3 | + 1 | — | — | — |
| Mera | | 78·8 | 305 | 12 8 | + 2 | i 22 9 | + 5 | — | — | 34·4 |
| Matusiro | | 78·9 | 307 | i 12 8 | + 1 | 22 9 | + 4 | e 17 13 | PPP | 33·1 |
| Nagano | | 78·9 | 307 | 12 8 | + 1 | e 22 24 | ScS | e 16 30 | PPP | e 34·2 |
| Upsala | | 78·9 | 21 | i 12 6 a | − 1 | i 22 5 | 0 | i 15 10 | PP | i 37·1 |
| Vladivostok | | 78·9 | 315 | i 12 2 | − 5 | 22 2 | − 3 | — | — | — |
| Jersey | E. | 79·2 | 37 | e 12 8 | 0 | e 22 12 | + 4 | e 22 50 | PS | 32·8 |
| Osima | | 79·2 | 305 | e 12 8 | 0 | e 22 7 | − 1 | i 12 15 | PcP | — |
| Matumoto | | 79·3 | 307 | 12 9 | 0 | e 22 1 | − 8 | — | — | e 34·7 |
| Wazima | | 79·3 | 308 | e 12 11 | + 2 | 22 13 | + 4 | — | — | — |
| Toyama | | 79·5 | 307 | i 12 10 | 0 | 22 14 | + 3 | e 12 40 | pP | — |
| Omaesaki | | 80·0 | 305 | e 12 12 | − 1 | e 22 17 | 0 | e 13 41 | ? | e 34·8 |
| De Bilt | | 80·5 | 31 | i 12 16 a | + 1 | e 22 28 | + 6 | i 15 25 | PP | e 36·8 |
| Gihu | | 80·5 | 306 | 12 21 | + 6 | 22 22 | 0 | — | — | — |
| Copenhagen | | 80·6 | 26 | i 12 16 | 0 | 22 26 | + 3 | 15 25 | PP | 33·8 |
| Helsinki | | 80·6 | 18 | e 12 17 | + 1 | e 22 21 | − 2 | e 23 17 | PS | — |
| Witteveen | Z. | 80·6 | 29 | i 12 17 | + 1 | i 22 25 | + 2 | — | — | e 39·3 |
| Tsuruga | | 80·9 | 307 | 12 16 | − 1 | 22 35 | + 9 | e 15 47 | PP | — |
| Hikone | | 81·0 | 306 | 12 19 | + 1 | e 22 1 | −26 | — | — | — |
| Torisima | | 81·0 | 300 | i 12 19 | + 1 | i 22 37 | +10 | — | — | 37·8 |
| Kameyama | | 81·1 | 306 | 12 20 | + 2 | 22 25 | − 3 | 15 29 | PP | 32·3 |
| Kyoto | | 81·4 | 307 | e 12 20 | 0 | e 22 35 | + 4 | — | — | e 35·8 |
| Coimbra | | 81·6 | 46 | 12 21 a | 0 | 22 31 | − 2 | i 22 41 | ScS | 33·3 |
| Paris | | 81·7 | 35 | i 12 21 | − 1 | i 22 35 | + 1 | i 12 29 | PcP | 37·8 |
| Santa Lucia | N. | 81·7 | 141 | e 12 33 | PcP | 22 40 | + 6 | 30 47 | PKKP | — |
| Santiago | | 81·8 | 141 | e 12 33 | PcP | e 22 44 | + 9 | — | — | — |
| Lisbon | | 82·1 | 48 | i 12 23 a | − 1 | 22 43 | + 5 | 23 20 | PS | 38·3 |
| Pulkovo | | 82·2 | 15 | i 12 25 | + 1 | i 22 41 | + 2 | i 15 31 | PP | — |
| Saigo | | 82·3 | 309 | e 12 29 | + 4 | e 22 50 | +10 | — | — | — |
| Sumoto | | 82·4 | 306 | i 12 21 | − 4 | i 22 37 | − 4 | i 15 49 | PP | e 33·0 |
| Takamatu | | 83·0 | 306 | 12 28 | 0 | 22 50 | + 3 | 34 20 | Q | 37·0 |
| Potsdam | | 83·5 | 28 | i 12 32 a | + 1 | i 22 52 | 0 | e 15 47 | PP | e 36·8 |
| Koti | | 83·7 | 307 | e 12 32 | 0 | e 22 57 | + 3 | e15 44 | PP | 34·9 |
| Jena | | 84·0 | 29 | i 12 33 | 0 | e 22 55 | − 2 | e 23 54 | PS | e 36·8 |
| Hirosima | | 84·0 | 308 | 12 31 | − 2 | 23 1 | + 4 | e 36 7 | Q | e 40·4 |
| Clermont-Ferrand | | 84·1 | 37 | i 12 35 | + 1 | i 23 3 | + 5 | i 12 42 | PcP | 41·8 |
| Matuyama | | 84·1 | 307 | e 12 29 | − 5 | e 22 49 | − 9 | e 17 31 | PPP | — |
| Karlsruhe | | 84·2 | 32 | 12 35 | + 1 | e 23 4 | + 5 | i 12 40 | PcP | e 39·8 |
| Collmberg | | 84·3 | 28 | e 12 33 | − 2 | i 23 1 | + 1 | e 28 44 | SS | e 35·3 |
| Strasbourg | | 84·3 | 32 | i 12 35 a | 0 | i 23 3 | + 3 | i 23 51 | PS | i 39·8 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Toledo | | 84·4 | 45 | i 12 35 | − 1 | i 23 3 | + 2 | e 15 55 | PP | 36·8 |
| Bagnères | | 84·5 | 40 | e 12 54? | +18 | e 22 51? | [− 6] | e 23 22? | ScS | e 34·8 |
| Kabansk | | 84·6 | 334 | 12 37 | + 1 | i 23 11 | ScS | e 16 1 | PP | — |
| Stuttgart | | 84·7 | 31 | i 12 37a | 0 | e 23 7 | + 3 | i 15 59 | PP | e 38·8 |
| Basle | | 85·0 | 33 | e 12 38 | 0 | e 12 44 | PcP | e 17 18 | PPP | — |
| Cheb | | 85·0 | 29 | 12 39k | + 1 | 23 10 | + 3 | e 24 8 | PS | e 39·8 |
| Neuchatel | | 85·1 | 34 | i 12 39 | 0 | e 23 11 | + 3 | — | — | — |
| Irkutsk | | 85·2 | 335 | i 12 40 | + 1 | e 23 5 | − 4 | i 23 21 | ScS | — |
| Ooita | | 85·2 | 308 | e 12 39 | 0 | e 23 11 | + 2 | — | — | e 42·0 |
| Zürich | | 85·5 | 33 | i 12 41a | 0 | e 23 15 | + 3 | e 16 5 | PP | — |
| Hukuoka | | 85·8 | 308 | e 12 42 | 0 | e 23 9 | − 6 | e 15 54 | PP | 35·3 |
| Prague | | 85·8 | 28 | i 12 43 | + 1 | e 23 5 | [− 1] | e 12 59 | pP | e 41·8 |
| Miyazaki | | 86·2 | 306 | i 12 46 | + 2 | i 23 17 | − 2 | — | — | 39·2 |
| Tortosa | | 86·3 | 42 | i 12 46 | + 1 | i 23 22 | + 2 | — | — | — |
| Chur | | 86·3 | 33 | e 12 46a | + 1 | e 23 16 | − 4 | — | — | — |
| Malaga | | 86·3 | 47 | i 12 45 | 0 | i 23 27 | + 7 | i 29 7 | SS | 36·6 |
| Granada | | 86·4 | 47 | i 12 48k | + 3 | i 23 9 | −12 | 13 9 | pP | i 42·5 |
| Oropa | | 86·5 | 36 | e 12 41 | − 5 | i 13 25 | ? | e 31 47? | ? | e 46·8 |
| Barcelona | | 86·7 | 40 | e 12 46 | − 1 | i 23 24 | 0 | 18 11 | PPP | e 42·9 |
| Raciborzu | | 87·2 | 26 | i 12 50a | + 1 | e 23 28 | 0 | e 16 20 | PP | e 32·8 |
| Almeria | | 87·4 | 46 | i 12 47 | − 3 | i 23 20 | [+3] | 24 25 | PS | 40·7 |
| Moscow | | 87·4 | 13 | i 12 51 | + 1 | i 23 29 | − 1 | 23 20 | SKS | — |
| Pavia | | 87·4 | 34 | i 12 51a | + 1 | i 23 31 | + 1 | i 16 16 | PP | e 40·4 |
| Alicante | | 87·5 | 44 | i 12 50 | − 1 | i 23 12 | [− 5] | 13 8 | pP | 33·3 |
| Salo | | 87·7 | 33 | e 12 50a | − 2 | e 23 36 | + 3 | e 24 40 | PS | e 39·8 |
| Yakusima | | 87·7 | 305 | e 13 8 | +16 | — | — | — | — | — |
| Vienna | | 88·0 | 28 | i 12 54 | + 1 | e 23 18 | [− 3] | e 16 23 | PP | 42·3 |
| Sverdlovsk | | 88·5 | 1 | i 12 55 | − 1 | i 23 40 | − 1 | i 16 27 | PP | — |
| Skalnate Pleso | | 88·7 | 26 | 12 58 | + 1 | i 23 57 | +14 | e 13 14 | pP | e 36·8 |
| Bologna | | 89·0 | 33 | e 12 50 | − 8 | e 23 43 | − 2 | e 22 50 | ? | e 41·9 |
| Ogyalla | | 89·1 | 27 | 13 0 | + 2 | e 23 28 | [+ 1] | 23 43 | S | e 40·3 |
| Triest | | 89·1 | 31 | i 12 58a | 0 | i 23 31 | [+ 4] | e 16 31 | PP | 46·0 |
| Padova | | 89·2 | 33 | e 12 52 | − 7 | e 23 34 | [+ 6] | — | — | e 40·8 |
| Prato | | 89·3 | 34 | i 12 56 | − 3 | i 23 28 | [− 1] | — | — | — |
| Buenos Aires | | 89·4 | 134 | e 12 43 | −17 | e 24 0 | +11 | — | — | — |
| Lwow | | 89·4 | 23 | i 13 1 | + 1 | i 23 41 | {+ 4} | e 29 53 | SS | — |
| Florence | | 89·5 | 34 | i 12 57 | − 3 | i 23 55 | + 5 | i 24 57 | PS | — |
| Budapest | | 89·7 | 27 | 13 1 | 0 | 23 32 | [+ 1] | 16 43 | PP | e 37·8 |
| La Plata | | 89·9 | 134 | 12 41 | −21 | 23 29 | [− 3] | 16 35 | PP | 36·6 |
| Uzhgorod | | 89·9 | 25 | i 13 3 | + 1 | i 23 39 | {− 2} | 16 40 | PP | — |
| Kalossa | | 90·5 | 27 | e 13 4 | − 1 | 24 1 | + 2 | 25 39 | PPS | e 38·3 |
| Algiers Univ. | z. | 90·6 | 43 | i 13 5a | 0 | e 24 7 | + 7 | e 16 49 | PP | — |
| Szeged | | 91·1 | 28 | 13 20 | +12 | 24 8 | + 4 | 25 32 | PS | e 44·9 |
| Cernauti | | 91·4 | 23 | 13 9 | 0 | — | — | — | — | — |
| M'Bour | | 91·4 | 72 | e 15 53 | ? | 23 32 | [− 9] | e 25 47 | PPS | — |
| Rome | | 91·5 | 34 | i 13 9a | − 1 | i 24 4 | − 4 | i 18 47 | PPP | e 40·8 |
| Rocca di Papa | | 91·7 | 34 | i 13 11 | + 1 | i 23 58 | {+ 4} | i 25 36 | PS | e 40·8 |
| Timisoara | | 92·0 | 27 | i 13 14 | + 2 | e 24 0 | −12 | — | — | e 40·8 |
| Belgrade | | 92·5 | 28 | i 13 13k | − 1 | e 23 52 | [+ 5] | e 16 57 | PP | e 43·3 |
| Bacau | | 93·2 | 23 | e 13 17 | 0 | e 24 4 | {− 1} | — | — | — |
| Semipalatinsk | | 93·3 | 348 | i 13 17 | − 1 | — | — | — | — | — |
| Zô Sè | | 93·3 | 312 | i 13 18a | 0 | i 24 19 | − 5 | — | — | — |
| Kishinev | | 93·4 | 22 | 13 18 | 0 | 23 55 | [+ 3] | — | — | — |
| Campulung | | 93·7 | 25 | e 13 30 | +10 | 24 15 | {+ 6} | e 24 47 | S | — |
| Vrâncioaia | | 93·8 | 24 | e 13 23 | + 3 | — | — | — | — | — |
| Nanking | | 94·0 | 314 | 13 20a | − 1 | — | — | — | — | — |
| Auckland | N. | 94·3 | 228 | 16 47? | PP | — | — | — | — | — |
| Tunis | | 94·4 | 39 | e 13 21 | − 2 | e 24 6 | [+ 8] | i 26 41 | PPS | e 41·8 |
| Bucharest | | 94·8 | 25 | e 13 26 | + 1 | e 23 59 | [− 1] | e 25 56 | PS | 44·8 |
| Taranto | | 94·8 | 33 | 13 4 | −21 | 24 4 | [+ 4] | e 26 4 | PS | 39·1 |
| Sofia | | 95·4 | 27 | 13 28 | 0 | 24 4 | [+ 1] | 17 22 | PP | — |
| Messina | | 95·9 | 35 | e 13 27 | − 3 | e 24 5 | [− 1] | e 24 48 | S | — |
| Simferopol | | 96·8 | 20 | i 13 34 | 0 | i 17 27 | PP | e 19 32 | PPP | — |
| Theodosia | | 97·0 | 18 | i 13 34 | − 1 | e 24 11 | [− 1] | e 17 31 | PP | — |
| Wellington | | 97·2 | 225 | e 17 40 | PP | 25 5 | + 8 | e 31 32 | SS | e 39·4 |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Yalta | | 97·2 | 20 | i 13 36 | 0 | 24 57 | 0 | i 17 27 | PP | — |
| Istanbul | | 98·8 | 25 | i 13 42 | − 1 | e 24 19 | [− 2] | e 26 36 | PS | — |
| Sotchi | | 99·4 | 16 | e 13 46 | 0 | e 24 20 | [− 4] | i 17 51 | PP | — |
| Athens | | 99·6 | 30 | e 17 54 | PP | 24 24 | [− 1] | i 27 33 | PPS | — |
| Piatigorsk | | 99·7 | 13 | 13 47 | 0 | 25 16 | − 2 | — | — | — |
| Christchurch | | 99·9 | 224 | e 13 47 | − 1 | 25 27 | + 7 | 17 57 | PP | e 41·3 |
| Almata II | | 100·7 | 348 | e 13 50 | − 2 | — | — | — | — | — |
| Almata | | 100·8 | 348 | i 14 6? | +14 | — | — | — | — | — |
| Grozny | | 100·8 | 12 | i 13 52 | 0 | — | — | — | — | — |
| Zugdidi | | 100·9 | 15 | 13 59 | + 7 | e 24 36 | [+ 5] | — | — | — |
| Przhevalsk | | 101·3 | 347 | 13 54 | 0 | — | — | — | — | — |
| Makhach-Kala | | 101·4 | 11 | i 13 55 | 0 | — | — | i 18 5 | PP | — |
| Frunse | | 101·5 | 351 | i 13 55 | 0 | — | — | — | — | — |
| Rybach'e | | 101·7 | 350 | e 13 55 | − 1 | — | — | e 18 11 | PP | — |
| Abastumanj | | 101·8 | 14 | 13 58 | + 2 | — | — | — | — | — |
| Gori | | 101·8 | 13 | e 13 59 | + 3 | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 102·0 | 14 | 14 4? | + 7 | — | — | e 18 19? | PP | — |
| Tamanrasset | z. | 102·1 | 52 | i 13 58k | 0 | 24 31 | [− 6] | e 28 6 | PPS | — |
| Tiflis | | 102·2 | 13 | 13 58 | 0 | 24 55 | {−15} | 32 59 | SS | — |
| Naryn | | 102·7 | 348 | 14 2 | + 2 | — | — | — | — | — |
| Tchimkent | | 102·7 | 354 | i 13 59 | − 1 | — | — | — | — | — |
| Leninakan | | 103·0 | 14 | e 14 7 | + 5 | — | — | — | — | — |
| Kirovobad | | 103·4 | 12 | 13 55 | − 9 | — | — | 18 18 | PP | — |
| Brisbane | | 103·7 | 247 | e 14 11 | + 6 | i 24 59 | [+14] | i 33 32 | SSP | — |
| Erevan | | 103·7 | 13 | e 14 5 | 0 | — | — | i 18 20 | PP | — |
| Tashkent | | 103·7 | 354 | i 14 5 | 0 | 25 53? | + 2 | e 18 33 | PP | — |
| Andijan | | 103·9 | 353 | i 14 6 | 0 | — | — | — | — | — |
| Hong Kong | | 103·9 | 311 | e 14 10 | + 4 | 24 47 | [+ 1] | 18 24 | PP | — |
| Fergana | | 104·3 | 353 | i 14 7 | − 1 | — | — | i 18 25 | PP | — |
| Goris | | 104·6 | 12 | 14 8 | − 1 | — | — | — | — | — |
| Manila | | 104·7 | 301 | e 14 7 | − 2 | e 17 24 | ? | e 18 25 | PP | — |
| Dzhergetal | | 105·6 | 352 | i 14 14 | + 1 | — | — | — | — | — |
| Lenkoran | | 105·7 | 10 | 14 14 | 0 | — | — | — | — | — |
| Murgab | | 106·0 | 350 | i 14 16 | + 1 | — | — | — | — | — |
| Kizyl-Arvat | | 106·2 | 4 | 14 17 | + 1 | e 18 44 | PP | i 21 1 | PPP | — |
| Obi-garm | | 106·2 | 354 | i 14 17 | + 1 | — | — | — | — | — |
| Stalinabad | | 106·5 | 354 | i 14 18 | + 1 | — | — | — | — | — |
| Kulyab | | 107·0 | 353 | i 14 17 | − 3 | — | — | — | — | — |
| Khorog | | 107·2 | 352 | e 14 21 | + 1 | — | — | — | — | — |
| Ashkabad | | 107·4 | 2 | i 14 22 | + 1 | — | — | e 19 1 | PP | — |
| Ksara | | 107·6 | 23 | 14 24 | + 2 | 28 4 | PS | 18 44 | PP | — |
| Riverview | | 108·3 | 242 | i 14 30a | P | 25 4 | [− 1] | i 18 48 | PP | e 51·2 |
| Helwan | | 109·7 | 28 | i 14 32a | P | 25 4 | [− 7] | 19 4 | PP | — |
| Shillong | E. | 113·0 | 330 | e 18 17 | [−22] | 25 3 | [−21] | 29 2 | PS | e 54·2 |
| Dehra Dun | N. | 113·1 | 344 | e 19 17 | PP | e 27 41 | ? | e 42 59 | Q | e 58·3 |
| Melbourne | | 114·7 | 241 | e 29 33 | PS | e 35 58 | SS | — | — | e 53·8 |
| New Delhi | N. | 114·9 | 345 | e 18 11 | [−32] | 25 23 | [− 9] | i 30 40 | PPS | 55·6 |
| Quetta | | 114·9 | 354 | e 19 42 | PP | i 29 32 | PS | e 30 49 | PPS | 54·8 |
| Calcutta | E. | 117·2 | 332 | i 20 5 | PP | 27 2 | {+ 7] | 36 17 | SS | 57·6 |
| Bombay | | 125·2 | 347 | e 19 24 | [+21] | 26 17 | [+10] | 31 4 | PS | — |
| Hyderabad | | 125·2 | 340 | 20 54 | PP | 27 32 | {−16} | e 38 15 | SSP | — |
| Poona | | 125·4 | 346 | i 19 4 | [+ 1] | 27 51 | {+ 1} | 30 54 | PS | 58·1 |
| Bandong | N. | 128·8 | 293 | e 21 20 | PP | — | — | — | — | — |
| Madras | E. | 128·9 | 337 | 21 21 | PP | i 22 31 | PKS | i 34 27 | ScS,PKP | — |
| Djakarta | | 129·0 | 294 | e 21 6 | PP | e 26 18 | [+ 1] | — | — | — |
| Kodaikanal | E. | 132·4 | 339 | i 22 43 | PKS | 24 15 | PPP | 26 51 | ? | 60·4 |
| Perth | | 134·6 | 259 | i 22 57 | PKS | i 38 22 | SKKKS | i 40 25 | SSP | — |
| Colombo | E. | 134·7 | 334 | 19 17 | [− 4] | e 34 17 | PPS | — | — | e 65·6 |
| Kimberley | Z. | 148·8 | 90 | i 19 46a | [ 0] | i 19 50 | $PKP_2$ | i 33 5 | ? | — |
| Pretoria | Z. | 150·3 | 81 | i 19 48a | [ 0] | i 19 54 | $PKP_2$ | i 33 9 | ? | — |
| Grahamstown | Z. | 151·5 | 97 | i 19 51 | [+ 1] | i 19 56 | $PKP_2$ | i 33 12 | ? | e 72·6 |
| Pietermaritzburg | Z. | 153·6 | 87 | i 20 0 | [+ 7] | — | — | — | — | — |
| Tananarive | | 160·1 | 42 | 20 5 | [+ 4] | 31 14 | {+ 1} | 24 29 | PP | 81·0 |

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July 21d. 12h. 5m. 30s. Epicentre 35°·0N. 119°·0W. (as at 11h.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Santa Barbara | E. | 0·8 | 226 | i 0 15 | − 3 | — | — | — | — |
| Pasadena | N. | 1·1 | 141 | i 0 20 | − 2 | i 0 37 | − 2 | — | — |
| China Lake | Z. | 1·4 | 54 | i 0 27 | 0 | — | — | — | — |
| Riverside | | 1·7 | 126 | i 0 30 | − 1 | — | — | — | — |
| Tinemaha | E. | 2·2 | 17 | i 0 38 | 0 | — | — | — | — |
| Santa Clara | | 3·3 | 315 | i 1 0 | + 1* | — | — | — | — |
| Victoria | | 13·9 | 348 | 3 19 | − 2 | — | — | — | — |
| Scoresby Sund | | 59·7 | 23 | e 10 0 | − 9 | — | — | — | — |
| Kiruna | Z. | 73·1 | 15 | e 11 32 | − 2 | i 11 35 | P | i 11 46 | PcP |
| Paris | | 81·7 | 35 | e 12 28 | + 6 | — | — | e 12 35 | PcP |
| Jena | | 84·0 | 29 | e 12 33 | 0 | — | — | — | — |
| Clermont-Ferrand | | 84·1 | 37 | i 12 37 | + 3 | — | — | — | — |
| Collmberg | Z. | 84·3 | 28 | e 12 33 | − 2 | — | — | — | — |
| Strasbourg | | 84·3 | 32 | e 12 36 | + 1 | i 12 40 | PcP | i 12 53 | ? |
| Stuttgart | | 84·7 | 31 | e 12 38 | + 1 | — | — | — | — |
| Triest | Z. | 89·1 | 31 | e 13 0 | + 2 | — | — | e 12 35 | ? |
| Tamanrasset | Z. | 102·1 | 52 | e 14 1 | + 3 | — | — | — | — |

July 21d. 17h. 42m. 44s. Epicentre 35°·4N. 118°·6W. (foreshock of 23d. 0h. 38m.).

A = −·3912, B = −·7176, C = +·5762; $\delta$ = −1; $h$ = 0;
D = −·878, E = +·479; G = −·276, H = −·506, K = −·817.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Haiwee | | 0·9 | 35 | i 0 19 | − 1 | — | — | — | — | — |
| Pasadena | | 1·3 | 164 | i 0 20 | − 5 | i 0 38 | − 6 | — | — | — |
| Santa Barbara | | 1·3 | 224 | i 0 24 | − 1 | — | — | — | — | — |
| Tinemaha | | 1·7 | 10 | i 0 33 | + 2 | — | — | — | — | — |
| Boulder City | | 3·1 | 78 | i 0 48 | − 3 | — | — | — | — | — |
| Lick | Z. | 3·2 | 310 | i 0 51 | − 1 | — | — | — | — | — |
| Santa Clara | E. | 3·4 | 307 | e 0 56 | + 1 | — | — | — | — | — |
| Berkeley | | 3·9 | 311 | e 1 1 | − 1 | i 1 48 | − 2 | — | — | — |
| Reno | Z. | 4·3 | 347 | e 1 10 | + 2 | — | — | — | — | — |
| Mineral | N. | 5·5 | 336 | e 1 27 | + 2 | — | — | — | — | — |
| Tucson | | 7·2 | 113 | e 1 49 | 0 | i 3 13 | 0 | — | — | — |
| Corvallis | Z. | 9·9 | 340 | e 2 31 | + 6 | — | — | — | — | — |
| Hungry Horse | | 13·4 | 13 | e 3 16 | + 2 | — | — | — | — | e 7·2 |
| Rapid City | | 14·7 | 49 | e 3 50 | PPP | — | — | — | — | — |
| Fayetteville | Z. | 19·8 | 80 | e 4 33 | − 2 | — | — | — | — | e 10·4 |
| Morgantown | | 30·8 | 69 | i 6 19 | − 1 | — | — | — | — | — |
| Harvard | | 36·9 | 63 | e 7 14 | + 2 | — | — | — | — | — |

July 21d. 18h. 4m. 29s. Epicentre 38°·9N. 72°·8E. (as on 1952, February 24d.).

A = +·2307, B = +·7454, C = +·6254; $\delta$ = −3; $h$ = −1;
D = +·955, E = −·296; G = +·185, H = +·597, K = −·780.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Murgab | 1·0 | 121 | e 0 23 | + 2 | — | — | — | — |
| Dzhergetal | 1·3 | 284 | i 0 21 | − 4 | i 0 38 | − 6 | — | — |
| Fergana | 1·7 | 332 | e 0 32 | 0* | e 1 1 | + $5_g$ | — | — |
| Khorog | 1·7 | 213 | 0 29 | − 2 | i 0 49 | − 5 | — | — |
| Andijan | 1·9 | 350 | i 0 39 | + $1_g$ | i 1 6 | + $3_g$ | — | — |
| Garm | 2·0 | 273 | i 0 33 | − 2 | i 1 1 | − 1 | — | — |
| Obi-garm | 2·4 | 265 | e 0 42 | + 1 | i 1 12 | 0 | — | — |
| Kulyab | 2·6 | 247 | i 0 45 | + 1 | i 1 17 | 0 | — | — |
| Stalinabad | 3·2 | 264 | e 0 52 | 0 | i 1 29 | − 3 | e 0 55 | P* |
| Naryn | 3·5 | 43 | e 1 11 | + $1_g$ | i 1 51 | + 3* | — | — |
| Tashkent | 3·6 | 314 | e 1 6 | + 2* | — | — | — | — |
| Tchimkent | 4·2 | 326 | e 1 14 | − 1* | e 2 22 | + $3_g$ | — | — |
| Rybach'e | 4·3 | 34 | — | — | e 2 17 | + 5* | e 2 35 | $S_g$ |

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July 21d. 19h. 41m. 20s. Epicentre 35°·0N. 119°·0W. (as at 12h.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Santa Barbara | | 0·8 | 226 | i 0 21 | + 3 | i 0 35 | + 4 | — | — | — |
| Pasadena | Z. | 1·1 | 141 | i 0 22 | 0 | — | — | — | — | — |
| Haiwee | | 1·4 | 36 | i 0 26 | − 1 | — | — | — | — | — |
| Fresno | Z. | 1·9 | 340 | i 0 32 | − 2 | — | — | — | — | — |
| Tinemaha | Z. | 2·2 | 17 | i 0 37 | − 1 | — | — | — | — | — |
| Lick | | 3·1 | 318 | i 0 50k | − 1 | — | — | — | — | — |
| Santa Clara | E. | 3·3 | 315 | i 0 56 | + 3 | — | — | — | — | — |
| Boulder City | | 3·6 | 73 | i 0 54 | − 4 | — | — | — | — | — |
| Berkeley | Z. | 3·9 | 318 | i 0 59 | − 3 | — | — | — | — | — |
| Reno | Z. | 4·6 | 352 | e 1 12 | 0 | — | — | — | — | — |
| Mineral | N. | 5·7 | 340 | e 1 27 | − 1 | — | — | — | — | — |
| Tucson | | 7·3 | 110 | e 1 50 | 0 | i 3 15 | 0 | — | — | — |
| Corvallis | Z. | 10·1 | 342 | e 2 33 | + 4 | — | — | — | — | — |
| Butte | | 12·0 | 22 | e 2 57 | + 2 | — | — | — | — | — |
| Bozeman | | 12·3 | 27 | e 3 0 | + 1 | e 5 28 | SS | — | — | — |
| Seattle | | 12·9 | 350 | e 3 10 | + 3 | e 5 36 | + 3 | e 3 21 | PP | — |
| Hungry Horse | | 13·8 | 14 | i 3 20 | + 1 | i 7 20 | L | — | — | (7·3) |
| Victoria | | 13·9 | 348 | 3 23 | + 2 | — | — | — | — | — |
| Lubbock | | 14·3 | 91 | 3 24 | − 2 | 7 25 | L | — | — | (7·4) |
| Rapid City | | 15·2 | 49 | i 3 57 | PPP | — | — | — | — | — |
| Lincoln | | 18·6 | 64 | e 4 20 | − 1 | — | — | — | — | — |
| Fayetteville | Z. | 20·2 | 80 | i 4 37a | − 2 | i 8 31 | +10 | i 5 22 | PP | e 9·6 |
| Tacubaya | | 23·4 | 126 | e 5 16 | + 5 | e 12 51 | PcS | — | — | — |
| Chicago | | 25·4 | 64 | — | — | e 9 59 | + 3 | — | — | — |
| Vera Cruz | | 25·7 | 121 | e 12 58 | PcS | — | — | — | — | e 13·4 |
| Cincinnati | | 27·7 | 70 | i 5 50 | − 2 | — | — | — | — | — |
| Cleveland | Z. | 30·0 | 66 | e 6 11k | − 1 | — | — | — | — | — |
| Columbia | | 31·2 | 79 | — | — | e 11 30 | + 1 | e 13 7 | SS | — |
| Morgantown | | 31·2 | 69 | i 6 22 | − 1 | — | — | — | — | e 16·2 |
| Buffalo (Larkin) | | 32·0 | 63 | i 6 29 | − 1 | — | — | — | — | e 16·7 |
| Ottawa | | 34·3 | 58 | i 6 49k | − 1 | 12 18 | + 1 | 8 8 | PP | 18·2 |
| College | | 34·6 | 339 | e 6 50 | − 3 | — | — | — | — | — |
| City College, N.Y. | | 35·7 | 66 | — | — | e 12 42 | + 3 | — | — | — |
| Palisades | | 35·7 | 66 | e 7 0 | − 2 | i 12 39 | 0 | — | — | e 18·7 |
| Harvard | | 37·4 | 63 | i 7 10a | − 6 | — | — | — | — | — |
| Weston | | 37·5 | 63 | i 7 16a | − 1 | — | — | — | — | 21·8 |
| Resolute Bay | | 41·5 | 8 | e 7 57 | + 7 | 14 3 | − 4 | e 20 20 | Q | 22·5 |
| Bermuda | | 44·8 | 77 | — | — | e 14 53 | − 2 | e 18 16 | SS | e 22·1 |
| San Juan | | 49·5 | 95 | e 8 53 | − 1 | — | — | — | — | — |
| Collmberg | Z. | 84·3 | 28 | e 12 37 | + 2 | — | — | — | — | — |
| Tamanrasset | Z. | 102·1 | 52 | e 16 27 | ? | e 26 33 | ? | e 17 48 | PP | — |
| Ksara | | 107·6 | 23 | e 18 10 | [−18] | e 29 11 | PPS | — | — | — |

July 21d. 19h. 49m. 2s. Epicentre 18°·6N. 121°·2E. (as on 1952, May 20d.).

Intensity IV at Aparri, Vigan, and Laoag; III at Tuguigarao; II at Baguio.
Epicentre 18°·0N. 121°·0E. (Manila).
Monthly Seismic Bulletin from Manila for July, 1952, pp. 2 and 3.

$A = -·4913$, $B = +·8112$, $C = +·3170$; $\delta = -9$; $h = +5$;
$D = +·855$, $E = +·518$; $G = -·164$, $H = +·271$, $K = -·948$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Manila | | 4·0 | 183 | e 1 11 | + 7 | i 1 56 | + 4 | — | — | — |
| Hong Kong | | 7·5 | 300 | e 1 53 | 0 | — | — | — | — | 4·0 |
| Nanking | | 13·6 | 351 | — | — | e 5 50k | 0 | i 6 6 | SSS | — |
| Brisbane | Z. | 55·2 | 145 | i 9 45a | + 8 | — | — | — | — | — |
| Kiruna | | 76·9 | 338 | i 11 58 | + 2 | e 21 44 | + 1 | e 29 58? | SSS | — |
| Istanbul | Z. | 79·6 | 310 | e 15 27 | PP | e 22 16 | + 4 | — | — | — |
| Copenhagen | | 84·9 | 328 | — | — | 23 4 | − 2 | — | — | 41·0 |
| Potsdam | | 86·0 | 325 | — | — | e 23 13 | − 4 | e 35 58? | Q | e 41·0 |
| Collmberg | Z. | 86·5 | 323 | e 12 47 | + 1 | e 16 55 | PP | e 13 0 | ? | — |
| Jena | Z. | 87·5 | 323 | e 12 54? | + 3 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Taranto | | 88·2 | 312 | — | — | e 23 18 | [− 4] | e 33 18 | SSS | — |
| Triest | z. | 88·5 | 318 | e 12 57 | + 1 | e 13 10 | ? | e 13 31 | ? | — |
| Stuttgart | | 89·9 | 322 | e 12 1 | −61 | — | — | — | — | e 39·0 |
| De Bilt | | 90·4 | 326 | — | — | e 32 58 | SSS | — | — | e 36·0 |
| Messina | | 90·4 | 311 | e 22 27 | ? | e 23 55 | − 3 | e 30 0 | SS | — |
| Strasbourg | | 90·8 | 322 | e 13 4 | − 2 | e 24 28 | +26 | e 34 22 | SSS | e39·0 |
| Florence | | 90·9 | 317 | e 13 6 | − 1 | e 24 4 | + 1 | e 13 19 | PcP | — |
| Rome | | 90·9 | 315 | e 21 12 | ? | e 23 38 | [ 0] | e 33 50 | SSS | — |
| Pavia | | 91·6 | 319 | — | — | e 23 44 | [+ 2] | — | — | e 43·0 |
| Paris | | 93·6 | 325 | — | — | e 23 53 | [ 0] | e 24 12 | SKKS | e 47·0 |
| Clermont-Ferrand | | 95·0 | 322 | — | — | 23 58 | [− 3] | — | — | 41·0 |

July 21d. 21h. 39m. 59s. Epicentre 18°·5N. 61°·5W.

Strasbourg gives epicentre as adopted.

A = +·4528, B = −·8340, C = +·3154 ; δ = +6 ; h = +5 ;
D = −·879, E = −·477 ; G = +·150, H = −·277, K = −·949.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Fort de France | | 3·8 | 175 | 1 16 | $0_g$ | 1 50 | + 3 | i 0 59 | P | — |
| San Juan | | 4·4 | 269 | e 1 8 | − 2 | — | — | 3 23 | ? | — |
| Bermuda | | 14·1 | 349 | e 3 17 | − 6 | e 5 35 | −27 | — | — | e 5·9 |
| Bogota | | 18·5 | 223 | e 4 23 | + 4 | e 7 53 | + 9 | — | — | — |
| Morgantown | | 26·4 | 327 | e 5 38 | − 2 | e 11 13 | SS | — | — | — |
| Fayetteville | z. | 33·7 | 308 | i 6 46 | + 1 | — | — | — | — | — |
| Tamanrasset | z. | 62·4 | 73 | — | — | e 20 5 | ScS | e 21 25 | ? | — |
| Stuttgart | | 63·6 | 44 | e 10 34 | − 1 | — | — | — | — | — |
| Triest | z. | 66·8 | 48 | e 10 58 | + 2 | e 11 15 | PcP | e 11 6 | ? | — |
| College | | 71·9 | 333 | i 11 25 | − 2 | — | — | e 11 52 | PcP | — |

July 21d. 22h. 48m. 38s. Epicentre 36°·7N. 70°·5E. (as on July 5d.).

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 1·2 | 48 | i 0 31 | + 7 | i 0 57 | +16 |
| Kulyab | 1·3 | 335 | i 0 29 | + $3_g$ | i 0 55 | +11 |
| Obi-garm | 2·1 | 342 | i 0 38 | + 1 | i 1 9 | $0_g$ |
| Garm | 2·3 | 356 | i 0 40 | 0 | i 1 12 | 0* |
| Stalinabad | 2·3 | 323 | i 0 40 | 0 | i 1 12 | 0* |
| Dzhergetal | 2·6 | 12 | i 0 44 | 0 | i 1 20 | − 1* |
| Murgab | 3·2 | 59 | — | — | i 1 34 | + 2 |
| Fergana | 3·8 | 15 | e 0 59 | − 2 | e 1 46 | − 1 |
| Andijan | 4·3 | 20 | — | — | i 1 56 | − 4 |
| Tchimkent | 5·6 | 354 | — | — | 2 26 | − 7 |
| Naryn | 6·4 | 41 | — | — | 2 43 | −10 |
| Rybach'e | 7·2 | 35 | — | — | e 3 4 | − 9 |

July 22d. 3h. 31m. 32s. Epicentre 38°·6N. 75°·3E. Depth of focus 0·015.
(as on 1951, September 11d.).

A = +·1988, B = +·7579, C = +·6213 ; δ = −5 ; h = −1 ;
D = +·967, E = −·254 ; G = +·158, H = +·601, K = −·784.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Murgab | 1·1 | 258 | i 0 24 | 0 | — | — | — | — |
| Naryn | 2·9 | 12 | e 0 47 | + 1 | 1 25 | + 4 | — | — |
| Khorog | 3·1 | 249 | i 0 51 | + 2 | i 1 33 | + 7 | — | — |
| Andijan | 3·1 | 315 | i 0 51 | + 2 | i 1 34 | + 8 | — | — |
| Dzhergetal | 3·2 | 282 | i 0 52 | + 2 | i 1 32 | + 4 | — | — |
| Fergana | 3·3 | 303 | e 0 52 | 0 | e 1 31 | 0 | — | — |
| Rybach'e | 3·9 | 9 | i 1 0 | + 1 | — | — | — | — |
| Frunse | 4·3 | 353 | — | — | 2 19 | SS | — | — |
| Kulyab | 4·4 | 263 | i 1 6 | 0 | e 1 55 | − 2 | — | — |
| Obi-garm | 4·4 | 273 | 1 5 | − 1 | e 1 54 | − 3 | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Przhevalsk | | 4·6 | 30 | 1 6 | − 3 | 1 58 | − 4 | — | — |
| Almata | | 4·8 | 15 | e 1 11 | − 1 | — | — | — | — |
| Almata II | | 4·9 | 18 | i 1 12 | − 1 | — | — | — | — |
| Kurmenty | | 5·0 | 26 | i 1 12 | − 2 | — | — | — | — |
| Stalinabad | | 5·1 | 271 | e 1 14 | − 2 | — | — | — | — |
| Tashkent | | 5·4 | 303 | i 1 19 | − 1 | e 2 22 | + 1 | — | — |
| Ili | | 5·5 | 14 | e 1 18 | − 3 | — | — | — | — |
| Samarkand | | 6·5 | 283 | e 1 38 | + 3 | — | — | — | — |
| New Delhi | | 10·1 | 170 | e 2 11 | −12 | 4 12 | − 2 | 2 19 | P |
| Kiruna | z. | 41·8 | 332 | i 7 36 | − 2 | — | — | — | — |

July 22d. 8h. 42m. 10s. Epicentre 21°·5S. 179°·0W. Depth of focus 0·090. (as on 1951, June 9d.).

A = −·9311, B = −·0163, C = −·3644 ; δ = 0 ; h = +4 ;
D = −·017, E = +1·000 ; G = +·364, H = +·006, K = −·931.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 10·3 | 44 | — | — | e 4 28 | +12 | — | — | — |
| Karapiro | N. | 17·0 | 195 | 3 28 | + 1 | e 6 15 | + 1 | — | — | — |
| Tuai | N. | 17·6 | 191 | — | — | 6 13 | −11 | — | — | — |
| Wellington | | 20·4 | 194 | e 3 56 | − 2 | e 7 5 | − 5 | e 7 0 | ? | — |
| Cobb River | E. | 20·7 | 198 | — | — | e 7 5 | −10 | — | — | — |
| Kaimata | N.E. | 22·5 | 199 | e 4 21 | + 3 | e 7 26 | −18 | — | — | — |
| Christchurch | | 23·0 | 195 | — | — | e 7 57 | + 5 | — | — | — |
| Brisbane | Z. | 26·1 | 252 | i 4 49k | 0 | i 10 48 | SS | i 6 11 | PP | — |
| Victoria | | 85·5 | 34 | 11 36 | 0 | — | — | — | — | — |
| Kiruna | Z. | 132·1 | 350 | i 20 48s | pPKP | — | — | — | — | — |
| Upsala | Z. | 139·9 | 347 | i 18 22 | [+ 1] | — | — | i 21 11 | pPKP | — |
| Rathfarnham C. | Z. | 147·8 | 8 | i 18 46 | [+12] | — | — | — | — | i 77·9 |
| Witteveen | Z. | 148·4 | 353 | i 18 48s | [+13] | — | — | i 18 54 | $PKP_2$ | — |
| Collmberg | Z. | 148·8 | 345 | i 18 48 | [+12] | e 18 54 | $PKP_2$ | e 21 8 | pPKP | — |
| Jena | | 149·5 | 345 | e 18 42 | [+ 6] | e 18 52 | $PKP_2$ | e 18 59 | ? | — |
| Prague | | 149·6 | 343 | e 18 51 | [+14] | e 18 59 | $PKP_2$ | e 19 16 | ? | — |
| Stuttgart | | 152·0 | 348 | e 18 48 | [+ 8] | e 19 9 | $PKP_2$ | e 21 10 | pPKP | — |
| Strasbourg | | 152·4 | 349 | i 18 58 | [+17] | — | — | i 19 14 | $PKP_2$ | — |
| Paris | | 152·7 | 357 | i 19 13 | $PKP_2$ | — | — | — | — | — |
| Tamanrasset | Z. | 175·7 | — | i 20 48 | $PKP_2$ | e 30 41 | SKKS | e 24 47 | PP | — |

July 22d. 18h. 14m. 4s. Epicentre 22°·0S. 170°·3E. (as on 1949, September 30d.).

A = −·9148, B = +·1564, C = −·3724 ; δ = 0 ; h = +4 ;
D = +·168, E = +·986 ; G = +·367, H = −·063, K = −·928.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Karapiro | N. | 16·5 | 165 | e 4 9 | PP | — | — | — | — | — |
| Brisbane | | 16·6 | 247 | i 3 50 | − 6 | e 7 10 | +10 | i 4 18 | PPP | — |
| Wellington | | 19·6 | 172 | 4 33 | + 1 | e 8 14 | + 6 | — | — | e 11·4 |
| Riverview | | 20·7 | 230 | i 4 48k | + 4 | i 8 38 | + 7 | i 8 42 | ? | e 10·0 |
| Kiruna | Z. | 130·5 | 346 | e 19 13 | [ 0] | — | — | — | — | — |
| Collmberg | Z. | 145·8 | 335 | e 19 37 | [− 4] | — | — | e 19 48 | $PKP_2$ | — |
| Prague | | 146·2 | 332 | e 19 40 | [− 1] | e 20 2 | $PKP_2$ | e 21 16 | ? | — |
| Jena | | 146·7 | 335 | e 19 40 | [− 2] | e 19 53 | $PKP_2$ | e 20 36 | ? | — |
| Witteveen | Z. | 146·8 | 342 | i 19 41 | [− 1] | — | — | — | — | — |
| Stuttgart | | 149·3 | 336 | e 19 48 | [+ 2] | — | — | e 19 51 | $PKP_2$ | — |
| Karlsruhe | Z. | 149·4 | 336 | e 19 49 | [+ 3] | — | — | — | — | — |
| Strasbourg | | 150·0 | 337 | e 19 50? | [+ 3] | — | — | e 20 13? | $PKP_2$ | — |
| Zürich | Z. | 150·7 | 335 | e 19 49 | [+ 1] | — | — | — | — | — |
| Basle | Z. | 151·0 | 336 | e 19 52 | [+ 3] | — | — | — | — | — |
| Paris | | 151·5 | 344 | e 19 54 | [+ 4] | — | — | e 20 5 | $PKP_2$ | — |
| Tamanrasset | Z. | 165·9 | 276 | i 21 5s | $PKP_2$ | — | — | e 24 56 | PP | — |

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July 22d 22h. 50m. 17s. Epicentre 56°·8S. 122°·3W. (as on 1944, September 3d.).

$A = -·2940$, $B = -·4650$, $C = -·8351$; $\delta = +5$; $h = -8$;
$D = -·845$, $E = +·534$; $G = +·446$, $H = +·706$, $K = -·550$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Punta Arenas | N. | 29·2 | 105 | — | — | e 12 42 | SSS | — | — | — |
| Christchurch | | 42·1 | 260 | — | — | e 14 23 | + 7 | e 17 43 | SS | e 19·2 |
| Wellington | | 42·5 | 264 | 7 58 | − 1 | e 14 26 | + 4 | e 17 38 | SS | e 18·2 |
| La Paz | | 57·0 | 69 | i 9 43? | − 7 | i 17 45 | + 2 | 11 35 | PP | 24·8 |
| Huancayo | | 57·3 | 58 | e 9 52 | 0 | e 17 49 | + 2 | — | — | e 24·3 |
| Riverview | | 60·6 | 253 | i 10 18k | + 3 | i 18 40 | +10 | i 10 31 | pP | e 28·4 |
| Bogota | | 72·6 | 51 | — | — | e 20 58 | + 2 | e 25 1 | SS | — |
| Tinemaha | Z. | 93·6 | 4 | e 13 16 | − 3 | — | — | e 13 21 | P | — |
| Bermuda | | 101·3 | 47 | — | — | e 25 37 | + 6 | e 30 9 | PKKP | e 49·3 |
| Palisades | | 105·6 | 37 | e 18 26 | PP | e 27 36 | PS | e 33 24 | SS | e 50·3 |
| Tamanrasset | Z. | 129·3 | 110 | e 19 7 | [− 4] | e 22 40 | SKP | e 21 21 | PP | — |
| Malaga | | 134·7 | 89 | i 19 27 | [+ 6] | i 26 43 | [+13] | 32 7 | SKSP | 65·9 |
| Granada | | 135·5 | 89 | e 22 21 | PP | 26 34 | [+ 2] | 41 12 | SSP | 67·2 |
| Algiers Univ. | Z. | 138·9 | 96 | e 19 50 | [+21] | e 23 16 | SKP | e 35 0 | PPS | — |
| Rathfarnham C. | Z. | 144·4 | 68 | e 19 44 | [+ 6] | — | — | — | — | — |
| Clermont-Ferrand | | 145·0 | 84 | e 19 38 | [− 1] | — | — | — | — | 73·7 |
| Scoresby Sund | | 145·1 | 36 | — | — | e 41 43 | SS | 47 13 | SSS | 61·7 |
| Kew | | 146·5 | 74 | e 19 41 | [− 1] | e 29 43 | {−16} | — | — | e 69·7 |
| Paris | | 146·5 | 80 | i 19 41 | [− 1] | e 42 8 | SS | i 19 45 | $PKP_2$ | 68·7 |
| Messina | | 146·7 | 106 | e 19 43 | [+ 1] | — | — | — | — | e 55·6 |
| Helwan | Z. | 147·3 | 135 | e 19 43 | [ 0] | e 20 4 | $PKP_2$ | e 20 58 | ? | — |
| Rome | | 147·7 | 98 | i 19 44 | [ 0] | e 32 15 | PSKS | e 40 15 | ? | — |
| Rocca di Papa | N. | 147·7 | 99 | e 19 45 | [+ 1] | — | — | i 20 19 | ? | — |
| Pavia | | 148·0 | 90 | e 19 44 | [ 0] | e 42 24 | SS | i 20 43 | ? | e 75·4 |
| Florence | Z. | 148·2 | 95 | i 19 45 | [ 0] | — | — | i 23 16 | PP | — |
| Basle | | 148·6 | 84 | e 19 47 | [+ 2] | — | — | e 22 38 | ? | — |
| Bologna | Z. | 148·7 | 93 | e 19 52 | [+ 7] | — | — | — | — | — |
| Zürich | | 149·0 | 85 | e 19 47 | [+ 1] | — | — | — | — | — |
| Strasbourg | | 149·3 | 83 | e 19 49 | [+ 3] | e 30 56 | {+42} | e 22 47 | ? | e 63·7 |
| Stuttgart | | 150·2 | 85 | e 19 50 | [+ 2] | e 42 43 | SS | e 20 1 | $PKP_2$ | — |
| Triest | Z. | 150·8 | 93 | i 19 52a | [+ 3] | e 29 21 | {−62} | e 23 29 | PP | 71·7 |
| Witteveen | Z. | 150·9 | 74 | e 20 1 | $PKP_2$ | — | — | — | — | — |
| Jena | | 152·6 | 83 | e 19 57 | [+ 6] | e 23 13 | PP | e 20 13 | $PKP_2$ | — |
| Ksara | | 152·6 | 137 | 20 12 | $PKP_2$ | — | — | 23 45 | PP | — |
| Collmberg | Z. | 153·6 | 84 | e 19 56 | [+ 3] | — | — | — | — | — |
| Prague | | 153·7 | 86 | e 19 59 | [+ 6] | e 22 18 | ? | e 20 19 | $PKP_2$ | — |
| Potsdam | | 154·1 | 80 | e 20 12 | $PKP_2$ | — | — | — | — | e 75·7 |
| Istanbul | Z. | 155·7 | 118 | e 19 53 | [− 2] | e 34 25 | ? | e 37 13 | PPS | 81·7 |

July 23d. 0h. 38m. 31s. Epicentre 35°·4N. 118°·6W. (as on 21d.).

Intensity V at Arvin; IV at Bakersfield, Edison. Epicentre 35°22′N. 118°35′W.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 34.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| China Lake | Z. | 0·9 | 63 | i 0 17 | − 1g | — | — | — | — | — |
| Haiwee | | 0·9 | 35 | i 0 18 | 0g | — | — | — | — | — |
| Pasadena | | 1·3 | 164 | i 0 24a | − 1 | i 0 42 | − 2 | — | — | — |
| Santa Barbara | | 1·3 | 224 | i 0 25a | 0 | — | — | — | — | — |
| Fresno | Z. | 1·7 | 325 | i 0 29k | − 2 | — | — | — | — | — |
| Tinemaha | | 1·7 | 10 | i 0 32k | + 1 | — | — | — | — | — |
| Lick | Z. | 3·2 | 310 | i 0 49k | − 3 | — | — | — | — | — |
| Santa Clara | | 3·4 | 307 | i 1 18a | +10g | — | — | — | — | — |
| Berkeley | Z. | 3·9 | 311 | i 1 0k | − 2 | — | — | — | — | — |
| Reno | Z. | 4·3 | 347 | i 1 9k | + 1 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Mineral | z. | 5·5 | 336 | i 1 25k | 0 | — | — | — | — | — |
| Shasta | z. | 6·1 | 332 | e 1 32k | − 2 | — | — | — | — | — |
| Tucson | | 7·2 | 113 | i 1 45 | − 4 | — | — | i 2 26 | $P_g$ | i 3·4 |
| Corvallis | z. | 9·9 | 340 | 2 27 | + 2 | — | — | — | — | — |
| Butte | | 11·6 | 22 | i 2 52 | + 2 | — | — | — | — | — |
| Bozeman | | 11·8 | 27 | i 2 57 | + 4 | e 5 18 | +12 | — | — | — |
| Seattle | | 12·6 | 348 | i 3 6a | + 3 | i 5 40 | +14 | i 3 15 | PP | i 6·9 |
| Hungry Horse | | 13·4 | 13 | i 3 18 | + 4 | — | — | — | — | e 6·9 |
| Victoria | | 13·6 | 346 | 3 16 | − 1 | — | — | — | — | — |
| Lubbock | | 13·9 | 92 | 3 22 | + 1 | 6 13 | SS | — | — | — |
| Lincoln | | 18·1 | 64 | i 4 12 | − 2 | i 7 47 | +12 | — | — | — |
| Saskatoon | | 18·8 | 23 | 4 27 | + 4 | 7 54 | + 4 | — | — | 10·2 |
| Fayetteville | z. | 19·8 | 80 | i 4 35k | 0 | i 8 23 | +10 | i 5 0 | PPP | e 10·4 |
| St. Louis | | 22·9 | 72 | 5 7 | + 1 | 9 26 | +13 | — | — | — |
| Tacubaya | | 23·4 | 127 | e 5 12 | + 1 | e 9 24 | + 3 | e 12 32 | PcS | — |
| Puebla | | 24·2 | 126 | e 5 25 | + 6 | e 9 54 | +19 | — | — | — |
| Sitka | | 24·5 | 338 | e 5 23 | + 1 | e 9 49 | + 9 | — | — | — |
| Chicago | | 25·0 | 64 | e 5 29 | + 2 | e 9 51 | + 2 | — | — | — |
| Vera Cruz | | 25·6 | 122 | — | — | e 10 37 | +38 | — | — | e 13·3 |
| Cincinnati | | 27·3 | 70 | i 5 49 | + 1 | — | — | — | — | — |
| Cleveland | | 29·5 | 66 | i 6 8a | 0 | e 10 59 | − 3 | — | — | — |
| Pittsburgh | | 30·7 | 67 | i 6 33 | +14 | i 11 29 | + 8 | — | — | — |
| Columbia | | 30·8 | 79 | e 6 21 | + 1 | e 11 32 | + 9 | — | — | — |
| Morgantown | | 30·8 | 69 | i 6 20 | 0 | e 11 26 | + 3 | — | — | — |
| New Kensington | | 30·9 | 67 | i 6 21 | + 1 | i 11 26 | + 2 | — | — | — |
| Kirkland Lake | z. | 31·1 | 53 | e 6 21k | − 1 | — | — | — | — | — |
| Buffalo (Larkin) | | 31·7 | 63 | i 6 28 | + 1 | — | — | — | — | — |
| Pennsylvania | | 32·3 | 67 | i 6 30 | − 3 | e 11 51 | + 5 | — | — | — |
| Washington | | 33·1 | 70 | i 6 41 | + 1 | e 11 42 | −17 | — | — | — |
| Washington, N.R.L. | | 33·1 | 70 | i 6 41 | + 1 | e 11 42 | −17 | — | — | — |
| Ottawa | | 33·8 | 58 | e 6 45a | − 1 | 12 11 | + 1 | 17 17 | ScS | — |
| College | | 34·3 | 338 | e 6 48 | − 2 | — | — | e 8 23 | PPP | e 14·7 |
| Philadelphia | | 34·4 | 68 | e 6 54 | + 3 | e 12 24 | + 5 | — | — | — |
| City College, N.Y. | | 35·3 | 66 | e 6 58 | − 1 | i 12 34 | + 1 | — | — | — |
| Fordham | | 35·3 | 66 | e 7 3 | + 4 | — | — | — | — | — |
| Palisades | | 35·3 | 66 | i 6 59 | 0 | i 12 36 | + 3 | i 8 17 | PP | e 18·5 |
| Vermont | | 35·6 | 60 | — | — | e 12 41 | + 3 | (e 14 49) | SS | e 14·8 |
| Shawinigan Falls | N. | 35·9 | 57 | e 7 5 | + 1 | 12 32 | −10 | 9 33 | PcP | 18·2 |
| Harvard | | 36·9 | 63 | i 7 12 | 0 | — | — | — | — | — |
| Weston | | 37·1 | 63 | i 7 15 | + 1 | — | — | i 8 37 | PP | 15·8 |
| Honolulu | | 37·2 | 259 | e 7 17 | + 2 | — | — | — | — | — |
| Bermuda | | 44·4 | 77 | i 8 13 | − 1 | e 14 48 | − 1 | i 10 6 | PP | e 21·3 |
| San Juan | | 49·2 | 95 | i 8 52 | 0 | i 16 0 | + 2 | — | — | — |
| Fort de France | | 55·2 | 96 | e 9 20 | −17 | e 17 24 | + 4 | — | — | e 29·1 |
| Scoresby Sund | | 59·3 | 23 | e 10 5 | − 1 | e 18 16 | + 2 | 18 29 | PS | 28·5 |
| Huancayo | | 62·4 | 131 | e 10 30 | + 3 | — | — | — | — | — |
| Kiruna | | 72·6 | 15 | i 11 29 | − 2 | e 21 14 | PS | e 29 16 | Q | e 34·5 |
| Aberdeen | | 73·5 | 30 | — | — | e 25 34 | SS | i 36 29 | Q | e 38·4 |
| Rathfarnham Castle | | 74·1 | 35 | e 11 42 | + 2 | e 21 19 | + 7 | e 26 37 | SS | e 36·2 |
| Kew | | 78·1 | 34 | i 12 2 | 0 | e 22 58 | PPS | e 14 56 | PP | e 36·5 |
| Upsala | | 78·5 | 21 | i 12 4 | 0 | — | — | — | — | e 38·5 |
| De Bilt | | 80·0 | 31 | e 12 12 | − 1 | e 22 22 | + 5 | — | — | e 38·5 |
| Copenhagen | | 80·2 | 26 | i 12 16a | + 2 | — | — | — | — | 39·5 |
| Paris | | 81·2 | 35 | i 12 18 | − 1 | e 22 44 | ScS | e 15 22 | PP | 37·5 |
| Potsdam | | 83·0 | 28 | i 12 29a | + 1 | — | — | e 15 39 | PP | e 39·5 |
| Jena | | 83·5 | 29 | e 12 31 | 0 | e 15 43 | PP | e 16 14 | ? | — |
| Clermont-Ferrand | | 83·6 | 37 | i 12 32 | + 1 | — | — | — | — | 43·5 |
| Karlsruhe | z. | 83·7 | 32 | e 12 33 | + 1 | — | — | — | — | — |
| Strasbourg | | 83·7 | 32 | e 12 33 | + 1 | e 22 49 | − 5 | e 15 41 | PP | e 43·5 |
| Collmberg | z. | 83·8 | 28 | e 12 32 | 0 | — | — | — | — | — |
| Toledo | | 83·9 | 45 | i 12 34a | + 1 | — | — | e 13 45 | ? | — |
| Stuttgart | | 84·2 | 31 | e 12 34k | 0 | e 22 59 | 0 | e 15 49 | PP | e 44·5 |
| Zürich | | 85·0 | 33 | e 12 38 | 0 | — | — | — | — | — |
| Prague | | 85·3 | 28 | e 12 41 | + 1 | e 23 12 | + 2 | e 15 33 | PP | e 44·5 |
| Malaga | | 85·8 | 47 | i 12 43 | + 1 | e 23 19 | + 4 | e 17 53 | PPP | 45·9 |

*Continued on next page.*

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tortosa | | 85·8 | 42 | 12 41 | − 1 | e 23 27 | ScS | — | — | — |
| Granada | | 85·9 | 47 | i 12 46a | + 3 | 23 27 | ScS | 15 35 | PP | 44·4 |
| Almeria | | 86·8 | 46 | i 12 47 | 0 | 23 14 | [+ 1] | 16 6 | PP | 48·6 |
| Pavia | | 86·9 | 34 | e 12 49 | + 1 | e 23 31 | + 5 | i 24 33 | PS | — |
| Alicante | | 86·9 | 44 | 12 49 | + 1 | — | — | — | — | 58·0 |
| Bologna | z. | 88·5 | 33 | e 13 13 | +17 | — | — | — | — | — |
| Triest | | 88·6 | 31 | — | — | e 23 36 | [+ 5] | e 23 51 | S | 43·0 |
| Florence | | 89·0 | 34 | e 12 58 | 0 | e 25 27 | PPS | — | — | — |
| Algiers Univ. | z. | 90·1 | 43 | e 13 3 | 0 | e 14 0 | ? | i 15 10 | ? | 47·5 |
| Rome | | 91·0 | 34 | e 13 8 | + 1 | e 25 21 | PS | e 16 41 | PP | e 42·5 |
| Rocca di Papa | N. | 91·2 | 34 | — | — | e 25 17 | PS | — | — | — |
| Messina | E. | 95·4 | 35 | e 17 7 | PP | e 26 5 | PS | — | — | e 44·6 |
| Istanbul | | 98·3 | 25 | e 17 41 | PP | e 26 29? | PS | e 28 29? | ? | 48·5 |
| Tamanrasset | z. | 101·6 | 52 | 13 58 | + 2 | e 24 39 | [+ 4] | e 25 47 | S | — |
| Ksara | | 107·1 | 23 | e 18 48 | PP | e 29 8 | PPS | — | — | — |
| Helwan | z. | 109·2 | 28 | e 13 59 | P | — | — | i 19 3 | PP | — |
| Hyderabad | | 125·1 | 340 | e 17 39 | ? | — | — | — | — | — |
| Poona | z. | 125·1 | 346 | e 19 2 | [− 1] | i 19 18 | ? | i 19 28 | ? | — |
| Kimberley | z. | 148·4 | 90 | i 19 49 | [+ 4] | — | — | — | — | — |
| Pretoria | z. | 150·0 | 81 | i 19 53 | [+ 6] | — | — | — | — | — |
| Grahamstown | z. | 151·3 | 97 | i 19 58 | [+ 9] | — | — | — | — | — |

July 23d. 0h. 59m. 22s. Epicentre 14°·3N. 91°·7W. (as on 1950, November 5d.).

A = −·0288, B = −·9690, C = +·2454 ; δ = +1 ; h = +6 ;
D = −·999, E = +·030 ; G = −·007, H = −·245, K = −·969.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Guatemala City | | 1·2 | 76 | −0 4 | −28 | 0 27 | −14 | — | — | — |
| Oaxaca | | 5·5 | 299 | e 1 34 | − 3* | e 2 32 | + 2 | — | — | — |
| Vera Cruz | | 6·5 | 319 | e 1 46 | + 7 | i 2 58 | + 3 | — | — | — |
| Merida | | 6·9 | 17 | i 1 49k | + 4 | i 3 5 | 0 | — | — | — |
| Puebla | | 7·8 | 309 | e 2 5 | + 7 | i 3 30 | + 2 | — | — | — |
| Tacubaya | | 8·8 | 306 | e 2 17 | + 6 | i 4 2 | + 9 | — | — | — |
| Chinchina | | 18·2 | 119 | e 4 22 | + 6 | e 7 58 | SS | — | — | — |
| Bogota | | 19·9 | 118 | i 4 38 | + 2 | i 8 26 | +11 | — | — | — |
| Fayetteville | z. | 21·8 | 355 | i 4 56a | 0 | — | — | e 8 54 | PcP | — |
| Columbia | | 21·9 | 23 | e 4 58 | + 1 | — | — | — | — | — |
| San Juan | | 24·9 | 76 | e 5 20 | − 6 | — | — | i 9 18 | PcP | — |
| Tucson | | 25·0 | 320 | i 5 29 | + 2 | — | — | — | — | — |
| Cincinnati | | 25·5 | 14 | i 5 32 | 0 | — | — | i 6 2 | PP | — |
| Morgantown | | 27·3 | 20 | i 5 47 | − 1 | — | — | — | — | — |
| Cleveland | z. | 28·5 | 16 | i 5 58a | − 1 | — | — | i 6 47 | PP | — |
| Palomar | z. | 29·7 | 315 | i 6 12 | + 2 | — | — | i 6 25 | ? | — |
| Boulder City | | 29·9 | 321 | e 6 14 | + 2 | — | — | — | — | — |
| Bermuda | | 30·4 | 49 | i 6 16 | 0 | — | — | — | — | — |
| Buffalo (Larkin) | | 30·6 | 20 | i 6 18 | 0 | — | — | — | — | — |
| Fordham | | 30·7 | 28 | i 6 19 | 0 | — | — | — | — | — |
| Huancayo | | 30·8 | 147 | i 6 19 | − 1 | (e 11 30) | + 7 | — | — | e 11·5 |
| Palisades | | 30·8 | 27 | i 6 19 | − 1 | — | — | — | — | — |
| Mount Wilson | z. | 31·1 | 315 | i 6 24 | + 2 | — | — | i 6 59 | ? | — |
| Pasadena | z. | 31·1 | 315 | i 6 23 | + 1 | — | — | — | — | — |
| Tinemaha | z. | 32·8 | 320 | i 6 37 | 0 | — | — | — | — | — |
| Harvard | | 33·0 | 28 | i 6 38 | − 1 | — | — | — | — | — |
| Weston | | 33·1 | 28 | i 6 39a | − 1 | — | — | — | — | — |
| Ottawa | | 33·8 | 20 | i 6 45a | − 1 | — | — | — | — | — |
| Kirkland Lake | z. | 35·1 | 14 | i 6 56a | − 1 | — | — | — | — | — |
| Lick | z. | 35·1 | 317 | e 6 58k | + 1 | — | — | — | — | — |
| Shawinigan Falls | N. | 35·9 | 22 | e 7 3 | − 1 | — | — | — | — | — |
| Butte | | 36·2 | 338 | i 7 6 | 0 | — | — | — | — | — |
| Mineral | z. | 36·8 | 322 | e 7 12 | + 1 | — | — | — | — | — |
| La Paz | | 38·4 | 141 | 8 50 | PP | — | — | — | — | 17·8 |
| Hungry Horse | | 38·6 | 337 | e 7 27 | + 1 | — | — | — | — | — |

*Continued on next page.*

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| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Seattle | | 41·9 | 330 | i 7 55k | + 1 | — | — | — | — | — |
| Victoria | | 42·9 | 330 | 8 2 | 0 | — | — | — | — | — |
| College | | 63·1 | 337 | 10 30 | − 2 | — | — | — | — | — |
| Paris | | 82·1 | 42 | i 12 21 | − 3 | e 12 39 | ? | e 15 36 | PP | — |
| Clermont-Ferrand | | 83·2 | 45 | i 12 28 | − 1 | — | — | — | — | — |
| Witteveen | z. | 83·7 | 37 | i 12 32 | 0 | — | — | — | — | — |
| Kiruna | z. | 84·9 | 21 | i 12 36a | − 2 | i 13 4 | ? | i 13 21 | ? | — |
| Strasbourg | | 85·5 | 41 | i 12 40?a | − 1 | e 12 53f | ? | e 16 4 | PP | — |
| Basle | | 85·7 | 42 | e 12 40a | − 2 | — | — | — | — | — |
| Stuttgart | | 86·4 | 40 | e 12 43 | − 2 | — | — | — | — | — |
| Zürich | | 86·4 | 43 | e 12 43a | − 2 | — | — | — | — | — |
| Upsala | z. | 87·0 | 29 | i 12 47 | − 1 | i 13 15 | ? | i 16 12 | PP | — |
| Jena | z. | 87·2 | 39 | e 12 48 | − 1 | — | — | — | — | — |
| Collmberg | z. | 87·9 | 38 | e 12 50 | − 3 | e 13 8 | ? | e 16 20 | PP | — |
| Tamanrasset | z. | 91·2 | 65 | i 13 1a | − 7 | — | — | — | — | — |
| Kimberley | z. | 119·8 | 115 | i 18 52 | [ 0] | — | — | — | — | — |
| Grahamstown | z. | 121·2 | 119 | i 18 55 | [ 0] | — | — | — | — | — |
| Pretoria | z. | 122·8 | 110 | e 18 57 | [− 1] | — | — | — | — | — |

July 23d. 3h. 19m. 21s. Epicentre 35°·4N. 118°·6W. (as at 0h. 38m.).

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| China Lake | E. | 0·9 | 63 | i 0 18 | 0g | — | — | — | — | — |
| Pasadena | | 1·3 | 164 | i 0 24k | − 1 | i 0 41 | − 3 | — | — | — |
| Santa Barbara | | 1·3 | 224 | i 0 25a | 0 | — | — | — | — | — |
| Fresno | z. | 1·7 | 325 | e 0 29a | − 2 | — | — | — | — | — |
| Tinemaha | | 1·7 | 10 | i 0 32 | + 1 | — | — | — | — | — |
| Boulder City | | 3·1 | 78 | i 0 51 | 0 | — | — | — | — | — |
| Lick | z. | 3·2 | 310 | i 0 49a | − 3 | — | — | — | — | — |
| Santa Clara | E. | 3·4 | 307 | e 0 59 | − 2* | — | — | — | — | — |
| Berkeley | | 3·9 | 311 | i 1 0a | − 2 | — | — | — | — | — |
| Reno | z. | 4·3 | 347 | e 1 11 | + 3 | — | — | — | — | — |
| Mineral | z. | 5·5 | 336 | e 1 26a | + 1 | — | — | — | — | — |
| Tucson | | 7·2 | 113 | i 1 46 | − 3 | — | — | — | — | — |
| Butte | | 11·6 | 22 | e 2 54 | + 4 | — | — | — | — | — |
| Hungry Horse | | 13·4 | 13 | e 3 15 | + 1 | — | — | — | — | e 7·0 |
| Fayetteville | z. | 19·8 | 80 | i 4 34 | − 1 | e 8 27 | +14 | — | — | e 10·4 |
| Morgantown | | 30·8 | 69 | i 6 19 | − 1 | e 16 15 | L | — | — | (e 16·2) |
| Buffalo (Larkin) | | 31·7 | 63 | e 6 26 | − 1 | — | — | — | — | — |
| Washington | | 33·1 | 70 | — | — | e 17 25 | ScS | — | — | — |
| Ottawa | | 33·8 | 58 | e 6 46 | 0 | — | — | — | — | 17·8 |
| College | | 34·3 | 338 | e 6 50 | 0 | — | — | — | — | e 19·2 |
| Kimberley | z. | 148·4 | 90 | e 19 50 | [+ 5] | — | — | — | — | — |

July 23d. 4h. 30m. 5s. Epicentre 22°·6S. 179°·8E.

A = −·9241, B = +·0032, C = −·3821 ; $\delta$ = −3 ; $h$ = +4 ;
D = +·003, E = +1·000 ; G = +·382, H = −·001, K = −·924.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | |
|---|---|---|---|---|---|---|---|---|---|
| Karapiro | N. | 15·7 | 193 | e 3 55 | +11 | e 6 22 | −17 | — | — |
| Tuai | N. | 16·3 | 187 | — | — | e 6 20 | −33 | — | — |
| Wellington | | 19·1 | 193 | e 4 19 | − 8 | e 7 10 | −47 | — | — |
| Cobb River | E. | 19·4 | 197 | e 4 25 | − 5 | e 7 17 | −47 | — | — |
| Kaimata | N.E. | 21·1 | 197 | — | — | e 7 53 | −46 | — | — |
| Christchurch | | 21·7 | 194 | — | — | e 8 1 | −50 | — | — |
| Brisbane | z. | 24·7 | 253 | i 5 24k | 0 | — | — | — | — |
| Lick | z. | 81·2 | 44 | i 12 20 | + 1 | — | — | — | — |
| Pasadena | z. | 81·6 | 48 | i 12 21 | 0 | — | — | — | — |
| Palomar | z. | 82·1 | 49 | i 12 23 | − 1 | — | — | — | — |

*Continued on next page.*

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Mineral | z. | 83·0 | 42 | e 12 14 | −14 | — | — | — | — |
| Reno | z. | 83·6 | 43 | e 12 43 | +12 | — | — | — | — |
| Boulder City | | 84·9 | 48 | e 12 38 | 0 | — | — | — | — |
| Tucson | | 85·8 | 53 | i 12 42 | 0 | — | — | — | — |
| Victoria | | 87·1 | 34 | 12 48 | − 1 | — | — | — | — |
| College | | 90·7 | 13 | e 13 3 | − 3 | — | — | — | — |
| Fayetteville | z. | 99·9 | 55 | i 14 59 | +71 | — | — | — | — |
| Kiruna | z. | 133·0 | 350 | i 19 8 | [−10] | — | — | — | — |
| Upsala | z. | 140·7 | 346 | i 19 18k | [−14] | — | — | — | — |
| Collmberg | z. | 149·6 | 343 | e 19 43 | [− 4] | — | — | e 21 49 | ? |
| Jena | | 150·3 | 344 | e 19 38 | [−10] | e 19 57 | $PKP_2$ | e 21 16 | ? |
| Stuttgart | | 152·8 | 347 | e 19 41 | [−11] | e 20 8 | $PKP_2$ | e 19 50 | PKP |
| Tamanrasset | z. | 174·7 | — | e 20 0 | [−11] | e 23 34 | SKP | — | — |

July 23d. 7h. 53m. 15s. Epicentre 35°·0N. 119°·0W. (as on 21d.).

Intensity VII at Tejon Ranch and Arvin ; V in Los Angeles and suburbs.
Epicentre 35°00′N. 118°50′W.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 35.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Santa Barbara | | 0·8 | 226 | i 0 20 | + 2 | — | — | — | — | — |
| Pasadena | | 1·1 | 141 | i 0 21k | − 1 | i 0 34 | $-2_s$ | — | — | — |
| China Lake | z. | 1·4 | 54 | i 0 25 | − 2 | — | — | — | — | — |
| Fresno | | 1·9 | 340 | i 1 34k | +60 | — | — | — | — | — |
| Tinemaha | z. | 2·2 | 17 | i 0 41 | + 3 | — | — | — | — | — |
| Lick | z. | 3·1 | 318 | i 0 $51_a$ | 0 | — | — | — | — | — |
| Santa Clara | E. | 3·3 | 315 | e 1 3 | $-3_s$ | — | — | — | — | — |
| Boulder City | | 3·6 | 73 | i 0 55 | − 3 | — | — | — | — | — |
| Berkeley | z. | 3·9 | 318 | e 1 $2_a$ | 0 | — | — | — | — | — |
| Reno | z. | 4·6 | 352 | e 1 13 | + 1 | — | — | — | — | — |
| Mineral | z. | 5·7 | 340 | e 1 $28_a$ | 0 | — | — | — | — | — |
| Shasta | z. | 6·3 | 336 | 1 $35_a$ | − 1 | — | — | — | — | — |
| Tucson | | 7·3 | 110 | i 1 47 | − 3 | — | — | i 2 21 | $P_g$ | — |
| Butte | | 12·0 | 22 | e 3 3 | PP | — | — | — | — | — |
| Hungry Horse | | 13·8 | 14 | e 3 21 | + 2 | — | — | — | — | e 7·4 |
| Victoria | | 13·9 | 348 | 3 21 | 0 | — | — | — | — | — |
| Lubbock | | 14·3 | 91 | 3 25 | − 1 | — | — | — | — | — |
| Fayetteville | z. | 20·2 | 80 | i 4 $37_a$ | − 2 | — | — | — | — | e 10·5 |
| Tacubaya | | 23·4 | 126 | e 5 21 | +10 | e 12 36 | PcS | — | — | e 13·1 |
| Morgantown | | 31·2 | 69 | i 6 22 | − 1 | e 16 10 | L | — | — | (e 16·2) |
| Kirkland Lake | z. | 31·6 | 53 | e 6 $24_a$ | − 2 | — | — | — | — | — |
| Buffalo (Larkin) | | 32·0 | 63 | e 6 27 | − 3 | — | — | — | — | — |
| Ottawa | | 34·3 | 58 | e 6 47 | − 3 | — | — | — | — | 18·2 |
| College | | 34·6 | 339 | 7 0 | + 7 | — | — | — | — | — |
| Philadelphia | | 34·9 | 68 | — | — | e 12 34 | + 7 | — | — | e 17·3 |
| Palisades | | 35·7 | 66 | e 5 15 | ? | e 12 38 | − 1 | — | — | e 18·7 |
| Shawinigan Falls | N. | 36·4 | 57 | e 7 12 | + 4 | — | — | — | — | 19·2 |
| Weston | | 37·5 | 63 | e 7 16 | − 1 | — | — | — | — | — |
| Resolute Bay | | 41·5 | 8 | e 7 55 | + 5 | 14 2 | − 5 | — | — | 21·2 |
| San Juan | | 49·5 | 95 | i 8 51 | − 3 | — | — | — | — | — |
| Jena | | 84·0 | 29 | e 12 32 | − 1 | — | — | e 12 51 | ? | — |
| Stuttgart | | 84·7 | 31 | e 12 0? | −37 | — | — | — | — | — |
| Kimberley | z. | 148·8 | 90 | i 19 56 | [+10] | — | — | — | — | — |
| Pretoria | z. | 150·3 | 81 | i 19 54 | [+ 6] | — | — | — | — | — |

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July 23d. 13h. 17m. 4s. Epicentre 35°·0N. 119°·0W. (as at 7h.).

Intensity VII at Arvin ; VI at Tehachapi ; V in the region of Arvin ; IV at Fresno, Los Angeles. Epicentre 35°13′N. 118°49′W.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 35.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Chuchupate | z. | 0·2 | 176 | i 0 9 | − 1 | — | — | — | — | — |
| Santa Barbara | | 0·8 | 226 | i 0 20a | + 2 | — | — | — | — | — |
| Pasadena | | 1·1 | 141 | i 0 22a | 0 | i 0 37 | − 2 | — | — | — |
| China Lake | z. | 1·4 | 54 | i 0 22 | − 5 | — | — | — | — | — |
| Haiwee | | 1·4 | 36 | i 0 23k | − 4 | — | — | — | — | — |
| Fresno | | 1·9 | 340 | i 0 30k | − 4 | — | — | — | — | — |
| Tinemaha | | 2·2 | 17 | i 0 35k | − 3 | — | — | — | — | — |
| Lick | z. | 3·1 | 318 | e 0 49a | − 2 | — | — | — | — | — |
| Santa Clara | | 3·3 | 315 | e 1 0k | + 1* | — | — | — | — | — |
| Boulder City | | 3·6 | 73 | i 0 52 | − 6 | — | — | — | — | — |
| Berkeley | | 3·9 | 318 | i 1 0 | − 2 | — | — | — | — | — |
| Reno | z. | 4·6 | 352 | e 1 11a | − 1 | — | — | — | — | — |
| Mineral | z. | 5·7 | 340 | i 1 25k | − 3 | — | — | — | — | — |
| Shasta | z. | 6·3 | 336 | i 1 33a | − 3 | — | — | — | — | — |
| Tucson | | 7·3 | 110 | i 1 47 | − 3 | — | — | i 2 40 | Pg | — |
| Corvallis | z. | 10·1 | 342 | e 2 29 | + 1 | — | — | — | — | — |
| Butte | | 12·0 | 22 | i 2 57 | + 2 | — | — | — | — | — |
| Bozeman | | 12·3 | 27 | e 3 0 | + 1 | e 5 30 | SS | — | — | — |
| Seattle | | 12·9 | 350 | e 3 16 | PP | — | — | — | — | — |
| Hungry Horse | | 13·8 | 14 | i 3 20 | + 1 | — | — | — | — | i 7·3 |
| Victoria | | 13·9 | 348 | 3 20 | − 1 | — | — | — | — | — |
| Lubbock | | 14·3 | 91 | 3 26 | 0 | 6 16 | +10 | — | — | — |
| Lincoln | | 18·6 | 64 | e 4 17 | − 4 | e 7 54 | + 8 | — | — | — |
| Saskatoon | | 19·3 | 23 | 4 31 | + 2 | 7 58 | − 4 | — | — | 10·2 |
| Fayetteville | z. | 20·2 | 80 | i 4 37 | − 2 | e 8 24 | + 3 | — | — | e 10·6 |
| Tacubaya | | 23·4 | 126 | e 5 15 | + 4 | e 9 38 | +17 | e 9 47? | SS | e 13·0 |
| Sitka | | 24·7 | 339 | e 5 26 | + 2 | e 9 48 | + 4 | — | — | — |
| Chicago | | 25·4 | 64 | e 5 30 | − 1 | e 9 58 | + 2 | — | — | — |
| Cleveland | | 30·0 | 66 | e 6 20a | + 8 | e 11 12 | + 2 | — | — | — |
| Columbia | | 31·2 | 79 | — | — | e 11 27 | − 2 | — | — | — |
| Morgantown | | 31·2 | 69 | i 6 22 | − 1 | e 11 31 | + 2 | — | — | — |
| Pittsburgh | | 31·2 | 67 | e 6 31 | + 8 | i 11 37 | + 8 | — | — | — |
| New Kensington | | 31·4 | 67 | i 6 25 | 0 | e 11 24 | − 8 | — | — | — |
| Kirkland Lake | z. | 31·6 | 53 | i 6 27 | + 1 | — | — | — | — | — |
| Buffalo (Larkin) | | 32·0 | 63 | e 6 32 | + 2 | — | — | — | — | — |
| Pennsylvania | | 32·7 | 67 | i 6 39 | + 3 | e 12 3 | +11 | — | — | e 17·4 |
| Washington | | 33·5 | 70 | e 6 46 | + 3 | e 11 34 | −31 | — | — | — |
| College | | 34·6 | 339 | 6 52 | − 1 | — | — | — | — | e 14·6 |
| Philadelphia | | 34·9 | 68 | e 6 54 | − 1 | e 12 27 | 0 | — | — | — |
| City College, N.Y. | | 35·7 | 66 | e 7 5 | + 3 | e 12 37 | − 2 | — | — | — |
| Palisades | | 35·7 | 66 | i 7 2 | 0 | i 12 40 | + 1 | i 8 21 | PP | e 19·0 |
| Shawinigan Falls | N. | 36·4 | 57 | e 6 55 | −13 | — | — | 8 15 | PP | 18·3 |
| Harvard | | 37·4 | 63 | e 7 16 | 0 | — | — | — | — | — |
| Weston | | 37·5 | 63 | e 7 19 | + 2 | — | — | — | — | — |
| Resolute Bay | | 41·5 | 8 | e 7 51 | + 1 | 14 0 | − 7 | — | — | 21·2 |
| San Juan | | 49·5 | 95 | e 8 51 | − 3 | — | — | — | — | — |
| Scoresby Sund | | 59·7 | 23 | — | — | e 18 16 | − 3 | 25 15 | Q | 29·9 |
| Huancayo | | 62·5 | 130 | — | — | e 19 15 | PS | — | — | — |
| Kiruna | N. | 73·1 | 15 | — | — | e 20 56 | − 5 | — | — | e 38·6 |
| Rathfarnham Castle | | 74·5 | 35 | e 12 19 | ? | — | — | — | — | e 42·9 |
| Kew | | 78·5 | 34 | — | — | e 21 56 | − 5 | — | — | e 37·9 |
| De Bilt | | 80·5 | 31 | e 12 16 | + 1 | — | — | — | — | e 42·9 |
| Paris | | 81·7 | 35 | e 12 25 | + 3 | — | — | — | — | e 45·9 |
| Clermont-Ferrand | | 84·1 | 37 | — | — | e 22 57 | − 1 | — | — | 45·3 |
| Strasbourg | | 84·3 | 32 | e 12 35 | 0 | e 23 0 | 0 | — | — | e 43·9 |

*Continued on next page.*

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| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Toledo | | 84·4 | 45 | e 12 41 | PcP | — | — | — | — | — |
| Stuttgart | | 84·7 | 31 | e 12 41? | + 4 | e 23 5 | + 1 | — | — | e 45·9 |
| Malaga | | 86·3 | 47 | i 12 45 | 0 | i 23 31 | +11 | 16 5 | PP | 47·1 |
| Granada | | 86·4 | 47 | i 12 49a | + 4 | 23 37 | +16 | — | — | 43·5 |
| Almeria | | 87·4 | 46 | 12 50 | 0 | 23 29 | − 1 | — | — | 49·0 |
| Pavia | | 87·4 | 34 | — | — | e 22 42 | ? | — | — | e 50·0 |
| Algiers Univ. | Z. | 90·6 | 43 | i 38 39 | P′P′ | — | — | — | — | — |
| Messina | E. | 95·9 | 35 | — | — | e 26 8 | PS | e 38 47 | P′P′ | e 57·8 |
| Tamanrasset | Z. | 102·1 | 52 | 18 16 | PKP | e 25 20 | −18 | e 36 56 | SSS | — |
| Ksara | | 107·6 | 23 | e 15 7 | ? | — | — | — | — | — |
| Kimberley | Z. | 148·8 | 90 | i 19 52 | [+ 7] | — | — | — | — | — |
| Pretoria | Z. | 150·3 | 81 | e 19 58 | [+10] | — | — | — | — | — |

July 23d. 18h. 13m. 47s. Epicentre 35°·0N. 119°·0W. (as at 13h.).
Intensity VI at Tejon Ranch and Arvin; V at Los Angeles; IV at Fresno and San Pedro.
Epicentre 35°00′N. 118°50′W.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 35.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Chuchupate | Z. | 0·2 | 176 | i 0 8 | − 2 | — | — | — | — | — |
| Santa Barbara | | 0·8 | 226 | i 0 19a | + 1 | i 0 29 | − 2 | — | — | — |
| Pasadena | | 1·1 | 141 | i 0 22a | 0 | i 0 35 | − 1g | — | — | — |
| China Lake | Z. | 1·4 | 54 | i 0 27 | 0 | — | — | — | — | — |
| Haiwee | N. | 1·4 | 36 | i 0 28 | + 1 | — | — | — | — | — |
| Fresno | | 1·9 | 340 | i 0 34a | 0 | — | — | — | — | — |
| Tinemaha | Z. | 2·2 | 17 | i 0 38 | 0 | — | — | — | — | — |
| Lick | Z. | 3·1 | 318 | 0 52a | + 1 | — | — | — | — | — |
| Santa Clara | E. | 3·3 | 315 | e 0 59 | 0* | — | — | — | — | — |
| Boulder City | | 3·6 | 73 | e 0 56 | − 2 | — | — | — | — | — |
| Berkeley | | 3·9 | 318 | i 1 3 | + 1 | — | — | — | — | — |
| Reno | Z. | 4·6 | 352 | e 1 14a | + 2 | — | — | — | — | — |
| Mineral | Z. | 5·7 | 340 | i 1 27 | − 1 | — | — | — | — | — |
| Shasta | Z. | 6·3 | 336 | e 1 35k | − 1 | — | — | — | — | — |
| Tucson | | 7·3 | 110 | i 1 51 | + 1 | — | — | — | — | — |
| Corvallis | Z. | 10·1 | 342 | e 2 34 | + 5 | — | — | — | — | — |
| Fayetteville | Z. | 20·2 | 80 | i 4 40 | + 1 | — | — | — | — | e 10·6 |
| College | | 34·6 | 339 | e 6 52 | − 1 | — | — | — | — | — |
| Messina | E. | 95·9 | 35 | — | — | e 33 41 | ? | — | — | — |

July 24d. 9h. 9m. 50s. Epicentre 23°·7S. 65°·7W. Depth of focus 0·010.
(as on 1949, July 12d.).

Intensity III between south latitude 27° and 28°.

F. Greve.
Boletin del Año, 1952, Instituto Sismolòǵico, Univ. de Chile, Santiago, p. 22.

A = +·3772, B = −·8355, C = −·3996; δ = +2; h = +4;
D = −·911, E = −·412; G = −·164, H = +·364, K = −·917.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Copiapo | N. | 5·4 | 229 | i 1 9 | −11 | 2 5 | −16 | — | — | — |
| La Paz | | 7·5 | 341 | i 2 1 | +13 | 3 24 | +12 | 2 38 | ? | — |
| Santa Lucia | N. | 10·7 | 203 | e 2 47 | +15 | — | — | e 3 27 | ? | — |
| Huancayo | | 14·8 | 320 | e 3 31 | + 6 | e 6 16 | + 9 | — | — | e 8·1 |
| Fort de France | | 38·4 | 8 | e 7 16 | + 3 | e 12 56 | − 5 | — | — | — |
| San Juan | | 41·8 | 0 | i 7 42 | + 1 | — | — | i 9 29 | PP | — |
| Bermuda | | 55·8 | 1 | — | — | e 16 48 | −19 | — | — | — |
| Morgantown | | 64·4 | 347 | i 10 28 | 0 | — | — | — | — | — |
| Fayetteville | Z. | 65·3 | 335 | i 10 31k | − 3 | — | — | — | — | — |
| Weston | | 65·9 | 357 | i 10 40k | + 2 | — | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Harvard | | 66·1 | 357 | i 10 40k | + 1 | — | — | e 10 49 | pP | — |
| Tucson | | 70·4 | 321 | i 11 3 | − 3 | — | — | — | — | — |
| Palomar | z. | 74·8 | 318 | i 11 29 | − 2 | — | — | — | — | — |
| Riverside | z. | 75·5 | 318 | i 11 33k | − 2 | — | — | — | — | — |
| Pasadena | z. | 76·1 | 318 | i 11 38k | − 1 | — | — | — | — | — |
| Tinemaha | z. | 78·1 | 320 | i 11 49 | − 1 | — | — | — | — | — |
| Fresno | z. | 78·8 | 319 | e 11 50k | − 4 | — | — | — | — | — |
| Grahamstown | z. | 79·2 | 121 | i 12 1 | + 5 | — | — | — | — | — |
| Kimberley | z. | 79·4 | 116 | i 12 2 | + 5 | — | — | — | — | — |
| Lick | z. | 80·3 | 318 | i 12 1k | − 1 | — | — | — | — | — |
| Reno | z. | 80·7 | 320 | e 12 3 | − 1 | — | — | — | — | — |
| Berkeley | z. | 81·1 | 318 | i 12 4k | − 2 | — | — | — | — | — |
| Butte | | 81·4 | 330 | i 12 7 | − 1 | — | — | — | — | — |
| Mineral | z. | 82·2 | 320 | i 12 8k | − 4 | — | — | — | — | — |
| Tamanrasset | z. | 83·2 | 62 | i 12 25k | + 8 | e 22 53 | +26 | e 15 41 | PP | — |
| Malaga | | 83·3 | 45 | i 12 23 | + 6 | i 22 37 | + 9 | — | — | — |
| Pretoria | z. | 83·3 | 114 | i 12 23 | + 6 | — | — | — | — | — |
| Stuttgart | | 98·1 | 39 | e 13 30 | + 3 | — | — | — | — | — |

July 24d. 10h. 29m. 42s. Epicentre 28°·2S. 177°·7W. (as on 1948, October 2d.).

$A = -·8819$, $B = -·0354$, $C = -·4701$; $\delta = -1$; $h = +2$;
$D = -·040$, $E = +·999$; $G = +·470$, $H = +·019$, $K = -·883$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Auckland | N. | 10·7 | 215 | e 2 34 | − 4 | e 4 28 | −11 | e 3 13 | ? | e 5·1 |
| Karapiro | N. | 11·2 | 209 | e 2 38 | − 6 | — | — | — | — | — |
| Tuai | N. | 11·4 | 201 | e 2 29 | −18 | e 4 12 | −44 | — | — | — |
| New Plymouth | E. | 12·8 | 210 | e 3 54 | +48 | e 5 27 | − 3 | — | — | — |
| Wellington | | 14·3 | 203 | e 3 12 | −14 | 5 20 | −46 | e 3 15 | PP | 6·5 |
| Cobb River | E. | 15·1 | 209 | e 3 39 | + 3 | e 5 31 | −54 | — | — | — |
| Apia | | 15·3 | 22 | e 3 53 | +14 | i 5 44 | ? | — | — | — |
| Kaimata | N.E. | 16·8 | 209 | e 3 52 | − 6 | e 6 17 | −48 | — | — | — |
| Christchurch | | 17·0 | 204 | e 4 6 | + 5 | 6 25 | −45 | — | — | e 7·8 |
| Brisbane | | 25·9 | 265 | i 5 34a | − 1 | e 9 54 | −10 | e 10 28 | SS | — |
| Manila | | 73·0 | 297 | e 11 32 | − 1 | — | — | — | — | — |
| Yuzno-Sakhlinsk | | 82·9 | 332 | e 12 31 | + 3 | — | — | — | — | — |
| Berkeley | z. | 83·8 | 42 | e 12 34a | + 2 | — | — | — | — | — |
| Lick | z. | 83·8 | 42 | i 12 35a | + 3 | e 13 36 | ? | i 12 54 | pP | — |
| Pasadena | | 83·8 | 46 | i 12 34 | + 2 | — | — | — | — | e 37·6 |
| Mount Wilson | z. | 83·9 | 46 | i 12 35a | + 2 | i 12 54 | ? | i 13 0 | ? | — |
| Palomar | z. | 84·1 | 47 | i 12 36a | + 2 | — | — | — | — | — |
| Riverside | z. | 84·2 | 46 | i 12 35a | + 1 | — | — | — | — | — |
| Fresno | z. | 84·5 | 43 | e 12 38a | + 2 | — | — | — | — | — |
| Vladivostok | | 84·8 | 326 | e 12 38 | + 1 | — | — | — | — | — |
| Uglegorsk | | 84·9 | 335 | e 12 36 | − 2 | — | — | — | — | — |
| Nanking | | 85·1 | 309 | i 12 40a | + 1 | e 23 1 | [ 0] | — | — | — |
| Shasta | z. | 85·6 | 38 | e 12 43a | + 2 | — | — | — | — | — |
| Tinemaha | z. | 85·6 | 44 | i 12 45a | + 4 | — | — | i 13 4 | ? | — |
| Mineral | | 85·8 | 39 | e 12 42a | 0 | — | — | i 13 2 | pP | — |
| Reno | z. | 86·3 | 41 | e 12 47 | + 2 | — | — | — | — | — |
| Boulder City | | 87·0 | 46 | i 13 19 | ? | — | — | — | — | — |
| Tucson | | 87·5 | 51 | i 12 52 | + 1 | — | — | i 13 10 | ? | — |
| College | | 95·7 | 12 | i 13 29 | 0 | — | — | — | — | — |
| La Paz | | 98·7 | 114 | i 13 58 | +16 | 24 8 | [−13] | 31 4 | SS | — |
| Fayetteville | z. | 101·2 | 55 | e 13 58 | + 4 | — | — | e 18 8 | PP | — |
| Resolute Bay | z. | 115·1 | 16 | i 19 40 | PP | — | — | — | — | — |
| Kimberley | z. | 119·4 | 203 | i 18 46k | [− 6] | — | — | — | — | — |
| Pretoria | z. | 120·9 | 208 | e 18 48 | [− 6] | — | — | — | — | — |
| Andijan | | 122·3 | 302 | i 18 55 | [− 2] | — | — | — | — | — |
| Fergana | | 122·7 | 302 | e 18 51 | [− 7] | — | — | — | — | — |
| Dzhergetal | | 122·9 | 300 | e 18 57 | [− 1] | — | — | — | — | — |
| Namanagan | | 122·9 | 302 | e 18 54 | [− 4] | — | — | — | — | — |
| Obi-garm | | 123·9 | 300 | i 18 57 | [− 3] | — | — | — | — | — |
| Tchimkent | | 124·6 | 304 | e 18 58 | [− 3] | — | — | — | — | — |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Sverdlovsk | | 130·4 | 323 | e 19 9 | [− 4] | e 22 31 | PKS | — | — | — |
| Kiruna | z. | 138·9 | 350 | i 19 21 | [− 8] | i 22 58 | PKS | — | — | — |
| Grozny | | 142·1 | 305 | e 19 28 | [− 6] | — | — | — | — | — |
| Moscow | | 142·6 | 328 | e 19 28 | [− 7] | — | — | — | — | — |
| Gori | | 143·5 | 303 | e 19 37 | [+ 1] | — | — | — | — | — |
| Piatigorsk | | 143·9 | 307 | e 19 34 | [− 3] | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 144·0 | 303 | i 19 23? | [−14] | — | — | — | — | — |
| Borzhomi | | 144·1 | 303 | e 19 37 | [− 1] | — | — | — | — | — |
| Abastumanj | | 144·5 | 303 | e 19 38 | [ 0] | — | — | — | — | — |
| Zugdidi | | 145·0 | 306 | e 19 39 | [ 0] | — | — | — | — | — |
| Sotchi | | 146·0 | 308 | e 19 39 | [− 2] | — | — | — | — | — |
| Upsala | z. | 146·7 | 346 | i 19 42$_a$ | [ 0] | — | — | i 20 15 | ? | — |
| Simferopol | | 149·7 | 313 | e 19 44 | [− 3] | — | — | i 19 50 | $PKP_2$ | — |
| Yalta | | 149·9 | 312 | e 19 34? | [−13] | — | — | — | — | — |
| Ksara | | 150·8 | 289 | e 19 39 | [− 9] | — | — | 23 30 | PP | — |
| Copenhagen | | 151·7 | 349 | i 19 56 | [+ 6] | — | — | — | — | — |
| Lwow | | 152·8 | 329 | e 20 0 | [+ 8] | — | — | — | — | — |
| Uzhgorod | | 154·4 | 330 | e 20 4 | [+10] | — | — | — | — | — |
| Jena | z. | 156·2 | 344 | e 19 53 | [− 3] | e 24 3 | PP | e 20 26 | $PKP_2$ | — |
| Prague | | 156·3 | 341 | e 20 4 | [+ 8] | e 23 28 | PP | e 20 27 | $PKP_2$ | — |
| Karlsruhe | z. | 158·7 | 350 | e 20 21 | $PKP_2$ | — | — | — | — | — |
| Stuttgart | | 158·8 | 348 | e 19 56 | [− 3] | e 24 35 | PP | e 20 39 | $PKP_2$ | e 85·3 |
| Strasbourg | | 159·3 | 350 | e 19 56 | [− 4] | e 24 20 | PP | e 20 28 | $PKP_2$ | — |
| Paris | | 159·4 | 0 | e 19 59 | [− 1] | — | — | e 20 24 | $PKP_2$ | e 80·3 |
| Messina | E. | 165·1 | 317 | — | — | e 46 9 | SSP | — | — | e 90·2 |
| Toledo | | 167·4 | 22 | e 20 6 | [− 2] | e 22 15 | ? | e 21 45 | ? | — |
| Malaga | | 169·8 | 32 | i 20 7 | [− 2] | i 27 5 | [−6] | i 21 25 | $PKP_2$ | e 84·2 |
| Granada | | 169·9 | 27 | i 21 19k | $PKP_2$ | — | — | 25 18 | PP | — |
| Tamanrasset | z. | 173·9 | 209 | e 20 8 | [− 3] | e 32 17 | {− 4} | e 21 34 | $PKP_2$ | — |

July 24d. 13h. 49m. 20s. Epicentre 39°·2N. 70°·2E.

Given by the stations of U.S.S.R.

A = +·2632, B = +·7311, C = +·6295; δ = +5; h = −1;
D = +·941, E = −·339; G = +·213, H = +·592, K = −·777.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Garm | 0·2 | 159 | i 0 4 | $0_g$ | i 0 7 | $0_g$ | — | — |
| Obi-garm | 0·6 | 218 | e 0 12 | $0_g$ | e 0 21 | 0 | — | — |
| Dzhergetal | 0·8 | 89 | i 0 13 | $-3_g$ | i 0 23 | $-3_g$ | — | — |
| Kulyab | 1·3 | 194 | e 0 22? | − 3 | e 0 42? | − 2 | — | — |
| Stalinabad | 1·3 | 240 | e 0 27 | $+1_g$ | i 0 45 | + 1 | — | — |
| Fergana | 1·7 | 46 | e 0 30 | − 1 | — | — | — | — |
| Khorog | 2·1 | 148 | e 0 38 | + 1 | i 1 6 | + 2 | — | — |
| Andijan | 2·3 | 47 | e 0 41 | + 1 | i 1 11 | + 2 | 1 16 | $S_g$ |
| Samarkand | 2·5 | 281 | 0 47 | + 2* | — | — | — | — |

July 24d. 20h. 28m. 59s. Epicentre 42°·8N. 77°·1E.

Given by the stations of U.S.S.R.

A = +·1643, B = +·7174, C = +·6770; δ = −1; h = −3;
D = +·975, E = −·223; G = +·151, H = +·660, K = −·736.

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Almata | 0·5 | 347 | i 0 14 | 0 | e 0 23 | 0 |
| Almata II | 0·5 | 23 | i 0 14 | 0 | e 0 20 | − 3 |
| Rybach'e | 0·8 | 245 | i 0 17 | − 1 | i 0 27 | − 4 |
| Kurmenty | 0·9 | 74 | i 0 19 | − 1 | i 0 31 | − 3 |
| Przhevalsk | 1·0 | 108 | 0 22 | + 1 | 0 36 | 0 |
| Ili | 1·2 | 359 | i 0 44? | S | i 1 0? | ? |
| Chilisk | 1·2 | 51 | i 0 26 | + 2 | i 0 43 | + 2 |
| Naryn | 1·6 | 211 | — | — | i 0 52 | + 1 |
| Frunse | 1·9 | 273 | e 0 37 | + 3 | e 1 3 | + 4 |

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July 24d. 22h. 9m. 19s. Epicentre 42°·7N. 145°·5E. Focus at base of superficial layers.
(as on 1952, April 20d.).

Intensity VI at Kusiro, Toro; V at Nemuro, Obi-hiro, Ikeda, Otu, Nishishumbetu, Kenebetu, Nakashibestu, and Noshappu.
Epicentre 42°·7N. 145°·3E. Depth 60km. (approx). Macroseismic radius >300km.

Seismo. Bull. Cent. Met. Obs., Japan, July, 1952, Tokyo, 1952, p.273, with macroseismic chart.

$A = -·6075$, $B = +·4176$, $C = +·6757$; $\delta = +2$; $h = -3$;
$D = +·566$, $E = +·824$; $G = -·557$, $H = +·383$, $K = -·737$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Nemuro | | 0·6 | 6 | i 0 18a | + 6 | 0 27 | + 6 | — | — | — |
| Kusiro | | 0·9 | 289 | e 0 19 | + 3 | 0 27 | − 1 | — | — | — |
| Abasiiri | | 1·6 | 327 | i 0 27 | + 1 | 0 46 | 0 | — | — | — |
| Obi-hiro | | 1·7 | 285 | e 0 27 | − 1 | 0 45 | − 4 | — | — | — |
| Urakawa | | 2·1 | 255 | i 0 33 | 0 | 0 58 | − 1 | — | — | — |
| Asahigawa | | 2·5 | 296 | i 0 37k | − 2 | 1 4 | − 5 | — | — | — |
| Sapporo | | 3·1 | 278 | i 0 47k | − 1 | 1 17 | − 7 | — | — | — |
| Hatinoke | | 3·7 | 235 | i 0 55a | − 1 | 1 35 | − 4 | — | — | — |
| Mori | E. | 3·7 | 262 | 0 56 | 0 | 1 35 | − 4 | — | — | — |
| Wakkanai | N. | 3·9 | 316 | e 1 19 | +20 | 2 8 | +24 | — | — | — |
| Aomori | | 4·0 | 243 | 1 2 | + 2 | 1 46 | − 1 | — | — | — |
| Morioka | | 4·4 | 229 | i 1 6a | 0 | 1 52 | − 5 | — | — | — |
| Yuzno-Sakhlinsk | | 4·7 | 336 | i 1 11 | + 1 | e 2 16 | +11 | — | — | — |
| Mizusawa | | 4·9 | 224 | 1 12 | − 1 | 2 2 | − 8 | — | — | — |
| Akita | | 5·0 | 236 | 1 15 | 0 | 2 11 | − 1 | — | — | — |
| Sendai | | 5·6 | 220 | e 1 22 | − 1 | 2 23 | − 4 | — | — | — |
| Sakata | | 5·7 | 230 | 1 27 | + 3 | 2 30 | 0 | — | — | — |
| Yamagata | | 5·9 | 223 | e 1 27 | 0 | 2 29 | − 6 | — | — | — |
| Hukusima | | 6·3 | 219 | e 1 34 | + 1 | 2 40 | − 5 | — | — | — |
| Inawasiro | | 6·6 | 220 | e 1 36 | − 1 | 2 56 | + 4 | — | — | — |
| Onahama | | 6·7 | 213 | e 1 41 | + 2 | 2 52 | − 3 | — | — | — |
| Uglegorsk | | 6·8 | 341 | 1 40 | 0 | 2 59 | + 2 | — | — | — |
| Aikawa | | 7·3 | 232 | 1 45 | − 2 | 2 56 | −14 | — | — | — |
| Mito | | 7·4 | 213 | e 1 49 | + 1 | 3 5 | − 7 | — | — | — |
| Utunomiya | | 7·5 | 217 | e 1 49 | − 1 | 3 5 | −10 | — | — | — |
| Tukubasan | | 7·7 | 215 | e 1 51 | − 2 | 3 9 | −11 | — | — | — |
| Tyosi | E. | 7·8 | 209 | e 2 2 | + 8 | 3 33 | +11 | — | — | — |
| Maebasi | | 8·0 | 220 | e 1 56 | − 1 | 3 21 | − 6 | — | — | — |
| Kashiwa | | 8·1 | 214 | e 2 1 | + 3 | 3 23 | − 7 | — | — | — |
| Kumagaya | | 8·1 | 218 | e 1 59 | + 1 | 3 12 | −18 | — | — | — |
| Nagano | | 8·2 | 225 | e 2 1 | + 1 | 3 23 | − 9 | — | — | — |
| Matusiro | | 8·3 | 225 | 2 0 | − 1 | 3 26 | − 9 | — | — | — |
| Oiwake | | 8·3 | 222 | e 2 1 | 0 | 4 1 | +26 | — | — | — |
| Titibu | | 8·3 | 219 | e 1 57 | − 4 | 3 28 | − 7 | — | — | — |
| Tokyo | | 8·3 | 214 | e 2 0 | − 1 | 3 26 | − 9 | — | — | — |
| Wazima | | 8·5 | 234 | 2 3 | − 1 | 3 34 | − 6 | — | — | — |
| Matumoto | N. | 8·7 | 224 | e 2 7 | + 1 | 3 39 | − 6 | — | — | — |
| Toyama | | 8·8 | 229 | 2 11a | + 3 | 3 48 | + 1 | — | — | — |
| Hunatu | | 8·9 | 218 | e 2 16 | + 7 | 3 50 | + 1 | — | — | — |
| Kohu | | 8·9 | 220 | e 2 13 | + 4 | 3 59 | +10 | — | — | — |
| Mera | | 8·9 | 211 | 2 15 | + 6 | 3 33 | −16 | — | — | — |
| Ajiro | | 9·1 | 215 | e 2 15 | + 3 | 3 47 | − 7 | — | — | — |
| Misima | N. | 9·1 | 216 | e 2 8 | − 4 | 3 45 | − 9 | — | — | — |
| Osima | | 9·3 | 213 | e 2 8 | − 7 | 3 44 | −15 | — | — | — |
| Shizuoka | | 9·6 | 218 | e 2 27 | + 8 | 3 59 | − 8 | — | — | — |
| Omaesaki | | 9·9 | 217 | e 2 24 | + 1 | 4 18 | + 4 | — | — | — |
| Gihu | | 10·0 | 226 | e 2 22 | − 2 | 4 16 | − 1 | — | — | — |
| Nagoya | | 10·0 | 224 | 2 20 | − 4 | 4 11 | − 6 | — | — | — |
| Tsuruga | N. | 10·1 | 229 | e 2 25 | − 1 | 3 55 | −24 | — | — | — |
| Hikone | | 10·3 | 227 | 2 31 | + 3 | — | — | — | — | — |
| Kameyama | | 10·5 | 225 | e 2 40 | + 9 | 4 40 | +11 | — | — | — |
| Kyoto | | 10·8 | 228 | e 2 40 | + 5 | — | — | — | — | — |
| Osaka | | 11·2 | 227 | e 2 41 | 0 | — | — | — | — | — |
| Sumoto | | 11·8 | 228 | i 2 46 | − 3 | — | — | — | — | — |
| Siomisaki | | 12·0 | 223 | 2 53 | + 1 | — | — | — | — | — |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Takamatu | | 12·3 | 231 | e 2 53 | − 3 | — | — | — | — | — |
| Hamada | | 13·0 | 238 | 3 5 | 0 | 5 20 | − 9 | — | — | — |
| Muroto | | 13·0 | 227 | e 3 2 | − 3 | 5 4 | −25 | — | — | — |
| Koti | | 13·1 | 230 | e 3 4 | − 2 | 5 12 | −20 | — | — | — |
| Hirosima | | 13·2 | 235 | 3 5 | − 3 | 5 34 | 0 | — | — | — |
| Matuyama | | 13·4 | 233 | e 3 17 | + 7 | 5 31 | − 8 | — | — | — |
| Petropavlovsk | | 13·6 | 36 | e 3 25 | +12 | i 6 9 | +25 | — | — | — |
| Ooita | | 14·4 | 234 | e 3 22 | − 1 | 6 19 | +16 | — | — | — |
| Hukuoka | z. | 14·9 | 237 | e 3 25 | − 5 | 6 5 | −10 | — | — | — |
| Saga | | 15·2 | 237 | e 3 36 | + 2 | — | — | — | — | — |
| Mayazaki | | 15·5 | 231 | i 3 32 | − 6 | 6 44 | +15 | — | — | — |
| Unzendake | | 15·6 | 235 | e 3 35 | − 4 | 6 28 | − 3 | — | — | — |
| Klyuchi | | 16·8 | 31 | e 3 58 | + 4 | — | — | — | — | — |
| Zo Se | | 22·5 | 248 | i 4 54a | − 4 | i 8 53 | − 5 | i 9 12 | ? | — |
| Kyakhta | | 27·7 | 302 | 5 44 | − 3 | e 10 21? | − 5 | — | — | — |
| Irkutsk | | 29·1 | 304 | 5 57 | − 3 | 10 42 | − 6 | — | — | — |
| Manila | | 35·1 | 225 | i 6 54 | + 2 | — | — | — | — | — |
| College | | 42·6 | 35 | i 7 57 | + 2 | i 14 15 | 0 | e 10 3 | PP | i 17·6 |
| Semipalatinsk | | 44·2 | 303 | i 8 5 | − 3 | e 14 40 | + 2 | — | — | — |
| Przhevalsk | | 48·2 | 294 | 8 38 | − 1 | — | — | — | — | — |
| Almata II | | 48·5 | 296 | i 8 40 | − 2 | — | — | — | — | — |
| Ili | | 48·5 | 297 | i 8 59? | +17 | — | — | — | — | — |
| Almata | | 48·8 | 296 | i 8 43 | − 1 | i 15 40 | − 4 | — | — | — |
| Rybach'e | | 49·7 | 295 | i 8 49 | − 2 | 15 52 | − 4 | — | — | — |
| Sitka | | 49·9 | 44 | e 9 1 | + 9 | i 16 10 | +11 | — | — | — |
| Naryn | | 50·2 | 293 | i 8 54 | − 1 | i 15 58 | − 5 | — | — | — |
| Frunse | | 50·6 | 296 | i 8 56 | − 2 | i 16 4 | − 5 | i 9 14 | pP | — |
| Andijan | | 53·0 | 294 | i 9 14 | − 2 | 16 39 | − 3 | — | — | — |
| Sverdlovsk | | 53·1 | 317 | i 9 14 | − 2 | i 16 36 | − 7 | i 9 32 | pP | — |
| Namangan | | 53·4 | 294 | i 9 18 | − 1 | 16 41 | − 6 | i 9 35 | pP | — |
| Fergana | | 53·6 | 294 | i 9 17 | − 3 | e 16 40 | −10 | — | — | — |
| Tchimkent | | 54·1 | 297 | i 9 22 | − 2 | i 16 52 | − 4 | — | — | — |
| Dzhergetal | | 54·5 | 294 | 9 26 | − 1 | 16 57 | − 5 | — | — | — |
| Tashkent | | 54·8 | 296 | i 9 27 | − 2 | i 16 59 | − 7 | — | — | — |
| Khorog | | 55·1 | 292 | e 9 30 | − 1 | e 17 6 | − 4 | — | — | — |
| Obi-garm | | 55·8 | 293 | i 9 34 | − 2 | i 17 12 | − 7 | — | — | — |
| New Delhi | | 55·9 | 280 | e 9 33 | − 4 | i 17 11 | −10 | 11 38 | PP | — |
| Kulyab | | 56·1 | 292 | — | — | i 17 25 | + 2 | — | — | — |
| Resolute Bay | | 56·3 | 16 | i 9 39a | − 1 | 17 25 | − 1 | — | — | 27·7 |
| Stalinabad | | 56·5 | 294 | i 9 40 | − 1 | — | — | — | — | — |
| Samarkand | | 57·1 | 296 | i 9 43 | − 3 | 17 28 | − 8 | — | — | — |
| Victoria | | 60·3 | 49 | 10 10 | + 2 | — | — | — | — | — |
| Bairam-Ali | | 61·4 | 297 | 10 14 | − 1 | 18 30 | − 2 | — | — | — |
| Seattle | | 61·4 | 49 | i 10 32 | +17 | — | — | i 11 26 | ? | — |
| Quetta | | 62·2 | 287 | i 10 22 | + 2 | i 18 38 | − 4 | — | — | 35·7 |
| Kiruna | | 62·3 | 340 | i 10 20a | − 1 | e 18 40 | − 4 | e 14 13 | PPP | e 31·3 |
| Corvallis | z. | 62·5 | 53 | e 10 27 | + 5 | — | — | — | — | — |
| Ashkabad | | 63·7 | 298 | i 10 27 | − 3 | — | — | — | — | — |
| Poona | z. | 64·3 | 272 | i 10 34 | 0 | — | — | e 10 52 | pP | — |
| Kizyl-Arvat | | 64·4 | 301 | 10 33 | − 2 | i 19 7 | − 3 | — | — | — |
| Moscow | | 64·6 | 323 | i 10 34 | − 2 | i 19 5 | − 7 | — | — | — |
| Pulkovo | | 64·9 | 329 | e 10 36 | − 2 | — | — | — | — | — |
| Shasta | z. | 65·3 | 56 | e 10 44a | + 3 | — | — | i 10 56 | pP | — |
| Hungry Horse | | 65·6 | 46 | e 10 45 | + 2 | e 19 27 | + 3 | — | — | — |
| Mineral | z. | 66·0 | 56 | i 10 47a | + 2 | — | — | i 11 0 | pP | — |
| Scoresby Sund | | 66·8 | 356 | e 10 49 | − 1 | i 19 36 | − 3 | 27 11 | SSS | 32·7 |
| Berkeley | z. | 67·0 | 59 | e 10 57a | + 5 | — | — | i 11 8 | pP | — |
| Makhach-Kala | | 67·4 | 308 | i 10 53 | − 1 | i 19 44 | − 2 | — | — | — |
| Santa Clara | | 67·5 | 59 | e 11 13 | +18 | i 19 46 | − 1 | — | — | e 31·6 |
| Baku | | 67·6 | 305 | e 10 57 | + 2 | e 19 51 | + 3 | — | — | — |
| Reno | | 67·6 | 56 | e 10 59a | + 4 | e 19 54 | + 6 | e 11 11 | pP | — |
| Lick | z. | 67·7 | 59 | e 11 0a | + 4 | — | — | i 11 13 | pP | — |
| Grozny | | 68·2 | 310 | e 10 59 | 0 | — | — | — | — | — |
| Shemakha | | 68·2 | 306 | i 10 59 | 0 | i 19 55 | − 1 | — | — | — |
| Lenkoran | | 69·2 | 303 | 11 4 | − 1 | — | — | — | — | — |

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| | | △ | Az. | P. | | O−C. | S. | | O−C. | Supp. | | | L. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. | s. | s. | m. | s. | s. | m. | s. | | m. |
| Upsala | | 69·2 | 334 | e 11 | 1 | − 4 | i 20 | 2 | − 6 | e 20 | 54 | ScS | e 36·1 |
| Fresno | z. | 69·3 | 58 | e 11 | 9 | + 3 | — | | — | e 11 | 22 | pP | — |
| Piatigorsk | | 69·3 | 311 | 11 | 5 | − 1 | 20 | 6 | − 3 | — | | — | — |
| Kirovobad | | 69·5 | 307 | 11 | 8 | + 1 | — | | — | — | | — | — |
| Tiflis | | 69·8 | 309 | 11 | 9 | 0 | 20 | 13 | − 2 | — | | — | — |
| Gori | | 70·0 | 310 | e 11 | 9 | − 1 | — | | — | — | | — | — |
| Tinemaha | z. | 70·0 | 58 | i 11 | 15 | + 5 | — | | — | i 11 | 27 | pP | — |
| Goris | | 70·3 | 305 | i 11 | 12 | 0 | i 20 | 17 | − 3 | — | | — | — |
| Borzhomi | | 70·5 | 309 | i 11 | 15 | + 2 | e 20 | 25 | + 2 | — | | — | — |
| Tsikhlis-Dzhvari | | 70·6 | 309 | i 11 | 14 | 0 | i 20 | 24 | 0 | — | | — | — |
| Abastumanj | | 70·9 | 310 | e 11 | 18 | + 2 | e 20 | 29 | + 1 | — | | — | — |
| Erevan | | 70·9 | 307 | i 11 | 16 | 0 | i 20 | 28 | 0 | — | | — | — |
| Leninakan | | 70·9 | 309 | e 11 | 18 | + 2 | — | | — | — | | — | — |
| Zugdidi | | 70·9 | 311 | e 11 | 20? | + 4 | — | | — | — | | — | — |
| Sotchi | | 71·4 | 313 | i 11 | 16 | − 3 | i 20 | 31 | − 2 | — | | — | — |
| Pasadena | z. | 71·9 | 59 | i 11 | 26 | + 4 | — | | — | i 11 | 38 | pP | — |
| Theodosia | | 72·7 | 317 | i 11 | 26 | 0 | i 20 | 50 | + 2 | — | | — | — |
| Boulder City | | 72·9 | 56 | i 11 | 31 | + 3 | — | | — | — | | — | — |
| Reykjavik | z. | 73·0 | 354 | i 12 | 55 | ? | — | | — | — | | — | — |
| Palomar | z. | 73·3 | 59 | i 11 | 33 | + 3 | — | | — | i 11 | 46 | pP | — |
| Simferopol | | 73·4 | 316 | i 11 | 30 | 0 | — | | — | — | | — | — |
| Yalta | | 73·7 | 317 | i 11 | 31 | − 1 | e 20 | 55 | − 4 | — | | — | — |
| Copenhagen | | 74·2 | 334 | i 11 | 35 a | 0 | 21 | 4 | − 1 | i 11 | 57 | pP | 36·7 |
| Kishinev | | 74·6 | 322 | i 11 | 36 | − 2 | 21 | 4 | − 6 | — | | — | — |
| Lwow | | 74·6 | 325 | i 11 | 37 | − 1 | e 21 | 7 | − 3 | — | | — | — |
| Uzhgorod | | 76·2 | 326 | e 11 | 48 | + 1 | e 21 | 27 | 0 | — | | — | — |
| Skalnate Pleso | N. | 76·7 | 327 | e 11 | 56 | + 6 | e 21 | 34 | + 1 | — | | — | — |
| Aberdeen | | 76·8 | 342 | i 11 | 56 | + 6 | i 21 | 29 | − 5 | e 35 | 41 | Q | e 40·6 |
| Potsdam | | 76·8 | 333 | i 11 | 50 a | 0 | i 21 | 31 | − 3 | e 12 | 6 | pP | e 37·7 |
| Raciborzu | | 76·8 | 328 | e 11 | 49 | − 1 | e 14 | 49 | PP | e 12 | 8 | pP | — |
| Collmberg | | 77·7 | 331 | e 11 | 53 | − 2 | e 21 | 45 | + 1 | e 15 | 0 | PP | e 32·7 |
| Bucharest | | 77·8 | 320 | e 11 | 59 | + 3 | e 21 | 40 | − 5 | e 21 | 59 | SKS | — |
| Tucson | | 77·8 | 57 | i 11 | 59 | + 3 | e 21 | 51 | + 6 | i 12 | 11 | pP | — |
| Prague | | 78·2 | 330 | i 11 | 57 a | − 1 | e 21 | 46 | − 3 | e 12 | 9 | pP | e 44·7 |
| Budapest | | 78·5 | 326 | 11 | 59 | 0 | e 21 | 51 | − 1 | e 22 | 11 | SKS | 45·7 |
| Jena | | 78·5 | 331 | e 11 | 59 | 0 | e 21 | 51? | − 1 | e 12 | 2 | PcP | — |
| Ogyalla | | 78·5 | 327 | e 12 | 2 | + 3 | e 21 | 55 | + 3 | e 22 | 48 | PS | e 45·2 |
| Witteveen | z. | 78·5 | 337 | i 12 | 0 k | + 1 | — | | — | — | | — | — |
| Istanbul | | 78·8 | 316 | e 12 | 1 | 0 | e 21 | 55 | 0 | e 12 | 26 | pP | 37·7 |
| Durham | N. | 78·9 | 341 | — | | — | i 21 | 53 | − 3 | — | | — | — |
| Timisoara | | 78·9 | 323 | e 11 | 41? | −21 | e 21 | 53 | − 3 | — | | — | — |
| De Bilt | | 79·5 | 336 | i 12 | 5 | 0 | e 21 | 57 | − 6 | — | | — | e 36·7 |
| Belgrade | | 80·0 | 324 | e 12 | 3 a | − 5 | e 22 | 7 | − 1 | e 12 | 30 | PcP | e 49·1 |
| Ksara | | 80·3 | 307 | i 12 | 10 a | + 1 | 22 | 12 | + 1 | 15 | 12 | PP | — |
| Kirkland Lake | z. | 81·0 | 28 | i 12 | 14 a | + 1 | — | | — | e 12 | 27 | pP | — |
| Karlsruhe | z. | 81·2 | 333 | e 12 | 14 | 0 | — | | — | — | | — | — |
| Rathfarnham Castle | | 81·3 | 343 | i 12 | 15 a | + 1 | e 22 | 20 | − 1 | i 12 | 34 | pP | e 43·2 |
| Stuttgart | | 81·3 | 332 | i 12 | 13 a | − 1 | e 22 | 14 | − 7 | e 15 | 19 | PP | e 39·7 |
| Kew | | 81·6 | 339 | i 12 | 15 | − 1 | e 22 | 24 | 0 | i 12 | 30 | PcP | e 35·7 |
| Strasbourg | | 81·8 | 333 | i 12 | 17 a | 0 | i 22 | 24 | − 2 | e 12 | 34 | pP | e 38·2 |
| Triest | | 82·1 | 328 | e 12 | 14 | − 5 | e 22 | 26 | − 4 | e 15 | 18 | PP | 39·9 |
| Lubbock | | 82·2 | 50 | e 12 | 21 | + 2 | — | | — | e 12 | 36 | pP | — |
| Zürich | | 82·6 | 332 | e 12 | 19 a | − 2 | e 22 | 26 | − 9 | e 12 | 39 | pP | — |
| Basle | | 82·7 | 332 | e 12 | 32 a | +10 | e 20 | 44 | ? | — | | — | — |
| Paris | | 83·2 | 336 | i 12 | 24 | 0 | i 22 | 35 | − 6 | i 12 | 39 | pP | 44·7 |
| Bologna | | 84·0 | 328 | e 13 | 29 a | +61 | e 23 | 13 | +24 | — | | — | — |
| Pavia | | 84·2 | 330 | e 12 | 29 a | 0 | e 22 | 48 | − 3 | e 23 | 58 | PS | e 44·2 |
| Fayetteville | z. | 84·6 | 44 | i 12 | 33 a | + 2 | i 16 | 4 | PP | i 12 | 46 | pP | — |
| Florence | | 84·6 | 328 | i 12 | 31 | 0 | i 23 | 7 | +12 | i 12 | 47 | pP | e 39·7 |
| Karapiro | N. | 84·8 | 155 | e 12 | 40 | + 8 | e 22 | 48 | − 9 | — | | — | — |
| Ottawa | | 84·9 | 28 | i 12 | 34 a | + 1 | 22 | 55 | − 3 | 15 | 49 | PP | 35·0 |
| Shawinigan Falls | N. | 84·9 | 25 | e 12 | 32 | − 1 | 23 | 1 | + 3 | — | | — | — |
| Taranto | | 84·9 | 323 | — | | — | e 22 | 19 | −39 | — | | — | — |
| Rome | | 85·7 | 326 | 12 | 43 | + 6 | 23 | 11 | + 6 | — | | — | e 40·0 |
| Clermont-Ferrand | | 85·8 | 334 | i 12 | 38 | + 1 | e 23 | 23 | +17 | e 28 | 47 | SS | 40·7 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Helwan | E. | 85·8 | 308 | — | — | e 23 25 | +19 | — | — | — |
| Buffalo (Larkin) | | 86·0 | 30 | i 12 43 | + 5 | — | — | — | — | — |
| Cleveland | | 86·1 | 34 | i 12 40 a | + 1 | i 23 9 | 0 | i 12 54 | pP | — |
| Vermont | | 86·6 | 27 | — | — | e 23 9 | − 5 | — | — | e 36·1 |
| Cincinnati | | 86·8 | 37 | i 12 45 | + 3 | — | — | — | — | — |
| Cobb River | E. | 87·0 | 159 | e 12 49 | + 6 | — | — | — | — | — |
| Messina | | 87·5 | 323 | e 12 47 | + 1 | e 23 16 | − 7 | e 23 43 | ? | e 41·6 |
| Pittsburgh | | 87·6 | 33 | i 12 47 | + 1 | i 22 26 | −58 | — | — | — |
| Wellington | | 87·7 | 158 | e 13 6 | +19 | — | — | — | — | e 42·4 |
| Kaimata | N.E. | 88·0 | 160 | e 13 29 | +41 | — | — | — | — | — |
| Pennsylvania | | 88·1 | 31 | i 12 51 | + 3 | e 23 16 | [+ 4] | e 13 5 | pP | — |
| Morgantown | | 88·3 | 34 | i 12 52 | + 3 | e 23 31 | + 1 | — | — | — |
| Harvard | | 88·9 | 26 | i 12 53 | + 1 | — | — | — | — | — |
| Weston | | 89·1 | 26 | i 12 55 a | + 2 | e 23 39 | + 2 | — | — | — |
| Palisades | | 89·4 | 29 | e 12 57 | + 2 | i 23 41 | + 1 | e 23 21 | SKS | e 42·7 |
| City College, N.Y. | | 89·5 | 29 | — | — | e 23 25 | [+ 4] | — | — | — |
| Philadelphia | | 89·9 | 29 | — | — | e 23 25 | [+ 2] | e 23 42 | S | — |
| Tortosa | | 91·0 | 333 | e 16 55 | PP | — | — | — | — | e 55·0 |
| Alicante | | 92·7 | 334 | 13 16 | + 6 | e 24 22 | +12 | 17 4 | PP | 46·3 |
| Toledo | | 93·3 | 337 | e 13 12 | − 1 | e 24 11 | − 4 | 17 1 | PP | 42·2 |
| Algiers Univ. | Z. | 93·8 | 331 | e 13 14 | − 1 | e 24 21 | + 2 | e 16 59 | PP | — |
| Almeria | | 95·6 | 335 | 13 34 | +11 | 24 48 | +14 | 17 24 | PP | 46·6 |
| Granada | | 95·6 | 336 | 13 23k | 0 | 24 58 | +24 | 18 32 | PP | i 45·7 |
| Malaga | | 96·3 | 337 | i 13 28 | + 2 | i 24 38 | − 2 | 17 16 | PP | 52·9 |
| Bermuda | | 100·3 | 26 | e 18 13 | PP | e 24 20 | [+ 1] | e 26 43 | PS | e 48·5 |
| Tamanrasset | Z. | 105·1 | 321 | e 14 5 | 0 | e 18 20 | PP | e 18 37 | pPP | 64·7 |
| Fort de France | | 117·8 | 29 | — | — | e 28 47 | PS | — | — | — |
| Bogota | | 120·8 | 47 | e 21 2 | ? | — | — | — | — | e 59·1 |
| Pretoria | Z. | 126·7 | 267 | i 19 2 | [+ 2] | — | — | — | — | — |
| Kimberley | Z. | 130·8 | 266 | e 19 12 | [+ 4] | — | — | — | — | — |
| Huancayo | | 133·3 | 62 | e 19 19 | [+ 6] | e 39 16 | SS | e 22 53 | ? | e 63·1 |
| La Paz | | 141·2 | 57 | e 19 41 | [+14] | 41 15 | SS | 22 37 | PP | 67·7 |

July 25d. 10h. 59m. 38s. Epicentre 43°·2N. 1°·5W.

Intensity IV in several places to the East of Guipizcoa.
Epicentre 43°·25N. 1°·5W. (Strasbourg).
Boletin Sismico, Segundo Semestre, Ano 1952, Instituto Geographico y Catastral, Madrid, 1956, p. 30.

$A = +\cdot7310$, $B = -\cdot0191$, $C = +\cdot6821$ ; $\delta = -1$ : $h = -3$ :
$D = -\cdot026$, $E = -1\cdot000$ ; $G = +\cdot682$, $H = -\cdot018$, $K = -\cdot731$.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tortosa | 2·8 | 148 | e 0 37 | −10 | 1 26 | + 4 | — | — | — |
| Toledo | 3·8 | 211 | e 1 2 | + 1 | e 1 46 | − 1 | e 1 32 | ? | — |
| Alicante | 4·9 | 171 | 1 27 | 0* | 2 25 | − 4* | — | — | — |
| Granada | 6·3 | 196 | — | — | 3 8 | − 3* | — | — | — |
| Almeria | 6·4 | 187 | — | — | 3 19 | + 5* | — | — | — |
| Malaga | 6·8 | 200 | e 2 16 | $0_g$ | i 3 22 | − 4* | e 3 35 | $S_g$ | — |
| Basle | 7·7 | 53 | — | — | e 4 14 | $0_g$ | — | — | — |
| Zürich | 8·2 | 56 | — | — | e 4 15 | + 8* | — | — | — |
| Stuttgart | 9·3 | 50 | — | — | e 4 42? | + 2* | e 5 6 | $S_g$ | e 5·4 |

July 25d. 13h. 13m. 6s. Epicentre 35°·4N. 118°·6W. (as on 23d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| White Wolf | Z. | 0·2 | 200 | i 0 5 | + $1_g$ | — | — | — | — | — |
| Chuchupate | Z. | 0·7 | 209 | i 0 14 | $0_g$ | — | — | — | — | — |
| China Lake | E. | 0·9 | 63 | i 0 18 | $0_g$ | — | — | — | — | — |
| Haiwee | | 0·9 | 35 | i 0 19 | − 1 | — | — | — | — | — |
| Pasadena | | 1·3 | 164 | i 0 24k | − 1 | i 0 40 | − 2* | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Santa Barbara | Z. | 1·3 | 224 | i 0 28 | + 2$_g$ | — | — | — | — | — |
| Fresno | Z. | 1·7 | 325 | e 0 32k | 0* | — | — | — | — | — |
| Tinemaha | | 1·7 | 10 | i 0 34k | 0$_g$ | — | — | — | — | — |
| Lick | Z. | 3·2 | 310 | i 0 53 | + 1 | — | — | — | — | — |
| Santa Clara | E. | 3·4 | 307 | e 0 59 | − 2* | — | — | — | — | — |
| Berkeley | Z. | 3·9 | 311 | i 1 3$_a$ | + 1 | — | — | — | — | — |
| Reno | Z. | 4·3 | 347 | e 1 13k | − 3* | — | — | — | — | — |
| Mineral | Z. | 5·5 | 336 | i 1 30$_a$ | + 5 | — | — | — | — | — |
| Fayetteville | Z. | 19·8 | 80 | i 4 34 | − 1 | — | — | — | — | e 10·4 |

July 25d. 14h. 17m. 24s. Epicentre 59°·3S. 148°·8E.

A = −·4389, B = +·2658, C = −·8583; $\delta$ = −4; $h$ = −9;
D = +·518, E = +·855; G = +·734, H = −·445, K = −·513.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Christchurch | | 21·5 | 53 | i 4 54k | + 2 | i 8 56 | + 9 | 10 12 | Q | i 10·7 |
| Melbourne | | 21·6 | 352 | — | — | i 8 57 | + 8 | — | — | — |
| Kaimata | N.E. | 21·9 | 49 | e 5 11 | +14 | — | — | — | — | — |
| Cobb River | E. | 23·6 | 49 | e 5 10 | − 3 | — | — | e 7 18 | ? | — |
| Wellington | | 24·2 | 52 | i 5 18 | − 1 | i 9 43 | + 8 | 6 16 | PPP | e 12·4 |
| Riverview | | 25·5 | 5 | i 5 32$_a$ | 0 | i 10 6 | + 9 | i 5 43 | pP | e 12·2 |
| Karapiro | N. | 27·4 | 50 | 5 36? | −13 | — | — | — | — | — |
| Brisbane | | 31·9 | 7 | i 6 28k | − 1 | i 11 46 | + 6 | i 7 42 | PP | e 15·1 |
| Perth | | 35·1 | 307 | — | — | i 12 40 | +10 | i 14 40 | SS | — |
| Pretoria | Z. | 82·2 | 232 | e 12 25 | + 1 | — | — | — | — | — |
| Nanking | | 94·3 | 335 | e 13 23k | 0 | e 24 1 | [+ 4] | — | — | — |
| Santa Clara | | 120·9 | 68 | e 18 44 | [−10] | — | — | — | — | — |
| Fayetteville | Z. | 133·8 | 92 | i 19 19k | [ 0] | — | — | — | — | — |
| Tamanrasset | Z. | 135·3 | 233 | e 19 29 | [+ 7] | e 22 52 | PKS | e 22 22 | PP | — |
| Messina | E. | 143·7 | 257 | — | — | e 41 42 | SS | — | — | e 70·7 |
| Taranto | | 144·5 | 261 | e 32 36 | SKSP | — | — | — | — | — |
| Rome | | 148·0 | 258 | e 19 58 | [+14] | e 41 28 | SS | — | — | — |
| Kirkland Lake | Z. | 149·7 | 91 | e 19 51$_a$ | [+ 4] | — | — | — | — | — |
| Florence | | 150·0 | 259 | e 20 10 | PKP$_2$ | — | — | — | — | — |
| Ottawa | | 150·1 | 98 | e 19 52 | [+ 4] | e 22 24 | ? | e 25 16 | ? | — |
| Malaga | | 151·5 | 231 | i 19 56 | [+ 6] | — | — | — | — | 74·2 |
| Prague | | 152·6 | 272 | e 21 44 | ? | — | — | e 22 57 | PP | — |
| Oropa | | 152·9 | 259 | e 19 53 | [+ 1] | i 41 24 | SS | — | — | — |
| Collmberg | | 154·0 | 272 | e 19 57 | [+ 4] | — | — | e 20 20 | PKP$_2$ | — |
| Toledo | | 154·1 | 234 | e 21 13 | ? | — | — | — | — | — |
| Stuttgart | | 154·4 | 265 | e 20 14? | PKP$_2$ | e 21 25 | ? | e 25 8 | ? | e 78·6 |
| Jena | Z. | 154·5 | 271 | e 20 16? | PKP$_2$ | e 20 40 | ? | e 23 59 | PP | — |
| Clermont-Ferrand | | 155·5 | 253 | e 20 19 | PKP$_2$ | — | — | — | — | 83·6 |
| Kiruna | | 156·2 | 313 | e 20 14 | PKP$_2$ | e 43 36? | SS | e 20 29 | ? | e 71·6 |
| Witteveen | Z. | 158·1 | 272 | i 20 52 | PKP$_2$ | — | — | — | — | — |

July 25d. 19h. 9m. 45s. Epicentre 35°·4N. 118°·6W. (as at 13h.).

Intensity VII at Caliente, Creek Canyon, and Fairfax, with strong landslips on National Highway 178; VI at Arvin, Bealville, Los Angeles, and Tehachapi; V at Bakersfield, Burbank, Glendale, and Maywood. Epicentre 35°19′N. 118°30′W. (Pasadena).

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, pp.35, 36.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| White Wolf | Z. | 0·2 | 200 | i 0 2 | − 2$_g$ | — | — | — | — | — |
| Chuchupate | Z. | 0·7 | 209 | i 0 12 | − 2$_g$ | — | — | — | — | — |
| China Lake | E. | 0·9 | 63 | i 0 16 | − 2$_g$ | — | — | — | — | — |
| Haiwee | | 0·9 | 35 | i 0 16 | − 2$_g$ | — | — | — | — | — |
| Pasadena | | 1·3 | 164 | i 0 21k | − 4 | i 0 39 | − 3* | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Santa Barbara | Z. | 1·3 | 224 | i 0 25 a | 0 | — | — | — | — | — |
| Fresno | Z. | 1·7 | 325 | i 0 30 | − 1 | — | — | — | — | — |
| Tinemaha | | 1·7 | 10 | i 0 31 k | 0 | — | — | — | — | — |
| Boulder City | | 3·1 | 78 | i 0 48 | − 3 | — | — | — | — | — |
| Lick | Z. | 3·2 | 310 | i 0 49 k | − 3 | — | — | — | — | — |
| Santa Clara | | 3·4 | 307 | e 0 55 k | 0 | — | — | — | — | — |
| Berkeley | Z. | 3·9 | 311 | e 1 0 | − 2 | — | — | — | — | — |
| Reno | Z. | 4·3 | 347 | e 1 8 | 0 | — | — | — | — | — |
| Mineral | Z. | 5·5 | 336 | e 1 23 | − 2 | — | — | — | — | — |
| Shasta | Z. | 6·1 | 332 | e 1 32 | − 2 | — | — | — | — | — |
| Arcata | N. | 7·0 | 323 | e 1 48 | + 2 | — | — | — | — | — |
| Tucson | | 7·2 | 113 | i 1 44 | − 5 | — | — | — | — | — |
| Corvallis | Z. | 9·9 | 340 | e 2 32 | + 7 | — | — | — | — | — |
| Bozeman | | 11·8 | 27 | e 2 54 | + 1 | e 5 11 | + 5 | — | — | — |
| Seattle | | 12·6 | 348 | e 3 5 | + 2 | — | — | i 3 22 | PPP | — |
| Hungry Horse | | 13·4 | 13 | i 3 18 | + 4 | — | — | — | — | e 7·2 |
| Victoria | | 13·6 | 346 | 3 18 | + 1 | 6 15 | SSS | — | — | 7·8 |
| Saskatoon | | 18·8 | 23 | — | — | e 7 52 | + 2 | — | — | 10·0 |
| Fayetteville | Z. | 19·8 | 80 | i 4 33 a | − 2 | i 8 19 | + 6 | — | — | e 10·3 |
| Tacubaya | | 23·4 | 127 | e 5 17 | + 6 | e 9 44 | +23 | e 12 32 | PcS | e 11·9 |
| Puebla | | 24·2 | 126 | e 5 33 | +14 | — | — | — | — | e 13·2 |
| Chicago | | 25·0 | 64 | e 5 27 | 0 | e 9 53 | + 4 | — | — | — |
| Mobile | | 25·9 | 90 | 5 35 | 0 | — | — | — | — | — |
| Cleveland | | 29·5 | 66 | i 6 7 k | − 1 | e 10 59 | − 3 | — | — | — |
| Morgantown | | 30·8 | 69 | i 6 18 | − 2 | e 10 50? | −33 | — | — | — |
| Kirkland Lake | Z. | 31·1 | 53 | e 6 23 a | + 1 | — | — | — | — | — |
| Buffalo (Larkin) | | 31·7 | 63 | e 6 26 | − 1 | — | — | — | — | — |
| Pennsylvania | Z. | 32·3 | 67 | e 6 35 | + 2 | e 11 33 | −13 | — | — | e 17·5 |
| Ottawa | | 33·8 | 58 | i 6 45 | − 1 | 12 5 | − 5 | 9 25 | PcP | 17·9 |
| College | | 34·3 | 338 | e 6 50 | 0 | e 12 22 | + 5 | — | — | e 14·2 |
| Fordham | | 35·3 | 66 | e 6 58 | − 1 | — | — | — | — | — |
| City College, N.Y. | | 35·3 | 66 | e 6 59 | 0 | e 12 35 | + 2 | — | — | — |
| Palisades | | 35·3 | 66 | e 6 58 | − 1 | i 12 34 | + 1 | e 14 46 | SS | e 18·8 |
| Vermont | | 35·6 | 60 | — | — | e 12 38 | 0 | — | — | — |
| Shawinigan Falls | N. | 35·9 | 57 | e 7 7 | + 3 | 12 43 | + 1 | 9 32 | PcP | 17·8 |
| Harvard | | 36·9 | 63 | i 7 14 | + 2 | — | — | — | — | — |
| Weston | | 37·1 | 63 | e 7 15 | + 1 | e 13 7 | + 6 | — | — | — |
| Resolute Bay | | 41·0 | 7 | e 7 44 | − 2 | 12 19 | ? | — | — | 19·2 |
| Bermuda | | 44·4 | 77 | — | — | e 14 55 | + 6 | e 18 18 | SS | e 22·2 |
| San Juan | | 49·2 | 95 | i 8 52 | 0 | — | — | — | — | — |
| Bogota | | 51·2 | 116 | e 9 17 | +10 | e 16 23 | − 2 | — | — | e 24·2 |
| Scoresby Sund | | 59·3 | 23 | — | — | 18 15 | + 1 | — | — | 29·2 |
| Huancayo | | 62·4 | 131 | e 10 27 | 0 | — | — | — | — | e 32·3 |
| Kiruna | | 72·6 | 15 | i 11 13 | 0 | e 20 52 | − 4 | e 30 15 | Q | e 35·0 |
| Rathfarnham Castle | | 74·1 | 35 | i 11 39 | − 1 | — | — | — | — | e 37·2 |
| Upsala | | 78·5 | 21 | i 12 5 | + 1 | e 21 59 | − 2 | e 22 23 | ScS | e 36·2 |
| Witteveen | Z. | 80·1 | 29 | e 12 16 | + 3 | — | — | — | — | — |
| Copenhagen | | 80·2 | 26 | — | — | 22 21 | + 2 | — | — | 39·2 |
| Paris | | 81·2 | 35 | i 12 21 | + 2 | — | — | — | — | e 41·2 |
| Jena | | 83·5 | 29 | e 12 31 | 0 | — | — | e 12 48 | ? | — |
| Strasbourg | | 83·7 | 32 | e 12 39 | + 7 | — | — | — | — | e 34·2 |
| Collmberg | Z. | 83·8 | 28 | e 12 30 | − 2 | — | — | e 12 33 | P | — |
| Toledo | | 83·9 | 45 | i 12 36 | + 3 | — | — | e 14 2 | ? | — |
| Stuttgart | | 84·2 | 31 | e 12 34 | 0 | e 23 3 | + 4 | — | — | e 41·2 |
| Malaga | | 85·8 | 47 | i 12 46 | + 4 | e 23 27 | +12 | — | — | 53·3 |
| Triest | | 88·6 | 31 | e 25 2 | PPS | e 22 58 | [−26] | — | — | — |
| Messina | | 95·4 | 35 | — | — | e 31 21 | SS | — | — | e 43·4 |
| Ksara | | 107·1 | 23 | e 21 4 | PPP | — | — | — | — | — |
| Pretoria | Z. | 150·0 | 81 | i 19 55 | [+ 8] | — | — | — | — | — |
| Grahamstown | Z. | 151·3 | 97 | e 20 26 | $PKP_3$ | — | — | — | — | — |

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July 25d. 19h. 43m. 22s. Epicentre 35°·4N. 118°·6W. (as at 19h.9m.).

Intensity VII at Caliente, Creek Canyon, and Fairfax, with heavy landslips on National Highway 178; VI at Arvin, Bealville, Los Angeles, and Tehachapi; V at Bakersfield, Burbank, Glendale, and Maywood. Epicentre 35°16′N. 118°30′W. (Pasadena).

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, pp.35, 36.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| White Wolf | z. | 0·2 | 200 | i 0 4 | 0$_g$ | — | — | — | — | — |
| Chuchupate | z. | 0·7 | 209 | i 0 13 | − 1$_g$ | — | — | — | — | — |
| China Lake | e. | 0·9 | 63 | i 0 18 | 0$_g$ | — | — | — | — | — |
| Haiwee | | 0·9 | 35 | i 0 18 | 0$_g$ | — | — | — | — | — |
| Pasadena | | 1·3 | 164 | i 0 22k | − 3 | — | — | — | — | — |
| Santa Barbara | | 1·3 | 224 | i 0 26$_a$ | 0$_g$ | — | — | — | — | — |
| Fresno | z. | 1·7 | 325 | i 0 31$_a$ | 0 | — | — | — | — | — |
| Tinemaha | | 1·7 | 10 | i 0 32k | + 1 | — | — | — | — | — |
| Boulder City | | 3·1 | 78 | i 0 49 | − 2 | — | — | — | — | — |
| Lick | z. | 3·2 | 310 | i 0 52$_a$ | 0 | — | — | — | — | — |
| Santa Clara | | 3·4 | 307 | e 0 55k | 0 | — | — | — | — | — |
| Berkeley | | 3·9 | 311 | e 1 1$_a$ | − 1 | — | — | — | — | — |
| Reno | z. | 4·3 | 347 | e 1 10k | + 2 | — | — | — | — | — |
| Mineral | z. | 5·5 | 336 | e 1 23k | − 2 | — | — | — | — | — |
| Shasta | z. | 6·1 | 332 | e 1 33 | − 1 | — | — | — | — | — |
| Tucson | | 7·2 | 113 | e 1 43 | − 6 | — | — | — | — | — |
| Corvallis | z. | 9·9 | 340 | e 2 32 | + 7 | — | — | — | — | — |
| Bozeman | | 11·8 | 27 | e 2 56 | + 3 | e 5 17 | +11 | — | — | — |
| Seattle | | 12·6 | 348 | e 3 5 | + 2 | i 3 14 | PP | e 3 20 | PPP | — |
| Hungry Horse | | 13·4 | 13 | e 3 16 | + 2 | — | — | — | — | e 7·2 |
| Victoria | | 13·6 | 346 | 3 21 | + 4 | — | — | — | — | — |
| Lubbock | | 13·9 | 92 | e 4 38 | ? | — | — | — | — | — |
| Fayetteville | z. | 19·8 | 80 | i 4 34$_a$ | − 1 | e 8 18 | + 5 | — | — | e 10·3 |
| Tacubaya | | 23·4 | 127 | e 5 16 | + 5 | i 12 34 | PcS | e 5 46 | PP | i 12·9 |
| Puebla | | 24·2 | 126 | e 5 26 | + 7 | — | — | i 12 48 | PcS | i 13·1 |
| Chicago | | 25·0 | 64 | e 5 26 | − 1 | e 9 52 | + 3 | — | — | — |
| Mobile | | 25·9 | 90 | 5 37 | + 2 | — | — | — | — | — |
| Cleveland | z. | 29·5 | 66 | i 6 7k | − 1 | — | — | — | — | — |
| Morgantown | | 30·8 | 69 | i 6 19 | − 1 | e 11 25 | + 2 | — | — | — |
| Kirkland Lake | z. | 31·1 | 53 | i 6 23$_a$ | + 1 | — | — | — | — | — |
| Buffalo (Larkin) | | 31·7 | 63 | e 6 26 | − 1 | — | — | — | — | — |
| Pennsylvania | z. | 32·3 | 67 | e 6 27 | − 6 | — | — | e 7 48 | PP | — |
| Ottawa | | 33·8 | 58 | e 6 45 | − 1 | — | — | — | — | 17·6 |
| College | | 34·3 | 338 | i 6 50 | 0 | — | — | — | — | e 14·8 |
| Fordham | | 35·3 | 66 | e 6 58 | − 1 | — | — | — | — | — |
| Shawinigan Falls | n. | 35·9 | 57 | e 7 8 | + 4 | 17 38 | ScS | 9 44 | PcP | 18·1 |
| Harvard | | 36·9 | 63 | i 7 12 | 0 | — | — | — | — | — |
| Weston | | 37·1 | 63 | e 7 15 | + 1 | — | — | — | — | — |
| San Juan | | 49·2 | 95 | i 8 51 | − 1 | — | — | — | — | — |
| Scoresby Sund | | 59·3 | 23 | — | — | 18 26 | +12 | — | — | 28·6 |
| Huancayo | | 62·4 | 131 | e 9 29 | −58 | — | — | — | — | e 33·1 |
| Kiruna | | 72·6 | 15 | i 11 27 | − 4 | e 20 36 | −20 | i 11 34 | P | — |
| Rathfarnham Castle | | 74·1 | 35 | i 11 39 | − 1 | — | — | i 11 46 | P | e 39·6 |
| Upsala | z. | 78·5 | 21 | i 12 3k | − 1 | — | — | i 12 7 | P | — |
| Collmberg | z. | 83·8 | 28 | e 12 35 | + 3 | — | — | — | — | — |
| Toledo | | 83·9 | 45 | e 12 34 | + 1 | — | — | e 15 11 | PP | — |
| Stuttgart | | 84·2 | 31 | e 12 34 | 0 | — | — | — | — | — |
| Malaga | | 85·8 | 47 | i 12 43 | + 1 | — | — | — | — | 60·9 |
| Pretoria | z. | 150·0 | 81 | e 19 41? | [− 6] | — | — | — | — | — |

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July 26d. 13h. 29m. 51s. Epicentre 39°·9N. 69°·5E. (as suggested by U.S.S.R.).

A = +·2694, B = +·7206; C = +·6389; $\delta$ = +3; $h$ = −2;
D = +·937, E = −·350; G = +·224, H = +·598, K = −·769.

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Garm | 1·1 | 146 | i 0 22 | 0 | i 0 36 | $0_K$ | — | — |
| Obi-garm | 1·1 | 172 | i 0 23 | + 1 | e 0 39 | 0 | — | — |
| Tashkent | 1·4 | 353 | — | — | i 0 49 | + 3 | — | — |
| Dzhergetal | 1·5 | 117 | 0 29 | + 1 | 0 50 | $0_g$ | — | — |
| Stalinabad | 1·5 | 203 | i 0 28 | 0 | i 0 52 | + $2_g$ | — | — |
| Fergana | 1·8 | 75 | e 0 34 | 0* | e 1 1 | + $1_g$ | — | — |
| Samarkand | 1·9 | 263 | e 0 38 | $0_g$ | 1 3 | $0_K$ | — | — |
| Kulyab | 2·0 | 174 | i 0 36 | − 1* | i 1 8 | + $2_g$ | — | — |
| Namangan | 2·0 | 57 | e 0 38 | + 1* | i 1 8 | + $2_g$ | — | — |
| Andijan | 2·4 | 69 | e 0 46 | − $2_g$ | i 1 14 | − 1* | — | — |
| Tchimkent | 2·4 | 2 | e 0 46 | − $2_g$ | e 1 16 | + 1* | e 1 21 | $S_g$ |
| Khorog | 2·9 | 146 | e 0 53 | + 1* | e 1 33 | − 3* | — | — |

July 26d. 14h. 26m. 39s. Epicentre 18°·3N. 95°·4E. Depth of focus 0·005.

A = −·0894, B = +·9458, C = +·3121; $\delta$ = −6; $h$ = +5;
D = +·996, E = +·094; G = −·029, H = +·311, K = −·950.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Calcutta | N. | 7·8 | 303 | i 1 59 | + 6 | i 3 17 | − 4 | 3 28 | SS | — |
| Shillong | E. | 7·9 | 337 | i 1 54 | − 1 | i 3 17 | − 6 | 2 2 | PP | 3·1 |
| Hong Kong | | 18·1 | 72 | e 4 9 | + 1 | e 7 40 | +15 | — | — | — |
| New Delhi | | 19·6 | 305 | 4 24 | − 1 | i 7 50 | − 8 | 4 40 | PP | 8·6 |
| Poona | | 20·4 | 274 | i 4 37 | + 3 | e 8 14 | 0 | 5 1 | PP | 9·3 |
| Bombay | | 21·4 | 276 | — | — | i 8 29 | − 4 | i 9 18 | SS | — |
| Manila | | 24·8 | 93 | e 5 51 | PP | — | — | — | — | — |
| Nanking | | 25·1 | 50 | i 5 21a | + 1 | 9 40 | + 3 | — | — | — |
| Zo Se | Z. | 26·6 | 54 | e 5 37 | + 3 | — | — | — | — | — |
| Przhevalsk | | 28·1 | 333 | e 5 50 | + 2 | — | — | — | — | — |
| Khorog | | 28·3 | 317 | 5 49 | − 1 | e 10 30 | 0 | — | — | — |
| Naryn | | 28·4 | 328 | e 5 50 | 0 | — | — | — | — | — |
| Quetta | | 28·4 | 301 | e 5 56 | + 6 | — | — | — | — | — |
| Rybach'e | | 29·1 | 329 | e 5 57 | 0 | i 10 44 | + 2 | — | — | — |
| Almata II | | 29·1 | 332 | 5 59 | + 2 | — | — | — | — | — |
| Almata | | 29·4 | 332 | i 5 59 | 0 | i 10 48 | + 1 | — | — | — |
| Dzhergetal | | 29·6 | 320 | 6 2 | + 1 | 10 50 | 0 | — | — | — |
| Kulyab | | 29·7 | 316 | — | — | i 10 52 | 0 | — | — | — |
| Andijan | | 29·9 | 323 | i 6 5 | + 1 | 10 57 | + 2 | — | — | — |
| Fergana | | 30·0 | 323 | e 6 3 | − 2 | — | — | — | — | — |
| Frunse | | 30·2 | 328 | i 6 7 | + 1 | i 11 1 | + 1 | — | — | — |
| Obi-garm | | 30·2 | 318 | i 6 5 | − 1 | — | — | — | — | — |
| Namangan | | 30·4 | 323 | i 6 9 | + 1 | 11 3 | 0 | — | — | — |
| Stalinabad | | 30·7 | 317 | i 6 11 | 0 | — | — | — | — | — |
| Tashkent | | 32·0 | 321 | — | — | i 11 27 | −1 | — | — | — |
| Tchimkent | | 32·4 | 323 | i 6 26 | 0 | — | — | — | — | — |
| Samarkand | | 32·5 | 316 | i 6 29 | + 2 | — | — | — | — | — |
| Kyakhta | | 33·2 | 12 | 6 33 | 0 | e 11 47 | 0 | — | — | — |
| Semipalatinsk | | 34·3 | 343 | e 6 41 | − 1 | e 11 59 | − 5 | — | — | — |
| Irkutsk | | 34·6 | 10 | e 6 46 | + 1 | e 12 10 | + 2 | — | — | — |
| Kabansk | | 34·8 | 11 | e 6 48 | + 2 | e 12 14 | + 2 | — | — | — |
| Bairam-Ali | | 34·9 | 311 | i 7 45 | +58 | 13 11 | +58 | — | — | — |
| Vladivsotok | | 39·5 | 43 | e 7 24 | − 2 | e 13 24 | + 1 | — | — | — |
| Sverdlovsk | | 46·4 | 334 | i 8 24 | + 2 | i 15 4 | 0 | — | — | — |
| Goris | | 47·2 | 307 | e 8 27 | − 1 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kirovobad | | 47·5 | 309 | i 8 31 | + 1 | — | — | — | — | — |
| Yuzno-Sakhlinsk | | 48·0 | 42 | e 8 36 | + 2 | — | — | — | — | — |
| Uglegorsk | | 48·4 | 39 | e 8 39 | + 2 | — | — | — | — | — |
| Grozny | | 48·5 | 312 | 8 40 | + 2 | 15 36 | + 3 | — | — | — |
| Tiflis | | 48·8 | 310 | i 8 41 | 0 | e 15 41 | + 3 | — | — | — |
| Gori | | 49·4 | 310 | e 8 45 | 0 | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 49·8 | 309 | i 8 50 | + 2 | — | — | — | — | — |
| Borzhomi | | 49·9 | 309 | 8 51 | + 2 | — | — | — | — | — |
| Abastumanj | | 50·3 | 309 | 8 53 | + 1 | — | — | — | — | — |
| Piatigorsk | | 50·6 | 312 | 8 54 | 0 | i 16 4 | + 1 | — | — | — |
| Sotchi | | 52·9 | 311 | i 9 7 | − 5 | i 16 30 | − 4 | — | — | — |
| Theodosia | | 56·2 | 313 | i 9 34 | − 2 | e 17 18 | 0 | — | — | — |
| Yalta | | 57·0 | 312 | i 9 41 | 0 | e 17 29 | 0 | — | — | — |
| Simferopol | | 57·0 | 313 | i 9 38 | − 3 | e 17 28 | − 1 | — | — | — |
| Moscow | | 57·0 | 325 | i 9 41 | 0 | i 17 26 | − 3 | — | — | — |
| Istanbul | | 60·5 | 308 | i 10 5 | − 1 | e 10 48 | PcP | e 10 19 | pP | — |
| Uzhgorod | | 65·4 | 316 | i 10 34 | − 4 | e 19 14 | − 2 | — | — | — |
| Kiruna | | 67·5 | 336 | i 10 51k | 0 | i 19 41 | 0 | i 11 12 | pP | e 32·4 |
| Raciborzu | z. | 68·0 | 318 | 10 56 | + 2 | i 17 43 | ? | e 11 15 | pP | — |
| Upsala | z. | 68·2 | 328 | i 10 55k | − 1 | i 11 33 | ? | i 11 16 | pP | — |
| Prague | | 70·4 | 318 | i 11 9 | 0 | e 11 43 | sP | i 11 32 | pP | — |
| Copenhagen | | 71·1 | 324 | — | — | i 20 25 | + 2 | — | — | — |
| Messina | z. | 71·1 | 305 | i 11 13k | 0 | — | — | — | — | — |
| Potsdam | | 71·1 | 320 | e 11 33 | pP | i 20 22 | − 1 | — | — | — |
| Collmberg | z. | 71·2 | 318 | e 11 14 | 0 | e 13 52 | PP | e 11 35 | pP | — |
| Triest | | 71·4 | 313 | e 11 13 | − 2 | 20 21? | − 6 | e 20 55 | sS | — |
| Brisbane | z. | 72·0 | 127 | i 11 20a | + 1 | i 11 45 | sP | i 11 38 | pP | — |
| Jena | | 72·2 | 319 | e 11 20 | 0 | e 20 35 | − 1 | e 11 42 | pP | — |
| Florence | z. | 73·4 | 311 | i 11 25 | − 2 | — | — | i 11 55 | sP | — |
| Stuttgart | | 74·0 | 317 | i 11 31k | + 1 | e 20 56 | 0 | i 11 51 | pP | — |
| Pavia | | 74·6 | 312 | e 11 34 | 0 | e 20 50 | −13 | e 21 28 | sS | — |
| Zürich | | 74·7 | 315 | e 11 32k | − 2 | e 21 12 | + 8 | e 11 53 | pP | — |
| Witteveen | z. | 74·9 | 322 | e 11 36 | 0 | — | — | — | — | — |
| Paris | | 78·3 | 318 | i 11 55 | 0 | i 12 33 | sP | i 12 17 | pP | — |
| Pretoria | z. | 78·6 | 238 | i 11 56 | 0 | — | — | — | — | — |
| Pietermaritzburg | z. | 78·7 | 233 | i 11 57 | 0 | — | — | — | — | — |
| Algiers Univ. | z. | 81·1 | 305 | e 12 10 | 0 | e 13 2 | ? | i 12 32 | pP | — |
| Kimberley | z. | 82·7 | 236 | i 12 17 | − 1 | — | — | — | — | — |
| Tamanrasset | z. | 83·0 | 292 | i 12 21a | + 1 | e 15 33 | PP | i 12 36 | pP | — |
| Grahamstown | z. | 83·3 | 232 | i 12 22 | + 1 | — | — | — | — | — |
| Fayetteville | z. | 125·2 | 10 | i 18 56 | [+ 3] | e 20 49 | PP | e 19 16 | pPKP | — |

July 27d. 0h. 46m. 29s. Epicentre 1°·0S. 91°·8W.

A = −·0314, B = −·9993, C = −·0173; δ = −11; h = +7;
D = −1·000, E = +·031; G = +·001, H = +·018, K = −1·000.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Chinchina | | 17·2 | 70 | e 4 3 | 0 | i 7 17 | + 3 | e 7 38 | SS | — |
| Bogota | | 18·6 | 71 | i 4 23 | + 2 | i 8 1 | +15 | — | — | — |
| Huancayo | | 19·7 | 124 | e 4 37 | + 3 | e 8 23 | +13 | — | — | e 9·2 |
| Tacubaya | | 21·5 | 341 | e 4 52 | 0 | i 8 45 | − 2 | e 5 26 | PPP | — |
| La Paz | N. | 28·0 | 123 | i 6 14 | +19 | — | — | — | — | — |
| Fayetteville | z. | 37·0 | 357 | i 7 10a | − 3 | — | — | — | — | — |
| Tucson | | 37·7 | 333 | i 7 17 | − 2 | — | — | i 7 26 | P | — |
| Palomar | z. | 41·5 | 328 | i 7 50 | 0 | — | — | i 7 58 | P | — |
| Boulder City | | 42·6 | 332 | i 7 58 | − 1 | — | — | — | — | — |
| Pasadena | z. | 42·8 | 328 | e 7 59 | − 2 | — | — | i 8 13 | ? | — |
| Tinemaha | z. | 45·1 | 330 | i 8 19 | − 1 | — | — | — | — | — |
| Lick | z. | 47·1 | 327 | e 8 34a | − 1 | — | — | — | — | — |
| Reno | z. | 47·8 | 331 | e 8 40a | − 1 | — | — | — | — | — |
| Mineral | z. | 49·3 | 330 | e 8 48 | − 5 | — | — | — | — | — |
| Tamanrasset | z. | 97·1 | 67 | e 13 35 | 0 | — | — | — | — | — |

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July 27d. 2h. 11m. 5s. Epicentre 15°·5S. 173°·0W. (as on 1951, April 10d.).

A = −·9569, B = −·1175, C = −·2656; δ = +1; h = +6;
D = −·122, E = +·993; G = +·264, H = +·032, K = −·964.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 2·1 | 35 | i 0 31 | − 6 | e 0 49 | −15 | — | — | — |
| Brisbane | | 33·7 | 244 | i 6 44k | − 1 | — | — | i 7 32 | PP | e 14·4 |
| Riverview | | 37·1 | 234 | i 7 13a | − 1 | e 13 7 | + 6 | — | — | — |
| Santa Clara | E. | 71·2 | 41 | — | — | e 21 25 | PPS | — | — | — |
| Lick | Z. | 71·4 | 41 | e 11 23a | − 1 | — | — | — | — | — |
| Pasadena | Z. | 71·8 | 46 | e 11 31 | + 5 | i 11 42 | ? | i 11 51 | PcP | — |
| Fresno | Z. | 72·2 | 43 | e 11 32a | + 3 | — | — | — | — | — |
| Palomar | Z. | 72·3 | 47 | e 11 30 | + 1 | — | — | — | — | — |
| Mineral | Z. | 73·2 | 39 | e 11 32 | − 3 | — | — | — | — | — |
| Tinemaha | Z. | 73·4 | 43 | e 11 42 | + 6 | — | — | i 11 49 | ? | — |
| Reno | Z. | 73·8 | 40 | e 11 43 | + 5 | — | — | — | — | — |
| Boulder City | | 75·1 | 45 | e 11 46 | 0 | — | — | — | — | — |
| Tucson | | 76·1 | 51 | e 11 53 | + 2 | — | — | — | — | — |
| Butte | | 81·9 | 38 | i 12 24 | + 1 | — | — | — | — | — |
| Hungry Horse | | 82·3 | 35 | e 12 25 | 0 | — | — | e 12 50 | ? | — |
| College | | 82·4 | 11 | i 12 25 | 0 | e 22 40 | − 1 | — | — | e 29·3 |
| Fayetteville | Z. | 90·2 | 53 | i 13 4 | 0 | — | — | e 16 33 | PP | — |
| La Paz | | 99·3 | 110 | e 13 44 | − 1 | — | — | — | — | 47·4 |
| Kiruna | N. | 127·0 | 354 | — | — | e 22 23 | PKS | e 38 8 | SS | e 63·9 |
| Copenhagen | | 139·7 | 356 | — | — | 23 13 | PKS | — | — | 78·9 |
| De Bilt | | 143·5 | 3 | e 19 29 | [− 8] | — | — | — | — | e 78·9 |
| Collmberg | Z. | 144·0 | 354 | e 18 55? | [−42] | — | — | — | — | — |
| Jena | | 144·5 | 354 | e 19 39 | [+ 1] | e 21 7 | ? | e 22 52 | PP | — |
| Prague | | 145·0 | 352 | e 19 41 | [+ 2] | e 22 23 | ? | e 21 26 | ? | — |
| Paris | | 146·6 | 6 | e 19 45 | [+ 3] | i 20 13 | ? | e 19 52 | $PKP_2$ | e 78·9 |
| Stuttgart | | 146·8 | 358 | e 19 44 | [+ 2] | e 28 25 | ? | e 20 34 | ? | e 82·9 |
| Strasbourg | | 147·0 | 359 | e 19 47a | [+ 4] | e 20 11 | ? | e 20 41 | ? | e 73·9 |
| Istanbul | Z. | 148·1 | 328 | e 19 50 | [+ 6] | — | — | — | — | — |
| Ksara | | 148·2 | 310 | 19 50 | [+ 5] | — | — | 23 26? | PP | — |
| Zürich | | 148·2 | 359 | e 19 49 | [+ 4] | — | — | — | — | — |
| Chur | | 148·7 | 358 | e 19 51 | [+ 6] | — | — | — | — | |
| Triest | Z. | 149·4 | 351 | i 19 52a | [+ 6] | e 20 5 | $PKP_2$ | e 20 40 | ? | — |
| Clermont-Ferrand | | 149·7 | 6 | e 19 53 | [+ 6] | — | — | — | — | — |
| Pavia | | 150·4 | 357 | e 19 55 | [+ 7] | — | — | e 21 3 | ? | — |
| Florence | | 151·6 | 354 | e 19 52 | [+ 2] | e 23 27 | PP | e 24 1 | ? | — |
| Rome | | 153·3 | 353 | e 20 8 | $PKP_2$ | e 33 6 | PSKS | e 23 46 | PP | — |
| Helwan | Z. | 153·5 | 307 | e 20 9 | $PKP_2$ | e 21 10 | ? | e 23 49 | PP | — |
| Toledo | | 153·9 | 21 | e 20 2 | [+ 9] | — | — | e 24 44 | ? | — |
| Messina | E. | 156·2 | 343 | e 20 19 | $PKP_2$ | — | — | e 24 8 | PP | — |
| Granada | | 156·4 | 23 | 20 25a | $PKP_2$ | 44 10 | SS | 21 42 | pPKP | i 78·0 |
| Malaga | | 156·5 | 23 | i 20 3 | [+ 7] | 27 33 | [+32] | i 20 35 | $PKP_2$ | 79·4 |
| Almeria | | 157·1 | 20 | 20 32 | $PKP_2$ | 31 30 | {+32} | 24 40 | PP | 79·8 |
| Tamanrasset | Z. | 172·6 | 7 | e 20 11 | [ 0] | e 29 43 | PPP | e 21 40 | $PKP_2$ | — |

July 27d. 7h. 23m. 49s. Epicentre 36°·5N. 71°·0E. Depth of focus 0·030.
(as on 1952, June 2d.).

A = +·2623, B = +·7619, C = +·5922; δ = −1; h = 0;
D = +·946, E = −·326; G = +·193, H = +·560, K = −·806.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 1·1 | 26 | e 0 33 | 0 | i 0 56 | − 3 |
| Kulyab | 1·7 | 325 | i 0 38 | 0 | i 1 4 | − 3 |
| Obi-garm | 2·4 | 335 | i 0 44 | − 1 | i 1 17 | − 2 |
| Garm | 2·6 | 348 | i 0 45 | − 2 | i 1 18 | − 5 |
| Dzhergetal | 2·7 | 4 | i 0 49 | + 1 | i 1 25 | 0 |
| Stalinabad | 2·7 | 319 | i 0 46 | − 2 | i 1 19 | − 6 |
| Murgab | 3·0 | 51 | e 0 54 | + 3 | — | — |
| Fergana | 3·9 | 9 | i 1 3 | + 1 | e 1 49 | − 1 |
| Andijan | 4·4 | 15 | e 1 8 | 0 | 1 59 | − 2 |
| Namangan | 4·5 | 7 | i 1 10 | + 1 | i 2 1 | − 2 |
| Samarkand | 4·5 | 317 | — | — | 1 57 | − 6 |
| Tchimkent | 5·9 | 349 | i 1 27 | 0 | i 2 30 | − 5 |

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July 27d. 8h. 23m. 22s. Epicentre 20°·2S. 178°·2W. Depth of focus 0·060.
(as on 1950, March 10d.).

$A = -·9387$, $B = -·0295$, $C = -·3433$; $\delta = -12$; $h = +5$;
$D = -·031$, $E = +1·000$; $G = +·343$, $H = +·011$, $K = -·939$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 8·8 | 45 | i 2 11 | + 6 | i 3 47 | + 3 | — | — | — |
| Auckland | N. | 17·7 | 200 | 3 39 | − 2 | i 6 31 | − 9 | e 11 3 | PcS | — |
| Karapiro | N. | 18·5 | 196 | 3 48 | − 1 | e 6 44 | −11 | 14 23 | ScS | — |
| Tuai | N. | 19·0 | 192 | e 3 48 | − 6 | e 6 46 | −18 | e 14 25 | ScS | — |
| New Plymouth | E. | 20·0 | 198 | 3 59 | − 5 | e 7 10 | −11 | e 14 28 | ScS | — |
| Wellington | | 21·9 | 195 | 4 16 | − 6 | 7 36 | −17 | i 14 36 | ScS | — |
| Cobb River | E. | 22·2 | 200 | e 4 21 | − 4 | e 7 40 | −18 | e 14 21 | ScS | — |
| Kaimata | N.E. | 23·9 | 200 | e 4 36 | − 4 | e 8 7 | −19 | e 14 37 | ScS | — |
| Christchurch | | 24·5 | 197 | e 4 42 | − 4 | 8 20 | −15 | i 14 44 | ScS | — |
| Brisbane | | 27·3 | 250 | i 5 10 | − 1 | i 9 15 | − 5 | i 6 27 | pP | — |
| Riverview | | 30·4 | 237 | i 5 38k | 0 | i 10 0 | − 8 | i 7 2 | pP | — |
| Melbourne | E. | 36·3 | 233 | — | — | i 11 8 | −30 | i 14 28 | SS | — |
| Honolulu | | 45·8 | 27 | i 7 45 | + 1 | i 13 55 | − 1 | — | — | — |
| Perth | | 59·6 | 244 | — | — | i 16 53 | − 8 | i 21 48 | SS | — |
| Manila | | 69·1 | 295 | i 10 26 | + 2 | i 19 3 | + 7 | e 10 58 | pP | — |
| Mizusawa | | 70·2 | 327 | 10 34 | + 3 | 19 9 | + 1 | — | — | — |
| Mitchell Field | | 71·8 | 2 | i 10 41 | 0 | e 19 32 | + 6 | — | — | — |
| Bandong | N. | 72·8 | 270 | i 10 46 | 0 | 19 38 | 0 | — | — | — |
| Djakarta | | 73·8 | 270 | i 10 48k | − 4 | i 19 44 | − 5 | — | — | — |
| Yuzno-Sakhlinsk | | 75·6 | 333 | i 11 5 | + 3 | 20 10 | + 2 | — | — | — |
| Petropavlovsk | | 75·7 | 345 | i 11 3 | 0 | i 20 6 | − 3 | — | — | — |
| Zô Sè | Z. | 77·4 | 310 | i 11 13k | + 1 | e 20 31 | + 4 | 13 1 | pP | — |
| Uglegorsk | | 77·5 | 335 | i 11 15 | + 2 | 20 30 | + 2 | — | — | — |
| Vladivostok | | 77·9 | 325 | i 10 41? | −34 | i 20 1? | −32 | — | — | — |
| Santa Clara | | 78·0 | 43 | i 11 15k | 0 | i 20 32 | − 2 | — | — | — |
| Berkeley | | 78·1 | 43 | i 11 16a | 0 | i 20 34 | − 1 | i 13 2 | pP | — |
| Lick | Z. | 78·2 | 43 | i 11 16a | 0 | e 20 32 | − 4 | e 13 56 | sP | — |
| Klyuchi | | 78·3 | 348 | i 11 17 | 0 | 20 31 | − 6 | — | — | — |
| Pasadena | | 78·6 | 48 | i 11 18a | 0 | i 20 39 | − 1 | i 14 0 | sP | — |
| Arcata | | 78·8 | 39 | e 11 21 | + 1 | e 20 42 | 0 | — | — | — |
| Fresno | | 79·0 | 45 | e 11 20a | − 1 | e 20 44 | 0 | e 13 3 | pP | — |
| Palomar | | 79·1 | 49 | i 11 20a | − 1 | i 20 45 | 0 | i 13 14 | pP | — |
| Riverside | | 79·3 | 48 | i 11 22 | 0 | i 20 43 | − 4 | i 13 15 | pP | — |
| Nanking | | 79·6 | 310 | i 11 25k | + 1 | i 20 52 | + 2 | i 13 16 | pP | — |
| Shasta | Z. | 79·7 | 40 | i 11 24a | 0 | e 20 40 | −11 | — | — | — |
| China Lake | | 79·9 | 46 | i 11 25a | 0 | i 20 54 | + 1 | — | — | — |
| Mineral | | 80·0 | 40 | e 11 23a | − 3 | e 20 50 | − 4 | i 13 15 | pP | — |
| Tinemaha | | 80·2 | 45 | i 11 27 | 0 | i 20 56 | 0 | i 13 24 | pP | — |
| Reno | | 80·6 | 42 | e 11 29a | 0 | e 21 1 | + 1 | e 14 42 | PP | — |
| Corvallis | Z. | 81·6 | 36 | i 11 35 | + 1 | i 21 8 | − 3 | — | — | — |
| Boulder City | | 81·9 | 47 | i 11 35 | − 1 | — | — | — | — | — |
| Tucson | | 82·9 | 52 | i 11 41 | 0 | i 21 18 | − 6 | i 13 32 | pP | e 34·3 |
| Victoria | | 84·0 | 33 | 11 45 | − 1 | 21 24 | −10 | — | — | — |
| Seattle | | 84·1 | 35 | i 11 48a | + 1 | i 21 32 | − 3 | i 13 43 | pP | — |
| Sitka | | 85·3 | 22 | i 11 52 | − 1 | e 21 43 | − 4 | — | — | — |
| Tacubaya | | 86·8 | 68 | e 12 1k | + 1 | e 21 58 | − 3 | i 21 40 | SKS | — |
| Puebla | | 87·5 | 68 | e 12 2 | − 1 | e 22 2 | − 5 | e 21 42 | SKS | — |
| College | | 88·0 | 12 | i 12 3 | − 3 | i 22 5 | − 7 | i 13 56 | pP | e 32·2 |
| Hungry Horse | | 89·0 | 37 | i 12 8 | − 2 | e 22 21 | 0 | e 21 49 | SKS | — |
| Lubbock | | 90·2 | 54 | e 12 14 | − 2 | — | — | e 14 15 | ? | — |
| Santa Lucia | N. | 92·7 | 127 | — | — | e 22 17 | [− 3] | — | — | — |
| Saskatoon | | 95·0 | 36 | e 13 11 | ? | e 29 38 | SS | — | — | — |
| Kyakhta | | 96·4 | 321 | e 16 44 | PP | 22 28 | [−12] | e 18 53 | PPP | — |
| Fayetteville | Z. | 97·0 | 54 | i 12 44a | − 3 | i 18 55 | PPP | i 14 39 | pP | — |
| Kabansk | | 97·0 | 323 | 12 46 | − 1 | 22 33 | [−10] | e 16 49 | PP | — |
| Huancayo | | 97·7 | 106 | e 12 51 | + 1 | i 22 44 | [− 3] | e 14 52 | pP | e 40·3 |
| Irkutsk | | 98·4 | 323 | e 12 52 | − 1 | 22 42 | [− 8] | e 25 8 | SP | — |
| Mobile | | 100·1 | 61 | 13 1 | 0 | — | — | e 15 25 | sP | — |
| Milton | | 101·0 | 61 | e 15 58 | sP | — | — | e 21 52 | ? | — |
| La Paz | | 102·3 | 113 | 13 9 | − 2 | i 24 16 | + 2 | i 23 0 | SKS | 48·8 |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Colombo | E. | 103·5 | 272 | e 17 40 | PP | e 26 48 | PS | — | — | — |
| Chinchina | | 103·5 | 89 | i 17 36 | PP | i 23 3 | [−11] | e 25 55 | SP | 44·5 |
| Chicago | | 103·6 | 50 | e 13 15 | − 1 | — | — | e 17 38 | PP | — |
| Bogota | Z. | 104·8 | 90 | e 13 20 | P | — | — | e 17 44 | PP | — |
| Miami | | 105·4 | 67 | i 17 52 | PP | i 23 16 | [− 7] | — | — | — |
| Galerazamba | | 105·7 | 84 | e 19 57 | PPP | i 23 21 | [− 3] | — | — | — |
| Columbia | | 106·8 | 59 | i 17 59 | PP | i 23 19 | [−10] | — | — | — |
| Kodaikanal | E. | 106·8 | 275 | — | — | i 23 22 | [− 7] | — | — | — |
| Resolute Bay | | 107·6 | 15 | e 17 47 | PP | 24 56 | S | 32 43 | SS | 41·6 |
| Cleveland | | 108·0 | 52 | e 17 2k | ? | i 23 24 | [−10] | i 26 55 | sSKS | — |
| Hyderabad | | 108·0 | 282 | e 17 21 | ? | i 24 22 | SKKS | e 36 48 | ? | — |
| Guantanamo Bay | | 108·5 | 75 | i 18 4 | PP | — | — | — | — | — |
| Morgantown | | 108·9 | 54 | e 13 43 | P | — | — | e 18 14 | PP | — |
| Kirkland Lake | Z. | 110·1 | 45 | e 18 0 | PP | — | — | i 19 25 | pPP | — |
| Buffalo (Larkin) | | 110·3 | 50 | e 16 54 | ? | e 23 33 | [−11] | — | — | — |
| Pennsylvania | | 110·6 | 52 | e 18 26 | PP | e 23 36 | [− 9] | e 27 18 | SP | — |
| Washington | | 110·9 | 55 | e 16 40 | ? | — | — | — | — | — |
| New Delhi | N. | 111·8 | 294 | e 19 48 | pPP | i 23 39 | [−11] | i 28 11 | PS | — |
| Poona | E. | 112·5 | 282 | — | — | i 23 45 | [− 7] | e 28 21 | PS | — |
| Semipalatinsk | | 112·6 | 317 | e 17 44 | [− 4] | i 23 42 | [−11] | — | — | — |
| Ottawa | | 112·8 | 48 | e 18 42 | PP | 23 44 | [−10] | e 33 16 | SS | — |
| Przhevalsk | | 113·1 | 308 | 17 27? | [−22] | — | — | — | — | — |
| Kurmenty | | 113·2 | 309 | i 17 48 | [− 1] | — | — | — | — | — |
| Bombay | | 113·6 | 282 | e 18 17 | [+27] | i 23 51 | [− 6] | e 18 55 | PP | — |
| Fordham | | 113·6 | 53 | e 18 43 | PP | e 23 47 | [−10] | — | — | — |
| Palisades | | 113·6 | 53 | e 13 54 | P | i 23 49 | [− 8] | e 15 47 | pP | e 54·8 |
| Almata II | | 113·9 | 310 | i 17 49 | [− 2] | — | — | i 18 59 | PP | — |
| Almata | | 114·2 | 310 | i 18 57 | PP | i 25 3 | SKKS | — | — | — |
| Vermont | | 114·4 | 50 | e 18 55 | PP | i 23 54 | [− 6] | — | — | — |
| Shawinigan Falls | N. | 114·9 | 47 | e 17 47 | [− 5] | 26 6 | S | 18 56 | PP | — |
| Harvard | | 115·5 | 51 | e 18 58 | PP | i 27 58 | SP | — | — | — |
| Weston | | 115·6 | 51 | e 17 51 | [− 2] | e 23 56 | [− 8] | 34 26 | SS | — |
| Frunse | | 115·9 | 309 | i 17 54 | [ 0] | 23 50 | [−16] | e 19 4 | PP | — |
| San Juan | | 116·3 | 79 | i 19 4 | PP | i 23 58 | [− 9] | — | — | — |
| Naryn | | 116·7 | 307 | i 17 52 | [− 3] | i 23 53 | [−15] | 19 1 | PP | — |
| Rybach'e | | 116·8 | 308 | e 17 50 | [− 6] | i 23 53 | [−16] | i 19 0 | PP | — |
| Andijan | | 117·4 | 306 | i 17 57 | [ 0] | i 24 4 | [− 7] | i 19 20 | PP | — |
| Fergana | | 117·8 | 306 | e 17 58 | [ 0] | i 24 4 | [− 8] | i 19 22 | PP | — |
| Khorog | | 117·8 | 303 | i 19 18 | PP | i 25 26 | SKKS | 21 49 | PPP | — |
| Namangan | | 118·0 | 306 | e 17 59 | [+ 1] | i 24 7 | [− 6] | i 19 24 | PP | — |
| Dzhergetal | | 118·2 | 305 | 17 59 | [+ 1] | — | — | 19 26 | PP | — |
| Kulyab | | 119·2 | 303 | — | — | i 24 13 | [− 4] | — | — | — |
| Obi-garm | | 119·4 | 304 | e 18 2 | [+ 1] | — | — | — | — | — |
| Tchimkent | | 119·6 | 308 | e 19 15 | PP | — | — | — | — | — |
| Bermuda | | 120·0 | 63 | e 17 59 | [− 3] | i 24 11 | [− 9] | i 19 32 | PP | — |
| Fort de France | | 120·0 | 85 | e 19 32 | PP | e 23 59 | [−21] | — | — | — |
| Stalinabad | | 120·1 | 304 | i 18 3 | [+ 1] | — | — | e 22 17 | PPP | — |
| Quetta | | 120·8 | 294 | e 18 5 | [+ 1] | i 24 18 | [− 4] | e 28 27 | PKKP | — |
| Halifax | | 121·3 | 49 | e 19 41 | PP | 24 16 | [− 8] | 35 42 | SS | — |
| Samarkand | | 121·5 | 305 | i 18 7 | [+ 2] | 24 17 | [− 7] | 19 46 | PP | — |
| Grahamstown | Z. | 121·8 | 205 | i 18 4 | [− 2] | — | — | — | — | — |
| Sverdlovsk | | 123·6 | 326 | i 18 8 | [− 1] | 24 25 | [− 6] | i 36 2 | SS | — |
| Kimberley | Z. | 126·5 | 206 | i 18 12 | [− 3] | — | — | — | — | — |
| Pretoria | Z. | 127·6 | 211 | i 18 15 | [− 2] | — | — | — | — | — |
| Scoresby Sund | | 127·8 | 10 | e 20 23 | PP | i 21 39 | PKS | i 36 58 | SS | — |
| Kizyl-Arvat | | 129·8 | 305 | i 18 22 | [+ 1] | i 21 47 | PKS | — | — | — |
| Kiruna | | 130·9 | 351 | i 18 22 | [− 1] | e 25 6 | [+15] | i 21 47 | PKS | — |
| Reykjavik | Z. | 133·3 | 14 | i 18 27 | [− 1] | — | — | i 21 10 | PP | — |
| Baku | | 134·5 | 308 | e 18 33 | [+ 3] | — | — | e 21 13 | PP | — |
| Shemakla | | 135·4 | 308 | i 18 32 | [ 0] | — | — | i 21 16 | PP | — |
| Moscow | | 135·5 | 332 | 18 31 | [− 1] | 24 54 | [− 7] | i 22 4 | PKS | — |
| Pulkovo | | 135·5 | 340 | e 18 31 | [− 1] | i 22 3 | PKS | — | — | — |
| Makhach-Kala | | 135·6 | 312 | i 18 31 | [− 1] | — | — | i 21 14 | PP | — |
| Grozny | | 136·7 | 312 | i 18 36? | [+ 2] | — | — | i 21 21 | PP | — |
| Helsinki | | 136·8 | 344 | i 21 22 | PP | e 27 25 | SKKS | e 21 46 | SKP | — |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | L. |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | m. |
| Kirovobad | | 137·0 | 309 | e 18 18? | [−16] | — | — | 21 21? PP | — |
| Goris | | 137·3 | 307 | i 18 26 | [− 9] | — | — | i 21 22 PP | — |
| Tiflis | | 137·9 | 311 | e 18 26 | [−10] | i 27 26 SKKS | | i 21 24 PP | — |
| Gori | | 138·3 | 311 | e 18 43 | [+ 6] | — | — | e 21 26 PP | — |
| Leninakan | | 138·8 | 310 | 18 41 | [+ 3] | — | — | 21 41 PP | — |
| Upsala | | 138·8 | 348 | i 18 30k | [− 8] | e 24 54 | [−12] | i 22 15 PKS | e 52·6 |
| Borzhomi | | 138·9 | 311 | e 18 35 | [− 3] | i 27 43 | SKKS | i 21 29 PP | — |
| Tsikhlis-Dzhvari | | 138·9 | 311 | e 18 35 | [− 3] | — | — | — — | — |
| Zugdidi | | 139·7 | 313 | 18 37 | [− 2] | — | — | i 21 29 PP | — |
| Bergen | N. | 139·8 | 357 | e 21 2 | sPKP | — | — | — — | — |
| Sotchi | | 140·7 | 316 | i 18 28? | [−13] | e 24 45? | [−24] | 27 44? SKKS | — |
| Theodosia | | 142·8 | 320 | i 18 41 | [− 5] | e 24 51 | [−22] | e 20 37 pPKP | — |
| Aberdeen | | 143·0 | 4 | i 18 41 | [− 5] | e 26 26 | [+73] | i 39 29 SS | — |
| Simferopol | | 143·6 | 321 | i 18 45 | [− 2] | 25 21 | PPP | 20 41 pPKP | — |
| Copenhagen | | 143·7 | 350 | i 18 44 | [− 3] | — | — | i 21 38 ? | — |
| Yalta | | 143·9 | 319 | i 18 45 | [− 2] | i 28 9 | SKKS | i 20 41 pPKP | — |
| Kishinev | | 145·4 | 328 | i 18 51 | [+ 1] | i 25 21 | [+ 4] | 20 49 pPKP | — |
| Lwow | | 145·5 | 335 | i 18 52 | [+ 2] | e 28 19 | SKKS | i 20 51 pPKP | — |
| Cernauti | | 145·9 | 331 | i 18 54 | [+ 3] | — | — | — — | — |
| Rathfarnham Castle | | 146·4 | 8 | e 18 49 | [− 2] | e 27 49 | SKKS | e 20 45 pPKP | — |
| Potsdam | | 146·7 | 348 | i 18 50 | [− 2] | i 28 26 | SKKS | i 20 54 pPKP | — |
| Uzhgorod | | 147·2 | 336 | i 18 52 | [ 0] | e 25 10 | [− 9] | e 20 57 pPKP | — |
| Witteveen | z. | 147·2 | 355 | e 18 52 | [ 0] | i 22 35 | PP | i 20 56 pPKP | — |
| Raciborzu | | 147·5 | 341 | e 18 48 | [− 5] | e 25 18 | [− 1] | e 40 41 SS | — |
| Skalnate Pleso | | 147·5 | 338 | e 18 56 | [+ 3] | e 22 32 | PP | e 20 55 pPKP | — |
| Collmberg | | 147·7 | 347 | e 18 53 | [ 0] | e 26 11 | [+51] | e 22 52 PP | e 52·9 |
| De Bilt | | 148·0 | 356 | i 18 53k | [− 1] | e 40 38? | SS | i 20 57 pPKP | — |
| Jena | | 148·4 | 347 | e 18 54 | [ 0] | e 41 0 | SS | e 20 56 pPKP | — |
| Bucharest | | 148·5 | 326 | e 19 1 | [+ 7] | e 30 50 | ? | i 21 23 sPKP | 41·6 |
| Prague | | 148·6 | 345 | e 18 52k | [− 3] | e 25 8 | [−13] | e 21 0 pPKP | — |
| Kew | | 148·7 | 3 | i 18 53 | [− 2] | i 41 3 | SS | i 20 58 pPKP | e 50·6 |
| Istanbul | | 148·9 | 318 | i 18 44 | [−11] | e 25 6 | [−15] | e 21 0 pPKP | — |
| Cheb | | 149·0 | 347 | e 19 0 | [+ 5] | e 22 28 | PKS | e 21 8 pPKP | — |
| Budapest | | 149·4 | 336 | 18 57 | [+ 1] | 25 11 | [−11] | e 22 38? PP | — |
| Ogyalla | | 149·4 | 339 | e 18 58 | [+ 2] | e 28 19 | SKKS | e 21 7 pPKP | — |
| Vienna | | 149·6 | 341 | e 18 55 | [− 1] | e 26 5 | [+43] | e 21 19 pPKP | — |
| Timisoara | | 149·9 | 334 | i 19 6k | [+ 9] | e 28 38? | SKKS | e 24 38? ? | — |
| Szeged | | 150·0 | 335 | 19 5 | [+ 8] | 22 55 | PKS | 20 27 pPKP | — |
| Kalossa | | 150·2 | 336 | e 19 1 | [+ 4] | e 25 2 | [−21] | e 22 1 SKP | — |
| Karlsruhe | | 150·8 | 352 | e 18 58 | [ 0] | e 22 45 | PP | e 19 1 PKP | — |
| Stuttgart | | 150·9 | 350 | e 18 56 | [− 2] | e 28 46 | SKKS | e 41 32 SS | e 57·6 |
| Belgrade | | 151·0 | 332 | e 18 58 | [ 0] | e 28 32 | SKKS | e 22 44 PP | — |
| Sofia | | 151·2 | 326 | e 19 0 | [+ 2] | e 28 49 | SKKS | i 19 18 $PKP_2$ | — |
| Strasbourg | | 151·3 | 352 | i 18 58k | [− 1] | e 25 42 | [+18] | e 21 7 pPKP | — |
| Paris | | 151·4 | 0 | i 18 59 | [ 0] | i 28 54 | SKKS | i 21 8 pPKP | — |
| Helwan | | 151·6 | 296 | i 18 58k | [− 1] | 33 11 | PSKS | 20 45 pPKP | — |
| Basle | | 152·3 | 351 | e 18 59k | [− 1] | e 28 57 | SKKS | e 19 20 $PKP_2$ | — |
| Zürich | | 152·3 | 350 | e 19 2k | [+ 2] | e 22 51 | PP | e 21 4 pPKP | — |
| Chur | | 152·7 | 349 | e 19 0k | [ 0] | e 19 9 | ? | e 19 23 $PKP_2$ | — |
| Triest | | 152·8 | 343 | i 18 58a | [− 3] | i 28 57 | SKKS | e 21 7 pPKP | — |
| Neuchatel | | 152·9 | 352 | e 19 2 | [+ 1] | — | — | — — | — |
| Salo | | 153·7 | 347 | e 19 26 | $PKP_2$ | e 34 54 | ? | e 22 48 PP | — |
| Oropa | | 154·2 | 352 | e 19 48 | ? | i 25 49 | [+21] | e 22 53 PP | — |
| Pavia | | 154·3 | 349 | i 19 3k | [ 0] | e 29 6 | SKKS | e 42 10 SS | — |
| Clermont-Ferrand | | 154·5 | 357 | e 19 2 | [− 1] | e 26 7 | [+39] | e 42 3 SS | — |
| Florence | | 155·2 | 344 | i 19 1 | [− 3] | i 29 11 | SKKS | i 42 18 SS | — |
| Prato | | 155·2 | 344 | e 19 4 | [ 0] | 29 10 | SKKS | — — | — |
| Taranto | | 155·9 | 332 | 22 18 | PKS | e 28 43 | SKKS | 41 43 SS | 45·8 |
| Rome | | 156·5 | 341 | i 19 3k | [− 3] | 25 57 | [+27] | 29 15 SKKS | — |
| Rocca di Papa | z. | 156·6 | 341 | e 19 6 | [ 0] | — | — | e 19 40 $PKP_2$ | — |
| Messina | E. | 158·5 | 330 | — | — | i 38 45 | ? | i 42 50 SS | — |
| Tortosa | | 159·4 | 3 | i 18 55 | [−14] | — | — | i 23 43 PP | — |
| Toledo | | 159·8 | 13 | e 19 9 | [− 1] | e 42 55 | SS | 19 54 $PKP_2$ | — |
| Alicante | | 161·8 | 6 | 19 14 | [+ 2] | 26 18 | [+43] | 20 6 $PKP_2$ | 66·3 |
| Granada | | 162·5 | 15 | i 19 2a | [−10] | 25 39 | [+ 3] | 20 6 $PKP_2$ | — |
| Malaga | | 162·6 | 17 | i 19 10 | [− 2] | 26 14 | [+38] | i 20 4 $PKP_2$ | 67·3 |
| Almeria | | 163·0 | 12 | i 19 11 | [− 2] | 26 17 | [+41] | 20 4 $PKP_2$ | 71·5 |
| Algiers Univ. | z. | 163·4 | 354 | i 19 14 | [+ 1] | e 30 16 | SKKS | i 21 15 pPKP | — |
| Tamanrasset | z. | 175·7 | 307 | i 19 21a | [ 0] | e 24 58 | PP | i 21 5 pPKP | — |

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July 27d. 23h. 19m. 36s. Epicentre 24°·3S. 67°·4W. Depth of focus 0·010.
(as on 1951, Feb. 22d.).

$A = +·3506$, $B = -·8421$, $C = -·4097$; $\delta = -9$; $h = +4$;
$D = -·923$, $E = -·384$; $G = -·157$, $H = +·378$, $K = -·912$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | L. |
|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. |
| Antofagasta | E. | 2·8 | 284 | i 0 44 | 0 | (i 1 14) | − 3 | i 1·2 |
| Copiapo | N. | 4·0 | 221 | i 0 59 | − 1 | i 1 45 | − 1 | — |
| La Paz | | 7·8 | 355 | e 2 31 | ? | i 3 16 | − 4 | — |
| Huancayo | | 14·4 | 327 | e 3 24 | + 4 | — | — | — |
| Fayetteville | Z. | 65·2 | 336 | i 10 29k | − 4 | — | — | — |
| Ottawa | | 69·8 | 354 | i 10 59a | − 3 | — | — | — |
| Palomar | Z. | 74·2 | 319 | i 11 25 | − 3 | — | — | — |
| Riverside | Z. | 75·0 | 319 | i 11 30k | − 2 | — | — | — |
| Pasadena | Z. | 75·6 | 319 | i 11 33 | − 3 | — | — | — |
| Tinemaha | Z. | 77·6 | 321 | i 11 47k | 0 | — | — | — |
| Lick | Z. | 79·8 | 319 | e 11 57k | − 2 | — | — | — |
| Reno | Z. | 80·2 | 322 | e 12 0a | − 1 | — | — | — |
| Shasta | Z. | 82·4 | 321 | 12 10k | − 3 | — | — | — |
| Tamanrasset | Z. | 84·9 | 62 | e 12 27 | + 2 | — | — | — |

July 28d. 3h. 46m. 51s. Epicentre 36°·2N. 139°·9E. Focus at Base of Superficial Layers.
(as on 1952, Feb. 20d.).

Intensity IV at Tukubasan, Makabe, Manabe, Kasama, Horigome, Moka, Shiobara, Kanuma, and Imaichi; II-III at Utunomiya.
Epicentre 36°·2N. 140°·1E. Depth 55km. Macroseismic radius 100-200km.
Seismo. Bull. of the Cent. Met. Obs., Japan, for July, 1952, Tokyo, 1952, p.275, with macroseismic chart.

$A = -·6187$, $B = +·5210$, $C = +·5880$; $\delta = -3$; $h = 0$;
$D = +·644$, $E = +·765$; $G = -·450$, $H = +·379$, $K = -·809$.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Tukubasan | | 0·2 | 84 | i 0 6 | − 1 | 0 11 | − 2 |
| Utunomiya | | 0·3 | 356 | i 0 8k | 0 | 0 16 | + 1 |
| Kumagaya | | 0·4 | 263 | 0 10 | + 1 | 0 19 | + 3 |
| Kashiwa | | 0·4 | 171 | e 0 8 | − 1 | 0 16 | 0 |
| Mito | | 0·5 | 68 | 0 9a | − 1 | 0 16 | − 2 |
| Tokyo | | 0·5 | 192 | e 0 10 | 0 | 0 19 | + 1 |
| Maebasi | | 0·7 | 287 | i 0 13k | 0 | 0 25 | + 2 |
| Shirakawa | | 0·9 | 15 | e 0 16 | 0 | 0 28 | 0 |
| Onahama | | 1·1 | 48 | e 0 16 | − 3 | 0 32 | − 1 |
| Oiwake | | 1·1 | 277 | e 0 20 | + 1 | — | — |
| Kohu | | 1·2 | 242 | e 0 23 | + 3 | — | — |
| Misima | E. | 1·3 | 215 | e 0 20 | − 2 | 0 43 | + 5 |
| Mera | | 1·3 | 182 | 0 27 | + 5 | — | — |
| Ajiro | | 1·3 | 210 | e 0 23 | + 1 | 0 39 | + 1 |
| Nagano | E. | 1·4 | 289 | e 0 24 | + 1 | — | — |
| Inawasiro | | 1·4 | 7 | e 0 18 | − 5 | 0 39 | − 2 |
| Osima | | 1·5 | 196 | e 0 23 | − 1 | 0 39 | − 5 |
| Hukusima | | 1·6 | 16 | e 0 26 | 0 | 0 46 | 0 |
| Matumoto | E. | 1·6 | 271 | 0 47 | S | (0 47) | + 1 |
| Sendai | | 2·2 | 21 | e 0 47 | +12 | 1 12 | +11 |
| Nagoya | | 2·6 | 247 | e 0 42 | + 1 | 1 18 | + 7 |
| Gihu | | 2·7 | 253 | 0 44 | + 2 | 1 21 | + 7 |
| Morioka | | 3·6 | 16 | e 0 55 | 0 | 1 35 | − 2 |

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July 28d. 15h. 3m. 47s. Epicentre 37°·6N. 71°·6E. Depth of focus 0·015. (as on 18d.).

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | | 0·1 | 180 | i 0 17 | − 1 | 0 29 | − 2 |
| Kulyab | | 1·5 | 282 | e 0 30 | + 1 | i 0 53 | + 3 |
| Dzhergetal | | 1·6 | 349 | i 0 32 | + 2 | i 0 56 | + 4 |
| Garm | | 1·7 | 324 | i 0 32 | + 1 | i 0 57 | + 3 |
| Obi-garm | | 1·9 | 306 | i 0 34 | + 1 | i 1 0 | + 2 |
| Murgab | | 2·0 | 67 | i 0 34 | 0 | i 0 59 | − 1 |
| Stalinabad | | 2·4 | 293 | — | — | i 1 12 | + 2 |
| Fergana | | 2·8 | 3 | e 0 44 | − 1 | e 1 19 | 0 |
| Andijan | | 3·2 | 11 | e 0 50 | 0 | 1 29 | + 1 |
| Namangan | | 3·4 | 0 | e 0 54 | + 1 | i 1 34 | + 1 |
| Samarkand | | 4·1 | 302 | — | — | 2 1 | +11 |
| Tchimkent | | 4·9 | 343 | — | — | e 2 10 | + 1 |

July 28d. 17h. 31m. 22s. Epicentre 7°·6N. 82°·4W. (as on 1952 April 21d.).

A = +·1311, B = −·9826, C = +·1314 ; δ = −4 ; h = +7 ;
D = −·991, E = −·132 ; G = +·017, H = −·130, K = −·991.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Balboa Heights | | 3·0 | 64 | i 0 49 | − 1 | i 1 27 | 0 |
| Bogota | | 8·8 | 109 | e 2 20 | + 9 | e 4 6 | +13 |
| San Juan | | 19·1 | 54 | e 4 27 | 0 | — | — |
| Huancayo | | 20·7 | 160 | e 3 40 | −64 | — | — |
| La Paz | N. | 27·8 | 148 | 5 48 | − 5 | — | — |
| Fayetteville | Z. | 30·3 | 341 | i 6 13 | − 2 | — | — |
| Tucson | | 36·0 | 317 | e 7 7 | + 2 | — | — |
| Palomar | Z. | 40·9 | 314 | i 7 46 | 0 | — | — |
| Boulder City | | 40·9 | 319 | i 7 48 | + 2 | — | — |
| Tinemaha | Z. | 43·8 | 318 | i 8 10 | + 1 | — | — |
| Reno | Z. | 46·2 | 320 | e 8 30 | + 2 | — | — |
| Hungry Horse | | 48·6 | 333 | i 8 47 | 0 | — | — |
| Tamanrasset | Z. | 85·2 | 68 | e 12 36 | − 3 | — | — |
| Kiruna | | 87·8 | 23 | i 21 38k | ? | — | — |

July 28d. 18h. 30m. 4s. Epicentre 39°·5N. 71°·1E. (as on 1952, April 10d.).

A = +·2506, B = +·7320, C = +·6335 ; δ = −5 ; h = −1 ;
D = +·946, E = −·324 ; G = +·205, H = +·599, K = −·774.

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Dzhergetal | 0·3 | 162 | i 0 4 | − $2_g$ | i 0 7 | − $3_g$ |
| Garm | 0·8 | 231 | e 0 12 | − $4_g$ | i 0 20 | − $6_g$ |
| Fergana | 1·0 | 31 | — | — | e 0 42 | + 6 |
| Obi-garm | 1·4 | 234 | e 0 26 | − 1 | i 0 42 | − 4 |
| Andijan | 1·6 | 38 | i 0 33 | + $1_g$ | i 0 59 | + $6_g$ |
| Namangan | 1·6 | 16 | e 0 34 | + $2_g$ | i 1 0 | + $7_g$ |
| Kulyab | 1·9 | 213 | e 0 35 | 0* | i 1 0 | 0* |
| Stalinabad | 2·0 | 243 | e 0 35 | 0 | i 1 2 | 0 |
| Khorog | 2·1 | 169 | e 0 37 | 0 | 1 6 | 0* |
| Samarkand | 3·2 | 273 | — | — | 1 31 | − 1 |

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July 29d. 7h. 3m. 46s. Epicentre 35°·4N. 118°·6W. (as on 25d.).

Intensity VII at Bakersfield, where serious damage was caused by fires, with 2 people killed; at Edison, with landslips near Bear Mountain, Bena, and Fresno, with rock falls near Piedra: Intensity VI at Cuyama, V at Adelanto, El Portal, Fresno, Glendale, Hanford, Los Alamos, Los Angeles, and Maywood.
Epicentre 35°23′N. 118°51′W. (Pasadena).

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 36.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Chuchupate | z. | 0·7 | 209 | i 0 11 | − 3g | — | — | — | — | — |
| China Lake | | 0·9 | 63 | i 0 20 | 0 | — | — | — | — | — |
| Haiwee | | 0·9 | 35 | i 0 20 | 0 | — | — | — | — | — |
| Santa Barbara | | 1·3 | 224 | i 0 22a | − 3 | — | — | — | — | — |
| Pasadena | | 1·3 | 164 | i 0 24a | − 1 | i 0 43 | 0g | — | — | — |
| Fresno | z. | 1·7 | 325 | i 0 27k | − 4 | — | — | — | — | — |
| Tinemaha | | 1·7 | 10 | i 0 32a | + 1 | — | — | — | — | — |
| Lick | z. | 3·2 | 310 | i 0 47k | − 5 | — | — | — | — | — |
| Santa Clara | | 3·4 | 307 | i 0 50a | − 5 | — | — | — | — | — |
| Berkeley | | 3·9 | 311 | i 0 56 | − 6 | — | — | — | — | — |
| Reno | z. | 4·3 | 347 | e 1 7k | − 1 | — | — | — | — | — |
| Mineral | E. | 5·5 | 336 | e 1 24 | − 1 | — | — | — | — | — |
| Shasta | z. | 6·1 | 332 | e 1 30k | − 4 | — | — | — | — | — |
| Arcata | N. | 7·0 | 323 | e 1 42 | − 4 | — | — | — | — | — |
| Corvallis | z. | 9·9 | 340 | e 2 31 | + 6 | — | — | — | — | — |
| Bozeman | | 11·8 | 27 | e 2 56 | + 3 | e 5 20 | SS | — | — | — |
| Seattle | | 12·6 | 348 | e 3 7 | + 4 | i 5 24 | − 2 | i 3 17 | PP | i 6·9 |
| Hungry Horse | | 13·4 | 13 | e 3 17 | + 3 | — | — | — | — | i 7·1 |
| Victoria | | 13·6 | 346 | 3 18 | + 1 | 6 25 | SSS | — | — | — |
| Lubbock | | 13·9 | 92 | 3 26 | + 5 | 6 29 | SSS | — | — | — |
| Saskatoon | | 18·8 | 23 | 4 21 | − 2 | 7 56 | + 6 | — | — | — |
| Fayetteville | z. | 19·8 | 80 | i 4 36 | + 1 | e 8 34 | SS | — | — | e 10·4 |
| Guadalajara | | 19·8 | 133 | e 4 32 | − 3 | e 8 6 | − 7 | e 8 24 | SS | — |
| St. Louis | | 22·9 | 72 | i 5 11 | + 5 | i 9 22 | + 9 | — | — | — |
| Tacubaya | | 23·4 | 127 | e 5 21 | +10 | e 9 44 | +23 | e 12 29 | PcS | e 12·2 |
| Puebla | | 24·2 | 126 | e 5 26 | + 7 | e 9 55 | +20 | e 9 58 | ? | e 12·0 |
| Chicago | | 25·0 | 64 | e 5 28 | + 1 | e 9 52 | + 3 | — | — | — |
| Vera Cruz | | 25·6 | 122 | e 5 51 | +19 | e 10 47 | SS | — | — | e 14·8 |
| Mobile | | 25·9 | 90 | 5 42 | + 7 | 10 18 | +14 | — | — | — |
| Cincinnati | | 27·3 | 70 | i 5 50 | + 2 | — | — | — | — | — |
| Cleveland | | 29·5 | 66 | i 6 10a | + 2 | e 11 11 | + 9 | — | — | — |
| Pittsburgh | | 30·7 | 67 | i 6 19 | 0 | i 11 32 | +11 | i 13 45 | Q | i 16·3 |
| Morgantown | | 30·8 | 69 | i 6 22 | + 2 | e 11 28 | + 5 | — | — | — |
| Kirkland Lake | z. | 31·1 | 53 | i 6 23k | + 1 | — | — | — | — | — |
| Buffalo (Larkin) | | 31·7 | 63 | i 6 28 | + 1 | — | — | — | — | — |
| Pennsylvania | | 32·3 | 67 | i 6 35 | + 2 | e 11 44 | − 2 | e 17 6 | ScS | e 17·6 |
| Washington | | 33·1 | 70 | i 6 42 | + 2 | — | — | — | — | — |
| Ottawa | | 33·8 | 58 | i 6 46k | 0 | 12 17 | + 7 | 8 1 | PP | 17·7 |
| College | | 34·3 | 338 | 6 49 | − 1 | — | — | — | — | — |
| Palisades | | 35·3 | 66 | i 7 2 | + 3 | i 12 38 | + 5 | i 8 19 | PP | e 18·6 |
| Fordham | | 35·3 | 66 | e 7 0 | + 1 | e 12 40 | + 7 | — | — | — |
| City College, N.Y. | | 35·3 | 66 | e 6 59 | 0 | e 12 36 | + 3 | — | — | — |
| Vermont | | 35·6 | 60 | e 7 18 | +17 | e 12 44 | + 6 | — | — | — |
| Shawinigan Falls | N. | 35·9 | 57 | e 7 2 | − 2 | 11 24 | −78 | 8 58 | PPP | 17·6 |
| Harvard | | 36·9 | 63 | i 7 14 | + 2 | — | — | — | — | — |
| Weston | | 37·1 | 63 | i 7 16k | + 2 | e 13 4 | + 3 | — | — | — |
| Resolute Bay | | 41·0 | 7 | e 7 46 | 0 | 13 55 | − 4 | 17 2 | SS | 20·1 |
| Halifax | | 42·4 | 59 | — | — | e 17 34 | SS | — | — | 19·7 |
| Bermuda | | 44·4 | 77 | i 9 15 | +61 | e 19 9 | SSS | i 11 1 | ? | e 22·0 |
| Ciudad Trujillo | | 46·1 | 97 | — | — | 19 4 | SSS | — | — | — |
| San Juan | | 49·2 | 95 | i 7 53 | −59 | e 15 59 | + 1 | — | — | — |
| Bogota | | 51·2 | 116 | e 9 10 | + 3 | i 16 32 | + 7 | e 10 56 | PP | — |
| Fort de France | | 55·2 | 96 | e 9 32 | − 5 | e 17 32 | +12 | — | — | e 27·0 |
| Scoresby Sund | | 59·3 | 23 | — | — | e 18 12 | − 2 | — | — | 28·2 |
| Huancayo | | 62·4 | 131 | e 10 28 | + 1 | e 23 19 | SS | — | — | e 31·6 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| La Paz | | 70·3 | 128 | e 11 30 | +13 | 20 24 | − 5 | 13 38 | PP | — |
| Kiruna | | 72·6 | 15 | e 12 42 | ? | e 21 1 | + 5 | e 15 58 | PPP | e 33·6 |
| Aberdeen | | 73·5 | 30 | — | — | e 21 12 | + 6 | e 26 4 | SS | 35·1 |
| Rathfarnham Castle | | 74·1 | 35 | — | — | e 20 26 | −46 | e 29 29 | SSS | e 37·7 |
| Durham | E. | 75·3 | 32 | 11 43 | − 4 | — | — | — | — | — |
| Kew | | 78·1 | 34 | e 22 42 | PS | e 22 1 | + 5 | e 27 17 | SS | e 36·2 |
| Upsala | | 78·5 | 21 | i 12 6 | + 2 | e 22 1 | 0 | e 26 57 | SS | e 36·2 |
| De Bilt | | 80·0 | 31 | — | — | e 22 26 | + 9 | — | — | e 40·2 |
| Copenhagen | | 80·2 | 26 | e 12 14 | 0 | 22 20 | + 1 | 23 2 | PS | 39·2 |
| Paris | | 81·2 | 35 | — | — | e 22 16 | −13 | e 31 54 | SSS | e 39·2 |
| Potsdam | | 83·0 | 28 | e 12 33 | PcP | e 23 32 | PS | — | — | e 41·2 |
| Jena | | 83·5 | 29 | e 12 25 | − 6 | e 12 31 | PcP | e 15 46 | PP | — |
| Clermont-Ferrand | | 83·6 | 37 | e 12 34 | + 3 | — | — | — | — | 43·2 |
| Strasbourg | | 83·7 | 32 | e 12 40 | PcP | e 23 2 | + 8 | e 23 54 | PS | e 39·2 |
| Collmberg | Z. | 83·8 | 28 | e 12 32 | 0 | — | — | e 12 55 | ? | — |
| Toledo | | 83·9 | 45 | e 12 34 | + 1 | e 15 27 | ? | e 15 57 | PP | — |
| Stuttgart | | 84·2 | 31 | e 12 34 | 0 | e 23 3 | + 4 | e 15 44 | PP | e 42·2 |
| Zürich | | 85·0 | 33 | e 12 37 | − 1 | e 23 10 | + 3 | — | — | — |
| Prague | | 85·3 | 28 | e 12 42 | + 2 | e 22 42 | [−21] | e 24 32 | PPS | e 40·7 |
| Tortosa | | 85·8 | 42 | — | — | i 21 18 | ? | — | — | e 43·2 |
| Malaga | | 85·8 | 47 | i 12 46 | + 4 | i 24 18 | +63 | 19 16 | ? | 42·6 |
| Granada | | 85·9 | 47 | i 12 48k | + 5 | 23 15 | − 1 | — | — | i 41·6 |
| Almeria | | 86·8 | 46 | 12 47 | 0 | 23 14 | [+ 1] | — | — | 41·2 |
| Alicante | | 86·9 | 44 | 13 2 | +14 | e 23 48 | +22 | — | — | 39·4 |
| Pavia | | 86·9 | 34 | — | — | e 23 27 | + 1 | e 37 30 | SKKS | 45·8 |
| Ogyalla | | 88·6 | 27 | e 14 32 | ? | e 22 23 | [−61] | e 24 50 | PS | e 47·7 |
| Triest | | 88·6 | 31 | e 24 48 | PS | e 23 43 | + 1 | i 27 37 | ? | — |
| Algiers Univ. | Z. | 90·1 | 43 | e 13 2 | − 1 | — | — | — | — | 46·2 |
| Rome | | 91·0 | 34 | — | — | e 24 5 | + 2 | e 36 47 | ? | e 51·2 |
| Messina | | 95·4 | 35 | e 26 4 | PS | e 24 1 | [− 2] | e 35 10 | SSS | — |
| Tamanrasset | Z. | 101·6 | 52 | 16 41 | ? | — | — | e 18 5 | PP | 55·2 |
| Ksara | | 107·1 | 23 | e 18 53? | PP | e 29 11? | PPS | — | — | — |
| Kimberley | Z. | 148·4 | 90 | i 19 53 | $PKP_2$ | — | — | — | — | — |
| Pretoria | Z. | 150·0 | 81 | e 19 55? | $PKP_2$ | — | — | — | — | — |
| Grahamstown | Z. | 151·3 | 97 | i 19 58 | $PKP_2$ | — | — | — | — | — |

July 29d. 8h. 1m. 45s. Epicentre 35°·4N. 118°·6W. (as at 7h.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Chuchupate | Z. | 0·7 | 209 | i 0 12 | − $2_e$ | — | — | — | — | — |
| China Lake | | 0·9 | 63 | i 0 21 | + 1 | — | — | — | — | — |
| Haiwee | | 0·9 | 35 | i 0 20 | 0 | — | — | — | — | — |
| Santa Barbara | | 1·3 | 224 | i 0 $23_a$ | − 2 | — | — | — | — | — |
| Pasadena | | 1·3 | 164 | i 0 25k | 0 | i 0 43 | $0_g$ | — | — | — |
| Fresno | Z. | 1·7 | 325 | i 0 29k | − 2 | — | — | — | — | — |
| Tinemaha | | 1·7 | 10 | i 0 $32_a$ | + 1 | — | — | — | — | — |
| Boulder City | | 3·1 | 78 | i 0 53 | + 2 | — | — | — | — | — |
| Lick | Z. | 3·2 | 310 | i 0 48k | − 4 | — | — | — | — | — |
| Berkeley | Z. | 3·9 | 311 | i 0 58k | − 4 | — | — | — | — | — |
| Reno | Z. | 4·3 | 347 | e 1 $8_a$ | 0 | — | — | — | — | — |
| Mineral | N. | 5·5 | 336 | e 1 24 | − 1 | — | — | — | — | — |
| Shasta | Z. | 6·1 | 332 | e 1 30 | − 4 | — | — | — | — | — |
| Tucson | | 7·2 | 113 | i 1 47 | − 2 | — | — | — | — | — |
| Butte | | 11·6 | 22 | e 2 55 | + 5 | — | — | — | — | — |
| Hungry Horse | | 13·4 | 13 | e 3 19 | + 5 | — | — | — | — | e 7·2 |
| Lubbock | | 13·9 | 92 | 3 29 | + 8 | 7 22 | L | — | — | (7·4) |
| Fayetteville | Z. | 19·8 | 80 | i 4 $37_a$ | + 2 | — | — | — | — | e 10·5 |
| Tacubaya | | 23·4 | 127 | e 5 27 | +16 | — | — | — | — | — |
| Morgantown | | 30·8 | 69 | i 6 23 | + 3 | — | — | — | — | — |
| College | | 34·3 | 338 | e 6 51 | + 1 | — | — | — | — | — |
| Huancayo | | 62·4 | 131 | e 10 3 | −24 | — | — | — | — | — |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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July 29d. 15h. 49m. 51s. Epicentre 35°·4N. 118°·6W. (as at 8h.).

| | | Δ | Az. | P. | O−C. | L. |
|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. |
| Fresno | z. | 1·7 | 325 | e 0 30k | − 1 | — |
| Boulder City | | 3·1 | 78 | i 0 50 | − 1 | — |
| Lick | z. | 3·2 | 310 | i 0 51a | − 1 | — |
| Santa Clara | | 3·4 | 307 | e 0 57 | + 2 | — |
| Berkeley | z. | 3·9 | 311 | i 1 1a | − 1 | — |
| Reno | z. | 4·3 | 347 | e 1 10k | + 2 | — |
| Shasta | z. | 6·1 | 332 | e 1 34 | 0 | — |
| Tucson | | 7·2 | 113 | e 1 50 | + 1 | — |
| Hungry Horse | | 13·4 | 13 | e 3 17 | + 3 | e 7·2 |
| Fayetteville | z. | 19·8 | 80 | i 4 33 | − 2 | e 10·4 |
| College | | 34·3 | 338 | e 6 50 | 0 | — |

July 29d. 19h. 54m. 28s. Epicentre 53°·0N. 174°·9W.

Felt at Mitchell Field. Epicentre 53°·5N. 175°·0W. (U.S.C.G.S.).

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p.47.

$A = -·6020$, $B = -·0537$, $C = +·7967$; $\delta = +2$; $h = -6$.
$D = -·089$, $E = +·996$; $G = -·794$, $H = -·071$, $K = -·604$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Mitchell Field | | 1·4 | 224 | i 0 19 | − 8 | — | — | — | — | — |
| College | | 18·2 | 37 | e 4 31 | +15 | i 8 5 | SS | — | — | e 9·8 |
| Victoria | | 32·3 | 76 | 6 33 | 0 | — | — | — | — | — |
| Seattle | | 33·4 | 77 | 6 50 | + 8 | — | — | — | — | — |
| Shasta | z. | 37·1 | 87 | 7 12 | − 2 | — | — | — | — | — |
| Mineral | z. | 37·8 | 87 | e 7 18 | − 2 | — | — | — | — | — |
| Hungry Horse | | 37·8 | 71 | i 7 21 | + 1 | e 13 14 | + 3 | i 9 33 | PcP | e 17·4 |
| Lick | z. | 39·7 | 90 | e 7 48 | +12 | — | — | — | — | — |
| Fresno | z. | 41·2 | 89 | e 8 17 | +29 | — | — | — | — | — |
| Tinemaha | z. | 42·0 | 88 | e 7 54 | 0 | — | — | i 8 2 | P | — |
| Mount Wilson | z. | 44·0 | 92 | e 8 18 | + 7 | — | — | — | — | — |
| Riverside | z. | 44·5 | 92 | e 8 18 | + 3 | — | — | — | — | — |
| Palomar | z. | 45·3 | 92 | i 8 24 | + 3 | — | — | — | — | — |
| Tucson | | 49·7 | 88 | i 8 53 | − 3 | — | — | — | — | — |
| Scoresby Sund | | 55·3 | 11 | e 9 39 | + 1 | 17 14 | − 7 | — | — | 30·5 |
| Fayetteville | z. | 56·9 | 72 | i 9 46a | − 3 | — | — | i 10 41 | PcP | — |
| Kiruna | | 59·0 | 353 | i 10 4 | 0 | e 18 15 | +5 | e 12 8 | PP | e 29·5 |
| Cleveland | z. | 60·1 | 60 | i 10 11a | 0 | — | — | — | — | — |
| Ottawa | | 60·2 | 53 | i 10 11k | − 1 | — | — | — | — | — |
| Buffalo (Larkin) | | 60·4 | 57 | i 10 15 | + 2 | — | — | — | — | — |
| Shawinigan Falls | N. | 60·7 | 50 | e 10 14 | − 1 | — | — | — | — | — |
| Morgantown | | 62·2 | 60 | i 10 27 | + 1 | — | — | — | — | — |
| Harvard | | 64·3 | 52 | e 10 35 | − 4 | — | — | — | — | e 35·1 |
| City College, N.Y. | | 64·4 | 55 | e 10 39 | − 1 | e 19 20 | + 2 | — | — | — |
| Weston | | 64·5 | 52 | i 10 40k | − 1 | — | — | — | — | — |
| Upsala | z. | 67·0 | 353 | i 10 58 | + 1 | i 11 14 | PcP | i 11 37 | ? | — |
| Copenhagen | | 71·5 | 356 | i 11 27 | + 3 | — | — | — | — | 35·5 |
| Bermuda | | 75·6 | 55 | i 11 48 | 0 | e 21 30 | + 1 | — | — | e 42·3 |
| Collmberg | z. | 75·9 | 355 | e 11 50 | 0 | — | — | — | — | — |
| Jena | z. | 76·3 | 355 | e 11 54 | + 2 | e 12 18 | ? | e 15 0 | PP | — |
| Stuttgart | | 78·5 | 357 | e 12 6 | + 2 | — | — | — | — | e 41·5 |
| Istanbul | | 84·0 | 342 | — | — | e 26 2 | ? | — | — | 45·5 |
| Rome | | 85·3 | 354 | — | — | e 24 23 | PS | — | — | — |
| San Juan | | 86·3 | 64 | i 12 44 | − 1 | — | — | — | — | — |
| Messina | | 88·7 | 352 | — | — | e 23 38 | − 5 | e 39 6 | Q | e 52·9 |
| Ksara | | 89·5 | 335 | — | — | e 24 41? | PS | — | — | — |
| Fort de France | | 92·0 | 63 | e 15 9 | ? | — | — | — | — | — |
| Tamanrasset | z. | 104·5 | 0 | i 19 49k | ? | i 20 5 | ? | i 20 30 | PPP | — |
| Huancayo | | 105·3 | 90 | e 17 20 | ? | — | — | — | — | — |
| La Paz | | 113·1 | 87 | i 16 28 | ? | — | — | — | — | — |
| Pretoria | z. | 147·7 | 320 | i 19 45 | [+ 1] | — | — | — | — | — |
| Pietermaritzburg | z. | 150·2 | 313 | i 20 0 | $PKP_2$ | — | — | — | — | — |
| Kimberley | z. | 151·8 | 322 | i 19 54 | [+ 4] | — | — | — | — | — |
| Grahamstown | z. | 155·0 | 316 | i 19 52 | [− 2] | — | — | — | — | — |

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July 30d. 3h. 32m. 3s. Epicentre 45°·2N. 150°·4E. (as on 1948, July 29d.).

A = −·6147, B = +·3492, C = +·7072 ; $\delta = -7$ ; $h = -4$ ;
D = +·494, E = +·870 ; G = −·615, H = +·349, K = −·707.

| | | Δ | Az. | P. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | | m. |
| Mizusawa | E. | 9·2 | 232 | 2 49 | P* | 3 50 | −13 | — |
| College | | 38·5 | 38 | e 7 22 | − 4 | — | — | — |
| Kiruna | | 61·2 | 340 | e 10 9 | −10 | — | — | e 29·0 |
| Mineral | z. | 61·6 | 60 | e 10 23a | + 1 | — | — | — |
| Reno | z. | 63·2 | 60 | e 10 29 | − 3 | — | — | — |
| Tinemaha | z. | 65·7 | 62 | e 10 45 | − 3 | e 10 57 | sP | — |
| Mount Wilson | z. | 67·7 | 64 | e 11 8 | + 7 | — | — | — |
| Riverside | z. | 68·2 | 64 | e 11 13 | + 9 | i 11 18 | pP | — |
| Boulder City | | 68·5 | 60 | e 11 4 | − 2 | — | — | — |
| Palomar | z. | 69·0 | 63 | e 11 13 | + 4 | i 11 17 | pP | — |
| Collmberg | z. | 77·1 | 334 | e 11 51 | − 6 | — | — | — |
| Jena | z. | 77·8 | 334 | e 12 2 | + 1 | e 12 21 | sP | — |
| Fayetteville | z. | 80·3 | 48 | i 12 10a | − 4 | — | — | — |
| Stuttgart | z. | 80·5 | 335 | e 12 11 | − 4 | — | — | — |
| Ottawa | | 81·0 | 31 | e 12 13 | − 5 | — | — | — |
| Morgantowu | | 84·2 | 37 | i 12 31 | − 3 | — | — | — |
| Harvard | | 85·0 | 30 | i 12 35k | − 3 | — | — | — |
| Weston | | 85·2 | 30 | e 12 36 | − 3 | — | — | — |

July 30d. 11h. 47m. 19s. Epicentre 43°·2N. 1°·5W. (as on 25d.).

Intensity V-VI at Ustaritz ; IV at Ascain ; III-IV at Espelette. Felt through Spain and at San Sebastian, and Irun. Epicentre 43°·3N. 1°·6W. (Strasbourg).
Annales de l'Institut de Physique du Globe de Strasbourg, 2e partie, Séismologie, 1952, New Series, Tome XVII, Strasbourg, 1957, p.59.

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tortosa | 2·8 | 148 | i 1 0 | + $4_g$ | i 1 32 | $0_g$ | — | — | — |
| Barcelona | 3·2 | 124 | e 1 5 | + $1_g$ | i 1 49 | + $3_g$ | — | — | — |
| Toledo | 3·8 | 211 | 1 3 | + 2 | e 1 46 | − 1 | i 1 17 | $P_g$ | — |
| Clermont-Ferrand | 4·2 | 51 | e 1 12 | − 3* | e 2 8 | − 1* | e 1 33 | $P_g$ | — |
| Alicante | 4·9 | 171 | e 1 26 | − 5 | 2 37 | − $5_g$ | 1 48 | $P_g$ | — |
| Granada | 6·3 | 196 | 2 4k | − $2_g$ | 3 16 | + 5* | 3 34 | $S_g$ | — |
| Paris | 6·3 | 25 | e 1 35 | − 1 | e 2 50 | 0 | e 2 11 | $P_g$ | i 3·6 |
| Almeria | 6·4 | 187 | 1 21 | −17 | 2 39 | −14 | 3 21 | S* | — |
| Malaga | 6·8 | 200 | i 1 44 | 0 | i 3 2 | − 1 | i 2 12 | $P_g$ | — |
| Basle | 7·7 | 53 | — | — | e 4 7 | − $7_g$ | — | — | — |
| Zürich | 8·2 | 56 | e 3 55 | ? | e 4 43 | +$12_g$ | — | — | — |
| Strasbourg | 8·4 | 47 | — | — | i 4 14 | + 1* | e 4 42 | $S_g$ | e 4·8 |
| Stuttgart | 9·3 | 50 | — | — | e 4 43? | + 3* | e 5 11 | $S_g$ | — |
| Prague | 12·9 | 52 | — | — | e 5 53 | +20 | — | — | — |

July 30d. 12h. 32m. 2s. Epicentre 42°·7N. 145°·1E. Depth of focus 0·005.
(as on 1952, June 28d.).

Intensity V at Ochiisi, Shibetu, Nakashibetu, Kenebetu, Nishishumbetu, Shibecha, Akan, Tsurui ; IV at Kusiro and Nemuro.
Epicentre 42°·7N. 145°·2E. Depth of focus 50km. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, 1952, Tokyo, 1952, p.276, with macroseismic chart.

A = −·6046, B = +·4218, C = +·6757 ; $\delta = +3$ ; $h = -3$ ;
D = +·572, E = +·820 ; G = −·554, H = +·387, K = −·737.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Kusiro | | 0·6 | 299 | i 0 11k | − 3 | 0 19 | − 6 | — | — |
| Nemuro | | 0·7 | 29 | i 0 12a | − 3 | 0 19 | − 8 | — | — |
| Abasiri | | 1·4 | 336 | 0 22k | − 2 | 0 35 | − 8 | — | — |
| Obi-hiro | N. | 1·4 | 279 | e 0 22 | − 2 | 0 38 | − 5 | — | — |
| Urakawa | | 1·8 | 252 | e 0 32 | + 2 | 0 57 | + 5 | — | — |

*Continued on next page.*

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| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | |
|---|---|---|---|---|---|---|---|---|---|
| Sapporo | | 2·8 | 278 | e 0 44 | 0 | 1 17 | 0 | — | — |
| Mori | E. | 3·4 | 261 | e 0 56 | + 4 | 1 35 | + 3 | — | — |
| Hatinohe | | 3·5 | 232 | e 0 54 | 0 | 1 30 | − 4 | — | — |
| Aomori | | 3·7 | 241 | 1 0 | + 4 | — | — | — | — |
| Miyako | | 3·9 | 218 | e 0 58 | − 1 | 1 41 | − 3 | — | — |
| Morioka | | 4·2 | 226 | e 1 5 | + 2 | 1 50 | − 3 | — | — |
| Mizusawa | | 4·7 | 221 | e 1 11 | + 1 | 2 0 | − 4 | — | — |
| Sendai | | 5·5 | 217 | 1 46 | +25 | — | — | — | — |
| Hukusima | | 6·1 | 217 | e 1 35 | + 5 | 2 42 | + 3 | — | — |
| Inawasiro | | 6·4 | 218 | e 1 37 | + 3 | 2 44 | − 2 | — | — |
| Utunomiya | | 7·3 | 215 | e 1 47 | + 1 | 3 4 | − 5 | — | — |
| Maebasi | | 7·8 | 318 | e 3 26 | S | (e 3 26) | + 5 | — | — |
| Kumagaya | | 7·9 | 216 | e 2 10 | +15 | 3 20 | − 3 | — | — |
| Yokohama | | 8·4 | 212 | e 3 28 | S | (e 3 28) | − 8 | — | — |
| Kiruna | Z. | 62·2 | 339 | i 10 15 | − 2 | — | — | — | — |
| Upsala | Z. | 69·1 | 334 | i 10 59? | − 2 | — | — | i 11 15 | pP |
| Palomar | Z. | 73·5 | 59 | e 11 39 | pP | — | — | — | — |
| Collmberg | Z. | 77·5 | 331 | e 11 48 | − 2 | — | — | e 12 1 | pP |
| Stuttgart | | 81·0 | 332 | e 12 8 | − 1 | — | — | — | — |
| Fayetteville | Z. | 84·8 | 44 | i 12 28a | − 1 | — | — | i 12 42 | pP |

July 31d. 7h. 47m. 19s. Epicentre 38°·6N. 70°·5E. (as on 13d.).

| | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | |
|---|---|---|---|---|---|---|---|---|
| Garm | 0·4 | 339 | i 0 10 | 0* | e 0 16 | 0* | — | — |
| Dzhergetal | 0·8 | 42 | i 0 13 | − 3g | e 0 23 | − 3g | — | — |
| Stalinabad | 1·4 | 268 | i 0 31 | + 3g | i 0 51 | + 5 | — | — |
| Khorog | 1·4 | 142 | i 0 26 | − 1 | i 0 45 | − 1 | — | — |
| Fergana | 2·0 | 29 | e 0 36 | + 1 | e 1 3 | 0* | — | — |
| Andijan | 2·6 | 34 | i 0 47 | 0* | i 1 21 | 0* | i 1 31 | Sg |
| Namangan | 2·6 | 21 | e 0 48 | + 1* | i 1 22 | + 1* | — | — |
| Samarkand | 2·9 | 291 | e 0 59 | + 1g | e 1 36 | 0g | — | — |
| Naryn | 5·1 | 54 | — | — | i 2 44 | − 4g | — | — |
| Almata | 6·8 | 44 | — | — | e 3 20 | − 6* | — | — |

July 31d. 12h. 9m. 8s. Epicentre 35°·4N. 118°·6W. (as on 29d.).

Intensity VI at Arvin; V at Cuyama, East Pasadena, Los Angles, Maywood, and Tehachapi; IV at Glendale. Epicentre 35°19′·5N. 118°36′·5W. (Pasadena).

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p.36.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Havilah | Z. | 0·1 | 30 | i 0 6 | − 2 | — | — | — | — | — |
| Chuchupate | Z. | 0·7 | 209 | i 0 13 | − 1g | — | — | — | — | — |
| Haiwee | | 0·9 | 35 | i 0 19k | − 1 | — | — | — | — | — |
| China Lake | E. | 0·9 | 63 | i 0 18 | 0g | — | — | — | — | — |
| Pasadena | | 1·3 | 164 | i 0 22k | − 3 | — | — | — | — | — |
| Fresno | Z. | 1·7 | 325 | i 0 31k | 0 | — | — | — | — | — |
| Tinemaha | | 1·7 | 10 | i 0 33k | − 1g | — | — | — | — | — |
| Boulder City | | 3·1 | 78 | i 0 49 | − 2 | — | — | — | — | — |
| Lick | | 3·2 | 310 | i 0 52k | 0 | — | — | — | — | — |
| Santa Clara | | 3·4 | 307 | i 0 51a | − 4 | — | — | — | — | — |
| Berkeley | Z. | 3·9 | 311 | i 1 1k | − 1 | — | — | — | — | — |
| Reno | Z. | 4·3 | 347 | i 1 10k | + 2 | — | — | — | — | — |
| Mineral | N. | 5·5 | 336 | e 1 26 | + 1 | — | — | — | — | — |
| Shasta | N. | 6·1 | 332 | e 1 34 | 0 | — | — | — | — | — |
| Tucson | | 7·2 | 113 | i 1 43 | − 6 | — | — | — | — | — |
| Corvallis | | 9·9 | 340 | i 2 29 | + 4 | — | — | — | — | — |
| Butte | | 11·6 | 22 | e 2 53 | + 3 | — | — | — | — | — |
| Bozeman | | 11·8 | 27 | e 3 1 | + 8 | e 5 17 | +11 | — | — | — |
| Seattle | | 12·6 | 348 | e 2 58 | − 5 | e 5 26 | 0 | i 3 14 | PP | i 6·0 |
| Hungry Horse | | 13·4 | 13 | i 3 16 | + 2 | e 6 11 | SSS | — | — | e 7·2 |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Victoria | | 13·6 | 346 | 3 20 | + 3 | — | — | — | — | — |
| Lubbock | | 13·9 | 92 | 3 21 | 0 | 6 21 | SSS | — | — | — |
| Saskatoon | | 18·8 | 23 | 4 23 | 0 | 7 54 | + 4 | — | — | — |
| Fayetteville | z. | 19·8 | 80 | i 4 33 a | − 2 | e 9 10 | Q | e 5 13 | PPP | e 10·3 |
| Guadalajara | | 19·8 | 133 | e 4 32 | − 3 | — | — | — | — | e 11·3 |
| St. Louis | | 22·9 | 72 | i 5 5 | − 1 | i 9 22 | + 9 | — | — | — |
| Tacubaya | | 23·4 | 127 | e 5 17 | + 6 | e 9 34 | +13 | e 9 53 | SS | e 12·5 |
| Puebla | | 24·2 | 126 | e 5 22 | + 3 | — | — | — | — | e 13·5 |
| Chicago | | 25·0 | 64 | e 5 25 | − 2 | e 9 50 | + 1 | — | — | — |
| Vera Cruz | | 25·6 | 122 | e 8 24 | ? | — | — | — | — | e 14·1 |
| Morgantown | | 30·8 | 69 | i 6 18 | − 2 | e 11 10 | −13 | — | — | — |
| Kirkland Lake | z. | 31·1 | 53 | i 6 20 a | − 2 | — | — | — | — | — |
| Buffalo (Larkin) | | 31·7 | 63 | i 6 25 | − 2 | — | — | — | — | — |
| Ottawa | | 33·8 | 58 | i 6 44 a | − 2 | 12 9 | − 1 | 7 59 | PP | 18·2 |
| College | | 34·3 | 338 | 6 50 | 0 | — | — | e 7 28 | ? | e 14·9 |
| Philadelphia | | 34·4 | 68 | i 6 48 | − 3 | e 12 20 | + 1 | — | — | — |
| City College, N.Y. | | 35·3 | 66 | e 6 57 | − 2 | — | — | — | — | — |
| Palisades | | 35·3 | 66 | i 6 57 | − 2 | i 12 22 | −11 | i 8 11 | PP | e 18·3 |
| Shawinigan Falls | N. | 35·9 | 57 | e 7 1 | − 3 | — | — | — | — | 18·6 |
| Harvard | | 36·9 | 63 | i 7 11 a | − 1 | — | — | — | — | e 19·7 |
| Weston | | 37·1 | 63 | i 7 13 a | − 1 | e 13 3 | + 2 | 8 34 | PP | — |
| Resolute Bay | | 41·0 | 7 | e 7 49 | + 3 | 13 59 | 0 | 16 59 | SS | 21·8 |
| Bermuda | | 44·4 | 77 | i 8 12 | − 2 | — | — | — | — | e 22·1 |
| Scoresby Sund | | 59·3 | 23 | e 10 3 | − 3 | e 18 11 | − 3 | — | — | 27·9 |
| Huancayo | | 62·4 | 131 | e 10 25 | − 2 | — | — | — | — | — |
| La Paz | | 70·3 | 128 | e 11 15 | − 2 | 20 32 | + 3 | i 20 52 | PS | — |
| Kiruna | | 72·6 | 15 | e 11 30 | − 1 | e 20 52 | − 4 | e 25 3 | SS | e 32·2 |
| Rathfarnham Castle | | 74·1 | 35 | i 11 43 | + 3 | — | — | — | — | e 38·9 |
| Upsala | z. | 78·5 | 21 | i 12 5 | + 1 | — | — | — | — | — |
| De Bilt | | 80·0 | 31 | e 12 15 | + 2 | e 22 22 | + 5 | — | — | e 35·9 |
| Copenhagen | | 80·2 | 26 | — | — | 22 22 | + 3 | — | — | 38·9 |
| Paris | | 81·2 | 35 | e 12 19 | 0 | — | — | e 12 11 | ? | e 40·9 |
| Jena | z. | 83·5 | 29 | e 12 31 | 0 | — | — | e 12 57 | ? | — |
| Clermont-Ferrand | | 83·6 | 37 | e 12 31 | 0 | e 23 0 | + 7 | — | — | 39·9 |
| Strasbourg | | 83·7 | 32 | e 12 31 | − 1 | e 22 59 | + 5 | e 23 53 | PS | e 36·9 |
| Collmberg | z. | 83·8 | 28 | e 12 32 | 0 | — | — | e 15 32 | PP | — |
| Stuttgart | | 84·2 | 31 | e 12 34 | 0 | e 23 0 | + 1 | — | — | e 40·9 |
| Prague | | 85·3 | 28 | e 12 42 | + 2 | e 23 4 | − 6 | e 15 20 | ? | — |
| Malaga | | 85·8 | 47 | i 12 41 | − 1 | 16 15 | PP | e 13 49 | ? | 43·0 |
| Granada | | 85·9 | 47 | i 12 47 k | + 4 | 23 22 | + 6 | 26 33 | ? | 42·0 |
| Alicante | | 86·9 | 44 | 12 50 | + 2 | e 23 18 | {− 1} | — | — | 42·0 |
| Pavia | | 86·9 | 34 | e 24 10 | PS | — | — | — | — | e 46·6 |
| Florence | | 89·0 | 34 | — | — | e 33 42 | SSS | — | — | — |
| Rome | | 91·0 | 34 | e 25 13 | PS | e 26 13 | ? | — | — | — |
| Kimberley | z. | 148·4 | 90 | i 19 35 | [−10] | — | — | — | — | — |
| Pretoria | z. | 150·0 | 81 | i 19 53 | [+ 6] | — | — | — | — | — |
| Grahamstown | z. | 151·3 | 97 | i 19 28 | [−21] | — | — | — | — | — |
| Pietermaritzburg | z. | 153·3 | 87 | i 19 54 | [+ 2] | — | — | — | — | — |

**July 31d. 12h. 16m. 32s. Epicentre 34°·1S. 73°·1W. Focus at Base of Superficial Layers.**

**Intensity IV between 33° and 34°S. in Chili. Epicentre 34°S. 72·5°W. (U.S.C.G.S.).**

F. Greve.
Boletín del Año, 1952, Instituto Sismológico, Universidad de Chili, Santiago, p. 24.

$$A = +\cdot2412,\ B = -\cdot7940,\ C = -\cdot5580;\quad \delta = -2;\quad h = 0;$$
$$D = -\cdot957,\ E = -\cdot291;\quad G = -\cdot162,\ H = +\cdot534,\ K = -\cdot830.$$

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Santa Lucia | | 2·1 | 71 | i 0 35 | + 2 | i 1 5 | + 6 | i 0 39 | P | — |
| Concepción | N. | 2·9 | 162 | i 0 27 | −18 | (i 0 57) | −22 | i 1 44 | ? | i 1·0 |
| Copiapo | N. | 7·1 | 20 | e 1 32 | −12 | (i 2 56) | − 9 | i 2 49 | ? | i 2·9 |
| Antofagasta | E. | 10·7 | 13 | — | — | e 4 31 | − 3 | — | — | e 5·7 |
| Buenos Aires | | 12·1 | 96 | i 2 54 | + 1 | e 5 28 | SS | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| La Plata | | 12·5 | 98 | 2 58 | 0 | 5 28 | +11 | 5 34 | SS | 6·7 |
| La Paz | | 18·1 | 17 | i 4 14 k | + 4 | i 7 40 | +12 | 4 28 | PP | 8·8 |
| Huancayo | | 22·1 | 355 | i 4 58 | + 4 | e 9 10 | +20 | e 5 33 | PPP | e 9·9 |
| Fort de France | | 49·9 | 16 | e 8 51 | − 1 | — | — | — | — | — |
| San Juan | | 52·6 | 9 | i 9 10 | − 3 | — | — | e 9 47 | ? | — |
| Tacubaya | | 58·7 | 332 | e 10 0 | + 3 | — | — | — | — | — |
| Bermuda | | 66·6 | 8 | i 10 48 | − 1 | — | — | — | — | — |
| Fayetteville | z. | 72·5 | 343 | i 11 24 a | − 1 | i 12 22 | ? | i 11 31 | pP | — |
| Morgantown | | 73·6 | 355 | i 11 31 | − 1 | — | — | — | — | — |
| St. Louis | | 74·1 | 347 | i 11 33 | − 2 | — | — | — | — | — |
| Tucson | | 74·9 | 328 | i 11 39 | 0 | — | — | — | — | — |
| Cleveland | N. | 75·6 | 354 | i 12 0 | pP | — | — | — | — | — |
| Weston | | 76·1 | 2 | i 11 46 a | 0 | — | — | — | — | — |
| Harvard | | 76·2 | 2 | i 11 47 a | 0 | — | — | — | — | — |
| Palomar | z. | 78·7 | 324 | i 12 0 | 0 | — | — | i 12 7 | pP | — |
| Ottawa | | 79·2 | 359 | e 12 2 | − 1 | — | — | i 12 10 | pP | — |
| Riverside | z. | 79·4 | 324 | i 12 3 | − 1 | — | — | i 12 12 | pP | — |
| Boulder City | | 79·9 | 327 | i 12 7 | 0 | — | — | — | — | — |
| Pasadena | z. | 80·0 | 324 | i 12 8 a | 0 | — | — | i 12 14 | pP | — |
| Kirkland Lake | z. | 82·1 | 356 | i 12 17 a | − 2 | i 12 24 | PcP | i 12 31 | pP | — |
| Tinemaha | z. | 82·3 | 325 | i 12 21 | + 1 | — | — | i 12 29 | pP | — |
| Fresno | z. | 82·8 | 325 | e 12 22 a | 0 | — | — | e 12 30 | pP | — |
| Lick | z. | 84·2 | 324 | e 12 30 a | + 1 | — | — | e 12 38 | pP | — |
| Berkeley | z. | 84·9 | 324 | e 12 33 | 0 | — | — | e 12 42 | pP | — |
| Reno | | 85·0 | 326 | e 12 34 a | + 1 | — | — | e 12 42 | pP | — |
| Shasta | z. | 87·2 | 325 | i 12 43 a | − 1 | — | — | i 12 51 | pP | — |
| Butte | | 87·3 | 334 | i 12 45 | 0 | — | — | — | — | — |
| Tamanrasset | z. | 93·7 | 65 | i 13 17 k | + 3 | e 13 53 | sP | e 13 30 | pP | — |
| Algiers Univ. | z. | 100·0 | 53 | e 14 15 | +32 | e 18 0 | PP | e 14 19 | pP | — |
| Kew | | 106·4 | 39 | — | — | e 25 2 | [+15] | (e 33 28?) | SS | e 33·5 |
| Stuttgart | | 110·2 | 44 | e 18 29 | [+ 1] | — | — | — | — | — |
| Collmberg | z. | 113·5 | 43 | e 18 35 | [ 0] | — | — | — | — | — |
| College | | 114·3 | 334 | 18 35 | [− 1] | — | — | — | — | — |
| Upsala | z. | 119·1 | 35 | i 18 45 | [− 1] | — | — | — | — | — |
| Kiruna | z. | 122·4 | 27 | i 18 52 a | [ 0] | — | — | i 19 0 | pPKP | — |
| Borzhomi | | 130·3 | 62 | e 19 11 | [+ 4] | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 130·4 | 62 | 19 11 | [+ 4] | — | — | — | — | — |
| Piatigorsk | | 130·6 | 58 | i 19 8 | [ 0] | — | — | — | — | — |
| Gori | | 130·9 | 62 | e 19 12 | [+ 4] | — | — | — | — | — |
| Tiflis | | 131·3 | 62 | 19 13 | [+ 4] | e 28 20 | SKKS | e 21 35 | PP | — |
| Goris | | 132·0 | 65 | i 19 10 | [ 0] | — | — | — | — | — |
| Kirovobad | | 132·3 | 63 | 19 12 | [+ 1] | — | — | — | — | — |
| Grozny | | 132·4 | 60 | e 19 14 | [+ 3] | — | — | — | — | — |
| Makhach-Kala | | 133·6 | 61 | i 22 46 | PKS | — | — | — | — | — |
| Ashkabad | | 140·9 | 70 | e 19 24 | [− 3] | — | — | — | — | — |
| Sverdlovsk | | 141·4 | 39 | e 19 20 | [− 8] | e 29 20 | SKKS | — | — | — |
| Quetta | | 146·2 | 85 | e 19 42 | [+ 6] | — | — | — | — | — |
| Samarkand | | 147·8 | 68 | 19 42 | [+ 3] | — | — | — | — | — |
| Tashkent | | 149·6 | 65 | e 19 51 | [+10] | — | — | — | — | — |
| Uglegorsk | | 150·0 | 312 | e 19 43 | [+ 1] | — | — | — | — | — |
| Yuzno-Sakhlinsk | | 150·2 | 307 | e 19 43 | [+ 1] | — | — | — | — | — |
| Namangan | | 151·4 | 66 | i 19 47 | [+ 3] | — | — | e 23 33 | PP | — |
| Andijan | | 151·9 | 66 | e 19 47 | [+ 2] | — | — | i 23 35 | PP | — |
| Frunse | | 153·4 | 61 | i 19 50 | [+ 3] | — | — | i 23 41 | PP | — |
| Rybach'e | | 154·5 | 61 | i 19 52 | [+ 4] | e 30 38 | SKKS | e 20 21 | $PKP_2$ | — |
| Naryn | | 154·6 | 64 | e 19 51 | [+ 2] | — | — | — | — | — |
| Semipalatinsk | | 154·6 | 41 | e 19 49 | [ 0] | e 23 20 | PKS | — | — | — |
| Almata | | 155·0 | 58 | e 20 3 | pPKP | — | — | — | — | — |
| Irkutsk | | 161·7 | 5 | e 19 57 | [ 0] | — | — | e 24 27 | PP | — |
| Kabansk | | 162·0 | 2 | e 19 58 | [+ 1] | — | — | — | — | — |
| Kyakhta | | 163·7 | 1 | 19 59 | [ 0] | — | — | — | — | — |

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Aug. 1d. 10h. 30m. 35s. Epicentre 29°·8N. 51°·8E. (as on 1949, March 6d.).

A = +·5375, B = +·6831, C = +·4945 ; $\delta$ = +6 ; $h$ = +2 ;
D = +·786, E = −·618 ; G = +·306, H = +·389, K = −·869.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Quetta | | 13·2 | 85 | e 3 53 | +42 | — | — | — | — | — |
| Ksara | | 14·1 | 290 | e 4 36 | ? | — | — | — | — | i 7·9 |
| Helwan | Z. | 17·8 | 275 | 4 13 | + 2 | 7 29 | + 1 | e 4 31 | PP | 9·1 |
| Istanbul | | 21·6 | 308 | e 4 52 | − 2 | 8 52? | + 3 | e 4 56 | P | — |
| Messina | E. | 31·1 | 297 | e 7 12 | PP | e 13 58 | SSS | — | — | e 20·8 |
| Triest | | 33·6 | 309 | e 6 44 | 0 | e 12 11 | + 5 | e 7 52 | PP | — |
| Rome | N. | 33·8 | 303 | — | — | e 14 50 | SSS | — | — | e 17·4 |
| Prague | | 34·6 | 317 | e 6 52 | − 1 | e 12 12 | −10 | e 8 3 | PP | — |
| Collmberg | Z. | 35·9 | 318 | e 7 3 | − 1 | e 7 18 | ? | e 8 45 | PP | — |
| Potsdam | N. | 36·3 | 320 | — | — | e 12 56 | + 8 | — | — | e 19·4 |
| Jena | | 36·6 | 318 | e 7 10 | 0 | e 8 11 | PP | e 9 18 | ? | — |
| Pavia | | 36·7 | 308 | — | — | e 13 2 | + 8 | — | — | e 22·6 |
| Stuttgart | | 37·4 | 314 | e 7 15 | − 1 | — | — | — | — | e 17·9 |
| Zürich | | 37·5 | 311 | e 7 17 | 0 | — | — | — | — | — |
| Upsala | Z. | 37·8 | 333 | i 7 21 | + 1 | i 7 47 | ? | i 8 51 | PP | — |
| Basle | | 38·2 | 311 | e 7 29 a | + 6 | — | — | — | — | — |
| Algiers Univ. | Z. | 41·0 | 293 | 11 34 | ? | — | — | — | — | 18·4 |
| Paris | | 41·8 | 312 | e 7 52 | − 1 | e 7 59 | ? | e 8 2 | ? | — |
| Tamanrasset | Z. | 41·9 | 274 | e 7 53 | − 1 | e 9 34 | PP | e 10 3 | PPP | 22·4 |
| Kiruna | | 42·3 | 343 | i 8 0 | + 3 | i 9 39 | PP | e 20 2 | Q | e 22·0 |
| Pretoria | Z. | 59·7 | 205 | i 10 9 | 0 | — | — | — | — | — |
| Kimberley | Z. | 63·7 | 207 | e 10 35 | − 1 | — | — | — | — | — |

Aug. 1d. 13h. 4m. 27s. Epicentre 35°·0N. 119°·0W. (as on July 23d.).

Intensity V at Cuyama ; IV at Glendale, Los Angeles, Los Alamos, Huasna.
Epicentre 34°54′N. 118·57′W.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p.37.

| | | Δ | Az. | P. | O−C. | S. | O−C. | L. |
|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. |
| Havilah | Z. | 0·7 | 37 | i 0 16 | − 1 | — | — | — |
| Santa Barbara | | 0·8 | 226 | i 0 17 | − 1 | — | — | — |
| Pasadena | | 1·1 | 141 | i 0 21k | − 1 | i 0 35 | − 4 | — |
| China Lake | E. | 1·4 | 54 | i 0 27 | 0 | — | — | — |
| Haiwee | | 1·4 | 36 | i 0 29 | + 2 | — | — | — |
| Fresno | Z. | 1·9 | 340 | i 0 34k | 0 | — | — | — |
| Tinemaha | | 2·2 | 17 | i 0 40 | + 2 | — | — | — |
| Lick | Z. | 3·1 | 318 | e 0 51k | 0 | — | — | — |
| Santa Clara | E. | 3·3 | 315 | e 0 52 | − 1 | — | — | — |
| Boulder City | | 3·6 | 73 | i 0 56 | − 2 | — | — | — |
| Berkeley | Z. | 3·9 | 318 | e1 1k | − 1 | — | — | — |
| Reno | Z. | 4·6 | 352 | e 1 14 | + 2 | — | — | — |
| Mineral | N. | 5·7 | 340 | e 1 30 | + 2 | — | — | — |
| Shasta | Z. | 6·3 | 336 | e 1 35 | − 1 | — | — | — |
| Tucson | | 7·3 | 110 | e 1 47 | − 3 | i 1 57 | PP | — |
| Lubbock | | 14·3 | 91 | 3 28 | + 2 | — | — | — |
| Fayetteville | Z. | 20·2 | 80 | i 4 39k | 0 | — | — | e 10·6 |
| Harvard | | 37·4 | 63 | i 7 24k | + 8 | — | — | e 22·6 |

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Aug. 1d. 21h. 36m. 53s. Epicentre 28°·0S. 70°·0W. Depth of focus 0·040.
(as on 1951, July 14d.).

Intensity IV between 27° and 28°·5S. lat. in Chile. Epicentre 28°·5S. 70°·25W. (Strasbourg). Depth 300km.

F. Greve.
Boletín del año 1952, Instituto Seismologico Universidad de Chili, Santiago, p.25.

$A = +·3024$, $B = -·8310$, $C = -·4670$; $\delta = +10$; $h = +2$;
$D = -·940$, $E = -·342$; $G = -·160$, $H = +·439$, $K = -·884$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Copiapo | N. | 0·7 | 335 | i −0 19 | −57 | i −0 2 | −70 | — | — | — |
| Santa Lucia | N. | 5·4 | 186 | e 1 20 | − 2 | i 2 31 | + 4 | e 2 9 | ? | — |
| La Paz | | 11·6 | 9 | 2 46 | + 7 | i 5 11 | SS | — | — | 6·1 |
| La Plata | | 12·4 | 127 | — | — | 5 25 | SS | — | — | 6·1 |
| Huancayo | | 16·6 | 341 | e 3 34 | − 4 | — | — | — | — | — |
| Fayetteville | z. | 67·7 | 339 | i 10 27 | − 1 | — | — | i 10 41 | PcP | — |
| Weston | | 70·0 | 359 | i 10 58 a | PcP | — | — | — | — | — |
| Harvard | | 70·2 | 359 | i 10 45 k | − 1 | — | — | i 10 59 | PcP | — |
| Mount Wilson | z. | 76·8 | 321 | e 11 22 | 0 | — | — | e 11 41 | — | — |
| Tinemaha | z. | 79·0 | 322 | e 11 48 | +14 | — | — | — | — | — |
| Tamanrasset | z. | 88·6 | 63 | e 12 28 | + 6 | — | — | — | — | — |

Aug. 2d. 3h. 5m. 41s. Epicentre 37°·0S. 179°·5E.

Intensity II at Motu. Epicentre as adopted.

R. C. Hayes.
Earthquake Origins in New Zealand during the year 1952. Seismological Observatory Bulletin S-98, 1953, p.4.

$A = -·8006$, $B = +·0070$, $C = -·5992$; $\delta = +5$; $h = -1$;
$D = +·009$, $E = +1·000$; $G = +·599$, $H = -·005$, $K = -·801$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Tuai | N. | 2·6 | 226 | i 0 45 | + 1 | i 1 18 | + 1 | — | — |
| Karapiro | N. | 3·3 | 252 | 0 51 | − 2 | e 1 29 | − 6 | — | — |
| Auckland | N. | 3·8 | 270 | 1 0 | − 1 | — | — | e 1 25 | $P_g$ |
| New Plymouth | E. | 4·8 | 242 | 1 16 | + 1 | 2 15 | + 3 | — | — |
| Wellington | | 5·6 | 219 | e 1 24 | − 3 | 2 26 | − 7 | — | — |
| Kaimata | N.E. | 8·3 | 226 | e 2 3 | − 1 | e 3 29 | −11 | — | — |
| Christchurch | | 8·4 | 217 | e 1 57 | − 9 | 3 32 | −11 | e 2 17 | P* |
| Brisbane | z. | 24·2 | 285 | i 5 19 | 0 | — | — | i 5 33 | ? |
| Kiruna | z. | 146·9 | 346 | i 19 38 | [− 4] | — | — | i 19 52 | $PKP_2$ |
| Upsala | z. | 154·3 | 339 | e 19 56 | [+ 2] | i 20 23 | $PKP_2$ | i 21 29 | ? |
| Collmberg | z. | 162·8 | 330 | e 20 46 | $PKP_2$ | — | — | — | — |
| Tamanrasset | z. | 164·9 | 202 | e 21 2 | $PKP_2$ | — | — | — | — |
| Stuttgart | | 166·3 | 332 | e 20 59 | $PKP_2$ | — | — | — | — |

Aug. 2d. 17h. 47m. 1s. Epicentre 33°·5S. 179°·0W. (as on 1950, Aug. 12d.).

$A = -·8355$, $B = -·0146$, $C = -·5493$; $\delta = 0$; $h = +1$;
$D = -·017$, $E = +1·000$; $G = +·549$, $H = +·009$, $K = -·836$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Tuai | N. | 6·2 | 209 | e 1 42 | + 7 | e 2 55 | + 7 | — | — |
| Karapiro | N. | 6·3 | 222 | e 1 45 | − 5* | e 3 12 | + 1* | — | — |
| Wellington | | 9·2 | 211 | e 2 19 | + 3 | 4 4 | + 1 | — | — |
| Cobb River | E. | 10·0 | 218 | — | — | e 4 23 | + 1 | — | — |
| Kaimata | N.E. | 11·8 | 217 | e 3 7 | PP | e 5 3 | − 3 | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Christchurch | | 12·0 | 211 | — | — | e 5 8 | − 3 | — | — |
| Brisbane | Z. | 24·8 | 277 | i 5 27 | + 2 | — | — | i 5 52 | ? |
| Mount Wilson | Z. | 88·4 | 46 | i 12 53 | − 2 | — | — | e 13 7 | ? |
| Riverside | Z. | 88·6 | 46 | e 12 52 | − 4 | — | — | — | — |
| Tinemaha | Z. | 90·2 | 44 | e 13 1 | − 3 | — | — | e 37 35 | P′P′ |
| Kiruna | Z. | 143·8 | 348 | i 19 30 | [− 7] | — | — | i 19 45 | $PKP_2$ |
| Upsala | Z. | 151·4 | 342 | i 19 50 | [+ 1] | — | — | i 20 9 | $PKP_2$ |
| Collmberg | Z. | 160·2 | 336 | e 20 4 | [+ 3] | — | — | e 20 59 | $PKP_2$ |
| Tamanrasset | Z. | 168·6 | 200 | e 20 9 | [+ 1] | — | — | — | — |

Aug. 2d. 17h. 50m. 15s. Epicentre 36°·5N. 71°·0E. Depth of focus 0·010.
(as on July 27d.).

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Khorog | 1·1 | 26 | i 0 21 | − 1 | i 0 37 | − 1 | — | — |
| Kulyab | 1·7 | 325 | i 0 30 | + 1 | — | — | — | — |
| Obi-garm | 2·4 | 335 | i 0 40 | + 2 | i 1 8 | + 1 | i 1 17 | ? |
| Garm | 2·6 | 348 | i 0 42 | + 1 | i 1 16 | + 4 | i 1 21 | ? |
| Dzhergetal | 2·7 | 4 | i 0 45 | + 2 | 1 23 | + 9 | — | — |
| Stalinabad | 2·7 | 319 | i 0 44 | + 1 | i 1 19 | + 5 | — | — |
| Fergana | 3·9 | 9 | e 0 59 | 0 | e 1 44 | 0 | — | — |
| Andijan | 4·4 | 15 | e 1 6 | 0 | — | — | — | — |
| Namangan | 4·5 | 7 | e 1 8 | + 1 | i 1 57 | − 2 | — | — |
| Samarkand | 4·5 | 317 | 1 7 | 0 | e 2 0 | + 1 | — | — |
| Lunacharskoe | 5·0 | 347 | e 1 14 | 0 | e 2 10 | − 1 | — | — |
| Tchimkent | 5·9 | 349 | e 1 27 | + 1 | i 2 29 | − 4 | — | — |
| Naryn | 6·3 | 37 | e 1 32 | 0 | i 3 29 | +46 | i 2 3 | ? |
| Frunse | 7·0 | 23 | 1 40 | − 2 | 3 51 | +51 | — | — |
| Bairam-Ali | 7·2 | 282 | — | — | 3 2 | − 3 | — | — |
| Almata II | 8·3 | 34 | e 1 56 | − 3 | — | — | — | — |
| New Delhi | 9·4 | 145 | e 2 6 | − 8 | 3 55 | − 4 | 4 14 | ? |
| Ashkabad | 10·2 | 282 | e 2 27 | + 2 | e 4 20 | + 2 | — | — |
| Chatra | 16·8 | 120 | e 3 41 | − 9 | — | — | — | — |
| Upsala | 41·1 | 322 | i 7 37 | + 1 | — | — | — | — |
| Kiruna | 42·1 | 334 | i 7 44 | 0 | — | — | i 8 9 | pP |

Aug. 3d. 11h. 19m. 7s. Epicentre 41°·0N. 143°·3E. Depth of focus 0·005.
(as on 1952, July 6d.).

Intensity IV at Yasumiya ; II-III at Misawa. Epicentre 40°·7N. 143°·2E. Depth about 20km. Macroseismic radius between 200 and 300km. (Tokyo).
Seismo. Bull. Cent. Met. Obs., Japan, for Aug., 1952, Tokyo, 1952, p.297, with macroseismic chart.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Urakawa | | 1·2 | 341 | e 0 22 | 0 | 0 38 | 0 |
| Miyako | | 1·7 | 216 | e 0 28 | 0 | 0 46 | − 4 |
| Aomori | | 1·9 | 264 | 0 32 | + 1 | 0 56 | + 2 |
| Morioka | | 2·1 | 232 | e 0 33 | − 1 | 0 57 | − 2 |
| Kusiro | | 2·1 | 22 | e 0 30 | − 4 | — | — |
| Mori | N. | 2·3 | 298 | e 0 36 | − 1 | 1 9 | + 5 |
| Sapporo | | 2·5 | 325 | e 0 41 | + 2 | 1 16 | + 7 |
| Mizusawa | | 2·5 | 222 | 0 41 | + 2 | 1 8 | − 1 |
| Hukusima | | 3·9 | 214 | e 1 7 | + 8 | 1 55 | +11 |
| Inawasiro | | 4·2 | 217 | e 1 16 | +13 | 1 54 | + 2 |
| Mito | | 5·1 | 206 | e 1 17 | + 1 | 2 9 | − 5 |

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Aug. 3d. 13h. 13m. 44s. Epicentre 12°·8S. 78°·5W.

Intensity V-VI at La Punta ; V at Lima, Limatambo, Carabayllo, Lurin, and Miraflores; IV-V at Chorillos, Chilca, Chosica, and Canta. Epicentre 12°·5S. 78°W. (U.S.C.G.S.). Macroseismic area 26,000 sq. km.

E. Silgado.
Datos Sismológicos del Perú, 1952-1955. Boletin de la Sociedad Geológica del Perú, Tome 29, Lima, 1957, pp. 13, 18, and 19.

$A = +\cdot1945$, $B = -\cdot9559$, $C = -\cdot2201$ ; $\delta = +2$ ; $h = +6$ ;
$D = -\cdot980$, $E = -\cdot199$ ; $G = -\cdot044$, $H = +\cdot216$, $K = -\cdot975$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Huancayo | | 3·2 | 76 | i 0 50 | − 2 | i 1 21 | −11 | (i 1 46) | $S_g$ | i 1·8 |
| La Paz | | 10·7 | 111 | i 2 34 | − 4 | i 4 40 | + 1 | 2 46 | PP | 5·3 |
| Bogota | | 17·9 | 13 | i 4 15 | + 3 | i 7 23 | − 7 | i 4 27 | PP | 8·3 |
| Galerazamba | | 23·7 | 8 | e 5 48 | PP | e 9 37 | +10 | — | — | |
| San Juan | | 33·3 | 21 | i 6 40 | − 1 | — | — | — | — | |
| Tacubaya | | 37·9 | 327 | e 9 32 | PcP | — | — | — | — | — |
| Bermuda | | 46·8 | 16 | e 8 30 | − 3 | e 15 16 | − 8 | e 18 28 | SS | e 21·5 |
| Fayetteville | z. | 50·8 | 344 | i 9 7a | + 3 | i 9 15 | ? | i 10 36 | PcP | — |
| Washington | | 51·4 | 2 | e 9 9 | 0 | — | — | — | — | — |
| Morgantown | | 52·2 | 359 | i 9 16 | + 1 | — | — | — | — | — |
| Cleveland | z. | 54·1 | 357 | e 9 28a | − 1 | — | — | i 9 40 | ? | — |
| Tucson | | 54·4 | 326 | e 9 38 | + 7 | — | — | — | — | — |
| Weston | | 55·3 | 7 | i 9 38a | 0 | — | — | — | — | — |
| Buffalo (Larkin) | | 55·4 | 0 | e 9 39 | + 1 | — | — | e 7 43 | ? | — |
| Harvard | | 55·4 | 7 | i 9 39a | + 1 | — | — | — | — | e 28·4 |
| Ottawa | | 58·0 | 2 | i 9 57k | 0 | 17 52 | − 5 | 12 2 | PP | — |
| Halifax | | 58·7 | 12 | e 10 2 | 0 | — | — | — | — | — |
| Shawinigan Falls | N. | 59·3 | 5 | e 10 4 | − 2 | — | — | e 11 40 | ? | — |
| Riverside | z. | 59·4 | 322 | e 10 29 | ? | — | — | — | — | — |
| Mount Wilson | z. | 60·0 | 322 | e 10 28 | ? | — | — | — | — | — |
| Malaga | | 85·2 | 50 | i 12 41 | + 2 | i 23 19 | +10 | — | — | 46·3 |
| Granada | | 86·0 | 50 | e 13 35k | +52 | — | — | — | — | 46·5 |
| Almeria | | 86·7 | 51 | 12 47 | 0 | 23 18 | { 0} | — | — | 50·0 |
| Alicante | | 88·7 | 50 | 12 56 | − 1 | 23 52 | + 9 | — | — | 42·8 |
| Tamanrasset | z. | 89·5 | 67 | e 13 3 | + 3 | e 16 34 | PP | e 18 32 | PPP | 39·3 |
| Algiers Univ. | z. | 90·9 | 53 | e 13 7 | 0 | e 14 15 | ? | e 16 40 | PP | — |
| Scoresby Sund | | 91·5 | 16 | e 13 11 | + 1 | e 24 4 | − 4 | — | — | 48·3 |
| College | | 93·0 | 336 | e 13 21 | + 4 | — | — | — | — | — |
| Clermont-Ferrand | | 93·3 | 44 | e 13 20 | + 2 | e 14 46 | ? | — | — | — |
| Stuttgart | | 98·0 | 42 | e 13 40 | + 1 | e 21 54 | ? | — | — | e 51·3 |
| Triest | z. | 100·6 | 45 | e 13 46 | − 5 | e 13 52 | P | e 14 1 | ? | — |
| Ksara | | 117·2 | 58 | 19 16? | [+29] | e 29 49 | PS | — | — | — |

Aug. 3d. 16h. 36m. 15s. Epicentre 45°·7N. 26°·8E. Depth of focus 0·020 (as on 1952, June 3d.).

$A = +\cdot6255$, $B = +\cdot3160$, $C = +\cdot7133$ ; $\delta = -10$ ; $h = -4$ ;
$D = +\cdot451$, $E = -\cdot893$ ; $G = +\cdot637$, $H = +\cdot322$, $K = -\cdot701$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Vrancioaia | N. | 0·2 | 344 | i 0 22 | 0 | i 0 36 | − 3 | — | — |
| Bacau | | 0·9 | 4 | e 0 27 | + 2 | i 0 42 | − 3 | — | — |
| Campulung | | 1·3 | 251 | e 0 24 | − 5 | i 0 41 | −10 | — | — |
| Bucharest | | 1·4 | 198 | i 0 27 | − 3 | i 0 46 | − 6 | — | — |
| Kishinev | | 1·9 | 47 | i 0 38 | + 3 | i 1 5 | + 3 | — | — |
| Cernauti | | 2·7 | 347 | 0 46 | + 1 | 1 17 | − 2 | — | — |
| Sofia | | 3·9 | 221 | e 0 54 | − 6 | 1 53 | + 7 | 1 34 | ? |
| Timisoara | | 3·9 | 273 | i 0 56 | − 4 | e 1 45 | − 1 | i 1 36 | ? |
| Uzhgorod | | 4·3 | 315 | e 1 11? | + 6 | 1 57? | + 2 | — | — |
| Belgrade | | 4·5 | 262 | e 1 3a | − 5 | e 2 2 | + 2 | e 1 35 | ? |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Lwow | | 4·5 | 337 | e 1 9 | + 1 | i 2 3 | + 3 | — | — |
| Istanbul | z. | 4·9 | 160 | i 1 12 | − 1 | e 2 0 | −10 | e 2 23 | SS |
| Simferopol | | 5·2 | 96 | i 1 20 | + 3 | 2 20 | + 3 | — | — |
| Yalta | | 5·3 | 101 | 1 21 | + 3 | 2 21 | + 2 | — | — |
| Skalnate Pleso | | 5·6 | 310 | — | — | e 2 33 | + 7 | e 3 10 | ? |
| Theodosia | | 6·1 | 93 | 1 32 | + 3 | 2 41 | + 3 | — | — |
| Raciborzu | | 7·3 | 310 | e 2 18 | ? | e 3 14 | + 7 | e 8 16 | PcP |
| Vienna | | 7·6 | 293 | e 1 47 | − 2 | e 3 27 | +13 | e 4 4 | ? |
| Triest | z. | 9·1 | 275 | i 2 3k | − 6 | — | — | e 2 51 | ? |
| Prague | | 9·4 | 303 | e 2 9 | − 4 | e 4 1 | + 4 | e 5 9 | L |
| Sotchi | | 9·5 | 98 | 2 22 | + 8 | — | — | — | — |
| Collmberg | | 10·8 | 306 | e 2 27 | − 4 | e 4 23 | − 7 | e 2 34 | P |
| Rome | E. | 11·0 | 255 | e 2 42 | + 8 | — | — | — | — |
| Florence | z. | 11·2 | 266 | i 2 31 | − 5 | — | — | — | — |
| Messina | | 11·3 | 232 | e 2 29 | − 9 | — | — | e 2 48 | ? |
| Jena | | 11·4 | 303 | e 2 26? | −13 | e 5 19 | SS | e 3 18 | ? |
| Piatigorsk | | 11·7 | 91 | 2 45 | + 2 | — | — | — | — |
| Moscow | | 12·1 | 30 | e 2 50 | + 2 | — | — | — | — |
| Abastumanj | | 12·2 | 103 | e 2 54 | + 5 | — | — | — | — |
| Pavia | | 12·4 | 270 | — | — | e 4 34 | −33 | — | — |
| Stuttgart | | 12·4 | 291 | e 2 47 | − 5 | — | — | — | — |
| Borzhomi | | 12·6 | 102 | e 2 57 | + 3 | — | — | — | — |
| Tsikhlis-Dzhvari | | 12·7 | 103 | 3 0 | + 4 | — | — | — | — |
| Gori | | 13·0 | 100 | e 3 6 | + 6 | — | — | — | — |
| Oropa | N. | 13·2 | 276 | e 1 50 | −72 | — | — | — | — |
| Strasbourg | | 13·3 | 290 | e 3 38 | +35 | — | — | — | — |
| Tiflis | | 13·6 | 100 | e 3 14 | + 7 | — | — | — | — |
| Grozny | | 13·7 | 93 | e 3 14 | + 6 | — | — | — | — |
| Pulkovo | | 14·3 | 7 | i 3 21 | + 5 | — | — | — | — |
| Upsala | z. | 15·2 | 342 | i 3 26 | − 1 | i 6 12 | + 1 | i 3 51 | PP |
| Algiers Univ. | z. | 19·9 | 251 | e 4 16 | − 5 | — | — | — | — |
| Kiruna | z. | 22·4 | 356 | i 4 48 | + 2 | i 9 5 | +29 | i 5 14 | pP |
| Sverdlovsk | | 23·7 | 50 | — | — | e 9 13 | +15 | — | — |
| Tamanrasset | z. | 28·7 | 224 | i 5 43 | − 1 | e 6 32 | sP | e 6 15 | pP |
| Poona | z. | 47·3 | 109 | i 8 23 | + 4 | — | — | — | — |
| Harvard | | 66·1 | 307 | i 10 31 | − 1 | — | — | i 10 24k | P |
| Weston | | 66·1 | 306 | e 10 31 | − 1 | — | — | — | — |
| College | | 69·7 | 358 | i 10 56 | + 2 | — | — | — | — |
| Fayetteville | z. | 82·8 | 316 | i 12 7 | 0 | — | — | — | — |

Aug. 3d. 21h. 11m. 30s. Epicentre 42°·5N. 144°·4E. Depth of focus 0·010.
(as on 1952, June 30d.).

Intensity IV at Kusiro, Biroo, Ikedu, and Otsu. Epicentre 42°·2N. 144°·1E. Depth about 70km. Macroseismic radius between 100 and 200kms.
Seismo. Bull. of Cent. Met. Obs., Japan, for August, 1952, Tokyo, 1952, p. 297, with macroseismic chart.

$A = -·6013$, $B = +·4305$, $C = +·6731$; $\delta = -4$; $h = -3$;
$D = +·582$, $E = +·813$; $G = -·547$, $H = +·392$, $K = -·740$.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Kusiro | | 0·5 | 0 | e 0 16 | 0 | 0 28 | 0 |
| Obihiro | N. | 1·0 | 295 | e 0 20 | 0 | 0 34 | − 2 |
| Nemuro | | 1·2 | 46 | e 0 28 | + 5 | 0 45 | + 5 |
| Urakawa | | 1·3 | 254 | e 0 23 | − 1 | 0 35 | − 7 |
| Abashiri | | 1·5 | 357 | 0 32 | + 5 | 0 54 | + 7 |
| Sapporo | | 2·3 | 284 | e 0 30? | − 7 | 0 54? | −11 |
| Mori | E. | 2·9 | 262 | e 0 49 | + 4 | — | — |
| Aomori | | 3·2 | 238 | e 0 49 | − 1 | 1 20 | − 7 |
| Morioka | | 3·7 | 222 | e 0 51 | − 5 | 1 28 | −11 |
| Mizusawa | E. | 4·2 | 218 | e 1 21 | +18 | 1 39 | −12 |
| | N. | 4·2 | 218 | — | — | e 1 42 | − 9 |
| Sendai | | 5·0 | 214 | — | — | e 1 57 | −14 |

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Aug. 3d. 21h. 45m. 48s. Epicentre 13°·5N. 120°·0E. Depth of focus 0·010.
(as on 1938, September 4d.).

Intensity II at Manila. Epicentre 13°·9N. 120°·1E. (Manila).
Monthly Seismo. Bull. Manila, 1952, p. 1.

$A = -·4864$, $B = +·8424$, $C = +·2320$; $\delta = +5$; $h = +6$;
$D = +·866$, $E = +·500$; $G = -·116$, $H = +·201$, $K = -·973$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | |
| Manila | | 1·4 | 44 | i 0 45k | +20 | i 1 12 | +28 | — | | — |
| Zô-Sé | z. | 17·5 | 2 | i 3 58a | − 1 | 7 10 | + 2 | — | | — |
| Nanking | | 18·5 | 356 | i 4 10a | − 1 | e 7 32 | + 2 | — | | — |
| Kiruna | z. | 81·2 | 337 | i 12 6 | 0 | — | — | i 12 34 | pP | |
| Upsala | z. | 84·5 | 331 | i 12 24a | + 1 | i 13 3 | sP | i 12 53 | pP | |
| Triest | z. | 91·5 | 318 | e 12 36 | −21 | e 16 37 | PP | e 13 19 | pP | |
| Stuttgart | | 93·1 | 321 | e 13 6 | + 2 | — | — | — | | — |

Aug. 4d. 1h. 49m. 33s. Epicentre 31°·1N. 49°·8E.

$A = +·5537$, $B = +·6552$, $C = +·5140$; $\delta = +7$; $h = +1$;
$D = +·764$, $E = -·645$; $G = +·332$, $H = +·393$, $K = -·858$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Goris | | 8·8 | 342 | e 2 12 | + 1 | — | — | — | — | — |
| Baku | | 9·3 | 0 | e 2 24 | + 7 | — | — | — | — | — |
| Ashkabad | | 9·8 | 44 | 2 27 | + 3 | — | — | — | — | — |
| Kirovobad | | 10·0 | 345 | 2 27 | 0 | e 4 22 | 0 | — | — | — |
| Tiflis | | 11·3 | 341 | e 2 46 | 0 | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 11·8 | 336 | e 2 57 | + 4 | — | — | — | — | — |
| Gori | | 11·8 | 339 | e 3 2? | + 9 | — | — | — | — | — |
| Makhach-Kala | | 12·0 | 352 | e 2 57 | + 2 | — | — | — | — | — |
| Ksara | | 12·1 | 287 | e 4 8 | +71 | — | — | — | — | i 6·7 |
| Grozny | | 12·6 | 346 | i 3 4 | + 1 | i 5 30 | + 4 | — | — | — |
| Piatigorsk | | 14·0 | 339 | 3 21 | − 1 | 5 59 | 0 | — | — | — |
| Sotchi | | 14·8 | 330 | i 3 32 | 0 | e 6 17 | − 1 | — | — | — |
| Helwan | | 16·0 | 270 | 3 56 | + 8 | e 7 5 | +19 | — | — | e 8·6 |
| Samarkand | | 16·4 | 54 | 3 49 | − 4 | 6 47 | − 9 | — | — | — |
| Kulyab | | 17·8 | 62 | e 4 5 | − 6 | — | — | — | — | — |
| Theodosia | | 17·9 | 324 | 4 11 | − 1 | 7 29 | − 1 | — | — | — |
| Obi-garm | | 18·0 | 58 | i 4 12 | − 1 | — | — | — | — | — |
| Yalta | | 18·2 | 321 | 4 14 | − 2 | 7 34 | − 3 | — | — | — |
| Simferopol | | 18·5 | 321 | 4 18 | − 1 | 7 46 | + 2 | — | — | — |
| Lunacharskoe | | 18·7 | 51 | e 4 21 | − 1 | — | — | — | — | — |
| Khorog | | 19·1 | 63 | i 4 26 | − 1 | — | — | — | — | — |
| Dzhergetal | | 19·3 | 57 | 4 28 | − 1 | — | — | — | — | — |
| Istanbul | z. | 19·4 | 306 | e 4 33 | + 3 | e 8 9 | + 5 | — | — | — |
| Tchimkent | | 19·4 | 48 | i 4 29 | − 1 | e 8 6 | + 2 | — | — | — |
| Andijan | | 20·6 | 56 | i 4 42 | − 1 | i 8 30 | + 1 | — | — | — |
| Murgab | | 21·1 | 63 | e 4 49 | + 1 | e 8 39 | 0 | — | — | — |
| Kishinev | | 22·6 | 320 | 5 2 | − 1 | 9 5 | − 2 | — | — | — |
| Frunse | | 22·9 | 52 | i 5 8 | + 2 | 9 14 | + 1 | — | — | — |
| Naryn | | 23·4 | 56 | e 5 13 | + 2 | — | — | — | — | — |
| Almata | | 24·7 | 51 | e 5 23 | − 1 | — | — | — | — | — |
| Przhevalsk | | 25·4 | 53 | i 5 32 | + 1 | — | — | — | — | — |
| Moscow | | 26·1 | 344 | 5 36 | − 1 | 10 4 | − 3 | — | — | — |
| Timisoara | | 26·6 | 311 | 5 27? | −15 | — | — | — | — | — |
| Sverdlovsk | | 26·8 | 13 | 5 42 | − 2 | e 10 20 | + 1 | — | — | — |
| Lwow | | 26·9 | 321 | e 5 44 | − 1 | e 10 18 | − 2 | — | — | — |
| Uzhgorod | | 27·2 | 319 | e 5 40 | − 7 | — | — | — | — | — |
| Messina | | 28·9 | 293 | e 6 6 | + 3 | e 10 59 | + 6 | — | — | e 18·7 |
| Semipalatinsk | | 29·8 | 40 | e 6 10 | − 1 | — | — | — | — | — |
| Pulkovo | | 31·5 | 341 | e 6 24 | − 2 | e 11 28 | − 6 | — | — | — |
| Triest | z. | 31·5 | 308 | e 6 25 | − 1 | — | — | e 7 11 | PP | — |

*Continued on next page.*

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Rome | N. | 31·6 | 300 | — | — | i 11 33 | − 2 | e 13 58 | SS | e 17·8 |
| Collmberg | Z. | 33·8 | 317 | e 6 44 | − 2 | — | — | — | — | — |
| Potsdam | | 34·2 | 319 | — | — | e 12 13 | − 3 | e 15 52 | SS | e 19·4 |
| Pavia | | 34·5 | 306 | — | — | i 12 29 | + 9 | — | — | e 17·3 |
| Stuttgart | | 35·3 | 312 | e 6 57 | − 2 | e 15 15 | SS | e 16 57 | Q | e 20·4 |
| Zürich | | 35·4 | 309 | e 6 58a | − 2 | e 12 23 | −11 | — | — | — |
| Copenhagen | | 35·9 | 324 | i 7 5 | + 1 | 12 37 | − 5 | i 7 10 | ? | 20·4 |
| Upsala | | 35·9 | 332 | i 7 2a | − 2 | i 12 41 | − 1 | i 8 54 | PPP | e 18·4 |
| Paris | | 39·6 | 310 | i 7 35 | 0 | — | — | e 7 39 | ? | — |
| Tamanrasset | Z. | 40·1 | 269 | i 7 44a | + 5 | e 13 52 | + 6 | e 9 21 | PP | — |
| Kiruna | | 40·6 | 343 | i 7 42a | − 1 | e 13 54 | 0 | e 9 9 | PP | e 21·4 |
| Granada | | 44·1 | 293 | e 8 21k | + 9 | 14 57 | +12 | — | — | 25·4 |
| Malaga | | 44·8 | 293 | i 8 19 | + 2 | e 14 54 | − 1 | — | — | — |
| Pretoria | Z. | 60·2 | 202 | i 10 18 | + 6 | — | — | — | — | — |
| Kimberley | Z. | 64·1 | 204 | i 10 45 | + 7 | — | — | — | — | — |
| Grahamstown | Z. | 67·7 | 200 | i 10 45 | −16 | — | — | — | — | — |

Aug. 4d. 3h. 38m. 19s. Epicentre 39°·2N. 70°·7E. (as on 1952, July 16d.).

Epicentre given by stations of the U.S.S.R.

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Dzhergetal | 0·4 | 88 | i 0 12 | − 1 | i 0 18 | − 3 |
| Garm | 0·4 | 237 | i 0 10 | + 2g | i 0 16 | + 3g |
| Obi-garm | 0·9 | 237 | e 0 22 | + 2 | e 0 35 | + 1 |
| Kulyab | 1·5 | 209 | e 0 30 | + 2 | 0 52 | + 3 |
| Khorog | 1·9 | 158 | e 0 36 | + 2 | i 1 5 | + 2g |
| Andijan | 2·0 | 39 | i 0 44 | + 4g | i 1 13 | + 7g |
| Lunacharskoe | 2·4 | 334 | — | — | i 1 24 | + 5g |
| Murgab | 2·7 | 108 | e 0 57 | + 3g | e 1 34? | + 5g |
| Samarkand | 2·9 | 279 | e 1 0 | + 2g | 1 41 | + 5g |
| Tchimkent | 3·1 | 345 | — | — | e 1 45 | + 3g |
| Naryn | 4·6 | 60 | 1 19 | − 3* | — | — |
| Rybach'e | 5·2 | 50 | — | — | e 2 37 | − 1* |

Aug. 4d. 4h. 24m. 56s. Epicentre 39°·8N. 77°·4E. (as on July 21d.).

| | △ | Az. | P. | O−C. | S. | O−C |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Naryn | 1·9 | 327 | i 0 31 | − 3 | i 0 55 | − 4 |
| Przhevalsk | 2·8 | 16 | 0 50 | + 3 | 1 29 | + 2* |
| Rybach'e | 2·8 | 339 | i 0 47 | 0 | e 1 23 | + 1 |
| Murgab | 3·1 | 242 | — | — | e 1 20 | − 9 |
| Kurmenty | 3·3 | 11 | i 0 56 | + 3 | i 1 44 | + 2* |
| Almata | 3·5 | 354 | e 1 0? | + 3 | i 1 46? | − 2* |
| Almata II | 3·5 | 0 | i 0 58 | + 1 | 1 46 | − 2* |
| Frunse | 3·7 | 326 | i 0 59 | − 1 | i 1 47 | + 2 |
| Chilisk | 3·8 | 11 | e 1 4 | + 3 | i 2 0 | + 3* |
| Andijan | 4·0 | 285 | e 1 1 | − 3 | 2 5 | + 2* |
| Ili | 4·2 | 357 | i 1 5 | − 2 | — | — |
| Namangan | 4·5 | 287 | e 1 21 | + 1* | — | — |
| Dzhergetal | 4·8 | 265 | e 1 14 | − 1 | e 2 23 | − 3* |
| Khorog | 5·1 | 245 | e 1 19 | − 1 | e 2 30 | − 5* |
| Garm | 5·5 | 264 | i 1 21 | − 4 | — | — |
| Obi-garm | 6·1 | 262 | e 1 23 | −11 | — | — |
| Tchimkent | 6·4 | 295 | e 1 52 | 0* | — | — |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Aug. 4d. 7h. 50m. 30s. Epicentre 41°·4N. 44°·1E. (as on 1952, June 22d.).

A = +·5403, B = +·5236, C = +·6588 ; $\delta$ = +10 ; $h$ = −2 ;
D = +·696, E = −·718 ; G = +·473, H = +·458, K = −·752.

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Gori | 0·6 | 1 | e 0 16 | + 1 | i 0 27 | + 1 |
| Leninakan | 0·6 | 199 | 0 10 | − $2_g$ | 0 17 | − $3_g$ |
| Tiflis | 0·6 | 59 | e 0 16 | + 1 | i 0 26 | 0 |
| Tsikhlis-Dzhvari | 0·6 | 302 | i 0 12 | $0_g$ | i 0 20 | $0_g$ |
| Abastumanj | 1·0 | 290 | e 0 24? | + 3 | e 0 37? | + 1 |
| Erevan | 1·2 | 166 | — | — | 0 40 | − 1 |
| Kirovobad | 1·8 | 111 | 0 32 | 0 | — | — |
| Zugdidi | 2·0 | 304 | e 0 37 | 0* | 1 6 | $0_g$ |
| Grozny | 2·3 | 32 | — | — | e 1 18 | + $2_g$ |
| Goris | 2·6 | 138 | e 0 51 | − $1_g$ | — | — |

Aug. 4d. 12h. 55m. 48s. Epicentre 36°·7N. 0°·2E.

Intensity V at Alicante, felt at Toledo and Malaga. Epicentre adopted from Madrid. Bull. Sísmico, segundo semestre, año 1952, Instituto geográfico y catastral, Madrid, 1956, p.40.

A = +·8037, B = +·0028, C = +·5951 ; $\delta$ = +9 ; $h$ = 0 ;
D = +·003, E = −1·000 ; G = +·595, H = +·002, K = −·804.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | s. | m. |
| Alicante | | 1·7 | 342 | 0 35 | + 4 | 0 59 | + 5 | 0 42 | $P_g$ | — |
| Almeria | | 2·1 | 274 | 2 12 | ? | — | — | — | — | — |
| Algiers Univ. | z. | 2·3 | 88 | e 0 42 | + 2 | e 1 3 | − 6 | — | — | — |
| Granada | | 3·1 | 279 | 1 27 | S | (1 27) | − 2 | 2 12 | ? | — |
| Malaga | | 3·7 | 272 | e 1 27 | +$13_g$ | e 2 12 | +$10_g$ | — | — | — |
| Tortosa | | 4·1 | 3 | 0 56 | − 9 | i 1 41 | −14 | — | — | — |
| Toledo | | 4·6 | 315 | e 1 26 | + 4* | 2 23 | + 3* | 1 46 | $P_g$ | — |
| Barcelona | | 4·9 | 17 | e 1 16 | − 1 | e 2 30 | + 1* | e 2 52 | $S_g$ | — |
| Clermont-Ferrand | | 9·3 | 13 | e 2 33 | +16 | e 4 18 | +13 | e 3 22 | $P_g$ | 5·3 |
| Tamanrasset | z. | 14·6 | 160 | e 3 56 | +26 | e 6 42 | +29 | e 7 8 | SS | — |

Aug. 4d. 19h. 17m. 7s. I
21h. 57m. 28s. II } Epicentre 39°·6N. 71°·3E. (as on 1952, June 26d.).

A = +·2477, B = +·7318, C = +·6349 ; $\delta$ = −2 ; $h$ = −2 ;
D = +·947, E = −·321 ; G = +·204, H = +·601, K = −·773.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| I | Dzhergetal | 0·4 | 190 | i 0 6 | − $2_g$ | i 0 11 | − $2_g$ |
| II | | 0·4 | 190 | i 0 5 | − $3_g$ | i 0 8 | − $5_g$ |
| I | Fergana | 0·9 | 25 | — | — | i 0 27 | − $3_g$ |
| II | | 0·9 | 25 | e 0 21 | + 1 | e 0 38 | + 4 |
| I | Andijan | 1·4 | 35 | e 0 26 | − 1 | e 0 46 | 0 |
| II | | 1·4 | 35 | i 0 33 | + $5_g$ | 0 59 | ? |
| I | Namangan | 1·4 | 11 | e 0 28 | + 1 | i 0 48 | + 2 |
| II | | 1·4 | 11 | i 0 33 | + $5_g$ | i 0 59 | ? |
| II | Obi-garm | 1·5 | 234 | e 0 22 | − 6 | 0 38 | −11 |
| I | Khorog | 2·1 | 172 | e 0 38 | + 1 | e 1 8 | − $1_g$ |
| II | | 2·1 | 172 | e 0 38 | + 1 | 1 9 | $0_g$ |
| I | Kulyab | 2·1 | 215 | i 0 33 | − 4 | i 1 1 | − 3 |
| II | | 2·1 | 215 | 0 33 | − 4 | i 0 58 | − 6 |
| I | Stalinabad | 2·2 | 242 | e 0 38 | 0 | e 1 8 | − 1* |
| II | | 2·2 | 242 | i 0 35 | − 3 | i 0 59 | − 7 |
| I | Lunacharskoe | 2·3 | 319 | i 0 41 | + 1 | e 1 14 | + 5 |
| I | Samarkand | 3·3 | 271 | — | — | e 1 45 | + 3* |
| II | | 3·3 | 271 | 0 57 | + 4 | e 1 39 | + 4 |
| II | Naryn | 4·0 | 61 | e 1 19 | − $1_g$ | i 2 30 | +$18_g$ |
| II | Frunse | 4·1 | 36 | e 1 12 | − 1* | — | — |
| II | Rybach'e | 4·6 | 50 | — | — | e 2 43 | +$11_g$ |
| II | Przhevalsk | 6·1 | 59 | e 2 0 | − $2_g$ | — | — |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Aug. 4d. 21h. 3m. 50s. Epicentre 39°·8N. 77°·4E. (as at 4h.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Naryn | | 1·9 | 327 | i 0 35 | + 1 | i 1 2 | + 3 | — | — |
| Przhevalsk | | 2·8 | 16 | 0 45 | − 2 | 1 19 | − 3 | — | — |
| Rybach'e | | 2·8 | 339 | i 0 48 | + 1 | e 1 24 | + 2 | — | — |
| Murgab | | 3·1 | 242 | e 1 0 | − 2$_g$ | — | — | — | — |
| Kurmenty | | 3·3 | 11 | i 0 52 | − 1 | — | — | — | — |
| Almata | | 3·5 | 354 | 0 57 | 0 | i 1 40 | 0 | e 1 25 | ? |
| Almata II | | 3·5 | 0 | i 0 56 | − 1 | — | — | — | — |
| Frunse | | 3·7 | 326 | i 1 3 | + 3 | e 1 55 | + 1* | i 1 52 | ? |
| Chilisk | | 3·8 | 11 | e 1 0 | − 1 | — | — | — | — |
| Andijan | | 4·0 | 285 | i 1 8 | + 4 | i 2 26 | +14$_g$ | — | — |
| Ili | | 4·2 | 357 | i 1 4 | − 3 | — | — | — | — |
| Fergana | | 4·3 | 279 | e 1 12 | + 4 | — | — | — | — |
| Namangan | | 4·5 | 287 | e 1 19 | − 1* | i 2 29 | 0$_g$ | — | — |
| Dzhergetal | | 4·8 | 265 | i 1 21 | + 6 | — | — | — | — |
| Khorog | | 5·1 | 245 | e 1 30? | 0* | e 2 33? | − 2* | — | — |
| Obi-garm | | 6·1 | 262 | e 1 37 | + 3 | e 3 46 | +24$_g$ | — | — |
| Lunacharskoe | | 6·3 | 286 | e 1 41 | + 5 | e 3 46 | +18$_g$ | — | — |
| Stalinabad | | 6·8 | 262 | e 1 46 | + 2 | e 3 55 | +10$_g$ | — | — |
| Samarkand | | 8·0 | 272 | 2 5 | + 5 | — | — | — | — |
| Ashkabad | | 15·0 | 269 | — | — | 6 18 | − 5 | — | — |
| Sverdlovsk | | 20·3 | 333 | e 4 39 | − 1 | — | — | — | — |
| Kiruna | z. | 41·5 | 332 | i 7 48$_s$ | − 2 | — | — | — | — |

Aug. 5d. 11h. 6m. 14s. Epicentre 31°·9N. 132°·0E. (as on 1941, July 19d.).

Intensity IV at Miyazaki and Kawaminami ; II-III at Kitakata, Tano, and Miyakonojo Epicentre 31°·7N. 132°·1E. Macroseismic radius 100-200km.

Seismo. Bull. Cent. Met. Obs., Japan, for Aug., 1952, Tokyo, 1952, p.298, with macroseismic chart.

A = −·5691, B = +·6321, C = +·5259 ; $\delta$ = 0 ; $h$ = +1 ;
D = +·743, E = +·669 ; G = −·352, H = +·391, K = −·851.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Miyazaki | | 0·5 | 272 | i 0 11$_k$ | 0* | i 0 18 | − 1* |
| Simidu | | 1·2 | 43 | e 0 46 | +22 | 1 8 | +27 |
| Kagosima | | 1·3 | 255 | 0 34 | + 9 | — | — |
| Asosan | | 1·3 | 322 | 0 26 | + 1 | 0 46 | + 2 |
| Kumamoto | | 1·4 | 310 | i 0 27$_a$ | 0 | 0 50 | + 4 |
| Ooita | | 1·4 | 348 | e 0 30 | + 3 | 0 53 | + 7 |
| Uwazima | | 1·4 | 19 | e 0 38 | +11 | 1 0 | +14 |
| Unzendake | | 1·7 | 299 | 0 31 | 0 | 0 57 | + 1$_g$ |
| Yakusima | | 1·9 | 222 | e 0 32 | − 2 | 0 56 | − 3 |
| Matuyama | | 2·0 | 18 | e 0 42 | + 2$_g$ | 1 11 | + 5$_g$ |
| Nagasaki | z. | 2·0 | 295 | e 0 34$_a$ | − 1 | — | — |
| Koti | | 2·1 | 38 | e 0 52 | +10$_g$ | 1 20 | +11$_g$ |
| Hukuoka | z. | 2·2 | 322 | e 0 38$_a$ | 0 | 1 9 | + 3 |
| Hirosima | | 2·5 | 8 | 0 50 | 0$_g$ | 1 25 | + 2$_g$ |
| Tomie | | 2·8 | 285 | e 0 54 | − 2$_g$ | 1 34 | + 2$_g$ |
| Takamatu | | 3·0 | 35 | e 1 3 | + 3$_g$ | 1 50 | +11$_g$ |
| Ituhara | | 3·2 | 316 | e 0 55 | + 3 | 1 48 | + 2$_g$ |
| Okayama | | 3·2 | 30 | e 0 42 | −10 | 1 12 | −20 |
| Sumoto | N. | 3·5 | 44 | e 1 7 | − 3$_g$ | 2 0 | + 4$_g$ |

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Aug. 5d. 11h. 12m. 59s. Epicentre 42°·7N. 75°·0E. (as on July 5d.).

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Frunse | 0·4 | 301 | i 0 11 | + 1* | i 0 19 | − 2 | — | — |
| Rybach'e | 0·8 | 107 | i 0 13 | − $3_g$ | i 0 22 | − $4_g$ | — | — |
| Almata | 1·5 | 68 | i 0 27 | − 1 | i 0 47 | − 1* | — | — |
| Naryn | 1·5 | 150 | e 0 22 | − 6 | i 0 38 | −11 | — | — |
| Almata II | 1·8 | 72 | 0 31 | − 1 | — | — | — | — |
| Ili | 2·0 | 50 | i 0 34 | − 1 | — | — | — | — |
| Kurmenty | 2·4 | 82 | i 0 40 | − 1 | i 1 13 | + 1 | — | — |
| Przhevalsk | 2·5 | 95 | 0 41 | − 2 | 1 13 | − 1 | — | — |
| Chilisk | 2·7 | 71 | 0 45 | 0 | i 1 18 | − 1 | — | — |
| Andijan | 2·8 | 225 | i 0 52 | + 1* | i 1 29 | + 2* | — | — |
| Namangan | 3·0 | 236 | e 0 53 | + 3 | 1 29 | + 2 | — | — |
| Fergana | 3·3 | 226 | e 1 3 | − $3_g$ | e 1 43 | + 1* | i 1 47 | $S_g$ |
| Tchimkent | 4·0 | 266 | e 1 17 | − $3_g$ | — | — | — | — |
| Lunacharskoe | 4·4 | 251 | e 1 31 | + $3_g$ | e 2 25 | $0_g$ | — | — |
| Samarkand | 6·7 | 246 | e 1 45 | + 3 | e 3 0 | 0 | — | — |

Aug. 5d. 16h. 47m. 4s. Epicentre 37°·0N. 70°·5E. Depth of focus 0·040. (as on 1945, October 18d.).

A = +·2672, B = +·7547, C = +·5992; $\delta$ = +1; $h$ = −1;
D = +·943, E = −·334; G = +·200, H = +·565, H = −·810.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 1·0 | 62 | i 0 36 | − 3 | i 1 4 | − 6 |
| Kulyab | 1·1 | 328 | e 0 38 | − 2 | — | — |
| Obi-garm | 1·8 | 340 | e 0 45 | + 1 | i 1 19 | 0 |
| Garm | 2·0 | 356 | i 0 45 | − 1 | i 1 19 | − 3 |
| Stalinabad | 2·1 | 318 | — | — | i 1 21 | − 2 |
| Dzhergetal | 2·3 | 17 | i 0 48 | 0 | i 1 24 | − 2 |
| Murgab | 3·0 | 63 | e 0 56 | + 1 | i 1 38 | 0 |
| Samarkand | 3·8 | 315 | 1 6 | + 2 | — | — |
| Andijan | 4·0 | 20 | i 1 6 | 0 | i 1 58 | 0 |
| Namangan | 4·1 | 13 | i 1 8 | + 1 | — | — |
| Tchimkent | 5·3 | 354 | i 1 23 | + 2 | e 2 26 | + 1 |
| Naryn | 6·2 | 42 | e 1 33 | + 1 | — | — |
| Frunse | 6·7 | 27 | — | — | e 2 54 | − 1 |
| Almata II | 8·2 | 38 | e 1 58 | + 1 | — | — |

Aug. 6d. 5h. 6m. 9s. Epicentre 1°·1N. 28°·4W. (as on 1947, Aug. 9d.).

A = +·8795, B = −·4755, C = +·0190; $\delta$ = −2; $h$ = +7;
D = −·476, E = −·880; G = +·016, H = −·009, K = −1·000.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tamanrasset | z. | 39·4 | 54 | i 7 31 | − 2 | e 16 15 | SS | e 9 6 | PP | 20·8 |
| San Juan | | 40·8 | 298 | e 7 53 | + 8 | — | — | — | — | — |
| Malaga | | 41·8 | 29 | e 7 54 | + 1 | e 13 14 | −57 | — | — | 19·9 |
| Granada | | 42·6 | 30 | 8 18a | +19 | i 14 30 | + 7 | i 9 51 | PP | i 21·0 |
| La Paz | | 42·9 | 244 | i 8 4 | + 2 | e 14 11 | −16 | 17 51 | SS | 22·0 |
| Toledo | | 44·5 | 27 | e 8 24 | + 9 | — | — | — | — | — |
| Alicante | | 45·1 | 31 | 7 52 | −28 | 14 17 | −42 | — | — | 20·1 |
| Huancayo | | 48·4 | 253 | e 8 45 | − 1 | — | — | — | — | e 25·0 |
| Clermont-Ferrand | | 52·4 | 28 | e 9 16 | 0 | — | — | — | — | — |
| Halifax | | 53·4 | 329 | e 9 25 | + 1 | — | — | — | — | — |
| Paris | | 54·5 | 25 | e 9 29 | − 3 | e 17 16 | + 6 | e 19 40 | ScS | e 25·8 |
| Messina | | 54·6 | 42 | — | — | e 17 16 | + 5 | — | — | e 28·8 |
| Rome | | 54·8 | 37 | e 9 31 | − 3 | e 17 21 | + 7 | e 20 59 | SS | e 25·8 |
| Pavia | | 55·0 | 32 | e 13 4 | PPP | — | — | e 23 42 | ? | — |
| Florence | z. | 55·2 | 35 | i 9 32 | − 5 | — | — | i 10 13 | ? | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Rathfarnham Castle | | 55·2 | 16 | i 9 37 | 0 | e 17 22 | + 2 | e 24 31 | Q | e 27·0 |
| Harvard | | 56·5 | 323 | i 9 47a | + 1 | — | — | i 9 53 | ? | — |
| Stuttgart | | 57·4 | 28 | e 9 47 | − 6 | e 17 53 | + 4 | e 13 31 | PPP | e 28·8 |
| Triest | | 57·8 | 34 | e 9 58 | + 3 | — | — | e 25 25 | Q | 27·6 |
| De Bilt | | 58·1 | 24 | — | — | e 18 9 | +11 | (e 23 51) | SSS | e 23·8 |
| Kimberley | z. | 58·9 | 124 | i 10 0 | − 3 | — | — | — | — | — |
| Witteveen | z. | 59·2 | 24 | e 10 5 | 0 | — | — | — | — | — |
| Aberdeen | | 59·7 | 16 | e 25 51? | ? | — | — | — | — | e 29·5 |
| Ottawa | | 60·6 | 323 | e 10 16 | + 1 | — | — | i 10 21 | P | — |
| Collmberg | z. | 60·9 | 29 | e 10 15 | − 2 | — | — | — | — | — |
| Copenhagen | | 63·6 | 24 | — | — | 19 21 | PS | — | — | 30·8 |
| Kirkland Lake | z. | 64·6 | 324 | e 10 42 | + 1 | — | — | — | — | — |
| Upsala | z. | 68·5 | 23 | i 11 7 | + 1 | — | — | — | — | — |
| Fayetteville | z. | 69·9 | 308 | i 11 15a | 0 | — | — | — | — | — |
| Kiruna | | 74·5 | 18 | i 11 49a | + 7 | — | — | — | — | e 31·8 |
| Butte | | 85·2 | 317 | e 12 47 | PcP | — | — | — | — | — |
| Hungry Horse | | 86·3 | 319 | e 12 46 | + 1 | — | — | — | — | — |
| Boulder City | | 86·5 | 306 | e 12 49 | + 3 | — | — | — | — | — |

Aug. 7d. 16h. 31m. 48s. Epicentre 35°·0N. 119°·0W. (as on 1d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Havilah | z. | 0·7 | 37 | i 0 15 | 0* | — | — | — | — | — |
| Woody | z. | 0·7 | 10 | i 0 15 | 0* | — | — | — | — | — |
| Santa Barbara | | 0·8 | 226 | i 0 17 | − 1 | — | — | — | — | — |
| Pasadena | | 1·1 | 141 | i 0 23 | + 1 | i 0 40 | + 1 | — | — | — |
| Lick | z. | 3·1 | 318 | e 0 48 | − 3 | — | — | — | — | — |
| Santa Clara | | 3·3 | 315 | e 1 2 | + 3* | — | — | — | — | — |
| Boulder City | | 3·6 | 73 | e 0 58 | 0 | — | — | — | — | — |
| Berkeley | z. | 3·9 | 318 | e 0 59a | − 3 | — | — | — | — | — |
| Reno | z. | 4·6 | 352 | e 1 12 | 0 | — | — | — | — | — |
| Shasta | z. | 6·3 | 336 | e 1 33 | − 3 | — | — | — | — | — |
| Tucson | | 7·3 | 110 | e 1 49 | − 1 | — | — | i 1 53 | P | — |
| Hungry Horse | | 13·8 | 14 | e 3 21 | + 2 | — | — | — | — | e 7·4 |
| Fayetteville | z. | 20·2 | 80 | i 4 39 | 0 | — | — | — | — | e 10·7 |
| Messina | E. | 95·9 | 35 | — | — | e 26 24 | PS | e 34 56 | SSS | — |

Aug. 7d. 21h. 15m. 18s. Epicentre 23°·2S. 177°·4W. (as on 1952, May 16d.).

A = −·9191, B = −·0417, C = −·3917; $\delta = -9$; $h = +4$;
D = −·045, E = +·999; G = +·391, H = +·018, K = −·920.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Lick | z. | 79·9 | 42 | e 12 13 | + 1 | — | — | — | — |
| Pasadena | z. | 80·1 | 47 | i 12 13 | 0 | — | — | — | — |
| Riverside | z. | 80·6 | 47 | i 12 17 | + 1 | — | — | — | — |
| Palomar | z. | 80·6 | 48 | i 12 17 | + 1 | — | — | — | — |
| Shasta | z. | 81·6 | 39 | e 12 21 | 0 | — | — | — | — |
| Tinemaha | z. | 81·8 | 45 | i 12 23 | + 1 | — | — | — | — |
| Reno | z. | 82·4 | 42 | e 12 27 | + 2 | — | — | — | — |
| Kiruna | z. | 134·0 | 351 | e 19 18 | [− 2] | — | — | i 19 26 | ? |
| Upsala | z. | 141·9 | 348 | i 19 28 | [− 6] | — | — | — | — |
| Copenhagen | | 146·7 | 351 | i 19 44 | [+ 2] | — | — | — | — |
| Witteveen | z. | 150·3 | 355 | i 19 55 | [+ 7] | — | — | i 20 2 | $PKP_2$ |
| Collmberg | z. | 150·8 | 346 | e 19 53 | [+ 4] | e 19 59 | $PKP_2$ | e 20 35 | ? |
| Jena | | 151·4 | 347 | e 19 50 | [ 0] | e 19 56 | ? | e 20 9 | $PKP_2$ |
| Prague | | 151·6 | 344 | e 19 50 | [ 0] | e 20 20 | $PKP_2$ | e 21 0 | ? |
| Stuttgart | | 154·0 | 350 | e 19 52 | [− 1] | e 20 0 | ? | e 20 16 | $PKP_2$ |
| Strasbourg | | 154·3 | 353 | i 20 18 | $PKP_2$ | — | — | — | — |
| Triest | z. | 155·8 | 341 | e 20 23 | $PKP_2$ | — | — | e 20 28 | ? |
| Tamanrasset | z. | 177·3 | — | e 20 12 | [ 0] | — | — | e 21 59 | $PKP_2$ |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Aug. 7d. 21h. 53m. 30s. Epicentre 41°·7N. 144°·9E. Focus at Base of Superficial Layers.
(as on 1952, May 10d.).

Intensity V at Obihiro, Otsu, and Kawayu ; IV at Kusiro, Ikeda, Oda, Akan, and Ogifushi ; II-III at Urakawa, Abashiri, and Yashigo. Epicentre 41°·75N. 145°E. Depth about 60km. Macroseismic radius 200-300km.
Seismo. Bull. of Cent. Met. Obs., Japan, of August, 1952, Tokyo, 1952, p.299, with macroseismic chart.

$A = -·6126$, $B = +·4306$, $C = +·6627$ ; $\delta = -13$ ; $h = -2$ ;
$D = +·575$, $E = +·818$ ; $G = -·542$, $H = +·381$, $K = -·749$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kusiro | | 1·3 | 344 | i 0 18 | − 4 | 0 34 | − 4 | — | — | — |
| Urakawa | | 1·6 | 286 | i 0 24 a | − 2 | 0 46 | 0 | — | — | — |
| Nemuro | | 1·7 | 17 | e 0 26 | − 2 | 0 44 | − 5 | — | — | — |
| Obihiro | E. | 1·8 | 314 | i −0 4 | ? | 0 6 | ? | — | — | — |
| Abashiri | | 2·4 | 349 | e 0 35 | − 3 | 0 58 | − 8 | — | — | — |
| Asahigawa | | 2·8 | 318 | e 0 40 | − 3 | 1 13 | − 3 | — | — | — |
| Hatinohe | | 2·8 | 245 | e 0 43 | 0 | 1 15 | − 1 | — | — | — |
| Miyako | | 3·0 | 227 | e 0 56 | +10 | 1 31 | + 9 | — | — | — |
| Sapporo | Z. | 3·0 | 298 | i 0 43 a | − 3 | 1 20 | − 2 | — | — | — |
| Aomori | | 3·2 | 254 | e 0 50 | + 1 | 1 32 | + 5 | — | — | — |
| Mori | N. | 3·3 | 277 | 0 45 | − 6 | 1 37 | + 8 | — | — | — |
| Morioka | | 3·5 | 236 | i 0 54 k | + 1 | 1 34 | 0 | — | — | — |
| Mizusawa | | 3·9 | 230 | 1 0 | + 1 | 1 41 | − 3 | — | — | — |
| Akita | Z. | 4·1 | 243 | e 1 2 | 0 | — | — | — | — | — |
| Wakkanai | N. | 4·4 | 329 | e 1 6 | 0 | 1 56 | − 1 | — | — | — |
| Sendai | N. | 4·6 | 223 | e 1 9 | 0 | 2 0 | − 2 | — | — | — |
| Sakata | | 4·8 | 236 | e 1 19 | + 7 | — | — | — | — | — |
| Yamagata | | 4·9 | 227 | e 1 15 | + 2 | 2 9 | − 1 | — | — | — |
| Hukusima | | 5·2 | 222 | e 1 19 | + 1 | 2 17 | 0 | — | — | — |
| Inawasiro | | 5·5 | 223 | e 1 26 | + 4 | 2 25 | 0 | — | — | — |
| Shirakawa | | 5·8 | 220 | e 1 29 | + 3 | 2 31 | − 1 | — | — | — |
| Niigata | N. | 5·9 | 232 | e 1 55 | +28 | 3 11 | +36 | — | — | — |
| Aikawa | | 6·3 | 237 | e 1 31 | − 2 | — | — | — | — | — |
| Mito | Z. | 6·3 | 215 | e 1 36 | + 3 | 2 46 | + 1 | — | — | — |
| Utunomiya | | 6·5 | 219 | e 1 43 | + 7 | 2 48 | − 2 | — | — | — |
| Tukubasan | | 6·6 | 216 | — | — | e 2 49 | − 3 | — | — | — |
| Maebasi | Z. | 7·0 | 223 | i 1 43 | 0 | 3 2 | 0 | — | — | — |
| Kumagaya | | 7·0 | 220 | e 1 48 | + 5 | 3 1 | − 1 | — | — | — |
| Nagano | E. | 7·2 | 228 | e 1 50 | + 4 | 3 32 | +25 | — | — | — |
| Tokyo | | 7·2 | 216 | e 2 3 | +17 | 3 15 | + 8 | — | — | — |
| Matusiro | | 7·3 | 227 | i 1 48 | + 1 | 3 9 | − 1 | — | — | — |
| Titibu | | 7·3 | 220 | — | — | e 3 9 | − 1 | — | — | — |
| Matumoto | E. | 7·7 | 227 | e 2 16 | +23 | — | — | — | — | — |
| Kohu | | 7·8 | 221 | e 2 13 | +19 | 3 21 | − 1 | — | — | — |
| Hunatu | N. | 7·8 | 220 | e 2 0 | + 6 | 3 27 | + 5 | — | — | — |
| Toyama | E. | 7·8 | 232 | e 2 22 | +28 | 4 12 | +50 | — | — | — |
| Mera | | 7·9 | 212 | — | — | e 3 2 | −23 | — | — | — |
| Misima | | 8·1 | 217 | e 2 8 | +10 | 3 17 | −13 | — | — | — |
| Osima | | 8·2 | 214 | — | — | e 3 25 | − 7 | — | — | — |
| Omaesaki | | 8·8 | 219 | — | — | e 3 39 | − 8 | — | — | — |
| Gihu | N. | 8·9 | 228 | e 2 12 | + 3 | 4 1 | +12 | — | — | — |
| Nagoya | | 9·0 | 226 | e 2 34 | +23 | 4 27 | +35 | — | — | — |
| Kyoto | | 9·8 | 230 | e 2 22 | 0 | 4 18 | + 6 | — | — | — |
| Kobe | E. | 10·3 | 231 | e 2 30 | + 2 | 4 33 | + 9 | — | — | — |
| Koti | | 12·1 | 231 | e 2 52 | − 1 | — | — | — | — | — |
| Hirosima | | 12·3 | 237 | e 3 23 | +27 | 5 49 | +37 | — | — | — |
| Hukuoka | | 14·0 | 239 | e 3 2 | −16 | — | — | — | — | — |
| Zô-Sè | Z. | 21·8 | 248 | e 4 53 | + 2 | e 8 48 | + 3 | — | — | — |
| Nanking | | 22·9 | 254 | e 5 0 | − 2 | 9 0 | − 5 | — | — | — |
| Hong Kong | | 32·2 | 243 | — | — | e 11 43 | + 6 | — | — | — |
| College | | 43·7 | 34 | i 8 2 | − 2 | e 14 29 | − 2 | e 17 51 | SS | e 19·4 |
| Resolute Bay | | 57·4 | 16 | i 9 45 k | − 3 | e 17 38 | − 2 | — | — | e 31·0 |
| Victoria | | 61·3 | 49 | 10 13 | − 1 | — | — | — | — | — |
| Kiruna | | 63·1 | 339 | i 10 23 | − 3 | i 18 50 | − 4 | i 10 40 | pP | e 33·2 |
| Shasta | Z. | 66·2 | 56 | e 10 47 | + 1 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Hungry Horse | | 66·6 | 45 | e 10 49 | 0 | — | — | — | — | — |
| Scoresby Sund | | 67·7 | 355 | i 10 53 | − 3 | e 19 43 | − 7 | — | — | — |
| Lick | z. | 68·6 | 58 | e 10 49 | −13 | — | — | — | — | — |
| Upsala | | 69·9 | 334 | i 11 6 | − 4 | e 20 10 | − 6 | i 11 15 | pP | e 33·5 |
| Pasadena | z. | 72·8 | 59 | e 11 36 | + 9 | — | — | e 11 44 | pP | — |
| Riverside | z. | 73·4 | 59 | e 11 41 | pP | — | — | — | — | — |
| Boulder City | | 73·8 | 56 | e 11 34 | + 1 | — | — | — | — | — |
| Copenhagen | | 74·9 | 334 | i 11 38 | − 1 | 21 11 | − 2 | 21 30 | sS | 38·5 |
| Kishinev | | 75·0 | 322 | i 11 39 | − 1 | e 21 11 | − 3 | — | — | — |
| Lwow | | 75·2 | 325 | i 11 40 | − 1 | e 21 14 | − 2 | e 11 57 | PcP | — |
| Cernauti | | 75·5 | 323 | e 11 38 | − 5 | — | — | — | — | — |
| Uzhgorod | | 76·2 | 325 | e 11 51 | + 4 | — | — | — | — | — |
| Skalnate Pleso | | 77·2 | 326 | e 11 51 | − 1 | e 21 38 | 0 | e 22 15 | PS | — |
| Potsdam | | 77·4 | 332 | e 11 52 | − 1 | e 21 40 | 0 | e 21 56 | sS | e 37·5 |
| Raciborzu | | 77·4 | 328 | e 11 49? | − 4 | e 12 1 | PcP | e 11 58 | pP | — |
| Collmberg | | 78·4 | 331 | e 11 55 | − 4 | e 21 36 | −15 | e 12 23 | ? | e 30·6 |
| Tucson | | 78·7 | 57 | e 12 0 | 0 | — | — | e 11 54 | ? | — |
| Prague | | 78·8 | 330 | i 12 0 | − 1 | e 21 54 | − 1 | e 14 40 | PP | e 41·5 |
| Jena | | 79·2 | 332 | e 12 1 | − 2 | e 15 10 | PP | e 12 13 | pP | — |
| Istanbul | | 79·2 | 317 | e 12 6 | + 3 | e 22 0 | + 1 | — | — | 43·5 |
| Witteveen | z. | 79·2 | 336 | i 12 3 | 0 | — | — | — | — | — |
| De Bilt | | 80·3 | 336 | i 12 2 | − 7 | e 22 12 | + 1 | e 15 14 | PP | 39·5 |
| Ksara | | 80·6 | 307 | i 12 3 | − 8 | 22 31 | +17 | — | — | — |
| Stuttgart | | 81·8 | 332 | e 12 15 | − 2 | e 22 35 | + 9 | e 15 22 | PP | e 39·5 |
| Kirkland Lake | z. | 82·1 | 29 | e 12 31 | pP | — | — | — | — | — |
| Rathfarnham Castle | | 82·2 | 343 | e 12 17 | − 2 | — | — | — | — | e 47·5 |
| Kew | | 82·4 | 338 | i 12 19 | − 1 | e 22 46 | +13 | — | — | e 41·5 |
| Strasbourg | | 82·5 | 333 | i 12 20 | − 1 | e 22 30 | − 4 | e 24 0 | PPS | 40·5 |
| Triest | | 82·7 | 328 | i 12 20a | − 2 | e 22 36 | 0 | e 12 29 | pP | — |
| Zürich | | 83·2 | 332 | e 12 21 | − 3 | — | — | — | — | — |
| Basle | | 83·4 | 332 | e 12 24 | − 1 | — | — | — | — | — |
| Paris | | 84·0 | 337 | i 12 26 | − 2 | e 22 51 | + 2 | e 12 33 | PcP | e 43·5 |
| Florence | | 85·3 | 327 | i 12 35 | 0 | e 22 58 | − 3 | e 12 17 | ? | e 41·5 |
| Fayetteville | z. | 85·6 | 44 | i 12 36 | 0 | — | — | — | — | — |
| Rome | N. | 86·3 | 326 | — | — | e 22 52 | [− 8] | — | — | — |
| Clermont-Ferrand | | 86·5 | 334 | e 12 41 | 0 | — | — | 45 50 | Q | 49·5 |
| Cleveland | | 87·2 | 33 | i 12 44k | 0 | e 23 21 | + 1 | — | — | — |
| Harvard | | 90·0 | 26 | i 12 58a | + 1 | — | — | — | — | e 47·7 |
| Weston | | 90·1 | 26 | i 13 0k | + 2 | — | — | — | — | — |
| Philadelphia | | 90·9 | 30 | — | — | e 23 51 | − 3 | — | — | — |
| Toledo | | 94·0 | 336 | e 13 21 | + 5 | — | — | — | — | — |
| Alicante | | 94·3 | 333 | 13 21 | + 4 | — | — | — | — | 44·7 |
| Granada | | 96·4 | 335 | 13 1k | −26 | 24 57 | SKKS | 15 30 | PP | 48·6 |
| Tamanrasset | z. | 105·6 | 321 | e 18 19 | PKP | i 18 31 | PP | 17 57 | ? | — |
| La Paz | | 142·1 | 58 | i 19 34k | [+ 5] | 27 2 | sSKS | i 23 14 | PKS | — |

Aug. 8d. 3h. 36m. 12s. Epicentre 40°·2N. 142°·3E. Focus as Base of Superficial Layers. (as on 1952, May 16d.).

Intensity II-III at Hatinohe, Miyako, Sambongi, and Sichinohe.
Epicentre 40°·3N. 142°·3E. Depth 30km.ca. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, Aug., 1952, Tokyo, 1952, p.300, with macroseismic chart.

$A = -\cdot6060$, $B = +\cdot4684$, $C = +\cdot6429$; $\delta = -5$; $h = -2$;
$D = +\cdot612$, $E = +\cdot791$; $G = -\cdot509$, $H = +\cdot393$, $K = -\cdot766$.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Miyako | | 0·6 | 203 | e 0 13 | + 1 | 0 22 | + 1 |
| Hatinohe | | 0·7 | 300 | i 0 9k | − 4 | 0 18 | − 5 |
| Morioka | | 1·0 | 240 | e 0 16 | − 2 | 0 29 | − 2 |
| Aomori | | 1·3 | 298 | e 0 21 | − 1 | 0 36 | − 2 |
| Mizusawa | E. | 1·4 | 220 | e 0 28 | + 5 | 0 42 | + 1 |
| Akita | | 1·7 | 254 | e 0 38 | +10 | — | — |
| Urakawa | | 2·0 | 10 | e 0 30 | − 2 | 0 52 | − 4 |
| Sendai | | 2·2 | 209 | — | — | e 1 3 | + 2 |
| Hukusima | | 2·8 | 210 | e 1 4 | +21 | 1 36 | +20 |
| Sapporo | | 2·9 | 346 | — | — | e 1 22 | + 3 |
| Shirakawa | | 3·5 | 208 | — | — | e 1 24 | −10 |

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Aug. 8d. 6h. 27m. 41s. Epicentre 39°·2N. 70°·7E. (as on 4d.).

Epicentre as given by U.S.S.R.

A = +·2568, B = +·7334, C = +·6295 ; $\delta$ = +9 ; $h$ = −2 ;
D = +·944, E = −·331 ; G = +·208, H = +·594, K = −·777.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Garm | 0·4 | 237 | e 0 8 | $0_g$ | e 0 13 | $0_g$ |
| Obi-garm | 0·9 | 237 | i 0 18 | $0_g$ | i 0 31 | 0* |
| Fergana | 1·4 | 31 | — | — | e 0 46 | 0 |
| Kulyab | 1·5 | 209 | — | — | e 0 50 | $0_g$ |
| Stalinabad | 1·6 | 247 | i 0 32 | $0_g$ | 0 55 | + $2_g$ |
| Khorog | 1·9 | 158 | e 0 37 | − $1_g$ | 1 5 | + $2_g$ |
| Andijan | 2·0 | 39 | e 0 38 | + 1* | i 1 8 | + $2_g$ |
| Lunacharskoe | 2·4 | 334 | e 0 45 | + 1* | e 1 19 | $0_g$ |
| Samarkand | 2·9 | 279 | e 0 58 | $0_g$ | 1 34 | − $2_g$ |
| Tchimkent | 3·1 | 345 | — | — | e 1 40 | − $2_g$ |
| Frunse | 4·7 | 38 | — | — | e 2 36 | + $1_g$ |

Aug. 8d. 13h. 28m. 49s. Epicentre 33°·8N. 134°·2E. (as on 1951, March 11d.).

Intensity IV at Muroto, Tubakidomari, Itiba, Ikeda, Iwakura, Motomayama, and Yasu ; II-III at Koti, Takamatu, and Sumoto. Epicentre 33°·9N. 134°·1E. Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, Aug., 1952, Tokyo, 1952, p.300, with macroseismic chart.

A = −·5805, B = +·5970, C = +·5537 ; $\delta$ = −3 ; $h$ = +1 ;
D = +·717, E = +·697 ; G = −·386, H = +·397, K = −·833.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Takamatu | 0·5 | 348 | i 0 11 a | 0* | 0 19 | 0* |
| Koti | 0·6 | 246 | i 0 10 k | − $2_g$ | 0 18 | − $2_g$ |
| Muroto | 0·6 | 181 | i 0 7 a | − $5_g$ | 0 15 | − $5_g$ |
| Himeji | 0·7 | 13 | i 0 21 | + 4 | 0 35 | + 7 |
| Sumoto | 0·8 | 46 | i 0 14 k | − $2_g$ | 0 25 | − $1_g$ |
| Okayama | 0·9 | 346 | i 0 21 k | + 1 | 0 33 | − 1 |
| Wakayama | 0·9 | 62 | i 0 14 | − $4_g$ | 0 27 | − $3_g$ |
| Kobe | 1·2 | 43 | i 0 22 k | − 1* | 0 38 | − $2_g$ |
| Matuyama | 1·2 | 272 | i 0 19 | − 4* | 0 36 | − $4_g$ |
| Osaka | 1·4 | 52 | e 0 27 | 0 | 0 47 | + 1 |
| Simidu | 1·4 | 225 | 0 25 | − 2 | 0 42 | − 4 |
| Siomisaki | 1·4 | 105 | e 0 22 | − 5 | 0 38 | − 8 |
| Uwazima | 1·5 | 248 | e 0 23 | − 5 | 0 44 | − 4* |
| Hirosima | 1·6 | 291 | 0 27 | − 3 | 0 48 | − 3 |
| Owase | 1·7 | 81 | 0 29 | − 2 | 0 49 | − 5 |
| Kyoto | 1·8 | 46 | e 0 31 | − 1 | 0 52 | − 4 |
| Toyooka | 1·8 | 16 | e 0 32 | 0 | 0 53 | − 3 |
| Yonago | 1·8 | 337 | i 0 32 | 0 | 0 56 | 0 |
| Hamada | 2·1 | 302 | 0 38? | − 1* | 1 6? | 0* |
| Kameyama | 2·2 | 61 | i 0 39 | − 1* | 1 9 | 0* |
| Ooita | 2·2 | 255 | 0 38 | 0 | 1 12 | − $1_g$ |
| Tsuruga | 2·4 | 39 | e 0 45 | + 1* | 1 14 | − 1* |
| Saigo | 2·5 | 344 | e 0 54 | + $4_g$ | — | — |
| Simonoseki | 2·6 | 273 | 1 0 49 | + 2* | — | — |
| Gihu | 2·7 | 53 | e 0 45 | 0 | 1 23 | − 1* |
| Nagoya | 2·7 | 59 | 0 47 | + 2 | 1 17 | − 2 |
| Hukui | 2·8 | 37 | e 0 52 | + 1* | — | — |
| Miyazaki | 3·0 | 231 | e 0 59 | − $1_g$ | — | — |
| Kumamoto | 3·1 | 251 | e 0 56 | 0* | 1 43 | + $1_g$ |
| Hukuoka | 3·2 | 266 | e 0 58 k | 0* | 1 40 | + 1* |
| Saga | 3·3 | 262 | e 1 0 | + 1* | 1 42 | 0* |
| Kanazawa | 3·4 | 36 | e 1 4 | + 3* | — | — |
| Omaesaki | 3·4 | 75 | e 1 7 | − $1_g$ | — | — |
| Toyama | 3·8 | 39 | e 1 10 | + 2* | 2 1 | + 4* |
| Matumoto N. | 3·9 | 51 | e 1 11 | + 1* | 2 4 | + 4* |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Ituhara | | 4·1 | 273 | e 1 3 | − 2 | 2 8 | + 2* |
| Kohu | | 4·1 | 62 | e 1 9 | + 4 | 2 5 | − 1* |
| Misima | | 4·1 | 70 | e 1 9 | + 4 | 2 7 | + 1* |
| Hunatu | E. | 4·1 | 64 | e 1 9 | + 4 | — | — |
| Wazima | | 4·2 | 31 | e 1 24 | 0g | — | — |
| Matusiro | | 4·3 | 49 | e 1 23 | − 3g | 2 23 | + 1g |
| Nagano | | 4·4 | 48 | e 1 29 | + 1g | — | — |
| Oiwake | | 4·4 | 53 | e 1 17 | − 1* | — | — |
| Maebasi | Z. | 4·8 | 55 | e 1 33 | − 3g | 2 40 | + 1g |
| Kumagaya | | 4·9 | 59 | e 1 20 | + 3 | 2 13 | − 2 |
| Utunomiya | | 5·4 | 58 | e 1 39 | + 4* | 2 47 | + 3* |

Aug. 8d. 19h. 29m. 18s. Epicentre 36°·3N. 71°·0E. Focus at Base of Superficial Layers.
(as on 1951, June 20d.).

A = +·2630, B = +·7638, C = +·5894 ; δ = −5 ; h = 0 ;
D = +·946, E = −·326 ; G = +·192, H = +·557, K = −·808.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 1·4 | 23 | i 0 23 | 0 | i 0 41 | 0 |
| Obi-garm | 2·6 | 293 | e 0 42 | + 1 | i 1 13 | + 2 |
| Garm | 2·8 | 349 | i 0 43 | 0 | e 1 15 | − 1 |
| Dzhergetal | 2·9 | 3 | 0 46 | + 1 | i 1 22 | + 3 |
| Stalinabad | 2·9 | 322 | i 0 44 | − 1 | i 1 17 | − 2 |
| Murgab | 3·1 | 47 | i 0 50 | + 2 | — | — |
| Fergana | 4·1 | 9 | i 1 1 | − 1 | 1 50 | + 1 |
| Andijan | 4·6 | 14 | e 1 8 | − 1 | 2 1 | − 1 |
| Namangan | 4·7 | 6 | e 1 10 | 0 | i 2 5 | 0 |
| Lunacharskoe | 5·2 | 347 | e 1 15 | − 3 | — | — |
| Frunse | 7·1 | 22 | — | — | 3 4 | − 1 |

Aug. 8d. 22h. 6m. 59s. Epicentre 36°·4N. 140°·6E. (as on 1951, Nov. 27d.).
Intensity IV at Tukubasan ; II-III at Tyosi, Onahama, Kashiwa, Hukusima, and Nakahata
Epicentre 36°·5N. 140°·9E. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, Aug., 1952, Tokyo, 1952, p.302, with macroseismic chart.

A = −·6235, B = +·5121, C = +·5908 ; δ = +4 ; h = 0 ;
D = +·635, E = +·773 ; G = −·457, H = +·375, K = −·807.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Tukubasan | | 0·5 | 246 | 0 13 | − 1 | 0 23 | 0 |
| Onahama | | 0·6 | 24 | i 0 7k | − 5g | 0 15 | − 5g |
| Utunomiya | | 0·6 | 284 | e 0 15 | 0 | 0 27 | + 1 |
| Tyosi | N. | 0·7 | 162 | c −0 6 | −23 | — | — |
| Kashiwa | | 0·8 | 223 | 0 16 | 0g | 0 32 | + 1 |
| Shirakawa | | 0·8 | 337 | i 0 15 | − 1g | 0 29 | + 1* |
| Kumagaya | | 1·0 | 256 | e 0 23 | + 2 | 0 41 | + 5 |
| Tokyo | | 1·0 | 224 | c 0 20 | 0g | 0 37 | + 1 |
| Inawasiro | | 1·2 | 342 | i 0 20 | − 3* | 0 39 | − 1* |
| Maebasi | | 1·3 | 270 | i 0 9 | −16 | 0 29 | −15 |
| Titibu | | 1·3 | 251 | e 0 29 | + 3g | 0 47 | + 3 |
| Hukusima | | 1·4 | 356 | i 0 20k | − 7 | 0 42 | − 4 |
| Oiwake | | 1·6 | 268 | e 0 23 | − 7 | — | — |
| Ajiro | | 1·8 | 222 | e 0 35 | + 1* | 1 5 | + 5g |
| Hunatu | N. | 1·8 | 239 | e 0 34 | 0* | 1 10 | +10g |
| Kohu | | 1·8 | 245 | e 0 33 | − 1* | 1 1 | + 1g |
| Misima | | 1·8 | 226 | e 0 35 | + 1* | 0 59 | + 2* |
| Matusiro | | 1·9 | 274 | e 0 36 | + 1* | 1 5 | + 2g |
| Osima | | 1·9 | 211 | e 0 32 | − 2 | 1 1 | + 1* |
| Sendai | | 1·9 | 7 | e 0 25 | − 9 | 0 47 | −12 |

*Continued on next page.*

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Yamagata | | 1·9 | 354 | e 0 36 | + 1* | — | — |
| Niigata | N. | 1·9 | 321 | e 0 42 | + $4_g$ | 1 16 | +$13_g$ |
| Nagano | E. | 2·0 | 278 | e 0 38 | + 1* | 1 6 | $0_g$ |
| Matumoto | E. | 2·1 | 266 | e 0 39 | 0* | 1 11 | + $2_g$ |
| Shizuoka | | 2·3 | 231 | e 0 38 | − 2 | 1 18 | + $2_g$ |
| Aikawa | E. | 2·5 | 311 | 0 47 | + 2* | 1 24 | + $1_g$ |
| Mizusawa | | 2·8 | 9 | 0 49 | + 2 | e 1 12 | −10 |
| Toyama | | 2·8 | 276 | e 0 54 | − $2_g$ | — | — |
| Nagoya | | 3·2 | 247 | e 0 59 | + 1* | — | — |
| Gihu | E. | 3·3 | 252 | e 0 57 | − 2* | 1 44 | + 2* |
| Akita | Z. | 3·4 | 355 | e 0 50 | − 5 | — | — |
| Miyako | | 3·4 | 18 | e 0 56 | + 1 | — | — |
| Kameyama | | 3·7 | 247 | e 1 14 | $0_g$ | 2 3 | + $1_g$ |
| Kyoto | | 4·2 | 252 | — | — | e 2 4 | − 5* |
| Osaka | | 4·5 | 249 | — | — | e 2 18 | 0* |
| Sumoto | | 5·1 | 247 | — | — | e 2 20 | 0 |

Aug. 9d. 9h. 38m. 3s. Epicentre 42°·0N. 145°·2E. (as on 1939, March 31d.).

Intensity II-III at Ogihusi.
Epicentre as adopted. Normal depth. Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, Aug. ,1952, Tokyo, 1952, p.303.

A = −·6121, B = +·4254, C = +·6666 ; $\delta$ = −1 ; $h$ = −2 ;
D = +·571, E = +·821 ; G = −·547, H = +·380, K = −·745.

| | | Δ | Az. | P. | O−C. | S. | O−S. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kusiro | | 1·1 | 329 | i 0 23 | + 1 | 0 39 | 0 | — | — | — |
| Nemuro | | 1·4 | 14 | e 0 26 | − 1 | 0 45 | − 1 | — | — | — |
| Obi-hiro | | 1·7 | 302 | e 0 32 | + 1 | 0 48 | − 6 | — | — | — |
| Urakawa | | 1·8 | 275 | i 0 32 | 0 | 0 59 | + 3 | — | — | — |
| Abashiri | | 2·1 | 342 | e 0 24 | −13 | 0 52 | −12 | — | — | — |
| Hatinohe | | 3·1 | 242 | e 0 50? | − 1 | 1 32? | + 3 | — | — | — |
| Sapporo | | 3·1 | 291 | e 0 50 | − 1 | 1 34 | − 2* | — | — | — |
| Miyako | | 3·4 | 225 | e 0 53 | − 2 | 1 27 | −10 | — | — | — |
| Aomori | | 3·5 | 251 | e 0 56 | − 1 | 1 43 | + 3 | 1 32 | ? | — |
| Mori | E. | 3·5 | 274 | e 0 55 | − 2 | 1 41 | + 1 | — | — | — |
| Morioka | | 3·8 | 235 | e 0 59 | − 2 | 1 35 | −12 | — | — | — |
| Mizusawa | E. | 4·2 | 228 | 1 7 | 0 | 1 49 | − 8 | — | — | — |
| Akita | Z. | 4·5 | 240 | 1 10 | − 1 | 1 59 | − 6 | — | — | — |
| Sendai | | 5·0 | 223 | e 1 19 | + 1 | 2 7 | −11 | — | — | — |
| Hukusima | | 5·5 | 222 | e 1 23 | − 2 | 2 21 | − 9 | — | — | — |
| Inawasiro | | 5·9 | 223 | e 1 22 | − 9 | 2 32 | − 8 | — | — | — |
| Onahama | E. | 6·1 | 215 | e 1 24 | −10 | 2 31 | −14 | — | — | — |
| Mito | | 6·7 | 215 | e 1 43 | + 1 | 2 48 | −12 | — | — | — |
| Utunomiya | | 6·8 | 219 | e 1 45 | + 1 | 2 50 | −13 | — | — | — |
| Tukubasan | | 7·0 | 216 | — | — | e 2 53 | −15 | — | — | — |
| Maebasi | Z. | 7·3 | 222 | e 1 32 | −18 | 2 52 | −23 | — | — | — |
| Kumagaya | | 7·4 | 220 | e 1 49 | − 3 | 3 6 | −12 | — | — | — |
| Nagano | E. | 7·6 | 228 | e 1 55 | 0 | 3 25 | + 2 | — | — | — |
| Matusiro | | 7·7 | 227 | e 1 55 | − 1 | 3 10 | −15 | — | — | — |
| Oiwake | | 7·7 | 225 | — | — | e 3 11 | −14 | — | — | — |
| Tokyo | | 7·7 | 216 | — | — | e 3 7 | −18 | — | — | — |
| Titibu | | 7·7 | 220 | — | — | e 3 10 | −15 | — | — | — |
| Yokohama | | 7·9 | 215 | — | — | e 3 9 | −21 | — | — | — |
| Matumoto | | 8·0 | 227 | e 2 15 | +15 | — | — | — | — | — |
| Hunatu | N. | 8·2 | 220 | e 2 4 | + 1 | 3 28 | −10 | — | — | — |
| Kohu | | 8·2 | 221 | e 2 4 | + 1 | 3 27 | −11 | — | — | — |
| Misima | N. | 8·4 | 218 | e 2 17 | +11 | 3 31 | −12 | — | — | — |
| Shizuoka | | 8·8 | 219 | — | — | e 3 25 | −28 | — | — | — |
| Nagoya | | 9·4 | 227 | e 3 27 | + 9 | — | — | — | — | — |
| Nanking | | 23·2 | 254 | 5 9 | 0 | 9 26 | + 8 | — | — | — |

*Continued on next page.*

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| College | | 43·3 | 35 | i 8 5 | 0 | — | — | — | — | — |
| Resolute Bay | z. | 57·1 | 16 | i 9 47a | − 3 | — | — | — | — | — |
| Shasta | z. | 65·8 | 56 | e 10 20 | −29 | — | — | — | — | — |
| Hungry Horse | | 66·2 | 46 | e 10 56 | + 4 | — | — | — | — | — |
| Lick | z. | 68·3 | 59 | e 11 21 | PcP | — | — | — | — | — |
| Upsala | z. | 69·8 | 335 | i 11 11a | − 3 | i 11 33 | PcP | i 11 40 | ? | — |
| Tinemaha | z. | 70·6 | 57 | e 11 20 | + 1 | — | — | e 12 26 | ? | — |
| Pasadena | z. | 72·5 | 59 | e 11 33 | + 3 | — | — | e 11 44 | PcP | — |
| Riverside | z. | 73·1 | 59 | e 11 33 | − 1 | — | — | e 11 37 | P | — |
| Boulder City | | 73·4 | 56 | e 11 41 | + 5 | — | — | — | — | — |
| Palomar | z. | 73·8 | 59 | e 11 39 | + 1 | — | — | — | — | — |
| Collmberg | z. | 78·2 | 331 | e 11 59 | − 4 | — | — | e 12 24 | ? | — |
| Tucson | | 78·4 | 57 | e 12 9 | + 5 | — | — | — | — | — |
| Jena | z. | 79·0 | 332 | e 12 5 | − 2 | — | — | e 12 20 | PcP | — |
| Stuttgart | | 81·7 | 333 | e 12 26 | + 4 | — | — | — | — | e 42·0 |
| Fayetteville | z. | 84·9 | 45 | i 12 40 | + 2 | — | — | — | — | — |
| Tamanrasset | z. | 105·5 | 322 | 18 4 | ? | i 18 29 | PP | e 20 10 | ? | — |

Aug. 9d. 12h. 41m. 41s. Epicentre 34°·4N. 135°·8E. Depth of focus 0·010.
(as on July 17d.).

Intensity IV at Owase, Kinomoto, and Kito; II-III at Kyoto, Kameyama, Sumoto, Nagoya, Ueno, Yosidu, and Nagasima. Epicentre 34°·5N. 135°·8E. Depth 65km. Macroseismic radius 100-200km.
Seismo. Bull. of Cent. Met. Obs., Japan, for August, 1952, Tokyo, 1952, p. 304, with macroseismic chart.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. |
|---|---|---|---|---|---|---|---|
| Osaka | | 0·3 | 319 | e 0 15 | 0 | 0 21 | − 5 |
| Owase | | 0·5 | 135 | i 0 13a | − 3 | 0 22 | − 6 |
| Wakayama | | 0·5 | 252 | i 0 15 | − 1 | 0 25 | − 3 |
| Kobe | | 0·6 | 299 | e 0 15 | − 2 | 0 25 | − 4 |
| Kyoto | | 0·6 | 355 | e 0 15 | − 2 | 0 24 | − 5 |
| Kameyama | | 0·7 | 51 | i 0 17k | − 1 | 0 27 | − 4 |
| Sumoto | | 0·8 | 266 | i 0 17k | − 1 | 0 28 | − 4 |
| Siomisaki | | 0·9 | 182 | e 0 21 | + 2 | 0 36 | + 2 |
| Maizuru | | 1·1 | 346 | 0 21 | − 1 | 0 44 | + 6 |
| Nagoya | | 1·2 | 51 | 0 24 | + 1 | 0 40 | 0 |
| Gihu | | 1·3 | 39 | 0 25 | + 1 | 0 39 | − 3 |
| Tsuruga | | 1·3 | 10 | 0 22 | − 2 | 0 38 | − 4 |
| Toyooka | N. | 1·4 | 324 | 1 0 24 | − 1 | 0 41 | − 3 |
| Hukui | | 1·7 | 13 | 0 29 | 0 | — | — |
| Tottori | | 1·7 | 310 | e 0 32 | + 3 | 0 50 | − 1 |
| Muroto | | 1·8 | 229 | e 0 29 | − 1 | 0 46 | − 7 |
| Iida | | 2·0 | 56 | e 1 42 | ? | — | — |
| Omaesaki | | 2·0 | 84 | e 0 34 | + 1 | — | — |
| Koti | | 2·1 | 246 | e 0 35 | + 1 | 0 59 | − 1 |
| Shizuoka | | 2·2 | 75 | e 0 29 | − 7 | 1 2 | 0 |
| Kohu | | 2·6 | 62 | e 0 43 | + 2 | — | — |
| Matumoto | N. | 2·6 | 44 | e 0 51 | +10 | — | — |
| Matuyama | | 2·6 | 257 | e 0 44 | + 3 | 1 13 | + 1 |
| Toyama | | 2·6 | 27 | e 0 57 | ? | — | — |
| Misima | | 2·7 | 75 | e 0 43 | 0 | 1 14 | 0 |
| Ajiro | | 2·8 | 76 | e 0 43 | − 1 | 1 16 | − 1 |
| Simidu | | 2·8 | 235 | e 0 46 | + 2 | 1 17 | 0 |
| Matusiro | | 2·9 | 43 | e 0 55 | +10 | 1 33 | +14 |
| Nagano | E. | 3·0 | 41 | e 0 56 | + 9 | 1 36 | +14 |
| Oiwake | | 3·0 | 50 | e 1 2 | +15 | — | — |
| Osima | | 3·0 | 83 | e 0 38 | − 9 | — | — |
| Hamada | | 3·1 | 280 | e 1 25 | S | (e 1 25) | + 1 |
| Titibu | | 3·1 | 60 | e 1 23 | S | (e 1 23) | − 1 |
| Wazima | | 3·1 | 18 | e 0 50 | + 2 | — | — |
| Maebasi | | 3·3 | 52 | e 2 7 | ? | — | — |
| Yokohama | | 3·3 | 71 | e 1 10 | ? | — | — |
| Kumagaya | | 3·4 | 58 | e 0 58 | + 6 | 1 35 | + 3 |
| Tokyo | | 3·5 | 67 | — | — | e 1 27 | − 7 |
| Utunomiya | | 4·0 | 56 | e 0 39 | −21 | e 1 38 | − 8 |

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Aug. 10d. 0h. 21m. 50s. Epicentre 52°·8N. 173°·2W. Depth of focus 0·010.
(as on 1949, February 2d.).

A = −·6029, B = −·0719, C = +·7945; $\delta$ = −11; $h$ = −6;
D = −·118, E = +·993; G = −·789, H = −·094, K = −·607.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Mitchell Field | | 2·2 | 247 | i 0 36 | 0 | i 1 3 | + 1 | — | — | — |
| College | | 17·7 | 37 | i 4 3 | + 1 | — | — | e 4 6 | ? | 7·4 |
| Victoria | | 31·3 | 77 | 6 15 | + 2 | — | — | 6 19 | ? | — |
| Shasta | z. | 36·1 | 89 | e 6 54 | 0 | — | — | e 7 19 | pP | — |
| Hungry Horse | | 36·9 | 72 | e 7 2 | + 1 | e 12 58 | +20 | e 7 23 | pP | — |
| Reno | z. | 38·4 | 88 | e 7 14a | + 1 | — | — | e 7 36 | pP | — |
| Lick | z. | 38·7 | 92 | e 7 15a | − 1 | — | — | e 7 38 | pP | — |
| Butte | | 39·0 | 74 | e 7 39 | pP | — | — | i 9 26 | PcP | — |
| Fresno | z. | 40·2 | 91 | e 7 28a | 0 | — | — | e 7 51 | pP | — |
| Tinemaha | z. | 40·9 | 90 | e 7 35 | + 1 | e 12 12 | ? | e 7 57 | pP | — |
| Pasadena | z. | 42·9 | 93 | e 7 49 | − 1 | — | — | e 8 13 | pP | — |
| Riverside | z. | 43·5 | 93 | e 7 53 | − 2 | — | — | i 8 17 | pP | — |
| Boulder City | | 43·7 | 88 | i 7 58 | + 1 | — | — | i 9 42 | PcP | — |
| Palomar | z. | 44·2 | 93 | i 7 59 | − 2 | e 9 42 | PcP | i 8 22 | pP | — |
| Tucson | | 48·7 | 89 | i 8 35 | − 1 | — | — | — | — | — |
| Kiruna | z. | 59·3 | 353 | i 9 53 | − 1 | — | — | i 10 20 | pP | — |
| Ottawa | | 59·5 | 55 | i 9 54a | − 1 | — | — | i 10 19 | pP | — |
| Harvard | | 63·6 | 54 | i 10 21k | − 2 | — | — | e 10 47 | pP | — |
| Palisades | | 63·6 | 56 | i 10 22k | − 1 | — | — | e 10 46 | pP | — |
| Weston | | 63·8 | 54 | i 10 23k | − 1 | — | — | i 10 48 | pP | — |
| Upsala | z. | 67·4 | 354 | e 10 46 | − 1 | — | — | i 11 15 | pP | — |
| Brisbane | z. | 85·2 | 210 | i 12 24 | − 3 | — | — | i 12 49 | pP | — |
| San Juan | | 85·4 | 66 | i 12 28 | 0 | — | — | i 12 53 | pP | — |
| Pretoria | z. | 148·6 | 321 | i 20 6? | pPKP | — | — | — | — | — |
| Kimberley | z. | 152·5 | 324 | i 19 39 | [+ 1] | — | — | — | — | — |

Aug. 10d. 21h. 22m. 27s. Epicentre 48°·9N. 8°·0E.

Intensity V at Schaffhausen, Stundwiller, and Indolsheim; IV-V at Schleithal, Riedseltz, and Oberbetschdorf; IV at Wingen and Hatten. Epicentre as adopted (Strasbourg).
Annales de l'Institut de Physique du Globe de Strasbourg, 2e partie, Séismologie, 1952, Nouvelle série, Tome XVII, Strasbourg, 1957, p. 61.

A = +·6535, B = +·0918, C = +·7513; $\delta$ = −6; $h$ = −5;
D = +·139, E = −·990; G = +·744, H = +·105, K = −·660.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Strasbourg | | 0·4 | 206 | i 0 10 | 0* | i 0 21 | 0 | i 0 16 | S* | — |
| Stuttgart | | 0·8 | 100 | e 0 17 | − 1 | e 0 26 | $0_g$ | i 0 29 | S* | — |
| Basle | | 1·4 | 191 | e 0 29 | + $1_g$ | e 0 48 | + 2 | — | — | — |
| Ravensburg | | 1·5 | 136 | — | — | e 0 53 | + $3_g$ | — | — | — |
| Zürich | | 1·6 | 166 | e 0 32 | $0_g$ | e 0 53 | $0_g$ | — | — | — |
| Jena | | 3·1 | 47 | — | — | e 1 37 | + 1* | e 1 41 | $S_g$ | e 1·8 |
| Collmberg | z. | 4·0 | 51 | — | — | e 2 4 | + 1* | e 2 12 | $S_g$ | — |
| Prague | | 4·4 | 71 | — | — | e 2 18 | + 3* | e 2 22 | $S_g$ | e 2·6 |

Aug. 11d. 21h. 40m. 42s. Epicentre 39°·2N. 70°·7E. (as on 8d.).

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Dzhergetal | 0·4 | 88 | i 0 4 | − $4_g$ | 0 8 | − $5_g$ | — | — |
| Garm | 0·4 | 237 | i 0 9 | + $1_g$ | i 0 16 | 0* | — | — |
| Obi-garm | 0·9 | 237 | i 0 20 | 0 | — | — | — | — |
| Fergana | 1·4 | 31 | e 0 25 | − 2 | e 0 43 | − 3 | — | — |
| Kulyab | 1·5 | 209 | e 0 15? | −13 | e 0 38? | −11 | — | — |
| Stalinabad | 1·6 | 247 | i 0 33 | + $1_g$ | i 0 57 | + $4_g$ | — | — |
| Namangan | 1·9 | 22 | e 0 36 | + 1* | e 1 0 | 0* | e 1 4 | $S_g$ |
| Khorog | 1·9 | 158 | 0 34 | 0 | e 0 59 | − 1* | i 1 3 | $S_g$ |
| Andijan | 2·0 | 39 | 0 36 | + 1 | i 1 5 | − $1_g$ | — | — |
| Tashkent | 2·4 | 334 | e 0 46 | − $2_g$ | e 1 21 | + $2_g$ | — | — |
| Lunacharskoe | 2·4 | 334 | i 0 45 | + 1* | i 1 20 | + $1_g$ | — | — |
| Murgab | 2·7 | 108 | e 0 49 | 0* | e 1 26 | + 2* | — | — |
| Frunse | 4·7 | 38 | e 1 28 | + 5* | i 2 14 | + 4 | i 2 36 | $S_g$ |
| Przhevalsk | 6·7 | 58 | e 1 56 | − 1* | — | — | — | — |

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Aug. 11d. 23h. 39m. 21s. Epicentre 24°·4S. 64°·6W. (as on 1948, August 25d.).

Felt at Salta. Epicentre 24°S. 64°75°W. (Strasbourg).
Yearly Seismo. Bull. Buenos Aires, 1952.

A = +·3910, B = −·8236, C = −·4108 ; $\delta$ = −5 ; $h$ = +4 ;
D = −·903, E = −·429 ; G = −·176, H = +·371, K = −·912.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Antofagasta | E. | 5·4 | 277 | 1 33 | − 2* | — | — | — | — | — |
| La Paz | | 8·6 | 336 | 2 9 | 0 | i 3 41 | − 7 | 3 59 | SS | 4·6 |
| Santa Lucia | N. | 10·5 | 209 | — | — | e 4 55 | SSS | — | — | 6·1 |
| Buenos Aires | | 11·5 | 154 | e 3 54 | +66 | 6 0 | +61 | — | — | — |
| La Plata | | 12·0 | 153 | 2 51 | − 4 | 5 9 | − 2 | 5 33 | SS | 5·8 |
| Huancayo | | 16·0 | 319 | e 3 45 | − 3 | e 7 3 | SS | — | — | e 8·2 |
| Bogota | | 30·3 | 341 | i 6 15 | 0 | e 11 20 | + 5 | — | — | e 16·3 |
| Fayetteville | Z. | 66·3 | 334 | i 10 49 | − 3 | — | — | — | — | — |
| Harvard | | 66·9 | 355 | e 10 53 | − 3 | — | — | — | — | e 38·6 |
| Kimberley | Z. | 78·2 | 116 | i 12 8 | + 5 | — | — | — | — | — |
| Tamanrasset | Z. | 82·7 | 61 | i 12 30k | + 3 | e 12 36 | PcP | e 12 39 | ? | — |

Aug. 12d. 6h. 31m. 3s. Epicentre 6°·0N. 94°·5E. (as on 1948, Sept. 21d.).

A = −·0780, B = +·9915, C = +·1038 ; $\delta$ = −7 ; $h$ = +7 ;
D = +·997, E = +·078 ; G = −·008, H = +·103, K = −·995.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Colombo | E. | 14·6 | 274 | — | — | e 5 57? | −16 | — | — | — |
| Madras | E. | 15·7 | 297 | i 3 45 | + 1 | 6 38 | − 1 | 6 57 | SS | 6·5 |
| Djakarta | | 17·3 | 135 | 4 29 | PPP | 7 29 | SS | — | — | — |
| Bandong | | 18·4 | 134 | 4 40 | PPP | 7 40 | − 1 | — | — | — |
| Hyderabad | | 19·4 | 308 | i 4 28 | − 2 | i 8 3 | − 1 | 8 17 | ? | — |
| Shillong | E. | 19·6 | 355 | e 4 39 | + 7 | e 8 3 | − 5 | e 8 31 | SS | — |
| Chatra | Z. | 21·9 | 346 | i 4 57 | 0 | i 8 53 | − 1 | — | — | — |
| Poona | Z. | 23·7 | 305 | i 5 17 | + 3 | i 9 38 | +11 | i 5 29 | pP | 10·6 |
| Bombay | | 24·7 | 304 | e 5 32 | + 8 | e 9 48 | + 4 | 10 45 | SS | 11·6 |
| Manila | | 27·4 | 70 | i 5 55 | + 6 | — | — | — | — | — |
| New Delhi | | 27·8 | 327 | e 5 53 | 0 | i 10 53 | +18 | 12 24 | SSS | i 13·1 |
| Nanking | Z. | 34·5 | 38 | i 6 54 a | + 2 | — | — | i 7 12 | ? | — |
| Quetta | E. | 35·3 | 318 | e 5 21 | ? | — | — | — | — | — |
| Zô-Sè | Z. | 35·3 | 41 | i 7 5 a | + 6 | — | — | — | — | — |
| Murgab | | 37·2 | 333 | e 7 14 | − 1 | e 12 54 | − 8 | — | — | — |
| Khorog | | 37·6 | 330 | e 7 19 | + 1 | e 13 3 | − 5 | — | — | — |
| Kulyab | | 38·9 | 328 | e 7 29 | 0 | e 13 20 | − 8 | — | — | — |
| Naryn | | 39·0 | 338 | e 7 30 | 0 | — | — | — | — | — |
| Przhevalsk | | 39·0 | 343 | 7 31 | + 1 | — | — | — | — | — |
| Dzhergetal | | 39·2 | 332 | e 7 33 | + 2 | — | — | — | — | — |
| Obi-garm | | 39·5 | 329 | e 7 35 | + 1 | — | — | — | — | — |
| Kurmenty | | 39·6 | 343 | e 7 36 | + 1 | — | — | — | — | — |
| Fergana | | 39·8 | 333 | e 7 39 | + 3 | e 13 33 | − 9 | — | — | — |
| Rybach'e | | 39·8 | 339 | e 7 36 | 0 | i 13 34 | − 8 | — | — | — |
| Andijan | | 39·9 | 334 | i 7 40 | + 3 | i 13 37 | − 6 | — | — | — |
| Stalinabad | | 39·9 | 328 | e 7 37 | 0 | 13 33 | −10 | — | — | — |
| Almata II | | 40·1 | 341 | i 7 41 | + 2 | — | — | — | — | — |
| Namangan | | 40·4 | 333 | i 7 43 | + 2 | e 13 45 | − 5 | — | — | — |
| Frunse | | 40·7 | 338 | e 7 45 | + 1 | i 13 53 | − 2 | — | — | — |
| Ili | | 40·8 | 331 | e 7 41 | − 4 | e 13 48 | − 8 | — | — | — |
| Lunacharskoe | | 41·7 | 332 | e 7 53 | + 1 | — | — | — | — | — |
| Tashkent | | 41·8 | 332 | e 7 53 | 0 | i 14 2 | − 9 | — | — | — |
| Tchimkent | | 42·4 | 333 | e 8 0 | + 2 | e 14 12 | − 8 | — | — | — |
| Bairam-Ali | | 43·1 | 323 | 8 5 | + 1 | — | — | — | — | — |
| Kyakhta | | 45·3 | 10 | 8 20 | − 1 | e 14 55 | − 7 | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Ashkabad | | 45·7 | 319 | e 8 25 | + 1 | — | — | — | — | — |
| Semipalatinsk | | 45·8 | 349 | i 8 25 | 0 | — | — | — | — | — |
| Irkutsk | | 46·8 | 8 | e 8 35 | + 2 | e 15 21? | − 3 | — | — | — |
| Kabansk | | 47·0 | 10 | 8 36 | + 1 | e 15 21 | − 5 | — | — | — |
| Kizyl-Arvat | | 47·7 | 321 | e 8 37 | − 3 | — | — | — | — | — |
| Vladivostok | | 49·5 | 36 | i 8 56 | + 2 | e 15 59 | − 3 | — | — | — |
| Shemakha | | 53·5 | 317 | e 9 23 | − 1 | — | — | — | — | — |
| Kirovobad | | 55·1 | 317 | 9 35 | − 1 | e 17 9 | − 9 | — | — | — |
| Tiflis | | 56·6 | 317 | e 9 45 | − 2 | — | — | — | — | — |
| Grozny | | 56·7 | 320 | 9 45 | − 3 | — | — | — | — | — |
| Sverdlovsk | | 57·3 | 340 | i 9 50 | − 2 | i 17 41 | − 6 | — | — | — |
| Tsikhlis-Dzhvari | | 57·5 | 317 | e 9 55 | + 2 | — | — | — | — | — |
| Yuzno-Sakhlinsk | | 58·0 | 37 | e 10 0 | + 3 | — | — | — | — | — |
| Sotchi | | 60·8 | 317 | e 10 13 | − 3 | e 18 22 | −11 | — | — | — |
| Theodosia | | 64·2 | 318 | e 10 36 | − 3 | e 19 4 | −12 | — | — | — |
| Yalta | | 64·9 | 318 | e 10 53? | +10 | — | — | — | — | — |
| Simferopol | | 65·0 | 318 | e 10 42 | − 2 | — | — | — | — | — |
| Brisbane | z. | 65·6 | 124 | i 10 49a | + 1 | — | — | i 11 9 | ? | — |
| Moscow | | 66·9 | 330 | 10 54 | − 2 | 19 37 | −12 | — | — | — |
| Istanbul | | 67·6 | 312 | e 10 59 | − 2 | — | — | e 11 18 | ? | — |
| Kishinev | | 69·1 | 319 | e 11 9 | − 3 | — | — | — | — | — |
| Pietermaritzburg | z. | 70·9 | 237 | i 11 36 | PcP | — | — | — | — | — |
| Uzhgorod | | 73·8 | 319 | e 11 42 | + 4 | — | — | — | — | — |
| Kimberley | z. | 75·3 | 238 | i 11 44 | − 3 | — | — | i 12 2 | PcP | — |
| Raciborzu | z. | 76·6 | 321 | e 11 55 | + 1 | — | — | e 12 5 | PcP | — |
| Messina | | 77·6 | 308 | e 11 59 | − 1 | e 21 44 | − 7 | e 12 29 | ? | — |
| Upsala | | 78·3 | 331 | i 12 2a | − 1 | i 12 35 | ? | i 14 30 | ? | e 35·0 |
| Kiruna | | 78·5 | 338 | i 12 1 | − 3 | e 21 52 | − 9 | e 26 57? | SS | — |
| Prague | | 79·1 | 321 | i 12 7 | − 1 | e 22 9 | + 2 | e 27 27 | SS | — |
| Collmberg | z. | 80·0 | 322 | e 12 10 | − 3 | — | — | e 12 28 | ? | — |
| Copenhagen | | 80·6 | 327 | i 12 15 | − 1 | 22 16 | − 7 | — | — | — |
| Chur | | 82·2 | 317 | e 12 23k | − 1 | — | — | e 12 43 | ? | — |
| Stuttgart | | 82·4 | 319 | e 12 24 | − 1 | e 22 35 | − 6 | e 23 5 | ScS | — |
| Karlsruhe | z. | 82·9 | 320 | e 12 24 | − 4 | — | — | — | — | — |
| Zürich | | 82·9 | 318 | e 12 26a | − 2 | e 22 35 | −11 | — | — | — |
| Witteveen | z. | 84·0 | 324 | i 12 33 | 0 | — | — | — | — | — |
| Tamanrasset | z. | 86·8 | 293 | i 12 48k | + 1 | e 16 12 | PP | i 12 54 | PcP | — |
| College | | 95·9 | 23 | e 13 29 | − 1 | — | — | — | — | — |
| Hungry Horse | | 120·4 | 21 | e 18 54 | [ 0] | — | — | e 20 10 | PP | — |
| Shasta | z. | 122·5 | 33 | e 18 58a | [ 0] | — | — | — | — | — |
| Reno | z. | 124·7 | 32 | e 19 3a | [+ 1] | — | — | — | — | — |
| Lick | z. | 125·3 | 35 | e 19 5a | [+ 2] | — | — | — | — | — |
| Kirkland Lake | z. | 125·9 | 355 | e 19 4 | [ 0] | — | — | — | — | — |
| Tinemaha | z. | 127·4 | 32 | i 19 8 | [+ 1] | — | — | — | — | — |
| Ottawa | | 128·1 | 352 | e 19 8 | [ 0] | e 19 28 | ? | 21 12 | PP | — |
| Pasadena | z. | 129·5 | 35 | e 18 59 | [−12] | e 21 4 | PP | i 19 12 | PKP | — |
| Boulder City | | 130·0 | 31 | e 19 14 | [+ 2] | — | — | e 19 39 | ? | — |
| Harvard | | 130·1 | 346 | i 19 13a | [+ 1] | i 22 31 | PKS | — | — | — |
| Riverside | z. | 130·1 | 35 | e 19 5 | [− 7] | e 19 32 | ? | i 19 13 | PKP | — |
| Palomar | z. | 130·9 | 34 | e 19 8 | [− 6] | e 19 39 | ? | e 19 16 | PKP | — |
| Tucson | | 135·0 | 30 | e 19 22 | [+ 1] | e 22 46 | PKS | — | — | — |
| Fayetteville | z. | 137·3 | 11 | i 19 16 | [−10] | e 22 1 | PP | i 20 23 | ? | — |
| San Juan | | 149·1 | 322 | i 19 50 | [+ 4] | — | — | — | — | — |

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Aug. 12d. 15h. 55m. 51s. Epicentre 35°·5N. 140°·4E. (as on 1952, May 8d.).

Intensity V at Tokyo, Yokohama, Katuura, Otaki, Kururi, Kisarazu, Husa, Kiyosumi, Sakura, Hukagawa, Akasaka, and Aoyama.
Epicentre 35°·5N. 140°·3E. Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, Aug., 1952, Tokyo, 1952, p.305, with macroseismic chart.

$A = -\cdot6287$, $B = +\cdot5201$, $C = +\cdot5781$; $\delta = -3$; $h = 0$;
$D = +\cdot637$, $E = +\cdot771$; $G = -\cdot445$, $H = +\cdot368$, $K = -\cdot816$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tyosi | N. | 0·4 | 58 | i 0 11$_a$ | − 2 | 0 19 | − 2 | — | — | — |
| Kashiwa | | 0·5 | 315 | i 0 11k | 0* | 0 19 | 0* | — | — | — |
| Tokyo | Z. | 0·6 | 289 | i 0 11k | − 1$_g$ | 0 18 | − 2$_g$ | — | — | — |
| Mera | | 0·7 | 219 | i 0 14k | 0$_g$ | 0 23 | 0$_g$ | — | — | — |
| Yokohama | | 0·7 | 264 | i 0 12k | − 2$_g$ | 0 23 | 0$_g$ | — | — | — |
| Tukubasan | | 0·8 | 341 | i 0 14 | − 2$_g$ | 0 23 | − 3$_g$ | — | — | — |
| Mito | | 0·9 | 3 | 0 18 | 0$_g$ | 0 31 | 0* | — | — | — |
| Kumagaya | | 1·0 | 309 | i 0 20k | − 1 | 0 38 | + 2 | — | — | — |
| Osima | | 1·1 | 229 | 0 17k | − 5 | 0 31 | − 5$_g$ | — | — | — |
| Utunomiya | | 1·1 | 338 | i 0 20k | − 2 | 0 36 | 0$_g$ | — | — | — |
| Ajiro | | 1·2 | 247 | e 0 20 | − 3* | 0 35 | − 5* | — | — | — |
| Misima | | 1·2 | 252 | i 0 20k | − 3* | 0 35 | − 5 | — | — | — |
| Titibu | | 1·2 | 294 | i 0 22 | − 1* | 0 40 | − 1 | — | — | — |
| Hunatu | E. | 1·3 | 270 | i 0 22 | − 3 | 0 48 | + 4 | — | — | — |
| Maebasi | | 1·3 | 213 | i 0 24 | − 1 | 0 42 | − 2 | — | — | — |
| Kohu | | 1·5 | 275 | i 0 25 | − 3 | 0 51 | + 2 | — | — | — |
| Onahama | N. | 1·5 | 16 | e 0 27 | − 1 | 0 57 | + 8 | — | — | — |
| Shirakawa | | 1·6 | 355 | e 0 27 | − 3 | 0 49 | − 2 | — | — | — |
| Shizuoka | | 1·7 | 252 | i 0 28k | − 3 | 0 50 | − 4 | — | — | — |
| Omaesaki | | 2·0 | 243 | 0 19 | −16 | 0 44 | −18 | — | — | — |
| Inawasiro | | 2·1 | 354 | e 0 35 | − 2 | 1 8 | − 1$_g$ | — | — | — |
| Matumoto | E. | 2·1 | 290 | 0 37 | 0 | 1 4 | 0 | — | — | — |
| Matusiro | | 2·1 | 301 | i 0 35k | − 2 | 0 59 | − 5 | — | — | — |
| Nagano | E. | 2·2 | 203 | e 0 37 | − 1 | 1 9 | + 3 | — | — | — |
| Hamamatu | | 2·3 | 250 | e 0 41 | + 1 | 1 6 | − 3 | — | — | — |
| Hukusima | | 2·3 | 1 | e 0 39 | − 1 | 1 11 | + 2 | — | — | — |
| Hatidyozima | | 2·4 | 191 | 0 37 | − 4 | 1 4 | − 8 | — | — | — |
| Takada | | 2·4 | 313 | 0 47 | − 1$_g$ | 1 26 | + 7$_g$ | — | — | — |
| Niigata | | 2·7 | 336 | 0 50 | + 1* | 1 26 | + 2* | — | — | — |
| Takayama | | 2·7 | 284 | e 0 38 | − 7 | 1 23 | − 1* | — | — | — |
| Yamagata | | 2·7 | 359 | e 0 47 | + 2 | 1 27 | − 2$_g$ | — | — | — |
| Nagoya | | 2·8 | 263 | e 0 47 | 0 | 1 21 | − 1 | — | — | — |
| Sendai | | 2·8 | 8 | e 0 48 | + 1 | 1 23 | + 1 | — | — | — |
| Toyama | Z. | 2·8 | 294 | e 0 46 | − 1 | 1 18 | − 4 | — | — | — |
| Gihu | N. | 3·0 | 268 | e 0 50 | 0 | 1 39 | 0$_g$ | — | — | — |
| Isinomaki | | 3·0 | 14 | e 0 49 | − 1 | 1 26 | − 1 | — | — | — |
| Aikawa | | 3·1 | 325 | e 0 49 | − 2 | 1 27 | − 2 | — | — | — |
| Kameyama | E. | 3·3 | 261 | 0 57 | − 2* | 1 32 | − 3 | — | — | — |
| Sakata | | 3·4 | 352 | 1 6 | − 2$_g$ | 1 52 | 0$_g$ | — | — | — |
| Wazima | | 3·4 | 306 | 0 55 | 0 | — | — | — | — | — |
| Tsuruga | | 3·5 | 274 | e 1 0 | + 3 | 1 49 | + 1* | — | — | — |
| Mizusawa | | 3·7 | 8 | 1 4 | − 2* | 2 3 | + 1$_g$ | — | — | — |
| Owase | | 3·8 | 249 | 1 4 | + 3 | — | — | — | — | — |
| Kyoto | | 3·9 | 262 | e 1 18 | 0$_g$ | 1 58 | − 2* | — | — | — |
| Maizuru | | 4·0 | 271 | 1 9 | − 2* | 2 0 | − 3* | — | — | — |
| Osaka | | 4·1 | 260 | e 1 3 | − 2 | 2 8 | + 2* | — | — | — |
| Akita | Z. | 4·2 | 356 | e 1 10 | + 3 | — | — | — | — | — |
| Morioka | | 4·2 | 6 | e 1 8 | + 1 | 2 2 | + 5 | — | — | — |
| Miyako | | 4·3 | 16 | e 1 11 | + 3 | 1 59 | − 1 | — | — | — |
| Kobe | Z. | 4·4 | 259 | e 1 14 | + 4 | 2 13 | − 1* | — | — | — |
| Wakayama | | 4·5 | 256 | e 1 11 | 0 | 2 10 | + 5 | — | — | — |
| Toyooka | | 4·6 | 275 | e 1 20 | − 2* | 2 22 | + 2* | — | — | — |
| Sumoto | | 4·7 | 257 | 1 14 | 0 | 2 10 | 0 | — | — | — |
| Tottori | | 5·0 | 272 | e 1 0 | −18 | 2 9 | − 9 | — | — | — |
| Hatinohe | | 5·1 | 10 | e 1 18 | − 2 | 2 22 | + 2 | — | — | — |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Aomori | | 5·3 | 3 | e 1 26 | + 4 | 2 30 | + 5 | — | — | — |
| Takamatu | | 5·4 | 259 | e 1 25 | + 1 | 2 48 | + 4* | — | — | — |
| Muroto | | 5·6 | 249 | e 1 33 | + 6 | 3 20 | +15$_s$ | — | — | — |
| Koti | | 6·0 | 254 | e 1 31 | − 1 | 2 52 | + 9 | — | — | — |
| Matuyama | | 6·5 | 258 | e 2 16 | + 6$_s$ | 3 26 | − 9$_s$ | — | — | — |
| Hirosima | | 6·6 | 263 | e 2 25 | +13$_s$ | 3 33 | − 5$_s$ | — | — | — |
| Simidu | | 6·7 | 249 | e 2 30 | +16$_s$ | 3 40 | − 1$_s$ | — | — | — |
| Hamada | | 6·8 | 268 | 1 50 | + 6 | 3 10 | + 7 | — | — | — |
| Ooita | | 7·6 | 256 | e 2 3 | + 8 | — | — | — | — | — |
| Sapporo | | 7·6 | 5 | e 2 9 | − 4* | — | — | — | — | — |
| Obi-hiro | | 7·7 | 15 | e 3 6 | ? | — | — | — | — | — |
| Hukuoka | | 8·5 | 260 | e 2 40 | ? | 4 18 | + 2* | — | — | — |
| Kumamoto | | 8·5 | 255 | e 2 9 | + 2 | — | — | — | — | — |
| Saga | | 8·6 | 258 | e 2 8 | − 1 | 3 47 | − 1 | — | — | — |
| Abashiri | | 9·0 | 18 | e 2 39 | P* | — | — | — | — | — |
| College | | 50·8 | 82 | 9 2 | − 2 | — | — | — | — | — |
| Kiruna | | 67·6 | 339 | i 11 3 | + 2 | — | — | e 10 55 | ? | e 36·2 |
| Shasta | z. | 72·7 | 53 | e 11 29 | − 3 | — | — | — | — | — |
| Hungry Horse | | 73·5 | 42 | i 11 34 | − 2 | — | — | i 11 42 | PcP | — |
| Scoresby Sund | | 73·5 | 354 | e 11 39 | + 3 | — | — | — | — | — |
| Upsala | z. | 74·0 | 334 | i 11 34 | − 5 | — | — | i 12 5 | PcP | — |
| Reno | z. | 75·0 | 52 | e 11 42 | − 3 | — | — | — | — | — |
| Lick | z. | 75·0 | 55 | e 11 43 | − 2 | — | — | — | — | — |
| Butte | | 75·6 | 43 | e 11 46 | − 2 | — | — | — | — | — |
| Fresno | z. | 76·5 | 54 | e 11 53 | − 1 | — | — | — | — | — |
| Pasadena | z. | 79·1 | 56 | e 12 11 | + 3 | — | — | — | — | — |
| Riverside | z. | 79·7 | 56 | e 12 15 | + 4 | — | — | — | — | — |
| Boulder City | | 80·3 | 53 | e 13 5 | +51 | — | — | — | — | — |
| Palomar | z. | 80·5 | 56 | i 12 21 | + 6 | — | — | e 12 29 | PcP | — |
| Jena | | 82·9 | 331 | e 12 32? | + 4 | — | — | e 12 42 | ? | — |
| Stuttgart | | 85·5 | 330 | e 12 41 | 0 | — | — | — | — | e 49·2 |
| Triest | z. | 86·0 | 326 | e 12 50 | PcP | — | — | e 13 5 | ? | — |
| Fayetteville | z. | 92·5 | 41 | i 13 12 | − 2 | — | — | — | — | — |
| Harvard | | 97·0 | 22 | — | — | (e 35 3) | SSS | — | — | e 35·0 |
| Palisades | | 97·6 | 24 | — | — | (e 32 37) | SSP | — | — | e 32·6 |
| Alicante | | 98·1 | 330 | 13 44 | + 4 | 24 39 | {− 2} | — | — | 47·0 |
| Tamanrasset | z. | 108·0 | 316 | e 18 47 | PP | — | — | — | — | — |

Aug. 12d. 20h. 39m. 22s. Epicentre 35°·5N. 140°·4E. (as at 15h. 55m.).

Intensity V at Otaki; IV at Tokyo, Kisarazu, Kiyosumi, Akatuka, and Hukagawa; II-III at Tyosi, Yokohama, Kashiwa, and Tukubasan.
Epicentre 35°·4N. 140°·2E. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, Aug., 1952, Tokyo, 1952, p.306, with macroseismic chart.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Tyosi | E. | 0·4 | 58 | i 0 13$_a$ | 0 | 0 22 | + 1 |
| Kashiwa | | 0·5 | 315 | i 0 15$_k$ | + 1 | 0 23 | 0 |
| Tokyo | | 0·6 | 289 | i 0 12 | − 3 | 0 20 | − 6 |
| Mera | z. | 0·7 | 219 | i 0 15$_k$ | − 2 | 0 25 | − 3 |
| Yokohama | | 0·7 | 264 | 0 14$_a$ | − 3 | 0 24 | − 4 |
| Tukubasan | | 0·8 | 341 | 0 16 | − 2 | 0 27 | − 4 |
| Mito | | 0·9 | 3 | 0 22 | + 2 | 0 34 | 0 |
| Kumagaya | z. | 1·0 | 309 | 0 22 | + 1 | 0 36 | 0 |
| Osima | | 1·1 | 229 | 0 20$_k$ | − 2 | 0 33 | − 6 |
| Utunomiya | | 1·1 | 338 | e 0 24 | + 2 | 0 40 | + 1 |
| Ajiro | | 1·2 | 247 | e 0 21 | − 3 | 0 34 | − 7 |
| Misima | z. | 1·2 | 252 | i 0 22 | − 2 | 0 38 | − 3 |
| Titibu | | 1·2 | 294 | e 0 26 | + 2 | 0 44 | + 3 |
| Hunatu | E. | 1·3 | 270 | e 0 24 | − 1 | 0 49 | + 5 |
| Maebasi | z. | 1·3 | 213 | i 0 26$_a$ | + 1 | 0 46 | + 2 |

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| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Kohu | | 1·5 | 275 | e 0 27 | − 1 | 0 48 | − 1 |
| Onahama | | 1·5 | 16 | e 0 32 | + $2_g$ | 0 55 | + $5_g$ |
| Shirakawa | | 1·6 | 355 | e 0 31 | + 1 | 0 54 | + 3 |
| Oiwake | | 1·7 | 299 | 0 32 | + 1 | 0 57 | + 3 |
| Shizuoka | | 1·7 | 252 | i 0 30 | − 1 | 0 53 | − 1 |
| Omaesaki | | 2·0 | 243 | e 0 19 | −16 | 0 43 | −19 |
| Inawasiro | | 2·1 | 354 | e 0 40 | + 3 | — | — |
| Matusiro | | 2·1 | 301 | e 0 37 | 0 | 1 3 | − 1 |
| Nagano | N. | 2·2 | 203 | e 0 41 | + 3 | 1 9 | + 3 |
| Hukusima | | 2·3 | 1 | e 0 41 | + 1 | 1 13 | + 4 |
| Hatidyozima | | 2·4 | 191 | 0 37 | − 4 | 1 3 | − 9 |
| Niigata | | 2·7 | 336 | — | — | e 1 7 | −12 |
| Nagoya | | 2·8 | 263 | — | — | e 1 52 | +30 |
| Toyama | Z. | 2·8 | 294 | e 0 56 | $0_g$ | 1 29 | + $2_g$ |
| Kameyama | | 3·3 | 261 | e 1 7 | + $1_g$ | 1 45 | − $4_g$ |
| Mizusawa | E. | 3·7 | 8 | 1 16 | + $2_g$ | 1 56 | + 2* |
| Kyoto | | 3·9 | 262 | e 1 13 | + 3* | 1 57 | − 3* |
| Osaka | | 4·1 | 260 | e 1 26 | + $4_g$ | 2 10 | + 4* |
| Akita | | 4·2 | 356 | — | — | e 1 50 | − 7 |
| Miyako | | 4·3 | 16 | — | — | e 2 25 | + $3_g$ |
| Kobe | | 4·4 | 259 | — | — | e 2 10 | − 5* |
| Toyooka | | 4·6 | 275 | — | — | e 2 18 | − 2* |
| Sumoto | | 4·7 | 257 | — | — | e 2 19 | − 5* |

Aug. 13d. 3h. 14m. 21s. Epicentre 37°·3N. 69°·8E. (as on 1952, Feb. 19d.).

A = +·2754, B = +·7484, C = +·6034 ; $\delta$ = +4 ; $h$ = −1 ;
D = +·938, E = −·345 ; G = +·208, H = +·566, K = +·791.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. | s. | m. |
| Khorog | 1·4 | 83 | i 0 25 | − 2 | i 0 42 | − 4 | — | — | — |
| Obi-garm | 1·4 | 356 | i 0 27 | 0 | — | — | — | — | — |
| Stalinabad | 1·5 | 327 | 0 30 | $0_g$ | e 0 51 | + $1_g$ | — | — | — |
| Garm | 1·7 | 13 | i 0 31 | 0 | — | — | — | — | — |
| Dzhergetal | 2·2 | 30 | i 0 39 | + 1 | i 1 6 | 0 | — | — | — |
| Samarkand | 3·2 | 317 | i 0 55 | + 3 | — | — | — | — | — |
| Murgab | 3·4 | 71 | e 1 0? | − 1* | e 1 46? | + 1* | — | — | — |
| Fergana | 3·4 | 26 | e 0 56 | + 1 | e 1 33 | − 4 | — | — | — |
| Andijan | 4·0 | 29 | e 1 3 | − 1 | i 2 13 | + $1_g$ | — | — | — |
| Namangan | 4·0 | 22 | e 1 3 | − 1 | 1 47 | − 5 | — | — | — |
| Tashkent | 4·0 | 354 | e 1 4 | 0 | e 2 13 | +$1_g$ | — | — | — |
| Tchimkent | 5·0 | 358 | i 1 18 | 0 | — | — | — | — | — |
| Naryn | 6·3 | 47 | e 1 36 | 0 | — | — | — | — | — |
| Frunse | 6·7 | 32 | i 1 42 | 0 | i 3 17 | − 6* | — | — | — |
| Rybach'e | 7·1 | 41 | e 1 47 | − 1 | i 3 10 | 0 | — | — | — |
| Quetta | 7·4 | 199 | e 2 39? | ? | i 3 47 | + 3* | — | — | — |
| Almata | 8·1 | 40 | i 2 0 | − 2 | — | — | — | — | — |
| Almata II | 8·3 | 42 | i 2 3 | − 1 | — | — | — | — | — |
| Ili | 8·6 | 37 | i 2 5 | − 4 | — | — | — | — | — |
| Ashkabad | 9·1 | 278 | e 2 12 | − 2 | i 3 51 | − 9 | — | — | — |
| New Delhi | 10·7 | 142 | e 2 40 | + 2 | e 4 39 | 0 | 2 55 | PP | — |
| Semipalatinsk | 15·1 | 26 | e 3 31 | − 5 | — | — | — | — | — |
| Chatra | 18·0 | 116 | e 4 11 | − 2 | e 7 30 | − 2 | — | — | — |
| Goris | 18·5 | 285 | e 4 20 | + 1 | — | — | — | — | — |
| Kirovobad | 18·5 | 289 | 4 20 | + 1 | — | — | — | — | — |
| Grozny | 19·3 | 296 | i 4 32 | + 3 | — | — | — | — | — |
| Tiflis | 19·8 | 291 | e 4 36 | + 1 | e 8 20 | + 7 | — | — | — |
| Erevan | 19·9 | 289 | e 4 40 | + 4 | e 8 36 | SS | — | — | — |
| Sverdlovsk | 20·5 | 345 | 4 41 | − 1 | 8 25 | − 2 | — | — | — |
| Tsikhlis-Dzhvari | 20·8 | 291 | e 4 49 | + 4 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Borzhomi | | 20·8 | 291 | e 4 50 | + 5 | — | — | — | — | — |
| Hyderabad | E. | 21·2 | 156 | — | — | e 9 14 | SS | — | — | — |
| Piatigorsk | | 21·3 | 297 | e 4 50 | 0 | i 8 44 | + 1 | — | — | — |
| Ksara | | 27·7 | 273 | e 6 24? | PP | e 12 8? | SSS | — | — | — |
| Kiruna | | 40·9 | 334 | i 7 48 | + 2 | e 17 17 | SSS | i 7 57 | ? | e 20·4 |
| Collmberg | Z. | 41·9 | 308 | e 7 55 | + 1 | — | — | — | — | — |
| Jena | | 42·9 | 308 | e 8 3 | + 1 | — | — | — | — | — |
| Stuttgart | | 44·6 | 305 | e 14 55 | S | (e 14 55) | + 3 | — | — | e 24·6 |
| Witteveen | Z. | 45·7 | 313 | — | — | i 14 48 | −20 | — | — | — |
| Tamanrasset | Z. | 56·5 | 275 | e 9 47 | + 1 | — | — | — | — | — |

Aug. 13d. 8h. 59m. 10s. Epicentre 35°·6N. 140°·0E. Focus at Base of Superficial Layers. (as on 1952, July 9d.).

Intensity V at Ajiro and Samukawa; IV at Tokyo, Yokohama, Osima, Huchu, and Uenohara; II-III at Hunatu, Kohu, and Kengasaki.
Epicentre 35°·5N. 139°·9E. Depth 60km. Macroseismic radius 100-200km..
Seismo. Bull. Cent. Met. Obs., Japan, Aug., 1952, Tokyo, 1952, p.307, with macroseismic chart.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Tokyo | | 0·2 | 298 | i 0 8k | + 1 | 0 15 | + 2 |
| Kashiwa | | 0·3 | 354 | e 0 11k | + 3 | 0 19 | + 4 |
| Yokohama | | 0·3 | 240 | i 0 8k | 0 | 0 15 | 0 |
| Tukubasan | | 0·6 | 7 | 0 13 | + 1 | 0 23 | + 2 |
| Tyosi | N. | 0·7 | 79 | e 0 17 | + 4 | 0 28 | + 5 |
| Mera | Z. | 0·7 | 191 | i 0 12 | − 1 | 0 21 | − 2 |
| Titibu | | 0·8 | 297 | e 0 15 | 0 | 0 27 | + 1 |
| Kumagaya | | 0·8 | 318 | i 0 14a | − 1 | 0 27 | + 1 |
| Ajiro | | 0·9 | 233 | i 0 14k | − 2 | 0 25 | − 3 |
| Mito | | 0·9 | 26 | e 0 19 | + 3 | 0 29 | + 1 |
| Misima | Z. | 1·0 | 241 | i 0 14k | − 4 | 0 25 | − 6 |
| Osima | | 1·0 | 211 | 0 14k | − 4 | 0 25 | − 6 |
| Hunatu | Z. | 1·0 | 264 | i 0 15 | − 3 | 0 27 | − 4 |
| Utunomiya | | 1·0 | 354 | e 0 17 | − 1 | 0 29 | − 2 |
| Maebasi | Z. | 1·1 | 317 | i 0 18a | − 1 | 0 31 | − 2 |
| Kohu | | 1·2 | 272 | 0 18k | − 2 | 0 31 | − 5 |
| Oiwake | | 1·4 | 302 | e 0 20 | − 3 | 0 38 | − 3 |
| Shirakawa | | 1·5 | 7 | e 0 19 | − 5 | 0 44 | 0 |
| Shizuoka | | 1·5 | 244 | i 0 22k | − 2 | 0 39 | − 5 |
| Onahama | | 1·5 | 29 | e 0 24 | 0 | 0 46 | + 2 |
| Matusiro | | 1·7 | 303 | e 0 26 | − 2 | 0 48 | − 1 |
| Omaesaki | | 1·8 | 236 | e 0 22? | − 7 | 0 46? | − 5 |
| Matumoto | E. | 1·8 | 291 | 0 29 | 0 | 0 48 | − 3 |
| Nagano | N. | 1·8 | 306 | e 0 29 | 0 | 0 50 | − 1 |
| Iida | | 1·8 | 267 | e 0 35 | + 6 | 0 49 | − 2 |
| Hukusima | | 2·2 | 10 | e 0 42 | + 7 | 1 5 | + 4 |
| Niigata | | 2·4 | 342 | — | — | e 1 12 | + 6 |
| Nagoya | | 2·5 | 260 | e 0 36 | − 3 | 1 10 | + 1 |
| Hatidyozima | | 2·5 | 183 | i 0 37 | − 2 | 1 3 | − 6 |
| Toyama | | 2·5 | 296 | e 0 43 | + 4 | — | — |
| Gihu | N. | 2·6 | 266 | e 0 46 | + 5 | — | — |
| Yamagata | | 2·7 | 6 | — | — | e 1 5 | − 9 |
| Sendai | | 2·8 | 15 | e 1 0 | +17 | 1 33 | +17 |
| Kameyama | | 3·0 | 255 | e 0 47 | + 1 | 1 17 | − 5 |
| Tsuruga | | 3·2 | 271 | e 0 51 | + 2 | 1 27 | 0 |
| Kyoto | | 3·5 | 261 | e 1 21 | +28 | 1 46 | +12 |
| Osaka | | 3·8 | 257 | e 1 17 | +19 | 1 47 | + 5 |
| Akita | | 4·1 | 1 | — | — | e 1 53 | + 4 |
| Toyooka | | 4·2 | 270 | — | — | e 2 3 | +11 |

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Aug. 13d. 9h. 29m. 52s. Epicentre 56°·5N. 163°·8E. (as on 1948, Aug. 28d.).

$A = -\cdot5325$, $B = +\cdot1547$, $C = +\cdot8322$; $\delta = +5$; $h = -8$;
$D = +\cdot279$, $E = +\cdot960$; $G = -\cdot799$, $H = +\cdot232$, $K = -\cdot555$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| College | | 24·5 | 50 | i 5 23 | + 1 | — | — | — | — |
| Hungry Horse | | 47·9 | 62 | e 8 41 | − 1 | — | — | — | — |
| Shasta | z. | 48·8 | 76 | e 8 49 | 0 | — | — | — | — |
| Kiruna | | 53·1 | 343 | i 9 24 | + 3 | e 20 53 | SS | e 19 44 | ? |
| Scoresby Sund | | 53·2 | 3 | e 9 25 | + 3 | — | — | — | — |
| Tinemaha | z. | 53·7 | 76 | i 9 26 | 0 | — | — | i 9 35 | ? |
| Pasadena | z. | 55·9 | 78 | e 9 41 | − 1 | — | — | e 9 51 | ? |
| Boulder City | | 56·3 | 74 | i 9 45 | 0 | — | — | — | — |
| Palomar | z. | 57·2 | 78 | e 9 48 | − 3 | — | — | — | — |
| Tucson | | 61·3 | 74 | e 10 18 | − 2 | — | — | — | — |
| Collmberg | z. | 69·9 | 341 | e 11 16 | + 1 | — | — | — | — |
| Harvard | | 70·9 | 40 | i 11 21k | 0 | — | — | — | — |
| De Bilt | | 70·3 | 347 | e 14 8 | PP | — | — | — | — |
| Jena | z. | 70·5 | 342 | — | — | e 27 19 | ? | e 27 31 | ? |
| Weston | | 71·1 | 40 | i 10 22a | −60 | — | — | — | — |
| Triest | | 75·2 | 339 | e 11 32 | −14 | e 13 31 | ? | e 11 55 | P |
| Pavia | | 76·5 | 342 | e 13 8? | ? | — | — | — | — |
| Florence | | 77·4 | 340 | e 10 24 | ? | — | — | — | — |
| Rome | | 79·0 | 339 | e 9 8? | ? | — | — | — | — |
| Brisbane | z. | 84·1 | 190 | i 11 36k | −58 | — | — | i 12 3 | ? |

Aug. 13d. 10h. 44m. 33s. Epicentre 20°·2S. 178°·2W. Depth of focus 0·060. (as on July 27d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Karapiro | N. | 18·5 | 196 | e 3 49 | 0 | — | — | — | — |
| Tuai | N. | 19·0 | 192 | — | — | e 6 38 | −26 | — | — |
| Wellington | | 21·9 | 195 | e 4 19 | − 3 | e 7 47 | − 6 | — | — |
| Cobb River | E. | 22·2 | 200 | — | — | e 7 58 | 0 | — | — |
| Kaimata | N.E. | 23·9 | 200 | e 4 44 | + 4 | e 8 16 | −10 | — | — |
| Pasadena | z. | 78·6 | 48 | e 11 18 | 0 | — | — | — | — |
| Palomar | z. | 79·1 | 49 | i 11 21 | 0 | — | — | — | — |
| Riverside | z. | 79·3 | 48 | e 11 20 | − 2 | — | — | — | — |
| Tinemaha | z. | 80·2 | 45 | e 11 26 | − 1 | — | — | — | — |
| Collmberg | z. | 147·7 | 347 | e 18 56 | [+ 3] | — | — | e 19 0 | PKP$_3$ |
| Jena | z. | 148·4 | 347 | e 18 54 | [ 0] | — | — | e 18 59 | PKP$_3$ |
| Prague | | 148·6 | 345 | e 19 0 | [+ 5] | — | — | e 19 7 | PKP$_3$ |
| Stuttgart | | 150·9 | 350 | e 18 57? | [− 1] | — | — | e 19 14 | PKP$_3$ |
| Malaga | | 162·6 | 17 | e 19 14 | [+ 1] | — | — | e 17 14 | ? |

Aug. 13d. 11h. 55m. 9s. Epicentre 5°·8N. 82°·7W. (as on 1950, October 11d.).

$A = +\cdot1264$, $B = -\cdot9869$, $C = +\cdot1004$; $\delta = +3$; $h = +7$;
$D = -\cdot992$, $E = -\cdot127$; $G = +\cdot013$, $H = -\cdot100$, $K = -\cdot995$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. | m. |
| Balboa Heights | | 4·4 | 45 | i 1 11 | + 1 | e 2 4 | + 2 | — | — | — |
| Bogota | z. | 8·7 | 96 | e 2 12 | + 2 | — | — | — | — | — |
| Galerazamba | | 8·9 | 56 | i 2 14 | + 2 | e 4 22 | − 6* | — | — | — |
| Huancayo | | 19·2 | 158 | i 4 24 | − 4 | e 8 1 | + 2 | — | — | e 9·4 |
| Puebla | | 20·0 | 313 | e 4 49 | PP | — | — | — | — | — |
| San Juan | | 20·5 | 50 | i 4 41 | − 1 | e 8 35 | + 8 | — | — | — |
| Tacubaya | | 21·0 | 311 | e 4 53 | + 6 | — | — | — | — | — |
| Fort de France | | 23·0 | 66 | e 5 7 | 0 | i 9 25 | +11 | — | — | — |
| La Paz | | 26·5 | 147 | i 5 42 | + 1 | 10 17 | + 3 | 7 11 | ? | 12·3 |
| Fayetteville | z. | 31·9 | 342 | i 6 28 | − 1 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tucson | | 37·1 | 319 | e 7 13 | − 1 | e 13 7 | + 6 | e 8 45 | PP | e 19·3 |
| Ottawa | | 39·9 | 8 | i 7 37k | 0 | e 16 51 | SSS | — | — | — |
| Palomar | z. | 41·9 | 316 | i 7 55 | + 1 | — | — | — | — | — |
| Boulder City | | 42·1 | 320 | i 7 56 | + 1 | — | — | — | — | — |
| Kirkland Lake | z. | 42·3 | 3 | e 7 46k | −11 | — | — | — | — | — |
| Riverside | z. | 42·6 | 316 | i 8 0 | + 1 | — | — | — | — | — |
| Pasadena | z. | 43·3 | 316 | i 8 6 | + 1 | — | — | — | — | — |
| Tinemaha | z. | 44·9 | 319 | i 8 20 | + 2 | — | — | — | — | — |
| Reno | z. | 47·4 | 321 | e 8 39a | + 1 | — | — | — | — | — |
| Lick | z. | 47·4 | 317 | e 8 36a | − 2 | — | — | — | — | — |
| Butte | | 47·7 | 333 | e 8 40 | 0 | — | — | — | — | — |
| Shasta | z. | 49·6 | 320 | e 8 53a | − 2 | — | — | — | — | — |
| Hungry Horse | | 50·1 | 334 | i 8 59 | 0 | — | — | — | — | — |
| College | | 74·4 | 336 | e 11 39 | − 3 | — | — | — | — | — |
| Tamanrasset | z. | 86·1 | 68 | e 12 46 | + 2 | — | — | — | — | — |
| Stuttgart | | 86·9 | 41 | e 12 49 | + 1 | — | — | — | — | — |
| Jena | z. | 88·2 | 39 | e 12 55 | + 1 | — | — | — | — | — |
| Collmberg | z. | 89·1 | 39 | e 12 58 | 0 | — | — | — | — | — |

Aug. 13d. 14h. 6m. 50s. Epicentre 37°·3N. 69°·8E. (as at 3h.).

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 1·4 | 83 | i 0 25 | − 2 | 0 43 | − 3 |
| Obi-garm | 1·4 | 356 | i 0 27 | 0 | e 0 48 | + 2 |
| Stalinabad | 1·5 | 327 | i 0 31 | + 1g | i 0 54 | + 4g |
| Garm | 1·7 | 13 | i 0 32 | 0* | — | — |
| Dzhergetal | 2·2 | 30 | i 0 40 | 0* | i 1 9 | 0* |
| Samarkand | 3·2 | 317 | e 1 4 | 0g | — | — |
| Murgab | 3·4 | 71 | — | — | i 1 44 | − 1* |
| Fergana | 3·4 | 26 | e 1 2 | + 1* | 1 40 | + 3 |
| Andijan | 4·0 | 29 | e 1 5 | + 1 | e 2 2 | − 1* |
| Lunacharskoe | 4·0 | 355 | i 1 16 | − 4g | — | — |
| Namangan | 4·0 | 22 | e 1 13 | + 2* | e 2 5 | + 2* |
| Tashkent | 4·0 | 354 | e 1 16 | − 4g | e 2 2 | − 1* |
| Tchimkent | 5·0 | 358 | e 1 33 | + 5* | e 2 49 | + 4g |
| Frunse | 6·7 | 32 | e 1 59 | + 2* | — | — |

Aug. 13d. 14h. 30m. 45s. Epicentre 33°·7N. 46°·8E.

A = + ·5707, B = + ·6077, C = + ·5523 ; δ = + 3 ; h = 0 ;
D = + ·729, E = − ·685 ; G = + ·378, H = + ·403, K = − ·834.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Lenkoran | | 5·3 | 17 | 1 22 | 0 | 2 30 | + 5 | — | — | — |
| Goris | | 5·8 | 357 | 1 27 | − 2 | 2 53 | − 3* | — | — | — |
| Erevan | | 6·7 | 345 | e 1 40 | − 2 | 3 22 | − 1* | — | — | — |
| Shemakla | | 7·1 | 12 | i 1 49 | + 1 | — | — | — | — | — |
| Tiflis | | 8·2 | 349 | e 2 2 | − 1 | 3 34? | − 4 | — | — | — |
| Tsikhlis-Dzhvari | | 8·4 | 343 | e 2 10 | + 4 | — | — | — | — | — |
| Borzhomi | | 8·5 | 343 | e 2 10 | + 3 | — | — | — | — | — |
| Gori | | 8·5 | 347 | e 2 13 | + 6 | — | — | — | — | — |
| Ksara | | 9·1 | 274 | e 2 24 | +10 | i 4 52 | − 9g | — | — | i 5·2 |
| Kizyl-Arvat | | 9·3 | 52 | e 2 21 | + 4 | e 4 5 | 0 | — | — | — |
| Makhach-Kala | | 9·3 | 3 | i 2 20 | + 3 | — | — | — | — | — |
| Grozny | | 9·6 | 356 | 2 25 | + 4 | i 4 17 | + 5 | — | — | — |
| Zugdidi | | 9·6 | 338 | e 2 26 | + 5 | — | — | — | — | — |
| Sotchi | | 11·3 | 333 | 2 43 | − 3 | — | — | — | — | — |
| Helwan | | 13·7 | 258 | i 3 21a | + 3 | i 6 21 | +29 | — | — | 7·8 |
| Theodosia | | 14·3 | 325 | 3 23 | − 3 | 5 59 | − 7 | — | — | — |
| Yalta | | 14·5 | 321 | 3 27 | − 1 | 6 8 | − 3 | — | — | — |
| Istanbul | | 15·9 | 303 | i 3 49 | + 2 | e 6 54 | +10 | i 3 53 | PP | e 9·0 |
| Samarkand | | 17·2 | 63 | 4 1 | − 2 | — | — | — | — | — |
| Quetta | E. | 17·5 | 93 | e 4 13 | + 6 | e 7 32 | +11 | — | — | 9·2 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Stalinabad | | 18·4 | 67 | e 4 22 | + 4 | e 7 53 | +12 | — | — | — |
| Kishinev | | 19·0 | 320 | i 4 22 | − 4 | 7 53 | − 2 | — | — | — |
| Obi-garın | | 19·1 | 66 | i 4 26 | − 1 | — | — | — | — | — |
| Bucharest | | 19·3 | 310 | e 4 30 | + 1 | e 7 37 | −25 | e 4 59 | PPP | — |
| Tashkent | | 19·4 | 59 | e 4 28? | − 2 | — | — | — | — | — |
| Lunacharskoe | | 19·4 | 59 | e 4 29 | − 1 | — | — | — | — | — |
| Tchimkent | | 19·9 | 67 | i 4 34 | − 2 | e 8 14 | − 1 | — | — | — |
| Dzhergetal | | 20·4 | 65 | 4 46 | + 5 | 8 31 | + 6 | — | — | — |
| Khorog | | 20·5 | 70 | e 4 41 | − 1 | — | — | — | — | — |
| Namangan | | 21·0 | 63 | e 4 48 | + 1 | — | — | — | — | — |
| Fergana | | 21·0 | 63 | e 4 44 | − 3 | e 8 32 | − 5 | — | — | — |
| Cernauti | | 21·4 | 319 | 4 48 | − 3 | — | — | — | — | — |
| Andijan | | 21·5 | 63 | e 4 50 | − 2 | i 8 47 | 0 | — | — | — |
| Murgab | | 22·4 | 69 | e 5 3 | + 1 | — | — | — | — | — |
| Moscow | | 22·9 | 347 | e 5 3 | − 3 | e 9 6 | − 7 | — | — | — |
| Lwow | | 23·3 | 320 | i 5 7 | − 3 | i 9 16 | − 4 | — | — | — |
| Uzhgorod | | 23·6 | 318 | i 5 15 | + 2 | i 9 28 | + 3 | — | — | — |
| Frunse | | 23·6 | 58 | i 5 14 | + 1 | i 9 28 | + 3 | — | — | — |
| Naryn | | 24·3 | 63 | 5 21 | + 1 | — | — | — | — | — |
| Rybach'e | | 24·5 | 59 | e 5 24 | + 2 | e 9 52 | +12 | — | — | — |
| Sverdlovsk | | 25·0 | 17 | i 5 25 | − 2 | e 9 45 | − 4 | — | — | — |
| Almata | | 25·3 | 57 | e 5 35? | + 5 | — | — | — | — | — |
| Ili | | 25·6 | 55 | i 5 31 | − 1 | — | — | — | — | — |
| Messina | | 25·6 | 289 | e 5 35k | + 3 | e 10 11 | +12 | i 5 40 | ? | — |
| Przhevalsk | | 26·3 | 59 | e 5 39 | 0 | — | — | — | — | — |
| Raciborzu | | 26·6 | 317 | e 5 37 | − 5 | e 10 14 | − 2 | e 12 42 | PcS | — |
| Triest | | 27·9 | 306 | e 5 53 | − 1 | e 10 36 | − 1 | e 6 50 | PPP | — |
| Rome | | 28·2 | 297 | e 5 55 | − 1 | e 10 46 | + 5 | — | — | — |
| Pulkovo | | 28·3 | 343 | e 5 57 | 0 | e 10 41 | − 2 | — | — | — |
| Prague | | 28·8 | 315 | e 6 1 | − 1 | e 10 57 | + 6 | e 7 0 | PP | — |
| Florence | z. | 29·3 | 301 | i 5 59 | − 7 | — | — | e 5 42 | ? | — |
| Pavia | z. | 31·0 | 304 | e 6 25 | + 4 | — | — | — | — | — |
| Stuttgart | | 31·7 | 310 | e 6 22 | − 5 | — | — | e 7 36 | PP | e 14·2 |
| Zürich | | 31·8 | 308 | e 6 25 | − 3 | — | — | — | — | — |
| Copenhagen | | 32·3 | 324 | i 6 30 | − 3 | — | — | — | — | — |
| Upsala | z. | 32·4 | 333 | i 6 29 | − 5 | i 9 51 | ? | i 7 35 | PP | — |
| Basle | | 32·5 | 308 | e 6 36 | + 2 | — | — | — | — | — |
| Strasbourg | | 32·6 | 310 | — | — | e 14 15 | SSS | — | — | 18·2 |
| Witteveen | z. | 34·3 | 318 | i 6 50 | 0 | — | — | i 6 56 | ? | — |
| Algiers Univ. | z. | 35·6 | 288 | e 7 1 | 0 | — | — | — | — | — |
| Kiruna | | 37·4 | 344 | i 7 12a | − 4 | e 13 30 | +25 | i 8 40 | PP | e 19·2 |
| Tamanrasset | z. | 37·7 | 264 | i 7 22k | + 3 | i 7 35 | ? | e 8 51 | PP | — |
| Alicante | | 38·2 | 292 | e 7 23 | 0 | e 13 32 | +15 | — | — | 19·7 |
| Toledo | | 40·7 | 294 | e 7 44 | 0 | — | — | e 10 2 | PPP | — |
| Granada | | 40·8 | 290 | 7 45k | 0 | — | — | — | — | 21·2 |
| Malaga | | 41·5 | 290 | i 7 52 | + 2 | e 14 28 | +21 | 9 30 | PP | 21·7 |
| Irkutsk | | 44·7 | 47 | e 8 14 | − 2 | — | — | — | — | — |
| Kabansk | | 46·1 | 48 | e 8 27 | − 1 | — | — | — | — | — |
| Scoresby Sund | | 51·6 | 337 | e 9 7 | − 3 | — | — | — | — | 29·2 |
| Halifax | | 79·7 | 318 | i 12 10a | − 1 | — | — | — | — | — |

Aug. 13d. 17h. 39m. 23s. Epicentre 35°·4N. 118°·6W. (as on July 31d.).

Intensity VI in the north-west of Cumming Valley ; IV at Arvin, and less strong at Los Angeles. Epicentre 35° 09'N. 118° 41'W. (Pasadena).

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 37.

| | | △ | Az. | P. | O−C. | L. |
|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. |
| Fresno | z. | 1·7 | 325 | i 0 32k | 0* | — |
| Lick | z. | 3·2 | 310 | e 0 51k | − 1 | — |
| Santa Clara | E. | 3·4 | 307 | e 1 9 | + 1g | — |
| Berkeley | z. | 3·9 | 311 | e 1 1k | − 1 | — |
| Reno | z. | 4·3 | 347 | e 1 13 | − 3* | — |
| Shasta | z. | 6·1 | 332 | e 1 34 | 0 | — |
| Fayetteville | z. | 19·8 | 80 | i 4 38a | + 3 | e 10·6 |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Aug. 13d. 21h. 14m. 24s. Epicentre 31°·8N. 40°·9W. (as on 1951, November 30d.).

$A = +·6436$, $B = -·5575$, $C = +·5244$; $\delta = +2$; $h = +2$;
$D = -·655$, $E = -·756$; $G = +·396$, $H = -·343$, $K = -·851$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Bermuda | | 20·2 | 277 | e 4 36 | − 3 | — | — | — | — | e 8·6 |
| Halifax | | 21·9 | 313 | e 4 53 | − 4 | 8 56 | + 2 | 5 23 | PP | 10·3 |
| Weston | | 26·3 | 302 | e 5 42 | + 3 | — | — | — | — | — |
| Harvard | | 26·5 | 302 | e 5 44 | + 3 | e 10 14 | 0 | — | — | e 12·3 |
| Palisades | | 28·0 | 298 | e 5 50 | − 5 | e 10 42 | + 4 | — | — | e 12·8 |
| Malaga | | 30·4 | 70 | i 6 18 | + 2 | e 11 4 | −12 | 9 22 | PcP | 14·6 |
| Toledo | | 30·8 | 64 | e 6 22 | + 2 | — | — | e 31 6 | PKKP | — |
| Granada | | 31·1 | 69 | i 7 28a | PP | 13 1 | SS | 14 27 | Q | i 16·1 |
| Almeria | | 32·0 | 70 | 7 26 | PP | e 12 2 | +20 | 8 10 | PPP | 16·4 |
| Alicante | | 33·5 | 66 | e 6 27 | −16 | i 11 52 | −13 | 7 56 | PP | 15·8 |
| Cleveland | | 33·7 | 298 | e 6 40 | − 5 | e 11 59 | − 9 | e 7 34 | PP | — |
| Tortosa | | 34·3 | 62 | i 6 49 | − 1 | e 12 33 | +16 | — | — | — |
| Algiers Univ. | z. | 36·4 | 69 | e 7 6 | − 2 | — | — | i 7 12 | P | — |
| Clermont-Ferrand | | 36·6 | 54 | e 7 11 | + 1 | e 13 1 | + 8 | i 7 17 | P | — |
| Paris | | 36·6 | 48 | i 7 8 | − 2 | i 13 1 | + 8 | e 13 21 | PcS | 17·1 |
| De Bilt | | 39·0 | 44 | e 7 36 | + 6 | e 13 36 | + 7 | — | — | e 18·1 |
| Oropa | | 40·0 | 55 | e 7 41 | + 3 | e 14 22 | +38 | — | — | — |
| Strasbourg | | 40·0 | 50 | e 7 37 | − 1 | e 13 49 | + 5 | e 10 39 | ? | e 16·6 |
| Witteveen | z. | 40·1 | 42 | e 7 37 | − 2 | — | — | i 7 47 | P | — |
| Karlsruhe | z. | 40·5 | 49 | e 7 39 | − 3 | — | — | e 7 50 | P | — |
| Pavia | | 40·8 | 55 | e 8 30 | +45 | — | — | e 9 47 | PcP | e 18·6 |
| Stuttgart | | 41·0 | 50 | e 7 45 | − 1 | e 14 1 | + 2 | e 17 6 | SS | e 18·6 |
| Bogota | | 41·2 | 236 | e 9 47 | PPP | e 17 3 | SS | — | — | — |
| Tamanrasset | z. | 41·9 | 90 | e 7 53 | − 1 | e 8 22 | ? | e 9 36 | PP | 21·6 |
| Florence | | 42·3 | 57 | e 7 53 | − 4 | e 14 24 | + 5 | e 9 56 | PPP | — |
| Jena | | 42·8 | 47 | e 8 0 | − 1 | e 9 44 | PP | e 10 10 | PPP | — |
| Rome | | 43·3 | 60 | e 8 5 | 0 | e 14 35 | + 2 | — | — | e 20·9 |
| Collmberg | z. | 43·7 | 47 | e 8 6 | − 2 | e 8 12 | P | e 10 0 | PP | — |
| Potsdam | | 43·8 | 45 | e 8 10 | + 1 | e 14 52 | +12 | — | — | e 20·6 |
| Triest | z. | 44·0 | 54 | i 8 14a | + 3 | i 8 21 | ? | e 9 51 | PP | — |
| Copenhagen | | 44·0 | 40 | — | — | 14 50 | + 7 | — | — | 22·6 |
| Fayetteville | z. | 44·0 | 290 | i 8 5 | − 6 | — | — | e 9 51 | PP | — |
| Prague | | 44·5 | 48 | e 8 15 | 0 | e 8 20 | P | e 8 55 | ? | — |
| Messina | E. | 46·1 | 64 | e 8 16 | −12 | e 15 24 | +10 | e 10 18 | PP | — |
| Raciborzu | | 46·9 | 48 | e 8 38 | + 4 | e 10 8 | PcP | e 10 22 | PP | — |
| Taranto | | 47·0 | 61 | — | — | 14 55 | −31 | — | — | 21·6 |
| Kiruna | z. | 50·2 | 25 | e 9 2 | + 2 | — | — | i 9 11 | ? | — |
| La Paz | N. | 54·7 | 212 | e 9 39 | + 6 | — | — | — | — | — |
| Istanbul | | 55·7 | 58 | e 9 37? | − 3 | — | — | — | — | — |
| Hungry Horse | | 56·2 | 310 | e 9 40 | − 4 | — | — | — | — | — |
| Boulder City | | 60·1 | 296 | e 10 7 | − 4 | — | — | — | — | — |
| Helwan | z. | 61·0 | 71 | e 10 15 | − 3 | — | — | — | — | — |
| China Lake | z. | 62·3 | 297 | e 10 30 | + 4 | — | — | — | — | — |
| Tinemaha | z. | 62·4 | 298 | e 10 30 | + 3 | — | — | — | — | — |
| Palomar | z. | 62·6 | 293 | e 10 28 | 0 | — | — | — | — | — |
| Reno | z. | 62·7 | 301 | e 10 31k | + 2 | — | — | — | — | — |
| Riverside | z. | 62·8 | 295 | e 10 31 | + 1 | — | — | — | — | — |
| Mount Wilson | z. | 63·2 | 295 | e 10 33 | + 1 | — | — | — | — | — |
| Fresno | z. | 63·6 | 298 | e 10 37k | + 2 | — | — | — | — | — |
| Shasta | z. | 64·1 | 303 | e 10 38k | 0 | — | — | — | — | — |

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Aug. 14d. 12h. 40m. 52s. Epicentre 36°·8N. 69°·9E. Depth of focus 0·030.
(as on 1952, May 17d.).

A = +·2758, B = +·7538, C = +·5964 ; $\delta$ = −3 ; $h$ = 0 ;
D = +·939, E = −·344 ; G = +·205, H = +·560, K = −·803.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Kulyab | 1·1 | 355 | e 0 34 | + 1 | e 1 1 | + 2 |
| Khorog | 1·5 | 64 | i 0 38 | + 2 | i 1 8 | + 4 |
| Obi-garm | 1·9 | 355 | i 0 41 | + 1 | i 1 14 | + 4 |
| Stalinabad | 2·0 | 333 | i 0 41 | 0 | i 1 14 | + 2 |
| Dzhergetal | 2·6 | 23 | i 0 48 | + 1 | i 1 27 | + 4 |
| Murgab | 3·6 | 63 | i 0 58 | 0 | i 1 44 | 0 |
| Samarkand | 3·7 | 323 | 0 59 | − 1 | e 1 43 | − 3 |
| Andijan | 4·4 | 25 | e 1 8 | 0 | i 2 3 | + 2 |
| Namangan | 4·4 | 18 | i 1 8 | 0 | e 2 4 | + 3 |
| Lunacharskoe | 4·5 | 354 | i 1 10 | + 1 | i 2 7 | + 4 |
| Tchimkent | 5·5 | 358 | e 1 22 | 0 | i 2 27 | + 1 |
| Naryn | 6·6 | 44 | e 1 34 | − 2 | — | — |
| Frunse | 7·1 | 29 | e 1 46 | + 4 | i 3 5 | + 3 |
| Almata II | 8·6 | 39 | i 2 1 | − 1 | — | — |

Aug. 14d. 16h. 1m. 6s. Epicentre 2°·3N. 97°·0E. Focus at Base of Superficial Layers.

A = −·1218, B = +·9918, C = +·0398 ; $\delta$ = +9 ; $h$ = +7 ;
D = +·993, E = +·122 ; G = −·005, H = +·040, K = −·999.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Djakarta | | 12·9 | 131 | e 3 0 | − 4 | e 5 27 | 0 | — | — | — |
| Bandong | | 14·0 | 131 | e 3 28 | +10 | e 6 22 | +29 | — | — | — |
| Colombo | E. | 17·7 | 285 | 4 6 | 0 | 7 29 | +10 | — | — | 9·3 |
| Madras | E. | 19·8 | 305 | i 4 31 | + 1 | i 8 9 | + 3 | 4 51 | PP | 9·0 |
| Kodaikanal | E. | 20·9 | 294 | i 4 44 | + 2 | i 8 38 | +10 | — | — | — |
| Calcutta | E. | 21·5 | 338 | i 6 23 | ? | i 8 55 | +16 | — | — | — |
| Hyderabad | | 23·6 | 311 | i 5 12 | + 3 | i 9 25 | + 8 | 5 25 | PP | 11·6 |
| Shillong | E. | 23·7 | 350 | e 5 7 | − 3 | e 9 13 | − 6 | 5 38 | PP | 10·6 |
| Chatra | N. | 26·3 | 343 | e 5 34 | 0 | e 10 0 | − 3 | — | — | — |
| Poona | | 27·8 | 308 | e 5 50 | + 2 | i 10 49 | +22 | 12 36 | SS | 13·9 |
| Bombay | | 28·9 | 307 | e 6 8 | +10 | e 11 9 | +24 | 12 55 | SS | 13·9 |
| New Delhi | N. | 32·2 | 326 | e 6 25 | − 2 | i 11 34 | − 3 | 13 9 | Q | 14·4 |
| Nanking | | 36·0 | 32 | i 6 58a | − 2 | 12 35 | − 1 | i 7 9 | pP | — |
| Zô-Sè | Z. | 36·6 | 36 | i 7 6a | + 1 | — | — | — | — | — |
| Quetta | | 39·7 | 319 | e 7 47 | +16 | i 13 33 | + 1 | — | — | 18·9 |
| Murgab | | 41·6 | 333 | i 7 48 | + 2 | i 13 59 | − 1 | — | — | — |
| Khorog | | 42·1 | 330 | 7 52 | + 2 | i 14 8 | 0 | — | — | — |
| Kulyab | | 43·3 | 329 | 8 0 | 0 | 14 23 | − 2 | — | — | — |
| Naryn | | 43·3 | 337 | i 8 1 | + 1 | i 14 26 | + 1 | — | — | — |
| Przhevalsk | | 43·3 | 342 | 8 0 | 0 | 14 27 | + 2 | — | — | — |
| Dzhergetal | | 43·6 | 332 | 8 3 | 0 | 14 28 | − 2 | — | — | — |
| Obi-garm | | 44·0 | 330 | i 8 4 | − 2 | i 14 31? | − 4 | — | — | — |
| Rybach'e | | 44·1 | 338 | i 8 7 | 0 | i 14 38 | + 1 | i 8 34 | pP | — |
| Andijan | | 44·3 | 333 | i 8 8 | 0 | i 14 39 | − 1 | — | — | — |
| Stalinabad | | 44·4 | 329 | i 8 7 | − 2 | e 14 37 | − 4 | — | — | — |
| Almata II | | 44·4 | 340 | 8 10 | + 1 | — | — | — | — | — |
| Almata | | 44·5 | 340 | e 8 0? | −10 | — | — | — | — | — |
| Namangan | | 44·8 | 333 | i 8 13 | + 1 | i 14 46 | − 1 | — | — | — |
| Frunse | | 45·1 | 337 | i 8 15 | 0 | i 14 52 | + 1 | — | — | — |
| Ili | | 45·1 | 341 | i 8 13 | − 2 | — | — | — | — | — |
| Samarkand | | 46·1 | 328 | 8 13 | −10 | — | — | — | — | — |
| Lunacharskoe | | 46·2 | 331 | i 8 23 | − 1 | i 15 6 | − 1 | — | — | — |
| Tchimkent | | 46·8 | 333 | i 8 27 | − 1 | i 15 14 | − 1 | — | — | — |
| Bairam-Ali | | 47·5 | 323 | i 8 36 | + 2 | i 15 33 | + 8 | — | — | — |
| Kyakhta | | 48·6 | 9 | 8 40 | − 2 | e 15 37 | − 4 | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Semipalatinsk | | 50·0 | 347 | i 8 52 | − 1 | e 15 59 | − 1 | — | — | — |
| Ashkabad | | 50·1 | 321 | i 8 54 | 0 | i 16 3 | + 1 | — | — | — |
| Irkutsk | | 50·2 | 6 | 8 54 | − 1 | 16 4 | + 1 | — | — | — |
| Kabansk | | 50·2 | 8 | i 8 54 | − 1 | e 16 4 | + 1 | — | — | — |
| Vladivostok | | 51·2 | 33 | i 9 1 | − 1 | i 16 16 | − 1 | — | — | — |
| Kizyl-Arvat | | 52·1 | 322 | 9 9 | 0 | 16 32 | + 3 | — | — | — |
| Baku | | 57·0 | 319 | e 9 51 | + 6 | e 17 39 | + 4 | — | — | — |
| Goris | | 59·0 | 317 | e 9 58 | − 1 | e 18 0 | − 1 | — | — | — |
| Kirovobad | | 59·5 | 318 | i 10 0 | − 2 | e 18 2 | − 6 | — | — | — |
| Yuzno-Sakhlinsk | | 59·5 | 35 | 10 2 | 0 | — | — | — | — | — |
| Makhach-Kala | | 59·8 | 321 | i 10 4 | 0 | i 18 11 | − 1 | — | — | — |
| Uglegorsk | | 60·4 | 32 | 10 7 | − 1 | — | — | — | — | — |
| Erevan | | 60·6 | 316 | e 10 11 | + 1 | — | — | — | — | — |
| Tiflis | | 61·0 | 318 | e 10 12 | 0 | i 18 26 | − 1 | — | — | — |
| Grozny | | 61·1 | 320 | i 10 13 | 0 | i 18 26 | − 2 | — | — | — |
| Brisbane | | 61·5 | 123 | i 10 15a | − 1 | i 18 35 | + 2 | i 10 27 | pP | — |
| Gori | | 61·6 | 318 | e 10 21 | + 5 | — | — | — | — | — |
| Sverdlovsk | | 61·6 | 339 | — | — | i 18 33 | − 2 | — | — | — |
| Tsikhlis-Dzhvari | | 61·9 | 317 | 10 23 | + 5 | e 18 39 | + 1 | — | — | — |
| Borzhomi | | 62·0 | 317 | e 10 19 | 0 | — | — | — | — | — |
| Riverview | | 62·3 | 130 | — | — | i 18 46 | + 2 | e 30 24 | Q | e 35·2 |
| Piatigorsk | | 63·1 | 320 | e 10 26 | 0 | 18 51 | − 3 | — | — | — |
| Zugdidi | | 63·3 | 318 | e 10 33 | + 5 | — | — | — | — | — |
| Ksara | | 64·9 | 307 | e 10 33? | − 5 | e 19 23 | + 7 | — | — | — |
| Sotchi | | 65·2 | 319 | 10 38 | − 2 | 19 15 | − 5 | — | — | — |
| Helwan | | 67·8 | 302 | e 11 0 | + 3 | e 19 54 | + 3 | — | — | — |
| Theodosia | | 68·6 | 319 | 11 1 | − 1 | 19 58 | − 3 | e 11 27 | pP | — |
| Yalta | | 69·3 | 318 | 11 5 | − 1 | 20 4 | − 5 | e 11 32 | pP | — |
| Simferopol | | 69·4 | 318 | 11 6 | 0 | 20 9 | − 1 | — | — | — |
| Moscow | | 71·3 | 330 | i 11 18 | 0 | i 20 29 | − 3 | 21 18 | sS | — |
| Petropavlovsk | | 71·5 | 34 | i 11 17 | − 2 | — | — | — | — | — |
| Kishinev | | 73·5 | 319 | i 11 31 | 0 | 20 54 | − 3 | — | — | — |
| Bucharest | | 74·8 | 316 | e 11 45 | + 6 | e 21 11 | − 1 | — | — | — |
| Grahamstown | z. | 75·0 | 235 | i 11 42 | + 2 | — | — | — | — | e 35·5 |
| Kimberley | z. | 75·6 | 240 | i 11 45 | + 2 | — | — | — | — | — |
| Pulkovo | | 76·4 | 332 | e 11 47 | − 1 | i 21 25 | − 4 | — | — | — |
| Lwow | | 77·3 | 321 | i 11 54 | + 1 | i 21 38 | − 1 | — | — | — |
| Uzhgorod | | 78·2 | 320 | i 11 58 | 0 | — | — | — | — | — |
| Raciborzu | | 81·1 | 321 | e 12 19 | + 6 | 22 22 | + 3 | e 12 24 | pP | — |
| Messina | | 81·9 | 309 | e 12 29 | +11 | e 22 34 | + 6 | e 12 45 | pP | — |
| Vienna | | 82·1 | 319 | e 12 19 | 0 | i 22 32 | + 2 | e 23 33 | PS | — |
| Upsala | z. | 82·7 | 330 | i 12 21a | − 1 | i 13 2 | ? | i 12 27 | PcP | — |
| Kiruna | | 82·8 | 338 | i 12 22a | 0 | i 22 36 | − 1 | i 12 28 | PcP | e 39·2 |
| Prague | | 83·5 | 321 | e 12 36 | +10 | e 22 42 | − 2 | e 12 47 | pP | — |
| Triest | | 83·6 | 316 | i 12 31 | + 5 | i 22 42 | − 3 | e 12 44 | pP | — |
| Rome | | 84·4 | 312 | e 12 29 | − 1 | e 22 59 | + 6 | e 28 44 | SS | e 39·9 |
| Collmberg | | 84·5 | 321 | e 12 7 | −24 | e 22 36 | −18 | e 12 31 | P | e 40·7 |
| Potsdam | | 84·5 | 323 | e 12 32 | + 1 | i 22 53 | − 1 | e 12 47 | pP | e 47·9 |
| Copenhagen | | 85·0 | 326 | i 12 35 | + 2 | i 23 0 | + 2 | 31 42 | ? | 42·9 |
| Bologna | | 85·3 | 315 | e 12 38 | + 3 | e 23 6 | + 5 | — | — | — |
| Florence | | 85·3 | 314 | e 12 30 | − 5 | e 23 26 | +25 | — | — | — |
| Jena | | 85·3 | 321 | e 12 27? | − 8 | e 22 57 | − 4 | e 15 27? | PP | — |
| Salo | N. | 85·9 | 316 | e 12 54 | +16 | — | — | e 13 17 | pP | e 43·2 |
| Stuttgart | | 86·8 | 319 | e 12 41 | − 1 | e 23 16 | 0 | e 12 57 | PcP | e 50·9 |
| Pavia | | 86·9 | 316 | e 12 45 | + 2 | i 23 19 | + 2 | e 25 4 | PPS | — |
| Zürich | | 87·3 | 318 | e 12 52 | + 7 | e 23 22 | − 1 | e 13 4 | pP | — |
| Karlsruhe | z. | 87·4 | 320 | e 12 44 | − 1 | — | — | — | — | — |
| Oropa | | 87·7 | 317 | e 12 39 | − 8 | i 23 5 | [− 4] | — | — | — |
| Strasbourg | | 87·8 | 319 | e 12 50 | + 3 | e 23 24 | − 2 | e 23 18 | SKS | 47·9 |
| Basle | | 87·9 | 318 | e 12 58 | +11 | — | — | e 13 9 | pP | — |
| De Bilt | | 89·3 | 323 | i 12 54 | 0 | i 23 42 | + 3 | e 16 28 | PP | — |
| Tamanrasset | z. | 90·5 | 293 | e 13 3 | + 3 | e 13 7 | PcP | e 16 45 | PP | — |
| Clermont-Ferrand | | 91·1 | 316 | i 13 14 | +11 | e 23 59 | + 3 | — | — | — |
| Paris | | 91·3 | 319 | e 13 3 | − 1 | i 23 57 | 0 | e 13 31 | pP | 48·9 |
| Algiers Univ. | z. | 91·8 | 306 | e 13 10 | + 4 | — | — | e 13 20 | pP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kew | | 92·8 | 322 | e 13 11 | + 1 | e 24 8 | − 2 | e 17 6 | PP | e 53·9 |
| Rathfarnham Castle | | 96·1 | 324 | e 16 39 | PP | e 24 45 | + 6 | e 22 4 | ? | — |
| Granada | | 97·1 | 308 | — | — | 24 33 | SKKS | — | — | 54·0 |
| Scoresby Sund | | 97·2 | 343 | — | — | e 24 7 | [+ 3] | 27 30 | ? | 49·9 |
| Malaga | | 97·8 | 308 | i 17 51 | PP | — | — | 19 7 | PPP | 54·5 |
| College | | 98·4 | 23 | e 13 35 | − 1 | — | — | e 12 32 | ? | — |
| Resolute Bay | | 102·8 | 3 | — | — | e 34 53 | ? | — | — | e 48·2 |
| Hungry Horse | | 122·8 | 24 | i 18 48 | [− 5] | — | — | e 20 33 | PP | — |
| Shasta | z. | 124·1 | 36 | e 18 56a | [+ 1] | — | — | — | — | — |
| Berkeley | z. | 126·0 | 38 | i 19 2a | [+ 3] | — | — | — | — | — |
| Reno | z. | 126·4 | 35 | e 19 2 | [+ 2] | — | — | — | — | — |
| Fresno | z. | 128·3 | 37 | e 19 4a | [+ 1] | — | — | — | — | — |
| Tinemaha | z. | 129·0 | 36 | e 19 7 | [+ 2] | e 22 25 | SKP | e 21 8 | PP | — |
| Seven Falls | E. | 129·6 | 349 | — | — | e 38 31 | SS | e 41 2 | ? | 58·6 |
| Kirkland Lake | z. | 129·7 | 357 | e 19 8k | [+ 2] | e 22 27 | PKS | e 21 17 | PP | — |
| China Lake | z. | 130·2 | 36 | e 19 9 | [+ 2] | i 22 27 | PKS | e 21 18 | PP | — |
| Halifax | | 130·2 | 342 | e 19 9 | [+ 2] | 22 29 | PKS | 38 48 | SS | — |
| Pasadena | | 130·9 | 39 | i 19 11 | [+ 3] | i 22 30 | PKS | — | — | e 64·9 |
| Riverside | z. | 131·5 | 39 | e 19 12 | [+ 3] | e 22 33 | PKS | e 19 23 | pPKP | — |
| Boulder City | | 131·7 | 35 | e 19 13 | [+ 3] | i 22 35 | PKS | — | — | — |
| Ottawa | | 132·1 | 353 | e 21 21 | PP | 22 35 | PKS | 39 0 | SS | — |
| Palomar | z. | 132·3 | 39 | e 19 14 | [+ 3] | i 22 36 | PKS | e 21 36 | PP | — |
| Harvard | | 134·2 | 348 | e 19 16 | [+ 2] | i 21 55 | PP | i 22 34 | ? | e 72·5 |
| Buffalo (Larkin) | | 134·9 | 355 | e 19 17 | [+ 1] | — | — | e 21 40 | PP | — |
| City College, N.Y. | | 136·3 | 349 | e 17 27 | ? | — | — | — | — | — |
| Cleveland | z. | 136·4 | 358 | e 21 58a | PP | e 22 49 | PKS | — | — | — |
| Tucson | | 136·7 | 35 | e 19 22 | [+ 3] | — | — | — | — | — |
| Lubbock | | 140·1 | 24 | e 19 26 | [+ 1] | e 22 16 | PP | — | — | — |
| Fayetteville | z. | 140·4 | 15 | i 19 14a | [−12] | i 22 18 | PP | e 20 14 | ? | — |
| San Juan | | 153·6 | 322 | e 19 47 | [ 0] | — | — | — | — | — |
| La Paz | | 159·7 | 226 | e 20 7 | [+12] | 24 58 | PP | 21 4 | $PKP_2$ | 86·9 |
| Huancayo | | 167·7 | 218 | e 20 7 | [+ 5] | — | — | — | — | e 84·4 |
| Bogota | | 168·7 | 308 | e 20 8 | [+ 5] | e 31 51 | SKKS | e 25 24 | PP | — |
| Chinchina | | 169·7 | 314 | i 17 31 | ? | e 30 17 | ? | — | — | — |

Aug. 14d. 23h. 16m. 46s. Epicentre 6°·5S. 155°·0E. Focus at Base of Superficial Layers.
(as on 1952, May 9d.).

$A = -·9006$, $B = +·4200$, $C = -·1125$; $\delta = +14$; $h = +7$;
$D = +·423$, $E = +·906$; $G = +·102$, $H = -·048$, $K = -·994$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Brisbane | | 20·9 | 187 | i 4 45a | + 3 | i 8 38 | +10 | i 5 6 | PP | e 9·0 |
| Riverview | | 27·4 | 188 | i 5 45a | + 1 | e 10 24 | + 3 | i 6 26 | PP | e 13·2 |
| Apia | | 33·5 | 106 | e 6 14? | −24 | — | — | — | — | — |
| Auckland | N. | 35·2 | 153 | 8 14? | PP | — | — | — | — | — |
| Karapiro | N. | 36·4 | 153 | 7 8 | + 5 | — | — | — | — | — |
| Cobb River | E. | 37·9 | 158 | e 7 20 | + 4 | e 13 11 | + 6 | — | — | — |
| Tuai | N. | 37·9 | 152 | e 7 14 | − 2 | — | — | — | — | — |
| Kaimata | N.E. | 38·7 | 161 | e 7 36 | +14 | — | — | — | — | — |
| Wellington | | 38·9 | 157 | 7 24 | 0 | 13 15 | − 5 | 9 0 | PP | e 18·2 |
| Christchurch | | 40·0 | 161 | e 7 36 | + 3 | — | — | — | — | e 16·7 |
| Bandong | E. | 47·0 | 267 | i 8 36 | + 6 | — | — | — | — | — |
| Djakarta | | 47·9 | 268 | i 8 35a | − 2 | e 15 29 | − 2 | — | — | — |
| Zô-Sè | Z. | 49·4 | 321 | i 8 47a | − 1 | e 15 49 | − 3 | — | — | — |
| Nanking | | 51·6 | 321 | i 9 4a | − 1 | i 16 20 | − 2 | — | — | — |
| Vladivostok | | 53·7 | 339 | i 9 16 | − 5 | — | — | — | — | — |
| Yuzno-Sakhlinsk | | 54·3 | 350 | e 9 25 | 0 | — | — | — | — | — |
| Uglegorsk | | 56·5 | 351 | e 9 40 | − 1 | — | — | — | — | — |
| Petropavlovsk | | 59·5 | 2 | i 10 2 | 0 | i 18 32 | PS | e 12 24 | PP | — |
| Klyuchi | | 62·8 | 4 | i 10 24 | 0 | 19 0 | +11 | — | — | — |
| Shillong | E. | 69·1 | 301 | i 11 4 | − 1 | i 20 4 | − 2 | 11 20 | PcP | — |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kyakhta | | 70·4 | 329 | 11 9 | − 4 | e 20 17 | − 5 | — | — | — |
| Kabansk | | 71·4 | 330 | i 11 17 | − 2 | — | — | — | — | — |
| Irkutsk | | 72·7 | 330 | 11 25 | − 1 | e 20 44 | − 4 | — | — | — |
| Colombo | E. | 76·1 | 279 | 11 44 | − 2 | 21 44 | +18 | — | — | — |
| Hyderabad | E. | 79·2 | 289 | — | — | i 21 51 | − 8 | — | — | — |
| College | | 82·6 | 20 | i 12 20 | − 1 | e 22 22 | −13 | e 22 51 | sS | 30·3 |
| Poona | Z. | 83·7 | 290 | i 12 27 | 0 | — | — | i 12 41 | pP | — |
| Przhevalsk | | 84·6 | 314 | 12 31 | 0 | — | — | — | — | — |
| Bombay | | 84·7 | 290 | e 12 36 | + 4 | i 22 55 | − 1 | — | — | — |
| Kurmenty | | 84·8 | 315 | e 12 35 | + 3 | — | — | — | — | — |
| Sitka | | 84·8 | 31 | i 12 32 | 0 | — | — | — | — | — |
| Almata II | | 85·5 | 315 | i 12 36 | 0 | — | — | — | — | — |
| Ili | | 85·8 | 316 | i 12 36 | − 1 | — | — | — | — | — |
| Naryn | | 86·1 | 313 | i 12 38 | − 1 | i 23 8 | − 1 | — | — | — |
| Rybach'e | | 86·2 | 314 | i 12 39 | 0 | 23 8 | − 2 | e 22 58 | SKS | — |
| Murgab | | 87·0 | 309 | i 12 41 | − 2 | i 23 14 | − 4 | — | — | — |
| Frunse | | 87·4 | 314 | i 12 45 | 0 | i 23 19 | − 3 | i 23 4 | SKS | — |
| Berkeley | | 88·2 | 52 | i 12 51a | + 2 | e 23 18 | SKKS | e 29 36 | SS | e 40·1 |
| Santa Clara | | 88·4 | 52 | e 12 53k | + 3 | e 23 36 | + 5 | — | — | e 41·0 |
| Shasta | Z. | 88·5 | 49 | e 12 52a | + 2 | — | — | — | — | — |
| Andijan | | 88·6 | 311 | e 12 51 | 0 | 23 32 | − 1 | — | — | — |
| Corvallis | Z. | 88·6 | 46 | e 12 53 | + 2 | — | — | e 16 38 | PP | — |
| Lick | Z. | 88·6 | 52 | e 12 53a | + 2 | — | — | e 16 4 | PP | — |
| Namangan | | 89·2 | 311 | i 12 53 | − 1 | i 23 37 | − 1 | — | — | — |
| Dzhergetal | | 89·3 | 310 | e 12 56 | + 2 | e 23 38 | − 1 | — | — | — |
| Victoria | | 89·3 | 41 | 12 54a | 0 | 23 22 | [+ 3] | — | — | 40·2 |
| Seattle | | 89·9 | 42 | e 12 58 | + 1 | e 23 34 | SKKS | — | — | 41·2 |
| Fresno | Z. | 90·0 | 53 | e 13 0a | + 3 | — | — | e 13 14 | pP | — |
| Kulyab | | 90·2 | 308 | 12 58 | 0 | — | — | — | — | — |
| Obi-garm | | 90·4 | 309 | 13 0 | + 1 | 23 48 | − 1 | — | — | — |
| Reno | | 90·4 | 50 | e 13 1a | + 2 | e 24 40 | PS | e 13 17 | pP | — |
| Tchimkent | | 90·9 | 312 | i 13 0 | − 2 | i 23 56 | + 2 | — | — | — |
| Lunacharskoe | | 91·0 | 311 | 13 0 | − 2 | e 23 23 | [− 7] | — | — | — |
| Pasadena | | 91·0 | 56 | i 13 4a | + 2 | e 23 59 | + 4 | i 13 20 | pP | e 40·8 |
| Stalinabad | | 91·1 | 309 | i 13 1 | − 2 | e 23 51 | − 5 | — | — | — |
| Tinemaha | | 91·2 | 53 | i 13 7 | + 4 | — | — | i 13 22 | pP | — |
| Riverside | Z. | 91·6 | 56 | i 13 7 | + 2 | — | — | i 13 22 | pP | — |
| China Lake | Z. | 91·7 | 53 | e 13 6a | + 1 | e 38 39 | P'P' | i 13 22 | pP | — |
| Palomar | Z. | 92·0 | 57 | e 13 10a | + 3 | i 13 43 | ? | i 13 25 | pP | — |
| Samarkand | | 92·6 | 309 | 13 9 | − 1 | i 24 9 | 0 | — | — | — |
| Boulder City | | 93·9 | 54 | i 13 18 | + 3 | — | — | i 13 34 | pP | — |
| Hungry Horse | | 95·5 | 42 | i 13 23 | 0 | — | — | e 17 18 | PP | — |
| Mary | | 96·4 | 308 | e 13 18 | − 9 | — | — | — | — | — |
| Tucson | | 96·9 | 58 | e 13 29 | 0 | e 26 6 | SP | e 17 26 | PP | e 35·3 |
| Sverdlovsk | | 97·8 | 327 | 13 32 | − 1 | 24 2 | [− 5] | 17 33 | PP | — |
| Kizyl-Arvat | | 100 8 | 308 | e 17 51 | PP | — | — | — | — | — |
| Resolute Bay | | 101·5 | 14 | — | — | e 24 17 | [− 8] | — | — | e 32·8 |
| Lubbock | | 104·5 | 56 | e 17 18 | ? | — | — | e 18 23 | PP | — |
| Baku | | 105·7 | 310 | e 18 26 | PP | — | — | — | — | — |
| Kirovobad | | 108·3 | 310 | e 18 48 | PP | — | — | — | — | — |
| Grozny | | 108·4 | 313 | e 18 54 | PP | — | — | — | — | — |
| Tiflis | | 109·4 | 312 | e 18 58 | PP | e 28 22 | PS | e 21 4 | PPP | — |
| Gori | | 109·6 | 312 | e 19 1 | PP | — | — | — | — | — |
| Erevan | | 109·8 | 310 | e 19 5 | PP | — | — | — | — | — |
| Piatigorsk | | 110·2 | 314 | i 19 7 | PP | i 25 0 | [− 4] | i 28 17 | PS | — |
| Borzhomi | | 110·4 | 312 | e 19 4 | PP | — | — | — | — | — |
| Fayetteville | Z. | 110·6 | 54 | e 13 54 | P | e 18 52 | PP | e 18 26 | PKP | — |
| Moscow | | 110·6 | 328 | e 18 59 | PP | — | — | — | — | — |
| Zugdidi | | 111·4 | 313 | e 19 18 | PP | — | — | — | — | — |
| Kiruna | | 111·6 | 343 | i 18 33 | [+ 2] | e 29 1 | PS | e 19 23 | PP | e 49·2 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Pulkovo | | 112·5 | 333 | e 19 22 | PP | e 35 14 | SS | — | — | — |
| Sotchi | | 112·7 | 315 | e 19 20 | PP | — | — | — | — | — |
| Theodosia | | 115·3 | 317 | e 19 38 | PP | — | — | — | — | — |
| Scoresby Sund | | 116·1 | 359 | 19 20 | PP | 25 28 | [+ 1] | e 29 23 | PS | 55·2 |
| Simferopol | | 116·2 | 317 | e 19 46 | PP | — | — | — | — | — |
| Yalta | | 116·3 | 317 | e 19 48 | PP | e 29 27 | PS | — | — | — |
| Grahamstown | z. | 117·1 | 227 | i 18 44 | [+ 2] | — | — | — | — | — |
| Kirkland Lake | z. | 117·7 | 38 | e 18 45 | [+ 2] | e 19 59 | PP | e 18 58 | pPKP | — |
| Upsala | | 117·8 | 338 | e 18 44 | [+ 1] | — | — | e 29 9 | PS | e 59·2 |
| Helwan | z. | 118·6 | 301 | e 20 20 | PP | — | — | i 20 31 | pPP | — |
| Kishinev | | 118·9 | 322 | e 20 4 | PP | — | — | — | — | — |
| Cleveland | | 119·1 | 46 | e 18 47k | [+ 1] | e 25 38 | [ 0] | e 20 19 | PP | — |
| Buffalo (Larkin) | | 120·6 | 43 | e 18 51 | [+ 2] | — | — | — | — | — |
| Kimberley | z. | 120·6 | 230 | i 18 51 | [+ 2] | — | — | — | — | — |
| Morgantown | | 120·8 | 48 | e 18 50 | [+ 1] | — | — | e 20 30 | PP | — |
| Istanbul | z. | 121·0 | 315 | e 20 17 | PP | — | — | — | — | — |
| Ottawa | | 121·5 | 39 | i 18 51k | [+ 1] | 25 44 | [− 2] | 20 19 | PP | 55·2 |
| Uzhgorod | | 122·1 | 325 | 18 53 | [+ 2] | — | — | — | — | — |
| Reykjavik | z. | 122·4 | 358 | i 18 56 | [+ 4] | — | — | — | — | — |
| Copenhagen | | 122·7 | 336 | i 19 9 | [+16] | 30 20 | PS | 20 26 | PP | 55·2 |
| Skalnate Pleso | | 123·0 | 327 | e 20 8 | PP | e 25 50 | [− 1] | e 26 43 | SKKS | — |
| Washington | | 123·2 | 46 | e 18 30 | [−23] | — | — | i 20 36 | PP | — |
| Vermont | | 123·6 | 40 | e 20 31 | PP | e 27 35 | SKKS | — | — | — |
| Seven Falls | E. | 123·7 | 35 | e 20 58 | PP | 26 11 | [+18] | 27 53 | SKKS | 56·1 |
| Philadelphia | | 124·1 | 45 | e 20 38 | PP | e 26 23 | [+29] | — | — | — |
| Timisoara | | 124·2 | 322 | 20 14? | PP | — | — | — | — | 50·2 |
| Palisades | | 124·6 | 44 | e 18 52 | [− 4] | e 32 21 | PPS | e 20 42 | PP | e 58·7 |
| Potsdam | | 124·6 | 333 | e 20 45 | PP | — | — | — | — | e 58·2 |
| City College, N.Y. | | 124·7 | 44 | e 18 57 | [+ 1] | e 26 4 | [+ 8] | — | — | — |
| Collmberg | | 125·4 | 332 | e 18 52 | [− 6] | 28 35 | SKKS | e 32 20 | PPS | e 62·2 |
| Harvard | | 125·5 | 41 | i 19 0k | [+ 2] | e 38 13 | SS | i 20 51 | PP | e 59·0 |
| Weston | | 125·7 | 41 | e 18 0 | [−58] | — | — | — | — | — |
| Jena | | 126·3 | 331 | e 19 1 | [+ 2] | e 25 21? | [−40] | e 20 54 | PP | — |
| Huancayo | | 126·7 | 110 | e 19 4 | [+ 4] | e 38 30 | SS | — | — | e 62·3 |
| De Bilt | | 128·2 | 337 | e 19 6 | [+ 3] | e 35 42 | ? | e 21 11 | PP | e 58·2 |
| Triest | | 128·6 | 326 | e 19 9 | [+ 5] | e 26 1 | [− 6] | e 21 35 | PP | 58·0 |
| Stuttgart | | 128·9 | 331 | e 19 5 | [ 0] | e 22 26 | PKS | e 21 4 | PP | 69·2 |
| Halifax | | 129·3 | 35 | e 19 6a | [+ 1] | 28 8 | SKKS | 22 53 | PKS | 58·2 |
| Chinchina | | 129·6 | 87 | i 19 11 | [+ 5] | e 22 30 | PKS | e 32 11 | PPS | — |
| Strasbourg | | 129·7 | 332 | e 19 6 | [ 0] | e 22 47 | PKS | e 21 18 | PP | e 59·2 |
| Bologna | | 130·7 | 327 | e 22 14 | PKS | — | — | — | — | — |
| Kew | | 130·7 | 340 | i 19 9 | [+ 1] | e 22 32 | PKS | e 21 26 | PP | e 58·2 |
| Rathfarnham Castle | | 130·9 | 345 | i 19 10a | [+ 2] | e 22 29 | PKS | e 39 44 | SSP | — |
| Bogota | | 131·1 | 89 | e 19 12 | [+ 3] | e 26 11 | [− 2] | e 21 27 | PP | 61·2 |
| Florence | | 131·1 | 325 | e 19 8 | [− 1] | e 22 44 | PKS | e 31 50 | PS | e 60·2 |
| Pavia | | 131·4 | 328 | e 19 11 | [+ 2] | e 26 8 | [− 6] | i 22 36 | PKS | — |
| La Paz | | 131·6 | 119 | 19 14 | [+ 4] | i 31 38 | PS | i 21 38 | PP | 63·2 |
| Messina | | 131·6 | 317 | e 21 25 | PP | e 22 38 | PKS | e 31 36 | PS | e 60·0 |
| Rome | | 131·6 | 323 | e 19 9 | [− 1] | e 22 30 | PKS | e 21 29 | PP | e 59·2 |
| Oropa | N. | 131·7 | 330 | e 20 50 | ? | — | — | — | — | — |
| Paris | | 131·8 | 336 | e 19 11 | [+ 1] | e 26 23 | [+ 8] | e 21 32 | PP | 64·2 |
| Clermont-Ferrand | | 133·9 | 333 | e 19 12 | [− 2] | e 26 7 | [−13] | e 22 48 | PKS | 65·2 |
| Bermuda | | 135·0 | 50 | e 22 50 | PKS | — | — | — | — | — |
| San Juan | | 138·3 | 67 | i 19 16 | [− 6] | — | — | — | — | — |
| Tortosa | | 138·9 | 330 | e 20 59 | ? | i 23 1 | PKS | — | — | — |
| Algiers Univ. | z. | 140·5 | 323 | e 19 28 | [+ 2] | e 26 29 | [− 2] | e 22 27 | PP | — |
| Alicante | | 141·3 | 329 | 19 33 | [+ 6] | 26 43 | [+11] | 22 42 | PP | 68·8 |
| Toledo | | 141·8 | 334 | e 19 22 | [− 6] | 40 44 | SS | e 22 35 | PP | 75·7 |
| Almeria | | 143·5 | 329 | 19 30 | [− 1] | 26 44 | [+ 9] | 22 54 | PP | 80·7 |
| Fort de France | | 143·6 | 74 | e 19 31 | [ 0] | — | — | — | — | — |
| Granada | | 143·8 | 331 | 19 34k | [+ 2] | 29 43 | SKKS | 19 49 | pPKP | i 81·1 |
| Malaga | | 144·5 | 331 | i 19 31 | [− 2] | e 22 57 | PP | i 26 33 | PPP | 76·9 |
| Tamanrasset | z. | 146·4 | 302 | i 19 38 | [+ 2] | e 29 42 | SKKS | i 22 58 | PP | — |

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Aug. 15d. 1h. 37m. 15s. Epicentre 17°·8S. 178°·8W. Depth of focus 0·090. (as on 1951, October 23d.).

A = −·9526, B = −·0199, C = −·3038 ; $\delta$ = +14 ; $h$ = +5 ;
D = −·021, E = +1·000 ; G = +·304, H = +·006, K = −·953.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | |
|---|---|---|---|---|---|---|---|---|---|
| Wellington | | 24·0 | 192 | e 4 31 | 0 | — | — | — | — |
| Cobb River | E. | 24·3 | 196 | — | — | e 8 11 | − 1 | — | — |
| Kaimata | N.E. | 26·0 | 197 | e 4 49 | + 1 | e 8 36 | − 3 | — | — |
| Lick | Z. | 76·8 | 43 | i 10 53k | + 1 | — | — | — | — |
| Pasadena | | 77·4 | 48 | i 10 56 | + 1 | — | — | — | — |
| Fresno | Z. | 77·7 | 45 | e 10 57 | 0 | — | — | — | — |
| Palomar | Z. | 77·9 | 50 | i 11 0k | + 2 | — | — | — | — |
| Riverside | Z. | 77·9 | 48 | e 10 58 | 0 | — | — | — | — |
| Seattle | Z. | 78·3 | 41 | e 11 0k | 0 | — | — | — | — |
| China Lake | Z. | 78·7 | 47 | i 11 3k | + 1 | — | — | — | — |
| Tinemaha | Z. | 78·9 | 45 | i 11 4 | + 1 | — | — | — | — |
| Reno | Z. | 79·2 | 43 | e 11 5 | 0 | — | — | — | — |
| Boulder City | | 80·7 | 48 | i 11 14 | + 2 | — | — | — | — |
| Tucson | | 81·9 | 52 | i 11 19 | + 1 | — | — | — | — |
| Victoria | | 82·4 | 35 | 11 21k | 0 | — | — | — | — |
| College | | 85·7 | 12 | i 11 37 | 0 | — | — | — | — |
| Hungry Horse | | 87·4 | 37 | i 11 45 | 0 | — | — | — | — |
| Kiruna | Z. | 128·5 | 350 | i 18 0 | [ 0] | — | — | — | — |
| Collmberg | | 145·3 | 349 | e 18 27 | [− 3] | e 22 3 | PP | e 29 31 | ? |
| Jena | | 145·9 | 348 | e 18 33 | [+ 2] | — | — | e 19 30 | ? |
| Stuttgart | | 148·4 | 352 | e 18 36 | [+ 1] | e 18 42 | $PKP_2$ | e 18 47 | ? |
| Triest | Z. | 150·3 | 342 | e 18 45 | [+ 7] | — | — | e 18 54 | $PKP_2$ |

Aug. 15d. 19h. 59m. 1s. Epicentre 36°·4N. 140°·6E. Depth of focus 0·005. (as on 8d.).

Intensity VI at Tukubasan ; V at Onahama, Kashiwa, Kumagaya, Tokyo, Manabe, and in numerous other localities.
Epicentre 36°·5N. 140°·8E. Depth 45km. Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, Aug., 1952, Tokyo, 1952, p.308, with macroseismic chart.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | |
|---|---|---|---|---|---|---|---|---|---|
| Mito | | 0·1 | 261 | 0 9k | − 1 | 0 15 | − 3 | — | — |
| Tukubasan | | 0·5 | 246 | i 0 12 | − 1 | 0 20 | − 3 | — | — |
| Onahama | | 0·6 | 24 | i 0 13a | − 1 | 0 21 | − 4 | — | — |
| Utunomiya | | 0·6 | 284 | i 0 13?k | − 1 | 0 22? | − 3 | — | — |
| Tyosi | E. | 0·7 | 162 | i 0 15a | 0 | 0 24 | − 3 | — | — |
| Kashiwa | | 0·8 | 223 | e 0 16k | − 1 | 0 27 | − 2 | — | — |
| Shirakawa | | 0·8 | 337 | i 0 14 | − 3 | 0 24 | − 5 | — | — |
| Kumagaya | | 1·0 | 256 | i 0 19k | 0 | 0 33 | 0 | — | — |
| Tokyo | | 1·0 | 224 | 0 19k | 0 | 0 33 | 0 | — | — |
| Inawasiro | | 1·2 | 342 | i 0 19k | − 3 | 0 34 | − 4 | — | — |
| Maebasi | | 1·3 | 270 | i 0 23k | 0 | 0 36 | − 4 | — | — |
| Yokohama | | 1·3 | 219 | 0 24k | + 1 | 0 41 | + 1 | — | — |
| Hukusima | | 1·4 | 356 | i 0 23k | − 1 | 0 38 | − 5 | — | — |
| Mera | | 1·6 | 203 | 0 29 | + 2 | 0 50 | + 3 | — | — |
| Oiwake | | 1·6 | 268 | 0 28 | + 1 | 0 51 | + 4 | — | — |
| Ajiro | | 1·8 | 222 | 0 33 | + 3 | 0 47 | − 5 | — | — |
| Hunatu | E. | 1·8 | 239 | 0 31 | + 1 | 0 50 | − 2 | — | — |
| Kohu | | 1·8 | 245 | e 0 30k | 0 | 0 59 | + 7 | — | — |
| Misima | | 1·8 | 226 | i 0 32a | + 2 | 0 57 | + 5 | — | — |
| Matusiro | | 1·9 | 274 | i 0 32k | + 1 | 0 47 | − 7 | — | — |
| Osima | | 1·9 | 211 | e 0 33? | + 2 | 0 55? | + 1 | — | — |
| Sendai | | 1·9 | 7 | e 0 29 | − 2 | 0 53 | − 1 | — | — |
| Niigata | N. | 1·9 | 321 | 0 34 | + 3 | 0 58 | + 4 | — | — |
| Nagano | Z. | 2·0 | 278 | i 0 34 | + 2 | 0 50 | − 7 | — | — |
| Takada | | 2·0 | 290 | 0 33 | + 1 | 0 59 | + 2 | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Isinomaki | | 2·1 | 16 | e 0 30 | − 4 | 0 51 | − 8 | — | — |
| Matumoto | E. | 2·1 | 266 | i 0 35k | + 1 | 0 50 | − 9 | — | — |
| Shizuoka | | 2·3 | 231 | i 0 39k | + 2 | 1 11 | + 7 | — | — |
| Iida | | 2·4 | 248 | 0 41k | + 3 | 1 12 | + 5 | — | — |
| Aikawa | | 2·5 | 311 | 0 37k | − 2 | 1 9 | 0 | — | — |
| Sakata | | 2·5 | 346 | 0 45 | + 6 | — | — | — | — |
| Takayama | | 2·7 | 265 | e 0 43 | + 1 | 1 0 | −14 | — | — |
| Mizusawa | | 2·8 | 9 | 0 43 | − 1 | 1 15 | − 2 | e 1 19 | S |
| Toyama | | 2·8 | 276 | i 0 45 | + 1 | 1 4 | −13 | — | — |
| Hamamatu | | 2·9 | 234 | e 0 47 | + 2 | 1 29 | +10 | — | — |
| Kanazawa | | 3·2 | 273 | e 0 51 | + 2 | 1 32 | + 5 | — | — |
| Nagoya | | 3·2 | 247 | 0 50 | + 1 | 1 29 | + 2 | — | — |
| Gihu | N. | 3·3 | 252 | 0 53 | + 2 | 1 33 | + 4 | — | — |
| Morioka | | 3·3 | 8 | e 0 50 | − 1 | 1 26 | − 3 | — | — |
| Akita | Z. | 3·4 | 355 | e 0 53 | + 1 | — | — | — | — |
| Miyako | | 3·4 | 18 | e 0 51 | − 1 | 1 28 | − 4 | — | — |
| Hukui | | 3·5 | 265 | e 0 57 | + 3 | — | — | — | — |
| Kameyama | | 3·7 | 247 | 1 1 | + 5 | 1 39 | 0 | — | — |
| Tsuruga | | 3·8 | 260 | 0 57 | − 1 | 1 41 | − 1 | — | — |
| Hatinohe | | 4·2 | 10 | e 1 2 | − 1 | 1 50 | − 2 | — | — |
| Kyoto | | 4·2 | 252 | e 1 5 | + 2 | 2 7 | +15 | — | — |
| Maizuru | | 4·3 | 259 | 1 8 | + 3 | 2 15 | +21 | — | — |
| Owase | | 4·3 | 238 | 1 8 | + 3 | 1 56 | + 2 | — | — |
| Aomori | | 4·4 | 1 | 1 11 | + 5 | 2 0 | + 3 | — | — |
| Osaka | | 4·5 | 249 | e 1 20 | +13 | 2 0 | + 1 | — | — |
| Kobe | Z. | 4·7 | 250 | e 1 23 | +13 | 2 18 | +14 | — | — |
| Toyooka | | 4·8 | 261 | e 1 11 | − 1 | 2 11 | + 4 | — | — |
| Wakayama | | 5·0 | 244 | 1 6 | − 8 | — | — | — | — |
| Sumoto | | 5·1 | 247 | 1 19 | + 3 | 2 27 | +13 | — | — |
| Mori | E. | 5·7 | 0 | e 1 28 | + 4 | 2 37 | + 8 | — | — |
| Takamatu | | 5·7 | 251 | e 1 31 | + 7 | 2 43 | +14 | — | — |
| Saigo | E. | 5·9 | 270 | e 1 29 | + 2 | 2 39 | + 5 | — | — |
| Urakawa | | 6·0 | 14 | e 1 27 | − 1 | 2 32 | − 5 | — | — |
| Muroto | | 6·1 | 241 | e 1 33 | + 3 | 3 15 | +36 | — | — |
| Matsue | | 6·2 | 263 | e 1 32 | + 1 | 2 48 | + 7 | — | — |
| Koti | | 6·4 | 246 | e 1 36 | + 2 | 2 57 | +11 | — | — |
| Sapporo | | 6·7 | 8 | e 1 43 | + 5 | 3 0 | + 6 | — | — |
| Obi-hiro | N. | 6·8 | 16 | — | — | e 3 7 | +11 | — | — |
| Matuyama | | 6·9 | 251 | e 1 45 | + 4 | 3 3 | + 4 | — | — |
| Hirosima | | 7·0 | 255 | 1 39 | − 3 | — | — | — | — |
| Hamada | | 7·1 | 259 | e 1 45 | + 1 | 3 29 | +25 | — | — |
| Simidu | | 7·3 | 242 | e 1 47 | + 1 | 3 18 | + 9 | — | — |
| Nemuro | | 7·9 | 27 | — | — | e 3 11 | −12 | — | — |
| Ooita | | 8·0 | 250 | e 2 0 | + 4 | 3 57 | +31 | — | — |
| Abasiri | | 8·1 | 19 | e 2 45 | +48 | — | — | — | — |
| Hukuoka | | 8·8 | 254 | e 2 9a | + 2 | 4 25 | +39 | — | — |
| Kumamoto | | 8·9 | 249 | e 2 2 | − 6 | — | — | — | — |
| Saga | | 9·0 | 253 | e 2 29 | +19 | — | — | — | — |
| College | | 50·0 | 32 | 8 49 | − 1 | — | — | — | — |
| Poona | | 60·7 | 273 | i 10 6 | − 1 | — | — | i 10 14 | pP |
| Kiruna | Z. | 66·9 | 338 | i 10 46a | − 1 | i 10 52 | ? | i 11 11 | PcP |
| Victoria | | 67·3 | 46 | 10 50 | 0 | — | — | — | — |
| Hungry Horse | | 72·7 | 42 | e 11 22 | − 1 | — | — | — | — |
| Tinemaha | Z. | 76·7 | 55 | e 11 46 | 0 | — | — | — | — |
| China Lake | Z. | 77·9 | 55 | e 11 52 | 0 | e 12 2 | ? | e 12 10 | PcP |
| Copenhagen | | 78·2 | 334 | i 11 53 | − 1 | — | — | — | — |
| Boulder City | | 79·6 | 53 | e 12 2 | 0 | — | — | — | — |
| Collmberg | Z. | 81·3 | 330 | e 12 10 | − 1 | — | — | — | — |
| Jena | | 82·2 | 330 | e 12 15 | 0 | e 12 57 | ? | e 12 25 | PcP |
| Tucson | | 84·5 | 54 | e 12 26 | − 1 | — | — | e 12 49 | PcP |
| Stuttgart | Z. | 84·8 | 331 | i 12 28a | − 1 | — | — | — | — |
| Triest | Z. | 85·3 | 326 | e 12 29 | − 2 | — | — | e 12 38 | PcP |
| Basle | | 86·5 | 330 | e 12 36a | − 1 | — | — | — | — |
| Paris | | 87·3 | 334 | i 12 41 | 0 | e 13 20 | ? | i 12 44 | PcP |
| Fayetteville | Z. | 91·7 | 42 | i 13 2a | 0 | — | — | — | — |
| Algiers Univ. | Z. | 97·2 | 327 | e 20 44 | ? | — | — | — | — |
| Tamanrasset | Z. | 107·4 | 317 | e 18 24 | [+ 5] | — | — | — | — |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Aug. 15d. 23h. 22m. 25s. Epicentre 32°·5S. 71°·3W. (as on 1950, Sept. 25d.).

$A = +·2709$, $B = -·8004$, $C = -·5347$; $\delta = -7$; $h = +1$;
$D = -·947$, $E = -·321$; $G = -·171$, $H = +·506$, $K = -·845$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Santa Lucia | | 1·1 | 152 | i 2 14 | ? | i 2 37 | ? | — | — | — |
| Concepciòn | N. | 4·6 | 198 | e 1 15 | + 3 | e 2 6 | − 1 | — | — | — |
| Antofagasta | E. | 8·8 | 5 | — | — | e 4 12 | SS | — | — | — |
| Buenos Aires | | 10·9 | 105 | e 2 58 | PPP | 5 17 | SSS | — | — | — |
| La Plata | | 11·4 | 106 | 2 47 | 0 | 5 47 | ? | 2 59 | PP | 5·9 |
| La Paz | | 16·2 | 12 | 3 55 | + 5 | i 7 41 | SSS | — | — | — |
| Huancayo | | 20·7 | 350 | e 4 44 | 0 | — | — | — | — | — |
| Fayetteville | Z. | 71·5 | 342 | i 11 21 a | − 3 | — | — | — | — | — |
| Weston | | 74·5 | 0 | e 11 40 | − 2 | — | — | — | — | — |
| Harvard | | 74·6 | 0 | e 11 42 | − 1 | — | — | — | — | — |
| Grahamstown | Z. | 78·7 | 122 | e 12 8 | + 2 | — | — | — | — | — |
| Mount Wilson | Z. | 79·6 | 323 | e 12 10 | 0 | — | — | — | — | — |
| Kimberley | Z. | 79·8 | 118 | i 12 14 | + 2 | — | — | — | — | — |
| China Lake | Z. | 80·6 | 325 | e 12 14 | − 2 | e 12 23 | PcP | — | — | — |
| Kirkland Lake | Z. | 80·7 | 355 | e 12 14 | − 2 | — | — | — | — | — |
| Tinemaha | Z. | 81·9 | 325 | e 12 22 | − 1 | — | — | — | — | — |

Aug. 16d. 13h. 51m. 37s. Epicentre 7°·2S. 155°·3E. (as on 1950, Nov. 7d.).

$A = -·9014$, $B = +·4146$, $C = -·1245$; $\delta = -8$; $h = +7$;
$D = +·418$, $E = +·909$; $G = +·113$, $H = -·052$, $K = -·992$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Brisbane | | 20·3 | 185 | e 4 41 | + 1 | i 8 31 | + 8 | e 5 6 | PP | i 9·0 |
| Riverview | | 26·8 | 187 | i 5 50 a | + 6 | i 10 34 | +15 | i 6 40 | PP | e 13·2 |
| Melbourne | E. | 31·9 | 195 | — | — | i 15 4 | Q | — | — | e 16·0 |
| Karapiro | N. | 35·7 | 152 | e 7 25 | +23 | — | — | — | — | — |
| Cobb River | E. | 37·2 | 158 | e 7 40 | +25 | — | — | — | — | — |
| Wellington | | 38·1 | 155 | — | — | e 11 33 | ? | e 17 23 | SS | e 20·8 |
| Manila | | 40·3 | 302 | e 7 43 | + 3 | i 13 52 | + 3 | i 7 50 | ? | — |
| Perth | | 44·2 | 230 | — | — | i 14 53 | + 7 | i 18 11 | SS | i 22·8 |
| Bandong | | 47·3 | 268 | e 8 35 | − 2 | e 15 14 | −17 | — | — | — |
| Djakarta | | 48·1 | 269 | 8 58 | +15 | e 15 49 | + 7 | — | — | — |
| Hong Kong | | 49·8 | 307 | e 9 10 | +14 | (e 15 58) | − 8 | — | — | e 16·0 |
| Shillong | E. | 69·7 | 301 | e 11 6 | − 8 | e 20 10 | −12 | e 11 28 | ? | — |
| Calcutta | E. | 71·8 | 297 | e 12 0 | +34 | i 20 36 | −10 | i 26 46 | ? | — |
| Chatra | N. | 74·1 | 302 | e 11 33 | − 7 | e 20 53 | −19 | — | — | — |
| Colombo | E. | 76·5 | 278 | — | — | e 21 0 | −39 | — | — | 45·4 |
| Madras | E. | 77·3 | 286 | — | — | e 22 11 | +23 | — | — | — |
| Hyderabad | N. | 79·7 | 289 | — | — | i 22 6 | − 7 | — | — | — |
| New Delhi | | 83·1 | 300 | e 12 25 | − 4 | e 22 32 | −16 | e 15 58 | PP | 33·2 |
| College | | 83·2 | 20 | e 12 24 | − 5 | — | — | i 12 37 | pP | — |
| Poona | | 84·2 | 290 | e 12 31 | − 3 | — | — | i 17 48 | PPP | — |
| Bombay | E. | 85·2 | 290 | e 12 53 | +14 | i 23 9 | 0 | 23 56 | PS | 41·4 |
| Berkeley | Z. | 88·4 | 52 | e 12 55 | 0 | — | — | i 13 24 | ? | — |
| Santa Clara | | 88·6 | 52 | — | — | e 24 1 | +19 | — | — | e 42·9 |
| Lick | Z. | 88·8 | 52 | e 13 1 | + 4 | — | — | — | — | — |
| Shasta | Z. | 88·8 | 49 | e 12 56 | − 1 | — | — | — | — | — |
| Victoria | | 89·6 | 41 | — | — | e 23 41 | {+ 2} | — | — | — |
| Fresno | Z. | 90·2 | 53 | e 13 5 | + 1 | — | — | — | — | — |
| Seattle | | 90·2 | 42 | — | — | e 23 39 | [+ 5] | — | — | — |
| Reno | Z. | 90·6 | 51 | e 13 7 | + 2 | — | — | — | — | — |
| Pasadena | | 91·1 | 56 | e 13 9 | + 1 | e 24 12 | + 8 | — | — | e 40·6 |
| Tinemaha | Z. | 91·4 | 53 | e 13 13 | + 4 | — | — | e 13 30 | ? | — |
| China Lake | Z. | 91·8 | 54 | e 13 13 | + 2 | — | — | e 13 21 | ? | — |
| Riverside | Z. | 91·8 | 56 | e 13 10 | − 1 | — | — | e 13 31 | ? | — |
| Quetta | | 92·1 | 300 | e 13 11 | − 1 | — | — | — | — | — |
| Boulder City | | 94·1 | 54 | e 13 25 | + 3 | — | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tucson | | 97·1 | 58 | e 14 26 | ? | — | — | — | — | — |
| Resolute Bay | | 102·1 | 15 | — | — | e 24 35 | [− 2] | 27 8 | PS | e 49·8 |
| Fayetteville | Z. | 110·8 | 54 | e 18 41 | [+ 6] | — | — | e 19 38 | PP | e 60·6 |
| Kiruna | N. | 112·4 | 342 | e 23 51 | ? | e 28 48 | PS | e 33 40 | SS | e 52·4 |
| Scoresby Sund | | 116·8 | 359 | e 19 59 | PP | e 29 19 | PS | e 22 26 | PPP | 56·4 |
| Ksara | | 118·3 | 304 | i 20 12k | PP | e 33 12 | ? | i 20 37 | pPP | — |
| Kimberley | Z. | 120·4 | 230 | e 18 58? | [+ 4] | — | — | — | — | — |
| Istanbul | | 121·7 | 314 | e 20 25 | PP | e 30 26 | PS | e 28 24 | ? | — |
| Helwan | Z. | 122·9 | 300 | e 20 57 | PP | e 23 53 | PPP | e 21 28 | ? | — |
| Reykjavik | Z. | 123·1 | 358 | e 19 13 | [+14] | — | — | — | — | — |
| Copenhagen | | 123·4 | 336 | 21 5 | PP | 28 12 | {+35} | 30 35 | PS | 57·4 |
| Vermont | | 123·9 | 40 | e 21 33 | PP | e 27 59 | {+19} | — | — | — |
| Seven Falls | E. | 124·1 | 36 | e 20 49 | PP | 26 7 | [+ 4] | 23 35 | PPP | 54·6 |
| City College, N.Y. | | 124·9 | 44 | — | — | e 26 8 | [+ 2] | — | — | — |
| Palisades | | 124·9 | 43 | e 20 55 | PP | e 26 15 | [+ 9] | e 27 56 | SKKS | e 57·8 |
| Potsdam | | 125·4 | 333 | e 21 7 | PP | — | — | e 21 11 | ? | e 60·4 |
| Prague | | 125·7 | 331 | e 19 13 | [+ 9] | e 22 48 | PKS | e 20 55 | PP | — |
| Harvard | | 125·8 | 41 | e 21 5 | PP | — | — | — | — | e 61·9 |
| Huancayo | | 126·1 | 110 | e 21 30 | PP | e 32 6 | PPS | e 38 54 | SS | e 54·9 |
| Aberdeen | N. | 127·1 | 345 | e 21 37 | PP | i 31 22 | PS | i 32 33 | PPS | 62·4 |
| De Bilt | | 129·0 | 337 | — | — | e 38 41 | SS | — | — | e 58·4 |
| Chinchina | | 129·3 | 88 | e 19 15 | [+ 4] | e 22 38 | PKS | — | — | — |
| Triest | | 129·3 | 327 | e 19 5 | [− 6] | e 26 0 | [−18] | e 21 17 | PP | — |
| Stuttgart | | 129·7 | 332 | e 19 17 | [+ 6] | e 28 36 | {+18} | e 21 37 | PP | e 61·4 |
| Karlsruhe | Z. | 129·9 | 332 | e 19 24 | [+12] | — | — | — | — | — |
| Strasbourg | | 130·1 | 333 | e 19 43 | ? | e 38 43 | SS | e 21 31 | PP | e 60·4 |
| La Paz | | 131·0 | 119 | e 19 31 | [+17] | i 22 55 | PKS | 38 59 | SS | 63·4 |
| Kew | | 131·5 | 340 | e 21 58 | PP | — | — | — | — | e 58·4 |
| Rathfarnham Castle | | 131·6 | 345 | e 22 10 | ? | e 22 41 | PKS | e 39 38 | SSP | e 58·4 |
| Florence | | 131·9 | 325 | e 19 9 | [− 7] | e 22 38 | PKS | e 22 7 | PP | — |
| Pavia | | 132·1 | 328 | e 19 51 | [+35] | e 23 8 | PKS | e 21 42 | PP | — |
| Messina | | 132·3 | 316 | e 19 46 | [+30] | e 23 13 | PKS | e 32 10 | PS | 65·4 |
| Rome | | 132·3 | 322 | e 19 29 | [+13] | e 22 57 | PKS | e 22 5 | PP | — |
| Paris | | 132·6 | 336 | e 19 31 | [+14] | 22 55 | PKS | e 21 53 | PP | e 71·4 |
| Clermont-Ferrand | | 134·8 | 333 | e 22 22 | PP | e 29 7 | {+17} | e 23 27 | PKS | 63·4 |
| San Juan | | 138·1 | 70 | e 19 25 | [− 2] | — | — | — | — | — |
| Tortosa | | 139·7 | 329 | i 19 56 | [+26] | 29 54 | {+35} | — | — | — |
| Algiers Univ. | Z. | 141·2 | 329 | e 19 42 | [+ 9] | e 23 5 | PKS | e 22 29 | PP | — |
| Alicante | | 142·0 | 328 | 18 36 | [−58] | e 26 48 | [+ 6] | e 22 51 | PP | 69·9 |
| Fort de France | | 143·5 | 75 | e 19 29 | [− 8] | — | — | — | — | — |
| Almeria | | 144·2 | 329 | 19 57 | [+19] | — | — | — | — | 71·4 |
| Granada | | 144·5 | 331 | 19 56k | [+18] | 31 6 | ? | 20 26 | $PKP_2$ | 69·8 |
| Tamanrasset | Z. | 147·1 | 302 | i 19 42a | [− 1] | e 29 55 | {− 7} | e 23 18 | PP | — |

Aug. 16d. 18h. 14m. 54s. Epicentre 38°·6N. 70°·5E. (as on July 31d.).

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Garm | 0·4 | 339 | 0 8 | $0_g$ | 0 13 | $0_g$ | — | — |
| Dzhergetal | 0·8 | 42 | 0 15 | $-1_g$ | 0 25 | $-1_g$ | — | — |
| Kulyab | 0·9 | 219 | e 0 17? | $-1_g$ | e 0 32? | $+2_g$ | — | — |
| Khorog | 1·4 | 142 | i 0 26 | − 1 | i 0 45 | − 1 | — | — |
| Stalinabad | 1·4 | 268 | i 0 25 | − 2 | i 0 44 | − 2 | — | — |
| Fergana | 2·0 | 29 | e 0 38 | + 3 | e 1 3 | + 1 | — | — |
| Andijan | 2·6 | 34 | 0 47 | + 3 | i 1 23 | $-3_g$ | — | — |
| Namangan | 2·6 | 21 | e 0 44 | 0 | e 1 17 | 0 | i 2 23 | S* |
| Murgab | 2·7 | 95 | — | — | i 1 27 | $-2_g$ | — | — |
| Lunacharskoe | 2·9 | 342 | i 0 52 | 0* | i 1 31 | + 1* | — | — |
| Samarkand | 2·9 | 291 | 0 53 | + 1* | 1 31 | + 1* | — | — |
| Tchimkent | 3·8 | 352 | e 1 9 | + 1* | e 1 54 | − 3* | — | — |
| Naryn | 5·1 | 54 | — | — | i 2 27 | − 8* | i 2 47 | $S_g$ |
| Frunse | 5·3 | 35 | e 1 26 | + 4 | e 2 22 | − 3 | i 2 54 | $S_g$ |
| Rybach'e | 5·7 | 46 | e 1 50 | $-4_g$ | 2 49 | − 4* | 3 15 | $S_g$ |

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Aug. 17d. 0h. 27m. 58s. Epicentre 37°·6N. 141°·7E. Focus at Base of Superficial Layers. (as on 1950, January 13d.).

Intensity IV at Kawatabi; II-III at Kinkazan, Watari, and Kakuda.
Epicentre 37°·5N. 141°·9E. Depth 50km. Macroseismic radius 100-200km.
Seismo. Bull. of Cent. Met. Obs., Japan, August, 1952, Tokyo, 1952, p. 310, with macroseismic chart.

$A = -·6233$, $B = +·4923$, $C = +·6076$; $\delta = +4$; $h = -1$;
$D = +·620$, $E = +·785$; $G = -·477$, $H = +·377$, $K = -·794$.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Onahama | | 0·9 | 224 | e 0 12? | − 4 | 0 22? | − 6 |
| Sendai | | 0·9 | 317 | e 0 19 | + 3 | 0 32 | + 4 |
| Isinomaki | | 0·9 | 340 | e 0 12 | − 4 | 0 28 | 0 |
| Hukusima | | 1·0 | 279 | i 0 19k | + 1 | 0 35 | + 4 |
| Inawasiro | | 1·3 | 268 | e 0 22 | 0 | 0 38 | 0 |
| Shirakawa | | 1·3 | 248 | e 0 25 | + 3 | 0 35 | − 3 |
| Mito | | 1·5 | 219 | 0 24 | 0 | 0 40 | − 4 |
| Mizusawa | | 1·6 | 344 | 0 29 | + 3 | 0 49 | + 3 |
| Utunomiya | | 1·8 | 234 | e 0 26 | − 3 | 0 48 | − 3 |
| Tukubasan | | 1·9 | 223 | e 0 27 | − 4 | 0 48 | − 6 |
| Miyako | | 2·1 | 6 | e 0 34 | + 1 | 1 0 | + 1 |
| Morioka | | 2·1 | 349 | e 0 36 | + 3 | 1 4 | + 5 |
| Kumagaya | | 2·4 | 232 | e 0 41 | + 3 | 1 7 | + 1 |
| Maebasi | Z. | 2·4 | 240 | e 0 38 | 0 | 1 6 | 0 |
| Akita | E. | 2·5 | 329 | e 0 51 | +12 | 1 20 | +11 |
| Tokyo | | 2·5 | 219 | e 0 39 | 0 | 1 3 | − 6 |
| Yokohama | | 2·7 | 217 | — | — | e 1 10 | − 4 |
| Mera | | 3·0 | 209 | — | — | e 1 22 | 0 |
| Hatinohe | | 3·0 | 357 | c 0 54 | + 8 | 1 27 | + 5 |
| Hunatu | | 3·1 | 228 | — | — | c 1 32 | + 8 |
| Kobu | | 3·1 | 232 | e 0 54 | + 6 | 1 29 | + 5 |
| Misima | | 3·2 | 222 | e 1 7 | +18 | — | — |
| Matumoto | | 3·3 | 246 | e 1 4 | +13 | — | — |
| Aomori | | 3·3 | 348 | e 0 42 | − 9 | — | — |
| Osima | | 3·4 | 214 | e 0 46 | − 6 | 1 24 | − 8 |
| Nagoya | | 4·5 | 239 | — | — | e 2 3 | + 3 |
| Sapporo | | 5·5 | 357 | e 1 48 | +26 | — | — |

Aug. 17d. 4h. 24m. 25s. Epicentre 18°·8S. 64°·7E.

$A = +·4048$, $B = +·8564$, $C = -·3204$; $\delta = -6$; $h = +5$;
$D = +·904$, $E = -·427$; $G = -·137$, $H = -·290$, $K = -·947$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tananarive | | 16·3 | 267 | e 3 54 | + 2 | e 7 4 | +11 | (7 33) | SSS | 7·6 |
| Grahamstown | Z. | 37·0 | 239 | e 7 20? | + 7 | — | — | — | — | e 17·5 |
| Kimberley | Z. | 37·7 | 246 | e 7 24 | + 5 | — | — | i 7 29 | P | — |
| Poona | | 38·2 | 14 | i 6 52 | −31 | e 13 7 | −10 | — | — | — |
| Bombay | | 38·3 | 12 | e 7 22 | − 2 | i 13 18 | − 1 | e 8 56 | PP | — |
| Hyderabad | N. | 38·5 | 21 | — | — | 13 13 | − 9 | — | — | 18·2 |
| Shillong | E. | 51·4 | 32 | e 9 7 | − 2 | — | — | — | — | — |
| Bairam-Ali | | 56·2 | 358 | i 9 40 | − 4 | — | — | — | — | — |
| Khorog | | 56·3 | 6 | e 9 44 | − 1 | — | — | — | — | — |
| Kulyab | | 56·6 | 4 | e 9 48 | + 1 | — | — | — | — | — |
| Ashkabad | | 56·8 | 354 | e 9 47 | − 1 | — | — | — | — | — |
| Stalinabad | | 57·2 | 3 | 9 49 | − 2 | e 17 41 | − 5 | — | — | — |
| Obi-garm | | 57·4 | 4 | e 9 51 | − 2 | e 17 45 | − 4 | — | — | — |
| Murgab | | 57·5 | 9 | e 9 50 | − 3 | e 17 43 | − 7 | — | — | — |
| Dzhergetal | | 58·0 | 6 | e 9 55 | − 2 | — | — | — | — | — |
| Helwan | Z. | 58·1 | 325 | e 9 56 | − 2 | — | — | e 11 9 | ? | — |
| Kizyl-Arvat | | 58·1 | 353 | e 10 1 | + 3 | — | — | — | — | — |
| Samarkand | | 58·2 | 2 | 9 54 | − 4 | 17 55 | − 4 | — | — | — |
| Ksara | | 59·1 | 331 | i 10 8 | + 4 | 18 4 | − 7 | — | — | — |
| Fergana | | 59·2 | 7 | e 10 1 | − 4 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Andijan | | 59·7 | 7 | i 10 6 | − 3 | e 18 15 | − 4 | — | — | — |
| Lunacharskoe | | 60·0 | 4 | i 10 8 | − 3 | — | — | — | — | — |
| Baku | | 60·5 | 347 | e 10 17 | + 3 | — | — | — | — | — |
| Naryn | | 60·8 | 10 | i 10 14 | − 2 | — | — | — | — | — |
| Tchimkent | | 61·0 | 4 | i 10 16 | − 2 | e 18 33 | − 2 | — | — | — |
| Kirovobad | | 61·6 | 344 | 10 19 | − 3 | — | — | — | — | — |
| Rybach'e | | 61·8 | 9 | e 10 30? | + 7 | — | — | — | — | — |
| Frunse | | 62·0 | 8 | e 10 23? | − 1 | — | — | — | — | — |
| Przhevalsk | | 62·3 | 11 | e 10 24? | − 2 | — | — | — | — | — |
| Tiflis | | 63·0 | 343 | e 10 28 | − 3 | — | — | — | — | — |
| Gori | | 63·4 | 342 | e 10 38 | + 4 | — | — | — | — | — |
| Zugdidi | | 64·5 | 341 | e 10 41 | 0 | — | — | — | — | — |
| Manila | | 64·6 | 62 | e 10 46 | + 5 | — | — | i 11 8 | ? | — |
| Piatigorsk | | 65·6 | 343 | 10 45 | − 3 | e 19 31 | − 2 | — | — | — |
| Sotchi | | 66·2 | 340 | e 10 49 | − 3 | — | — | — | — | — |
| Istanbul | | 68·1 | 331 | e 11 11 | + 7 | e 20 35? | +32 | — | — | — |
| Theodosia | | 68·9 | 338 | e 11 7 | − 2 | — | — | — | — | — |
| Yalta | | 68·9 | 337 | e 11 8 | − 1 | — | — | — | — | — |
| Semipalatinsk | | 70·3 | 10 | e 11 15 | − 2 | — | — | — | — | — |
| Tamanrasset | Z. | 71·1 | 303 | i 11 23 | + 1 | e 11 43 | PcP | e 13 59 | PP | e 32·6 |
| Kishinev | | 73·0 | 334 | i 11 31 | − 2 | e 21 2 | + 2 | — | — | — |
| Messina | | 73·1 | 322 | e 11 35 | + 1 | e 21 44 | PPS | e 13 49 | PP | — |
| Sverdlovsk | | 75·4 | 357 | 11 46 | − 1 | 21 23 | − 4 | — | — | — |
| Uzhgorod | | 77·0 | 332 | i 11 59 | + 3 | e 21 52 | + 7 | — | — | — |
| Rome | | 77·3 | 323 | e 11 56 | − 2 | e 21 58 | +10 | e 15 11 | PP | — |
| Moscow | | 77·7 | 345 | 11 59 | − 1 | e 21 52 | 0 | — | — | — |
| Kyakhta | | 78·1 | 26 | e 12 3? | + 1 | — | — | — | — | — |
| Irkutsk | | 78·7 | 24 | e 12 9? | + 3 | — | — | — | — | — |
| Triest | | 79·0 | 326 | e 12 7 | 0 | e 22 6 | 0 | e 15 12 | PP | — |
| Florence | E. | 79·2 | 324 | — | — | e 21 19 | −49 | — | — | — |
| Kabansk | | 79·2 | 25 | e 12 9? | + 1 | — | — | — | — | — |
| Raciborzu | | 79·9 | 332 | e 12 13 | + 1 | e 12 21 | PcP | e 14 9 | ? | — |
| Algiers Univ. | Z. | 80·2 | 314 | i 12 16k | + 2 | — | — | i 12 36 | PcP' | — |
| Salo | E. | 80·7 | 325 | e 12 33 | PcP | — | — | e 13 9 | ? | — |
| Prague | | 81·7 | 330 | e 12 22 | 0 | i 12 20 | PcP | e 15 51 | PP | — |
| Zürich | | 82·9 | 325 | e 12 32 | + 4 | — | — | e 12 44 | PcP | — |
| Colimberg | Z. | 83·2 | 330 | e 12 30 | + 1 | — | — | e 12 51 | PcP | — |
| Alicante | | 83·4 | 314 | 12 42 | PcP | e 23 19 | +28 | 16 14 | PP | 42·2 |
| Stuttgart | | 83·4 | 327 | e 12 30 | 0 | e 22 56 | + 5 | e 15 55 | PP | — |
| Basle | | 83·5 | 325 | e 12 31 | 0 | — | — | e 12 37 | PcP | — |
| Jena | | 83·6 | 330 | e 12 32 | + 1 | — | — | e 15 3 | ? | — |
| Potsdam | Z. | 83·8 | 331 | e 12 35? | + 3 | — | — | — | — | — |
| Almeria | | 84·0 | 312 | i 12 37 | + 4 | 23 7 | +10 | 15 53 | PP | 47·1 |
| Strasbourg | | 84·1 | 326 | i 12 34 | 0 | i 12 40 | PcP | e 15 49 | PP | — |
| Clermont-Ferrand | | 85·0 | 321 | i 12 40 | + 2 | — | — | — | — | — |
| Granada | | 85·0 | 312 | i 12 40a | + 2 | 23 6 | − 1 | e 16 6 | PP | 46·5 |
| Malaga | | 85·4 | 311 | i 12 43 | + 3 | i 23 21 | +10 | 16 7 | PP | 46·2 |
| Copenhagen | | 86·3 | 333 | i 12 46a | + 1 | — | — | 16 8 | PP | — |
| Toledo | | 86·6 | 314 | e 12 52 | + 6 | e 27 9 | ? | — | — | — |
| Paris | | 87·0 | 324 | i 12 53 | + 5 | i 12 56 | PcP | e 18 1 | PPP | — |
| Vladivostok | | 87·1 | 43 | e 12 45 | − 4 | e 23 24 | − 4 | — | — | — |
| Upsala | Z. | 87·2 | 338 | i 12 49 | 0 | — | — | i 12 54 | PcP | — |
| Kiruna | N. | 92·2 | 344 | e 21 56 | ? | e 23 49 | [+ 3] | e 32 42 | ? | e 52·6 |
| College | | 129·1 | 17 | e 19 11 | [+ 1] | — | — | — | — | — |
| Halifax | | 130·1 | 313 | e 19 12k | [ 0] | — | — | — | — | — |
| Huancayo | | 130·1 | 236 | e 19 19 | [+ 7] | — | — | — | — | e 68·4 |
| Morgantown | | 143·1 | 312 | e 19 40 | [+ 4] | — | — | — | — | — |
| Columbia | | 146·0 | 305 | e 19 45 | [+ 4] | — | — | — | — | — |
| Victoria | | 149·6 | 10 | 19 53 | [+ 6] | — | — | — | — | — |
| Hungry Horse | | 150·5 | 358 | e 19 32 | [−16] | — | — | — | — | — |
| Seattle | | 150·7 | 9 | e 19 53 | [+ 5] | — | — | i 20 4 | $PKP_2$ | — |
| Butte | | 152·8 | 356 | e 19 54 | [+ 2] | — | — | — | — | — |
| Fayetteville | Z. | 154·6 | 317 | e 19 56 | [+ 2] | — | — | e 23 55 | PP | — |
| Shasta | Z. | 157·3 | 14 | e 20 1 | [+ 3] | — | — | — | — | — |
| Reno | Z. | 159·0 | 9 | e 20 4 | [+ 4] | — | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tinemaha | z. | 161·6 | 7 | e 20 6 | [+ 4] | — | — | e 20 26 | $PKP_2$ | — |
| Fresno | z. | 161·7 | 11 | e 20 5 | [+ 2] | — | — | — | — | — |
| Boulder City | | 162·9 | 358 | e 20 9 | [+ 5] | — | — | — | — | — |
| China Lake | z. | 162·9 | 6 | e 20 8 | [+ 4] | — | — | — | — | — |
| Pasadena | z. | 164·5 | 9 | i 20 14 | [+ 9] | — | — | — | — | — |
| Riverside | z. | 164·7 | 7 | e 20 9 | [+ 3] | — | — | — | — | — |
| Tucson | | 166·0 | 345 | e 20 11 | [+ 4] | — | — | e 21 15 | $PKP_2$ | — |

Aug. 17d. 10h. 48m. 55s. Epicentre 6°·5S. 155°·0E. (as on 14d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Brisbane | | 20·9 | 187 | i 4 49 | + 3 | i 8 42 | + 7 | i 5 1 | PP | — |
| Riverview | | 27·4 | 188 | i 5 49a | 0 | i 10 29 | + 1 | — | — | e 13·6 |
| Manila | | 39·7 | 302 | i 7 44 | + 8 | i 13 54? | +14 | — | — | — |
| Mitchell Field | | 63·1 | 20 | i 10 29 | − 3 | — | — | — | — | — |
| College | | 82·6 | 20 | i 12 24 | − 2 | i 12 45 | ? | i 12 51 | ? | e 34·2 |
| Berkeley | z. | 88·2 | 52 | e 12 56a | + 2 | — | — | — | — | — |
| Shasta | z. | 88·5 | 49 | e 12 55a | − 1 | — | — | — | — | — |
| Corvallis | z. | 88·6 | 46 | i 12 56 | 0 | — | — | — | — | — |
| Lick | z. | 88·6 | 52 | e 12 56a | 0 | — | — | — | — | — |
| Victoria | | 89·3 | 41 | 12 57 | − 2 | — | — | — | — | — |
| Fresno | z. | 90·0 | 53 | e 13 2a | − 1 | — | — | — | — | — |
| Reno | z. | 90·4 | 50 | e 13 5a | + 1 | — | — | — | — | — |
| Pasadena | | 91·0 | 56 | i 13 7a | 0 | — | — | i 13 35 | ? | e 45·1 |
| Tinemaha | z. | 91·2 | 53 | i 13 9 | + 1 | — | — | — | — | — |
| Riverside | z. | 91·6 | 56 | i 13 10a | 0 | — | — | e 13 40 | ? | — |
| China Lake | z. | 91·7 | 53 | i 13 10a | 0 | — | — | — | — | — |
| Boulder City | | 93·9 | 54 | i 13 21 | 0 | — | — | — | — | — |
| Hungry Horse | | 95·5 | 42 | e 13 24 | − 4 | — | — | — | — | — |
| Tucson | | 96·9 | 58 | e 13 36 | + 2 | — | — | e 17 30 | PP | — |
| Saskatoon | | 100·2 | 38 | — | — | e 37 26 | ? | — | — | 54·1 |
| Fayetteville | z. | 110·6 | 54 | i 18 32 | [− 2] | — | — | — | — | — |
| Kiruna | z. | 111·6 | 343 | i 18 34 | [− 2] | — | — | — | — | — |
| Grahamstown | z. | 117·1 | 227 | i 18 47 | [ 0] | — | — | — | — | — |
| Pretoria | z. | 119·2 | 236 | e 18 40 | [−11] | — | — | — | — | — |
| Kimberley | z. | 120·6 | 230 | i 18 43 | [−10] | — | — | — | — | — |
| Palisades | | 124·6 | 44 | e 18 59 | [− 3] | — | — | — | — | e 59·0 |
| Weston | | 125·7 | 41 | e 19 2 | [− 2] | — | — | — | — | — |
| Stuttgart | | 128·9 | 331 | e 19 8 | [− 2] | — | — | — | — | — |
| Halifax | | 129·3 | 35 | e 19 9k | [− 2] | — | — | — | — | — |
| San Juan | | 138·3 | 67 | e 19 17 | [−10] | i 22 57 | PKS | — | — | — |
| Fort de France | | 143·6 | 74 | e 19 11 | [−26] | — | — | — | — | — |
| Tamanrasset | z. | 146·4 | 302 | e 19 42a | [ 0] | e 20 14 | ? | e 22 58 | PP | — |

Aug. 17d. 16h. 2m. 7s. Epicentre 30°·5N. 91°·5E. (as on 1952, June 2d.).

Intensity IX at Lhasa; 55 killed, 157 injured, with 850 buildings destroyed at Pondgo and Tangu (according to Poona).

$A = -·0226$, $B = +·8628$, $C = +·5050$; $\delta = -4$; $h = +2$;
$D = +1·000$, $E = +·026$; $G = -·013$, $H = +·505$, $K = -·863$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Shillong | E. | 4·9 | 176 | e 1 26 | − 1* | e 2 26 | − 3* | 1 35 | $P_g$ | 2·2 |
| Chatra | | 5·3 | 227 | i 1 27 | + 5 | (2 24) | − 1 | 1 43 | $P_g$ | 2·4 |
| Calcutta | E. | 8·4 | 200 | i 2 9 | + 3 | i 3 36 | − 7 | 2 47 | $P_g$ | — |
| New Delhi | | 12·6 | 265 | i 3 3k | 0 | 5 30 | + 4 | 3 12 | PP | — |
| Hyderabad | | 17·6 | 225 | i 4 8 | 0 | 7 18 | − 5 | 4 13 | PP | 8·5 |
| Poona | | 20·0 | 236 | i 4 38 | + 1 | 8 27 | +10 | i 4 55 | PP | 8·9 |
| Madras | E. | 20·3 | 214 | i 4 45 | + 5 | i 8 19 | − 4 | — | — | — |
| Bombay | | 20·5 | 240 | i 4 45 | + 3 | e 8 36 | + 9 | 5 10 | PPP | — |
| Quetta | | 21·1 | 277 | i 4 48 | 0 | i 8 33 | − 6 | i 8 28 | S | — |
| Hong Kong | | 21·9 | 106 | i 4 53 | − 4 | — | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | i. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Nanking | Z. | 23·4 | 79 | i 5 9 | − 2 | e 9 20 | − 1 | — | — | — |
| Kodaikanal | E. | 24·0 | 219 | i 5 20k | + 3 | i 9 47 | +15 | 8 35 | PcP | — |
| Zô-Sè | E. | 25·5 | 83 | i 5 33 | + 1 | 9 55 | − 2 | — | — | — |
| Colombo | E. | 25·9 | 208 | 5 32 | − 3 | e 10 22 | +18 | — | — | 13·9 |
| Manila | | 31·4 | 115 | e 6 13 | −12 | i 11 29? | − 3 | — | — | — |
| Unzendake | | 33·0 | 75 | 6 49 | +10 | 11 58 | + 1 | — | — | e 18·1 |
| Hukuoka | | 33·0 | 74 | e 6 35 | − 4 | e 11 56 | − 1 | e 11 6 | ? | e 16·9 |
| Kumamoto | | 33·3 | 74 | e 6 38 | − 3 | 12 8 | + 6 | — | — | 15·1 |
| Kagosima | | 33·4 | 78 | 6 39 | − 3 | 11 58 | − 5 | 15 56 | Q | 17·4 |
| Yakusima | | 33·5 | 81 | e 6 28 | −15 | e 12 2 | − 3 | — | — | 18·0 |
| Ooita | | 34·0 | 74 | e 6 50 | + 2 | e 12 13 | 0 | i 8 2 | PP | e 16·7 |
| Miyazaki | | 34·1 | 76 | e 6 54 | + 6 | — | — | — | — | e 16·8 |
| Hamada | | 34·3 | 74 | 6 44 | − 6 | (12 10) | − 7 | 10 51 | ? | 12·2 |
| Hirosima | | 34·6 | 72 | e 6 53 | 0 | e 12 6 | −16 | e 10 46 | ? | — |
| Matsue | | 35·0 | 72 | e 7 10 | +14 | e 12 24 | − 4 | — | — | e 16·9 |
| Saigo | E. | 35·2 | 70 | e 6 58 | 0 | e 12 28 | − 3 | e 8 20 | PP | e 15·6 |
| Yonago | | 35·3 | 73 | e 7 13 | +14 | e 12 29 | − 3 | — | — | — |
| Koti | | 35·6 | 75 | e 6 59 | − 2 | e 12 10 | −28 | e 8 18 | PP | 16·9 |
| Takamatu | | 35·9 | 73 | e 7 6 | + 2 | e 12 32 | −10 | e 8 42 | PPP | 16·0 |
| Muroto | | 36·2 | 74 | e 7 2 | − 4 | e 12 48 | + 1 | — | — | 18·1 |
| Sumoto | | 36·6 | 71 | 7 15 | + 5 | 12 51 | − 2 | (e 15 6) | SS | e 15·1 |
| Kobe | | 36·8 | 72 | e 7 16 | + 5 | e 12 55 | − 1 | e 8 50 | PPP | e 19·0 |
| Maizuru | | 37·0 | 72 | e 7 24 | +11 | e 13 11 | +12 | — | — | 18·3 |
| Kyoto | | 37·2 | 72 | e 7 31 | +16 | e 13 20 | +18 | (e 15 20) | SS | (e 15·3) |
| Hukui | | 37·6 | 71 | e 7 15 | − 3 | — | — | — | — | — |
| Owase | | 37·7 | 72 | e 7 19 | 0 | e 13 6 | − 4 | e 15 52 | SS | e 18·0 |
| Kanazawa | | 37·9 | 68 | e 7 33 | +13 | e 13 18 | + 5 | e 16 2 | SS | e 18·6 |
| Wazima | | 38·0 | 66 | e 7 31 | +10 | e 13 8 | − 6 | e 8 59 | PP | e 16·2 |
| Gihu | | 38·0 | 70 | 7 21 | 0 | i 13 25 | +11 | e 15 59 | SS | 19·3 |
| Nagoya | | 38·2 | 70 | e 7 25 | + 2 | e 13 9 | − 8 | e 13 56 | ? | — |
| Takayama | | 38·4 | 70 | e 7 21 | − 4 | — | — | — | — | — |
| Matumoto | | 38·9 | 68 | e 7 33 | + 4 | e 13 32 | + 4 | e 9 12 | PP | e 16·7 |
| Iida | | 38·9 | 69 | e 7 30 | + 1 | — | — | — | — | e 18·8 |
| Takada | | 39·1 | 67 | e 7 34 | + 3 | — | — | — | — | — |
| Matusiro | | 39·1 | 67 | i 7 27 | − 4 | i 13 32 | + 1 | i 9 13 | PP | 18·6 |
| Nagano | | 39·1 | 67 | e 7 28 | − 3 | e 13 25 | − 6 | e 9 16 | PP | e 20·4 |
| Djakarta | | 39·3 | 155 | e 7 32 | 0 | e 13 38 | + 4 | — | — | — |
| Shizuoka | | 39·4 | 69 | e 7 35 | + 2 | i 13 42 | + 7 | e 9 10 | PP | i 18·7 |
| Oiwake | | 39·4 | 68 | e 7 42 | + 9 | e 16 19 | SS | e 9 26 | PPP | e 20·6 |
| Hunatu | | 39·7 | 70 | e 7 33 | − 3 | e 13 36 | − 4 | — | — | e 19·1 |
| Niigata | | 39·7 | 65 | e 7 45 | + 9 | e 13 46 | + 6 | e 9 54 | ? | e 19·8 |
| Maebasi | | 39·8 | 68 | e 7 46 | +10 | e 13 45 | + 3 | e 9 33 | PPP | 19·0 |
| Kumagaya | | 40·1 | 68 | e 7 39 | 0 | e 13 43 | − 3 | 16 45 | SS | 19·0 |
| Osima | | 40·3 | 70 | e 7 42 | + 2 | e 14 0 | +11 | e 17 2 | SSS | — |
| Bandung | | 40·3 | 154 | e 7 36 | − 4 | e 13 45 | − 4 | — | — | — |
| Akita | | 40·4 | 63 | e 7 38 | − 3 | e 13 41 | − 9 | e 10 5 | PcP | — |
| Tokyo | | 40·4 | 69 | e 7 38 | − 3 | e 13 32 | −18 | e 9 14 | PP | 22·6 |
| Utunomiya | | 40·4 | 68 | e 7 40 | − 1 | e 13 39 | −11 | e 16 48 | SS | e 19·0 |
| Mera | | 40·6 | 71 | e 7 41 | − 2 | e 16 48 | SS | — | — | e 20·1 |
| Mori | | 40·7 | 58 | e 7 39 | − 5 | e 15 19 | ? | e 17 7 | SS | e 19·0 |
| Shirakawa | | 40·7 | 67 | e 7 53 | + 9 | e 14 9 | +14 | e 9 42 | PPP | — |
| Hukusima | | 40·8 | 65 | e 7 45 | 0 | e 13 41 | −15 | e 17 13 | SSS | e 19·1 |
| Aomori | | 40·9 | 61 | 7 52 | + 6 | e 16 49 | SS | e 13 16 | ? | e 18·4 |
| Mito | | 40·9 | 68 | e 7 42 | − 4 | i 13 59 | + 1 | i 17 23 | SSS | e 21·9 |
| Sendai | | 41·1 | 65 | e 7 42 | − 5 | e 13 41 | −20 | e 9 11 | PP | e 17·8 |
| Mizusawa | | 41·2 | 65 | 7 47 | − 1 | 13 40 | −22 | — | — | e 20·3 |
| Sapporo | | 41·3 | 57 | e 7 50 | + 1 | e 13 39 | −25 | e 9 35 | PP | — |
| Isinomaki | | 41·4 | 65 | e 7 46 | − 4 | — | — | — | — | — |
| Hatinohe | | 41·5 | 61 | e 7 56 | + 6 | e 14 10 | + 3 | e 17 29 | SSS | e 19·5 |
| Wakkanai | | 41·6 | 54 | e 7 58 | + 7 | e 14 11 | + 3 | e 9 40 | PP | — |
| Miyako | | 41·9 | 62 | e 7 59 | + 5 | e 14 7 | − 6 | — | — | e 20·1 |
| Urakawa | | 42·3 | 58 | e 8 0 | + 3 | e 14 7 | −12 | e 17 52 | SSS | e 20·7 |
| Obi-hiro | E. | 42·6 | 57 | e 8 19 | +20 | — | — | — | — | — |
| Abashiri | | 43·4 | 56 | e 7 58 | − 8 | e 14 24 | −11 | — | — | e 23·5 |
| Kusiro | | 43·5 | 58 | e 8 6 | − 1 | e 14 45 | + 9 | e 18 0 | SS | 20·8 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Nemuro | | 44·4 | 57 | e 8 24 | +10 | e 14 48 | − 1 | e 18 7 | SS | e 20·4 |
| Ksara | | 46·6 | 290 | 9 30? | +58 | 16 40? | +79 | — | — | — |
| Kishinev | | 50·2 | 308 | 8 59 | − 1 | 19 52 | SS | 10 48 | PP | — |
| Istanbul | | 50·8 | 299 | e 9 5 | + 1 | e 16 24 | + 4 | e 11 4 | PP | — |
| Helwan | | 51·4 | 286 | i 9 8k | − 1 | 16 32 | + 4 | 11 11 | PP | — |
| Bacau | | 51·6 | 308 | e 9 14 | + 4 | e 16 34 | + 3 | — | — | — |
| Guam | | 51·7 | 98 | i 9 11 | 0 | e 16 29 | − 3 | — | — | — |
| Vrancioaia | N. | 51·8 | 306 | e 9 29 | +17 | — | — | — | — | — |
| Cernauti | | 52·1 | 309 | 9 12 | − 2 | 16 42 | + 4 | 19 1 | ScS | — |
| Bucharest | | 52·4 | 306 | i 9 21 | + 5 | i 16 47 | + 5 | i 11 19 | PP | 24·9 |
| Helsinki | | 52·5 | 325 | i 9 19 | + 2 | e 16 38 | − 5 | e 12 20 | PPP | — |
| Campulung | | 53·1 | 307 | e 9 24 | + 3 | — | — | — | — | — |
| Lwow | | 53·2 | 312 | e 9 21 | − 1 | i 16 50 | − 2 | i 11 25 | PP | — |
| Uzhgorod | | 54·5 | 310 | i 9 35 | + 3 | e 17 13 | + 3 | 10 21 | PcP | — |
| Sofia | | 54·7 | 303 | e 9 33 | 0 | i 17 12 | − 1 | i 20 54 | SS | — |
| Kiruna | Z. | 55·0 | 334 | i 9 32 | − 3 | — | — | — | — | — |
| Athens | | 55·4 | 297 | e 9 36k | − 2 | i 17 21 | − 1 | e 11 44 | PP | — |
| Timisoara | | 55·6 | 307 | i 9 43 | + 3 | i 17 34 | + 9 | e 11 48 | PP | e 29·9 |
| Skalnate Pleso | | 55·7 | 312 | e 9 40 | 0 | e 17 30 | + 4 | e 19 34 | ScS | e 28·9 |
| Upsala | | 56·2 | 325 | i 9 40k | − 4 | i 17 32 | − 1 | i 10 43 | PcP | e 25·9 |
| Belgrade | | 56·3 | 306 | e 9 45k | 0 | i 17 41 | + 7 | e 11 56 | PP | e 29·7 |
| Szeged | | 56·3 | 308 | e 9 52 | + 7 | 17 31 | − 3 | 11 55 | PP | e 31·9 |
| Raciborzu | | 56·9 | 313 | e 9 48 | − 1 | 17 48 | + 6 | 13 20 | PPP | e 21·9 |
| Ogyalla | | 57·3 | 310 | e 9 55 | + 3 | e 17 46 | − 1 | e 11 59 | PP | e 29·9 |
| Vienna | | 58·4 | 311 | e 9 59 | − 1 | e 18 8 | + 6 | e 10 47 | PcP | — |
| Prague | | 59·3 | 315 | i 10 9a | + 3 | e 18 12 | − 2 | i 12 21 | PP | e 29·9 |
| Copenhagen | | 59·4 | 321 | e 10 6k | 0 | 18 10 | − 5 | 12 16 | PP | 26·9 |
| Taranto | | 59·6 | 302 | 10 5 | − 3 | 18 20 | + 3 | — | — | 23·4 |
| Potsdam | | 59·7 | 317 | i 10 6 | − 3 | i 18 22 | + 3 | i 12 23 | PP | e 25·9 |
| Collmberg | | 59·9 | 313 | e 10 8 | − 2 | e 18 20 | − 1 | e 12 24 | PP | e 25·1 |
| Cheb | | 60·6 | 315 | e 10 58 | PcP | e 19 56 | ScS | e 22 4 | SS | e 26·4 |
| Triest | | 60·8 | 310 | i 10 11k | − 5 | i 18 34 | + 1 | e 12 41 | PP | 35·1 |
| Jena | | 60·9 | 315 | e 10 14 | − 3 | e 18 35 | + 1 | e 13 58 | PPP | e 28·4 |
| Messina | | 61·6 | 300 | i 10 19k | − 3 | i 18 46 | + 3 | i 12 40 | PP | — |
| Bergen | | 62·2 | 327 | e 10 19 | − 7 | i 18 43 | − 8 | i 19 11 | PPS | i 30·0 |
| Padova | | 62·4 | 307 | e 10 20 | − 7 | e 18 53 | 0 | — | — | e 28·4 |
| Rocca di Papa | | 62·6 | 304 | e 10 26 | − 2 | e 18 46 | −10 | e 22 47 | SS | e 29·9 |
| Bologna | | 62·7 | 308 | i 10 22a | − 7 | e 19 3 | + 6 | e 14 30 | PPP | e 29·4 |
| Rome | | 62·7 | 304 | i 10 27k | − 2 | i 18 58 | + 1 | i 12 50 | PP | e 28·2 |
| Stuttgart | | 62·9 | 314 | i 10 29k | − 1 | i 19 1 | + 1 | i 12 47 | PP | e 28·9 |
| Salo | | 63·0 | 309 | e 10 29 | − 2 | e 19 4 | + 3 | e 12 53 | PP | e 28·2 |
| Florence | | 63·0 | 307 | i 10 28 | − 3 | i 19 2 | + 1 | i 12 53 | PP | — |
| Prato | | 63·1 | 307 | i 10 34 | + 2 | i 18 53 | − 9 | — | — | — |
| Chur | | 63·2 | 321 | e 10 31 | − 1 | e 19 0 | − 3 | — | — | e 24·0 |
| Witteveen | | 63·3 | 319 | i 10 36 | + 3 | e 12 52 | PP | e 14 25 | PPP | e 31·9 |
| Karlsruhe | | 63·4 | 314 | i 10 35a | + 1 | i 19 10 | + 4 | i 23 15 | SS | e 29·9 |
| Zürich | | 63·7 | 312 | e 10 33 | − 3 | e 19 3 | − 7 | e 12 50 | PP | — |
| Strasbourg | | 63·9 | 313 | i 10 35 | − 2 | i 19 9 | − 3 | i 12 54 | PP | i 30·4 |
| Pavia | | 64·0 | 309 | i 10 27 | −11 | i 19 12 | − 1 | i 19 27 | PS | e 26·5 |
| Basle | | 64·3 | 313 | e 10 33a | − 6 | e 19 11 | − 6 | e 13 3 | PP | — |
| De Bilt | | 64·4 | 318 | i 10 39k | − 1 | i 19 15 | − 3 | e 15 18 | ScP | e 28·9 |
| Oropa | | 64·7 | 310 | e 10 43 | + 1 | e 19 27 | + 5 | e 13 13 | PP | e 30·6 |
| Tananarive | | 64·8 | 227 | 10 48 | + 5 | e 19 29 | + 6 | i 19 49 | PPS | 31·1 |
| Neuchatel | | 64·9 | 311 | e 10 45 | + 2 | e 19 34 | +10 | — | — | — |
| Tunis | | 66·1 | 300 | e 10 54 | + 3 | e 19 43 | + 4 | e 13 22 | PP | 28·9 |
| Perth | | 66·3 | 157 | 11 1 | + 9 | 19 45 | + 3 | 20 10 | PPS | 31·6 |
| Aberdeen | | 66·8 | 325 | i 10 56 | 0 | i 19 49 | + 1 | i 23 58 | SS | 31·4 |
| Paris | | 67·1 | 315 | i 10 56 | − 1 | i 19 47 | − 4 | i 13 28 | PP | 32·9 |
| Durham | | 67·4 | 321 | e 10 58 | − 1 | i 20 0 | + 5 | i 13 31 | PP | — |
| Mitchell Field | | 67·7 | 42 | e 11 8 | + 7 | — | — | i 11 14 | ? | — |
| Clermont-Ferraud | | 67·8 | 311 | e 11 1 | − 1 | i 20 2 | + 2 | i 13 36 | PP | 32·9 |
| Edinburgh | E. | 67·8 | 324 | 11 1 | − 1 | 19 53 | − 7 | 20 24 | PS | — |
| Kew | | 67·9 | 319 | i 10 58 | − 4 | i 19 55 | − 6 | i 13 30 | PP | e 30·9 |
| Scoresby Sund | | 68·9 | 342 | i 11 7k | − 2 | i 20 15 | + 2 | e 13 46 | PP | 31·0 |
| Jersey | E. | 69·8 | 316 | e 11 44 | PcP | i 20 52 | PS | e 14 35 | ? | 31·9 |

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Barcelona | | 70·1 | 307 | 11 21 | + 5 | i 20 28 | + 1 | 13 56 | PP | e 32·7 |
| Rathfarnham Castle | | 70·5 | 321 | e 11 18 a | 0 | e 20 29 | − 3 | e 15 38 | PPP | e 37·7 |
| Algiers Univ. | Z. | 71·4 | 302 | i 11 21 k | − 3 | i 20 28 | −14 | e 14 1 | PP | 28·9 |
| Tortosa | | 71·5 | 307 | i 11 23 | − 1 | i 20 48 | + 5 | — | — | — |
| Reykjavik | | 72·3 | 336 | i 11 32 k | + 3 | e 21 3 | +11 | e 21 17 | PS | e 33·9 |
| Alicante | | 73·2 | 305 | i 11 37 | + 2 | i 21 3 | + 1 | i 14 22 | PP | 35·0 |
| College | | 74·4 | 24 | i 11 39 | − 3 | 21 13 | − 3 | e 39 6 | P'P' | e 30·2 |
| Toledo | | 75·0 | 308 | i 11 44 a | − 1 | i 21 26 | + 3 | 14 35 | PP | 37·1 |
| Resolute Bay | | 75·0 | 3 | i 11 41? | − 4 | i 21 29? | + 6 | — | — | — |
| Almeria | | 75·3 | 305 | i 11 42 | − 5 | i 21 18 | − 8 | i 16 22 | PPP | 39·0 |
| Tamanrasset | Z. | 75·5 | 289 | e 11 46 | − 2 | e 21 34 | + 6 | e 39 8 | P'P' | — |
| Granada | | 76·0 | 306 | i 11 54 k | + 3 | i 21 33 | − 1 | i 14 39 | PP | i 37·8 |
| Malaga | | 76·7 | 305 | i 11 57 | + 2 | i 21 45 | + 4 | i 14 53 | PP | 30·8 |
| Lisbon | | 79·1 | 309 | i 12 11 a | + 3 | i 22 11 | + 4 | 15 10 | PP | 33·6 |
| Brisbane | | 82·3 | 128 | i 12 25 a | 0 | e 22 39 | − 1 | i 12 30 | PcP | — |
| Pretoria | Z. | 82·5 | 234 | i 12 26 | 0 | — | — | — | — | — |
| Pietermaritzburg | Z. | 83·4 | 230 | i 12 32 | + 2 | — | — | — | — | — |
| Sitka | | 84·2 | 24 | i 12 40 | + 6 | e 23 1 | + 2 | — | — | — |
| Melbourne | E. | 84·4 | 140 | i 12 43 | + 7 | i 23 8 | + 7 | i 17 47 | PPP | — |
| Riverview | | 85·2 | 134 | i 12 41 k | + 2 | i 23 12 | + 3 | i 12 52 | pP | e 42·5 |
| Kimberley | Z. | 86·7 | 234 | i 12 47 | 0 | — | — | — | — | — |
| Grahamstown | Z. | 88·3 | 229 | i 12 59 | + 4 | — | — | — | — | — |
| Angra do Heroismo | | 90·6 | 316 | e 13 12 | + 7 | i 24 12 | +12 | i 16 44 | PP | i 36·8 |
| Victoria | | 95·4 | 22 | 13 26 | − 2 | 24 22 | {+ 1} | 17 28 | PP | 33·9 |
| Seattle | | 96·5 | 22 | e 13 34 | + 2 | i 24 23 | {− 6} | e 17 29 | PP | — |
| M'Bour | | 98·1 | 292 | e 17 54 | PP | e 24 29 | [+11] | e 19 50 | PPP | — |
| Hungry Horse | | 98·2 | 17 | e 13 39 | − 1 | i 17 40 | PP | e 16 21 | ? | — |
| Corvallis | Z. | 98·8 | 24 | e 13 42 | − 1 | — | — | — | — | — |
| Seven Falls | E. | 101·1 | 348 | e 13 51 | − 2 | 24 30 | [− 2] | 18 3 | PP | 43·4 |
| Kirkland Lake | Z. | 101·3 | 354 | e 13 59 | + 5 | e 17 24 | ? | e 18 5 | PP | — |
| Bozeman | | 101·5 | 15 | e 18 6 | PP | e 24 44 | [+10] | — | — | — |
| Halifax | | 101·8 | 342 | e 13 59 | + 3 | 24 34 | [− 2] | 25 4 | SKKS | — |
| Shawinigan Falls | N. | 102·0 | 348 | e 17 5 | ? | 24 43 | [+ 6] | e 18 8 | PP | 48·4 |
| Shasta | | 102·5 | 25 | e 13 55 | − 5 | e 24 43 | [+ 4] | e 30 3 | PKKP | — |
| Auckland | N. | 102·8 | 126 | e 27 53? | PS | e 32 59 | SS | e 37 2 | SSS | e 52·9 |
| Cobb River | E. | 103·4 | 130 | e 18 29 | PP | e 27 41 | PS | e 33 29 | SSP | — |
| Ottawa | | 103·6 | 351 | e 14 9 | + 5 | 25 53 | + 2 | 18 28 | PP | 43·2 |
| Karapiro | N. | 103·8 | 126 | — | — | e 24 59 | [+14] | — | — | — |
| Vermont | | 104·1 | 348 | e 14 9 | + 2 | — | — | e 18 18 | PP | — |
| Christchurch | | 104·5 | 132 | — | — | e 27 53? | PS | — | — | — |
| Reno | | 104·5 | 24 | e 14 11 | + 3 | e 25 0 | [+12] | e 30 0 | PKKP | — |
| Wellington | | 104·8 | 129 | e 27 53 | PS | e 33 17 | SS | e 37 23 | SSS | e 39·9 |
| Santa Clara | | 105·6 | 27 | e 18 50 k | PP | i 26 26 | +19 | — | — | — |
| Harvard | | 105·7 | 347 | i 14 16 a | P | e 27 50 | PS | i 18 34 | PP | e 52·1 |
| Lick | Z. | 105·7 | 27 | e 14 12 | P | e 28 56 | PPS | e 18 35 | PP | — |
| Weston | | 105·8 | 347 | e 14 17 | P | e 33 38 | SS | e 27 50 | SP | — |
| Buffalo (Larkin) | | 106·4 | 352 | e 14 22 | P | — | — | e 18 39 | PP | — |
| Fresno | Z. | 107·0 | 25 | e 14 16 | P | e 17 34 | ? | e 29 47 | PKKP | — |
| Tinemaha | Z. | 107·2 | 24 | e 14 26 | P | e 18 45 | PP | e 29 46 | PKKP | — |
| Palisades | | 107·6 | 348 | i 14 19 k | P | e 25 9 | [+ 7] | i 18 44 | PP | e 48·8 |
| Fordham | | 107·7 | 348 | e 14 16 | P | — | — | 18 52 | PP | — |
| City College, N.Y. | | 107·8 | 348 | e 18 49 | PP | e 25 11 | [+ 8] | — | — | — |
| Chicago | | 108·1 | 0 | e 18 14 | PP | i 25 14 | [+10] | — | — | — |
| Cleveland | | 108·1 | 354 | i 18 56 a | PP | e 25 11 | [+ 7] | e 28 16 | PS | — |
| Pennsylvania | | 108·4 | 352 | e 18 3 | ? | e 26 27 | S | e 18 57 | PP | — |
| China Lake | Z. | 108·6 | 24 | e 14 30 | P | e 18 39 | PP | e 29 45 | PKKP | — |
| Boulder City | | 109·4 | 22 | i 14 34 | P | — | — | i 19 11 | PP | — |
| Morgantown | | 109·8 | 353 | e 18 10 | ? | e 28 24 | PS | — | — | — |
| Pasadena | | 109·9 | 26 | e 14 29 | P | e 26 8 | {+ 4} | e 19 1 | PP | e 55·2 |
| Washington | | 110·1 | 350 | i 19 3 | PP | e 28 37 | PS | — | — | — |
| Riverside | Z. | 110·3 | 26 | e 18 34 | [ 0] | e 19 16 | PP | e 29 39 | PKKP | — |
| Bermuda | | 113·5 | 338 | e 19 37 | PP | e 25 29 | [+ 3] | e 26 32 | SKKS | e 53·4 |
| Fayetteville | Z. | 113·5 | 5 | e 18 43 | [+ 3] | e 29 24 | PS | e 14 57 | P | e 65·0 |
| Tucson | | 114·1 | 21 | e 18 43 | [+ 2] | e 35 1 | SS | e 19 32 | PP | — |
| Lubbock | | 115·0 | 12 | e 18 18 | [−25] | — | — | e 19 56 | PP | — |

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| | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|
| Milton | 119·2 | 357 | e 13 21 | ? | — | — | e 16 51 | ? | — |
| Miami | 123·4 | 350 | e 20 49 | PP | e 26 9 | [+ 8] | — | — | — |
| San Juan | 126·5 | 333 | i 19 10 | [+ 5] | — | — | e 21 10 | PP | — |
| Rooseveit Roads | 126·8 | 333 | e 21 0 | PP | — | — | e 24 30 | ? | — |
| Fort de France | 127·9 | 325 | e 19 13 | [+ 5] | i 38 33 | SS | e 21 13 | PP | — |
| Guantanamo Bay | 128·2 | 344 | i 19 41 | [+32] | — | — | e 21 5 | PP | — |
| Merida | 128·8 | 1 | e 21 1 | PP | e 31 33 | PS | e 23 57 | PPP | e 63·1 |
| Tacubaya | 129·3 | 13 | 19 7 | [− 4] | e 26 14 | [− 4] | e 33 8 | PPS | — |
| Vera Cruz | 130·0 | 9 | e 21 11 | PP | e 28 2 | {−18} | e 32 15 | PKKS | e 63·4 |
| Kingston | 130·5 | 345 | e 19 14 | [+ 1] | e 26 30 | [+ 9] | e 22 35 | PKS | e 57·0 |
| Swan Island | 132·2 | 353 | i 21 23 | PP | i 25 23 | [−62] | — | — | — |
| Bogota | 142·4 | 337 | i 19 34 | [− 1] | i 26 13 | [−30] | i 22 45 | SKP | — |
| Chinchina | 142·6 | 339 | i 19 36 | [+ 1] | e 26 15 | [−28] | e 22 47 | SKP | — |
| La Plata | 154·0 | 254 | 20 11 | $PKP_2$ | 26 41 | [−18] | 23 59 | PP | 65·2 |
| Buenos Aires | 154·4 | 254 | e 20 29 | $PKP_2$ | — | — | i 24 11 | PP | — |
| La Paz | 156·7 | 305 | i 19 57a | [ 0] | i 30 57 | {+ 2} | i 20 31 | $PKP_2$ | 73·6 |
| Huancayo | 158·0 | 324 | e 20 2 | [+ 3] | e 31 11 | {+ 9} | e 44 7 | SS | e 63·5 |
| Santa Lucia N. | 164·6 | 255 | e 20 26 | [+21] | e 26 51 | [−17] | e 59 59 | SSS | — |

August 17d. 22h. 15m. 29s. Epicentre 37°·8N. 72°·4E. Depth of focus 0·025.
(as on 1952, June 24d.).

A = +·2395, B = +·7551, C = +·6103 ; $\delta$ = 0 ; $h$ = −1 ;
D = +·953, E = −·302 ; G = +·185, H = +·582, K = −·792.

| | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. |
|---|---|---|---|---|---|---|
| Khorog | 0·7 | 242 | e 0 26 | − 1 | e 0 45 | − 4 |
| Murgab | 1·3 | 65 | i 0 33 | + 2 | i 0 59 | + 3 |
| Dzhergetal | 1·7 | 327 | i 0 36 | + 1 | e 1 3 | 0 |
| Garm | 2·0 | 306 | i 0 38 | 0 | i 1 6 | − 2 |
| Obi-garm | 2·3 | 293 | i 0 39 | − 3 | i 1 9 | − 5 |
| Andijan | 3·0 | 0 | e 0 51 | + 1 | i 1 30 | + 2 |
| Stalinabad | 3·0 | 285 | i 0 46 | − 4 | i 1 22 | − 6 |
| Namangan | 3·2 | 350 | i 0 53 | + 1 | i 1 35 | + 2 |
| Lunacharskoe | 4·3 | 327 | e 1 7 | + 1 | — | — |
| Naryn | 4·6 | 37 | e 1 10 | 0 | i 2 4 | 0 |
| Tchimkent | 5·0 | 335 | e 1 15 | 0 | e 2 11 | − 2 |
| Frunse | 5·3 | 17 | — | — | i 2 24 | + 4 |
| Przhevalsk | 6·5 | 43 | 1 32 | − 3 | — | — |
| Almata II | 6·6 | 33 | i 1 37 | + 1 | — | — |

Aug. 18d. 13h. 4m. 55s. Epicentre 30°·3S. 71°·2W.

Intensity IV between 27° and 28° S. on coast of Chile. Strasbourg suggests epicentre as adopted.

F. Greve.
Boletin del año, 1952, Instituto Sismológico, Universidad de Chile, Santiago, p. 27.

A = +·2787, B = −·8188, C = −·5020 ; $\delta$ = +11 ; $h$ = +2 ;
D = −·947, E = −·322 ; G = −·162, H = +·475, K = −·865.

| | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|
| Santa Lucia N. | 3·2 | 173 | e 0 59 | + 1* | i 1 52 | + 6g | i 1 10 | ? | 3·1 |
| Antofagasta E. | 6·7 | 6 | e 2 33 | ? | i 3 21 | − 2* | — | — | — |
| Concepción N. | 6·7 | 193 | e 1 22 | −20 | e 3 9 | + 9 | e 2 48 | ? | — |
| Buenos Aires | 11·6 | 115 | 2 56 | + 6 | 5 6 | + 5 | — | — | — |
| La Plata | 12·1 | 116 | i 3 3 | + 6 | 5 23 | + 9 | 5 59 | ? | 6·4 |
| La Paz | 14·0 | 12 | i 3 24a | + 2 | i 5 53 | − 6 | i 6 11 | SS | 7·1 |
| Huancayo | 18·6 | 348 | e 4 19 | − 2 | e 7 40 | − 6 | e 5 27 | PP | e 8·5 |
| Chinchina | 35·3 | 354 | i 6 57 | − 2 | i 12 33 | 0 | — | — | — |
| Galerazamba | 41·0 | 355 | — | — | e 13 59 | 0 | — | — | 23·1 |
| Fort de France | 45·8 | 15 | e 8 5 | −20 | e 18 21 | SS | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| San Juan | | 48·7 | 7 | i 8 44 | − 4 | i 15 42 | − 8 | — | — | — |
| Tacubaya | | 56·3 | 328 | e 9 57 | +12 | e 17 55 | PPS | — | — | — |
| Bermuda | | 62·6 | 7 | e 10 33 | + 5 | e 19 2 | + 6 | e 20 31 | SKS | — |
| Columbia | | 64·6 | 351 | e 10 38 | − 3 | e 19 16 | − 5 | — | — | — |
| M'Bour | | 68·5 | 57 | — | — | 19 5? | −63 | — | — | — |
| Washington | | 69·1 | 356 | i 11 6 | − 4 | — | — | — | — | — |
| Fayetteville | z. | 69·5 | 341 | i 11 9a | − 3 | e 19 59 | −21 | i 13 41 | PP | — |
| Morgantown | | 70·0 | 353 | e 11 14 | − 1 | — | — | e 12 8 | ? | — |
| Philadelphia | | 70·0 | 358 | e 11 14 | − 1 | e 20 22 | − 4 | — | — | — |
| Palisades | | 71·0 | 359 | i 11 19a | − 3 | i 20 36? | − 1 | i 11 36 | PcP | — |
| Pennsylvania | | 71·0 | 355 | i 11 21 | − 1 | e 20 25 | −12 | e 11 44 | PcP | — |
| Cleveland | | 72·1 | 352 | i 11 32a | + 4 | e 20 44 | − 6 | i 21 32 | PPS | — |
| Weston | | 72·3 | 1 | i 11 39a | +10 | i 20 52 | 0 | — | — | — |
| Harvard | | 72·4 | 1 | i 11 29a | − 1 | i 20 55 | + 2 | — | — | e 37·8 |
| Tucson | | 72·7 | 326 | e 11 30 | − 2 | e 20 53 | − 4 | — | — | — |
| Chicago | | 73·3 | 348 | e 11 32 | − 3 | e 20 55 | − 9 | — | — | — |
| Halifax | | 74·9 | 6 | i 11 45a | + 1 | 21 22 | 0 | — | — | — |
| Ottawa | | 75·4 | 357 | e 11 56 | + 9 | — | — | — | — | — |
| Riverside | z. | 77·4 | 322 | e 11 55 | − 3 | — | — | — | — | — |
| Boulder City | | 77·6 | 326 | e 11 57 | − 3 | — | — | e 12 48 | ? | — |
| Pasadena | | 77·9 | 322 | i 12 0 | − 1 | i 21 50 | − 4 | — | — | e 37·1 |
| Kirkland Lake | z. | 78·5 | 355 | e 12 3 | − 1 | — | — | — | — | — |
| China Lake | | 78·9 | 324 | e 12 7 | 0 | — | — | — | — | — |
| Tinemaha | | 80·2 | 324 | e 12 14 | 0 | — | — | — | — | — |
| Kimberley | z. | 80·7 | 118 | i 12 21 | + 5 | — | — | — | — | — |
| Fresno | z. | 80·8 | 323 | e 12 17a | 0 | — | — | — | — | — |
| Lick | z. | 82·2 | 322 | e 11 59a | −25 | — | — | — | — | — |
| Santa Clara | | 82·4 | 322 | e 12 28k | + 3 | e 22 45 | + 4 | — | — | e 43·4 |
| Berkeley | | 82·9 | 322 | e 12 27a | − 1 | e 22 40 | − 6 | — | — | e 41·2 |
| Reno | | 82·9 | 325 | e 12 26a | − 2 | e 21 44 | −62 | — | — | — |
| Bozeman | | 83·8 | 333 | — | — | e 20 51 | ? | — | — | — |
| Butte | | 84·7 | 333 | i 12 15 | −22 | — | — | e 14 29 | ? | — |
| Pretoria | z. | 84·9 | 116 | e 12 9 | −29 | — | — | — | — | — |
| Shasta | | 85·1 | 324 | e 12 35a | − 4 | e 23 0 | [− 1] | — | — | — |
| Hungry Horse | | 87·2 | 333 | i 12 48 | − 1 | e 23 15 | [ 0] | — | — | — |
| Corvallis | E. | 88·4 | 326 | e 12 54 | − 1 | e 23 36 | − 4 | — | — | — |
| Seattle | | 90·2 | 328 | — | — | e 23 57 | + 1 | — | — | — |
| Tamanrasset | z. | 90·6 | 64 | e 13 8 | + 3 | e 16 47 | PP | e 18 50 | PPP | — |
| Malaga | | 91·4 | 47 | i 13 16 | + 7 | i 24 20 | +13 | i 16 56 | PP | 47·4 |
| Granada | | 92·2 | 47 | 13 17a | + 4 | 23 47 | [+ 1] | i 17 5 | PP | 39·4 |
| Almeria | | 92·8 | 48 | 13 15 | − 1 | 24 17 | − 2 | 23 45 | SKS | 49·9 |
| Alicante | | 94·9 | 47 | 13 33 | + 8 | e 24 50 | +13 | 19 38 | PPP | 43·7 |
| Algiers Univ. | z. | 96·4 | 51 | e 13 21 | −11 | e 26 8 | PS | e 17 28 | PP | — |
| Tortosa | | 96·9 | 46 | — | — | i 24 18 | [+ 7] | — | — | e 51·1 |
| Rathfarnham C. | z. | 100·5 | 33 | — | — | e 24 55? | [+26] | — | — | — |
| Clermont-Ferrand | | 101·2 | 43 | — | — | e 24 45 | [+12] | — | — | 52·1 |
| Kew | | 102·4 | 37 | — | — | e 27 6 | PS | — | — | e 45·1 |
| Oropa | | 104·1 | 44 | e 14 47 | ? | e 24 50 | [+ 4] | — | — | — |
| Pavia | | 104·6 | 45 | e 18 55 | PP | e 28 11 | PS | — | — | e 57·2 |
| Riverview | | 104·7 | 215 | — | — | i 24 52 | [+ 3] | e 33 28 | SS | e 52·6 |
| Rome | | 105·2 | 50 | e 14 18 | + 6 | e 24 55 | [+ 4] | e 33 25 | SS | — |
| Florence | | 105·3 | 48 | e 28 13 | PS | — | — | — | — | — |
| Strasbourg | | 105·4 | 42 | e 18 33 | PP | e 24 55 | [+ 3] | e 27 55 | PS | 50·1 |
| De Bilt | | 105·6 | 38 | e 18 35 | PP | e 27 59 | PS | e 33 35 | SS | e 48·1 |
| Messina | | 105·7 | 54 | e 14 23 | + 9 | e 24 57 | [+ 3] | e 33 47 | SSP | — |
| Salo | | 105·7 | 46 | e 14 10 | − 4 | e 23 43 | ? | — | — | — |
| Resolute Bay | | 105·9 | 352 | — | — | i 26 6 | − 4 | — | — | e 57·9 |
| Stuttgart | | 106·3 | 42 | e 18 41? | PP | e 25 5 | [+ 9] | e 28 5 | PS | e 60·1 |
| Scoresby Sund | | 106·4 | 14 | e 18 41 | PP | e 24 53 | [− 4] | e 27 58 | PS | 51·1 |
| Triest | | 107·7 | 47 | e 24 49 | SKS | e 25 30 | {−19} | e 28 47 | PPS | 55·5 |
| Taranto | | 107·9 | 53 | e 22 5 | PKS | — | — | — | — | — |
| Prague | | 109·7 | 42 | e 15 26 | ? | e 28 46 | PS | e 19 4 | PP | e 60·1 |
| Potsdam | | 110·1 | 39 | e 19 8 | PP | i 28 42 | PS | — | — | e 59·1 |
| Copenhagen | | 111·1 | 36 | 19 17 | PP | 28 55 | PS | — | — | 52·1 |
| Belgrade | | 111·7 | 50 | e 19 16a | PP | e 21 52 | PPP | e 22 35 | ? | e 66·6 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Uzhgorod | | 114·2 | 46 | e 19 37 | PP | — | — | — | — | — |
| Helwan | z. | 114·3 | 68 | e 19 44 | PP | 30 38 | PPS | 31 47 | ? | — |
| Upsala | E. | 115·1 | 33 | e 19 46 | PP | e 29 19 | PS | e 30 51 | PPS | e 59·1 |
| Bucharest | | 115·4 | 52 | e 19 53 | PP | e 30 36 | PPS | — | — | — |
| Istanbul | | 116·4 | 56 | e 19 56 | PP | e 26 53 | {+ 3} | e 30 47 | PPS | — |
| Ksara | | 119·3 | 66 | 20 18 | PP | 30 22 | PS | 31 38 | PPS | — |
| Simferopol | | 121·0 | 52 | e 20 26 | PP | — | — | — | — | — |
| Yalta | | 121·0 | 53 | e 20 25 | PP | e 25 56 | {+ 3} | e 30 29 | PS | — |
| Theodosia | | 121·9 | 52 | e 20 33 | PP | — | — | — | — | — |
| Sotchi | | 124·7 | 55 | e 20 50 | PP | — | — | — | — | — |
| Moscow | | 124·9 | 40 | i 20 52 | PP | — | — | — | — | — |
| Zugdidi | | 126·1 | 56 | e 20 51 | PP | — | — | — | — | — |
| Piatigorsk | | 127·2 | 55 | 21 8 | PP | i 22 31 | PKS | — | — | — |
| Erevan | | 127·6 | 60 | e 21 12 | PP | — | — | — | — | — |
| Tiflis | | 128·1 | 58 | i 21 15 | PP | e 22 31 | PKS | e 31 21 | PS | — |
| Goris | | 128·9 | 61 | 21 20 | PP | 22 36 | PKS | — | — | — |
| Grozny | | 129·0 | 56 | 21 19 | PP | — | — | — | — | — |
| Kirovobad | | 129·1 | 59 | 21 21 | PP | — | — | — | — | — |
| Makhach-Kala | | 130·2 | 56 | i 22 40 | PKS | — | — | — | — | — |
| Baku | | 131·7 | 60 | e 19 21 | [+ 6] | i 22 51 | PKS | — | — | — |
| Kizyl-Arvat | | 136·4 | 62 | e 19 30 | [+ 6] | e 23 4 | PKS | — | — | — |
| Ashkabad | | 138·0 | 65 | 23 8 | PKS | — | — | — | — | — |
| Quetta | | 144·1 | 78 | e 19 37 | [− 1] | — | — | e 19 32 | PKP | — |
| Poona | z. | 146·2 | 102 | e 19 38 | [− 3] | e 19 46 | PKP | e 19 58 | ? | — |
| Stalinabad | | 146·2 | 64 | i 19 45 | [+ 4] | e 23 12 | PKS | — | — | — |
| Lunacharskoe | | 146·4 | 59 | i 19 48 | [+ 6] | — | — | — | — | — |
| Tashkent | | 146·4 | 59 | i 19 45 | [+ 3] | i 23 6 | PP | — | — | — |
| Tchimkent | | 146·5 | 57 | i 19 47 | [+ 5] | — | — | — | — | — |
| Obi-garm | | 146·9 | 64 | i 19 49 | [+ 7] | 23 19 | PKS | — | — | — |
| Dzhergetal | | 148·1 | 63 | 19 50 | [+ 6] | — | — | — | — | — |
| Namangan | | 148·3 | 60 | e 19 52 | [+ 7] | 30 6 | {− 3} | i 23 22 | PP | — |
| Fergana | | 148·4 | 61 | e 19 47 | [+ 2] | e 23 21 | PP | — | — | — |
| Khorog | | 148·5 | 67 | 19 50 | [+ 5] | e 23 22 | PP | — | — | — |
| Uglegorsk | | 148·6 | 316 | e 19 53 | [+ 8] | — | — | — | — | — |
| Andijan | | 148·8 | 60 | 19 49 | [+ 4] | i 23 27 | PP | — | — | — |
| Yuzno-Sakhlinsk | | 149·0 | 312 | e 19 47 | [+ 1] | — | — | — | — | — |
| Frunse | | 150·0 | 55 | i 19 53 | [+ 6] | e 23 26 | PP | i 31 1 | PcP,PKP | — |
| Murgab | | 150·3 | 64 | e 19 56 | [+ 8] | 23 35 | PP | — | — | — |
| Semipalatinsk | | 150·7 | 38 | e 19 52 | [+ 4] | — | — | — | — | — |
| Rybach'e | | 151·2 | 56 | e 19 52 | [+ 3] | e 23 39 | PP | — | — | — |
| Przhevalsk | | 152·8 | 54 | e 20 3 | [+11] | — | — | — | — | — |
| Vladivostok | | 157·6 | 310 | i 20 33 | $PKP_2$ | e 30 57 | {− 3} | e 44 35 | SSP | — |
| Irkutsk | | 157·8 | 8 | 20 0 | [+ 2] | e 31 5 | {+ 4} | — | — | — |
| Kabansk | | 158·2 | 4 | 19 59 | [ 0] | e 34 54 | SKSP | — | — | — |
| Kyakhta | | 159·9 | 5 | 20 0 | [− 1] | e 31 5 | {− 6} | 26 56? | SKS | — |

Aug. 18d. 23h. 54m. 18s. Epicentre 16°·0N. 98°·4W. (as on 1948, Jan. 8d.).

$A = -·1405$, $B = -·9515$, $C = +·2739$; $\delta = +11$; $h = +6$;
$D = -·989$, $E = +·146$; $G = -·040$, $H = -·271$, $K = -·962$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Oaxaca | | 1·9 | 57 | 0 34 | 0 | (0 59) | 0 | — | — | 1·0 |
| Puebla | | 3·0 | 4 | 0 48 | − 2 | — | — | — | — | 1·6 |
| Tacubaya | | 3·5 | 347 | i 0 59k | + 2 | — | — | — | — | 1·8 |
| Vera Cruz | | 3·8 | 33 | 1 4 | + 3 | — | — | — | — | 2·0 |
| Merida | | 9·7 | 58 | 2 27 | + 5 | e 4 15 | 0 | — | — | — |
| Lubbock | | 17·8 | 351 | 4 8 | − 3 | 9 6 | L | — | — | (9·1) |
| Tucson | | 19·7 | 328 | i 4 33 | − 1 | — | — | — | — | e 9·9 |
| Fayetteville | z. | 20·4 | 11 | i 4 36 | − 5 | e 4 52 | PP | i 5 55 | ? | e 11·7 |
| Columbia | | 23·8 | 37 | e 5 13 | − 2 | 9 34 | + 6 | — | — | — |
| Boulder City | | 24·7 | 327 | i 5 24 | 0 | — | — | — | — | e 13·2 |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Riverside | z. | 24·8 | 320 | e 5 25 | 0 | i 5 32 | P | e 6 53 | ? | — |
| Pasadena | z. | 25·4 | 320 | e 5 29 | − 2 | e 9 59 | + 3 | — | — | e 12·5 |
| China Lake | z. | 26·1 | 324 | e 5 38 | + 1 | — | — | — | — | — |
| Bogota | | 26·4 | 112 | i 5 45 | + 5 | i 11 43 | SSS | — | — | — |
| Tinemaha | z. | 27·4 | 324 | e 5 55 | + 6 | — | — | e 6 43 | PP | — |
| Fresno | z. | 28·0 | 322 | e 5 54 | − 1 | — | — | — | — | — |
| Morgantown | | 28·5 | 30 | i 5 57 | − 2 | e 11 50 | SS | — | — | — |
| Lick | z. | 29·6 | 321 | e 6 10 | + 1 | — | — | — | — | — |
| Reno | z. | 30·0 | 327 | e 6 13 | + 1 | — | — | — | — | — |
| Berkeley | | 30·3 | 321 | — | — | — | — | e 14 18 | Q | e 20·0 |
| San Juan | | 30·9 | 80 | e 6 32 | +12 | — | — | — | — | — |
| Philadelphia | | 31·3 | 37 | — | — | e 11 31 | 0 | — | — | — |
| Butte | | 32·2 | 343 | e 6 30 | − 2 | — | — | — | — | — |
| Palisades | | 32·7 | 35 | i 6 34 | − 2 | e 6 54 | ? | e 15 11 | Q | e 20·4 |
| Hungry Horse | | 34·7 | 342 | e 6 51 | − 3 | i 7 18 | ? | — | — | — |
| Harvard | | 35·0 | 35 | i 6 54a | − 2 | — | — | — | — | e 21·4 |
| Ottawa | | 35·0 | 28 | i 6 53k | − 3 | 12 34 | + 6 | 9 23 | PcP | — |
| Weston | | 35·1 | 35 | i 6 44k | −13 | — | — | — | — | — |
| Kirkland Lake | z. | 35·4 | 21 | e 6 56 | − 4 | — | — | — | — | — |
| College | | 59·0 | 338 | e 10 1 | − 3 | — | — | — | — | — |
| Kiruna | z. | 85·6 | 20 | e 12 49 | + 8 | — | — | — | — | — |
| Tamanrasset | z. | 96·2 | 64 | e 13 31 | 0 | — | — | — | — | — |

Aug. 19d. 6h. 49m. 46s. Epicentre 37°·6N. 71°·6E. Depth of focus 0·025.
(as on July 28d.).

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 0·1 | 180 | i 0 22 | − 3 | i 0 39 | − 5 |
| Dzhergetal | 1·6 | 349 | i 0 35 | + 1 | 1 2 | + 1 |
| Garm | 1·7 | 324 | i 0 35 | 0 | i 1 3 | 0 |
| Obi-garm | 1·9 | 306 | i 0 37 | 0 | i 1 6 | 0 |
| Murgab | 2·0 | 67 | i 0 35 | − 3 | e 1 2 | − 6 |
| Stalinabad | 2·4 | 293 | i 0 43 | 0 | i 1 18 | + 2 |
| Fergana | 2·8 | 3 | e 0 47 | 0 | e 1 24 | 0 |
| Andijan | 3·2 | 11 | — | — | e 1 34 | + 1 |
| Namangan | 3·4 | 359 | — | — | i 1 39 | + 2 |
| Lunacharskoe | 4·1 | 336 | e 1 7 | + 4 | i 1 57 | + 4 |
| Naryn | 5·1 | 41 | — | — | i 2 17 | + 2 |

Aug. 19d. 10h. 2m. 8s. Epicentre 1°·8S. 119°·6E. (as on 1941, June 23d.).

$A = -\cdot4937$, $B = +\cdot8691$, $C = -\cdot0312$; $\delta = +5$; $h = +7$;
$D = +\cdot869$, $E = +\cdot494$; $G = +\cdot015$, $H = -\cdot027$, $K = -1\cdot000$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Bandong | | 13·0 | 246 | e 3 20 | PP | e 5 59 | SSS | — | — | — |
| Djakarta | | 13·4 | 251 | e 3 28 | PP | e 6 24 | L | — | — | (e 6·4) |
| Manila | | 16·3 | 5 | i 4 17 | +25 | — | — | — | — | i 7·6 |
| Zô-Sè | z. | 32·7 | 3 | e 6 32 | − 4 | — | — | — | — | — |
| Nanking | | 33·7 | 359 | 6 45 | 0 | 12 7 | − 1 | — | — | — |
| Shillong | E. | 38·2 | 318 | e 7 24 | + 1 | e 13 30 | PcS | e 13 42 | ? | — |
| Brisbane | z. | 40·9 | 132 | i 7 50k | + 4 | i 9 33 | PP | i 9 41 | PcP | — |
| Madras | E. | 41·8 | 293 | e 6 57 | −56 | — | — | — | — | — |
| Chatra | | 42·3 | 317 | i 7 58 | + 1 | e 14 29 | +10 | — | — | — |
| Riverview | | 43·5 | 141 | i 8 20k | +13 | — | — | — | — | e 23·8 |
| Poona | z. | 49·3 | 297 | i 8 51 | − 2 | — | — | — | — | — |
| Quetta | | 59·3 | 308 | e 10 7 | + 1 | — | — | — | — | — |
| Ksara | | 85·8 | 304 | i 14 12? | ? | — | — | — | — | — |
| Helwan | z. | 89·4 | 300 | 12 59 | − 1 | e 13 11 | ? | i 16 33 | PP | — |
| Pretoria | z. | 90·5 | 245 | e 13 8 | + 3 | — | — | — | — | — |
| Istanbul | z. | 91·6 | 311 | e 13 6 | − 4 | — | — | e 16 46 | PP | — |
| Messina | | 102·1 | 309 | e 18 10 | PP | e 27 18 | PS | — | — | e 51·4 |
| Rome | | 103·9 | 313 | e 17 54 | PKP | — | — | — | — | — |
| Stuttgart | | 104·7 | 320 | e 18 34 | PP | e 32 52? | ? | e 18 52 | ? | e 32·9 |
| Tamanrasset | z. | 112·8 | 295 | e 18 39 | [ 0] | e 19 31 | PP | 18 28 | ? | — |
| Fayetteville | z. | 133·7 | 38 | e 19 24 | [+ 5] | e 22 46 | PKS | — | — | — |
| Huancayo | | 159·8 | 134 | e 20 41 | $PKP_2$ | — | — | — | — | — |

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Aug. 19d. 14h. 3m. 7s. Epicentre 16°·1N. 61°·1W. Focus at Base of Superficial Layers.

Intensity IV-V in Martinique. Epicentre 16°·0N. 61°·3W. (Strasbourg).

Bulletin séismique mensuel de Morne des Cadets, août, 1952.

$A = +·4646$, $B = -·8416$, $C = +·2756$; $\delta = +10$; $h = +6$;
$D = -·875$, $E = -·483$; $G = +·133$, $H = -·241$, $K = -·961$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Fort de France | | 1·4 | 182 | i 0 23 | 0 | — | — | — | — | — |
| Roosevelt Roads | | 4·8 | 297 | i 1 17 | + 5 | e 5 11 | ? | — | — | — |
| San Juan | | 5·3 | 296 | i 1 24 | + 5 | i 2 24 | + 4 | — | — | — |
| Guantanamo Bay | | 13·8 | 288 | e 3 19 | + 3 | e 5 37 | −11 | — | — | — |
| Kingston | | 15·1 | 279 | e 3 36 | + 4 | i 7 12 | +53 | e 3 48 | PP | — |
| Bermuda | | 16·5 | 349 | i 3 52 | + 2 | e 6 39 | −13 | — | — | e 7·2 |
| Bogota | | 17·1 | 230 | i 4 0 | + 2 | i 7 21 | +15 | i 4 56 | ? | — |
| Chinchina | | 18·0 | 234 | i 4 9 | 0 | e 7 39 | +13 | e 4 35 | PPP | — |
| Swan Island | | 21·9 | 279 | i 5 59 | +67 | i 9 53 | +66 | — | — | — |
| Columbia | | 25·3 | 320 | e 5 26 | + 1 | — | — | — | — | — |
| Philadelphia | | 26·7 | 337 | — | — | e 10 11 | + 2 | — | — | — |
| Palisades | | 27·2 | 340 | i 5 43 | 0 | e 11 13 | ? | e 6 20 | PP | — |
| Weston | | 27·6 | 345 | i 5 47a | + 1 | — | — | — | — | — |
| Harvard | | 27·8 | 345 | i 5 49a | + 1 | e 11 8 | +41 | — | — | e 13·4 |
| Halifax | | 28·5 | 357 | i 5 56a | + 2 | — | — | — | — | — |
| Morgantown | | 28·6 | 329 | i 5 58 | + 3 | e 11 42 | ? | — | — | — |
| Cleveland | | 30·8 | 330 | i 6 16 | + 1 | e 12 58 | SS | — | — | — |
| Huancayo | | 31·3 | 207 | e 6 16 | − 3 | — | — | — | — | e 13·4 |
| Ottawa | | 31·7 | 341 | i 6 23a | 0 | 13 13 | SSS | — | — | — |
| Shawinigan Falls | N. | 31·9 | 346 | e 6 25 | + 1 | — | — | — | — | — |
| Seven Falls | E. | 32·0 | 348 | — | — | e 11 33 | − 1 | — | — | — |
| La Paz | N. | 33·1 | 191 | 6 33 | − 2 | — | — | — | — | — |
| Fayetteville | Z. | 35·5 | 311 | i 6 56a | 0 | i 12 23 | − 5 | e 7 12 | pP | — |
| Kirkland Lake | Z. | 35·6 | 339 | i 6 58a | + 2 | — | — | e 7 13 | pP | — |
| Tucson | | 47·7 | 299 | i 8 36 | + 1 | e 15 34 | + 6 | — | — | — |
| Boulder City | | 51·5 | 304 | i 9 4 | 0 | — | — | i 9 21 | pP | — |
| Butte | | 52·0 | 317 | i 9 9 | + 1 | — | — | — | — | — |
| Riverside | Z. | 53·4 | 301 | i 9 18a | − 1 | — | — | — | — | — |
| China Lake | Z. | 53·7 | 304 | e 9 19a | − 2 | — | — | — | — | — |
| Hungry Horse | | 53·7 | 319 | i 9 21 | 0 | — | — | — | — | — |
| Pasadena | Z. | 54·0 | 301 | i 9 23a | 0 | — | — | — | — | — |
| Tinemaha | Z. | 54·4 | 305 | i 9 26 | 0 | — | — | — | — | — |
| Toledo | | 54·7 | 52 | i 9 28 | 0 | — | — | e12 42 | PPP | — |
| Fresno | Z. | 55·6 | 305 | e 9 42a | + 7 | — | — | — | — | — |
| Reno | Z. | 55·9 | 308 | e 9 37 | 0 | — | — | — | — | — |
| Lick | Z. | 57·1 | 305 | i 9 45a | − 1 | — | — | — | — | — |
| Alicante | | 57·2 | 54 | 9 51 | + 5 | 17 53 | sS | 21 39 | SS | 28·4 |
| Shasta | Z. | 58·0 | 309 | i 9 49a | − 3 | — | — | — | — | — |
| Corvallis | Z. | 59·1 | 313 | e 9 59 | − 1 | — | — | — | — | — |
| Scoresby Sund | | 59·3 | 14 | i 10 15 | pP | — | — | — | — | — |
| Victoria | | 59·8 | 317 | 10 1a | − 3 | — | — | — | — | — |
| Aberdeen | N. | 59·9 | 32 | i 16 37 | ? | e 23 46 | ? | — | — | — |
| Paris | | 60·7 | 42 | i 10 9 | − 1 | e 10 47 | PcP | i 10 25 | pP | — |
| Resolute Bay | | 61·4 | 350 | i 10 1k | −14 | e 18 21 | −11 | — | — | — |
| Tamanrasset | Z. | 62·7 | 71 | i 10 24a | 0 | e 12 43 | PP | i 10 39 | pP | — |
| Witteveen | Z. | 63·9 | 37 | i 10 32 | 0 | — | — | — | — | — |
| Stuttgart | | 65·1 | 43 | e 10 39 | − 1 | — | — | e 10 53 | pP | — |
| Jena | Z. | 66·8 | 41 | e 10 49 | − 1 | e 12 13 | ? | e 10 59 | pP | — |
| Rome | | 67·3 | 50 | e 10 49 | − 4 | e 19 49 | + 4 | e 24 3? | SS | — |
| Collmberg | Z. | 67·7 | 41 | e 10 50 | − 6 | e 11 9 | sP | e 11 2 | pP | — |
| Potsdam | Z. | 67·8 | 39 | e 10 55 | − 2 | — | — | — | — | — |
| Prague | | 68·6 | 41 | e 11 1 | − 1 | e 11 19 | sP | e 12 12 | ? | — |
| Upsala | Z. | 70·6 | 32 | i 11 13 | − 1 | — | — | i 11 28 | pP | — |
| College | | 74·2 | 334 | i 11 34 | − 1 | — | — | — | — | — |
| Kimberley | Z. | 94·1 | 119 | i 13 16 | 0 | — | — | — | — | — |
| Brisbane | Z. | 146·5 | 244 | i 19 39 | [+ 2] | — | — | i 19 47 | pPKP | — |

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Aug. 19d. 20h. 36m. 13s. Epicentre 42°·4N. 144°·2E. Depth of focus 0·010.
(as on 1942, February 14d.).

Intensity IV at Tusui, Akan, Akubetu, Noibetu, Toro, Hombetu, Simidu, Kamisatunai, Ikeda, and Otu. Epicentre 42°·6N. 144°·1E. Depth 60km. Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, August, 1952, Tokyo, 1952, p. 311, with macroseismic chart.

A = −·6008, B = +·4333, C = +·6718; δ = +2; h = −3;
D = +·585, E = +·811; G = −·545, H = +·393; K = −·741.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Kusiro | | 0·6 | 14 | i 0 13k | − 4 | 0 21 | − 8 |
| Obihiro | N. | 0·9 | 305 | e 0 17 | − 2 | 0 29 | − 5 |
| Urakawa | | 1·1 | 257 | e 0 23 | + 1 | 0 40 | + 2 |
| Nemuro | | 1·4 | 47 | e 0 22 | − 3 | 0 37 | − 7 |
| Abashiri | | 1·6 | 2 | 0 24 | − 4 | 0 43 | − 6 |
| Sapporo | | 2·2 | 288 | e 0 42 | + 6 | — | — |
| Hatinohe | | 2·7 | 227 | e 0 45 | + 2 | 1 16 | + 2 |
| Aomori | | 3·0 | 238 | e 1 5 | +18 | 1 43 | +21 |
| Miyako | | 3·2 | 211 | e 0 51 | + 1 | 1 25 | − 2 |
| Morioka | | 3·5 | 221 | e 0 55 | + 1 | 1 35 | + 1 |
| Mizusawa | E. | 4·0 | 217 | 1 25 | +25 | 1 47 | + 1 |
| Isinomaki | | 4·5 | 210 | — | — | e 1 42 | −17 |
| Sendai | | 4·8 | 213 | — | — | e 1 49 | −17 |
| Hukusima | | 5·4 | 214 | e 1 23 | + 3 | 2 21 | 0 |
| Inawasiro | | 5·8 | 214 | e 1 27 | + 2 | — | — |
| Onahama | | 6·0 | 205 | — | — | e 2 15 | −21 |
| Mito | | 6·6 | 207 | e 1 39 | + 3 | 2 49 | − 1 |
| Utunomiya | | 6·7 | 211 | — | — | e 2 48 | − 5 |
| Tukubasan | | 7·0 | 209 | — | — | e 2 59 | − 1 |
| Maebasi | | 7·2 | 215 | — | — | e 3 6 | + 1 |
| Kumagaya | | 7·3 | 213 | — | — | e 3 7 | − 1 |
| Tokyo | | 7·5 | 209 | — | — | e 3 9 | − 3 |
| Kiruna | Z. | 62·3 | 339 | e 10 4 | 0 | — | — |

Aug. 20d. 5h. 49m. 28s. Epicentre 15°·5N. 91°·7W. Depth of focus 0·025
(as on 1951, March 2d.).

Felt at Comitan in the State of Chiapas. Epicentre 16°12′N. 91°47′W. Depth about 200km.
Monthly Seismo. Bull. Tacubaya, Aug., 1952, p. 3.

A = −·0286, B = −·9637, C = +·2656; δ = +8; h = +6;
D = −1·000, E = +·030; G = −·008, H = −·265, K = −·964.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Oaxaca | | 5·1 | 289 | e 1 16 | 0 | i 2 12 | − 3 | i 2 7 | ? | — |
| Merida | | 5·8 | 21 | i 1 20k | − 5 | 2 26 | − 6 | i 2 20 | ? | — |
| Puebla | | 7·1 | 301 | e 1 39 | − 3 | e 2 56 | − 6 | — | — | — |
| Swan Island | | 7·7 | 75 | e 2 26 | +36 | — | — | — | — | — |
| Tacubaya | | 8·1 | 300 | e 1 55 | 0 | i 3 23 | − 3 | i 3 33 | ? | — |
| Kingston | | 14·5 | 78 | e 3 10 | − 7 | — | — | i 4 18 | ? | — |
| Miami | | 14·9 | 44 | i 3 26 | + 4 | i 6 11 | + 9 | — | — | — |
| Milton | | 15·7 | 15 | i 3 40 | + 8 | e 6 28 | + 8 | — | — | — |
| Fayetteville | Z. | 20·6 | 355 | i 4 25a | 0 | e 8 37 | SS | i 4 58 | pP | — |
| Columbia | | 20·8 | 26 | e 4 30 | + 3 | — | — | e 5 28 | sP | — |
| Tucson | | 24·1 | 318 | e 5 0 | + 1 | i 8 37 | −23 | i 5 42 | pP | — |
| Cincinnati | | 24·4 | 13 | i 5 4 | + 2 | — | — | i 5 42 | pP | — |
| San Juan | | 24·6 | 79 | i 5 7 | + 3 | — | — | — | — | — |
| Morgantown | | 26·1 | 20 | i 6 20 | +62 | e 12 8 | ScP | — | — | — |
| Cleveland | | 27·3 | 16 | i 5 30k | + 1 | e 9 55 | + 3 | e 6 10 | pP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Boulder City | | 29·0 | 319 | i 5 44 | 0 | — | — | i 6 21 | pP | — |
| Buffalo (Larkin) | | 29·5 | 19 | i 5 49 | + 1 | — | — | — | — | — |
| Riverside | z. | 29·6 | 314 | e 6 27 | pP | — | — | i 9 3 | PcP | — |
| Palisades | | 29·7 | 27 | i 5 50 | 0 | — | — | e 6 52 | PP | — |
| Bermuda | | 29·7 | 50 | i 5 54 | + 4 | — | — | — | — | — |
| Mount Wilson | z. | 30·2 | 314 | e 5 54 | − 1 | e 8 51 | PcP | e 6 33 | pP | — |
| China Lake | z. | 30·7 | 317 | e 5 59 | 0 | e 8 52 | PcP | e 6 38 | pP | — |
| Huancayo | | 31·8 | 148 | i 6 14 | + 5 | — | — | — | — | — |
| Tinemaha | z. | 31·9 | 318 | i 6 9 | 0 | i 8 55 | PcP | e 6 53 | pP | — |
| Harvard | | 32·0 | 29 | i 6 11a | + 1 | — | — | — | — | e 21·5 |
| Weston | | 32·0 | 29 | i 6 12k | + 2 | — | — | — | — | — |
| Fresno | z. | 32·7 | 316 | e 6 16 | 0 | — | — | — | — | — |
| Ottawa | | 32·7 | 21 | i 6 16a | 0 | 12 38 | sS | 6 56 | pP | — |
| Kirkland Lake | z. | 33·9 | 13 | e 6 27k | 0 | — | — | — | — | — |
| Reno | z. | 34·3 | 321 | e 6 38 | + 8 | — | — | — | — | — |
| Lick | z. | 34·3 | 316 | e 6 30 | 0 | — | — | — | — | — |
| Shawinigan Falls | N. | 34·8 | 23 | e 6 33 | − 1 | — | — | — | — | — |
| Butte | | 35·1 | 335 | i 6 37 | 0 | — | — | — | — | — |
| Mineral | z. | 35·9 | 320 | e 5 43 | −60 | — | — | — | — | — |
| Shasta | z. | 36·6 | 320 | e 5 45 | −64 | — | — | — | — | — |
| Halifax | | 37·5 | 33 | i 6 59a | + 2 | — | — | — | — | — |
| Hungry Horse | | 37·6 | 336 | e 7 35 | pP | — | — | — | — | — |
| La Paz | N. | 39·4 | 143 | e 7 22 | + 9 | — | — | — | — | — |
| Victoria | | 41·9 | 329 | 7 33 | 0 | — | — | — | — | — |
| College | | 62·0 | 337 | i 10 0 | − 2 | i 10 46 | sP | i 10 39 | pP | — |
| Kiruna | z. | 83·8 | 21 | i 12 6 | − 3 | — | — | i 12 56 | pP | — |
| Stuttgart | | 85·5 | 41 | e 12 17 | 0 | — | — | — | — | — |
| Rome | | 90·0 | 46 | e 12 55 | +16 | e 24 55 | SPP | e 28 2 | ? | — |
| Tamanrasset | z. | 90·5 | 66 | e 12 43 | + 2 | — | — | — | — | — |

Aug. 20d. 8h. 31m. 3s. Epicentre 18°·5N. 66°·0W. Depth of focus 0·005.
(as on 1951, September 15d.).

A = +·3860, B = −·8669, C = +·3154 ; $\delta$ = −1 ; $h$ = +5 ;
D = −·914, E = −·407 ; G = +·128, H = −·288, K = −·949.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| San Juan | | 0·2 | 224 | i 0 21 | +10 | — | — | — | — | — |
| Fort de France | | 6·0 | 128 | e 1 50 | +22 | — | — | — | — | — |
| Bermuda | | 13·9 | 5 | i 3 13 | − 2 | (e 5 39) | − 9 | i 5 21 | ? | e 5·6 |
| Palisades | | 23·4 | 345 | e 5 8 | + 4 | e 9 8 | − 1 | e 9 13 | S | — |
| Weston | | 24·2 | 351 | i 5 31a | pP | e 9 19 | − 3 | — | — | — |
| Morgantown | | 24·3 | 332 | i 5 31 | pP | e 9 36 | +12 | — | — | — |
| Harvard | | 24·4 | 351 | i 5 34a | pP | e 9 24 | − 2 | — | — | — |
| Fayetteville | z. | 30·4 | 312 | i 6 7 | − 1 | — | — | — | — | — |
| Tucson | | 42·5 | 298 | e 7 51 | 0 | — | — | — | — | — |
| Butte | | 47·1 | 317 | i 8 28 | + 1 | — | — | — | — | — |
| Riverside | z. | 47·9 | 299 | e 8 36 | + 2 | — | — | e 8 51 | pP | — |
| China Lake | z. | 48·5 | 302 | e 8 38 | 0 | — | — | — | — | — |
| Mount Wilson | z. | 48·7 | 299 | e 8 39 | − 1 | — | — | — | — | — |
| Hungry Horse | | 48·8 | 319 | e 8 41 | 0 | — | — | — | — | — |
| Tinemaha | z. | 49·2 | 303 | e 8 44 | 0 | — | — | — | — | — |
| Tamanrasset | z. | 66·5 | 73 | e 10 58 | pP | — | — | — | — | — |
| College | | 69·9 | 333 | i 11 7 | + 1 | — | — | — | — | — |

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Aug. 20d. 14h. 3m. 26s. Epicentre 36°·9N. 70°·8E. Depth of focus 0·020.
(as on 1952, July 9d.).

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | | 0·9 | 48 | e 0 20 | − 5 | e 0 39 | − 6 |
| Garm | | 2·1 | 350 | i 0 38 | + 1 | i 1 8 | + 2 |
| Obi-garm | | 2·2 | 335 | i 0 36 | − 2 | e 1 5 | − 3 |
| Dzhergetal | | 2·3 | 8 | i 0 41 | + 1 | e 1 15 | + 5 |
| Stalinabad | | 2·3 | 316 | i 0 38 | − 2 | i 1 10 | 0 |
| Murgab | | 2·9 | 59 | i 0 45 | − 2 | e 1 21 | − 2 |
| Fergana | | 3·6 | 12 | e 0 56 | 0 | i 1 42 | + 3 |
| Andijan | | 4·0 | 17 | 1 2 | + 1 | 1 53 | + 4 |
| Samarkand | | 4·1 | 314 | 1 2 | − 1 | e 1 43 | − 8 |
| Lunacharskoe | | 4·6 | 346 | i 1 10 | + 1 | i 2 6 | + 4 |
| Tchimkent | | 5·5 | 351 | e 1 24 | + 3 | i 2 27 | + 3 |
| Naryn | | 6·1 | 40 | e 1 28 | − 1 | i 2 38 | 0 |
| Frunse | | 6·6 | 25 | e 1 37 | + 1 | i 2 56 | + 6 |
| Quetta | | 7·4 | 206 | — | — | e 2 48 | −21 |
| Almata II | | 8·1 | 36 | i 1 56 | 0 | — | — |
| Kizyl-Arvat | | 11·7 | 285 | — | — | e 4 44 | − 7 |
| Upsala | z. | 40·7 | 322 | i 7 29 | + 3 | — | — |

Aug. 20d. 15h. 25m. 3s. Epicentre 43°·2N. 126°·7W.

A = −·4370, B = −·5863, C = +·6821 ; $\delta$ = −2 ; $h$ = −3 ;
D = −·802, E = +·598 ; G = −·408, H = −·547, K = −·731.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Corvallis | z. | 2·8 | 61 | i 0 50 | − 1* | — | — | — | — | — |
| Arcata | z. | 3·0 | 140 | e 0 47 | − 3 | — | — | — | — | — |
| Shasta | | 4·1 | 127 | e 0 57 | − 8 | — | — | — | — | — |
| Mineral | z. | 4·8 | 125 | i 1 13k | − 2 | — | — | — | — | — |
| Seattle | | 5·4 | 33 | i 1 27a | + 3 | — | — | — | — | — |
| Victoria | | 5·8 | 22 | 1 29 | 0 | 2 41 | + 3 | e 1 36 | P* | — |
| Alberni | | 6·2 | 12 | 1 36 | + 1 | 2 49 | + 1 | e 1 42 | P* | — |
| Reno | z. | 6·3 | 123 | e 1 37 | + 1 | — | — | — | — | — |
| Berkeley | | 6·3 | 146 | e 1 31k | − 5 | — | — | — | — | — |
| Santa Clara | | 6·9 | 147 | e 1 41a | − 4 | — | — | i 1 46 | P | — |
| Lick | z. | 7·0 | 145 | e 1 41k | − 5 | — | — | — | — | — |
| Fresno | z. | 8·4 | 138 | e 2 2k | − 4 | — | — | — | — | — |
| Tinemaha | | 8·9 | 131 | e 2 14 | + 2 | i 4 16 | +21 | i 2 26 | P* | i 5·1 |
| China Lake | z. | 10·2 | 133 | e 2 30 | − 1 | — | — | i 2 41 | ? | e 6·6 |
| Hungry Horse | | 10·2 | 56 | i 2 32 | + 1 | e 4 53 | S* | — | — | — |
| Pasadena | | 11·2 | 141 | e 2 41 | − 3 | i 2 49 | P | e 4 34 | Q | i 5·4 |
| Boulder City | | 11·7 | 124 | i 2 51 | 0 | — | — | — | — | i 6·7 |
| Riverside | z. | 11·7 | 139 | e 2 49 | − 2 | i 2 57 | P | i 3 21 | ? | — |
| Sitka | | 14·9 | 341 | i 3 32 | − 2 | i 6 29 | + 9 | — | — | — |
| Saskatoon | | 16·2 | 50 | 3 49 | − 1 | 6 54 | + 3 | — | — | 8·6 |
| Tucson | | 16·6 | 126 | i 3 56 | 0 | i 6 45 | −15 | i 7 32 | SS | i 8·7 |
| Lubbock | | 21·6 | 107 | e 4 53 | − 1 | 9 10 | SS | — | — | — |
| College | | 24·8 | 339 | 5 21 | − 4 | 9 57 | +11 | — | — | — |
| Fayetteville | z. | 25·9 | 95 | i 5 34a | − 1 | (e 10 30) | +26 | e 9 3 | PcP | e 10·5 |
| St. Louis | | 27·8 | 87 | e 5 40 | −13 | e 10 37 | + 2 | — | — | — |
| Ann Arbor | | 31·3 | 76 | i 6 16 | − 8 | i 11 36 | + 5 | — | — | — |
| Kirkland Lake | z. | 32·6 | 65 | e 6 34 | − 1 | — | — | — | — | — |
| Tacubaya | | 33·1 | 127 | e 6 43 | + 3 | e 12 15 | +16 | e 6 46 | P | e 14·8 |
| Milton | | 33·8 | 98 | e 6 58 | +12 | — | — | — | — | — |
| Puebla | | 34·0 | 126 | e 6 49 | + 1 | e 12 25 | +12 | e 13 10 | ScP | e 15·6 |
| Honolulu | | 34·1 | 240 | e 6 49 | + 1 | e 12 23 | + 9 | — | — | — |
| Resolute Bay | | 34·6 | 13 | i 6 52a | − 1 | i 12 26 | + 4 | i 8 11 | PP | e 18·2 |
| Pittsburgh | | 34·6 | 78 | i 6 53 | 0 | i 12 33 | +11 | — | — | — |
| Buffalo (Larkin) | | 34·7 | 73 | i 6 54 | 0 | e 12 37 | +13 | — | — | — |
| Morgantown | | 34·9 | 80 | i 6 54 | − 1 | e 12 30 | + 3 | — | — | — |

*Continued on next page.*

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| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Vera Cruz | 35·1 | 123 | e 7 3 | + 6 | e 12 43 | +13 | — | — | e 15·4 |
| Pennsylvania | 36·0 | 77 | i 7 3 | − 2 | e 12 52 | + 8 | e 8 28 | PP | — |
| Ottawa | 36·1 | 68 | i 7 5k | 0 | 12 53 | + 8 | 17 27 | ScS | 18·5 |
| Oaxaca | 36·4 | 124 | e 7 9 | + 1 | e 13 4 | +14 | e 13 27 | ScP | e 18·4 |
| Columbia | 36·5 | 88 | i 7 8 | − 1 | i 13 8 | +17 | — | — | — |
| Washington | 37·2 | 79 | i 7 14 | − 1 | i 13 16 | +14 | — | — | — |
| Shawinigan Falls N. | 37·8 | 65 | e 7 18 | − 2 | 13 6 | − 5 | 8 46 | PP | 19·3 |
| Merida | 38·0 | 114 | e 7 23 | + 2 | e 13 27 | +13 | — | — | — |
| Vermont | 38·0 | 70 | e 7 27 | + 6 | i 13 27 | +13 | — | — | — |
| Palisades | 38·7 | 74 | i 7 26 | − 1 | i 13 34 | + 9 | e 8 57 | PP | e 18·3 |
| Fordham | 38·8 | 74 | e 7 29 | + 1 | i 13 37 | +11 | — | — | — |
| Seven Falls E. | 38·9 | 64 | e 7 29 | 0 | i 13 34 | + 6 | e 9 2 | PP | 18·8 |
| Cherry Point | 39·5 | 85 | e 7 37 | + 3 | — | — | — | — | e 20·6 |
| Harvard | 39·8 | 71 | e 7 37 | + 1 | i 13 55 | +13 | e 9 13 | PP | e 19·8 |
| Weston | 40·0 | 71 | i 7 39k | + 1 | i 13 59 | +15 | i 9 17 | PP | — |
| Swan Island | 44·3 | 112 | i 11 39 | ? | — | — | — | — | e 26·2 |
| Halifax | 44·5 | 65 | e 8 15 | 0 | 15 0 | + 9 | 10 2 | PcP | 21·3 |
| Klyuchi | 46·5 | 313 | 8 27 | − 4 | — | — | — | — | — |
| Petropavlovsk | 48·6 | 310 | 8 45 | − 2 | — | — | — | — | — |
| Kingston | 48·9 | 105 | e 9 0 | +10 | e 16 13 | +20 | e 10 55 | PP | e 27·4 |
| Guantanamo Bay | 48·9 | 101 | i 9 29 | +39 | — | — | — | — | — |
| Bermuda | 49·2 | 81 | i 8 51 | − 1 | e 16 9 | +11 | e 10 51 | PP | e 23·8 |
| Ciudad Trujillo | 53·5 | 100 | e 9 20 | − 4 | e 16 34 | −23 | — | — | — |
| Scoresby Sund | 54·6 | 24 | e 9 32 | 0 | i 17 19 | + 8 | i 17 24 | PS | 26·0 |
| Galerazamba | 54·9 | 110 | e 9 54 | +19 | i 17 38 | +22 | i 23 47 | Q | 26·0 |
| San Juan | 56·3 | 96 | i 9 42 | − 3 | e 17 45 | +11 | — | — | — |
| Roosevelt Roads | 56·7 | 96 | i 9 53 | + 5 | — | — | — | — | — |
| Reykjavik | 57·9 | 30 | i 9 58 | + 2 | i 10 10 | ? | e 12 34 | PP | e 29·0 |
| Chinchina | 58·9 | 115 | i 10 15 | +12 | e 18 15 | + 7 | — | — | — |
| Uglegorsk | 59·8 | 311 | 10 6 | − 3 | — | — | — | — | — |
| Bogota | 60·2 | 114 | i 10 10 | − 3 | i 18 32 | + 7 | i 12 28 | PP | e 29·0 |
| Yuzno-Sakhlinsk | 60·5 | 309 | 10 10 | − 4 | — | — | — | — | — |
| Fort de France | 62·3 | 96 | i 10 26 | 0 | i 19 4 | +12 | — | — | e 30·1 |
| Sapporo | 63·5 | 306 | e 10 40 | + 6 | e 19 5 | − 2 | e 23 22 | SS | e 31·2 |
| Kiruna | 66·6 | 14 | i 10 51k | − 3 | e 19 43 | − 2 | i 39 30 | P'P' | e 30·8 |
| Sendai | 66·6 | 301 | e 11 2 | + 8 | e 20 12 | +27 | — | — | e 31·4 |
| Hukusima | 67·2 | 301 | e 11 1 | + 3 | e 19 57 | + 5 | (e 27 49) | SSS | e 27·8 |
| Tokyo | 68·9 | 299 | e 11 28 | +19 | e 20 18 | + 5 | e 13 40 | PP | — |
| Maebasi | 68·9 | 300 | e 11 15 | + 6 | e 20 17 | + 4 | e 13 11 | PP | 31·9 |
| Vladivostok | 69·0 | 310 | e 11 1 | − 8 | e 20 9 | − 5 | — | — | — |
| Nagano | 69·3 | 301 | e 11 10 | − 1 | e 20 11 | − 6 | — | — | — |
| Matusiro | 69·4 | 301 | i 11 19 | + 7 | 20 14 | − 4 | i 15 33 | PPP | 28·1 |
| Bergen | 69·6 | 23 | e 11 26 | +13 | e 20 22 | + 1 | e 24 58 | SS | e 32·0 |
| Aberdeen | 69·8 | 29 | i 11 29 | +15 | i 20 35 | +12 | i 15 44 | PPP | 37·5 |
| Edinburgh E. | 70·3 | 31 | — | — | 20 34 | + 5 | — | — | — |
| Angra do Heroismo E. | 70·7 | 56 | e 15 49 | PPP | — | — | — | — | i 28·8 |
| Rathfarnham Castle | 71·1 | 33 | i 11 20 | − 2 | e 20 40 | + 2 | e 14 6 | PP | e 36·5 |
| Kameyama | 71·6 | 300 | e 11 12 | −13 | e 20 50 | + 6 | — | — | e 27·1 |
| Durham | 71·8 | 30 | i 11 40 | +14 | i 21 0 | +14 | i 14 29 | PP | — |
| Huancayo | 72·2 | 127 | e 11 27 | − 2 | e 21 3 | +12 | e 25 23 | SS | e 28·8 |
| Upsala | 73·2 | 18 | i 11 34a | − 1 | e 21 5 | + 3 | i 11 49 | PcP | e 30·0 |
| Koti | 74·2 | 302 | e 11 51 | +11 | e 21 13 | − 1 | — | — | e 32·1 |
| Helsinki | 74·4 | 15 | — | — | e 21 22 | + 6 | — | — | — |
| Kabansk | 74·5 | 330 | 11 43 | + 1 | — | — | — | — | — |
| Kew | 74·9 | 32 | i 11 59 | PcP | e 21 33 | +11 | e 14 47 | PP | e 34·0 |
| Irkutsk | 75·2 | 331 | 11 47 | + 1 | — | — | — | — | — |
| Copenhagen | 75·6 | 23 | e 11 48 | 0 | 21 36 | + 7 | i 12 3 | PcP | — |
| Pulkovo | 75·7 | 12 | e 11 48 | − 1 | e 21 34 | + 4 | — | — | — |
| Kyakhta | 75·9 | 329 | 11 49 | − 1 | — | — | — | — | — |
| De Bilt | 76·4 | 28 | e 11 57 | + 4 | e 21 42 | + 4 | e 29 57? | SSS | e 35·0 |
| Paris | 78·1 | 32 | i 12 5 | + 3 | i 22 12 | +16 | i 12 19 | pP | e 38·0 |
| Potsdam | 78·7 | 25 | i 12 18a | +12 | i 22 14 | +11 | — | — | e 32·0 |
| Jena | 79·5 | 25 | e 12 10? | 0 | e 22 19 | + 8 | e 15 19 | PP | — |
| Collmberg | 79·6 | 24 | e 12 9 | − 1 | e 22 25 | +13 | e 27 26 | SS | e 32·8 |
| La Paz | 80·0 | 124 | i 12 24k | +11 | i 22 19 | + 2 | i 23 19 | PPS | 34·0 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Coimbra | | 80·0 | 43 | — | — | 22 29 | +12 | — | — | 33·0 |
| Karlsruhe | | 80·1 | 28 | e 12 14 | + 1 | e 23 7 | PS | e 12 37 | ? | 34·0 |
| Sverdlovsk | | 80·2 | 357 | e 12 10 | − 4 | 22 17 | − 2 | — | — | — |
| Strasbourg | | 80·2 | 29 | e 12 16 | + 2 | e 22 25 | + 6 | i 12 30 | pP | e 37·0 |
| Cheb | | 80·5 | 26 | e 12 28 | +13 | e 22 36 | +14 | e 15 27 | PP | e 35·4 |
| Stuttgart | | 80·6 | 28 | e 12 15 | − 1 | e 22 36 | +13 | i 12 31 | PcP | e 33·0 |
| Lisbon | | 80·8 | 45 | 23 21 | SP | 22 37 | +12 | 30 51 | SSS | 40·6 |
| Clermont-Ferrand | | 80·8 | 34 | e 12 27 | +10 | e 22 41 | +16 | e 17 13 | PPP | 37·0 |
| Basle | | 81·0 | 30 | e 12 37 | +19 | — | — | — | — | — |
| Prague | | 81·1 | 25 | e 12 17 | − 1 | 22 41 | +13 | e 17 10 | PPP | e 34·4 |
| Neuchatel | | 81·3 | 30 | e 12 35 | +15 | e 22 44 | +14 | — | — | — |
| Zürich | | 81·5 | 30 | e 12 20 | − 1 | e 22 37 | + 5 | e 12 28 | PcP | — |
| Raciborzu | | 82·2 | 22 | e 12 24 | 0 | e 22 42 | + 3 | e 12 32 | PcP | e 35·0 |
| Chur | | 82·3 | 29 | — | — | e 22 53 | +13 | — | — | e 34·1 |
| Toledo | | 82·4 | 41 | e 12 28 | + 3 | i 22 54 | +13 | 34 27 | Q | 39·4 |
| Oropa | | 82·8 | 32 | e 12 45 | +18 | e 22 59 | +14 | e 16 35 | ? | e 37·6 |
| Zô-Sè | z. | 83·4 | 307 | 12 19 | −11 | 22 50 | − 1 | — | — | — |
| Skalnate Pleso | | 83·5 | 21 | e 12 35 | + 4 | e 22 57? | + 5 | e 24 5 | PPS | — |
| Pavia | | 83·6 | 30 | e 12 38 | + 7 | e 23 11 | +18 | e 16 23 | ? | e 36·0 |
| Salo | | 83·7 | 29 | e 12 42 | +10 | e 23 26 | PS | e 13 38 | ? | — |
| Tortosa | | 83·8 | 38 | e 12 18 | −14 | i 23 8 | ScS | — | — | — |
| Semipalatinsk | | 83·9 | 344 | e 12 31 | − 2 | — | — | — | — | — |
| Lwow | | 83·9 | 19 | 12 32 | − 1 | i 23 8 | ScS | e 16 0 | PP | — |
| Barcelona | | 84·0 | 37 | — | — | 23 59 | PPS | — | — | e 38·8 |
| Nanking | z. | 84·1 | 310 | 12 32 | − 2 | 22 56 | − 2 | i 12 42 | PcP | — |
| Ogyalla | | 84·2 | 24 | e 12 52 | +18 | e 23 20 | +21 | e 15 48 | PP | e 37·0 |
| Uzhgorod | | 84·6 | 21 | i 12 41 | + 5 | e 23 12 | + 9 | — | — | — |
| Granada | | 84·7 | 43 | i 12 55k | +18 | i 22 56 | − 8 | 28 27 | SS | i 40·0 |
| Malaga | | 84·7 | 43 | i 12 41 | + 4 | i 23 25 | +21 | 16 9 | PP | 41·4 |
| Triest | | 84·8 | 27 | e 12 43 | + 6 | e 23 6 | + 1 | i 23 15 | ScS | 41·8 |
| Budapest | | 84·8 | 23 | e 12 37 | 0 | 23 15 | ScS | 15 57? | PP | 37·0 |
| Bologna | | 85·0 | 29 | e 13 9 | +31 | e 23 59 | PS | — | — | — |
| Padova | | 85·2 | 29 | e 14 11 | ? | e 25 57 | ? | — | — | — |
| Alicante | | 85·3 | 40 | 12 36 | − 4 | 23 14 | + 4 | 28 36 | SS | 38·5 |
| Prato | | 85·4 | 30 | e 12 53 | +13 | i 23 19 | + 8 | — | — | — |
| Almeria | | 85·6 | 42 | i 12 52 | +11 | i 23 24 | +11 | 29 2 | SS | 39·6 |
| Florence | | 85·6 | 30 | e 12 41 | 0 | i 23 19 | + 6 | e 16 12 | PP | i 35·3 |
| Szeged | N. | 86·2 | 23 | 12 51 | + 7 | 23 38 | +19 | — | — | — |
| Timisoara | | 87·0 | 22 | e 12 57? | + 9 | e 23 45 | +18 | e 13 47 | ? | — |
| Belgrade | | 87·6 | 23 | e 12 38a | −13 | e 23 44 | +12 | e 16 0 | PP | e 36·0 |
| Kishinev | | 87·6 | 17 | 12 56 | + 5 | i 23 39 | + 7 | — | — | — |
| Rome | | 87·7 | 30 | e 13 0 | + 8 | i 23 33 | 0 | e 16 20 | PP | e 38·3 |
| Algiers Univ. | z. | 88·2 | 39 | e 12 55 | + 1 | e 23 42 | + 4 | e 16 24 | PP | — |
| Bucharest | | 89·4 | 20 | e 13 3 | + 3 | e 23 33 | {− 4} | — | — | — |
| Sofia | | 90·3 | 22 | e 13 20 | +16 | — | — | — | — | — |
| Simferopol | | 90·6 | 15 | 13 8 | + 3 | — | — | — | — | — |
| Taranto | | 90·6 | 27 | e 13 50 | +45 | 23 50 | {+ 4} | — | — | 37·0 |
| Yalta | | 91·0 | 14 | 13 10 | + 3 | 23 42 | [+ 3] | 23 51 | SKKS | — |
| Misima | | 92·0 | 30 | e 13 59 | +47 | e 24 15 | + 3 | e 30 33 | SSP | i 37·6 |
| Frunse | | 92·2 | 345 | i 13 15 | + 2 | e 23 57 | {− 1} | i 16 57 | PP | — |
| Rybach'e | | 92·3 | 344 | e 13 16 | + 3 | 23 54 | {− 4} | e 25 38 | PS | — |
| Piatigorsk | | 92·7 | 8 | e 13 13 | − 2 | — | — | 17 6 | PP | — |
| Istanbul | | 93·3 | 19 | e 13 20? | + 2 | e 24 9 | {+ 3} | e 19 8 | PPP | 50·0 |
| Naryn | | 93·3 | 344 | e 13 22 | + 4 | e 23 54 | [+ 2] | i 30 51 | SS | — |
| Grozny | | 93·6 | 6 | i 13 28 | + 9 | 23 56 | [+ 3] | — | — | — |
| Tchimkent | | 93·6 | 348 | i 13 24 | + 5 | i 23 59 | [+ 6] | 17 5 | PP | — |
| M'Bour | | 94·1 | 67 | — | — | e 26 1 | PS | — | — | — |
| Makhach-Kala | | 94·1 | 5 | e 13 32 | +10 | e 24 10 | {− 2} | — | — | — |
| Hong Kong | | 94·1 | 307 | 24 7 | SKKS | (24 7) | {− 5} | — | — | 40·1 |
| Zugdidi | | 94·1 | 8 | e 13 39? | +17 | 24 10? | {− 2} | — | — | — |
| Lunacharskoe | | 94·6 | 348 | e 13 24 | 0 | e 23 55 | [− 4] | e 24 20 | SKKS | — |
| Andijan | | 94·7 | 346 | 13 26 | + 2 | 24 9 | {− 7} | — | — | — |
| Gori | | 94·8 | 8 | e 13 39? | +14 | — | — | — | — | — |
| Athens | | 94·9 | 24 | e 17 19 | PP | e 24 10 | {− 7} | e 26 6 | PS | — |
| Fergana | | 95·1 | 346 | e 13 28 | + 2 | e 24 1 | [− 1] | e 17 23 | PP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | | L. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. | | m. |
| Tiflis | | 95·1 | 7 | e 13 30 | + 4 | e 23 50 | [−12] | — | | — | — |
| Manila | | 95·6 | 297 | e 14 14 | +46 | e 24 38 | − 5 | — | | — | 41·0 |
| Kirovobad | | 96·2 | 6 | e 13 31 | 0 | — | — | — | | — | — |
| Erevan | | 96·6 | 7 | e 13 43 | +10 | 24 15 | [+ 5] | — | | — | — |
| Samarkand | | 96·6 | 350 | e 13 36 | + 3 | — | — | 17 | 31 | PP | — |
| Baku | | 96·7 | 3 | e 13 50? | +17 | e 24 25? | {− 6} | — | | — | — |
| Obi-garm | | 97·1 | 348 | e 13 40 | + 5 | 24 14 | [+ 2] | 19 | 33 | PPP | — |
| Goris | | 97·4 | 5 | 13 47 | +10 | — | — | — | | — | — |
| Stalinabad | | 97·4 | 349 | i 13 44 | + 7 | i 24 18 | [+ 4] | — | | — | — |
| Kizyl-Arvat | | 98·1 | 358 | e 13 42 | + 2 | e 24 22 | [+ 4] | — | | — | — |
| Ashkabad | | 99·1 | 356 | e 14 4 | +20 | e 25 0 | {+12} | — | | — | — |
| Wellington | | 99·2 | 220 | — | — | e 25 15 | + 1 | e 40 | 39 | Q | e 49·0 |
| La Plata | | 99·8 | 129 | 18 21 | PP | 24 51 | {− 2} | 31 | 9 | ? | 47·6 |
| Tamanrasset | Z. | 101·0 | 45 | 16 48 | ? | e 17 53 | ? | e 18 | 5 | PP | — |
| Ksara | | 101·7 | 15 | e 13 42 | −14 | 28 16? | PPS | 18 | 28? | PP | — |
| Chatra | | 103·7 | 330 | e 17 58 | PP | e 24 57 | [+12] | 27 | 35 | PS | e 49·0 |
| Helwan | | 104·5 | 20 | e 18 39 | PP | e 26 9 | +11 | e 28 | 57 | PPS | e 38·3 |
| New Delhi | N. | 105·3 | 339 | e 18 27 | PP | i 25 1 | [+ 9] | i 28 | 50 | PPS | — |
| Quetta | | 105·8 | 348 | e 18 47 | PP | e 25 0 | [+ 6] | i 27 | 59 | PS | 53·0 |
| Riverview | | 107·1 | 241 | e 14 37 | P | e 33 53 | SS | i 19 | 8 | PP | e 49·0 |
| Calcutta | E. | 107·1 | 327 | i 21 46 | PKS | i 34 13 | SS | i 30 | 54 | ? | — |
| Bombay | N. | 115·7 | 340 | e 18 37 | [− 7] | e 30 41 | PPS | — | | — | — |
| Poona | N. | 115·7 | 339 | e 18 54 | [+10] | 29 29 | PS | 30 | 19 | PPS | 46·4 |
| Colombo | E. | 124·6 | 328 | e 21 17 | PP | — | — | — | | — | e 61·3 |
| Kimberley | Z. | 152·9 | 67 | i 19 57 | [+ 5] | — | — | — | | — | — |
| Pretoria | Z. | 153·1 | 57 | i 20 13? | PKP, | — | — | — | | — | — |

Aug. 21d. 4h. 18m. 22s. Epicentre 35°·7N. 25°·3E.

Felt in Crete. Intensity IV at Heraklion and Ghonies; V at Phourni; IV at Neapolis, Sitia, and Ampelouzos. Epicentre as adopted.

A. Galanopoulos.
Seismo. Institute Bulletin, 1952, Athens, 1953, p. 32.

$A = +·7359$, $B = +·3479$, $C = +·5810$; $\delta = +14$; $h = 0$;
$D = +·427$, $E = -·904$; $G = +·525$, $H = +·248$, $K = -·814$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | | L. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. | | m. |
| Athens | | 2·6 | 331 | e 0 50a | − 2g | i 1 29 | + 3g | i 1 | 24 | S* | — |
| Helwan | | 7·7 | 137 | 1 48 | − 8 | 3 23 | − 2 | e 3 | 2 | ? | — |
| Taranto | | 7·9 | 309 | 1 59 | 0 | 3 33 | + 3 | e 3 | 21 | ? | — |
| Messina | Z. | 8·2 | 291 | e 2 4 | + 1 | i 3 30 | − 8 | — | | — | — |
| Ksara | | 8·9 | 99 | e 2 9 | − 3 | i 4 24 | − 4* | — | | — | — |
| Belgrade | | 9·8 | 339 | e 2 32a | + 8 | — | — | e 3 | 12 | ? | e 5·6 |
| Chur | | 16·2 | 318 | e 3 56k | + 6 | e 7 6 | +15 | — | | — | — |
| Prague | | 16·4 | 335 | e 3 56 | + 3 | i 7 3 | + 7 | e 4 | 8 | PP | e 8·1 |
| Zürich | | 17·1 | 317 | e 4 4 | + 2 | e 7 13 | + 1 | — | | — | — |
| Stuttgart | Z. | 17·6 | 323 | e 4 11 | + 3 | — | — | — | | — | e 9·6 |
| Collmberg | Z. | 17·9 | 333 | e 4 12 | 0 | e 4 38 | PPP | e 4 | 28 | PP | — |
| Algiers Univ. | Z. | 18·0 | 279 | e 4 13 | 0 | e 4 28 | PP | e 4 | 37 | PPP | — |
| Jena | | 18·2 | 331 | e 4 18 | + 2 | e 7 43 | + 6 | e 4 | 35 | PP | e 9·3 |
| Karlsruhe | Z. | 18·2 | 323 | e 4 41 | PP | — | — | e 4 | 55 | PPP | — |
| Strasbourg | | 18·2 | 321 | e 4 19 | + 3 | e 7 44 | + 7 | e 4 | 36 | PP | — |
| Alicante | | 20·7 | 285 | 5 20 | +36 | e 9 23 | ? | 5 | 40 | PPP | 12·0 |
| Paris | | 21·3 | 315 | i 4 51 | + 1 | e 9 6 | +23 | — | | — | e 10·3 |
| Tamanrasset | Z. | 21·5 | 238 | i 4 48k | − 4 | i 5 7 | ? | e 5 | 13 | PP | — |
| Granada | | 23·2 | 282 | i 5 7a | − 2 | e 9 10 | − 8 | 5 | 39 | PP | — |
| Toledo | | 23·5 | 288 | e 5 16 | + 4 | — | — | e 7 | 17 | ? | — |
| Upsala | Z. | 24·7 | 350 | e 5 22 | − 2 | i 5 46 | ? | i 6 | 48 | ? | — |
| Kiruna | | 32·3 | 357 | i 6 30 | − 3 | e 10 38? | ? | i 6 | 44 | ? | — |
| Kimberley | Z. | 64·1 | 180 | i 10 0 | −38 | — | — | — | | — | — |
| Halifax | | 65·3 | 308 | i 10 44 | − 2 | — | — | — | | — | — |
| Weston | | 71·3 | 309 | i 11 23a | 0 | — | — | — | | — | — |
| Harvard | | 71·4 | 309 | i 11 20k | − 4 | — | — | — | | — | — |
| Ottawa | | 72·4 | 313 | i 11 28k | − 2 | — | — | — | | — | — |
| Morgantown | | 78·2 | 310 | i 12 1 | − 2 | — | — | — | | — | — |
| College | | 79·6 | 357 | e 12 7 | − 3 | — | — | — | | — | — |
| San Juan | | 80·6 | 286 | i 12 13 | − 3 | — | — | — | | — | — |
| Hungry Horse | | 88·8 | 334 | i 12 54 | − 3 | — | — | — | | — | — |
| Fayetteville | Z. | 89·1 | 314 | i 15 54 | PP | — | — | — | | — | — |

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Aug. 21d. 10h. 41m. 19s. Epicentre 31°·2N. 138°·0E. Depth of focus 0·040.
(as on 1951, May 29d.).

A = −·6368, B = +·5734, C = +·5155; δ = +4; h = +1;
D = +·669, E = +·743; G = −·383, H = +·345, K = −·857.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Osima | | 3·7 | 18 | e 1 5 | + 2 | 1 58 | + 6 |
| Kameyama | E. | 3·9 | 341 | e 1 13 | + 8 | 1 52 | − 4 |
| Mera | | 4·0 | 22 | — | — | e 1 55 | − 3 |
| Misima | | 4·0 | 11 | e 1 11 | + 5 | 1 59 | + 1 |
| Osaka | | 4·0 | 330 | — | — | e 1 53 | − 5 |
| Nagoya | | 4·1 | 348 | — | — | i 1 59 | − 1 |
| Gihu | E. | 4·3 | 346 | — | — | e 1 59 | − 5 |
| Hunatu | | 4·3 | 8 | — | — | e 2 5 | + 1 |
| Iida | | 4·3 | 358 | — | — | e 2 2 | − 2 |
| Kohu | | 4·4 | 6 | e 1 14 | + 3 | 2 5 | − 1 |
| Yokohama | | 4·4 | 18 | — | — | i 2 3 | − 3 |
| Tokyo | | 4·7 | 18 | e 1 14 | 0 | 2 9 | − 3 |
| Kashiwa | | 4·9 | 19 | — | — | e 2 8 | − 8 |
| Matumoto | N. | 5·0 | 0 | e 1 21 | + 3 | 2 13 | − 5 |
| Kumagaya | | 5·1 | 13 | e 1 21 | + 2 | 2 14 | − 6 |
| Oiwake | | 5·1 | 5 | e 1 15 | − 4 | 2 14 | − 6 |
| Tyosi | E. | 5·1 | 27 | — | — | 2 19 | − 1 |
| Maebasi | Z. | 5·3 | 9 | e 1 23 | + 2 | 2 23 | − 2 |
| Matusiro | | 5·3 | 2 | e 1 18 | − 3 | 2 15 | −10 |
| Nagano | E. | 5·4 | 2 | e 1 20 | − 2 | 2 18 | − 9 |
| Toyama | | 5·5 | 353 | — | — | e 2 21 | − 8 |
| Mito | | 5·6 | 21 | e 1 23 | − 2 | 2 24 | − 7 |
| Utunomiya | | 5·6 | 16 | e 1 21 | − 4 | 2 19 | −12 |
| Ooita | | 5·7 | 292 | — | — | 2 33 | 0 |
| Shirakawa | | 6·2 | 17 | e 1 28 | − 4 | 2 31 | −13 |
| Inawasiro | | 6·6 | 15 | e 1 32 | − 5 | 2 39 | −14 |
| Hukusima | | 6·8 | 17 | e 1 34 | − 5 | 2 44 | −13 |
| Sendai | E. | 7·4 | 18 | e 1 44 | − 3 | 2 54 | −17 |
| Mizusawa | E. | 8·3 | 18 | — | — | 3 14 | −17 |
| Morioka | | 8·9 | 16 | — | — | e 3 25 | −19 |
| Miyako | | 9·0 | 20 | — | — | e 3 11 | −35 |

Aug. 21d. 16h. 18m. 56s. Epicentre 20°·2S. 178°·2W. Depth of focus 0·070.
(as on 13d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Karapiro | N. | 18·5 | 196 | 3 46 | 0 | e 6 51 | + 3 | — | — | — |
| Tuai | N. | 19·0 | 192 | — | — | e 6 45 | −12 | — | — | — |
| Wellington | | 21·9 | 195 | 4 14 | − 4 | e 7 38 | − 8 | 14 24 | ScS | — |
| Cobb River | E. | 22·2 | 200 | e 4 19 | − 2 | e 7 54 | + 3 | — | — | — |
| Kaimata | N.E. | 23·9 | 200 | e 4 33 | − 3 | e 8 34 | +16 | — | — | — |
| Christchurch | | 24·5 | 197 | e 4 46 | + 4 | e 8 25 | − 3 | — | — | — |
| Brisbane | Z. | 27·3 | 250 | i 5 7k | 0 | — | — | — | — | — |
| Manila | | 69·1 | 295 | i 10 25 | + 6 | — | — | — | — | — |
| Lick | Z. | 78·2 | 43 | i 11 12k | + 2 | — | — | — | — | — |
| Pasadena | | 78·6 | 48 | i 11 14k | + 2 | — | — | e 13 16 | pP | — |
| Fresno | Z. | 79·0 | 45 | e 11 16k | + 1 | e 12 13 | ? | e 13 17 | pP | — |
| Riverside | Z. | 79·3 | 48 | i 11 16k | 0 | — | — | — | — | — |
| Shasta | Z. | 79·7 | 40 | i 11 19k | + 1 | — | — | i 13 18 | pP | — |
| China Lake | Z. | 79·9 | 46 | i 11 20k | + 1 | — | — | e 13 21 | pP | — |
| Mineral | Z. | 80·0 | 40 | e 11 20k | 0 | — | — | e 13 22 | pP | — |
| Tinemaha | Z. | 80·2 | 45 | i 11 22 | + 1 | — | — | e 11 48 | ? | — |
| Reno | Z. | 80·6 | 42 | e 11 24k | + 1 | e 11 36 | PcP | e 13 28 | pP | — |
| Boulder City | | 81·9 | 47 | i 11 31 | + 1 | — | — | i 13 32 | pP | — |
| College | | 88·0 | 12 | i 11 58 | − 1 | e 21 55 | − 6 | i 14 0 | pP | — |
| Hungry Horse | | 89·0 | 37 | i 12 3 | − 1 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Fayetteville | z. | 97·0 | 54 | e 14 40 | pP | — | — | — | — | — |
| Kiruna | z. | 130·9 | 351 | — | — | i 20 48 | SKP | — | — | — |
| Upsala | z. | 138·8 | 348 | i 18 22 | [− 9] | i 21 13 | SKP | — | — | — |
| Copenhagen | | 143·7 | 350 | i 18 37 | [− 3] | — | — | — | — | — |
| Kishinev | | 145·4 | 328 | e 18 43 | [ 0] | — | — | — | — | — |
| Lwow | | 145·5 | 335 | i 18 44 | [+ 1] | — | — | — | — | — |
| Cernauti | | 145·9 | 331 | e 18 44 | [ 0] | — | — | — | — | — |
| Rathfarnham C. | z. | 146·4 | 8 | i 18 44k | [− 1] | i 18 47 | $PKP_2$ | e 20 49 | pPKP | — |
| Ksara | | 146·9 | 301 | i 18 51 | [+ 6] | — | — | 22 23 | PP | — |
| Uzhgorod | | 147·2 | 336 | e 18 50 | [+ 4] | — | — | — | — | — |
| Witteveen | z. | 147·2 | 355 | i 18 49k | [+ 3] | — | — | — | — | — |
| Collmberg | z. | 147·7 | 347 | e 18 49 | [+ 3] | — | — | e 18 54 | ? | — |
| Jena | | 148·4 | 347 | e 18 46 | [− 1] | — | — | e 21 34 | ? | — |
| Prague | | 148·6 | 345 | e 18 52 | [+ 4] | e 18 59 | $PKP_2$ | e 21 11 | pPKP | — |
| Potsdam | z. | 148·7 | 349 | e 18 46 | [− 2] | — | — | — | — | — |
| Istanbul | z. | 148·9 | 318 | e 18 53 | [+ 5] | e 23 46 | ? | — | — | — |
| Stuttgart | z. | 150·9 | 350 | e 18 50 | [− 1] | e 18 57 | ? | e 21 13 | pPKP | — |
| Strasbourg | | 151·3 | 352 | i 18 59 | [+ 7] | i 19 9 | ? | — | — | — |
| Paris | | 151·4 | 0 | i 18 59 | [+ 7] | i 19 11 | ? | — | — | — |
| Rome | | 156·5 | 341 | e 19 9? | [+10] | e 23 44 | ? | e 32 34 | PS | — |
| Malaga | | 162·6 | 17 | i 20 2 | [+56] | 28 54 | SKKS | i 22 6 | PP | 61·4 |
| Almeria | | 163·0 | 12 | 20 10 | [+64] | 24 48 | PP | 27 12 | PPP | 88·8 |
| Tamanrasset | z. | 175·7 | 307 | e 19 15 | [+ 1] | e 30 46 | SKKS | e 24 53 | PP | — |

Aug. 21d. 22h. 34m. 15s. (I)
23h. 37m. 55s. (II) } Epicentre 39°·9N. 70°·3E.

Given by the stations of U.S.S.R.

$A = +·2593$, $B = +·7243$, $C = +·6389$; $\delta = +4$; $h = -2$;
$D = +·941$, $E = -·337$; $G = +·215$, $H = +·601$, $K = -·769$.

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| I Garm | 0·9 | 180 | i 0 18 | $0_s$ | i 0 31 | $+ 1_s$ |
| II | 0·9 | 180 | i 0 18 | $0_s$ | i 0 31 | $+ 1_s$ |
| I Dzhergetal | 1·0 | 134 | i 0 18 | $- 2_s$ | 0 32 | $- 1_s$ |
| II | 1·0 | 134 | i 0 18 | $- 2_s$ | i 0 31 | $- 2_s$ |
| I Fergana | 1·2 | 67 | e 0 21 | − 3 | 0 37 | $- 3_s$ |
| II | 1·2 | 67 | e 0 21 | − 3 | e 0 38 | $- 2_s$ |
| I Obi-garm | 1·3 | 201 | e 0 26 | + 1 | — | — |
| II | 1·3 | 201 | e 0 26 | + 1 | — | — |
| I Namangan | 1·5 | 44 | e 0 29 | + 1 | i 0 52 | + 3 |
| II | 1·5 | 44 | e 0 29 | + 1 | i 0 52 | + 3 |
| I Tashkent | 1·6 | 331 | e 0 35 | $+ 3_s$ | i 0 56? | $+ 3_s$ |
| II | 1·6 | 331 | e 0 33 | $+ 1_s$ | i 0 56 | $+ 3_s$ |
| I Andijan | 1·8 | 62 | i 0 33 | + 1 | i 0 59 | + 3 |
| II | 1·8 | 62 | e 0 33 | + 1 | i 0 59 | + 3 |
| I Stalinabad | 1·8 | 221 | i 0 33 | + 1 | i 1 3 | $+ 3_s$ |
| II | 1·8 | 221 | i 0 33 | + 1 | i 1 0 | $0_s$ |
| I Kulyab | 2·0 | 191 | i 0 42? | $+ 2_s$ | i 1 13? | $+ 7_s$ |
| II | 2·0 | 191 | i 0 41 | $+ 1_s$ | i 1 12 | $+ 6_s$ |
| I Tchimkent | 2·5 | 348 | e 0 46 | + 1* | e 1 17 | − 1* |
| II | 2·5 | 348 | e 0 44 | + 1 | e 1 19 | + 1* |
| I Khorog | 2·6 | 157 | e 0 48 | + 1* | 1 24 | $- 2_s$ |
| II | 2·6 | 157 | e 0 49 | + 2* | 1 25 | $- 1_s$ |
| I Samarkand | 2·6 | 265 | 0 52 | $0_s$ | — | — |
| I Murgab | 3·2 | 119 | e 0 52 | 0 | e 1 37 | − 2* |
| II | 3·2 | 119 | — | — | e 1 41 | + 2* |
| I Frunse | 4·4 | 46 | — | — | e 2 24 | $- 1_s$ |
| I Naryn | 4·6 | 69 | — | — | e 1 59 | − 8 |
| II | 4·6 | 69 | — | — | 2 33 | $+ 1_s$ |
| II Rybach'e | 5·0 | 58 | — | — | e 2 44 | $- 1_s$ |
| II Almata | 6·0 | 54 | — | — | 3 3 | + 1* |
| II Almata II | 6·3 | 55 | i 1 34 | − 2 | — | — |
| I Bairam-Ali | 6·8 | 253 | — | — | 3 25 | − 1* |
| II | 6·8 | 253 | — | — | 3 56 | $+11_s$ |

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Aug. 22d. 2h. 25m. 31s. Epicentre 45°·0N. 8°·3E.

Felt in the provinces of Vercelli and Pavia. Intensity IV at Oropa. Much damage at Asti. Epicentre as adopted.
Monthly Seismic Bulletin of the I.N.G., Rome, August, 1952, p. 17.

$A = +·7021$, $B = +·1024$, $C = +·7047$; $\delta = +3$; $h = -4$;
$D = +·144$, $E = -·990$; $G = +·697$, $H = +·102$, $K = -·710$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Pavia | | 0·6 | 286 | i 0 12 | $0_g$ | i 0 21 | $+ 1_g$ | i 0 18 | P | — |
| Oropa | | 0·7 | 339 | i 0 16 | + 1* | i 0 27 | + 2* | i 0 20 | P | — |
| Salo | | 1·7 | 69 | e 0 49 | ? | e 1 6 | ? | — | — | — |
| Chur | | 2·0 | 25 | e 0 37 | 0* | e 1 6 | $0_g$ | i 0 44 | $P_g$ | — |
| Neuchatel | | 2·2 | 235 | e 0 45 | $+ 1_g$ | e 1 14 | $+ 1_g$ | — | — | — |
| Zürich | | 2·4 | 5 | e 0 41 | 0 | e 1 9 | − 3 | e 0 48 | $P_g$ | — |
| Basle | | 2·6 | 349 | e 0 52 | $0_g$ | e 1 26 | $0_g$ | e 1 1 | ? | — |
| Strasbourg | | 3·6 | 355 | e 1 25 | ? | e 1 57 | $- 2_g$ | i 2 11 | ? | e 2·1 |
| Clermont-Ferrand | | 3·7 | 284 | i 1 22 | $+ 8_g$ | i 2 6 | $+ 4_g$ | i 2 15 | ? | i 2·4 |
| Stuttgart | | 3·8 | 9 | e 1 8 | 0* | e 1 47 | 0 | e 2 8 | $S_g$ | — |
| Triest | | 3·9 | 79 | e 0 46 | ? | i 1 50 | 0 | e 1 20 | $P_g$ | — |
| Karlsruhe | | 4·0 | 1 | — | — | i 2 14 | $+ 2_g$ | i 2 21 | ? | — |
| Paris | | 5·5 | 316 | e 1 33 | − 4* | e 2 35 | + 5 | e 3 5 | $S_g$ | — |
| Jena | | 6·3 | 19 | e 2 9 | $+ 3_g$ | e 3 30 | $+ 2_g$ | e 2 33 | ? | — |
| Prague | | 6·5 | 37 | e 1 33 | − 6 | e 2 55 | 0 | i 3 32 | $S_g$ | — |
| Collmberg | z. | 7·1 | 25 | — | — | e 3 51 | $- 4_g$ | — | — | — |

Aug. 22d. 22h. 41m. 23s. Epicentre 35°·3N. 118°·9W.

Destructive at Bakersfield with intensity VIII. Considerable damage in the lower town with 2 dead and 35 injured, water mains and telephone lines broken. Intensity VII in the oil fields of Kern Front, Kern River, Racetrack, and Tejon Hills; VI at Buttonwillow, Cuyama, Edison, Ivanhoe, Olancha, Sanger, Woodlake. Macroseismic area 40,000 square miles. Epicentre 35°20′N. 118°55′W.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1952, pp. 37-39, with macroseismic chart p. 38.

K. V. Steinbrugge and D. F. Moran.
An Engineering Study of the Southern Californian Earthquake of July 21, 1952, and its after-shocks. Bulletin of the Seismological Society of America, Vol. 44, 1954, pp. 198-462, with 346 figures.

$A = -·3953$, $B = -·7161$, $C = +·5752$; $\delta = -8$; $h = 0$;
$D = -·875$, $E = +·483$; $G = -·278$, $H = -·504$, $K = -·818$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Clear Creek | z. | 0·2 | 102 | i 0 6 | 0* | — | — | — | — | — |
| Woody | z. | 0·4 | 6 | i 0 7a | $- 1_g$ | — | — | — | — | — |
| Chuchupate | z. | 0·5 | 191 | i 0 11a | 0* | — | — | — | — | — |
| Haiwee | z. | 1·1 | 42 | i 0 22 | 0 | — | — | — | — | — |
| Santa Barbara | z. | 1·1 | 218 | i 0 21a | − 1 | — | — | — | — | — |
| China Lake | z. | 1·2 | 64 | e 0 22k | − 1* | — | — | — | — | — |
| Mount Wilson | z. | 1·3 | 147 | i 0 25 | 0 | — | — | — | — | — |
| Pasadena | | 1·3 | 152 | i 0 24a | − 1 | i 0 43 | $0_g$ | — | — | — |
| Dalton | z. | 1·4 | 142 | i 0 26k | − 1 | — | — | — | — | — |
| Fresno | | 1·6 | 334 | i 0 27 | − 3 | — | — | — | — | — |
| Riverside | z. | 1·8 | 135 | i 0 31a | − 1 | i 0 56 | 0 | — | — | — |
| Tinemaha | z. | 1·8 | 17 | i 0 33a | + 1 | — | — | — | — | — |
| Big Bear | z. | 1·9 | 123 | i 0 34a | 0 | — | — | — | — | — |
| Lick | z. | 3·0 | 313 | i 0 46k | − 4 | — | — | — | — | — |
| Santa Clara | | 3·2 | 311 | i 0 50a | − 2 | — | — | — | — | — |
| Boulder City | | 3·4 | 77 | i 0 54 | − 1 | — | — | — | — | — |
| Berkeley | z. | 3·7 | 314 | i 0 56k | − 4 | — | — | — | — | — |
| Reno | z. | 4·3 | 351 | e 1 7a | − 1 | — | — | — | — | — |
| Mineral | z. | 5·5 | 338 | e 1 23 | − 2 | — | — | — | — | — |
| Shasta | | 6·1 | 334 | e 1 30a | − 4 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Arcata | E. | 6·9 | 325 | e 1 44 | − 1 | — | — | — | — | — |
| Tucson | | 7·4 | 112 | i 1 49 | − 3 | i 3 3 | −15 | — | — | — |
| Corvallis | E. | 9·9 | 341 | e 2 28 | + 3 | — | — | — | — | — |
| Butte | | 11·7 | 22 | e 2 52 | + 1 | — | — | e 3 39 | ? | — |
| Bozeman | | 12·0 | 28 | i 2 56 | + 1 | i 5 11 | 0 | — | — | — |
| Seattle | | 12·6 | 349 | e 3 3 | 0 | — | — | — | — | i 6·6 |
| Hungry Horse | | 13·5 | 14 | i 3 17 | + 2 | e 5 58 | SS | — | — | — |
| Victoria | | 13·6 | 347 | 3 18 | + 1 | — | — | — | — | — |
| Lubbock | | 14·2 | 92 | 3 27 | + 3 | 6 30 | SSS | — | — | — |
| Saskatoon | | 19·0 | 23 | 4 25 | − 1 | e 7 57 | + 2 | — | — | 10·1 |
| Fayetteville | Z. | 20·1 | 80 | i 4 39k | + 1 | i 7 43 | −36 | — | — | e 10·7 |
| St. Louis | | 23·1 | 72 | e 5 11 | + 3 | e 9 25 | + 9 | — | — | — |
| Tacubaya | | 23·5 | 126 | e 5 20 | + 8 | e 9 45 | +22 | — | — | e 12·9 |
| Chicago | | 25·4 | 64 | e 5 24 | − 7 | e 9 58 | + 2 | — | — | — |
| Pittsburgh | | 31·0 | 68 | — | — | e 11 16 | −10 | i 16 45 | ScS | i 16·2 |
| Columbia | | 31·1 | 80 | — | — | e 11 29 | + 1 | — | — | — |
| Kirkland Lake | Z. | 31·4 | 54 | e 6 27k | + 2 | — | — | — | — | — |
| Buffalo (Larkin) | | 31·9 | 63 | e 6 51 | ? | — | — | — | — | — |
| Washington | | 33·3 | 70 | i 6 45 | + 4 | — | — | — | — | i 17·5 |
| Ottawa | | 34·1 | 59 | e 6 48 | 0 | 12 19 | + 5 | 17 8 | ScS | 17·8 |
| College | | 34·3 | 339 | e 6 49 | − 1 | — | — | i 7 10 | ? | — |
| Philadelphia | | 34·7 | 69 | — | — | e 12 23 | − 1 | — | — | — |
| City College, N.Y. | | 35·5 | 67 | — | — | e 12 16 | −20 | — | — | — |
| Palisades | | 35·5 | 67 | — | — | e 12 43 | + 7 | — | — | e 17·6 |
| Fordham | | 35·6 | 67 | e 7 5 | + 4 | e 12 42 | + 4 | — | — | — |
| Shawinigan Falls | | 36·2 | 57 | e 7 7 | + 1 | 13 2 | +15 | 9 33 | PcP | 18·5 |
| Harvard | | 37·1 | 63 | i 7 10a | − 4 | — | — | — | — | e 19·3 |
| Weston | | 37·3 | 63 | e 7 21 | + 5 | — | — | — | — | — |
| Resolute Bay | | 41·1 | 11 | e 7 41 | − 6 | c 13 41 | −20 | e 9 22 | PP | e 19·4 |
| Bermuda | | 44·5 | 77 | 8 18 | + 3 | — | — | — | — | e 21·3 |
| San Juan | | 49·4 | 95 | e 8 56 | + 3 | — | — | — | — | — |
| Bogota | | 51·3 | 115 | e 9 13 | + 5 | c 16 29 | + 3 | e 21 3 | ? | e 24·8 |
| Kiruna | | 72·7 | 16 | e 11 28 | − 4 | e 21 42 | PPS | e 22 1 | ? | e 33·6 |
| Durham | E. | 75·4 | 32 | 11 49 | + 2 | 21 31 | + 4 | — | — | — |
| Upsala | | 78·6 | 21 | i 12 6 | + 1 | e 22 1 | − 1 | — | — | e 40·6 |
| Stuttgart | | 84·4 | 32 | e 12 37? | + 1 | e 23 12 | ScS | e 41 37? | Q | 45·6 |
| Rome | | 91·2 | 34 | — | — | e 24 55 | ? | — | — | e 38·6 |
| Ksara | | 107·3 | 23 | — | — | e 34 9 | SSP | 45 37? | Q | — |
| Kimberley | Z. | 148·6 | 88 | e 19 52 | $PKP_2$ | — | — | — | — | — |
| Pretoria | Z. | 150·2 | 81 | e 19 56 | $PKP_3$ | — | — | — | — | — |
| Grahamstown | Z. | 151·5 | 96 | e 20 1 | $PKP_2$ | — | — | — | — | — |

Aug. 23d. 7h. 21m. 45s. Epicentre 40°·5N. 138°·0E. Depth of focus 0·040.

Epicentre as given by Japan. Depth 320km. ca.

A = −·5667, B = +·5103, C = +·6469; $\delta$ = +3; $h$ = −2;
D = +·669, E = +·743; G = −·481, H = +·433, K = −·763.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Akita | | 1·8 | 116 | 0 47 | + 3 | 1 25 | + 6 |
| Aomori | | 2·2 | 81 | e 0 46 | − 2 | — | — |
| Aikawa | | 2·5 | 175 | e 0 59 | + 9 | 1 29 | − 1 |
| Morioka | | 2·6 | 108 | i 0 52 | + 1 | 1 35 | + 4 |
| Niigata | | 2·7 | 162 | — | — | e 1 37 | + 4 |
| Mizusawa | N. | 2·8 | 119 | e 0 55 | + 2 | e 1 40 | + 5 |
| Miyako | | 3·2 | 105 | e 0 59 | + 2 | 1 43 | + 1 |
| Sendai | | 3·2 | 134 | e 0 57 | 0 | 1 44 | + 2 |
| Hukusima | | 3·4 | 144 | e 0 59 | 0 | 1 47 | + 1 |
| Sapporo | | 3·6 | 43 | e 1 5 | + 3 | 1 55 | + 5 |
| Shirakawa | | 3·8 | 152 | e 0 51 | −13 | 1 53 | − 1 |
| Matusiro | | 4·0 | 177 | e 1 2 | − 4 | 1 57 | − 1 |
| Urakawa | | 4·0 | 64 | e 1 6 | 0 | 2 1 | + 3 |
| Maebasi | Z. | 4·2 | 168 | i 1 7 | − 1 | 2 2 | 0 |
| Oiwake | | 4·2 | 174 | e 1 11 | + 3 | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Onahama | | 4·2 | 147 | e 1 35 | ? | — | — |
| Utunomiya | | 4·2 | 159 | e 1 8 | 0 | 2 2 | 0 |
| Kumagaya | | 4·5 | 165 | e 1 19 | + 7 | 2 7 | − 1 |
| Obihiro | | 4·6 | 56 | — | — | e 2 11 | + 1 |
| Tukubasan | | 4·6 | 158 | e 1 11 | − 2 | 2 7 | − 3 |
| Kohu | | 4·9 | 175 | e 1 58 | ? | — | — |
| Hunatu | | 5·0 | 173 | — | — | e 2 16 | − 2 |
| Tokyo | | 5·0 | 163 | e 1 13 | − 5 | 2 16 | − 2 |
| Yokohama | | 5·2 | 165 | — | — | e 2 21 | − 1 |
| Misima | | 5·4 | 172 | 1 22 | 0 | 2 23 | − 4 |
| Ajiro | | 5·5 | 171 | — | — | e 2 26 | − 3 |
| Mera | | 5·8 | 165 | — | — | e 2 29 | − 6 |
| Osima | | 5·8 | 169 | e 1 18 | − 9 | 2 27 | − 8 |
| Nemuro | | 6·3 | 61 | — | — | e 2 45 | − 1 |
| Hatidyosima | | 7·5 | 168 | — | — | e 3 5 | − 8 |
| Nanking | z. | 17·6 | 247 | e 3 55 | + 7 | 5 43 | ? |
| Shasta | z. | 71·1 | 52 | i 10 46 | − 3 | — | — |
| Mineral | z. | 71·8 | 52 | e 10 49 | − 4 | — | — |

Aug. 23d. 10h. 9m. 4s. Epicentre 34°·5N. 118°·2W.

Intensity VI at Amboy, Camarillo, Moorspark, Oxnard, Summerland, and Tujunga; V at Arvin, Bakersfield, Caliente, Cuyama, Los Angeles. Epicentre 34°30′N. 118°13′W. Macroseismic area 35,000 miles. Repeat of the earthquake on 21st July, at 11h.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 39, with macroseismic chart p. 40.

$A = -·3903$, $B = -·7279$, $C = +·5638$; $\delta = +4$; $h = 0$;
$D = -·881$, $E = +·473$; $G = -·266$, $H = -·497$, $K = -·826$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. | m. |
| Mount Wilson | z. | 0·3 | 156 | i 0 9k | + 1* | — | — | — | — | — |
| Pasadena | | 0·3 | 175 | i 0 10k | − 1 | i 0 16 | − 2 | — | — | — |
| Dalton | z. | 0·5 | 136 | i 0 12 | + 1* | — | — | — | — | — |
| Chuchupate | z. | 0·7 | 294 | i 0 16k | − 1 | — | — | — | — | — |
| Riverside | | 0·8 | 126 | i 0 18k | 0 | i 0 30 | − 1 | — | — | — |
| Big Bear | z. | 1·1 | 104 | i 0 23 | + 1 | — | — | — | — | — |
| Santa Barbara | | 1·3 | 267 | i 0 26k | $0_g$ | i 0 43 | $0_g$ | — | — | — |
| Woody | z. | 1·3 | 336 | i 0 26 | $0_g$ | — | — | — | — | — |
| China Lake | z. | 1·4 | 20 | i 0 27k | 0 | — | — | — | — | — |
| Haiwee | | 1·6 | 7 | i 0 30 | 0 | i 0 54 | + $1_g$ | — | — | — |
| Tinemaha | | 2·5 | 359 | i 0 44 | + 1 | i 1 22 | − $1_g$ | — | — | — |
| Fresno | z. | 2·6 | 330 | i 0 43k | − 1 | — | — | — | — | — |
| Boulder City | | 3·1 | 61 | i 0 51 | 0 | i 1 0 | $P_g$ | — | — | — |
| Lick | z. | 4·0 | 316 | e 1 2a | − 2 | — | — | — | — | — |
| Santa Clara | E. | 4·2 | 314 | e 1 23 | − $1_g$ | — | — | — | — | — |
| Berkeley | z. | 4·7 | 317 | i 1 12a | − 2 | — | — | — | — | — |
| Reno | z. | 5·2 | 346 | e 1 22 | + 1 | — | — | — | — | — |
| Mineral | z. | 6·4 | 336 | e 1 38a | 0 | — | — | — | — | — |
| Tucson | | 6·5 | 108 | e 1 37 | − 2 | e 2 50 | − 5 | i 2 9 | $P_g$ | i 3·8 |
| Bozeman | | 12·4 | 24 | — | — | e 6 28 | ? | — | — | e 7·1 |
| Lubbock | | 13·6 | 89 | e 3 19 | + 2 | — | — | — | — | e 7·2 |
| Hungry Horse | | 14·2 | 11 | e 3 26 | + 2 | — | — | e 4 21 | ? | e 7·6 |
| Fayetteville | z. | 19·7 | 78 | i 4 12k | −22 | e 7 49 | −21 | — | — | e 10·5 |
| Ottawa | | 34·0 | 58 | e 13 14 | PcS | — | — | — | — | 18·1 |
| College | | 35·3 | 339 | e 6 59 | 0 | i 9 29 | PcP | — | — | — |
| Harvard | | 37·0 | 63 | e 7 20 | + 7 | — | — | — | — | e 19·5 |
| San Juan | | 48·8 | 95 | i 8 48 | − 1 | — | — | — | — | — |
| Upsala | z. | 79·2 | 21 | i 12 8 | 0 | — | — | — | — | — |
| Kimberley | z. | 148·1 | 90 | i 19 47 | [+ 3] | — | — | — | — | — |
| Pretoria | z. | 149·8 | 82 | e 19 52 | [+ 5] | — | — | — | — | — |

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Aug. 23d. 14h. 22m. 33s. Epicentre 6°·7N. 82°·5W. (as on 1951, December 5d.).

A = +·1296, B = −·9848, C = +·1159; $\delta$ = +6; $h$ = +7;
D = −·991, E = −·131; G = +·015, H = −·115, K = −·993.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Balboa Heights | | 3·7 | 52 | i 0 55 | − 5 | i 1 36 | − 9 | — | — | — |
| Chinchina | | 7·1 | 104 | i 1 43 | − 5 | i 3 0 | −10 | i 3 16 | S | — |
| Galerazamba | | 8·2 | 60 | i 2 0 | − 3 | i 3 43 | + 5 | i 4 19 | ? | — |
| Bogota | | 8·6 | 104 | i 2 7 | − 2 | i 4 29 | +10* | i 3 37 | S | — |
| Swan Island | | 10·7 | 352 | i 3 48 | +70 | — | — | — | — | i 5·8 |
| Guantanamo Bay | | 15·0 | 28 | i 3 32 | − 3 | e 6 32 | + 9 | — | — | — |
| Merida | | 15·7 | 335 | e 3 45 | + 1 | — | — | — | — | — |
| Oaxaca | | 17·3 | 308 | e 4 14 | +10 | — | — | — | — | — |
| Vera Cruz | | 18·2 | 316 | e 4 21 | + 5 | — | — | — | — | — |
| Miami | | 19·2 | 8 | i 4 38 | +10 | i 8 8 | + 9 | — | — | — |
| Puebla | | 19·6 | 311 | e 4 35 | + 3 | — | — | — | — | — |
| San Juan | | 19·8 | 51 | i 4 29 | − 6 | e 8 10 | − 3 | — | — | — |
| Huancayo | | 20·0 | 159 | i 4 35 | − 2 | e 8 22 | + 5 | — | — | e 9·8 |
| Roosevelt Roads | | 20·0 | 51 | i 4 32 | − 5 | i 8 20 | + 3 | — | — | — |
| Tacubaya | | 20·6 | 310 | i 4 47k | + 4 | e 8 44 | +15 | i 8 52 | SS | — |
| Fort de France | | 22·4 | 68 | i 4 57 | − 5 | i 9 7 | + 3 | — | — | e 11·4 |
| Milton | | 24·1 | 352 | e 5 27 | + 9 | e 9 51 | +17 | — | — | — |
| La Paz | | 27·1 | 147 | i 5 44 | − 2 | i 10 19 | − 5 | i 6 45 | PP | 13·4 |
| Columbia | | 27·2 | 3 | e 6 3 | +16 | i 10 43 | +18 | — | — | — |
| Bermuda (Navy) | | 30·3 | 30 | e 6 10 | − 5 | i 11 22 | + 7 | — | — | — |
| Fayetteville | z. | 31·2 | 343 | i 6 19a | − 4 | e 7 26 | PP | i 6 25 | pP | — |
| Philadelphia | | 33·8 | 12 | — | — | e 11 52 | −18 | — | — | — |
| Cleveland | z. | 34·7 | 2 | e 6 51k | − 3 | — | — | — | — | — |
| City College, N.Y. | | 34·8 | 13 | e 6 57 | + 3 | e 12 34 | + 9 | — | — | — |
| Fordham | | 34·9 | 13 | e 6 50 | − 5 | e 12 23 | − 4 | — | — | — |
| Palisades | | 35·0 | 13 | e 6 55 | − 1 | i 12 30 | + 2 | — | — | e 16·5 |
| Buffalo (Larkin) | | 36·2 | 5 | e 7 8 | + 2 | — | — | — | — | — |
| Tucson | | 36·6 | 318 | e 7 12 | + 2 | e 13 5 | +12 | i 8 41 | PP | e 18·6 |
| Weston | | 36·9 | 15 | i 7 14a | + 2 | — | — | — | — | — |
| Harvard | | 37·0 | 15 | i 7 12k | − 1 | — | — | — | — | e 17·8 |
| Ottawa | | 39·0 | 8 | e 7 28a | − 2 | — | — | — | — | — |
| Shawinigan Falls | N. | 40·6 | 11 | e 7 42 | − 1 | 9 35 | PP | 10 7 | PPP | 20·2 |
| Halifax | | 41·2 | 20 | e 10 2 | PPP | 14 6 | + 4 | 16 54 | SS | 18·9 |
| Kirkland Lake | z. | 41·4 | 3 | e 7 46 | − 4 | — | — | — | — | — |
| Boulder City | | 41·5 | 320 | e 7 55 | + 5 | — | — | — | — | — |
| Seven Falls | E. | 41·5 | 13 | e 7 42 | − 8 | 14 0 | − 7 | 16 56 | SS | 19·3 |
| Riverside | z. | 42·1 | 315 | e 8 1 | + 6 | — | — | i 8 5 | P | — |
| Pasadena | | 42·8 | 315 | i 8 5 | + 4 | e 14 34 | + 8 | — | — | e 19·2 |
| China Lake | z. | 43·3 | 317 | e 8 7 | + 2 | — | — | — | — | — |
| Tinemaha | z. | 44·4 | 319 | e 8 18 | + 4 | — | — | — | — | — |
| Fresno | z. | 45·3 | 318 | e 8 24a | + 3 | — | — | — | — | — |
| Lick | z. | 46·8 | 317 | e 8 37a | + 4 | — | — | — | — | — |
| Reno | z. | 46·8 | 321 | e 8 33 | 0 | e 8 37 | ? | e 9 11 | ? | — |
| La Plata | | 47·4 | 151 | 13 21 | ? | 15 33 | + 1 | 19 15 | SS | 26·6 |
| Mineral | z. | 48·4 | 320 | e 8 48a | + 2 | — | — | — | — | — |
| Shasta | z. | 49·1 | 320 | e 8 52a | + 1 | — | — | — | — | — |
| Hungry Horse | | 49·4 | 333 | i 8 53 | 0 | — | — | — | — | — |
| Victoria | | 54·2 | 328 | 9 29 | 0 | — | — | — | — | — |
| Resolute Bay | | 68·3 | 357 | — | — | e 19 58 | − 8 | — | — | e 30·8 |
| College | | 73·6 | 337 | e 11 35 | − 2 | — | — | — | — | — |
| Malaga | | 76·5 | 54 | i 11 53 | − 1 | i 22 29 | PPS | 15 13 | PP | 40·0 |
| Toledo | | 76·9 | 50 | e 11 56 | 0 | — | — | i 12 21 | ? | — |
| Alicante | | 79·6 | 52 | 12 15 | + 5 | — | — | — | — | 39·2 |
| Paris | | 81·7 | 42 | e 12 20 | − 2 | e 22 32 | − 2 | i 22 48 | ScS | e 38·4 |
| Clermont-Ferrand | | 82·2 | 45 | e 12 21 | − 3 | e 22 40 | + 1 | e 23 39 | PS | 40·4 |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Witteveen | Z. | 84·2 | 37 | i 12 32 | − 2 | — | — | i 12 39 | P | — |
| Strasbourg | | 85·2 | 42 | e 12 37 | − 2 | e 23 14 | + 5 | e 16 7 | PP | e 39·4 |
| Tamanrasset | Z. | 85·6 | 68 | i 12 40k | − 1 | e 13 16 | ? | e 15 59 | PP | — |
| Stuttgart | | 86·1 | 42 | e 12 41 | − 3 | e 23 19 | + 1 | e 12 49 | PcP | — |
| Jena | | 87·4 | 39 | e 12 48 | − 2 | e 13 5 | PcP | e 13 22 | ? | — |
| Collmberg | Z. | 88·3 | 39 | e 12 53 | − 2 | — | — | e 13 7 | PcP | — |
| Rome | | 89·3 | 48 | e 14 27 | ? | e 23 51 | + 3 | e 24 47 | PS | — |
| Triest | | 89·6 | 44 | e 23 12 | ? | e 23 34 | [+ 4] | e 23 55 | S | 38·8 |
| Messina | E. | 92·2 | 51 | e 26 20 | PPS | — | — | — | — | e 45·2 |
| Ksara | | 109·2 | 52 | e 15 37 | P | — | — | e 32 23 | ? | — |

Aug. 24d. 12h. 27m. 34s. Epicentre 35°·5N. 143°·0E.

A = −·6517, B = +·4911, C = +·5781 ; δ = +9 ; h = 0 ;
D = +·602, E = +·799 ; G = −·462, H = +·348, K = −·816.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Tyosi | N. | 1·8 | 278 | e 0 40 | + 8 | 1 4 | + 8 |
| Mito | | 2·2 | 293 | e 0 39 | + 1 | 1 14 | + 8 |
| Onahama | | 2·2 | 310 | 0 42 | + 4 | 1 14 | + 8 |
| Tukubasan | | 2·5 | 287 | e 0 43 | 0 | — | — |
| Mera | | 2·6 | 257 | 0 48 | + 4 | — | — |
| Tokyo | | 2·7 | 274 | e 0 47 | + 2 | — | — |
| Shirakawa | | 2·8 | 306 | e 0 47 | 0 | 1 27 | + 5 |
| Utunomiya | | 2·8 | 292 | e 0 44 | − 3 | 1 25 | + 3 |
| Hukusima | | 3·0 | 318 | e 0 51 | + 1 | 1 36 | + 9 |
| Kumagaya | | 3·0 | 282 | e 0 48 | − 2 | 1 33 | + 6 |
| Inawasiro | | 3·1 | 312 | e 0 52 | + 1 | 1 35 | + 6 |
| Osima | | 3·1 | 256 | e 0 48 | − 3 | 1 26 | − 3 |
| Ajiro | | 3·2 | 262 | e 1 2 | − 2g | — | — |
| Sendai | | 3·2 | 318 | e 0 53 | + 1 | 1 36 | + 4 |
| Titibu | | 3·2 | 279 | e 1 3 | − 1g | 1 34 | + 2 |
| Maebasi | | 3·3 | 286 | i 0 54k | + 1 | 1 40 | + 5 |
| Misima | | 3·3 | 263 | e 0 52 | − 1 | — | — |
| Hunatu | | 3·4 | 271 | e 0 55 | 0 | — | — |
| Yamagata | | 3·5 | 323 | e 0 59 | + 2 | — | — |
| Hatidyozima | | 3·6 | 228 | e 1 1 | + 3 | — | — |
| Kohu | | 3·6 | 273 | e 0 57 | − 1 | — | — |
| Oiwake | | 3·7 | 284 | e 0 59 | − 1 | 2 2 | 0g |
| Shizuoka | | 3·8 | 263 | e 0 58 | − 3 | 1 47 | 0 |
| Mizusawa | | 3·9 | 338 | e 1 8 | + 6 | 1 52 | + 2 |
| Matusiro | | 4·0 | 286 | i 1 1 | − 3 | 1 52 | 0 |
| Niigata | | 4·0 | 308 | e 1 18 | − 2g | 2 15 | + 3g |
| Nagano | | 4·1 | 288 | e 1 5 | 0 | 2 4 | − 2* |
| Matumoto | E. | 4·2 | 281 | e 1 3 | − 4 | 2 1 | + 4 |
| Miyako | | 4·2 | 349 | — | — | c 2 5 | + 8 |
| Morioka | | 4·4 | 341 | e 1 9 | − 1 | 2 7 | + 5 |
| Aikawa | | 4·6 | 305 | e 1 11 | − 1 | 2 27 | − 5g |
| Akita | | 4·8 | 332 | e 2 3 | S | 3 27 | ? |
| Toyama | | 4·8 | 286 | e 1 22 | + 7 | 2 31 | + 5* |
| Nagoya | | 5·0 | 268 | e 1 15 | − 3 | 2 14 | − 4 |
| Hatinohe | | 5·2 | 347 | — | — | e 2 16 | − 6 |
| Kameyama | N. | 5·4 | 265 | e 1 27 | + 3 | — | — |
| Aomori | | 5·6 | 342 | e 1 32 | + 5 | 2 31 | − 2 |
| Kyoto | | 6·0 | 267 | e 2 6 | + 6g | e 2 45 | + 2 |
| Sapporo | | 7·7 | 351 | — | — | e 3 19 | − 6 |
| Fayetteville | Z. | 91·1 | 43 | e 12 54 | −14 | — | — |

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Aug. 24d. 12h. 45m. 39s. Epicentre 23°·5N. 143°·0E. Focus at Base of Superficial Layers.

A = −·7331, B = +·5525, C = +·3965; $\delta$ = −10; $h$ = +4;
D = +·602, E = +·799; G = −·317, H = +·239, K = −·918.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Guam | | 10·1 | 170 | i 2 34 | + 8 | i 4 26 | + 7 | — | — | — |
| Osima | | 11·6 | 345 | e 2 46 | 0 | — | — | — | — | — |
| Mera | | 11·7 | 347 | 2 47 | − 1 | — | — | — | — | — |
| Misima | | 12·1 | 344 | e 2 51 | − 2 | 5 1 | − 7 | — | — | — |
| Tokyo | | 12·4 | 348 | e 2 35 | −22 | 5 11 | − 4 | — | — | — |
| Hunatu | | 12·5 | 344 | e 2 58 | 0 | — | — | — | — | — |
| Kameyama | | 12·7 | 335 | e 3 3 | + 2 | — | — | — | — | — |
| Kohu | | 12·7 | 343 | e 3 2 | + 1 | — | — | — | — | — |
| Nagoya | | 12·8 | 337 | e 3 12 | +10 | — | — | — | — | — |
| Titibu | | 12·9 | 346 | e 3 2 | − 2 | — | — | — | — | — |
| Koti | | 13·0 | 322 | e 3 9 | + 4 | 5 38 | + 9 | — | — | — |
| Kumagaya | | 13·0 | 347 | e 3 3 | − 2 | 5 25 | − 4 | — | — | — |
| Mito | | 13·0 | 351 | e 3 9 | + 4 | — | — | — | — | — |
| Miyazaki | | 13·2 | 312 | e 3 14 | + 6 | — | — | — | — | — |
| Maebasi | | 13·3 | 346 | e 3 12 | + 3 | 5 35 | − 2 | — | — | — |
| Matumoto | E. | 13·4 | 342 | 3 10 | 0 | — | — | — | — | — |
| Onahama | | 13·5 | 353 | e 3 14 | + 2 | 5 33 | − 8 | — | — | — |
| Matusiro | | 13·6 | 343 | e 3 10 | − 3 | 5 44 | 0 | — | — | — |
| Nagano | E. | 13·7 | 346 | e 3 13 | − 1 | — | — | — | — | — |
| Shirakawa | | 13·8 | 351 | e 3 9 | − 7 | 5 38 | −10 | — | — | — |
| Ooita | | 13·9 | 317 | e 3 31 | +14 | 6 19 | +28 | — | — | — |
| Toyama | Z. | 14·1 | 340 | 3 17 | − 2 | — | — | — | — | — |
| Inawasiro | | 14·2 | 351 | e 3 22 | + 1 | — | — | — | — | — |
| Hukusima | | 14·4 | 352 | e 3 19 | − 4 | 5 53 | −10 | — | — | — |
| Sendai | N. | 14·8 | 354 | e 3 26 | − 3 | 6 2 | −10 | — | — | — |
| Hukuoka | | 14·9 | 315 | e 3 40k | +10 | e 6 38 | +23 | — | — | — |
| Yamagata | | 14·9 | 352 | e 3 30 | 0 | — | — | — | — | — |
| Mizusawa | | 15·7 | 355 | 3 41 | + 1 | 6 27 | − 6 | 4 16 | ? | — |
| Miyako | | 16·1 | 357 | e 3 20 | −25 | — | — | — | — | — |
| Morioka | | 16·2 | 355 | e 3 46 | − 1 | — | — | — | — | — |
| Akita | | 16·4 | 352 | e 3 57 | + 8 | 6 47 | − 2 | — | — | — |
| Aomori | | 17·4 | 354 | e 3 27 | −35 | — | — | — | — | — |
| Sapporo | | 19·6 | 357 | e 4 27 | − 1 | — | — | — | — | — |
| Zô-Sè | z. | 20·8 | 296 | i 4 39s | − 2 | — | — | 5 8 | PP | — |
| Manila | | 22·6 | 251 | (e 4 58) | − 1 | e 4 58 | P | i 5 10 | ? | 9·6 |
| Nanking | | 23·0 | 297 | i 5 4 | + 1 | e 9 21 | +14 | — | — | — |
| Hong Kong | | 26·6 | 273 | e 5 39 | + 2 | — | — | — | — | e 10·6 |
| Brisbane | z. | 51·6 | 168 | i 9 0k | − 5 | — | — | i 9 13 | pP | — |
| College | | 60·1 | 27 | i 10 3 | − 3 | — | — | — | — | — |
| Poona | z. | 64·2 | 280 | i 10 34 | 0 | — | — | i 10 45 | pP | — |
| Victoria | | 75·0 | 43 | 11 38 | − 2 | — | — | — | — | — |
| Resolute Bay | | 75·4 | 13 | e 15 50 | PPP | e 21 15 | − 3 | — | — | e 46·2 |
| Shasta | z. | 78·4 | 50 | e 21 56k | S | (e 21 56k) | + 5 | — | — | — |
| Mineral | z. | 79·1 | 50 | e 11 59k | − 4 | — | — | — | — | — |
| Kiruna | | 79·7 | 341 | i 12 5s | − 1 | e 22 7 | + 2 | i 12 19 | pP | e 40·4 |
| Lick | z. | 80·1 | 53 | e 12 6k | − 2 | — | — | — | — | — |
| Reno | | 80·7 | 50 | e 12 13k | + 2 | e 22 11 | − 4 | — | — | — |
| Hungry Horse | | 80·9 | 41 | i 12 10 | − 2 | — | — | — | — | — |
| Fresno | z. | 81·8 | 53 | e 12 17k | 0 | — | — | — | — | — |
| Butte | | 82·8 | 42 | i 12 21 | − 1 | — | — | i 12 26 | ? | — |
| Tinemaha | z. | 82·8 | 53 | e 12 20 | − 2 | i 12 25 | ? | e 12 42 | ? | — |
| China Lake | z. | 83·7 | 53 | e 12 24 | − 3 | — | — | i 12 29 | ? | — |
| Pasadena | z. | 84·0 | 55 | e 12 25 | − 3 | i 12 30 | ? | i 12 47 | ? | e 38·0 |
| Riverside | z. | 84·7 | 55 | e 12 28 | − 4 | — | — | e 12 34 | ? | — |
| Boulder City | | 85·7 | 52 | i 12 35 | − 2 | — | — | — | — | — |
| Scoresby Sund | | 85·7 | 355 | — | — | e 23 6 | + 1 | — | — | 44·4 |
| Upsala | z. | 85·8 | 336 | i 12 49 | +11 | — | — | i 13 4 | pP | — |
| Ksara | | 90·3 | 307 | e 16 34 | PP | e 28 57 | SS | — | — | — |
| Tucson | | 90·3 | 54 | e 12 58 | − 1 | — | — | — | — | — |
| Collmberg | z. | 93·5 | 331 | e 13 12 | − 2 | — | — | e 16 58 | PP | — |

*Continued on **next page**.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Jena | | 94·4 | 332 | e 13 17 | − 1 | e 17 3 | PP | e 13 39 | pP | — |
| De Bilt | | 96·2 | 335 | — | — | e 30 21? | SS | — | — | e 49·4 |
| Stuttgart | | 97·1 | 331 | e 13 21? | − 9 | e 34 43 | SSS | e 17 23 | PP | e 52·4 |
| Triest | | 97·2 | 327 | e 17 29 | PP | e 25 8 | +20 | e 24 22 | SKKS | 54·6 |
| Strasbourg | | 97·8 | 332 | e 17 32 | PKP | e 31 38 | SS | e 17 54 | PP | e 51·4 |
| Kew | | 98·7 | 338 | i 17 38 | PKP | — | — | — | — | e 54·4 |
| Fayetteville | Z. | 99·8 | 44 | i 13 44 | + 2 | — | — | e 17 44 | PP | — |
| Florence | E. | 99·8 | 327 | e 18 1 | PP | — | — | — | — | — |
| Paris | | 99·8 | 335 | e 17 41 | PKP | 53 21? | Q | i 17 47 | PP | 56·4 |
| Rome | | 100·5 | 325 | e 18 1 | PP | e 26 11 | PS | e 31 5 | SS | e 36·2 |
| Messina | E. | 101·3 | 321 | e 17 35 | PKP | e 25 27 | + 5 | e 32 43 | SS | e 55·2 |
| Clermont-Ferrand | | 102·0 | 332 | i 17 59 | PP | (26 21) | +53 | — | — | 26·4 |
| Malaga | | 112·7 | 332 | e 19 16 | PP | — | — | — | — | 59·9 |
| Tamanrasset | Z. | 118·1 | 316 | e 18 44 | [ 0] | e 20 15 | ? | e 20 0 | PP | — |
| Pretoria | Z. | 121·2 | 254 | i 18 50 | [ 0] | — | — | — | — | — |
| Kimberley | Z. | 124·8 | 250 | i 18 56 | [− 1] | — | — | — | — | — |
| La Paz | Z. | 150·0 | 81 | i 19 49 | [+ 7] | — | — | 20 2 | $PKP_2$ | — |

Aug. 24d. 14h. 59m. 43s. Epicentre 12°·0N. 61°·0W.

Very rough.

$A = +·4743$, $B = -·8557$, $C = +·2066$; $\delta = -13$; $h = +6$;
$D = -·875$, $E = -·485$; $G = +·100$, $H = -·181$, $K = -·978$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Fort de France | | 2·7 | 357 | i 1 3 | +18 | i 1 56 | ? | 1 20 | S | — |
| San Juan | | 8·0 | 323 | e 2 6 | + 6 | i 3 33 | 0 | — | — | — |
| Bogota | | 14·8 | 241 | i 3 33 | + 1 | i 5 59 | −19 | — | — | — |
| Bermuda | | 20·6 | 351 | i 4 48 | + 5 | e 8 35 | + 6 | — | — | — |
| Huancayo | | 27·8 | 211 | e 5 36 | −17 | — | — | — | — | — |
| La Paz | | 29·2 | 194 | 11 30 | S | (11 30) | +32 | i 14 13 | ? | i 15·0 |
| Halifax | | 32·6 | 356 | i 6 37k | + 2 | — | — | — | — | — |
| Ottawa | | 35·6 | 342 | i 7 0k | − 1 | — | — | i 7 3 | ? | — |
| Shawinigan Falls | N. | 35·9 | 347 | e 7 0 | − 4 | — | — | e 7 3 | ? | — |
| Fayetteville | Z. | 38·3 | 314 | i 7 20a | − 4 | — | — | i 8 47 | PcP | — |
| Hungry Horse | | 56·9 | 320 | i 9 40 | − 9 | — | — | — | — | — |
| Tamanrasset | Z. | 63·9 | 70 | e 10 40 | + 3 | — | — | e 11 8 | PcP | — |
| Witteveen | Z. | 67·1 | 36 | i 10 59 | + 2 | — | — | — | — | — |
| Stuttgart | | 68·0 | 41 | e 11 4 | + 1 | — | — | — | — | — |
| Jena | | 69·8 | 40 | e 23 13 | ? | e 27 34 | SSS | e 26 39 | ? | — |
| Triest | | 70·9 | 45 | — | — | e 23 19 | ? | i 25 7 | SS | — |
| Kiruna | Z. | 75·7 | 23 | i 11 49a | 0 | — | — | — | — | — |
| College | | 77·9 | 334 | i 11 53 | − 8 | — | — | — | — | — |
| Bucharest | | 79·7 | 46 | — | — | e 22 47 | PS | e 23 16 | PPS | — |

Aug. 24d. 18h. 32m. 27s. Epicentre 39°·2N. 70°·7E. (as on 1952, August 11d.).

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Dzhergetal | 0·4 | 88 | i 0 12 | − 1 | i 0 19 | − 2 | — | — | — |
| Obi-garm | 0·9 | 237 | i 0 16 | − $2_g$ | e 0 27 | − $3_g$ | — | — | — |
| Fergana | 1·4 | 31 | e 0 33 | + $5_g$ | i 0 54 | + $8_g$ | — | — | — |
| Kulyab | 1·5 | 209 | e 0 27 | − 1* | — | — | — | — | — |
| Stalinabad | 1·6 | 247 | i 0 30 | 0 | 0 50 | − 1 | — | — | — |
| Khorog | 1·9 | 158 | i 0 36 | + 2 | 1 4 | + 5 | — | — | — |
| Namanagan | 1·9 | 22 | i 0 41 | + $3_g$ | i 1 15 | +$12_g$ | — | — | — |
| Andijan | 2·0 | 39 | i 0 43 | + $3_g$ | i 1 13 | + $7_g$ | — | — | — |
| Lunacharskoe | 2·4 | 334 | i 0 46 | + 2* | — | — | — | — | — |
| Tashkent | 2·4 | 334 | e 0 45 | + 1* | i 1 25 | + $6_g$ | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Murgab | | 2·7 | 108 | e 0 51 | − 3$_g$ | e 1 36 | + 7$_g$ | — | — | — |
| Samarkand | | 2·9 | 279 | i 0 51 | − 1* | 1 23 | − 1 | — | — | — |
| Tchimkent | | 3·1 | 345 | i 0 58 | + 2* | e 1 33 | + 4 | 1 42 | S$_g$ | — |
| Naryn | | 4·6 | 60 | e 1 20 | − 2* | — | — | — | — | — |
| Frunse | | 4·7 | 38 | e 1 21 | − 2* | e 2 18 | − 6* | — | — | — |
| Rybach'e | | 5·2 | 50 | — | — | 3 5 | +13$_g$ | — | — | — |
| Almata | | 6·2 | 47 | i 1 42 | + 7 | — | — | i 2 0 | P$_g$ | — |
| Almata II | | 6·4 | 49 | 1 45 | + 7 | — | — | — | — | — |
| Quetta | | 9·5 | 200 | 2 33? | +13 | — | — | — | — | — |
| Kizyl-Arvat | | 11·2 | 274 | e 2 43 | − 1 | — | — | — | — | — |
| New Delhi | | 11·9 | 151 | e 2 50 | − 4 | e 4 57 | −12 | 3 5 | PPP | i 5·1 |
| Semipalatinsk | | 13·1 | 28 | e 3 8 | − 2 | — | — | — | — | — |
| Tiflis | | 19·8 | 285 | e 4 33 | − 2 | — | — | — | — | — |
| Borzhomi | | 20·9 | 285 | e 4 47 | + 1 | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 20·9 | 285 | e 4 43 | − 3 | — | — | — | — | — |
| Tamanrasset | z. | 57·1 | 275 | e 9 50 | 0 | — | — | — | — | — |

Aug. 24d. 18h. 57m. 17s. Epicentre 42°·7N. 75°·0E. (as on 5d.).

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Frunse | 0·4 | 301 | i 0 18 | + 5 | i 0 31 | +10 |
| Rybach'e | 0·8 | 107 | i 0 17 | − 1 | i 0 30 | − 1 |
| Almata | 1·5 | 68 | i 0 35 | + 7 | i 0 59 | +10 |
| Naryn | 1·5 | 150 | i 0 16 | −12 | i 0 28 | P |
| Almata II | 1·8 | 72 | 0 38 | + 2$_g$ | 1 7 | + 7$_g$ |
| Przhevalsk | 2·5 | 95 | 0 44 | + 1 | 1 19 | + 1* |
| Andijan | 2·8 | 225 | i 0 44 | − 3 | i 1 18 | − 4 |
| Namangan | 3·0 | 236 | 0 48 | − 2 | e 1 25 | − 2 |
| Fergana | 3·3 | 226 | 0 51 | − 2 | i 1 36 | + 1 |
| Tchimkent | 4·0 | 266 | i 1 15 | − 5$_g$ | i 2 9 | − 3$_g$ |
| Murgab | 4·4 | 191 | e 1 10 | 0 | i 1 54 | − 8 |
| Tashkent | 4·4 | 251 | e 1 20 | + 2* | — | — |
| Dzhergetal | 4·5 | 220 | i 1 8 | − 3 | 1 59 | − 6 |
| Obi-garm | 5·6 | 227 | e 1 25 | − 2 | e 2 24 | − 9 |
| Khorog | 5·9 | 207 | e 1 30 | − 1 | — | — |
| Stalinabad | 6·3 | 231 | e 0 48 | ? | e 2 10 | P$_g$ |
| Samarkand | 6·7 | 246 | e 1 40 | − 2 | 2 51 | − 9 |

Aug. 24d. 20h. 44m. 20s. Epicentre 35°·5N. 27°·2E. (as on 1950, December 28d.).

A = +·7258, B = +·3730, C = +·5781 ; $\delta$ = +11 ; $h$ = 0 ;
D = +·457, E = −·889 ; G = +·514, H = +·264, K = −·816.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Athens | | 3·7 | 313 | e 1 6a | 0* | i 1 55 | + 1* | i 1 16 | P$_g$ | — |
| Istanbul | | 5·8 | 14 | e 1 32 | + 3 | e 2 54 | − 2* | e 3 33 | S$_g$ | — |
| Helwan | | 6·6 | 147 | e 1 28 | −13 | 2 35 | −23 | — | — | — |
| Ksara | | 7·4 | 101 | e 1 42? | −10 | e 5 10? | ? | — | — | — |
| Sofia | | 7·8 | 339 | e 2 2 | + 4 | e 3 44 | +16 | e 2 17 | P* | — |
| Bucharest | | 8·9 | 355 | — | — | e 4 10 | +15 | — | — | — |
| Taranto | | 9·3 | 305 | 3 15 | P$_g$ | — | — | — | — | e 6·7 |
| Messina | z. | 9·7 | 289 | e 2 24 | + 2 | i 4 26 | +11 | i 2 36 | PP | — |
| Belgrade | z. | 10·6 | 333 | e 2 44a | + 8 | — | — | e 2 59 | ? | — |
| Rome | | 13·1 | 304 | e 4 52 | ? | e 6 0 | +22 | — | — | e 6·8 |
| Budapest | | 13·4 | 335 | 3 21 | + 7 | e 5 50 | + 5 | 3 40? | PP | — |
| Triest | | 14·4 | 319 | e 3 28 | + 1 | e 6 16 | + 7 | e 4 48 | PPP | e 8·5 |
| Raciborzu | | 16·0 | 338 | e 3 56 | + 8 | e 7 7 | +21 | e 4 10 | PP | — |
| Prague | | 17·3 | 333 | e 4 5 | + 1 | e 7 8 | − 8 | e 5 11 | ? | — |
| Cheb | | 18·1 | 329 | e 4 16 | + 2 | — | — | e 5 4 | PPP | — |
| Zürich | | 18·3 | 317 | e 4 15a | − 2 | e 7 41 | + 2 | — | — | — |
| Stuttgart | | 18·7 | 322 | e 4 21 | − 1 | e 7 57 | + 9 | — | — | e 10·7 |
| Basle | | 18·9 | 317 | e 4 26 | + 2 | e 8 29 | SS | — | — | e 9·7 |
| Collmberg | z. | 19·1 | 331 | e 4 26 | − 1 | — | — | — | — | — |
| Jena | | 19·1 | 330 | e 4 25? | − 2 | — | — | e 4 32 | PP | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Strasbourg | | 19·4 | 320 | e 4 30 | 0 | e 8 18 | +14 | e 4 50 | PP | e 10·7 |
| Algiers Univ. | z. | 19·6 | 281 | e 4 40 | + 8 | e 4 53 | PP | e 5 9 | PPP | — |
| Potsdam | | 19·6 | 334 | — | — | e 8 40 | SS | — | — | e 10·7 |
| Clermont-Ferrand | | 20·9 | 307 | e 4 45 | − 1 | — | — | — | — | — |
| Alicante | | 22·3 | 287 | 5 48 | PP | — | — | 9 16 | PcP | 14·2 |
| Paris | | 22·5 | 314 | e 5 0 | − 2 | e 9 22 | +17 | i 5 32 | PP | e 13·7 |
| Copenhagen | | 22·6 | 338 | e 5 4 | + 1 | — | — | — | — | 12·7 |
| Witteveen | z. | 22·6 | 328 | e 4 46 | −17 | — | — | — | — | — |
| Tamanrasset | z. | 22·7 | 242 | e 5 4 | 0 | e 9 13 | + 4 | e 5 32 | PP | e 10·7 |
| Almeria | | 23·9 | 283 | e 5 49 | +33 | 9 56 | +26 | — | — | 14·6 |
| Granada | | 24·8 | 284 | 5 28k | + 3 | 9 59 | +13 | 6 5 | PP | 14·3 |
| Toledo | | 25·0 | 290 | e 5 28 | + 1 | e 9 31 | −18 | — | — | — |
| Upsala | | 25·2 | 349 | i 5 26 | − 3 | — | — | i 5 38 | ? | e 13·7 |
| Kew | | 25·3 | 319 | i 5 29 | − 1 | e 10 13 | +19 | — | — | e 13·7 |
| Malaga | | 25·5 | 284 | i 5 35 | + 3 | e 10 3 | + 6 | — | — | 17·0 |
| Kiruna | | 32·6 | 355 | i 6 31 | − 4 | — | — | — | — | e 15·7 |
| Pretoria | z. | 60·9 | 178 | i 10 12 | − 5 | — | — | — | — | — |
| Kimberley | z. | 63·9 | 182 | i 10 31 | − 6 | — | — | — | — | — |
| Halifax | | 66·6 | 309 | i 10 52 | − 2 | — | — | — | — | — |
| Weston | | 72·6 | 310 | i 11 27a | − 4 | — | — | — | — | — |
| College | | 79·9 | 358 | 12 7 | − 5 | — | — | — | — | — |
| Hungry Horse | | 89·6 | 335 | e 12 57 | − 4 | — | — | — | — | — |
| Fayetteville | z. | 90·3 | 316 | i 13 1 | − 3 | — | — | — | — | — |

Aug. 25d. 1h. 44m. 48s. Epicentre 28°·0N. 94°·0E.

A = −·0617, B = +·8821, C = +·4670 ; δ = 0 ; h = +2 ;
D = +·998, E = +·070 ; G = −·033, H = +·466, K = −·884.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Chatra | | 6·2 | 261 | i 1 35 | 0 | 3 24 | − 1s | i 2 45 | S | — |
| Calcutta | N. | 7·5 | 225 | i 1 42a | −11 | 3 3 | −17 | 1 55 | P* | 2·9 |
| New Delhi | | 14·8 | 276 | e 3 30 | − 2 | 6 21 | + 3 | 3 49 | PP | 6·6 |
| Hyderabad | | 17·8 | 237 | e 4 15 | + 4 | 7 33 | + 5 | 7 41 | ? | — |
| Hong Kong | | 19·1 | 102 | e 4 29 | + 2 | e 8 3 | + 6 | — | — | — |
| Przhevalsk | | 19·2 | 324 | i 4 28 | 0 | i 8 3 | + 4 | — | — | — |
| Kurmenty | | 19·7 | 325 | i 4 32 | − 2 | — | — | — | — | — |
| Murgab | | 19·7 | 307 | i 4 31 | − 3 | i 8 10 | 0 | — | — | — |
| Madras | E. | 19·7 | 225 | i 4 35 | + 1 | i 8 20 | +10 | 4 56 | PP | 9·8 |
| Naryn | | 19·9 | 316 | i 4 36 | 0 | i 8 19 | + 4 | — | — | — |
| Chilisk | | 20·0 | 325 | i 4 37 | 0 | — | — | — | — | — |
| Almata II | | 20·3 | 324 | i 4 41 | + 1 | — | — | — | — | — |
| Rybach'e | | 20·5 | 319 | i 4 42 | 0 | i 8 29 | + 2 | — | — | — |
| Almata | | 20·6 | 324 | i 4 43 | 0 | i 8 32 | + 3 | — | — | — |
| Poona | z. | 20·7 | 248 | i 4 45 | + 1 | i 8 25 | − 6 | 5 7 | PP | 8·8 |
| Ili | | 20·9 | 325 | i 4 56 | +10 | — | — | — | — | — |
| Khorog | | 21·0 | 303 | 4 49 | + 2 | i 8 41 | + 4 | — | — | — |
| Bombay | | 21·4 | 250 | i 4 56 | + 5 | i 8 49 | + 4 | i 5 24 | PP | 9·2 |
| Frunse | | 21·6 | 318 | i 4 55 | + 1 | i 8 56 | + 7 | — | — | — |
| Nanking | z. | 21·8 | 72 | i 4 57a | + 1 | e 9 6 | +14 | — | — | — |
| Andijan | | 21·9 | 310 | i 4 57 | 0 | i 8 57 | + 3 | — | — | — |
| Dzhergetal | | 22·0 | 306 | 4 58 | 0 | 9 0 | + 4 | — | — | — |
| Fergana | | 22·1 | 310 | i 4 58 | − 1 | e 8 57 | − 1 | — | — | — |
| Namangan | | 22·4 | 310 | i 5 4 | + 2 | i 9 8 | + 4 | — | — | — |
| Kulyab | | 22·5 | 303 | 5 4 | + 2 | 9 7 | + 2 | — | — | — |
| Quetta | | 23·7 | 283 | i 5 16 | + 2 | i 9 32 | + 5 | — | — | 14·2 |
| Zô-Sè | z. | 23·8 | 74 | e 5 19a | + 4 | — | — | — | — | — |
| Lunacharskoe | | 24·2 | 310 | i 5 20 | + 1 | — | — | — | — | — |
| Tashkent | | 24·2 | 310 | e 5 20 | + 1 | e 9 34 | − 1 | — | — | — |
| Kyakhta | | 24·3 | 18 | 5 19? | − 1 | 9 45? | + 8 | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tchimkent | | 24·4 | 313 | i 5 22 | + 1 | i 9 41 | + 2 | — | — | — |
| Semipalatinsk | | 24·7 | 340 | 5 25 | + 1 | e 9 50 | + 6 | — | — | — |
| Samarkand | | 25·2 | 304 | 5 29 | 0 | 9 51 | − 1 | — | — | — |
| Irkutsk | | 25·4 | 13 | 5 33? | + 2 | 10 8? | +12 | — | — | — |
| Kabansk | | 25·8 | 16 | 5 37 | + 3 | — | — | — | — | — |
| Bairam-Ali | | 28·3 | 298 | i 5 58 | + 1 | — | — | — | — | — |
| Manila | | 28·4 | 112 | e 10 28 | S | (e 10 28) | −17 | — | — | i 14·1 |
| Kizyl-Arvat | | 33·1 | 300 | e 6 37 | − 3 | — | — | — | — | — |
| Vladivostok | | 34·0 | 53 | e 6 48 | 0 | — | — | — | — | — |
| Sverdlovsk | | 37·2 | 331 | i 7 16 | + 1 | 13 1 | − 1 | — | — | — |
| Kirovobad | | 40·9 | 302 | 7 46 | 0 | 13 52 | − 6 | — | — | — |
| Grozny | | 41·5 | 305 | i 7 50 | 0 | — | — | — | — | — |
| Tiflis | | 42·1 | 303 | e 7 51 | − 4 | — | — | — | — | — |
| Uglegorsk | | 42·2 | 46 | e 7 58 | + 2 | — | — | — | — | — |
| Erevan | | 42·3 | 300 | e 7 57 | 0 | 14 14 | − 5 | — | — | — |
| Yuzno-Sakhlinsk | | 42·3 | 50 | 7 58 | + 1 | 14 18 | − 1 | — | — | — |
| Tsikhlis-Dzhvari | | 43·1 | 303 | e 8 0 | − 4 | — | — | — | — | — |
| Borzhomi | | 43·2 | 303 | 8 6? | + 2 | — | — | — | — | — |
| Piatigorsk | | 43·5 | 306 | 8 8 | + 1 | i 14 33 | − 3 | — | — | — |
| Sotchi | | 45·9 | 305 | e 8 26 | 0 | — | — | — | — | — |
| Moscow | | 48·5 | 322 | e 8 46 | 0 | — | — | — | — | — |
| Theodosia | | 49·0 | 307 | i 8 49 | − 1 | e 15 52 | − 3 | — | — | — |
| Ksara | | 49·6 | 292 | e 8 58 | + 3 | e 17 28? | ? | — | — | — |
| Yalta | | 49·9 | 306 | 1 8 45 | −12 | — | — | — | — | — |
| Pulkovo | | 53·0 | 326 | e 9 22 | + 1 | e 16 49 | − 1 | — | — | — |
| Kishinev | | 53·5 | 311 | 9 24 | 0 | 16 52 | − 5 | — | — | — |
| Istanbul | | 53·9 | 302 | e 9 28 | + 1 | e 19 12? | $S_cS$ | e 11 25 | PP | 28·2 |
| Uzhgorod | | 57·8 | 308 | i 9 46 | − 9 | — | — | — | — | — |
| Kiruna | | 58·2 | 334 | i 9 58a | 0 | e 18 2 | + 3 | e 21 30 | SS | e 28·2 |
| Upsala | | 59·4 | 326 | i 10 6a | 0 | — | — | i 10 22 | ? | e 32·2 |
| Prague | | 62·6 | 315 | e 10 28 | 0 | e 24 30 | ? | e 12 52 | PP | — |
| Copenhagen | | 62·7 | 322 | i 10 28 | − 1 | 20 30 | ? | (25 12) | SSS | 25·2 |
| Potsdam | | 63·0 | 318 | e 10 31 | 0 | — | — | — | — | e 34·2 |
| Collmberg | z. | 63·2 | 316 | e 10 32 | 0 | — | — | — | — | — |
| Triest | | 64·0 | 311 | e 10 39 | + 1 | i 19 8 | − 5 | e 19 19 | PS | — |
| Jena | z. | 64·2 | 316 | e 10 38 | − 1 | — | — | — | — | — |
| Messina | | 64·7 | 302 | i 10 41k | − 1 | e 19 14 | − 8 | — | — | — |
| Rome | | 65·9 | 307 | — | — | e 19 23 | −14 | e 23 37 | SS | e 37·7 |
| Stuttgart | | 66·2 | 314 | i 10 52a | 0 | e 19 41 | + 1 | e 23 48 | SS | e 37·2 |
| Witteveen | z. | 66·7 | 320 | i 10 55a | 0 | — | — | — | — | — |
| Strasbourg | | 67·2 | 314 | i 10 58 | 0 | e 11 30 | PcP | e 13 29 | PP | e 37·2 |
| Paris | | 70·4 | 316 | i 11 18 | 0 | e 20 31 | + 1 | e 13 44 | PP | e 40·2 |
| Clermont-Ferrand | | 71·1 | 313 | e 11 22 | 0 | — | — | — | — | 43·2 |
| Kew | | 71·2 | 319 | i 11 22a | − 1 | e 20 33 | − 7 | — | — | e 40·2 |
| Scoresby Sund | | 72·0 | 342 | e 11 26 | − 2 | 20 48 | − 1 | 15 48 | PPP | 42·2 |
| Rathfarnham C. | z. | 73·8 | 323 | i 12 12? | +34 | — | — | — | — | — |
| Algiers Univ. | z. | 74·5 | 304 | e 11 41 | − 1 | — | — | — | — | — |
| College | | 75·9 | 23 | i 11 51 | + 1 | — | — | — | — | — |
| Toledo | | 78·3 | 309 | i 12 5 | + 2 | — | — | e 14 44 | PP | — |
| Tamanrasset | z. | 78·4 | 290 | e 12 5 | + 1 | e 12 16 | PcP | e 15 10 | PP | — |
| Almeria | | 78·5 | 306 | e 11 44 | −20 | — | — | — | — | 47·2 |
| Brisbane | z. | 79·1 | 129 | i 12 16k | + 8 | — | — | — | — | — |
| Granada | | 79·2 | 307 | — | — | e 22 22 | +14 | — | — | 47·0 |
| Malaga | | 80·0 | 307 | i 12 14 | + 1 | — | — | — | — | 51·4 |
| Pretoria | z. | 82·8 | 236 | i 12 29 | + 2 | — | — | — | — | — |
| Pietermaritzburg | z. | 83·5 | 232 | i 12 38 | + 7 | — | — | — | — | — |
| Kimberley | z. | 87·0 | 235 | i 12 48 | 0 | — | — | — | — | — |
| Hungry Horse | | 100·0 | 18 | e 13 50 | + 2 | — | — | e 17 34 | PP | — |
| Shasta | z. | 103·8 | 27 | e 18 12 | PP | — | — | — | — | — |
| Mineral | z. | 104·4 | 27 | e 18 7 | PP | — | — | — | — | — |
| Fayetteville | z. | 115·8 | 7 | e 19 9 | [+24] | — | — | — | — | — |
| Huancayo | | 161·3 | 326 | e 20 52 | $PKP_2$ | — | — | — | — | — |

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Aug. 25d. 5h. 36m. 55s. Epicentre 36°·5N. 71°·0E. Depth of focus 0·030. (as on 2d.).

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Khorog | 1·1 | 26 | e 0 34 | + 1 | 0 57 | − 2 | — | — |
| Kulyab | 1·7 | 325 | i 0 39 | + 1 | e 1 8 | + 1 | — | — |
| Obi-garm | 2·4 | 335 | i 0 46 | + 1 | i 1 21 | + 2 | — | — |
| Dzhergetal | 2·7 | 4 | 0 49 | + 1 | i 1 25 | 0 | — | — |
| Murgab | 3·0 | 51 | 0 52 | + 1 | 1 29 | − 2 | — | — |
| Fergana | 3·9 | 9 | i 1 3 | + 1 | i 1 50 | 0 | — | — |
| Andijan | 4·4 | 15 | i 1 8 | 0 | 1 59 | − 2 | — | — |
| Samarkand | 4·5 | 317 | i 1 10 | + 1 | e 2 0 | − 3 | — | — |
| Namangan | 4·5 | 7 | i 1 10 | + 1 | i 2 4 | + 1 | — | — |
| Lunacharskoe | 5·0 | 347 | i 1 16 | 0 | i 2 12 | − 2 | — | — |
| Tchimkent | 5·9 | 349 | i 1 27 | 0 | i 2 31 | − 4 | e 2 11 | sP |
| Naryn | 6·3 | 37 | e 1 29 | − 3 | 2 39 | − 5 | — | — |
| Frunse | 7·0 | 23 | i 1 41 | 0 | — | — | — | — |
| Przhevalsk | 8·3 | 42 | e 1 57 | − 1 | — | — | — | — |
| Almata II | 8·3 | 34 | i 1 59 | + 1 | — | — | — | — |
| Ili | 8·8 | 30 | i 2 1 | − 3 | — | — | — | — |

Aug. 26d. 1h. 53m. 23s. Epicentre 46°·3N. 7°·4E. (as on 1950, November 19d.).

Intensity IV-V at Sion. Epicentre as adopted (Strasbourg).

Dr. E. Wanner.
Jahresbericht des Erdbebendienstes der Schweiz im Jahre, 1952, Zürich, 1953, p. 2, with macroseismic chart fig. 5 outside the text.

A = +·6875, B = +·0893, C = +·7206 ; δ = −10 ; h = −4 ;
D = +·129, E = −·992 ; G = +·715, H = +·093, K = −·693.

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Neuchatel | 0·7 | 336 | e 0 11 | − $3_g$ | e 0 25 | 0* | e 0 14 | P* |
| Oropa | 0·8 | 150 | i 0 22 | + 4 | i 0 32 | + 1 | — | — |
| Basle | 1·3 | 6 | e 0 21 | − 4 | e 0 40 | − 2* | e 0 23 | $P_g$ |
| Zürich | 1·3 | 37 | e 0 23 | − 2 | e 0 42 | 0* | i 0 29 | ? |
| Chur | 1·6 | 69 | e 0 30 | 0* | e 0 54 | + $1_g$ | — | — |
| Strasbourg | 2·3 | 6 | — | — | e 1 22 | + $6_g$ | — | — |
| Stuttgart | 2·7 | 26 | e 0 33 | −12 | e 1 26 | + 2* | e 1 31 | $S_g$ |
| Clermont-Ferrand | 3·0 | 260 | e 0 50 | 0 | e 1 21 | − 6 | i 1 42 | $S_g$ |
| Paris | 4·2 | 309 | e 1 15 | 0* | e 1 53 | − 4 | e 2 14 | $S_g$ |
| Jena | 5·4 | 30 | — | — | e 2 52? | + 8* | e 2 56 | $S_g$ |
| Prague | 6·0 | 49 | — | — | e 3 10 | + 8* | e 3 15 | $S_g$ |
| Collmberg z. | 6·2 | 34 | — | — | e 3 5 | − 3* | — | — |

Aug. 26d. 10h. 14m. 45s. Epicentre 32°·5N. 139°·5E. Depth of focus 0·015.

Intensity IV at Hatidyozima and Miyako. Epicentre 32°·8N. 140°·1E. Depth 120km. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, for August, 1952, Tokyo, 1952, p. 312.

A = −·6425, B = +·5488, C = +·5347 ; δ = −11 ; h = +1 ;
D = +·649, E = +·760 ; G = −·407, H = +·347, K = −·845.

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Hatidyozima | 0·7 | 25 | i 0 22 | + 1 | 0 37 | + 1 | — | — |
| Torisima | 2·1 | 161 | i 0 45 | + 9 | 1 15 | +12 | — | — |
| Omaesaki | 2·3 | 333 | 0 41 | + 3 | 1 13 | + 6 | — | — |
| Osima | 2·3 | 358 | i 0 39 | + 1 | 1 4 | − 3 | — | — |
| Ajiro | 2·6 | 11 | 0 43 | + 1 | 1 13 | − 1 | — | — |
| Shizuoka | 2·6 | 340 | 0 45 | + 3 | 1 14 | 0 | — | — |
| Misima | 2·7 | 350 | i 0 44 a | 0 | 1 14 | − 3 | — | — |
| Yokohama | 2·9 | 2 | i 0 46 a | 0 | — | — | — | — |
| Hunatu | 3·0 | 349 | i 0 50 | + 2 | 1 25 | + 1 | — | — |
| Kohu | 3·2 | 346 | i 0 50 a | 0 | 1 28 | 0 | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Tokyo | | 3·2 | 4 | i 0 48a | − 2 | 1 20 | − 8 | — | — |
| Iida | | 3·3 | 325 | e 0 54 | + 2 | 1 32 | + 1 | — | — |
| Siomisaki | | 3·3 | 288 | e 0 58? | + 6 | 1 39? | + 8 | — | — |
| Kameyama | | 3·4 | 313 | 0 58 | + 5 | 1 42 | + 9 | — | — |
| Kashiwa | | 3·4 | 7 | 0 52 | − 1 | 1 28 | − 5 | — | — |
| Nagoya | | 3·4 | 322 | 0 56 | + 3 | 1 36 | + 3 | — | — |
| Tyosi | N. | 3·4 | 19 | i 0 48a | − 5 | 1 23 | −10 | — | — |
| Titibu | | 3·5 | 354 | i 0 55 | + 1 | 1 30 | − 6 | — | — |
| Kumagaya | | 3·6 | 358 | i 0 55a | − 1 | 1 32 | − 6 | — | — |
| Gihu | N. | 3·7 | 323 | e 1 1 | + 4 | 1 44 | + 4 | — | — |
| Tukubasan | | 3·7 | 8 | e 0 54 | − 3 | 1 33 | − 7 | — | — |
| Maebasi | | 3·9 | 355 | i 0 59 | 0 | 1 37 | − 8 | — | — |
| Matumoto | E. | 3·9 | 342 | 1 3 | + 4 | 1 49 | + 4 | — | — |
| Oiwake | | 3·9 | 349 | 1 1 | + 2 | 1 41 | − 4 | — | — |
| Osaka | | 3·9 | 304 | e 1 10 | +11 | 1 58 | +13 | — | — |
| Kyoto | | 4·0 | 310 | e 1 11 | +10 | 1 57 | +10 | — | — |
| Mito | | 4·0 | 11 | 0 56 | − 5 | 1 36 | −11 | — | — |
| Utunomiya | | 4·0 | 4 | e 0 58 | − 3 | 1 39 | − 8 | — | — |
| Kobe | | 4·2 | 302 | e 1 13 | +10 | 2 3 | +11 | — | — |
| Matusiro | | 4·2 | 346 | i 1 2 | − 1 | 1 50 | − 2 | — | — |
| Tsuruga | | 4·2 | 319 | e 1 16 | +13 | e 2 3 | +11 | — | — |
| Nagano | E. | 4·3 | 346 | e 1 7 | + 2 | 1 52 | − 3 | — | — |
| Sumoto | | 4·3 | 297 | i 1 14 | + 9 | 2 8 | +13 | — | — |
| Hukui | | 4·4 | 324 | e 1 13 | + 7 | — | — | — | — |
| Onahama | | 4·6 | 16 | e 1 3 | − 6 | 1 50 | −12 | — | — |
| Shirakawa | | 4·6 | 7 | 1 3 | − 6 | 1 52 | −10 | — | — |
| Toyama | | 4·6 | 336 | e 1 14 | + 5 | 1 57 | − 5 | — | — |
| Takamatu | | 4·9 | 293 | e 1 23a | +10 | 2 18 | + 9 | — | — |
| Inawasiro | | 5·1 | 6 | e 1 10 | − 6 | 2 1 | −13 | — | — |
| Hukusima | | 5·3 | 8 | i 1 15 | − 3 | 2 8 | −11 | — | — |
| Wazima | | 5·3 | 337 | e 1 25 | + 7 | 2 35 | +16 | — | — |
| Niigata | | 5·4 | 356 | e 1 23 | + 3 | — | — | — | — |
| Aikawa | | 5·6 | 349 | e 1 15 | − 7 | 2 16 | −10 | — | — |
| Sendai | N. | 5·9 | 11 | e 1 21 | − 5 | 2 18 | −15 | — | — |
| Mizusawa | | 6·7 | 11 | 1 34 | − 3 | 2 39 | −14 | — | — |
| Akita | | 7·2 | 4 | — | — | e 3 10 | + 5 | — | — |
| Morioka | | 7·3 | 10 | i 1 39 | − 6 | 2 53 | −14 | — | — |
| Miyako | | 7·4 | 15 | e 1 35 | −12 | 2 50 | −20 | — | — |
| Aomori | | 8·4 | 7 | — | — | e 3 30 | − 4 | — | — |
| Urakawa | | 10·0 | 14 | e 2 23 | + 2 | 3 56 | −16 | — | — |
| Sapporo | | 10·7 | 7 | e 2 25 | − 6 | 4 17 | −12 | — | — |
| College | | 53·8 | 30 | i 9 9 | − 3 | — | — | e 9 29 | pP |
| Victoria | | 70·7 | 44 | 11 3 | − 1 | — | — | — | — |
| Kiruna | z. | 70·8 | 339 | i 11 1 | − 3 | — | — | — | — |
| Shasta | z. | 75·1 | 51 | i 11 29k | − 1 | — | — | — | — |
| Mineral | z. | 75·8 | 51 | i 11 33k | 0 | — | — | — | — |
| Hungry Horse | | 76·2 | 41 | i 11 35 | − 1 | — | — | — | — |
| Upsala | z. | 76·3 | 334 | i 11 38 | + 2 | — | — | — | — |
| Berkeley | z. | 76·6 | 53 | i 11 38k | 0 | — | — | — | — |
| Lick | z. | 77·3 | 53 | i 11 42k | 0 | — | — | — | — |
| Reno | z. | 77·4 | 50 | e 11 43k | + 1 | — | — | — | — |
| Butte | | 78·3 | 42 | i 11 48 | + 1 | — | — | — | — |
| Tinemaha | z. | 79·8 | 53 | i 11 56 | + 1 | — | — | i 12 26 | pP |
| China Lake | z. | 80·9 | 53 | i 12 0k | − 1 | — | — | — | — |
| Pasadena | z. | 81·4 | 55 | i 12 3k | − 1 | — | — | — | — |
| Riverside | z. | 82·1 | 55 | i 12 7k | − 1 | — | — | — | — |
| Boulder City | | 82·7 | 52 | i 12 11 | 0 | — | — | — | — |
| Collmberg | z. | 84·2 | 330 | e 12 21 | + 3 | — | — | — | — |
| Jena | | 85·1 | 330 | e 12 25 | + 2 | — | — | e 12 37 | pP |
| Tucson | | 87·5 | 53 | e 12 36 | + 2 | — | — | — | — |
| Fayetteville | z. | 95·3 | 41 | i 12 49k | −21 | — | — | — | — |

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Aug. 26d. 18h. 22m. 47s. Epicentre 17°·7S. 174°·9W. Depth of focus 0·030 (as on 1952, March 25d.).

A = −·9495, B = −·0847, C = −·3022; $\delta$ = +5; $h$ = +5;
D = −·089, E = +·996; G = +·301, H = +·027, K = −·953.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Apia | | 4·9 | 38 | i 1 17 | + 3 | i 2 13 | + 1 | — | — |
| Karapiro | N. | 21·8 | 202 | e 4 33 | − 2 | — | — | — | — |
| Wellington | | 25·1 | 199 | e 5 2 | − 4 | e 9 20 | + 8 | e 10 16 | SS |
| Cobb River | E. | 25·6 | 203 | e 5 13? | + 3 | — | — | — | — |
| Christchurch | | 27·8 | 200 | e 5 39 | + 9 | — | — | — | — |
| Brisbane | Z. | 31·1 | 246 | i 5 56a | − 4 | — | — | i 6 9 | ? |
| Lick | Z. | 74·2 | 41 | i 11 15a | + 1 | — | — | — | — |
| Pasadena | Z. | 74·6 | 47 | i 11 16 | 0 | — | — | — | — |
| Fresno | Z. | 75·1 | 43 | i 11 19a | 0 | — | — | — | — |
| Palomar | Z. | 75·1 | 48 | i 11 20 | + 1 | — | — | — | — |
| Riverside | Z. | 75·1 | 47 | e 11 19 | 0 | — | — | — | — |
| Shasta | Z. | 75·8 | 39 | e 11 23k | 0 | — | — | — | — |
| China Lake | Z. | 76·0 | 45 | e 11 25k | + 1 | — | — | e 12 25 | pP |
| Tinemaha | Z. | 76·2 | 44 | i 11 26 | + 1 | — | — | — | — |
| Reno | Z. | 76·7 | 41 | e 11 28a | 0 | — | — | — | — |
| Boulder City | | 77·9 | 46 | e 11 35 | + 1 | — | — | — | — |
| Tucson | | 78·9 | 51 | i 11 42 | + 2 | — | — | — | — |
| College | | 84·9 | 11 | i 12 10 | − 1 | — | — | i 13 12 | pP |
| Hungry Horse | | 85·2 | 37 | i 12 12 | 0 | — | — | — | — |
| Fayetteville | Z. | 93·0 | 53 | i 12 49 | 0 | — | — | — | — |
| Stuttgart | | 148·8 | 345 | e 19 21 | [+ 4] | — | — | e 20 28 | pPKP |
| Paris | | 148·9 | 4 | e 19 27 | [+10] | — | — | — | — |
| Strasbourg | | 149·1 | 347 | i 19 22 | [+ 5] | — | — | — | — |
| Tamanrasset | Z. | 174·9 | — | e 19 52 | [+10] | — | — | — | — |

Aug. 27d. 3h. 57m. 46s. Epicentre 31°·0N. 131°·4E. (as on 1947, October 10d.).
Intensity IV at Kagosima, Tashiro, Tarumizu, Kasanohara, Chiran, Kanoya, and Honjo; II-III at Miyazaki, Yamakawa, and Miyakonojo. Epicentre 31°·1N. 131°·4E. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, for August, 1952, Tokyo, 1952, p. 313, with macroseismic chart.

A = −·5679, B = +·6441, C = +·5125; $\delta$ = +3; $h$ = +2;
D = +·750, E = +·661; G = −·339, H = +·384, K = −·859.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Miyazaki | | 0·9 | 2 | i 0 16 | − 2g | 0 29 | − 1g | — | — |
| Kagosima | | 0·9 | 308 | i 0 23a | + 3 | 0 33 | − 1 | — | — |
| Yakusima | | 0·9 | 234 | i 0 22a | + 2 | 0 38 | + 4 | — | — |
| Kumamoto | | 1·9 | 342 | e 0 33 | − 1 | 1 7 | + 4g | — | — |
| Asosan | | 1·9 | 351 | 0 32 | − 2 | 1 1 | + 1* | — | — |
| Unzendake | | 2·0 | 330 | 0 47a | +12 | 1 29 | +27 | — | — |
| Nagasaki | Z. | 2·2 | 323 | e 0 31 | − 7 | — | — | — | — |
| Ooita | | 2·2 | 5 | e 0 38 | 0 | 1 13 | 0g | — | — |
| Saga | | 2·4 | 337 | e 0 42 | + 1 | — | — | — | — |
| Hukuoka | | 2·7 | 342 | e 0 50a | + 1* | 1 25 | + 1* | — | — |
| Simonoseki | | 3·0 | 352 | i 0 57 | − 3g | 1 34 | + 1* | — | — |
| Matuyama | | 3·1 | 22 | e 0 55 | − 1* | 1 35 | − 1* | — | — |
| Koti | | 3·1 | 36 | e 1 5 | + 3g | 1 34 | − 2* | — | — |
| Muroto | | 3·2 | 55 | e 1 12 | + 8g | 1 56 | +10g | — | — |
| Hirosima | | 3·5 | 14 | 1 1 | − 2* | 1 45 | − 3* | — | — |
| Hamada | | 3·9 | 8 | 1 9 | − 1* | 1 47 | − 3 | — | — |
| Takamatu | | 4·0 | 33 | 1 8 | − 3* | — | — | — | — |
| Sumoto | | 4·5 | 40 | 1 12 | + 1 | 2 27 | − 2g | — | — |
| Kobe | | 4·9 | 40 | e 1 57 | +19g | 2 53 | +11g | — | — |
| Osaka | | 5·0 | 43 | e 2 3 | +23g | 2 56 | +11g | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Kameyama | | 5·7 | 46 | 2 24 | +56 | 3 24 | +49 | — | — |
| Tsuruga | | 6·1 | 39 | e 1 31 | − 3 | 3 18 | − 4$_g$ | — | — |
| Nagoya | | 6·2 | 47 | e 1 40 | + 5 | — | — | — | — |
| Hukui | | 6·5 | 38 | — | — | e 3 28 | − 7$_g$ | — | — |
| Iida | | 7·0 | 48 | — | — | e 3 13 | + 5 | — | — |
| Shizuoka | | 7·1 | 54 | — | — | e 4 10 | +15$_g$ | — | — |
| Toyama | | 7·4 | 38 | — | — | e 3 39 | − 5* | — | — |
| Hunatu | N. | 7·6 | 52 | — | — | e 3 23 | 0 | 4 25 | S$_g$ |
| Kohu | | 7·6 | 50 | — | — | e 4 22 | +11$_g$ | — | — |
| Matumoto | N. | 7·6 | 45 | — | — | e 4 0 | +10* | — | — |
| Matusiro | | 7·9 | 44 | e 2 11 | − 7* | — | — | — | — |
| Nagano | | 8·0 | 43 | — | — | e 4 23 | − 1$_g$ | — | — |
| Kumagaya | | 8·4 | 50 | — | — | e 4 38 | + 1$_g$ | — | — |
| Maebasi | | 8·4 | 48 | — | — | e 4 48 | +11$_g$ | — | — |
| Collmberg | Z. | 81·8 | 326 | e 12 17 | − 5 | e 12 30 | PcP | — | — |
| Stuttgart | | 85·3 | 326 | e 12 34 | − 6 | — | — | e 12 43 | PcP |

Aug. 27d. 11h. 27m. 50s. Epicentre 55°·6N. 160°·4W. Focus at Base of Superficial Layers.
(as on 1951, November 8d.).

$A = -·5347$, $B = -·1903$, $C = +·8233$; $\delta = -6$; $h = -8$;
$D = -·335$, $E = +·942$; $G = -·776$, $H = -·276$, $K = -·568$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Mitchell Field | | 10·3 | 256 | i 2 27 | − 1 | e 4 30 | + 6 | — | — | — |
| College | | 11·2 | 29 | e 2 43 | + 2 | i 5 7 | SS | — | — | i 5·8 |
| Klyuchi | | 21·6 | 288 | e 4 48 | − 1 | e 8 49 | + 8 | 5 2 | pP | — |
| Victoria | | 23·6 | 91 | 5 10 | + 1 | — | — | — | — | — |
| Petropavlovsk | | 23·8 | 282 | 5 9 | − 2 | e 9 30 | + 9 | 5 24 | pP | — |
| Seattle | | 24·7 | 91 | e 5 23? | + 4 | e 9 20 | −16 | i 5 31 | pP | — |
| Hungry Horse | | 29·0 | 84 | i 5 58 | − 1 | i 7 13 | PPP | i 6 9 | pP | — |
| Shasta | | 29·0 | 103 | e 5 57 | − 2 | e 10 48 | + 2 | i 6 8 | pP | — |
| Resolute Bay | | 31·1 | 28 | i 6 13k | − 4 | i 11 18 | − 2 | i 6 31 | sP | e 19·0 |
| Berkeley | | 31·1 | 108 | i 6 18$_a$ | + 1 | e 10 56 | −24 | i 6 26 | pP | e 14·2 |
| Reno | | 31·2 | 102 | e 6 16$_a$ | − 2 | e 11 22 | + 1 | e 6 26 | pP | — |
| Butte | | 31·2 | 85 | i 6 28 | pP | — | — | — | — | — |
| Santa Clara | E. | 31·6 | 108 | — | — | e 11 28 | + 1 | — | — | e 14·8 |
| Lick | Z. | 31·8 | 108 | e 6 21 | − 3 | e 9 14 | PcP | i 6 30 | pP | — |
| Fresno | Z. | 33·2 | 106 | e 6 34 | − 2 | — | — | e 6 44 | pP | — |
| Tinemaha | Z. | 33·9 | 104 | i 6 41 | − 1 | e 12 7 | + 4 | i 6 52 | pP | — |
| Uglegorsk | | 34·9 | 284 | 6 48 | − 2 | — | — | — | — | — |
| China Lake | Z. | 35·1 | 104 | e 6 50 | − 2 | e 12 40 | sS | i 7 1 | pP | — |
| Yuzno-Sakhlinsk | | 35·7 | 281 | e 6 54 | − 3 | — | — | 7 10 | pP | — |
| Pasadena | | 36·1 | 108 | e 6 57 | − 4 | i 12 35 | − 2 | i 7 8 | pP | e 15·0 |
| Boulder City | | 36·5 | 102 | i 7 3 | − 1 | e 12 44 | + 1 | — | — | — |
| Riverside | Z. | 36·6 | 108 | i 7 4 | − 1 | i 9 37 | pPcP | i 7 13 | pP | — |
| Tucson | | 41·5 | 102 | i 7 45 | − 1 | i 9 40 | PcP | i 7 52 | pP | — |
| Vladivostok | | 44·1 | 283 | i 8 3 | − 4 | e 14 35 | − 2 | 8 21 | sP | — |
| Kirkland Lake | Z. | 47·5 | 63 | i 8 33$_a$ | − 1 | — | — | i 8 44 | pP | — |
| Fayetteville | Z. | 48·1 | 84 | i 8 36$_a$ | − 2 | i 10 15 | pPcP | i 8 58 | sP | — |
| Scoresby Sund | | 50·8 | 17 | e 9 1 | + 2 | — | — | 9 15 | pP | 27·2 |
| Kabansk | | 51·0 | 308 | 9 0 | − 1 | — | — | — | — | — |
| Cleveland | Z. | 51·3 | 70 | e 9 1$_a$ | − 2 | i 11 14 | pPP | i 9 12 | pP | — |
| Cincinnati | | 51·3 | 74 | i 9 1 | − 2 | i 16 16 | − 2 | — | — | — |
| Ottawa | | 51·6 | 63 | i 9 4$_a$ | − 1 | 16 21 | − 1 | i 9 15 | pP | 23·4 |
| Buffalo (Larkin) | | 51·8 | 67 | e 9 6 | − 1 | — | — | — | — | — |
| Irkutsk | | 51·9 | 309 | e 9 6 | − 1 | e 16 27 | + 1 | — | — | — |
| Kyakhta | | 52·2 | 307 | e 9 7 | − 3 | e 16 31 | 0 | — | — | — |
| Shawinigan Falls | N. | 52·3 | 60 | e 9 10 | − 1 | e 16 49 | sS | e 9 20 | pP | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Seven Falls | E. | 52·8 | 58 | e 9 12 | − 2 | 16 39 | 0 | e 9 22 | pP | — |
| Washington | | 55·5 | 69 | i 9 40 | + 6 | — | — | — | — | — |
| Palisades | | 55·6 | 66 | i 9 33 | − 2 | i 17 19 | + 3 | — | — | e 26·9 |
| City College, N.Y. | | 55·8 | 66 | i 9 34 | − 2 | e 17 21 | + 2 | — | — | — |
| Harvard | | 55·8 | 63 | i 9 36a | 0 | e 17 19 | 0 | i 9 46 | pP | — |
| Weston | | 56·0 | 63 | i 9 36a | − 2 | e 17 22 | 0 | i 9 48 | pP | — |
| Kiruna | Z. | 56·9 | 359 | i 9 44a | 0 | i 39 49 | P′P′ | i 10 1 | pP | — |
| Tacubaya | | 58·0 | 102 | e 9 54 | + 2 | — | — | e 10 26 | ? | — |
| Halifax | | 58·1 | 56 | i 9 52a | 0 | — | — | i 10 3 | pP | — |
| Nanking | | 59·2 | 283 | i 10 0a | 0 | — | — | — | — | — |
| Semipalatinsk | | 63·0 | 321 | e 10 24 | − 2 | — | — | — | — | — |
| Sverdlovsk | | 63·1 | 336 | i 10 27 | + 1 | 18 56 | + 2 | — | — | — |
| Pulkovo | | 64·7 | 354 | i 10 38 | + 1 | — | — | i 10 54 | pP | — |
| Bermuda | | 67·0 | 66 | i 11 0 | + 8 | e 19 40 | − 1 | — | — | e 27·3 |
| Moscow | | 68·1 | 349 | i 11 0 | + 2 | — | — | i 11 16 | pP | — |
| Copenhagen | | 68·9 | 5 | i 11 5 | + 2 | 20 28 | sS | i 11 19 | pP | 38·2 |
| Rathfarnham Castle | | 69·4 | 16 | i 11 7a | + 1 | e 20 23 | +13 | i 11 19 | pP | e 35·2 |
| Ili | | 69·6 | 320 | i 11 7 | − 1 | — | — | — | — | — |
| Kurmenty | | 69·9 | 318 | i 11 11 | + 1 | — | — | — | — | — |
| Almata II | | 70·0 | 320 | e 11 11 | + 1 | — | — | — | — | — |
| Almata | | 70·2 | 320 | i 11 12 | + 1 | — | — | — | — | — |
| Przhevalsk | | 70·3 | 318 | i 11 13 | + 1 | — | — | — | — | — |
| Rybach'e | | 71·2 | 320 | e 11 19 | + 1 | e 20 38 | + 7 | — | — | — |
| Frunse | | 71·4 | 321 | i 11 20 | + 1 | e 20 40 | + 7 | — | — | — |
| Witteveen | Z. | 71·4 | 9 | i 11 23k | + 4 | — | — | i 11 40 | pP | — |
| Manila | | 71·7 | 269 | i 11 10 | −10 | — | — | i 11 28 | pP | — |
| Kew | | 72·0 | 13 | i 11 23k | + 1 | — | — | i 11 41 | PcP | e 37·2 |
| Naryn | | 72·1 | 319 | i 11 25 | + 2 | — | — | — | — | — |
| Potsdam | Z. | 72·3 | 5 | i 11 25 | + 1 | — | — | i 11 41 | PcP | — |
| Collmberg | Z. | 73·3 | 4 | e 11 30 | 0 | — | — | e 11 46 | PcP | — |
| Jena | | 73·6 | 5 | e 11 34 | + 2 | e 21 20 | sS | i 11 51 | pP | — |
| Andijan | | 74·1 | 321 | i 11 34 | − 1 | 21 9 | + 5 | i 11 51 | pP | — |
| Namangan | | 74·1 | 321 | i 11 36 | + 1 | 21 6 | + 2 | — | — | — |
| Lunacharskoe | | 74·6 | 323 | e 11 38? | 0 | — | — | — | — | — |
| Fergana | | 74·6 | 321 | i 11 38 | 0 | — | — | i 11 55 | pP | — |
| Prague | | 74·6 | 3 | e 11 39 | + 1 | e 13 52 | PP | i 11 55 | PcP | — |
| Raciborzu | | 74·7 | 1 | e 11 38 | 0 | e 14 31 | PP | e 11 55 | PcP | — |
| Lwow | | 74·9 | 3 | e 11 41? | + 2 | — | — | e 11 57? | pP | — |
| Paris | | 75·0 | 12 | i 11 40 | 0 | i 21 22 | + 8 | e 11 48 | pP | e 33·2 |
| Stuttgart | | 75·6 | 7 | i 11 45a | + 2 | e 21 28 | + 7 | i 12 1 | PcP | e 41·2 |
| Strasbourg | | 75·7 | 8 | e 11 45 | + 1 | e 21 30 | + 8 | e 12 2 | pP | e 33·7 |
| Dzhergetal | | 75·8 | 321 | e 11 47 | + 3 | — | — | — | — | — |
| Basle | | 76·7 | 9 | e 11 41a | − 9 | e 14 52 | PP | e 12 8 | PcP | — |
| Obi-garm | | 76·8 | 322 | i 11 50 | 0 | — | — | — | — | — |
| Samarkand | | 76·9 | 325 | 11 51 | 0 | — | — | — | — | — |
| Zürich | | 77·0 | 9 | e 11 49 | − 2 | — | — | e 11 54 | P | — |
| Khorog | | 77·2 | 320 | e 11 53 | + 1 | — | — | — | — | — |
| Stalinabad | | 77·3 | 322 | i 11 54 | + 1 | e 21 41 | + 2 | — | — | — |
| San Juan | | 77·4 | 76 | i 11 53 | 0 | — | — | i 12 4 | pP | — |
| Kishinev | | 77·5 | 354 | i 11 54 | 0 | — | — | i 12 11 | pP | — |
| Chur | | 77·6 | 7 | e 11 56 | + 2 | — | — | e 12 13 | pP | — |
| Clermont-Ferrand | | 78·1 | 12 | e 12 0 | + 3 | e 22 53 | PPS | e 12 16 | pP | 38·2 |
| Shillong | E. | 78·6 | 299 | e 11 59 | − 1 | e 12 24 | sP | e 12 14 | pP | — |
| Oropa | | 78·7 | 9 | i 12 19 | pP | — | — | — | — | — |
| Piatigorsk | | 78·8 | 343 | 12 2 | + 1 | — | — | i 12 19 | pP | — |
| Theodosia | | 78·9 | 348 | i 12 2 | 0 | — | — | 12 18 | pP | — |
| Salo | E. | 78·9 | 7 | e 12 49 | +47 | — | — | e 14 1 | ? | — |
| Triest | | 79·0 | 5 | i 12 20 | pP | e 22 22 | sS | e 22 36 | SP | 44·9 |
| Grozny | | 79·0 | 341 | i 12 4 | + 2 | — | — | — | — | — |
| Makhach-Kala | | 79·0 | 340 | i 12 4 | + 2 | — | — | i 12 20 | pP | — |

*Continued on next page.*

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Simferopol | | 79·1 | 350 | e 12 1 | − 2 | — | — | — | — | — |
| Pavia | Z. | 79·2 | 8 | i 13 3k | +60 | — | — | — | — | — |
| Yalta | | 79·5 | 349 | i 12 5 | 0 | — | — | i 12 22 | pP | — |
| Sotchi | | 79·7 | 345 | i 12 7 | + 1 | — | — | 12 24 | pP | — |
| Chatra | E. | 79·9 | 303 | e 12 3 | − 4 | — | — | — | — | — |
| Belgrade | | 79·9 | 359 | i 12 8a | + 1 | e 22 11 | + 4 | i 12 25 | pP | — |
| Bologna | | 80·0 | 6 | e 12 16 | + 8 | e 23 1 | PS | — | — | — |
| Bairam-Ali | | 80·3 | 327 | i 12 3 | − 6 | — | — | — | — | — |
| Zugdidi | | 80·4 | 343 | e 12 13 | + 3 | — | — | 12 31 | pP | — |
| Prato | | 80·6 | 7 | e 12 26 | pP | — | — | — | — | — |
| Tiflis | | 80·7 | 341 | i 12 13? | + 2 | e 22 17? | + 2 | — | — | — |
| Kizyl-Arvat | | 80·7 | 332 | e 12 16 | + 5 | 22 22 | + 7 | — | — | — |
| Borzhomi | | 80·9 | 342 | 12 17 | + 5 | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 81·0 | 342 | 12 17 | + 4 | — | — | — | — | — |
| Shemakla | | 81·0 | 338 | i 12 14 | + 1 | — | — | — | — | — |
| Ashkabad | | 81·1 | 330 | i 12 15 | + 2 | — | — | — | — | — |
| Kirovobad | | 81·4 | 339 | i 12 17 | + 2 | — | — | — | — | — |
| Erevan | | 82·3 | 341 | i 12 21 | + 1 | — | — | 12 37 | pP | — |
| Goris | | 82·6 | 338 | i 12 23 | + 2 | — | — | — | — | — |
| Rome | | 82·7 | 6 | i 12 23a | + 1 | e 22 37 | + 1 | i 12 41 | pP | — |
| Rocca di Papa | N. | 82·8 | 6 | i 12 25 | + 3 | e 22 37 | 0 | i 12 44 | pP | — |
| New Delhi | | 82·8 | 311 | i 12 23 | + 1 | i 22 59 | sS | i 12 39 | pP | — |
| Toledo | | 82·8 | 18 | i 12 25a | + 3 | e 15 30 | PP | i 12 37 | pP | — |
| Fort de France | | 83·1 | 74 | e 12 20 | − 4 | e 23 20 | SP | — | — | — |
| Istanbul | Z. | 83·4 | 353 | e 12 27 | + 2 | e 23 4 | ScS | e 12 41? | pP | 44·2 |
| Alicante | | 84·9 | 16 | 12 39 | + 6 | 23 13 | +15 | 17 44 | PPP | 41·6 |
| Quetta | | 85·4 | 321 | e 12 35 | 0 | e 23 0 | − 2 | i 12 52 | pP | — |
| Granada | | 85·5 | 18 | i 12 34 | − 2 | i 23 10 | + 7 | 12 52 | pP | 47·3 |
| Malaga | | 85·8 | 19 | i 12 40 | + 3 | i 23 36 | sS | i 16 18 | pPP | 41·8 |
| Almeria | | 86·0 | 18 | 12 33 | − 5 | 23 11 | + 3 | 15 59 | PP | 48·0 |
| Messina | | 86·5 | 3 | e 12 40 | − 1 | e 23 18 | + 5 | — | — | e 50·2 |
| Algiers Univ. | Z. | 86·9 | 14 | e 12 44 | + 1 | i 23 6 | [+ 2] | i 13 0 | pP | — |
| Ksara | | 89·9 | 347 | e 12 56? | − 1 | 23 18 | [− 5] | i 13 18 | sP | — |
| Brisbane | Z. | 91·8 | 220 | i 13 16a | +10 | — | — | i 13 21 | pP | — |
| Poona | Z. | 93·1 | 309 | i 13 13 | + 1 | — | — | — | — | — |
| Helwan | Z. | 94·3 | 350 | 13 17 | 0 | i 17 23 | PP | i 13 36 | sP | — |
| Tamanrasset | Z. | 101·0 | 13 | e 14 2 | pP | e 17 55 | PP | e 20 22 | PPP | — |
| La Paz | | 104·7 | 97 | e 14 15 | pP | — | — | — | — | — |
| Pretoria | Z. | 149·5 | 344 | i 19 46 | [+ 5] | — | — | — | — | — |
| Pietermaritzburg | Z. | 152·9 | 338 | i 19 55? | [+ 9] | — | — | — | — | — |
| Kimberley | Z. | 152·9 | 349 | i 19 47 | [+ 1] | — | — | i 19 54 | ? | — |
| Grahamstown | Z. | 157·2 | 344 | i 20 4a | pPKP | — | — | — | — | — |

Aug. 27d. 12h. 51m. 9s. Epicentre 41°·4N. 44°·1E. (as on 4d.).

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Akhalkalaki | 0·5 | 270 | e 0 9 | − $1_g$ | i 0 15 | − $1_g$ |
| Gori | 0·6 | 1 | e 0 12 | $0_g$ | i 0 20 | $0_g$ |
| Tiflis | 0·6 | 59 | e 0 13 | 0* | i 0 23 | + 2* |
| Tsikhlis-Dzhvari | 0·6 | 302 | i 0 13 | 0* | i 0 21 | 0* |
| Leninakan | 0·6 | 199 | 0 15 | 0 | 0 25 | − 1 |
| Borzhomi | 0·7 | 309 | 0 15 | 0* | i 0 24 | − 1* |
| Abastumanj | 1·0 | 290 | — | — | e 0 41? | + 5 |
| Kirovobad | 1·8 | 111 | 0 34 | 0* | 1 3 | + $3_g$ |
| Zugdidi | 2·0 | 304 | e 0 36 | + 1 | 1 5 | − $1_g$ |
| Grozny | 2·3 | 32 | — | — | e 1 18 | + $2_g$ |

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Aug. 27d. 17h. 1m. 5s. Epicentre 19°·0N. 66°·6W. Depth of focus 0·005.

Felt at Caguas and San Juan. Epicentre 18°·5N. 66°·5W. (U.S.C.G.S.). Depth 100km.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 50.

$A = +·3758$, $B = -·8684$, $C = +·3236$; $\delta = +6$; $h = +4$;
$D = -·918$, $E = -·397$; $G = +·129$, $H = -·297$, $K = -·946$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| San Juan | | 0·8 | 143 | i 0 14 | − 3 | i 0 27 | − 2 | — | — | — |
| Fort de France | | 6·7 | 128 | e 1 38? | 0 | i 3 4? | +10 | — | — | — |
| Kingston | | 9·7 | 265 | — | — | e 4 19 | +11 | — | — | i 5·3 |
| Galerazamba | | 11·7 | 227 | — | — | e 4 52 | − 4 | — | — | — |
| Bogota | | 16·0 | 208 | i 3 46 | + 4 | i 6 42 | + 5 | — | — | 7·8 |
| City College, N.Y. | | 22·6 | 347 | e 5 9 | pP | e 8 50 | − 4 | — | — | — |
| Palisades | | 22·8 | 347 | e 5 1 | + 3 | e 8 54 | − 4 | i 9 2 | S | — |
| Weston | | 23·7 | 352 | i 7 13k | ? | e 9 12 | − 2 | — | — | — |
| Harvard | | 23·8 | 352 | e 5 9 | + 1 | e 9 16 | + 1 | i 5 29 | pP | e 10·2 |
| Halifax | | 25·7 | 6 | e 5 21 | − 5 | e 9 47 | 0 | 6 9 | PP | — |
| Cleveland | N. | 25·8 | 333 | i 5 52 | pP | e 10 21 | sS | — | — | — |
| Ottawa | | 27·4 | 346 | e 5 46 | + 5 | — | — | e 6 26 | PP | 14·2 |
| Shawinigan Falls | N. | 27·9 | 352 | e 6 21 | sP | — | — | — | — | — |
| Seven Falls | E. | 28·3 | 354 | e 12 28 | ScP | e 10 33 | + 3 | — | — | — |
| Fayetteville | Z. | 29·7 | 311 | i 5 59a | − 3 | — | — | i 7 0 | PP | — |
| Huancayo | | 32·0 | 196 | e 6 23 | + 1 | — | — | — | — | — |
| Tucson | | 41·7 | 297 | e 7 43 | − 1 | — | — | — | — | — |
| Boulder City | | 45·5 | 302 | i 8 15 | 0 | — | — | — | — | — |
| Hungry Horse | | 48·1 | 319 | i 8 33 | − 2 | — | — | — | — | — |
| Victoria | | 54·1 | 317 | 9 17 | − 3 | — | — | — | — | — |
| Granada | | 57·5 | 57 | 9 43k | − 2 | 17 25 | −11 | 22 55 | ? | i 26·3 |
| Alicante | | 59·9 | 55 | 9 43 | −19 | — | — | 12 11 | PP | 29·4 |
| Stuttgart | | 66·6 | 44 | e 10 46 | 0 | — | — | — | — | — |
| Tamanrasset | Z. | 66·9 | 73 | e 10 51 | + 4 | — | — | e 11 15 | pP | — |
| College | | 69·2 | 333 | i 11 0 | − 2 | — | — | i 11 15 | pP | — |
| Triest | Z. | 70·0 | 47 | e 11 7 | 0 | — | — | e 11 20 | pP | — |

Aug. 27d. 19h. 11m. 27s. Epicentre 16°·7S. 173°·5W. (as on 1952, July 19d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 3·3 | 30 | e 1 2 | + 3* | i 1 43 | + 1* | — | — | 1·9 |
| Pasadena | Z. | 73·0 | 46 | e 11 33 | 0 | — | — | — | — | — |
| Riverside | Z. | 73·4 | 46 | e 11 38 | + 2 | — | — | — | — | — |
| Fresno | Z. | 73·4 | 42 | e 11 35a | − 1 | — | — | — | — | — |
| Shasta | Z. | 74·2 | 38 | e 11 41k | + 1 | — | — | — | — | — |
| China Lake | Z. | 74·3 | 44 | e 11 42 | + 1 | — | — | — | — | — |
| Tinemaha | Z. | 74·6 | 43 | e 11 43 | 0 | — | — | — | — | — |
| Reno | Z. | 75·1 | 40 | e 11 45a | − 1 | — | — | — | — | — |
| Victoria | | 78·7 | 32 | 12 4 | − 2 | — | — | — | — | — |
| Fayetteville | Z. | 91·4 | 53 | e 13 8 | − 1 | — | — | e 11 42 | ? | — |
| Witteveen | Z. | 144·0 | 359 | e 19 37 | [ 0] | — | — | — | — | — |
| Collmberg | Z. | 145·1 | 354 | e 19 36 | [− 3] | — | — | — | — | — |
| Jena | Z. | 145·6 | 355 | e 19 38 | [− 2] | e 19 45 | $PKP_2$ | e 20 7 | ? | — |
| Paris | | 147·8 | 5 | e 19 47 | [+ 3] | — | — | 19 53 | $PKP_2$ | — |
| Stuttgart | | 147·9 | 356 | e 19 41 | [− 3] | — | — | e 19 51 | $PKP_2$ | — |
| Strasbourg | | 148·2 | 358 | e 19 46 | [+ 1] | e 19 49 | ? | e 20 1 | $PKP_2$ | — |
| Ksara | | 148·6 | 309 | e 19 49 | [+ 4] | e 36 5 | PPS | — | — | — |
| Triest | Z. | 150·5 | 350 | e 19 51 | [+ 3] | e 19 58 | ? | e 20 10 | $PKP_2$ | — |
| Clermont-Ferrand | | 150·9 | 5 | e 19 52 | [+ 3] | — | — | — | — | — |
| Helwan | Z. | 153·8 | 305 | e 19 50 | [− 3] | — | — | e 23 39 | PP | — |
| Tamanrasset | Z. | 173·9 | — | e 20 9 | [− 2] | — | — | e 21 43 | $PKP_2$ | — |

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Aug. 27d. 21h. 58m. 37s. Epicentre 52°·5N. 170°·0W. Depth of focus 0·005.
(as on 1950, September 2d.).

A = −·6020, B = −·1062, C = +·7914; $\delta$ = 0; $h$ = −6;
D = −·174, E = +·985; G = −·779, H = −·137, K = −·611.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Mitchell Field | | 4·1 | 265 | i 0 59 | − 3 | i 1 48 | − 1 | — | — | — |
| College | | 16·8 | 34 | e 3 50 | − 2 | e 7 3 | + 7 | — | — | e 8·7 |
| Victoria | | 29·5 | 79 | 6 1 | + 1 | — | — | — | — | — |
| Shasta | z. | 34·2 | 91 | e 6 43a | + 2 | — | — | — | — | — |
| Hungry Horse | | 35·1 | 74 | i 6 49 | 0 | — | — | i 9 19 | PcP | — |
| Reno | z. | 36·5 | 90 | e 6 57 | − 4 | — | — | — | — | — |
| Lick | z. | 36·7 | 95 | e 7 3 | + 1 | — | — | — | — | — |
| Tinemaha | z. | 39·0 | 93 | e 7 23 | + 1 | — | — | — | — | — |
| China Lake | z. | 40·2 | 93 | e 7 31 | − 1 | — | — | e 9 34 | PcP | — |
| Pasadena | z. | 40·9 | 95 | i 7 38 | + 1 | — | — | — | — | — |
| Boulder City | | 41·8 | 91 | e 7 46 | + 1 | — | — | — | — | — |
| Tucson | | 46·7 | 92 | i 8 25 | + 1 | — | — | — | — | — |
| Fayetteville | z. | 54·2 | 76 | i 9 20k | − 1 | — | — | i 10 24 | PcP | — |
| Ottawa | | 58·0 | 56 | e 9 47a | − 1 | — | — | — | — | — |
| Kiruna | z. | 59·7 | 355 | i 9 58 | − 2 | — | — | — | — | — |
| Palisades | | 62·1 | 58 | i 10 15 | − 1 | — | — | — | — | 32·0 |
| Harvard | | 62·2 | 56 | i 10 16k | − 1 | — | — | — | — | — |
| Weston | | 62·4 | 56 | i 10 18k | 0 | — | — | — | — | — |
| Halifax | | 64·5 | 49 | i 8 49k | ? | — | — | — | — | — |
| San Juan | | 83·7 | 68 | e 12 25 | + 2 | — | — | — | — | — |
| Pretoria | z. | 150·0 | 326 | i 19 44 | [+ 6] | — | — | — | — | — |
| Kimberley | z. | 153·9 | 329 | e 19 48 | [+ 4] | — | — | — | — | — |

Aug. 28d. 10h. 40m. 13s. Epicentre 39°·9S. 176°·9E. (as on 1952, January 18d.).

Widely felt in Hawkes Bay with maximum intensity VI, and throughout the southern region of the North Island.

R. C. Hayes.
Earthquake Origins in New Zealand during 1952, Seismo. Observatory Bull. S-98, 1953, p. 4, with macroseismic chart p. 5.

A = −·7682, B = +·0416, C = −·6389; $\delta$ = +6; $h$ = −2;
D = +·054, E = +·999; G = +·638, H = −·035, K = −·769.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Bunnythorpe | | 1·1 | 249 | e −0 9 | ? | — | — | e −0 1 | ? | — |
| Tuai | N. | 1·1 | 10 | i 0 23 | + 1 | i 0 39 | 0 | — | — | — |
| Wellington | | 2·1 | 230 | i 0 35 | − 2 | i 1 1 | − 3 | — | — | — |
| Karapiro | N. | 2·3 | 332 | i 0 38 | − 2 | — | — | — | — | — |
| New Plymouth | E. | 2·3 | 290 | 0 41 | + 1 | 1 19 | +10 | — | — | — |
| Cobb River | E. | 3·4 | 248 | e 0 53 | − 2 | 1 35 | − 2 | — | — | — |
| Auckland | N. | 3·5 | 331 | i 0 47 | −10 | i 1 47 | + 7 | — | — | — |
| Christchurch | | 4·8 | 220 | e 1 15 | 0 | i 2 4 | − 8 | — | — | — |
| Kaimata | N.E. | 4·8 | 236 | e 1 14 | − 1 | i 2 8 | − 4 | — | — | — |
| Riverview | | 21·4 | 278 | i 4 52a | + 1 | i 8 52 | + 7 | i 5 5 | pP | e 10·8 |
| Brisbane | | 23·3 | 295 | i 5 12 | + 2 | e 9 26 | + 6 | e 10 13 | Q | e 11·3 |
| Melbourne | E. | 24·9 | 265 | — | — | i 10 0 | +13 | — | — | i 13·5 |
| Manila | | 75·1 | 304 | i 11 55 | + 9 | — | — | — | — | — |
| La Plata | | 90·0 | 138 | — | — | 23 41 | [+ 8] | — | — | 44·1 |
| La Paz | | 97·5 | 119 | e 22 19 | ? | — | — | — | — | 47·8 |
| Scoresby Sund | | 147·8 | 12 | e 19 42 | [− 2] | — | — | — | — | — |
| Ksara | | 148·4 | 272 | i 19 57 | [+12] | 31 35? | SP | 23 25 | PP | — |
| Kiruna | z. | 149·2 | 343 | i 19 48 | [+ 2] | — | — | — | — | — |
| Helwan | z. | 150·2 | 262 | i 19 53a | [+ 5] | e 28 56 | SKKS | 20 5 | pPKP | — |
| Tamanrasset | z. | 161·5 | 206 | e 20 3 | [+ 1] | — | — | e 20 49 | PKP$_2$ | — |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Aug. 28d. 10h. 52m. 42s. Epicentre 55°·6N. 160°·4W. (as on 27d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Mitchell Field | | 10·3 | 256 | i 2 31 | − 1 | i 4 37 | + 7 | — | — | — |
| College | | 11·2 | 29 | i 2 47 | + 3 | 5 14 | +22 | — | — | — |
| Klyuchi | | 21·6 | 288 | 4 52 | − 2 | 8 52 | + 3 | 5 6 | pP | — |
| Victoria | | 23·6 | 91 | i 5 15a | + 2 | e 9 30 | + 5 | — | — | — |
| Petropavlovsk | | 23·8 | 282 | 5 13 | − 2 | e 9 32 | + 4 | — | — | — |
| Seattle | | 24·7 | 91 | i 5 27 | + 3 | i 6 26 | PP | i 5 36 | pP | — |
| Corvallis | E. | 25·9 | 97 | e 5 37 | + 2 | — | — | — | — | — |
| Hungry Horse | | 29·0 | 84 | i 6 4 | 0 | — | — | — | — | — |
| Shasta | | 29·0 | 103 | e 6 1k | − 3 | e 10 51 | − 3 | e 6 12 | pP | — |
| Berkeley | | 31·1 | 108 | e 6 18 | − 4 | e 11 22 | − 6 | i 6 30 | pP | — |
| Resolute Bay | | 31·1 | 28 | i 6 22a | 0 | i 11 23 | − 5 | i 7 35 | PP | e 19·3 |
| Butte | | 31·2 | 85 | e 6 28 | + 5 | — | — | i 6 32 | pP | — |
| Reno | | 31·2 | 102 | e 6 20 | − 3 | e 11 26 | − 3 | e 6 32 | pP | — |
| Saskatoon | | 31·2 | 73 | — | — | e 11 22 | − 7 | — | — | — |
| Santa Clara | | 31·6 | 108 | e 6 35k | + 9 | e 11 34 | − 1 | — | — | e 15·0 |
| Lick | z. | 31·8 | 108 | e 6 25k | − 3 | e 12 54 | ScP | i 6 36 | pP | — |
| Fresno | | 33·2 | 106 | e 6 38 | − 2 | e 11 54 | − 6 | i 6 49 | pP | — |
| Tinemaha | | 33·9 | 104 | i 6 44 | − 3 | e 12 11 | 0 | i 6 56 | pP | — |
| Uglegorsk | | 34·9 | 284 | 6 54 | − 1 | — | — | 7 11 | pP | — |
| China Lake | z. | 35·1 | 104 | i 6 55 | − 2 | e 12 22 | − 8 | i 7 5 | pP | — |
| Yuzno-Sakhlinsk | | 35·7 | 281 | 7 0 | − 2 | — | — | 7 17 | pP | — |
| Pasadena | | 36·1 | 108 | e 7 2 | − 3 | i 12 40 | − 5 | e 7 13 | pP | e 16·3 |
| Boulder City | | 36·5 | 102 | i 7 7 | − 2 | i 12 49 | − 2 | — | — | — |
| Riverside | z. | 36·6 | 108 | i 7 7 | − 3 | i 13 11 | ScP | i 7 17 | pP | — |
| Tucson | | 41·5 | 102 | i 7 49 | − 1 | — | — | i 8 0 | pP | — |
| Vladivostok | | 44·1 | 283 | i 8 8 | − 4 | — | — | i 8 25 | pP | — |
| Kirkland Lake | z. | 47·5 | 63 | i 8 38a | 0 | — | — | i 8 50 | pP | — |
| Fayetteville | z. | 48·1 | 84 | i 8 40a | − 3 | — | — | i 10 6 | PcP | — |
| Scoresby Sund | | 50·8 | 17 | i 9 3 | − 1 | — | — | — | — | 26·3 |
| Kabansk | | 51·0 | 308 | 9 4 | − 2 | — | — | — | — | — |
| Cincinnati | | 51·3 | 74 | i 9 5 | − 3 | — | — | i 9 16 | pP | — |
| Cleveland | | 51·3 | 70 | i 9 6a | − 2 | e 16 20 | − 6 | — | — | — |
| Ottawa | | 51·6 | 63 | i 9 8a | − 2 | 16 27 | − 4 | 10 14 | PcP | 23·5 |
| Buffalo (Larkin) | | 51·8 | 67 | i 9 13 | + 1 | e 16 25 | − 8 | — | — | — |
| Irkutsk | | 51·9 | 309 | 9 11 | − 1 | — | — | — | — | — |
| Kyakhta | | 52·2 | 307 | 9 11 | − 4 | e 16 34 | − 5 | — | — | — |
| Shawinigan Falls | N. | 52·3 | 60 | e 9 13 | − 2 | 16 35 | − 5 | 10 23 | PcP | — |
| Palisades | | 55·6 | 66 | i 9 37a | − 3 | i 17 23 | − 2 | — | — | e 27·0 |
| City College, N.Y. | | 55·8 | 66 | e 9 39 | − 2 | e 17 25 | − 3 | — | — | — |
| Fordham | | 55·8 | 66 | i 9 40 | − 1 | 17 25 | − 3 | — | — | — |
| Harvard | | 55·8 | 63 | i 9 39a | − 2 | e 17 25 | − 3 | — | — | e 29·3 |
| Weston | | 56·0 | 63 | i 9 41a | − 2 | e 17 27 | − 3 | i 9 53 | pP | — |
| Reykjavik | z. | 56·4 | 20 | i 9 46k | + 1 | — | — | i 10 3 | pP | — |
| Kiruna | z. | 56·9 | 359 | i 9 49a | 0 | i 11 49 | PP | i 10 43 | PcP | — |
| Tacubaya | | 58·0 | 102 | e 10 4 | + 7 | — | — | e 10 8 | ? | — |
| Halifax | | 58·1 | 56 | i 9 55 | − 3 | 17 53 | − 5 | 10 38 | PcP | 27·3 |
| Zô-Sè | z. | 58·6 | 280 | i 9 56a | − 5 | e 17 59 | − 5 | — | — | — |
| Nanking | | 59·2 | 283 | i 10 2a | − 3 | 18 6 | − 6 | — | — | — |
| Semipalatinsk | | 63·0 | 321 | i 10 29 | − 2 | — | — | — | — | — |
| Sverdlovsk | | 63·1 | 336 | i 10 32 | 0 | e 19 1 | − 1 | i 10 49 | pP | — |
| Pulkovo | | 64·7 | 354 | i 10 42 | 0 | — | — | i 10 59 | pP | — |
| Upsala | | 64·9 | 2 | i 10 43a | 0 | i 39 24 | P'P' | i 11 0 | pP | — |
| Bermuda | | 67·0 | 66 | i 10 53 | − 4 | e 19 46 | − 4 | e 26 46 | SS | — |
| Moscow | | 68·1 | 349 | i 11 4 | 0 | — | — | i 11 21 | pP | — |
| Copenhagen | | 68·9 | 5 | i 11 10 | + 1 | — | — | — | — | — |
| Rathfarnham Castle | | 69·4 | 16 | i 11 11a | − 1 | — | — | i 11 24 | pP | e 37·3 |
| Ili | | 69·6 | 320 | i 11 10 | − 3 | — | — | — | — | — |
| Almata II | | 70·0 | 320 | i 11 16 | + 1 | — | — | — | — | — |
| Almata | | 70·2 | 320 | i 11 17 | 0 | — | — | — | — | — |
| Rybach'e | | 71·2 | 320 | i 11 24 | + 1 | e 20 42 | + 2 | i 11 40 | pP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Frunse | | 71·4 | 321 | i 11 24 | 0 | — | — | i 11 40 | pP | — |
| Witteveen | z. | 71·4 | 9 | i 11 26 a | + 2 | — | — | e 11 40 | pP | — |
| Manila | | 71·7 | 269 | — | — | e 20 34 | −11 | — | — | — |
| Kew | | 72·0 | 13 | i 11 28 a | 0 | e 20 47 | − 2 | i 11 40 | pP | e 37·3 |
| Naryn | | 72·1 | 319 | i 11 29 | + 1 | — | — | — | — | — |
| Potsdam | z. | 72·3 | 5 | i 11 30 | + 1 | — | — | i 11 46 | pP | — |
| Collmberg | z. | 73·3 | 4 | i 11 35 | 0 | — | — | e 11 52 | pP | — |
| Jena | | 73·6 | 5 | i 11 38 | + 1 | e 21 29? | +22 | i 11 56 | PcP | — |
| Tchimkent | | 73·7 | 324 | i 11 35 | − 3 | — | — | — | — | — |
| Andijan | | 74·1 | 321 | i 11 40 | 0 | — | — | 11 57 | pP | — |
| Namangan | | 74·1 | 321 | i 11 40 | 0 | — | — | e 11 58 | pP | — |
| Fergana | | 74·6 | 321 | i 11 42 | − 1 | — | — | i 12 0 | pP | — |
| Lunacharskoe | | 74·6 | 323 | i 11 43 | 0 | — | — | — | — | — |
| Prague | | 74·6 | 3 | e 11 43 | 0 | e 13 36 | PP | i 12 0 | PcP | — |
| Raciborzu | | 74·7 | 1 | e 11 47 | + 4 | — | — | e 12 1 | PcP | — |
| Lwow | | 74·9 | 3 | i 11 45 | + 1 | — | — | e 12 2 | PcP | — |
| Paris | | 75·0 | 12 | i 11 46 | + 1 | i 21 12 | −11 | i 12 3 | PcP | e 36·3 |
| Karlsruhe | | 75·3 | 8 | e 11 50 | + 3 | — | — | e 12 4 | PcP | — |
| Skalnate Pleso | | 75·6 | 359 | 11 48 | 0 | e 12 45 | ? | e 12 5 | PcP | — |
| Stuttgart | | 75·6 | 7 | i 11 49 a | + 1 | e 12 42 | ? | i 12 6 | PcP | — |
| Strasbourg | | 75·7 | 8 | i 11 50 | + 1 | e 21 28 | − 2 | e 15 5 | PP | e 42·3 |
| Dzhergetal | | 75·8 | 321 | i 11 48 | − 2 | — | — | — | — | — |
| Uzhgorod | | 76·1 | 358 | i 11 52 | + 1 | — | — | i 12 10 | PcP | — |
| Cernauti | | 76·3 | 355 | e 11 52 | 0 | — | — | e 12 10 | PcP | — |
| Basle | | 76·7 | 9 | e 11 55 a | 0 | e 19 58 | ? | e 15 2 | PP | — |
| Ogyalla | | 76·9 | 1 | e 11 53 | − 3 | e 14 56 | PP | e 12 13 | PcP | — |
| Samarkand | | 76·9 | 325 | 11 55 | − 1 | — | — | — | — | — |
| Zürich | | 77·0 | 9 | e 11 57 | + 1 | e 22 9 | +24 | e 12 13 | PcP | — |
| Khorog | | 77·2 | 320 | 11 59 | + 2 | 21 47 | 0 | — | — | — |
| Stalinabad | | 77·3 | 322 | i 11 56 | − 2 | e 21 44 | − 4 | i 12 12 | PcP | — |
| San Juan | | 77·4 | 76 | i 11 57 | − 1 | — | — | — | — | — |
| Kishinev | | 77·5 | 354 | i 11 58 | − 1 | — | — | i 12 14 | PcP | — |
| Chur | | 77·6 | 7 | i 12 0 | 0 | — | — | — | — | — |
| Clermont-Ferrand | | 78·1 | 12 | i 12 3 | + 1 | — | — | i 12 21 | PcP | 25·3 |
| Shillong | E. | 78·6 | 299 | e 12 3 | − 2 | e 12 31 | PcP | e 12 19 | pP | — |
| Oropa | | 78·7 | 9 | e 12 6 | 0 | e 22 0 | − 3 | e 12 21 | pP | — |
| Piatigorsk | | 78·8 | 343 | i 12 6 | 0 | 22 2 | − 2 | i 12 22 | pP | — |
| Theodosia | | 78·9 | 348 | i 12 6 | − 1 | — | — | e 12 24 | pP | — |
| Grozny | | 79·0 | 341 | i 12 7 | 0 | — | — | — | — | — |
| Triest | | 79·0 | 5 | i 12 7 a | 0 | e 22 26 | +20 | e 12 24 | pP | — |
| Simferopol | | 79·1 | 350 | i 12 8 | 0 | — | — | — | — | — |
| Pavia | | 79·2 | 8 | e 13 10 | +62 | e 19 47 | ? | 14 48 | PP | — |
| Yalta | | 79·5 | 349 | i 12 10 | 0 | — | — | i 12 28 | pP | — |
| Sotchi | | 79·7 | 345 | i 12 10 | − 1 | — | — | i 12 28 | pP | — |
| Belgrade | | 79·9 | 359 | e 12 12 a | 0 | e 23 20 | PPS | e 15 16 | PP | — |
| Chatra | z. | 79·9 | 303 | i 12 10 | − 2 | — | — | — | — | — |
| Bairam-Ali | | 80·3 | 327 | i 12 14 | 0 | — | — | — | — | — |
| Zugdidi | | 80·4 | 343 | i 12 18 | + 3 | — | — | e 12 36 | pP | — |
| Gori | | 80·6 | 342 | 12 17 | + 1 | — | — | — | — | — |
| Prato | | 80·6 | 7 | e 12 27 | +11 | e 22 55 | +32 | — | — | — |
| Kizyl-Arvat | | 80·7 | 332 | i 12 18 | + 2 | e 22 23 | − 1 | — | — | — |
| Tiflis | | 80·7 | 341 | i 12 18 | + 2 | 22 24 | 0 | i 12 34 | pP | — |
| Florence | | 80·8 | 7 | i 12 18? | + 1 | — | — | e 18 59 | ? | e 45·3 |
| Borzhomi | | 80·9 | 342 | 12 19 | + 2 | — | — | — | — | — |
| Baku | | 81·0 | 337 | i 12 21 | + 3 | e 22 31 | + 4 | — | — | — |
| Tsikhlis-Dzhvari | | 81·0 | 342 | 12 19 | + 1 | — | — | — | — | — |
| Ashkabad | | 81·1 | 330 | i 12 20 | + 2 | i 22 29 | + 1 | — | — | — |
| Kirovobad | | 81·4 | 339 | i 12 21 | + 1 | 22 31 | 0 | i 12 38 | pP | — |
| Sofia | | 82·0 | 357 | e 12 25 | + 2 | — | — | — | — | — |
| Erevan | | 82·3 | 341 | 12 26 | + 1 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Goris | | 82·6 | 338 | i 12 27 | + 1 | i 22 46 | + 3 | — | — | — |
| Rome | | 82·7 | 6 | i 12 37a | +10 | e 22 26 | −18 | i 12 46 | pP | — |
| New Delhi | | 82·8 | 311 | i 12 27 | 0 | e 23 1 | +16 | i 12 43 | pP | — |
| Rocca di Papa | N. | 82·8 | 6 | i 12 28 | + 1 | e 22 51 | + 6 | — | — | — |
| Toledo | | 82·8 | 18 | i 12 29 | + 2 | e 20 21 | ? | i 12 42 | pP | 37·3 |
| Fort de France | | 83·1 | 74 | e 12 25 | − 4 | e ?2 45 | − 3 | — | — | — |
| Istanbul | | 83·4 | 353 | i 12 31 | + 1 | e 22 18? | ? | e 15 18? | PP | — |
| Taranto | | 84·3 | 2 | — | — | 22 26 | −34 | — | — | — |
| Alicante | | 84·9 | 16 | 12 53 | +15 | e 23 24 | +18 | 18 21 | PPP | 41·6 |
| Quetta | | 85·4 | 321 | i 12 40 | 0 | i 23 26 | +15 | e 23 5 | SKS | — |
| Granada | | 85·5 | 18 | i 12 42a | + 1 | e 22 18 | −54 | 13 0 | PcP | — |
| Malaga | | 85·8 | 19 | i 12 49 | + 7 | i 23 9 | − 6 | 16 3 | PP | — |
| Almeria | | 86·0 | 18 | 12 46 | + 3 | 23 12 | − 5 | 16 4 | PP | 44·5 |
| Messina | | 86·5 | 3 | e 12 45 | − 1 | e 23 19 | − 3 | e 22 39 | ? | e 38·8 |
| Athens | | 86·7 | 357 | i 12 45a | − 2 | — | — | i 13 3 | pP | — |
| Algiers Univ. | Z. | 86·9 | 14 | i 12 48 | 0 | e 23 26 | 0 | i 16 11 | PP | — |
| Brisbane | Z. | 91·8 | 220 | i 13 7a | − 4 | i 14 10 | PcP | i 13 20 | pP | — |
| Poona | Z. | 93·1 | 309 | i 13 17 | 0 | — | — | — | — | i 46·8 |
| Colombo | E. | 100·4 | 299 | — | — | e 32 18? | SS | — | — | — |
| Tamanrasset | Z. | 101·0 | 13 | e 13 53 | 0 | e 25 30 | + 1 | i 18 5 | PP | — |
| La Paz | | 104·7 | 97 | 14 4 | − 5 | 25 46 | −14 | 33 41 | SS | — |
| La Plata | | 124·7 | 102 | — | — | 22 30 | PKS | 23 36 | PPP | — |
| Pretoria | Z. | 149·5 | 344 | i 19 46 | [− 1] | — | — | i 19 51 | $PKP_2$ | — |
| Kimberley | Z. | 152·9 | 349 | i 19 51 | [− 1] | — | — | i 19 58 | $PKP_2$ | — |
| Pietermaritzburg | Z. | 152·9 | 338 | i 19 59 | [+ 7] | — | — | — | — | — |
| Grahamstown | Z. | 157·2 | 344 | i 21 0 | ? | — | — | — | — | — |

Aug. 28d. 12h. 56m. 56s. Epicentre 35°·38. 106°·3W. (as on 1946, March 12d.).

A = −·2296, B = −·7850, C = −·5753 ; $\delta$ = −9 ; $h$ = 0 ;
D = −·960, E = +·281 ; G = +·161, H = +·552, K = −·818.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Santa Lucia | N. | 29·4 | 97 | — | — | e 12 11 | SS | e 12 41 | SSS | — |
| Huancayo | | 36·4 | 59 | e 7 8 | 0 | e 12 55 | + 5 | e 8 24 | PP | e 16·6 |
| La Paz | | 38·8 | 72 | i 7 31k | + 3 | i 13 28 | + 2 | i 9 4 | PP | 19·0 |
| Buenos Aires | | 38·9 | 104 | e 7 28 | − 1 | 13 28 | 0 | — | — | — |
| La Plata | | 39·3 | 104 | 7 28 | − 4 | 13 34 | 0 | 9 4 | PP | 16·3 |
| Chinchina | | 49·4 | 42 | e 8 51 | − 2 | e 16 8 | + 8 | — | — | — |
| Bogota | | 49·9 | 44 | i 8 56 | − 1 | i 15 56 | −11 | i 10 48 | PP | 24·1 |
| Tacubaya | | 54·8 | 8 | e 9 48 | +14 | — | — | — | — | e 26·3 |
| Vera Cruz | | 55·1 | 12 | e 10 50 | ? | e 17 43 | PPS | — | — | e 25·5 |
| Wellington | | 60·2 | 239 | 10 12 | 0 | e 18 44 | +19 | — | — | e 25·5 |
| Christchurch | | 60·9 | 235 | — | — | e 18 36 | + 2 | — | — | e 28·0 |
| Kaimata | N.E. | 62·1 | 236 | e 10 30 | + 5 | — | — | — | — | — |
| Fort de France | | 65·6 | 49 | e 10 47 | − 1 | — | — | — | — | — |
| San Juan | | 65·6 | 43 | i 10 48 | 0 | e 19 29 | − 4 | — | — | — |
| Tucson | | 67·3 | 357 | e 10 59 | 0 | i 11 12 | ? | e 12 35 | ? | e 28·2 |
| Riverside | Z. | 69·7 | 350 | i 11 16 | + 2 | — | — | — | — | — |
| Pasadena | | 70·0 | 350 | i 11 15 | 0 | — | — | — | — | e 29·8 |
| Boulder City | | 71·4 | 354 | i 11 24 | 0 | — | — | — | — | — |
| China Lake | Z. | 71·5 | 351 | e 11 25 | + 1 | — | — | — | — | — |
| Fayetteville | Z. | 71·9 | 10 | i 11 25a | − 2 | — | — | e 11 44 | PcP | — |
| Fresno | | 72·8 | 349 | e 11 32 | 0 | e 21 4 | + 6 | — | — | — |
| Columbia | | 72·9 | 22 | — | — | e 21 7 | + 8 | — | — | — |
| Tinemaha | Z. | 72·9 | 350 | e 11 34 | + 1 | — | — | — | — | — |
| Lick | Z. | 73·7 | 347 | e 11 38 | 0 | — | — | — | — | — |
| Santa Clara | | 73·7 | 347 | e 11 42a | + 4 | e 21 21 | +13 | — | — | e 31·3 |
| Berkeley | | 74·3 | 347 | e 11 42 | + 1 | e 20 20 | −55 | — | — | — |
| Reno | | 75·5 | 350 | e 11 48 | 0 | e 21 38 | +10 | — | — | — |
| Shasta | Z. | 77·1 | 348 | e 11 56 | − 1 | — | — | — | — | — |
| Bermuda | | 77·8 | 36 | e 12 1 | 0 | e 22 1 | + 8 | — | — | — |
| Cleveland | | 79·7 | 19 | e 12 11k | 0 | e 22 16 | + 3 | e 23 2 | PS | — |

*Continued on next page*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Riverview | | 80·2 | 236 | i 12 14 a | 0 | i 22 25 | + 6 | i 12 20 | PcP | e 38·3 |
| Corvallis | | 81·0 | 348 | e 12 20 | + 2 | — | — | — | — | — |
| Butte | | 81·1 | 356 | i 12 19 | + 1 | — | — | i 12 22 | PcP | — |
| Fordham | | 81·4 | 24 | e 12 15 | − 5 | e 22 31 | 0 | — | — | — |
| Palisades | | 81·6 | 24 | i 12 23 | + 2 | i 22 36 | + 3 | e 27 59 | SS | e 39·6 |
| Buffalo (Larkin) | | 81·8 | 20 | e 12 22 | 0 | — | — | — | — | — |
| Brisbane | z. | 82·6 | 242 | i 12 27 k | + 1 | i 12 32 | PcP | i 14 16 | PP | — |
| Hungry Horse | | 83·6 | 355 | e 12 31 | 0 | — | — | — | — | — |
| Harvard | | 83·7 | 26 | i 12 32 k | 0 | e 22 58 | + 4 | e 23 40 | PS | e 39·3 |
| Weston | | 83·7 | 26 | e 12 30 | − 2 | e 22 52 | − 2 | — | — | — |
| Seattle | | 83·8 | 350 | i 12 33 | + 1 | e 23 0 | + 5 | — | — | — |
| Victoria | | 84·8 | 350 | 12 38 | + 1 | — | — | — | — | — |
| Ottawa | | 85·0 | 21 | e 12 48 | +10 | — | — | — | — | 37·1 |
| Kirkland Lake | z. | 86·3 | 18 | e 12 47 | + 2 | — | — | — | — | — |
| Halifax | | 88·5 | 29 | e 12 58 | + 2 | 23 45 | + 4 | 16 17 | PP | 36·8 |
| College | | 105·0 | 343 | e 14 14 | + 3 | — | — | — | — | — |
| Malaga | | 118·5 | 63 | i 20 8 | PP | — | — | — | — | 58·3 |
| Tamanrasset | z. | 120·1 | 82 | e 19 2 | [+ 9] | e 32 32 | PPS | e 20 22 | PP | — |
| Algiers Univ. | z. | 124·1 | 66 | e 19 7 | [+ 6] | e 25 25 | [−38] | e 20 50 | PP | — |
| Clermont-Ferrand | | 126·9 | 56 | e 19 9 | [+ 3] | e 22 25 | PKS | — | — | 65·1 |
| Paris | | 127·3 | 52 | e 19 17 | [+10] | — | — | — | — | e 60·1 |
| Uglegorsk | | 129·2 | 309 | e 21 22 | PP | e 22 35 | PKS | — | — | — |
| Oropa | | 130·2 | 57 | e 21 31 | PP | — | — | — | — | — |
| Strasbourg | | 130·7 | 52 | — | — | e 22 36 | PKS | e 37 4? | P′P′ | — |
| Pavia | | 131·0 | 57 | — | — | e 35 29 | PPS | e 38 56 | SS | e 63·1 |
| Stuttgart | | 131·6 | 52 | e 19 18 | [+ 3] | e 22 42 | PKS | — | — | — |
| Rome | | 132·6 | 62 | e 21 39 | PP | i 22 52 | PKS | e 39 4 | SS | — |
| Rocca di Papa | N. | 132·7 | 62 | — | — | e 22 49 | PKS | — | — | — |
| Messina | | 134·0 | 67 | e 19 17 | [− 2] | e 32 11 | PS | — | — | e 65·1 |
| Vladivostok | | 135·0 | 299 | e 21 55 | PP | e 22 52 | PKS | e 32 9 | PS | — |
| Helwan | z. | 144·1 | 86 | 19 37 | [− 1] | 23 13 | PKS | 21 58 | PP | — |
| Istanbul | | 144·8 | 67 | e 19 39 | [ 0] | e 22 54 | PKS | e 41 4? | SS | — |
| Moscow | | 148·0 | 38 | e 19 56 | [+12] | — | — | — | — | — |
| Yalta | | 148·6 | 61 | e 19 52 | [+ 7] | — | — | — | — | — |
| Ksara | | 148·9 | 81 | 19 56 | [+10] | — | — | 23 36 | PP | — |
| Theodosia | | 149·4 | 59 | i 19 52 | [+ 6] | — | — | — | — | — |
| Kabansk | | 151·2 | 317 | e 19 55 | [+ 6] | — | — | e 23 37 | PP | — |
| Kyakhta | | 151·9 | 314 | e 19 55 | [+ 5] | — | — | e 23 38 | PP | — |
| Irkutsk | | 152·4 | 317 | e 19 59 | [+ 8] | — | — | — | — | — |
| Sotchi | | 152·6 | 62 | e 20 2 | [+11] | — | — | — | — | — |
| Zugdidi | | 154·3 | 65 | e 20 4 | [+10] | — | — | — | — | — |
| Borzhomi | | 155·5 | 66 | e 20 18 | $PKP_2$ | — | — | — | — | — |
| Gori | | 156·0 | 65 | e 20 4 | [+ 8] | — | — | e 20 30 | $PKP_2$ | — |
| Erevan | | 156·4 | 69 | e 20 28 | $PKP_2$ | — | — | — | — | — |
| Tiflis | | 156·6 | 65 | e 20 4 | [+ 7] | i 24 8 | PP | e 20 30 | $PKP_2$ | — |
| Sverdlovsk | | 156·7 | 18 | e 20 5 | [+ 8] | e 44 4 | SS | e 30 5 | SKKS | — |
| Kirovobad | | 157·8 | 67 | e 20 8 | [+10] | — | — | — | — | — |
| Goris | | 157·9 | 70 | e 20 25 | $PKP_2$ | 31 6 | {+ 4} | — | — | — |
| Baku | | 160·6 | 68 | e 20 51 | $PKP_2$ | — | — | — | — | — |
| Frunse | | 172·4 | 355 | e 20 16 | [+ 5] | — | — | — | — | — |
| Lunacharskoe | | 173·1 | 28 | e 20 15? | [+ 4] | — | — | i 25 33 | PP | — |
| Namangan | | 174·1 | — | e 25 40 | PP | — | — | — | — | — |
| Andijan | | 174·5 | — | e 21 46 | $PKP_2$ | e 32 21 | {− 3} | — | — | — |
| Fergana | | 174·7 | — | e 20 18 | [+ 7] | — | — | e 25 44 | PP | — |
| Stalinabad | | 174·9 | — | e 21 53 | $PKP_2$ | e 32 35 | {+ 8} | e 25 43 | PP | — |
| Obi-garm | | 175·3 | — | e 20 25 | [+13] | — | — | — | — | — |
| Khorog | | 177·3 | — | — | — | e 32 45 | {+ 7} | — | — | — |

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Aug. 28d. 14h. 21m. 44s. Epicentre 52°·8S. 26°·3E.

A = +·5443, B = +·2690, C = −·7945; $\delta = -15$; $h = -6$;
D = +·443, E = −·896; G = −·712, H = −·352, K = −·607.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Grahamstown | z. | 19·5 | 1 | i 4 31 | 0 | — | — | i 4 41 | PP | e 9·5 |
| Pietermaritzburg | z. | 23·4 | 9 | e 5 11 | 0 | — | — | — | — | — |
| Kimberley | z. | 24·1 | 357 | i 5 15 | − 3 | — | — | — | — | — |
| Pretoria | | 27·0 | 4 | i 5 46 | + 1 | — | — | — | — | — |
| Tananarive | | 37·7 | 33 | — | — | e 13 21 | +11 | 16 0 | SS | 19·0 |
| La Plata | | 59·8 | 251 | 10 10 | + 1 | 18 16 | − 4 | 10 22 | ? | 24·6 |
| Kodaikanal | E. | 76·4 | 51 | — | — | e 32 57 | ? | — | — | — |
| Tamanrasset | z. | 77·4 | 340 | i 11 57a | − 1 | e 21 45 | − 4 | e 14 40 | PP | — |
| La Paz | | 79·7 | 256 | i 12 11a | 0 | i 22 12 | − 1 | 15 28 | PP | 38·3 |
| Christchurch | | 79·8 | 155 | — | — | e 34 16? | ? | — | — | e 40·3 |
| Madras | E. | 80·1 | 52 | — | — | e 22 22 | + 4 | — | — | — |
| Riverview | | 81·3 | 136 | — | — | i 22 35 | + 5 | e 33 52 | Q | e 39·2 |
| Bombay | | 82·0 | 44 | e 13 2 | +39 | e 22 48 | +11 | — | — | — |
| Helwan | z. | 82·4 | 4 | e 12 27 | + 2 | — | — | e 15 20 | PP | — |
| Wellington | | 82·4 | 155 | — | — | 27 55 | SS | e 36 16 | Q | e 42·5 |
| Hyderabad | E. | 83·2 | 49 | — | — | e 22 54 | + 5 | — | — | — |
| Ksara | | 86·7 | 8 | e 12 52 | + 5 | e 24 52 | PS | — | — | — |
| Huancayo | | 87·4 | 253 | e 12 50 | 0 | e 23 22 | − 8 | e 24 27 | PS | e 36·5 |
| Brisbane | z. | 87·6 | 134 | i 12 51k | 0 | — | — | — | — | — |
| Messina | N. | 91·1 | 351 | — | — | e 24 23 | +19 | — | — | — |
| Algiers Univ. | z. | 91·5 | 341 | e 13 15 | + 5 | e 24 24 | +16 | e 22 59 | ? | — |
| Taranto | | 93·2 | 353 | — | — | 23 26 | [−25] | — | — | — |
| Granada | | 93·3 | 336 | i 13 44a | +26 | — | — | — | — | — |
| Istanbul | | 93·5 | 2 | e 13 19 | 0 | e 25 40 | PS | e 16 58 | PP | — |
| Rocca di Papa | N. | 94·9 | 349 | e 12 46 | −39 | — | — | — | — | e 52·3 |
| Rome | | 95·1 | 349 | e 13 33 | + 7 | e 24 16 | {− 3} | e 17 33 | PP | — |
| Triest | | 98·6 | 350 | e 17 38 | PP | — | — | e 17 50 | PP | 51·2 |
| Oropa | | 99·3 | 346 | e 13 29 | −16 | — | — | — | — | — |
| Strasbourg | | 102·2 | 347 | e 18 17 | PP | e 27 16 | PS | e 32 44 | SS | e 49·3 |
| Stuttgart | | 102·2 | 347 | e 18 6 | PP | e 28 16 | PPS | e 32 39 | SS | e 50·3 |
| Kiruna | z. | 120·4 | 356 | e 18 51 | [− 2] | — | — | i 18 58 | ? | — |
| Weston | | 126·4 | 294 | e 19 11 | [+ 6] | — | — | — | — | — |
| Harvard | | 126·6 | 294 | e 19 1 | [− 4] | — | — | — | — | e 55·9 |
| Fayetteville | z. | 135·7 | 273 | e 19 23 | [ 0] | — | — | e 21 57 | PP | — |
| Tucson | | 143·0 | 254 | e 19 31 | [− 5] | — | — | — | — | — |
| Boulder City | | 148·0 | 255 | e 19 41 | [− 3] | — | — | i 19 47 | ? | — |
| Riverside | z. | 148·0 | 249 | e 19 47 | [+ 3] | — | — | e 20 3 | ? | — |
| Resolute Bay | z. | 148·1 | 335 | e 19 26 | [−18] | — | — | i 19 55 | ? | — |
| Pasadena | z. | 148·6 | 249 | e 19 48 | [+ 3] | — | — | i 20 3 | ? | — |
| China Lake | z. | 149·5 | 252 | e 19 47 | [ 0] | — | — | e 20 5 | ? | — |
| Tinemaha | z. | 150·8 | 252 | e 19 54 | [+ 5] | — | — | e 20 2 | ? | — |
| Fresno | z. | 151·4 | 250 | e 19 52k | [+ 2] | — | — | — | — | — |
| Lick | z. | 152·9 | 249 | e 19 57k | [+ 5] | — | — | — | — | — |
| Reno | z. | 153·3 | 255 | e 19 53 | [+ 1] | — | — | e 20 10 | $PKP_2$ | — |
| Hungry Horse | | 154·6 | 277 | i 19 54 | [ 0] | — | — | — | — | — |
| Shasta | z. | 155·2 | 254 | e 20 4a | [+ 9] | — | — | — | — | — |
| College | | 167·5 | 348 | e 19 58 | [−10] | — | — | — | — | — |

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Aug. 28d. 15h. 23m. 19s. Epicentre 15°·5N. 91°·7W. Depth of focus 0·025. (as on 20d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Oaxaca | | 5·1 | 289 | e 1 15 | − 1 | 2 24 | + 9 | — | — | — |
| Vera Cruz | | 5·6 | 312 | i 1 22k | − 1 | i 2 37 | +10 | — | — | — |
| Merida | | 5·8 | 21 | i 1 22k | − 3 | i 2 37 | + 5 | — | — | — |
| Puebla | | 7·1 | 301 | e 1 43 | + 1 | i 3 11 | + 9 | — | — | — |
| Tacubaya | | 8·1 | 300 | i 1 54k | − 1 | i 3 39 | +13 | — | — | — |
| Bogota | | 20·4 | 119 | e 4 15 | − 8 | e 7 45 | −11 | — | — | — |
| Fayetteville | z. | 20·6 | 355 | i 4 28a | + 3 | e 8 35 | +36 | i 4 51 | pP | — |
| Tucson | | 24·1 | 318 | i 5 4 | + 5 | — | — | — | — | — |
| San Juan | | 24·6 | 79 | e 5 45 | PP | — | — | — | — | — |
| Cleveland | | 27·3 | 16 | i 5 29a | 0 | e 11 13 | SS | — | — | — |
| Boulder City | | 29·0 | 319 | i 5 48 | + 4 | — | — | — | — | — |
| Buffalo (Larkin) | | 29·5 | 19 | i 5 47 | − 1 | — | — | — | — | — |
| Riverside | z. | 29·6 | 314 | e 5 54 | + 5 | — | — | e 8 47 | PcP | — |
| Palisades | | 29·7 | 27 | i 5 49 | − 1 | — | — | i 6 14 | pP | — |
| Pasadena | z. | 30·2 | 314 | i 5 58 | + 3 | — | — | i 8 48 | PcP | — |
| China Lake | z. | 30·7 | 317 | e 6 46 | PP | — | — | i 8 50 | PcP | — |
| Huancayo | | 31·8 | 148 | e 5 54 | −15 | — | — | — | — | — |
| Tinemaha | z. | 31·9 | 318 | i 6 13 | + 4 | — | — | i 9 0 | PcP | — |
| Harvard | | 32·0 | 29 | i 6 9a | − 1 | — | — | i 6 34 | pP | — |
| Weston | | 32·0 | 29 | i 6 9a | − 1 | — | — | — | — | — |
| Ottawa | | 32·7 | 21 | i 6 15a | − 1 | — | — | — | — | — |
| Kirkland Lake | z. | 33·9 | 13 | i 6 26a | − 1 | — | — | i 6 51 | pP | — |
| Lick | z. | 34·3 | 316 | i 6 34a | + 4 | i 9 1 | PP | i 7 3 | pP | — |
| Reno | z. | 34·3 | 321 | e 6 35a | + 5 | — | — | e 9 1 | PP | — |
| Shawinigan Falls | n. | 34·8 | 23 | e 6 32 | − 2 | — | — | e 7 1 | pP | — |
| Berkeley | z. | 35·0 | 316 | i 6 39a | + 3 | — | — | i 9 3 | PP | — |
| Shasta | z. | 36·6 | 320 | e 6 51 | + 2 | — | — | e 9 5 | PP | — |
| Halifax | | 37·5 | 33 | e 6 55a | − 2 | — | — | — | — | — |
| Hungry Horse | | 37·6 | 336 | e 7 1 | + 3 | — | — | — | — | — |
| La Paz | | 39·4 | 143 | 7 17 | + 4 | — | — | — | — | 18·7 |
| Victoria | | 41·9 | 329 | 8 34 | PP | — | — | — | — | — |
| Resolute Bay | e. | 59·2 | 359 | e 5 6 | ? | — | — | e 8 47 | ? | — |
| College | | 62·0 | 337 | i 10 1 | − 1 | — | — | i 10 39 | pP | — |
| Reykjavik | z. | 67·4 | 25 | i 9 45 | −52 | — | — | e 13 31 | PP | — |
| Stuttgart | | 85·5 | 41 | e 12 13 | − 4 | — | — | — | — | — |
| Rome | | 90·0 | 46 | e 12 46? | + 7 | e 23 51 | +38 | e 29 41? | SS | — |

Aug. 28d. 18h. 32m. 12s. Epicentre 41°·6N. 72°·7E. (as on 1952, May 21d.).

A = +·2230, B = +·7161, C = +·6614; δ = −2; h = −3;
D = +·955, E = −·297; G = +·197, H = +·631, K = −·750.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Andijan | 0·9 | 196 | i 0 20 | 0 | i 0 36 | + 2 | i 0 56 | ? |
| Namangan | 1·0 | 232 | e 0 19 | − 2 | 0 33 | − 3 | — | — |
| Fergana | 1·4 | 210 | e 0 28 | + 1 | e 0 52 | + 6g | — | — |
| Frunse | 1·9 | 48 | e 0 35 | + 1 | e 1 4 | + 1g | — | — |
| Tchimkent | 2·4 | 287 | i 0 38 | − 3 | i 1 7 | − 5 | — | — |
| Naryn | 2·5 | 94 | — | — | i 1 27 | + 4g | — | — |
| Dzhergetal | 2·6 | 205 | 0 47 | + 3 | 1 26 | 0g | 0 51 | Pg |
| Lunacharskoe | 2·6 | 264 | e 0 43 | − 1 | i 1 16 | − 1 | — | — |
| Obi-garm | 3·7 | 220 | — | — | i 1 50 | − 4* | — | — |
| Almata II | 3·8 | 63 | — | — | i 2 6 | 0g | — | — |
| Przhevalsk | 4·3 | 76 | e 1 23 | − 3g | e 2 28 | + 6g | — | — |
| Stalinabad | 4·3 | 226 | — | — | 2 26 | + 4g | — | — |
| Kurmenty | 4·4 | 68 | e 1 19 | + 1* | — | — | — | — |
| Samarkand | 4·8 | 248 | — | — | 2 5 | − 7 | 2 35 | Sg |

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Aug. 29d. 5h. 28m. 19s. Epicentre 5°·3N. 96°·1E. Depth of focus 0·010.

Intensity III-IV at Deli Hilir north of Sumatra.
Epicentres : 4°·9N. 96°·1E. (Strasbourg).
3°·5N. 96°·5E. (U.S.S.R.).
6°·0N. 95°·8E. (Djakarta).

Earthquakes in Indonesia for the Years 1948-1955, Meteorological and Geophysical Institute, Djakarta, Series A, No. 45, p. 35.

$A = -\cdot1058$, $B = +\cdot9902$, $C = +\cdot0917$ ; $\delta = +10$ ; $h = +7$ ;
$D = +\cdot994$, $E = +\cdot106$ ; $G = -\cdot010$, $H = +\cdot091$, $K = -\cdot996$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Djakarta | | 15·6 | 137 | e 3 37 | + 1 | e 7 10 | SSS | — | — | — |
| Colombo | E. | 16·2 | 276 | 3 41 | − 2 | — | — | e 8 31 | PcP | — |
| Bandong | | 16·7 | 136 | e 3 48 | − 1 | e 7 18 | SS | — | — | — |
| Madras | E. | 17·5 | 297 | 4 1 | + 2 | 7 22 | +14 | 8 12 | ? | — |
| Calcutta | E. | 18·7 | 337 | e 4 11 | − 2 | i 7 42 | + 7 | — | — | — |
| Kodaikanal | E. | 19·1 | 287 | i 4 43 | PP | i 8 25 | SSS | — | — | — |
| Shillong | E. | 20·6 | 351 | i 4 34 | + 1 | e 8 24 | +11 | 9 0 | SS | 8·7 |
| Hyderabad | | 21·1 | 307 | i 4 36 | − 2 | i 8 31 | + 9 | 9 14 | SS | 10·7 |
| Chatra | N. | 23·0 | 342 | e 4 57 | 0 | 9 20 | ? | — | — | — |
| Hong Kong | | 24·3 | 44 | e 5 13 | + 4 | 9 33 | +15 | — | — | e 11·6 |
| Poona | E. | 25·4 | 303 | i 5 22 | + 2 | i 9 49 | +12 | 12 10 | ScP | 10·7 |
| Manila | | 26·2 | 67 | i 5 30 | + 3 | i 10 4 | +14 | — | — | — |
| Bombay | | 26·4 | 303 | i 5 33 | + 4 | i 10 8 | +14 | 6 21 | PP | 12·5 |
| New Delhi | N. | 29·3 | 325 | e 5 56 | + 1 | i 10 49 | + 9 | 6 40 | PP | 13·4 |
| Nanking | | 34·0 | 35 | 6 37 a | + 1 | i 12 4 | +10 | — | — | — |
| Quetta | | 36·9 | 316 | e 6 54 | − 7 | e 12 38 | 0 | — | — | 18·7 |
| Khorog | | 39·0 | 328 | 7 20 | + 2 | 13 20 | +10 | — | — | — |
| Naryn | | 40·2 | 337 | e 7 26 | − 2 | — | — | — | — | — |
| Przhevalsk | | 40·2 | 341 | e 7 29 | + 1 | — | — | — | — | — |
| Dzhergetal | | 40·6 | 330 | 7 33 | + 1 | — | — | — | — | — |
| Obi-garm | | 41·0 | 328 | i 7 33 | − 2 | i 13 44 | + 4 | — | — | — |
| Rybach'e | | 41·0 | 338 | — | — | e 13 54 | +14 | — | — | — |
| Andijan | | 41·2 | 332 | 7 36 | 0 | i 13 53 | +10 | — | — | — |
| Fergana | | 41·2 | 331 | e 7 39 | + 3 | — | — | — | — | — |
| Almata II | | 41·3 | 339 | e 7 39 | + 2 | — | — | — | — | — |
| Almata | | 41·4 | 339 | e 7 38 | 0 | — | — | — | — | — |
| Stalinabad | | 41·4 | 328 | i 7 36 | − 2 | 13 50 | + 4 | 7 58 | pP | — |
| Namangan | | 41·7 | 331 | e 7 49? | + 8 | — | — | — | — | — |
| Frunse | | 42·0 | 336 | i 7 43 | 0 | i 14 3 | + 9 | — | — | — |
| Ili | | 42·0 | 340 | e 7 43 | 0 | — | — | — | — | — |
| Lunacharskoe | | 43·1 | 331 | — | — | i 14 18 | + 8 | — | — | — |
| Samarkand | | 43·1 | 326 | 7 51 | − 1 | — | — | — | — | — |
| Tchimkent | | 43·7 | 332 | i 7 54 | − 3 | i 14 26 | + 7 | — | — | — |
| Bairam-Ali | | 44·6 | 321 | i 8 1 | − 3 | 14 38 | + 6 | — | — | — |
| Kyakhta | | 45·8 | 9 | 8 11 | − 3 | e 14 57 | + 8 | — | — | — |
| Semipalatinsk | | 46·9 | 347 | e 8 21 | − 1 | — | — | — | — | — |
| Irkutsk | | 47·3 | 6 | 8 26 | 0 | 15 22 | +11 | — | — | — |
| Kabansk | | 47·4 | 8 | 8 27 | + 1 | 15 24 | +12 | — | — | — |
| Kizyl-Arvat | | 49·2 | 320 | i 8 39 | − 1 | — | — | — | — | — |
| Vladivostok | | 49·2 | 35 | i 8 40 | 0 | i 15 47 | +10 | — | — | — |
| Mizusawa | E. | 52·8 | 43 | 9 9 | + 1 | 9 47 | ? | — | — | — |
| Baku | | 54·1 | 317 | e 9 17 | 0 | e 16 53 | + 9 | — | — | — |
| Goris | | 56·2 | 315 | e 9 32 | 0 | e 17 21 | + 9 | — | — | — |
| Kirovobad | | 56·7 | 316 | i 9 36 | 0 | i 17 23 | + 4 | 9 57 | pP | — |
| Makhach-Kala | | 56·9 | 319 | i 9 36 | − 1 | 17 30 | + 8 | — | — | — |
| Yuzno-Sakhlinsk | | 57·6 | 36 | 9 42 | 0 | 17 44 | +13 | — | — | — |
| Erevan | | 57·8 | 315 | e 9 41 | − 3 | 17 39 | + 6 | — | — | — |
| Grozny | | 58·2 | 319 | i 9 45 | − 1 | i 17 44 | + 6 | — | — | — |
| Tiflis | | 58·2 | 317 | i 9 45 | − 1 | i 17 44 | + 6 | — | — | — |
| Uglegorsk | | 58·4 | 34 | 9 48 | 0 | 17 52 | +11 | — | — | — |
| Sverdlovsk | | 58·5 | 338 | 9 45 | − 3 | 17 48 | + 6 | — | — | — |
| Gori | | 58·8 | 317 | e 9 47 | − 3 | — | — | — | — | — |
| Borzhomi | | 59·2 | 316 | e 9 52 | − 1 | — | — | — | — | — |
| Kurilsk | | 60·0 | 40 | e 9 58 | − 1 | — | — | — | — | — |
| Piatigorsk | | 60·3 | 319 | 9 57 | − 4 | 18 9 | + 3 | 10 20 | pP | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Zugdidi | | 60·5 | 316 | e 10 7 | + 5 | — | — | — | — | — |
| Ksara | | 62·4 | 305 | i 10 4 | −11 | e 19 45 | ScS | — | — | — |
| Sotchi | | 62·4 | 317 | e 10 10 | − 5 | e 18 34 | + 2 | — | — | — |
| Brisbane | | 63·9 | 124 | i 10 21 a | − 4 | i 19 54 | ScS | i 10 49 | pP | — |
| Riverview | | 64·9 | 131 | i 10 27 a | − 4 | i 19 11 | + 8 | e 19 36 | PS | e 30·4 |
| Helwan | z. | 65·5 | 300 | e 10 33 | − 2 | e 19 50 | sS | e 13 5 | PP | — |
| Theodosia | | 65·8 | 317 | i 10 34 | − 3 | e 19 21 | + 7 | — | — | — |
| Yalta | | 66·5 | 316 | e 10 36 | − 5 | e 19 35 | +12 | — | — | — |
| Istanbul | | 69·3 | 312 | e 10 57 | − 2 | e 19 58 | + 2 | e 20 52 | ScS | — |
| Petropavlovsk | | 69·5 | 35 | 10 59 | − 1 | 20 6 | + 7 | — | — | — |
| Pietermaritzburg | z. | 71·8 | 236 | i 11 15 | + 1 | — | — | — | — | — |
| Pretoria | z. | 72·7 | 341 | i 11 19 | 0 | — | — | — | — | — |
| Uzhgorod | | 75·4 | 319 | e 11 35 | 0 | e 21 12 | + 7 | — | — | — |
| Grahamstown | z. | 76·0 | 334 | i 11 40 | + 2 | — | — | — | — | — |
| Kimberley | z. | 76·3 | 339 | i 11 39 | − 1 | — | — | — | — | — |
| Messina | | 79·3 | 308 | e 11 57 | + 1 | e 21 54 | + 7 | e 14 59 | PP | e 39·7 |
| Kiruna | | 79·7 | 337 | i 11 57 | − 2 | i 21 58 | + 6 | e 22 19 | ScS | e 37·7 |
| Upsala | | 79·7 | 330 | i 11 58 | − 1 | — | — | — | — | e 39·7 |
| Prague | | 80·6 | 320 | e 12 8 | + 5 | e 22 6 | + 5 | e 14 52 | PP | — |
| Triest | | 80·9 | 316 | e 12 13 | + 8 | e 24 55 | ? | e 13 0 | ? | — |
| Collmberg | z. | 81·6 | 320 | e 12 2 | − 7 | — | — | — | — | — |
| Rome | | 81·7 | 312 | i 12 8 a | − 1 | e 22 17 | + 5 | e 16 31 | ? | e 39·7 |
| Potsdam | | 82·1 | 322 | e 12 8 | − 3 | — | — | — | — | e 44·7 |
| Jena | z. | 82·5 | 321 | e 12 13 | 0 | — | — | e 12 55 | ? | — |
| Florence | | 82·6 | 314 | e 12 10 | − 4 | e 22 21 | 0 | e 15 29 | PP | — |
| Stuttgart | | 84·0 | 319 | e 12 19 | − 2 | e 22 37 | + 2 | e 12 51 | ? | — |
| Pavia | | 84·1 | 315 | — | — | i 22 48 | ScS | — | — | — |
| Strasbourg | | 85·0 | 319 | e 24 47 | PPS | e 22 49 | + 4 | e 28 33 | SS | e 35·7 |
| De Bilt | | 86·4 | 322 | e 12 35 | + 2 | e 23 11 | ScS | — | — | e 41·7 |
| Tamanrasset | z. | 88·5 | 293 | i 12 45 k | + 2 | e 16 17 | PP | e 13 10 | pP | — |
| Kew | | 89·9 | 322 | — | — | e 23 41 | +10 | — | — | e 46·7 |
| Resolute Bay | | 99·9 | 3 | e 12 7 | ? | e 17 6 | ? | — | — | e 56·9 |
| Harvard | | 131·1 | 347 | e 19 1 | [ 0] | e 24 10 | PPP | e 21 19 | PP | e 64·4 |
| Weston | | 131·2 | 347 | — | — | e 22 27 | PKS | — | — | e 64·5 |
| Palisades | | 133·0 | 349 | e 19 1 | [− 3] | e 22 34 | SKP | e 21 31 | PP | e 63·0 |
| Fayetteville | z. | 137·7 | 12 | i 19 15 | [+ 2] | — | — | e 21 54 | PP | — |
| La Paz | z. | 161·0 | 233 | i 19 53 | [+ 5] | — | — | — | — | — |
| Bogota | | 166·1 | 315 | — | — | e 46 17 | PSS | — | — | 92·7 |
| Huancayo | | 169·2 | 231 | e 19 58 | [+ 2] | e 46 20 | SSP | e 24 56 | PP | e 82·6 |

Aug. 29d. 16h. 15m. 5s. Epicentre 52°·5N. 170°·0W. Focus at Base of Superficial Layers. (as on 27d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| College | | 16·8 | 34 | 3 54 | 0 | — | — | i 4 10 | PP | — |
| Shasta | z. | 34·2 | 91 | e 6 47 | + 3 | — | — | — | — | — |
| Hungry Horse | | 35·1 | 74 | i 6 52 | 0 | — | — | e 8 19 | PP | — |
| Reno | z. | 36·5 | 90 | e 7 7 | + 3 | — | — | — | — | — |
| Lick | z. | 36·7 | 95 | e 7 9 | + 3 | — | — | — | — | — |
| Fresno | z. | 38·2 | 94 | e 7 22 | + 4 | — | — | — | — | — |
| China Lake | z. | 40·2 | 93 | e 7 31 | − 4 | — | — | e 7 40 | pP | — |
| Boulder City | | 41·8 | 91 | e 7 47 | − 1 | — | — | — | — | — |
| Fayetteville | z. | 54·2 | 76 | e 9 19 | − 5 | — | — | i 10 17 | PcP | — |
| Ottawa | | 58·0 | 56 | e 10 2 k | pP | e 11 59 | PP | 12 9 | pPP | 28·1 |
| Shawinigan Falls | N. | 58·7 | 53 | e 10 6 | pP | — | — | — | — | — |
| Seven Falls | E. | 59·2 | 52 | — | — | e 18 5 | + 1 | 22 46 | ? | 27·4 |
| Kiruna | z. | 59·7 | 355 | i 10 5 a | + 1 | i 10 11 | ? | i 10 16 | pP | — |
| Harvard | | 62·2 | 56 | e 10 18 | − 2 | — | — | e 10 29 | pP | — |
| Weston | | 62·4 | 56 | e 10 20 | − 2 | — | — | — | — | — |
| Halifax | | 64·5 | 49 | i 10 46 a | pP | — | — | — | — | — |
| Upsala | z. | 67·8 | 357 | i 10 58 | + 1 | — | — | — | — | — |
| Prague | | 77·7 | 357 | e 12 3 | pP | — | — | e 12 24 | ? | — |
| Stuttgart | | 79·1 | 1 | e 12 4 | + 1 | — | — | e 12 16 | pP | — |
| Triest | z. | 82·2 | 358 | e 12 19 | 0 | — | — | e 12 31 | pP | — |
| Istanbul | z. | 85·4 | 346 | — | — | e 32 45 | SSS | — | — | — |
| Pretoria | z. | 150·0 | 326 | i 19 49 | $PKP_2$ | — | — | — | — | — |

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Aug. 30d. 0h. 58m. 52s. Epicentre 39°·5N. 73°·0E. (as on 1952, July 18d.).

A = +·2262, B = +·7399, C = +·6335 ; $\delta$ = −6 ; $h$ = −1 ;
D = +·956, E = −·292 ; G = +·185, H = +·606, K = −·774.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Fergana | 1·3 | 313 | e 0 25 | 0 | i 0 45 | + 2$_g$ | — | — |
| Dzhergetal | 1·4 | 258 | 0 25 | − 2 | — | — | — | — |
| Andijan | 1·4 | 339 | i 0 28 | 0$_g$ | i 0 50 | + 4 | — | — |
| Namangan | 1·8 | 326 | i 0 37 | + 1$_g$ | i 1 6 | + 6$_g$ | — | — |
| Garm | 2·1 | 257 | 0 38 | + 1 | 1 11 | + 2$_g$ | — | — |
| Khorog | 2·3 | 209 | i 0 38 | − 2 | i 1 6 | − 3 | — | — |
| Obi-garm | 2·7 | 253 | i 0 45 | 0 | i 1 28 | − 1$_g$ | — | — |
| Naryn | 3·0 | 49 | 0 53 | − 1* | 1 35 | + 2* | e 0 57 | P$_g$ |
| Lunacharskoe | 3·3 | 304 | i 0 56 | + 3 | i 1 40 | − 2* | — | — |
| Stalinabad | 3·4 | 256 | i 0 56 | + 1 | 1 52 | 0$_g$ | 1 3 | P$_g$ |
| Frunse | 3·6 | 19 | e 1 2 | − 2* | i 1 51 | 0* | — | — |
| Tchimkent | 3·8 | 318 | i 1 4 | + 3 | 1 58 | + 1* | 1 12 | P* |
| Rybach'e | 3·8 | 37 | e 1 4 | + 3 | e 1 58 | + 1* | i 2 12 | S$_g$ |
| Almata | 4·8 | 37 | e 1 17 | + 2 | e 2 36 | − 3$_g$ | i 2 50 | ? |

Aug. 30d. 6h. 14m. 55s. Epicentre 32°·1N. 55°·8E.

A = +·4770, B = +·7020, C = +·5288 ; $\delta$ = −4 ; $h$ = +1 ;
D = +·827, E = −·562 ; G = +·297, H = +·437, K = −·849.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Ashkabad | 6·2 | 19 | 1 35 | 0 | 3 21 | − 4$_g$ | — | — | — |
| Bairam-Ali | 7·6 | 42 | e 1 57 | + 2 | 4 13 | + 2$_g$ | — | — | — |
| Baku | 9·5 | 332 | e 2 41? | +21 | — | — | — | — | — |
| Quetta | 9·8 | 98 | i 3 11 | P$_g$ | i 5 31 | + 7$_g$ | — | — | — |
| Goris | 10·7 | 317 | i 2 36 | − 2 | — | — | — | — | — |
| Kirovobad | 11·5 | 321 | 2 45 | − 3 | e 4 45 | −14 | — | — | — |
| Samarkand | 11·8 | 47 | 2 55 | + 2 | — | — | — | — | — |
| Erevan | 12·2 | 315 | 3 11? | +13 | 5 18? | + 2 | — | — | — |
| Stalinabad | 12·4 | 55 | e 2 57 | − 4 | — | — | — | — | — |
| Kulyab | 12·8 | 59 | e 3 7 | + 1 | — | — | — | — | — |
| Makhach-Kala | 12·8 | 331 | i 3 3 | − 3 | — | — | — | — | — |
| Tiflis | 13·0 | 321 | e 3 17? | + 8 | — | — | — | — | — |
| Obi-garm | 13·1 | 56 | e 3 8 | − 2 | — | — | — | — | — |
| Gori | 13·6 | 320 | e 3 15 | − 2 | — | — | — | — | — |
| Grozny | 13·7 | 328 | e 3 19 | + 1 | — | — | — | — | — |
| Tsikhlis-Dzhvari | 13·8 | 318 | e 3 21 | + 2 | — | — | — | — | — |
| Borzhomi | 13·9 | 318 | e 3 22? | + 1 | — | — | — | — | — |
| Khorog | 14·1 | 63 | e 3 21 | − 2 | — | — | — | — | — |
| Lunacharskoe | 14·2 | 46 | e 3 23 | − 1 | — | — | — | — | — |
| Dzhergetal | 14·4 | 56 | 3 26 | − 1 | — | — | — | — | — |
| Tchimkent | 15·0 | 43 | i 3 33 | − 2 | — | — | — | — | — |
| Zugdidi | 15·2 | 317 | e 3 39 | + 1 | — | — | — | — | — |
| Fergana | 15·3 | 53 | e 3 36 | − 3 | e 6 23 | − 7 | — | — | — |
| Namangan | 15·5 | 51 | e 3 40 | − 2 | — | — | — | — | — |
| Piatigorsk | 15·6 | 324 | 3 39 | − 4 | i 6 24 | −13 | — | — | — |
| Andijan | 15·9 | 52 | e 3 44 | − 3 | 6 39 | − 5 | — | — | — |
| Ksara | 16·8 | 285 | e 4 1 | + 3 | — | — | — | — | i 9·4 |
| Sotchi | 17·1 | 317 | e 3 56 | − 6 | e 6 56 | −16 | — | — | — |
| Frunse | 18·4 | 47 | e 4 19 | + 1 | — | — | — | — | — |
| Naryn | 18·6 | 54 | e 4 24 | + 3 | — | — | — | — | — |
| Rybach'e | 19·1 | 50 | i 4 29 | + 2 | — | — | — | — | — |
| Almata | 20·1 | 49 | e 4 40 | + 2 | — | — | — | — | — |
| Bombay | 20·2 | 126 | i 4 43 | + 4 | i 8 35 | +14 | 5 0 | PP | 9·1 |
| Almata II | 20·3 | 49 | e 4 30 | −10 | — | — | — | — | — |
| Ili | 20·5 | 47 | e 4 39 | − 3 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Theodosia | | 20·5 | 315 | — | — | e 8 37 | +10 | — | — | — |
| Przhevalsk | | 20·7 | 51 | e 4 45 | + 1 | — | — | — | — | — |
| Yalta | | 20·9 | 312 | — | — | e 8 47 | +12 | — | — | — |
| Helwan | z. | 21·1 | 269 | e 5 10 | PP | e 8 44 | + 5 | 9 1 | PcP | — |
| Istanbul | | 23·2 | 300 | e 5 16 | + 7 | e 9 29 | +11 | — | — | e 13·1 |
| Sverdlovsk | | 25·0 | 6 | 5 27 | 0 | — | — | — | — | — |
| Kishinev | | 25·4 | 314 | e 5 30 | − 1 | — | — | — | — | — |
| Messina | | 33·3 | 292 | — | — | e 14 37 | SSS | — | — | e 19·2 |
| Collmberg | | 36·6 | 314 | e 7 8 | − 2 | — | — | e 7 19 | ? | — |
| Stuttgart | | 38·5 | 310 | e 7 23 | − 3 | — | — | — | — | e 23·1 |
| Kiruna | | 41·2 | 340 | i 7 47 | − 1 | e 16 54 | SS | e 17 5? | ? | e 22·1 |
| Tamanrasset | z. | 45·2 | 271 | e 8 20 | 0 | — | — | i 10 13 | PP | — |
| Pretoria | z. | 63·3 | 207 | i 10 31 | − 2 | — | — | — | — | — |
| Kimberley | z. | 67·3 | 208 | i 11 0 | + 1 | — | — | — | — | — |

Aug. 30d. 14h. 59m. 13s. Epicentre 31°·5N. 41°·4W.

A = +·6408, B = −·5649, C = +·5199; δ = +3; h = +1;
D = −·661, E = −·750; G = +·390, H = −·344, K = −·854.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Bermuda | | 19·8 | 278 | e 4 33 | − 2 | e 8 29 | SS | — | — | e 9·3 |
| Halifax | | 21·8 | 313 | e 4 57 | + 1 | 9 6 | +14 | i 5 6 | PP | 10·8 |
| San Juan | | 25·9 | 245 | e 5 34 | − 1 | — | — | — | — | — |
| Weston | | 26·1 | 303 | e 1 42 | ? | — | — | — | — | — |
| Ottawa | | 30·0 | 308 | — | — | e 11 17 | + 7 | — | — | 15·8 |
| Witteveen | z. | 40·6 | 43 | e 7 43 | 0 | — | — | — | — | — |
| Stuttgart | | 41·5 | 50 | e 7 50 | 0 | e 14 15 | + 8 | — | — | e 21·8 |
| Tamanrasset | z. | 42·4 | 90 | i 7 58$_a$ | 0 | e 8 20 | ? | e 10 54 | ? | — |
| Fayetteville | z. | 43·7 | 291 | i 8 7 | − 1 | — | — | e 9 55 | PP | — |
| Triest | z. | 44·5 | 55 | e 8 19 | + 4 | — | — | e 8 26 | ? | — |
| Prague | | 45·0 | 49 | e 8 17 | − 2 | e 13 16 | ? | e 8 54 | ? | — |
| Kiruna | z. | 50·7 | 27 | e 8 53 | −10 | — | — | — | — | — |
| La Paz | | 54·2 | 212 | 9 31 | + 2 | 17 12 | + 6 | — | — | 25·6 |
| Huancayo | | 54·2 | 222 | e 9 28 | − 1 | — | — | — | — | — |
| Hungry Horse | | 56·1 | 310 | e 9 44 | + 1 | — | — | — | — | — |
| Tucson | | 58·0 | 291 | 10 1 | + 4 | — | — | — | — | — |
| Nelson | | 60·0 | 296 | i 10 9 | − 2 | — | — | — | — | — |
| Tinemaha | z. | 62·1 | 298 | e 10 26 | + 1 | — | — | — | — | — |
| China Lake | z. | 62·1 | 297 | e 10 24 | − 1 | — | — | — | — | — |
| Reno | z. | 62·5 | 301 | e 10 27 | − 1 | — | — | — | — | — |
| Fresno | z. | 63·4 | 299 | e 10 33 | − 1 | — | — | — | — | — |
| Shasta | z. | 63·9 | 303 | e 10 35 | − 2 | — | — | — | — | — |
| Lick | z. | 64·6 | 300 | e 10 43 | + 2 | — | — | — | — | — |
| College | | 68·5 | 334 | e 11 5 | − 1 | — | — | — | — | — |
| Pretoria | z. | 87·5 | 122 | e 12 49 | − 2 | — | — | — | — | — |

Aug. 30d. 20h. 51m. 25s. Epicentre 30°·4N. 103°·5E. (as on 1941, June 11d.).

A = −·2017, B = +·8401, C = +·5035; δ = −4; h = +2;
D = +·972, E = +·233; G = −·118, H = +·490, K = −·864.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Nanking | | 13·2 | 79 | e 3 35 | +24 | — | — | — | — | e 7·0 |
| Chatra | | 14·8 | 260 | i 3 34 | + 2 | — | — | — | — | e 7·9 |
| Kyakhta | | 20·1 | 4 | e 4 32 | − 6 | e 8 9 | −10 | — | — | — |
| Kabansk | | 21·8 | 4 | 4 54 | − 2 | e 8 50 | − 2 | — | — | — |
| Irkutsk | | 21·9 | 2 | e 4 55 | − 2 | e 8 49 | − 5 | — | — | — |
| Manila | | 22·5 | 132 | i 5 18 | +16 | e 9 18 | +13 | 16 35? | ScS | — |
| New Delhi | N. | 23·0 | 272 | e 5 6 | − 1 | e 9 7 | − 7 | 9 51 | SS | — |
| Almata II | | 24·4 | 311 | e 5 21 | 0 | — | — | — | — | — |
| Naryn | | 24·7 | 303 | e 5 25 | + 1 | e 9 43 | − 1 | — | — | — |
| Almata | | 24·7 | 311 | i 5 23 | − 1 | i 9 41 | − 3 | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Ili | | 24·9 | 312 | e 5 23 | − 3 | — | — | — | — | — |
| Rybach'e | | 25·0 | 307 | i 5 25 | − 2 | e 9 46 | − 3 | — | — | — |
| Frunse | | 26·2 | 307 | i 5 39 | + 1 | i 10 7 | − 2 | — | — | — |
| Andijan | | 27·2 | 302 | 5 46 | − 1 | — | — | — | — | — |
| Khorog | | 27·3 | 294 | e 5 50 | + 2 | — | — | — | — | — |
| Fergana | | 27·6 | 301 | e 5 52 | + 1 | — | — | — | — | — |
| Namangan | | 27·8 | 302 | e 5 52 | − 1 | — | — | — | — | — |
| Dzhergetal | | 27·8 | 300 | e 5 57 | + 4 | — | — | — | — | — |
| Stalinabad | | 29·6 | 298 | e 6 9 | 0 | e 10 59 | − 5 | — | — | — |
| Lunacharskoe | | 29·6 | 302 | e 6 8 | − 1 | — | — | — | — | — |
| Samarkand | | 31·1 | 298 | e 6 20 | − 2 | 11 19 | − 9 | — | — | — |
| Sverdlovsk | | 39·8 | 326 | 7 35 | − 1 | e 13 32 | −10 | — | — | — |
| Kirovobad | | 46·9 | 300 | 8 35 | + 1 | — | — | — | — | — |
| Triest | | 68·8 | 312 | e 11 9 | + 1 | — | — | e 11 20 | ? | 39·8 |
| Stuttgart | | 70·5 | 316 | e 11 18 | 0 | — | — | — | — | — |
| Tamanrasset | Z. | 85·2 | 294 | i 12 45a | + 6 | — | — | — | — | — |

Aug. 31d. 2h. 29m. 35s. Epicentre 42°·3N. 142°·4E. Focus at Base of Superficial Layers. (as on 1952, April 25d.).

Intensity V at Shikabe; IV at Muroran, Hayakita, Hobetu; II-III at Sapporo and Mori. Epicentre 42°·2N. 142°·3E. Depth 20km. Macroseismic radius 100-200km. Seismo. Bull. Cent. Met. Obs., Japan, for August, 1952, Tokyo, 1952, p. 314, with macroseismic chart.

$A = -·5878$, $B = +·4527$, $C = +·6706$; $\delta = +15$; $h = -3$;
$D = +·610$, $E = +·792$; $G = -·531$, $H = +·409$, $K = -·742$.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Urakawa | | 0·3 | 118 | i 0 8 | 0 | 0 17 | + 2 |
| Obihiro | N. | 0·9 | 44 | e 0 18 | + 2 | 0 34 | + 6 |
| Sapporo | | 1·1 | 315 | e 0 18a | − 1 | 0 31 | − 2 |
| Mori | N. | 1·4 | 262 | 0 21 | − 2 | 0 38 | − 3 |
| Asahigawa | | 1·5 | 359 | e 0 27 | + 3 | 0 47 | + 3 |
| Aomori | | 1·9 | 219 | 0 31 | 0 | 0 55 | + 1 |
| Hatinohe | | 1·9 | 200 | i 0 27 | − 4 | 0 51 | − 3 |
| Abashiri | | 2·2 | 39 | e 0 34 | − 1 | 1 7 | + 6 |
| Nemuro | | 2·6 | 66 | e 0 47 | + 6 | — | — |
| Miyako | | 2·7 | 187 | e 0 39 | − 3 | 1 11 | − 3 |
| Morioka | | 2·8 | 200 | e 0 42 | − 1 | 1 14 | − 2 |
| Akita | Z. | 3·1 | 215 | e 0 47 | − 1 | 1 28 | + 4 |
| Mizusawa | | 3·3 | 197 | 0 55 | + 4 | e 1 29 | 0 |
| Sendai | | 4·2 | 198 | e 1 1 | − 2 | 1 50 | − 2 |
| Yamagata | | 4·3 | 202 | e 1 6 | + 1 | 1 56 | + 2 |
| Hukusima | | 4·8 | 200 | e 1 16 | + 4 | 2 2 | − 5 |
| Inawasiro | | 5·1 | 201 | e 1 5 | −11 | — | — |
| Niigata | | 5·1 | 212 | e 1 32 | +16 | 2 15 | 0 |
| Onahama | | 5·5 | 193 | e 1 35 | +13 | 2 26 | + 1 |
| Shirakawa | | 5·5 | 199 | e 1 22 | 0 | 2 22 | − 3 |
| Mito | | 6·1 | 196 | e 1 41 | +11 | 2 37 | − 3 |
| Utunomiya | | 6·1 | 200 | e 1 35 | + 5 | — | — |
| Maebasi | N. | 6·4 | 205 | e 1 45 | +11 | — | — |
| Tukubasan | | 6·4 | 198 | e 1 36 | + 2 | 2 40 | − 7 |
| Nagano | N. | 6·5 | 212 | e 1 45 | + 9 | — | — |
| Wazima | | 6·5 | 223 | e 1 37 | + 1 | — | — |
| Kumagaya | | 6·6 | 202 | e 1 44 | + 7 | — | — |
| Matusiro | | 6·6 | 211 | e 1 33 | − 4 | 2 59 | + 7 |
| Oiwake | | 6·7 | 208 | e 1 42 | + 3 | — | — |
| Tokyo | N. | 6·9 | 198 | — | — | e 2 57 | − 3 |
| Misima | E. | 7·7 | 202 | 2 2 | + 9 | 3 28 | + 8 |
| Nagoya | | 8·3 | 210 | e 2 2 | + 1 | — | — |
| Upsala | Z. | 68·6 | 334 | i 10 58 | − 4 | — | — |
| China Lake | Z. | 73·4 | 56 | e 11 36 | + 6 | — | — |
| Fayetteville | Z. | 86·4 | 43 | i 12 38 | − 2 | — | — |

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Aug. 31d. 15h. 45m. 22s. Epicentre 35°·5N. 2°·2W.

Intensity V at Nemours, Port-Say (Oran), and Martimprey-du-Kiss (Morocco); IV at Nedroma (Oran). Epicentre about 35°·5N. 2°·25W.
Annales de l'Institut de Physique du Globe de Strasbourg, 2e partie, Séismologie, 1952, Nouvelle série, Tome XVII, Strasbourg, 1957, p. 66.

$A = +·8154$, $B = -·0313$, $C = +·5781$; $\delta = +6$; $h = 0$;
$D = -·038$, $E = -·999$; $G = +·578$, $H = -·022$, $K = -·816$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Almeria | | 1·4 | 351 | 0 30 | + 2$_g$ | 0 51 | + 5 | 0 38 | ? | — |
| Granada | | 2·0 | 326 | 0 32 | − 3 | 1 5 | − 1$_g$ | 0 48 | P$_g$ | — |
| Malaga | | 2·2 | 305 | i 0 33 | − 5 | i 1 5 | − 1 | — | — | — |
| Algiers Univ. | z. | 4·4 | 72 | — | — | e 2 30 | + 5$_g$ | — | — | — |
| Toledo | | 4·6 | 342 | e 0 59 | −13 | i 2 21 | + 1* | i 2 30 | S$_g$ | — |
| Tamanrasset | z. | 14·3 | 150 | 5 19 | ? | e 5 38 | ? | — | — | e 7·0 |

Aug. 31d. 16h. 9m. 41s. Epicentre 42°·0N. 142°·8E. Depth of focus 0·005.
(as on 1952, April 28d.).

Intensity V at Urakawa, Muroran, Hakodate, Atsuta, and many other places.
Epicentre 41°·9N. 142°·8E. Depth 40km. Macroseismic radius >300km.
Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 335, with macroseismic chart.

$A = -·5937$, $B = +·4507$, $C = +·6666$; $\delta = -3$; $h = -2$;
$D = +·605$, $E = +·797$; $G = -·531$, $H = +·403$, $K = -·745$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Urakawa | | 0·2 | 355 | i 0 10$_a$ | − 1 | 0 15 | − 4 | — | — | — |
| Muroran | | 1·4 | 284 | e 0 23k | − 1 | 0 39 | − 4 | — | — | — |
| Kusiro | | 1·5 | 50 | e 0 27 | + 1 | 0 48 | + 3 | — | — | — |
| Sapporo | | 1·5 | 315 | i 0 25k | − 1 | 0 43 | − 2 | — | — | — |
| Hakodate | | 1·6 | 261 | 0 23 | − 4 | 0 43 | − 4 | — | — | — |
| Hatinohe | | 1·7 | 213 | 0 30k | + 2 | 0 50 | 0 | — | — | — |
| Mori | N. | 1·7 | 273 | 0 29k | + 1 | 0 47 | − 3 | — | — | — |
| Asahigawa | | 1·8 | 350 | e 0 33 | + 3 | 0 59 | + 7 | — | — | — |
| Aomori | | 1·9 | 232 | i 0 31k | 0 | 0 52 | − 2 | — | — | — |
| Abashiri | | 2·3 | 29 | 0 49 | +12 | 1 18 | +14 | — | — | — |
| Miyako | | 2·4 | 195 | e 0 36 | − 2 | 1 4 | − 3 | — | — | — |
| Nemuro | | 2·4 | 57 | e 0 41 | + 3 | 1 4 | − 3 | — | — | — |
| Morioka | | 2·6 | 208 | i 0 41k | 0 | 1 11 | − 1 | — | — | — |
| Akita | | 3·1 | 221 | e 0 47 | − 1 | 1 21 | − 3 | — | — | — |
| Mizusawa | | 3·1 | 204 | 0 49 | + 1 | 1 21 | − 3 | — | — | — |
| Isinomaki | | 3·7 | 198 | 0 56 | 0 | 1 33 | − 6 | — | — | — |
| Sakata | | 3·8 | 217 | i 1 5 | + 7 | 1 45 | + 3 | — | — | — |
| Sendai | N. | 4·0 | 201 | e 1 0 | − 1 | 1 50 | + 3 | — | — | — |
| Yamagata | | 4·2 | 207 | e 1 3 | 0 | 1 52 | 0 | — | — | — |
| Hukusima | | 4·6 | 204 | 1 9$_a$ | 0 | 2 1 | − 1 | — | — | — |
| Inawasiro | | 4·9 | 206 | e 1 12 | − 1 | 2 18 | + 9 | — | — | — |
| Kurilsk | | 4·9 | 47 | 1 14 | + 1 | 2 12 | + 3 | — | — | — |
| Niigata | | 4·9 | 216 | e 1 17 | + 4 | 2 20 | +11 | — | — | — |
| Yuzno-Sakhlinsk | | 5·0 | 359 | 1 16 | + 2 | 2 14 | + 2 | — | — | — |
| Onahama | | 5·2 | 196 | e 1 17 | 0 | 2 11 | − 6 | — | — | — |
| Aikawa | | 5·3 | 222 | 1 17 | − 2 | 2 14 | − 5 | — | — | — |
| Shirakawa | | 5·3 | 203 | e 1 17 | − 2 | 2 28 | + 9 | — | — | — |
| Mito | | 5·9 | 198 | e 1 26 | − 1 | 2 42 | + 8 | — | — | — |
| Utunomiya | | 5·9 | 203 | e 1 25 | − 2 | 2 30 | − 4 | — | — | — |
| Takada | | 6·0 | 217 | e 1 30 | + 2 | 2 37 | 0 | — | — | — |
| Maebasi | | 6·3 | 208 | e 1 29 | − 3 | 3 2 | SS | — | — | — |
| Kumagaya | | 6·4 | 205 | e 1 37 | + 3 | 2 50 | + 4 | — | — | — |
| Nagano | N. | 6·4 | 215 | e 1 35 | + 1 | 3 3 | SS | — | — | — |
| Tyosi | N. | 6·4 | 194 | e 1 37 | + 3 | 3 11 | SS | — | — | — |
| Wazima | | 6·4 | 226 | e 1 36 | + 2 | 2 46 | 0 | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Matusiro | | 6·5 | 215 | i 1 34k | − 1 | 2 46 | − 3 | — | — | — |
| Oiwake | | 6·6 | 211 | e 1 36 | − 1 | 3 20 | SS | — | — | — |
| Titibu | | 6·7 | 207 | i 1 46 | + 8 | 3 3 | + 9 | — | — | — |
| Tokyo | | 6·7 | 202 | e 1 30 | − 8 | 2 40 | −14 | — | — | — |
| Matumoto | N. | 6·8 | 214 | e 1 42 | + 3 | 2 57 | + 1 | — | — | — |
| Toyama | E. | 6·9 | 221 | e 1 39 | − 2 | 2 56 | − 3 | — | — | — |
| Yokohama | | 7·0 | 201 | 1 55 | PP | 3 18 | SS | — | — | — |
| Uglegorsk | | 7·1 | 356 | 1 44 | 0 | 3 12 | + 8 | — | — | — |
| Hunatu | N. | 7·2 | 207 | 1 49 | + 4 | 3 14 | + 8 | — | — | — |
| Kanazawa | | 7·2 | 223 | e 1 49? | + 4 | — | — | — | — | — |
| Kohu | | 7·2 | 208 | e 1 49 | + 4 | 3 5 | − 1 | — | — | — |
| Takayama | | 7·3 | 218 | e 1 31 | −15 | — | — | — | — | — |
| Mera | | 7·4 | 199 | 1 46 | − 2 | 3 7 | − 4 | — | — | — |
| Ajiro | | 7·5 | 204 | e 1 47 | − 2 | 3 12 | − 2 | — | — | — |
| Iida | | 7·5 | 212 | e 1 51 | + 2 | — | — | — | — | — |
| Misima | E. | 7·5 | 205 | e 1 48 | − 1 | 3 9 | − 5 | — | — | — |
| Osima | | 7·7 | 201 | e 1 48 | − 4 | 3 9 | −10 | — | — | — |
| Hukui | | 7·8 | 223 | e 1 55 | + 2 | — | — | — | — | — |
| Shizuoka | N. | 7·8 | 207 | e 2 1 | + 8 | 3 21 | 0 | — | — | — |
| Gihu | N. | 8·1 | 217 | 1 57 | 0 | 3 27 | − 1 | — | — | — |
| Vladivostok | | 8·1 | 281 | i 1 56 | − 1 | 3 27 | − 1 | — | — | — |
| Nagoya | | 8·2 | 215 | e 2 3 | + 4 | 3 35 | + 4 | — | — | — |
| Omaesaki | | 8·2 | 207 | e 2 17 | +18 | 4 0 | +29 | — | — | — |
| Tsuruga | | 8·2 | 222 | e 2 6 | + 7 | — | — | — | — | — |
| Kameyama | | 8·7 | 217 | 2 7 | + 1 | 3 55 | +12 | — | — | — |
| Maizuru | | 8·7 | 224 | e 2 4 | − 2 | 3 39 | − 4 | — | — | — |
| Kyoto | | 8·9 | 220 | e 2 10 | + 2 | — | — | — | — | — |
| Toyooka | | 9·0 | 227 | e 2 8 | − 2 | 3 48 | − 3 | — | — | — |
| Hatidyozima | | 9·2 | 196 | e 2 14 | + 2 | 3 46 | − 9 | — | — | — |
| Osaka | | 9·3 | 220 | e 2 14 | 0 | 4 8 | +10 | — | — | — |
| Kobe | | 9·4 | 222 | e 2 18 | + 3 | 4 24 | +24 | — | — | — |
| Owase | | 9·5 | 215 | e 2 2 | −15 | 3 33 | −30 | — | — | — |
| Sumoto | E. | 9·8 | 222 | e 2 13 | − 8 | 4 15 | + 5 | — | — | — |
| Matsue | | 10·0 | 232 | e 2 17 | − 6 | 4 17 | + 2 | — | — | — |
| Siomisaki | | 10·2 | 215 | e 2 5 | −21 | 3 47 | −33 | — | — | — |
| Muroto | | 11·1 | 221 | e 2 44 | + 6 | 4 50 | + 8 | — | — | — |
| Hirosima | | 11·2 | 230 | e 2 38 | − 2 | 4 39 | − 5 | — | — | — |
| Matuyama | | 11·4 | 227 | e 2 39 | − 3 | 4 35 | −14 | — | — | — |
| Ooita | | 12·4 | 229 | e 2 55 | − 1 | 5 29 | +16 | — | — | — |
| Hukuoka | | 12·9 | 233 | e 2 59 | − 3 | 5 30 | + 5 | — | — | — |
| Miyazaki | E. | 13·5 | 226 | e 3 1 | − 9 | 5 43 | + 4 | — | — | — |
| Petropavlovsk | | 15·4 | 38 | e 3 41 | + 6 | e 6 40 | SS | — | — | — |
| Klyuchi | | 18·5 | 32 | i 4 14 | + 1 | 7 50 | SS | — | — | — |
| Zô-Sè | Z. | 20·4 | 246 | i 4 27 a | − 7 | 8 10 | − 4 | — | — | — |
| Nanking | | 21·5 | 252 | 4 41 a | − 4 | 8 31 | − 4 | — | — | — |
| Kyakhta | | 26·3 | 303 | 5 29 | − 2 | 9 57 | 0 | — | — | — |
| Kabansk | | 26·4 | 305 | i 5 29 | − 3 | e 9 57 | − 2 | — | — | — |
| Irkutsk | | 27·8 | 306 | i 5 44 | − 1 | 10 21 | − 1 | — | — | — |
| Mitchell Field | | 29·1 | 54 | i 6 31 | +34 | — | — | i 7 21 | ? | — |
| Hong Kong | | 31·0 | 240 | e 6 13 | − 1 | e 11 14 | + 2 | — | — | — |
| Manila | | 33·2 | 222 | e 6 22 | −11 | — | — | — | — | — |
| Semipalatinsk | | 42·9 | 305 | i 7 52 | − 2 | — | — | — | — | — |
| Shillong | E. | 44·7 | 267 | i 8 9 | + 1 | 14 36 | − 3 | e 8 59 | ? | — |
| Kurmenty | | 46·5 | 295 | i 8 23 | 0 | — | — | — | — | — |
| Przhevalsk | | 46·6 | 294 | i 8 23 | 0 | — | — | — | — | — |
| Ili | | 47·0 | 297 | i 8 25 | − 2 | — | — | — | — | — |
| Almata | | 47·3 | 296 | i 8 29 | 0 | e 15 15 | − 2 | — | — | — |
| Chatra | N. | 47·5 | 270 | e 8 30 | 0 | i 15 19 | 0 | — | — | — |
| Rybach'e | | 48·2 | 295 | i 8 35 | − 1 | e 15 33 | + 4 | — | — | — |
| Naryn | | 48·7 | 294 | i 8 39 | − 1 | e 15 39 | + 3 | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Frunse | | 49·0 | 296 | i 8 41 | − 1 | i 15 42 | + 2 | — | — | — |
| Calcutta | E. | 49·1 | 265 | i 8 43 | 0 | i 15 44 | + 2 | i 16 14 | sS | — |
| Andijan | | 51·5 | 294 | i 9 0 | − 1 | 16 18 | + 3 | — | — | — |
| Namangan | | 51·8 | 294 | i 9 3 | 0 | 16 20 | + 1 | — | — | — |
| Fergana | | 52·0 | 294 | i 9 3 | − 2 | e 16 21 | − 1 | — | — | — |
| Sverdlovsk | | 52·2 | 317 | i 9 6 | 0 | i 16 26 | + 1 | — | — | — |
| Tchimkent | | 52·6 | 298 | i 9 7 | − 2 | — | — | — | — | — |
| Dzhergetal | | 52·9 | 294 | i 9 11 | − 1 | — | — | — | — | — |
| Lunacharskoc | | 53·2 | 297 | i 9 12 | − 2 | — | — | — | — | — |
| Khorog | | 53·5 | 292 | 9 15 | − 1 | 16 45 | + 3 | — | — | — |
| New Delhi | | 54·0 | 279 | e 9 16 | − 4 | i 16 49 | 0 | i 9 36 | pP | — |
| Stalinabad | | 54·9 | 294 | i 9 24 | − 2 | — | — | — | — | — |
| Samarkand | | 55·6 | 295 | 9 28 | − 3 | — | — | — | — | — |
| Resolute Bay | | 57·5 | 15 | i 9 40k | − 5 | i 17 35 | − 1 | i 11 43 | PP | 36·0 |
| Hyderabad | N. | 59·6 | 267 | e 18 32? | PPS | — | — | — | — | — |
| Bairam-Ali | | 59·9 | 296 | — | — | e 18 7 | 0 | — | — | — |
| Quetta | | 60·5 | 287 | e 9 55 | −11 | e 18 5? | − 9 | — | — | 31·3 |
| Madras | E. | 61·1 | 263 | i 10 10 | 0 | i 18 23 | + 1 | 18 58 | sS | — |
| Ashkabad | | 62·3 | 298 | i 10 16 | − 2 | 18 36 | − 1 | — | — | — |
| Kiruna | | 62·3 | 339 | i 10 15a | − 3 | e 18 35 | − 2 | i 19 5 | PS | e 23·9 |
| Poona | E. | 62·3 | 271 | i 10 17 | − 1 | e 18 39 | + 2 | — | — | — |
| Victoria | | 62·3 | 49 | 10 17 | − 1 | — | — | — | — | — |
| Bombay | | 62·9 | 273 | i 10 23 | + 1 | i 18 48 | + 3 | 22 57 | SS | 29·3 |
| Kizyl-Arvat | | 63·0 | 301 | 10 22 | 0 | — | — | — | — | — |
| Seattle | | 63·4 | 49 | e 10 28 | + 3 | — | — | — | — | — |
| Moscow | | 63·5 | 323 | i 10 26 | 0 | e 18 56 | + 4 | — | — | — |
| Pulkovo | | 64·5 | 329 | i 10 30 | − 2 | i 19 3 | − 2 | — | — | — |
| Colombo | E. | 65·4 | 257 | — | — | 19 14 | − 2 | — | — | — |
| Baku | | 66·3 | 305 | e 10 46 | + 2 | — | — | — | — | — |
| Makhach-Kala | | 66·3 | 309 | i 10 43 | − 1 | i 19 27 | 0 | — | — | — |
| Shemakha | | 67·0 | 305 | 10 48 | 0 | — | — | — | — | — |
| Grozny | | 67·1 | 309 | i 10 49 | 0 | — | — | — | — | — |
| Shasta | Z. | 67·3 | 55 | e 10 51a | + 1 | — | — | — | — | — |
| Hungry Horse | | 67·5 | 45 | i 10 51 | 0 | — | — | — | — | — |
| Piatigorsk | | 68·2 | 311 | 10 53 | − 3 | 19 49 | 0 | — | — | — |
| Kirovobad | | 68·3 | 306 | i 10 56 | 0 | — | — | — | — | — |
| Tiflis | | 68·7 | 307 | i 10 57 | − 2 | e 19 57 | + 2 | — | — | — |
| Gori | | 68·9 | 309 | 11 0 | 0 | — | — | — | — | — |
| Upsala | | 69·0 | 334 | i 10 59a | − 2 | i 19 57 | − 2 | i 13 33 | PP | e 33·3 |
| Berkeley | | 69·1 | 58 | i 11 2a | + 1 | i 20 6 | + 6 | — | — | e 31·9 |
| Goris | | 69·1 | 305 | i 11 1 | 0 | — | — | — | — | — |
| Borzhomi | | 69·4 | 309 | i 10 57 | − 6 | i 20 1 | − 3 | — | — | — |
| Reno | Z. | 69·6 | 55 | e 10 55 | − 9 | — | — | — | — | — |
| Santa Clara | E. | 69·6 | 58 | — | — | e 20 6 | 0 | — | — | e 32·5 |
| Erevan | | 69·8 | 307 | i 11 5 | 0 | 20 9 | + 1 | — | — | — |
| Lick | Z. | 69·8 | 58 | e 11 7k | + 2 | — | — | — | — | — |
| Zugdidi | | 69·8 | 311 | e 11 6 | + 1 | e 20 12 | + 4 | — | — | — |
| Sotchi | | 70·4 | 312 | i 11 12 | + 3 | e 20 21 | + 6 | — | — | — |
| Fresno | Z. | 71·4 | 57 | e 11 15a | 0 | — | — | — | — | — |
| Theodosia | | 71·8 | 315 | i 11 16 | − 2 | i 20 30 | − 2 | — | — | — |
| Tinemaha | Z. | 72·1 | 57 | e 11 21 | + 2 | — | — | e 12 35 | pP | — |
| Simferopol | | 72·6 | 316 | i 11 15 | − 7 | — | — | — | — | — |
| Yalta | | 72·8 | 315 | i 11 22 | − 1 | e 20 43 | 0 | — | — | — |
| China Lake | Z. | 73·3 | 56 | e 11 28 | + 2 | — | — | e 11 44 | pP | — |
| Kishinev | | 73·8 | 321 | 11 28 | − 1 | 20 52 | − 2 | 14 12 | PP | — |
| Copenhagen | | 74·0 | 333 | i 11 30a | 0 | 20 57 | + 1 | 21 23 | SP | 36·3 |
| Pasadena | | 74·0 | 58 | e 11 32 | + 2 | i 20 59 | + 3 | e 11 48 | pP | e 34·1 |
| Lwow | | 74·0 | 324 | i 11 29 | − 1 | e 20 57 | + 1 | e 21 30 | ScS | — |
| Cernauti | | 74·3 | 322 | e 11 16? | −16 | — | — | — | — | — |
| Riverside | Z. | 74·6 | 58 | e 11 35 | + 1 | — | — | e 11 51 | pP | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Boulder City | | 74·9 | 55 | i 11 38 | + 2 | — | — | — | — | — |
| Nelson | | 75·1 | 55 | i 11 37 | 0 | — | — | — | — | — |
| Raciborzu | z. | 76·3 | 328 | e 11 44 | 0 | — | — | e 11 57 | PcP | — |
| Potsdam | | 76·4 | 331 | i 11 45k | + 1 | i 21 25 | + 2 | i 21 51 | SKS | e 37·3 |
| Bucharest | | 77·0 | 320 | e 11 49 | + 1 | e 21 25 | − 4 | — | — | — |
| Collmberg | | 77·3 | 330 | e 11 48 | − 1 | e 21 44 | +11 | e 14 46 | PP | — |
| Prague | | 77·8 | 330 | e 11 52 | 0 | e 21 39 | + 1 | e 26 31 | SS | e 39·3 |
| Budapest | | 77·9 | 326 | 11 55 | + 3 | e 21 40 | + 1 | 22 7 | ScS | e 41·3 |
| Istanbul | | 77·9 | 316 | e 11 57 | + 5 | e 21 46 | + 7 | e 14 53 | PP | 38·3 |
| Ogyalla | | 78·0 | 326 | e 11 57 | + 4 | e 21 45 | + 5 | e 22 11 | SP | — |
| Jena | | 78·1 | 330 | e 11 53 | − 1 | e 21 41 | 0 | e 12 4 | PcP | — |
| Timisoara | | 78·3 | 322 | e 11 19? | P | e 21 56 | ScS | — | — | — |
| Witteveen | z. | 78·3 | 336 | i 11 54 | − 1 | — | — | i 12 8 | pP | — |
| Cheb | | 78·6 | 331 | e 11 47 | − 9 | e 21 43 | − 4 | e 22 9 | SP | — |
| Ksara | | 79·1 | 306 | i 12 0a | + 1 | e 22 3 | [− 1] | i 15 0 | PP | — |
| De Bilt | | 79·3 | 336 | i 11 59 | − 1 | e 22 22 | ScS | e 14 57 | PP | e 37·3 |
| Belgrade | | 79·4 | 322 | e 12 10 | + 9 | e 21 57 | + 2 | e 14 57 | PP | e 49·0 |
| Tucson | | 79·9 | 55 | e 12 5 | + 2 | — | — | — | — | — |
| Stuttgart | | 80·8 | 331 | i 12 7a | − 1 | e 22 9 | − 1 | e 12 21 | PcP | 44·3 |
| Rathfarnham Castle | | 81·4 | 343 | i 12 10a | − 1 | e 22 12 | − 4 | e 12 37 | sP | e 40·3 |
| Kew | | 81·5 | 338 | i 11 58 | −14 | e 22 19 | + 2 | i 12 11 | P | e 40·3 |
| Strasbourg | | 81·5 | 332 | i 12 12 | 0 | e 22 19 | + 2 | e 23 49 | PPS | 42·3 |
| Triest | | 81·6 | 327 | e 23 24 | PS | 22 20 | + 2 | e 27 37? | SS | 43·8 |
| Zürich | | 82·2 | 332 | e 12 13 | − 2 | e 22 32 | + 8 | — | — | — |
| Basle | | 82·4 | 332 | e 12 10a | − 6 | — | — | — | — | — |
| Kirkland Lake | z. | 89·6 | 28 | i 12 18k | + 1 | — | — | — | — | — |
| Paris | | 83·0 | 335 | i 12 19 | − 1 | e 22 23 | − 9 | i 12 45 | pP | e 39·3 |
| Salo | E. | 83·0 | 329 | e 13 45 | ? | — | — | — | — | — |
| Bologna | | 83·6 | 328 | e 13 40 | ? | — | — | — | — | — |
| Pavia | | 83·8 | 330 | e 12 24 | 0 | e 23 30 | SP | — | — | e 43·3 |
| Oropa | | 83·9 | 331 | e 12 27 | + 3 | e 22 42 | + 1 | e 15 44 | PP | — |
| Florence | | 84·2 | 327 | i 12 27 | + 1 | e 22 45 | + 1 | e 15 48 | PP | — |
| Taranto | | 84·2 | 322 | — | — | 22 19? | −25 | — | — | — |
| Helwan | | 84·6 | 306 | e 12 29 | + 1 | 23 16 | sS | 15 43 | PP | — |
| Rocca di Papa | N. | 85·2 | 325 | e 12 31 | 0 | e 22 52 | − 2 | — | — | e 46·8 |
| Rome | | 85·2 | 325 | i 12 30a | − 1 | e 22 52 | − 2 | e 15 56 | PP | e 44·2 |
| Clermont-Ferrand | | 85·5 | 333 | i 12 33 | + 1 | e 23 30 | sS | e 23 50 | SP | 42·3 |
| Shawinigan Falls | N. | 86·3 | 24 | e 12 37 | + 1 | — | — | — | — | — |
| Fayetteville | z. | 86·4 | 44 | i 12 37a | + 1 | i 13 3 | sP | e 12 56 | pP | — |
| Ottawa | | 86·4 | 27 | i 12 37k | + 1 | 23 2 | − 3 | 28 33 | SS | — |
| Seven Falls | E. | 86·4 | 23 | — | — | 22 58 | [+ 4] | 28 47 | SS | 40·4 |
| Messina | | 86·8 | 322 | e 12 36 | − 2 | e 23 5 | − 4 | e 15 54 | PP | e 43·3 |
| Cleveland | | 87·7 | 33 | e 12 44a | + 1 | i 23 20 | + 2 | — | — | — |
| Harvard | | 90·4 | 25 | i 12 57a | + 2 | e 23 44 | + 1 | — | — | e 44·5 |
| Weston | | 90·5 | 25 | i 12 58k | + 2 | e 23 47 | + 4 | — | — | — |
| Halifax | | 90·6 | 19 | i 12 57k | + 1 | 23 35 | − 9 | e 16 59 | PP | — |
| Tortosa | | 90·8 | 333 | — | — | i 24 19 | sS | — | — | e 47·3 |
| Palisades | | 91·0 | 27 | e 12 47 | −11 | i 23 49 | + 1 | i 23 25 | SKS | e 43·6 |
| City College, N.Y. | | 91·1 | 27 | — | — | e 23 52 | + 3 | — | — | — |
| Algiers Univ. | z. | 93·4 | 329 | e 13 8 | − 1 | e 24 15 | + 6 | e 16 55 | PP | — |
| Almeria | | 95·3 | 334 | 13 15 | − 3 | 23 51 | [+ 4] | 17 7 | PP | 51·6 |
| Granada | | 95·4 | 335 | e 13 19k | + 1 | 24 28 | + 2 | 17 10 | PP | i 52·6 |
| Malaga | | 96·1 | 335 | i 13 28 | + 6 | i 16 30 | ? | i 19 42 | PPP | 48·6 |
| Bermuda | | 101·8 | 24 | — | — | e 24 29 | [+ 9] | — | — | e 47·0 |
| Tamanrasset | z. | 104·4 | 321 | e 18 19 | PP | e 24 20 | [−12] | e 20 12 | PPP | — |
| Bogota | | 122·8 | 46 | — | — | e 25 49 | [+ 6] | e 30 53 | SKSP | — |
| Pretoria | z. | 124·6 | 266 | i 18 54 | [+ 2] | — | — | — | — | — |
| Pietermaritzburg | z. | 125·1 | 261 | e 18 57? | [+ 4] | — | — | — | — | — |
| Kimberley | z. | 128·2 | 265 | e 18 54 | [− 5] | — | — | — | — | — |
| La Paz | N. | 143·3 | 55 | e 19 45 | pPKP | — | — | — | — | — |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Aug. 31d. 19h. 44m. 35s. Epicentre 36°·5N. 71°·0E. (as on 25d.).

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Khorog | 1·1 | 26 | 0 26 | + 4 | 0 40 | + 1 | — | — |
| Kulyab | 1·7 | 325 | i 0 39 | + 5$_g$ | i 1 7 | +11$_g$ | — | — |
| Garm | 2·6 | 348 | i 0 52 | 0$_g$ | 1 17 | 0 | 0 46 | P* |
| Dzhergetal | 2·7 | 4 | i 0 48 | − 1* | 1 25 | + 1* | — | — |
| Stalinabad | 2·7 | 319 | — | — | i 1 21 | + 2 | — | — |
| Fergana | 3·9 | 9 | 1 4 | + 2 | e 1 50 | 0 | 2 0 | S* |
| Andijan | 4·4 | 15 | 1 9 | − 1 | 2 14 | − 1* | 2 0 | S |
| Namangan | 4·5 | 7 | e 1 12 | + 1 | 2 4 | − 1 | — | — |
| Samarkand | 4·5 | 317 | 1 13 | + 2 | — | — | — | — |
| Lunacharskoe | 5·0 | 347 | i 1 18 | 0 | i 2 17 | − 1 | — | — |
| Tchimkent | 5·9 | 349 | i 1 30 | − 1 | e 2 54 | − 5* | — | — |
| Naryn | 6·3 | 37 | 1 37 | + 1 | — | — | — | — |
| Frunse | 7·0 | 23 | e 1 43 | − 3 | — | — | — | — |
| Quetta | 7·1 | 209 | e 2 42 | +54 | — | — | 1 2 47 | P |
| Rybach'e | 7·1 | 32 | e 1 46 | − 2 | — | — | — | — |
| Bairam-Ali | 7·2 | 282 | e 1 51 | + 2 | e 3 23 | +10 | — | — |
| Almata | 8·2 | 33 | e 2 0 | − 3 | — | — | — | — |
| Przhevalsk | 8·3 | 42 | i 2 1 | − 3 | — | — | — | — |
| Ili | 8·8 | 30 | i 2 17 | + 6 | — | — | — | — |
| Kizyl-Arvat | 11·9 | 287 | 2 52 | − 2 | e 5 1 | − 8 | — | — |

Sept. 2d. 2h. 37m. 6s. Epicentre 36°·0N. 137°·6E. Focus at Base of Superficial Layers. (as on 1952, May 17d.).

Intensity IV at Hunatu, Azumi, Kaida, and Takane; II-III at Takayama and Gero. Epicentre 36°·1N. 137°·6E. Depth of focus 30km. Macroseismic radius 100-200km. Seismo. Bull. Cent. Met. Obs., Japan, 1952, Tokyo, 1952, p. 337, with macroseismic chart.

A = −·5988, B = +·5468, C = +·5852; $\delta$ = +1; $h$ = 0;
D = +·674, E = +·738; G = −·432, H = +·395, K = −·811.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Takayama | | 0·3 | 298 | i −0 6? | ? | −0 2? | ? |
| Matumoto | E. | 0·4 | 52 | e 0 4 | − 5 | 0 9 | − 7 |
| Iida | | 0·5 | 159 | e 0 2 | − 8 | 0 11 | − 7 |
| Matusiro | | 0·7 | 42 | 0 9 | − 4 | 0 19 | − 4 |
| Toyama | Z. | 0·7 | 335 | e 0 9k | − 4 | 0 20 | − 3 |
| Nagano | N. | 0·8 | 36 | e 0 12 | − 3 | 0 22 | − 4 |
| Oiwake | | 0·8 | 67 | e 0 13 | − 2 | 0 23 | − 3 |
| Gihu | N. | 0·9 | 228 | 0 14 | − 2 | 0 25 | − 3 |
| Kohu | | 0·9 | 115 | e 0 13 | − 3 | 0 25 | − 3 |
| Nagoya | | 1·0 | 212 | 0 15 | − 3 | 0 34 | + 3 |
| Hukui | | 1·1 | 273 | e 0 15 | − 4 | — | — |
| Hunatu | E. | 1·1 | 118 | e 0 18 | − 1 | 0 33 | 0 |
| Maebasi | Z. | 1·2 | 71 | e 0 21 | + 1 | 0 36 | 0 |
| Shizuoka | | 1·2 | 148 | i 0 15 | − 5 | 0 37 | + 1 |
| Titibu | | 1·2 | 91 | e 0 23 | + 3 | 0 35 | − 1 |
| Tsuruga | | 1·3 | 254 | e 0 9 | −13 | 0 24 | −14 |
| Misima | | 1·4 | 129 | e 0 27 | + 4 | 0 43 | + 2 |
| Kameyama | | 1·5 | 219 | 0 25 | + 1 | 0 44 | 0 |
| Kumagaya | Z. | 1·5 | 84 | 0 26 | + 2 | 0 46 | + 2 |
| Omaesaki | | 1·5 | 160 | e 0 30 | + 6 | 0 49 | + 5 |
| Wazima | | 1·5 | 338 | e 0 21 | − 3 | 0 41 | − 3 |
| Kyoto | | 1·8 | 237 | e 0 29 | 0 | 0 51 | 0 |
| Tokyo | Z. | 1·8 | 100 | e 0 31 | + 2 | 0 51 | 0 |
| Yokohama | | 1·8 | 109 | 0 33 | + 4 | 0 57 | + 6 |
| Osima | | 1·9 | 130 | e 0 34 | + 3 | 0 58 | + 4 |
| Utunomiya | | 1·9 | 73 | e 0 28 | − 3 | 0 52 | − 2 |
| Aikawa | | 2·1 | 14 | e 0 32 | − 1 | 0 54 | − 5 |
| Mera | | 2·1 | 121 | e 1 0 | S | 1 42 | ? |
| Osaka | | 2·1 | 231 | e 0 40 | + 7 | 1 6 | + 7 |
| Mito | | 2·3 | 81 | e 0 37 | + 1 | 1 7 | + 3 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Niigata | | 2·3 | 31 | — | — | e 1 2 | − 2 |
| Kobe | | 2·4 | 236 | e 1 4 | S | (1 4) | − 2 |
| Shirakawa | | 2·4 | 62 | e 0 43 | + 5 | 1 10 | + 4 |
| Onahama | | 2·8 | 71 | e 0 46 | + 3 | 1 20 | + 4 |
| Sumoto | N. | 2·8 | 233 | — | — | e 1 8 | − 8 |
| Hukusima | | 2·9 | 53 | e 0 50 | + 5 | — | — |
| Takamatu | | 3·4 | 241 | e 1 0 | + 8 | — | — |

Sept. 2d. 7h. 24m. 10s. Epicentre 12°·4S. 166°·7E. (as ou 1940, April 27d.).

A = −·9508, B = +·2247, C = −·2134 ; δ = +5 ; h = +6 ;
D = +·230, E = +·973 ; G = +·208, H = −·049, K = −·977.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Brisbane | | 19·8 | 218 | i 4 34k | − 1 | i 8 11 | − 2 | i 4 51 | PP | e 8·4 |
| Riverview | | 25·6 | 211 | i 6 7 | PP | e 9 43 | −16 | i 10 50 | SS | — |
| Lick | Z. | 83·3 | 49 | i 12 31k | + 1 | — | — | — | — | — |
| Shasta | | 84·0 | 46 | e 12 34 | + 1 | — | — | — | — | — |
| College | | 84·3 | 17 | i 12 34 | − 1 | — | — | i 13 15 | ? | — |
| Fresno | | 84·5 | 51 | e 12 37k | + 1 | — | — | — | — | — |
| Pasadena | Z. | 84·9 | 53 | e 12 38 | 0 | — | — | — | — | — |
| Reno | Z. | 85·5 | 48 | e 12 41a | 0 | — | — | — | — | — |
| Riverside | Z. | 85·5 | 53 | e 12 41 | 0 | — | — | — | — | — |
| Tinemaha | Z. | 85·8 | 51 | i 12 42 | 0 | — | — | — | — | — |
| China Lake | Z. | 85·9 | 52 | e 12 42 | − 1 | — | — | — | — | — |
| Victoria | | 86·3 | 39 | 12 45 | 0 | — | — | — | — | — |
| Chatra | Z. | 86·4 | 299 | i 12 46 | + 1 | — | — | — | — | — |
| Nelson | | 88·0 | 53 | i 12 53 | 0 | — | — | — | — | — |
| Boulder City | | 88·1 | 53 | i 12 53 | − 1 | — | — | — | — | — |
| Tucson | | 90·3 | 57 | e 13 4 | 0 | — | — | 13 38 | ? | — |
| Butte | | 92·5 | 43 | e 13 14 | 0 | — | — | — | — | — |
| Resolute Bay | | 104·1 | 16 | e 22 12 | PKS | — | — | e 22 19 | ? | — |
| La Paz | | 118·7 | 117 | e 18 50 | [ 0] | 27 14 | {+ 9} | — | — | — |
| Kimberley | Z. | 125·0 | 222 | i 19 1 | [− 1] | — | — | — | — | — |
| Collmberg | Z. | 135·7 | 336 | e 19 23 | [ 0] | — | — | — | — | — |
| Stuttgart | | 139·2 | 337 | e 19 22 | [− 7] | — | — | e 19 29 | ? | — |
| Messina | Z. | 143·7 | 320 | e 19 34 | [− 3] | — | — | e 19 43 | ? | — |
| Tamanrasset | Z. | 159·3 | 303 | e 20 1 | [+ 1] | e 24 24 | PP | i 20 11 | PKP2 | — |

Sept. 2d. 17h. 30m. 48s. Epicentre 38°·1N. 73°·2E. Depth of focus 0·015.
(as on 1952, June 13d.).

A = +·2280, B = +·7552, C = +·6145 ; δ = −8 ; h = −1 ;
D = +·957, E = −·289 ; G = +·178, H = +·588, K = −·789.

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Murgab | 0·6 | 65 | i 0 21 | + 1 | e 0 38 | + 3 |
| Khorog | 1·4 | 243 | i 0 29 | + 1 | i 0 49 | + 1 |
| Dzhergetal | 1·9 | 306 | i 0 34 | + 1 | 0 58 | 0 |
| Garm | 2·4 | 292 | i 0 38 | − 2 | i 1 6 | − 4 |
| Fergana | 2·5 | 355 | e 0 42 | + 1 | 1 10 | − 2 |
| Andijan | 2·7 | 346 | 0 45 | + 1 | i 1 17 | 0 |
| Obi-garm | 2·8 | 282 | i 0 42 | − 3 | i 1 13 | − 6 |
| Namangan | 3·1 | 338 | — | — | i 1 24 | − 2 |
| Stalinabad | 3·5 | 279 | i 0 51 | − 3 | i 1 29 | − 7 |
| Naryn | 3·9 | 32 | e 1 5 | + 6 | i 1 53 | + 8 |
| Lunacharskoe | 4·4 | 318 | e 1 4 | − 2 | i 1 52 | − 5 |
| Tchimkent | 5·1 | 328 | e 1 16 | 0 | — | — |
| Przhevalsk | 5·9 | 41 | e 1 31 | + 5 | — | — |
| Almata II | 6·0 | 30 | 1 32 | + 4 | — | — |
| Kizyl-Arvat | 13·3 | 279 | e 3 0 | − 5 | — | — |

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Sept. 2d. 23h. 20m. 7s. Epicentre 37°·2N. 21°·6E. (given by Strasbourg).

Intensity VI at Kyparissia ; III at Methoni.

A. Galanopoulos.
Seismo. Institute Bulletin, 1952, Athens 1953, p. 34.

$A = +·7424$, $B = +·2939$, $C = +·6020$ ; $\delta = -6$ ; $h = -1$ ;
$D = +·368$, $E = -·930$ ; $G = +·560$, $H = +·222$, $K = -·798$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Athens | | 1·9 | 65 | i 0 32a | − 2 | i 0 57 | − 2 | i 1 0 | S* | — |
| Messina | z. | 4·9 | 283 | i 1 12k | − 5 | i 2 14 | − 1 | i 1 56 | ? | — |
| Sofia | | 5·6 | 13 | e 2 8 | +16g | e 3 24 | +19g | e 3 48 | ? | — |
| Istanbul | | 7·0 | 54 | e 1 46 | 0 | e 3 54 | + 3g | — | — | — |
| Belgrade | | 7·7 | 354 | e 2 10a | − 4* | e 3 22 | − 3 | e 4 27 | Sg | — |
| Florence | z. | 10·2 | 313 | e 3 2 | Pg | — | — | — | — | e 5·6 |
| Triest | | 10·3 | 328 | e 3 16 | PP | e 4 20 | ? | i 4 50 | Q | e 5·1 |
| Ksara | | 12·1 | 102 | e 2 23 | ? | — | — | — | — | e 6·4 |
| Prague | E. | 13·9 | 340 | e 3 29 | + 8 | e 6 14 | +17 | e 3 57 | ? | — |
| Stuttgart | | 14·7 | 326 | e 3 25? | − 6 | — | — | — | — | e 8·9 |
| Strasbourg | | 15·2 | 323 | e 4 4 | +26 | — | — | — | — | — |
| Collmberg | z. | 15·4 | 339 | e 3 42 | + 2 | — | — | — | — | — |
| Tamanrasset | z. | 20·0 | 228 | i 4 34k | − 3 | 8 11 | − 6 | e 4 49 | PP | 9·8 |
| Granada | | 20·1 | 278 | i 4 59k | +21 | 8 29 | +10 | — | — | — |
| Kew | | 21·1 | 320 | — | — | e 8 49 | +10 | — | — | e 12·8 |
| Upsala | z. | 22·8 | 355 | i 5 3 | − 2 | — | — | — | — | — |
| Fayetteville | z. | 85·9 | 313 | i 12 40a | − 3 | — | — | — | — | — |

Sept. 4d. 1h. 38m. 33s. Epicentre 40°·6N. 142°·3E. (as on 1952, June 13d.).

Intensity IV at Shibutami, Okunakayama, and Misawa ; II-III at Hatinohe, Miyako, Morioka, and Shitinohe. Epicentre 40°·8N. 142°·2E. Depth 30km. Macroseismic radius 100-200km.
Epicentre 40°·8N. 142°·2E. Depth 30km. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 338, with macroseismic chart.

$A = -·6025$, $B = +·4657$, $C = +·6482$ ; $\delta = +5$ ; $h = -2$ ;
$D = +·612$, $E = +·791$ ; $G = -·513$, $H = +·396$, $K = -·761$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. |
| Hatinohe | | 0·6 | 263 | 0 9 | − 3g | 0 19 | − 1g | — | — |
| Miyako | z. | 1·0 | 194 | e 0 16 | − 4g | 0 31 | − 2g | — | — |
| Aomori | | 1·2 | 281 | 0 19 | − 5 | 0 31 | −10 | — | — |
| Morioka | | 1·2 | 224 | e 0 21 | − 3 | 0 41 | 0 | — | — |
| Urakawa | | 1·6 | 13 | e 0 20 | −10 | 0 37 | −14 | — | — |
| Mizusawa | | 1·7 | 211 | 0 30 | − 1 | 0 52 | − 2 | e 0 55 | Sg |
| Akita | z. | 1·9 | 242 | e 0 30 | − 4 | 0 59 | 0 | — | — |
| Mori | E. | 2·0 | 327 | e 0 27 | − 8 | 0 49 | −13 | — | — |
| Isinomaki | | 2·3 | 198 | e 0 28 | −12 | — | — | — | — |
| Sapporo | | 2·6 | 344 | e 0 33 | −11 | 0 59 | −18 | — | — |
| Sendai | | 2·6 | 205 | e 0 44 | 0 | 1 26 | 0g | — | — |
| Yamagata | | 2·8 | 313 | 0 45 | − 2 | 1 20 | − 2 | — | — |
| Hukusima | | 3·2 | 206 | e 0 58 | 0* | 1 44 | − 2g | — | — |
| Inawasiro | | 3·5 | 210 | e 0 56 | − 1 | 1 50 | + 2* | — | — |
| Nemuro | | 3·8 | 42 | e 1 23 | + 7g | — | — | — | — |
| Onahama | | 3·8 | 196 | e 1 10 | + 2* | 1 56 | − 1* | — | — |
| Shirakawa | | 3·8 | 205 | e 0 59 | − 2 | 1 50 | + 3 | — | — |
| Mito | | 4·5 | 199 | e 1 8 | − 3 | 2 26 | − 3g | — | — |
| Utunomiya | | 4·5 | 205 | e 1 9 | − 2 | 2 5 | 0 | — | — |
| Tukubasan | | 4·7 | 202 | e 1 11 | − 3 | 2 6 | − 4 | — | — |
| Maebasi | | 4·9 | 211 | e 1 15 | − 2 | 2 23 | − 6* | — | — |
| Kumagaya | | 5·0 | 208 | e 1 17 | − 1 | 2 24 | + 6 | — | — |
| Nagano | N. | 5·1 | 221 | e 1 24 | + 4 | — | — | — | — |
| Oiwake | | 5·2 | 216 | e 1 23 | + 2 | — | — | — | — |
| Tokyo | N. | 5·3 | 203 | — | — | e 2 9 | −16 | — | — |
| Kohu | | 5·7 | 211 | e 1 30 | + 2 | 2 43 | −10* | — | — |
| Hunatu | | 5·8 | 209 | e 1 24 | − 5 | — | — | — | — |
| Misima | z. | 6·1 | 207 | e 1 34 | 0 | 2 45 | 0 | — | — |
| Kameyama | | 7·3 | 220 | e 2 35 | + 9g | 4 16 | +15g | — | — |
| Collmberg | z. | 78·4 | 330 | e 12 3 | − 1 | — | — | — | — |
| Stuttgart | | 81·8 | 332 | e 12 23 | + 1 | — | — | — | — |
| Fayetteville | z. | 87·8 | 43 | i 12 39 | −13 | — | — | — | — |

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Sept. 4d. 13h. 52m. 5s. Epicentre 33°·7N. 141°·0E. Depth of focus 0·005.

Intensity IV at Hatidyozima ; II-III at Tokyo and Toriya. Epicentre as adopted. Depth 40km. Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, Sept., 1952, Tokyo, 1952, p.339, with macroseismic chart.

$A = -·6479$, $B = +·5247$, $C = +·5523$ ; $\delta = +12$ ; $h = +1$ ;
$D = +·629$, $E = +·777$ ; $G = -·429$, $H = +·348$, $K = -·834$.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Hatidyozima | | 1·1 | 239 | 0 12 | − 8 | 0 23 | −13 |
| Mera | z. | 1·5 | 322 | i 0 28 a | + 2 | 0 47 | + 2 |
| Osima | | 1·7 | 309 | e 0 26 | − 2 | 0 45 | − 5 |
| Ajiro | | 2·1 | 311 | e 0 31 | − 3 | 0 55 | − 4 |
| Yokohama | | 2·1 | 328 | 0 35 | + 1 | 1 0 | + 1 |
| Misima | z. | 2·2 | 310 | i 0 33 | − 2 | 1 2 | 0 |
| Tokyo | | 2·2 | 333 | 0 35 | 0 | 1 4 | + 2 |
| Omaesaki | | 2·5 | 291 | e 0 36 | − 3 | — | — |
| Shizuoka | | 2·5 | 301 | e 0 40 | + 1 | 1 4 | − 5 |
| Hunatu | E. | 2·6 | 315 | e 0 40 | − 1 | 1 11 | − 1 |
| Tukubasan | | 2·6 | 344 | e 0 44 | + 3 | 1 15 | + 3 |
| Mito | | 2·7 | 351 | e 0 45 | + 3 | 1 37 | +23 |
| Kohu | | 2·8 | 314 | e 0 43 | − 1 | 1 16 | − 1 |
| Kumagaya | | 2·8 | 330 | 0 44 | 0 | 1 17 | 0 |
| Titibu | | 2·8 | 326 | e 0 43 | − 1 | 1 17 | 0 |
| Utunomiya | | 3·0 | 342 | e 0 46 | − 1 | 1 23 | + 1 |
| Maebasi | z. | 3·1 | 330 | e 0 48 | 0 | 1 28 | + 4 |
| Onahama | | 3·2 | 358 | e 0 57 | + 8 | 1 32 | + 5 |
| Oiwake | | 3·3 | 323 | e 0 53 | + 2 | 1 36 | + 7 |
| Matumoto | E. | 3·5 | 316 | 0 55 | + 1 | 1 42 | + 8 |
| Shirakawa | | 3·5 | 349 | 1 0 | + 6 | 1 36 | + 2 |
| Matusiro | z. | 3·6 | 322 | i 0 55 | 0 | 1 37 | 0 |
| Nagoya | | 3·6 | 295 | e 0 54 | − 1 | 1 32 | − 5 |
| Nagano | N. | 3·7 | 323 | e 0 59 | + 3 | 1 45 | + 6 |
| Inawasiro | | 3·9 | 350 | e 1 3 | + 4 | — | — |
| Kameyama | | 3·9 | 288 | e 1 1 | + 2 | 1 37 | − 7 |
| Hukusima | | 4·1 | 354 | e 1 13 | +11 | 1 55 | + 6 |
| Hukui | | 4·5 | 302 | e 1 1 | − 6 | — | — |
| Sendai | | 4·6 | 359 | e 1 15 | + 6 | 2 2 | 0 |
| Mizusawa | E. | 5·4 | 1 | e 2 23 | S | 2 49 | +27 |
| Takamatu | | 5·8 | 278 | e 1 21 | − 4 | — | — |
| Morioka | | 6·0 | 1 | e 1 49 | +21 | 2 37 | 0 |

Sept. 4d. 14h. 35m. 55s. Epicentre 36°·9N. 70°·8E. Depth of focus 0·030.
(as on Aug. 20d.).

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 0·9 | 48 | i 0 31 | − 1 | i 0 56 | 0 |
| Kulyab | 1·3 | 321 | i 0 34 | − 1 | — | — |
| Garm | 2·1 | 350 | i 0 43 | + 1 | i 1 17 | + 3 |
| Dzhergetal | 2·3 | 8 | e 0 46 | + 2 | i 1 21 | + 4 |
| Stalinabad | 2·3 | 316 | i 0 46 | + 2 | i 1 23 | + 6 |
| Fergana | 3·6 | 12 | i 0 58 | 0 | i 1 45 | + 1 |
| Andijan | 4·0 | 17 | i 1 4 | + 1 | i 1 55 | + 3 |
| Namangan | 4·1 | 9 | i 1 6 | + 2 | 1 57 | + 3 |
| Samarkand | 4·1 | 314 | 1 7 | + 3 | 1 58 | + 4 |
| Lunacharskoe | 4·6 | 346 | i 1 12 | + 1 | i 2 8 | + 3 |
| Tashkent | 4·6 | 346 | i 1 13 | + 2 | i 2 9 | + 4 |
| Tchimkent | 5·5 | 351 | e 1 22 | 0 | e 2 27 | + 1 |
| Naryn | 6·1 | 40 | 1 27 | − 3 | — | — |
| Frunse | 6·6 | 25 | — | — | i 2 53 | − 2 |
| Almata II | 8·1 | 36 | e 1 54 | − 1 | — | — |
| New Delhi | 9·9 | 145 | e 1 7 | −71 | e 2 46 | −81 |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Sept. 5d. 5h. 18m. 34s. Epicentre 6°·5S. 155°·0E. Depth of focus 0·005.
(as on 1952, Aug. 17d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Brisbane | | 20·9 | 187 | i 4 40k | + 1 | i 8 33 | +10 | i 4 51 | pP | — |
| Riverview | | 27·4 | 188 | i 5 41 | 0 | e 10 22 | + 7 | — | — | e 12·9 |
| Karapiro | N. | 36·4 | 153 | 7 1 | + 1 | — | — | — | — | — |
| New Plymouth | E. | 36·7 | 154 | 6 26? | −36 | — | — | — | — | — |
| Cobb River | E. | 37·9 | 158 | e 7 14 | + 1 | — | — | — | — | — |
| Kaimata | N.E. | 38·7 | 161 | e 7 27 | + 8 | — | — | — | — | — |
| Wellington | | 38·9 | 157 | e 7 22 | + 1 | — | — | — | — | — |
| Manila | | 39·7 | 302 | i 7 34 | + 6 | — | — | — | — | — |
| College | | 82·6 | 20 | 12 13 | − 4 | — | — | — | — | — |
| Poona | Z. | 83·7 | 290 | e 12 19 | − 4 | — | — | — | — | — |
| Berkeley | Z. | 88·2 | 52 | e 12 44a | − 1 | — | — | — | — | — |
| Shasta | Z. | 88·5 | 49 | e 12 44a | − 3 | — | — | — | — | — |
| Lick | Z. | 88·6 | 52 | e 12 46a | − 1 | — | — | — | — | — |
| Mineral | Z. | 89·2 | 49 | e 12 47a | − 3 | — | — | — | — | — |
| Reno | Z. | 90·4 | 50 | e 12 55a | 0 | — | — | — | — | — |
| Pasadena | | 91·0 | 56 | i 12 57a | − 1 | — | — | i 13 13 | pP | — |
| Tinemaha | Z. | 91·2 | 53 | i 12 59 | 0 | — | — | — | — | — |
| Riverside | Z. | 91·6 | 56 | i 13 1a | 0 | e 13 27 | sP | e 13 16 | pP | — |
| China Lake | Z. | 91·7 | 53 | i 13 0 | − 2 | — | — | — | — | — |
| Palomar | Z. | 92·0 | 57 | i 13 7 | + 4 | — | — | — | — | — |
| Boulder City | | 93·9 | 54 | i 13 11 | − 1 | — | — | e 13 27 | pP | — |
| Nelson | | 93·9 | 54 | i 13 10 | − 2 | — | — | — | — | — |
| Tucson | | 96·9 | 58 | e 13 26 | + 1 | — | — | — | — | — |
| Fayetteville | Z. | 110·6 | 54 | i 18 22 | [− 3] | — | — | — | — | — |
| Kiruna | Z. | 111·6 | 343 | e 18 22 | [− 5] | — | — | — | — | — |
| Kimberley | Z. | 120·6 | 230 | i 18 44 | [ 0] | — | — | — | — | — |
| Ottawa | | 121·5 | 39 | e 18 44k | [− 2] | — | — | — | — | — |
| Shawinigan Falls | N. | 122·8 | 36 | e 20 3 | PP | — | — | — | — | — |
| Palisades | | 124·6 | 44 | i 18 50 | [− 2] | — | — | — | — | e 59·3 |
| Collmberg | Z. | 125·4 | 332 | e 18 51 | [− 3] | — | — | — | — | — |
| Harvard | | 125·5 | 41 | i 18 52k | [− 2] | — | — | — | — | e 78·7 |
| Weston | | 125·7 | 41 | i 18 53k | [− 1] | — | — | — | — | — |
| Triest | Z. | 128·6 | 326 | e 19 0 | [ 0] | — | — | e 19 9 | ? | — |
| Stuttgart | | 128·9 | 331 | e 18 58 | [− 3] | — | — | — | — | — |
| Halifax | | 129·3 | 35 | i 18 58a | [− 3] | — | — | — | — | — |
| Strasbourg | | 129·7 | 332 | 18 49 | [−13] | — | — | — | — | — |
| La Paz | | 131·6 | 119 | e 19 40? | [+25] | — | — | — | — | — |
| San Juan | | 138·3 | 67 | e 19 8 | [−10] | — | — | — | — | — |
| Tamanrasset | Z. | 146·4 | 302 | e 19 32 | [ 0] | e 22 50 | PP | e 19 51 | pPKP | — |

Sept. 5d. 8h. 50m. 17s. Epicentre 46°·3N. 7°·4E. (as on 1952, Aug. 26d.).

Intensity IV at Sion. Epicentre as adopted (Strasbourg).

Dr. E. Wanner.
Jahresbericht des Erdbebendienstes der Schweiz im Jahre, 1952, Zürich, 1953, p.2, with macroseismic chart, fig. 5, outside the text.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Neuchatel | 0·7 | 336 | i 0 17 | 0 | i 0 28 | 0 | — | — | — |
| Oropa | 0·8 | 150 | i 0 19 | + 1 | i 0 27 | + $1_g$ | — | — | — |
| Zürich | 1·3 | 37 | e 0 26 | $0_g$ | e 0 43 | $0_g$ | — | — | i 0·8 |
| Basle | 1·3 | 6 | e 0 23 | − 2 | e 0 42 | 0* | — | — | — |
| Chur | 1·6 | 69 | e 0 31 | − $1_g$ | e 0 54 | + $4_g$ | — | — | — |
| Strasbourg | 2·3 | 6 | i 0 38 | − 2 | i 1 15 | − $1_g$ | i 1 1 | ? | — |
| Stuttgart | 2·7 | 26 | e 0 52 | − $2_g$ | e 1 27 | − $2_g$ | — | — | e 1·6 |
| Clermont-Ferrand | 3·0 | 260 | i 1 3 | + $3_g$ | i 1 55 | +16$_g$ | — | — | — |
| Prague | 6·0 | 49 | — | — | e 2 55 | − 7* | e 3 15 | $S_g$ | e 3·3 |
| Collmberg | 6·2 | 34 | — | — | e 3 20 | − $5_g$ | — | — | e 3·6 |

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Sept. 5d. 10h. 54m. 1s. Epicentre 33°·6N. 132°·7E. Focus at Base of Superficial Layers.

Intensity V at Otake; IV at Uwazima, Matumayama, Etazima, Kure, Yae, Takehara, Ichi, Iwamatsu, and Ozu.
Epicentre as adopted. Depth 30-40km. Macroseismic radius 100-200km. (Tokyo).
Seismo. Bull. Cent. Met. Obs., Japan, Sept., 1952, Tokyo, 1952, p.340, with macroseismic chart.

$A = -\cdot5660$, $B = +\cdot6134$, $C = +\cdot5508$; $\delta = 0$; $h = 0$;
$D = +\cdot735$, $E = +\cdot678$: $G = -\cdot374$, $H = +\cdot405$, $K = -\cdot835$.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Matuyama | | 0·2 | 10 | i 0 7a | 0 | 0 12 | − 1 |
| Uwazima | | 0·4 | 199 | 0 5a | − 4 | 0 12 | − 4 |
| Koti | | 0·7 | 94 | i 0 12a | − 1 | 0 22 | − 1 |
| Hirosima | | 0·8 | 344 | i 0 13k | − 2 | 0 24 | − 2 |
| Simidu | | 0·8 | 165 | 0 13 | − 2 | 0 23 | − 3 |
| Ooita | | 1·0 | 248 | i 0 13a | − 5 | 0 24 | − 7 |
| Takamatu | | 1·3 | 57 | i 0 26a | + 4 | 0 41 | + 3 |
| Muroto | | 1·3 | 106 | e 0 21 | − 1 | 0 35 | − 3 |
| Okayama | | 1·5 | 44 | e 0 24 | 0 | 0 52 | + 8 |
| Asosan | | 1·5 | 243 | 0 21 | − 3 | 0 39 | − 5 |
| Tokusima | | 1·6 | 73 | e 0 26 | 0 | 0 54 | + 8 |
| Kumamoto | | 1·8 | 245 | e 0 26 | − 3 | 0 47 | − 4 |
| Hukuoka | E. | 1·9 | 269 | 0 25a | − 6 | 0 49 | − 5 |
| Matsue | | 1·9 | 9 | e 0 32 | + 1 | 0 54 | 0 |
| Yonago | | 1·9 | 16 | e 0 33 | + 2 | 0 57 | + 3 |
| Sumoto | | 2·0 | 68 | i 0 31 | − 1 | 0 56 | 0 |
| Miyazaki | | 2·0 | 212 | e 0 30 | − 2 | 0 58 | + 2 |
| Unzendake | | 2·2 | 247 | 0 29 | − 6 | 0 50 | −11 |
| Tottori | | 2·3 | 34 | e 0 39 | + 3 | — | — |
| Kobe | | 2·3 | 71 | e 0 35 | − 1 | 1 19 | +15 |
| Nagasaki | E. | 2·5 | 250 | e 0 34 | − 5 | 0 56 | −13 |
| Osaka | | 2·6 | 68 | e 0 30 | −11 | 0 59 | −12 |
| Siomisaki | | 2·6 | 93 | e 0 37 | − 4 | 1 8 | − 3 |
| Saigo | N. | 2·7 | 11 | e 0 53 | +11 | 1 24 | +10 |
| Kagosima | N. | 2·7 | 221 | e 0 43 | + 1 | 1 23 | + 9 |
| Ituhara | | 2·9 | 282 | e 0 41 | − 4 | 1 25 | + 6 |
| Kyoto | | 2·9 | 61 | e 0 54 | + 9 | 1 36 | +17 |
| Owase | | 3·0 | 81 | e 0 55 | + 9 | — | — |
| Hikone | | 3·4 | 59 | 0 54 | + 2 | — | — |
| Kameyama | | 3·4 | 67 | 0 50 | − 2 | 1 33 | + 1 |
| Tsuruga | | 3·5 | 53 | e 1 8 | +15 | 1 48 | +14 |
| Yakusima | | 3·7 | 211 | e 0 57 | + 1 | — | — |
| Nagoya | | 3·9 | 65 | e 0 59 | 0 | — | — |
| Iida | | 4·7 | 64 | e 1 11 | + 1 | — | — |
| Matumoto | | 5·1 | 57 | e 1 23 | + 7 | — | — |
| Kohu | | 5·2 | 66 | e 1 18 | 0 | — | — |
| Hunatu | N. | 5·3 | 69 | e 1 16 | − 3 | — | — |
| Matusiro | N. | 5·4 | 56 | e 1 22 | + 2 | — | — |

Sept. 6d. 14h. 30m. 45s. Epicentre 20°·4S. 175°·7W. Depth of focus 0·015.

$A = -\cdot9354$, $B = -\cdot0703$, $C = -\cdot3464$; $\delta = -9$; $h = +5$;
$D = -\cdot075$, $E = +\cdot997$; $G = +\cdot346$, $H = +\cdot026$, $K = -\cdot938$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Karapiro | N. | 19·0 | 203 | e 4 14 | 0 | e 7 57 | +19 | — | — |
| Tuai | N. | 19·4 | 198 | 4 15? | − 3 | — | — | — | — |
| Wellington | | 22·3 | 200 | 4 48 | + 1 | 8 37 | − 2 | — | — |
| Cobb River | E. | 22·9 | 204 | e 4 54 | + 1 | e 8 51 | + 1 | — | — |
| Kaimata | N.E. | 24·6 | 204 | e 5 8 | − 2 | e 9 26 | + 8 | e 4 27 | ? |
| Christchurch | | 25·1 | 201 | e 5 15 | + 1 | e 9 33 | + 6 | — | — |
| Brisbane | | 29·4 | 251 | i 5 53a | 0 | i 10 33 | − 3 | i 6 0 | ? |
| Lick | Z. | 76·7 | 42 | e 11 39a | 0 | — | — | — | — |
| Pasadena | Z. | 77·0 | 46 | i 11 40a | 0 | — | — | — | — |
| Fresno | Z. | 77·5 | 43 | e 11 43a | 0 | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Riverside | z. | 77·5 | 46 | e 11 44 | + 1 | — | — | — | — |
| China Lake | z. | 78·4 | 45 | e 11 48 a | 0 | — | — | — | — |
| Shasta | | 78·4 | 39 | e 11 48 a | 0 | — | — | — | — |
| Tinemaha | z. | 78·7 | 44 | i 11 50 | 0 | — | — | — | — |
| Reno | z. | 79·2 | 41 | e 11 53 a | + 1 | — | — | — | — |
| Nelson | | 80·2 | 46 | i 11 57 | − 1 | — | — | — | — |
| Boulder City | | 80·3 | 46 | i 11 58 | 0 | — | — | — | — |
| Tucson | | 81·2 | 51 | e 12 3 | 0 | — | — | — | — |
| College | | 87·7 | 12 | 12 34 | − 1 | — | — | — | — |
| Fayetteville | z. | 95·2 | 54 | i 13 9 a | − 1 | — | — | i 13 50 | pP |
| Collmberg | z. | 148·4 | 350 | e 19 32 | [+ 4] | — | — | e 20 11 | pPKP |
| Jena | z. | 149·0 | 351 | e 19 33 | [+ 4] | — | — | e 20 18 | pPKP |
| Prague | | 149·3 | 348 | e 19 43 | [+14] | — | — | e 19 47 | ? |
| Stuttgart | | 151·4 | 354 | e 19 39 | [+ 7] | — | — | e 20 24 | $PKP_2$ |
| Tamanrasset | z. | 177·3 | — | e 19 56 | [+ 1] | e 32 17 | SKKS | e 21 43 | $PKP_2$ |

Sept. 6d. 20h. 7m. 41s. I
21h. 41m. 18s. II
Epicentre 51°·5N. 173°·5W. (as on 1952, March 23d.).

A = −·6211, B = −·0708, C = +·7806; δ = +11; h = −6;
D = −·113, E = +·994; G = −·776, H = −·088, K = −·625.

| | | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| I | Mitchell Field | | 2·0 | 283 | i 0 38 | + 3 | i 1 3 | + 1 | — | — |
| II | | | 2·0 | 283 | i 0 39 | + 4 | i 1 3 | + 1 | — | — |
| I | College | | 18·8 | 35 | e 4 25 | + 2 | — | — | — | — |
| II | | | 18·8 | 35 | e 4 24 | + 1 | — | — | — | — |
| I | Shasta | z. | 36·3 | 87 | e 7 8k | + 1 | — | — | — | — |
| II | | z. | 36·3 | 87 | e 7 8k | + 1 | — | — | — | — |
| I | Reno | z. | 38·6 | 85 | e 7 25k | − 1 | — | — | — | — |
| I | Tinemaha | z. | 41·1 | 89 | e 7 48 | + 1 | — | — | e 8 3 | ? |
| II | | z. | 41·1 | 89 | i 7 48 | + 1 | — | — | — | — |
| I | China Lake | z. | 42·3 | 88 | e 7 57 | 0 | — | — | — | — |
| II | | z. | 42·3 | 88 | e 7 57 | 0 | — | — | — | — |
| I | Mount Wilson | z. | 43·0 | 92 | e 8 3 | 0 | — | — | e 8 18 | ? |
| II | | z. | 43·0 | 92 | e 8 3 | 0 | — | — | — | — |
| II | Riverside | z. | 43·6 | 92 | e 8 7 | − 1 | — | — | — | — |
| I | Boulder City | | 43·9 | 87 | i 8 10 | 0 | — | — | — | — |
| II | | | 43·9 | 87 | e 8 11 | + 1 | — | — | — | — |
| I | Nelson | | 44·1 | 87 | i 8 11 | − 1 | — | — | — | — |
| II | | | 44·1 | 87 | e 8 11 | − 1 | — | — | — | — |
| I | Palomar | z. | 44·4 | 92 | e 8 13 | − 1 | — | — | — | — |
| I | Tucson | | 48·9 | 88 | e 8 49 | − 1 | — | — | e 9 2 | ? |
| II | | | 48·9 | 88 | e 8 49 | − 1 | — | — | e 9 2 | ? |
| I | Fayetteville | z. | 56·5 | 73 | i 9 42 | − 4 | — | — | — | — |
| II | | z. | 56·5 | 73 | i 9 44 | − 2 | — | — | — | — |
| I | Kiruna | | 60·5 | 354 | i 10 14 | 0 | — | — | — | — |
| I | Collmberg | z. | 77·4 | 356 | e 11 59 | + 1 | — | — | — | — |
| I | Stuttgart | | 80·1 | 358 | e 12 14 | + 1 | — | — | — | — |
| I | Quetta | | 82·9 | 311 | i 17 47 | PPP | — | — | — | — |

Sept. 6d. 20h. 33m. 3s. Epicentre 41°·6N. 142°·0E. Depth of focus 0·005.
(as on 1952, June 29d.).

Intensity IV at Hatinohe, Sitinohe; II-III at Miyako, Misawa, and Noheji.
Epicentre 41°·5N. 142°·3E. Depth 60km. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, Sept., 1952, Tokyo, 1952, p.341, with macroseismic chart.

A = −·5910, B = +·4617, C = +·6614; δ = −10; h = −2;
D = +·616, E = +·788; G = −·521, H = +·407, K = −·750.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Urakawa | 0·8 | 47 | e 0 14 | − 3 | 0 27 | − 2 |
| Hatinohe | 1·1 | 198 | e 0 16 a | − 4 | 0 30 | − 6 |
| Aomori | 1·2 | 229 | 0 21 | − 1 | 0 36 | − 2 |
| Obi-hiro | 1·6 | 34 | 0 28 | + 1 | 0 43 | − 4 |
| Sapporo | 1·6 | 342 | e 0 25 | − 2 | 0 47 | 0 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Miyako | z. | 1·8 | 180 | e 0 26 | − 4 | 0 47 | − 5 |
| Morioka | | 2·0 | 198 | e 0 29 | − 3 | 0 50 | − 7 |
| Kusiro | | 2·3 | 52 | e 0 35 | − 2 | 0 59 | − 5 |
| Akita | | 2·4 | 229 | e 0 43 | + 5 | — | — |
| Mizusawa | E. | 2·6 | 195 | 0 40 | − 1 | 1 12 | 0 |
| Abasiri | | 2·9 | 35 | — | — | e 1 11 | − 8 |
| Isinomaki | | 3·2 | 189 | e 0 51 | + 2 | — | — |
| Nemuro | | 3·2 | 57 | e 0 55 | + 6 | — | — |
| Sendai | | 3·4 | 194 | e 0 55 | + 3 | 1 42 | +10 |
| Hukusima | | 4·0 | 198 | e 1 2 | + 1 | 1 50 | + 3 |
| Inawasiro | | 4·3 | 200 | 1 8 | + 3 | — | — |
| Shirakawa | | 4·7 | 198 | e 1 14 | + 4 | 2 1 | − 3 |
| Mito | | 5·4 | 195 | e 1 25 | + 5 | 2 39 | +17 |
| Utunomiya | | 5·4 | 200 | e 1 15 | − 5 | 2 12 | −10 |
| Maebasi | z. | 5·7 | 205 | e 1 40 | +16 | 2 32 | + 3 |
| Kumagaya | | 5·8 | 201 | e 1 38 | +13 | 2 33 | + 1 |
| Tokyo | | 6·2 | 198 | e 1 38 | + 7 | — | — |
| Tinemaha | z. | 72·8 | 56 | e 11 36 | +13 | — | — |
| China Lake | z. | 74·0 | 56 | e 11 47 | +17 | — | — |
| Fayetteville | z. | 87·1 | 42 | i 13 0 | +20 | — | — |

Sept. 7d. 2h. 38m. 55s. Epicentre 17°·0S. 177°·0W. (as on 1951, Nov. 10d.).

A = −·9556, B = −·0501, C = −·2906 ; δ = +13 ; h = +5 ;
D = −·052, E = +·999 ; G = +·290, H = +·015, K = −·957.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Apia | | 6·0 | 60 | e 1 35? | + 3 | (2 33) | −10 | — | — | 2·6 |
| Auckland | N. | 21·1 | 198 | — | — | e 8 55 | +16 | — | — | e 10·8 |
| Karapiro | N. | 21·8 | 195 | e 4 54 | − 2 | — | — | — | — | — |
| Wellington | | 25·2 | 195 | — | — | e 11 29 | SSS | — | — | 12·4 |
| Kaimata | N.E. | 27·3 | 200 | — | — | e 16 17 | ScS | — | — | — |
| Christchurch | | 27·9 | 196 | — | — | e 12 5 | SSS | — | — | e 14·6 |
| Brisbane | | 29·6 | 244 | i 6 9k | 0 | i 11 10 | + 6 | (e 12 40) | SSS | e 12·7 |
| Riverview | N. | 33·1 | 233 | — | — | e 11 59 | 0 | (14 5) | SS | 14·1 |
| Lick | Z. | 75·0 | 42 | e 11 45a | 0 | — | — | — | — | — |
| Pasadena | z. | 75·6 | 47 | i 11 49 | + 1 | — | — | — | — | — |
| Fresno | z. | 75·9 | 44 | e 11 45a | − 5 | — | — | — | — | — |
| Riverside | z. | 76·1 | 48 | e 11 52 | + 1 | — | — | — | — | — |
| Shasta | z. | 76·5 | 39 | e 11 53 | − 1 | — | — | — | — | — |
| Mineral | z. | 76·8 | 40 | e 11 54k | − 1 | — | — | — | — | — |
| China Lake | z. | 76·9 | 46 | e 11 56 | 0 | — | — | — | — | — |
| Tinemaha | z. | 77·1 | 44 | e 11 57 | 0 | — | — | — | — | — |
| Reno | z. | 77·5 | 43 | e 12 1k | + 2 | — | — | — | — | — |
| Nelson | | 78·8 | 47 | e 12 4 | − 2 | — | — | e 15 0 | PP | — |
| Boulder City | | 78·9 | 47 | i 12 3 | − 4 | — | — | e 12 8 | P | — |
| Tucson | | 80·0 | 51 | e 12 14 | + 1 | — | — | — | — | — |
| College | | 84·6 | 12 | i 12 34 | − 2 | — | — | — | — | — |
| Butte | | 85·4 | 39 | e 12 40 | 0 | — | — | — | — | — |
| Fayetteville | z. | 94·2 | 53 | i 13 32 | +10 | — | — | — | — | — |
| Huancayo | | 97·4 | 105 | e 26 27 | PS | e 32 13 | SS | — | — | e 43·2 |
| Collmberg | | 144·9 | 348 | e 19 39 | [ 0] | — | — | e 20 0 | ? | — |
| Jena | z. | 145·5 | 351 | e 19 39 | [− 1] | e 19 55 | ? | e 20 11 | ? | — |
| Kew | | 145·5 | 3 | e 22 22 | ? | — | — | — | — | e 71·1 |
| Prague | | 145·8 | 348 | e 19 41 | [ 0] | e 19 57 | ? | e 20 26 | ? | — |
| Ksara | | 146·1 | 306 | i 19 49 | $PKP_2$ | 26 46 | [− 2] | e 23 32? | PP | — |
| Istanbul | | 147·2 | 322 | e 19 46 | [+ 3] | — | — | — | — | 73·1 |
| Stuttgart | | 147·9 | 353 | e 19 47 | [+ 3] | e 19 55 | $PKP_1$ | e 21 13 | ? | e 72·1 |
| Strasbourg | | 148·3 | 354 | e 19 58 | $PKP_2$ | e 22 53 | ? | e 20 28 | ? | e 61·1 |
| Paris | | 148·3 | 2 | e 19 51 | [+ 6] | i 19 57 | $PKP_1$ | e 22 43 | ? | e 68·1 |
| Triest | | 150·1 | 346 | e 19 56 | $PKP_2$ | — | — | e 21 51 | ? | — |
| Helwan | z. | 151·1 | 302 | 19 57 | [+ 8] | 23 30 | SKP | 20 14 | $PKP_1$ | — |
| Clermont-Ferrand | | 151·3 | 0 | e 19 56 | [+ 7] | i 20 20 | $PKP_1$ | e 22 26 | ? | 78·1 |
| Messina | E. | 156·2 | 335 | e 28 36 | PKKP | — | — | e 79 32 | Q | e 85·3 |
| Alicante | | 158·5 | 7 | 19 32 | [−27] | — | — | — | — | 75·5 |
| Tamanrasset | z. | 173·8 | 338 | 20 15 | [+ 4] | e 21 44 | $PKP_1$ | e 25 35 | PP | — |

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Sept. 7d. 4h. 30m. 14s. Epicentre 51°·5N. 173°·5W. Focus at Base of Superficial Layers. (as on 6d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Petropavlovsk | | 17·1 | 285 | e 4 16 | +18 | e 7 36 | +30 | — | — | — |
| College | | 18·8 | 35 | e 4 16 | − 3 | e 7 42 | − 2 | — | — | e 8·8 |
| Uglegorsk | | 28·2 | 283 | e 5 52 | 0 | — | — | — | — | — |
| Yuzno-Sakhlinsk | | 28·6 | 278 | e 5 53 | − 2 | 10 45 | + 5 | — | — | — |
| Shasta | | 36·3 | 87 | i 7 2a | 0 | — | — | i 7 14 | pP | — |
| Mineral | z. | 37·0 | 86 | e 7 8a | 0 | — | — | i 7 14 | pP | — |
| Vladivostok | | 37·2 | 280 | e 7 7 | − 3 | 12 55 | + 1 | — | — | — |
| Hungry Horse | | 37·5 | 70 | i 7 12 | 0 | — | — | e 10 27 | ? | — |
| Berkeley | z. | 38·1 | 91 | i 7 16a | − 1 | — | — | 17 28 | pP | — |
| Resolute Bay | | 38·3 | 24 | i 6 11a | −68 | e 16 10 | SS | e 10 31 | ? | e 21·1 |
| Reno | z. | 38·6 | 85 | e 7 22 | 0 | — | — | e 7 34 | pP | — |
| Lick | z. | 38·8 | 91 | i 7 23a | 0 | — | — | e 7 34 | pP | — |
| Fresno | z. | 40·3 | 88 | e 7 35a | − 1 | — | — | e 7 36 | pP | — |
| Tinemaha | z. | 41·1 | 89 | i 7 42 | 0 | — | — | i 8 11 | sP | — |
| China Lake | z. | 42·3 | 88 | e 7 51 | − 1 | — | — | e 8 3 | pP | — |
| Pasadena | | 43·0 | 92 | i 7 56 | − 2 | — | — | i 8 8 | pP | — |
| Riverside | z. | 43·6 | 92 | i 8 1 | − 2 | — | — | e 8 13 | pP | — |
| Boulder City | | 43·9 | 87 | i 8 6 | + 1 | — | — | i 8 16 | pP | — |
| Nelson | | 44·1 | 87 | i 8 5 | − 2 | — | — | i 8 15 | pP | — |
| Kabansk | | 47·0 | 304 | 8 29 | − 1 | — | — | — | — | — |
| Irkutsk | | 48·1 | 306 | e 8 47 | pP | — | — | — | — | — |
| Tucson | | 48·9 | 88 | i 8 43 | − 2 | — | — | i 8 55 | pP | — |
| Kirkland Lake | z. | 56·3 | 53 | e 9 55 | pP | — | — | — | — | — |
| Fayetteville | z. | 56·5 | 73 | i 9 38a | − 3 | i 11 52 | PP | i 9 51 | pP | — |
| Ottawa | | 60·4 | 54 | i 10 7a | − 1 | 12 20 | PP | i 10 20 | pP | 34·9 |
| Kiruna | z. | 60·5 | 354 | i 10 8 | − 1 | — | — | — | — | — |
| Shawinigan Falls | N. | 61·0 | 50 | e 10 11 | − 1 | — | — | e 10 24 | pP | — |
| Sverdlovsk | | 63·2 | 331 | i 10 26 | − 1 | 18 59 | + 4 | — | — | — |
| Palisades | | 64·4 | 55 | e 10 34 | − 1 | e 19 21 | +11 | i 10 46 | pP | e 33·6 |
| Harvard | | 64·5 | 53 | e 10 35 | − 1 | — | — | e 10 45 | pP | — |
| City College, N.Y. | | 64·6 | 55 | e 10 43 | + 7 | — | — | — | — | — |
| Weston | | 64·8 | 53 | i 10 37k | − 1 | — | — | — | — | — |
| Halifax | | 66·8 | 46 | i 10 50 | 0 | e 19 40 | + 1 | — | — | 31·2 |
| Frunse | | 69·0 | 314 | i 11 6 | + 2 | e 20 12 | + 7 | — | — | — |
| Naryn | | 69·5 | 311 | e 11 9 | + 2 | — | — | — | — | — |
| Andijan | | 71·7 | 314 | i 11 20 | 0 | 20 42 | + 5 | — | — | — |
| Tchimkent | | 71·7 | 316 | e 11 21 | + 1 | — | — | — | — | — |
| Namangan | | 71·9 | 314 | — | — | e 20 44 | + 5 | — | — | — |
| Fergana | | 72·3 | 314 | e 11 24 | 0 | e 20 48 | + 4 | — | — | — |
| Murgab | | 72·9 | 310 | e 11 34 | + 6 | — | — | — | — | — |
| Dzhergetal | | 73·5 | 313 | e 11 32 | + 1 | e 21 2 | + 5 | — | — | — |
| Obi-garm | | 74·6 | 313 | e 11 36 | − 2 | — | — | — | — | — |
| Khorog | | 74·7 | 311 | e 11 40 | + 2 | — | — | — | — | — |
| Chatra | N. | 74·9 | 294 | — | — | e 21 15 | + 2 | — | — | — |
| Samarkand | | 75·0 | 317 | e 11 42 | + 2 | — | — | — | — | — |
| Stalinabad | | 75·1 | 314 | e 11 40 | 0 | e 21 19 | + 4 | — | — | — |
| Collmberg | z. | 77·4 | 356 | e 11 53 | 0 | — | — | e 11 58 | ? | — |
| Lwow | | 77·9 | 348 | e 11 56 | 0 | — | — | — | — | — |
| Jena | | 77·9 | 357 | e 11 56 | 0 | e 12 34 | ? | e 12 14 | sP | — |
| Prague | | 78·6 | 354 | e 11 57 | − 3 | e 12 51 | ? | e 12 18 | sP | — |
| Piatigorsk | | 79·7 | 334 | 12 7 | + 1 | — | — | — | — | — |
| Paris | | 80·0 | 3 | e 12 7 | − 1 | e 12 14 | PcP | e 15 33 | PP | e 45·8 |
| Kishinev | | 80·0 | 345 | e 12 8 | 0 | — | — | — | — | — |
| Stuttgart | | 80·1 | 358 | e 12 8 | 0 | e 22 13 | + 4 | — | — | — |
| Strasbourg | | 80·3 | 359 | i 12 11 | + 2 | i 12 30 | sP | i 12 23 | pP | e 31·8 |
| Tiflis | | 81·4 | 332 | e 12 16 | + 1 | — | — | — | — | — |
| Yalta | | 81·4 | 340 | e 12 15 | 0 | e 22 27 | + 5 | — | — | — |
| Kirovobad | | 81·8 | 330 | e 12 18 | + 1 | 22 29 | + 3 | — | — | — |
| Goris | | 82·9 | 329 | e 12 25 | + 2 | e 22 45 | + 7 | — | — | — |
| Triest | z. | 83·0 | 355 | e 12 24 | + 1 | — | — | e 12 17 | ? | — |
| Clermont-Ferrand | | 83·1 | 2 | e 12 16 | − 8 | — | — | — | — | 51·8 |
| Istanbul | z. | 85·7 | 342 | e 12 46? | + 9 | — | — | — | — | — |
| San Juan | | 86·1 | 65 | i 12 39 | 0 | — | — | — | — | — |
| Kimberley | z. | 153·5 | 322 | i 19 56 | [+ 9] | — | — | — | — | — |

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Sept. 7d. 4h. 38m. 26s. (I) | Epicentre 51°·5N. 173°·5W. (as at 4h. 30m.).
5h. 10m. 25s. (II) | Focus at Base of Superficial Layers.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| I Adak | | 2·0 | 281 | — | — | i 0 56 | 0 | — | — | — |
| I Mitchell Field | | 2·0 | 283 | i 0 33 | + 1 | — | — | i 0 39 | ? | — |
| II | | 2·0 | 283 | i 0 32 | 0 | i 0 57 | + 1 | — | — | — |
| I College | | 18·8 | 35 | e 4 19 | 0 | — | — | — | — | — |
| II | | 18·8 | 35 | e 4 20 | + 1 | — | — | — | — | — |
| II Shasta | z. | 36·3 | 87 | e 7 3 | + 1 | — | — | e 7 15 | pP | — |
| II Reno | z. | 38·6 | 85 | e 7 35 | pP | — | — | — | — | — |
| I Tinemaha | z. | 41·1 | 89 | e 7 43 | + 1 | — | — | e 7 56 | pP | — |
| II | z. | 41·1 | 89 | e 7 56 | pP | — | — | — | — | — |
| I China Lake | z. | 42·3 | 88 | e 7 52 | 0 | — | — | e 8 5 | pP | — |
| II | z. | 42·3 | 88 | e 8 4 | pP | — | — | — | — | — |
| I Mount Wilson | z. | 43·0 | 92 | e 8 4 | + 6 | — | — | — | — | — |
| II | z. | 43·0 | 92 | e 8 10 | pP | e 8 25 | sP | — | — | — |
| I Riverside | z. | 43·6 | 92 | e 8 3 | 0 | — | — | — | — | — |
| II | z. | 43·6 | 92 | e 8 16 | pP | — | — | — | — | — |
| I Boulder City | | 43·9 | 87 | i 8 6 | + 1 | — | — | e 8 19 | pP | — |
| II | | 43·9 | 87 | i 8 6 | + 1 | — | — | i 8 18 | pP | — |
| I Nelson | | 44·1 | 87 | e 8 6 | − 1 | — | — | e 8 19 | pP | — |
| I Tucson | | 48·9 | 88 | e 8 44 | − 1 | — | — | — | — | — |
| I Fayetteville | z. | 56·5 | 73 | i 9 39 | − 2 | — | — | — | — | — |
| II | z. | 56·5 | 73 | i 9 39 | − 2 | — | — | — | — | — |
| I Weston | | 64·8 | 53 | e 10 38 | 0 | — | — | — | — | — |
| II | | 64·8 | 53 | e 10 51k | pP | — | — | — | — | — |
| II Collmberg | z. | 77·4 | 356 | e 11 53 | 0 | — | — | — | — | — |
| II Stuttgart | | 80·1 | 358 | e 12 8 | 0 | — | — | e 12 20 | pP | — |
| I Alicante | | 90·3 | 6 | 12 51 | − 8 | — | — | — | — | 45·0 |
| I Tamanrasset | z. | 106·0 | 2 | — | — | e 21 46 | SKP | — | — | — |

Sept. 7d. 9h. 32m. 36s. Epicentre 51°·5N. 173°·5W. Focus at Base of Superficial Layers. (as at 5h.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| College | | 18·8 | 35 | 4 19 | 0 | — | — | i 4 33 | PP |
| Shasta | z. | 36·3 | 87 | e 7 2k | 0 | — | — | e 7 15 | pP |
| Mineral | z. | 37·0 | 86 | i 7 8a | 0 | — | — | e 7 20 | pP |
| Hungry Horse | | 37·5 | 70 | e 7 12 | 0 | — | — | — | — |
| Berkeley | z. | 38·1 | 91 | i 7 18a | + 1 | — | — | e 7 28 | pP |
| Reno | z. | 38·6 | 85 | e 7 23a | + 1 | — | — | e 7 34 | pP |
| Lick | z. | 38·8 | 91 | i 7 24a | + 1 | — | — | i 7 35 | pP |
| Fresno | z. | 40·3 | 88 | e 7 36 | 0 | — | — | e 7 47 | pP |
| Tinemaha | z. | 41·1 | 89 | i 7 44 | + 2 | i 8 13 | ? | i 7 56 | pP |
| China Lake | z. | 42·3 | 88 | e 7 51 | − 1 | — | — | e 8 3 | pP |
| Pasadena | | 43·0 | 92 | i 7 57 | − 1 | — | — | i 8 9 | pP |
| Riverside | z. | 43·6 | 92 | i 8 1 | − 2 | — | — | e 8 14 | pP |
| Boulder City | | 43·9 | 87 | i 8 5 | 0 | — | — | i 8 18 | pP |
| Nelson | | 44·1 | 87 | e 8 5 | − 2 | — | — | i 8 18 | pP |
| Tucson | | 48·9 | 88 | i 8 44 | − 1 | — | — | i 8 56 | pP |
| Fayetteville | z. | 56·5 | 73 | i 9 40a | − 1 | i 10 32 | PcP | i 9 52 | pP |
| Ottawa | | 60·4 | 54 | e 10 6 | − 2 | — | — | i 10 20 | pP |
| Kiruna | z. | 60·5 | 354 | i 10 10 | + 1 | — | — | — | — |
| Shawinigan Falls | N. | 61·0 | 50 | e 10 16 | + 4 | — | — | — | — |
| Palisades | | 64·5 | 55 | e 10 30 | − 5 | — | — | — | — |
| Harvard | | 64·5 | 53 | i 10 36a | 0 | — | — | i 10 48 | pP |
| Weston | | 64·8 | 53 | i 10 38k | 0 | — | — | — | — |
| Halifax | | 66·8 | 46 | e 10 50k | 0 | — | — | — | — |
| Upsala | z. | 68·6 | 354 | i 11 14 | pP | — | — | — | — |
| Chatra | | 74·9 | 294 | i 11 41 | + 2 | e 21 14 | + 1 | — | — |
| Collmberg | z. | 77·4 | 356 | e 11 54 | + 1 | — | — | e 12 6 | pP |
| Prague | | 78·6 | 354 | e 12 2 | + 2 | e 12 28 | sP | e 12 19 | pP |
| Paris | | 80·0 | 3 | e 12 10 | + 2 | — | — | i 12 21 | pP |
| Stuttgart | | 80·1 | 358 | e 12 9 | + 1 | e 12 34 | sP | e 12 21 | pP |
| Strasbourg | | 80·3 | 359 | i 12 12 | + 3 | e 12 29 | sP | i 12 23 | pP |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Clermont-Ferrand | | 83·1 | 2 | e 12 27 | + 3 | — | — | — | — |
| San Juan | | 86·1 | 65 | i 12 39 | 0 | — | — | i 12 51 | pP |
| Poona | z. | 89·0 | 298 | i 12 53 | 0 | — | — | e 13 17 | sP |
| Ksara | | 91·2 | 336 | e 11 3 | −120 | e 25 58 | PPS | — | — |
| Pretoria | z. | 149·5 | 319 | i 19 47 | [+ 6] | — | — | — | — |
| Kimberley | z. | 153·5 | 322 | i 19 57 | [+10] | — | — | — | — |

Sept. 7d. 22h. 19m. 43s. Epicentre 26°·5N. 139°·9E. Depth of focus 0·070.
(as on 1950, April 8d.).

A = −·6854, B = +·5772, C = +·4438; $\delta$ = −11; $h$ = +3;
D = +·644, E = +·765; G = −·339, H = +·286, K = −·896.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Mizusawa | E. | 12·6 | 4 | — | — | 4 47 | −13 | — | — |
| Manila | | 21·3 | 240 | e 4 12 | 0 | i 7 34 | − 2 | — | — |
| College | | 58·8 | 28 | i 9 9 | − 4 | — | — | — | — |
| Poona | z. | 61·0 | 278 | i 9 31 | + 3 | — | — | — | — |
| Kiruna | z. | 75·9 | 340 | i 10 57k | − 1 | — | — | — | — |
| Shasta | z. | 78·6 | 50 | e 11 11a | − 1 | — | — | — | — |
| Mineral | z. | 79·4 | 51 | e 11 16k | − 1 | — | — | e 13 27 | pP |
| Hungry Horse | | 80·5 | 40 | i 11 22 | 0 | — | — | — | — |
| Lick | z. | 80·7 | 53 | e 11 22k | − 1 | — | — | — | — |
| Reno | z. | 80·9 | 51 | e 11 25a | + 1 | — | — | — | — |
| Upsala | z. | 81·9 | 335 | i 11 29k | − 1 | — | — | i 11 32 | P |
| Butte | | 82·5 | 42 | i 11 32 | − 1 | — | — | — | — |
| Tinemaha | z. | 83·2 | 52 | i 11 37 | + 1 | — | — | — | — |
| China Lake | z. | 84·2 | 53 | i 11 40 | − 1 | — | — | — | — |
| Mount Wilson | z. | 84·6 | 55 | i 11 44 | + 1 | — | — | — | — |
| Pasadena | | 84·6 | 55 | i 11 43 | 0 | — | — | — | — |
| Riverside | z. | 85·2 | 55 | e 11 46 | 0 | — | — | — | — |
| Boulder City | | 86·1 | 52 | i 11 51 | + 1 | — | — | — | — |
| Nelson | | 86·2 | 52 | i 11 51 | 0 | — | — | — | — |
| Copenhagen | | 86·7 | 334 | i 11 54 | + 1 | — | — | — | — |
| Collmberg | z. | 89·6 | 330 | e 12 6 | − 1 | — | — | — | — |
| Prague | | 89·8 | 329 | e 12 8 | 0 | — | — | e 12 34 | ? |
| Tucson | | 90·9 | 53 | e 12 14 | + 1 | — | — | — | — |
| Stuttgart | | 93·1 | 330 | e 12 23 | 0 | — | — | — | — |
| Strasbourg | | 93·9 | 331 | e 12 27 | + 1 | — | — | — | — |
| Tamanrasset | z. | 114·0 | 314 | e 17 49 | [+ 5] | e 18 40 | ? | e 18 49 | PP |

Sept. 8d. 9h. 7m. 32s. Epicentre 41°·8N. 48°·8E. (as on 1952, April 3d.).

A = +·4925, B = +·5626, C = +·6641; $\delta$ = +10; $h$ = −2;
D = +·752, E = −·659; G = +·437, H = +·500, K = −·748.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Shemakla | 1·2 | 186 | i 0 33 | + 9 | — | — | — | — |
| Makhach-Kala | 1·5 | 320 | i 0 36 | + $6_g$ | e 0 57 | + $7_g$ | — | — |
| Baku | 1·6 | 148 | e 0 40 | + $8_g$ | — | — | — | — |
| Kirovobad | 2·1 | 240 | i 0 45 | + $3_g$ | 1 11 | + $2_g$ | — | — |
| Grozny | 2·7 | 305 | i 0 54 | $0_g$ | 1 28 | − $1_g$ | — | — |
| Tiflis | 2·9 | 268 | 0 57 | − $1_g$ | 1 31 | + 1* | — | — |
| Goris | 3·0 | 220 | 0 54 | 0* | 1 28 | + 1 | — | — |
| Erevan | 3·6 | 245 | e 1 6 | + 2* | 1 47 | − 4* | — | — |
| Leninakan | 3·9 | 257 | — | — | 2 16 | + $7_g$ | — | — |
| Tsikhlis-Dzhvari | 4·0 | 271 | i 1 11 | 0* | 2 17 | + $5_g$ | — | — |
| Piatigorsk | 4·8 | 300 | 1 17 | + 2 | 2 11 | − 1 | — | — |
| Sotchi | 6·9 | 288 | 1 56 | − 6* | — | — | — | — |
| Bairam-Ali | 11·1 | 108 | e 2 45 | + 2 | — | — | — | — |
| Ksara | 12·9 | 236 | e 3 24 | PP | e 5 47 | +14 | — | — |
| Samarkand | 13·9 | 93 | 3 22 | + 1 | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Kishinev | | 15·2 | 297 | e 3 43 | + 5 | — | — | — | — |
| Tashkent | | 15·3 | 85 | e 3 40? | + 1 | — | — | — | — |
| Lunacharskoe | | 15·4 | 85 | e 3 38 | − 2 | — | — | — | — |
| Tchimkent | | 15·4 | 82 | 3 39? | − 1 | — | — | — | — |
| Stalinabad | | 15·6 | 95 | e 3 44 | + 1 | e 6 35 | − 2 | — | — |
| Kulyab | | 16·6 | 97 | — | — | i 6 55 | − 5 | — | — |
| Sverdlovsk | | 16·9 | 23 | i 3 56 | − 3 | i 6 38 | −29 | — | — |
| Dzhergetal | | 17·2 | 91 | e 4 8 | + 5 | — | — | — | — |
| Namangan | | 17·2 | 85 | e 4 3 | 0 | e 7 11? | − 3 | — | — |
| Fergana | | 17·4 | 87 | e 4 5 | − 1 | — | — | — | — |
| Andijan | | 17·7 | 87 | i 4 11 | + 1 | — | — | — | — |
| Khorog | | 18·1 | 95 | 4 16 | + 2 | — | — | — | — |
| Frunse | | 19·1 | 79 | e 4 28 | + 1 | — | — | — | — |
| Naryn | | 20·3 | 82 | e 4 42 | + 2 | — | — | — | — |
| Almata II | | 21·0 | 74 | e 4 48 | + 1 | — | — | — | — |
| Pulkovo | | 21·3 | 333 | e 4 49 | − 1 | — | — | — | — |
| Semipalatinsk | | 23·3 | 56 | e 5 12 | + 2 | — | — | — | — |
| Collmberg | z. | 26·2 | 303 | e 5 37 | − 1 | — | — | e 6 22 | PP |
| Upsala | z. | 26·3 | 323 | i 5 40 | + 1 | i 11 16 | SS | i 6 8 | PP |
| Stuttgart | | 28·5 | 298 | e 5 57 | − 2 | — | — | — | — |
| Kiruna | z. | 30·2 | 338 | i 6 12a | − 2 | i 7 8 | PP | i 8 3 | ? |
| Tamanrasset | z. | 40·7 | 256 | i 7 40a | − 4 | e 8 50 | ? | e 9 0 | PP |
| Pretoria | z. | 69·9 | 199 | i 11 14 | − 1 | — | — | — | — |
| Kimberley | z. | 73·6 | 202 | i 11 36 | − 1 | — | — | — | — |

Sept. 8d. 14h. 59m. 15s. Epicentre 6°·5S. 130°·0E. (as on 1949, May 31d.).

A = −·6387, B = +·7612, C = −·1125; δ = +2; h = +7;
D = +·766, E = +·643; G = +·072, H = −·086, K = −·994.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. | m. |
| Bandong | | 22·2 | 268 | e 4 44 | −16 | — | — | — | — | — |
| Manila | | 22·8 | 337 | i 5 27 | PP | i 9 37 | SS | — | — | — |
| Brisbane | | 30·2 | 137 | i 6 12a | − 2 | i 12 9 | +56 | i 7 14 | PP | i 16·6 |
| Riverview | | 33·5 | 147 | i 7 40 | PP | i 14 2 | SS | i 15 4 | SSS | e 18·4 |
| Zô-Sè | z. | 38·3 | 349 | e 7 23k | − 1 | e 13 4 | −15 | — | — | — |
| Nanking | z. | 39·8 | 345 | 7 39k | + 3 | i 13 34 | − 8 | — | — | — |
| Vladivostok | | 49·4 | 2 | — | — | i 15 53 | − 7 | — | — | — |
| Chatra | z. | 53·1 | 310 | i 9 24 | + 3 | e 16 41 | −10 | — | — | — |
| Kyakhta | | 60·2 | 343 | e 10 12 | 0 | e 18 16 | − 9 | — | — | — |
| Poona | z. | 60·7 | 296 | i 10 16 | + 1 | — | — | i 10 21 | ? | — |
| Kabansk | | 61·7 | 344 | e 10 23 | + 1 | — | — | — | — | — |
| New Delhi | | 61·7 | 307 | e 10 21 | − 1 | i 18 20 | −24 | — | — | — |
| Irkutsk | | 62·5 | 343 | 10 28 | 0 | e 18 50 | − 4 | — | — | — |
| Przhevalsk | | 67·6 | 322 | i 11 3 | + 2 | — | — | — | — | — |
| Naryn | | 68·6 | 319 | i 11 9 | + 2 | — | — | — | — | — |
| Almata II | | 68·7 | 322 | e 11 10 | + 3 | — | — | — | — | — |
| Almata | | 68·9 | 322 | i 11 11 | + 2 | — | — | — | — | — |
| Rybach'e | | 69·1 | 320 | 11 11 | + 1 | i 20 8 | − 7 | i 11 46 | pP | — |
| Ilí | | 69·2 | 323 | i 11 12 | + 2 | — | — | — | — | — |
| Frunse | | 70·2 | 320 | i 11 19 | + 2 | i 20 22 | − 6 | e 21 8 | sS | — |
| Andijan | | 70·7 | 317 | i 11 21 | + 1 | i 20 25 | − 9 | — | — | — |
| Fergana | | 70·9 | 317 | — | — | i 20 27 | − 9 | — | — | — |
| Semipalatinsk | | 71·1 | 329 | e 11 24 | + 2 | — | — | — | — | — |
| Namangan | | 71·2 | 317 | i 11 26 | + 3 | i 20 34 | − 6 | — | — | — |
| Stalinabad | | 72·2 | 314 | i 11 32 | + 3 | 20 44 | − 7 | — | — | — |
| Lunacharskoe | | 73·0 | 317 | i 11 36 | + 3 | 20 53 | − 7 | — | — | — |
| Tchimkent | | 73·2 | 318 | i 11 36 | + 1 | i 20 54 | − 8 | — | — | — |
| Samarkand | | 73·9 | 314 | 11 40 | + 1 | — | — | — | — | — |
| Bairam-Ali | | 76·8 | 311 | e 11 57 | + 2 | — | — | — | — | — |
| Kizyl-Arvat | | 81·6 | 311 | e 12 24 | + 3 | — | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Sverdlovsk | | 84·3 | 329 | i 12 35 | 0 | 22 45 | [−11] | — | — | — |
| Baku | | 86·7 | 311 | — | — | e 23 7 | [− 5] | — | — | — |
| Kirovobad | | 89·4 | 311 | 13 1 | + 1 | — | — | — | — | — |
| Pretoria | z. | 97·7 | 243 | i 13 39 | + 1 | — | — | — | — | — |
| Kimberley | z. | 100·1 | 240 | i 13 49 | 0 | — | — | — | — | — |
| Kiruna | z. | 103·3 | 337 | i 14 1 | − 2 | — | — | — | — | — |
| Tinemaha | z. | 111·2 | 53 | e 18 38 | [+ 2] | — | — | — | — | — |
| Pasadena | z. | 111·7 | 56 | e 18 38 | [+ 1] | — | — | — | — | — |
| Collmberg | z. | 111·8 | 323 | e 18 37 | [ 0] | — | — | e 19 3 | PP | — |
| China Lake | z. | 111·9 | 53 | e 18 38 | [+ 1] | — | — | — | — | — |
| Jena | | 112·7 | 322 | e 19 14 | ? | e 19 30 | PP | e 19 52 | ? | — |
| Stuttgart | | 114·9 | 321 | e 18 43 | [ 0] | — | — | — | — | — |
| Tamanrasset | z. | 124·1 | 293 | i 19 3k | [+ 2] | e 22 17 | SKP | e 20 44 | PP | — |
| Fayetteville | z. | 130·0 | 47 | i 19 13 | [+ 1] | i 22 14 | PKS | — | — | — |
| Harvard | | 139·4 | 24 | i 19 31k | [+ 2] | — | — | — | — | — |
| Huancayo | | 148·8 | 126 | e 19 49 | [+ 4] | — | — | — | — | — |
| Bermuda | | 150·8 | 25 | i 19 55 | [+ 6] | — | — | — | — | — |
| La Paz | N. | 150·9 | 143 | i 19 59 | [+10] | — | — | — | — | — |

Sept. 8d. 21h. 43m. 10s. Epicentre 10°·0S. 161°·1E. (as on 1952, June 22d.).

A = −·9319, B = +·3191, C = −·1725 ; $\delta$ = +2 ; $h$ = +7 ;
D = +·324, E = +·946 ; G = +·163, H = −·056, K = −·985.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Brisbane | | 19·0 | 302 | i 4 25a | − 1 | i 8 3 | + 8 | i 5 5 | PPP | — |
| Riverview | | 25·4 | 199 | i 5 54 | PP | e 10 8 | +12 | — | — | e 12·9 |
| Manila | | 46·7 | 301 | i 8 46 | +14 | i 16 59 | ? | — | — | — |
| College | | 83·8 | 19 | i 12 29 | − 3 | — | — | i 12 37 | pP | — |
| Berkeley | z. | 85·7 | 50 | i 12 43a | + 1 | — | — | e 12 51 | pP | — |
| Lick | z. | 86·1 | 50 | e 12 44a | 0 | — | — | e 12 52 | pP | — |
| Shasta | z. | 86·4 | 47 | e 12 45a | 0 | — | — | e 12 54 | pP | — |
| Pasadena | z. | 88·0 | 54 | e 12 52 | − 1 | — | — | — | — | — |
| Reno | z. | 88·0 | 49 | e 12 54a | + 1 | — | — | — | — | — |
| Riverside | z. | 88·6 | 54 | e 12 56 | 0 | — | — | — | — | — |
| Tinemaha | z. | 88·6 | 51 | e 12 58 | + 2 | — | — | e 13 53 | ? | — |
| China Lake | z. | 88·8 | 53 | e 12 57 | 0 | — | — | e 13 5 | pP | — |
| Nelson | | 91·0 | 53 | i 13 7 | 0 | i 16 43 | PP | i 13 14 | pP | — |
| Boulder City | | 91·1 | 53 | i 13 8 | 0 | — | — | — | — | — |
| Algiers Univ. | z. | 146·8 | 327 | e 19 50 | PKP$_1$ | — | — | — | — | — |
| Tamanrasset | z. | 153·4 | 302 | e 19 57 | [+ 5] | e 23 47 | PKS | e 24 7 | PP | — |

Sept. 9d. 1h. 37m. 45s. Epicentre 39°·3N. 72°·6E. (as on 1952, June 24d.).

A = +·2320, B = +·7405, C = +·6308 ; $\delta$ = +7 ; $h$ = −1 ;
D = +·954, E = −·299 ; G = +·189, H = +·602, K = −·776.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Dzhergetal | 1·1 | 266 | i 0 17 | − 5g | 0 31 | − 5g |
| Fergana | 1·3 | 330 | — | — | i 0 40 | − 2* |
| Murgab | 1·4 | 132 | e 0 28 | + 1 | i 0 47 | − 1g |
| Andijan | 1·5 | 353 | e 0 31 | + 1g | 0 54 | + 4g |
| Garm | 1·8 | 260 | e 0 31 | − 1 | i 0 59 | − 1g |
| Namangan | 1·8 | 337 | i 0 37 | + 1g | e 1 2 | + 2g |
| Khorog | 2·0 | 203 | e 0 37 | + 2 | e 1 1 | − 1 |
| Obi-garm | 2·3 | 255 | e 0 39 | − 1 | e 1 10 | + 1 |
| Stalinabad | 3·1 | 256 | e 1 4 | + 2g | e 1 34 | − 2* |
| Lunacharskoe | 3·2 | 309 | e 0 57 | − 1* | — | — |
| Naryn | 3·4 | 50 | e 1 37 | S | i 1 52 | 0g |
| Almata II | 5·3 | 41 | e 1 29 | + 7 | — | — |

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Sept. 9d. 12h. 50m. 16s. Epicentre 3°·3S. 139°·8E. (as on 1951, May 29d.).

A = −·7625, B = +·6444, C = −·0572; $\delta$ = −7; $h$ = +7;
D = +·645, E = +·764; G = +·044, H = −·037, K = −·998.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Manila | | 25·8 | 314 | i 5 46 | +12 | i 10 43 | +41 | — | — | — |
| Brisbane | | 27·2 | 153 | i 5 51a | + 4 | — | — | i 6 18 | PP | i 13·8 |
| Riverview | | 32·2 | 162 | i 6 29 | − 3 | — | — | e 14 36 | Q | i 15·6 |
| Hong Kong | | 35·7 | 317 | e 7 1 | − 1 | — | — | — | — | — |
| Zô-Sè | Z. | 38·5 | 335 | i 7 22a | − 4 | — | — | — | — | — |
| Nanking | | 40·4 | 332 | i 7 41a | 0 | 13 42 | − 8 | — | — | — |
| Mizusawa | E. | 42·2 | 3 | 7 56 | 0 | 8 22 | ? | — | — | — |
| Shillong | E. | 54·6 | 306 | i 9 30 | − 2 | — | — | e 9 48 | ? | — |
| Chatra | Z. | 59·0 | 305 | i 10 2 | − 2 | — | — | — | — | — |
| New Delhi | | 67·9 | 303 | i 10 59 | − 3 | — | — | — | — | — |
| Poona | Z. | 68·4 | 292 | i 11 3 | − 3 | — | — | i 11 29 | ? | — |
| Quetta | Z. | 76·9 | 303 | i 11 55 | − 1 | — | — | — | — | — |

Sept. 9d. 12h. 54m. 42s. Epicentre 9°·2N. 84°·2W. (as on 1948, September 18d.).

A = +·0998, B = −·9822, C = +·1589; $\delta$ = −7; $h$ +7;
D = −·995, E = −·101; G = +·016, H = −·158, K = −·987.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Balboa Heights | | 4·6 | 93 | i 1 15 | + 3 | i 1 58 | − 9 | — | — | — |
| Galerazamba | | 8·9 | 79 | e 2 33 | − 6* | — | — | — | — | — |
| Chinchina | | 9·5 | 116 | i 2 21 | + 1 | i 4 22 | +10 | i 4 37 | SS | 5·2 |
| Bogota | | 11·0 | 124 | i 2 49 | + 7 | i 5 2 | +15 | e 3 33 | ? | — |
| Kingston | | 11·3 | 39 | e 3 23 | ? | — | — | — | — | i 6·6 |
| Merida | | 12·8 | 336 | i 3 1 | − 5 | i 5 35 | + 5 | — | — | i 6·8 |
| Oaxaca | | 14·5 | 304 | i 3 33a | + 5 | e 6 24 | +13 | — | — | — |
| Vera Cruz | | 15·2 | 312 | i 3 41 | + 3 | — | — | — | — | e 8·1 |
| Puebla | | 16·7 | 307 | e 4 0 | + 3 | e 7 20 | +17 | — | — | — |
| Tacubaya | | 17·7 | 307 | i 4 13a | + 3 | e 7 49 | +23 | — | — | — |
| San Juan | | 19·8 | 60 | i 4 34 | − 1 | i 8 19 | + 6 | — | — | — |
| Guadalajara | | 21·7 | 304 | e 4 57 | + 2 | e 8 57 | + 6 | — | — | — |
| Mobile | | 21·7 | 351 | 4 59 | + 4 | i 8 59 | + 8 | — | — | — |
| Huancayo | | 22·9 | 158 | i 5 6 | 0 | e 8 58 | −15 | i 5 48 | PP | i 10·6 |
| Fort de France | | 23·2 | 75 | i 5 11 | + 2 | i 9 31 | +13 | 5 41 | PP | e 12·0 |
| Columbia | | 24·9 | 7 | i 5 28 | + 2 | — | — | — | — | — |
| Mazatlan | | 25·4 | 306 | e 5 29 | − 2 | i 10 25 | +19 | — | — | — |
| Fayetteville | Z. | 28·3 | 343 | i 5 53 | − 4 | i 6 39 | PP | i 7 2 | PPP | e 17·0 |
| Lubbock | | 29·2 | 330 | 6 5 | 0 | — | — | — | — | e 12·3 |
| Bermuda | | 29·3 | 35 | i 6 6 | 0 | — | — | — | — | e 14·0 |
| Cincinnati | | 29·8 | 0 | i 6 9 | − 2 | i 11 6 | − 1 | — | — | — |
| La Paz | | 30·1 | 148 | i 6 12a | − 1 | i 11 6 | − 6 | i 7 11 | PP | 14·9 |
| Washington | | 30·3 | 12 | i 6 16 | + 1 | i 12 20 | +65 | — | — | — |
| Pittsburgh | | 31·3 | 8 | i 6 26 | + 2 | i 11 31 | 0 | i 6 54 | ? | — |
| Pennsylvania | Z. | 32·0 | 9 | i 6 30 | 0 | — | — | — | — | — |
| Cleveland | | 32·2 | 3 | i 6 30a | − 2 | e 11 51 | + 6 | e 7 43 | PP | — |
| Chicago | | 32·6 | 354 | e 6 37 | + 2 | e 11 41 | −10 | — | — | — |
| Fordham | | 32·8 | 15 | e 6 40 | + 3 | e 11 56 | + 2 | — | — | — |
| Palisades | | 33·0 | 15 | i 6 38 | − 1 | i 11 56 | − 1 | e 7 47 | PP | e 14·7 |
| Tucson | | 33·7 | 318 | i 6 42 | − 3 | e 12 7 | − 1 | e 8 8 | PP | e 12·9 |
| Weston | | 34·9 | 16 | i 6 57k | + 2 | i 12 30 | + 3 | i 8 16 | PP | — |
| Harvard | | 35·0 | 16 | i 6 57k | + 1 | e 12 29 | + 1 | i 8 15 | PP | — |
| Antofagasta | E. | 35·3 | 157 | e 6 53 | − 6 | e 12 40 | + 7 | e 8 30 | PP | e 14·6 |
| Ottawa | | 36·8 | 9 | i 7 9k | − 2 | 12 58 | + 2 | 8 44 | PP | — |
| Nelson | | 38·4 | 319 | e 7 24 | − 1 | i 14 42 | ? | — | — | — |
| Palomar | Z. | 38·5 | 314 | i 7 26 | 0 | e 13 36 | ScP | i 9 10 | PcP | — |
| Shawinigan Falls | N. | 38·5 | 13 | e 7 25 | − 1 | 13 16 | − 6 | 9 0 | PP | 18·6 |
| Boulder City | | 38·6 | 319 | i 7 26 | 0 | — | — | — | — | — |
| Kirkland Lake | Z. | 39·0 | 5 | i 7 30k | 0 | — | — | — | — | — |
| Riverside | | 39·2 | 315 | i 7 31 | 0 | e 13 41 | + 9 | i 7 43 | ? | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Halifax | | 39·5 | 24 | i 7 34 a | 0 | 13 37 | 0 | 9 10 | PP | 19·1 |
| Pasadena | | 39·8 | 315 | i 7 36 | 0 | i 13 39 | − 3 | i 9 16 | PP | — |
| China Lake | Z. | 40·3 | 317 | i 7 36 | -- 4 | e 14 2 | ScP | i 9 41 | PcP | — |
| Tinemaha | | 41·5 | 318 | i 7 50 | 0 | e 14 3 | − 4 | i 9 59 | PcP | — |
| Fresno | | 42·3 | 317 | e 7 54 a | − 3 | e 14 28 | + 9 | e 8 2 | pP | — |
| Reno | | 43·8 | 320 | e 8 10 k | + 1 | e 14 52 | +12 | e 10 0 | PP | — |
| Lick | | 43·9 | 317 | e 8 9 a | − 1 | e 14 51 | + 9 | i 8 14 | pP | — |
| Santa Clara | | 44·1 | 317 | e 8 11 k | − 1 | e 14 44 | − 1 | — | — | e 20·6 |
| Santa Lucia | N. | 44·3 | 164 | e 8 11 | − 2 | e 14 57 | + 9 | e 18 19 | SS | e 21·4 |
| Berkeley | | 44·6 | 317 | e 8 14 a | − 2 | e 14 59 | + 7 | i 8 21 | pP | e 20·8 |
| Mineral | Z. | 45·4 | 319 | e 8 20 a | − 2 | — | — | e 10 2 | PP | — |
| Shasta | | 46·1 | 320 | e 8 25 | − 3 | i 10 9 | PP | i 8 31 | pP | — |
| Hungry Horse | | 46·4 | 334 | i 8 31 | + 1 | e 15 12 | − 6 | i 10 16 | PP | — |
| Saskatoon | | 46·6 | 341 | 8 38 | + 6 | 14 58 | −23 | — | — | 18·3 |
| Concepción | N. | 47·0 | 166 | e 7 24 | −71 | e 14 14 | −72 | — | — | — |
| Arcata | E. | 47·3 | 319 | e 8 39 | + 2 | — | — | — | — | — |
| Corvallis | Z. | 48·8 | 323 | i 8 53 | + 4 | — | — | — | — | — |
| Buenos Aires | | 49·9 | 152 | e 8 56 | − 1 | 16 9 | + 2 | — | — | — |
| Seattle | | 50·0 | 327 | 8 59 | + 1 | e 16 18 | + 9 | — | — | 18·8 |
| La Plata | | 50·4 | 153 | 9 0 | − 1 | 16 6 | − 8 | 11 54 | PPP | 29·0 |
| Ponta Delgada | | 59·6 | 51 | — | — | i 18 18 | + 1 | — | — | i 28·9 |
| Resolute Bay | | 65·7 | 357 | i 10 46 k | − 2 | i 19 28 | − 6 | i 11 19 | PcP | e 28·4 |
| M'Bour | | 65·8 | 78 | i 10 51 | + 2 | e 19 41 | + 6 | i 11 23 | PcP | — |
| Reykjavik | | 69·9 | 24 | i 11 15 k | 0 | e 21 6 | +42 | e 15 12 | PPP | e 29·8 |
| College | | 70·7 | 336 | i 11 21 | + 1 | e 20 19 | −15 | e 21 18 | ScS | e 29·1 |
| Scoresby Sund | | 72·3 | 18 | i 11 30 | + 1 | e 21 11 | +19 | — | — | 30·3 |
| Lisbon | | 72·6 | 53 | i 11 32 k | + 1 | i 20 58 | + 2 | 16 5 | PPP | 33·9 |
| Coimbra | | 73·3 | 51 | 11 37 k | + 2 | 21 4 | 0 | 25 24 | SS | 34·3 |
| Rathfarnham Castle | | 75·5 | 37 | e 12 3 k | +15 | i 21 30 | + 2 | i 21 50 | PS | e 36·3 |
| Malaga | | 76·4 | 55 | i 11 56 | + 3 | i 21 42 | + 4 | i 14 56 | PP | 36·5 |
| Toledo | | 76·6 | 52 | i 11 56 k | + 2 | i 21 42 | + 2 | 14 52 | PP | 35·3 |
| Granada | | 77·0 | 55 | i 11 56 a | 0 | i 21 48 | + 3 | 12 12 | PcP | i 37·1 |
| Edinburgh | | 77·4 | 35 | e 11 56 | − 2 | 21 45 | − 4 | 22 5 | SKS | — |
| Jersey | E. | 77·9 | 42 | e 12 4 | + 3 | e 21 55 | + 1 | e 15 5 | PP | 38·3 |
| Aberdeen | N. | 78·0 | 34 | i 12 14 | pP | i 21 54 | − 1 | i 15 2 | PP | e 37·3 |
| Almeria | | 78·0 | 55 | i 12 1 | − 1 | i 21 53 | − 2 | 12 10 | PcP | 37·2 |
| Durham | | 78·3 | 37 | e 12 4 | + 1 | i 21 58 | − 1 | — | — | — |
| Kew | | 79·1 | 40 | i 12 8 a | 0 | i 22 7 | 0 | i 15 33 | PP | e 39·3 |
| Alicante | | 79·4 | 53 | i 12 11 | + 2 | i 22 11 | + 1 | 15 19 | PP | e 39·6 |
| Tortosa | | 80·0 | 50 | i 12 13 | 0 | i 22 20 | + 3 | — | — | — |
| Paris | | 81·0 | 43 | e 12 16 | − 2 | i 22 23 | − 4 | i 15 40 | PP | 38·8 |
| Barcelona | | 81·2 | 49 | — | — | i 22 33 | + 4 | 27 1 | SS | e 33·0 |
| Clermont-Ferrand | | 81·6 | 45 | i 12 23 | + 2 | i 22 36 | + 3 | i 12 36 | pP | 37·8 |
| Bergen | | 81·8 | 30 | 12 20 | − 2 | e 22 35 | 0 | e 15 32 | PP | e 32·6 |
| Algiers Univ. | Z. | 82·4 | 55 | i 12 25 k | 0 | e 22 39 | − 2 | e 15 34 | PP | e 42·5 |
| De Bilt | | 82·4 | 39 | i 12 25 | 0 | i 22 42 | + 1 | i 12 38 | pP | e 38·3 |
| Witteveen | Z. | 83·3 | 38 | i 12 32 | + 2 | — | — | e 15 57 | PP | — |
| Neuchatel | | 84·1 | 44 | i 12 35 | + 1 | e 22 58 | 0 | — | — | — |
| Basle | | 84·5 | 43 | e 12 37 k | + 1 | e 23 0 | − 2 | — | — | — |
| Strasbourg | | 84·5 | 42 | i 12 36 | 0 | i 23 21 | +19 | i 12 42 | PcP | 40·3 |
| Karlsruhe | | 84·8 | 41 | 12 36 | − 1 | e 23 4 | − 1 | e 15 53 | PP | 35·3 |
| Oropa | | 85·0 | 46 | i 12 45 | + 7 | e 23 9 | + 2 | i 16 1 | PP | — |
| Zürich | | 85·2 | 43 | e 12 38 | − 1 | e 23 4 | [+ 2] | e 16 1 | PP | — |
| Stuttgart | | 85·4 | 42 | i 12 40 a | 0 | e 23 0 | [− 3] | e 16 1 | PP | e 35·3 |
| Chur | | 85·9 | 44 | e 12 44 k | + 1 | e 23 16 | 0 | — | — | e 32·3 |
| Pavia | | 85·9 | 45 | e 12 33 | −10 | e 23 10 | [+ 3] | — | — | e 40·9 |
| Copenhagen | | 86·2 | 35 | i 12 46 | + 2 | i 23 22 | + 3 | 29 18 | SS | — |
| Tamanrasset | Z. | 86·2 | 68 | i 12 46 k | + 2 | i 23 19 | 0 | e 16 11 | PP | — |
| Jena | | 86·6 | 40 | i 12 47 | + 1 | i 23 24 | + 1 | i 12 58 | pP | e 35·8 |
| Salo | | 86·8 | 45 | e 12 21 | −26 | e 23 24 | − 1 | e 16 45 | PP | — |
| Kiruna | | 87·0 | 22 | i 12 49 k | + 1 | i 23 25 | − 2 | i 23 13 | SKS | — |
| Cheb | | 87·2 | 41 | 12 46 | − 3 | e 23 30 | + 2 | e 16 30 | PP | e 38·3 |
| Potsdam | | 87·2 | 38 | i 12 50 k | + 1 | i 23 28 | 0 | i 23 16 | SKS | e 39·3 |
| Collmberg | | 87·4 | 40 | i 12 45 | − 5 | e 23 27 | − 3 | e 16 20 | PP | e 37·5 |
| Bologna | | 87·5 | 46 | e 13 30 | +39 | e 25 51 | PPS | e 15 34 | ? | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Prato | | 87·5 | 47 | e 12 44 | − 7 | e 23 20 | [+ 3] | — | — | — |
| Florence | | 87·6 | 47 | e 12 39 | −12 | e 23 33 | + 1 | i 13 3 | pP | — |
| Upsala | | 88·0 | 30 | i 12 53k | 0 | e 23 32 | − 4 | i 16 27 | PP | e 33·3 |
| Prague | | 88·5 | 40 | e 12 56 | 0 | i 23 43 | + 2 | e 16 50 | PP | e 40·3 |
| Rome | | 88·9 | 48 | i 12 58a | 0 | i 23 48 | + 4 | i 16 28 | PP | — |
| Triest | | 89·0 | 44 | e 12 56 | − 2 | i 23 43 | − 2 | i 23 25 | SKS | 42·7 |
| Rocca di Papa | | 89·1 | 48 | e 12 58 | 0 | e 23 41 | − 5 | — | — | — |
| Raciborzu | | 90·9 | 39 | 13 8 | + 1 | e 24 7 | + 4 | e 13 17 | pP | 36·3 |
| Helsinki | | 91·4 | 28 | e 13 7 | − 2 | e 23 33 | [− 8] | e 16 45 | PP | — |
| Ogyalla | | 91·4 | 41 | e 14 34 | ? | e 24 18 | +11 | e 16 54 | PP | e 37·8 |
| Messina | E. | 91·9 | 51 | e 13 43 | +32 | e 22 39 | ? | e 16 43 | PP | — |
| Budapest | | 92·1 | 41 | 13 13 | + 1 | 24 13 | 0 | 16 51 | PP | 40·3 |
| Kalossa | | 92·3 | 42 | 13 9 | − 4 | e 24 12 | − 3 | 17 0 | PP | e 42·8 |
| Skalnate Pleso | | 92·4 | 40 | e 13 21 | + 7 | e 24 18 | + 2 | e 16 40 | PP | e 40·3 |
| Taranto | | 92·7 | 49 | 13 9 | − 6 | 23 37 | [−11] | 16 9 | PP | 45·3 |
| Belgrade | | 93·8 | 44 | e 13 21 | + 1 | e 23 55 | [+ 1] | e 17 16 | PP | e 41·7 |
| Uzhgorod | | 93·8 | 40 | i 13 23 | + 3 | i 24 43 | +15 | 17 19 | PP | — |
| Pulkovo | | 94·0 | 28 | e 13 22 | + 1 | i 23 53 | [− 3] | e 17 3 | PP | — |
| Timisoara | | 94·0 | 43 | e 13 26 | + 5 | e 24 0 | [+ 4] | e 16 39 | PP | e 43·3 |
| Lwow | | 94·5 | 38 | i 13 25 | + 2 | e 23 57 | [− 1] | — | — | — |
| Klyuchi | | 95·8 | 329 | — | — | i 24 9 | [+ 4] | — | — | — |
| Sofia | | 96·4 | 45 | e 13 35 | + 3 | e 24 52 | + 2 | e 24 7 | SKS | — |
| Bucharest | | 97·7 | 43 | e 14 0 | +22 | e 24 6 | [− 9] | e 17 28 | PP | 43·3 |
| Athens | | 98·2 | 50 | — | — | e 24 13 | [− 5] | i 26 43 | PS | — |
| Petropavlovsk | | 98·3 | 327 | e 13 43 | + 2 | i 24 21 | [+ 2] | 17 51 | PP | — |
| Kishinev | | 98·5 | 40 | 13 42 | 0 | 26 32 | PS | 17 42 | PP | — |
| Moscow | | 99·4 | 29 | e 13 46 | 0 | i 24 22 | [− 2] | e 17 50 | PP | — |
| Istanbul | | 101·0 | 45 | e 13 53 | 0 | e 24 34 | [+ 2] | e 18 2 | PP | 40·3 |
| Simferopol | | 102·8 | 40 | e 13 54 | − 7 | i 27 18 | PS | e 18 12 | PP | — |
| Yalta | | 103·0 | 40 | 13 54 | − 8 | 25 31? | −15 | 18 8 | PP | — |
| Theodosia | | 103·5 | 39 | 14 7 | + 3 | 25 55? | + 5 | e 20 39 | PPP | — |
| Wellington | | 104·3 | 231 | 18 37 | PP | e 28 1 | PS | e 20 50 | PPP | e 43·3 |
| Christchurch | | 105·8 | 228 | — | — | e 26 18 | + 9 | e 34 10 | SS | — |
| Helwan | | 106·9 | 55 | e 17 51 | ? | e 25 13 | [+14] | i 28 6 | PS | — |
| Sverdlovsk | | 108·1 | 20 | e 14 38 | + 7 | i 25 3 | [− 1] | 18 56 | PP | — |
| Ksara | | 108·9 | 50 | e 14 46 | P | 28 18 | PS | 19 5 | PP | — |
| Uglegorsk | | 109·2 | 330 | 19 11 | PP | i 25 16 | [+ 7] | — | — | — |
| Yuzno-Sakhlinsk | | 110·3 | 328 | e 14 40 | P | — | — | 19 17 | PP | — |
| Grozny | | 110·7 | 37 | 18 47 | [+12] | e 28 46 | PS | — | — | — |
| Kimberley | z. | 111·0 | 118 | i 18 42 | [+ 7] | i 25 22 | [+ 6] | — | — | — |
| Tiflis | | 111·1 | 39 | i 19 22 | PP | e 25 20 | [+ 3] | i 28 48 | PS | — |
| Erevan | | 111·8 | 40 | e 19 19 | PP | — | — | — | — | — |
| Goris | | 113·3 | 39 | i 19 30 | PP | 22 20 | PKS | i 29 9 | PS | — |
| Pretoria | z. | 114·1 | 114 | i 18 48? | [+ 7] | — | — | — | — | — |
| Shemakla | | 114·1 | 38 | e 19 36 | PP | — | — | — | — | — |
| Baku | | 115·0 | 37 | e 19 45 | PP | e 26 39 | (− 1) | e 22 9 | PPP | — |
| Irkutsk | | 118·3 | 354 | e 20 2 | PP | 25 44 | [ 0] | — | — | — |
| Kabansk | | 118·3 | 352 | e 20 7? | PP | — | — | — | — | — |
| Vladivostok | | 118·4 | 331 | e 20 2 | PP | e 25 49 | [+ 5] | i 27 7 | SKKS | — |
| Kyakhta | | 120·0 | 352 | 20 9 | PP | — | — | — | — | — |
| Ashkabad | | 121·5 | 34 | e 18 58 | [+ 2] | — | — | — | — | — |
| Brisbane | | 123·2 | 244 | i 20 38 | PP | — | — | — | — | — |
| Tchimkent | | 123·4 | 23 | e 20 47 | PP | e 26 3 | [+ 2] | — | — | — |
| Riverview | | 123·7 | 236 | i 20 48 | PP | i 30 57 | PS | e 37 51 | SS | e 58·7 |
| Bairam-Ali | | 123·8 | 32 | 19 0 | [ 0] | — | — | 20 50 | PP | — |
| Tashkent | | 124·1 | 24 | e 18 53 | [− 8] | i 37 54 | SS | — | — | — |
| Frunse | | 124·7 | 19 | i 19 6 | [+ 4] | e 30 39 | SKSP | i 20 49 | PP | — |
| Almata | | 125·0 | 16 | i 19 4 | [+ 2] | e 25 59 | [− 7] | i 20 51 | PP | — |
| Almata II | | 125·3 | 16 | i 19 5 | [+ 2] | — | — | — | — | — |
| Namangan | | 125·3 | 23 | e 19 7 | [+ 4] | 26 12 | [+ 5] | e 20 54 | PP | — |
| Rybach'e | | 125·5 | 18 | e 19 5 | [+ 2] | — | — | e 20 54 | PP | — |
| Andijan | | 125·8 | 22 | i 19 7 | [+ 3] | e 26 11 | [+ 3] | 20 59 | PP | — |
| Fergana | | 125·9 | 22 | e 19 6 | [+ 2] | — | — | — | — | — |
| Przhevalsk | | 126·2 | 15 | 19 7 | [+ 2] | — | — | — | — | — |
| Stalinabad | | 126·2 | 26 | i 19 8 | [+ 3] | 27 55 | ( 0) | 31 10 | PS | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Naryn | | 126·4 | 19 | i 19 8 | [+ 3] | i 28 1 | {+ 5} | i 20 58 | PP | — |
| Obi-garm | | 126·5 | 26 | i 19 6 | [+ 1] | i 27 57 | { 0} | i 22 32 | PKS | — |
| Dzhergetal | | 126·7 | 24 | i 19 9 | [+ 3] | — | — | — | — | — |
| Melbourne | E. | 127·5 | 230 | e 11 33 | ? | (e 39 0) | SSP | — | — | e 39·0 |
| Khorog | | 128·3 | 24 | i 21 19 | PP | — | — | — | — | — |
| Murgab | | 128·5 | 22 | e 19 17 | [+ 8] | i 31 13 | PS | — | — | — |
| Quetta | | 132·0 | 34 | i 19 20 | [+ 4] | i 22 47 | PKS | e 21 43 | PP | — |
| Tananarive | | 132·3 | 107 | e 21 39 | PP | 22 51 | PKS | 24 35 | PPP | 60·6 |
| Zô-Sè | Z. | 133·1 | 330 | i 19 17a | [− 1] | — | — | i 21 50 | PP | — |
| Nanking | Z. | 133·5 | 333 | i 19 21 | [+ 2] | i 22 55 | PKS | 21 56 | PP | — |
| New Delhi | | 138·4 | 25 | e 19 30 | [+ 2] | 29 10 | {− 1} | 22 27 | PP | 63·8 |
| Chatra | | 143·2 | 11 | e 19 36 | [ 0] | 36 33 | $SKKS_2$ | 41 37 | SS | 59·5 |
| Hong Kong | | 143·9 | 330 | e 19 41 | [+ 4] | — | — | — | — | — |
| Bombay | | 144·0 | 39 | e 19 40 | [+ 3] | 23 5 | PKS | 26 29 | PPP | 59·3 |
| Poona | | 144·9 | 38 | i 19 41 | [+ 2] | 41 35 | SS | — | — | — |
| Shillong | E. | 145·2 | 5 | e 19 43 | [+ 3] | e 20 12 | ? | e 20 48 | ? | e 64·0 |
| Manila | | 145·6 | 314 | 19 41 | [+ 1] | — | — | — | — | 68·3 |
| Calcutta | E. | 147·6 | 13 | i 19 53 | [+ 9] | 42 43 | SS | — | — | 60·7 |
| Hyderabad | | 148·5 | 33 | e 19 48 | [+ 3] | — | — | e 20 6 | $PKP_2$ | 64·5 |
| Perth | | 150·7 | 218 | i 19 38 | [−10] | — | — | — | — | — |
| Madras | E. | 153·0 | 34 | 20 3 | [+11] | 43 17 | SS | — | — | — |
| Kodaikanal | E. | 153·4 | 43 | e 20 18 | $PKP_2$ | — | — | — | — | — |
| Colombo | E. | 157·5 | 46 | — | — | e 41 18? | ? | — | — | 76·1 |

Sept. 10d. 2h. 20m. 55s. Epicentre 22°·3S. 179°·2W. (as on 1951, February 9d.).

A = −·9260, B = −·0129, C = −·3773; δ = 0; h = +4;
D = −·014, E = +1·000; G = +·377, H = +·005, K = −·926.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Brisbane | Z. | 25·7 | 253 | i 5 30a | − 3 | i 5 41 | ? | i 6 41 | ? |
| Lick | Z. | 80·3 | 43 | e 12 17a | + 3 | — | — | — | — |
| Mount Wilson | Z. | 80·9 | 48 | i 12 18 | + 1 | — | — | — | — |
| Fresno | Z. | 81·2 | 45 | e 12 20a | + 1 | — | — | — | — |
| Palomar | Z. | 81·2 | 49 | i 12 22 | + 3 | — | — | — | — |
| Riverside | Z. | 81·2 | 48 | e 12 19 | 0 | — | — | — | — |
| Shasta | Z. | 81·9 | 40 | e 12 25 | + 2 | — | — | — | — |
| China Lake | Z. | 82·1 | 46 | e 12 23 | − 1 | — | — | — | — |
| Tinemaha | Z. | 82·4 | 45 | e 12 26 | + 1 | — | — | — | — |
| Nelson | | 83·9 | 48 | e 12 33 | 0 | — | — | — | — |
| Boulder City | | 84·0 | 48 | i 12 34 | + 1 | — | — | — | — |
| Tucson | | 84·9 | 52 | i 12 37 | − 1 | — | — | — | — |
| College | | 89·8 | 13 | e 13 4 | + 2 | — | — | — | — |
| Upsala | Z. | 140·6 | 347 | i 19 23 | [− 9] | — | — | i 19 26 | PKP |
| Collmberg | Z. | 149·5 | 345 | e 19 44 | [− 3] | — | — | e 19 49 | PKP |
| Tamanrasset | Z. | 175·6 | — | e 21 40 | $PKP_2$ | — | — | — | — |

Sept. 10d. 4h. 17m. 6s. Epicentre 39°·0N. 15°·2E. Depth of focus .0·030.
(as on 1947, September 1d.).

E. Peterschmitt.
Quelques donnés nouvelles sur les seismis, profonds de la Mer Tyrrhénienne, Annali di geofisica, Vol. IX, n 3, 1956, p. 318.

A = +·7519, B = +·2043, C = +·6268; δ = −3; h = −1;
D = +·262, E = −·965; G = +·605, H = +·164, K = −·779.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Messina | | 0·8 | 161 | i 0 27k | − 4 | i 0 49 | − 7 | — | — | — |
| Taranto | | 2·2 | 47 | 0 36 | − 7 | 1 6 | −10 | — | — | — |
| Rocca di Papa | N. | 3·3 | 326 | i 0 58 | + 3 | i 1 46 | + 9 | — | — | — |
| Rome | | 3·6 | 326 | e 1 1 | + 3 | i 1 50 | + 6 | i 1 33 | ? | — |
| Florence | | 5·7 | 328 | — | — | e 2 37 | + 7 | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Chur | | 8·9 | 334 | e 2 4a | − 2 | — | — | i 2 11 | P | — |
| Zürich | | 9·7 | 332 | e 2 17 | + 1 | — | — | — | — | — |
| Basle | | 10·2 | 330 | e 2 24 | + 2 | — | — | — | — | — |
| Stuttgart | z. | 10·7 | 338 | e 2 30 | + 1 | e 4 32 | + 7 | e 2 36 | PP | e 6·6 |
| Strasbourg | | 11·0 | 333 | i 2 34 | + 2 | e 4 39 | + 7 | i 2 53 | PP | — |
| Karlsruhe | z. | 11·1 | 337 | e 2 36 | + 2 | — | — | e 2 56 | PP | — |
| Prague | | 11·1 | 357 | e 2 35 | + 1 | e 2 40 | ? | e 3 7 | ? | — |
| Clermont-Ferrand | | 11·2 | 311 | i 2 40 | + 5 | — | — | — | — | — |
| Raciborzu | | 11·3 | 10 | e 2 38 | + 2 | — | — | — | — | — |
| Jena | | 12·2 | 349 | e 2 49 | + 1 | e 3 27 | ? | e 4 33 | ? | — |
| Collmberg | z. | 12·4 | 354 | e 2 50 | 0 | — | — | e 2 53 | ? | — |
| Paris | | 13·4 | 321 | e 3 2 | − 1 | i 3 14 | PP | e 3 27 | PPP | — |
| Copenhagen | | 16·8 | 354 | i 3 42 | − 2 | — | — | — | — | — |
| Ksara | | 17·4 | 100 | i 3 50 | 0 | e 7 10 | SS | — | — | — |
| Tamanrasset | z. | 18·1 | 210 | e 3 56 | − 2 | — | — | e 4 54 | ? | — |
| Upsala | z. | 20·9 | 3 | i 4 24 | − 2 | — | — | — | — | — |
| Kiruna | z. | 29·0 | 4 | i 5 38 | − 3 | — | — | — | — | — |
| Fayetteville | z. | 80·9 | 309 | i 11 48 | − 2 | — | — | — | — | — |

Sept. 10d. 9h. 6m. 13s. Epicentre 14°·5N. 39°·5E. Focus at Base of Superficial Layers.
(as on 1950, August 2d.).

A = +·7474, B = +·6161, C = +·2488 ; $\delta$ = +9 ; $h$ = +6 ;
D = +·636, E = −·772 ; G = +·192, H = +·158, K = −·969.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Helwan | | 17·0 | 334 | 4 2 | + 5 | e 7 26 | SS | e 4 11 | ? | 9·5 |
| Ksara | | 19·5 | 351 | i 4 31 | + 4 | 8 20 | SS | — | — | — |
| Goris | | 25·6 | 13 | 5 50? | PP | 10 19? | +28 | — | — | — |
| Erevan | | 26·4 | 10 | i 5 34 | − 1 | — | — | — | — | — |
| Kirovobad | | 26·8 | 12 | e 5 42 | + 3 | 10 17 | + 7 | — | — | — |
| Tiflis | | 27·7 | 8 | e 5 47 | 0 | e 10 32 | + 6 | — | — | — |
| Kizyl-Arvat | | 28·6 | 27 | e 5 53 | − 2 | e 10 38 | − 2 | — | — | — |
| Ashkabad | | 28·7 | 32 | e 6 7? | pP | — | — | — | — | — |
| Grozny | | 29·2 | 9 | e 6 3 | + 2 | 10 57 | + 7 | — | — | — |
| Piatigorsk | | 29·6 | 4 | 6 3 | − 1 | — | — | — | — | — |
| Quetta | | 29·8 | 51 | e 6 4 | − 2 | e 11 4 | + 5 | e 12 49 | PcS | — |
| Bairam-Ali | | 30·5 | 36 | e 6 10 | − 2 | — | — | — | — | — |
| Theodosia | | 30·6 | 354 | e 6 15 | + 2 | — | — | — | — | — |
| Simferopol | | 30·7 | 352 | e 6 13 | − 1 | — | — | — | — | — |
| Bombay | | 32·2 | 78 | e 7 8 | ? | e 11 39 | + 2 | 13 31 | SS | — |
| Tamanrasset | z. | 33·2 | 289 | e 6 45 | + 9 | e 8 8 | PP | i 6 57 | pP | 17·0 |
| Samarkand | | 34·8 | 38 | e 6 47 | − 3 | 12 13 | − 4 | — | — | — |
| Stalinabad | | 35·2 | 41 | e 6 32? | −21 | — | — | — | — | — |
| Rome | N. | 35·9 | 324 | — | — | e 15 5 | SS | — | — | — |
| Lunacharskoe | | 37·2 | 39 | e 7 8 | − 2 | e 12 51 | − 3 | — | — | — |
| Tashkent | | 37·2 | 39 | e 7 7 | − 3 | e 12 50 | − 4 | — | — | — |
| Tchimkent | | 38·0 | 37 | e 7 14 | − 3 | — | — | — | — | — |
| Namangan | | 38·4 | 41 | e 7 19 | − 1 | — | — | — | — | — |
| Andijan | | 38·7 | 42 | 7 22 | 0 | e 13 15 | − 2 | — | — | — |
| Algiers Univ. | z. | 39·3 | 311 | e 7 36 | pP | — | — | — | — | — |
| Rybach'e | | 42·0 | 40 | 7 50 | 0 | — | — | — | — | — |
| Stuttgart | | 42·3 | 330 | e 8 17 | +25 | — | — | — | — | e 19·8 |
| Alicante | | 42·5 | 312 | 8 48 | ? | e 15 45 | ? | 11 24 | ? | 23·1 |
| Collmberg | z. | 42·5 | 337 | e 7 56 | + 2 | — | — | — | — | — |
| Strasbourg | | 42·9 | 330 | — | — | e 14 30 | +11 | e 17 44 | ScS | e 21·8 |
| Almeria | | 43·4 | 309 | 8 9 | + 8 | 14 51 | PPS | — | — | 24·7 |
| Granada | | 44·4 | 310 | e 8 10k | + 1 | 15 2 | PPS | 17 1 | ? | i 24·4 |
| Sverdlovsk | | 45·2 | 17 | — | — | 14 50 | − 3 | — | — | — |
| Upsala | z. | 48·1 | 345 | e 8 40 | + 2 | — | — | — | — | — |

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Sept. 10d. 12h. 15m. 44s. Epicentre 40°·1N. 64°·8E.

Epicentre as given by U.S.S.R.

A = +·3266, B = +·6941, C = +·6416 ; $\delta$ = +9 ; $h$ = −2 ;
D = +·905, E = −·426 ; G = +·273, H = +·581, K = −·767.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Samarkand | | 1·7 | 104 | i 0 31 | 0 | 0 56 | $0_g$ | — | — |
| Bairam-Ali | | 3·3 | 220 | i 0 48? | − 5 | i 1 34? | − 1 | i 0 55 | P |
| Stalinabad | | 3·4 | 115 | i 0 55 | 0 | i 1 55 | + $3_g$ | — | — |
| Tashkent | | 3·6 | 69 | i 0 59 | + 1 | i 2 3 | + $4_g$ | — | — |
| Lunacharskoe | | 3·7 | 69 | i 1 0 | 0 | i 1 39 | − 6 | i 2 10 | $S_g$ |
| Obi-garm | | 4·0 | 109 | i 1 2 | − 2 | i 2 14 | + $2_g$ | — | — |
| Tchimkent | | 4·2 | 57 | i 1 9 | + 2 | 2 0 | + 3 | — | — |
| Dzhergetal | | 5·0 | 98 | i 1 18 | 0 | 2 48 | + $3_g$ | — | — |
| Fergana | | 5·3 | 84 | e 1 22 | 0 | e 3 0 | + $5_g$ | — | — |
| Namangan | | 5·3 | 78 | i 1 22 | 0 | — | — | — | — |
| Ashkabad | | 5·5 | 249 | e 1 21 | − 4 | e 3 2 | $0_g$ | — | — |
| Andijan | | 5·8 | 81 | 1 28 | − 1 | i 3 16 | + $4_g$ | — | — |
| Khorog | | 5·9 | 294 | i 1 28 | − 3 | i 3 19 | + $4_g$ | — | — |
| Naryn | | 8·6 | 78 | e 2 9 | 0 | — | — | — | — |
| Przhevalsk | | 10·5 | 72 | e 2 36 | + 1 | — | — | — | — |
| Kiruna | z. | 36·7 | 334 | e 7 7 | − 3 | — | — | — | — |

Sept. 10d. 18h. 47m. 7s. Epicentre 10°·5N. 122°·3E. (as on 1951, July 8d.).

Intensity V at Cebu ; IV at Ilo-Ilo ; II at Roxas, Romblon, Cuzo, Dumaguete, and Tacloban
Epicentre 10°·5N. 123°·6E.
Monthly Seismic. Bulletin of Manila for September, 1952, p. 2 and 5.

A = −·5255, B = +·8313, C = +·1811 ; $\delta$ = +1 ; $h$ = +6 ;
D = +·845, E = +·534 ; G = −·097, H = +·153, K = −·984.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. | m. |
| Manila | | 4·2 | 343 | e 1 38 | +31 | i 2 55? | +58 | — | — | — |
| Hong Kong | | 14·1 | 327 | e 3 24 | + 1 | e 6 18 | SS | — | — | — |
| Zô-Sè | z. | 20·5 | 358 | i 4 41k | − 1 | 8 32 | + 5 | — | — | — |
| Nanking | | 21·7 | 351 | i 4 54k | − 1 | i 8 53 | + 2 | — | — | — |
| Bandong | | 22·6 | 222 | e 5 9 | + 6 | e 9 18 | +11 | — | — | — |
| Vladivostok | | 33·6 | 13 | 6 42 | − 2 | 12 2 | − 4 | — | — | — |
| Chatra | | 36·9 | 301 | i 7 15 | + 3 | — | — | — | — | e 23·9 |
| Yuzno-Sakhlinsk | | 40·2 | 21 | e 7 38 | − 2 | — | — | — | — | — |
| Kyakhta | | 41·8 | 344 | e 7 52 | − 1 | — | — | — | — | — |
| Uglegorsk | | 41·8 | 20 | e 7 53 | 0 | e 14 7 | − 4 | — | — | — |
| Kabansk | | 43·4 | 346 | 8 5 | − 1 | — | — | — | — | — |
| Irkutsk | | 44·1 | 344 | 8 11 | − 1 | — | — | — | — | — |
| Poona | z. | 47·2 | 286 | e 8 42 | + 6 | i 10 8 | PP | — | — | — |
| Brisbane | z. | 48·1 | 143 | i 8 41k | − 2 | i 8 54 | ? | i 9 15 | ? | — |
| Bombay | | 48·5 | 286 | i 8 49 | + 3 | e 16 1 | PPS | 10 47 | PP | 22·9 |
| Przhevalsk | | 49·8 | 319 | i 8 58 | + 2 | — | — | — | — | — |
| Almata II | | 50·8 | 319 | e 9 5 | + 1 | — | — | — | — | — |
| Naryn | | 50·9 | 316 | i 9 6 | + 1 | — | — | — | — | — |
| Rybach'e | | 51·3 | 317 | e 9 7 | − 1 | — | — | — | — | — |
| Petropavlovsk | | 51·5 | 27 | e 9 8 | − 1 | e 16 27 | − 2 | — | — | — |
| Khorog | | 52·7 | 310 | e 9 15 | − 3 | — | — | — | — | — |
| Andijan | | 53·2 | 313 | i 9 23 | + 1 | — | — | — | — | — |
| Fergana | | 53·5 | 313 | e 9 25 | + 1 | — | — | — | — | — |
| Dzhergetal | | 53·6 | 312 | e 9 27 | + 2 | — | — | — | — | — |
| Namangan | | 53·8 | 313 | i 9 28 | + 2 | e 17 6 | + 5 | — | — | — |
| Obi-garm | | 54·5 | 311 | i 9 31 | − 1 | — | — | — | — | — |
| Lunacharskoe | | 55·6 | 314 | i 9 40 | 0 | — | — | — | — | — |
| Tashkent | | 55·6 | 314 | e 9 39 | − 1 | e 17 23 | − 2 | — | — | — |
| Tchimkent | | 55·7 | 315 | e 9 41 | + 1 | — | — | — | — | — |
| Samarkand | | 56·8 | 311 | 9 49 | + 1 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kizyl-Arvat | | 64·9 | 309 | (10 44) | + 1 | 10 44 | P | — | — | — |
| Sverdlovsk | | 65·9 | 329 | i 10 48 | − 2 | 19 34 | − 3 | — | — | — |
| Kirovobad | | 72·6 | 310 | i 11 30 | − 1 | — | — | — | — | — |
| Tiflis | | 73·8 | 311 | e 11 38 | 0 | — | — | — | — | — |
| Ksara | | 81·3 | 302 | i 12 23 | + 3 | — | — | 16 1 | ? | — |
| Kiruna | z. | 84·8 | 339 | i 12 36 | − 1 | — | — | — | — | — |
| Istanbul | | 85·6 | 311 | e 12 53? | +12 | — | — | — | — | — |
| Helwan | z. | 85·7 | 299 | i 12 43k | + 1 | — | — | e 12 56 | ? | — |
| Stuttgart | | 96·9 | 322 | e 13 28 | − 6 | — | — | — | — | e 54·9 |
| Rome | | 97·4 | 315 | e 17 41 | PP | — | — | — | — | e 52·7 |
| Shasta | | 101·7 | 44 | e 14 3 | + 7 | — | — | — | — | — |
| Tamanrasset | z. | 109·8 | 299 | e 18 54 | PP | — | — | e 19 22 | ? | — |
| Fayetteville | z. | 122·3 | 34 | i 18 55 | [− 2] | — | — | — | — | — |
| Harvard | | 125·7 | 12 | e 19 4 | [ 0] | — | — | — | — | — |
| Huancayo | | 162·6 | 97 | i 23 5 | ? | — | — | — | — | — |

Sept. 11d. 2h. 30m. 14s. Epicentre 42°·0N. 142°·8E. (as on August 31d.).

Intensity IV at Urakawa, Ogihusi, and Misono; II-III at Obihiro, Kamisatunai, and Tomakomai. Epicentre as adopted. Macroseismic radius 100-200km.
Seismo. Bull of Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 342, with macroseismic chart.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Urakawa | | 0·2 | 355 | i 0 12a | + 2 | 0 18 | + 2 | — | — |
| Obihiro | N. | 1·0 | 18 | e 0 27 | + 6 | 0 40 | + 4 | — | — |
| Kusiro | | 1·5 | 50 | — | — | i 0 52 | + 2g | — | — |
| Sapporo | | 1·5 | 315 | e 0 25k | − 3 | 0 42 | − 7 | — | — |
| Hakodate | | 1·6 | 261 | e 0 25 | − 5 | 0 42 | − 9 | — | — |
| Hatinohe | | 1·7 | 213 | e 0 28 | − 3 | 0 48 | − 6 | — | — |
| Mori | N. | 1·7 | 273 | e 0 27 | − 4 | 0 45 | − 9 | — | — |
| Miyako | | 2·4 | 195 | e 0 47 | − 1g | 1 8? | − 4 | — | — |
| Nemuro | Z. | 2·4 | 57 | — | — | e 1 4 | − 8 | — | — |
| Morioka | | 2·6 | 208 | e 0 46 | + 2 | 1 13 | − 4 | — | — |
| Akita | E. | 3·1 | 221 | e 1 13 | +11g | — | — | — | — |
| Mizusawa | | 3·1 | 204 | 1 9 | + 7g | 1 27 | − 2 | e 1 36 | S* |
| Sendai | | 4·0 | 201 | e 1 16 | − 4g | 1 58 | − 5* | — | — |
| Hukusima | | 4·6 | 204 | e 1 23 | + 1* | 2 10 | + 3 | — | — |
| Onahama | | 5·2 | 196 | e 1 45 | + 1g | — | — | — | — |
| Shirakawa | | 5·3 | 203 | e 1 34 | + 1* | 2 33 | − 8* | — | — |

Sept. 11d. 5h. 28m. 22s. Epicentre 9°·2N. 84°·2W. (as on 9d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Balboa Heights | | 4·6 | 93 | 1 14 | + 2 | 2 23 | + 3* | — | — | — |
| Galerazamba | | 8·9 | 79 | e 2 29 | +17 | e 4 18 | +23 | i 3 21 | ? | e 5·4 |
| Chinchina | | 9·5 | 116 | i 2 25 | + 5 | i 4 22 | +12 | — | — | — |
| Bogota | | 11·0 | 124 | i 2 46 | + 4 | e 4 34 | −13 | — | — | — |
| Vera Cruz | | 15·2 | 312 | e 9 2 | PcP | — | — | — | — | — |
| Tacubaya | | 17·7 | 307 | e 4 14 | + 4 | e 7 38 | +12 | — | — | — |
| San Juan | | 19·8 | 60 | e 4 37 | + 2 | — | — | e 5 44 | ? | — |
| Huancayo | | 22·9 | 158 | i 5 6 | 0 | e 9 28 | +15 | — | — | e 13·0 |
| Fayetteville | z. | 28·3 | 343 | i 5 48 | − 9 | — | — | — | — | — |
| Lubbock | | 29·2 | 330 | 6 11 | + 6 | — | — | — | — | — |
| Bermuda | | 29·3 | 35 | — | — | e 12 6 | SS | — | — | e 13·9 |
| La Paz | | 30·1 | 148 | 6 20 | + 7 | e 11 27 | +15 | 7 20 | PP | 16·6 |
| Cleveland | z. | 32·2 | 3 | e 6 31a | − 1 | — | — | — | — | — |
| City College, N.Y. | | 32·8 | 15 | e 6 45 | + 8 | — | — | — | — | e 15·6 |
| Tucson | | 33·7 | 318 | e 6 41 | − 4 | e 14 9 | SS | i 7 10 | pP | e 19·3 |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Weston | | 34·9 | 16 | e 6 56 | + 1 | — | — | — | — | — |
| Harvard | | 35·0 | 16 | i 7 0k | + 4 | — | — | — | — | e 15·9 |
| Ottawa | | 36·8 | 9 | e 7 9a | − 2 | 12 59 | + 3 | 8 40 | PP | — |
| Nelson | | 38·4 | 319 | i 7 23 | − 2 | — | — | i 9 36 | PcP | — |
| Boulder City | | 38·6 | 319 | e 7 25 | − 1 | — | — | — | — | — |
| Kirkland Lake | z. | 39·0 | 5 | e 7 26 | − 4 | — | — | — | — | — |
| Riverside | z. | 39·2 | 315 | e 7 31 | 0 | e 10 0 | PcP | e 7 42 | ? | — |
| Pasadena | | 39·8 | 315 | e 7 38 | + 2 | i 7 43 | ? | i 7 52 | ? | — |
| China Lake | z. | 40·3 | 317 | e 7 39 | − 1 | — | — | e 7 46 | ? | — |
| Tinemaha | z. | 41·5 | 318 | e 7 50 | 0 | e 9 47 | PcP | e 8 1 | ? | — |
| Fresno | z. | 42·3 | 317 | e 7 56a | − 1 | — | — | — | — | — |
| Reno | z. | 43·8 | 320 | e 8 10 | + 1 | — | — | — | — | — |
| Lick | z. | 43·9 | 317 | i 8 4a | − 6 | — | — | e 8 14 | pP | — |
| Butte | | 44·0 | 333 | e 9 56 | PP | — | — | — | — | — |
| Berkeley | z. | 44·6 | 317 | e 8 14 | − 2 | — | — | i 8 23 | pP | — |
| Mineral | z. | 45·4 | 319 | e 8 20 | − 2 | — | — | — | — | — |
| Shasta | z. | 46·1 | 320 | e 8 22 | − 6 | — | — | — | — | — |
| Hungry Horse | | 46·4 | 334 | e 8 27 | − 3 | — | — | i 10 4 | PcP | — |
| College | | 70·7 | 336 | 11 16 | − 4 | — | — | e 11 34 | PcP | — |
| Granada | | 77·0 | 55 | i 12 14a | PcP | — | — | — | — | — |
| Clermont-Ferrand | | 81·6 | 45 | e 12 21 | 0 | — | — | — | — | — |
| Stuttgart | | 85·4 | 42 | e 12 38 | − 2 | — | — | — | — | — |
| Tamanrasset | z. | 86·2 | 68 | e 12 44 | 0 | e 16 11 | PP | e 13 44 | ? | — |
| Jena | | 86·6 | 40 | e 12 44 | − 2 | e 12 51 | PcP | e 13 4 | ? | — |
| Kiruna | z. | 87·0 | 22 | e 12 43 | − 5 | — | — | — | — | — |
| Collmberg | z. | 87·4 | 40 | e 12 48 | − 2 | — | — | — | — | — |

Sept. 11d. 5h. 37m. 21s. Epicentre 4°·0S. 69°·0E.

A = +·3575, B = +·9313, C = −·0693 ; δ = −7 ; h = +7 ;
D = +·934, E = −·358 ; G = −·025, H = −·065, K = −·998.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kodaikanal | E. | 16·5 | 31 | e 3 50 | − 4 | — | — | — | — | — |
| Madras | E. | 20·2 | 30 | i 4 38 | − 1 | 8 13 | − 8 | 5 5 | PP | 10·1 |
| Poona | | 22·9 | 11 | i 5 9 | + 3 | 5 20 | ? | 5 27 | ? | — |
| Bombay | | 23·1 | 18 | i 5 11 | + 3 | e 9 32 | +16 | — | — | — |
| Hyderabad | | 23·4 | 22 | i 5 11 | 0 | e 9 30 | + 9 | — | — | 11·8 |
| Quetta | z. | 34·1 | 355 | e 6 48 | 0 | — | — | — | — | — |
| Chatra | z. | 35·3 | 29 | e 7 1 | + 2 | e 12 34 | + 1 | — | — | e 19·6 |
| Kimberley | z. | 48·6 | 234 | e 8 43 | − 4 | — | — | — | — | — |
| Ksara | | 48·9 | 322 | e 8 55 | + 5 | e 15 59 | + 6 | 10 41 | PP | — |
| Helwan | z. | 49·3 | 315 | i 8 51 | − 2 | — | — | e 10 53 | PP | — |
| Manila | | 54·7 | 68 | i 10 39 | PcP | — | — | — | — | — |
| Tamanrasset | z. | 67·4 | 296 | e 10 59 | 0 | — | — | e 13 6 | PP | — |
| Collmberg | z. | 72·8 | 326 | e 11 30 | − 2 | — | — | — | — | — |
| Stuttgart | | 73·7 | 323 | e 11 35 | − 3 | — | — | e 11 54 | PcP | e 37·6 |
| Paris | | 77·8 | 322 | e 12 8 | + 7 | — | — | — | — | e 31·6 |
| Mineral | z. | 142·6 | 13 | e 19 41 | [+ 6] | — | — | — | — | — |
| Reno | z. | 143·7 | 11 | e 19 47 | [+10] | — | — | — | — | — |
| Fayetteville | z. | 144·5 | 336 | i 19 39 | [+ 1] | — | — | — | — | — |
| Lick | z. | 145·4 | 15 | e 19 43 | [+ 3] | — | — | — | — | — |
| Fresno | z. | 146·4 | 12 | e 19 45 | [+ 3] | — | — | — | — | — |
| Tinemaha | z. | 146·4 | 10 | e 19 47 | [+ 5] | i 19 55 | ? | i 20 2 | ? | — |
| China Lake | z. | 147·8 | 9 | e 19 50 | [+ 6] | — | — | e 19 58 | ? | — |
| Pasadena | z. | 149·3 | 11 | e 19 54 | [+ 8] | — | — | e 20 2 | ? | — |
| Riverside | z. | 149·6 | 11 | e 19 54 | [+ 7] | — | — | e 20 3 | ? | — |

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Sept. 11d. 7h. 21m. 0s. Epicentre 45°·8N. 10°·3E. (as on 1952, May 3d.).

$A = +\cdot6883$, $B = +\cdot1251$, $C = +\cdot7146$; $\delta = +6$; $h = -4$;
$D = +\cdot179$, $E = -\cdot984$; $G = +\cdot703$, $H = +\cdot128$, $K = -\cdot700$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Salo | | 0·2 | 143 | i 0 5a | + 1g | i 0 9 | − 1* | — | — |
| Pavia | | 1·0 | 232 | e 0 20 | 0g | i 0 36 | 0 | e 1 11 | ? |
| Chur | | 1·2 | 333 | e 0 22k | − 1* | e 0 37 | − 3g | e 0 25 | Pg |
| Oropa | | 1·7 | 264 | i 0 40 | + 6g | i 0 50 | − 4 | — | — |
| Zürich | | 1·8 | 323 | e 0 36 | 0g | e 1 4 | + 4g | — | — |
| Ravensburg | | 2·1 | 347 | e 0 39 | 0* | e 1 8 | − 1g | — | — |
| Triest | | 2·3 | 94 | — | — | e 1 11 | − 1* | i 1 16 | Sg |
| Basle | | 2·5 | 313 | e 0 49 | − 1g | e 1 24 | + 1g | — | — |
| Stuttgart | | 3·1 | 346 | e 0 50? | − 1 | e 1 29 | 0 | e 1 39 | S* |
| Strasbourg | | 3·3 | 330 | i 1 4 | − 2g | i 1 25 | −10 | e 1 53 | Sg |
| Karlsruhe | | 3·5 | 339 | e 1 8 | − 2g | e 1 41 | + 1 | i 1 58 | Sg |
| Prague | | 5·1 | 31 | e 1 36 | − 6g | e 2 22 | + 2 | e 2 44 | Sg |
| Jena | | 5·2 | 8 | e 1 44 | 0g | e 2 18 | − 4 | i 2 51 | Sg |
| Collmberg | z. | 5·8 | 18 | e 1 56 | 0g | e 3 7 | − 5g | e 3 19 | Sg |

Sept. 11d. 8h. 23m. 37s. Epicentre 19°·3S. 23°·4E.

$A = +\cdot8668$, $B = +\cdot3751$, $C = -\cdot3285$; $\delta = -5$; $h = +5$;
$D = +\cdot397$, $E = -\cdot918$; $G = -\cdot301$, $H = -\cdot130$, $K = -\cdot944$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Johannesburg | | 8·1 | 149 | e 2 1 | − 1 | e 3 26 | − 9 | e 2 27 | P* | — |
| Kimberley | z. | 9·5 | 173 | i 2 17 | − 3 | i 3 54 | −16 | — | — | — |
| Grahamstown | z. | 14·2 | 169 | i 3 20 | − 4 | i 5 43 | −21 | — | — | — |
| Tananarive | | 22·8 | 92 | 5 6 | + 1 | e 9 17 | + 6 | 10 4 | SS | — |
| Tamanrasset | z. | 45·3 | 336 | i 8 22a | + 1 | e 14 50 | −12 | e 10 11 | PP | e 21·7 |
| Helwan | z. | 49·5 | 9 | 8 53 | − 1 | e 16 21 | PPS | i 9 4 | ? | — |
| Ksara | | 54·1 | 13 | e 9 31 | + 2 | e 17 43 | PPS | — | — | — |
| Algiers Univ. | z. | 59·0 | 341 | e 10 4 | 0 | e 17 59 | −11 | e 12 10 | PP | e 31·2 |
| Taranto | | 59·7 | 355 | e 8 27 | ? | e 18 23? | PS | e 11 23? | ? | — |
| Malaga | | 61·6 | 335 | e 9 21 | −61 | — | — | — | — | 33·0 |
| Granada | | 61·7 | 336 | i 10 23k | + 1 | — | — | — | — | i 32·6 |
| Rome | | 61·7 | 351 | i 9 31 | −51 | e 17 47 | −57 | — | — | — |
| Poona | z. | 62·2 | 56 | i 10 25 | − 1 | i 11 7 | PcP | i 10 34 | ? | — |
| Toledo | | 64·2 | 333 | i 10 39 | 0 | e 13 21 | PP | e 12 34 | ? | 33·9 |
| Quetta | z. | 64·7 | 40 | e 10 39? | − 3 | — | — | — | — | — |
| Triest | | 65·2 | 353 | e 10 44 | − 1 | e 19 33 | + 5 | e 10 53 | ? | — |
| Pavia | | 65·5 | 349 | e 15 54 | ? | — | — | — | — | e 37·6 |
| Chur | | 67·0 | 350 | e 10 57k | 0 | — | — | — | — | — |
| Zürich | | 67·7 | 349 | e 11 0k | − 1 | — | — | — | — | — |
| Basle | | 68·0 | 349 | e 11 4a | + 1 | — | — | e 14 15 | ? | — |
| Stuttgart | | 68·9 | 350 | e 11 8 | − 1 | e 20 13 | 0 | e 11 17 | ? | e 29·4 |
| Strasbourg | | 69·0 | 349 | — | — | e 20 15 | + 1 | e 24 43 | SS | e 28·4 |
| Karlsruhe | z. | 69·3 | 350 | e 11 12 | + 1 | — | — | e 11 20 | ? | — |
| Prague | | 69·5 | 354 | e 11 14 | + 2 | e 15 59 | PPP | e 17 4 | ? | — |
| Paris | | 70·3 | 346 | — | — | e 19 57 | −32 | — | — | e 36·4 |
| Collmberg | | 70·9 | 353 | e 11 21 | 0 | — | — | e 11 29 | ? | 39·4 |
| Chatra | z. | 77·0 | 55 | e 11 57 | + 1 | — | — | — | — | — |
| Upsala | z. | 79·0 | 357 | i 12 9 | + 2 | — | — | i 12 17 | ? | — |
| La Paz | | 86·1 | 254 | i 12 45 | + 1 | i 23 32 | SS | — | — | 46·4 |
| Fayetteville | z. | 123·2 | 301 | i 18 59 | [ 0] | — | — | i 28 50 | PKKP | — |
| Seattle | z. | 140·3 | 323 | e 19 43 | [+12] | — | — | — | — | — |
| China Lake | z. | 142·0 | 305 | e 19 32 | [− 2] | — | — | — | — | — |
| Tinemaha | z. | 142·1 | 306 | e 19 34 | [ 0] | — | — | — | — | — |
| Riverside | z. | 142·2 | 302 | e 19 33 | [− 1] | — | — | — | — | — |
| Reno | z. | 142·5 | 311 | e 19 35k | [ 0] | — | — | — | — | — |
| Pasadena | z. | 142·9 | 302 | i 19 36 | [ 0] | — | — | i 19 49 | ? | — |
| Fresno | z. | 143·4 | 307 | e 19 37a | [+ 1] | — | — | — | — | — |
| Mineral | z. | 143·4 | 313 | e 19 31k | [− 5] | — | — | — | — | — |
| Shasta | z. | 143·8 | 314 | e 19 35 | [− 2] | — | — | — | — | — |
| Lick | z. | 144·6 | 309 | i 19 40a | [+ 2] | — | — | — | — | — |
| Berkeley | z. | 144·9 | 309 | i 19 42a | [+ 3] | — | — | — | — | — |

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Sept. 11d. 21h. 28m. 30s. Epicentre 39°·5N. 71°·1E. (as on 1952, July 28d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Dzhergetal | | 0·3 | 162 | i 0 3 | − 3g | — | — | — | — | |
| Garm | | 0·8 | 231 | i 0 12 | − 4g | i 0 20 | − 6g | — | — | |
| Fergana | | 1·0 | 31 | — | — | e 0 37 | + 1 | — | — | |
| Obi-garm | | 1·4 | 234 | e 0 19 | − 9g | e 0 35 | −11g | — | — | |
| Andijan | | 1·6 | 38 | 0 32 | 0g | i 0 55 | + 2g | i 0 58 | f | |
| Namangan | | 1·6 | 16 | i 0 33 | + 1g | i 0 58 | + 5g | — | — | |
| Kulyab | | 1·9 | 213 | e 0 28 | − 6 | — | — | — | — | |
| Stalinabad | | 2·0 | 243 | i 0 35 | 0 | i 1 4 | + 1* | — | — | |
| Khorog | | 2·1 | 169 | i 0 35 | − 2 | e 1 5 | − 1* | — | — | |
| Lunacharskoe | | 2·3 | 324 | i 0 44 | − 2g | i 1 17 | + 1g | — | — | |
| Tashkent | | 2·3 | 323 | — | — | e 1 16 | 0g | — | — | |
| Tchimkent | | 3·0 | 335 | e 1 0 | 0g | e 1 39 | 0g | — | — | |
| Samarkand | | 3·2 | 273 | e 0 59 | + 1* | e 1 40 | + 1* | — | — | |
| Naryn | | 4·2 | 62 | — | — | e 2 2 | + 5 | — | — | |

Sept. 11d. 22h. 4m. 45s. Epicentre 4°·6N. 122°·9E. Depth of focus 0·090.

A = −·5414, B = +·8370, C = +·0796; δ = +2; h = +7;
D = +·840, E = +·543; G = −·043, H = +·067, K = −·997.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Manila | | 10·1 | 349 | i 2 37 | +17 | i 4 53 | +41 | — | — | — |
| Bandong | | 19·0 | 234 | e 3 46 | 0 | e 6 53 | + 6 | — | — | — |
| Djakarta | | 19·3 | 237 | i 3 49 | + 1 | i 6 54 | + 2 | — | — | — |
| Hong Kong | | 19·5 | 335 | e 3 51 | + 1 | 6 58 | + 3 | — | — | — |
| Zô-Sè | z. | 26·3 | 357 | i 4 54k | + 3 | i 8 49 | + 5 | i 7 32 | sP | — |
| Nanking | | 27·6 | 352 | i 5 3k | + 1 | i 9 5 | + 1 | i 7 44 | sP | — |
| Shillong | E. | 36·3 | 309 | i 6 16 | + 1 | i 11 51 | +35 | e 7 57 | pP | — |
| Calcutta | E. | 37·9 | 302 | i 6 35 | + 7 | i 11 51 | +11 | — | — | 15·4 |
| Vladivostok | | 39·2 | 11 | i 9 31 | sP | i 11 57 | − 2 | i 15 41 | ScS | — |
| Chatra | | 40·6 | 307 | i 6 52 | + 2 | e 12 20 | + 1 | 8 21 | PP | — |
| Colombo | E. | 42·9 | 275 | 7 6 | − 2 | e 12 46 | − 5 | (16 4) | sS | 16·1 |
| Madras | E. | 43·0 | 285 | i 7 11 | + 2 | 12 42 | −11 | 8 48 | PP | 20·1 |
| Brisbane | | 43·2 | 139 | i 7 10a | − 1 | i 12 56 | 0 | i 8 42 | pP | — |
| Hyderabad | E. | 45·3 | 290 | i 7 26 | − 1 | i 13 26 | + 1 | 17 8 | SS | — |
| Kodaikanal | E. | 45·4 | 281 | e 7 26 | − 2 | — | — | — | — | — |
| Yuzno-Sakhlinsk | | 45·5 | 18 | 7 29 | + 1 | 13 27 | − 1 | — | — | |
| Riverview | | 46·6 | 147 | i 7 38 | + 1 | i 13 49 | + 6 | — | — | — |
| Uglegorsk | | 47·2 | 17 | 7 42 | + 1 | 13 51 | 0 | — | — | — |
| Kyakhta | | 47·7 | 346 | i 7 43 | − 2 | 13 56 | − 2 | e 9 36 | pP | — |
| Kabansk | | 49·2 | 347 | 7 57 | + 1 | — | — | — | — | — |
| New Delhi | | 49·4 | 304 | i 7 56 | − 2 | i 14 18 | − 3 | 18 4 | SS | — |
| Poona | | 49·8 | 291 | i 8 2 | + 1 | e 14 28 | + 1 | 18 16 | SS | — |
| Irkutsk | | 50·0 | 345 | 8 2 | 0 | 14 30 | + 1 | — | — | — |
| Bombay | | 50·9 | 291 | i 8 8 | − 1 | i 14 42 | + 1 | i 10 0 | pP | — |
| Przhevalsk | | 54·6 | 321 | i 8 37 | + 2 | i 15 35 | + 5 | — | — | — |
| Almata II | | 55·6 | 321 | i 8 43 | + 1 | — | — | — | — | — |
| Naryn | | 55·6 | 318 | e 8 42 | 0 | 15 46 | + 3 | i 10 34 | pP | — |
| Murgab | | 55·7 | 314 | i 8 43 | + 1 | i 15 46 | + 2 | — | — | — |
| Almata | | 55·9 | 321 | i 8 45 | + 1 | i 15 49 | + 2 | — | — | — |
| Rybach'e | | 56·1 | 319 | i 8 44 | − 1 | i 15 51 | + 2 | 10 35 | pP | — |
| Ili | | 56·2 | 322 | i 8 45 | − 1 | — | — | — | — | — |
| Khorog | | 57·0 | 312 | i 8 53 | + 2 | i 16 5 | + 4 | i 10 45 | pP | — |
| Frunse | | 57·2 | 319 | i 8 53 | 0 | i 16 6 | + 3 | e 19 36 | sS | — |
| Andijan | | 57·8 | 316 | i 8 57 | 0 | i 16 14 | + 3 | i 10 53 | pP | — |
| Dzhegetal | | 58·0 | 314 | i 9 0 | + 2 | 16 17 | + 3 | — | — | — |
| Fergana | | 58·0 | 315 | i 8 58 | 0 | i 16 15 | + 1 | e 10 55 | pP | — |
| Semipalatinsk | | 58·0 | 330 | i 8 58 | 0 | e 16 13 | − 1 | — | — | — |
| Namangan | | 58·4 | 316 | i 9 2 | + 1 | i 16 21 | + 2 | i 11 0 | pP | — |
| Quetta | E. | 58·4 | 304 | i 9 1 | 0 | i 16 22 | + 3 | — | — | — |
| Obi-garm | | 58·9 | 313 | i 9 2 | − 2 | i 16 24 | − 1 | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Stalinabad | | 59·5 | 313 | i 9 8 | 0 | i 16 34 | + 2 | — | — | — |
| Lunacharskoe | | 60·1 | 316 | e 9 12 | 0 | i 16 42 | + 2 | e 11 11 | pP | — |
| Tashkent | | 60·1 | 316 | i 9 13 | + 1 | i 16 42 | + 2 | e 11 5 | pP | — |
| Tchimkent | | 60·3 | 317 | i 9 13 | 0 | i 16 44 | + 2 | — | — | — |
| Samarkand | | 61·2 | 313 | i 9 20 | + 1 | 16 55 | + 1 | i 11 12 | pP | — |
| Bairam-Ali | | 64·2 | 310 | i 9 39 | + 1 | 17 32 | + 2 | — | — | — |
| Ashkabad | | 67·2 | 309 | i 10 0 | + 3 | e 18 10 | + 5 | — | — | — |
| Kizyl-Arvat | | 69·0 | 311 | i 10 9 | + 1 | i 18 29 | + 3 | — | — | — |
| Sverdlovsk | | 71·2 | 329 | i 10 20 | − 1 | i 18 49 | − 2 | i 12 24 | pP | — |
| Baku | | 74·1 | 311 | i 10 40 | + 3 | — | — | — | — | — |
| Goris | | 76·7 | 310 | e 10 51 | 0 | i 19 53 | + 3 | — | — | — |
| Kirovobad | | 76·8 | 311 | i 10 53 | + 1 | 19 53 | + 2 | — | — | — |
| Grozny | | 77·5 | 313 | i 12 59 | pP | i 19 59 | 0 | — | — | — |
| Tiflis | | 78·1 | 312 | i 11 0 | + 1 | i 20 5 | 0 | i 13 7 | pP | — |
| Erevan | | 78·2 | 310 | i 11 0 | + 1 | 20 10 | + 4 | — | — | — |
| Gori | | 78·6 | 312 | e 11 3 | + 1 | — | — | — | — | — |
| Borzhomi | | 79·1 | 311 | i 11 6 | + 2 | e 20 18 | + 3 | e 13 15 | pP | — |
| Tsikhlis-Dzhvari | | 79·1 | 311 | 11 6 | + 2 | — | — | — | — | — |
| Zugdidi | | 80·3 | 313 | 11 12 | + 2 | 20 29 | + 2 | — | — | — |
| Sotchi | | 81·9 | 313 | i 11 15 | − 3 | e 20 37 | − 6 | e 13 22? | pP | — |
| Moscow | | 83·6 | 325 | i 11 27 | 0 | i 20 56 | − 4 | e 13 36 | pP | — |
| Ksara | | 85·0 | 303 | i 11 37k | + 3 | e 14 39 | PP | 13 45 | pP | — |
| Theodosia | | 85·0 | 315 | i 11 35 | + 1 | i 21 13 | 0 | e 13 45 | pP | — |
| College | | 85·6 | 25 | i 11 35 | − 2 | — | — | — | — | — |
| Yalta | | 85·9 | 314 | i 11 38 | 0 | i 21 20 | − 1 | i 13 46 | pP | — |
| Pulkovo | | 87·4 | 330 | e 11 44 | − 1 | i 21 31 | − 4 | e 21 11 | SKS | — |
| Kishinev | | 89·4 | 317 | i 11 54 | − 1 | i 21 51 | − 2 | i 14 6 | pP | — |
| Istanbul | | 89·9 | 311 | e 11 55 | − 2 | e 21 26? | [− 4] | e 14 4 | pP | — |
| Kiruna | | 90·5 | 338 | i 11 58k | − 2 | e 22 5 | + 2 | i 14 13 | pP | e 36·2 |
| Lwow | | 92·2 | 320 | i 12 7 | 0 | — | — | e 14 16 | pP | — |
| Uzhgorod | | 93·6 | 319 | i 12 15 | + 1 | 22 31 | + 2 | 14 27 | pP | — |
| Upsala | z. | 93·7 | 331 | i 12 12k | − 2 | — | — | — | — | — |
| Belgrade | | 95·6 | 315 | e 12 22a | − 1 | e 22 4 | [+ 3] | e 16 27 | PP | — |
| Potsdam | | 98·3 | 324 | e 16 47 | PP | i 23 16 | + 7 | — | — | — |
| Collmberg | z. | 98·7 | 323 | e 12 36 | − 1 | e 16 51 | PP | e 14 51 | pP | — |
| Jena | | 99·6 | 323 | e 12 41 | 0 | e 16 56 | PP | e 19 47 | ? | — |
| Messina | | 100·7 | 310 | e 16 59 | PP | e 22 27 | [ 0] | e 26 17 | PS | — |
| Witteveen | z. | 101·8 | 327 | i 12 53 | + 3 | — | — | — | — | — |
| Rome | | 101·9 | 315 | e 17 10 | PP | — | — | — | — | — |
| Stuttgart | | 101·9 | 322 | e 12 51 | 0 | e 22 33 | [+ 1] | e 15 5 | pP | — |
| Florence | | 102·2 | 316 | e 17 9 | PP | i 22 44 | [+10] | e 20 35 | ? | — |
| Karlsruhe | z. | 102·3 | 322 | e 12 52 | − 1 | — | — | e 17 17 | PP | — |
| Strasbourg | | 102·8 | 322 | e 17 21 | PP | e 26 45 | PS | e 30 15 | ? | — |
| Shasta | z. | 105·4 | 46 | e 18 16 | PP | — | — | — | — | — |
| Paris | | 105·9 | 324 | e 13 10 | P | e 17 44 | PP | e 30 47 | ? | — |
| Clermont-Ferrand | | 106·9 | 320 | e 17 31 | ? | — | — | e 17 53 | PP | — |
| Hungry Horse | | 107·7 | 36 | e 17 37 | PP | — | — | — | — | — |
| Tinemaha | z. | 109·7 | 48 | e 19 46 | ? | — | — | e 20 5 | ? | — |
| Algiers Univ. | z. | 110·5 | 312 | e 17 28 | [+ 4] | e 18 15 | PP | 16 40 | ? | — |
| China Lake | z. | 110·7 | 48 | e 18 12 | PP | — | — | — | — | — |
| Boulder City | | 112·7 | 48 | e 20 11 | ? | — | — | — | — | — |
| Nelson | | 112·8 | 48 | i 20 11 | ? | — | — | — | — | — |
| Tamanrasset | z. | 113·1 | 298 | e 17 31 | [+ 2] | e 28 32 | PS | e 19 54 | pPKP | — |
| Kirkland Lake | z. | 123·8 | 18 | e 17 53 | [+ 2] | — | — | — | — | — |
| Fayetteville | z. | 126·7 | 37 | i 17 57 | [+ 2] | e 23 8 | [−57] | e 19 18 | ? | — |
| Weston | | 131·5 | 13 | e 18 8 | [+ 3] | — | — | e 20 28 | PP | — |
| City College, N.Y. | | 132·2 | 17 | e 20 40 | PP | — | — | — | — | — |
| Fordham | | 132·2 | 17 | e 20 26 | PP | e 39 40 | ? | — | — | — |
| Bermuda | | 142·7 | 10 | i 18 28 | [+ 1] | — | — | — | — | — |
| La Plata | E. | 149·8 | 179 | — | — | 29 51 | SKKS | 33 57 | ? | — |
| San Juan | | 155·5 | 21 | e 18 47 | [+ 2] | — | — | — | — | — |
| La Paz | | 164·0 | 138 | 18 51 | [− 3] | 22 23 | PKS | i 33 45 | ? | — |

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Sept. 11d. 22h. 26m. 41s. Epicentre 29°·6S. 177°·1W.

Intensity V in Raoul Island. Epicentre 29°S. 177°W. (U.S.C.G.S.).
Seismological report for July, August, September, 1952, Bulletin E129, Wellington, 1955, p. 11.

$A = -\cdot8698$, $B = -\cdot0441$, $C = -\cdot4914$; $\delta = -3$; $h = +2$;
$D = -\cdot051$, $E = +\cdot999$; $G = +\cdot491$, $H = +\cdot025$, $K = -\cdot871$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Auckland | N. | 9·9 | 221 | 2 59 | +34 | 4 19 | − 1 | e 4 24 | SS | 4·6 |
| Karapiro | N. | 10·3 | 215 | e 2 37 | + 5 | e 4 34 | + 4 | — | — | — |
| Tuai | N. | 10·3 | 206 | — | — | i 4 24 | − 6 | — | — | — |
| New Plymouth | E. | 11·9 | 215 | e 4 19? | ? | — | — | — | — | — |
| Wellington | | 13·4 | 207 | e 3 12 | − 2 | e 5 30 | −15 | e 5 27 | ? | e 6·4 |
| Cobb River | E. | 14·1 | 213 | e 3 35 | +12 | e 5 52 | −10 | — | — | — |
| Kaimata | N.E. | 15·9 | 212 | e 3 44 | − 3 | e 6 24 | −20 | — | — | — |
| Christchurch | | 16·2 | 208 | e 3 50 | 0 | e 6 39 | −12 | — | — | e 7·8 |
| Apia | | 16·5 | 18 | i 4 8 | PP | i 6 39 | −19 | e 7 51 | Q | e 9·1 |
| Brisbane | | 26·3 | 267 | i 5 40k | + 1 | e 10 14 | + 3 | e 11 16 | PP | e 12·6 |
| Riverview | | 27·3 | 252 | i 5 50a | + 2 | i 10 26 | − 1 | i 6 2 | pP | e 12·5 |
| Melbourne | E. | 32·4 | 245 | e 6 32 | − 2 | e 11 53 | + 5 | i 8 12 | PPP | e 14·2 |
| Perth | | 56·8 | 249 | — | — | i 22 23 | ? | — | — | — |
| Bandong | | 73·8 | 272 | e 11 36 | − 2 | e 21 18 | + 9 | — | — | — |
| Djakarta | | 74·9 | 272 | e 11 43 | − 1 | i 21 28 | + 6 | — | — | — |
| Zô-Sè | Z. | 84·2 | 311 | i 12 33a | − 1 | e 23 3 | + 4 | — | — | — |
| Santa Clara | | 84·3 | 41 | i 12 39a | + 4 | e 23 3 | + 3 | e 28 44 | SS | e 42·4 |
| Lick | Z. | 84·4 | 41 | e 12 36 | 0 | — | — | e 12 47 | pP | — |
| Pasadena | | 84·4 | 46 | e 12 38 | + 2 | i 23 5 | + 4 | e 16 4 | PP | e 38·2 |
| Yuzno-Sakhlinsk | | 84·4 | 333 | 12 36 | 0 | 22 58 | − 3 | — | — | — |
| Berkeley | | 84·5 | 41 | e 12 30 | − 6 | e 22 58 | − 4 | e 12 46 | pP | e 38·6 |
| Riverside | Z. | 84·8 | 46 | e 12 39 | + 2 | — | — | e 12 48 | pP | — |
| Fresno | Z. | 85·1 | 42 | e 12 39 | 0 | — | — | e 12 55 | pP | — |
| China Lake | Z. | 85·8 | 44 | e 12 42 | 0 | e 13 50 | ? | e 12 54 | pP | — |
| Tinemaha | Z. | 86·2 | 43 | e 12 44 | 0 | i 23 40 | ScS | e 15 0 | ? | — |
| Vladivostok | | 86·2 | 325 | i 12 45 | + 1 | e 23 7 | [− 2] | i 23 33 | ScS | — |
| Nanking | | 86·4 | 310 | i 12 45 | 0 | 23 24 | + 3 | — | — | — |
| Shasta | Z. | 86·4 | 38 | e 12 43 | − 2 | — | — | i 12 55 | pP | — |
| Uglegorsk | | 86·4 | 335 | 12 44 | − 1 | e 23 10 | [ 0] | — | — | — |
| Mineral | Z. | 86·6 | 39 | e 12 45 | − 1 | — | — | i 12 56 | pP | — |
| Reno | Z. | 87·0 | 41 | e 12 49 | + 1 | — | — | e 12 59 | pP | — |
| Nelson | | 87·5 | 46 | e 12 50 | − 1 | — | — | — | — | — |
| Boulder City | | 87·6 | 46 | i 12 51 | 0 | — | — | — | — | — |
| Tucson | | 87·9 | 52 | e 12 53 | 0 | e 23 23 | [+ 3] | e 18 7 | PPP | e 36·6 |
| Corvallis | Z. | 88·6 | 35 | e 12 56 | 0 | — | — | — | — | — |
| La Plata | | 94·0 | 134 | 14 7 | +46 | 24 1 | [+ 5] | 17 13 | PP | 45·3 |
| Huancayo | | 94·1 | 106 | e 13 26 | + 4 | e 23 59 | [+ 3] | e 24 38 | S | e 43·8 |
| College | | 96·9 | 12 | i 13 31 | − 3 | e 24 48 | − 6 | e 17 35 | PP | e 39·9 |
| La Paz | | 97·6 | 114 | i 13 55 | +17 | i 24 19 | [+ 4] | i 24 53 | S | 48·8 |
| Fayetteville | Z. | 101·6 | 55 | i 29 59 | PKKP | — | — | — | — | e 57·8 |
| Chinchina | E. | 102·4 | 91 | e 27 23 | PS | e 24 36 | [− 3] | e 33 6 | SSP | 47·9 |
| Bogota | | 103·6 | 92 | e 27 44 | PS | e 24 49 | [+ 5] | e 34 11 | ? | 49·1 |
| Cleveland | E. | 112·8 | 54 | — | — | e 25 22 | [− 2] | e 29 19 | PS | — |
| Bombay | E. | 116·2 | 278 | e 22 43 | PPP | 29 32 | PKKP | e 30 58 | ? | — |
| Resolute Bay | | 116·2 | 17 | i 19 49 | PP | e 27 44 | ? | i 29 32 | PKKP | e 57·7 |
| Philadelphia | | 116·9 | 58 | — | — | e 25 38 | [− 1] | e 26 49 | SKKS | — |
| Ottawa | | 118·0 | 51 | e 18 48 | [− 1] | 25 40 | [− 3] | 36 19 | SS | — |
| Fordham | | 118·1 | 57 | e 19 10 | [+21] | e 25 44 | [+ 1] | — | — | — |
| Palisades | | 118·1 | 57 | e 18 59 | [+10] | e 25 43 | [ 0] | e 15 33 | P | e 56·2 |
| Kimberley | Z. | 118·3 | 202 | — | — | e 26 25 | [+41] | i 27 0 | SKKS | — |
| Harvard | | 120·2 | 56 | e 18 55 | [+ 2] | e 25 51 | [ 0] | — | — | e 57·4 |
| Bermuda | | 122·9 | 69 | — | — | e 25 59 | [ 0] | e 37 28 | SS | e 57·6 |
| Dzhergetal | | 124·0 | 300 | e 19 0? | [ 0] | — | — | — | — | — |
| Namangan | | 124·0 | 302 | e 19 6? | [+ 6] | — | — | — | — | — |
| Obi-garm | | 125·1 | 299 | e 19 3 | [ 0] | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Stalinabad | | 125·7 | 299 | e 19 10 | [+ 6] | — | — | — | — | — |
| Tchimkent | | 125·8 | 304 | e 19 4 | [ 0] | — | — | — | — | — |
| Halifax | | 126·3 | 55 | e 19 4 | [− 1] | 26 9 | [− 1] | 38 5 | SS | — |
| Sverdlovsk | | 131·8 | 322 | e 19 16 | [+ 1] | i 22 41 | PKS | — | — | — |
| Ashkabad | | 133·7 | 296 | — | — | i 22 51 | PKS | — | — | — |
| Kiruna | | 140·3 | 350 | i 19 29 | [− 2] | i 26 58 | [+18] | i 23 7 | PKS | e 64·3 |
| Kirovobad | | 143·1 | 300 | e 19 34 | [− 2] | — | — | — | — | — |
| Grozny | | 143·3 | 304 | i 19 33 | [− 3] | e 23 11 | PKS | — | — | — |
| Moscow | | 144·1 | 327 | i 19 44 | [+ 6] | — | — | e 22 49 | PP | — |
| Tiflis | | 144·2 | 302 | i 19 35 | [− 3] | — | — | — | — | — |
| Pulkovo | | 144·6 | 337 | e 19 36 | [− 2] | e 32 59 | SKSP | e 22 57 | PP | — |
| Gori | | 144·8 | 302 | e 19 41 | [+ 2] | — | — | — | — | — |
| Piatigorsk | | 145·1 | 307 | 19 38 | [− 1] | — | — | i 22 52 | PP | — |
| Borzhomi | | 145·2 | 302 | 19 40 | [ 0] | — | — | — | — | — |
| Tsikhlis-Dzhvari | | 145·2 | 302 | 19 40 | [ 0] | — | — | — | — | — |
| Zugdidi | | 146·1 | 305 | i 19 44 | [+ 3] | e 23 23 | PKS | — | — | — |
| Sotchi | | 147·6 | 307 | i 19 43 | [− 1] | — | — | — | — | — |
| Upsala | | 148·1 | 347 | i 19 46a | [+ 2] | e 30 32 | {+24} | e 28 1 | PcPP′ | e 75·3 |
| Theodosia | | 150·2 | 311 | e 19 49 | [+ 1] | — | — | — | — | — |
| Yalta | | 151·2 | 310 | i 19 49 | [ 0] | e 26 51 | [− 4] | e 33 46 | SKSP | — |
| Ksara | | 151·7 | 288 | e 19 53 | [+ 3] | — | — | 23 39? | PP | — |
| Copenhagen | | 153·0 | 350 | e 19 55 | [+ 3] | 23 42 | PP | i 19 59 | ? | 75·3 |
| Kishinev | | 153·4 | 320 | i 19 53 | [+ 1] | — | — | i 23 44 | PP | — |
| Lwow | | 154·2 | 328 | i 19 55 | [+ 2] | — | — | i 20 16 | $PKP_2$ | — |
| Cernauti | | 154·3 | 324 | e 20 2 | [+ 8] | — | — | — | — | — |
| Helwan | z. | 155·3 | 278 | e 19 58 | [+ 3] | — | — | — | — | — |
| Rathfarnham Castle | | 155·4 | 13 | e 20 0a | [+ 5] | e 43 39 | SS | e 24 4 | PP | e 74·8 |
| Istanbul | | 155·9 | 307 | e 19 54 | [− 2] | e 24 1 | PP | e 20 22 | $PKP_2$ | 82·3 |
| Uzhgorod | | 155·9 | 329 | i 19 57 | [+ 1] | 30 53 | {+ 3} | 34 15 | SKSP | — |
| Potsdam | | 156·0 | 346 | i 19 57k | [+ 1] | e 24 1 | PP | e 27 50 | PPP | e 73·3 |
| Witteveen | z. | 156·6 | 355 | i 20 36 | $PKP_2$ | — | — | — | — | — |
| Collmberg | | 157·0 | 344 | e 19 57 | [ 0] | e 34 37 | SKSP | e 24 4 | PP | e 80·3 |
| De Bilt | | 157·5 | 357 | i 19 57 | [− 1] | e 43 49 | SS | e 24 7 | PP | e 76·3 |
| Jena | | 157·7 | 345 | e 19 58 | [ 0] | e 24 9 | PP | e 20 34 | $PKP_2$ | — |
| Prague | | 157·8 | 341 | e 20 32 | $PKP_2$ | e 30 55 | {− 6} | e 33 58 | SKSP | — |
| Kew | | 158·0 | 6 | i 20 1k | [+ 3] | e 44 16 | SS | e 24 9 | PP | e 83·3 |
| Cheb | | 158·3 | 345 | e 20 33 | $PKP_2$ | e 30 49 | {−15} | e 34 42 | SKSP | — |
| Ogyalla | | 158·3 | 332 | e 20 38 | $PKP_2$ | e 31 1 | {− 3} | e 24 3 | PP | — |
| Belgrade | | 159·4 | 322 | e 20 7k | [+ 7] | e 24 28 | PP | e 20 39 | $PKP_2$ | e 90·4 |
| Karlsruhe | z. | 160·2 | 350 | e 19 57 | [− 4] | e 27 13 | [+ 8] | e 27 28 | ? | — |
| Stuttgart | | 160·3 | 348 | e 20 0a | [− 1] | e 26 44 | [−21] | e 34 47 | SKSP | 89·3 |
| Strasbourg | | 160·7 | 351 | e 20 2 | [ 0] | e 27 6 | [+ 1] | e 31 7 | SKKS | e 74·3 |
| Paris | | 160·8 | 1 | e 20 1 | [− 1] | i 30 39 | {−38} | i 20 45 | $PKP_2$ | e 83·3 |
| Basle | | 161·7 | 351 | e 20 4 | [+ 2] | — | — | e 30 2 | ? | — |
| Zürich | | 161·7 | 350 | e 20 7 | [+ 5] | e 24 28 | PP | e 20 46 | $PKP_2$ | — |
| Triest | | 161·8 | 336 | e 21 45 | ? | e 31 20 | {− 2} | e 28 14 | PPP | 87·5 |
| Pavia | | 163·7 | 346 | e 20 51 | $PKP_2$ | e 35 12 | SKSP | e 25 6 | PP | e 63·8 |
| Clermont-Ferrand | | 163·9 | 0 | e 20 8 | [+ 3] | e 31 59 | PKKS | e 21 2 | $PKP_2$ | 80·3 |
| Taranto | | 164·0 | 317 | e 20 47 | $PKP_2$ | — | — | — | — | — |
| Florence | | 164·3 | 337 | i 20 6 | [+ 1] | i 38 30 | PPS | i 21 2 | $PKP_2$ | — |
| Rome | | 165·5 | 330 | i 20 6 | [ 0] | — | — | i 24 50 | PP | — |
| Messina | | 166·4 | 313 | e 20 6 | [− 1] | e 24 57 | PP | e 2' 8 | $PKP_2$ | — |
| Toledo | | 168·3 | 27 | e 19 59 | [− 9] | e 24 48 | PP | e 25 8 | ? | 88·8 |
| Malaga | | 170·6 | 39 | i 20 13 | [+ 3] | 27 23 | [+11] | i 25 23 | PP | 85·1 |
| Granada | | 170·7 | 34 | 20 31k | [+21] | 31 25 | {−41} | 46 55 | SS | 84·5 |
| Alicante | | 170·8 | 17 | 20 12 | [+ 2] | 27 24 | [+12] | 21 36 | $PKP_2$ | 81·6 |
| Almeria | | 171·5 | 31 | 20 8 | [− 2] | 32 12 | {+ 1} | 21 34 | $PKP_2$ | 95·3 |
| Tamanrasset | z. | 172·8 | 199 | i 20 12a | [+ 1] | e 29 40 | PPP | e 21 39 | $PKP_2$ | — |
| Algiers Univ. | z. | 172·9 | 359 | e 20 16 | [+ 5] | e 29 36 | PPP | e 21 40 | $PKP_2$ | — |

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Sept. 11d. 23h. 23m. 11s. Epicentre 29°·6S. 177°·1W. (as at 22h. 26m.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Karapiro | N. | 10·3 | 215 | e 2 56 | PPP | e 4 30 | 0 | — | — | — |
| Tuai | N. | 10·3 | 206 | — | — | i 4 25 | − 5 | — | — | e 5·1 |
| Wellington | | 13·4 | 207 | e 3 22 | + 8 | 5 28 | −17 | — | — | — |
| Cobb River | E. | 14·1 | 213 | e 4 6 | ? | e 5 47 | −15 | — | — | — |
| Kaimata | N.E. | 15·9 | 212 | e 3 46 | − 1 | e 6 27 | −17 | — | — | — |
| Brisbane | Z. | 26·3 | 267 | i 5 40k | + 1 | — | — | — | — | — |
| Lick | Z. | 84·4 | 41 | e 12 36 | 0 | — | — | — | — | — |
| Fresno | Z. | 85·1 | 42 | e 12 40 | + 1 | — | — | — | — | — |
| China Lake | Z. | 85·8 | 44 | e 12 43 | + 1 | — | — | — | — | — |
| Tinemaha | Z. | 86·2 | 43 | e 12 45 | + 1 | — | — | — | — | — |
| Shasta | Z. | 86·4 | 38 | e 12 45 | 0 | — | — | — | — | — |
| Reno | Z. | 87·0 | 41 | e 13 17 | +29 | — | — | — | — | — |
| Nelson | | 87·5 | 46 | e 12 50 | − 1 | — | — | — | — | — |
| Boulder City | | 87·6 | 46 | i 12 53 | + 2 | — | — | — | — | — |
| Tucson | | 87·9 | 52 | e 12 52 | − 1 | — | — | — | — | — |
| College | | 96·9 | 12 | e 13 31 | − 3 | — | — | — | — | — |
| Upsala | Z. | 148·1 | 347 | i 19 46 | [+ 2] | — | — | i 20 2 | ? | — |
| Aberdeen | E. | 152·2 | 6 | e 21 43 | ? | e 29 41 | {−49} | — | — | — |
| Copenhagen | | 153·0 | 350 | i 20 0 | [+ 8] | — | — | i 20 11 | $PKP_2$ | — |
| Collmberg | Z. | 157·0 | 344 | e 19 57 | [ 0] | — | — | e 20 27 | $PKP_2$ | — |
| Stuttgart | | 160·3 | 348 | e 20 1 | [ 0] | — | — | e 20 41 | $PKP_2$ | — |
| Tamanrasset | Z. | 172·8 | 199 | e 20 13k | [+ 2] | — | — | e 21 41 | $PKP_2$ | — |

Sept. 11d. 23h. 37m. 42s. Epicentre 31°·8N. 140°·5E. Depth of focus 0·025.
(as on 1950, February 9d.).

Intensity II-III at Torisima. Epicentre 31°·6N. 140°·5E. Macroseismic radius 100-200km. Seismo. Bull. of Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 342.

A = −·6570, B = +·5416, C = +·5244 ; $\delta$ = −3 ; $h$ = +1 ;
D = +·636, E = +·772 ; G = −·405, H = +·334, K = −·852.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Torisima | | 1·3 | 187 | i 0 8 | −23 | 0 21 | −25 | — | — |
| Hatidyozima | | 1·4 | 337 | e 0 26 | − 6 | 0 48 | −10 | — | — |
| Osima | | 3·1 | 343 | e 0 51 | 0 | 1 26 | − 4 | — | — |
| Mera | | 3·2 | 350 | e 0 51 | − 1 | 1 29 | − 4 | — | — |
| Misima | | 3·5 | 339 | e 0 59 | + 3 | 1 38? | − 1 | — | — |
| Yokohama | | 3·7 | 349 | e 1 9 | +11 | — | — | — | — |
| Tokyo | | 3·9 | 351 | i 1 0 | − 1 | 1 48 | 0 | — | — |
| Hunatu | E. | 4·0 | 339 | e 1 13 | +11 | 1 52 | + 2 | — | — |
| Kohu | | 4·2 | 338 | e 1 11 | + 6 | 1 59 | + 4 | — | — |
| Iida | | 4·3 | 330 | e 1 5 | − 1 | — | — | — | — |
| Kumagaya | | 4·4 | 348 | e 1 3 | − 4 | 2 1 | + 2 | — | — |
| Nagoya | | 4·5 | 319 | e 1 12 | + 3 | 1 54 | − 8 | — | — |
| Mito | | 4·6 | 0 | e 1 10 | 0 | 1 58 | − 6 | — | — |
| Maebasi | Z. | 4·7 | 345 | e 1 16 | + 5 | 2 17 | +11 | — | — |
| Oiwake | | 4·8 | 341 | e 1 12 | 0 | — | — | — | — |
| Utunomiya | | 4·8 | 354 | e 1 21 | + 9 | 2 6 | − 3 | — | — |
| Matumoto | E. | 4·9 | 335 | e 1 22 | + 8 | 2 17 | + 6 | — | — |
| Onahama | | 5·1 | 4 | e 1 14 | − 2 | 2 11 | − 4 | — | — |
| Nagano | N. | 5·2 | 340 | e 1 24 | + 6 | — | — | — | — |
| Hukusima | | 5·9 | 0 | e 1 25 | − 2 | 2 35 | + 1 | — | — |
| Takamatu | | 6·0 | 296 | e 1 28 | 0 | 2 39 | + 3 | — | — |
| Sendai | N. | 6·4 | 3 | e 1 28 | − 5 | 2 43 | − 3 | — | — |
| Mizusawa | E. | 7·3 | 4 | — | — | e 3 4 | − 3 | — | — |
| Morioka | | 7·9 | 4 | e 1 56 | + 3 | 3 21 | 0 | — | — |
| Manila | | 24·7 | 230 | i 4 48 | −17 | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Poona | z. | 60·9 | 275 | e 9 53 | − 2 | — | — | e 10 18 | ? |
| Kiruna | z. | 71·1 | 340 | i 11 1a | + 2 | — | — | i 11 29 | ? |
| Shasta | z. | 74·9 | 51 | e 11 51 | +30 | — | — | — | — |
| Mineral | z. | 75·6 | 51 | e 11 24 | − 1 | — | — | — | — |
| Lick | z. | 77·1 | 54 | i 11 33 | − 1 | — | — | — | — |
| Fresno | z. | 78·6 | 54 | e 11 42 | 0 | — | — | — | — |
| Tinemaha | z. | 79·5 | 53 | e 11 47 | 0 | — | — | — | — |
| Collmberg | z. | 85·3 | 330 | e 12 25? | + 9 | — | — | e 12 56 | pP |
| Paris | | 91·4 | 334 | — | — | e 23 33 | + 8 | — | — |
| Fayetteville | z. | 95·2 | 42 | i 13 2 | − 1 | — | — | — | — |

Sept. 12d. 1h. 3m. 59s. Epicentre 37°·3N. 20°·6E. (as on 1943, February 14d.).

A = +·7465, B = +·2806, C = +·6034 ; δ = +9 ; h = −1 ;
D = +·352, E = −·936 ; G = +·565, H = +·212, K = −·797.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Athens | | 2·6 | 75 | i 0 46a | − 1* | e 1 20 | − 1* | i 0 54 | $P_g$ | — |
| Messina | z. | 4·1 | 284 | e 1 3 | − 2 | e 1 47 | − 8 | — | — | — |
| Taranto | | 4·1 | 321 | 1 29 | + 7g | 2 24 | + 8g | e 1 46 | ? | — |
| Sofia | | 5·8 | 21 | e 1 29 | 0 | e 2 36 | − 2 | e 3 9 | $S_g$ | — |
| Belgrade | | 7·5 | 359 | e 2 15 | + 4* | e 3 49 | + 2* | e 2 23 | $P_g$ | e 4·4 |
| Istanbul | | 7·6 | 58 | e 1 55 | 0 | e 4 21 | +10g | — | — | — |
| Rome | | 7·8 | 308 | — | — | e 3 44 | −12* | — | — | e 4·6 |
| Bucharest | | 8·2 | 28 | e 2 7 | + 4 | e 3 46 | + 8 | e 2 43 | $P_g$ | 4·5 |
| Timisoara | | 8·5 | 3 | e 2 49 | $P_g$ | e 3 57 | +12 | e 4 23 | S* | — |
| Florence | | 9·6 | 315 | — | — | e 4 43 | − 6* | — | — | e 6·1 |
| Ogyalla | | 10·7 | 351 | e 2 20 | −18 | e 5 12 | S* | — | — | e 6·3 |
| Pavia | | 11·6 | 316 | — | — | e 4 13 | ? | — | — | e 7·2 |
| Ksara | | 12·9 | 101 | — | — | e 4 31 | −62 | — | — | e 8·2 |
| Prague | | 13·5 | 343 | e 3 33 | PPP | e 5 46 | − 1 | e 6 21 | SSS | e 7·2 |
| Cheb | | 14·1 | 338 | e 3 18 | − 5 | e 6 18 | +16 | e 5 19 | ? | — |
| Stuttgart | | 14·1 | 328 | e 3 21? | − 2 | e 5 12 | − 50 | e 3 42 | PPP | e 8·2 |
| Collmberg | | 15·0 | 341 | e 3 36 | + 1 | — | — | e 8 55 | PcP | e 8·3 |
| Jena | z. | 15·1 | 337 | e 3 43? | + 7 | — | — | e 4 15 | ? | — |
| Potsdam | | 16·0 | 343 | e 3 52 | + 4 | i 6 59 | SS | — | — | e 9·5 |
| De Bilt | | 18·4 | 330 | — | — | e 7 1? | −40 | — | — | — |
| Copenhagen | | 19·2 | 347 | — | — | 8 6 | + 7 | — | — | 11·0 |
| Tamanrasset | z. | 19·4 | 226 | e 4 32 | + 2 | e 8 29 | SS | e 4 49 | PP | e 9·7 |
| Upsala | | 22·7 | 356 | i 5 1 | − 3 | i 5 13 | ? | i 5 43 | PPP | e 15·1 |

Sept. 12d. 2h. 57m. 55s. Epicentre 36°·4N. 136°·2E. (as on 1952, March 14d.).

Intensity IV at Komatsu ; II-III at Kanazawa, Hukui, Wazima, and Mikawa. Epicentre 36°·5N. 136°·2E. Macroseismic radius 100-200km. (Tokyo).
Seismo. Bull. of Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 343, with macroseismic chart.

A = −·5823, B = +·5584, C = +·5908 ; δ = −7 ; h = 0 ;
D = +·692, E = +·722 ; G = −·426, H = +·409, K = −·807.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | |
| Kanazawa | | 0·4 | 70 | e 0 7 | − 1g | 0 13 | 0g |
| Hukui | | 0·4 | 171 | e 0 7 | − 1g | 0 14 | + 1g |
| Tsuruga | | 0·8 | 188 | 0 15 | − 1g | 0 29 | + 1* |
| Toyama | z. | 0·8 | 71 | 0 17 | − 1 | 0 29 | + 1* |
| Wazima | | 1·1 | 30 | 0 21a | − 1 | 0 33 | − 3g |
| Gihu | N. | 1·1 | 155 | 0 23 | + 1 | 0 37 | 0* |
| Hikone | | 1·1 | 178 | 0 26a | + 4 | 0 42 | + 3 |
| Toyooka | | 1·4 | 232 | e 0 25 | − 2 | 0 45 | − 1 |
| Kyoto | N. | 1·4 | 195 | i 0 28 | 0g | 0 51 | + 5 |
| Nagoya | E. | 1·4 | 153 | 0 29 | + 1g | 0 48 | + 2 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Matumoto | E. | 1·4 | 97 | e 0 31 | + 3$_g$ | 0 50 | + 4 |
| Iida | | 1·6 | 124 | e 0 25 | − 5 | 0 48 | − 3 |
| Matusiro | | 1·6 | 85 | e 0 30 | 0 | 0 50 | − 1 |
| Nagano | N. | 1·6 | 81 | e 0 30 | 0 | 0 49 | − 2 |
| Kameyama | Z. | 1·6 | 172 | 0 31 | + 1 | 0 52 | + 1 |
| Tu | E. | 1·7 | 171 | e 0 32 | 0* | 0 51 | − 3 |
| Osaka | | 1·8 | 197 | e 0 41 | + 9 | 1 13 | +17 |
| Takada | | 1·8 | 67 | 0 49 | S | (0 49) | − 7 |
| Kobe | | 1·9 | 234 | e 0 44 | + 6$_g$ | 1 5 | + 2$_g$ |
| Oiwake | | 1·9 | 92 | e 0 37 | − 1$_g$ | — | — |
| Kohu | | 2·1 | 112 | e 0 42 | 0$_g$ | 1 6 | 0* |
| Owase | | 2·3 | 180 | e 0 40 | 0 | — | — |
| Hunatu | N. | 2·3 | 113 | e 0 50 | + 4$_g$ | 1 22 | + 6$_g$ |
| Maebasi | | 2·3 | 90 | e 0 50 | + 4$_g$ | 1 23 | + 7$_g$ |
| Shizuoka | | 2·3 | 129 | e 0 45 | − 1$_g$ | 1 11 | − 1* |
| Aikawa | | 2·3 | 45 | e 0 39 | − 1 | 1 9 | 0 |
| Omaesaki | | 2·4 | 138 | e 0 52 | + 4$_g$ | 1 25 | + 6$_g$ |
| Misima | N. | 2·6 | 120 | e 0 51 | − 1$_g$ | 1 26 | 0$_g$ |
| Kumagaya | | 2·6 | 96 | e 0 50 | − 2$_g$ | 1 24 | − 2$_g$ |
| Siomisaki | | 3·0 | 187 | e 0 49 | − 1 | — | — |
| Osima | | 3·1 | 122 | e 0 59 | − 3$_g$ | 1 39 | − 3$_g$ |
| Shirakawa | | 3·3 | 77 | e 1 9 | + 3$_g$ | — | — |
| Inawasiro | | 3·4 | 68 | e 1 6 | − 2$_g$ | — | — |
| Muroto | | 3·5 | 209 | e 1 12 | + 2$_g$ | 1 57 | + 1$_g$ |
| Koti | | 3·6 | 219 | e 1 11 | − 1$_g$ | 2 5 | + 6$_g$ |
| Hukusima | | 3·7 | 67 | e 1 19 | + 5$_g$ | — | — |
| Hirosima | | 3·7 | 238 | e 1 5 | − 1* | 1 55 | + 1* |
| Matuyama | | 3·8 | 229 | e 1 11 | + 3* | 2 0 | + 3* |

Sept. 13d. 1h. 29m. 18s. Epicentre 53°·3N. 170°·5E. Focus at Base of Superficial Layers.
(as on 1952, April 26d.).

A = − ·5897, B = + ·0987, C = + ·8016; $\delta$ = + 5; $h$ = − 7;
D = + ·165, E = + ·986; G = − ·791, H = + ·132, K = − ·598.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| College | | 23·7 | 45 | e 5 9 | − 1 | i 5 17 | pP |
| Shasta | Z. | 45·8 | 78 | e 8 21 | + 1 | e 8 32 | pP |
| Reno | Z. | 48·0 | 77 | e 8 48 | pP | — | — |
| Tinemaha | Z. | 50·6 | 79 | e 8 59 | + 1 | — | — |
| China Lake | Z. | 51·8 | 79 | e 9 6 | − 1 | — | — |
| Mount Wilson | Z. | 52·7 | 80 | e 9 14 | + 1 | — | — |
| Boulder City | | 53·3 | 77 | i 9 19 | + 1 | — | — |
| Nelson | | 53·5 | 77 | e 9 18 | − 1 | — | — |
| Kiruna | Z. | 57·0 | 347 | i 9 47 | + 2 | — | — |
| Tucson | | 58·3 | 77 | i 9 54 | 0 | — | — |
| Fayetteville | Z. | 64·8 | 63 | i 10 34 | − 4 | — | — |
| Upsala | Z. | 64·9 | 346 | i 10 40 | + 2 | — | — |

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Sept. 13d. 2h. 31m. 30s. Epicentre 38°·8N. 142°·0E. (as on 1952, April 21d.).

Intensity V at Tukimoshi; IV at Miyako, Onagawa, Shizugawa, Kinkazan, Yahagi, Kamaishi, Sakari, and Semmaya; II-III at Isinomaki. Epicentre 38°·5N. 142°·0E. Macroseismic radius 100-200km.
Seismo. Bull. of Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 344, with macroseismic chart.

$A = -·6157$, $B = +·4811$, $C = +·6240$; $\delta = -8$; $h = -1$;
$D = +·616$, $E = +·788$; $G = -·492$, $H = +·384$, $K = -·781$.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Isinomaki | | 0·7 | 236 | 0 15 | 0* | 0 26 | + 1* |
| Miyako | | 0·8 | 0 | e 0 22 | + 4 | 0 35 | + 4 |
| Mizusawa | E. | 0·8 | 296 | 0 18 | 0 | 0 28 | 0* |
| Sendai | | 1·0 | 238 | e 0 17 | − 3g | 0 27 | − 6g |
| Morioka | | 1·1 | 324 | i 0 23a | + 1 | 0 39 | 0 |
| Hukusima | | 1·6 | 229 | e 0 21 | − 9 | 0 41 | −10 |
| Hatinohe | | 1·8 | 348 | e 0 36 | 0g | 0 56 | 0 |
| Shirakawa | | 2·2 | 220 | e 0 44 | 0g | — | — |
| Kumagaya | | 3·4 | 220 | e 1 1 | 0* | — | — |

Sept. 13d. 19h. 13m. 44s. Epicentre 35°·8N. 140°·8E. Depth of focus 0·005. (as on 1952, May 9d.).

Intensity V at Tyosi; IV at Yokaichiba and Ryugasaki; II-III at Tokyo, Mito, Kashiwa, Otaki, and Kasama. Epicentre 35°·7N. 140°·9E. Depth 30km. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 345, with macroseismic chart.

$A = -·6300$, $B = +·5138$, $C = +·5823$; $\delta = -4$; $h = 0$;
$D = +·632$, $E = +·775$; $G = -·451$, $H = +·368$, $K = -·813$.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Tyosi | N. | 0·1 | — | i 0 8 | − 2 | 0 12 | − 6 |
| Kashiwa | | 0·7 | 274 | e 0 16?a | + 1 | 0 24? | − 3 |
| Tukubasan | | 0·7 | 306 | 0 18 | + 3 | 0 27 | 0 |
| Mito | | 0·7 | 335 | 0 15k | 0 | 0 25 | − 2 |
| Tokyo | E. | 0·8 | 263 | i 0 13 | − 4 | 0 26 | − 3 |
| Yokohama | | 1·0 | 249 | i 0 17k | − 2 | 0 34 | + 1 |
| Utunomiya | | 1·1 | 315 | e 0 18 | − 2 | 0 32 | − 4 |
| Onahama | | 1·1 | 4 | e 0 19 | − 1 | 0 36 | 0 |
| Kumagaya | Z. | 1·2 | 287 | 0 19k | − 3 | 0 38 | 0 |
| Mera | Z. | 1·2 | 222 | i 0 17a | − 5 | 0 30 | − 8 |
| Titibu | | 1·4 | 278 | i 0 24 | 0 | 0 47 | + 4 |
| Osima | | 1·5 | 228 | 0 22 | − 4 | 0 36 | − 9 |
| Maebasi | | 1·5 | 293 | i 0 26a | 0 | 0 46 | + 1 |
| Ajiro | | 1·6 | 242 | 0 23 | − 4 | 0 40 | − 7 |
| Misima | Z. | 1·7 | 246 | i 0 24k | − 4 | 0 45 | − 5 |
| Hunatu | E. | 1·7 | 260 | 0 26 | − 2 | 0 45 | − 5 |
| Kohu | | 1·8 | 265 | e 0 30 | 0 | 0 54 | + 2 |
| Inawasiro | | 1·9 | 343 | e 0 30 | − 1 | 1 0 | + 6 |
| Oiwake | | 1·9 | 286 | e 0 32 | + 1 | 1 4 | +10 |
| Hukusima | | 2·0 | 352 | e 0 32 | 0 | 0 59 | + 2 |
| Shizuoka | | 2·1 | 247 | 0 32 | − 2 | 0 56 | − 3 |
| Matusiro | | 2·2 | 291 | 0 35 | 0 | 1 6 | + 4 |
| Nagano | E. | 2·3 | 292 | e 0 36 | − 1 | 1 4 | 0 |
| Matumoto | E. | 2·3 | 281 | 0 37 | 0 | 1 5 | + 1 |
| Takada | | 2·4 | 302 | 0 42 | + 4 | 1 13 | + 6 |
| Omaesaki | | 2·4 | 240 | 0 37 | − 1 | 1 9 | + 2 |
| Iida | | 2·4 | 263 | e 0 32 | − 6 | 1 9 | + 2 |
| Sendai | N. | 2·5 | 2 | e 0 41 | + 2 | 1 11 | + 2 |
| Yamagata | | 2·5 | 352 | e 0 44 | + 5 | 1 20 | +11 |
| Niigata | | 2·5 | 327 | e 0 48 | + 9 | 1 18 | + 9 |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Isinomaki | | 2·7 | 9 | e 0 48 | + 6 | 1 25 | +11 |
| Hatidyozima | | 2·7 | 196 | 0 44 | + 2 | — | — |
| Takayama | | 2·9 | 277 | e 0 45 | 0 | 1 23 | + 4 |
| Aikawa | | 3·0 | 317 | 0 46 | − 1 | 1 32 | +10 |
| Toyama | | 3·0 | 287 | e 0 47 | 0 | 1 26 | + 4 |
| Nagoya | E. | 3·2 | 259 | e 0 52 | + 3 | 1 35 | + 8 |
| Gihu | N. | 3·3 | 263 | 0 53 | + 2 | 1 43 | +14 |
| Mizusawa | E. | 3·3 | 5 | 1 5 | +14 | 1 34 | + 5 |
| Kanazawa | | 3·4 | 284 | e 1 2 | +10 | — | — |
| Wazima | | 3·5 | 298 | e 0 55 | + 1 | — | — |
| Ibukisan | | 3·6 | 264 | e 0 51 a | − 4 | 1 36 | − 1 |
| Hukui | | 3·7 | 275 | e 1 5 | + 9 | — | — |
| Kameyama | | 3·7 | 257 | 1 1 | + 5 | 1 50 | +11 |
| Tu | N. | 3·7 | 255 | e 1 3 | + 7 | 1 50 | +11 |
| Hikone | | 3·8 | 264 | e 1 5 | + 7 | 1 57 | +15 |
| Akita | Z. | 3·9 | 252 | e 1 4 | + 5 | 2 4 | +20 |
| Tsuruga | | 3·9 | 269 | e 1 7 | + 8 | — | — |
| Morioka | | 3·9 | 4 | e 1 0 | + 1 | 1 45 | + 1 |
| Miyako | | 3·9 | 13 | e 0 59? | 0 | 1 44? | 0 |
| Owase | | 4·2 | 247 | e 1 4 | + 1 | — | — |
| Osaka | | 4·5 | 257 | e 1 14 | + 7 | 1 50 | − 9 |
| Hatinohe | | 4·8 | 8 | e 1 10 | − 2 | 2 12 | + 5 |
| Toyooka | | 4·9 | 268 | e 1 15 | + 2 | 2 28 | +19 |
| Aomori | | 5·0 | 0 | 1 16 | + 2 | 2 23 | +11 |
| Takamatu | | 5·7 | 258 | 1 34 | +10 | 2 52 | +23 |
| Mori | N. | 6·3 | 358 | e 1 53 | +21 | 3 0 | +16 |
| Matuyama | | 6·9 | 256 | e 2 5 | +24 | 3 25 | +26 |
| Hirosima | | 7·0 | 261 | e 1 42 | 0 | 3 12 | +11 |
| Hamada | | 7·2 | 265 | 1 49 | + 4 | 3 36 | +30 |
| Obi-hiro | E. | 7·4 | 14 | e 2 6 | +18 | — | — |
| Poona | Z. | 60·9 | 273 | i 10 7 | − 1 | — | — |
| Stuttgart | | 85·4 | 330 | e 12 32 | 0 | — | — |
| Fayetteville | Z. | 92·1 | 42 | i 13 6 | + 3 | — | — |

Sept. 14d. 5h. 51m. 36s. Epicentre 25°·1S. 178°·3E. Depth of focus 0·090.
(as on 1944, November 13d.).

$A = -\cdot 9063$, $B = +\cdot 0269$, $C = -\cdot 4219$; $\delta = +10$; $h = +3$;
$D = +\cdot 030$, $E = +1\cdot 000$; $G = +\cdot 422$, $H = -\cdot 013$, $K = -\cdot 907$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Karapiro | N. | 13·0 | 190 | 2 45 | − 3 | e 5 8 | + 4 | — | — |
| Tuai | N. | 13·7 | 184 | e 2 34 | −21 | e 5 9 | − 7 | — | — |
| New Plymouth | E. | 14·4 | 193 | e 3 4 | + 2 | — | — | — | — |
| Wellington | | 16·4 | 189 | e 3 18 | − 3 | 6 5 | + 2 | 13 56 | ScS |
| Cobb River | E. | 16·6 | 195 | 3 23 | 0 | 6 10 | + 3 | — | — |
| Kaimata | N.E. | 18·3 | 196 | e 3 38 | − 1 | e 6 37 | + 2 | — | — |
| Christchurch | | 19·0 | 193 | e 3 45 | − 1 | e 7 15 | +28 | — | — |
| Brisbane | Z. | 22·8 | 259 | i 4 22k | + 2 | — | — | — | — |
| Manila | | 68·4 | 299 | i 10 12 | + 8 | — | — | — | — |
| Berkeley | Z. | 83·9 | 44 | i 11 27 | − 1 | — | — | — | — |
| Lick | Z. | 83·9 | 44 | e 11 28 | 0 | — | — | — | — |
| Pasadena | | 84·3 | 48 | i 11 29 | − 1 | — | — | — | — |
| Fresno | Z. | 84·7 | 45 | e 11 32 | 0 | — | — | — | — |
| Riverside | Z. | 84·7 | 48 | i 11 31 | − 1 | — | — | — | — |
| Shasta | Z. | 85·5 | 41 | e 11 35 | − 1 | — | — | — | — |
| China Lake | Z. | 85·6 | 47 | i 11 36 | − 1 | — | — | — | — |
| Mineral | Z. | 85·8 | 42 | i 11 37 | − 1 | — | — | — | — |
| Tinemaha | Z. | 85·9 | 46 | e 11 38 | 0 | — | — | — | — |
| Reno | Z. | 86·4 | 43 | e 11 40 | 0 | — | — | — | — |
| Nelson | | 87·4 | 48 | i 11 50 | + 5 | — | — | e 13 49 | pP |
| Boulder City | | 87·6 | 48 | i 11 45 | − 1 | — | — | — | — |
| Tucson | | 88·4 | 53 | i 11 50 | 0 | e 12 32 | ? | e 13 57 | pP |
| Victoria | | 89·9 | 35 | 11 57 | 0 | — | — | — | — |
| College | | 93·4 | 14 | i 12 10 | − 3 | — | — | i 14 12 | pP |
| La Paz | N. | 103·8 | 115 | e 12 37 | P | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Kiruna | z. | 135·2 | 348 | e 18 3 | [− 9] | i 20 50 | SKP | — | — |
| Upsala | z. | 142·8 | 345 | i 18 22 | [− 4] | — | — | i 18 38 | ? |
| Copenhagen | | 147·7 | 347 | i 18 38 | [+ 4] | — | — | — | — |
| Collmberg | z. | 151·5 | 342 | e 18 47 | [+ 8] | e 18 58 | PKP$_2$ | e 20 56 | pPKP |
| Witteveen | z. | 151·6 | 352 | i 18 48 | [+ 8] | — | — | i 21 3 | pPKP |
| Jena | z. | 152·3 | 342 | e 18 49 | [+ 8] | i 19 2 | PKP$_2$ | e 21 0 | pPKP |
| Stuttgart | | 154·9 | 344 | e 19 13 | PKP$_2$ | — | — | e 21 8 | pPKP |
| Paris | | 156·1 | 355 | i 19 17 | PKP$_2$ | — | — | e 20 34 | ? |
| Algiers Univ. | z. | 167·7 | 343 | — | — | 26 24? | sSKS | — | — |
| Tamanrasset | z. | 173·0 | — | — | — | e 30 30 | SKKS | — | — |

Sept. 14d. 9h. 34m. 22s. Epicentre 34°·6N. 91°·8E.

$A = -·0259$, $B = +·8245$, $C = +·5652$; $\delta = -8$; $h = 0$;
$D = +1·000$, $E = +·031$; $G = -·018$, $H = +·565$, $K = -·825$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Chatra | | 8·7 | 208 | i 2 4 | − 6 | 3 56 | + 6 | 4 21 | S* | 4·6 |
| Shillong | E. | 9·0 | 179 | e 2 13 | 0 | 4 20 | +22 | i 4 58 | S$_g$ | — |
| Calcutta | N. | 12·4 | 195 | e 2 55 | − 6 | i 5 17 | − 4 | — | — | 6·2 |
| New Delhi | | 13·8 | 248 | i 3 16$_s$ | − 3 | i 5 55? | + 1 | 6 11 | SS | — |
| Hyderabad | N. | 20·8 | 219 | i 4 42 | − 3 | i 8 39 | + 6 | — | — | 10·7 |
| Quetta | | 21·4 | 269 | i 4 50 | − 1 | i 9 0 | +15 | — | — | 12·6 |
| Poona | Z. | 22·6 | 230 | e 4 59? | − 4 | 9 10 | + 3 | 5 46 | PPP | 10·9 |
| Bombay | | 23·0 | 232 | i 5 4 | − 3 | i 9 16 | + 2 | 5 41 | PP | 10·9 |
| Hong Kong | | 23·1 | 115 | e 5 12 | + 4 | e 8 38 | −38 | — | — | 12·4 |
| Madras | E. | 24·0 | 210 | i 5 14 | − 3 | i 9 35 | + 3 | 5 57 | PP | 10·7 |
| Zô-Sè | Z. | 24·9 | 88 | 5 26 | 0 | 9 51 | + 4 | — | — | — |
| Colombo | E. | 29·7 | 205 | 6 8 | − 2 | 11 10 | + 4 | — | — | 16·6 |
| Manila | | 33·0 | 119 | e 6 38 | − 1 | e 13 13 | ScP | — | — | 20·0 |
| Djakarta | | 43·0 | 157 | 8 2 | − 1 | — | — | — | — | — |
| Ksara | | 45·7 | 286 | i 8 30$_k$ | + 6 | e 15 58 | +50 | 10 22 | PP | — |
| Istanbul | | 49·0 | 298 | e 8 54 | + 4 | e 18 38 | ScS | — | — | — |
| Helsinki | | 49·3 | 324 | — | — | e 16 2 | + 3 | — | — | — |
| Helwan | | 50·7 | 283 | i 9 5$_k$ | + 2 | e 16 30 | +12 | e 11 17 | PP | — |
| Kiruna | | 51·5 | 332 | i 9 11 | + 2 | e 16 38 | + 9 | e 20 32 | SS | e 26·6 |
| Upsala | | 53·0 | 323 | i 9 22 | + 1 | e 16 48 | − 2 | e 11 1 | PP | e 24·6 |
| Skalnate Pleso | | 53·3 | 310 | e 9 16 | − 7 | e 17 20 | PS | e 11 32 | PP | — |
| Belgrade | z. | 54·2 | 304 | e 10 32$_s$ | PcP | — | — | — | — | — |
| Raciborzu | z. | 54·4 | 312 | e 9 35 | + 4 | e 10 37 | PcP | e 11 43 | PP | — |
| Budapest | | 54·5 | 308 | e 9 31 | − 1 | e 17 8 | − 2 | e 11 38 | PP | 25·6 |
| Ogyalla | | 54·9 | 308 | e 12 17 | ? | e 17 5 | −11 | e 17 42 | PPS | — |
| Copenhagen | | 56·5 | 319 | e 9 47 | + 1 | 17 51 | PS | i 9 50 | P | 28·6 |
| Prague | | 56·7 | 312 | e 9 52 | + 4 | e 17 50 | PS | e 21 9 | SS | — |
| Potsdam | | 56·9 | 315 | i 9 54$_k$ | + 5 | i 17 54 | PS | e 23 38 | SSS | e 27·6 |
| Collmberg | | 57·3 | 313 | e 9 51 | − 1 | — | — | e 9 54 | P | e 30·6 |
| Cheb | | 58·0 | 312 | e 13 7 | PPP | e 16 50 | −67 | — | — | — |
| Jena | E. | 58·2 | 312 | e 9 58? | 0 | e 10 1 | P | e 10 17 | ? | — |
| Triest | | 58·5 | 307 | e 10 3 | + 3 | i 18 12 | + 9 | — | — | — |
| Messina | E. | 59·8 | 298 | — | — | e 18 25 | + 5 | — | — | e 33·1 |
| Stuttgart | | 60·4 | 312 | e 10 13 | 0 | e 18 35 | + 7 | e 12 26 | PP | — |
| Witteveen | Z. | 60·5 | 318 | i 10 15 | + 1 | — | — | — | — | — |
| Florence | | 60·8 | 306 | i 10 17$_k$ | + 1 | e 18 54? | PPS | e 23 15 | SS | — |
| Karlsruhe | Z. | 60·8 | 313 | e 10 17 | + 1 | — | — | e 10 20 | P | — |
| Strasbourg | | 61·3 | 312 | e 10 22 | + 2 | e 18 34 | − 5 | e 12 35 | PP | e 29·6 |
| De Bilt | | 61·6 | 316 | i 10 25 | + 3 | e 18 54 | PS | e 19 36 | ? | e 31·1 |
| Basle | | 61·8 | 311 | e 10 10 | −13 | — | — | — | — | — |
| Paris | | 64·5 | 314 | e 10 40 | − 1 | — | — | e 14 31 | PPP | e 33·6 |
| Kew | | 65·0 | 317 | — | — | e 19 35 | + 9 | — | — | e 32·6 |
| Tananarive | | 67·8 | 226 | — | — | 24 26 | SS | e 30 33 | Q | 32·0 |
| College | | 70·6 | 23 | i 11 18 | − 1 | — | — | — | — | e 37·7 |
| Resolute Bay | | 70·9 | 3 | e 13 21 | ? | e 20 43 | + 7 | e 15 29 | PPP | e 36·5 |
| Almeria | | 73·2 | 304 | 11 36 | + 1 | 21 17 | +15 | 14 22 | PP | 41·8 |
| Tamanrasset | z. | 74·5 | 287 | i 11 42$_k$ | 0 | e 21 35 | +18 | e 14 34 | PP | — |
| Victoria | | 91·5 | 24 | 13 10 | 0 | — | — | — | — | — |
| Hungry Horse | | 94·3 | 17 | e 13 26 | + 3 | — | — | — | — | — |
| Nelson | | 105·8 | 23 | e 18 37 | PP | — | — | — | — | — |

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Sept. 14d. 21h. 14m. 40s. Epicentre 41°·2S. 174°·1E.

Intensity IV at Wellington and Marlborough Sound. Epicentre as adopted.

R. C. Hayes.
Earthquake Origins, New Zealand, during the year 1952, Seismological Observatory Bulletin S-98, 1953, p. 4.

A = −·7506, B = +·0776, C = −·6562; $\delta$ = +2; $h$ = −2;
D = +·103, E = +·995; G = +·653, H = −·067, K = −·755.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Wellington | | 0·5 | 99 | i 0 13 | − 1 | i 0 21 | − 2 |
| Cobb River | E. | 1·0 | 276 | i 0 20 | $0_g$ | i 0 33 | $0_g$ |
| New Plymouth | E. | 2·1 | 359 | e 0 40 | + 1* | 1 7 | + 1* |
| Kaimata | N.E. | 2·4 | 237 | 0 39 | − 2 | i 1 9 | − 3 |
| Christchurch | | 2·6 | 206 | e 0 48 | + 1* | e 1 3 | −14 |
| Tuai | N. | 3·4 | 44 | e 1 8 | $0_g$ | 1 31 | − 6 |
| Karapiro | N. | 3·5 | 20 | e 0 56 | − 1 | 1 36 | − 4 |
| Auckland | N. | 4·4 | 8 | e 1 28 | $0_g$ | e 2 43 | $+18_g$ |

Sept. 14d. 22h. 25m. 36s. Epicentre 43°·8N. 141°·0E. Depth of focus 0·020.
(as on 1947, November 4d.).

Intensity II-III at Urakawa. Epicentre 43°·8N. 141°·6E. Depth about 120km.
Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 346, with macroseismic chart.

A = −·5627, B = +·4557, C = +·6897; $\delta$ = −2; $h$ = −3;
D = +·629, E = +·777; G = −·536, H = +·434, K = −·724.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Sapporo | | 0·8 | 161 | e 0 27 | + 3 | 0 47 | + 4 |
| Mori | E. | 1·7 | 190 | 0 40 | + 7 | 1 6 | + 8 |
| Obihiro | N. | 1·8 | 119 | e 0 48? | +14 | — | — |
| Urakawa | | 2·1 | 142 | e 0 35 | − 2 | 1 1 | − 5 |
| Abashiri | | 2·4 | 85 | e 0 50 | + 9 | — | — |
| Aomori | | 3·0 | 183 | 0 50 | + 1 | 1 25 | − 1 |
| Hatinohe | | 3·3 | 173 | 0 48 | − 4 | 1 25 | − 7 |
| Morioka | | 4·1 | 179 | i 1 1 | − 2 | 1 45 | − 6 |
| Akita | | 4·1 | 189 | e 1 6 | + 3 | — | — |
| Mizusawa | N. | 4·7 | 179 | 1 8 | − 2 | 1 57 | − 8 |
| Sendai | | 5·5 | 181 | e 1 19 | − 2 | 2 16 | − 8 |
| Yamagata | | 5·6 | 186 | e 1 9 | −13 | — | — |
| Hukusima | | 6·0 | 184 | e 1 26 | − 2 | 2 36 | 0 |
| Inawasiro | | 6·3 | 187 | e 1 30 | − 2 | — | — |
| Shirakawa | | 6·7 | 185 | e 1 35 | − 2 | — | — |
| Onahama | | 6·8 | 181 | e 1 39 | + 1 | 2 47 | − 8 |
| Utunomiya | | 7·3 | 187 | e 2 42 | ? | — | — |
| Mito | | 7·4 | 183 | e 1 50 | + 4 | 3 2 | − 7 |
| Maebasi | | 7·5 | 192 | — | — | e 3 12 | 0 |
| Kumagaya | | 7·7 | 190 | — | — | e 3 2 | −14 |
| Tokyo | | 8·2 | 187 | — | — | e 3 19 | − 9 |

Sept. 14d. 23h. 55m. 29s. Epicentre 36°·5N. 71°·0E. Depth of focus 0·015.
(as on 1952, August 31d.).

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 1·1 | 26 | i 0 24 | 0 | i 0 42 | − 1 |
| Kulyab | 1·7 | 325 | e 0 34? | + 3 | e 0 56? | + 2 |
| Obi-garm | 2·4 | 335 | i 0 40 | 0 | i 1 9 | − 1 |
| Garm | 2·6 | 348 | i 0 41 | − 1 | i 1 11 | − 3 |
| Stalinabad | 2·7 | 319 | i 0 44 | 0 | i 1 16 | − 1 |

*Continued on next page.*

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| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Dzhergetal | 2·7 | 4 | i 0 43 | − 1 | i 1 15 | − 2 |
| Murgab | 3·0 | 51 | e 0 48 | 0 | 1 23 | − 1 |
| Fergana | 3·9 | 9 | e 0 59 | 0 | i 1 44 | − 1 |
| Andijan | 4·4 | 15 | 1 6 | 0 | 1 54 | − 3 |
| Samarkand | 4·5 | 317 | 1 8 | 0 | e 1 50 | − 9 |
| Namangan | 4·5 | 7 | — | — | i 2 0 | + 1 |
| Lunacharskoe | 5·0 | 347 | e 1 13 | − 1 | e 2 8 | − 4 |
| Naryn | 6·3 | 37 | — | — | i 2 41 | − 2 |
| Frunse | 7·0 | 23 | — | — | e 2 56 | − 4 |
| Bairam-Ali | 7·2 | 282 | — | — | 3 8 | + 3 |
| Almata II | 8·3 | 34 | e 1 58 | − 1 | — | — |
| Przhevalsk | 8·3 | 42 | e 1 57 | − 2 | — | — |

Sept. 15d. 0h. 48m. 42s. Epicentre 41°·6N. 72°·7E. (as on 1952, August 28d.).

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Andijan | 0·9 | 196 | 0 15 | − $3_g$ | i 0 29 | − $1_g$ | — | — |
| Namangan | 1·0 | 232 | 0 20? | $0_g$ | i 0 33? | $0_g$ | — | — |
| Fergana | 1·4 | 210 | e 0 26 | − 1 | e 0 46 | 0 | — | — |
| Frunse | 1·9 | 48 | i 0 33 | − 1 | i 0 59 | 0 | — | — |
| Tchimkent | 2·4 | 287 | e 0 40 | − 1 | — | — | — | — |
| Naryn | 2·5 | 94 | e 0 44 | + 1 | i 1 15 | + 1 | i 1 28 | $S_g$ |
| Dzhergetal | 2·6 | 205 | e 0 44 | 0 | 1 21 | 0* | — | — |
| Lunacharskoe | 2·6 | 264 | e 0 45 | + 1 | i 1 18 | + 1 | — | — |
| Murgab | 3·4 | 163 | e 1 0 | − 1* | — | — | — | — |
| Obi-garm | 3·7 | 220 | e 1 1 | + 1 | e 2 5 | + $3_g$ | — | — |
| Almata II | 3·8 | 63 | e 1 1 | 0 | e 1 57 | 0* | — | — |
| Ili | 4·0 | 52 | e 1 5 | + 1 | — | — | — | — |
| Przhevalsk | 4·3 | 76 | — | — | 2 14 | + 2* | — | — |
| Stalinabad | 4·3 | 226 | — | — | e 2 18 | − $4_g$ | — | — |

Sept. 15d. 4h. 31m. 28s. Epicentre 38°·0N. 58°·5E. (as on 1950, May 2d.).

Epicentres suggested 38°·0N. 58°·1E. (Strasbourg); 38°·0N. 58°·2E. (U.S.S.R.).

A = +·4128, B = +·6736, C = +·6131; $\delta$ = +3; $h$ = −1;
D = +·853, E = −·522; G = +·320, H = +·523, K = −·790.

| | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Ashkabad | 0·1 | — | i 0 7 | − 1 | i 0 8 | + 1* | — | — | — |
| Bairam-Ali | 2·9 | 97 | i 0 53 | + 1* | i 1 31 | + 1* | — | — | — |
| Samarkand | 6·8 | 73 | 1 45 | + 1 | — | — | — | — | — |
| Lenkoran | 7·7 | 279 | — | — | 3 13 | −12 | — | — | — |
| Stalinabad | 8·1 | 83 | e 2 9 | + 7 | — | — | — | — | — |
| Lunacharskoe | 9·0 | 65 | e 2 13 | 0 | e 3 56 | − 2 | — | — | — |
| Tashkent | 9·0 | 65 | e 2 24 | PP | e 4 9 | SS | — | — | — |
| Tchimkent | 9·5 | 60 | e 2 20 | 0 | i 4 19 | SS | — | — | — |
| Goris | 9·6 | 283 | i 2 15 | − 6 | i 3 57 | −15 | — | — | — |
| Kirovobad | 9·8 | 290 | e 2 18 | − 6 | i 4 4 | −13 | — | — | — |
| Dzhergetal | 10·0 | 79 | e 2 32 | + 5 | — | — | — | — | — |
| Khorog | 10·4 | 89 | e 2 35 | + 1 | — | — | — | — | — |
| Quetta | 10·5 | 135 | e 2 40 | + 5 | e 5 47 | $S_g$ | i 5 56 | ? | — |
| Fergana | 10·6 | 73 | e 2 42 | PP | — | — | — | — | — |
| Namangan | 10·6 | 70 | e 2 37 | + 1 | e 4 39 | + 2 | — | — | — |
| Grozny | 11·0 | 303 | e 2 43 | + 1 | — | — | — | — | — |
| Andijan | 11·1 | 71 | i 2 42 | − 1 | i 4 46 | − 3 | — | — | — |
| Erevan | 11·1 | 286 | i 2 39 | − 4 | i 4 41 | − 8 | — | — | — |
| Tiflis | 11·2 | 294 | e 2 39 | − 5 | e 4 37 | ? | — | — | — |
| Gori | 11·7 | 294 | 2 47 | − 4 | — | — | — | — | — |
| Borzhomi | 12·2 | 293 | e 2 57? | − 1 | e 5 7? | − 9 | — | — | — |
| Piatigorsk | 13·2 | 302 | e 3 3 | − 8 | — | — | — | — | — |
| Naryn | 13·9 | 70 | e 3 24 | + 3 | — | — | — | — | — |
| Rybach'e | 14·1 | 66 | e 3 29 | + 6 | — | — | — | — | — |
| Almata | 15·0 | 64 | e 3 42 | + 7 | — | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Przhevalsk | | 15·8 | 67 | e 3 55 | PP | — | — | — | — | — |
| Theodosia | | 18·6 | 299 | e 4 21 | 0 | e 7 47 | + 1 | — | — | — |
| Ksara | | 18·8 | 264 | — | — | 7 58? | + 8 | 11 20 | ? | — |
| Yalta | | 19·4 | 297 | i 4 26 | − 4 | — | — | — | — | — |
| Semipalatinsk | | 19·8 | 42 | e 4 36 | + 1 | e 8 8 | − 5 | — | — | — |
| Moscow | | 22·6 | 328 | e 5 4 | + 1 | e 9 3 | − 4 | — | — | — |
| Bombay | | 22·8 | 142 | e 5 13 | + 8 | i 9 32? | SS | — | — | 10·3 |
| Istanbul | | 22·9 | 287 | e 4 58? | − 8 | — | — | — | — | — |
| Kishinev | | 23·5 | 302 | i 5 11 | − 1 | i 9 21 | − 2 | — | — | — |
| Helwan | | 23·9 | 257 | e 5 16 | 0 | e 9 49 | +19 | e 5 41 | PP | — |
| Lwow | | 27·3 | 306 | e 5 46 | − 2 | — | — | — | — | — |
| Pulkovo | | 28·2 | 329 | e 5 56 | 0 | e 10 37 | − 4 | — | — | — |
| Uzhgorod | | 28·2 | 304 | i 5 57 | + 1 | — | — | — | — | — |
| Belgrade | | 29·1 | 295 | e 6 39a | +35 | e 7 4 | PP | e 7 43 | ? | e 15·0 |
| Raciborzu | | 31·0 | 306 | e 6 25 | + 4 | e 13 6 | SS | e 16 57 | ScS | — |
| Prague | | 33·4 | 305 | e 6 32 | −10 | e 14 5 | SS | e 14 50 | Q | 16·7 |
| Messina | | 33·6 | 284 | e 6 41 | − 3 | e 12 10 | + 4 | — | — | — |
| Triest | | 33·8 | 297 | — | — | e 17 13 | ScS | — | — | — |
| Upsala | | 33·8 | 323 | e 7 45 | +59 | e 13 28 | PcS | i 7 58 | ? | e 16·8 |
| Collmberg | | 34·4 | 308 | e 6 48? | − 3 | — | — | — | — | e 18·6 |
| Potsdam | | 34·5 | 309 | — | — | e 13 26? | PcS | e 14 38? | SS | e 22·5 |
| Rome | | 35·2 | 291 | e 6 54 | − 4 | e 17 28 | ScS | — | — | — |
| Copenhagen | | 35·3 | 314 | e 7 0 | + 1 | 12 38 | + 5 | — | — | — |
| Jena | | 35·3 | 306 | e 6 54 | − 5 | e 8 24 | PP | e 8 52 | PPP | — |
| Florence | | 35·8 | 294 | e 6 49 | −14 | e 17 0 | ScS | i 7 10 | pP | — |
| Kiruna | | 36·6 | 336 | i 7 7 | − 3 | e 15 1 | SS | i 8 24 | PP | e 16·8 |
| Stuttgart | | 36·8 | 303 | e 7 8 | − 3 | 15 37 | SSS | 7 19 | ? | e 17·0 |
| Strasbourg | | 37·8 | 303 | e 7 20 | 0 | e 15 46 | SS | e 16 18 | SSS | e 20·5 |
| De Bilt | | 39·3 | 309 | — | — | e 16 26 | SS | — | — | e 26·5 |
| Kew | | 42·8 | 308 | — | — | e 17 31 | SS | — | — | e 28·5 |
| Tamanrasset | z. | 47·5 | 267 | i 8 38a | 0 | — | — | e 10 20 | PP | — |
| Pretoria | z. | 69·5 | 208 | e 11 10 | − 2 | — | — | — | — | — |

Sept. 15d. 11h. 1m. 19s. Epicentre 38°·0S. 73°·0W. (as on 1943, September 22d.).

A = +·2310, B = −·7555, C = −·6131 ; δ = +3 ; h = −1 ;
D = −·956, E = −·292 ; G = −·179, H = +·586, K = −·790.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Concepción | N. | 1·2 | 33 | i −0 57 | ? | — | — | — | — | — |
| Santa Lucia | N. | 4·9 | 23 | e 1 7 | −10 | i 2 7 | − 8 | e 1 15 | P | — |
| Buenos Aires | | 12·2 | 78 | e 3 0 | + 2 | — | — | — | — | — |
| La Plata | | 12·5 | 80 | i 3 1 | − 1 | 5 47 | SSS | 6 11 | Q | 6·6 |
| La Paz | | 21·8 | 15 | 4 53 | − 3 | i 8 49 | − 3 | i 9 41 | SSS | — |
| Huancayo | | 25·9 | 356 | i 5 32 | − 3 | e 9 39 | −25 | — | — | e 10·6 |
| San Juan | | 56·5 | 8 | i 9 36 | −10 | — | — | — | — | — |
| Fayetteville | z. | 76·3 | 342 | i 11 49k | − 3 | — | — | — | — | — |
| Morgantown | | 77·5 | 354 | i 11 57 | − 2 | — | — | — | — | — |
| Tucson | | 78·3 | 328 | i 12 3 | 0 | — | — | — | — | — |
| Kimberley | z. | 78·5 | 117 | i 12 9 | + 5 | — | — | — | — | — |
| Weston | | 80·0 | 1 | i 12 10a | − 3 | — | — | — | — | — |
| Harvard | | 80·1 | 1 | i 12 11k | − 2 | — | — | — | — | — |
| Riverside | z. | 82·6 | 323 | e 12 28 | + 2 | — | — | — | — | — |
| Pretoria | z. | 82·7 | 116 | e 12 32 | + 5 | — | — | — | — | — |
| Nelson | | 82·9 | 327 | i 12 28 | 0 | — | — | i 12 51 | ? | — |
| Ottawa | | 83·1 | 358 | e 12 26a | − 3 | — | — | — | — | — |
| Pasadena | | 83·1 | 323 | e 12 29 | 0 | — | — | — | — | — |
| China Lake | z. | 84·3 | 325 | i 12 34 | − 1 | — | — | — | — | — |
| Tinemaha | z. | 85·6 | 325 | i 12 42 | + 1 | — | — | — | — | — |
| Fresno | z. | 86·0 | 324 | e 12 44 | + 1 | — | — | — | — | — |
| Kirkland Lake | z. | 86·0 | 355 | e 12 41 | − 2 | — | — | — | — | — |
| Lick | z. | 87·4 | 322 | e 12 15 | −35 | — | — | — | — | — |
| Mineral | z. | 89·8 | 324 | e 13 1 | − 1 | — | — | — | — | — |
| Shasta | z. | 90·4 | 324 | e 13 4 | 0 | — | — | — | — | — |
| Butte | | 90·9 | 333 | i 13 6 | − 1 | — | — | — | — | — |
| Tamanrasset | z. | 95·2 | 65 | e 13 29 | + 2 | e 17 24 | PP | e 13 39 | pP | — |
| Resolute Bay | | 113·3 | 354 | e 22 41 | PKS | — | — | — | — | — |

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Sept. 15d. 11h. 28m. 14s. Epicentre 30°·5N. 69°·5E.

Epicentre as given by Strasbourg and U.S.C.G.S.

$A = +\cdot3023$, $B = +\cdot8084$, $C = +\cdot5050$; $\delta = -8$; $h = +2$;
$D = +\cdot937$, $E = -\cdot350$; $G = +\cdot177$, $H = +\cdot473$, $K = -\cdot863$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Quetta | | 2·1 | 262 | i 0 40 | + 3 | — | — | — | — | — |
| New Delhi | | 7·0 | 104 | e 1 42 | − 4 | 3 9 | + 1 | 1 49 | PP | 2·8 |
| Dehra Dun | N. | 7·4 | 87 | e 1 40 | −12 | 2 46 | −32 | e 3 34 | SS | — |
| Bombay | | 12·0 | 165 | e 2 59 | + 4 | 5 19 | + 8 | i 5 28 | SS | 6·0 |
| Poona | | 12·6 | 161 | i 3 0 | − 3 | i 5 31 | + 5 | 3 10 | PP | 6·0 |
| Chatra | | 15·9 | 99 | i 3 42 | − 5 | e 7 0 | SS | 4 7 | PPP | — |
| Calcutta | E. | 18·6 | 111 | e 4 55 | PPP | — | — | — | — | 7·8 |
| Madras | E. | 20·0 | 147 | e 4 37 | 0 | i 8 23 | + 6 | 8 59 | SSS | 9·7 |
| Shillong | E. | 20·4 | 96 | e 4 40 | − 1 | e 8 35 | +10 | 5 2 | PP | 9·6 |
| Kodaikanal | E. | 21·5 | 157 | e 5 2 | +10 | — | — | — | — | — |
| Colombo | E. | 25·4 | 155 | 4 56 | −35 | 10 6 | +10 | — | — | 13·2 |
| Ksara | | 28·6 | 284 | e 6 6 | + 6 | 11 48 | +60 | — | — | — |
| Helwan | | 32·9 | 278 | e 6 49 | +11 | e 13 22 | SS | 14 54 | ? | e 16·2 |
| Istanbul | N. | 34·2 | 299 | — | — | e 12 38? | +22 | e 15 16? | ? | e 16·8 |
| Kishinev | | 35·3 | 310 | e 6 59 | 0 | — | — | — | — | — |
| Cernauti | | 37·5 | 311 | e 7 28 | +11 | — | — | — | — | — |
| Lwow | | 39·0 | 313 | e 7 30 | 0 | e 13 38 | PcS | 9 23 | PPP | — |
| Skalnate Pleso | | 41·3 | 311 | e 10 0 | PPP | e 17 54 | SSS | — | — | e 20·0 |
| Nanking | | 41·9 | 75 | 7 54 | 0 | 14 11 | − 2 | — | — | — |
| Raciborzu | Z. | 42·8 | 313 | e 8 7 | + 6 | e 9 46 | PcP | e 10 40 | PPP | — |
| Messina | E. | 44·7 | 295 | e 8 24 | + 8 | e 14 57 | + 3 | — | — | — |
| Prague | | 45·2 | 312 | e 8 22 | + 2 | e 15 8 | + 7 | e 19 32 | SSS | — |
| Upsala | | 45·2 | 326 | i 8 20 | 0 | e 15 10 | + 9 | i 10 2 | PcP | e 24·8 |
| Triest | | 45·5 | 306 | e 8 26 | + 3 | 15 58? | +53 | e 10 25 | PP | — |
| Collmberg | | 46·2 | 313 | e 8 28 | 0 | e 15 28 | +13 | e 16 28 | ? | — |
| Potsdam | | 46·2 | 315 | e 8 34 | + 6 | e 15 22 | + 7 | e 18 46? | SS | e 25·8 |
| Cheb | | 46·5 | 312 | e 8 47 | +16 | — | — | e 9 46 | ? | — |
| Rome | | 46·6 | 301 | — | — | e 15 25 | + 4 | e 18 34 | SS | — |
| Copenhagen | | 47·0 | 320 | e 8 38 | + 3 | 15 31 | + 5 | — | — | — |
| Kiruna | | 47·0 | 337 | i 8 34 | − 1 | e 16 10 | +44 | i 9 58 | PcP | e 23·8 |
| Jena | | 47·1 | 313 | e 8 35 | 0 | e 8 38 | ? | e 8 51 | ? | — |
| Florence | | 47·4 | 303 | e 8 45 | + 7 | e 15 28 | − 4 | — | — | — |
| Stuttgart | | 48·6 | 310 | e 8 47 | 0 | e 20 22 | SSS | e 16 28 | ? | e 27·8 |
| Pavia | | 48·8 | 305 | i 7 19 | ? | e 17 32 | ? | — | — | e 28·5 |
| Karlsruhe | Z. | 49·1 | 311 | e 8 52 | + 1 | — | — | — | — | — |
| Strasbourg | | 49·5 | 310 | e 8 54 | 0 | e 15 57 | − 5 | e 19 52 | SS | 26·8 |
| Manila | | 49·7 | 96 | i 8 46 | −10 | — | — | — | — | — |
| Witteveen | Z. | 50·2 | 316 | e 9 3 | + 3 | — | — | — | — | — |
| De Bilt | | 51·1 | 315 | e 9 10 | + 4 | e 16 28 | + 4 | — | — | e 27·8 |
| Clermont-Ferrand | | 52·9 | 306 | — | — | e 16 54 | + 6 | — | — | 29·8 |
| Paris | | 53·0 | 310 | e 9 22 | + 1 | e 18 17 | ? | e 17 32 | PPS | e 27·8 |
| Kew | | 54·5 | 314 | i 9 33 | + 1 | — | — | e 23 36 | Q | e 28·8 |
| Aberdeen | E. | 55·1 | 321 | — | — | — | — | e 24 39 | Q | e 33·1 |
| Tamanrasset | Z. | 57·0 | 279 | e 9 52 | + 2 | e 11 58 | PP | e 12 42 | ? | — |
| Rathfarnham Castle | | 57·9 | 317 | e 19 7 | ? | e 25 37 | ? | e 27 44 | ? | e 30·0 |
| Pretoria | Z. | 68·5 | 220 | i 11 5 | − 1 | — | — | — | — | — |
| Kimberley | Z. | 72·7 | 220 | i 11 31 | − 1 | — | — | — | — | — |
| College | | 80·6 | 15 | i 12 14 | − 2 | — | — | — | — | — |
| Fayetteville | Z. | 112·0 | 345 | i 18 53 | [+16] | — | — | — | — | — |
| Nelson | | 114·0 | 3 | e 20 37 | ? | — | — | — | — | — |

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Sept. 15d. 14h. 5m. 47s. Epicentre 18°·5N. 104°·0W. Depth of focus 0·005.

A = −·2296, B = −·9208, C = +·3154; $\delta$ = +7; $h$ = +5;
D = −·970, E = +·242; G = −·076, H = −·306, K = −·949.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Manzanillo | | 0·6 | 330 | 0 16 | + 2 | — | — | — | — | 0·5 |
| Tacubaya | | 4·6 | 78 | 1 11 | + 2 | — | — | — | — | 2·4 |
| Tucson | | 15·0 | 337 | i 3 28 | − 2 | e 6 38 | SS | — | — | — |
| Lubbock | | 15·1 | 7 | 3 32 | + 1 | 8 2 | L | — | — | (8·0) |
| Riverside | z. | 19·5 | 324 | e 4 24 | 0 | — | — | — | — | — |
| Fayetteville | z. | 19·6 | 25 | i 4 25 a | 0 | — | — | i 4 35 | pP | — |
| Nelson | | 19·6 | 334 | e 4 25 | 0 | — | — | — | — | — |
| Boulder City | | 19·9 | 334 | i 4 31 | + 2 | — | — | — | — | — |
| Pasadena | | 20·1 | 324 | e 4 30 | − 1 | — | — | i 4 33 | P | — |
| China Lake | z. | 21·0 | 329 | e 4 38 | − 2 | — | — | i 4 43 | P | — |
| Tinemaha | | 22·3 | 329 | 4 54 | + 1 | — | — | — | — | — |
| Lick | z. | 24·3 | 324 | e 5 10 | − 2 | — | — | — | — | — |
| Santa Clara | | 24·5 | 324 | e 5 19 | + 5 | e 9 53 | +26 | — | — | e 15·9 |
| Berkeley | | 25·0 | 324 | e 5 22 | + 3 | e 9 49 | +13 | — | — | e 15·7 |
| Mineral | z. | 26·5 | 329 | e 5 31 | − 2 | — | — | — | — | — |
| Shasta | z. | 27·2 | 329 | e 5 38 | − 2 | — | — | — | — | — |
| Butte | | 28·3 | 348 | e 5 49 | − 1 | — | — | — | — | — |
| Morgantown | | 29·6 | 39 | i 6 4 | + 3 | — | — | — | — | — |
| Ottawa | | 35·6 | 35 | e 6 55 | + 2 | — | — | — | — | — |
| San Juan | | 35·9 | 83 | e 6 57 | + 1 | — | — | — | — | — |
| College | | 54·7 | 339 | e 9 20 | − 5 | — | — | — | — | — |

Sept. 15d. 17h. 59m. 22s. Epicentre 30°·0N. 92°·0E. (as on 1952, March 14d.).

A = −·0303, B = +·8670, C = +·4975; $\delta$ = +11; $h$ = +2;
D = +·999, E = +·035; G = −·017, H = +·497, K = −·868.

| | | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|---|
| Shillong | E. | 4·4 | 182 | 1 17 | − 1* | i 2 14 | − 1* | 2 24 | $S_g$ | 2·3 |
| Chatra | | 5·3 | 234 | i 1 28 | + 6 | i 2 27 | + 2 | 2 41 | S* | 2·5 |
| Calcutta | N. | 8·1 | 205 | e 2 38 | − $4_g$ | 4 25 | − $3_g$ | i 4 12 | S* | — |
| New Delhi | | 13·0 | 268 | e 3 8 | − 1 | i 5 32 | − 3 | 5 54 | SS | — |
| Poona | | 20·1 | 238 | i 4 37 | − 1 | i 8 24 | + 5 | 5 1 | PP | 8·6 |
| Bombay | | 20·6 | 242 | e 4 45 | + 2 | i 8 36 | + 7 | 5 11 | PP | 10·0 |
| Quetta | | 21·6 | 277 | e 4 56 | + 2 | i 8 56 | + 7 | — | — | — |
| Nanking | z. | 23·0 | 77 | 5 3k | − 4 | 9 20 | + 6 | — | — | — |
| Kodaikanal | E. | 23·9 | 219 | — | — | e 9 34 | + 4 | — | — | — |
| Zô-Sè | z. | 25·1 | 80 | 5 27k | − 1 | — | — | — | — | — |
| Upsala | z. | 56·8 | 324 | i 9 48 a | 0 | — | — | — | — | — |
| Stuttgart | | 63·6 | 313 | e 10 33 | − 2 | — | — | — | — | — |
| Tamanrasset | z. | 76·1 | 288 | e 11 51 | 0 | — | — | — | — | — |

Sept. 15d. 19h. 28m. 52s. Epicentre 38°·0N. 27°·5E. (as on 1952, April 9d.).

Felt in the island of Samos. Intensity III at Vathy and Chios.
Epicentre 37°·8N. 27°·7E. (Strasbourg).

A. Galanopoulos.
Seismological Institute Bulletin, 1952, Athenes, 1953, p. 36.

A = +·7007, B = +·3648, C = +·6131; $\delta$ = −5; $h$ = −1;
D = +·462, E = −·887; G = +·544, H = +·283, K = −·790.

| | △ ° | Az. ° | P. m. s. | O−C. s. | S. m. s. | O−C. s. | Supp. m. s. | | L. m. |
|---|---|---|---|---|---|---|---|---|---|
| Athens | 3·0 | 269 | e 0 47 | − 3 | i 1 24 | − 3 | i 1 29 | S* | — |
| Istanbul | 3·3 | 21 | e 1 0 | + 1* | e 1 47 | − $2_g$ | e 0 49 | P | — |
| Sofia | 5·7 | 327 | e 1 41 | + 1* | e 2 53 | 0* | e 3 9 | $S_g$ | — |
| Bucharest | 6·5 | 350 | e 1 53 | − 1* | e 2 53 | − 2 | e 2 18 | $P_g$ | 3·3 |
| Ksara | 8·0 | 118 | e 2 16 | − 4* | e 5 20 | ? | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Taranto | | 8·3 | 290 | — | — | 4 46 | +12$_g$ | — | — | — |
| Belgrade | | 8·6 | 325 | — | — | e 3 56 | SS | e 4 13 | SSS | e 4·7 |
| Helwan | | 8·7 | 159 | e 3 29 | ? | e 3 50 | 0 | e 3 40 | ? | — |
| Timisoara | | 9·0 | 331 | — | — | 4 10 | SS | 4 17 | SSS | e 4·8 |
| Kishinev | | 9·1 | 6 | 2 20 | + 6 | 4 56 | L | — | — | (4·9) |
| Messina | | 9·5 | 275 | e 2 23 | + 3 | e 3 58 | −12 | — | — | 6·4 |
| Cernauti | | 10·4 | 354 | e 2 44 | +10 | — | — | — | — | — |
| Uzhgorod | | 11·3 | 342 | e 3 6 | PP | — | — | — | — | — |
| Lwow | | 12·1 | 349 | e 3 0 | + 3 | — | — | — | — | — |
| Rome | | 12·2 | 293 | — | — | 5 20 | + 4 | — | — | e 6·2 |
| Triest | | 12·8 | 311 | 3 50 | ? | e 5 37 | + 7 | e 5 47 | SS | e 7·0 |
| Prague | N. | 15·3 | 327 | e 3 45 | PP | e 4 38 | ? | e 5 22 | ? | — |
| Collmberg | Z. | 16·8 | 327 | e 4 0? | + 2 | — | — | — | — | — |
| Stuttgart | | 17·1 | 315 | e 3 58 | − 4 | — | — | — | — | e 9·6 |
| Strasbourg | | 17·8 | 313 | e 4 11 | 0 | e 7 42 | SS | e 4 35 | PPP | e 9·1 |
| Algiers Univ. | z. | 19·5 | 274 | e 4 27 | − 4 | — | — | — | — | — |
| Witteveen | z. | 20·7 | 324 | e 4 45 | + 1 | — | — | — | — | — |
| Paris | | 21·0 | 309 | e 4 35 | −12 | — | — | — | — | — |
| Tamanrasset | z. | 24·2 | 239 | i 5 15k | − 4 | i 6 8 | PPP | e 5 51 | PP | — |
| Kiruna | z. | 30·2 | 355 | i 6 9$_a$ | − 5 | — | — | — | — | — |
| Quetta | | 33·5 | 91 | i 6 57 | +14 | i 7 24 | ? | i 8 2 | PP | — |

Sept. 15d. 23h. 51m. 22s. Epicentre 39°·2N. 70°·7E. (as on 1952, August 24d.).

U.S.S.R. gives epicentre as adopted.

| | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Dzhergetal | 0·4 | 88 | i 0 7 | − 1$_g$ | 0 13 | 0$_g$ |
| Garm | 0·4 | 237 | i 0 8 | 0$_g$ | i 0 14 | + 1$_g$ |
| Obi-garm | 0·9 | 237 | e 0 18 | 0$_g$ | — | — |
| Fergana | 1·4 | 31 | e 0 27 | 0 | e 0 47 | + 1 |
| Stalinabad | 1·6 | 247 | i 0 32 | 0$_g$ | i 0 56 | + 3$_g$ |
| Khorog | 1·9 | 158 | i 0 30 | − 4 | i 0 58 | − 1 |
| Namangan | 1·9 | 22 | i 0 38 | 0$_g$ | i 1 6 | + 3$_g$ |
| Andijan | 2·0 | 39 | e 0 39 | − 1$_g$ | i 1 6 | 0$_g$ |
| Tashkent | 2·4 | 334 | — | — | i 1 23 | + 4$_g$ |
| Murgab | 2·7 | 108 | e 0 46 | + 1 | i 1 22 | − 2* |
| Samarkand | 2·9 | 279 | — | — | 1 36 | 0$_g$ |
| Frunse | 4·7 | 38 | — | — | i 2 36 | + 1$_g$ |
| Rybach'e | 5·2 | 50 | — | — | e 2 53 | + 1$_g$ |
| Almata II | 6·4 | 49 | e 1 39 | + 1 | — | — |

Sept. 16d. 17h. 32m. 56s. Epicentre 29°·6S. 72°·0W.

A = +·2692, B = −·8283, C = −·4914; $\delta$ = +2; $h$ = +2;
D = −·951, E = −·309; G = −·152, H = +·467, K = −·871.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Copiapo | E. | 2·7 | 33 | e 0 43 | − 2 | i 1 30 | + 1$_g$ | — | — | — |
| Santa Lucia | N. | 4·0 | 164 | e 1 2 | − 2 | i 1 53 | + 1 | i 2 4 | S* | — |
| Antofagasta | | 6·1 | 14 | — | — | e 2 42 | − 3 | e 3 31 | S$_g$ | i 3·6 |
| Buenos Aires | | 12·5 | 117 | e 3 7 | + 5 | 5 26 | + 3 | — | — | — |
| La Plata | | 13·0 | 118 | 3 4 | − 5 | 5 28 | − 7 | e 4 10 | ? | 6·6 |
| Huancayo | | 17·7 | 349 | e 4 17 | + 7 | e 7 46 | SS | i 4 24 | PP | e 8·7 |
| Bogota | | 34·1 | 357 | e 6 50 | + 2 | — | — | — | — | e 17·1 |
| San Juan | | 48·0 | 8 | i 8 40 | − 3 | — | — | i 8 50 | ? | — |
| Fayetteville | z. | 68·6 | 341 | i 11 5$_a$ | − 2 | e 11 15 | ? | e 12 18 | ? | — |
| Morgantown | | 69·3 | 354 | e 11 9 | − 2 | — | — | — | — | — |
| Harvard | | 71·7 | 1 | i 11 26$_a$ | 0 | — | — | i 11 35 | PcP | — |
| Ottawa | | 74·7 | 358 | e 11 42k | − 1 | — | — | — | — | — |
| Riverside | z. | 76·4 | 323 | e 11 54 | + 1 | — | — | e 12 1 | PcP | — |
| Nelson | | 76·4 | 326 | i 11 52 | − 1 | — | — | — | — | — |
| Mount Wilson | z. | 77·0 | 323 | e 11 56 | 0 | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kirkland Lake | z. | 77·7 | 355 | e 11 58a | − 2 | — | — | e 12 7 | PcP | — |
| China Lake | z. | 77·9 | 324 | e 12 1 | 0 | — | — | i 12 9 | PcP | — |
| Fresno | z. | 79·8 | 323 | e 12 19 | + 7 | — | — | — | — | — |
| Lick | z. | 81·2 | 322 | e 12 19 | 0 | — | — | — | — | — |
| Reno | z. | 81·9 | 325 | e 12 23 | 0 | — | — | — | — | — |
| Butte | | 83·8 | 333 | e 12 35 | + 3 | — | — | — | — | — |
| Shasta | z. | 84·1 | 324 | e 12 34 | 0 | — | — | — | — | — |
| Hungry Horse | | 86·2 | 334 | i 12 44 | 0 | — | — | — | — | — |
| Tamanrasset | z. | 90·9 | 64 | e 13 6 | − 1 | e 13 14 | ? | e 14 3 | ? | — |
| Stuttgart | | 106·3 | 43 | e 19 12 | PP | — | — | 19 21 | ? | — |
| Jena | | 108·6 | 42 | e 18 55? | PP | e 19 11 | ? | e 19 33 | ? | — |
| Collmberg | z. | 109·6 | 42 | e 18 49? | [+17] | — | — | e 19 8 | PP | — |
| Prague | | 109·9 | 43 | e 18 38 | [+ 5] | e 19 8 | PP | e 17 29 | ? | — |
| Poona | z. | 147·0 | 102 | i 19 43 | [ 0] | — | — | — | — | — |

Sept. 16d. 22h. 22m. 48s. Epicentre 29°·0N. 130°·0E. Depth of focus 0·010.
(as on 1937, September 1d.).

Intensity IV at Yakusima. Epicentre 29°·7N. 131°·7E. Macroseismic radius 100-200km. Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 347, with macroseismic chart.

A = −·5631, B = +·6711, C = +·4823; $\delta$ = +7; $h$ = +2;
D = +·766, E = +·643; G = −·310, H = +·369, K = −·876.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Yakusima | | 1·5 | 17 | i 0 26a | − 1 | 0 50 | + 3 | — | — | — |
| Kagosima | N. | 2·6 | 11 | i 0 37a | − 4 | 1 2 | −10 | — | — | — |
| Miyazaki | | 3·2 | 23 | 0 48 | − 2 | 1 18 | − 9 | — | — | — |
| Unzendake | | 3·7 | 3 | 0 56 | 0 | 1 28 | −11 | — | — | — |
| Kumamoto | | 3·9 | 9 | e 0 56 | − 3 | 1 34 | −10 | — | — | — |
| Saga | | 4·3 | 3 | i 1 2k | − 3 | — | — | — | — | — |
| Ooita | | 4·4 | 17 | e 1 4 | − 2 | 1 46 | −10 | — | — | — |
| Huknoka | | 4·6 | 4 | e 1 7 | − 2 | 1 54 | − 7 | — | — | — |
| Matuyama | | 5·4 | 25 | e 1 16 | − 4 | 2 6 | −15 | — | — | — |
| Koti | | 5·5 | 33 | 1 19 | − 2 | 2 11 | −12 | — | — | — |
| Muroto | | 5·5 | 39 | 1 19 | − 2 | 2 14 | − 9 | — | — | — |
| Hamada | | 6·1 | 16 | 1 35 | + 6 | 2 30 | − 8 | — | — | — |
| Takamatu | | 6·3 | 32 | i 1 30a | − 2 | 2 36 | − 7 | — | — | — |
| Tokusima | | 6·4 | 36 | 1 34 | + 1 | 2 36 | −10 | — | — | — |
| Siomisaki | | 6·6 | 46 | e 1 36 | 0 | — | — | — | — | — |
| Sumoto | | 6·7 | 37 | i 1 36a | − 1 | 2 44 | − 9 | — | — | — |
| Kobe | | 7·2 | 36 | e 1 42 | − 2 | — | — | — | — | — |
| Osaka | | 7·3 | 38 | e 1 38 | − 8 | 2 30 | −38 | — | — | — |
| Zô-Sè | z. | 7·9 | 287 | 1 52 | − 2 | i 3 26 | + 4 | — | — | — |
| Hikone | | 8·2 | 39 | 1 58 | 0 | 3 19 | −11 | — | — | — |
| Nagoya | E. | 8·5 | 42 | 2 2 | 0 | 3 35 | − 2 | — | — | — |
| Gihu | | 8·6 | 40 | e 2 4 | + 1 | 3 32 | − 7 | — | — | — |
| Torisima | | 9·0 | 78 | e 2 22 | +13 | — | — | — | — | — |
| Hatidyozima | | 9·4 | 62 | e 2 18 | + 4 | — | — | — | — | — |
| Osima | | 9·8 | 52 | e 2 23 | + 3 | — | — | — | — | — |
| Toyama | | 9·8 | 36 | e 2 19 | − 1 | — | — | — | — | — |
| Nanking | | 10·1 | 290 | 2 26k | + 2 | 4 17 | + 1 | — | — | — |
| Matusiro | | 10·2 | 40 | e 2 18 | − 7 | — | — | — | — | — |
| Oiwake | | 10·3 | 42 | e 2 30 | + 4 | — | — | — | — | — |
| Kumagaya | | 10·6 | 44 | e 2 32 | + 2 | — | — | — | — | — |
| Maebasi | z. | 10·6 | 44 | e 2 33 | + 3 | — | — | — | — | — |
| Utunomiya | | 11·2 | 45 | e 2 36 | − 2 | — | — | — | — | — |
| Manila | | 16·6 | 212 | i 3 39 | − 9 | — | — | — | — | — |
| College | | 60·9 | 28 | i 10 2 | − 3 | — | — | — | — | — |
| Collmberg | | 82·8 | 325 | e 12 43 | pP | — | — | — | — | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Shasta | z. | 83·6 | 47 | e 12 21 | + 2 | — | — | — | — | — |
| Jena | | 83·7 | 325 | e 12 17 | − 2 | e 12 29 | PcP | e 13 5 | sP | — |
| Hungry Horse | | 84·1 | 37 | i 12 23 | + 2 | — | — | — | — | — |
| Witteveen | z. | 84·8 | 330 | i 12 26 | + 1 | — | — | — | — | — |
| Lick | z. | 85·9 | 49 | e 12 32 | + 2 | — | — | — | — | — |
| Reno | z. | 85·9 | 46 | e 12 33 | + 3 | — | — | — | — | — |
| Butte | | 86·3 | 38 | i 12 34 | + 2 | — | — | — | — | — |
| Stuttgart | | 86·3 | 325 | e 12 31 | − 1 | — | — | e 13 1 | pP | — |
| Paris | | 89·5 | 328 | i 12 47 | 0 | — | — | — | — | e 55·2 |
| Boulder City | | 91·2 | 47 | e 12 58 | + 3 | — | — | — | — | — |
| Nelson | | 91·3 | 47 | i 12 58 | + 2 | — | — | — | — | — |

Sept. 17d. 0h. 54m. 50s. Epicentre 47°·4N. 12°·2E. (ason 1941, August 29d.).

Intensity V in the Zillertal. Epicentre 47°·4N. 11°·9E. (Strasbourg). Macroseismic area 650 sq. km.
Makroseismische Beobachtungen, 1952, Jahrbücher der Zentralanstalt für Meteorologie und Geodynamik, Jahrgang 1952, Neue Folge, Band 89, Wien 1953, p. E1, with macroseismic chart, p. E2.

$A = +\cdot6640$, $B = +\cdot1436$, $C = +\cdot7338$; $\delta = -2$; $h = -4$;
$D = +\cdot211$, $E = -\cdot977$; $G = +\cdot717$, $H = +\cdot155$, $K = -\cdot679$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Ravensburg | | 1·8 | 282 | e 0 32 | 0 | e 0 52 | − 4 | i 0 54 | ? | — |
| Chur | | 1·9 | 253 | e 0 34 | 0 | e 0 57 | − 2 | — | — | — |
| Triest | | 2·0 | 149 | — | — | 1 8? | + $2_g$ | — | — | — |
| Stuttgart | | 2·4 | 304 | e 0 45 | + 1* | e 1 14 | + 2 | i 1 20 | $S_g$ | e 1·4 |
| Zürich | | 2·5 | 269 | e 0 45 | 0* | e 1 14 | 0 | — | — | — |
| Karlsruhe | | 3·0 | 302 | — | — | 1 28 | + 1 | — | — | — |
| Basle | | 3·1 | 272 | e 0 58 | + 2* | e 1 35 | − 1* | — | — | — |
| Prague | | 3·1 | 29 | e 1 2 | $0_g$ | e 1 31 | + 2 | e 1 41 | $S_g$ | e 2·0 |
| Strasbourg | | 3·2 | 294 | — | — | e 1 40 | + 1* | i 1 49 | $S_g$ | i 2·0 |
| Jena | | 3·6 | 353 | e 1 11 | − $1_g$ | e 1 46 | + 4 | e 1 57 | $S_g$ | — |
| Collmberg | z. | 3·9 | 7 | e 1 17 | − $1_g$ | e 2 9 | $0_g$ | — | — | e 2·2 |

Sept. 17d. 1h. 16m. 52s. Epicentre 17°·8S. 178°·8W. Depth of focus 0·080.
(as on August 15d.).

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Apia | | 7·9 | 60 | i 1 56 | − 1 | — | — | — | — |
| Auckland | N. | 19·8 | 195 | e 3 58 | + 3 | i 7 13 | + 8 | 7 58 | PcP |
| Karapiro | N. | 20·6 | 193 | 4 4 | + 1 | e 7 20 | + 2 | e 5 25 | ? |
| Tuai | N. | 21·2 | 187 | — | — | e 8 13 | ? | e 14 17 | ScS |
| New Plymouth | E. | 22·1 | 194 | e 4 8? | − 9 | — | — | — | — |
| Wellington | | 24·0 | 192 | i 4 32 | − 2 | e 8 17 | + 4 | i 14 32 | ScS |
| Cobb River | E. | 24·3 | 196 | e 4 36 | 0 | e 8 15 | − 3 | — | — |
| Kaimata | N.E. | 26·0 | 197 | e 4 50 | − 1 | 8 42 | − 3 | e 14 35 | ScS |
| Brisbane | Z. | 27·7 | 245 | i 5 8k | + 2 | i 10 57 | ScP | — | — |
| Riverview | Z. | 31·2 | 233 | i 5 40a | + 4 | — | — | — | — |
| Berkeley | Z. | 76·7 | 44 | i 10 57a | 0 | — | — | e 12 56 | pP |
| Lick | Z. | 76·8 | 43 | i 10 58a | + 1 | — | — | e 12 57 | pP |
| Pasadena | | 77·4 | 48 | i 11 1a | + 1 | e 14 5 | sP | i 13 1 | pP |
| Fresno | Z. | 77·7 | 45 | i 11 2a | 0 | — | — | e 13 2 | pP |
| Riverside | Z. | 77·9 | 48 | i 11 4 | + 1 | i 11 10 | PcP | i 13 4 | pP |
| Shasta | Z. | 78·3 | 41 | e 11 4 | − 1 | — | — | e 13 4 | pP |
| Mineral | Z. | 78·6 | 42 | i 11 8k | + 1 | — | — | e 13 8 | pP |
| China Lake | Z. | 78·7 | 47 | i 11 8a | 0 | i 11 15 | PcP | e 13 8 | pP |
| Reno | | 79·2 | 43 | e 11 11 | + 1 | e 20 30 | + 5 | e 13 10 | pP |
| Corvallis | Z. | 80·0 | 37 | i 11 16 | + 2 | — | — | — | — |
| Nelson | | 80·6 | 48 | i 11 17 | 0 | — | — | i 13 17 | pP |
| Boulder City | | 80·7 | 48 | i 11 18 | 0 | — | — | i 13 18 | pP |
| Tucson | | 81·9 | 52 | i 11 25 | + 1 | — | — | e 13 26 | pP |
| Seattle | Z. | 82·4 | 36 | 11 28 | + 2 | — | — | — | — |
| Victoria | | 82·4 | 35 | 11 25a | − 1 | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| College | | 85·7 | 12 | i 11 41 | − 2 | e 21 9 | [− 6] | e 25 7 | SS |
| Tacubaya | | 86·5 | 68 | e 12 59 | ? | — | — | — | — |
| Butte | | 87·2 | 40 | i 11 50 | 0 | — | — | e 13 53 | pP |
| Hungry Horse | | 87·4 | 37 | i 12 1 | +10 | e 21 27 | [+ 1] | e 15 24 | PP |
| Fayetteville | z. | 96·1 | 54 | i 12 31a | 0 | e 16 31 | PP | i 14 35 | pP |
| Resolute Bay | z. | 105·4 | 16 | e 25 14 | ? | i 26 7 | SP | e 27 17 | PS |
| Kiruna | z. | 128·5 | 350 | e 18 1 | [− 4] | — | — | — | — |
| Pretoria | z. | 129·4 | 213 | — | — | i 20 39 | SKP | — | — |
| Upsala | z. | 136·3 | 349 | — | — | i 21 3 | SKP | — | — |
| Rathfarnham C. | z. | 144·1 | 7 | i 18 33a | [− 2] | — | — | — | — |
| Potsdam | z. | 144·2 | 349 | e 18 35 | [ 0] | — | — | — | — |
| Witteveen | z. | 144·8 | 354 | i 18 38a | [+ 2] | — | — | — | — |
| Raciborzu | z. | 145·0 | 342 | e 18 41 | [+ 5] | — | — | e 19 45 | ? |
| Ksara | | 145·1 | 303 | e 18 42 | [+ 6] | — | — | 20 46 | pPKP |
| Collmberg | z. | 145·3 | 349 | i 18 38a | [+ 2] | e 21 26 | SKP | e 20 51 | pPKP |
| De Bilt | | 145·6 | 356 | i 18 39 | [+ 2] | — | — | — | — |
| Jena | | 145·9 | 348 | e 18 38 | [+ 1] | e 22 0 | sPKP | i 18 41 | $PKP_3$ |
| Prague | | 146·1 | 345 | e 18 40 | [+ 2] | e 20 19 | ? | e 18 50 | $PKP_2$ |
| Karlsruhe | z. | 148·3 | 352 | e 18 44 | [+ 3] | — | — | e 19 50 | ? |
| Stuttgart | | 148·4 | 352 | e 18 42 | [+ 1] | e 21 28 | SKP | e 18 52 | $PKP_3$ |
| Strasbourg | | 148·8 | 352 | i 18 48 | [+ 6] | e 21 16 | SKP | e 18 54 | $PKP_3$ |
| Paris | | 149·0 | 358 | i 18 49 | [+ 7] | i 18 55 | $PKP_3$ | e 20 49 | pPKP |
| Zürich | | 149·9 | 351 | e 18 44k | [+ 1] | — | — | e 18 50 | $PKP_3$ |
| Basle | | 149·9 | 351 | e 18 46 | [+ 3] | e 18 51 | ? | e 18 58 | $PKP_3$ |
| Chur | | 150·2 | 349 | e 18 45k | [+ 1] | — | — | e 18 56 | $PKP_3$ |
| Tamanrasset | z. | 173·6 | — | e 19 10 | [+ 3] | e 25 10 | [− 7] | e 30 29 | SKKS |

Sept. 17d. 12h. 41m. 28s. Epicentre 39°·2N. 70°·7E. (as on 15d.).

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Garm | 0·4 | 237 | 1 0 10 | 0* | i 0 16 | 0* |
| Dzhergetal | 0·4 | 88 | i 0 8 | $0_g$ | 0 13 | $0_g$ |
| Obi-garm | 0·9 | 237 | e 0 18 | $0_g$ | e 0 31 | 0* |
| Fergana | 1·4 | 31 | e 0 29 | $+ 1_g$ | e 0 50 | + 4 |
| Stalinabad | 1·6 | 247 | e 0 33 | $+ 1_g$ | i 0 56 | $+ 3_g$ |
| Khorog | 1·9 | 158 | e 0 33 | − 1 | e 1 0 | 0* |
| Namangan | 1·9 | 22 | e 0 40 | $+ 2_g$ | — | — |
| Andijan | 2·0 | 39 | i 0 40 | $0_g$ | i 1 8 | $+ 2_g$ |
| Lunacharskoe | 2·4 | 334 | i 0 48 | $0_g$ | i 1 22 | $+ 3_g$ |
| Murgab | 2·7 | 108 | — | — | e 1 29 | $0_g$ |
| Samarkand | 2·9 | 279 | — | — | 1 37 | $+ 1_g$ |
| Tchimkent | 3·1 | 345 | — | — | 1 40 | $- 2_g$ |
| Naryn | 4·6 | 60 | — | — | 2 9 | + 2 |

Sept. 18d. 1h. 20m. 58s. Epicentre 16°·0S. 76°·0W. (as on 1949, September 8d.).

A = +·2327, B = −·9332, C = −·2739; $\delta$ = +3; $h$ = +6;
D = −·970, E = −·242; G = −·066, H = +·266, K = −·962.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Huancayo | | 4·0 | 9 | i 1 3 | − 1 | e 1 49 | − 3 | — | — | i 2·0 |
| La Paz | | 7·6 | 95 | i 1 52 | − 3 | i 3 26 | + 3 | i 3 42 | S* | 4·2 |
| Bogota | | 20·6 | 5 | i 4 43 | 0 | i 8 39 | +10 | — | — | e 11·3 |
| Chinchina | | 20·8 | 3 | i 4 42 | − 3 | e 9 0 | SS | — | — | e 11·9 |
| Fayetteville | z. | 54·6 | 342 | i 9 31 | − 1 | — | — | — | — | — |
| Nelson | | 63·2 | 325 | e 10 33 | + 1 | — | — | — | — | — |
| Boulder City | | 63·4 | 325 | e 10 34 | 0 | — | — | — | — | — |
| Riverside | z. | 63·4 | 322 | e 10 39 | + 5 | — | — | e 10 51 | ? | — |
| Mount Wilson | z. | 64·0 | 322 | e 10 39 | + 1 | — | — | — | — | — |
| China Lake | z. | 64·9 | 324 | e 10 44 | + 1 | — | — | — | — | — |
| Tinemaha | z. | 66·1 | 324 | e 10 52 | + 1 | — | — | — | — | — |
| Hungry Horse | | 72·5 | 335 | e 11 29 | − 1 | — | — | — | — | — |
| Tamanrasset | z. | 88·5 | 66 | e 12 55 | − 1 | — | — | i 13 3 | PcP | — |

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Sept. 18d. 2h. 30m. 30s. Epicentre 42°·0N. 142°·8E. (as on 11d.).

Intensity V at Shimamatsu ; IV at Ebetsu, Tomakomai, and Kakata ; II-III at Obi-hiro and Mukawa. Epicentre 41°·8N. 142°·3E. Macroseismic radius 100-200km.
Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 348, with macroseismic chart.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Urakawa | | 0·2 | 355 | i 0 16 | + 6 | 0 22 | + 6 |
| Obi-hiro | | 1·0 | 18 | e 0 27 | + 6 | 0 41 | + 5 |
| Sapporo | E. | 1·5 | 315 | e 0 29 | − $1_g$ | 0 46 | − 2* |
| Kusiro | | 1·5 | 50 | — | — | e 0 47 | − 1* |
| Hakodate | | 1·6 | 261 | e 0 27 | − 3 | 0 44 | − 7 |
| Mori | N. | 1·7 | 273 | 0 32 | 0* | 0 50 | − 4* |
| Hatinohe | | 1·7 | 213 | e 0 26 | − 5 | — | — |
| Aomori | | 1·9 | 232 | 0 40 | + $2_g$ | 0 58 | − 1 |
| Abashiri | | 2·3 | 29 | — | — | e 1 0 | − 9 |
| Nemuro | | 2·4 | 57 | — | — | e 1 15 | 0* |
| Miyako | | 2·4 | 195 | e 0 43? | − 1* | 1 9? | − 3 |
| Morioka | | 2·6 | 208 | e 0 48 | + 1* | 1 16 | − 1 |
| Akita | Z. | 3·1 | 221 | — | — | e 1 15 | −14 |
| Mizusawa | E. | 3·1 | 204 | 1 3 | + $1_g$ | 1 32 | + 3 |
| Sendai | | 4·0 | 201 | e 1 19 | − $1_g$ | 2 3 | 0* |
| Hukusima | | 4·6 | 204 | e 1 19 | − 3* | 2 13 | + 6 |
| Shirakawa | | 5·3 | 203 | e 1 34 | + 1* | 2 37 | − 4* |
| Kumagaya | | 6·4 | 205 | e 1 39 | + 1 | — | — |
| Fayetteville | Z. | 86·4 | 44 | e 12 42 | − 3 | — | — |

Sept. 18d. 7h. 45m. 52s. Epicentre 16°·1S. 168°·3E. Depth of focus 0·015. (as on 1952, April 1d.).

A = −·9413, B = +·1949, C = −·2756 ; δ = −1 ; h = +6 ;
D = +·203, E = +·979 ; G = +·270, H = −·056, K = −·961.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Brisbane | | 18·1 | 229 | i 4 4 a | 0 | e 7 25 | + 6 | — | — |
| Apia | | 19·4 | 86 | e 3 55 | −23 | — | — | e 2 8 | ? |
| Manila | | 55·8 | 301 | e 9 30 | + 4 | e 17 10 | + 9 | — | — |
| Nanking | Z. | 67·4 | 316 | i 10 39 k | − 5 | — | — | — | — |
| Lick | Z. | 84·6 | 49 | e 12 19 | − 1 | — | — | — | — |
| Shasta | Z. | 85·5 | 46 | e 12 26 | + 1 | — | — | — | — |
| Fresno | Z. | 85·7 | 50 | e 13 3 | pP | — | — | — | — |
| Pasadena | Z. | 85·9 | 53 | e 13 5 | pP | — | — | — | — |
| Riverside | Z. | 86·4 | 53 | e 12 28 | − 1 | — | — | e 13 11 | pP |
| China Lake | Z. | 86·9 | 52 | i 13 14 | pP | — | — | — | — |
| Tinemaha | Z. | 86·9 | 50 | i 12 32 | + 1 | e 15 17 | ? | i 13 17 | pP |
| Ksara | | 133·8 | 301 | e 19 48 | pPKP | — | — | e 21 34 | PP |
| Collmberg | Z. | 139·7 | 335 | e 19 4? | [− 9] | e 22 32 | SKP | — | — |
| Stuttgart | | 143·2 | 337 | e 19 13 | [− 6] | — | — | — | — |
| Chur | Z. | 144·6 | 335 | e 19 20 | [− 1] | — | — | — | — |
| Zürich | Z. | 144·6 | 336 | e 19 19 | [− 2] | — | — | — | — |
| Basle | Z. | 144·8 | 337 | e 19 19 | [− 3] | — | — | — | — |
| Tamanrasset | Z. | 162·5 | 296 | e 19 46 | [ 0] | e 24 19 | PP | i 20 34 | $PKP_1$ |

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Sept. 19d. 2h. 30m. 36s. Epicentre 41°·3N. 21°·0E. (as on 1952, June 19d.).

Intensity IV at Malo Crsko (41°23′N., 21°00′E.), at Cajle (41°48′N., 20°57′E.), at Pozuarane, Vrutok, Gostivar, Sloctina, etc. Macroseismic epicentre near 41°·5N. 21°E. (Strasbourg). Macroseismic radius 28km.

M. D. Uzelac.
Annuaire de l'Institut séismologique de Beograd, microséismique et macroséismique, Année 31, 1952, Nouvelle Serie No. 11, Belgrade, 1956, p. 61, 62.

$A = +\cdot7034$, $B = +\cdot2700$, $C = +\cdot6575$; $\delta = -2$; $h = -2$;
$D = +\cdot358$, $E = -\cdot934$; $G = +\cdot614$, $H = +\cdot236$, $K = -\cdot754$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Sofia | | 2·2 | 51 | e 0 47 | + 3$_g$ | 1 12 | − 1$_g$ | — | — | — |
| Belgrade | | 3·5 | 354 | e 1 0$_a$ | + 3 | e 1 48 | 0* | e 1 8 | P$_g$ | — |
| Timisoara | N. | 4·4 | 2 | e 1 28 | 0$_g$ | e 2 20 | − 5$_g$ | — | — | — |
| Bucharest | E. | 4·8 | 49 | e 1 50 | ? | e 2 8 | − 4 | e 2 41 | S$_g$ | e 3·0 |
| Istanbul | Z. | 6·0 | 91 | e 1 40 | − 5* | e 3 30 | +12$_g$ | e 2 3 | P$_g$ | — |
| Triest | | 6·8 | 312 | e 1 40 | − 4 | i 3 2 | − 1 | i 3 43 | S$_g$ | i 3·9 |
| Stuttgart | | 11·2 | 316 | e 2 44? | 0 | — | — | e 5 55 | Q | e 6·2 |
| Collmberg | Z. | 11·4 | 334 | — | — | e 4 35? | −21 | — | — | — |

Sept. 19d. 3h. 8m. 13s. Epicentre 38°·4N. 72°·2E. (as on 1952, June 15d.).

$A = +\cdot2402$, $B = +\cdot7481$, $C = +\cdot6186$; $\delta = +2$; $h = -1$;
$D = +\cdot952$, $E = -\cdot306$; $G = +\cdot189$, $H = +\cdot589$, $K = -\cdot786$.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 1·0 | 207 | i 0 19 | − 1$_g$ | i 0 34 | 0* |
| Dzhergetal | 1·1 | 318 | i 0 25 | + 3 | i 0 43 | + 4 |
| Murgab | 1·4 | 90 | i 0 22 | − 5 | i 0 38 | − 8 |
| Garm | 1·6 | 292 | i 0 33 | + 1$_g$ | — | — |
| Fergana | 2·0 | 351 | e 0 38 | + 1* | e 1 12 | + 6$_g$ |
| Obi-garm | 2·0 | 279 | i 0 40 | 0$_g$ | e 1 10 | + 4$_g$ |
| Kulyab | 2·0 | 266 | e 0 43? | + 3$_g$ | e 1 8? | + 2$_g$ |
| Andijan | 2·3 | 3 | i 0 45 | − 1$_g$ | i 1 21 | + 5$_g$ |
| Namangan | 2·6 | 351 | e 0 51 | − 1$_g$ | i 1 27 | + 1$_g$ |
| Lunacharskoe | 3·6 | 324 | — | — | e 2 1 | + 2$_g$ |
| Naryn | 4·2 | 43 | e 1 15 | 0* | — | — |
| Samarkand | 4·3 | 289 | — | — | 2 29 | + 7$_g$ |
| Tchimkent | 4·4 | 334 | e 1 21 | + 3* | e 2 1 | − 1 |
| Frunse | 4·8 | 21 | e 1 31 | − 5$_g$ | 1 2 42 | + 3$_g$ |

Sept. 19d. 4h. 26m. 11s. Epicentre 36°·8N. 71°·4E. Depth of focus 0·030. (as on July 1d.).

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 0·7 | 13 | i 0 31 | 0 | i 0 55 | 0 |
| Kulyab | 1·7 | 311 | i 0 39 | + 1 | — | — |
| Obi-garm | 2·3 | 325 | i 0 41 | − 3 | i 1 14 | − 3 |
| Garm | 2·4 | 338 | i 0 38? | − 7 | 1 11? | − 8 |
| Dzhergetal | 2·4 | 357 | i 0 46 | + 1 | 1 20 | + 1 |
| Murgab | 2·5 | 52 | i 0 48 | + 2 | 1 25 | + 4 |
| Stalinabad | 2·7 | 310 | i 0 46 | − 2 | i 1 22 | − 3 |
| Fergana | 3·6 | 5 | e 0 59 | + 1 | i 1 44 | 0 |
| Namangan | 4·2 | 3 | i 1 6 | 0 | i 1 56 | − 1 |
| Samarkand | 4·5 | 312 | 1 7 | − 2 | 1 58 | − 5 |
| Lunacharskoe | 4·8 | 341 | i 1 12 | − 1 | i 2 8 | − 3 |
| Tashkent | 4·8 | 341 | e 1 12 | − 1 | i 2 8 | − 3 |
| Tchimkent | 5·7 | 347 | 1 23 | − 1 | e 2 29 | − 1 |
| Naryn | 5·8 | 36 | e 1 25 | − 1 | 1 2 32 | 0 |
| Frunse | 6·5 | 21 | e 1 35 | 0 | i 2 51 | + 2 |
| Almata II | 7·9 | 33 | i 1 53 | 0 | — | — |

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Sept. 19d. 9h. 31m. 13s. Epicentre 43°·8N. 147°·0E. Depth focus 0·005.
(as on 1951, October 4d.).

Intensity IV at Noshappu and Attoko; II-III at Nemuro, Kusiro, Chambetsu, Kembetsu, and Kawayu. Epicentre 43°·5N. 146°·9E. Depth 80km. Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 349, with macroseismic chart.

$A = -·6073$, $B = +·3944$, $C = +·6897$; $\delta = +5$; $h = -3$;
$D = +·545$, $E = +·839$; $G = -·578$, $H = +·376$, $K = -·724$.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Nemuro | | 1·1 | 246 | i 0 18 a | − 2 | 0 30 | − 6 |
| Kusiro | | 2·0 | 247 | i 0 30 | − 2 | 0 51 | − 6 |
| Abashiri | | 2·0 | 276 | 0 32 | 0 | 0 53 | − 4 |
| Urakawa | | 3·5 | 243 | e 0 53 | − 1 | 1 26 | − 8 |
| Sapporo | | 4·2 | 261 | e 1 3 | 0 | 1 48 | − 4 |
| Hakodate | | 5·0 | 249 | e 1 33 | +19 | — | — |
| Mori | N. | 5·0 | 252 | e 1 18 | + 4 | 2 12 | 0 |
| Aomori | | 5·5 | 239 | e 1 23 | + 2 | 2 11 | −13 |
| Morioka | | 6·0 | 229 | e 1 24 | − 4 | 2 24 | −13 |
| Mizusawa | E. | 6·4 | 225 | 1 44 | +10 | 2 37 | − 9 |
| Akita | | 6·6 | 234 | — | — | e 2 42 | − 9 |
| Sendai | | 7·2 | 222 | — | — | e 2 53 | −13 |
| Hukusima | | 7·8 | 221 | — | — | e 2 57 | −24 |
| Utunomiya | | 9·1 | 219 | — | — | e 3 36 | −17 |
| Fayetteville | Z. | 83·0 | 46 | i 12 20 | 0 | — | — |

Sept. 19d. 14h. 31m. 14s. Epicentre 6°·5S. 155°·0E. Depth of focus 0·005.
(as on 5d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. |
|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. |
| Brisbane | | 20·9 | 187 | i 4 40 a | + 1 | e 8 34 | +11 | i 5 5 | PP |
| Karapiro | N. | 36·4 | 153 | 7 0 | 0 | — | — | — | — |
| Cobb River | E. | 37·9 | 158 | e 7 12 | − 1 | e 10 31 | ? | — | — |
| Kaimata | N.E. | 38·7 | 161 | e 7 24 | + 5 | — | — | e 11 9 | ? |
| Wellington | | 38·9 | 157 | e 7 24 | + 3 | 10 15 | ? | — | — |
| Manila | | 39·7 | 302 | i 7 34 | + 6 | i 13 46 | +20 | — | — |
| College | | 82·6 | 20 | i 12 12 | − 5 | — | — | — | — |
| Shasta | Z. | 88·5 | 49 | e 13 0 | pP | — | — | — | — |
| Lick | Z. | 88·6 | 52 | e 13 46 | +59 | — | — | — | — |
| Fresno | Z. | 90·0 | 53 | e 13 9 | pP | — | — | i 13 32 | ? |
| Reno | Z. | 90·4 | 50 | e 12 54 | − 1 | — | — | — | — |
| Pasadena | | 91·0 | 56 | i 12 56 a | − 2 | — | — | i 13 13 | pP |
| Tinemaha | Z. | 91·2 | 53 | i 12 59 | 0 | — | — | — | — |
| Riverside | Z. | 91·6 | 56 | i 13 0 a | − 1 | — | — | e 13 15 | pP |
| China Lake | Z. | 91·7 | 53 | i 13 1 | − 1 | — | — | e 13 19 | pP |
| Boulder City | | 93·9 | 54 | i 13 11 | − 1 | — | — | — | — |
| Nelson | | 93·9 | 55 | i 13 10 | − 2 | — | — | 1 13 27 | pP |
| Upsala | Z. | 117·8 | 338 | i 25 12 | SKS | (i 25 12) | [−14] | — | — |
| Collmberg | Z. | 125·4 | 332 | e 18 51 | [− 2] | — | — | — | — |
| Triest | Z. | 128·6 | 326 | e 19 0 | [ 0] | — | — | e 19 17 | pPKP |
| Stuttgart | | 128·9 | 331 | e 18 58 | [− 2] | — | — | — | — |
| Tamanrasset | Z. | 146·4 | 302 | i 19 31 k | [− 1] | — | — | e 19 51 | pPKP |

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Sept. 19d. 15h. 39m. 22s. Epicentre 42°·0N. 142°·8E. Depth of focus 0·005.
(as on 18d.).

Intensity V at Otsu; IV at Obi-hiro, Urakawa, Erimo, Horoizumi, Misono, Biratori, Yachiyo, Sambongi, and Kuji. Epicentre 42°·1N. 142°·7E. Depth 45km. Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 349, with macroseismic chart.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Urakawa | | 0·2 | 355 | i 0 11 | 0 | 0 17 | − 2 |
| Obihiro | | 1·0 | 18 | i 0 19 | 0 | 0 31 | − 2 |
| Kusiro | | 1·5 | 50 | e 0 27 | + 1 | 0 45 | 0 |
| Sapporo | | 1·5 | 315 | i 0 23k | − 3 | 0 40 | − 5 |
| Hakodate | | 1·6 | 261 | 0 22 | − 5 | 0 41 | − 6 |
| Mori | N. | 1·7 | 273 | e 0 26 | − 2 | 0 45 | − 5 |
| Hatinohe | | 1·7 | 213 | e 0 28 | 0 | 0 49 | − 1 |
| Asahigawa | | 1·8 | 350 | — | — | e 0 45 | − 7 |
| Aomori | | 1·9 | 232 | i 0 32k | + 1 | 0 51 | − 3 |
| Miyako | | 2·4 | 195 | e 0 36 | − 2 | 1 3 | − 4 |
| Nemuro | | 2·4 | 57 | e 0 39 | + 1 | — | — |
| Morioka | | 2·6 | 208 | e 0 42 | + 1 | 1 11 | − 1 |
| Mizusawa | E. | 3·1 | 204 | 0 50 | + 2 | 1 23 | − 1 |
| | N. | 3·1 | 204 | e 0 54 | + 6 | e 1 30 | + 6 |
| Akita | Z. | 3·1 | 221 | e 0 48 | 0 | 1 23 | − 1 |
| Isinomaki | | 3·7 | 198 | e 0 59 | + 3 | — | — |
| Sendai | | 4·0 | 201 | e 1 1 | 0 | 1 43 | − 4 |
| Yamagata | | 4·2 | 207 | e 1 4 | + 1 | 1 52 | 0 |
| Hukusima | | 4·6 | 204 | e 1 12 | + 3 | 2 9 | + 7 |
| Onahama | | 5·2 | 196 | e 1 33 | +16 | 2 27 | +10 |
| Shirakawa | | 5·3 | 203 | e 1 18 | − 1 | 2 19 | 0 |
| Mito | | 5·9 | 198 | e 1 26 | − 1 | 2 32 | − 2 |
| Utunomiya | | 5·9 | 203 | e 1 23 | − 4 | 2 27 | − 7 |
| Tukubasan | | 6·1 | 200 | e 1 35 | + 5 | 2 39 | 0 |
| Maebasi | | 6·3 | 208 | i 1 42 | +10 | 2 45 | + 1 |
| Kumagaya | | 6·4 | 205 | e 1 42 | + 8 | 2 44 | − 2 |
| Wazima | | 6·4 | 226 | e 1 38 | + 4 | — | — |
| Tokyo | | 6·7 | 202 | e 1 38 | 0 | 2 52 | − 2 |
| Toyama | | 6·9 | 221 | e 1 49 | + 8 | 3 11 | +12 |
| Hikone | | 8·4 | 219 | e 1 57 | − 5 | — | — |
| Kiruna | Z. | 62·3 | 339 | i 10 13 | − 5 | — | — |
| Collmberg | Z. | 77·3 | 330 | e 11 46 | − 3 | e 11 26? | ? |
| Fayetteville | Z. | 86·4 | 44 | i 12 37 | + 1 | — | — |

Sept. 19d. 17h. 31m. 12s. Epicentre 12°·9N. 124°·3E. Depth of focus 0·020.
(as on 1943, July 29d.).

Intensity V at Catbalogan; III at Masbate; II at Cataman.
Monthly Seismo. Bull. Manila, September, 1952, p. 3.

A = −·5495, B = +·8055, C = +·2218; δ = −2; h = +6;
D = +·826, E = +·564; G = −·125, H = +·183, K = −·975.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Manila | | 3·6 | 297 | i 1 6 | +10 | i 2 6 | +27 | — | — |
| Hong Kong | | 13·4 | 317 | — | — | e 4 48? | −42 | — | — |
| Zô-Sè | Z. | 18·3 | 352 | 4 3 | − 1 | 7 41 | +21 | — | — |
| Nanking | | 19·7 | 345 | 4 21 | + 2 | 8 17 | +30 | — | — |
| Brisbane | Z. | 48·9 | 146 | i 8 28k | − 3 | — | — | — | — |
| Quetta | Z. | 55·4 | 298 | e 9 18 | − 2 | — | — | — | — |
| Kiruna | | 83·3 | 338 | i 12 11 | + 1 | e 15 26 | PP | i 12 42 | pP |
| Istanbul | | 85·5 | 311 | e 12 19? | − 2 | e 22 48? | +11 | — | — |
| Upsala | Z. | 87·1 | 332 | i 12 30 | + 1 | i 12 33 | PcP | i 13 10 | pP |

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Sept. 20d. 9h. 2m. 9s. Epicentre 16°·0S. 179°·0W. (as on 1949, December 26d.).

A = −·9616, B = −·0168, C = −·2739 ; $\delta$ = −2 ; $h$ = +6 ;
D = −·017, E = +1·000 ; G = +·274, H = +·005, K = −·962.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Apia | | 7·3 | 74 | — | — | e 3 15 | 0 | — | — |
| Brisbane | z. | 28·3 | 241 | i 5 56 | − 1 | — | — | — | — |
| Lick | z. | 75·6 | 44 | e 11 48a | 0 | — | — | e 11 57 | PcP |
| Mount Wilson | z. | 76·5 | 48 | e 12 0 | PcP | — | — | — | — |
| Fresno | z. | 76·6 | 45 | e 11 53a | − 1 | — | — | e 12 2 | PcP |
| Riverside | z. | 76·9 | 48 | e 12 4 | PcP | — | — | — | — |
| Shasta | z. | 77·0 | 41 | e 11 57 | + 1 | — | — | 12 8 | PcP |
| Mineral | z. | 77·3 | 42 | e 12 0a | + 2 | — | — | i 12 9 | PcP |
| China Lake | z. | 77·6 | 47 | e 12 2 | + 2 | — | — | — | — |
| Tinemaha | z. | 77·8 | 46 | e 12 10 | PcP | — | — | — | — |
| Reno | z. | 78·0 | 43 | e 12 1k | − 1 | — | — | — | — |
| Collmberg | z. | 143·5 | 348 | e 19 42 | [+ 5] | — | — | e 19 55 | ? |
| Jena | z. | 144·1 | 348 | e 19 45 | [+ 7] | — | — | e 19 56 | ? |
| Stuttgart | | 146·6 | 350 | e 19 49 | [+ 7] | — | — | e 20 0 | ? |
| Tamanrasset | z. | 172·0 | 328 | e 20 5 | [− 5] | e 21 56 | $PKP_2$ | e 25 40 | PP |

Sept. 20d. 10h. 31m. 2s. Epicentre 36°·7N. 70°·5E. Depth of focus 0·025. (as on July 21d.).

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Khorog | | 1·2 | 48 | i 0 30 | − 1 | i 0 54 | − 1 | — | — |
| Obi-garm | | 2·1 | 342 | i 0 49? | +10 | i 1 21? | +11 | — | — |
| Garm | | 2·3 | 356 | i 0 43 | + 1 | i 1 15 | + 1 | — | — |
| Stalinabad | | 2·3 | 323 | i 0 43 | + 1 | i 1 17 | + 3 | — | — |
| Dzhergetal | | 2·6 | 12 | i 0 46 | + 1 | i 1 22 | + 2 | — | — |
| Fergana | | 3·8 | 15 | i 1 0 | 0 | i 1 46 | 0 | — | — |
| Samarkand | | 4·1 | 319 | 1 5 | + 2 | — | — | — | — |
| Andijan | | 4·3 | 20 | e 1 5 | − 1 | 1 56 | − 1 | — | — |
| Namangan | | 4·4 | 12 | i 1 7 | 0 | — | — | — | — |
| Tashkent | | 4·7 | 349 | i 1 13 | + 2 | 2 7 | + 1 | — | — |
| Lunacharskoe | | 4·7 | 349 | i 1 13 | + 2 | i 2 8 | + 2 | — | — |
| Tchimkent | | 5·6 | 354 | i 1 24 | + 1 | i 2 28 | + 1 | — | — |
| Naryn | | 6·4 | 41 | e 1 29 | − 4 | e 2 42 | − 4 | — | — |
| Bairam-Ali | | 6·7 | 280 | — | — | 3 48 | +55 | — | — |
| Frunse | | 6·9 | 26 | e 1 38 | − 2 | i 2 56 | − 1 | — | — |
| Quetta | E. | 7·1 | 205 | i 1 39 | − 3 | — | — | — | — |
| Ashkabad | | 9·8 | 281 | e 2 20 | + 2 | — | — | — | — |
| New Delhi | | 9·8 | 143 | e 2 8 | −10 | 4 1 | − 4 | 4 18 | SS |
| Kizyl-Arvat | | 11·5 | 286 | — | — | 4 46 | + 1 | — | — |
| Chatra | | 17·2 | 120 | i 3 41 | − 9 | i 6 40 | −13 | — | — |
| Poona | z. | 18·3 | 170 | i 3 55 | − 7 | i 7 22 | + 6 | 1 7 53? | SS |
| Upsala | z. | 40·7 | 321 | i 7 24k | + 1 | — | — | — | — |
| Kiruna | z. | 41·7 | 334 | i 7 31a | 0 | — | — | — | — |

Sept. 20d. 12h. 57m. 45s. Epicentre 54°·9S. 144°·6E.

A = −·4709, B = +·3346, C = −·8163 ; $\delta$ = +5 ; $h$ = −8 ;
D = +·579, E = +·815 ; G = +·665, H = −·473, K = −·578.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Macquarie Island | | 8·3 | 93 | i 2 13 | + 9 | — | — | (e 2 45) | $P_g$ | e 2·8 |
| Melbourne | | 17·1 | 2 | — | — | i 7 3 | − 9 | — | — | — |
| Christchurch | | 21·4 | 69 | e 4 45 | − 6 | i 8 57 | +12 | i 9 13 | SS | e 10·2 |
| Kaimata | N.E. | 21·5 | 65 | — | — | e 9 7 | SS | — | — | — |
| Riverview | z. | 21·6 | 14 | i 4 51a | − 3 | i 8 50 | + 1 | i 5 19 | PP | e 10·2 |

*Continued on next page.*

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Cobb River | E. | 23·1 | 64 | e 5 10 | + 2 | e 9 32 | +16 | — | — | — |
| Wellington | | 24·1 | 67 | 5 20 | + 2 | 9 40 | + 6 | e 10 25 | SS | e 11·1 |
| Tuai | N. | 27·1 | 67 | e 5 55 | + 9 | — | — | — | — | — |
| Auckland | N. | 27·4 | 61 | — | — | e 10 17? | −11 | — | — | e 11·6 |
| Brisbane | | 28·1 | 16 | i 5 51 | − 4 | i 10 40 | 0 | i 6 47 | PP | i 13·5 |
| Perth | | 30·6 | 307 | — | — | i 13 33 | SSS | — | — | i 14·8 |
| Manila | | 72·0 | 336 | e 11 24 | − 4 | — | — | — | — | — |
| Colombo | E. | 81·5 | 295 | 22 32 | S | (22 32) | 0 | — | — | 36·6 |
| Pretoria | Z. | 83·0 | 235 | e 12 26 | − 2 | — | — | — | — | — |
| Madras | E. | 86·5 | 299 | — | — | e 23 20 | − 2 | — | — | — |
| Zô-Sè | Z. | 88·0 | 341 | e 13 1 | + 8 | — | — | — | — | — |
| Nanking | | 89·4 | 338 | e 13 7 | + 7 | 23 29 | [ 0] | — | — | — |
| Calcutta | E. | 90·8 | 310 | — | — | i 23 31 | [− 7] | i 25 44 | PPS | — |
| Shillong | E. | 92·0 | 314 | e 12 57 | −15 | e 23 12 | [−32] | — | — | — |
| Chatra | | 95·1 | 311 | e 13 20 | − 6 | e 23 58 | [− 4] | — | — | e 53·8 |
| Vladivostok | | 98·2 | 351 | e 13 36 | − 4 | e 24 9 | [− 9] | — | — | — |
| Huancayo | | 105·3 | 139 | — | — | e 34 3 | SS | e 44 31 | Q | e 49·4 |
| Namangan | | 113·9 | 308 | e 18 58 | [+17] | — | — | — | — | — |
| Tashkent | | 115·3 | 306 | e 19 29 | PP | e 25 31 | [− 2] | e 29 24 | PS | — |
| Bairam-Ali | | 115·8 | 299 | e 19 47 | PP | — | — | e 21 58 | PPP | — |
| Riverside | Z. | 121·4 | 74 | e 20 38 | PP | — | — | — | — | — |
| Tinemaha | Z. | 123·2 | 72 | e 20 48 | PP | — | — | — | — | — |
| Baku | | 124·3 | 293 | e 20 55 | PP | — | — | — | — | — |
| Ksara | | 127·3 | 277 | 21 45? | PP | 31 15? | PS | — | — | — |
| Tiflis | | 127·9 | 291 | e 21 5 | PP | e 31 9 | PS | — | — | — |
| Piatigorsk | | 130·4 | 292 | e 21 32 | PP | — | — | — | — | — |
| Sverdlovsk | | 130·4 | 314 | e 21 28 | PP | e 28 17 | {− 5} | e 38 57 | SS | — |
| Tamanrasset | Z. | 135·8 | 241 | e 19 23 | [ 0] | e 19 57 | ? | e 22 12 | PP | — |
| Fayetteville | Z. | 136·1 | 91 | e 19 23 | [ 0] | — | — | — | — | — |
| Istanbul | | 136·3 | 280 | e 22 15? | PP | e 32 15? | PS | — | — | — |
| Messina | | 142·1 | 266 | e 35 24 | PPS | e 41 19 | SS | — | — | e 72·3 |
| Taranto | | 142·7 | 270 | e 22 15? | PP | e 34 15? | ? | — | — | — |
| Uzhgorod | | 144·7 | 286 | e 19 42 | [+ 3] | — | — | e 25 53 | PPP | — |
| Rome | | 146·3 | 268 | e 19 49 | [+ 8] | e 26 53 | [+ 4] | i 19 55 | $PKP_3$ | — |
| Raciborzu | Z. | 147·7 | 285 | e 19 41 | [− 3] | e 19 52 | $PKP_3$ | e 20 18 | ? | — |
| Triest | | 147·9 | 275 | e 19 51 | [+ 7] | e 27 41 | [+50] | e 20 3 | $PKP_3$ | 75·6 |
| Algiers Univ. | Z. | 148·2 | 252 | e 19 46 | [+ 1] | e 21 13 | ? | e 22 47 | PP | — |
| Florence | | 148·2 | 270 | e 19 50 | [+ 5] | — | — | e 20 30 | ? | — |
| Prague | | 149·8 | 283 | e 19 55 | [+ 8] | — | — | — | — | — |
| Resolute Bay | | 149·9 | 26 | e 34 47 | PS | e 42 41 | SS | i 34 54 | ? | e 75·6 |
| Chur | | 151·0 | 274 | e 19 37 | [−12] | — | — | — | — | — |
| Collmberg | | 151·2 | 283 | e 19 51 | [+ 2] | e 19 59 | $PKP_3$ | e 34 45 | ? | — |
| Almeria | | 151·2 | 245 | e 20 16 | $PKP_3$ | — | — | — | — | 79·5 |
| Alicante | | 151·3 | 250 | — | — | e 46 1 | ? | — | — | e 72·7 |
| Kiruna | | 151·4 | 319 | i 19 52 | [+ 2] | e 31 15 | {+49} | e 43 42 | SS | e 69·2 |
| Potsdam | | 151·6 | 286 | e 20 5? | $PKP_3$ | — | — | — | — | e 76·2 |
| Upsala | Z. | 151·7 | 302 | i 19 52 | [+ 2] | i 19 57 | $PKP_3$ | i 20 27 | ? | — |
| Kirkland Lake | Z. | 151·8 | 85 | e 19 53 | [+ 3] | — | — | — | — | — |
| Zürich | | 151·8 | 274 | e 19 57 | [+ 7] | — | — | — | — | — |
| Jena | | 151·8 | 283 | e 19 58? | [+ 8] | e 20 2 | $PKP_3$ | e 21 20 | ? | — |
| Malaga | | 152·1 | 243 | e 19 49 | [− 2] | 26 47 | [− 9] | e 23 40 | PP | 75·2 |
| Granada | | 152·1 | 244 | 19 55k | [+ 4] | — | — | 23 20 | PP | — |
| Stuttgart | | 152·2 | 277 | e 19 53 | [+ 2] | e 26 54 | [− 3] | e 23 8 | PKS | e 81·2 |
| Basle | | 152·5 | 274 | e 19 59 | [+ 8] | — | — | — | — | — |
| Karlsruhe | Z. | 152·7 | 278 | e 20 3 | [+12] | — | — | e 20 13 | $PKP_3$ | — |
| Ottawa | | 152·8 | 93 | e 19 56 | [+ 4] | — | — | — | — | 68·4 |
| Strasbourg | | 152·9 | 277 | e 19 57 | [+ 5] | e 43 15 | SS | e 20 21 | $PKP_2$ | e 74·2 |
| Harvard | | 153·4 | 103 | e 19 56 | [+ 4] | — | — | — | — | e 75·8 |
| De Bilt | | 155·9 | 282 | e 20 15? | $PKP'_2$ | — | — | e 25 15? | ? | e 77·2 |
| Paris | | 156·0 | 272 | e 20 1? | [+ 5] | e 44 13 | SS | e 37 33 | SPP | e 76·2 |

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Sept. 20d. 18h. 41m. 21s. Epicentre 27°·0N. 61°·8E. Depth of focus 0·005.

A = +·4216, B = +·7863, C = +·4516; $\delta$ = −4; $h$ = +2;
D = +·881, E = −·473; G = +·213, H = +·398, K = −·892.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Quetta | | 5·6 | 54 | i 1 21 | − 2 | i 2 16 | −11 | i 1 37 | ? |
| Bombay | E. | 13·0 | 126 | e 3 4 | 0 | e 8 2 | ? | 4 31 | ? |
| Poona | Z. | 13·9 | 125 | i 3 11 | − 4 | i 5 35 | −13 | i 3 26 | PP |
| Chatra | Z. | 22·6 | 82 | i 4 54 | − 2 | — | — | — | — |
| Ksara | | 23·3 | 293 | 5 6? | + 3 | 9 32? | +25 | — | — |
| Collmberg | Z. | 43·9 | 317 | e 8 3 | + 1 | — | — | e 8 23 | pP |
| Upsala | Z. | 44·5 | 330 | i 8 8 | + 1 | — | — | i 8 28 | pP |
| Jena | Z. | 44·7 | 317 | e 8 11 | + 3 | — | — | e 8 29 | pP |
| Stuttgart | | 45·8 | 313 | e 8 17 | + 1 | — | — | — | — |
| Kiruna | Z. | 47·8 | 340 | i 8 33a | 0 | — | — | i 8 46 | pP |
| Tamanrasset | Z. | 50·9 | 278 | e 8 58 | + 1 | e 10 59 | PP | e 9 12 | pP |
| Pretoria | Z. | 61·6 | 215 | i 10 14 | + 1 | — | — | — | — |

Sept. 20d. 20h. 31m. 15s. Epicentre 32°·3N. 138°·0E. Depth of focus 0·060.

A = −·6293, B = +·5667, C = +·5318; $\delta$ = −2; $h$ = +1;
D = +·669, E = +·743; G = −·395, H = +·356, K = −·847.

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Hatidyozima | 1·7 | 63 | e 0 56 | 0 | — | — |
| Osima | 2·7 | 25 | e 1 1 | − 1 | 1 46 | − 5 |
| Shizuoka | 2·7 | 7 | e 1 1 | − 1 | 1 47 | − 4 |
| Kameyama | 2·9 | 333 | 1 3 | − 1 | 1 51 | − 3 |
| Ajiro | 2·9 | 19 | e 1 3 | − 1 | 1 52 | − 2 |
| Misima | 2·9 | 16 | i 1 1 | − 3 | 1 49 | − 5 |
| Nagoya | N. 3·0 | 343 | e 1 4 | − 1 | 1 52 | − 4 |
| Osaka | 3·1 | 320 | e 1 5 | − 1 | 1 54 | − 3 |
| Iida | 3·2 | 358 | e 1 9 | + 3 | — | — |
| Sumoto | 3·3 | 309 | i 1 4 | − 3 | 1 54 | − 6 |
| Hikone | 3·3 | 334 | 1 7 | 0 | 1 58 | − 2 |
| Hunatu | E. 3·3 | 11 | e 1 5 | − 2 | 1 59 | − 1 |
| Kobe | 3·3 | 316 | e 1 2 | − 5 | 1 45 | −15 |
| Kyoto | 3·3 | 326 | e 1 5 | − 2 | 1 58 | − 2 |
| Yokohama | 3·4 | 23 | e 1 1 | − 7 | 1 58 | − 4 |
| Tokyo | 3·7 | 23 | 1 7 | − 4 | 2 0 | − 6 |
| Titibu | 3·8 | 14 | — | — | i 2 4 | − 4 |
| Takamatu | 3·9 | 303 | i 1 9 | − 3 | 2 3 | − 7 |
| Matumoto | 3·9 | 0 | — | — | e 2 7 | − 3 |
| Oiwake | 4·0 | 6 | e 1 17 | + 4 | — | — |
| Kumagaya | 4·0 | 16 | e 1 15 | + 2 | 2 6 | − 5 |
| Maebasi | 4·2 | 12 | e 1 16 | + 1 | 2 9 | − 5 |
| Matusiro | 4·3 | 2 | — | — | e 2 13 | − 3 |
| Tukubasan | 4·3 | 24 | e 1 13 | − 3 | 2 9 | − 7 |
| Toyama | 4·4 | 352 | e 1 36 | +19 | — | — |
| Nagano | N. 4·4 | 2 | e 1 18 | + 1 | 2 13 | − 5 |
| Utunomiya | 4·5 | 19 | e 1 13 | − 5 | 2 10 | −10 |
| Mito | N. 4·6 | 26 | e 1 18 | − 1 | 2 14 | − 8 |
| Matuyama | 4·7 | 291 | e 1 18 | − 2 | 2 18 | − 5 |
| Shirakawa | 5·1 | 20 | e 1 53 | +29 | — | — |
| Onahama | 5·2 | 26 | — | — | i 2 25 | − 7 |
| Ooita | 5·5 | 282 | e 1 26 | − 2 | 2 46 | + 8 |
| Inawasiro | 5·5 | 17 | — | — | e 2 31 | − 7 |
| Hamada | 5·6 | 299 | 1 29 | − 1 | 2 32 | − 8 |
| Hukusima | 5·8 | 20 | e 1 29 | − 3 | 2 37 | − 7 |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Kagosima | E. | 6·4 | 265 | e 1 41 | + 3 | — | — |
| Hukuoka | | 6·5 | 283 | — | — | e 2 56 | − 1 |
| Morioka | | 7·8 | 18 | e 2 30 | +36 | 3 23 | − 1 |
| College | | 54·6 | 29 | i 8 52 | + 2 | — | — |
| Kiruna | Z. | 69·9 | 339 | i 10 30 | + 1 | — | — |
| Upsala | Z. | 75·9 | 333 | i 11 5k | + 1 | — | — |
| Shasta | | 76·2 | 50 | e 11 9a | + 3 | — | — |
| Mineral | Z. | 76·9 | 50 | e 11 13a | + 4 | — | — |
| Hungry Horse | | 77·2 | 40 | i 11 15 | + 4 | — | — |
| Lick | Z. | 78·5 | 53 | e 11 21a | + 3 | — | — |
| Reno | Z. | 78·5 | 50 | e 11 22a | + 4 | — | — |
| Butte | | 79·3 | 42 | i 11 26 | + 4 | — | — |
| Fresno | Z. | 80·1 | 52 | e 11 27 | + 1 | — | — |
| China Lake | Z. | 82·0 | 52 | e 11 31 | − 5 | — | — |
| Pasadena | Z. | 82·6 | 54 | e 11 43 | + 4 | — | — |
| Riverside | Z. | 83·2 | 54 | e 11 45 | + 3 | — | — |
| Boulder City | | 83·8 | 51 | i 11 49 | + 4 | — | — |
| Nelson | | 83·9 | 51 | i 11 49 | + 3 | — | — |

Sept. 20d. 21h. 10m. 24s. Epicentre 15°·5S. 76°·4W. Focus at Base of Superficial Layers.

Intensity IV at Ica ; II at Chorillos. Epicentre 16°·5S. 77°W. (U.S.C.G.S.).

E. Silgado.
Datos Sismológicos del Perú, 1952-1955. Boletin de la Sociedad geológica del Perú, Tome 29, Lima, 1957, p. 14.

A = +·2267, B = −·9371, C = −·2656 ; $\delta$ = +9 ; $h$ = +5 ;
D = −·972, E = −·235 ; G = −·062, H = +·258, K = −·964.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Huancayo | | 3·6 | 17 | i 0 50 | − 5 | (i 1 41) | + 4 | i 1 24 | ? | i 1·7 |
| La Paz | | 8·0 | 98 | 1 55 | − 2 | i 3 26 | − 1 | i 2 8 | PP | 4·3 |
| Bogota | | 20·1 | 8 | i 4 31 | − 3 | e 8 27 | +15 | — | — | — |
| San Juan | | 35·2 | 17 | e 6 56 | + 3 | — | — | — | — | — |
| Fayetteville | Z. | 54·0 | 343 | i 9 18 | − 5 | — | — | — | — | — |
| Tucson | | 57·8 | 326 | e 9 50 | 0 | — | — | — | — | — |
| Harvard | | 57·9 | 5 | e 9 59 | + 8 | — | — | — | — | — |
| Nelson | | 62·6 | 326 | e 10 22 | − 1 | — | — | e 10 32 | pP | — |
| Riverside | Z. | 62·8 | 322 | e 10 25 | + 1 | — | — | e 10 36 | pP | — |
| Boulder City | | 62·8 | 326 | e 10 24 | 0 | — | — | i 10 36 | pP | — |
| Pasadena | Z. | 63·4 | 322 | e 10 30 | + 2 | — | — | e 10 42 | pP | — |
| China Lake | Z. | 64·2 | 325 | e 10 35 | + 1 | — | — | e 10 46 | pP | — |
| Tinemaha | Z. | 65·5 | 325 | e 10 55 | pP | — | — | — | — | — |
| Fresno | Z. | 66·1 | 324 | e 10 58 | pP | — | — | — | — | — |
| Lick | Z. | 67·6 | 323 | i 10 57 | + 2 | — | — | — | — | — |
| Reno | Z. | 68·1 | 326 | e 11 9 | pP | — | — | — | — | — |
| Shasta | | 70·3 | 326 | e 11 12 | 0 | — | — | e 11 22 | pP | — |
| Hungry Horse | | 71·8 | 335 | e 11 28 | + 7 | — | — | — | — | — |
| Tamanrasset | Z. | 88·7 | 66 | i 12 52 | + 1 | — | — | i 13 4 | pP | — |
| College | | 96·3 | 336 | e 13 25 | − 1 | — | — | — | — | — |

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Sept. 21d. 2h. 30m. 39s. Epicentre 22°·5S. 66°·0W. Depth of focus 0·040.
(as on 1948, March 8d.).

Intensity III-IV at Moquegua; III at Arequipa. Depth of focus 260km.

E. Silgado.
Datos Sismológicos del Perú, 1952-1955. Bull. de la Sociedad geológica del Perú, Tome 29, Lima, 1957, p. 14.

A = +·3762, B = −·8448, C = −·3805; $\delta$ = −1; $h$ = +4;
D = −·914, E = −·407; G = −·155, H = +·348, K = −·925.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Montezuma | | 2·6 | 267 | i 0 48 | − 3 | i 1 28 | − 3 | — | — | — |
| Antofagasta | E. | 4·2 | 254 | i 1 7 | − 1 | i 2 0 | − 2 | — | — | — |
| Copiapo | N. | 6·2 | 219 | i 1 26 | − 6 | i 2 35 | − 9 | — | — | — |
| La Paz | | 6·3 | 341 | i 1 30k | − 3 | i 2 38 | − 8 | i 1 38 | Pl' | — |
| Santiago | | 11·6 | 199 | i 2 44 | + 5 | i 4 54 | +10 | — | — | — |
| Santa Lucia | N. | 11·7 | 200 | i 1 44 | −56 | i 3 51 | −56 | — | — | — |
| Buenos Aires | | 13·7 | 153 | i 3 9 | + 5 | i 5 37 | + 6 | — | — | — |
| Huancayo | | 13·7 | 318 | i 3 6 | + 2 | i 5 26 | − 5 | — | — | i 6·0 |
| La Plata | | 14·2 | 152 | i 3 13 | + 3 | i 5 44 | + 2 | 5 51 | ? | 8·0 |
| Concepción | N. | 15·5 | 202 | i 1 53 | ? | — | — | i 5 2 | ? | — |
| Bogota | | 28·1 | 343 | i 5 28 | 0 | i 9 32 | −18 | i 6 22 | pP | — |
| Chinchina | | 28·9 | 341 | i 5 32 | − 3 | i 10 11 | + 8 | i 6 28 | pP | — |
| Punta Arenas | N. | 30·8 | 185 | — | — | i 10 41 | + 8 | — | — | — |
| Balboa Heights | | 34·0 | 337 | i 6 18 | − 1 | e 11 32 | +10 | — | — | — |
| Galerazamba | | 34·3 | 344 | i 6 26 | + 5 | i 11 20 | − 7 | i 7 31 | pP | — |
| Fort de France | | 37·3 | 8 | i 6 43 | − 4 | i 12 5 | − 7 | e 7 39 | pP | e 16·2 |
| San Juan | | 40·6 | 0 | i 7 9 | − 5 | i 16 5 | SSS | — | — | — |
| Kingston | | 41·6 | 345 | i 7 22 | 0 | i 13 10 | − 6 | i 10 24 | ? | — |
| Guantanamo Bay | | 43·1 | 349 | i 8 51 | ? | — | — | — | — | — |
| Swan Island | | 43·4 | 337 | i 6 7? | ? | e 16 19 | SS | — | — | — |
| Oaxaca | | 49·5 | 322 | e 8 20k | − 4 | e 15 11 | + 3 | — | — | — |
| Vera Cruz | | 50·8 | 323 | e 8 35 | + 2 | e 15 31 | + 5 | — | — | — |
| Puebla | | 51·9 | 320 | e 8 39 | − 2 | i 15 39 | − 2 | i 17 25 | sS | — |
| Tacubaya | | 52·8 | 320 | i 8 51k | + 3 | i 15 57 | + 4 | i 10 20 | sP | e 21·7 |
| Bermuda | | 54·5 | 2 | i 8 58 | − 2 | i 16 13 | − 3 | — | — | — |
| Bermuda Navy | | 54·5 | 2 | i 8 59 | − 1 | — | — | — | — | — |
| Guadalajara | | 56·3 | 317 | e 9 16 | + 3 | e 16 44 | + 5 | e 18 32 | sS | e 23·5 |
| Cherry Point | | 57·0 | 351 | e 9 40 | +22 | — | — | e 11 4 | sP | — |
| Columbia | | 58·0 | 346 | e 9 23 | − 2 | i 16 58 | − 3 | — | — | — |
| Mazatlan | | 60·1 | 316 | e 15 41 | ? | e 17 21 | − 7 | — | — | — |
| M'Bour | | 60·4 | 56 | i 9 41 | 0 | i 17 34 | + 2 | e 10 35 | pP | — |
| Washington | | 62·0 | 351 | i 9 50 | − 2 | i 17 51 | − 1 | — | — | — |
| Morgantown | | 63·2 | 348 | i 9 58 | − 2 | i 18 6 | − 1 | — | — | — |
| City College, N.Y. | | 63·4 | 354 | i 9 59 | − 2 | — | — | i 11 1 | pP | — |
| Fordham | | 63·4 | 354 | i 10 0 | − 1 | i 18 7 | − 3 | — | — | — |
| Cincinnati | | 63·7 | 344 | i 10 1 | − 2 | i 18 9 | − 4 | — | — | — |
| Pennsylvania | | 63·9 | 351 | i 10 5 | + 1 | i 18 15 | − 1 | i 11 8 | pP | — |
| Weston | | 64·7 | 355 | i 10 9a | 0 | i 18 25 | 0 | i 11 12 | pP | — |
| Harvard | | 64·9 | 357 | i 10 9a | − 2 | i 18 27 | − 1 | i 11 14 | pP | — |
| Cleveland | | 65·3 | 347 | i 10 11a | − 2 | i 18 30 | − 3 | i 11 16 | pP | — |
| Lubbock | | 65·4 | 328 | e 10 13 | − 1 | e 18 30 | − 4 | — | — | — |
| Buffalo (Larkin) | | 66·2 | 351 | i 10 17 | − 2 | i 18 40 | − 4 | — | — | — |
| Halifax | | 66·8 | 3 | i 10 22a | − 1 | 18 49 | − 2 | i 11 23 | pP | — |
| Chicago | | 67·0 | 343 | e 10 23 | − 1 | i 18 49 | − 4 | — | — | — |
| Vermont | | 67·0 | 355 | e 10 26 | + 2 | i 18 56 | + 3 | — | — | — |
| Ottawa | | 68·1 | 353 | i 10 30a | − 1 | 19 6 | 0 | 11 34 | pP | — |
| Shawinigan Falls | N. | 69·0 | 356 | e 10 35 | − 1 | 19 16 | − 1 | 11 39 | pP | — |
| Tucson | | 69·3 | 321 | i 10 40 | + 2 | i 19 24 | + 4 | e 11 41 | pP | e 28·8 |
| Ponta Delgada | | 70·9 | 33 | i 10 48 | 0 | i 19 39 | 0 | — | — | i 29·6 |
| Kirkland Lake | z. | 71·4 | 350 | i 10 50a | − 1 | e 19 38 | − 6 | i 11 53 | pP | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Nelson | | 74·1 | 321 | i 11 6 | 0 | i 20 22 | + 8 | i 12 11 | pP | — |
| Boulder City | | 74·3 | 321 | i 11 8 | 0 | i 20 24 | + 7 | i 12 13 | pP | — |
| Riverside | z. | 74·5 | 318 | i 11 10k | + 1 | e 20 24 | + 5 | i 12 15 | pP | — |
| Mount Wilson | z. | 75·0 | 318 | i 11 14k | + 2 | e 38 24 | P′P′ | i 12 20 | pP | — |
| Pasadena | | 75·1 | 318 | i 11 14k | + 2 | i 20 30 | + 4 | i 12 16 | pP | 31·4 |
| China Lake | | 75·8 | 319 | i 11 17k | + 1 | i 20 38 | + 5 | i 12 22 | pP | — |
| Tinemaha | | 77·0 | 320 | i 11 26k | + 3 | i 20 53 | + 7 | i 12 30 | pP | — |
| Fresno | z. | 77·7 | 319 | e 11 27k | 0 | e 20 55 | + 2 | e 12 33 | pP | — |
| Bozeman | | 79·2 | 330 | e 11 37 | + 2 | i 21 13 | + 4 | — | — | — |
| Lick | | 79·3 | 319 | e 11 37k | + 2 | e 21 15 | + 5 | i 12 41 | pP | — |
| Santa Clara | | 79·5 | 319 | i 11 40a | + 4 | (e 21 7) | − 5 | i 12 43 | pP | e 21·1 |
| Reno | | 79·6 | 321 | e 11 39k | + 2 | e 21 19 | + 6 | e 12 45 | pP | — |
| Berkeley | | 80·0 | 319 | i 11 41k | + 2 | i 21 23 | + 5 | i 12 45 | pP | — |
| Grahamstown | z. | 80·0 | 121 | i 11 42 | + 3 | — | — | — | — | e 45·2 |
| Kimberley | z. | 80·2 | 117 | i 11 42 | + 2 | — | — | — | — | — |
| Lisbon | | 80·9 | 43 | i 11 44a | 0 | i 21 29 | + 2 | 11 50 | PcP | 33·6 |
| Mineral | z. | 81·1 | 321 | i 11 45k | 0 | — | — | i 12 52 | pP | — |
| Shasta | | 81·8 | 321 | e 11 49k | + 1 | e 21 36 | 0 | i 12 54 | pP | — |
| Coimbra | | 82·2 | 42 | i 11 52a | + 2 | i 21 43 | + 3 | 12 53 | pP | 34·0 |
| Saskatoon | | 82·4 | 336 | 12 57 | +66 | 20 40 | −62 | — | — | — |
| Hungry Horse | | 82·6 | 330 | i 11 53 | + 1 | i 21 45 | + 1 | e 15 8 | PP | — |
| Malaga | | 82·7 | 46 | i 11 53 | 0 | i 21 46 | + 1 | i 14 44 | PP | 37·3 |
| Tamanrasset | z. | 82·9 | 61 | i 11 55k | + 1 | e 21 49 | + 2 | i 12 59 | pP | — |
| Arcata | z. | 83·0 | 319 | e 11 57 | + 3 | — | — | — | — | — |
| Granada | | 83·5 | 46 | i 12 6k | + 9 | i 21 42 | −11 | i 15 7 | PP | i 35·8 |
| Almeria | | 84·1 | 47 | i 11 58 | − 2 | i 22 4 | + 5 | i 14 52 | PP | 35·6 |
| Pretoria | z. | 84·1 | 115 | i 12 3 | + 3 | — | — | — | — | i 41·3 |
| Pietermaritzburg | z. | 84·4 | 119 | i 12 6 | + 5 | — | — | — | — | — |
| Toledo | | 84·7 | 44 | i 12 5 | + 2 | i 22 5 | + 1 | i 15 22 | PP | — |
| Corvallis | | 84·8 | 322 | i 12 4 | + 1 | i 22 5 | 0 | i 13 11 | pP | — |
| Alicante | | 86·2 | 46 | i 12 10 | 0 | i 22 10 | [+ 4] | 15 44 | PP | 40·2 |
| Seattle | | 86·2 | 326 | i 12 12 | + 2 | i 22 26 | + 7 | — | — | — |
| Victoria | | 87·3 | 326 | 12 10k | − 6 | i 22 9 | [− 4] | e 13 15 | pP | — |
| Algiers Univ. | z. | 87·8 | 49 | i 12 19a | + 1 | e 22 26 | − 8 | i 13 23 | pP | — |
| Tortosa | | 88·2 | 45 | i 12 21 | + 1 | i 22 25 | [+ 6] | — | — | — |
| Barcelona | | 89·5 | 44 | i 12 25 | − 1 | i 22 31 | [+ 4] | — | — | e 37·2 |
| Jersey | E. | 91·2 | 36 | e 12 34 | 0 | i 22 40 | [+ 3] | e 16 9 | PP | — |
| Clermont-Ferrand | | 92·3 | 41 | i 12 40 | + 1 | i 22 55 | SKKS | i 13 48 | pP | 47·5 |
| Reykjavik | | 92·9 | 17 | i 12 43a | + 1 | e 22 53 | [+ 7] | i 13 51 | pP | — |
| Kew | | 93·4 | 34 | i 12 44a | 0 | i 23 25 | + 2 | i 14 19 | sP | e 38·4 |
| Paris | | 93·5 | 38 | i 12 45 | + 1 | i 23 23 | − 1 | i 13 49 | pP | e 46·4 |
| Edinburgh | E. | 94·4 | 30 | — | — | 22 57 | [+ 3] | — | — | — |
| Durham | | 94·5 | 32 | i 12 49 | 0 | i 23 0 | [+ 5] | 13 3 | PcP | — |
| Christchurch | | 95·1 | 218 | i 14 4 | pP | e 23 37 | − 1 | i 25 8 | PS | — |
| Tuai | N. | 95·1 | 225 | e 13 8 | +16 | e 23 8 | [+10] | e 25 47 | PPS | — |
| Wellington | | 95·2 | 222 | 12 57 | + 5 | i 23 43 | + 4 | 14 3 | pP | — |
| Neuchatel | | 95·3 | 41 | i 12 53 | + 1 | e 23 5 | [+ 6] | e 16 41 | PP | — |
| Oropa | | 95·3 | 42 | i 12 55 | + 3 | i 23 34 | − 6 | i 16 45 | PP | — |
| Aberdeen | E. | 95·6 | 29 | i 12 55 | + 1 | i 23 42 | 0 | i 14 22 | sP | 46·4 |
| Pavia | | 95·8 | 43 | e 12 56 | + 1 | e 23 11 | [+ 9] | e 16 47 | PP | e 43·2 |
| Basle | | 95·9 | 41 | e 12 56a | + 1 | e 23 10 | [+ 8] | e 16 45 | PP | — |
| Kaimata | N.E. | 96·4 | 219 | — | — | e 23 9 | [+ 4] | — | — | — |
| Zürich | | 96·4 | 41 | i 12 58a | 0 | e 23 41 | − 8 | e 13 56 | pP | — |
| Prato | | 96·5 | 45 | i 12 58 | 0 | i 24 9? | +19 | — | — | — |
| Strasbourg | | 96·5 | 40 | i 12 59 | + 1 | i 23 52 | + 2 | i 14 1 | pP | — |
| De Bilt | | 96·6 | 36 | i 12 59a | + 1 | i 23 58 | + 8 | e 14 8 | pP | — |
| Florence | | 96·6 | 45 | i 12 57a | − 1 | e 24 29 | +39 | e 14 32 | pP | — |
| Karapiro | N. | 96·6 | 225 | e 13 3 | + 5 | — | — | e 16 57 | PP | — |
| Rome | | 96·6 | 48 | i 13 0a | + 2 | i 23 46 | − 4 | i 14 34 | pP | — |
| Rocca di Papa | | 96·7 | 48 | e 13 1 | + 2 | e 23 13 | [+ 6] | e 16 55 | PP | — |
| Chur | | 96·8 | 41 | i 13 0a | + 1 | e 23 12 | [+ 5] | i 16 52 | PP | — |
| Bologna | | 96·9 | 44 | e 14 23 | pP | e 24 36 | +43 | e 18 27 | PPP | e 44·8 |
| Salo | | 96·9 | 43 | e 12 59 | − 1 | e 23 13 | [+ 5] | e 16 57 | PP | e 32·0 |
| Karlsruhe | | 97·0 | 39 | i 13 0a | 0 | i 24 0 | + 6 | i 16 55 | PP | e 38·4 |
| Messina | | 97·3 | 52 | i 13 1a | − 1 | 23 51 | − 6 | i 14 17 | pP | — |

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | | L. |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | | m. |
| Stuttgart | | 97·4 | 40 | i 13 3a | + 1 | e 23 59 | + 1 | i 14 11 | | pP | e 39·4 |
| Auckland | N. | 97·7 | 225 | — | — | i 23 16 | [+ 4] | e 24 11 | | S | — |
| Scoresby Sund | | 97·8 | 13 | i 13 4a | 0 | i 17 1 | PP | e 14 9 | | pP | — |
| Witteveen | Z. | 97·8 | 35 | i 13 5a | + 1 | i 16 51 | PP | i 14 1 | | pP | — |
| Resolute Bay | | 98·7 | 352 | i 13 9a | + 1 | i 24 9 | + 1 | i 14 9 | | pP | — |
| Triest | | 99·0 | 44 | i 13 8a | − 1 | i 24 17 | + 6 | i 17 6 | | PP | — |
| Taranto | | 99·4 | 50 | 13 10 | − 1 | 23 25 | [+ 5] | 17 10 | | PP | — |
| Jena | | 99·7 | 39 | i 13 14 | + 2 | e 24 24 | + 7 | e 14 18 | | pP | — |
| Cheb | | 99·8 | 40 | i 13 15 | + 2 | i 23 30 | [+ 8] | e 14 20 | | pP | e 43·2 |
| Copenhagen | | 100·1 | 34 | i 13 24a | +10 | i 23 42 | [+18] | 15 0 | | sP | — |
| Bergen | | 100·5 | 28 | e 18 23? | ? | i 24 25 | + 2 | e 19 55 | | PPP | — |
| Collmberg | | 100·7 | 39 | i 13 17a | 0 | e 24 34 | + 9 | e 14 21 | | pP | e 40·4 |
| Potsdam | | 101·1 | 37 | i 13 21a | + 2 | i 24 33 | + 5 | i 14 26 | | pP | — |
| Prague | | 101·1 | 40 | i 13 20a | + 1 | i 24 33 | + 5 | e 14 26 | | pP | e 42·4 |
| Vienna | | 101·6 | 42 | i 13 22? | + 1 | e 24 42 | +10 | i 17 31 | | PP | — |
| Ogyalla | | 102·6 | 43 | e 13 28 | + 3 | e 24 49 | + 8 | e 14 41 | | pP | — |
| Budapest | | 102·7 | 44 | 13 21 | − 5 | 24 37 | − 5 | 23 44 | | SKS | e 45·4 |
| Kalossa | | 102·7 | 44 | e 13 35 | + 9 | 24 50 | + 8 | e 14 11 | | pP | e 46·4 |
| Belgrade | | 103·1 | 47 | i 13 28k | 0 | i 23 43 | [+ 5] | i 17 38 | | PP | e 43·0 |
| Tananarive | | 103·1 | 117 | i 17 49 | PP | e 23 47 | [+ 9] | 27 8 | | PS | 34·4 |
| Athens | | 103·3 | 55 | e 13 29 | + 1 | i 23 44 | [+ 5] | i 17 42 | | PP | — |
| Szeged | | 103·3 | 45 | 13 53 | +25 | 23 49 | [+10] | 15 9 | | pP | — |
| Timisoara | | 103·9 | 45 | e 13 32? | + 1 | i 23 50 | [+ 8] | e 17 54 | | PP | — |
| Skalnate Pleso | | 104·3 | 42 | e 13 30 | − 3 | e 24 59 | + 4 | e 14 30 | | pP | — |
| Sofia | | 104·4 | 50 | e 13 36 | + 2 | e 25 10 | +14 | e 17 53 | | PP | — |
| Uzhgorod | | 105·5 | 43 | i 13 39 | P | e 23 54 | [+ 5] | 18 0 | | PP | — |
| Upsala | | 106·1 | 31 | i 13 41a | P | i 25 10 | 0 | i 14 45 | | pP | e 42·4 |
| College | | 106·7 | 334 | i 13 44 | P | i 25 13 | 0 | e 23 57 | | SKS | e 39·6 |
| Lwow | | 106·8 | 42 | e 13 45 | P | i 24 0 | [+ 5] | e 14 48 | | pP | — |
| Bucharest | | 106·8 | 48 | e 13 48 | P | i 24 1 | [+ 6] | i 29 3 | | PPS | 45·4 |
| Helwan | | 106·9 | 64 | e 13 47 | P | i 24 3 | [+ 8] | 14 52 | | pP | — |
| Cernauti | | 107·7 | 44 | e 13 56 | P | e 24 0 | [+ 2] | — | | — | — |
| Istanbul | | 108·1 | 52 | e 13 51 | P | i 24 7 | [+ 7] | e 19 52 | | PPP | e 42·2 |
| Kiruna | | 109·3 | 24 | i 13 56a | P | i 24 8 | [+ 3] | i 15 5 | | pP | e 43·4 |
| Kishinev | | 109·3 | 46 | 13 56 | P | 24 8 | [+ 3] | i 18 43 | | PP | — |
| Ksara | | 111·7 | 62 | e 14 9 | P | 28 1 | PS | 18 47 | | PP | — |
| Pulkovo | | 112·3 | 32 | i 18 49 | PP | i 24 22 | [+ 5] | i 19 49 | | pPP | — |
| Yalta | | 112·5 | 50 | 14 10 | P | i 24 23 | [+ 5] | i 15 16 | | pP | — |
| Riverview | | 113·8 | 213 | i 19 7k | PP | i 24 30 | [+ 7] | i 20 7 | | pPP | — |
| Moscow | | 115·8 | 37 | e 14 26 | P | i 24 37 | [+ 7] | i 19 13 | | PP | — |
| Sotchi | | 116·3 | 51 | e 14 24 | P | e 24 34 | [+ 2] | e 15 28 | | pP | — |
| Brisbane | | 117·6 | 217 | e 18 18 | [+ 6] | i 24 46 | [+ 9] | i 19 33 | | PP | — |
| Zugdidi | | 117·8 | 51 | 18 17 | [+ 5] | 24 45 | [+ 7] | i 26 3 | | SKKS | — |
| Piatigorsk | | 118·8 | 51 | 14 39 | P | — | — | i 15 45 | | pP | — |
| Gori | | 119·4 | 53 | e 18 17 | [+ 2] | 24 54 | [+11] | i 26 15 | | SKKS | — |
| Tiflis | | 119·9 | 53 | e 14 45 | P | i 24 53 | [+ 8] | — | | — | — |
| Grozny | | 120·7 | 52 | i 18 22 | [+ 4] | i 24 55 | [+ 7] | i 19 55 | | PP | — |
| Goris | | 120·9 | 56 | i 18 27 | [+ 9] | i 24 55 | [+ 7] | 19 53 | | PP | — |
| Kirovobad | | 121·0 | 55 | e 18 21 | [+ 2] | — | — | — | | — | — |
| Shemakla | | 122·7 | 55 | i 18 28 | [+ 6] | — | — | i 20 10 | | PP | — |
| Kizyl-Arvat | | 128·2 | 57 | i 18 37 | [+ 5] | i 20 44 | PP | e 19 44 | | pPKP | — |
| Sverdlovsk | | 128·4 | 34 | e 15 23 | P | i 22 8 | PKS | i 18 36 | | PKP | — |
| Ashkabad | | 130·2 | 59 | i 18 41 | [+ 5] | — | — | i 21 5 | | PP | — |
| Klyuchi | | 132·0 | 327 | 18 42 | [+ 2] | 38 21 | SS | 19 49 | | pPKP | — |
| Bairam-Ali | | 133·2 | 59 | i 18 34 | [− 8] | — | — | 21 13 | | PP | — |
| Petropavlovsk | | 134·4 | 324 | 21 26 | PP | 38 57 | SS | — | | — | — |
| Samarkand | | 136·8 | 56 | 18 37 | [−11] | — | — | 21 31 | | PP | — |
| Quetta | | 137·5 | 69 | e 18 41 | [− 9] | i 28 10 | SKKS | i 21 40 | | PP | — |
| Tashkent | | 138·2 | 52 | i 18 55 | [+ 4] | i 31 38 | PS | i 21 42 | | PP | — |
| Tchimkent | | 138·2 | 50 | i 18 42 | [− 9] | — | — | 21 40 | | PP | — |
| Stalinabad | | 138·3 | 56 | e 18 46 | [− 5] | — | — | i 21 43 | | PP | — |
| Obi-garm | | 139·0 | 56 | e 18 48 | [− 4] | — | — | i 21 50 | | PP | — |
| Namangan | | 140·0 | 52 | e 18 47 | [− 7] | — | — | i 21 55 | | PP | — |
| Dzhergetal | | 140·1 | 55 | i 18 49 | [− 5] | — | — | i 21 56 | | PP | — |
| Fergana | | 140·2 | 53 | e 18 59 | [+ 4] | i 21 56 | PP | e 20 8 | | pPKP | — |

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|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | | m. |
| Khorog | | 140·7 | 57 | i 18 52 | [− 4] | — | — | 21 59 | PP | | — |
| Bombay | | 141·4 | 87 | i 18 58 | [+ 1] | 28 34 | SKKS | i 22 5 | PP | | 63·6 |
| Poona | | 142·3 | 88 | 18 58 | [− 1] | — | — | — | — | | — |
| Kodaikanal | E. | 143·0 | 102 | e 19 1 | [+ 1] | e 28 46 | SKKS | — | — | | — |
| Kurilsk | | 143·5 | 318 | 19 4 | [+ 3] | 40 39 | SS | 20 12 | pPKP | | — |
| Colombo | E. | 143·7 | 110 | i 19 3 | [+ 2] | — | — | — | — | | 67·7 |
| Przhevalsk | | 144·3 | 47 | i 19 6 | [+ 4] | 28 50 | SKKS | — | — | | — |
| Uglegorsk | | 145·4 | 328 | 19 7 | [+ 3] | 40 45 | SS | 20 15 | pPKP | | — |
| Hyderabad | E. | 146·4 | 92 | i 19 11 | [+ 5] | e 32 50 | PS | — | — | | — |
| New Delhi | | 146·4 | 72 | i 19 9 | [+ 3] | 23 57 | ? | 23 12 | PP | | — |
| Yuzno-Sakhlinsk | | 146·4 | 325 | 19 9 | [+ 3] | 41 3 | SS | 20 20 | pPKP | | — |
| Madras | E. | 146·5 | 100 | i 19 13 | [+ 7] | 29 12 | SKKS | i 22 29 | PKS | | — |
| Nemuro | | 146·6 | 316 | e 19 9 | [+ 3] | — | — | i 20 20 | pPKP | | — |
| Abashiri | | 147·1 | 319 | e 19 1 | [− 6] | — | — | — | — | | — |
| Obi-hiro | | 148·3 | 317 | e 19 18 | [+10] | — | — | — | — | | — |
| Urakawa | | 149·0 | 316 | e 19 19 | [+ 9] | (41 45) | SS | e 29 16 | SKKS | | 41·8 |
| Irkutsk | | 149·4 | 11 | i 19 15 | [+ 5] | e 29 15 | SKKS | i 20 27 | pPKP | | — |
| Sapporo | | 149·4 | 319 | e 19 15 | [+ 5] | (i 41 52) | SS | — | — | | i 41·9 |
| Guam | | 149·5 | 259 | i 19 22 | [+12] | — | — | i 20 36 | pPKP | | — |
| Kabansk | | 150·0 | 9 | i 19 16 | [+ 5] | 29 21 | SKKS | e 20 27 | pPKP | | — |
| Mori | N. | 150·4 | 318 | e 19 23 | [+11] | e 27 14 | ? | — | — | | 34·4 |
| Djakarta | | 150·6 | 165 | i 19 19 | [+ 7] | i 25 7 | ? | e 42 4 | SS | | — |
| Hatinohe | | 150·6 | 315 | e 19 21 | [+ 9] | — | — | e 20 36 | pPKP | | — |
| Miyako | | 150·7 | 313 | e 19 17 | [+ 5] | — | — | e 20 30 | pPKP | | — |
| Aomori | | 151·0 | 316 | e 19 25 | [+12] | e 20 5 | ? | e 20 42 | pPKP | | — |
| Morioka | | 151·3 | 313 | e 19 27 | [+14] | — | — | — | — | | — |
| Kyakhta | | 151·6 | 10 | i 19 17 | [+ 4] | 41 21 | SS | e 23 0 | PP | | — |
| Mizusawa | E. | 151·6 | 312 | 19 26 | [+13] | e 20 23 | pPKP | — | — | | — |
| Akita | | 152·0 | 314 | e 19 28 | [+14] | e 29 32 | SKKS | e 20 32 | pPKP | | — |
| Sendai | | 152·1 | 310 | e 19 23 | [+ 9] | — | — | — | — | | — |
| Hukusima | | 152·7 | 310 | e 19 27 | [+12] | 33 1 | PS | — | — | | — |
| Onahama | | 152·7 | 309 | e 19 28 | [+13] | — | — | — | — | | — |
| Mito | | 153·2 | 308 | e 19 36 | [+20] | — | — | — | — | | — |
| Niigata | | 153·6 | 312 | e 19 50 | [+34] | — | — | e 22 23 | ? | | — |
| Utunomiya | | 153·6 | 309 | e 19 23 | [+ 7] | e 27 59 | ? | — | — | | — |
| Tokyo | | 154·0 | 305 | e 19 21 | [+ 4] | — | — | — | — | | — |
| Kumagaya | | 154·1 | 308 | e 19 23 | [+ 6] | e 27 55 | ? | — | — | | — |
| Maebasi | | 154·2 | 309 | i 19 31 | [+14] | e 21 1 | ? | e 20 34 | pPKP | | — |
| Yokohama | | 154·2 | 306 | e 19 56 | $PKP_2$ | — | — | — | — | | — |
| Titibu | | 154·4 | 308 | e 19 19 | [+ 2] | — | — | — | — | | — |
| Vladivostok | | 154·6 | 327 | i 19 22 | [+ 4] | 29 45 | SKKS | 19 52 | $PKP_2$ | | — |
| Matusiro | | 154·8 | 312 | i 19 23 | [+ 5] | i 29 46 | SKKS | i 20 46 | P | | 42·9 |
| Nagano | | 154·8 | 312 | e 19 27 | [+ 9] | e 28 49 | SKKS | e 29 47 | ? | | e 42·6 |
| Kohu | | 154·9 | 308 | e 19 32 | [+14] | — | — | — | — | | — |
| Misima | | 154·9 | 306 | e 19 34 | [+16] | i 29 47 | SKKS | e 20 56 | pPKP | | — |
| Matumoto | N. | 155·1 | 309 | e 19 34 | [+16] | — | — | — | — | | — |
| Chatra | | 155·2 | 74 | i 19 23 | [+ 5] | 35 33 | PPS | 22 44 | PP | | — |
| Omaesaki | | 155·6 | 306 | e 20 0 | $PKP_2$ | — | — | — | — | | — |
| Calcutta | E. | 156·3 | 85 | e 19 43 | [+23] | 35 28 | PPS | i 30 5 | SKKS | | — |
| Nagoya | | 156·3 | 308 | e 19 34 | [+14] | — | — | — | — | | — |
| Kameyama | | 156·8 | 308 | i 19 31 | [+10] | i 29 58 | SKKS | 20 57 | pPKP | | e 43·4 |
| Osaka | | 157·6 | 308 | e 20 11 | $PKP_2$ | — | — | e 21 30 | $pPKP_2$ | | — |
| Sumoto | | 158·2 | 308 | e 19 26 | [+ 4] | (e 36 31) | SPP | — | — | | e 36·5 |
| Takamatu | | 158·8 | 308 | e 19 20 | [− 3] | e 24 38 | ? | e 20 2 | $PKP_2$ | | 30·9 |
| Shillong | E. | 159·5 | 78 | e 19 29 | [+ 5] | 36 37 | PPS | i 20 7 | $PKP_2$ | | — |
| Koti | | 159·6 | 306 | — | — | e 30 15 | ? | e 32 19 | PS | | — |
| Hamada | | 160·0 | 312 | e 19 35 | [+11] | — | — | e 23 45 | PP | | — |
| Hirosima | | 160·0 | 311 | e 19 34 | [+10] | e 30 15 | ? | — | — | | — |
| Ooita | | 161·1 | 309 | e 20 18 | $PKP_2$ | e 43 36 | SS | — | — | | — |
| Hukuoka | | 161·8 | 310 | e 20 20 | $PKP_2$ | e 22 7 | ? | e 21 34 | $pPKP_2$ | | 44·3 |
| Miyazaki | | 161·9 | 303 | e 19 34 | [+ 8] | (e 43 32) | SS | e 30 25 | ? | | e 43·5 |
| Zô-Sè | z. | 169·3 | 325 | i 19 38a | [+ 6] | — | — | i 20 47 | $PKP_2$ | | — |
| Nanking | z. | 169·6 | 337 | i 19 37a | [+ 5] | 25 51 | [−15] | i 20 47 | $PKP_2$ | | — |
| Manila | | 169·7 | 221 | e 19 39 | [+ 7] | i 31 12 | ? | — | — | | — |
| Hong Kong | | 179·8 | — | 21 38 | $PKP_2$ | 25 34 | [−34] | 22 46 | $pPKP_2$ | | — |

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Sept. 21d. 8h. 47m. 34s. Epicentre 23°·4S. 179°·3W. Depth of focus 0·070.
(as on 1952, June 26d.).

A = −·9186, B = −·0112, C = −·3949 ; $\delta$ = −10 ; $h$ = +4 ;
D = −·012, E = +1·000 ; G = +·395, H = +·005, K = −·919.

| | | △ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Karapiro | N. | 15·1 | 196 | 3 16 | + 4 | e 5 52 | + 5 |
| Tuai | N. | 15·7 | 190 | — | — | e 5 56 | − 2 |
| Wellington | | 18·5 | 195 | e 3 44 | − 2 | e 6 41 | − 7 |
| Cobb River | E. | 18·9 | 200 | — | — | e 6 41 | −14 |
| Kaimata | N.E. | 20·6 | 200 | (e 4 5) | − 1 | e 4 5 | P |
| Christchurch | | 21·2 | 197 | — | — | e 7 40 | + 6 |
| Brisbane | Z. | 25·3 | 255 | e 4 45a | − 4 | — | — |
| Lick | Z. | 81·2 | 42 | i 11 27 | + 1 | — | — |
| Pasadena | Z. | 81·5 | 47 | i 11 28 | 0 | — | — |
| Fresno | Z. | 82·0 | 44 | e 11 30 | 0 | — | — |
| Riverside | Z. | 82·0 | 47 | i 11 30 | 0 | — | — |
| Shasta | Z. | 82·8 | 40 | e 11 35 | + 1 | — | — |
| China Lake | Z. | 82·9 | 46 | e 11 34 | − 1 | — | — |
| Mineral | Z. | 83·1 | 41 | i 11 36 | 0 | — | — |
| Tinemaha | Z. | 83·2 | 45 | i 11 37 | + 1 | — | — |
| Reno | Z. | 83·7 | 42 | e 11 40 | + 1 | — | — |
| Nelson | | 84·7 | 47 | e 11 43 | − 1 | — | — |
| Boulder City | | 84·8 | 47 | e 11 45 | + 1 | — | — |
| Tucson | | 85·6 | 52 | i 11 50 | + 2 | — | — |
| College | | 91·3 | 13 | e 12 11 | − 4 | — | — |
| Collmberg | Z. | 150·6 | 344 | e 18 53 | [+ 2] | e 19 3 | PKP, |
| Tamanrasset | Z. | 175·5 | — | e 19 8 | [− 6] | — | — |

Sept. 21d. 11h. 12m. 10s. Epicentre 33°·0N. 142°·0E. Focus at Base of Superficial Layers.

Intensity II-III at Miyakezima. Epicentre as adopted. Depth 100km. (approximately). Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, September, 1952, Tokyo, 1952, p. 350, with macroseismic chart.

A = −·6622, B = +·5173, C = +·5421 ; $\delta$ = −2 ; $h$ = +1 ;
D = +·616, E = +·788 ; G = −·427, H = +·334, K = −·840.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. | m. |
| Hatidyozima | | 1·8 | 273 | 0 33 | + 4 | 1 0 | + 9 | — | — | — |
| Mera | | 2·6 | 317 | 0 43 | + 2 | 1 21 | +10 | — | — | — |
| Osima | | 2·8 | 309 | i 0 43 | 0 | 1 22 | + 6 | — | — | — |
| Torisima | | 2·9 | 210 | i 0 49 | + 4 | 1 26 | + 7 | — | — | — |
| Tyosi | N. | 2·9 | 341 | e 0 45 | 0 | 1 14 | − 5 | — | — | — |
| Yokohama | | 3·1 | 321 | 0 48 | 0 | — | — | — | — | — |
| Ajiro | | 3·2 | 310 | e 0 47 | − 2 | — | — | — | — | — |
| Misima | Z. | 3·3 | 311 | e 0 48 | − 3 | 1 25 | − 4 | — | — | — |
| Tokyo | | 3·3 | 326 | e 0 48 | − 3 | 1 22 | − 7 | — | — | — |
| Omaesaki | | 3·5 | 298 | e 0 54 | + 1 | 1 34 | 0 | — | — | — |
| Mito | | 3·6 | 340 | e 0 52 | − 3 | 1 31 | − 6 | — | — | — |
| Shizuoka | | 3·6 | 304 | e 0 55 | 0 | 1 28 | − 9 | — | — | — |
| Tukubasan | | 3·6 | 334 | e 0 50 | − 5 | 1 27 | −10 | — | — | — |
| Hunatu | E. | 3·7 | 314 | e 0 50 | − 6 | 1 18 | −21 | — | — | — |
| Kumagaya | | 3·8 | 326 | e 0 57 | − 1 | 2 2? | ? | — | — | — |
| Titibu | | 3·8 | 322 | i 1 2 | + 4 | 1 39 | − 3 | — | — | — |
| Kohu | | 3·9 | 314 | e 0 58k | − 1 | 1 36 | − 8 | — | — | — |
| Onahama | | 4·0 | 347 | e 0 59 | − 1 | 1 37 | −10 | — | — | — |
| Utunomiya | | 4·0 | 334 | e 0 57 | − 3 | 1 44 | − 3 | — | — | — |
| Maebasi | Z. | 4·2 | 326 | i 1 1 | − 2 | 1 57 | + 5 | — | — | — |
| Iida | | 4·3 | 307 | e 0 56 | − 9 | — | — | — | — | — |
| Oiwake | | 4·4 | 320 | e 1 7 | + 1 | — | — | — | — | — |
| Shirakawa | | 4·4 | 341 | e 1 2 | − 4 | 1 50 | − 7 | — | — | — |
| Matumoto | E. | 4·6 | 315 | 1 9 | 0 | 2 0 | − 2 | — | — | — |
| Matusiro | | 4·7 | 320 | i 1 9 | − 1 | 2 0 | − 5 | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Nagoya | | 4·7 | 299 | e 1 12 | + 2 | 2 20 | +15 | — | — | — |
| Inawasiro | | 4·8 | 342 | e 1 7 | − 5 | 1 50 | −17 | — | — | — |
| Nagano | N. | 4·8 | 321 | e 1 13 | + 1 | — | — | — | — | — |
| Hukusima | | 4·9 | 346 | e 1 11 | − 2 | 2 4 | − 6 | — | — | — |
| Tu | E. | 4·9 | 292 | i 1 15 | + 2 | 2 20 | +10 | — | — | — |
| Gihu | E. | 5·0 | 300 | e 1 14 | − 1 | — | — | — | — | — |
| Kameyama | | 5·0 | 293 | 1 14 | − 1 | 2 20 | + 8 | — | — | — |
| Owase | | 5·0 | 284 | e 1 12 | − 3 | 1 55 | −17 | — | — | — |
| Takayama | | 5·0 | 310 | e 1 15 | 0 | — | — | — | — | — |
| Takada | | 5·1 | 324 | e 1 17 | + 1 | 2 37 | +22 | — | — | — |
| Siomisaki | | 5·2 | 276 | 1 19 | + 1 | 2 15 | − 2 | — | — | — |
| Hikone | | 5·3 | 297 | e 1 35 | +16 | — | — | — | — | — |
| Sendai | | 5·3 | 351 | e 1 11 | − 8 | 2 8 | −12 | — | — | — |
| Isinomaki | | 5·4 | 354 | e 1 16 | − 4 | — | — | — | — | — |
| Toyama | Z. | 5·4 | 314 | 1 20 | 0 | 2 6 | −16 | — | — | — |
| Yamagata | | 5·4 | 346 | e 1 18 | − 2 | — | — | — | — | — |
| Niigata | | 5·5 | 335 | e 1 19 | − 3 | 2 23 | − 2 | — | — | — |
| Hukui | | 5·6 | 304 | e 1 26 | + 3 | — | — | — | — | — |
| Kyoto | | 5·6 | 293 | e 1 34 | +11 | 2 36 | + 9 | — | — | — |
| Osaka | | 5·6 | 289 | e 1 32 | + 9 | 2 58 | +31 | — | — | — |
| Tsuruga | | 5·6 | 300 | e 1 27 | + 4 | 2 32 | + 5 | — | — | — |
| Aikawa | | 5·9 | 330 | e 1 25 | − 2 | 2 54 | +19 | — | — | — |
| Wazima | | 6·0 | 318 | e 1 25 | − 4 | — | — | — | — | — |
| Sumoto | | 6·1 | 285 | e 1 32 | + 2 | 2 48 | + 8 | — | — | — |
| Mizusawa | E. | 6·2 | 354 | 1 28 | − 4 | 2 29 | −13 | — | — | — |
| Muroto | | 6·5 | 274 | e 1 39 | + 3 | — | — | — | — | — |
| Miyako | | 6·6 | 0 | 1 28? | − 9 | 2 39? | −13 | — | — | — |
| Morioka | | 6·7 | 355 | e 1 35? | − 4 | 2 44? | −11 | — | — | — |
| Takamatu | | 6·7 | 283 | e 1 42 | + 3 | 3 6 | +11 | — | — | — |
| Akita | Z. | 6·9 | 348 | e 1 37 | − 4 | — | — | — | — | — |
| Koti | | 7·1 | 277 | e 1 54 | +10 | — | — | — | — | — |
| Hatinohe | | 7·5 | 357 | e 1 54 | + 4 | — | — | — | — | — |
| Yonago | | 7·5 | 291 | e 2 13 | +23 | 4 12 | +57 | — | — | — |
| Matuyama | | 7·8 | 279 | e 2 4 | +10 | 3 23 | + 1 | — | — | — |
| Aomori | | 7·9 | 353 | e 2 2 | + 7 | 3 16 | − 9 | — | — | — |
| Hirosima | | 8·1 | 282 | 1 59 | + 1 | 3 35 | + 5 | — | — | — |
| Hamada | | 8·5 | 286 | 2 4 | 0 | 3 35 | − 5 | — | — | — |
| Ooita | | 8·7 | 274 | e 2 28 | +22 | — | — | — | — | — |
| Urakawa | | 9·1 | 4 | e 2 9 | − 3 | — | — | — | — | — |
| Mori | N. | 9·2 | 353 | e 2 15 | + 2 | — | — | — | — | — |
| Hukuoka | E. | 9·7 | 276 | e 2 21 | + 1 | — | — | — | — | — |
| Obi-hiro | | 9·9 | 5 | e 2 26 | + 3 | — | — | — | — | — |
| Sapporo | E. | 10·1 | 357 | e 2 33 | + 7 | — | — | — | — | — |
| Abashiri | | 11·1 | 9 | e 3 5 | +25 | — | — | — | — | — |
| Wakkanai | E. | 12·4 | 359 | e 3 22 | +25 | — | — | — | — | — |
| Zô-Sè | Z. | 17·7 | 270 | i 4 4a | − 2 | — | — | — | — | — |
| Guam | | 19·6 | 173 | i 4 38 | +10 | i 8 23 | +21 | — | — | — |
| Nanking | | 19·6 | 274 | 4 25a | − 3 | e 7 58 | − 4 | — | — | — |
| Manila | | 26·5 | 232 | e 5 25 | −11 | — | — | — | — | — |
| Hong Kong | | 26·8 | 254 | e 5 50? | +11 | — | — | — | — | — |
| Chatra | | 47·5 | 278 | e 8 33 | − 1 | — | — | — | — | e 29·1 |
| College | | 52·3 | 30 | 9 9 | − 2 | — | — | — | — | — |
| New Delhi | | 55·1 | 284 | e 9 28 | − 3 | e 17 4 | − 6 | i 9 42 | pP | — |
| Madras | E. | 59·5 | 267 | e 10 4 | + 2 | — | — | — | — | — |
| Brisbane | Z. | 61·1 | 168 | i 10 15k | + 2 | — | — | — | — | — |
| Poona | Z. | 62·1 | 275 | i 10 19 | − 1 | — | — | i 10 28 | pP | — |
| Quetta | | 62·6 | 290 | e 10 22 | − 1 | — | — | e 10 25 | P | — |
| Bombay | | 62·8 | 276 | i 10 26 | + 2 | i 18 56 | + 7 | 12 49 | PP | 28·8 |
| Colombo | E. | 63·0 | 260 | 10 28 | + 2 | — | — | — | — | — |
| Riverview | Z. | 67·0 | 171 | i 10 57a | + 5 | — | — | i 13 28 | PP | — |
| Kiruna | | 70·5 | 340 | i 11 11 | − 2 | e 20 25 | + 2 | 1 11 28 | PcP | e 28·8 |
| Corvallis | Z. | 70·7 | 49 | e 11 14 | 0 | — | — | — | — | — |
| Shasta | Z. | 73·2 | 52 | e 11 29 | 0 | — | — | — | — | — |
| Mineral | Z. | 73·9 | 52 | e 11 32k | − 1 | — | — | — | — | — |
| Hungry Horse | | 74·4 | 42 | i 11 36 | 0 | — | — | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Berkeley | | 74·6 | 54 | e 11 38 | 0 | e 21 12 | + 2 | — | — | — |
| Reno | z. | 75·5 | 52 | e 11 42k | − 1 | — | — | — | — | — |
| Scoresby Sund | | 76·2 | 355 | e 11 45 | − 2 | i 12 14 | sP | i 12 1 | pP | — |
| Upsala | | 76·8 | 335 | i 11 48 | − 2 | e 29 30 | SSS | i 12 4 | PcP | e 40·8 |
| Fresno | z. | 76·9 | 54 | e 11 50k | − 1 | — | — | — | — | — |
| Tinemaha | z. | 77·8 | 54 | e 11 57 | + 1 | — | — | e 12 13 | pP | — |
| China Lake | z. | 78·9 | 54 | e 12 1 | − 1 | — | — | e 12 18 | pP | — |
| Pasadena | | 79·4 | 55 | e 12 5 | + 1 | i 12 29 | sP | i 12 19 | pP | e 36·0 |
| Riverside | z. | 80·0 | 55 | e 12 7 | − 1 | — | — | e 12 23 | pP | — |
| Kishinev | | 80·3 | 321 | e 12 8 | − 1 | — | — | — | — | — |
| Boulder City | | 80·7 | 52 | i 12 11 | 0 | — | — | i 12 28 | pP | — |
| Nelson | | 80·8 | 52 | i 12 13 | + 1 | — | — | i 12 28 | pP | — |
| Lwow | | 80·9 | 325 | e 12 8 | − 4 | — | — | — | — | — |
| Uzhgorod | | 82·6 | 325 | e 12 23 | + 2 | — | — | — | — | — |
| Skalnate Pleso | | 83·2 | 326 | e 12 20 | − 4 | e 22 44 | + 3 | e 14 2 | PP | — |
| Istanbul | | 83·8 | 316 | e 12 25 | − 2 | e 22 50? | + 3 | — | — | — |
| Ksara | | 83·9 | 306 | 12 30? | + 2 | 22 56? | + 8 | — | — | — |
| Potsdam | | 84·0 | 331 | e 12 44 | +16 | — | — | e 12 57 | pP | e 44·8 |
| Collmberg | | 84·8 | 330 | e 12 31 | − 1 | e 16 2 | PP | e 12 47 | pP | e 43·8 |
| Prague | | 85·2 | 329 | e 12 36 | + 2 | e 22 50 | −10 | e 12 54 | pP | — |
| Tucson | | 85·5 | 54 | e 12 31 | − 5 | e 23 6 | + 3 | — | — | — |
| Jena | | 85·7 | 331 | e 12 36 | − 1 | e 13 3 | sP | e 12 53 | pP | — |
| Belgrade | | 86·1 | 322 | e 12 37 | − 2 | e 23 3 | − 6 | e 12 55 | pP | e 54·2 |
| Witteveen | z. | 86·1 | 335 | e 12 54 | pP | — | — | — | — | — |
| Stuttgart | | 88·4 | 331 | e 12 49 | − 1 | e 23 30 | − 1 | e 16 40 | PP | e 46·8 |
| Karlsruhe | z. | 88·6 | 332 | e 12 56 | + 5 | — | — | — | — | — |
| Triest | z. | 88·8 | 327 | 12 47? | − 5 | e 16 10 | PP | i 13 5 | pP | — |
| Strasbourg | | 89·1 | 332 | e 12 55 | + 2 | — | — | e 13 4 | pP | 45·8 |
| Helwan | z. | 89·4 | 306 | e 12 55 | 0 | e 16 55 | PP | e 13 22 | sP | — |
| Kew | | 89·6 | 337 | — | — | e 25 53 | PPS | e 31 46 | ? | e 54·8 |
| Zürich | | 89·7 | 331 | e 13 9 | +13 | — | — | — | — | — |
| Basle | | 90·0 | 331 | e 13 4 | + 7 | — | — | — | — | — |
| Paris | | 90·9 | 335 | e 13 2 | 0 | e 23 34 | [+ 5] | e 13 17 | pP | e 51·8 |
| Florence | | 91·4 | 327 | e 13 7 | + 3 | e 24 12 | +14 | — | — | — |
| Rome | | 92·2 | 325 | e 13 8 | 0 | e 30 8 | SS | e 16 48 | PP | — |
| Messina | N. | 93·4 | 321 | e 13 11 | − 2 | e 24 15 | − 1 | e 16 51 | PP | — |
| Fayetteville | z. | 93·5 | 43 | i 13 13 | − 1 | — | — | i 13 30 | pP | — |
| Algiers Univ. | z. | 100·7 | 328 | e 14 5 | +19 | e 17 27 | ? | e 18 20 | PP | e 63·8 |
| Alicante | | 100·9 | 332 | e 13 40 | − 7 | — | — | — | — | 49·0 |
| Granada | | 103·1 | 333 | e 17 56 | PP | 25 23 | −14 | — | — | 55·6 |
| Malaga | | 103·9 | 333 | e 18 26 | PP | — | — | — | — | 59·8 |
| Pretoria | z. | 122·7 | 260 | e 18 55 | [+ 2] | — | — | — | — | — |
| Huancayo | | 140·0 | 67 | e 22 56 | PKS | — | — | — | — | e 66·0 |
| La Paz | | 148·2 | 66 | e 19 40 | [+ 1] | 23 10 | PP | i 20 2 | pPKP | — |

Sept. 22d. 2h. 35m. 36s. Epicentre 36°·7N. 141°·2E. Focus at Base of Superficial Layers.
(as on 1952, March 10d.).

Intensity IV at Onahama, Mito, Shirakawa, Tukubasan, and many surrounding towns.
Epicentre 36°·6N. 141°·2E. Depth 50km. ca. Macroseismic radius 200-300km.
Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 352, with macroseismic chart.

$A = -·6263$, $B = +·5036$, $C = +·5951$; $\delta = +1$; $h = -1$;
$D = +·627$, $E = +·779$; $G = -·464$, $H = +·373$, $K = -·804$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. |
| Onahama | | 0·3 | 314 | i 0 7k | − 1 | 0 14 | − 1 | — | — |
| Mito | | 0·7 | 242 | 0 12k | − 1 | 0 21 | − 2 | — | — |
| Shirakawa | | 0·9 | 298 | e 0 16 | 0 | 0 27 | − 1 | — | — |
| Tukubasan | | 1·0 | 241 | 0 17 | − 1 | 0 30 | − 1 | — | — |
| Tyosi | E. | 1·0 | 195 | e 0 19 | + 1 | 0 32 | + 1 | — | — |
| Utunomiya | | 1·1 | 262 | i 0 18 | − 1 | 0 31 | − 2 | — | — |
| Hukusima | | 1·2 | 331 | e 0 21 | + 1 | 0 37 | + 1 | — | — |
| Inawasiro | | 1·2 | 315 | e 0 20 | 0 | 0 36 | 0 | — | — |
| Kumagaya | | 1·6 | 247 | e 0 24 | − 2 | 0 44 | − 2 | — | — |
| Sendai | | 1·6 | 351 | e 0 26 | 0 | 0 44 | − 2 | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Tokyo | | 1·6 | 229 | e 0 25 | − 1 | 0 42 | − 4 | — | — |
| Isinomaki | | 1·7 | 3 | e 0 26 | − 2 | 0 48 | − 1 | — | — |
| Yamagata | | 1·7 | 336 | e 0 28 | 0 | 0 50 | + 1 | — | — |
| Maebasi | Z. | 1·8 | 260 | i 0 28a | − 1 | 0 48 | − 3 | — | — |
| Titibu | | 1·8 | 247 | i 0 31 | + 2 | 0 49 | − 2 | — | — |
| Oiwake | | 2·2 | 260 | e 0 37 | + 2 | 1 8 | + 7 | — | — |
| Hunatu | N. | 2·3 | 239 | e 0 38 | + 2 | 1 9 | + 5 | — | — |
| Ajiro | | 2·4 | 226 | e 0 40 | + 2 | 1 5 | − 1 | — | — |
| Kohu | | 2·4 | 243 | e 0 39 | + 1 | 1 2 | − 4 | — | — |
| Matusiro | | 2·4 | 266 | i 0 38 | 0 | 1 12 | + 6 | — | — |
| Misima | N. | 2·4 | 225 | e 0 38 | 0 | 1 5 | − 1 | — | — |
| Mizusawa | | 2·4 | 359 | 0 41 | + 3 | 1 7 | + 1 | e 0 59 | S |
| Nagano | N. | 2·4 | 269 | e 0 39 | + 1 | 1 16 | +10 | — | — |
| Sakata | | 2·4 | 334 | e 0 53 | +15 | 1 21 | +15 | — | — |
| Takada | | 2·4 | 280 | e 0 46 | PP | 1 19 | SS | — | — |
| Matumoto | E. | 2·6 | 260 | e 0 38 | − 3 | 1 12 | + 1 | — | — |
| Aikawa | | 2·7 | 300 | e 0 48 | + 6 | 1 20 | + 6 | — | — |
| Shizuoka | E. | 2·8 | 233 | e 0 45 | + 2 | 1 11 | − 5 | — | — |
| Miyako | | 3·0 | 12 | e 0 48 | + 2 | 1 20 | − 2 | — | — |
| Morioka | | 3·0 | 0 | e 0 47 | + 1 | 1 18 | − 4 | — | — |
| Akita | Z. | 3·1 | 344 | e 0 53 | + 5 | — | — | — | — |
| Toyama | | 3·2 | 270 | e 0 55 | + 6 | 1 40 | SS | — | — |
| Hatinohe | | 3·8 | 4 | e 1 4 | + 6 | — | — | — | — |
| Nagoya | N. | 3·8 | 247 | e 1 2 | + 4 | 1 49 | + 7 | — | — |
| Aomori | | 4·1 | 356 | e 1 17 | PP | — | — | — | — |
| Kameyama | | 4·3 | 245 | e 1 13 | PP | 2 15 | SS | — | — |
| Owase | | 4·9 | 238 | e 1 5 | − 8 | 1 53 | −17 | — | — |
| Mori | E. | 5·4 | 355 | e 1 27 | + 7 | 2 31 | + 9 | — | — |
| Shasta | Z. | 71·4 | 53 | e 11 17a | − 2 | — | — | e 11 31 | pP |
| Fayetteville | Z. | 91·2 | 42 | i 13 0 | − 3 | — | — | — | — |

Sept. 22d. 9h. 25m. 13s. Epicentre 55°·6N. 162°·0E. Depth of focus 0·005.
(as on 1952, June 29d.).

A = −·5398, B = +·1754, C = +·8233 ; $\delta$ = −3 ; $h$ = −7 ;
D = +·309, E = +·951 ; G = −·783, H = +·254, K = −·568.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| College | | 25·9 | 48 | i 5 28 | 0 | i 5 53 | sP | i 5 47 | pP |
| Hungry Horse | | 49·2 | 61 | e 8 54 | +10 | — | — | e 10 26 | PP |
| Shasta | Z. | 50·1 | 73 | e 8 49k | − 2 | — | — | — | — |
| Mineral | Z. | 50·7 | 73 | e 8 54k | − 1 | — | — | — | — |
| Reno | Z. | 52·3 | 73 | e 9 7a | 0 | — | — | — | — |
| Lick | Z. | 52·8 | 77 | e 9 10a | − 1 | — | — | — | — |
| Kiruna | Z. | 53·6 | 343 | i 9 19 | + 2 | — | — | i 9 35 | pP |
| Scoresby Sund | | 54·2 | 3 | e 9 23 | + 2 | — | — | — | — |
| Fresno | Z. | 54·3 | 75 | e 9 21a | − 1 | — | — | — | — |
| Tinemaha | Z. | 54·9 | 74 | e 9 26 | 0 | i 9 45 | sP | — | — |
| China Lake | Z. | 56·2 | 75 | e 9 36 | 0 | i 9 54 | sP | e 9 48 | pP |
| Pasadena | Z. | 57·1 | 76 | i 9 41 | − 1 | i 10 1 | sP | i 9 54 | pP |
| Boulder City | | 57·6 | 72 | i 9 44 | − 2 | i 10 4 | sP | — | — |
| Riverside | Z. | 57·7 | 76 | e 9 44 | − 2 | — | — | e 9 58 | pP |
| Nelson | | 57·8 | 73 | e 9 46 | − 1 | i 10 6 | sP | — | — |
| Tucson | | 62·6 | 72 | e 10 19 | − 1 | — | — | — | — |
| Kirkland Lake | Z. | 64·3 | 41 | e 10 31 | 0 | — | — | e 10 50 | pP |
| Fayetteville | Z. | 68·1 | 58 | i 10 55 | 0 | — | — | i 11 13 | pP |
| Ottawa | | 68·2 | 40 | e 10 55k | − 1 | — | — | i 11 13 | pP |
| Collmberg | Z. | 70·4 | 340 | e 11 11 | + 2 | — | — | — | — |
| Jena | Z. | 71·0 | 340 | e 11 16 | + 3 | — | — | e 11 29 | pP |
| Morgantown | | 71·5 | 46 | i 11 30 | pP | — | — | — | — |
| Harvard | | 72·3 | 38 | i 11 21a | + 1 | — | — | i 11 40 | pP |
| Weston | | 72·4 | 38 | i 11 22 | + 1 | — | — | — | — |
| Halifax | | 73·0 | 32 | e 11 26k | + 1 | — | — | — | — |
| Stuttgart | | 73·5 | 342 | e 11 30 | + 2 | — | — | — | — |
| Triest | Z. | 75·6 | 338 | e 11 41 | + 1 | e 12 6 | sP | e 12 26 | ? |
| Ksara | | 79·8 | 317 | e 12 3? | 0 | e 23 7? | PPS | e 17 17? | PPP |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Sept. 22d. 11h. 41m. 26s. Epicentre 40°·2N. 124°·4W.

Intensity VII at Petrolia: VI at Alton, Briceland, Carlotta, Ettersburg, Ferndale, Fortuna. Epicentre 40°12′N. 124°25′W. Macroseismic area 4000 sq. miles.

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 41-42.

$A = -\cdot4327$, $B = -\cdot6320$, $C = +\cdot6429$; $\delta = -3$; $h = -2$;
$D = -\cdot825$, $E = +\cdot565$; $G = -\cdot363$, $H = -\cdot530$, $K = -\cdot766$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Ferndale | | 0·4 | 15 | i 0 10 | 0* | — | — | — | — | — |
| Arcata | E. | 0·7 | 20 | i 0 14 | $0_g$ | — | — | — | — | — |
| Shasta | | 1·6 | 72 | i 0 28 | − 2 | — | — | — | — | — |
| Mineral | Z. | 2·2 | 86 | i 0 $35_a$ | − 3 | — | — | — | — | — |
| Berkeley | | 2·9 | 144 | i 0 44k | − 4 | i 2 2 | ? | i 2 30 | ? | — |
| San Francisco | E. | 2·9 | 148 | e 0 48 | 0 | — | — | — | — | — |
| Santa Clara | | 3·4 | 145 | i 0 55 | 0 | — | — | — | — | — |
| Lick | Z. | 3·6 | 142 | i 0 56k | − 2 | — | — | — | — | — |
| Reno | Z. | 3·6 | 99 | e 0 $56_a$ | − 2 | — | — | — | — | — |
| Fresno | Z. | 5·0 | 132 | e 1 16k | − 2 | — | — | — | — | — |
| Tinemaha | | 5·8 | 121 | i 1 34 | + 5 | i 3 10 | − $2_g$ | — | — | — |
| China Lake | Z. | 7·0 | 127 | i 1 47 | + 1 | i 3 47 | − $4_g$ | — | — | — |
| Seattle | | 7·6 | 11 | e 1 56 | + 1 | e 3 25 | + 2 | i 2 11 | P* | 4·0 |
| Pasadena | | 7·8 | 139 | i 1 $57_a$ | − 1 | i 3 29 | + 1 | i 3 24 | S | e 3·8 |
| Victoria | | 8·3 | 4 | 1 59 | − 5 | — | — | — | — | — |
| Riverside | | 8·4 | 136 | i 2 2 | − 4 | — | — | — | — | — |
| Boulder City | | 8·6 | 116 | i 2 13 | + 4 | i 3 34 | −14 | — | — | — |
| Hungry Horse | | 11·0 | 39 | i 2 41 | − 1 | — | — | — | — | i 5·8 |
| Bozeman | | 11·2 | 56 | e 2 48 | + 4 | e 4 50 | − 2 | — | — | — |
| Tucson | | 13·5 | 122 | i 3 18 | + 3 | i 6 2 | SS | — | — | — |
| Sitka | | 18·3 | 341 | e 4 18 | + 1 | e 7 59 | SS | — | — | — |
| Lubbock | | 19·2 | 103 | e 4 34 | + 6 | — | — | — | — | e 10·2 |
| Fayetteville | Z. | 24·1 | 90 | e 5 14 | − 4 | — | — | e 6 11 | PP | e 12·7 |
| Chicago | | 27·7 | 73 | — | — | e 10 31 | − 2 | — | — | — |
| Tacubaya | | 30·0 | 127 | — | — | e 16 44 | ScS | — | — | — |
| Kirkland Lake | Z. | 32·4 | 61 | e 6 34 | 0 | — | — | — | — | e 17·2 |
| Morgantown | | 33·8 | 71 | e 6 49 | + 3 | — | — | — | — | — |
| Ottawa | | 35·7 | 65 | e 7 0 | − 2 | 12 37 | − 2 | 14 51 | SS | 18·8 |
| Washington | | 36·2 | 76 | e 15 47 | ? | — | — | — | — | — |
| Resolute Bay | | 37·2 | 12 | — | — | i 13 17 | +15 | — | — | e 17·3 |
| Shawinigan Falls | N. | 37·5 | 62 | e 7 43 | +26 | — | — | — | — | — |
| Vermont | | 37·6 | 66 | — | — | e 13 17 | + 9 | — | — | — |
| City College, N.Y. | | 37·9 | 72 | — | — | e 15 40 | SS | — | — | — |
| Fordham | | 38·0 | 72 | — | — | e 14 22 | +68 | — | — | — |
| Weston | | 39·4 | 68 | e 7 52 | +19 | — | — | — | — | — |
| Halifax | | 44·2 | 63 | e 8 11k | − 1 | 16 55 | ? | i 8 25 | ? | 23·0 |
| San Juan | | 54·3 | 95 | e 9 31 | + 1 | — | — | — | — | — |
| Scoresby Sund | | 56·6 | 23 | e 9 53 | + 6 | — | — | — | — | — |
| Kiruna | | 69·1 | 14 | e 19 24 | ? | e 20 25 | +10 | e 21 28 | ? | e 41·6 |
| Aberdeen | E. | 71·6 | 29 | — | — | i 26 2 | ? | — | — | e 34·7 |
| Upsala | Z. | 75·5 | 19 | i 11 $54_a$ | + 6 | — | — | — | — | — |
| Paris | | 79·7 | 33 | e 12 16 | + 5 | — | — | e 35 34 | Q | e 40·6 |
| Jena | Z. | 81·4 | 26 | e 12 29 | + 9 | — | — | e 12 47 | ? | — |
| Collmberg | Z. | 81·6 | 26 | e 12 20? | − 1 | — | — | e 12 28 | PcP | — |
| Strasbourg | | 82·0 | 30 | — | — | e 22 49 | ScS | e 31 36 | SSS | e 36·4 |
| Stuttgart | | 82·4 | 29 | e 12 24 | − 1 | e 22 24 | −17 | e 12 32 | PcP | e 40·6 |
| Toledo | | 83·5 | 42 | e 12 31 | 0 | e 16 1 | PP | e 12 51 | ? | — |
| Malaga | | 85·7 | 44 | e 12 32 | −10 | i 23 12 | − 2 | e 16 2 | PP | 42·7 |
| Granada | | 85·8 | 43 | i 13 $2_a$ | +20 | i 23 38 | +23 | 28 44 | SS | i 42·1 |
| Alicante | | 86·5 | 41 | e 12 42 | − 4 | 22 47 | −35 | 18 1 | PPP | 41·0 |
| Almeria | | 86·6 | 43 | e 13 0 | +14 | 23 32 | + 9 | 29 4 | SS | 46·8 |
| Triest | | 86·7 | 28 | e 12 46 | − 1 | e 23 4? | [− 8] | e 23 55 | PS | — |
| Florence | | 87·3 | 30 | — | — | e 24 1 | PS | — | — | e 41·8 |
| Rome | | 89·4 | 31 | e 15 38 | ? | e 24 4 | +15 | — | — | e 42·4 |
| Taranto | | 92·4 | 29 | 15 34 | ? | e 24 4 | −12 | — | — | 51·1 |
| Messina | | 93·8 | 31 | e 16 10 | ? | e 24 40 | +12 | e 36 9 | Q | 43·3 |
| Istanbul | | 95·6 | 20 | e 22 34 | ? | — | — | — | — | 35·6 |
| Ksara | | 104·1 | 18 | e 14 28? | +21 | 27 44? | PS | — | — | — |
| Pretoria | Z. | 153·0 | 66 | e 19 56 | [+ 4] | — | — | — | — | — |

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Sept. 22d. 17h. 23m. 0s. Epicentre 20°·5S. 68°·0W. Depth of focus 0·015.

A = +·3512, B = −·8692, C = −·3481; δ = +2; h = +5;
D = −·927, E = −·375; G = −·130, H = +·323, K = −·937.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Montezuma | | 2·3 | 200 | e 0 38 | 0 | i 1 4 | − 3 | — | — | — |
| Antofagasta | E. | 3·9 | 215 | e 0 56 | − 3 | i 1 41 | − 4 | i 1 33 | ? | — |
| La Paz | | 4·0 | 358 | i 1 1k | 0 | i 1 50 | + 3 | i 1 26 | ? | i 2·0 |
| Copiapo | N. | 7·2 | 197 | e 1 41 | − 3 | i 2 50 | −15 | — | — | — |
| Huancayo | | 11·0 | 319 | — | — | e 4 27 | − 9 | — | — | e 5·0 |
| San Juan | | 38·7 | 3 | i 7 11 | − 2 | — | — | — | — | — |
| Morgantown | | 60·8 | 350 | i 10 0 | − 1 | — | — | i 10 30 | pP | — |
| Fayetteville | Z. | 61·5 | 23 | i 10 4k | − 1 | e 12 26 | PP | i 10 32 | pP | — |
| Harvard | | 62·8 | 358 | i 10 14a | 0 | e 10 57 | sP | e 10 43 | pP | — |
| Halifax | | 64·9 | 4 | i 10 29a | + 1 | — | — | — | — | — |
| Ottawa | | 65·9 | 354 | e 10 34k | 0 | — | — | e 11 4 | pP | — |
| Tucson | | 66·6 | 321 | e 10 38 | − 1 | — | — | — | — | — |
| Kirkland Lake | Z. | 69·2 | 352 | e 10 55 | 0 | — | — | — | — | — |
| Nelson | | 71·4 | 322 | i 11 7 | − 1 | i 11 50 | sP | i 11 36 | pP | — |
| Boulder City | | 71·5 | 322 | e 11 9 | 0 | i 11 51 | sP | i 11 37 | pP | — |
| Riverside | Z. | 71·7 | 319 | i 11 9 | − 1 | — | — | i 11 38 | pP | — |
| Pasadena | | 72·3 | 319 | i 11 14 | + 1 | i 11 56 | sP | i 11 42 | pP | — |
| China Lake | Z. | 73·1 | 321 | e 11 17 | − 1 | i 12 0 | sP | i 11 46 | pP | — |
| Tinemaha | Z. | 74·3 | 321 | e 11 27 | + 2 | i 12 9 | sP | i 11 55 | pP | — |
| Fresno | Z. | 75·0 | 320 | e 11 56 | pP | — | — | — | — | — |
| Lick | Z. | 76·5 | 319 | e 11 38 | + 1 | — | — | — | — | — |
| Reno | Z. | 76·8 | 322 | e 11 40 | + 1 | — | — | e 12 9 | pP | — |
| Butte | | 77·5 | 331 | e 11 44 | + 1 | — | — | i 12 13 | pP | — |
| Mineral | Z. | 78·4 | 322 | e 12 18 | pP | — | — | — | — | — |
| Shasta | | 79·1 | 322 | e 11 51 | − 1 | — | — | — | — | — |
| Hungry Horse | | 79·9 | 331 | e 11 57 | + 1 | — | — | i 12 26 | pP | — |
| Tamanrasset | Z. | 83·6 | 63 | i 12 21k | + 6 | i 13 5 | sP | i 12 53 | pP | — |

Sept. 23d. 2h. 5m. 24s. Epicentre 40°·7S. 72°·5W.

A = +·2286, B = −·7251, C = −·6496; δ = +1; h = −2;
D = −·954, E = −·301; G = −·195, H = +·619, K = −·760.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Buenos Aires | | 12·7 | 66 | i 3 3 | − 2 | i 5 41 | +13 | — | — | — |
| La Plata | | 12·9 | 68 | i 3 5 | − 2 | i 5 28 | − 5 | — | — | 6·4 |
| La Paz | | 24·4 | 11 | 5 21 | 0 | i 9 28 | −11 | i 10 36 | SS | — |
| Kimberley | Z. | 76·9 | 117 | i 11 54 | − 2 | — | — | — | — | — |
| Tucson | | 80·8 | 328 | e 12 18 | + 1 | — | — | — | — | — |
| Pretoria | Z. | 81·2 | 116 | i 12 17 | − 2 | — | — | — | — | — |
| Weston | | 82·7 | 1 | i 12 25k | − 2 | — | — | — | — | — |
| Harvard | | 82·8 | 1 | i 12 26k | − 1 | — | — | — | — | — |
| Palomar | Z. | 84·3 | 324 | i 12 37a | + 2 | — | — | — | — | — |
| Riverside | Z. | 85·0 | 324 | e 12 41 | + 3 | — | — | — | — | — |
| Halifax | | 85·3 | 7 | i 12 39k | − 1 | — | — | — | — | — |
| Nelson | | 85·4 | 327 | i 12 41 | + 1 | — | — | — | — | — |
| Pasadena | | 85·5 | 324 | i 12 43 | + 2 | — | — | — | — | — |
| Boulder City | | 85·6 | 327 | i 12 43 | + 2 | — | — | — | — | — |
| Ottawa | | 85·8 | 358 | e 12 40 | − 2 | — | — | e 12 52 | PcP | — |
| China Lake | Z. | 86·7 | 325 | e 12 48 | + 1 | — | — | — | — | — |
| Tinemaha | Z. | 88·0 | 325 | e 12 55 | + 2 | — | — | — | — | — |
| Fresno | Z. | 88·4 | 324 | e 12 56 | + 1 | — | — | — | — | — |
| Kirkland Lake | Z. | 88·7 | 355 | e 12 54 | − 3 | — | — | — | — | — |
| Lick | | 89·8 | 323 | e 13 4a | + 2 | — | — | — | — | — |
| Reno | Z. | 90·7 | 326 | e 13 8a | + 2 | — | — | — | — | — |
| Mineral | Z. | 92·2 | 325 | e 13 13k | 0 | — | — | — | — | — |
| Shasta | Z. | 92·8 | 325 | e 13 16 | 0 | — | — | — | — | — |
| Hungry Horse | | 96·0 | 334 | i 13 29 | − 1 | — | — | — | — | — |

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Sept. 23d. 20h. 30m. 52s. Epicentre 36°·7N. 29°·6E.

A = +·6988, B = +·3969, C = +·5951 ; $\delta$ = 0 ; $h$ = −2 ;
D = +·494, E = −·870 ; G = +·517, H = +·294, K = −·804.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Istanbul | | 4·4 | 355 | i 1 8 | − 2 | e 2 16 | + 1* | i 1 16 | P* | e 2·4 |
| Athens | | 4·8 | 288 | e 1 15 | 0 | e 2 18 | + 6 | e 2 28 | S* | — |
| Ksara | | 5·9 | 117 | 1 48 | + 4* | 3 8 | − 7g | — | — | — |
| Helwan | E. | 7·0 | 167 | — | — | e 3 14 | + 6 | e 3 30 | S* | — |
| Sofia | | 7·7 | 323 | e 2 7 | − 7* | e 4 7 | − 7g | — | — | — |
| Bucharest | | 8·1 | 342 | e 2 12 | +10 | e 3 30 | − 5 | (3 50) | S* | 3·8 |
| Taranto | | 10·4 | 295 | 2 38 | + 4 | 4 18 | −14 | — | — | e 7·1 |
| Belgrade | | 10·7 | 322 | e 2 54a | +16 | e 5 5 | +26 | e 3 52 | ? | i 5·9 |
| Timisoara | | 11·0 | 328 | — | — | e 4 8? | −39 | e 5 49 | Q | e 6·2 |
| Messina | z. | 11·3 | 282 | i 2 43a | − 3 | i 4 46 | − 8 | i 3 5 | ? | — |
| Szeged | | 11·9 | 326 | — | — | 5 47 | SSS | — | — | e 6·5 |
| Rome | | 14·2 | 297 | i 3 26a | + 2 | 6 5 | + 1 | e 8 3 | Q | 8·3 |
| Triest | | 14·9 | 312 | e 3 30 | − 4 | e 6 42 | SS | e 3 39 | PP | e 8·0 |
| Raciborzu | | 15·7 | 332 | e 3 50 | + 6 | e 7 4 | SS | e 8 45 | PcP | e 9·1 |
| Florence | | 15·7 | 303 | e 3 43 | − 1 | e 6 47 | + 8 | — | — | — |
| Salo | N. | 16·9 | 308 | e 3 58 | − 1 | e 4 34 | PPP | e 5 28 | ? | — |
| Prague | | 17·3 | 326 | e 4 1 | − 3 | e 7 17 | + 1 | e 4 29 | PPP | — |
| Pavia | | 17·6 | 306 | e 4 11 | + 3 | e 7 33 | +10 | — | — | — |
| Cheb | | 18·3 | 324 | — | — | e 7 54 | SS | — | — | — |
| Collmberg | | 18·8 | 327 | e 4 20 | − 3 | e 7 56 | + 6 | e 5 23 | ? | — |
| Zürich | | 18·9 | 312 | e 4 21k | − 3 | e 7 54 | + 1 | — | — | — |
| Stuttgart | | 19·2 | 316 | e 4 26k | − 2 | e 8 0 | + 1 | e 4 33 | P | — |
| Jena | | 19·2 | 325 | e 4 26 | − 2 | e 8 15 | SS | e 4 52 | PP | — |
| Basle | | 19·5 | 312 | e 4 32 | + 1 | e 8 4 | − 2 | — | — | — |
| Potsdam | | 19·5 | 329 | e 4 34 | + 3 | i 8 11 | + 5 | e 8 15 | S | e 11·1 |
| Strasbourg | | 19·9 | 316 | i 4 34 | − 2 | e 8 18 | + 3 | i 4 56 | PP | — |
| Algiers Univ. | z. | 21·3 | 278 | e 4 51 | + 1 | — | — | e 5 10 | PP | — |
| Clermont-Ferrand | | 21·8 | 303 | e 4 55 | − 1 | — | — | — | — | — |
| Copenhagen | | 22·3 | 334 | — | — | 9 11 | + 9 | — | — | 13·1 |
| Paris | | 23·2 | 310 | e 5 7 | − 2 | e 9 25 | + 7 | e 5 40 | PP | e 12·1 |
| Alicante | | 23·9 | 284 | e 5 8 | − 8 | — | — | — | — | 16·8 |
| Upsala | | 24·4 | 345 | i 5 21 | 0 | i 9 45 | + 6 | — | — | e 15·1 |
| Tamanrasset | z. | 25·0 | 243 | i 5 37a | +10 | e 9 48 | − 1 | i 6 9 | PP | — |
| Almeria | | 25·6 | 281 | 6 50 | +78 | 11 26 | +87 | — | — | 16·6 |
| Kew | | 25·8 | 315 | — | — | e 10 15 | +13 | — | — | — |
| Granada | | 26·5 | 282 | 6 48a | +67 | 10 26 | +12 | — | — | 15·1 |
| Kiruna | | 31·6 | 354 | i 6 26 | 0 | e 11 48 | +13 | e 13 8 | SS | e 16·1 |
| College | | 78·7 | 359 | e 12 7 | + 1 | — | — | — | — | — |
| Hungry Horse | | 89·3 | 337 | i 13 0 | + 1 | — | — | — | — | — |

Sept. 24d. 7h. 19m. 5s. Epicentre 14°·3N. 92°·1W.

A = −·0355, B = −·9688, C = +·2454 ; $\delta$ = +5 ; $h$ = +6 ;
D = −·999, E = +·037 ; G = −·009, H = −·245, K = −·969.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Oaxaca | | 5·2 | 302 | e 1 22 | + 1 | e 2 39 | + 1* | — | — | — |
| Vera Cruz | | 6·2 | 322 | e 2 13 | + 9g | e 3 14 | + 6* | e 4 4 | ? | — |
| Puebla | | 7·5 | 310 | e 2 1 | + 8 | e 3 51 | + 4* | — | — | — |
| Tacubaya | | 8·5 | 308 | e 2 16 | + 9 | e 4 13 | − 3* | — | — | — |
| Bogota | | 20·2 | 115 | i 4 40 | + 1 | i 8 37 | SS | — | — | — |
| Lubbock | | 21·0 | 338 | 4 48 | + 1 | — | — | — | — | — |
| Tucson | | 24·7 | 320 | e 5 25 | + 1 | e 10 0 | +16 | — | — | — |
| Morgantown | | 27·3 | 21 | i 5 49 | + 1 | — | — | — | — | — |
| Palomar | z. | 29·4 | 315 | i 6 7 | 0 | — | — | — | — | — |
| Nelson | | 29·5 | 322 | i 6 8 | 0 | — | — | i 6 22 | ? | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Riverside | z. | 30·1 | 316 | e 6 13 | 0 | — | — | — | — | — |
| Pasadena | | 30·8 | 316 | e 6 21 | + 1 | — | — | — | — | — |
| China Lake | z. | 31·3 | 319 | e 6 25 | + 1 | — | — | — | — | — |
| Tinemaha | z. | 32·5 | 319 | e 6 35 | + 1 | — | — | e 6 43 | ? | — |
| Harvard | | 33·2 | 29 | e 6 34 | − 6 | — | — | — | — | e 20·1 |
| Fresno | z. | 33·3 | 318 | e 6 40 | − 1 | — | — | — | — | — |
| Ottawa | | 33·9 | 21 | e 6 46k | − 1 | — | — | — | — | — |
| Lick | z. | 34·9 | 317 | e 7 3 | + 8 | — | — | — | — | — |
| Reno | z. | 35·0 | 323 | e 6 55 | − 1 | — | — | — | — | — |
| Butte | | 36·0 | 337 | e 7 6 | + 1 | — | — | i 7 14 | ? | — |
| Mineral | z. | 36·6 | 322 | e 7 9 | − 1 | — | — | — | — | — |
| Shasta | z. | 37·3 | 322 | e 7 13 | − 3 | — | — | — | — | — |
| Hungry Horse | | 38·5 | 337 | i 7 26 | 0 | — | — | — | — | — |
| La Paz | | 38·7 | 140 | e 7 25 | − 2 | 13 16 | − 9 | — | — | 18·9 |
| Granada | | 80·3 | 54 | i 12 28k | PcP | e 22 45 | ScS | — | — | — |

Sept. 24d. 17h. 38m. 42s. Epicentre 7°·1S. 74°·7W.

A = +·2619, B = −·9572, C = −·1228; δ = −10; h = +7;
D = −·965, E = −·264; G = −·032, H = +·118, K = −·992.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Huancayo | | 5·0 | 188 | i 1 18 | 0 | e 2 8 | −10 | — | — | i 2·4 |
| La Paz | | 11·3 | 146 | e 2 42 | − 4 | i 4 46 | − 8 | 3 0 | PP | 6·0 |
| Bogota | | 11·7 | 3 | i 2 53 | + 2 | i 5 17 | +13 | i 3 10 | PPP | — |
| Chinchina | | 12·0 | 356 | i 2 59 | + 4 | i 5 17 | + 6 | i 3 8 | PP | 6·8 |
| Galerazamba | | 17·8 | 358 | i 4 17 | + 6 | i 7 44 | +16 | i 8 25 | Q | 9·3 |
| Fort de France | | 25·5 | 32 | e 9 24 | PcP | — | — | — | — | — |
| San Juan | | 26·7 | 18 | e 5 42 | − 1 | — | — | — | — | — |
| Bermuda | | 40·4 | 14 | — | — | e 17 15 | SSS | — | — | e 24·7 |
| Washington | | 45·8 | 358 | i 8 28 | + 3 | — | — | i 8 41 | ? | — |
| Morgantown | | 46·8 | 355 | i 8 34 | + 1 | — | — | — | — | — |
| Cleveland | z. | 48·8 | 354 | e 8 49a | 0 | — | — | — | — | — |
| Weston | | 49·3 | 4 | e 8 53k | 0 | — | — | — | — | — |
| Harvard | | 49·5 | 4 | i 8 54k | 0 | — | — | — | — | e 26·1 |
| Buffalo (Larkin) | | 49·9 | 357 | i 8 57 | 0 | — | — | — | — | — |
| Tucson | | 52·1 | 321 | e 9 15 | + 1 | — | — | — | — | — |
| Ottawa | | 52·3 | 0 | i 9 15k | 0 | — | — | — | — | — |
| Kirkland Lake | z. | 55·2 | 356 | e 9 42 | + 5 | — | — | — | — | — |
| Palomar | z. | 56·7 | 319 | e 9 48 | 0 | — | — | — | — | — |
| Nelson | | 56·9 | 322 | e 9 47 | − 2 | — | — | — | — | — |
| Boulder City | | 57·1 | 322 | e 9 49 | − 1 | — | — | — | — | — |
| Mount Wilson | z. | 58·1 | 319 | e 9 57 | − 1 | — | — | — | — | — |
| China Lake | z. | 58·7 | 321 | e 10 1 | − 1 | — | — | — | — | — |
| Tinemaha | z. | 59·9 | 321 | e 10 9 | − 1 | — | — | — | — | — |
| Fresno | z. | 60·7 | 320 | e 10 14k | − 1 | — | — | — | — | — |
| Lick | z. | 62·2 | 319 | e 10 25k | − 1 | — | — | — | — | — |
| Reno | z. | 62·4 | 323 | e 10 27k | 0 | — | — | — | — | — |
| Mineral | z. | 64·0 | 322 | e 10 36k | − 2 | — | — | — | — | — |
| Shasta | z. | 64·7 | 322 | e 10 9a | −33 | — | — | — | — | — |
| Hungry Horse | | 65·1 | 333 | i 10 45 | 0 | — | — | — | — | — |
| Malaga | | 78·7 | 50 | i 12 7 | + 1 | e 21 55 | − 8 | — | — | — |
| Granada | | 79·5 | 50 | i 12 12a | + 2 | — | — | — | — | 42·3 |
| Toledo | | 79·9 | 48 | e 12 14k | + 2 | e 24 49 | ? | — | — | — |
| Almeria | | 80·2 | 51 | i 12 15 | + 1 | 22 12 | − 7 | 15 16 | PP | 43·6 |
| Tortosa | | 83·5 | 48 | e 12 39 | PcP | — | — | — | — | — |
| Tamanrasset | z. | 83·6 | 66 | i 12 33k | + 2 | e 23 51 | PS | e 24 23 | PPS | — |
| Algiers Univ. | z. | 84·5 | 52 | e 12 35 | − 1 | — | — | e 12 47 | ? | — |
| College | | 89·3 | 336 | i 12 59 | 0 | — | — | — | — | — |
| Stuttgart | | 91·3 | 41 | e 13 8 | − 1 | — | — | — | — | — |
| Triest | z. | 93·9 | 45 | e 13 20 | − 1 | — | — | e 13 33 | ? | — |
| Collmberg | z. | 94·0 | 40 | e 13 21? | 0 | — | — | — | — | — |
| Kiruna | z. | 98·5 | 23 | i 13 42 | 0 | — | — | — | — | — |
| Poona | z. | 147·4 | 67 | i 19 50 | [+ 7] | — | — | — | — | — |

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Sept. 24d. 20h. 29m. 24s. Epicentre 56°·3N. 158°·6W. Depth of focus 0·010.

$A = -\cdot5204$, $B = -\cdot2039$, $C = +\cdot8292$; $\delta = -4$; $h = -8$;
$D = -\cdot365$, $E = +\cdot931$; $G = -\cdot772$, $H = -\cdot303$, $K = -\cdot559$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| College | | 10·2 | 27 | i 2 20 | − 5 | 4 16 | − 2 | — | — | e 4·5 |
| Sitka | | 12·8 | 77 | i 2 57 | − 3 | e 5 28 | + 8 | — | — | — |
| Seattle | | 23·7 | 94 | i 5 8k | + 4 | i 5 18 | ? | e 5 25 | pP | — |
| Corvallis | z. | 25·0 | 102 | e 5 17 | + 1 | — | — | e 5 35 | pP | — |
| Hungry Horse | | 28·0 | 86 | i 5 43 | − 1 | i 12 28 | ScP | — | — | — |
| Shasta | | 28·2 | 107 | i 5 46k | 0 | e 10 28 | + 5 | i 6 5 | pP | — |
| Mineral | z. | 28·9 | 107 | i 5 52 | 0 | — | — | i 6 11 | pP | — |
| Resolute Bay | | 30·1 | 27 | e 6 0 | − 2 | i 10 51 | − 2 | i 6 40 | sP | — |
| Berkeley | z. | 30·3 | 111 | i 6 5a | + 1 | — | — | e 6 22 | pP | — |
| Reno | z. | 30·4 | 105 | e 6 5k | 0 | e 11 4 | + 7 | e 6 24 | pP | — |
| Lick | z. | 31·0 | 111 | e 6 10k | 0 | — | — | e 6 30 | pP | — |
| Fresno | z. | 32·5 | 109 | e 6 23k | 0 | — | — | e 6 42 | pP | — |
| Tinemaha | z. | 33·1 | 108 | i 6 29k | 0 | e 12 46 | ScP | i 6 49 | pP | — |
| China Lake | z. | 34·3 | 108 | i 6 39k | 0 | e 12 50 | ScP | i 6 58 | pP | — |
| Pasadena | | 35·3 | 111 | i 6 48k | + 1 | e 12 20 | + 6 | i 7 6 | pP | e 14·8 |
| Boulder City | | 35·7 | 105 | i 6 51 | 0 | i 12 56 | ScP | i 7 11 | pP | — |
| Nelson | | 35·9 | 105 | i 6 52 | 0 | i 12 55 | ScP | i 7 12 | pP | — |
| Palomar | z. | 36·6 | 110 | i 6 59k | + 1 | e 12 59 | ScP | i 7 18 | pP | — |
| Tucson | | 40·7 | 105 | i 7 33 | + 1 | e 14 1 | sS | i 7 53 | pP | e 19·8 |
| Aomori | | 41·6 | 275 | e 7 17 | −23 | — | — | e 8 1 | pP | — |
| Hukusima | | 43·9 | 271 | e 7 58 | − 1 | — | — | — | — | — |
| Inawasiro | | 44·2 | 271 | e 8 0 | − 1 | — | — | — | — | — |
| Shirakawa | | 44·5 | 270 | e 7 56 | − 7 | — | — | — | — | — |
| Mito | | 44·9 | 270 | e 8 4 | − 3 | — | — | — | — | — |
| Utunomiya | | 45·1 | 271 | e 8 6 | − 2 | — | — | e 10 12 | PP | — |
| Kumagaya | | 45·6 | 271 | e 8 15 | + 3 | — | — | — | — | — |
| Maebasi | z. | 45·6 | 272 | i 8 12 | 0 | — | — | — | — | — |
| Tokyo | | 45·8 | 270 | e 8 12 | − 2 | — | — | e 8 19 | ? | — |
| Nagano | n. | 45·9 | 273 | e 8 15 | + 1 | — | — | — | — | — |
| Matusiro | | 46·0 | 273 | i 8 15 | 0 | 14 55 | + 3 | e 10 0 | PP | 20·5 |
| Oiwake | | 46·0 | 272 | e 8 16 | + 1 | — | — | — | — | — |
| Hunatu | | 46·4 | 272 | e 8 19 | + 1 | — | — | — | — | — |
| Kirkland Lake | z. | 46·4 | 64 | i 8 16k | − 2 | e 10 6 | PP | e 8 35 | pP | — |
| Matumoto | e. | 46·4 | 274 | e 8 16 | − 2 | — | — | — | — | — |
| Toyama | | 46·5 | 274 | e 8 18 | − 1 | — | — | e 8 44 | pP | — |
| Chicago | | 46·6 | 76 | e 8 18 | − 2 | e 15 0 | − 1 | — | — | — |
| Misima | | 46·6 | 271 | i 8 20 | 0 | — | — | i 9 16 | ? | — |
| Iida | | 47·0 | 272 | e 8 15 | − 8 | — | — | — | — | — |
| Shizuoka | | 47·0 | 271 | e 8 25 | + 2 | — | — | — | — | — |
| Kameyama | | 48·2 | 272 | e 8 36 | + 4 | — | — | — | — | — |
| Kyoto | | 48·5 | 273 | e 8 42 | + 7 | — | — | — | — | — |
| Osaka | | 48·9 | 273 | e 8 41 | + 3 | e 9 7 | sP | e 8 49 | ? | — |
| Scoresby Sund | | 49·9 | 18 | — | — | e 15 50 | + 3 | e 18 28 | ScS | 22·6 |
| Cleveland | | 50·1 | 72 | i 8 46 | − 1 | e 15 49 | − 1 | e 9 9 | pP | — |
| Cincinnati | | 50·2 | 76 | i 8 46 | − 2 | i 15 51 | 0 | — | — | — |
| Ottawa | | 50·4 | 65 | i 8 48k | − 1 | 15 54 | 0 | 10 11 | PP | — |
| Buffalo (Larkin) | | 50·7 | 69 | i 8 50 | − 2 | — | — | — | — | — |
| Koti | | 50·8 | 274 | e 8 54 | + 2 | — | — | — | — | — |
| Shawinigan Falls | n. | 51·1 | 61 | e 8 52 | − 3 | 16 12 | + 8 | e 10 30 | PP | 21·8 |
| Pittsburgh | | 51·7 | 72 | i 8 58 | − 1 | e 16 9 | − 3 | — | — | — |
| Ooita | | 52·1 | 275 | e 9 0 | − 2 | — | — | — | — | — |
| Morgantown | | 52·3 | 73 | i 9 2 | − 2 | — | — | 9 22 | pP | — |
| Pennsylvania | e. | 52·6 | 70 | — | — | e 20 10 | SS | — | — | — |
| Miyazaki | | 53·2 | 273 | e 9 11 | + 1 | — | — | — | — | — |
| Kagosima | | 54·0 | 274 | e 9 5 | −11 | — | — | e 9 18 | P | — |
| Washington | | 54·3 | 71 | i 9 17 | − 1 | — | — | i 9 37 | pP | — |
| City College, N.Y. | | 54·6 | 67 | e 9 18 | − 3 | e 16 53 | + 2 | — | — | — |
| Fordham | | 54·6 | 67 | i 9 20 | − 1 | i 16 55 | + 4 | — | — | — |
| Harvard | | 54·6 | 64 | i 9 19 | − 2 | — | — | e 11 21 | PP | e 28·0 |
| Weston | | 54·8 | 64 | i 9 22k | 0 | e 16 55 | + 1 | i 9 41 | pP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Kiruna | | 56·3 | 0 | i 9 32 a | − 1 | i 17 15 | + 1 | i 17 52 | sS | e 26·1 |
| Halifax | | 56·9 | 58 | i 9 36 k | − 1 | 17 21 | − 1 | 19 18 | ScS | — |
| Tacubaya | | 57·2 | 104 | i 9 38 a | − 1 | — | — | — | — | — |
| Nanking | | 60·1 | 284 | i 9 57 a | − 2 | — | — | — | — | — |
| Upsala | | 64·3 | 3 | i 10 26 k | − 1 | i 18 55 | − 1 | i 10 54 | pP | — |
| Bermuda | | 65·8 | 67 | i 10 36 | − 1 | e 19 50 | PS | — | — | e 27·0 |
| Copenhagen | | 68·2 | 6 | e 10 52 | 0 | 19 46 | + 3 | 20 44 | ScS | — |
| Rathfarnham C. | z. | 68·5 | 18 | i 10 54 a | 0 | e 14 16 | ? | i 11 25 | pP | — |
| Potsdam | | 71·6 | 6 | e 11 13 | 0 | i 20 30 | + 7 | — | — | — |
| Collmberg | z. | 72·6 | 6 | e 11 18 | − 1 | — | — | e 11 55 | sP | — |
| Manila | | 72·7 | 271 | i 11 11 | − 8 | i 20 24 | −11 | i 21 56 | PPS | — |
| Jena | | 72·9 | 6 | i 11 21 | + 1 | e 13 24 | ? | e 11 46? | pP | — |
| Prague | | 73·9 | 5 | e 11 26 | 0 | e 20 51 | + 2 | e 11 59 | pP | — |
| Raciborzu | | 74·1 | 2 | 11 29 | + 2 | e 20 56 | + 5 | e 11 49? | pP | — |
| Paris | | 74·2 | 13 | i 11 28 | 0 | i 11 48 | PcP | i 11 56 | pP | e 41·6 |
| Lwow | | 74·3 | 358 | i 11 29 | + 1 | i 20 55 | + 2 | i 21 34 | sS | — |
| Karlsruhe | z. | 74·6 | 9 | e 11 31 | + 1 | — | — | e 11 38 | ? | — |
| Stuttgart | | 74·9 | 8 | e 11 32 | 0 | — | — | e 11 54 | pP | — |
| Strasbourg | | 75·0 | 9 | i 11 33 | + 1 | e 20 59 | − 2 | e 12 0 | pP | — |
| Uzhgorod | | 75·5 | 0 | e 11 36 | + 1 | i 21 11 | + 5 | — | — | — |
| Cernauti | | 75·8 | 357 | i 11 37 | 0 | i 21 9 | − 1 | — | — | — |
| Basle | | 76·0 | 10 | e 11 40 | + 2 | e 21 8 | − 4 | — | — | — |
| Zürich | | 76·2 | 10 | e 11 43 | + 4 | e 21 16 | + 2 | e 12 18 | sP | — |
| San Juan | | 76·3 | 77 | i 11 39 | − 1 | — | — | i 12 0 | pP | — |
| Chur | | 76·8 | 9 | e 11 44 | + 1 | — | — | — | — | — |
| Kishinev | | 77·0 | 356 | i 11 43 | − 1 | i 21 22 | − 1 | 12 12 | pP | — |
| Clermont-Ferrand | | 77·3 | 14 | i 11 47 | + 1 | i 21 32 | + 6 | — | — | — |
| Galerazamba | | 77·4 | 89 | e 11 50 | + 4 | e 21 51 | ScS | — | — | — |
| Triest | | 78·3 | 6 | i 11 51 a | 0 | i 21 59 | ScS | e 22 47 | PPS | — |
| Belgrade | | 79·4 | 1 | e 10 58 k | −59 | e 21 45 | − 3 | e 22 0 | ScS | — |
| Florence | | 80·0 | 8 | e 12 11 | PcP | i 21 58 | + 3 | i 22 41 | PS | — |
| Chatra | | 80·4 | 315 | i 12 3 | + 1 | e 21 59 | 0 | — | — | — |
| Tortosa | | 81·7 | 16 | e 11 42 | −27 | — | — | — | — | — |
| Toledo | | 81·9 | 20 | i 12 13 | + 3 | e 22 18 | + 4 | 15 17 | PP | — |
| Chinchina | | 82·0 | 93 | e 12 7 | − 4 | — | — | — | — | — |
| Fort de France | | 82·0 | 75 | e 12 10 | − 1 | — | — | e 12 18 | PcP | — |
| Rome | | 82·0 | 7 | i 12 11 a | 0 | 22 17 | + 2 | 23 2 | PS | — |
| Istanbul | | 82·9 | 355 | i 12 16 | + 1 | e 22 26 | + 2 | — | — | — |
| Bogota | | 83·1 | 91 | e 12 18 | + 2 | e 22 37 | ScS | — | — | — |
| New Delhi | | 83·2 | 313 | i 12 16 | − 1 | i 22 27 | 0 | — | — | — |
| Taranto | | 83·6 | 4 | e 12 54 | sP | 22 34 | + 3 | 25 54 | ? | — |
| Alicante | | 84·0 | 18 | e 12 24 | + 3 | e 22 37 | + 2 | — | — | 42·1 |
| Granada | | 84·6 | 21 | i 12 31 a | + 7 | i 22 49 | + 8 | 12 52 | pP | 42·5 |
| Malaga | | 84·9 | 21 | i 12 21 | − 4 | i 22 49 | + 5 | — | — | 40·8 |
| Almeria | | 85·1 | 19 | e 12 29 | + 3 | i 22 49 | + 3 | 23 1 | ScS | 47·0 |
| Quetta | | 85·6 | 323 | i 12 30 | + 1 | e 22 50 | − 1 | i 15 49 | PP | — |
| Messina | | 85·8 | 5 | e 12 29 | − 1 | e 22 54 | + 1 | — | — | — |
| Algiers Univ. | z. | 86·1 | 15 | e 12 31 | 0 | e 13 4 | sP | e 12 53 | pP | — |
| Ksara | | 89·5 | 348 | i 12 56 | + 9 | e 23 39 | +11 | — | — | — |
| Poona | z. | 93·5 | 311 | e 13 9 | + 3 | — | — | — | — | — |
| Helwan | | 93·9 | 352 | — | — | i 24 17 | +11 | — | — | — |
| Tamanrasset | z. | 100·2 | 15 | e 13 58 | pP | e 18 15 | PP | e 18 49 | sPP | — |
| Pretoria | z. | 149·2 | 348 | e 19 35 | [+ 2] | — | — | i 19 39 | $PKP_2$ | — |
| Kimberley | z. | 152·4 | 355 | e 19 39 | [+ 1] | — | — | i 19 47 | $PKP_2$ | — |
| Pietermaritzburg | z. | 152·7 | 344 | i 19 47 | [+ 9] | — | — | — | — | — |
| Grahamstown | z. | 156·8 | 350 | e 19 54 | [+10] | — | — | i 20 15 | pPKP | — |

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Sept. 25d. 8h. 56m. 32s. Epicentre 44°·5N. 28°·0W. (as on 1951, April 6d.).

A = +·6318, B = −·3360, C = +·6985; δ = −3; h = −3;
D = −·469, E = −·883; G = +·617, H = −·328, K = −·716.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Angra do Heroismo | | 5·9 | 174 | — | — | i 2 46 | + 6 | — | — | i 4·2 |
| Ponta Delgada | | 7·0 | 165 | i 1 46 | 0 | i 3 53 | + 2$_s$ | 3 13 | S | — |
| Toledo | | 18·3 | 97 | e 4 15 | − 2 | e 6 36 | −63 | e 6 15 | ? | e 9·7 |
| Malaga | | 19·5 | 105 | i 4 32 | + 1 | i 8 8 | + 2 | 8 20 | SS | 10·5 |
| Granada | | 19·8 | 104 | i 4 40$_a$ | + 5 | 8 53 | SSS | 4 58 | PP | 10·0 |
| Almeria | | 20·8 | 103 | i 4 45 | 0 | 8 33 | 0 | 5 9 | PP | 12·2 |
| Tortosa | | 21·2 | 90 | i 4 58 | + 9 | — | — | — | — | — |
| Paris | | 21·3 | 67 | e 4 49 | − 1 | i 5 0 | PP | e 5 22 | PPP | e 10·5 |
| Alicante | | 21·5 | 97 | e 4 55 | + 3 | 9 1 | +14 | — | — | 11·1 |
| Algiers Univ. | z. | 24·7 | 98 | e 5 20 | − 4 | — | — | — | — | — |
| Strasbourg | | 24·8 | 67 | e 5 37 | +12 | — | — | — | — | — |
| Halifax | | 25·2 | 284 | e 5 30$_k$ | + 1 | 9 59 | + 7 | — | — | 12·4 |
| Stuttgart | | 25·7 | 67 | e 5 33 | 0 | — | — | — | — | — |
| Jena | | 27·2 | 63 | e 5 45 | − 2 | — | — | e 6 15 | ? | — |
| Collmberg | z. | 28·0 | 62 | e 5 53 | − 2 | — | — | — | — | — |
| Weston | | 31·3 | 283 | i 6 23$_a$ | − 1 | — | — | — | — | — |
| Harvard | | 31·4 | 283 | e 6 24 | − 1 | — | — | — | — | e 15·7 |
| Messina | | 33·0 | 86 | e 6 40 | + 1 | — | — | e 16 14 | Q | e 18·1 |
| Kiruna | z. | 34·3 | 33 | i 6 47$_k$ | − 3 | — | — | — | — | — |
| Tamanrasset | z. | 35·0 | 118 | e 6 52 | − 4 | e 6 58 | P | e 8 10 | PP | 17·5 |
| Ksara | | 49·5 | 80 | e 8 56 | + 2 | e 18 56 | SS | — | — | — |
| Fayetteville | z. | 49·9 | 285 | i 8 56 | − 1 | — | — | e 10 47 | PP | — |
| Hungry Horse | | 56·4 | 308 | i 9 43 | − 2 | — | — | — | — | — |
| College | | 61·3 | 336 | e 10 16 | − 4 | — | — | — | — | — |
| Tucson | | 63·5 | 291 | e 10 34 | 0 | — | — | e 11 8 | PcP | — |
| Boulder City | | 63·9 | 296 | e 10 35 | − 2 | — | — | — | — | — |
| Nelson | | 64·0 | 296 | e 10 36 | − 2 | — | — | e 10 55 | ? | — |
| Reno | z. | 64·8 | 303 | e 10 42 | − 1 | — | — | — | — | — |
| Mineral | z. | 65·4 | 304 | e 10 44 | − 3 | — | — | — | — | — |
| Tinemaha | z. | 65·4 | 299 | e 10 45 | − 2 | — | — | — | — | — |
| China Lake | z. | 65·7 | 298 | e 10 47 | − 1 | — | — | — | — | — |
| Fresno | z. | 66·5 | 301 | e 10 53 | − 1 | — | — | — | — | — |
| Palomar | z. | 66·8 | 296 | e 10 57 | + 1 | — | — | — | — | — |
| Mount Wilson | z. | 67·0 | 297 | e 10 56 | − 1 | — | — | — | — | — |
| Lick | z. | 67·3 | 302 | e 10 58 | − 1 | — | — | — | — | — |
| Huancayo | | 70·8 | 231 | e 11 21 | + 1 | — | — | — | — | — |
| La Paz | n. | 70·9 | 221 | e 8 40? | ? | — | — | i 9 4? | ? | — |

Sept. 25d. 14h. 59m. 2s. Epicentre 31°·2N. 138°·0E. Depth of focus 0·060.
(as on August 21d.).

Intensity II-III at Utunomiya. Epicentre 30°·7N. 137°·9E. Depth about 240km. Macroseismic radius greater than 300km.
Seismo. Bull. Cent. Met. Obs., Japan, for September, 1952, Tokyo, 1952, p. 353.

| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Torisima | | 1·7 | 110 | e 1 13 | +17 | — | — |
| Hatidyozima | | 2·5 | 39 | 0 54 | − 7 | — | — |
| Siomisaki | | 2·9 | 320 | e 1 5 | + 1 | 1 57 | + 3 |
| Owase | | 3·2 | 332 | e 1 2 | − 4 | 1 54 | − 4 |
| Tu | n. | 3·7 | 341 | i 1 15 | + 4 | 2 6 | 0 |
| Osima | | 3·7 | 18 | i 1 15 | + 4 | 2 9 | + 3 |
| Muroto | | 3·8 | 303 | i 1 11$_a$ | − 1 | 2 6 | − 2 |
| Shizuoka | | 3·8 | 5 | 1 14$_k$ | + 2 | 2 7 | − 1 |
| Kameyama | | 3·9 | 341 | 1 15 | + 3 | 2 7 | − 3 |
| Osaka | | 4·0 | 330 | e 1 18 | + 5 | 2 9 | − 2 |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. |
| Misima | | 4·0 | 11 | i 1 16 | + 3 | 2 11 | 0 |
| Mera | Z. | 4·0 | 22 | i 1 16 | + 3 | 2 12 | + 1 |
| Ajiro | | 4·0 | 14 | i 1 8a | − 5 | 2 0 | −11 |
| Tokusima | | 4·1 | 316 | i 1 16 | + 2 | 2 12 | − 1 |
| Sumoto | | 4·1 | 321 | i 1 14 | 0 | 2 8 | − 5 |
| Nagoya | E. | 4·1 | 348 | e 1 17 | + 3 | 2 11 | − 2 |
| Kyoto | | 4·2 | 334 | e 1 15 | 0 | 2 11 | − 3 |
| Kobe | | 4·2 | 327 | i 1 15 | 0 | 2 10 | − 4 |
| Hikone | | 4·3 | 341 | 1 22 | + 6 | 2 18 | + 2 |
| Hunatu | N. | 4·3 | 8 | 1 17 | + 1 | 2 10 | − 6 |
| Iida | | 4·3 | 358 | e 1 11 | − 5 | 2 6 | −10 |
| Gihu | E. | 4·3 | 346 | e 1 16 | 0 | 2 14 | − 2 |
| Ibukisan | | 4·4 | 342 | e 1 24 | + 7 | 2 23 | + 5 |
| Yokohama | | 4·4 | 18 | i 1 21 | + 4 | 2 18 | 0 |
| Kohu | | 4·4 | 6 | i 1 20 | + 3 | — | — |
| Koti | | 4·5 | 303 | i 1 17a | − 1 | 2 12 | − 8 |
| Takamatu | | 4·6 | 314 | i 1 18a | − 1 | 2 15 | − 7 |
| Simidu | | 4·6 | 292 | i 1 16a | − 3 | 2 18 | − 4 |
| Tsuruga | | 4·7 | 341 | 1 20 | 0 | 2 19 | − 4 |
| Tokyo | Z. | 4·7 | 18 | i 1 22k | + 2 | 2 20 | − 3 |
| Titibu | | 4·9 | 10 | i 1 24 | + 2 | 2 24 | − 3 |
| Hukui | | 5·0 | 344 | e 1 23 | 0 | 2 24 | − 5 |
| Matumoto | E. | 5·0 | 0 | 1 25 | + 2 | 2 32 | + 3 |
| Toyooka | | 5·1 | 329 | i 1 21a | − 3 | 2 23 | − 7 |
| Oiwake | | 5·1 | 5 | 1 14 | −10 | 2 15 | −15 |
| Matuyama | | 5·2 | 302 | i 1 25a | 0 | 2 28 | − 4 |
| Tukubasan | | 5·3 | 19 | e 1 39 | +13 | 2 41 | + 7 |
| Maebasi | Z. | 5·3 | 9 | i 1 27 | + 1 | 2 28 | − 6 |
| Matusiro | | 5·3 | 2 | e 1 27 | + 1 | 2 31 | − 3 |
| Kanazawa | | 5·4 | 348 | e 1 28 | + 1 | 2 32 | − 4 |
| Nagano | N. | 5·4 | 2 | e 1 27 | 0 | 2 31 | − 5 |
| Toyama | Z. | 5·5 | 353 | 1 28 | 0 | 2 34 | − 4 |
| Utunomiya | | 5·6 | 16 | e 1 28 | − 2 | 2 32 | − 8 |
| Hirosima | | 5·6 | 305 | 1 27 | − 3 | 2 34 | − 6 |
| Miyazaki | | 5·6 | 279 | e 1 31 | + 1 | 2 41 | + 1 |
| Mito | | 5·6 | 21 | 1 30 | 0 | 2 36 | − 4 |
| Ooita | | 5·7 | 292 | i 1 30 | − 1 | 2 39 | − 3 |
| Hamada | | 6·2 | 308 | i 1 33a | − 3 | 2 42 | − 9 |
| Shirakawa | | 6·2 | 17 | e 1 35 | − 1 | 2 45 | − 6 |
| Wazima | | 6·2 | 352 | e 1 36 | 0 | 2 46 | − 5 |
| Onahama | | 6·2 | 22 | — | — | i 2 38 | −13 |
| Kumamoto | | 6·4 | 286 | e 1 38 | 0 | — | — |
| Inawasiro | | 6·6 | 15 | e 1 38 | − 2 | 2 53 | − 6 |
| Niigata | | 6·7 | 7 | — | — | i 2 56 | − 5 |
| Hukusima | | 6·8 | 17 | e 1 42 | − 1 | 3 0 | − 4 |
| Hukuoka | | 6·8 | 292 | e 1 40 | − 3 | 2 57 | − 7 |
| Aikawa | | 6·8 | 2 | e 1 46 | + 3 | 2 49 | −15 |
| Sendai | | 7·4 | 18 | e 1 55 | + 6 | 3 21 | + 5 |
| Isinomaki | | 7·7 | 20 | — | — | e 3 4 | −18 |
| Mizusawa | E. | 8·3 | 18 | 2 46 | +46 | 3 33 | − 1 |
| Akita | | 8·7 | 11 | — | — | e 3 36 | − 6 |
| Morioka | | 8·9 | 16 | e 2 6 | 0 | 3 39 | − 7 |
| Hatinohe | | 9·8 | 16 | — | — | e 3 23 | −42 |
| Urakawa | | 11·6 | 18 | — | — | e 4 36 | − 6 |
| Sapporo | | 12·1 | 12 | — | — | e 4 45 | − 8 |
| Obihiro | | 12·4 | 18 | — | — | e 4 52 | − 7 |
| Manila | | 22·7 | 227 | i 4 20 | − 9 | i 7 52 | −14 |
| Kiruna | Z. | 70·9 | 339 | i 10 30k | − 5 | — | — |
| Shasta | | 76·9 | 50 | e 11 11 | + 2 | — | — |
| Upsala | Z. | 76·9 | 334 | i 11 3k | − 6 | — | — |
| Tinemaha | Z. | 81·6 | 52 | e 11 36 | + 2 | e 21 5 | − 6 |
| China Lake | Z. | 82·7 | 52 | e 11 42 | + 2 | e 20 54 | −28 |
| Mount Wilson | Z. | 83·3 | 54 | i 11 45 | + 2 | — | — |
| Palomar | Z. | 84·6 | 54 | e 11 51 | + 2 | e 20 39 | −61 |
| Collmberg | Z. | 84·7 | 329 | e 11 39 | −11 | — | — |

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Sept. 26d. 12h. 28m. 51s. Epicentre 24°·9S. 179°·8W. Depth of focus 0·080.
(as on 1951, September 8d.).

A = −·9081, B = −·0032, C = −·4187 ; δ = −3 ; h = +3 ;
D = −·003, E = +1·000 ; G = +·417, H = +·001, K = −·908.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Karapiro | N. | 13·6 | 196 | e 3 3 | + 8 | e 5 33 | +17 | — | — |
| Tuai | N. | 14·1 | 190 | — | — | e 5 33 | + 8 | — | — |
| Cobb River | E. | 17·3 | 201 | — | — | e 6 33 | +11 | — | — |
| Wellington | | 17·8 | 195 | e 3 31 | − 5 | e 6 27 | − 4 | — | — |
| Kaimata | N.E. | 19·0 | 200 | — | — | e 6 57 | + 5 | — | — |
| Lick | Z. | 82·6 | 42 | i 11 27a | 0 | — | — | — | — |
| Mount Wilson | Z. | 83·0 | 47 | e 11 29 | 0 | — | — | — | — |
| Riverside | Z. | 83·3 | 47 | e 11 31 | 0 | — | — | — | — |
| Fresno | Z. | 83·4 | 44 | e 11 31k | 0 | — | — | — | — |
| China Lake | Z. | 84·2 | 46 | e 11 36 | + 1 | — | — | — | — |
| Shasta | Z. | 84·3 | 40 | e 11 35a | − 1 | — | — | — | — |
| Mineral | Z. | 84·5 | 40 | e 11 36k | − 1 | — | — | — | — |
| Tinemaha | Z. | 84·6 | 45 | e 11 38 | + 1 | — | — | — | — |
| Nelson | | 86·0 | 47 | i 11 43 | − 1 | — | — | — | — |
| Boulder City | | 86·2 | 47 | e 11 45 | 0 | — | — | — | — |
| Tucson | | 86·9 | 52 | e 11 50 | + 2 | — | — | — | — |
| College | | 92·8 | 12 | e 12 12 | − 4 | — | — | e 14 9 | pP |
| Upsala | Z. | 143·0 | 345 | i 18 28 | [− 5] | — | — | — | — |
| Collmberg | Z. | 151·9 | 343 | e 18 53 | [+ 7] | — | — | — | — |
| Algiers Univ. | Z. | 167·9 | 349 | e 29 38 | PKKS | — | — | — | — |

Sept. 26d. 17h. 20m. 59s. Epicentre 19°·5S. 171°·5E. (as on 1949, July 4d.).

A = −·9330, B = +·1394, C = −·3318 ; δ = +1 ; h = +5 ;
D = +·148, E = +·989 : G = +·328, H = −·049, K = −·943.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Brisbane | | 18·7 | 241 | e 4 20 | − 2 | — | — | i 4 28 | PP | — |
| Riverview | | 23·0 | 227 | — | — | i 10 28 | SSS | — | — | e 14·0 |
| Manila | | 60·2 | 300 | 7 25 | ? | — | — | — | — | — |
| Pasadena | Z. | 85·5 | 52 | e 12 43 | + 2 | — | — | e 13 4 | ? | — |
| Fresno | Z. | 85·6 | 48 | e 12 40 | − 1 | — | — | — | — | — |
| Riverside | Z. | 86·0 | 52 | e 12 47 | + 4 | — | — | — | — | — |
| Palomar | Z. | 86·1 | 53 | e 12 47 | + 3 | — | — | e 12 59 | ? | — |
| China Lake | Z. | 86·7 | 50 | e 12 47 | 0 | — | — | — | — | — |
| Nelson | | 88·7 | 52 | i 12 56 | − 1 | — | — | — | — | — |
| Boulder City | | 88·8 | 52 | e 12 57 | 0 | — | — | — | — | — |
| College | | 89·7 | 16 | e 12 59 | − 2 | — | — | — | — | — |
| Tamanrasset | Z. | 166·5 | 288 | e 19 21 | [−46] | — | — | e 22 13 | ? | — |

Sept. 26d. 17h. 23m. 27s. (I)
17h. 32m. 39s. (II)
17h. 44m. 57s. (III)
} Epicentre 6°·5S. 155°·0E. (as on 19d.).

| | | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| I | Brisbane | | 20·9 | 187 | e 4 45 | − 1 | e 8 34 | − 1 | i 5 1 | PP |
| II | | | 20·9 | 187 | e 4 43 | − 3 | i 8 34 | − 1 | i 5 2 | PP |
| III | | | 20·9 | 187 | i 4 42a | − 4 | i 8 32 | − 3 | i 5 20 | PPP |
| III | Manila | | 39·7 | 302 | — | — | 13 51 | +11 | — | — |
| I | College | | 82·6 | 20 | e 12 24 | − 2 | — | — | — | — |
| II | | | 82·6 | 20 | 12 24 | − 2 | — | — | — | — |
| III | | | 82·6 | 20 | i 12 23 | − 3 | — | — | — | — |
| II | Shasta | Z. | 88·5 | 49 | e 12 39 | −17 | — | — | — | — |
| III | | Z. | 88·5 | 49 | e 12 57 | + 1 | — | — | — | — |
| II | Reno | Z. | 90·4 | 50 | e 13 5 | + 1 | — | — | — | — |
| III | | Z. | 90·4 | 50 | e 13 10 | + 6 | — | — | — | — |
| I | Pasadena | Z. | 91·0 | 56 | e 13 8 | + 1 | — | — | — | — |
| II | | Z. | 91·0 | 56 | e 13 7 | 0 | — | — | — | — |
| III | | Z. | 91·0 | 56 | e 13 7 | 0 | — | — | — | — |

*Continued on next page.*

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| | | | △ | Az. | P. | | O−C. | S. | | O−C. | Supp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | ° | ° | m. | s. | s. | m. | s. | s. | m. | s. | |
| III | Tinemaha | z. | 91·2 | 53 | e 13 | 9 | + 1 | — | | — | — | | — |
| I | Riverside | z. | 91·6 | 56 | e 13 | 11 | + 1 | — | | — | — | | — |
| II | | z. | 91·6 | 56 | e 13 | 11 | + 1 | — | | — | — | | — |
| III | | | 91·6 | 56 | i 13 | 10 | 0 | — | | — | — | | — |
| I | China Lake | z. | 91·7 | 53 | e 13 | 12 | + 2 | — | | — | — | | — |
| II | | z. | 91·7 | 53 | e 13 | 12 | + 2 | — | | — | — | | — |
| III | | z. | 91·7 | 53 | e 13 | 11 | + 1 | — | | — | — | | — |
| I | Palomar | z. | 92·0 | 57 | e 13 | 14 | + 2 | — | | — | — | | — |
| II | | z. | 92·0 | 57 | e 13 | 13 | + 1 | — | | — | — | | — |
| III | | z. | 92·0 | 57 | i 13 | 12 | 0 | — | | — | — | | — |
| I | Nelson | | 93·9 | 55 | i 13 | 21 | 0 | — | | — | — | | — |
| II | | | 93·9 | 55 | i 13 | 21 | 0 | — | | — | — | | — |
| III | | | 93·9 | 55 | i 13 | 21 | 0 | — | | — | — | | — |
| III | San Juan | | 138·3 | 67 | e 19 | 27 | [ 0] | — | | — | — | | — |
| II | Tamanrasset | z. | 146·4 | 302 | i 19 | 44 | [+ 3] | — | | — | e 20 | 24 | ? |
| III | | z. | 146·4 | 302 | e 19 | 43 | [+ 2] | — | | — | — | | — |

Sept. 27d. 6h. 33m. 33s. Epicentre 52°·3N. 177°·3W. Depth of focus 0·010.
(as on 1951, May 30d.).

A = −·6134, B = −·0289, C = +·7892 ; $\delta$ = −7 ; $h$ = −6 ;
D = −·047, E = +·999 ; G = −·788, H = −·037, K = −·614.

| | | △ | Az. | P. | | O−C. | S. | | O−C. | Supp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. | s. | s. | m. | s. | s. | m. | s. | |
| College | | 19·6 | 39 | i 4 | 25 | + 2 | — | | — | — | | — |
| Shasta | z. | 38·6 | 85 | e 7 | 15 | 0 | — | | — | — | | — |
| Mineral | z. | 39·3 | 85 | e 7 | 23 | + 2 | — | | — | — | | — |
| Hungry Horse | | 39·4 | 70 | i 7 | 23 | + 1 | — | | — | — | | — |
| Reno | z. | 40·9 | 84 | e 7 | 34 | 0 | — | | — | — | | — |
| Lick | z. | 41·2 | 88 | e 7 | 35s | − 1 | — | | — | — | | — |
| Fresno | z. | 42·7 | 88 | e 8 | 19 | sP | — | | — | — | | — |
| Tinemaha | z. | 43·4 | 86 | e 7 | 54 | 0 | e 9 | 44 | PcP | — | | — |
| China Lake | z. | 44·6 | 87 | e 8 | 3 | − 1 | e 9 | 49 | PcP | — | | — |
| Mount Wilson | z. | 45·4 | 89 | e 8 | 9 | − 1 | — | | — | — | | — |
| Riverside | z. | 46·0 | 89 | e 8 | 13 | − 2 | e 9 | 52 | PcP | — | | — |
| Nelson | | 46·4 | 85 | i 8 | 17 | − 1 | i 9 | 33 | ? | — | | — |
| Palomar | z. | 46·7 | 89 | e 8 | 20 | − 1 | e 9 | 56 | PcP | e 8 | 38 | pP |
| Fayetteville | z. | 58·5 | 71 | i 9 | 47 | − 1 | — | | — | i 10 | 37 | PcP |
| Ottawa | | 61·8 | 52 | e 10 | 11 | 0 | — | | — | i 10 | 54 | PcP |
| Morgantown | | 63·9 | 58 | i 11 | 26 | +61 | — | | — | — | | — |
| Weston | | 66·1 | 51 | i 10 | 42k | + 3 | — | | — | — | | — |
| Upsala | z. | 67·6 | 353 | i 10 | 57 | + 9 | — | | — | — | | — |
| San Juan | | 87·9 | 63 | i 12 | 44 | + 4 | — | | — | — | | — |
| Pretoria | z. | 147·2 | 314 | i 19 | 39 | $PKP_2$ | — | | — | — | | — |
| Pietermaritzburg | z. | 149·5 | 307 | i 19 | 47 | $PKP_2$ | — | | — | — | | — |
| Kimberley | z. | 151·3 | 316 | i 19 | 52 | $PKP_2$ | — | | — | — | | — |

Sept. 27d. 19h. 5m. 48s. Epicentre 50°·2N. 157°·3E. Depth of focus 0·010.
(as on 1941, March 16d.).

A = −·5929, B = +·2480, C = +·7662 ; $\delta$ = +10 ; $h$ = −5 ;
D = +·386, E = +·922 ; G = −·707, H = +·296, K = −·643.

| | | △ | Az. | P. | | O−C. | S. | | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. | s. | s. | m. | s. | s. | m. | s. | m. |
| Petropavlovsk | | 3·1 | 16 | i 0 | 39 | − 9 | i 1 | 6 | −18 | — | | — |
| Klyuchi | | 6·5 | 17 | i 1 | 28 | − 7 | — | | — | — | | — |
| Yuzno-Sakhlinsk | | 10·2 | 257 | i 2 | 23 | − 2 | e 4 | 23 | + 5 | — | | — |
| Nemuro | z. | 10·6 | 234 | e 2 | 41 | +11 | — | | — | — | | — |
| Kusiro | | 11·4 | 236 | e 2 | 49 | + 8 | — | | — | — | | — |
| Obihiro | | 12·1 | 238 | e 3 | 5 | PP | — | | — | — | | — |
| Sapporo | | 13·1 | 243 | e 3 | 10 | + 7 | e 5 | 54 | SS | e 15 | 34 | ScS |
| Mori | N. | 14·1 | 242 | | 3 | 27 | PP | | — | — | | — |
| Hatinohe | | 14·7 | 235 | e 3 | 15 | − 9 | e 5 | 25 | −40 | — | | — |
| Aomori | | 14·9 | 237 | e 3 | 32 | + 5 | e 6 | 36 | SS | i 15 | 41 | ScS |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Miyako | | 15·1 | 231 | e 3 28 | − 1 | e 6 26 | +12 | — | — | — |
| Mizusawa | | 15·9 | 232 | 3 47 | + 8 | e 6 44 | +12 | e 3 51 | PP | — |
| Akita | | 16·0 | 236 | e 3 56 | PP | e 6 39 | + 4 | e 15 45 | ScS | — |
| Sendai | | 16·7 | 231 | e 3 50 | + 1 | 7 6 | SS | e 7 28 | SSS | — |
| Yamagata | | 17·0 | 232 | e 3 57 | + 4 | e 7 1 | + 4 | — | — | — |
| Hukusima | | 17·3 | 228 | e 4 1 | + 4 | i 7 14 | +10 | — | — | — |
| Onahama | | 17·7 | 226 | e 4 18 | PP | 7 23 | +10 | — | — | — |
| Niigata | | 17·9 | 232 | e 4 12 | + 8 | i 7 29 | +12 | e 8 23 | PcP | — |
| Shirakawa | | 18·0 | 228 | e 4 6 | + 1 | e 7 28 | + 9 | — | — | — |
| Aikawa | | 18·3 | 233 | e 4 10 | + 1 | e 7 25 | − 1 | — | — | — |
| Mito | | 18·4 | 227 | e 4 15 | + 5 | — | — | — | — | — |
| Utunomiya | | 18·6 | 228 | e 4 12 | 0 | e 7 38 | + 5 | e 7 53 | SS | — |
| Vladivostok | | 18·8 | 257 | 4 11 | − 3 | 7 40 | + 3 | — | — | — |
| Kumagaya | | 19·1 | 228 | e 4 25 | + 7 | 7 52 | + 9 | — | — | — |
| Maebasi | | 19·1 | 229 | e 4 19 | + 1 | 7 54 | +11 | e 4 45 | PP | — |
| Nagano | N. | 19·3 | 235 | e 4 25 | + 5 | i 8 8 | SS | — | — | — |
| Tokyo | N. | 19·3 | 228 | e 4 31 | +11 | 8 2 | +14 | i 8 50 | PcP | — |
| Matusiro | | 19·4 | 234 | i 4 21 | 0 | 7 58 | + 8 | i 4 35 | PP | 9·1 |
| Oiwake | | 19·4 | 233 | e 4 19 | − 2 | 7 51 | + 1 | — | — | — |
| Titibu | | 19·4 | 229 | i 4 29 | + 8 | e 8 8 | +18 | — | — | — |
| Wazima | | 19·4 | 236 | e 4 30 | + 9 | e 8 8 | +18 | — | — | — |
| Yokohama | | 19·6 | 228 | e 4 32 | + 9 | e 8 16 | SS | — | — | — |
| Matumoto | N. | 19·7 | 235 | 4 29 | + 5 | 8 12 | +16 | — | — | — |
| Toyama | | 19·8 | 235 | e 4 30 | + 5 | 8 16 | +18 | e 15 52 | ScS | — |
| Kohu | | 19·9 | 230 | 4 31 | + 5 | 8 11 | +11 | 4 42 | PP | — |
| Mera | | 19·9 | 226 | 4 40 | PP | 8 22 | SS | — | — | — |
| Misima | | 20·1 | 227 | e 4 36 | + 8 | 8 19 | +15 | e 5 1 | PP | 9·3 |
| Omaesaki | | 20·9 | 229 | e 4 44 | + 8 | 8 37 | +18 | — | — | — |
| Hamamatu | | 21·1 | 230 | e 4 31 | − 7 | i 8 38 | +16 | — | — | — |
| Nagoya | | 21·1 | 231 | e 4 41 | + 3 | 8 40 | +18 | — | — | — |
| Kyoto | | 21·8 | 233 | e 4 50 | + 5 | e 7 33 | ? | e 8 50 | PcP | — |
| Toyooka | | 21·9 | 236 | e 4 49 | + 3 | i 14 58 | ? | i 8 51 | PcP | — |
| Osaka | | 22·2 | 233 | e 4 55 | + 6 | e 8 52 | +10 | e 5 26 | PP | — |
| Owase | | 22·3 | 231 | e 4 42 | − 8 | e 8 51 | + 7 | — | — | — |
| Sumoto | | 22·8 | 233 | e 4 52 | − 3 | i 9 6 | +13 | — | — | — |
| Yonago | | 22·8 | 239 | i 5 0 | + 5 | e 9 8 | +15 | — | — | — |
| Siomisaki | | 23·1 | 231 | e 5 2 | + 4 | e 9 9 | +11 | — | — | — |
| Takamatu | | 23·3 | 236 | i 5 7 | + 7 | i 9 16 | +14 | — | — | — |
| Hamada | | 23·9 | 240 | e 5 11 | + 5 | e 9 20 | + 8 | e 5 37 | PP | e 10·8 |
| Muroto | | 24·0 | 234 | e 5 10 | + 4 | i 9 27 | +13 | — | — | — |
| Hirosima | | 24·1 | 237 | e 5 12 | + 5 | 9 23 | + 8 | — | — | — |
| Koti | | 24·1 | 235 | e 5 13 | + 6 | e 9 25 | +10 | i 9 29 | ? | — |
| Matuyama | | 24·3 | 237 | e 5 19 | +10 | e 9 28 | +10 | i 5 37 | pP | e 10·6 |
| Simidu | | 25·0 | 234 | e 5 5 | −11 | e 9 42 | +12 | — | — | — |
| Ooita | | 25·4 | 238 | e 5 28 | + 8 | e 9 37 | 0 | — | — | — |
| Hukuoka | | 25·8 | 239 | e 5 28 | + 4 | 9 54 | +10 | e 5 41 | pP | 11·4 |
| Miyazaki | | 26·5 | 235 | e 5 43 | +13 | i 10 8 | +13 | — | — | — |
| Kagosima | | 27·2 | 237 | e 5 36 | 0 | e 10 0 | − 6 | — | — | — |
| Kabansk | | 31·3 | 294 | 6 11 | − 2 | 11 13 | + 1 | — | — | — |
| College | | 31·7 | 42 | i 6 14 | − 2 | — | — | — | — | — |
| Kyakhta | | 32·0 | 291 | 6 16 | − 3 | 11 21 | − 1 | — | — | — |
| Irkutsk | | 32·6 | 295 | — | — | e 11 24? | − 8 | — | — | — |
| Zô-Sè | z. | 32·9 | 248 | 6 26k | − 1 | i 11 44 | + 7 | — | — | — |
| Nanking | | 33·7 | 252 | i 6 34k | 0 | i 11 52 | + 3 | — | — | — |
| Sitka | | 38·9 | 53 | i 7 16 | − 2 | i 13 13 | + 5 | — | — | — |
| Manila | | 46·1 | 232 | e 8 8 | − 8 | i 14 43 | −11 | — | — | — |
| Resolute Bay | | 46·7 | 21 | i 8 19a | − 2 | i 14 57 | − 5 | i 18 7 | ScS | i 20·1 |
| Semipalatinsk | | 47·1 | 302 | i 8 25 | + 1 | — | — | — | — | — |
| Victoria | | 49·3 | 60 | 8 40a | − 1 | — | — | — | — | — |
| Seattle | | 50·4 | 61 | i 8 50 | + 1 | 16 6 | +12 | — | — | — |
| Corvallis | z. | 51·6 | 64 | i 8 59 | + 1 | e 16 18 | + 8 | — | — | — |
| Przhevalsk | | 52·6 | 293 | e 9 5 | − 1 | — | — | — | — | — |
| Almata II | | 52·7 | 295 | e 9 6 | − 1 | — | — | — | — | — |
| Almata | | 53·0 | 295 | i 9 7 | − 2 | — | — | — | — | — |
| Sverdlovsk | | 53·2 | 317 | i 9 7 | − 3 | 16 26 | − 6 | — | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Rybach'e | | 54·0 | 295 | i 9 15 | − 1 | e 16 42 | − 1 | — | — | — |
| Hungry Horse | | 54·5 | 55 | i 9 19 | − 1 | e 19 3 | ScS | — | — | — |
| Frunse | | 54·6 | 296 | e 9 19 | − 2 | i 16 52 | + 1 | — | — | — |
| Shasta | | 54·6 | 66 | i 9 21 | 0 | — | — | e 10 11 | PcP | — |
| Naryn | | 54·7 | 294 | e 9 19 | − 2 | i 16 52 | 0 | — | — | — |
| Mineral | Z. | 55·2 | 66 | i 9 25a | 0 | e 11 38 | PP | i 9 41 | pP | — |
| Shillong | E. | 55·2 | 269 | e 9 23 | − 2 | e 18 2 | ? | e 10 2 | ? | — |
| Berkeley | | 56·4 | 70 | e 9 34a | 0 | e 17 24 | + 9 | e 9 58 | pP | — |
| Reno | | 56·8 | 65 | e 9 36a | 0 | e 17 28 | + 8 | e 9 54 | pP | — |
| Santa Clara | | 57·0 | 70 | i 9 38 | 0 | e 17 51 | PPS | — | — | e 26·7 |
| Andijan | | 57·2 | 295 | i 9 38 | − 1 | i 17 28 | + 3 | — | — | — |
| Lick | Z. | 57·2 | 70 | i 9 38a | − 1 | — | — | — | — | — |
| Chatra | | 57·4 | 273 | i 9 41 | 0 | e 17 37 | + 9 | — | — | — |
| Namangan | | 57·5 | 296 | i 9 40 | − 1 | 17 30 | + 1 | — | — | — |
| Fergana | | 57·8 | 295 | e 9 42 | − 2 | e 17 34 | + 1 | — | — | — |
| Tchimkent | | 57·8 | 299 | i 9 41 | − 3 | i 17 35 | + 2 | — | — | — |
| Kiruna | | 57·9 | 342 | i 9 40 | − 4 | e 17 29 | − 6 | i 19 22 | ScS | e 26·2 |
| Tashkent | | 58·6 | 298 | i 9 47 | − 2 | — | — | — | — | — |
| Fresno | | 58·7 | 68 | i 9 49a | − 1 | e 17 54 | + 9 | e 11 58 | PP | — |
| Dzhergetal | | 58·9 | 294 | i 9 50 | − 1 | — | — | — | — | — |
| Tinemaha | | 59·3 | 68 | i 9 55 | + 1 | e 18 4 | +11 | i 10 11 | pP | — |
| Khorog | | 59·8 | 293 | i 9 56 | − 1 | i 18 1 | + 2 | — | — | — |
| Obi-garm | | 60·1 | 295 | i 9 58 | − 1 | 18 3 | 0 | — | — | — |
| China Lake | Z. | 60·6 | 57 | e 10 2a | − 1 | e 39 21 | P'P' | i 10 19 | pP | — |
| Kulyab | | 60·6 | 294 | 10 4 | + 1 | 18 11 | + 1 | — | — | — |
| Stalinabad | | 60·8 | 296 | i 10 0 | − 4 | i 18 10 | − 2 | — | — | — |
| Samarkand | | 61·0 | 298 | 10 3 | − 3 | 18 14 | − 1 | — | — | — |
| Pasadena | | 61·4 | 70 | i 10 7a | − 1 | i 18 25 | + 5 | i 10 24 | pP | e 28·4 |
| Riverside | | 62·0 | 70 | i 10 10 | − 2 | i 18 14 | −13 | i 10 27 | pP | — |
| Nelson | | 62·3 | 66 | i 10 14 | 0 | — | — | i 10 36 | pP | — |
| Pulkovo | | 62·3 | 333 | 10 10 | − 4 | e 18 28 | − 3 | — | — | — |
| New Delhi | | 62·5 | 282 | e 10 7 | − 9 | i 18 26 | − 8 | 18 50 | SPP | 25·7 |
| Palomar | Z. | 62·7 | 70 | i 10 16 | − 1 | e 39 22 | P'P' | i 10 43 | pP | — |
| Moscow | | 63·2 | 327 | 10 16 | − 4 | — | — | — | — | — |
| Reykjavik | Z. | 64·4 | 359 | i 10 37a | + 9 | — | — | — | — | — |
| Bairam-Ali | | 65·2 | 299 | i 10 30 | − 3 | 19 7 | 0 | — | — | — |
| Upsala | | 65·5 | 339 | i 10 32a | − 3 | e 19 13 | + 2 | 23 21 | SS | e 32·2 |
| Ashkabad | | 67·0 | 301 | i 10 43 | − 2 | — | — | — | — | — |
| Tucson | | 67·1 | 67 | i 10 46 | + 1 | e 19 39 | + 9 | — | — | — |
| Kizyl-Arvat | | 67·4 | 304 | 10 46 | − 1 | 19 33 | − 1 | — | — | — |
| Bergen | N. | 67·5 | 346 | — | — | e 43 16 | SKKKS | — | — | — |
| Quetta | | 67·6 | 291 | i 10 48 | 0 | e 19 34 | − 2 | e 20 40 | ScS | — |
| Makhach-Kala | | 68·9 | 312 | e 10 55 | − 1 | — | — | — | — | — |
| Grozny | | 69·4 | 314 | i 10 57 | − 3 | — | — | — | — | — |
| Baku | | 69·7 | 309 | e 11 1 | 0 | e 20 5? | + 4 | — | — | — |
| Hyderabad | E. | 69·7 | 273 | e 11 18 | +17 | i 20 3 | + 2 | — | — | — |
| Piatigorsk | | 70·1 | 316 | — | — | 20 4 | − 2 | — | — | — |
| Shemakla | | 70·1 | 310 | i 11 2 | − 2 | — | — | — | — | — |
| Copenhagen | | 70·5 | 340 | e 11 4k | − 2 | 20 9 | − 1 | 11 21 | pP | 35·2 |
| Kirkland Lake | Z. | 70·9 | 37 | e 11 3 | − 5 | — | — | i 11 18 | pP | — |
| Kirovobad | | 71·1 | 311 | i 11 8 | − 2 | e 20 18 | + 1 | — | — | — |
| Tiflis | | 71·1 | 313 | i 11 7 | − 3 | i 20 14 | − 3 | — | — | — |
| Aberdeen | E. | 71·6 | 349 | — | — | i 20 18 | − 5 | e 39 29 | ? | — |
| Poona | E. | 71·8 | 277 | e 11 17 | + 3 | e 20 30 | + 5 | e 20 54 | SP | — |
| Zugdidi | | 71·8 | 315 | 11 15 | + 1 | — | — | — | — | — |
| Madras | E. | 71·9 | 268 | — | — | e 20 20 | − 6 | — | — | — |
| Sotchi | | 71·9 | 318 | e 11 11 | − 3 | e 20 24 | − 2 | — | — | — |
| Goris | | 72·1 | 310 | i 11 15 | − 1 | — | — | — | — | — |
| Bombay | | 72·2 | 278 | i 11 19 | + 3 | i 20 36 | + 6 | 20 58 | SP | 29·8 |
| Erevan | | 72·4 | 312 | i 11 18 | + 1 | 20 33 | + 1 | — | — | — |
| Lwow | | 72·6 | 330 | e 11 16 | − 3 | i 20 30 | − 4 | — | — | — |
| Theodosia | | 72·6 | 321 | e 11 16 | − 3 | e 20 30 | − 4 | — | — | — |
| Kishinev | | 73·4 | 326 | i 11 21 | − 2 | i 20 41 | − 2 | — | — | — |
| Potsdam | | 73·4 | 339 | i 11 22 | − 1 | i 20 46 | + 3 | e 21 42 | PPS | e 37·2 |
| Fayetteville | Z. | 73·5 | 53 | i 11 23a | − 1 | — | — | i 11 40 | pP | — |

*Continued on next page.*

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Yalta | | 73·7 | 321 | e 11 21 | − 4 | e 20 41 | − 5 | — | — | — |
| Uzhgorod | | 74·2 | 330 | i 11 26 | − 2 | — | — | — | — | — |
| Ottawa | | 74·3 | 36 | e 11 25a | − 3 | 20 50 | − 3 | 14 13 | PP | — |
| Shawinigan Falls | N. | 74·3 | 33 | 11 28 | 0 | 20 53 | 0 | e 12 45 | ? | — |
| Collmberg | | 74·4 | 337 | i 11 26? | − 3 | e 20 55 | + 1 | e 21 48 | PS | e 42·2 |
| Skalnate Pleso | | 74·4 | 332 | e 11 23 | − 6 | e 20 49 | − 5 | e 14 13 | PP | — |
| Witteveen | Z. | 74·4 | 342 | i 11 28k | − 1 | — | — | — | — | — |
| Jena | | 75·1 | 338 | e 11 31 | − 2 | e 12 0 | sP | e 11 54 | pP | — |
| Buffalo (Larkin) | | 75·2 | 39 | i 11 32 | − 2 | — | — | — | — | — |
| Cleveland | | 75·2 | 42 | i 11 33a | − 1 | e 21 3 | 0 | i 11 48 | pP | — |
| Prague | | 75·2 | 336 | e 11 30 | − 4 | e 21 3 | 0 | e 12 3 | pP | e 39·2 |
| De Bilt | | 75·4 | 343 | i 11 33 | − 2 | i 21 9 | + 4 | i 11 52 | pP | e 36·2 |
| Cheb | | 75·7 | 338 | e 14 43 | PP | e 21 12 | + 3 | e 21 39 | SP | — |
| Rathfarnham Castle | | 75·9 | 350 | i 11 37k | − 1 | e 21 14 | + 3 | i 11 55 | pP | e 34·0 |
| Budapest | | 76·2 | 332 | 11 38 | − 1 | 21 20 | + 6 | 11 52 | pP | 44·2 |
| Ogyalla | | 76·2 | 333 | e 12 24 | ? | e 21 21 | + 7 | e 21 48 | SP | — |
| Bucharest | | 76·6 | 326 | e 11 44 | + 2 | e 21 18 | 0 | — | — | — |
| Pittsburgh | | 76·7 | 42 | i 11 39 | − 3 | i 21 17 | − 3 | — | — | — |
| Kew | | 76·9 | 346 | i 11 43 | 0 | e 21 22 | 0 | e 11 57 | PcP | e 37·2 |
| Brisbane | | 77·4 | 175 | i 11 49 | + 3 | e 21 42 | [− 3] | i 12 9 | pP | — |
| Morgantown | | 77·4 | 42 | i 11 45 | − 1 | e 21 53 | [+ 8] | — | — | — |
| Stuttgart | | 77·7 | 339 | e 11 46k | − 2 | e 21 30 | 0 | e 12 3 | pP | 40·2 |
| Belgrade | | 78·2 | 330 | e 11 48a | − 2 | e 21 35 | − 1 | e 31 18 | Q | e 45·5 |
| Strasbourg | | 78·2 | 340 | i 11 49 | − 1 | e 21 38 | + 2 | e 14 50 | PP | e 37·2 |
| Harvard | | 78·3 | 35 | i 11 50a | − 1 | i 21 46 | + 9 | — | — | e 41·2 |
| Istanbul | | 78·4 | 322 | e 11 49 | − 3 | e 21 38? | 0 | e 12 19 | pP | 38·2 |
| Weston | | 78·5 | 35 | i 11 52a | 0 | e 21 40 | + 1 | — | — | — |
| City College, N.Y. | | 78·8 | 38 | i 11 52 | − 2 | i 21 42 | 0 | — | — | — |
| Fordham | | 78·8 | 38 | e 11 52 | − 2 | i 21 40 | − 2 | — | — | — |
| Paris | | 79·0 | 343 | i 11 54 | − 1 | e 21 46 | + 2 | e 12 12 | pP | e 37·2 |
| Halifax | | 79·1 | 28 | i 11 54k | − 1 | — | — | — | — | — |
| Zürich | | 79·1 | 339 | i 11 54k | − 1 | e 21 46 | + 1 | — | — | — |
| Basle | | 79·2 | 340 | e 11 54k | − 2 | — | — | — | — | — |
| Washington | | 79·2 | 39 | i 11 56 | 0 | — | — | i 12 23 | pP | — |
| Chur | | 79·4 | 338 | e 11 56 | − 1 | — | — | — | — | — |
| Triest | | 79·4 | 335 | i 11 55k | − 2 | e 21 45 | − 3 | e 12 26 | pP | 39·2 |
| Neuchatel | | 79·9 | 340 | e 11 58 | − 2 | — | — | — | — | — |
| Salo | | 80·3 | 337 | e 12 0 | − 2 | e 21 40 | −18 | e 12 44 | sP | — |
| Oropa | | 80·9 | 338 | e 12 20 | +15 | e 22 12? | + 8 | — | — | — |
| Ksara | | 81·6 | 313 | i 12 7? | − 2 | 22 20? | + 9 | i 12 25? | pP | — |
| Clermont-Ferrand | | 81·8 | 342 | i 12 10 | 0 | i 22 21 | + 8 | — | — | 41·2 |
| Florence | | 81·8 | 335 | e 12 6a | − 4 | i 22 17 | + 4 | e 27 36 | SS | e 38·8 |
| Athens | | 83·1 | 324 | i 12 14k | − 2 | i 22 24 | − 2 | e 22 12 | SKS | — |
| Taranto | | 83·1 | 330 | 12 22 | + 6 | 22 22 | − 4 | — | — | 35·2 |
| Rome | | 83·2 | 335 | i 12 33 | +16 | 22 29 | + 2 | 23 32 | PS | 39·0 |
| Tacubaya | | 83·6 | 67 | i 12 26 | + 7 | — | — | — | — | — |
| Riverview | | 83·8 | 185 | i 12 22a | + 2 | e 22 47 | +14 | e 28 21 | SS | e 39·4 |
| Messina | | 85·7 | 330 | e 12 25 | − 4 | i 22 42 | [ 0] | e 15 10 | PP | e 41·9 |
| Helwan | | 87·0 | 315 | e 12 33 | − 3 | 22 57 | [+ 6] | e 13 10 | sP | — |
| Tortosa | | 87·1 | 342 | e 12 45 | + 9 | i 22 59 | − 6 | — | — | — |
| Toledo | | 88·8 | 346 | i 12 44 | 0 | i 23 11 | [+ 9] | e 16 12 | PP | — |
| Alicante | | 90·3 | 343 | e 12 43 | − 8 | i 23 14 | [+ 2] | 18 29 | PPP | 41·6 |
| Algiers Univ. | Z. | 90·5 | 339 | e 12 52 | 0 | e 13 5 | ? | e 13 13 | pP | — |
| Granada | | 91·4 | 345 | i 13 21a | pP | e 23 53 | + 8 | 14 0 | pP | 50·2 |
| Almeria | | 91·5 | 343 | 12 59 | + 2 | 23 19 | [+ 1] | 23 41 | S | 42·5 |
| Malaga | | 91·9 | 345 | e 12 46 | −13 | i 23 28 | [+ 8] | i 24 24 | ? | 45·7 |
| Wellington | | 92·4 | 167 | 13 3 | + 2 | e 23 54 | + 1 | 24 38 | sS | e 42·9 |
| San Juan | | 101·7 | 42 | e 13 45 | + 2 | — | — | e 17 53 | PP | — |
| Tamanrasset | Z. | 103·1 | 333 | e 13 50 | + 1 | 24 22 | [+ 4] | e 14 18 | pP | — |
| Bogota | | 109·8 | 55 | e 18 34 | [+14] | e 34 34 | SS | — | — | 56·2 |
| Huancayo | | 122·7 | 67 | e 18 49 | [+ 4] | e 37 18 | SS | e 30 42 | PS | e 54·5 |
| La Paz | | 130·5 | 63 | i 19 5 | [+ 5] | i 37 56 | ? | i 19 38 | pPKP | — |
| Pretoria | Z. | 134·2 | 282 | i 19 7 | [+ 1] | — | — | e 18 53 | ? | — |
| Kimberley | Z. | 138·4 | 281 | e 19 9 | [− 5] | — | — | i 19 18 | PKP | — |
| Grahamstown | Z. | 140·3 | 276 | e 19 15 | [− 3] | — | — | — | — | — |

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Sept. 27d. 23h. 51m. 51s. Epicentre 41°·0N. 71°·5E. (as on 1942, January 18d.).

A = +·2402, B = +·7178, C = +·6535; $\delta$ = 0; $h$ = −2;
D = +·948, E = −·317; G = +·207, H = +·620, K = −·757.

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Namangan | 0·1 | 98 | i 0 3 | + $1_g$ | — | — | — | — |
| Fergana | 0·6 | 161 | i 0 13 | 0* | e 0 23 | + 2* | — | — |
| Andijan | 0·7 | 111 | i 0 13 | − $1_g$ | i 0 24 | + $1_g$ | — | — |
| Tashkent | 1·7 | 281 | e 0 31 | 0 | i 0 55 | + 1 | — | — |
| Dzhergetal | 1·8 | 187 | i 0 33 | + 1 | i 0 58 | + 1* | — | — |
| Tchimkent | 1·9 | 312 | i 0 34 | 0 | i 1 1 | + 1* | 0 56 | S |
| Garm | 2·2 | 205 | i 0 40 | 0* | i 1 11 | + 2* | — | — |
| Obi-garm | 2·7 | 211 | e 0 47 | + 2 | e 1 19 | 0 | — | — |
| Frunse | 3·0 | 51 | e 0 54 | 0* | i 1 33 | 0* | i 1 39 | $S_g$ |
| Stalinabad | 3·2 | 221 | e 0 53 | + 1 | i 1 38 | − 1* | — | — |
| Kulyab | 3·4 | 204 | i 0 57 | + 2 | — | — | — | — |
| Naryn | 3·4 | 81 | e 1 2 | + 7 | i 1 34 | − 3 | i 1 42 | S* |
| Khorog | 3·5 | 179 | i 0 59 | + 2 | i 1 51 | + 3* | — | — |
| Rybach'e | 3·7 | 66 | — | — | i 2 4 | + $2_g$ | — | — |
| Samarkand | 3·7 | 252 | 1 3 | + 3 | — | — | — | — |
| Almata | 4·6 | 59 | 1 27 | + 5* | i 2 25 | + 5* | — | — |
| Almata II | 4·9 | 61 | e 1 17 | 0 | e 2 12 | − 3 | e 1 29 | P* |
| Ili | 5·1 | 53 | e 1 16 | − 4 | i 2 38 | + 3* | — | — |
| Kurmenty | 5·4 | 66 | e 1 39 | + 4* | — | — | — | — |
| Przhevalsk | 5·4 | 72 | 1 46 | − $2_g$ | 2 48 | + 4* | — | — |
| Chilisk | 5·7 | 61 | e 1 27 | − 1 | i 2 58 | + 5* | — | — |

Sept. 28d. 2h. 21m. 20s. Epicentre 58°·4N. 137°·4W. (as on 1945, November 17d.).

Felt at Sitka. Epicentre 58°·5N. 137°W. (U.S.C.G.S.).

L. M. Murphy and W. K. Cloud.
United States Earthquakes, 1952, U.S.C.G.S., Serial 773, Washington, 1954, p. 47.

A = −·3876, B = −·3564, C = +·8501; $\delta$ = −8; $h$ = −8;
D = −·677, E = +·736; G = −·626, H = −·575, K = −·527.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Sitka | | 1·4 | 127 | i 0 28 | + 1 | i 0 48 | + 2 | — | — | — |
| College | | 8·2 | 327 | e 2 3 | 0 | — | — | e 2 41 | $P_g$ | e 4·2 |
| Seattle | | 14·0 | 133 | e 3 35 | PP | — | — | e 3 43 | PPP | i 7·4 |
| Hungry Horse | | 17·1 | 116 | i 4 3 | + 1 | — | — | e 5 43 | ? | e 8·1 |
| Shasta | | 20·1 | 146 | e 4 38 | 0 | — | — | — | — | — |
| Mineral | z. | 20·7 | 145 | i 4 43 | − 1 | — | — | — | — | — |
| Reno | z. | 22·0 | 141 | e 4 58 | 0 | — | — | — | — | — |
| Lick | z. | 23·5 | 147 | i 5 14 | + 2 | — | — | — | — | — |
| Tinemaha | z. | 24·7 | 142 | e 5 26 | + 2 | — | — | — | — | — |
| China Lake | z. | 26·1 | 141 | e 5 38 | + 1 | — | — | — | — | — |
| Boulder City | | 26·9 | 136 | e 5 43 | − 2 | — | — | — | — | — |
| Nelson | | 27·2 | 136 | i 5 45 | − 2 | — | — | — | — | — |
| Pasadena | | 27·5 | 144 | e 5 50 | 0 | — | — | — | — | — |
| Riverside | z. | 27·9 | 144 | e 5 52 | − 2 | — | — | — | — | e 15·6 |
| Palomar | z. | 28·6 | 143 | e 6 3 | + 3 | — | — | e 6 17 | ? | — |
| Tucson | | 31·7 | 134 | e 6 27 | 0 | — | — | — | — | e 17·5 |
| Fayetteville | z. | 36·0 | 109 | i 7 1a | − 4 | — | — | i 7 24 | pP | — |
| Pretoria | z. | 145·8 | 24 | i 19 39 | [− 2] | — | — | — | — | — |

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Sept. 28d. 4h. 35m. 45s. Epicentre 47°·4N. 12°·2E. (as on 17d.).

Intensity IV to the west of Fugen in the Zillertal. Macroseismic epicentre 47°·3N. 11°·8E. (Strasbourg). Macroseismic area 400 square kms.
Makroseismische Beobachtungen, 1952, Jahrbücher der Zentralanstalt für Meteorologie und Geodynamik, Jahrgang, 1952, Neue Folge, 89. band, Wien, 1953, p. E.1. with macroseismic chart on p. E.2.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Triest | | 2·0 | 149 | e 0 35 | 0 | e 1 2 | 0 | i 1 7 | $S_g$ | — |
| Stuttgart | | 2·4 | 304 | e 0 43 | − 1* | e 1 11 | − 1 | e 1 14 | S* | — |
| Zürich | | 2·5 | 269 | e 0 44 | − 1* | e 1 8 | − 6 | — | — | — |
| Basle | | 3·1 | 272 | e 1 3 | + $1_g$ | e 1 30 | + 1 | — | — | — |
| Prague | | 3·1 | 29 | e 1 21 | S | i 1 41 | − $1_g$ | — | — | e 1·9 |
| Jena | E. | 3·6 | 353 | e 1 27? | +$15_g$ | e 1 53 | + 2* | e 1 35? | ? | — |
| Collmberg | Z. | 3·9 | 7 | — | — | e 2 7 | − $2_g$ | — | — | — |

Sept. 28d. 5h. 50m. 44s. Epicentre 33°·0S. 178°·0W. (as on 1947, October 14d.).

A = −·8398, B = −·0293, C = −·5421 ; δ = −1 ; h = +1 ;
D = −·035, E = +·999 ; G = +·542, H = +·019, K = −·840.

| | | △ | Az. | P. | O−C. | S. | O−C. | L. |
|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. |
| Auckland | N. | 7·0 | 236 | i 1 49 | + 3 | e 2 54 | −14 | e 3·4 |
| Tuai | N. | 7·0 | 213 | e 1 42 | − 4 | i 2 57 | −11 | — |
| Karapiro | N. | 7·2 | 225 | e 1 47 | − 2 | — | — | — |
| Wellington | | 10·1 | 213 | e 2 46 | +17 | 4 5 | −20 | e 6·3 |
| Cobb River | E. | 11·0 | 220 | — | — | e 4 28 | −19 | — |
| Christchurch | | 12·8 | 212 | — | — | e 5 11 | −19 | e 6·9 |
| Brisbane | Z. | 25·6 | 275 | i 5 30k | − 2 | — | — | — |
| Riverview | E. | 25·7 | 259 | — | — | e 11 4 | SS | e 12·8 |
| Pasadena | Z. | 87·3 | 46 | e 12 50 | 0 | — | — | — |
| Lick | Z. | 87·5 | 41 | e 12 52 | + 1 | — | — | — |
| Palomar | Z. | 87·5 | 47 | e 12 53 | + 2 | — | — | — |
| Riverside | Z. | 87·7 | 46 | e 12 51 | − 1 | — | — | — |
| Fresno | Z. | 88·1 | 43 | e 12 54 | 0 | — | — | — |
| China Lake | Z. | 88·8 | 45 | e 12 58 | + 1 | — | — | — |
| Tinemaha | Z. | 89·3 | 44 | e 12 58 | − 1 | — | — | — |
| Shasta | Z. | 89·5 | 38 | e 12 50 | −10 | — | — | — |
| Mineral | Z. | 89·7 | 40 | e 13 0 | − 1 | — | — | — |
| Nelson | | 90·4 | 47 | i 13 4 | 0 | — | — | — |
| Boulder City | | 90·5 | 46 | e 13 6 | + 1 | — | — | — |
| Tucson | | 90·7 | 51 | e 13 8 | + 2 | — | — | — |
| Upsala | Z. | 151·2 | 344 | i 19 53 | [+ 4] | — | — | — |
| Ksara | | 151·8 | 280 | — | — | e 41 40 | ? | e 53·2 |
| Collmberg | Z. | 160·0 | 339 | e 20 38 | $PKP_2$ | — | — | — |

Sept. 28d. 14h. 16m. 16s. Epicentre 57°·5S. 28°·3W.

A = +·4754, B = −·2560, C = −·8417 ; δ = 0 ; h = −9 ;
D = −·474, E = −·880 ; G = −·741, H = +·399, K = −·540.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. | s. |
| Grahamstown | Z. | 43·9 | 80 | i 8 11 | + 1 | — | — | — | — |
| Kimberley | Z. | 46·6 | 75 | i 8 11 | −21 | i 14 46 | −35 | — | — |
| La Paz | | 50·6 | 308 | 9 2 | 0 | i 16 4 | −13 | 19 34 | SS |
| Pretoria | Z. | 50·8 | 76 | i 9 3 | − 1 | — | — | — | — |
| Huancayo | | 57·7 | 302 | e 9 56 | + 1 | — | — | — | — |
| Tamanrasset | Z. | 84·8 | 31 | i 12 37a | 0 | e 22 45 | [−14] | e 15 49 | PP |
| Brisbane | Z. | 95·3 | 181 | i 13 27k | 0 | — | — | — | — |
| Helwan | E. | 100·4 | 49 | — | — | e 25 26 | + 2 | e 24 16 | SKS |
| Rome | E. | 104·8 | 30 | — | — | e 36 34? | SSS | — | — |
| Ksara | | 105·7 | 51 | e 18 22? | PP | e 28 10? | PS | — | — |

*Continued on next page.*

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| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Harvard | | 106·0 | 328 | e 18 39 | PP | — | — | — | — |
| Fayetteville | z. | 108·4 | 309 | e 18 39 | [+ 9] | — | — | — | — |
| Stuttgart | | 110·4 | 25 | e 19 3? | PP | — | — | — | — |
| Jena | z. | 112·9 | 26 | e 19 13? | PP | — | — | e 19 17 | ? |
| Collmberg | z. | 113·6 | 27 | e 19 14 | PP | — | — | — | — |
| Palomar | z. | 116·7 | 291 | i 18 50 | [+ 4] | i 22 12 | SKP | — | — |
| Riverside | z. | 117·5 | 291 | i 18 53 | [+ 5] | i 22 12 | SKP | — | — |
| Copenhagen | | 117·5 | 24 | — | — | 29 38 | PS | — | — |
| Pasadena | z. | 118·0 | 291 | i 18 52 | [+ 3] | i 22 16 | SKP | — | — |
| China Lake | z. | 119·0 | 292 | i 18 54 | [+ 3] | i 22 16 | SKP | — | — |
| Tinemaha | z. | 120·3 | 292 | i 19 8 | [+15] | i 22 20 | SKP | — | — |
| Fresno | z. | 120·8 | 291 | — | — | e 22 21 | SKP | — | — |
| Lick | z. | 122·2 | 290 | e 19 0k | [+ 3] | e 22 20 | SKP | — | — |
| Upsala | z. | 122·5 | 25 | i 18 57a | [− 1] | i 22 21 | SKP | — | — |
| Reno | z. | 123·0 | 293 | — | — | e 22 26 | SKP | — | — |
| Berkeley | z. | 123·0 | 290 | e 19 2k | [+ 3] | — | — | — | — |
| Mineral | z. | 124·5 | 292 | e 19 4 | [+ 3] | e 22 28 | SKP | — | — |
| Shasta | z. | 125·2 | 292 | i 19 5k | [+ 2] | i 22 29 | SKP | — | — |
| Kiruna | z. | 130·1 | 22 | i 19 12k | [ 0] | i 22 18 | SKP | i 21 18 | PP |

Sept. 28d. 21h. 56m. 36s. Epicentre 29°·0N. 142°·0E. (as on 1947, August 15d.).

A = −·6903, B = +·5393, C = +·4823 ; δ = −3 ; h = +2 ;
D = +·616, E = +·788 : G = −·380, H = +·297, K = −·876.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Tokyo | | 6·9 | 345 | e 2 4 | + 3* | e 4 29 | L | — | — | (e 4·5) |
| Zô-Sè | z. | 18·1 | 283 | e 4 17 | + 3 | — | — | — | — | — |
| Nanking | | 20·2 | 284 | 4 40 | + 1 | e 8 33 | +12 | — | — | — |
| Manila | | 24·2 | 238 | e 5 13 | − 6 | e 9 28 | − 7 | — | — | — |
| College | | 55·7 | 29 | e 9 39 | − 1 | — | — | — | — | — |
| Brisbane | z. | 57·1 | 168 | i 9 50a | 0 | — | — | — | — | — |
| Kiruna | | 74·2 | 340 | i 11 40k | 0 | e 21 15 | + 1 | — | — | e 41·4 |
| Shasta | z. | 75·6 | 52 | e 11 48a | 0 | — | — | — | — | — |
| Mineral | z. | 76·3 | 52 | e 11 51k | − 1 | — | — | — | — | — |
| Berkeley | z. | 77·0 | 54 | e 11 56a | 0 | — | — | — | — | — |
| Hungry Horse | | 77·4 | 42 | e 11 58 | 0 | — | — | — | — | — |
| Lick | z. | 77·6 | 54 | e 11 59k | − 1 | — | — | — | — | — |
| Reno | z. | 77·9 | 52 | e 12 1k | 0 | — | — | — | — | — |
| Fresno | z. | 79·2 | 54 | e 12 8a | 0 | — | — | — | — | — |
| Butte | | 79·4 | 43 | e 12 9 | 0 | — | — | — | — | — |
| Tinemaha | z. | 80·1 | 54 | e 12 12 | − 1 | — | — | e 12 29 | ? | — |
| Upsala | z. | 80·4 | 335 | i 12 14 | − 1 | — | — | — | — | — |
| China Lake | z. | 81·2 | 54 | e 12 18 | − 1 | — | — | — | — | — |
| Mount Wilson | z. | 81·7 | 56 | i 12 22 | 0 | — | — | e 12 36 | ? | — |
| Riverside | z. | 82·3 | 56 | e 12 23 | − 2 | — | — | e 12 38 | ? | — |
| Boulder City | | 83·1 | 54 | e 12 28 | − 1 | — | — | — | — | — |
| Nelson | | 83·2 | 54 | e 12 27 | − 2 | — | — | — | — | — |
| Tucson | | 87·9 | 54 | e 12 54 | + 1 | — | — | — | — | — |
| Fayetteville | z. | 96·4 | 43 | i 13 30 | − 2 | — | — | — | — | — |
| Tamanrasset | z. | 113·6 | 316 | e 19 27 | PP | — | — | — | — | — |
| La Paz | z. | 149·6 | 72 | i 19 55 | $PKP_1$ | — | — | — | — | — |

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Sept. 29d. 6h. 31m. 28s. Epicentre 37°·6N. 71°·6E. Depth of focus 0·020. (as on August 19d.).

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Khorog | 0·1 | 180 | 0 16 | − 6 | i 0 29 | − 9 |
| Kulyab | 1·5 | 282 | — | — | i 0 52 | − 2 |
| Dzhergetal | 1·6 | 349 | i 0 32 | 0 | i 0 57 | + 1 |
| Garm | 1·7 | 324 | i 0 32 | − 1 | i 0 57 | − 1 |
| Obi-garm | 1·9 | 306 | i 0 33 | − 2 | i 1 0 | − 2 |
| Murgab | 2·0 | 67 | i 0 34 | − 2 | i 1 1 | − 3 |
| Stalinabad | 2·4 | 293 | e 0 38 | − 3 | i 1 10 | − 2 |
| Fergana | 2·8 | 3 | i 0 46 | 0 | i 1 23 | + 2 |
| Andijan | 3·2 | 11 | i 0 51 | 0 | 1 31 | + 1 |
| Namangan | 3·4 | 359 | e 0 54 | 0 | i 1 38? | + 3 |
| Samarkand | 4·1 | 302 | — | — | 1 51 | 0 |
| Tchimkent | 4·9 | 343 | i 1 14 | + 1 | 2 13 | + 3 |
| Naryn | 5·1 | 41 | e 1 20 | + 4 | 2 16 | + 2 |
| Frunse | 5·8 | 23 | e 1 26 | + 1 | 2 36 | + 5 |
| Rybach'e | 5·9 | 34 | e 1 27 | + 1 | — | — |
| Przhevalsk | 7·1 | 45 | e 1 43 | + 1 | — | — |
| Almata II | 7·2 | 36 | e 1 44 | 0 | — | — |

Sept. 29d. 8h. 56m. 45s. Epicentre 41°·4N. 44°·1E. (as on 1952, August 27d.).

| | Δ | Az. | P. | O−C. | S. | O−C. |
|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. |
| Gori | 0·6 | 1 | 0 17 | + 2 | i 0 28 | + 2 |
| Leninakan | 0·6 | 199 | 0 8 | − 7 | 0 16 | −10 |
| Tiflis | 0·6 | 59 | e 0 16 | + 1 | i 0 27 | + 1 |
| Tsikhlis-Dzhvari | 0·6 | 302 | i 0 13 | − 2 | 0 22 | − 4 |
| Borzhomi | 0·7 | 309 | 0 15 | − 2 | i 0 25 | − 3 |
| Kirovobad | 1·8 | 111 | 0 35 | + 3 | 1 3 | + 7 |
| Zugdidi | 2·0 | 304 | 0 37 | + 2 | 1 3 | + 1 |
| Grozny | 2·3 | 32 | — | — | i 1 22 | + $6_g$ |
| Goris | 2·6 | 138 | 0 43 | − 1 | 1 20 | + 3 |
| Makhach-Kala | 3·0 | 58 | — | — | i 1 48 | + $9_g$ |
| Shemakha | 3·5 | 101 | — | — | i 1 58 | + $2_g$ |

Sept. 29d. 16h. 45m. 10s. Epicentre 48°·9N. 8°·0E. (as on August 10d.).

Felt in the epicentral region and less strongly in the department of Bas-Rhin. Followed by three after-shocks at 16h. 51m., 17h. 55m., and 23h. 41m. less widely noticed.
Annales de l'Institut de Physique du Globe de Strasbourg, 2e partie, Séismologie, 1952, Nouvelle Série, Tome XVII, Strasbourg, 1957, p. 73. Epicentre 48°·9N. 7°·9E.

| | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|
| | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Karlsruhe | 0·3 | 67 | i 0 10 | − 1 | i 0 16 | − 2 | i 0 23 | ? | — |
| Strasbourg | 0·4 | 206 | i 0 7 | $-1_g$ | i 0 13 | $0_g$ | i 0 20 | ? | — |
| Stuttgart | 0·8 | 100 | i 0 $15_a$ | $-1_g$ | i 0 25 | $-1_g$ | — | — | — |
| Basle | 1·4 | 191 | e 0 26 | − 1 | e 0 46 | 0 | — | — | — |
| Ravensburg | 1·5 | 136 | e 0 30 | $0_g$ | i 0 50 | $0_g$ | — | — | — |
| Zürich | 1·6 | 166 | i 0 $29_k$ | − 1 | — | — | e 0 32 | $P_g$ | — |
| Neuchatel | 2·0 | 200 | i 0 38 | $-2_g$ | i 1 5 | $-1_g$ | — | — | — |
| Chur | 2·3 | 157 | e 0 42 | 0* | e 1 16 | $0_g$ | — | — | — |
| Cheb | 3·1 | 67 | i 0 31 | −20 | i 1 35 | − 1* | i 0 41 | ? | — |
| Jena | 3·1 | 47 | e 0 55 | − 1* | i 1 34 | − 2* | i 1 4 | $P_g$ | — |
| Paris | 3·6 | 271 | e 0 56 | − 2 | i 1 43 | + 1 | i 1 7 | $P_g$ | i 2·2 |
| Collmberg | 4·0 | 51 | e 1 12 | + 1* | e 2 5 | + 2* | e 1 26 | $P_g$ | — |
| Prague | 4·4 | 71 | i 1 14 | − 4* | e 1 50 | −12 | e 1 24 | $P_g$ | — |
| Clermont-Ferrand | 4·6 | 228 | i 1 26 | + 4* | i 2 26 | + 6* | — | — | — |
| Potsdam | 4·8 | 41 | — | — | e 2 38 | $-1_g$ | — | — | — |
| Triest | 5·1 | 128 | e 1 8 | −12 | e 2 19 | − 1 | e 1 43 | $P_g$ | — |
| Racîborzu | 6·7 | 76 | e 2 16 | $+2_g$ | e 3 3 | + 3 | e 3 8 | SS | — |

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Sept. 30d. 2h. 50m. 40s. Epicentre 38°·9N. 44°·0E.

$A = +\cdot5613$, $B = +\cdot5420$, $C = +\cdot6254$; $\delta = -5$; $h = -1$;
$D = +\cdot695$, $E = -\cdot719$; $G = +\cdot450$, $H = +\cdot434$, $K = -\cdot780$.

| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Erevan | | 1·3 | 17 | i 0 27 | + 1$_g$ | i 0 42 | − 1$_g$ | — | — | — |
| Goris | | 1·9 | 72 | i 0 35 | + 1 | i 1 2 | − 1$_g$ | — | — | — |
| Leninakan | | 1·9 | 356 | 0 36 | + 1* | i 1 1 | + 1* | — | — | — |
| Kirovobad | | 2·6 | 44 | 0 44 | 0 | i 1 22 | + 1* | — | — | — |
| Tiflis | | 2·9 | 11 | i 0 48 | 0 | i 1 26 | + 2 | — | — | — |
| Tsikhlis-Dzhvari | | 2·9 | 352 | 0 52 | 0* | i 1 40 | + 4$_g$ | — | — | — |
| Gori | | 3·1 | 2 | 0 56 | 0* | 1 45 | + 3$_g$ | — | — | — |
| Lenkoran | | 3·8 | 90 | 1 3 | + 2 | i 2 5 | − 1$_g$ | — | — | — |
| Shemakla | | 4·0 | 62 | i 1 6 | + 2 | i 2 8 | − 4$_g$ | — | — | — |
| Grozny | | 4·6 | 16 | i 1 17 | + 5 | i 2 35 | + 3$_g$ | — | — | — |
| Piatigorsk | | 5·2 | 352 | 1 25 | + 4 | — | — | — | — | — |
| Sotchi | | 5·7 | 327 | e 1 27 | − 1 | — | — | — | — | — |
| Ksara | | 8·3 | 235 | 2 11 | + 7 | 4 39 | + 5$_g$ | — | — | — |
| Theodosia | | 8·9 | 316 | e 2 8? | − 4 | — | — | — | — | — |
| Yalta | | 9·2 | 310 | e 2 17 | + 1 | — | — | — | — | — |
| Ashkabad | | 11·3 | 90 | 2 43 | − 3 | 4 48 | − 6 | — | — | e 6·1 |
| Istanbul | | 11·7 | 285 | e 2 52 | + 1 | — | — | — | — | e 6·3 |
| Helwan | z. | 13·8 | 233 | e 3 20 | + 1 | 4 53 | −61 | 3 36 | PPP | — |
| Bairam-Ali | | 14·3 | 89 | 3 23 | − 3 | — | — | — | — | — |
| Athens | | 15·9 | 273 | e 3 54 | + 7 | e 7 5 | SS | — | — | — |
| Moscow | | 17·4 | 348 | 4 6 | 0 | e 7 10 | − 9 | — | — | — |
| Samarkand | | 17·8 | 80 | 4 11 | 0 | — | — | — | — | — |
| Lwow | | 17·9 | 313 | e 4 13 | + 1 | — | — | — | — | — |
| Tchimkent | | 19·7 | 71 | i 4 31 | − 3 | 8 1 | − 9 | — | — | — |
| Obi-garm | | 20·0 | 81 | i 4 35 | − 2 | — | — | — | — | — |
| Kulyab | | 20·1 | 84 | 4 41 | + 3 | — | — | — | — | — |
| Quetta | z. | 20·8 | 107 | e 4 45 | 0 | — | — | — | — | — |
| Sverdlovsk | | 21·0 | 25 | e 4 49 | + 2 | — | — | — | — | — |
| Dzhergetal | | 21·1 | 80 | i 4 49 | + 1 | — | — | — | — | — |
| Namangan | | 21·3 | 75 | e 4 48 | − 2 | — | — | — | — | — |
| Fergana | | 21·4 | 76 | e 4 48 | − 3 | — | — | — | — | — |
| Raciborzu | | 21·4 | 310 | e 4 55 | + 4 | e 4 59 | ? | e 6 8 | ? | — |
| Khorog | | 21·7 | 85 | 4 53 | − 2 | — | — | — | — | — |
| Andijan | | 21·8 | 76 | i 4 53 | − 3 | — | — | — | — | — |
| Messina | | 22·2 | 277 | e 5 2 | + 2 | e 9 5 | + 5 | e 5 12 | ? | e 11·8 |
| Pulkovo | | 22·6 | 342 | i 5 8 | + 5 | — | — | — | — | — |
| Frunse | | 23·4 | 70 | i 5 13 | + 2 | — | — | — | — | — |
| Prague | | 23·7 | 308 | e 5 24 | +10 | e 6 45 | ? | e 7 54 | ? | — |
| Rome | | 24·1 | 287 | e 5 46 | PP | e 9 51 | +17 | 10 50 | SSS | e 12·2 |
| Naryn | | 24·5 | 73 | i 5 22 | 0 | — | — | — | — | — |
| Collmberg | z. | 25·0 | 309 | e 5 26 | − 1 | — | — | e 6 1 | PP | — |
| Florence | | 25·0 | 292 | e 5 31 | + 4 | e 10 22 | SS | e 6 13 | PPP | — |
| Almata II | | 25·4 | 68 | e 5 32 | + 1 | — | — | — | — | — |
| Przhevalsk | | 26·2 | 69 | e 5 41 | + 3 | — | — | — | — | — |
| Stuttgart | | 26·8 | 303 | e 5 44 | 0 | — | — | — | — | — |
| Upsala | z. | 26·8 | 329 | i 5 46 | + 2 | — | — | 16 2 | ? | — |
| Copenhagen | | 26·9 | 319 | e 5 50 | + 5 | — | — | — | — | 14·3 |
| Kiruna | | 31·8 | 343 | i 6 27 | − 1 | e 12 10 | +32 | i 7 26 | PP | e 16·3 |
| Tamanrasset | z. | 36·4 | 255 | e 7 8 | 0 | — | — | i 7 11 | P | — |

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Sept. 30d. 12h. 52m. 0s. Epicentre 28°·3N. 102°·2E.

$A = -\cdot1863$, $B = +\cdot8619$, $C = +\cdot4716$; $\delta = -1$; $h = +2$;
$D = +\cdot977$, $E = +\cdot211$; $G = -\cdot100$, $H = +\cdot461$, $K = -\cdot882$.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Shillong | E. | 9·6 | 256 | e 2 26 | + 5 | i 4 12 | 0 | 4 43 | S* | 4·4 |
| Hong Kong | | 12·4 | 116 | 2 57 | − 4 | 5 20 | − 1 | 3 40 | ? | — |
| Chatra | | 13·4 | 267 | i 3 14 | 0 | — | — | 3 40 | PPP | — |
| Calcutta | E. | 13·8 | 248 | i 3 16 | − 3 | 5 55 | + 1 | 3 31 | PP | 6·2 |
| Nanking | | 14·8 | 71 | i 3 31 a | − 1 | — | — | — | — | — |
| Zô-Sè | | 16·7 | 76 | i 4 0 | + 3 | — | — | — | — | — |
| Dehra Dun | N. | 21·1 | 281 | e 4 6 | −42 | 7 42 | −57 | — | — | e 10·6 |
| New Delhi | | 22·0 | 277 | e 4 56 | − 2 | i 8 50 | − 6 | 5 21 | PP | 10·0 |
| Manila | | 22·1 | 123 | i 4 50 | − 9 | i 8 45 | −13 | — | — | — |
| Tomie | | 23·3 | 70 | — | — | e 9 20 | 0 | — | — | e 12·0 |
| Ituhara | | 23·9 | 67 | e 5 11 | − 5 | e 9 32 | + 2 | — | — | e 12·5 |
| Przhevalsk | | 23·9 | 313 | i 5 19 | + 3 | — | — | — | — | — |
| Irkutsk | | 24·0 | 2 | i 5 19 | + 2 | 9 37 | + 5 | — | — | — |
| Kabansk | | 24·0 | 4 | i 4 43? | −34 | — | — | — | — | — |
| Nagasaki | | 24·2 | 70 | 5 20 | + 1 | 9 14 | −21 | — | — | — |
| Hyderabad | E. | 24·4 | 249 | i 5 25 | + 4 | i 9 43 | + 4 | 6 0 | PP | 11·9 |
| Unzendake | | 24·5 | 70 | 5 25 | + 3 | — | — | i 10 58 | SSS | i 13·5 |
| Hukuoka | | 24·7 | 69 | e 5 25 | + 1 | 9 38 | − 6 | e 10 59 | SSS | 11·2 |
| Yakusima | | 24·7 | 78 | e 5 26 | + 2 | e 9 52 | + 8 | e 16 40 | ScS | e 13·4 |
| Kagosima | | 24·8 | 74 | e 5 26 | + 1 | 9 52 | + 6 | 12 12 | Q | 13·6 |
| Almata II | | 24·9 | 313 | i 5 29 | + 3 | — | — | — | — | — |
| Kumamoto | | 24·9 | 70 | e 5 33 | + 7 | e 10 1 | +14 | — | — | — |
| Naryn | | 25·1 | 308 | i 5 30 | + 2 | i 9 53 | + 2 | — | — | — |
| Almata | | 25·2 | 313 | i 5 30 | + 1 | i 10 1 | + 9 | — | — | — |
| Rybach'e | | 25·4 | 309 | i 5 31 | 0 | e 10 0 | + 4 | — | — | — |
| Miyazaki | | 25·5 | 73 | e 5 33 | + 1 | 10 4 | + 7 | e 6 1 | PP | 12·6 |
| Madras | E. | 25·6 | 238 | i 5 34 | + 2 | i 10 2 | + 3 | 8 57 | PcP | 12·0 |
| Ooita | | 25·7 | 69 | 5 34 | + 1 | 10 10 | + 9 | e 6 6 | PP | e 13·3 |
| Hamada | | 26·2 | 67 | e 5 41 | + 3 | 10 16 | + 7 | — | — | 12·7 |
| Hirosima | | 26·5 | 68 | e 5 46 | + 5 | 10 19 | + 5 | — | — | 13·0 |
| Uwazima | | 26·5 | 69 | — | — | e 10 21 | + 7 | e 14 12 | Q | 15·8 |
| Frunse | | 26·6 | 309 | i 5 43 | + 1 | — | — | — | — | — |
| Matuyama | | 26·7 | 68 | e 5 48 | + 5 | e 10 20 | + 3 | — | — | e 12·1 |
| Simidu | | 26·8 | 70 | e 6 9 | +25 | e 9 44 | −35 | — | — | 14·2 |
| Matsue | | 27·1 | 66 | e 6 20 | +34 | e 10 51 | +27 | — | — | e 15·4 |
| Khorog | | 27·2 | 297 | e 5 48 | + 1 | — | — | — | — | — |
| Koti | | 27·3 | 70 | e 5 41 | − 7 | e 10 36 | + 9 | — | — | 13·7 |
| Andijan | | 27·4 | 304 | i 5 50 | + 1 | i 10 31 | + 3 | — | — | — |
| Saigo | | 27·4 | 64 | — | — | e 10 38 | +10 | — | — | e 14·8 |
| Fergana | | 27·7 | 303 | i 5 52 | 0 | e 10 34 | + 1 | — | — | — |
| Poona | N. | 27·7 | 255 | e 5 52 | 0 | e 10 32 | − 1 | 16 19 | ScS | 13·2 |
| Semipalatinsk | | 27·7 | 329 | 5 50 | − 2 | — | — | — | — | — |
| Dzhergetal | | 27·8 | 301 | i 5 56 | + 3 | — | — | — | — | — |
| Takamatu | | 27·8 | 67 | e 5 59 | + 6 | e 10 52 | +17 | e 12 56 | Q | 13·9 |
| Muroto | | 27·9 | 70 | e 5 59 | + 5 | e 10 29 | − 8 | e 9 1 | PcP | 15·1 |
| Namangan | | 28·0 | 304 | i 5 55 | 0 | i 10 40 | + 2 | — | — | — |
| Vladivostok | | 28·1 | 49 | e 5 53? | − 2 | i 10 30? | −10 | — | — | — |
| Bombay | | 28·4 | 257 | i 5 52 | − 6 | i 10 47 | + 2 | e 5 0? | ? | — |
| Sumoto | | 28·5 | 68 | e 6 2 | + 3 | 11 4 | +18 | i 6 48 | PP | — |
| Toyooka | | 28·5 | 66 | i 6 9 | +10 | e 10 46 | 0 | e 6 41 | PP | i 15·2 |
| Kulyab | | 28·7 | 298 | i 6 3 | + 2 | — | — | — | — | — |
| Kobe | | 28·8 | 68 | e 6 15 | +13 | e 11 8 | +17 | e 13 4 | ScP | 15·9 |
| Obi-garm | | 28·9 | 300 | i 6 4 | + 1 | e 10 56 | + 3 | — | — | — |
| Maizuru | | 29·0 | 66 | e 6 20 | +16 | e 11 11 | +17 | — | — | e 14·7 |
| Osaka | | 29·0 | 68 | e 5 56 | − 8 | e 11 55 | +61 | — | — | 14·2 |
| Kyoto | | 29·2 | 67 | e 6 11 | + 6 | e 11 22 | +24 | — | — | e 13·5 |
| Siomisaki | | 29·2 | 69 | e 5 46 | −19 | 11 0 | + 2 | e 12 16 | SS | 13·4 |
| Kodaikanal | E. | 29·4 | 248 | 6 12 | + 5 | 11 6 | + 5 | 7 6 | PP | 14·0 |
| Tsuruga | | 29·5 | 66 | e 6 15 | + 7 | 11 17 | +15 | — | — | 16·0 |
| Owase | | 29·6 | 70 | e 6 0 | − 9 | e 10 58 | − 6 | 13 36 | Q | e 15·7 |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Stalinabad | | 29·6 | 300 | i 6 11 | + 2 | i 11 6 | + 2 | — | — | — |
| Hikone | | 29·7 | 66 | e 6 14 | + 4 | e 11 15 | + 9 | — | — | e 15·7 |
| Kameyama | | 29·8 | 66 | e 6 25 | +14 | 11 9 | + 2 | 7 30 | PPP | 16·3 |
| Tchimkent | | 29·8 | 306 | i 6 11 | 0 | — | — | — | — | — |
| Tu | | 29·9 | 65 | e 6 21 | + 9 | e 11 0 | − 9 | e 7 21 | PPP | 13·6 |
| Colombo | E. | 30·0 | 229 | e 6 10 | − 2 | 11 8 | − 2 | — | — | 18·7 |
| Gihu | | 30·1 | 65 | 6 18 | + 5 | — | — | — | — | e 16·0 |
| Nagoya | | 30·2 | 66 | e 6 17 | + 3 | e 12 45 | SS | e 15 22 | Q | 16·7 |
| Toyama | | 30·5 | 63 | e 6 11 | − 6 | e 11 18 | 0 | e 7 6 | PP | e 16·9 |
| Quetta | | 30·7 | 282 | i 6 19 | 0 | i 11 18 | − 3 | i 11 22 | S | — |
| Hamamatu | | 30·9 | 67 | — | — | e 11 48 | +24 | e 17 0 | ScS | 18·8 |
| Iida | | 31·0 | 65 | e 6 17 | − 4 | — | — | e 16 50 | ScS | — |
| Matumoto | | 31·1 | 63 | e 6 30 | + 8 | e 11 31 | + 3 | e 7 37 | PPP | 17·1 |
| Samarkand | | 31·1 | 300 | 6 22 | 0 | — | — | — | — | — |
| Omaesaki | | 31·3 | 67 | — | — | e 11 24 | − 7 | — | — | 16·4 |
| Matusiro | | 31·4 | 67 | 6 34 | + 9 | 11 32 | 0 | 7 44 | PPP | 15·5 |
| Nagano | | 31·4 | 63 | e 6 38 | +13 | e 11 36 | + 4 | 13 52 | SSS | 16·7 |
| Shizuoka | | 31·4 | 68 | — | — | e 12 0 | +28 | e 17 15 | ScS | e 14·6 |
| Takada | | 31·4 | 62 | e 6 36 | +11 | — | — | — | — | — |
| Aikawa | | 31·5 | 60 | e 6 20 | − 6 | — | — | — | — | e 15·7 |
| Kohu | | 31·6 | 65 | e 6 36 | +10 | e 14 1 | SSS | i 17 4 | ScS | i 15·2 |
| Oiwake | | 31·6 | 68 | e 6 36 | +10 | e 11 28 | − 7 | — | — | — |
| Hunatu | F. | 31·7 | 67 | e 6 1 | −26 | e 12 2 | +25 | — | — | e 17·1 |
| Misima | | 31·9 | 66 | e 6 53 | ? | e 11 49 | + 9 | e 14 6 | SSS | e 16·5 |
| Macbasi | | 32·0 | 68 | e 6 47 | +17 | e 13 38 | SS | — | — | e 17·0 |
| Titibu | | 32·0 | 65 | e 6 46 | +16 | — | — | — | — | e 17·0 |
| Niigata | | 32·2 | 61 | e 7 30 | PP | e 12 3 | +18 | i 13 29 | SS | e 17·6 |
| Osima | | 32·2 | 67 | — | — | e 13 24 | SS | e 14 10 | SSS | e 16·4 |
| Kumagaya | | 32·3 | 65 | e 8 0 | PPP | — | — | e 17 4 | ScS | e 15·0 |
| Yokohama | | 32·5 | 66 | — | — | e 12 49 | +60 | — | — | e 17·4 |
| Mera | | 32·6 | 67 | — | — | e 14 34 | SSS | — | — | e 17·5 |
| Tokyo | | 32·6 | 65 | — | — | e 11 56 | + 5 | e 15 49 | Q | e 17·5 |
| Utunomiya | | 32·7 | 64 | e 6 51 | +15 | e 13 57 | SS | — | — | 16·3 |
| Akita | | 33·2 | 58 | e 7 24 | PP | e 11 49 | −11 | e 14 59 | Q | e 17·0 |
| Hukusima | | 33·2 | 61 | e 6 40 | 0 | e 14 0 | SS | — | — | — |
| Mito | | 33·2 | 65 | — | — | e 17 21 | ScS | — | — | — |
| Onahama | | 33·5 | 64 | — | — | e 12 2 | − 3 | — | — | e 16·1 |
| Sendai | | 33·6 | 61 | e 6 43 | − 1 | e 12 35 | +29 | e 14 27 | SS | e 16·4 |
| Aomori | | 33·9 | 56 | e 7 9 | +22 | e 12 52 | +41 | e 9 53 | PcP | 16·5 |
| Mizusawa | | 33·9 | 59 | 6 45 | − 2 | e 13 18 | ScP | e 13 37 | ? | e 19·2 |
| Mori | | 34·0 | 54 | 7 43 | PP | 14 41 | SSS | — | — | 19·0 |
| Morioka | | 34·0 | 58 | e 7 18 | +30 | e 17 7 | ScS | — | — | — |
| Miyako | | 34·4 | 58 | e 6 51? | 0 | e 12 14? | − 5 | e 16 4? | Q | 18·8 |
| Djakarta | | 34·6 | 171 | 6 53 | 0 | e 12 26 | + 4 | — | — | — |
| Bairam-Ali | | 34·7 | 296 | i 6 53 | − 1 | — | — | — | — | — |
| Sapporo | | 34·7 | 52 | e 8 10 | PP | e 14 21 | SS | e 17 24 | ScS | e 18·7 |
| Bandong | | 35·4 | 168 | e 7 1 | + 1 | e 12 31 | − 3 | — | — | — |
| Urakawa | | 35·6 | 54 | e 8 23 | PP | e 12 39 | + 1 | — | — | e 16·1 |
| Yuzno-Sakhlinsk | | 36·6 | 47 | — | — | 12 34 | −19 | — | — | — |
| Uglegorsk | | 36·8 | 43 | 7 16? | + 5 | 12 52? | − 4 | — | — | — |
| Ashkabad | | 37·7 | 296 | 7 21 | + 2 | i 13 15 | + 5 | — | — | — |
| Sverdlovsk | | 40·8 | 326 | i 7 45 | 0 | i 13 56 | 0 | — | — | — |
| Baku | | 44·2 | 300 | i 8 16 | + 4 | — | — | — | — | — |
| Shemakha | | 45·2 | 301 | i 8 21 | + 1 | — | — | — | — | — |
| Makhach-Kala | | 46·0 | 304 | i 8 27 | 0 | i 15 13 | + 1 | — | — | — |
| Kirovobad | | 46·9 | 301 | i 8 34 | 0 | — | — | — | — | — |
| Goris | | 47·0 | 299 | e 8 35 | 0 | 15 28 | + 2 | — | — | — |
| Grozny | | 47·3 | 304 | i 8 36 | − 1 | i 15 32 | + 1 | — | — | — |
| Petropavlovsk | | 47·9 | 41 | e 8 40 | − 2 | — | — | — | — | — |
| Tiflis | | 48·1 | 302 | i 8 42 | − 1 | i 15 41 | − 1 | — | — | — |

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| | | △ | Az. | P. | O−C. | S. | O−C. | Supp. | | L. |
|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Erevan | | 48·4 | 300 | i 8 46 | 0 | 15 46 | 0 | — | — | — |
| Gori | | 48·6 | 302 | 8 51 | + 4 | 15 52 | + 3 | — | — | — |
| Leninakan | | 48·8 | 301 | 8 51 | + 2 | — | — | — | — | — |
| Borzhomi | | 49·1 | 302 | — | — | i 15 57 | + 1 | — | — | — |
| Tsikhlis-Dzhvari | | 49·1 | 302 | 8 53 | + 2 | — | — | — | — | — |
| Piatigorsk | | 49·2 | 305 | 8 52 | 0 | — | — | — | — | — |
| Zugdidi | | 50·2 | 303 | i 9 0 | 0 | 16 14 | + 3 | — | — | — |
| Sotchi | | 51·7 | 305 | i 9 5 | − 6 | i 16 27 | − 5 | — | — | — |
| Moscow | | 52·9 | 320 | i 9 18 | − 2 | i 16 45 | − 3 | — | — | — |
| Theodosia | | 54·6 | 307 | i 9 32 | 0 | i 17 12 | + 1 | — | — | — |
| Yalta | | 55·6 | 306 | i 9 38 | − 2 | i 17 24 | − 1 | — | — | — |
| Ksara | | 56·2 | 292 | i 9 46k | + 2 | 17 39 | + 6 | 11 46 | PP | — |
| Pulkovo | | 56·9 | 325 | i 9 48 | − 1 | i 17 41 | − 1 | — | — | — |
| Kishinev | | 58·9 | 310 | i 10 1 | − 2 | 18 5 | − 3 | — | — | — |
| Helsinki | | 59·6 | 326 | e 11 33 | ? | e 19 10 | ? | — | — | — |
| Istanbul | | 59·9 | 303 | e 10 8 | − 2 | e 18 20? | − 1 | e 13 38 | PPP | 30·0 |
| Helwan | | 61·0 | 290 | i 10 16k | − 2 | i 18 32 | − 3 | e 22 36 | SS | — |
| Kiruna | | 61·0 | 334 | i 10 15k | − 3 | i 18 34 | − 1 | e 20 3 | ScS | e 29·0 |
| Bucharest | | 61·3 | 307 | e 9 56 | −24 | i 18 42 | + 3 | i 20 5 | ScS | 31·0 |
| Perth | | 61·3 | 166 | — | — | i 18 40 | + 1 | i 22 45 | SS | i 27·4 |
| Uzhgorod | | 62·9 | 313 | i 10 29 | − 1 | e 18 57 | − 3 | — | — | — |
| Upsala | | 63·3 | 325 | i 10 31k | − 2 | e 19 5 | + 1 | i 20 19 | ScS | e 31·0 |
| Sofia | | 63·6 | 306 | e 10 35 | 0 | 19 11 | + 3 | e 20 26 | ScS | — |
| Skalnate Pleso | | 64·1 | 313 | i 10 46 | + 8 | e 19 22 | + 8 | e 20 41 | ScS | e 28·5 |
| Timisoara | | 64·3 | 310 | e 10 0? | −39 | e 19 20 | + 3 | e 14 44 | PPP | e 36·0 |
| Athens | | 64·7 | 301 | e 10 38 | − 4 | i 19 17 | − 5 | e 18 41 | ? | — |
| Szeged | | 64·9 | 311 | 10 29 | −14 | 19 21 | − 3 | 13 15 | PP | e 33·0 |
| Belgrade | | 65·1 | 308 | e 10 41 | − 4 | e 19 25 | − 2 | e 23 36 | SS | e 37·3 |
| Raciborzu | | 65·2 | 315 | 10 43 | − 2 | e 19 28 | 0 | e 20 34 | ScS | 35·0 |
| Budapest | | 65·3 | 312 | e 10 46 | 0 | 19 29 | 0 | e 11 12 | PcP | 34·0 |
| Kalossa | | 65·6 | 312 | e 10 47 | − 1 | e 19 29 | − 4 | e 15 4 | PcS | e 34·0 |
| Ogyalla | | 65·7 | 313 | e 10 55 | + 7 | e 19 37 | + 3 | e 20 45 | ScS | — |
| Copenhagen | | 67·0 | 322 | i 10 56 | − 1 | i 19 50 | 0 | 24 18 | SS | 34·0 |
| Prague | | 67·5 | 316 | e 11 0 | 0 | i 19 56 | 0 | i 20 54 | ScS | e 36·0 |
| Potsdam | | 67·6 | 319 | i 10 59k | − 2 | i 19 59 | + 2 | i 20 58 | ScS | e 32·0 |
| Collmberg | | 68·0 | 317 | i 11 2a | − 1 | e 20 0 | − 2 | e 11 36 | PcP | e 35·0 |
| Taranto | | 68·6 | 305 | 11 12 | + 5 | 20 2 | − 7 | 13 34 | PP | 35·5 |
| Cheb | | 68·7 | 316 | e 20 42 | PPS | e 20 12 | + 2 | e 27 36 | SSS | e 33·6 |
| Jena | | 68·9 | 317 | e 11 7 | − 2 | e 20 8 | − 5 | e 15 16 | PPP | — |
| Bergen | | 69·1 | 328 | — | — | e 19 54 | −21 | e 27 50 | SSS | e 34·6 |
| Triest | | 69·3 | 311 | i 11 10a | − 1 | i 20 15 | − 2 | e 13 44 | PP | 38·5 |
| Messina | | 70·7 | 303 | e 11 16 | − 4 | i 20 29 | − 5 | e 13 55 | PP | e 36·2 |
| Tananarive | | 70·7 | 235 | — | — | e 20 30 | − 4 | — | — | 35·0 |
| Witteveen | z. | 71·1 | 321 | i 11 22 | 0 | — | — | — | — | — |
| Stuttgart | | 71·2 | 316 | e 11 21k | − 2 | e 20 35 | − 5 | e 25 0 | SS | e 32·0 |
| Bologna | | 71·3 | 311 | e 11 38a | PcP | e 20 45 | + 4 | e 14 18 | PP | — |
| Rocca di Papa | E. | 71·4 | 307 | e 11 16 | − 8 | e 20 40 | − 2 | — | — | e 40·0 |
| Karlsruhe | z. | 71·5 | 316 | e 11 26? | + 2 | — | — | e 11 36 | ? | — |
| Rome | | 71·5 | 307 | i 11 22k | − 2 | i 20 42 | − 1 | e 14 3 | PP | 36·5 |
| Salo | | 71·5 | 312 | e 11 25 | + 1 | e 20 39 | − 4 | e 21 27 | PPS | — |
| Chur | | 71·6 | 313 | e 11 24 | − 1 | e 20 42 | − 2 | — | — | e 38·5 |
| Florence | | 71·7 | 310 | i 11 10k | −16 | i 20 45 | 0 | i 11 43 | pP | e 36·5 |
| Prato | | 71·7 | 310 | i 11 26 | 0 | i 20 45 | 0 | — | — | — |
| Strasbourg | | 72·1 | 315 | i 11 27 | − 1 | e 20 52 | + 2 | i 14 11 | PP | e 33·0 |
| Zürich | | 72·1 | 315 | e 11 25k | − 3 | — | — | e 14 35 | PP | — |
| De Bilt | | 72·3 | 320 | i 11 29 | 0 | e 20 56 | + 4 | e 16 0 | PPP | e 33·0 |
| Pavia | | 72·5 | 312 | e 11 32 | + 2 | e 20 54 | 0 | e 14 20 | PP | — |
| Basle | | 72·6 | 315 | e 11 31 | 0 | — | — | — | — | — |
| College | | 72·7 | 24 | i 11 29 | − 3 | i 20 52 | − 5 | (e 28 50) | SSS | e 28·8 |
| Neuchatel | | 73·2 | 315 | e 11 35 | 0 | — | — | — | — | — |

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|---|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | | m. |
| Brisbane | | 73·8 | 134 | i 11 39 | + 1 | i 21 8 | − 1 | — | — | — |
| Aberdeen | | 73·9 | 326 | — | — | i 21 8 | − 2 | i 29 55 | Q | e 36·1 |
| Scoresby Sund | | 73·9 | 343 | i 11 36 | − 3 | i 21 8 | − 2 | e 21 37 | PS | 34·0 |
| Durham | | 74·8 | 324 | — | — | i 21 10 | −10 | — | — | — |
| Paris | | 75·2 | 318 | i 11 45 | − 1 | i 21 24 | − 1 | i 14 34 | PP | e 38·0 |
| Kew | | 75·6 | 321 | i 11 48 | 0 | e 21 28 | − 1 | i 14 32 | PP | e 33·0 |
| Clermont-Ferrand | | 76·2 | 314 | i 11 53 | + 1 | i 21 38 | + 2 | e 29 30 | SSS | 38·0 |
| Resolute Bay | | 76·7 | 5 | i 11 53k | − 2 | i 21 38 | − 3 | i 14 46 | PP | e 30·5 |
| Melbourne | E. | 77·0 | 145 | — | — | e 21 46 | + 1 | — | — | — |
| Riverview | | 77·3 | 139 | i 11 59a | + 1 | i 21 51 | + 3 | i 12 5 | PcP | e 36·2 |
| Rathfarnham Castle | | 77·9 | 324 | i 12 5k | + 4 | e 21 58 | + 4 | e 15 1 | PP | e 32·3 |
| Reykjavik | | 78·1 | 338 | i 12 0a | − 2 | e 22 24 | ScS | — | — | e 39·0 |
| Barcelona | | 78·8 | 311 | — | — | 22 3 | − 1 | — | — | e 41·0 |
| Tortosa | | 80·1 | 310 | e 12 23 | PcP | — | — | — | — | — |
| Algiers Univ. | Z. | 80·3 | 306 | i 12 13 | − 1 | i 22 18 | − 2 | e 23 17 | PPS | — |
| Alicante | | 82·0 | 309 | e 12 21 | − 2 | i 22 35 | − 2 | 15 27 | PP | 39·5 |
| Toledo | | 83·6 | 312 | i 12 33 | + 2 | i 22 52 | − 1 | 15 42 | PP | 39·8 |
| Almeria | | 84·1 | 308 | i 12 32 | − 2 | i 22 54 | − 4 | 23 8 | ScS | 47·2 |
| Granada | | 84·7 | 309 | i 12 37a | 0 | i 22 31 | −33 | 15 52 | PP | e 43·2 |
| Tamanrasset | Z. | 85·0 | 293 | i 12 39a | + 1 | e 23 7 | [+ 6] | e 15 57 | PP | — |
| Malaga | | 85·5 | 309 | i 12 38 | − 3 | i 23 0 | [− 4] | i 16 0 | PP | 40·0 |
| Lisbon | | 87·6 | 313 | i 12 52a | + 1 | — | — | — | — | 44·9 |
| Pretoria | Z. | 89·1 | 240 | i 12 56 | − 2 | — | — | — | — | — |
| Kimberley | Z. | 93·3 | 239 | i 13 17 | − 1 | — | — | — | — | — |
| Victoria | | 93·3 | 28 | 13 18 | 0 | — | — | — | — | — |
| Grahamstown | Z. | 94·3 | 235 | i 13 30 | + 7 | — | — | — | — | e 48·6 |
| Seattle | | 94·5 | 28 | e 13 27 | + 4 | e 24 0 | [+ 2] | i 24 13 | SKKS | — |
| Saskatoon | | 96·0 | 17 | — | — | e 24 48 | + 1 | — | — | — |
| Corvallis | Z. | 96·4 | 30 | e 13 26 | − 6 | — | — | — | — | — |
| Hungry Horse | | 97·1 | 23 | i 13 36 | + 1 | e 24 11 | [− 1] | e 17 29 | PP | — |
| Shasta | | 99·9 | 32 | e 13 44 | − 4 | e 24 24 | [− 3] | e 17 48 | PP | — |
| Mineral | Z. | 100·5 | 32 | e 13 57 | + 6 | e 24 24 | [− 5] | e 18 19 | PP | — |
| Reno | | 102·0 | 31 | e 14 4 | + 7 | e 24 30 | [− 7] | e 18 14 | PP | — |
| Berkeley | | 102·1 | 34 | e 18 13 | PP | i 24 39 | [+ 2] | e 32 51 | SS | e 47·0 |
| Santa Clara | | 102·7 | 34 | e 18 20k | PP | e 32 55 | SS | — | — | e 57·5 |
| Lick | Z. | 102·8 | 34 | e 17 10 | ? | — | — | e 18 16 | PP | — |
| Kirkland Lake | Z. | 103·9 | 1 | e 18 18 | PP | — | — | e 30 0 | PKKP | — |
| Fresno | Z. | 104·2 | 33 | e 18 26a | PP | e 24 39 | [− 8] | — | — | — |
| Tinemaha | Z. | 104·7 | 32 | e 18 28 | PP | — | — | — | — | — |
| Shawinigan Falls | N. | 105·4 | 356 | e 18 39 | PP | 24 47 | [− 5] | — | — | — |
| China Lake | Z. | 106·0 | 32 | i 14 20 | P | e 18 44 | PP | e 18 11 | PKP | — |
| Ottawa | | 106·6 | 358 | e 18 41 | PP | 24 52 | [− 6] | 26 20 | S | — |
| Pasadena | | 107·1 | 33 | i 18 44 | PP | e 34 0 | SS | e 30 5 | PKKP | e 51·3 |
| Boulder City | | 107·2 | 30 | e 12 34 | P | — | — | i 18 26 | PKP | — |
| Nelson | | 107·4 | 30 | e 14 24 | P | e 29 43 | PKKP | i 18 23 | PKP | — |
| Riverside | Z. | 107·6 | 33 | e 18 39 | ? | i 29 52 | PKKP | e 18 52 | PP | — |
| Palomar | Z. | 108·4 | 33 | e 18 26 | [− 4] | i 30 0 | PKKP | i 18 56 | PP | — |
| Buffalo (Larkin) | | 109·2 | 0 | e 18 5 | ? | — | — | — | — | — |
| Harvard | | 109·3 | 354 | e 28 23 | PS | e 25 2 | [− 7] | e 34 31 | SSP | e 55·7 |
| Weston | | 109·4 | 354 | e 28 24 | PS | e 25 4 | [− 6] | e 34 20 | SS | e 56·0 |
| Cleveland | Z. | 110·5 | 3 | i 19 10a | PP | — | — | — | — | — |
| Fordham | | 111·1 | 356 | — | — | e 25 14 | [− 3] | e 28 40 | PS | — |
| Tucson | | 112·1 | 29 | e 18 38 | [+ 1] | e 28 54 | PS | 19 26 | PP | e 46·4 |
| Morgantown | | 112·4 | 1 | e 19 11 | PP | — | — | — | — | e 67·8 |
| Washington | | 113·1 | 358 | e 19 27 | PP | e 29 6 | PS | — | — | — |
| Fayetteville | Z. | 114·1 | 14 | e 18 33 | [− 8] | — | — | e 21 21 | ? | e 60·6 |
| Bermuda | | 118·4 | 347 | e 20 9 | PP | e 25 46 | [+ 2] | — | — | e 52·5 |
| Tacubaya | | 128·3 | 25 | e 19 37 | [+28] | e 26 7 | [− 8] | i 23 51 | PPP | — |
| San Juan | | 132·2 | 344 | — | — | i 22 40 | PcS | — | — | — |
| Fort de France | | 134·3 | 336 | — | — | i 22 50 | PKS | — | — | — |
| Galerazamba | | 141·1 | 356 | e 14 12 | ? | — | — | e 21 12 | ? | — |
| Chinchina | | 146·9 | 355 | i 19 46 | [+ 3] | i 23 6 | PKS | i 21 7 | ? | 66·8 |
| La Plata | | 161·8 | 245 | 35 24 | ? | 46 6 | SSP | 50 18 | ? | 78·4 |
| Huancayo | | 163·7 | 352 | e 20 9 | [+ 5] | e 35 14 | SKSP | e 24 42 | PP | e 66·2 |
| La Paz | | 165·2 | 321 | 20 10 | [+ 4] | i 27 16 | [+ 7] | i 31 36 | SKKS | — |

The scanned images of the bulletins of the International Seismological Summary (ISS) have been obtained thanks to funding provided by the US National Science Foundation through grant EAR-9725140 (Villaseñor et al., 1997) and collected by SGA Storia Geofisica Ambiente (Bologna) on behalf of the Istituto Nazionale di Geofisica e Vulcanologia (Rome), in the frame of the EUROSEISMOS project.
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Sept. 30d. 14h. 21m. 50s. Epicentre 29°·3S. 178°·2W. (as on 1951, November 16d.).

Felt in Raoul Island. Epicentre 29°·5S. 178°W. (U.S.C.G.S.).
Seismological Report for July, August, September, 1952. Bulletin E.129, Wellington, 1955, p. 15.

A = −·8730, B = −·0274, C = −·4869; $\delta$ = −5; $h$ = +2;
D = −·031, E = +1·000; G = +·487, H = +·015, K = −·873.

| | | Δ | Az. | P. | O−C. | S. | O−C. | Supp. | |
|---|---|---|---|---|---|---|---|---|---|
| | | ° | ° | m. s. | s. | m. s. | s. | m. s. | |
| Auckland | N. | 9·6 | 216 | — | — | 4 10? | − 2 | — | — |
| Karapiro | N. | 10·0 | 210 | e 2 38 | PP | — | — | — | — |
| Tuai | N. | 10·2 | 200 | e 2 35 | + 4 | 3 54 | −33 | — | — |
| Wellington | | 13·3 | 203 | 5 1 | ? | — | — | — | — |
| Cobb River | E. | 13·9 | 210 | e 5 22 | ? | — | — | — | — |
| Kaimata | N.E. | 15·6 | 210 | e 3 36 | − 7 | e 5 54 | ? | — | — |
| Christchurch | | 16·0 | 207 | e 6 5 | ? | — | — | — | — |
| Brisbane | | 25·4 | 267 | i 5 33 | + 2 | — | — | — | — |
| Pasadena | Z. | 84·8 | 47 | e 12 35 | − 2 | — | — | — | — |
| Lick | Z. | 84·9 | 42 | e 12 37k | − 1 | — | — | — | — |
| Palomar | Z. | 85·2 | 48 | i 12 35 | − 4 | — | — | e 12 46 | PcP |
| Riverside | Z. | 85·3 | 47 | e 12 38 | − 2 | — | — | e 12 50 | PcP |
| Fresno | Z. | 85·6 | 43 | e 12 40k | − 1 | — | — | — | — |
| Shasta | | 86·7 | 39 | e 12 56 | + 9 | — | — | e 13 51 | ? |
| Tinemaha | Z. | 86·7 | 44 | e 12 45 | − 2 | — | — | e 12 58 | PcP |
| Mineral | Z. | 86·9 | 40 | e 12 45k | − 3 | — | — | — | — |
| Nelson | | 88·0 | 46 | i 12 50 | − 3 | — | — | — | — |
| Boulder City | | 88·1 | 46 | e 12 52 | − 2 | — | — | — | — |
| Tucson | | 88·5 | 51 | e 12 56 | 0 | — | — | — | — |
| College | | 96·8 | 13 | e 13 35 | + 1 | — | — | — | — |
| Upsala | Z. | 147·6 | 344 | i 19 44 | [ 0] | — | — | i 19 49 | PKP, |
| Collmberg | Z. | 156·5 | 342 | e 20 26 | PKP, | — | — | — | — |
| Tamanrasset | Z. | 172·7 | 208 | e 19 58 | [−13] | — | — | e 19 33 | ? |

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A digital hypocenter file of the ISS (Villaseñor and Engdahl, 2005) can be obtained from the USGS web site: http://earthquake.usgs.gov/scitech/iss/

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Villaseñor, A., and E.R. Engdahl, *A digital hypocenter catalog for the International Seismological Summary,* Seism. Res. Lett., vol. 76, no. 5, pp. 554-559, 2005.

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