The International Seismological Summary for 1926 October, November, December.

FORMERLY THE BULLETIN OF THE BRITISH ASSOCIATION SEISMOLOGY COMMITTEE.

The present number deals with 176 epicentres, 47 of which are new and 129 repetitions from old epicentres. It completes the record of the year 1926 and the computations for 1927 are in hand. But in approaching the new year the material was found very imperfect.

It was necessary to send out sixty requests for observations not yet received. Observers are earnestly requested to send their readings, whether printed or in MS., in good time; delay increases the work of collation considerably.

Cases of abnormal focus are as follows :—

Date, 1926.				Epicentre.		Focal Depth (below normal).
	d.	h.	m.	s.	°	°	
Oct.	30	13	46	24	9·5N.	123·0E.	+·070
Nov.	5	7	55	33	12·3N.	85·8W.	+·020

There is a very puzzling series of observations on Dec. 16d. 0h. for which it seems impossible to suggest a satisfactory solution.

Observations of [P].

The shock of Oct. 3d. 19h. 37m. 51s. at 50°·5S. 161°·0E. provided a long series of observations of [P]. Collecting the residuals they may be grouped in sets of five as follows :—

Mean Δ	Mean Resid.	Mean Δ	Mean Resid.
°	s.	°	s.
129·4	−35	160·2	+8
142·2	0	161·7	−3
148·8	− 6	162·6	−1
154·4	+ 3	163·9	+7
157·6	− 5	166·1	+3
		169·0	+6

The following corrections to the adopted table for [P] are suggested by this shock :—

Δ	120°	130°	140°	150°	160°	170°	180°
	m. s.	m. s.	m. s.	m. s.	m. s.	m. s.	m. s.
Adopted [P]	18 52	19 18	19 39	19 56	20 8	20 15	20 17
Corrn.	−1 21	−0 29	−0 14	−0 5	+0 1	+0 2	−0 3
New [P]	17 31	18 49	19 25	19 51	20 9	20 17	20 14

But it is not proposed to apply these corrections at present ; they are only noted for comparison with other cases.

Observations of L.

The same shock provides several series of L values, the chief of which can be explained as emanating from near the epicentre in the usual way. The reason for calling it L2 will appear directly. It takes the great majority of stations, the names of which can be easily recovered from the text on p. 320 if desired. The quantity C_1 is simply Δ (in degrees) ×0·405 min.

Δ	L_2-C_1	Δ	L_2-C_1	Δ	L_2-C_1	Δ	L_2-C_1	Δ	L_2-C_1
°	m.	°	m.	°	m.	°	m.	°	m.
10·6	+0·5	88·2	(−2·6)	113·3	+0·5	139·5	+1·7	162·0	+1·6
17·1	−0·3	89·3	+0·6	118·2	+0·5	140·6	+3·3	164·9	+1·4
18·2	+0·9	89·7	+2·3	118·2	+0·4	141·4	+3·1	164·9	+0·4
22·5	+1·4	91·3	(−2·5)	119·6	−0·3	142·6	+2·4	165·3	+1·2
35·3	+3·5	92·8	0·0	120·5	(−3·4)	146·4	−0·3	166·0	+2·0
37·9	+1·0	93·8	+1·0	121·6	+1·0	147·0	+1·9	168·0	−0·4
42·8	+1·9	99·4	+1·4	121·8	+1·6	147·4	−0·5	168·9	+1·8
61·8	+1·0	100·3	+1·7	129·9	−0·5	151·1	+1·0	169·1	+1·7
83·2	+0·9	109·9	+0·7	133·4	−0·7	151·2	+1·4	169·3	+1·7
88·0	+2·6	111·0	+0·6	135·1	+0·5	157·2	(−3·5)	169·8	−1·1
		111·0	(−3·2)	136·1	+2·5	157·5	+0·4		
Mean	+1·3	Mean	+1·0	Mean	+0·6	Mean	+1·4	Mean	+1·0

It will be seen that the differences L_2-C_1 are small except in a few cases of discordance which have been bracketed. The others cluster round a mean value +1·2m. If we take groups of 5 with +1·0m. to +1·4m. as central group, the numbers in the groups are as below :—

	m.	m.	m.	m.	m.	m.	m.	m.	m.	m.	m.
Mean Value	−1·3	−0·8	−0·3	+0·2	+0·7	+1·2	+1·7	+2·2	+2·7	+3·2	+3·7
No Cases	1	1	6	5	9	9	9	3	2	2	1

Outside these there are six bracketed negative errors which stand out. They could be explained by an L_1 wave travelling several minutes earlier, with the same velocity as the other. Thus we should have

Δ	=	88·2°	91·3°	111·0°	120·5°	157·2°
		m.	m.	m.	m.	m.
L_1	=	33·1	34·5	41·8	45·4	60·2
$C_1-3·0$	=	32·7	34·0	42·0	45·8	60·7
Diff.	=	+0·4	+0·5	−0·2	−0·4	−0·5

The fit could even be improved by adopting the rather different velocity $\Delta \times 0{\cdot}390$m. for the wave, in which case the negative constant $-3{\cdot}0$m. would be reduced to $-1{\cdot}3$m. But it could not be made positive without straining the facts, and there is thus some difficulty in interpreting a wave which appears to start from the epicentre 3 minutes before the shock takes place (T_0). This paradox can be removed by excluding the neighbourhood of the epicentre, and supposing the L_1 wave to start at some distance from it. Since $C_1 = 3{\cdot}0$m. when $\Delta = 3°{\cdot}0/0{\cdot}405 = 7°{\cdot}5$, the L_1 wave must start from somewhere outside this ring. A not unreasonable hypothesis is that it is started by the P wave, which, being normal to the surface near the epicentre, cannot start an L wave affecting *horizontal* seismographs from that neighbourhood, but at some distance becomes more nearly tangential to the surface. The time for P to $\Delta = 18°$ is 4·3m., according nearly with $L_1 = 18 \times {\cdot}405 - 3{\cdot}0 = 4{\cdot}2$m. Now if P really starts L waves at this distance, it will send them in both directions, backwards as well as forwards. The backwards wave will reach the epicentre after 4·3m., and arrive at an equal distance 18° on the opposite side (from which L_1 also started) in 8·6m. It will thus appear to follow L_1 by 8·6m., or T_0 by 5·6m. We shall find evidence of something like this presently.

But to return now to $L_2 = +1{\cdot}2$m. $+ C_1$. It is probably started by S, which lies wholly in the surface near the epicentre. The time lag 1·2m. is the time taken by S to reach the surface from a depth of about 70 miles, if we suppose L_2 to be started exactly at the epicentre. Since from such a depth S would reach points in the neighbourhood nearly at the same time, we should probably assume as an effective starting ring for L_2 a distance of a few degrees. But our information scarcely gives this ideal precision as yet.

There are a number of readings of L earlier still which seem to be simple mistakes for S or [S], as indicated in the text: see Manila, Hong Kong, Sumoto, Hukuoka, Ootomari. And then there are some which seem to be SR_1 or perhaps $[S]R_1$, at values of Δ for which these two have nearly equal values :—

Station.	Δ °	L. m.	SR_1 m.	$[S]R_1$ m.	Station	Δ °	L. m.	SR_1 m.	$[S]R_1$ m.
Budapest	155·1	44·2	43·8	44·2	Almeria	161·9	45·2	45·2	45·0
Vienna	157·1	45·2	44·2	44·4	Granada	162·7	44·1	45·3	45·1
Innsbruck	159·9	45·4	44·8	44·8	Oxford	168·9	46·2	46·4	45·8

Finally there are some which appear to emanate from the anticentre which we will consider in a moment.

Let us now turn to the large positive residuals excluded from the main table for L_2. We may first look for cases where L_1 or L_2 have travelled through the anticentre and reached the

station by the longer arc. There seem to be three only, with a possible fourth :—

Station.	Δ	L.	$L-C_1$	$360°-\Delta$	$L-C_1$
	°	m.	m.	°	m.
Harvard E.	144·0	77·2	+19·9	216·0	(−10·3)
Rocca di Papa	156·6	83·0	+19·6	203·4	+ 0·6
Laibach	157·4	85·6	+21·9	202·6	+ 3·6
Hohenheim	161·7	80·6	+15·1	198.3	+ 0.3

Harvard E may possibly be 10m. in error. Excluding it, the mean value of $L-C_1$ for the long arcs is +1·5m., curiously accordant with the mean residual for L_2. We may fairly assume that it is L_2, the main L wave, which thus finds its way round. The other positive residuals may be grouped as follows for purposes of discussion, though the grouping is rather arbitrary :—

Δ	L_3-C_1	Diff.	Δ	L_4-C_1	Diff.	Δ	L_5-C_1	Diff.
°	m.	m.	°	m.	m.	°	m.	m.
63·0	+5·9	−0·1	54·4	+9·3	+0·7	87·7	+12·6	0·0
80·4	+6·1	+0·1	109·2	+7·6	−1·0	144·0	+13·5	+0·9
85·9	+4·4	−1·6	109·3	+7·6	−1·0	156·4	+10·8	−1·8
103·3	+6·9	+0·9	109·9	+8·7	+0·1	161·1	+13·9	+1·3
111·0	+6·4	+0·4	138·3	+8·6	0·0	162·6	+13·3	+0·7
124·3	+6·5	+0·5	155·1	+9·4	+0·8	162·7	+11·6	−1·0
158·5	+6·0	0·0	163·2	+8·0	−0·6			
			166·3	+9·1	+0·5	Mean	+12·6	±1·0
Mean	+6·0	±0·5						
			Mean	8·6	±0·6			

The chief doubt is as regards the separation of L_3 and L_4, but the mean numerical residual is only about half a minute, which may justify a separation of $2\frac{1}{2}$ minutes. If this is permitted then L_3 closely represents the companion of the early L_1 wave, travelling from the same starting point (about 18° from the epicentre), but backwards through the epicentre.

Of L_4 and L_5 no explanation suggests itself except possibly this : that S starts a series of L waves L_2, X, L_4 and L_5 at equal intervals +1·2m., +5·0m., +8·8m., +12·6m., of which X is confused with L_3.

We turn back now to the large residuals, chiefly negative, which seem better suited by the idea of emanation from the anticentre. They fall into two groups as follows :—

Δ	L.	$L-C_1$	$L+C_1-113·0$m.	$L-C_2$	$180°-\Delta$	PA	L−PA	Diff.
°	m.	m.	m.	m.	°	m.	m.	m.
143·6	52·2	− 6·0	−2·6	−0·4	36·4	7·4	44·8	+0·3
152·8	50·0	−11·9	−1·1	−0·6	27·2	6·0	44·0	−0·5
153·2	51·1	−10·9	+0·1	+0·6	26·8	5·9	45·2	+0·7
162·1	49·5	−16·2	+2·2	+1·0	17·9	4·3	45·2	+0·7
168·9	46·2	−22·2	+1·6	−0·8	11·1	2·8	43·4	−1·1

It is clear that $L-C_1$ is not constant, but $L+C_1$ is nearly constant. The mean value is 113·0m. but the column ($L+C_1-113·0$m.) shows a definite run in the residuals, which are better represented (as shown in the column $L-C_2$) by

$$C_2=44·5\text{m.}+(180°-\Delta)\times 0·224\text{m.}$$

But the velocity indicated by 0·224m. per degree is far too great for an L wave, and approaches that of P. Hence the values of P_A were tried, where P_A corresponds to $(180°-\Delta)$: and we see that in fact $L-P_A$ is nearly constant with mean value 44·5m.

The other series is as follows :—

Δ	L.	$L-C_1$	$L+C_1-125{\cdot}2$m.	$L-C_3$	$180°-\Delta$	S_A	$L-S_A$	Diff.
°	m.	m.	m.	m.	°	m.	m.	m.
130·8	69·6	+16·6	−2·6	+1·0	49·2	16·2	53·4	+1·1
157·2	60·2	− 3·5	−1·3	−1·1	22·8	9·3	50·9	−1·4
159·1	60·2	− 4·2	−0·6	−0·6	20·9	8·7	51·5	−0·8
160·1	60·2	− 4·7	−0·1	−0·2	19·9	8·4	51·8	−0·5
161·3	61·2	− 4·2	+1·4	+1·1	18·7	7·9	53·3	+1·0
162·8	59·3	− 6·7	+0·1	−0·3	17·2	7·4	51·9	−0·4
163·2	58·2	− 8·0	−0·8	−1·2	16·8	7·2	51·0	−1·3
163·3	59·2	− 7·1	+0·3	−0·2	16·7	7·2	52·0	−0·3
163·4	60·2	− 6·1	+1·3	+0·7	16·6	7·2	53·0	+0·7
168·2	59·2	− 8·9	+2·1	+0·9	11·8	5·2	54·0	+1·7

Here again $L-C_1$ is not constant, but $L+C_1$ is about 125·2m. The column $L+C_1-125{\cdot}2$m. shows however a distinct run, and L is better represented by C_3 where

$$C_3=55{\cdot}1\text{m.}+(180°-\Delta)\times 0{\cdot}274\text{m.}$$

The velocity 0·274m. for 1° is less than before, but still much larger than that of L. On trying the values of S for the anti-central arc we get the column $L-S_A$ with mean value 52·3m.

Hence it would appear that 44·5m. after T_0 an impulse arrives at the anticentre which sends out P waves; and 52·3m. after T_0 an impulse arrives which sends out S waves. These intervals from T_0 are much larger than the times for [P] and [S] which travel *through* the nucleus, and the question arises whether the waves, on reaching the nucleus, travel *round* its surface as L waves, instead of *through* it as P. The time taken to travel round would be the same in both cases, but we may suppose that from epicentre to nucleus and from nucleus to anticentre the former wave travels as P and the latter as S. Assuming symmetry, the difference 52·3m.−44·5m=2(S−P) or S−P=3·9m.; so that from the tables P=4·9m. S=8·8m. Hence the time 44·5m. is made up of two straight P paths of 4·9m. each, and 34·7m. for travelling round the nucleus as L, and the time 52·3m. is made up of two straight L paths of 8·8m. each, and 34·7m. round the nucleus as before. The straight P and S paths ought to be the same as in [P] and [S], the difference being that these latter waves go *through* the nucleus as P waves, taking 10·5m. to do so, as compared with 34·7m. to go round as L. The ratio of 34·7 to 10·5= 3·31 compares not unreasonably with the ratio of 72·9m., the time taken by L to go round the earth's surface, to 21·3, the time taken to go through, viz., 72·9/21·3=3·42. The ratios would be more strictly comparable if the interior of the earth were

all of the same elastic composition as the surface layers, as is presumably the case with the liquid nucleus : since the velocity of P is greater in the middle the ratio 3·42 for the outer surface is greater for this reason.

All the figures are of course approximate only ; but they seem to fit together.

Summing up then, we find the same velocity 0·405m. for 1°, or 2°·47 per minute for a series of L waves, which however have different (apparent) starting times, as below :—

	L_1	L_2	L_3	L_4	L_5
	m.	m.	m.	m.	m.
(Starting time$-T_0$) =	−3·0	+1·2	+6·0	+8·6	+12·6
No. of cases	5	51	7	8	6

The great majority of stations observe L_2 which is presumably started by S : it is suggested that L_1 and L_3 form a pair started in opposite directions by P from a ring of about 18° radius round the epicentre. L_4 and L_5 may perhaps be rhythmic repetitions of L_2. Three or four stations observe L_2 after it has travelled round through the anticentre, " the long way round."

But mixed up with the observations of L are some P and S waves emanating from the anticentre, at times which suggest the following courses. Starting as P, a wave travels towards the anticentre but on reaching the liquid nucleus after 4·9m. it enwraps it in 34·7m. (as L) to the opposite point, and then resumes its path to the anticentre in another 4·9m. as P, radiating thence according to the usual tables for P. The other wave starts as S for 8·8m. to the nucleus, 34·7m. as L round it as before, another 8·8m. to the anticentre, and then radiates as S according to the tables.

The output of seismological literature is now so great that I do not know whether these suggestions have been made before, and should be grateful for any references if they have. Meanwhile other earthquakes are being similarly examined.

Large Errors of Tables near $\Delta=35°$.

In the discussion of the errors of the adopted tables (Geop. Supp. to M.N.R.A.S. I 425, Dec. 1926) it is pointed out (p. 444) that there seems to be a double maximum in the residuals near $\Delta=35°$. The earthquake of Oct. 26d. 3h. 44m. 35s. affords an

illustration of the more serious divergence from the tables. The mean residuals are as follows :—

No. of Stations.	Limits of Δ ° °	P−C. s.	S−C. s.
6	32—36	−18	−29
7	37—38	−13	−23
4	39—42	−12	−28

Something of the same kind is shown in the repetitions from the same epicentre at 6h. 11m. 25s. and 8h. 35m. 3s. At 14h. 15m. 45s. the smaller residuals seem to prevail, though for this and subsequent shocks the accidental errors become large.

New Icelandic Station.

A cordial welcome is offered to the station at Reykjavik, Iceland, which, though it has now been established for some years, appears in this Summary for the first time on 1926 October 8d. The value of this station (and the Greenland stations) is illustrated by the fact that there is nothing in the present number to identify a shock on October 25 which damaged the lighthouse at Reykjanes (a cape on the S.W. coast, near Reykjavik) according to telegrams which reached the daily Press.

Shocks felt by Ships.

The s.s. *Horace Luckenbach* in lat. 37°10′30″N., long. 122°30′W., at 5.30 a.m. vibrated heavily for two minutes, apparently caused by an earthquake (Oct. 22d. 12h. 35m. 8s. Epicentre 36°·5N. 122°·0W., as in text).—*Georgetown Seism. Despatches.*

The shock of Nov. 5d. 7h. 55m. 33s., epicentre 12°·3N. 85°·8W. which shook Managua, the capital of Nicaragua, lat. 12°N., long. 86°·5W.), was felt by two ships as follows : The following report has been received from s.s. *Magician*, Captain P. O. Nicholas :—

5th November 1926, at 2·18 ship's time (0758GMT) when in lat. 10°25′N., long. 88°10′W., a very severe submarine disturbance was experienced. Two distinct shocks, lasting about 10 or 15 seconds, with an interval of about 1½ minutes, were felt. The vessel shook violently, a rumbling, grating sensation was experienced. Masts, funnel, and superstructures vibrated and rattled alarmingly, giving the impression that the ship was running aground on to hard bottom and buckling fore and aft. She was steaming 11 knots, the weather clear and fine, with a light easterly wind blowing, although seven hours before, very

heavy rain, accompanied by vivid lightning and heavy thunder had occurred. The chart shows 1800 to 1900 fathoms water in the vicinity.

The American s.s. *Eagle*, then some 15 miles N.W. of our position, was later communicated with by wireless and her master replied that the shocks had been felt on board his vessel with such severity that the engines were stopped in the belief that the ship was running over something.—(From the *Marine Observer* for Nov. 1927, p. 208. Communicated by Dr. F. J. W. Whipple, of Kew).

1926 Nov. 5. Aboard s.s. *Eagle*, in lat. 10°N., long. 88°W., two severe shocks were felt. They were of about one minute duration, with an interval of one minute between each. The *Eagle* listed four or five degrees, and the masts, booms, riggings, and stock vibrated considerably. Capt. P. O. Nicholas, of the British steamer *Magician*, when about 17 miles distant from the *Eagle* and at the same time, experienced two severe earthquake shocks with a similar effect on the vessel.—(*Georgetown Seismol. Despatches*).

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1930 Feb. 7.

[Note added 1930 Mar. 31. The formula $C_1 = \Delta \times \cdot 405$m. found on p. 310 for L has been tried for the earthquake of a whole year, 1925-6, and found quite unsuitable; a much larger factor, such as ·477, is indicated. On the other hand this factor will not suit the numerous observations of Oct. 3d. 19h. at all; it gives negative residuals, increasing to 10m., with large values of Δ. The inference seems to be that different earthquakes may have widely different velocities for L. Further investigations are being made.]

1926 OCTOBER, NOVEMBER, DECEMBER.

Oct. 1d. 9h. 7m. 45s. Epicentre 10°·0N. 103°·0W. (as on 1925 Oct. 4d.).

$A = -\cdot222$, $B = -\cdot960$, $C = +\cdot174$; $D = -\cdot974$, $E = +\cdot225$; $G = -\cdot039$, $H = -\cdot169$, $K = -\cdot985$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Oaxaca		9·3	40	2 34	+14	—	—	4·6	5·8
Tacubaya		10·1	21	2 37	+ 6	—	—	5·4	7·0
Balboa Hts.	N.	23·2	90	8 23	?	10 11	+42	10·4	10·7
Tucson		23·4	343	5 23	+ 2	9 37	+ 4	11·9	14·4
Lick		32·1	331	—	—	—	—	e 15·2	18·2
Berkeley	E.	32·8	331	e 6 21	−34	—	—	e 15·4	—
Chicago	E.	34·5	21	—	—	—	—	e 15·0	22·0
Toronto	E.	39·4	28	—	—	e 13 45	−12	19·2	26·8
Victoria		42·0	340	14 16	?S	(14 16)	−19	18·4	21·4
Ottawa		42·4	28	e 9 51	?PR_1	i 14 36	− 4	e 21·2	—
La Paz	E.	43·5	128	8 30	+ 8	i 15 5	+10	22·6	25·6
	N.	43·5	128	—	—	i 15 3	+ 8	22·7	28·0
Sucre		47·2	129	i 8 53	+ 5	i 15 58	+14	24·2	30·0
Honolulu		53·9	290	(e 9 57)	+25	(e 17 27)	+19	(22·1)	(32·2)
La Plata		62·0	140	—	—	—	—	35·8	—
Oxford		89·5	38	—	—	—	—	46·2	54·2
San Fernando	E.	89·5	53	—	—	—	—	—	48·8
Granada		91·4	51	i 16 59	?PR_1	—	—	40·6	48·2
De Bilt		93·0	36	—	—	e 24 13	−32	e 43·2	51·9
Uccle		93·0	38	—	—	e 24 6	−39	e 43·2	—
Leningrad		100·8	22	—	—	—	—	49·4	59·0
Pulkovo		101·0	22	e 18 3	?PR_1	e 27 15	?PS	49·2	58·6
Kucino		106·6	22	—	—	e 25 23	[+28]	52·5	62·0
Ekaterinburg		111·8	10	19 42	?PR_1	—	—	48·2	57·3
Makeyevka		112·5	27	—	—	e 29 15?	+85	54·2	61·6
Irkutsk		113·4	343	—	—	e 24 58	[−26]	e 52·2	—
Baku		123·7	25	e 34 3	?	—	—	60·2	68·8
Tashkent		128·2	6	—	—	e 27 15?	?PR_2	e 60·2	69·6

Additional readings and notes: Tucson $SR_1E = +10$m.21s., $SR_2E = +10$m.45s., $MN = +14\cdot6$m.; $T_e = 9$h.7m.37s. and 9h.7m.49s., also several e readings. Chicago $LE = +16\cdot0$m. Toronto $eN = +9$m.6s. $= PR_1 - 8$s., $eE = +9$m.8s. $= PR_1 - 6$s., and several other values, $LN = +21\cdot2$m. Sucre $PR_1 = +10$m.44s., $SR_1 = +19$m.23s.: $T_e = 9$h.7m.39s. Honolulu $eE = +12$m.27s. $= PR_1 + 32$s., $eLN = +27\cdot8$m., $MN = +33\cdot6$m., all readings having been increased by 5m. San Fernando $MN = +49\cdot8$m. Granada $MZ = +46\cdot6$m. De Bilt $e = +30$m.56s. $= SR_1 - 14$s., $MZ = +55\cdot7$m. Uccle $eSR_1 = +30$m.30s. Leningrad $MN = +62\cdot2$m., $MZ = +62\cdot3$m. Pulkovo $e = +32$m.33s., $MZ = +58\cdot4$m. Kucino $e = +28$m.24s. $=$ PS $+5$s., $+29$m.25s., and $+34$m.15s. $= SR_1 + 15$s., $MN = +57\cdot5$m. Ekaterinburg $e = +27$m.14s. $= S - 30$s., $+29$m.4s., $+34$m.42s. $= SR_1 - 23$s. and $+38$m.54s., $MN = +61\cdot7$m., $MZ = +70\cdot5$m. Makeyevka $MN = +57\cdot8$m. Irkutsk $e = +36$m.16s. Baku $MN = +72\cdot3$m., $MZ = +74\cdot4$m. Tashkent $e = +39$m.57s., $+45$m.19s., and $+56$m.15s.?, $MN = +81\cdot1$m.

Oct. 1d. 22h. 13m. 20s. Epicentre 10°·5S. 157°·0E.

$A = -\cdot905$, $B = +\cdot384$, $C = -\cdot182$; $D = +\cdot391$, $E = +\cdot921$; $G = +\cdot168$, $H = -\cdot071$, $K = -\cdot983$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Riverview		24·0	192	e 5 42	+14	e 9 41	− 3	e 11·7	14·9
Sydney		24·0	192	4 16	−72	9 52	+ 8	14·2	14·6
Melbourne		29·4	200	—	—	e 10 52	−32	e 14·9	16·0
Adelaide		29·7	211	—	—	11 25	− 4	15·0	19·9
Wellington		34·6	158	—	—	—	—	e 16·7	22·2
Christchurch		35·7	163	10 16	?	—	—	16·1	21·0
Manila		43·6	306	e 8 20	− 3	—	—	—	—
Perth		43·6	235	16 40	?SR_1	—	—	—	29·3
Honolulu	N.	54·4	55	—	—	e 17 8	− 6	e 23·3	25·2

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk		77·3	330	12 5	+ 2	21 56	+ 4	37·7	—
Bombay		87·9	290	e 13 40?	+36	—	—	—	—
Victoria	E.	91·1	41	23 57	?S	(23 57)	−28	45·0	48·4
Tashkent		95·2	312	e 13 23	−21	24 13	[+15]	e 45·7	55·8
Ekaterinburg		102·2	326	14 5	−16	e 25 47	−30	40·7	62·9
Baku		109·8	310	e 14 43	−13	i 28 51	?PS	54·7	61·2
Kucino		114·8	327	e 19 56	?PR_1	e 28 5	− 3	56·1	61·3
Chicago	E.	115·8	47	—	—	—	—	52·6	61·6
Leningrad		116·9	333	e 20 3	?PR_1	—	—	56·7	67·4
Pulkovo		117·0	333	—	—	—	—	53·7	68·8
Makeyevka		117·0	319	i 20 5	?PR_1	e 30 1	+95	56·7	66·6
Toronto	N.	121·3	43	—	—	—	—	75·7	—
Ottawa		123·2	40	—	—	e 30 40?	?PS	e 54·7	—
La Paz		127·8	120	i 49 42	?	—	—	—	—
Hamburg		129·5	334	e 22 40?	?PR_1	—	—	e 62·7	78·7
Cheb		130·8	330	i 22 51	?PR_1	—	—	e 63·7	82·7
De Bilt		132·6	336	e 19 29	[+ 5]	—	—	e 60·7	75·4
Uccle		133·9	336	e 21 52	?PR_1	—	—	e 62·7	—
Kew		135·0	340	e 18 40?	[−50]	—	—	70·7	—
Rocca di Papa		135·9	320	e 20 10	[+39]	32 42	?	—	—
Algiers		144·7	321	19 46	[− 2]	—	—	(74·6)	75·2
Granada		148·1	330	i 19 57	[+ 4]	—	—	79·4	87·4
San Fernando		149·9	331	i 20 19	[+23]	e 36 10	?	76·2	114·2

Additional readings and notes: Riverview eS = +10m.0s., MN = +13·3m., MZ = +14·8m. Sydney SR_2 = +12m.22s. Melbourne i = 22h.6m.0s. and +13m.52s. Adelaide SR_1 = +13m.17s. = SR_2 − 1s., MN = +18·2m. Tashkent i = +13m.35s., e = +17m.12s. = [P] − 15s., +21m.4s., +24m.48s. = S − 20s., and +25m.45s. = PS − 25s., MN = +56·8m., MZ = +63·8m. Ekaterinburg iPR_1 = +18m.21s., e = +24m.49s. = [S] + 15s., eSR_1 = +32m.56s., MN = +54·0m., MZ = +64·6m. Baku e = +19m.17s. = PR_1 + 1s., i = +19m.21s., MZ = +71·8m., MN = +72·5m. Kucino e = +27m.4s. +29m.30s., and +36m.1s. = SR_1 + 19s., MN = +58·2m. Pulkovo PR_1 = +20m.3s., ePPS = +29m.40s., eSR_1 = +35m.4s., MN = +67·3m. Makeyevka MN = +69·4m., MZ = +96·2m. Toronto eN = +55m.40s. Hamburg readings are given for 2d. De Bilt eZ = +21m.36s. = PR_1 − 12s., e = +22m.54s., eLN = +63·7m., MZ = +79·0m. Algiers P = +74m.34s. (entered as L), S = +74m.48s., with M these are given as a local shock. Granada i = +24m.47s. and +28m.21s. San Fernando MN = +94·2m.

Oct. 1d. Readings also at 1h. (Nagasaki), 2h. (near Tashkent), 5h. (Ekaterinburg, Nagasaki, and Irkutsk), 6h. (Vera Cruz, Oaxaca, and Tacubaya), 7h. (Tucson and Victoria), 10h. (Vera Cruz, Tacubaya, Puebla, Oaxaca, and Tucson), 12h. (Granada, Vera Cruz, Tashkent, Oaxaca, Tucson, Ekaterinburg, and Tacubaya), 13h. (near Zurich), 15h. (Tacubaya), 17h. (Rio Tinto), 19h. (Tacubaya), 23h. (Nagasaki; also probably Algiers; see note to 22h.13m.20s.).

Oct. 2d. 19h. 3m. 5s. Epicentre 36°·0N. 142°·0E. (as on 1926 Jan. 10d.).

A = −·638, B = +·498, C = +·588; D = +·616, E = +·788; G = −·463, H = +·392, K = −·809.

The epicentre should almost certainly be further West and a little South; but the evidence for the amounts is conflicting. To use the epicentre 35°·5N. 140°·0E. of 1926 Aug. 3, for instance, would suit Ekaterinburg and Mizusawa, but would throw out the other Japanese stations.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	E.	3·2	348	0 56	+ 6	1 37	+ 9	—	—
	N.	3·2	348	0 54	+ 4	1 35	+ 7	—	—
Osaka		5·5	258	1 23	− 2	(2 34)	+ 3	2·6	3·4
Kobe		5·8	259	1 12	−18	(2 41)	+ 2	2·7	2·9
Toyooka		5·8	268	e 1 26	− 4	(2 33)	− 6	2·6	2·9
Sumoto		6·1	256	e 1 15	−18	(2 39)	− 7	2·6	3·1
Irkutsk		31·1	313	—	—	—	—	9·9	—
Tashkent		55·4	299	—	—	—	—	e 20·9	26·4
Ekaterinburg		56·1	321	9 36	−11	e 17 22	−13	29·9	—
Baku		69·1	307	—	—	—	—	e 29·9	—

Additional readings: Osaka MN = +3·5m. Tashkent MZ = +26·3m.

Oct. 2d. Readings also at 1h. (Nagasaki), 2h. (Nagasaki and near Sumoto), 5h. (Nagasaki), 6h. (near Sumoto), 8h. (near Mostar), 12h. and 13h. (2) (Nagasaki), 14h. (La Paz and near Batavia), 18h. (near Irkutsk).

Oct. 3d. 8h. 26m. 24s. Epicentre 37°·0N. 143°·0E.

(as on 1918 May 31d.).

A = −·638, B = +·481, C = +·602; D = +·602, E = +·799; G = −·481, H = +·362, K = −·799.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	E.	2·6	327	0 45	+ 4	1 21	+ 9	—	—
	N.	2·6	327	0 46	+ 5	1 20	+ 8	—	—
Osaka		6·5	252	1 40	+ 1	(3 6)	+ 9	3·1	4·9
Toyooka		6·7	261	0 34	−68	(e 1 54)	−68	e 1·9	4·2
Kobe		6·8	253	1 56	+12	—	—	3·8	4·2
Sumoto		7·1	251	2 2	+14	3 7	− 6	3·8	4·1
Ootomari		9·7	359	4 4	?S	(4 4)	−17	6·0	7·0
Hukuoka	N.	10·8	255	2 45	+ 4	—	—	5·4	—
Nagasaki		11·6	253	e 5 52	?S	(e 5 52)	+43	7·7	8·2
Zi-ka-wei		18·7	258	e 4 32	+ 7	12 19	?L	(12·3)	—
Hong Kong		28·8	248	6 9	− 7	—	—	—	20·1
Manila		29·8	227	e 6 36	+10	—	—	13·6	—
Irkutsk		31·0	313	—	—	—	—	56·6	—
Phu-Lien		35·5	255	e 12 48	?S	(e 12 48)	−15	21·8	—
Honolulu	E.	53·0	88	—	—	e 17 6	+10	e 24·8	25·9
	N.	53·0	88	—	—	e 17 16	+20	e 24·6	25·8
Tashkent		55·6	300	9 45	+ 2	i 17 30	+ 1	e 27·6	34·7
Ekaterinburg		55·8	319	i 9 47	+ 2	i 17 32	+ 1	24·6	35·7
Bombay		63·2	274	19 14	?S	(19 14)	+11	—	40·6
Victoria		65·4	47	—	—	20 53	+83	—	—
Kucino		67·6	325	—	—	—	—	33·2	45·0
Leningrad		68·5	330	—	—	—	—	e 35·1	42·9
Pulkovo		68·7	330	11 11	+ 2	29 11	+ 1	35·6	43·0
Baku		69·1	307	e 11 20	+ 8	e 21 16	+61	35·6	43·9
Upsala	N.	73·3	336	—	—	—	—	e 39·6	45·9
Hamburg		80·8	335	e 15 24	?PR_1	e 22 33	0	e 43·6	45·6
Dyce		81·3	342	—	—	22 40	+ 2	41·6	53·4
Budapest		81·9	326	—	—	—	—	e 44·6	53·0
Vienna		82·5	328	e 12 35	+ 2	—	—	—	56·6
Cheb		82·7	330	—	—	—	—	e 39·6	48·6
Edinburgh		82·7	342	—	—	e 22 51	− 3	45·6	56·6
De Bilt		83·7	336	12 40	0	23 1	− 5	e 41·6	53·4
Graz		83·7	328	—	—	—	—	e 45·6	54·1
Stonyhurst		84·4	340	—	—	(e 23 4)	− 8	e 44·6	56·6
Zagreb		84·5	326	—	—	—	—	e 45·9	—
Uccle		85·0	336	—	—	—	—	—	57·7
Strasbourg		85·7	332	—	—	e 23 13	−14	e 48·6	—
Kew		85·9	338	e 12 50	− 3	e 23 12	−17	43·6	—
Oxford		86·0	338	—	—	23 21	− 9	42·6	55·1
Zurich		86·4	330	e 12 51	− 4	e 23 27	− 7	—	—
Chur		86·4	330	13 2	+ 7	e 23 17	[+12]	—	—
Paris		87·3	335	—	—	e 23 19	[+ 8]	48·6	54·6
Besançon		87·5	332	—	—	—	—	44·6	—
Florence	Z.	88·2	327	e 12 59	− 7	23 36	−18	—	54·6
Moncalieri		88·6	330	e 23 7	?[S]	(e 23 7)	[−12]	45·7	57·9
Chicago	E.	88·7	36	—	—	—	—	—	56·6
Rocca di Papa		89·0	325	e 23 33	?[S]	(e 23 33)	[+11]	e 53·1	57·4
Ottawa		90·5	26	—	—	i 24 6	−13	e 46·6	—
Toronto	E.	90·7	29	—	—	—	—	e 48·6	—
Tortosa	E.	94·9	333	—	—	—	—	e 52·6	63·0
	N.	94·9	333	—	—	—	—	e 51·6	64·0
Toledo	N.W.	97·4	335	—	—	—	—	e 48·0	60·5
Granada		99·7	334	—	—	—	—	e 57·6	65·2
San Fernando	E.	101·2	335	—	—	—	—	—	68·1

Additional readings: Osaka MN = +4·2m. Kobe MN = +4·0m. Sumoto MN = +4·6m., MZ = +5·1m. Honolulu eN = +19m.6s., SR_2N = +23m.3s. = SR_3 −17s. Tashkent ePR_1 = +11m.40s., eSR_1 = +21m.8s. Ekaterinburg PR_1 = +11m.53s., SR_1 = +21m.28s., MN = +33·0m. Kucino ePR_1 = +14m.22s., e = +14m.40s., +21m.6s., +22m.6s., and +25m.10s. = SR_1 −6s., MN = +44·5m. Leningrad MN = +43·2m. Pulkovo PR_1 = +13m.40s., SR_1 = +24m.30s., MZ = +43·3m. Baku MNZ = +44·1m.

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Upsala ME = +46·5m. Hamburg MNZ = +50·6m. De Bilt ePR$_1$Z = +15m.47s., MN = +53·0m., MZ = +53·5m. Stonyhurst gives S as eL of an earlier shock. Moncalieri i = +23m.43s. =S −16s., S? = +31m.54s. Toledo MNE = +62·7m. Granada L = +62·7m. San Fernando MN = +66·6m.

Oct. 3d. 19h. 37m. 51s. Epicentre 50°·5S. 161°·0E.

A = −·601, B = +·207, C = −·772; D = +·326, E = +·946; G = +·730, H = −·251, K = −·636.

The long series of observations of [P] is noteworthy.

Are the small values of L at many of the distant stations due to L waves starting from the antipodes on receipt of a diametral [S] shock through the earth ?

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Christchurch		10·6	53	2 57	+19	(4 51)	+ 6	4·8	9·2
Wellington		13·3	51	i 3 8	− 9	i 5 49	− 2	—	—
Melbourne		17·1	312	(i 2 21)	−105	(i 6 33)	−47	i 6·6	7·4
Riverview		18·2	333	i 4 19	0	e 7 30	−14	e 8·2	9·1
Sydney		18·2	333	4 15	− 4	7 39	− 5	8·4	8·6
Adelaide		22·5	305	i 4 59	−12	i 9 28	+13	i 10·5?	15·6
Suva		35·3	30	(7 15)	− 1	(13 3)	+ 3	(17·8)	(29·8)
Perth		37·9	282	7 39	+ 2	13 33	− 4	16·3	—
Apia		42·8	41	7 45	−32	14 46	+ 1	19·2	—
Amboina		54·4	319	i 12 17	?PR$_1$	—	—	i 31·3	—
Malabar		61·8	295	10 11	−13	—	—	26·0	32·6
Batavia		63·0	295	i 10 34	+ 2	i 18 41	−20	31·4	33·7
Manila		74·0	320	e 11 33	− 9	(i 21 21)	+ 7	i 21·4	24·5
Honolulu	E.	80·4	39	e 12 27	+ 6	e 22 31	+ 3	38·6	42·2
	N.	80·4	39	e 12 51	+30	e 22 30	+ 2	38·8	40·6
Taihoku	E.	83·2	325	13 20	+43	23 14	+15	34·6	—
Hong Kong		83·8	318	12 42	+ 1	(23 14)	+ 7	23·2	35·3
Phu-Lien		85·9	310	e 12 32	−21	e 23 29	0	39·2	—
Nagasaki		87·7	334	e 14 1	+58	24 35	+46	48·1	50·2
Sumoto		87·8	339	e 13 1	− 3	(e 23 37)	−13	e 23·6	24·3
La Plata		88·0	149	i 13 5	0	23 38	−14	38·2	—
Osaka		88·2	340	13 6	0	23 43	−11	33·1	43·3
Kobe	N.	88·2	340	—	—	—	—	—	49·9
Hukuoka	N.	88·3	335	(12 56)	−11	(e 23 29)	[+12]	(e 23·5)	—
Zi-ka-wei		88·9	327	e 13 9	− 1	23 43	−19	—	73·3
Toyooka	E.	89·2	340	—	—	—	—	—	39·3
Cape Town		89·3	210	13 15	+ 3	23 15	[− 9]	36·8	37·2
Colombo		89·7	280	13 14	0	24 9	− 2	38·6	49·2
Mizusawa		91·3	346	13 29	+ 6	23 56	[+20]	34·5	—
Johannesburg		92·8	221	—	—	24 3	[+18]	37·6	—
Kodaikanal		93·8	281	e 24 9	?S	(e 24 9)	[+18]	i 39·0	58·0
Calcutta	E.	97·0	297	15 9	+75	25 12	−14	—	—
	N.	97·0	297	15 19	+85	25 23	− 3	—	—
Ootomari		98·5	348	23 9	?[S]	(23 9)	[−67]	24·7	50·6
Sucre		99·4	136	e 13 49	−18	i 24 38	[+17]	41·7	59·3
La Paz		100·3	133	e 14 5	− 7	i 24 45	[+20]	42·2	56·3
Bombay		103·3	283	14 20	− 7	25 15	[+36]	48·8	61·2
Guadalajara		109·2	80	19 42?	?PR$_1$	—	—	50·6	—
Mazatlan	N.	109·3	76	—	—	—	—	50·7	—
Simla	E.	109·9	294	19 3	?PR$_1$	—	—	e 45·2	58·0
	N.	109·9	294	19 9	?PR$_1$	e 28 33	?PS	53·2	56·0
Berkeley	E.	111·0	54	e 20 21?	?PR$_1$	e 29 21	+104	e 45·6	71·2
	N.	111·0	54	e 19 21?	?PR$_1$	e 28 48?	+71	e 45·6	71·2
Lick		111·0	54	e 19 27	?PR$_1$	e 29 18	+101	e 41·8	64·8
Tacubaya		111·0	84	20 5	?PR$_1$	31 36	?	51·4	65·1
Tucson	N.	113·3	66	—	—	e 27 9	−47	46·4	56·6
Irkutsk		113·4	325	e 15 3	−10	e 25 43	[+19]	—	67·6
Victoria	E.	118·2	45	20 8	?PR$_1$	30 52	+136	48·3	59·6
	N.	118·2	45	20 3	?PR$_1$	30 52	+136	48·2	—
Sitka	E.	119·6	33	—	—	—	—	e 48·1	62·0
Spokane		120·5	50	e 19 13	[+19]	—	—	45·4	58·2
Tashkent		121·6	298	e 15 9	−41	i 30 49	+108	50·2	57·1
Denver		121·8	64	e 18 9	[−48]	—	—	50·9	60·2
Loyola		124·3	82	18 54	[−10]	27 9	[+72]	56·8	65·6
St. Louis	N.	129·9	75	e 18 32	[−46]	—	—	e 52·2	61·2

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	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
San Juan	130·8	110	—	—	—	—	69·6	—
Baku	132·4	285	e 16 34	− 4	—	—	—	—
Chicago	133·4	71	e 18 21	[−65]	e 34 49	?	53·4	69·4
Ekaterinburg	135·1	310	e 16 48	− 1	i 39 33	?SR_1	55·2	77·6
Ann Arbor	136·1	74	e 19 33	[+ 1]	e 30 9	−32	57·6	72·2
Helwan	137·4	260	e 19 29	[− 6]	—	—	—	68·5
Cheltenham E.	138·3	84	—	—	—	—	64·6	—
Piatigorsk	138·6	285	e 24 43	?	—	—	—	75·2
Toronto E.	139·5	76	e 20 5	[+26]	—	—	58·2	74·3
N.	139·5	76	e 19 43	[+ 4]	—	—	58·3	72·6
Ithaca	140·6	79	i 23 29	?	—	—	60·2	—
Fordham	141·4	83	19 39	[− 3]	—	—	60·4	76·1
Ottawa	142·6	76	i 19 41	[− 3]	—	—	60·2	72·6
Makeyevka	143·6	289	19 25	[−21]	—	—	52·2	79·1
Harvard E.	144·0	81	e 19 46	[− 1]	26 9	?PR_2	e 77·2	82·8
N.	144·0	81	16 38	?	26 15	?PR_2	e 71·8	79·4
Kucino	146·4	300	19 46	[− 4]	—	—	59·0	117·2
Ste. Anne	147·0	76	19 57	[+ 6]	—	—	e 61·4	76·2
Athens	147·4	264	19 47	[− 5]	e 36 15	?	e 59·2	77·4
Pulkovo	151·1	308	e 19 40	[−17]	26 53	?PR_2	62·2	85·7
Leningrad	151·2	308	e 19 44	[−13]	26 56	?PR_2	62·6	88·0
Lemberg	152·8	285	e 20 15	[+15]	e 32 9	?	e 50·0	51·2
Belgrade	153·2	273	e 20 12	[+12]	e 34 38	?	e 51·1	105·3
Pompeii	154·5	260	e 19 39	[−22]	e 31 59	?	32·2	51·2
Naples E.	155·1	260	e 17 59	[−123]	e 29 39	?	72·2	87·2
Budapest	155·1	278	e 20 9?	[+ 7]	—	—	e 44·2	107·0
Zagreb	156·4	272	e 20 17	[+14]	—	—	e 74·2	102·2
Rocca di Papa	156·6	260	e 20 5	[+ 1]	e 31 6	?PR_2	e 83·0	102·6
Vienna	157·1	278	e 19 43	[−22]	—	—	e 45·2	110·2
Graz	157·2	275	e 20 9	[+ 4]	e 32 43	?	60·2	116·6
Laibach	157·4	272	e 21 37	[+92]	—	—	85·6	—
Upsala	157·5	309	e 20 37	[+32]	e 44 25	?SR_1	e 64·2	109·9
Florence N.	158·5	264	19 54	[−12]	—	—	70·2	97·6
Venice	158·6	269	20 13	[+ 6]	31 58	?PR_2	98·7	—
Algiers	159·1	237	20 16	[+ 9]	32 36	?	60·2	88·2
Innsbruck	159·9	273	e 20 31	[+23]	—	—	e 45·4	98·1
Potsdam	160·1	288	—	—	e 48 28	?SR_1	e 105·6	—
Cheb	160·1	281	e 20 37	[+29]	e 32 19	?PR_2	e 60·2	107·2
Chur	160·9	270	20 6	[− 3]	—	—	—	—
Ravensburg	161·2	273	e 19 49	[−20]	i 35 9	?	e 79·2	112·9
Moncalieri	161·3	263	20 16	[+ 7]	45 12	?SR_1	61·2	108·2
Zurich	161·7	271	e 19 52	[−17]	—	—	—	—
Hohenheim	161·7	276	e 19 57	[−12]	e 32 47	?	e 80·6	104·1
Almeria	161·9	228	20 22	[+13]	31 24	?PR_2	i 45·2	105·1
Hamburg	162·0	291	e 20 2	[− 7]	—	—	e 67·2	78·6
Alicante	162·1	234	20 17	[+ 8]	30 25	?	49·5	108·0
Strasbourg	162·6	274	e 20 3	[− 7]	—	—	e 79·2	105·9
Granada	162·7	225	e 19 57	[−13]	—	—	77·6	108·2
Malaga	162·7	223	20 12	[+ 2]	29 37	?PR_2	44·1	89·8
Barcelona	162·8	246	e 20 13	[+ 3]	e 36 29	?	e 59·3	98·2
Bergen	163·2	316	20 39	[+29]	e 32 9?	?PR_2	58·2	102·2
San Fernando	163·2	218	e 20 14	[+ 4]	37 39	?	74·2	97·2
Tortosa E.	163·3	242	e 20 21	[+11]	—	—	59·6	112·9
N.	163·3	242	e 20 22	[+12]	34 2	?	58·8	109·2
Besançon	163·4	268	e 21 33	[+83]	—	—	60·2	95·2
Rio Tinto	164·5	219	21 9?	[+58]	—	—	—	55·2
De Bilt	164·9	285	e 20 1	[−11]	—	—	e 68·2	112·3
Bagnères	164·9	248	e 20 14	[+ 2]	—	—	e 67·2	109·8
Toledo	165·0	230	e 20 14	[+ 2]	e 29 7	?PR_2	—	69·3
Uccle	165·3	280	e 20 12	[0]	i 45 42	?SR_1	68·2	101·4
Paris	166·0	271	e 20 3	[− 9]	—	—	69·2	81·2
Lisbon	166·3	214	e 20 24	[+12]	—	—	76·4	84·9
Azores	166·3	157	39 21	?	—	—	—	—
Dyce	168·0	311	20 21	[+ 7]	25 45	?PR_1	67·6	106·4
Kew	168·2	284	20 1	[−13]	—	—	59·2	101·2
Oxford E.	168·9	284	20 33	[+19]	—	—	46·2	104·6
N.	168·9	284	20 29	[+15]	—	—	70·2	102·2
Edinburgh	169·1	306	e 20 27	[+13]	—	—	70·2	99·6
Stonyhurst	169·3	295	e 20 17	[+ 3]	i 33 14	?PR_2	71·2	97·6
Bidston	169·8	293	20 21	[+ 6]	46 21	?SR_1	67·7	105·6
Plymouth	170·6	275	20 45	[+30]	27 37	?	—	—

For Notes see next page.

NOTES TO OCT. 3d. 19h. 37m. 51s.

Additional readings and notes: Melbourne S and L have been entered as P and and S respectively. Riverview i = +4m.40s. and +4m.48s., MN = +8.8m.; T_0 = 19h.38m.12s. Adelaide i = +5m.11s., iPR_1 = +5m.29s. Suva PR_1 = (+8m.9s.) and (+8m.45s.), i = (+13m.57s.); all readings have been increased by 4m. Perth P = +7m.54s. and +7m.57s.; the reading in the text is given with a query. Apia PR_2 = +10m.13s.; T_0 = 19h.36m.42s. Amboina i = +12m.41s. = PR_2 − 14s. Malabar i = +10m.48s. Batavia iP = +10m.36s., iZ = +10m.54s., iE = +19m.28s. Manila PS = +15m.40s. = PR_1 +40s., iS = +17m.9s. = PR_2 +27s., SR_1 = +18m.34s., MN = +27·1m. Honolulu iPE = +12m.39s., iPR_1E? = +15m.9s., ePR_2N? = +16m.27s., ePR_2E? = +16m.45s., ePR_2N? = +19m.3s., eSR_1N = +28m.15s., eSR_2N? = +30m.21s., SR_2E? = +30m.39s., SR_2N? = +32m.9s. Taihoku SR_1E = +28m.33s. Phu-Lien ePR_1 = +16m.8s., ePR_2 = +18m.32s., eSR_1 = +29m.14s. Sumoto eS = +17m.37s. = PR_1 +47s. Hukuoka readings have been increased by 30m. Toyooka MN = +43·7m. Mizusawa PN = +13m.31s. Sucre iP = +14m.1s., PR_1 = +17m.31s., PR_2 = +20m.0s., PR_3 = +22m.28s., i = +24m.55s., iPS = +25m.31s., SR_1 = +30m.55s., SR_2 = +35m.55s., SR_3 = +36m.27s.; T_0 = 19h.38m.33s. and 19h.39m.0s. La Paz PR_1 = +18m.31s., PR_2 = +21m.11s., SR_1 = +29m.26s., i = +42m.0s., L = +46·8m., MN = +56·1m. Lick ePR_1E? = +22m.30s. = PR_2 +0s., ePR_2E? = +24m.0s., = PR_3 − 22s., ePR_3E? = +25m.12s. = [S] − 2s., eSR_1E? = +35m.21s. Tucson ePR_1N = +19m.17s., ePR_1E = +19m.29s., PR_1? = +20m.6s., ePPSN = +29m.27s., ePPSE = +29m.36s., eSR_1N? = +34m.39s., SR_1E = +35m.27s., SR_1N = +35m.49s. Irkutsk eP = +18m.33s. = [P] +1s., iPR_1 = +19m.47s., e = +22m.11s. = PR_2 − 37s., eS_4P_4S = +26m.57s., e = +29m.20s., S_4P_4SP = +30m.35s., MN = +68·8m., MZ = +76·6m. Sitka SR_1N = +37m.27s., MN = +62·8m. Spokane gives many other eN and iN readings, all being given for 13d. Tashkent i = +15m.54s. = P +4s., +19m.21s. = [P] +24s., +20m.58s. = PR_1 +22s., e = +30m.23s., MN = +59·8m., MZ = +73·9m. Denver eE = +19m.43s., iEN = +21m.47s., eE = +22m.33s., +23m.43s. = PR_2 − 17s., and +24m.38s., eEN = +27m.41s., eN = +29m.58s., eEN = +36m.9s. St. Louis eN = +22m.54s., +24m.24s., +25m.42s. = [S] − 28s., +27m.47s. = PR_3 +16s., +30m.45s. = S +45s., +31m.47s., +32m.47s., and +34m.0s., ME = +67·0m. San Juan PR_1E = +22m.40s., PR_1N = +22m.45s., eN = +27m.21s. = PR_2 − 15s., eE = +35m.9s., SR_1N = +43m.45s. Baku eP = +19m.16s. = [P] − 7s., iPR_1 = +22m.10s. Chicago iPR_1E = +21m.21s., S_6P_6PE = +21m.47s., ePR_2E = +24m.17s., ePR_3E = +26m.57s., PPSE = +33m.29s. SR_1E? = +37m.21s., SR_1E = +38m.36s., eSR_2E? = +45m.21s. Ekaterinburg i = 19m.15s. = [P] − 15s., +19m.23s., +23m.10s., and +30m.33s. = S +0s., MZ = +78·1m., MN = +78·9m. Ann Arbor [P] given as PR_1, ePR_2 = +22m.45s., = PR_1 +36s., eSR_1 = 35m.51s., iSR_1 = +41m.15s., MN = +70·2m.; T_0 = 19h.37m.0s. Cheltenham eLN = +64·8m. Toronto eE = 22m.32s. = PR_1 +1s., iE = +23m.18s. and +23m.28s., iN = +23m.22s. and +23m.57s., SR_1E = +41m.31s., eN = +42m.9s. Fordham P = +22m.48s. = PR_1 +6s., iE = +23m.14s., eN = +24m.2s. and +27m.14s., eE = +26m.19s. = PR_2 − 5s., PR_2 = +27m.44s., PR_3 = +29m.4s., PR_4 = +30m.22s., e = +32m.24s., i = +33m.4s., PPS = +35m.9s., SR_1 = +42m.20s., SR_2 = +47m.2s. Ottawa iE = +23m.0s. = PR_1 +10s., iN = +23m.50s., iSR_1? = +42m.18s., MN = +76·6m. Makeyevka e = +19m.34s., +19m.42s., +23m.50s., and +27m.26s., PR_2 = +26m.6s., PS = +33m.52s., SR_1 = +41m.53s., MN = +77·7m., MZ = +78·2m. Harvard ePN = +19m.29s. = [P] − 18s., PR_1E = +22m.33s., ePR_1 = +23m.3s., SR_1E? = +28m.41s., $S_6P_6P_6SE$ = SR_4 = +29m.29s. = PR_2 +1s., $eS_6P_6P_6SN$ = +29m.33s. = PR_2 +5s., PSN? = +33m.25s., ePSE? = +34m.3s., ePSN = +34m.21s., PPSN = +35m.41s., PPSE = +36m.6s., iSR_1N = +42m.39s., SR_1E = +42m.45s., SR_2E = +47m.33s., iSR_2N = +47m.46s. Kucino iPR_1 = +23m.42s., e = +26m.42s. = PR_2 − 15s., +28m.6s., +32m.8s., +34m.28s., and +39m.16s., i = +39m.47s., and +42m.27s. = SR_1 +19s., MN = +68·7m. Ste. Anne eSR_1 = +42m.2s. Athens e = +43m.21s., MN = +77·0m. Pulkovo PR_1 = +24m.4s., PR_2 = +28m.8s., $S_4P_4P_4S$ = +30m.37s. = PR_3 +13s., S_4P_4SP = +34m.15s., PPS = +38m.47s., SR_1 = +43m.15s., SR_2 = +49m.9s., MZ = +115·1m., MN = +121·7m. Leningrad PR_1 = +24m.4s., PR_2 = +28m.27s., $S_4P_4P_4S$ = +30m.27s. = PR_2 +3s., S_4P_4SP = +34m.3s., MN = +88·8m., MZ = +114·3m. Belgrade ePE = +20m.13s., MN = +101·1m. and many i readings. Budapest MN = +103·6m. Zagreb e = +23m.33s. = PR_1 − 43s., +25m.32s., +27m.31s. = PR_2 − 32s., +34m.58s., +36m.57s., +46m.36s., and +49m.35s. = SR_1 − 40s. Rocca di Papa eN = +20m.11s., eSN = +32m.7s., eLZ = +82·2m. Vienna iPZ = +20m.12s., iPN = +20m.13s., eLN = +62·2m., and many i readings. Graz eP = +20m.21s., PR_1 = +24m.39s., PR_2 = +27m.16s., eSR_1 = +39m.33s. MN = +97·8m. Laibach i = +21m.40s., e = +29m.45s.; if the readings are all 1m. in excess these would be [P] and PR_2. Upsala MN = +96·1m. Cheb i = +44m.47s. = SR_1 +0s. Chur i = +20m.22s.

Continued on next page.

Ravensburg iE = +21m.15s. and +25m.9s. = PR_1 +23s., eN = +33m.29s., eE = +43m.57s. and +60m.15s., eLN = +82·4m., MN = +111·8m. Zurich i = +20m.57s. Hohenheim ePR_1 = +24m.31s. Almeria i = +20m.49s., PR_1 = +22m.11s., PR_2 = 27m.3s., PS = +32m.0s. = PR_3 +5s., SR_1 = +33m.33s., SR_2 = +39m.12s., MN = +91·0m. Hamburg eE = +26m.9s., iN = +27m.39s., eE = +34m.3s., MN = +73·6m., MZ = +110·2m. Alicante MZ = +90·2m. Strasbourg PR_1 = +25m.6s., i = +26m.49s., PR_2 = +28m.39s., i = +29m.54s., PR_3 = +32m.3s., MN = +99·5m. Granada iP = +20m.13s., PR_1 = +21m.41s., PS = +32m.5s. = PR_2 +2s.; also several i readings. Malaga MN = +107·2m. Barcelona MN = +102·5m. San Fernando PR_1 = +24m.44s., iSR_1 = +45m.37s., MN = +90·2m. De Bilt MN = +101·1m., MZ = +101·3m. Bagnères e = +52m.44s. = SR_2 +42s. and +58m.9s.? = SR_3 +32s. Toledo MZ = +91·5m., MNW = +108·3m. Uccle PR_1 = +24m.58s., MN = +92·2m., MZ = +100·1m. Paris PR_1 = +25m.26s., MN = +94·2m. Dyce i = +46m.13s. = SR_1 −3s. and +57m.45s. Kew PR_1 = +25m.11s., MN = +97·9m. Edinburgh i = +25m.41s. and +31m.59s.

NOTE ON THE L OBSERVATIONS.—The direct L gives a time of about 0·41min. per degree in Δ from many accordant stations. There are a number of L's which would satisfy the formula 37·3m. + (189 − Δ) + 0·41m.

Oct. 3d. Readings also at 1h. (Tashkent, La Plata, near Sucre, and La Paz), 3h. (near Sucre and La Paz), 7h. (Sucre and near La Paz), 14h. (Nagasaki), 15h. (Nagasaki), 16h. (Batavia), 17h. (Nagasaki), 20h. (Wellington and near Balboa Heights (2)), 21h. (Azores, Sucre, and Taihoku).

Oct. 4d. Readings at 1h. (Nagasaki), 5h. (Irkutsk), 6h. (Ekaterinburg, Tashkent, near Mizusawa, and Nagoya), 7h. (Kucino), 9h. (Ekaterinburg and Taihoku), 13h. (Tashkent), 14h. (Taihoku), 18h. (Sucre), 21h. (Sitka), 22h. (near Tucson), 23h. (Ekaterinburg and Tashkent).

Oct. 5d. 15h. 15m. 45s. Epicentre 14°·0S. 174°·0W. (as on 1925 Dec. 31d.).

A = −·965, B = −·101, C = −·242; D = −·105, E = +·995; G = +·241, H = +·025, K = −·970.

The evidence is conflicting. The epicentre 16°·5S. 180·°0 (as on 1924 Mar. 26d.) would suit a different selection from it rather better.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Apia	2·2	86	(0 36)	+ 2	(1 14)	+14	(1·4)	(1·8)
Suva	8·4	240	i 0 21	−106	3 3	−44	4·0	6·2
Wellington	29·0	198	—	—	e 10 15?	−62	—	—
Riverview	37·2	232	—	—	—	—	e 16·2	22·4
Sydney	37·2	232	12 15	?S	(12 15)	−72	19·2	19·8
Honolulu	38·7	24	e 7 45	+ 1	—	—	e 20·8	28·6
Victoria	76·9	32	—	—	—	—	41·9	45·4
Irkutsk	96·1	322	—	—	24 23	[+20]	55·2	—
Chicago E.	96·7	49	—	—	—	—	50·2	—
Toronto E.	102·9	48	—	—	—	—	57·2	—
Ottawa	105·7	46	—	—	—	—	e 50·2	—
Ekaterinburg	120·6	329	21 20	?PR_1	—	—	51·2	—
De Bilt	141·9	1	e 19 36	[− 7]	—	—	e 84·2	—
Kew	142·2	6	—	—	—	—	82·2	—
Paris	145·1	356	—	—	—	—	84·2	—
San Fernando	155·0	24	—	—	—	—	—	98·8
Granada	155·3	19	i 20 36	[+34]	—	—	79·8	91·0

Additional readings and notes: Apia readings are given for 16h.; they have been corrected by 1h. and further reduced by 2m. Riverview e = 15h.10m.30s. and 15h.11m.24s., MN = +18·2m. Sydney S = +16m.51s. Irkutsk e = +27m.54s. San Fernando MN = +101·2m. Granada i = +20m.39s., +22m.1s., +22m.38s., +24m.12s., and +29m.22s.

Oct. 5d. Readings also at 1h. (La Paz, Sucre, Tashkent, near Apia, and near Athens), 2h. (Ekaterinburg, Baku, Kew, and San Fernando), 7h. (Nagasaki), 11h. (Apia), 12h. (near Tacubaya), 15h. (Tashkent), 16h. and 18h. (Nagasaki), 19h. (Granada), 20h. (De Bilt, Uccle, Kew, and Tashkent), 22h. (Riverview).

Oct. 6d. Readings at 1h. (Tashkent and near Taihoku), 5h. (Nagasaki), 10h. (near Tacubaya), 16h. (Ekaterinburg).

Oct. 7d. 0h. 48m. 54s. Epicentre 20°·6S. 168°·8E. (as on 1926 Feb. 3d.).

$A = -\cdot 918$, $B = +\cdot 182$, $C = -\cdot 352$; $D = +\cdot 194$, $E = +\cdot 981$; $G = +\cdot 345$, $H = -\cdot 068$, $K = -\cdot 936$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Suva		9·4	76	e 2 30	+ 8	—	—	e 4·5	—
Riverview		20·5	226	e 4 51	+ 4	e 8 41	+ 7	e 10·6	12·5
Wellington		21·3	168	e 5 5	+ 8	8 37	−13	e 9·8	—
Christchurch		23·2	173	9 18	?S	(9 18)	−11	11·9	13·8
Tashkent		110·4	308	—	—	e 26 6?	−86	e 61·1	83·7
Chicago	E.	113·5	51	—	—	—	—	e 69·1	—
Ekaterinburg		117·0	324	17 18	?	e 26 0	[+23]	48·1	73·0
Toronto		119·7	50	—	—	—	—	62·1	—
Ottawa		122·3	47	—	—	—	—	e 55·1	—
Baku		124·9	307	—	—	—	—	e 76·1	—
Vienna	Z.	144·6	329	19 39	[− 9]	—	—	—	—
De Bilt		146·1	340	19 52	[+ 2]	—	—	e 79·1	—
Uccle		147·4	341	—	—	—	—	e 76·1	—
Kew		148·0	348	—	—	—	—	e 74·1	—
Granada		162·2	340	e 20 26	[+17]	e 40 52	?	87·1	98·9
San Fernando	E.	163·6	346	—	—	—	—	—	113·6

Additional readings: Riverview, MN = +12·1m.; T_0 = 0h.48m.51s. Tashkent e = +30m.6s. Ekaterinburg e = +34m.24s., MN = +77·0m. San Fernando MN = +109·1m.

Oct. 7d. Readings also at 2h. (near Tucson), 5h. (Christchurch and Granada), 7h. (Adelaide and Riverview), 8h. (Kew), 9h. (Ekaterinburg and Taihoku) 17h. (Ekaterinburg and Tashkent), 18h. (Azores and Matuyama).

Oct. 8d. 19h. 59m. 3s. Epicentre 57°·0N. 34°·5W.

$A = +\cdot 449$, $B = -\cdot 308$, $C = +\cdot 839$; $D = -\cdot 566$, $E = -\cdot 824$; $G = +\cdot 691$, $H = -\cdot 475$, $K = -\cdot 545$.

A shock about 12 minutes preceding this, and possibly from the same epicentre, is recorded in the L phase by Edinburgh, Bidston, Stonyhurst, Kew, De Bilt, San Fernando and Granada.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Reykjavik		9·4	35	—	—	(3 57?)	−16	4·0	—
Edinburgh		17·2	80	i 4 9	+ 2	(6 57?)	−25	7·0	11·7
Dyce		17·4	75	—	—	(7 57)?	+30	8·0	10·4
Bidston		18·1	88	(4 23)	+ 5	4 23	?P	8·6	11·6
Stonyhurst		18·3	86	i 4 5	−16	i 8 9	+22	9·0	11·0
Oxford		19·8	91	i 4 45	+ 6	—	—	9·4	11·2
Kew		20·5	91	e 4 50	+ 3	e 6 55	−99	10·0	12·4
De Bilt		23·1	85	5 19	+ 1	9 24	− 3	11·0	14·7
Uccle		23·3	89	e 5 20	0	9 33	+ 2	e 11·2	15·0
Paris		23·4	94	i 5 23	+ 2	e 9 38	+ 5	12·0	13·0
Hamburg		25·1	79	e 5 36	− 3	—	—	e 13·0	18·0
Strasbourg		26·4	90	5 57?	+ 5	e 10 41	+11	e 15·0	—
Tortosa	N.	27·6	110	e 6 20	+16	—	—	e 15·0	—
Ottawa	N.	27·8	263	—	—	i 11 25	+30	e 14·4	—
San Fernando		27·9	125	0 33	?	—	—	13·4	16·4
Cheb		28·1	84	e 7 57?	+108	—	—	—	18·0
Granada		28·4	121	i 6 16	+ 4	i 10 54	−12	13·6	16·8
Moncalieri		28·6	96	e 2 37?	?	—	—	14·8	—
Toronto	E.	30·9	265	—	—	e 11 30	−20	19·0	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Graz		31·5	87	—	—	—	—	e 18·0	—
Algiers		32·0	113	e 6 39	− 8	—	—	—	20·4
Leningrad		32·6	58	—	—	—	—	e 13·4	20·6
Pulkovo		32·7	58	e 4 21	−153	(11 57?)	−22	12·0	21·3
Rocca di Papa		33·4	96	e 6 27	−33	e 11 45	−45	e 14·8	—
Kucino		38·2	61	—	—	—	—	e 15·0	—
Makeyevka		42·8	70	—	—	e 15 9	+24	24·0	32·9
Ekaterinburg		47·5	48	i 8 48	− 3	e 15 33	−15	21·0	26·9
Victoria	E.	50·7	300	—	—	—	—	28·1	30·5
Baku		54·3	70	—	—	e 17 40	+27	30·4	—
Tashkent		62·8	56	i 10 40	+ 9	e 19 15	+17	e 31·0	39·4

Additional readings: Edinburgh e = 19h.56m.30s. Stonyhurst i = +6m.32s. De Bilt eZ = +7m.26s., MZ = +14·3m., MN = +15·3m. Paris eSE = +9m.47s. San Fernando MN = +15·4m. Granada i = +9m.11s. and +11m.43s. = SR_1 −43s. Leningrad MZ = +21·4m. Pulkovo MZ = +21·5m., MN = +22·2m.; the readings should be increased by 2 min. Rocca di Papa eZ = +6m.43s., eEN = +10m.7s. Makeyevka e = +19m.47s. = SR_3 +34s., MN = +28·4m., MZ = +29·6m. Ekaterinburg MN = +25·2m., MZ = +26·4m. Tashkent e = +24m.37s., +29m.3s., and +29m.57s., MN = +36·1m., MZ = +36·9m.

Oct. 8d. Readings also at 0h. (Melbourne), 1h. (near Toyooka), 7h. (Melbourne), 14h. (Port au Prince), 19h. (Kew, Stonyhurst, Bidston, Edinburgh, De Bilt, and San Fernando), 20h. (near Merida).

Oct. 9d. 19h. 16m. 0s. (I) } Epicentre 38°·0N. 42°·0E.
20h. 20m. 48s. (II) }

A = +·586, B = +·527, C = +·616; D = +·669, E = −·743;
G = +·458, H = +·412, K = −·788.

These observations show how much we owe to the Russian observatories, especially Tashkent and Ekaterinburg. They were obviously slight shocks, since the nearest station Baku only records S, and yet the general accord is very good.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
I	Baku	6·6	66	—	—	e 3 3	+ 3	4·5	4·9
II		6·6	66	—	—	e 3 28	+28	e 4·7	—
I	Tashkent	21·2	72	4 52	− 3	8 35	−13	e 14·0	15·7
II		21·2	72	i 4 52	− 3	i 8 55	+ 7	13·2	15·8
II	Vienna	21·2	307	i 3 54	−61	—	—	4·1	4·1
II	Graz	21·3	304	i 3 54	−62	—	—	—	4·1
I	Ekaterinburg	22·6	27	5 14	+ 2	e 9 19	+ 2	13·5	—
II		22·6	27	5 10	− 2	9 15	− 2	12·7	—

Additional readings and notes: Baku I records S as e_1 with e_2 = +3m.34s., MN = +4·7m. Tashkent II i = +4m.59s. Vienna and Graz observations probably refer to a local shock, for which Vienna gives the epicentre 47°·5N. 16°·0E., with 9 readings comprised between 20h.24m.42s. and 20h.24m.53s.

Oct. 9d. Readings also at 1h. and 3h. (near Reykjavik), 4h. (near Batavia, near Irkutsk, and near Reykjavik (2)), 5h. (Ekaterinburg), 8h. (Nagasaki), 9h. (near Mostar), 12h. (Nagasaki), 13h. (Nagasaki and near Taihoku), 16h. (near Batavia and Malabar), 19h. (Sucre), 21h. and 22h. (Nagasaki).

Oct. 10d. Readings at 5h. and 9h. (Nagasaki), 13h. (Nagasaki and near Mizusawa), 15h. (near Tacubaya).

Oct. 11d. 0h. 8m. 48s. Epicentre 21°·5S. 171°·5W. (as on 1924 Sept. 19d.).

A = −·920, B = −·138, C = −·366; D = −·148, E = +·989; G = +·362, H = +·054, K = −·930.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Apia		7·6	358	e 2 19	+24	3 4	−22	3·2	3·4
Suva		10·1	287	(i 2 24)	− 7	(4 36)	+ 4	(5·5)	—
Wellington		22·9	209	—	—	e 9 12?	−11	e 11·2	—
Riverview		35·1	242	e 7 57	+43	e 11 55	−62	e 14·4	20·5
Melbourne		40·8	236	(e 9 42)	?PR_1	—	—	e 9·7	11·8
Honolulu	E.	44·8	18	—	—	—	—	18·4	21·9
Adelaide		45·5	241	—	—	14 37	−44	20·2	29·0
Tucson		79·0	49	e 12 17	+ 4	e 22 22	+10	e 38·2	—
Batavia	Z.	80·0	267	i 13 56	+97	—	—	—	—
Victoria		82·0	30	—	—	—	—	40·9	43·1
La Paz		95·8	110	—	—	24 27	[+26]	48·2	55·0
Sucre		97·2	114	—	—	24 29	[+20]	48·7	59·1
Chicago	E.	99·8	50	—	—	—	—	52·4	—
Irkutsk		103·4	321	e 14 24	− 3	e 27 21	?PS	55·2	—
Toronto	E.	106·1	48	—	—	e 31 22	?SR_1	57·2	—
Ottawa		109·0	47	—	—	i 26 53	−26	50·2	—
Tashkent		125·7	306	e 16 25	+16	i 25 10	[−51]	e 61·2	76·5
Ekaterinburg		128·2	326	i 32 0	?PS	42 4	?	66·2	82·7
Pulkovo		138·7	343	—	—	—	—	e 78·2	—
Baku		140·3	309	e 19 32	[− 8]	—	—	63·2	82·0
Edinburgh		144·5	11	—	—	—	—	e 81·2	—
Hamburg	Z.	147·9	358	e 19 49	[− 4]	—	—	—	—
Oxford		148·8	12	—	—	—	—	—	95·5
Kew		149·2	11	e 20 4	[+10]	—	—	80·2	—
De Bilt		149·3	3	e 19 58	[+ 3]	—	—	e 85·2	—
Uccle		150·5	5	—	—	—	—	e 81·2	—
Vienna	Z.	152·5	349	e 19 57	[− 2]	—	—	—	—
San Fernando	E.	160·3	38	—	—	—	—	—	100·2
Granada		161·1	31	e 20 48	[+39]	—	—	e 60·2	62·5

Additional readings and notes: Apia e = +2m.27s. Suva readings have been increased by 6m. Riverview MN = +26·4m. Honolulu eN = +20m.45s., MN = +29·4m. Adelaide SR_1 = +16m.27s., MN = +24·5m. Tucson e = +79m.0s. La Paz MN = +51·8m. Irkutsk e = +24m.40s. =[S] +0s. Ottawa e = +34m.0s. =SR_1 −30s. Tashkent i = +16m.28s., e = +17m.8s., +19m.48s. =[P] +41s., and +35m.48s., MN = +69·1m. Ekaterinburg i = +32m.22s., e = +39m.2s., MN = +82·2m., MZ = +84·7m. Baku e = +22m.18s. =PR_1 −18s., i = +23m.11s., e = +30m.45s., and +34m.48s., MN = +95·0m., MZ = +95·3m. San Fernando MN = +101·2m. Granada i = +20m.54s. and +25m.13s. = PR_1 +18s.

Oct. 11d. 6h. 38m. 40s. Epicentre 35°·0N. 5°·0W. (as on 1923 May 17d.).

A = +·816, B = −·071, C = +·574; D = −·087, E = −·996; G = +·571, H = −·050, K = −·819.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
San Fernando		1·7	326	0 48	+22	1 16	+28	—	2·3
Malaga		1·8	15	i 0 33	+ 5	0 44	− 7	—	2·7
Granada		2·4	27	i 0 39	+ 2	1 2	− 4	—	1·8
Almeria		2·8	48	i 0 38	− 6	i 0 56	−21	i 1·0	1·1
Rio Tinto		3·0	334	(1 20?)	+33	—	—	—	6·3
Alicante		4·9	46	0 51	−25	1 18	−56	—	2·5
Toledo		4·9	9	e 1 14	− 2	i 2 2	−12	—	3·0
Algiers		6·8	72	1 29	−15	2 46	−19	—	4·1
Tortosa	E.	7·2	35	1 41	− 8	3 24	+ 9	3·7	4·5
Barcelona		8·5	39	(e 2 5)	− 4	(e 3 24)	−26	(e 3·6)	(5·2)
Bagnères		9·0	26	e 2 21	+ 5	e 3 35	−28	4·5	—
Moncalieri		13·9	40	3 40	+15	—	—	6·8	8·3
Besançon		14·7	31	—	—	e 6 20?	− 5	—	8·0
Paris		14·9	20	e 3 30	− 8	e 5 54	−36	7·3	8·3
Florence		15·3	50	—	—	e 6 20	−19	—	10·3

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Rocca di Papa	15·4	59	e 3 26	−18	—	—	e 9·9	11·1
Zurich	16·0	35	e 3 42	−10	—	—	—	—
Chur	16·0	38	e 3 41	−11	—	—	—	—
Pompeii	16·4	64	—	—	—	—	0·3	—
Strasbourg	16·5	31	3 54	− 5	e 5 50	−77	—	—
Ravensburg E.	16·8	36	(i 3 36)	−26	(e 7 26)	+13	e 8·2	9·2
Kew	16·8	10	—	—	e 8 16	+63	9·3	—
Oxford	17·0	8	—	—	(7 50)	+32	7·8	10·5
Uccle	17·2	20	e 4 0	− 7	e 7 13	− 9	e 7·9	9·7
Innsbruck N.E.	17·3	40	i 4 15	+ 6	e 6 39	−46	e 10·9	13·2
Hohenheim	17·3	33	—	—	e 9 6	?	e 9·6	10·9
Bidston	18·4	4	—	—	—	—	9·8	11·6
De Bilt	18·5	20	—	—	—	—	e 8·8	10·6
Stonyhurst	19·0	5	—	—	i 8 10	+ 8	10·2	11·8
Zagreb	19·2	49	e 4 16	−15	e 7 51	−15	e 10·3	—
Graz	19·5	46	i 4 24	−11	e 7 56	−17	8·3	12·9
Cheb	19·7	35	—	—	e 8 0	−17	e 10·3	12·0
Vienna	20·6	43	4 35	−13	7 14	−82	—	12·3
Edinburgh	20·9	3	—	—	e 8 53	+11	—	13·2
Hamburg	21·3	25	e 4 49	− 8	e 8 51	+ 1	e 11·3	12·4
Budapest	21·8	48	4 52	−11	—	—	e 13·3	14·7
Upsala N.	28·8	24	—	—	—	—	e 15·3	—
Pulkovo	33·6	30	—	—	—	—	e 19·3	20·6
Leningrad	33·9	30	—	—	—	—	e 16·8	—
Makeyevka	34·2	54	—	—	—	—	25·3	—
Kucino	35·7	41	—	—	—	—	16·7	—
Baku	43·1	66	—	—	—	—	e 24·3	—
Ekaterinburg	48·3	42	8 42	−14	e 15 34	−24	22·3	29·9
Ottawa	53·3	305	—	—	—	—	e 24·3	—
Tashkent	56·9	60	—	—	—	—	e 27·3	41·5
Irkutsk	73·2	38	—	—	—	—	e 41·3	—

Additional readings and notes: San Fernando MN = +2·8m. Granada i = +44s. and +57s. Almeria MN = +2·3m. Rio Tinto P has been increased by 20m.; it now accords better with S. Alicante MZ = +3·7m. Toledo iP = +1m.23s., i = +1m.42s., iSNE = +2m.15s., R_3PNW = +2m.31s. Tortosa PN = +1m.42s. Barcelona: All the readings have been diminished by 1min. Rocca di Papa ePE = +3m.48s., ePZ = +4m.37s. Strasbourg SR_1 = +8m.58s. Ravensburg: All the readings have been diminished by 1min. Uccle MN = +9·8m. Hohenheim MN = +10·0m. De Bilt MN = +11·0m., MZ = +12·3m. Zagreb e = +4m.29s. Vienna iE = +5m.5s. = PR_1 −3s. Hamburg MNZ = +14·2m. Ekaterinburg MN = +28·1m., MZ = +29·1m. Tashkent e = +15m.20s.? and +23m.20s.? MN = +43·9m.

Oct. 11d. 6h. 58m. 54s. (I)
7h. 2m. 22s. (II)
7h. 8m. 33s. (III)
7h. 41m. 45s. (IV)
21h. 50m. 12s. (V)
} Epicentre 35°·0N. 5°·0W. (as at 6h.).

		Δ	P.	O−C.	S.	O−C.	L.	M.
		°	m. s.	s.	m. s.	s.	m.	m.
I Malaga	z.	1·8	0 40	+12	0 56	+ 5	—	—
II	z.	1·8	0 39	+11	0 55	+ 4	—	—
IV	z.	1·8	0 30	+ 2	0 46	− 5	—	0·8
II Granada		2·4	0 21	−16	0 45	−21	—	0·8
V		2·4	0 45	+ 8	1 6	0	—	1·2
I Almeria		2·8	0 35	− 9	i 0 57	−20	1·0	1·7
II		2·8	e 0 37	− 7	i 0 57	−20	1·0	1·4
III		2·8	—	—	0 56	−21	0·9	1·0
V		2·8	e 0 37	− 7	i 0 57	−20	1·0	1·1
I Toledo		4·9	—	—	e 2 5	− 9	—	—

Additional readings: Granada II i = +27s., V i = +1m.1s Almeria I PR_1 = +50s., MN = +1·5m.

Oct. 11d. 7h. 26m. 25s. Epicentre 8°·0N. 126°·5E. (as on 1924 Aug. 30d.).

A = −·589, B = +·796, C = +·139; D = +·804, E = +·595; G = −·083, H = +·112, K = −·990.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		8·5	321	e 2 40	+31	—	—	i 5·4	6·0
Taihoku	E.	17·7	345	—	—	(e 7 30)	− 3	e 7·5	—
Phu-Lien		23·1	306	e 5 9	− 9	e 9 3	−24	14·1	—
Batavia		24·2	235	e 4 35	−55	i 8 52	−56	—	—
Irkutsk		47·9	343	8 48	− 5	15 46	− 7	24·6	—
Kodaikanal		48·5	276	e 19 17	?SR_1	—	—	—	—
Melbourne		48·9	160	—	—	—	—	—	34·4
Bombay		53·1	287	16 33	?S	(16 33)	−24	—	—
Tashkent		60·4	315	i 9 14	−61	i 17 21	−67	e 27·6	36·4
Apia		65·0	110	—	—	—	—	e 51·6	—
Ekaterinburg		70·2	328	i 11 21	+ 3	i 20 29	+ 1	30·6	47·0
Baku		74·7	310	e 11 47	0	21 14	− 8	37·1	50·2
Kucino		82·6	325	—	—	e 22 35?	−18	43·4	—
Makeyevka		83·1	319	—	—	e 35 35?	?	43·6	49·1
De Bilt		102·0	327	—	—	—	—	e 52·6	—
Uccle		102·7	326	—	—	—	—	e 52·6	—
Tucson		112·2	50	—	—	—	—	e 61·4	—
San Fernando		117·2	318	—	—	—	—	—	72·6
Ottawa		123·0	17	—	—	e 31 5	?PS	e 62·6	—

Additional readings: Batavia iZ = +4m.58s. Tashkent i = +9m.42s.; +10m.17s., and +14m.12s., e = +21m.17s., MN = +35·8m. Ekaterinburg i = +22m.59s., MN = +41·8m., MZ = +45·9m. Baku MN = +45·6m., MZ = +52·2m. Kucino e = +23m.35s.? = PS − 2s. Tucson e = +70m.53s. San Fernando MN = +81·6m.

Oct. 11d. 18h. 36m. 45s. Epicentre 30°·5S. 70°·0W. (as on 1923 April 21d.).

A = +·295, B = −·810, C = −·508; D = −·940, E = −·342; G = −·174, H = +·477, K = −·862.

The adopted epicentre is the nearest to that given by La Paz, 30°·5S. 69°·1W. The Sucre observations suggest an epicentre further south, say at 32°·5S. 71°·0W., or even 31°·0S. 72°·0W., as already used on 1926 May 12d. 13h.; but there is some discordance between the time determinations at Sucre and La Paz—about 30s.—which makes the solution uncertain.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
La Plata	11·1	117	2 13?	−33	—	—	5·6	—
Sucre	12·3	22	e 3 13	+10	5 50	+24	6·5	7·0
La Paz	14·1	7	3 6	−21	5 54	−16	6·9	8·2

No additional readings.

Oct. 11d. 22h. 44m. 8s. Epicentre 43°·9N. 9°·5E. (as on 1921 Dec. 13d.).

A = +·711, B = +·119, C = +·693; D = +·165, E = −·986; G = +·684, H = +·114, K = −·721.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Florence		1·3	95	0 22	+ 2	—	—	—	0·6
Moncalieri		1·7	311	0 41	+15	1 18	+30	—	—
Venice		2·6	53	0 52?	+11	—	—	—	—
Chur		2·9	0	0 37	− 8	i 1 19	− 1	—	—
Rocca di Papa		3·2	132	1 14	+24	—	—	e 2·0	—
Zurich		3·6	350	e 0 58	+ 2	e 1 42	+ 3	—	—
Ravensburg		4·0	5	e 1 28	+26	—	—	e 2·0	2·2
Laibach		4·2	56	e 0 55	−10	—	—	i 2·1	—
Strasbourg		4·8	349	e 1 6	− 8	e 2 10	− 1	(e 2·6)	—
Zagreb		5·0	65	e 1 50	+33	e 2 17	+ 2	—	—
Vienna	Z.	6·5	45	e 3 4	?S	(e 3 4)	+ 7	i 3·4	—

Additional readings: Ravensburg eE = +1m.37s. Laibach e = +1m.28s., i = +2m 7s. Strasbourg eP? = +1m.47s., eS = +2m.38s. = L?, i = +2m.50s. = L? Zagreb e = +2m.19s., i = +2m.30s., +2m.36s., and +2m.43s.

Oct. 11d. Readings also at 1h. (Granada), 2h. (Toronto), 6h. (near Irkutsk), 7h. (Batavia, Granada (4)), 10h. (Ekaterinburg), 11h. (Baku and Nagasaki), 23h. (near Athens).

Oct. 12d. 1h. 55m. 0s. Epicentre 1°·0S. 99°·0E. (as on 1913 Oct. 29d.).

$A = -\cdot156$, $B = +\cdot988$, $C = -\cdot017$; $D = +\cdot988$, $E = +\cdot156$; $G = +\cdot003$, $H = -\cdot017$, $K = -1\cdot000$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia		9·3	123	—	—	i 4 12	+ 2	—	—
Phu-Lien		23·0	19	—	—	e 9 32	+ 7	13·0	—
Kodaikanal		24·2	298	e 13 0	?L	—	—	(e 13·0)	—
Hyderabad		27·4	313	—	—	10 27	−21	—	—
Hong Kong		27·6	32	—	—	—	—	—	20·7
Bombay		32·5	309	10 44	?S	(10 44)	−92	—	—
Simla	E.	38·2	329	—	—	—	—	e 19·0	—
Tashkent		50·2	331	e 21 0?	?	27 0?	?	39·0	55·0
Irkutsk		53·5	4	e 9 27	− 3	e 17 1	− 2	30·0	—
Ekaterinburg		65·5	338	10 47	− 1	19 27	− 4	35·0	—

Additional readings: Batavia iE = +8m.14s. Simla eN = +61m.42s. Tashkent MN = +45·0m.

Oct. 12d. 11h. 57m. 5s. Epicentre 41°·0N. 21°·5E. (as on 1924 April 25d.).

$A = +\cdot702$, $B = +\cdot277$, $C = +\cdot656$; $D = +\cdot366$, $E = -\cdot930$; $G = +\cdot610$, $H = +\cdot240$, $K = -\cdot755$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Athens		3·3	150	—	—	—	—	e 2·5	3·7
Mostar		3·6	313	0 45	−11	1 7	−32	—	1·3
Belgrade		3·9	349	e 0 57	− 4	i 1 28	−19	—	1·7
Pompeii		5·3	270	e 0 55	−28	e 2 3	−22	—	—
Naples	E.	5·5	271	e 0 59	−26	e 2 31	0	—	—
Zagreb		6·2	322	e 1 34	− 1	i 2 25	−14	i 3·2	—
Rocca di Papa	E.	6·7	280	1 49	+ 7	e 3 0	− 2	—	4·1
	N.	6·7	280	1 50	+ 8	i 3 15	+13	—	3·9
Budapest		6·7	346	1 35	− 7	—	—	e 3·9	—
Laibach		7·2	317	1 23	−26	i 2 2	−73	—	3·8
Graz		7·4	327	e 1 45	− 7	i 3 25	+ 4	—	3·8
Venice		8·0	307	i 1 25	−36	e 2 43	−54	—	3·1
Vienna		8·1	335	e 2 4	+ 1	3 30	−10	i 3·7	4·2
Florence		8·1	294	2 0	− 3	—	—	—	4·4
Innsbruck		9·6	314	e 2 14	−10	4 8	−10	—	4·8
Chur		10·4	308	e 2 28	− 8	i 4 24	−16	—	—
Moncalieri		10·8	296	3 13	+32	5 11	+21	—	—
Ravensburg		10·9	313	i 3 6	+23	e 4 8	−44	i 4·8	5·4
Zurich		11·2	309	e 2 41	− 6	e 4 58	− 1	—	—
Strasbourg		12·3	312	e 3 36	+33	e 5 26	0	6·2	—
Besançon		12·7	305	2 55?	−14	—	—	—	—
De Bilt		15·8	320	—	—	—	—	e 7·9	—
Kew		18·2	312	—	—	—	—	8·9	—
Granada		19·8	267	i 4 50	+11	e 8 21	+ 2	e 9·3	11·4
Baku		21·4	82	—	—	e 9 39	?SR_1	—	—
Ekaterinburg		29·6	44	—	—	—	—	15·9	—

Additional readings: Belgrade iP = +1m.11s. Epicentre 42°·50′N. 19°·53′E. Zagreb eP = +1m.43s., iP = +1m.48s., i = +2m.0s., +2m.30s., +2m.33s., +2m.39s., and +3m.24s., iS = +2m.47s. Rocca di Papa eN = +1m.35s. Laibach P = +1m.42s., iSR_1 = +3m.10s. Vienna PR_2 = +2m.51s., and +3m.17s. Strasbourg P? = +3m.54s., i = +5m.56s.

Oct. 12d. 12h. 48m. 20s. (I)
13h. 2m. 48s. (II) } Epicentre 43°·0N. 21°·0E. (as on 1922 June 9d.).

A = +·683, B = +·262, C = +·682 ; D = +·358, E = −·934 ;
G = +·637, H = +·244, K = −·731.

	Δ	Az.	P.	O−C	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
I Belgrade	1·9	348	e 0 31	+ 2	i 1 2	+ 9	—	1·1
II	1·9	348	e 0 33	+ 4	e 1 4	+11	—	1·1
II Sarajevo	2·1	295	e 0 16	−17	0 40	−18	—	0·7
I Mostar	2·3	279	(0 43)	+ 7	(1 3)	0	—	(1·2)
II	2·3	279	(0 48)	+12	(1 9)	+ 6	—	(1·3)
I Zagreb	4·5	310	e 1 14	+ 4	i 2 14	+10	i 2·4	—
II	4·5	310	e 1 12?	+ 2	i 2 12	+ 8	—	—
I Laibach	5·5	306	e 0 25	−60	1 42	−49	—	3·2
I Rocca di Papa	6·2	261	e 2 0	+25	i 3 13	+24	—	3·3
I Venice	6·6	294	1 52	+11	—	—	—	—
I Chur	9·0	299	—	—	—	—	e 3·4	—
I Moncalieri	9·7	286	—	—	—	—	e 5·1	—
I Zurich	9·8	301	e 3 14	+47	—	—	—	—
II	9·8	301	—	—	—	—	e 4·4	—
I Strasbourg	10·8	306	—	—	—	—	4·7	—

Additional readings and notes : Belgrade I eP = +32s., iP = +38s. and +40s., iS = +1m.3s., II iS = +1m.5s. Mostar I and II all readings have been increased by 1min. Zagreb I e = +1m.17s., +1m.22s., +1m.29s., and +2m.7s. ; II e = +1m.19s. Laibach I e = +42s. Rocca di Papa I MN = +3·4m.

Oct. 12d. Readings also at 1h. (Batavia, Berkeley, and Lick), 2h. (Ekaterinburg, near Almeria, and Granada), 3h. (Baku, Pulkovo, Leningrad, and Tashkent), 4h. (near Malaga), 5h. (near Toyooka), 8h. (near Granada, Malaga, and Almeria), 9h. (near Malaga, Granada, and Almeria), 12h. (Nagasaki, near Sumoto, near Taihoku, and near Tacubaya), 13h. (Nagasaki), 14h. (Nagasaki and near Almeria), 15h. (Ekaterinburg, Baku, Tashkent, and Nagasaki), 16h. (Tashkent, near Malaga, and near Apia), 17h. (Ekaterinburg and Baku), 18h. (near Belgrade and Mostar), 19h. (near Belgrade and Mostar), 22h. (La Paz).

Oct. 13d. 6h. 2m. 18s. Epicentre 51°·0N, 179°·5W.

(as on 1924 Aug. 21d.).

A = −·629, B = −·005, C = +·777 ; D = −·009, E = +·1·000 ;
G = −·777, H = −·007, K = −·629.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Ootomari		24·9	275	5 30	− 7	(9 57)	− 4	10·0	—
Sitka	N.	26·1	59	—	—	e 10 24	0	14·1	18·9
Mizusawa	E.	29·8	262	(6 13)	−13	6 13	?P	13·8	—
Honolulu	E.	34·1	142	e 6 54	−12	i 12 22	−20	15·3	17·5
	N.	34·1	142	e 7 0	− 6	i 12 22	−20	i 15·4	17·3
Victoria	E.	35·6	73	7 6	−12	12 41	−23	17·2	17·7
	N.	35·6	73	7 5	−13	12 41	−23	16·0	16·4
Toyooka		35·9	265	8 16	+55	—	—	16·5	19·7
Osaka		36·1	262	7 8	−15	(12 49)	−22	12·8	21·1
Kobe	E.	36·3	264	—	—	—	—	—	19·4
Sumoto		36·7	263	7 5	−23	12 55	−25	19·4	21·6
Spokane	N.	39·4	70	1 7 36	−14	i 13 35	−22	e 17·9	24·2
Hukuoka	N.	39·9	267	13 44	?S	(13 44)	−21	18·4	—
Nagasaki		40·9	266	7 51	−11	14 10	−10	19·3	20·6
Berkeley	E.	41·7	86	e 7 54	−15	e 14 24	− 7	e 19·7	21·8
	N.	41·7	86	e 7 54	−15	e 14 0	−31	—	21·5
Lick	N.	42·5	87	e 8 7	− 8	e 14 30	−12	e 17·9	22·3
Irkutsk		45·0	304	1 8 20	−13	15 13	− 2	22·7	27·2
Zi-ka-wei		47·2	270	1 8 37	−11	15 35	− 9	—	25·0

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Denver E.	51·3	73	e 8 48	−27	i 16 4	−31	i 23·4	27·1
Taihoku E.	51·4	265	e 8 30	−46	16 27	− 9	24·8	28·8
Tucson	52·5	85	9 21	− 2	16 50	0	e 26·0	28·7
Hong Kong	58·0	269	7 52?	−127	17 58	− 1	—	32·7
Manila	59·7	259	e 9 17	−53	—	—	—	—
Chicago E.	60·0	60	10 43	+31	18 52	+29	e 28·6	—
St. Louis	60·6	65	e 10 19	+ 3	e 18 32	+ 1	24·7	28·2
Ekaterinburg	61·3	329	—	—	—	—	24·7	37·4
Ann Arbor	61·6	57	e 9 30	−53	e 18 54	+11	32·9	39·7
Toronto E.	62·8	53	e 10 33	+ 2	i 18 59	+ 1	29·2	38·2
N.	62·8	53	e 10 29	− 2	i 19 2	+ 3	29·4	37·7
Ottawa	63·4	50	i 10 40	+ 6	i 19 10	+ 4	e 29·7	41·7
Phu-Lien	63·9	273	—	—	e 19 10	− 2	32·2	—
Ste. Anne	64·6	46	e 10 45	+ 3	e 19 16	− 4	31·7	40·7
Ithaca	65·2	52	—	—	19 29	+ 2	31·7	—
Apia	65·2	172	—	—	e 19 32	+ 5	29·4	—
Leningrad	66·4	346	i 10 54	0	e 19 41	− 1	32·7	40·4
Pulkovo	66·6	346	i 10 57	+ 2	e 19 43	− 2	—	45·9
Loyola	66·8	72	e 10 52	− 5	e 18 57	−51	—	41·2
Fordham	67·6	54	e 10 57	− 5	20 7	+10	31·2	34·9
Harvard N.	67·8	50	—	—	20 10	+10	e 31·7	37·4
Upsala	68·3	353	11 6	0	e 20 2	− 4	e 30·7	43·8
Bergen	68·5	358	—	—	—	—	e 47·7	—
Kucino	68·8	340	11 30	+20	20 30	+18	33·5	41·3
Tacubaya	69·0	87	11 11	0	20 18	+ 4	34·7	—
Tashkent	70·0	314	(i 11 19)	+ 2	(20 34)	+ 8	(e 32·6)	(36·3)
Dyce	71·7	2	—	—	20 44	− 2	37·7	49·7
Edinburgh	73·0	3	—	—	—	—	e 35·7	—
Simla E.	73·9	300	e 11 12	−29	20 54	−19	33·4	42·8
N.	73·9	300	11 18	−23	20 54	−19	38·4	44·6
Stonyhurst	75·0	2	—	—	—	—	e 37·7	56·7
Hamburg	75·1	355	e 11 47	− 3	e 21 36	+ 9	e 33·7	39·7
De Bilt	76·8	357	12 2	+ 2	21 47	0	e 32·7	49·7
Oxford	77·2	2	—	—	e 21 53	+ 2	29·3	60·7
Kew	77·5	0	e 12 1	− 3	22 50	?PS	39·7	54·8
Piatigorsk	78·0	330	—	—	—	—	36·7	—
Uccle	78·1	358	e 12 3	− 5	e 21 58	− 3	e 32·7	50·4
Cheb	78·4	353	e 12 7	− 2	e 22 42?	?PS	e 33·7	51·7
Baku	79·0	324	i 12 11	− 2	22 12	0	40·7	44·2
Vienna	79·8	350	12 8	−10	—	—	e 40·7	50·7
Hohenheim N.	80·0	356	e 12 14	− 5	—	—	e 28·0	55·7
Strasbourg	80·2	356	12 15	− 5	23 0	?PS	e 37·7	54·1
Paris	80·2	359	e 12 17	− 3	e 22 21	− 4	41·7	54·7
Ravensburg E.	80·8	356	e 12 22	− 2	—	—	e 28·2	54·6
N.	80·8	356	e 11 18	−66	e 23 2	?PS	e 28·4	56·3
Graz	81·0	350	e 12 21	− 4	e 23 3	?PS	39·7	51·1
Innsbruck N.W.	81·2	355	e 12 17	− 9	—	—	—	53·1
Zurich	81·4	356	e 12 20	− 7	e 22 23	−16	—	—
Besançon	81·7	357	—	—	—	—	47·7	—
Chur	81·9	356	i 12 25	− 5	22 42	− 3	—	—
Zagreb	82·2	350	e 12 28	− 3	e 22 53	+ 5	—	56·4
Laibach	82·2	351	e 12 28	− 3	—	—	44·7	53·7
Belgrade	82·6	347	i 12 32	− 2	e 23 27	?PS	e 49·7	56·6
Moncalieri	83·8	355	12 27	−14	22 54	−13	38·0	58·4
Hyderabad	83·8	291	12 32	− 9	22 58	− 9	43·7	52·7
Mostar	84·4	349	11 44	−60	—	—	—	—
Batavia	84·6	257	e 12 18	−28	i 23 3	−12	—	—
Florence	84·7	354	12 42	− 4	23 12	− 4	52·7	59·2
Bombay	85·9	297	12 43	−10	23 22	− 7	44·1	53·4
Rocca di Papa	86·6	351	12 49	− 8	e 23 9	[+ 3]	e 47·2	—
Naples E.	87·3	350	e 11 42	−79	e 23 42	− 2	46·7	—
Pompeii	87·4	350	e 12 42	−19	e 22 18	[−53]	46·3	—
Barcelona	87·5	359	—	—	—	—	e 49·8	59·2
Tortosa N.	88·2	0	12 54	−12	—	—	e 29·7	59·1
Riverview	88·7	204	e 12 56	−13	e 23 20	[0]	e 41·9	47·4
Sydney	88·7	204	23 30	?[S]	(23 30)	[+10]	46·2	52·1
Athens	88·8	343	—	—	e 23 36	[+15]	e 35·2	55·0
Toledo	89·0	5	13 0	−10	23 34	[+12]	e 39·4	63·0
San Juan N.	89·5	61	—	—	—	—	e 47·7	59·7
Kodaikanal	90·1	286	e 22 36	?[S]	(e 22 36)	[−55]	i 51·4	60·9
Alicante	90·7	1	—	—	—	—	58·2	—
Colombo	91·2	282	13 12	−10	—	—	—	64·7
Granada	91·8	5	13 11	−15	—	—	e 45·7	60·7
Almeria	92·1	3	e 13 11	−17	24 18	−18	41·6	65·2

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Malaga	92·2	5	e 13 7	−21	e 23 59	[+18]	33·2	59·6
Algiers	92·2	358	e 13 12	−16	e 23 58	[+17]	46·7	58·7
Wellington	92·4	185	e 10 52	−157	i 23 38	[− 4]	44·8	47·2
San Fernando	92·4	5	12 24	−65	23 52	[+10]	44·7	61·2
Adelaide	93·5	215	—	—	e 23 46	[− 3]	e 45·5	51·4
Melbourne	94·1	209	—	—	e 24 18	[+26]	—	57·5
Christchurch	94·8	187	—	—	(24 36)	−28	46·7	53·6
La Paz	116·2	84	18 55	[+13]	30 1	?	56·2	75·6
Sucre	119·9	84	e 18 41	[−11]	i 30 22	?	56·7	68·4
La Plata	135·7	92	19 29	[− 2]	—	—	65·7	—

Additional readings and notes: Sitka eSR_1E? = +11m.6s., SR_1N = +11m.1 5s., eLE = +13·3m., ME = +17·4m. Mizusawa P = 6h.0m.53s. Honolulu iPN = +7m.3s., ePR_1N = +7m.42s., ePR_1E = +7m.48s., eSR_1E = +14m.6s., eSR_1N = +14m.18s.; T_o = 6h.2m.3s. and 6h.2m.18s. Toyooka MN = +18·3m. Osaka MN = +20·0m. Spokane iSE = +13m.38s.; Is L really SR_1? Hukuoka readings have been diminished by 1h. Berkeley eZ = +8m.0s.?, eN = +10m.12s.? = PR_1 − 3s., and +17m.43s.? = SR_1 + 21s., eE = +17m.30s.? Lick: Is L really SR_1? Irkutsk MZ = +27·1m., MN = +27·5m. Denver iPE = +8m.54s. Taihoku SR_1E = +20m.45s. Tucson e = +9m.40s., PR_1N = +10m.58s., PR_1E = +11m.17s., PSN = +16m.57s., S_oSE = +19m.25s., SR_1N = +20m.13s., SR_1E = +20m.28s., LN? = +22·6m., MN = +26·6m.; T_o = 6h.2m.13s. and 6h.2m.16s. Chicago eP_oPE = +11m.36s., ePR_1E = +13m.27s., PR_2E = +14m.36s., eE = +16m.0s., PSE = +19m.15s., iS_oSE = +20m.50s., SR_1E? = +22m.48s., eSR_1E? = +24m.24s., eSR_2E = +27m.0s. St. Louis: Is L really SR_2? Ekaterinburg MZ = +36·6m.; is L really SR_2? Ann Arbor e?E = +11m.18s., eLN = +29·8m., MN = +38·9m., and several eE and eN readings. Toronto eE = +18m.50s., eN = +18m.53s., iE = +19m.5s., iN = +20m.4s.; T_o = 6h.2m.27s. Ottawa eSR_1 = +24m.3s., iSR_2 = +26m.8s., MN = +34·4m.; T_o = 6h.2m.29s. Ste. Anne eSR_1 = +24m.5s.; T_o = 6h.2m.33s. Apia e = +24m.20s. = SR_1 − 16s. Leningrad PR_1 = +13m.54s., iPS = +20m.12s., iS_1P_4S = +21m.8s., eSR_1 = +24m.30s., eSR_2 = +26m.54s., MZ = +44·6m. Pulkovo PR_1 = +15m.9s. = PR_2 − 12s., iPS = +20m.7s., SR_1 = +24m.42s., SR_2 = +27m.42s., MN = +40·1m., MZ = +45·8m. Fordham PR_2 = +15m.7s., eN = +17m.30s., e = +21m.2s. Harvard SR_1N = +25m.10s., SR_2N = +27m.38s., eSR_2E = +28m.0s., eLE = +32·1m., ME = +36·2m. Upsala MN = +44·1m. Kucino PR_1 = +14m.0s., SR_1 = +25m.42s., MN = +45·3m. Tashkent e = (+14m.7s.) = PR_1 − 19s., (+21m.32s.) = [S] + 20s., (25m.54s.) = SR_1 + 4s., and (28m.34s.) = SR_2 − 1s., MN = (+36·6m.), MZ = (+46·4m.); all the readings have been increased by 3min. Hamburg PS = +22m.10s., SR_1 = +26m.42s., eLN = +36·7m., MNZ = +51·7m. De Bilt MN = +55·0m., MZ = +55·4m. Uccle MN = +51·4m. Baku PR_2 = +18m.33s. = PR_2 + 1s., SR_1 = +27m.49s., MZ = +50·2m. Vienna iN = +14m.21s., PR_2 = +16m.55s., PPS = +22m.47s., SR_1 = +27m.56s. Hohenheim eN = +9m.58s., eLE = +32·9m., ME = +48·9m.; is L really SR_1? Ravensburg: Are the L readings really SR_1? Zagreb e = +13m.28s., +23m.48s. = PS + 15s., and +25m.49s. Laibach e = +13m.38s. and +16m.43s. = PR_1 + 35s. Moncalieri MN = +59·2m. Batavia readings are given simply as e and iE. Barcelona MN = +60·4m. Tortosa eLE = +33·7m., ME = +59·6m.; is L really SR_1? Riverview SR_1 = +30m.3s., MN = +45·6m., MZ = +46·1m. Athens eLN = +30·2m., MN = +57·0m. Toledo iP = +13m.6s., MNW = +63·4m. Granada PR_1 = +16m.59s., PR_2 = +19m.56s., SPS = +23m.29s., PS = +25m.44s., PPS = +26m.32s., i = +29m.9s., SR_1 = +31m.22s. Almeria MN = +64·1m. Algiers MN = +61·2m. Wellington iSE = +23m.44s., SR_1 = +31m.48s., LN = +45·5m. San Fernando MN = +60·2m. Adelaide MN = +50·5m. Melbourne e = +22m.54s. Christchurch S is given as SR_1? La Paz PE = +19m.35s. = PR_1 − 25s., PR_1 = +22m.39s. = PR_2 − 23s., SR_1 = +36m.2s., SR_2 = +40m.34s., MN = +63·2m. Sucre iPR_1 = +20m.22s., PR_1 = +23m.1s. = PR_2 − 42s., PS = +31m.5s., SR_1 = +36m.59s., SR_2 = +39m.32s., SR_3 = +44m.40s.

Oct. 13d. 14h. 17m. 42s. Epicentre **51°·0N. 179°·5W.**

(as at 6h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Sitka		26·1	59	5 51	+ 2	10 24	0	e 13·3	15·5
Honolulu	E.	34·1	142	7 18	+12	i 12 27	−15	i 17·2	—
	N.	34·1	142	i 6 59	− 7	i 12 27	−15	i 15·9	17·0
Victoria	E.	35·6	73	7 8	−10	12 39	−25	17·3	17·7
	N.	35·6	73	7 13	− 5	12 44	−20	17·3	18·1
Osaka		36·1	262	6 59	−24	(12 53)	−18	12·9	17·8
Spokane		39·4	70	i 8 10	+20	e 14 0	+ 3	e 17·8	24·8
Nagasaki		40·9	266	e 7 51	−11	14 13	− 7	19·4	23·3
Berkeley	E.	41·7	86	e 7 48	−21	e 14 17	−14	e 20·0	—
	N.	41·7	86	e 8 0	− 9	e 14 18	−13	—	—
Lick		42·5	87	—	—	e 14 30	−12	e 24·5	—
Irkutsk		45·0	304	i 8 21	−12	15 4	−11	22·3	27·2
Zi-ka-wei		47·2	270	i 8 37	−11	19 54	+250	—	27·4
Denver		51·3	73	e 8 49	−26	e 16 5	−30	—	26·3
Taihoku	E.	51·4	265	—	—	e 17 53	+77	—	—
Tucson		52·5	85	9 29	+ 6	e 16 50	0	25·3	29·5
Hong Kong		58·0	269	9 58	− 1	—	—	—	31·8
Manila		59·7	259	e 10 18	+ 8	—	—	—	—
Chicago	E.	60·0	60	10 49	+37	i 18 58	+35	e 31·1	35·6
St. Louis		60·6	65	e 10 20	+ 4	e 18 34	+ 3	28·7	39·7
Ekaterinburg		61·3	329	i 10 22	+ 1	i 18 46	+ 6	27·3	34·5
Ann Arbor		61·6	57	(e 10 6)	−17	(i 18 24)	−19	(31·2)	(32·0)
Toronto	E.	62·8	53	i 10 37	+ 6	e 19 1	+ 3	29·6	35·6
	N.	62·8	53	e 10 33	+ 2	—	—	29·4	37·3
Ottawa		63·4	50	i 10 39	+ 5	e 19 4	− 2	e 29·3	35·0
Phu-Lien		63·9	273	—	—	e 20 37	+85	33·3	—
Ste. Anne		64·6	46	e 10 50	+ 8	e 19 16	− 4	e 32·3	41·3
Ithaca		65·2	52	—	—	e 19 20	− 7	31·3	—
Apia		65·2	172	—	—	e 20 3	?PS	30·3	—
Leningrad		66·4	346	i 10 55	+ 1	19 43	+ 1	32·2	40·6
Pulkovo		66·6	346	i 10 57	+ 2	i 19 43	− 2	32·3	38·6
Loyola		66·8	72	e 10 38	−19	—	—	e 38·7	44·6
Fordham		67·6	54	e 10 39	−23	18 59	−58	30·8	36·2
Harvard		67·8	50	—	—	—	—	e 31·2	36·3
Upsala		68·3	353	e 11 6	0	e 20 1	− 5	e 27·8	42·0
Kucino		68·8	340	11 24	+14	20 30	+18	33·4	42·0
Tacubaya		69·0	87	11 15	+ 4	20 26	+12	34·7	—
Tashkent		70·0	314	11 7	−10	i 20 30	+ 4	34·1	37·6
Dyce		71·7	2	—	—	i 20 41	− 5	37·6	47·4
Simla	E.	73·9	300	11 18	−23	20 54	−19	e 42·8	—
	N.	73·9	300	11 6	−35	20 54	−19	41·1	44·2
Stonyhurst		75·0	2	—	—	—	—	e 31·3	42·3
Hamburg		75·1	355	e 11 48	− 2	e 21 30	+ 3	e 37·3	49·3
Makeyevka		75·9	336	e 11 51	− 3	e 21 37	+ 1	27·3	45·5
De Bilt		76·8	357	12 5	+ 5	21 50	+ 3	e 32·3	49·8
Oxford		77·2	2	11 33	−29	21 58	+ 7	29·8	47·8
Kew		77·5	0	—	—	22 56	+61	39·3	54·2
Piatigorsk		78·0	330	—	—	—	—	36·3	—
Uccle		78·1	358	e 12 10	+ 2	22 5	+ 4	e 33·3	50·4
Cheb		78·4	353	—	—	e 22 18?	+13	e 34·3	51·3
Baku		79·0	324	i 13 11	+58	22 18	+ 6	37·3	—
Vienna		79·8	350	e 12 14	− 4	22 33	+12	e 37·3	53·3
Hohenheim		80·0	356	—	—	—	—	e 40·8	49·0
Strasbourg		80·2	356	e 12 20	0	—	—	e 42·3	—
Paris		80·2	359	e 12 28	+ 8	—	—	41·3	51·3
Budapest		80·2	348	12 13	− 7	22 30	+ 5	e 37·8	53·7
Ravensburg		80·8	356	—	—	—	—	e 42·0	49·9
Graz		81·0	350	i 12 22	− 3	e 23 33	+58	39·3	53·3
Innsbruck		81·2	355	e 12 20	− 6	e 22 46	+ 9	e 39·0	—
Zurich		81·4	356	e 12 22	− 5	i 22 44	+ 5	—	—
Besançon		81·7	357	—	—	—	—	48·3	—
Chur		81·9	356	i 12 28	− 2	—	—	—	—
Zagreb		82·2	350	e 12 33	+ 2	e 22 43	− 5	e 44·3	56·4
Belgrade		82·6	347	e 12 29	− 5	e 22 48	− 5	e 46·4	—
Venice		83·0	352	12 18?	−18	—	—	—	—
Moncalieri		83·8	355	12 36	− 5	23 2	− 5	37·0	53·6
Batavia		84·6	257	e 11 54	−52	—	—	—	—
Florence		84·7	354	12 38	− 8	23 18	+ 2	35·3	51·3
Bombay		85·9	297	12 43	−10	23 20	− 9	44·4	53·2

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Bagnères	86·0	0	—	—	e 23 10	[+ 7]	e 44·3	—
Rocca di Papa	86·6	351	e 12 47	−10	e 23 10	[+ 4]	e 43·3	—
Naples E.	87·3	350	e 12 18?	−43	e 23 18?	[+10]	52·5	—
Pompeii	87·4	350	e 11 54	−67	e 22 58	−47	53·3	—
Barcelona	87·5	359	—	—	—	—	e 36·5	56·2
Tortosa N.	88·2	0	e 13 18?	+12	23 24	[+ 8]	36·4	59·4
Riverview	88·7	204	e 13 28	+19	e 23 51	− 9	e 41·5	46·5
Sydney	88·7	204	—	—	—	—	47·5	52·2
Athens	88·8	343	—	—	e 23 13	[− 8]	e 34·3	46·8
Toledo	89·0	5	e 12 59	−11	23 29	[+ 7]	e 39·3	57·2
San Juan N.	89·5	61	—	—	—	—	e 50·3	52·3
Alicante	90·7	1	—	—	—	—	62·3	—
Colombo	91·2	282	13 18	− 4	—	—	—	62·3
Granada	91·8	5	i 13 18	− 8	e 24 15	−18	37·3	—
Almeria	92·1	3	e 13 50	+22	e 24 9	−27	39·2	44·7
Malaga	92·2	5	—	—	—	—	e 40·5	—
Algiers	92·2	358	—	—	e 23 43	[+ 2]	41·3	59·3
Wellington	92·4	185	—	—	e 23 48	[+ 6]	e 43·3	—
San Fernando	92·4	5	12 29	−60	23 59	[+17]	46·3	51·3
Adelaide	93·5	215	—	—	—	—	e 47·3	52·6
Melbourne	94·1	209	—	—	i 25 12	+15	e 43·6	57·6
La Paz	116·2	84	e 19 37	?PR_1	29 42	+82	55·8	70·7
Sucre	119·9	84	e 19 31	?PR_1	e 31 3	?	57·3	68·3
La Plata	135·7	92	—	—	—	—	64·0	—
Cape Town	158·5	316	31 48	?PR_3	—	—	—	94·8

Additional readings and notes: Sitka eSR_1N = +11m.4s., eLN = +12·6m., MN = +18·7m. Honolulu iPR_1N = +8m.2s., SR_1E = +13m.58s., SR_1N = +14m.12s.; T_0 = 14h.17m.32s. and 14h.17m.47s. Spokane iPN = +8m.12s., eN = +17m.11s., = SR_2 − 10s. Berkeley eE = +17m.34s. = SR_1 + 12s., eN = +17m.41s. = SR_1 + 19s. Lick eN = +17m.54s. = SR_1 + 16s. Irkutsk MZ = +25·7m., MN = +27·1m. Denver iPE = +8m.55s., iSE = +16m.10s., PSE = +16m.19s., MN = +28·3m. Tucson PR_1N = +11m.28s., PSN? = +16m.57s., PSE = +17m.7s., S_6SN? = +18m.54s., SR_1E = +20m.36s., SR_1N = +20m.29s., eLN = +22·8m., MN = +26·8m.; T_0 = 14h.17m.52s. and 14h.17m.57s. Chicago ePR_1E = +13m.8s., ePR_2E = +14m.36s. = PR_3 + 0s., PSE = +19m.13s., S_6SE? = +20m.38s., iS_6SE? = +20m.56s., SR_1E = +22m.6s., SR_2E = +24m.42s., SR_1E? = +26m.12s. St. Louis MN = +40·5m. Ekaterinburg iPR_1 = +12m.38s., iPR_2 = +14m.17s., i = +20m.3s., +22m.15s., +23m.6s. = SR_1 + 24s., +23m.59s., and +24m.18s., MN = +35·7m., MZ = +39·0m. Ann Arbor ePR_1 = (+12m.48s.) = PR_1 − 24s., eSR_2 = (+24m.12s.) = SR_1 + 36s., eLN = (+28·3m.), MN = (+31·7m.); all the readings have been diminished by 2m. Ottawa iSR_2 = +26m.3s., MN = +38·3m.; T_0 = 14h.17m.58s. Ste. Anne ePR_2 = +14m.44s., eSR_1 = +24m.6s.; T_0 = 14h.18m.7s. Leningrad PR_1 = 14m.29s., ePR_2 = +15m.11s., eSR_1 = +24m.12s., eSR_2 = +27m.30s., MZ = +40·1m. Pulkovo PR_2 = +15m.11s., i = +15m.17s., SR_1 = +24m.18s., SR_2 = +27m.30s., MN = +40·5m., MZ = +40·6m. Fordham iN = +19m.39s. Harvard SR_2? = +27m.48s., LN = +31·6m., MN = +37·4m. Upsala eLN = +24·3m., MN = +42·9m. Kucino PR_1 = +14m.6s., PR_2 = +15m.48s., SR_1 = +25m.48s., MN = +40·6m. Tashkent e = +11m.26s. +15m.18s.?, and +24m.48s., i = +13m.42s., MN = +46·2m. Makeyevka MZ = +49·8m., MN = +51·7m.; is L really SR_1? De Bilt MZ = +54·8m., MN = +55·0m. Uccle MN = +53·5m. Baku iPR_2 = +18m.44s., SR_1 = +27m.46s., SR_2 = +31m.31s. Vienna PR_1 = +15m.13s., PS = +23m.14s., SR_1 = +27m.19s. Paris MN = +57·3m. Budapest MN = +52·7m. Zagreb e = +23m.56s. = PS + 23s. and +32m.43s. = SR_2 + 19s. Belgrade ePE = +12m.37s. Moncalieri MN = +57·4m. Florence P = +12m.53s. Rocca di Papa PN = +12m.50s., eS = +23m.14s., eL = +43·6m. Riverview MN = +52·2m. Athens e = +23m.23s., eLN = +28·3m., MN = +57·3m. Toledo iS = +23m.50s., MNW = +56·9m. Granada PR_1 = +15m.56s., SPS = +25m.2s., PS = +25m.32s. Almeria PR_1 = +16m.32s., PS = +24m.54s., MN = +46·8m. Wellington e = +37m.18s.? = SR_3 − 30s. San Fernando MN = +57·3m. Melbourne i = +31m.30s. = SR_1 + 7s. Adelaide readings have been diminished by 1h. La Paz PR_2 = +26m.45s., SR_1N = +35m.55s., SR_1E = +36m.40s., LN = +56·2m. Sucre i = +20m.30s. = PR_1 + 7s., PR_2 = +27m.10s., SR_2 = +40m.10s.

Oct. 13d. 16h. 26m. 30s. Epicentre 27°·0N. 125°·0E. (as on 1925 June 4d.).

A = −·511, B = +·730, C = +·454; D = +·819, E = +·574; G = −·260, H = +·372, K = −·891.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Taihoku	N.	3·7	239	e 1 17	+19	1 59	+17	—	—
Zi-ka-wei		5·2	324	e 1 46	+26	2 50	+28	(2·8)	—
Manila		13·0	198	e 3 13	0	(i 5 37)	− 7	i 5·6	—
Irkutsk		29·7	334	e 6 14	−11	e 12 26	+57	—	—
Ekaterinburg		53·8	322	i 9 28	− 4	—	—	—	27·7
Leningrad		69·1	328	—	—	(18 30?)	−105	18·5	—
Pulkovo		69·2	328	—	—	(18 30?)	−106	18·5	—

Ekaterinburg gives also i = +10m.16s., MN = +26·3m., MZ = +26·6m.

Oct. 13d. 19h. 8m. 3s. Epicentre 51°·2N. 176°·0W.

A = −·625, B = −·044, C = +·779; D = −·070, E = +·998; G = −·777, H = −·054, K = −·627.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Sitka	E.	24·1	60	i 5 24	− 5	9 36	−10	13·4	19·1
	N.	24·1	60	e 5 35	+ 6	e 9 46	0	13·0	18·0
Ootomari		27·1	277	6 5	+ 6	(11 2)	+19	11·0	16·4
Mizusawa		32·0	266	6 40	− 7	12 0	− 8	17·4	—
Honolulu	N.	32·9	150	i 6 51	− 5	(12 2)	−21	i 14·6	17·2
Victoria	F.	33·4	76	6 47	−13	12 1	−29	17·4	18·4
Nagoya		37·1	265	9 1	?PR_1	—	—	18·4	—
Spokane		37·2	74	i 7 46	+14	i 13 34	+ 7	e 19·4	25·9
Toyooka		38·1	266	7 34	− 5	13 29	−10	e 16·8	21·6
Osaka		38·3	265	8 30	+50	(13 21)	−21	13·4	26·1
Kobe		38·5	265	7 38	− 4	—	—	17·2	21·3
Sumoto		38·7	265	7 41	− 3	13 46	− 2	19·2	21·2
Berkeley		39·5	90	e 7 42	− 9	13 44	−15	e 18·0	26·8
Santa Clara		40·0	90	e 8 3	+ 8	e 13 44	−23	e 14·0	20·0
Lick		40·3	90	e 7 44	−13	e 13 48	−23	e 17·2	22·1
Saskatoon		41·3	60	i 7 57	− 8	i 14 7	−18	e 18·4	—
Hukuoka	N.	42·2	269	e 8 2	−10	14 8	−30	19·1	—
Nagasaki		43·1	269	8 14	− 5	14 50	+ 1	20·2	22·0
Irkutsk		46·8	305	i 8 40	− 6	15 39	+ 1	24·0	31·1
Denver		49·1	76	i 9 34	+33	i 16 32	+25	—	27·0
Zi-ka-wei		49·4	272	i 9 3	0	16 11	0	25·2	31·5
Tucson		50·3	88	e 9 3	− 6	e 16 34	+11	23·7	35·6
Taihoku	E.	53·7	268	e 11 22	?PR_1	17 20	+15	25·3	31·2
Chicago	E.	57·8	63	e 10 35	+37	i 18 31	+35	e 26·6	34·8
St. Louis		58·5	68	i 10 5	+ 3	i 18 1	− 4	e 25·2	35·7
Ann Arbor		59·6	60	i 10 21	+12	i 18 21	+ 3	e 28·8	37·4
Hong Kong		60·3	270	10 20	+ 6	18 37	+10	—	33·4
Toronto	E.	60·9	56	i 10 18	0	i 18 32	− 3	29·6	40·6
	N.	60·9	56	10 19	+ 1	i 18 28	− 7	—	38·3
Ottawa		61·5	52	e 10 20	− 2	i 18 38	− 4	e 28·0	37·0
Manila		61·9	260	e 10 40	+16	e 17 54	−53	i 26·3	30·9
Ekaterinburg		62·4	330	i 10 23	− 5	i 18 53	0	26·0	43·9
Ste. Anne		62·8	49	e 10 31	0	e 18 55	− 3	e 31·0	41·0
Ithaca		63·3	55	10 34	0	19 0	− 5	31·0	—
Loyola		64·7	75	e 10 30	−13	19 7	−14	36·1	42·4
Apia		65·1	176	e 10 55	+ 9	e 20 37	+71	27·4	31·0
Fordham		65·7	55	i 10 57	+ 8	i 19 35	+ 2	29·5	34·0
Cheltenham		65·8	59	e 11 27	+37	e 20 20	?PS	e 35·0	41·8
Harvard		66·0	51	11 1	+10	19 35	− 2	e 33·8	42·2
Phu-Lien		66·2	274	e 11 0	+ 7	i 19 52	+12	31·3	51·2
Tacubaya		66·8	89	11 1	+ 4	20 6	+18	33·2	43·4
Leningrad		66·8	347	i 11 1	+ 4	i 20 2	+14	33·8	48·0
Pulkovo		67·0	347	i 11 2	+ 4	i 20 3	+13	35·0	47·8
Halifax		67·8	46	e 11 7	+ 4	e 20 1	+ 1	e 35·0	44·0
Upsala		68·1	353	e 11 3	− 2	e 19 58	− 5	e 33·0	49·1
Bergen		68·4	0	11 27	+20	—	—	e 26·0	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Kucino		69·4	340	12 15	+62	21 33	+74	34·8	46·8
Dyce		71·5	4	i 11 31	+ 4	21 27	[+ 5]	—	51·1
Tashkent		71·5	315	i 11 31	+ 4	i 20 53	+ 9	37·0	51·8
Amboina		72·4	240	i 12 42	+70	i 20 8	−47	e 37·0	—
Edinburgh		72·7	5	—	—	21 15	+17	40·0	60·0
Stonyhurst		74·8	4	e 15 57?	?PR$_1$	i 21 44	[− 4]	42·0	51·4
Hamburg		75·1	357	e 11 52	+ 2	e 21 40	[− 9]	e 43·0	51·0
Simla	E.	75·4	305	11 27	−24	21 9	−21	37·6	40·6
	N.	75·4	303	11 33	−18	21 15	−15	43·8	50·2
Calcutta	E.	76·0	289	13 3	+68	22 41	+64	32·3	—
	N.	76·0	289	13 5	+70	22 49	+72	31·9	—
Potsdam		76·1	354	e 12 9	+13	e 21 57	+19	e 42·2	54·0
Makeyevka		76·6	338	12 2	+ 3	21 51	+ 7	37·0	53·5
De Bilt		76·7	359	12 1	+ 2	21 48	+ 3	e 33·0	57·0
Oxford		77·0	4	12 7	+ 6	21 58	+ 9	31·0	50·2
Kew	N.	77·3	3	12 9	+ 6	22 35	?PS	41·0	52·0
Lemberg	E.	77·5	347	e 12 39	+35	e 21 5	+ 2	e 43·8	57·0
	N.	77·5	347	e 12 27	+23	e 22 15	+20	—	56·0
Uccle		78·0	0	e 12 6	− 1	i 22 1	+ 1	e 32·0	58·1
Cheb		78·5	354	e 12 18	+ 8	e 22 25	+19	e 42·0	57·0
Piatigorsk		78·9	332	—	—	e 17 21	?PR$_2$	—	40·0
Paris		80·0	1	e 12 18	− 1	e 21 34	−49	32·0	54·0
Vienna		80·0	352	e 12 19	0	22 42	+19	e 38·0	61·0
Hohenheim		80·0	357	e 12 13	− 6	e 22 31	+ 8	e 41·0	53·6
Baku		80·1	326	i 12 22	+ 2	i 21 44	−40	—	—
Strasbourg		80·2	358	e 12 20	0	i 22 25	0	e 39·0	55·9
Budapest		80·5	350	12 27	+ 5	22 27	− 2	e 30·4	58·0
Ravensburg		80·8	357	e 12 41	+17	e 22 22	−11	e 34·7	54·0
Graz		81·2	352	e 12 26	0	i 23 0	+23	36·0	58·1
Innsbruck		81·3	355	e 12 27	0	e 22 34	− 4	—	56·1
Zurich		81·4	357	e 12 25	− 2	e 22 44	+ 5	—	—
Besançon		81·6	358	—	—	e 22 51	+ 9	34·0	57·0
Chur		81·9	357	12 30	0	e 22 47	+ 2	—	—
Zagreb		82·4	352	e 12 34	+ 2	e 23 9	+19	e 33·0	56·6
Belgrade	E.	82·9	349	e 12 38	+ 3	e 23 13	+17	e 47·1	56·0
	N.	82·9	349	e 12 39	+ 4	e 23 12	+16	e 47·0	57·8
Venice		83·0	354	12 51	+15	i 22 54	− 3	63·4	—
Moncalieri		83·7	357	i 13 38	+58	23 5	− 1	39·2	61·8
Florence		84·8	354	12 52	+ 4	23 7	−10	—	56·0
Bagnères		85·7	2	e 12 51	− 1	e 23 24	− 3	e 46·0	—
Rocca di Papa		86·8	354	e 12 55	− 3	e 23 19	−20	e 50·6	62·2
Batavia		86·8	258	i 12 55	− 3	i 23 36	− 3	e 43·6	—
Barcelona		87·3	0	e 12 48	−13	e 23 44	0	e 50·9	58·3
Azores		87·4	23	21 57?	?	—	—	—	57·4
San Juan		87·5	63	12 56	− 6	e 23 48	+ 1	43·4	61·0
Naples	E.	87·5	351	e 12 57	− 5	e 21 57	−110	52·0	60·0
Pompeii		87·6	351	e 11 33	−90	e 22 48	−60	56·0	65·0
Bombay		87·8	299	12 57	− 7	23 32	−18	45·0	51·6
Tortosa	N.	87·9	2	12 56	− 8	22 57	[−17]	e 40·0	62·2
Toledo		88·7	6	e 13 2	− 7	23 33	[+13]	e 39·0	63·0
Athens		89·3	345	e 13 14	+ 2	i 23 47	−19	e 43·4	55·3
Lisbon		89·3	10	13 15	+ 3	23 29	[+ 5]	45·1	52·0
Rio Tinto		89·4	9	15 57?	?	—	—	—	58·0
Riverview		89·8	207	e 13 7	− 8	e 23 36	[+ 9]	e 37·6	46·4
Sydney		89·8	207	23 39	?[S]	(23 39)	[+12]	42·6	44·2
Alicante		90·4	4	13 29	+11	i 24 17	− 1	46·4	65·6
Granada		91·5	6	i 13 14	−10	e 24 21	− 8	44·8	70·6
Almeria		91·8	5	e 13 15	−11	i 24 6	−27	39·9	45·7
Malaga		91·8	6	13 21	− 5	24 0	−33	29·8	59·8
San Fernando		91·9	9	12 40	−46	23 52	[+13]	46·0	64·0
Algiers		92·0	0	13 17	−10	i 24 3	[+23]	43·0	61·0
Kodaikanal		92·1	289	e 20 9	?PR$_2$	—	—	e 50·8	63·2
Wellington		92·9	187	—	—	23 42	[+ 3]	—	—
Colombo		93·4	285	13 17	−17	27 17	+148	57·6	62·0
Adelaide		94·9	217	—	—	i 24 47	−18	50·0	66·7
Melbourne		95·3	210	e 17 21	?PR$_1$	i 25 21	+12	e 41·0	46·2
Helwan		95·4	337	e 13 37	− 8	i 24 26	[+27]	—	73·2
Perth		102·4	234	24 57?	?[S]	(24 57?)	[+21]	61·8	—
La Paz		113·9	86	e 18 48	[+14]	29 16	+75	53·9	77·4
Sucre		117·6	86	e 18 2	[−44]	i 29 57	+86	51·0	74·0
La Plata		133·4	94	i 19 39	[+13]	—	—	57·0	—
Cape Town		159·8	323	—	—	25 21	?PR$_1$	—	103·9

For Notes see next page.

NOTES TO OCT. 13d. 19h. 8m. 3s.

Additional readings: Sitka eSR$_1$N = +10m.27s.; T$_0$ = 19h.7m.58s. and 19h.8m.10s. Ootomari MN = +14·2m. Honolulu PR$_1$N = +7m.53s., S = +11m.47s.: that in text is given as P$_c$SE, SR$_1$E? = +13m.15s., iSR$_1$N? = +13m.32s. and many other e readings; T$_0$ = 19h.8m.5s. and 19h.8m.20s. Victoria PN = +6m.49s.; T$_0$ = 19h.8m.14s. Spokane iEN = +16m.40s. = SR$_3$ +0s. Toyooka MN = +18·3m. Osaka MN = +22·5m. Kobe MN = +23·3m. Berkeley eSN = +14m.1s., eSR$_1$EN? = +16m.33s., and several other readings. Santa Clara iN = +7m.33s., PR$_1$N = +9m.24s., PR$_3$N = +9m.58s., iN = +10m.20s. = PR$_3$ +20s. Lick eP = +7m.48s., ePR$_2$E? = +9m.38s., eSZ = +13m.51s., eSN = +14m.9s., MN = +22·3m. Hukuoka readings have been diminished by 1h. Irkutsk MN = +27·6m., MZ = +32·6m. Denver ePN = +9m.36s., iE = +12m.27s. = PR$_3$ +16s., eN = +16m.15s., iEN = +16m.57s., PSEN? = +17m.13s., iE = +18m.57s. and +19m.57s. Zi-ka-wei PR$_1$ = +9m.17s. = P +14s., PR$_2$ = +11m.13s. = PR$_1$ +3s. Tucson iP = +9m.7s., P$_c$PE = +9m.54s., iP$_c$PN = +9m.59s., PR$_2$N? = +11m.43s., PR$_3$N? = +12m.14s., P$_c$SN? = +13m.29s., PSE = +16m.50s., eS$_c$SN = +18m.39s., SR$_1$E = +19m.49s., eSR$_1$N = +20m.6s., eSR$_2$E = +21m.39s., LN = +23·6m.; T$_0$ = 19h.7m.38s. and 19h.7m.41s. Taihoku SR$_1$E = +20m.54s. Chicago iPE = +10m.42s., eS$_c$SE = +20m.33s., eSR$_1$E? = +22m.25s., iSR$_1$E = +22m.49s., SR$_2$E = +25m.5s. = SR$_3$ −11s. St. Louis eN = +11m.31s., PR$_1$N = +12m.25s., iN = +19m.29s., MN = +35·0m. Ann Arbor ePR$_2$ = +13m.57s., iSP = +18m.45s., iSR$_1$ = +22m.57s., eSR$_2$ = +24m.54s., MN = +36·4m.; T$_0$ = 19h.8m.24s. Toronto iPE = +10m.21s., iPN = +10m.24s., and several i readings; T$_0$E = 19h.8m.9s., T$_0$N = 19h.8m.15s. Ottawa iP = +10m.27s., eSR$_1$ = +23m.27s., MN = +39·4m.; T$_0$ = 19h.8m.7s. Manila PR$_1$ = +13m.28s., SR$_1$ = +21m.45s., SR$_2$ = +22m.59s., MN = +30·6m. Ekaterinburg PR$_1$ = +12m.43s., i = +13m.53s., PR$_2$ = +14m.20s., MN = +41·8m., MZ = +45·4m. Ste. Anne PR$_1$ = +23m.33s. = SR$_1$ −23s.; T$_0$ = 19h.8m.12s. Fordham iN = +20m.22s. = PS +17s., and +22m.48s. Cheltenham ePE = +11m.33s., ePSN? = +21m.3s., eLN = +38·8m. Harvard PR$_1$N = +13m.53s., PR$_2$N = +15m.13s., PSE = +19m.54s., S$_c$SN? = +20m.50s., S$_c$SEN = +21m.4s., SR$_1$N = +24m.47s., SR$_1$E = +24m.51s., SR$_2$E = +26m.51s., SR$_2$N = +26m.54s., iLN = +34·0m., MN = +50·8m.; T$_0$ = 19h.8m.31s. and 19h.8m.34s. Phu-Lien MN = +41·7m. Leningrad iPR$_1$ = +13m.50s., PR$_2$ = +15m.50s. = PR$_3$ −14s., PS = +20m.46s., SR$_1$ = +24m.3s., iSR$_2$ = +27m.27s., MZ = +47·5m. Pulkovo PR$_1$ = +13m.52s., iPR$_2$ = +15m.49s., PS = +21m.4s., SR$_1$ = +23m.57s., SR$_2$ = +27m.21s., MZ = +48·0m., MN = +48·2m. Halifax iN = +21m.23s.; T$_0$ = 19h.8m.16s. Kucino e = +12m.33s. and +19m.21s., i = +13m.39s., PR$_2$ = +16m.27s., SR$_2$ = +29m.39s., MN = +51·4m. Tashkent i = +11m.42s. and +12m.13s., MN = +44·8m., MZ = +47·4m. Hamburg SR$_1$ = +26m.39s., SR$_2$ = +31m.57s.? Makeyevka PR$_1$ = +15m.42s., MZ = +53·1m., MN = +57·2m. De Bilt MN = +53·1m., MZ = +60·2m. Kew ME = +52·4m. Uccle MN = +54·0m. Vienna iN = +13m.44s., PS = +23m.41s., iE = +25m.13s. and +29m.43s., SR$_1$? = +27m.47s. Hohenheim ePR$_1$ = +15m.21s., ePR$_2$ = +17m.15s., eL = +33·6m., MN = +56·6m. Strasbourg MN = +55·7m. Budapest MN = +56·0m. Ravensburg eE = +13m.36s. and +24m.19s., eLN = +28·2m., MN = +61·9m. Graz MN = +57·7m. Zagreb e = +13m.26s., +14m.8s., +17m.17s., and +19m.26s. = PR$_3$ +14s. Belgrade e = +12m.58s., PR$_1$ = +14m.12s., PR$_2$ = +15m.2s. Venice iS = +26m.57s. Moncalieri MN = +58·6m. Florence P = +12m.57s., S = +23m.57s. = PS −7s. Rocca di Papa L = +61·4m. Batavia iE = +14m.45s. Barcelona MN = +60·3m. San Juan S$_c$P$_c$SSN = +23m.28s., PSE = +24m.37s., PPSN? = +25m.36s., LN? = +45·0m., MN = +56·0m. Tortosa ME = +62·5m. Toledo iSNE = +23m.51s., MNW = +58·2m. Athens eN = +29m.57s. = SR$_1$ −24s., eE = +40m.39s., MN = +60·4m. Riverview eS = +23m.57s., eL = +42·6m., MN = +45·6m., MZ = +48·4m.; T$_0$ = 19h.8m.43s. Sydney S = +31m.57s., SR$_1$ = +36m.39s. = SR$_3$ −17s. Granada PR$_1$ = +16m.59s., PR$_2$ = +18m.58s., PR$_3$ = +21m.1s., SPS = +23m.44s. = [S] +7s., PS = +25m.18s., SR$_1$ = +28m.54s. Almeria PR$_1$ = +17m.5s., PR$_2$ = +20m.8s., SR$_1$ = +27m.45s. Malaga MN = +49·6m. San Fernando MN = +71·0m. Wellington SR$_1$ = +30m.27s., e = +38m.42s. Adelaide eS = +22m.47s. Perth PR$_1$ = +35m.7s., PS = +36m.37s., S = +37m.22s., SR$_1$ = +44m.2s., SR$_2$ = +48m.22s. La Paz eP = +19m.4s., PR$_1$ = +22m.16s., PR$_2$ = +22m.46s., SR$_1$ = +36m.19s., i = +36m.49s., SR$_2$ = +31m.4s., L = +56·4m., MN = +72·9m.; the S in text = PS −24s. Sucre eP = +19m.5s., i = +20m.12s. = PR$_1$ +4s., PR$_1$ = +22m.18s., PR$_2$ = +27m.13s., iPS = +30m.43s., SR$_1$ = +36m.16s., SR$_2$ = +40m.27s., SR$_3$ = +43m.49s. La Plata L = +36·8m.; the S in text = PS −23s.

Oct. 13d. Readings also at 1h. (near La Paz), 3h. (Ekaterinburg and Tashkent), 4h. (near Irkutsk), 5h. (near Granada, Toledo, Malaga, and Almeria), 8h., 9h., and 11h. (Nagasaki), 13h. (near Granada, Malaga, and Almeria), 14h. (Nagasaki and Budapest), 15h. (near Granada, Malaga, and Almeria), 16h. (Riverview, Wellington, and Malaga), 18h. (near Balboa Heights), 20h. (Batavia), 22h. (Taihoku), 23h. (near Zurich).

Oct. 14d. 2h. 11m. 6s. Epicentre 51°·2N. 176°·0W. (as on Oct. 13d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Honolulu	E.	32·9	150	—	—	e 12 12	−10	e 13·4	14·9
Victoria	E.	33·4	76	6 46	−14	12 9	−21	16·6	32·1
	N.	33·4	76	6 49	−11	12 14	−16	—	—
Irkutsk		46·8	305	8 37	− 9	—	—	29·9	30·4
Tucson	E.	50·3	88	9 4	− 5	16 31	+ 8	e 25·9	—
	N.	50·3	88	e 9 16	+ 7	e 16 34	+11	e 23·2	26·5
Chicago	E.	57·8	63	10 34	+36	18 44	+48	e 27·9	38·5
Toronto	E.	60·9	56	e 10 16	− 2	e 18 33	− 2	29·6	—
Ottawa		61·5	52	e 10 20	− 2	e 18 39	− 3	e 28·9	36·9
Manila		61·9	260	—	—	(i 19 22)	+35	i 19·4	—
Ekaterinburg		62·4	330	i 10 28	0	18 56	+ 3	27·9	41·7
Ste. Anne		62·8	49	e 10 32	+ 1	e 19 2	+ 4	e 31·9	40·9
Ithaca		63·3	55	10 30	− 4	18 59	− 6	29·9	—
Fordham		65·7	55	e 10 50	+ 1	19 39	+ 6	e 31·6	34·9
Leningrad		66·8	347	e 10 59	+ 2	—	—	36·1	49·0
Pulkovo		67·0	347	11 1	+ 3	19 53	+ 3	37·9	42·6
Kucino		69·4	340	—	—	(e 20 24)	+ 5	(36·6)	(40·7)
Tashkent		71·5	315	(i 11 30)	+ 3	(i 20 48)	+ 4	(e 36·9)	(43·8)
Simla	N.	75·4	303	—	—	e 24 42	?	—	—
Makeyevka		76·6	338	e 11 59	0	e 21 44	0	33·9	50·6
De Bilt		76·7	359	—	—	—	—	e 37·9	—
Paris		80·0	1	—	—	—	—	e 52·9	—
Moncalieri		83·7	357	—	—	(23 1)	− 5	e 49·4	—
Tortosa	N.	87·9	2	—	—	—	—	e 53·9	66·3
Granada		91·5	6	e 17 54	?PR_1	—	—	e 52·9	56·6
La Paz		113·9	86	e 19 21	?PR_1	—	—	72·8	76·3
Sucre		117·6	86	19 34	?PR_1	—	—	78·6	89·6

Additional readings and notes: Irkutsk MZ = +35·9m. Chicago eSR_1E = +22m.54s. Toronto SR_1E = +23m 20s.; T_0 = 2h.11m.7s. Ottawa eSR_1 = +23m.22s., MN = +40·9m.; T_0 = 2h.11m.9s. Ekaterinburg MN = +35·8m., MZ = +42·4m. Ste. Anne eSR_1? = +23m.53s.; T_0 = 2h.11m.9s. Fordham eN = +22m.12s. and +29m.54s.; T_0 = 2h.11m.16s. Pulkovo SR_1 = +24m.12s., SR_2 = +27m.18s., MN = +43·5m., MZ = +47·7m. Kucino e = (+25m.42s.) = SR_1 + 0s. (+28m.30s.) = SR_2 + 5s., and (+34m.54s.), MN = +47·3m.; all the readings have been diminished by 1m. Tashkent i = (+11m.43s.), (+12m.11s.), and (+21m.14s.) = [S] − 8s., e = (+12m.54s.), (+15m.54s.), (+24m.54s.), and (+28m.54s.) = SR_2 − 8s., MN = (+50·7m.): all the readings have been diminished by 1min. Simla eE = +29m.42s. = SR_2 − 33s. Makeyevka MN = +48·6m., MZ = +51·3m. Moncalieri S is given as L of an earlier shock, also L = +53·5m.

Oct. 14d. Readings also at 5h. (near Athens), 6h. (Tashkent and Ekaterinburg), 7h. (Pulkovo, Kucino, Tashkent, Ekaterinburg, Baku, Makeyevka, Irkutsk (2), Toronto, and Ottawa), 11h. (Ekaterinburg, Riverview, and Nagasaki), 12h. (Cheb), 13h. (Taihoku and Nagasaki), 15h. (Ekaterinburg), 19h. (near Mostar), 20h. (La Paz (2)), 21h. (Ekaterinburg), 23h. (near Algiers).

Oct. 15d. 6h. 47m. 45s. Epicentre 35°·0N. 5°·0W. (as on October 11d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
San Fernando		1·7	326	0 52	+26	1 18	+30	—	—
Malaga	Z.	1·8	15	0 33	+ 5	0 53	+ 2	—	1·3
Granada		2·4	27	i 0 38	+ 1	1 1	− 5	—	1·1
Almeria		2·8	48	i 0 35	− 9	i 0 54	−23	i 1·0	1·3
Alicante		4·9	46	0 55	−21	1 17	−57	1·8	2·2
Toledo		4·9	9	e 1 15	− 1	i 2 22	+ 8	i 2·6	2·9
Algiers		6·8	72	e 1 29	−15	2 44	−21	3·1	4·2
Tortosa		7·2	35	e 1 2	−47	2 47	−28	—	4·8
Barcelona		8·5	39	e 0 56	−73	—	—	e 4·2	5·4
Paris		14·9	20	—	—	—	—	e 7·2	9·2
Uccle		17·2	20	—	—	—	—	e 8·2	—
De Bilt		18·5	20	—	—	—	—	e 9·2	10·8
Hamburg		21·3	25	—	—	—	—	e 11·2	12·2
Pulkovo		33·6	30	—	—	—	—	e 18·2	—
Ekaterinburg		48·3	42	8 39	−17	e 15 40	−18	21·2	—
Tashkent		56·9	60	—	—	—	—	e 26·2	41·5

Additional readings: Granada i = +48s. Almeria MZ = +1·1m., MN = +2·0m. Alicante MZ = +3·6m. Toledo eP = +1m.27s., iPR_1 = +2m.2s., iSR_1 = +2m.24s., iSR_1Z = +2m.30s. Tortosa MN = +4·4m. De Bilt MNZ = +12·2m.

Oct. 15d. 7h. 53m. 24s. Epicentre 35°·0N. 5°·0W. (as at 6h.).

		Δ	P.	O−C.	S.	O−C.	L.	M.
		°	m. s.	s.	m. s.	s.	m.	m.
Malaga		1·8	0 29	+ 1	0 45	− 6	—	—
Granada		2·4	i 0 42	+ 5	1 5	− 1	—	1·8
Almeria		2·8	0 32	−12	i 0 52	−25	1·0	1·2
Toledo	N.E.	4·9	e 0 40	−36	—	—	—	—
De Bilt		18·5	—	—	—	—	e 9·6	—

Additional readings: Granada i = +49s. Almeria MZ = +1·0m., MN = +1·4m.

Oct. 15d. 14h. 0m. 30s. Epicentre 51°·2N. 176°·0W. (as on 14d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Honolulu	E.	32·9	150	—	—	—	—	e 17·2	—
Irkutsk		46·8	305	—	—	—	—	24·5	—
Toronto		60·9	56	—	—	—	—	34·5	—
Ottawa		61·5	52	—	—	—	—	e 31·5	—
Ekaterinburg		62·4	330	10 27	− 1	18 56	+ 3	32·5	39·6
Leningrad		66·8	347	—	—	—	—	40·5	—
Pulkovo		67·0	347	—	—	—	—	39·5	—
Tashkent		71·5	315	i 11 22	− 5	20 56	+12	e 37·5	39·6
Makeyevka		76·6	338	—	—	—	—	e 37·5	50·9
Baku		80·1	326	—	—	—	—	43·5	47·6

Additional readings: Irkutsk e = +12m.41s. and +18m.30s. = SR_1 − 36s. Ekaterinburg MN = +38·8m., MZ = +40·9m. Tashkent i = +12m.43s., MN = +39·1m. Makeyevka L = +45·5m. Baku MZ = +53·3m., MN = +53·6m.

Oct. 15d. Readings also at 2h. (Batavia, Ekaterinburg, and Tashkent), 3h. (Nagasaki (2)), 5h. (Ekaterinburg, Rocca di Papa, Tashkent, and near Manila), 6h. (La Paz), 11h. (Tashkent), 12h. (Chur and near Zurich), 13h. (Ekaterinburg, Tashkent, Irkutsk, and La Paz), 14h. (Baku), 15h. (La Paz), 17h. (Taihoku), 19h. (near Batavia and Malabar), 20h. (Tashkent), 22h. (Ekaterinburg, Tashkent, and Baku), 23h. (Granada and near Mizusawa).

Oct. 16d. Readings at 2h. (3) and 4h. (Nagasaki), 5h. (Azores and Nagasaki), 8h. (Ekaterinburg and Tashkent) 10h. (Ekaterinburg), 11h. (Nagasaki and near Manila), 12h. (Tashkent and near Nagasaki) 13h. (Nagasaki), 15h. (Baku, Ekaterinburg, Tashkent, near La Paz, and Sucre), 19h. (Sucre), 22h. (Nagasaki and Sucre).

Oct. 17d. Readings at 0h. (Nagoya, Tashkent, Christchurch, and near Wellington), 1h. (Manila, Ekaterinburg, Pulkovo, and Leningrad), 2h. (Tashkent, Ekaterinburg, Pulkovo, and Leningrad), 3h. (Spokane), 7h. (Tashkent, Riverview, and near Sumoto), 8h. (Melbourne, Adelaide, and Pulkovo), 10h. (Tashkent), 12h. and 13h. (Rocca di Papa), 16h. (Rocca di Papa and near Mizusawa), 19h. (near Mostar), 21h. (near Toyooka), 23h. (Tashkent).

Oct. 18d. Readings at 0h. (near Amboina), 2h. (Tashkent, Ekaterinburg, La Plata, and near La Paz), 3h. (Apia, Ekaterinburg, Tashkent, and near Sucre), 5h. (Ekaterinburg, Tashkent, Baku, Sucre, and La Paz (2)), 6h. (Ekaterinburg, Nagasaki (2), and near Laibach), 8h. (Ekaterinburg, Tashkent, Nagasaki, Taihoku, Manila, and Irkutsk), 9h. (Pulkovo), 10h. (Baku, Ekaterinburg, Tashkent, and Irkutsk), 11h. (Ekaterinburg), 14h. (Nagasaki), 16h. (Uccle), 21h. (near Tashkent).

Oct. 19d. 0h. 29m. 56s. Epicentre 42°·0N. 139°·5E. (as on 1926 Mar. 19d.).

$A = -\cdot565$, $B = +\cdot483$, $C = +\cdot669$; $D = +\cdot649$, $E = +\cdot760$; $G = -\cdot509$, $H = +\cdot435$, $K = -\cdot743$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	E.	3·1	157	0 50	+ 1	1 24	− 2	—	—
	N.	3·1	157	0 51	+ 2	1 23	− 3	—	—
Nagoya		7·1	197	0 28	−80	(2 56)	−17	2·9	3·2
Kobe		8·1	206	2 15	+12	—	—	—	—
Irkutsk		25·7	306	i 5 43	− 2	10 21	+ 5	—	—
Ekaterinburg		50·3	316	i 9 5	− 4	—	—	22·1	34·3
Tashkent		50·9	295	i 9 13	+ 1	i 16 21	− 9	e 27·1	30·5
Kucino		62·0	321	—	—	—	—	e 34·6	—
Leningrad		62·8	328	—	—	—	—	e 31·3	—
Pulkovo		62·9	328	—	—	e 18 57	− 3	35·1	—
Baku		64·1	302	—	—	—	—	e 36·7	—
Makeyevka		66·5	315	—	—	e 20 17	PS	37·1	38·1
Riverview		76·6	170	—	—	—	—	e 36·9	40·6
Adelaide		77·0	180	—	—	—	—	e 43·2	45·7
Uccle		79·3	332	—	—	—	—	40·1	—
Melbourne		80·0	176	—	—	—	—	e 39·0	41·0
Christchurch		90·6	157	14 10	+51	—	—	e 37·5	39·1

Additional readings: Irkutsk i = +5m.58s. = PR_1 − 24s., e = +11m.50s. = SR_2 + 8s. Tashkent MN = +30·0m., MZ = +33·1m. Adelaide MN = +46·0m. Pulkovo e = +26m.16s. = SR_2 + 6s. Makeyevka MZ = +44·0m. Riverview MN = +41·2m.

Oct. 19d. 4h. 34m. 30s. Epicentre 35°·5N. 2°·5W. (as on 1922 Aug. 2d.).

$A = +\cdot813$, $B = -\cdot036$, $C = +\cdot581$; $D = -\cdot044$, $E = -\cdot999$; $G = +\cdot580$, $H = -\cdot025$, $K = -\cdot814$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Almeria	1·4	1	0 33	+12	i 0 56	+17	1·0	1·3
Granada	1·9	332	i 0 38	+ 9	0 59	+ 6	—	1·1
Malaga	2·0	308	0 38	+ 7	0 51	− 4	—	1·0
Alicante	3·2	30	0 45	− 5	i 1 7	−21	—	1·5
Toledo	4·5	340	e 1 33	+23	2 23	+19	i 2·6	2·8
Tortosa	5·8	24	—	—	—	—	e 3·7	4·8
Uccle	16·1	16	—	—	—	—	e 8·5	—
De Bilt	17·4	16	—	—	—	—	e 9·5	—
Baku	41·0	67	e 7 2	−61	—	—	—	—
Ekaterinburg	46·6	42	—	—	—	—	26·5	—

Additional readings: Almeria MZ = +1·5m. Toledo P = +1m.16s., i = +2m.4s.; epicentre 35°20′N. 3°40′W.

Oct. 19d. 6h. 28m. 0s. Epicentre 48°·5S. 162°·5E. (as on 1918 Sept. 16d.).

$A = -\cdot632$, $B = +\cdot199$, $C = -\cdot749$; $D = +\cdot301$, $E = +\cdot954$; $G = +\cdot714$, $H = -\cdot225$, $K = -\cdot663$.

The residuals suggest an epicentre nearly 1° further west.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Christchurch	8·6	59	—	—	—	—	e 4·7	6·9
Wellington	11·3	55	i 2 49	0	i 5 32	+30	e 6·6	8·6
Melbourne	16·6	304	—	—	e 6 24	−45	—	8·8
Riverview	17·0	326	e 3 54	−11	e 7 0	−18	e 8·0	8·3
Adelaide	22·3	299	—	—	(e 8 58)	−13	e 9·0	13·1
Tashkent	121·5	298	—	—	—	—	e 50·0	83·8
Ekaterinburg	134·5	311	—	—	—	—	71·0	—
Granada	164·8	227	—	—	—	—	e 88·0	92·0
Uccle	165·8	288	—	—	—	—	97·0	—

Additional readings: Wellington $PR_1 = +2$m.59s., $SR_1 = +5$m.46s., MN = +8·0m. Riverview MN = +8·8m.; $T_0 = 6$h.28m.2s. Adelaide MN = +11·6m.

Oct. 19d. 14h. 4m. 58s. Epicentre 34°·5N. 135°·0E.

$A = -\cdot583$, $B = +\cdot583$, $C = +\cdot566$; $D = +\cdot707$, $E = +\cdot707$; $G = -\cdot401$, $H = +\cdot401$, $K = -\cdot824$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Kobe	0·2	39	0 5	+ 1	—	—	0·2	0·3
Sumoto	0·2	214	e 0 5	+ 1	0 10	+ 4	0·2	0·3
Osaka	0·4	67	0 11	+ 5	—	—	0·2	0·8
Toyooka	1·1	352	0 16	− 1	—	—	0·6	0·6
Nagoya	1·7	67	0 26	0	(0 44)	− 4	0·7	0·8

Sumoto gives also P = +6s., S = +15s.

Oct. 19d. 20h. 48m. 30s. Epicentre 11°·0N. 83°·0W.

$A = +\cdot120$, $B = -\cdot974$, $C = +\cdot191$; $D = -\cdot993$, $E = -\cdot122$; $G = +\cdot023$, $H = -\cdot189$, $K = -\cdot982$.

Several residuals suggest a second shock about 30 sec. later than the first.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Balboa Hts.	E.	3·9	120	(0 58)	− 3	(1 38)	− 9	(1·8)	(1·9)
	N.	3·9	120	(1 20)	+19	(2 0)	+13	(2·3)	(3·3)
Merida		11·8	328	3 53	+57	6 24	+70	6·6	8·2
Vera Cruz		15·1	305	2 26·	−74	(6 50?)	+16	6·8?	8·4
Tacubaya		17·7	300	4 35	+22	7 50	+17	8·4	11·2
San Juan	E.	17·9	63	(i 4 23)	+ 7	(7 33)	− 5	7·6	7·9
Loyola	N.	20·0	342	e 4 50	+ 9	7 47	−36	8·8	—
St. Louis		28·3	348	e 6 18	+ 7	e 10 54	−10	e 18·5	19·5
Chicago	E.	31·0	354	—	—	—	—	14·8	19·2
La Paz		31·2	151	6 33	− 7	12 26	+32	16·6	20·1
Ann Arbor		31·3	0	e 7 24	?PR_1	e 11 36	−20	e 13·5	16·9
Ithaca		31·9	10	—	—	—	—	16·2	—
Toronto	N.	32·8	5	e 8 0	?PR_1	12 3	−18	18·9	21·0
Tucson		33·3	315	6 57	− 2	12 17	−12	—	—
Sucre		34·8	150	i 6 56	−15	i 12 58	+ 6	18·7	22·5
Ottawa		34·9	10	e 8 32	?PR_1	i 12 33	−21	e 14·2	20·3
Victoria		50·2	327	16 19	?S	(16 19)	− 2	24·8	34·8
San Fernando		72·9	55	—	—	21 18	+17	31·5	36·0
Malaga		74·3	55	11 24	−20	21 26	+ 8	—	—
Granada		74·9	55	i 11 51	+ 3	22 9	?PS	36·3	39·5
Edinburgh		75·2	35	—	—	e 21 30?	+ 2	39·5	42·5
Almeria		75·9	55	e 11 50	− 4	22 9	?PS	e 37·0	—
Oxford		76·0	40	—	—	e 21 42	+ 5	34·5	41·8
Kew		76·8	40	—	—	e 21 48	+ 1	33·5	—
Tortosa		78·0	50	—	—	22 1	+ 1	e 35·5	43·9

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Paris		78·8	42	—	—	e 22 10	0	34·5	43·5
Uccle		79·8	40	—	—	e 22 20	− 1	e 33·5	—
De Bilt		80·2	39	—	—	e 22 26	+ 1	e 37·5	47·1
Strasbourg		82·2	42	—	—	e 23 30?	?PS	36·5	44·0
Moncalieri		82·7	46	e 13 46	+72	23 23	?PS	38·4	—
Hamburg		82·9	37	e 12 30?	− 5	—	—	e 35·5	—
Vienna	z.	87·9	41	e 12 58	− 6	—	—	—	—
Leningrad		91·6	27	e 16 55	?PR_1	e 23 43	[+ 5]	36·6	53·5
Pulkovo		91·8	27	—	—	e 23 45	[+ 6]	35·5	49·8
Kucino		97·2	29	—	—	e 24 19	[+10]	43·3	48·3
Makeyevka		101·4	36	—	—	e 24 38	[+ 7]	45·5	60·3
Ekaterinburg		105·8	20	e 18 34	?PR_1	e 24 56	[+ 5]	43·5	58·3
Baku		112·6	36	e 19 26	?PR_1	e 29 16	?PS	47·5	61·7
Irkutsk		116·4	355	—	—	—	—	58·5	—
Tashkent		121·8	23	e 14 14	−97	—	—	e 57·5	68·4

Additional readings and notes: Balboa Heights readings have all been increased by 2m. San Juan eLN = +7·7m.; P is given as S and S as L. Loyola PN = +5m.11s., iN = +6m.23s. St. Louis eN = +6m.44s. = PR_1 − 12s., and +7m.5s. = PR_2 − 2s., iS = +11m.13s. Chicago SR_1N = +12m.53s., SR_1E? = +12m.56s., eSR_2N = +13m.47s., MN = +18·7m. La Paz iP = +6m.40s., PR_1 = +8m.1s., PR_2 = +8m.54s., L = +17·8m.; T_0 = 20h.47m.52s. Ann Arbor LN = +18·7m. Toronto iPN = +8m.2s., iSE = +12m.4s., ME = +18·2m. Tucson e = +7m.7s., PR_1 = +8m.8s., S_cSE = +13m.12s.; T_0 = 20h.48m.28s. and 20h.48m.43s. Sucre i = +7m.29s., PR_1 = +8m.9s., PR_2 = +9m.8s.; T_0 = 20h.47m.47s. Ottawa MN = +20·5m. San Fernando MN = +39·0m. Granada SPS = +21m.33s. Almeria i = +21m.40s. = [S] − 16s. Tortosa SN = +22m.7s. Paris MN = +35·5m. De Bilt eSR_1 = +27m.30s., eLN = +33·5m., MN = +37·0m., MZ = +43·0m. Leningrad e = +25m.27s. = PS + 0s., MZ = +49·6m., MN = +54·4m. Pulkovo ePR_1 = +16m.56s., e = +25m.28s. = PS − 1s., SR_1 = +30m.18s., MZ = +48·9m., MN = +58·7m. Kucino e = +27m.9s. = PS + 38s., +31m.49s. = SR_1 − 13s., and +33m.18s. Makeyevka MN = +47·6m., MZ = +55·2m. Ekaterinburg e = +18m.44s. = PR_1 − 6s, +28m.2s. = PS − 9s., and +34m.3s. = SR_1 + 13s., MZ = +61·2m., MN = +61·4m. Baku MZ = +64·6m. Tashkent e = +21m.20s. = PR_1 − 16s., +24m.5s. = PR_2 + 5s., +29m.30s. = S + 27s., +31m.12s., i = +32m.54s., and +38m.39s., e = +43m.30s. = SR_2 + 45s., and +57m.30s., MZ = +74·3m., MN = +74·4m.

Oct. 19d. Readings also at 1h. (near Wellington), 2h. (Uccle, Granada, and Ekaterinburg), 5h. (Tashkent and Ekaterinburg), 6h. (Granada), 7h. (near Mostar and near Tacubaya), 11h. (Kucino), 14h. (near Tacubaya), 16h. (Tashkent), 17h. (Ekaterinburg, Irkutsk, and Tashkent), 18h. (La Paz).

Oct. 20d. 1h. 41m. 20s. Epicentre 35°·2N. 136°·3E.

A = −·591, B = +·565, C = +·576; D = +·691, E = +·723; G = −·417, H = +·398, K = −·817.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya		0·5	93	−0 4	−12	(0 6)	− 8	0·1	0·1
Osaka		0·8	232	0 18	+ 6	(0 35)	+13	0·6	1·1
Kobe		1·1	240	0 15	− 2	(0 33)	+ 2	0·5	0·6
Toyooka		1·2	291	0 13	− 5	(0 28)	− 5	0·5	0·5
Sumoto		1·4	234	0 20	− 1	(0 46)	+ 7	0·8	1·3
Hukuoka	N.	5·1	253	e 1 46	+27	—	—	2·8	—

Additional readings: Nagoya MZ = +0·2m. Osaka MN = +0·6m. Sumoto MZ = +0·8m.

Oct. 20d. Readings also at 1h. (Tashkent), 3h. (Kucino and Ekaterinburg), 5h. (La Paz, Sucre, Irkutsk, and Nagasaki), 6h. (Kucino), 8h. (Nagasaki), 10h. (near Malabar), 16h. (near Tucson), 17h. (Moncalieri and Strasbourg), 18h. (near Mostar), 19h. and 22h. (Ekaterinburg).

Oct. 21d. 9h. 29m. 50s. Epicentre 45°·0N. 14°·8E. (as on 1926 Jan. 1d.).

A = +·684, B = +·181, C = +·707; D = +·255, E = −·967; G = +·684, H = +·181, K = −·707.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Laibach		1·1	349	0 23	+ 6	0 37	+ 6	—	0·8
Zagreb		1·2	45	e 0 10	− 8	i 0 28	− 5	i 0·5	0·6
Venice		1·8	284	0 16	−12	2 49	?	—	—
Graz		2·2	11	e 0 26	− 8	0 51	− 9	—	1·1
Florence		2·8	244	0 40	− 4	—	—	—	1·8
Innsbruck		3·3	313	e 0 48	− 4	i 1 36	+ 5	—	—
Vienna		3·4	19	e 0 58	+ 5	i 1 34	0	i 1·8	1·9
Rocca di Papa	N.	3·6	205	e 0 58	+ 2	—	—	—	—
Budapest		3·9	49	1 25	?S	(1 25)	−22	—	—
Belgrade		4·0	91	e 1 27	+25	e 2 21	+31	e 3·1	—
Chur	N.	4·2	297	e 0 57	− 8	i 1 50	− 5	—	—
Zurich		4·9	301	e 1 9	− 7	e 2 33	?L	(e 2·5)	—
Moncalieri		5·0	272	e 1 28	+11	e 2 52	?L	(e 2·9)	—
Strasbourg		6·0	309	e 1 55	+23	e 2 54	+10	4·2	—
Besançon		6·5	294	—	—	e 2 34	−23	—	3·5
Uccle		9·1	313	—	—	—	—	e 4·8	—
Hamburg		9·2	342	—	—	—	—	e 4·2	—
Kucino		18·1	46	—	—	—	—	e 10·0	—

Additional readings: Laibach i = +26s.: epicentre 45°·0N. 14°·9E. Zagreb iPR$_1$NE = +15s., iPRNW = +19s., and several other i readings. Venice PE = +24s., PN = +36s. and +45s. Graz iP = +29s. Innsbruck iP = +51s. Vienna iE = +1m.19s., iEZ = +1m.41s. Rocca di Papa ePE = +1m.27s., ePN = +1m.34s., PR$_1$Z = +1m.58s., PR$_1$E = +2m.6s., PR$_1$N = +2m.10s. Strasbourg e = +2m.21s., i = +3m.14s., and +3m.20s.

Oct. 21d. Readings also at 1h. (Irkutsk and Victoria) 2h. (Christchurch, Wellington, Ekaterinburg, and Tashkent), 3h. (Ekaterinburg and near Mostar), 4h. (near La Paz and Sucre), 7h. (near Mizusawa), 8h. (La Paz, La Plata, and Sucre), 9h. (Ekaterinburg (2) and Kew), 12h., 13h., 15h., and 18h. (Nagasaki), 19h. (Victoria), 20h. and 21h. (Ekaterinburg), 23h. (Christchurch and Wellington).

Oct. 22d. 12h. 35m. 8s. Epicentre 36°·5N. 122°·0W.

(as on 1922 Aug. 18d.).

A = −·426, B = −·682, C = +·595; D = −·848, E = +·530; G = −·315, H = −·504, K = −·804.

See a paper by G. D. Mitchell: Bull. Seis. Soc. Amer., Vol. 18, No. 3, pp. 153, etc. The shock was felt at both San Francisco and Los Angeles, causing a stampede of "film stars" to the mountains.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Lick	Z.	0·9	18	i 0 16	+ 2	i 0 29	+ 4	—	—
Santa Clara	Z.	0·9	2	i 0 11	− 3	—	—	—	—
Berkeley		1·4	352	e 0 24	+ 3	i 0 42	+ 3	—	—
Tucson	E.	10·1	111	2 37	+ 6	e 4 58	+26	i 5·4	7·3
	N.	10·1	111	2 37	+ 6	e 5 8	+36	i 5·6	7·7
Spokane		11·6	15	i 2 53	0	i 5 4	− 5	i 6·2	—
Victoria	N.	11·9	355	2 53	− 5	—	—	6·5	8·4
Denver	E.	13·7	70	e 3 47	+25	i 6 7	+ 6	7·1	8·1
Saskatoon		19·0	30	i 4 39	+10	i 8 14	+12	e 10·2	11·6
Sitka	E.	22·4	341	—	—	e 9 14	+ 1	e 14·5	15·5
St. Louis		25·1	75	e 5 29	−10	e 9 49	−16	e 13·0	15·8
Tacubaya		26·3	124	6 1	+10	11 1	+33	13·0	18·3
Chicago	N.	27·0	68	—	—	i 10 30	−11	e 13·5	15·4
Ann Arbor		29·9	67	4 28	−119	e 10 28	−64	17·3	19·0

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Toronto	N.	32·6	65	—	—	e 12 4	−14	i 17·4	18·4
Honolulu	E.	34·8	256	—	—	—	—	e 14·8	18·9
Ithaca		35·2	66	—	—	e 15 22	?SR_1	18·3	19·8
Ottawa		35·5	61	—	—	i 12 44	−19	e 17·0	22·7
Cheltenham	N.	35·5	73	—	—	—	—	e 17·5	—
Fordham		37·3	70	(7 19)	−13	(e 13 38)	+10	(i 20·3?)	(21·9)
Harvard	N.	39·1	65	—	—	—	—	19·7	22·4
Apia		68·8	233	—	—	—	—	—	30·9
La Paz		73·4	127	11 48	+10	e 22 12	+ 5	37·9	43·0
Edinburgh		74·0	30	—	—	e 22 4	+50	39·9	46·9
Stonyhurst		75·7	33	—	—	22 22	+48	40·9	45·4
Sucre		77·2	127	i 12 11	+ 9	i 21 55	+ 7	39·9	44·5
Oxford		77·7	33	—	—	i 22 11	+14	e 38·9	48·1
Upsala	N.	78·1	20	e 12 9	+ 1	e 22 0	− 1	—	49·4
Kew		78·4	32	e 12 11	+ 2	22 7	+ 2	38·9	45·0
De Bilt		80·2	30	—	—	—	—	e 40·9	—
Uccle	Z.	80·8	30	e 12 26	+ 2	e 22 33	0	e 40·9	—
Hamburg		80·8	26	e 12 26	+ 2	i 22 34	+ 1	e 41·9	48·9
Leningrad		80·8	13	e 12 20	− 4	i 22 32	− 1	38·8	46·7
Pulkovo		81·1	13	e 12 19	− 7	i 22 30	− 6	38·9	41·4
Paris		81·5	33	e 12 31	+ 3	e 23 25	+44	39·9	46·9
Irkutsk		82·5	334	i 12 31	− 2	22 50	− 2	42·9	—
Strasbourg		83·9	30	12 41	0	e 23 12	+ 4	41·9	57·9
Besançon		84·3	32	—	—	—	—	45·9	—
Cheb		84·6	26	—	—	—	—	44·9	53·9
Toledo	N.E.	84·8	42	—	—	—	—	43·1	48·6
Zurich		85·2	30	e 12 43	− 6	e 23 3	−18	—	—
San Fernando		85·9	47	—	—	—	—	40·9	—
Chur		86·0	30	e 12 53	0	—	—	—	—
Kucino		86·2	10	—	—	e 23 17	−15	40·1	45·6
Tortosa	N.	86·5	40	—	—	—	—	e 42·9	—
Ekaterinburg		86·7	358	i 12 50	− 7	23 16	[+ 9]	37·9	47·5
Granada		86·8	45	i 13 2	+ 4	e 23 35	− 4	e 41·9	46·9
Moncalieri		86·8	32	e 11 40	−78	23 35	− 4	43·0	53·3
Vienna		87·5	26	—	—	e 22 52?	−55	e 49·9	56·9
Almeria		87·7	44	13 7	+ 4	e 23 54	+ 5	—	47·6
Graz		88·2	27	—	—	e 23 47	− 7	44·9	53·8
Budapest		89·1	24	—	—	e 23 22	[+ 1]	e 48·4	—
Florence	Z.	89·2	30	e 17 57	?PR_1	e 25 52	?PS	44·9	50·9
Zi-ka-wei		90·0	310	13 5	−11	25 29	+75	—	—
Makeyevka		93·6	13	e 17 11	?PR_1	e 23 58	[+ 8]	47·9	54·8
Wellington		96·9	222	—	—	—	—	e 48·9	—
Baku		102·7	6	e 18 22	?PR_1	e 24 53	[+16]	45·9	55·9

Additional readings: Lick iPEN = +17s. Santa Clara iPEN = +17s., iZ = +19s., iN = +20s. Berkeley iPEN = +25s., ePZ = +26s., PR_1Z? = +31s., PR_2 = +37s., iE = +40s. Tucson eEN = +2m.56s., eN = +3m.28s., eE = +3m.50s., Spokane iPEN = +2m.55s. and +2m.57s., iSN = +5m.14s., iEN = +7m.9s. Denver ePE = +4m.4s. Saskatoon MN = +12·6m.; T_0 = 12h.35m.19s. St. Louis SR_1N = +10m.46s., SR_2N? = +11m.17s., MN = +14·2m. Chicago ME = +17·4m. Ann Arbor eSR_1 = +13m.4s., eLN = +15·7m., MN = +17·7m. Toronto iSN = +12m.7s., LE = +19·9m. Honolulu eLN = +14·7m., MN = +18·7m. Ottawa eSR_2N = +15m.0s. = SR_1 − 9s., MN = +19·8m. Fordham i = (+11m.42s.), eN = (+15m.52s.) = SR_1 + 4s., and (+18m.26s.); T_0 = 12h.35m.30s.; all the readings have been increased by 2m. Harvard SR_1 = +16m.36s., eLE = +20·8m., ME = +24·4m. La Paz LN = +39·8m., MN = +43·6m.; T_0 = 12h.35m.22s. Kew MN = +46·9m. Leningrad i = +12m.25s. Pulkovo iP = +12m.24s., SR_1 = +26m.34s., SR_2 = +30m.52s., MNZ = +46·7m. Paris MN = +48·9m. Irkutsk e = +18m.45s. = PR_2 − 28s. Strasbourg eP = +12m.57s., PS = +23m.58s., MN = +50·6m. Cheb e = 12h.18m.32s. Toledo MNW = +48·8m. Kucino e = +23m.24s., +28m.37s., and +32m.40s., MN = +51·8m. Ekaterinburg i = +12m.55s., e = +14m.20s., +16m.12s. = PR_1 − 29s., and +18m.1s. = PR_2 − 50s., MN = +53·8m., MZ = +54·1m. Moncalieri MN = +53·5m. Zi-ka-wei PR_1 = +16m.42s. Makeyevka eP = +25m.37s. = PS − 13s., e = +35m.16s. = SR_2 − 26s., MZ = +63·0m. Baku e = +28m.13s. = PS + 38s., +41m.2s. = SR_1 + 0s., MN = +61·4m., MZ = +69·6m. S at the following stations is probably PS: Edinburgh, Stonyhurst, Paris, Florence, and Zi-ka-wei.

Oct. 22d. 13h. 35m. 22s. Epicentre 36°·5N. 122°·0W. (as at 12h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Lick		0·9	18	i 0 17	+ 3	i 0 28	+ 3	—	—
Santa Clara	Z.	0·9	2	i 1 1	+47	—	—	—	—
Berkeley	Z.	1·4	352	i 0 25	+ 4	i 0 40	+ 1	—	—
Pasadena		4·0	125	1 5	+ 3	—	—	—	—
Riverside		4·5	122	1 14	+ 4	i 2 7	+ 3	—	—
Tucson	E.	10·1	111	2 45	+14	—	—	5·4	7·3
	N.	10·1	111	e 2 43	+12	—	—	—	6·9
Spokane		11·6	15	i 2 52	− 1	e 4 51	−18	5·4	—
Victoria	N.	11·9	355	2 51	− 7	—	—	6·6	8·2
Saskatoon		19·0	30	i 4 33	+ 4	i 8 8	+ 6	i 10·1	11·2
Sitka	E.	22·4	341	—	—	e 9 12	− 1	e 14·4	15·4
St. Louis	N.	25·1	75	—	—	e 10 4	− 1	12·6	14·0
Tacubaya		26·3	124	6 2	+11	10 54	+26	13·4	18·1
Chicago		27·0	68	—	—	e 10 32	− 9	e 13·0	17·5
Ann Arbor		29·9	67	8 20	+113	e 13 2	+90	17·0	18·8
Toronto	N.	32·6	65	—	—	e 12 8	−10	i 17·9	18·9
Honolulu	E.	34·8	256	—	—	—	—	e 14·8	18·8
Ithaca		35·2	66	—	—	i 14 8	+70	18·2	19·8
Ottawa		35·5	61	e 7 2	−16	e 12 42	−21	e 16·4	22·3
Cheltenham	N.	35·5	73	—	—	—	—	e 18·5	—
Harvard	N.	39·1	65	—	—	—	—	19·6	22·4
Azores		72·9	55	45 38?	?L	—	—	(45·6)	51·6
La Paz		73·4	127	e 11 49	+11	—	—	38·6	42·3
Edinburgh		74·0	30	—	—	e 22 2	+48	38·6	47·6
Stonyhurst		75·7	33	—	—	23 12	+98	40·6	45·1
Sucre		77·2	127	i 11 59	− 3	i 21 58	+ 7	39·6	44·4
Oxford		77·7	33	—	—	—	—	38·5	48·0
Upsala		78·1	20	—	—	e 21 58	− 3	—	47·2
Kew		78·4	32	e 11 38?	−31	—	—	38·6	47·0
De Bilt		80·2	30	—	—	—	—	e 40·6	48·3
Uccle		80·8	30	—	—	e 22 36	+ 3	e 40·6	—
Hamburg		80·8	26	—	—	e 22 38	+ 5	e 42·6	48·6
Leningrad		80·8	13	e 12 25	+ 1	—	—	36·8	46·6
Pulkovo		81·1	13	e 12 23	− 3	e 22 30	− 6	38·6	46·3
Paris		81·5	33	e 16 20	?PR_1	e 22 51	+10	41·6	46·6
Irkutsk		82·5	334	—	—	—	—	43·6	48·9
Strasbourg		83·9	30	e 12 38?	− 3	e 22 56	−12	41·6	57·6
Besançon		84·3	32	—	—	—	—	45·6	—
Cheb		84·6	26	—	—	—	—	e 45·6	53·6
Toledo	N.W.	84·8	42	—	—	22 21	−56	—	49·5
San Fernando		85·9	47	—	—	—	—	40·6	—
Kucino		86·2	10	—	—	—	—	40·4	45·5
Ekaterinburg		86·7	358	12 49	− 8	23 15	−23	39·1	47·4
Granada		86·8	45	—	—	—	—	e 42·6	47·6
Moncalieri		86·8	32	e 10 34	−144	23 36	− 3	43·2	—
Vienna		87·5	26	—	—	—	—	e 49·6	56·6
Almeria	Z.	87·7	44	—	—	—	—	—	48·5
Graz		88·2	27	—	—	—	—	50·6	—
Budapest		89·1	24	—	—	e 24 8	+ 4	e 48·4	—
Florence	Z.	89·2	30	—	—	—	—	44·6	49·6
Makeyevka		93·6	13	—	—	e 26 30	?PS	49·1	65·8
Wellington		96·9	222	—	—	—	—	e 48·6	—
Tashkent		101·5	351	—	—	—	—	—	69·0
Baku		102·7	6	—	—	—	—	47·6	55·7

Additional readings: Lick iP = +20s. Santa Clara iPEN = +1m.9s., iZ = +1m.15s., iEN = +1m.16s. and +1m.46s. Pasadena PR_1 = +1m.14s., PS = +1m.21s. Riverside PR_1 = +1m.25s. and +1m.38s. Berkeley $PR_1Z?$ = +26s. Tucson eE = +3m.22s., +4m.13s., and +5m.0s., eN = +3m.55s., and +5m.13s. Spokane i = +2m.55s., iS = +4m.52s. Saskatoon MN = +12·6m.; T_0 = 13h.35m.27s. St. Louis SR_1N = +11m.0s., ME = +15·7m. Chicago eN = +9m.51s. and +11m.50s., = SR_1 − 2s., MN = +15·6m. Ann Arbor eSR_1 = +14m.8s., eLN = +15·5m., MN = +17·5m. Toronto ME = +20·8m. Honolulu eLN = +14·6m., MN = +15·9m. Ottawa eSR_1N = +15m.0s. = SR_1 − 9s., MN = +19·6m.; T_0 = 13h.35m.15s. Harvard SR_1N = +16m.30s., ME = +24·1m. Sucre iPS = +22m.35s. Kew MN = +45·8m. De Bilt MZ = +47·2m., MN = +47·4m. Pulkovo MZ = +46·7m., MN = +46·8m. Paris MN = +49·6m. Irkutsk MZ = +49·1m. Strasbourg PS = +23m.46s., MN = +50·6m. Toledo MNE = +48·6m. Kucino e = 13h.28m.44s., MN = +51·8m. Ekaterinburg MN = +53·8m., MZ = +54·0m. Makeyevka e = +36m.10s. = SR_2 + 28s., MN = +58·7m., MZ = +62·8m. Tashkent MN = +71·3m. Baku MN = +65·1m., MZ = +69·6m.

Oct. 22d. 14h. 41m. 50s. (I) } Epicentre 36°·5N. 122°·0W. (as above).
16h. 3m. 50s. (II) }

		Δ	Az.	P.	O−C.	S.	O−C.	L.
		°	°	m. s.	s.	m. s.	s.	m.
I Lick		0·9	18	i 0 15	+ 1	i 0 24	− 1	—
II		0·9	18	e 0 14	0	i 0 27	+ 2	—
I Santa Clara		0·9	2	i 1 13	+59	i 1 22	+57	i 1·9
II		0·9	2	i 1 13	+59	i 1 23	+58	—
I Berkeley	z.	1·4	352	i 0 24	+ 3	i 0 37	− 2	—
II	z.	1·4	352	i 0 22	+ 2	i 0 39	0	0·9
I Pasadena		4·0	125	1 4	+ 2	1 58	+ 8	—
II		4·0	125	e 1 6	+ 4	1 52	+ 2	—
II Tucson		10·1	111	—	—	—	—	e 5·5

Additional readings: Lick I iSNZ? = +27s., II PR_1 = +18s., PR_2 = +20s. Berkeley I PR_1Z = +27s., II iPNZ = +24s., PR_1NZ = +27s. Pasadena I PS = +1m.13s., PR_1 = +1m.14s.

Oct. 22d. 16h. 44m. 5s. Epicentre 40°·5N. 45°·0E. (as on 1923 May 12d.).

A = +·538, B = +·538, C = +·649; D = +·707, E = −·707;
G = +·459, H = +·459, K = −·760.

According to a Reuter's telegram printed in *The Times* for 1926 Oct. 25d, "At Leninakan (Alexandrapol) 15 persons were killed and 80 seriously injured, while in the district round about 300 persons were killed and 300 injured. Twelve villages were badly damaged, six of them being almost completely destroyed."

There is this quaint addition: "A telegram from the Seismographic Station at Tiflis states that the earthquake was due to a collision between massive mountain layers."—*Reuter*.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Baku		3·7	91	e 1 29	+31	2 48	+66	—	6·2
Piatigorsk		3·9	338	e 1 4	+ 3	e 1 51	+ 4	—	—
Makeyevka		9·0	328	e 1 32	−44	e 3 58	− 5	4·9	14·2
Kucino		16·0	345	e 3 52	0	6 48	− 7	8·7	—
Athens	E.	16·7	268	—	—	e 6 25	−46	e 10·1	10·3
Tashkent		18·3	80	i 7 39	?S	(i 7 39)	− 8	e 13·9	19·2
Ekaterinburg		19·3	26	i 4 42	+ 9	i 8 22	+14	10·4	15·2
Budapest	E.	19·8	299	e 4 25	−14	—	—	—	—
Pulkovo		21·4	340	i 4 54	− 4	8 46	− 7	11·4	13·2
Leningrad		21·6	340	4 56	− 4	e 8 50	− 7	11·8	13·2
Vienna		21·7	300	e 4 59	− 2	e 8 55?	− 4	—	18·9
Florence	z.	25·1	289	e 10 10	?S	(e 10 10)	+ 5	—	16·9
Upsala	N.	25·8	328	—	—	e 9 55?	−23	—	—
Hamburg		26·9	311	—	—	e 7 55?	?	e 15·2	18·3
Strasbourg		27·5	300	—	—	e 10 55?	+ 5	—	—
Moncalieri		27·5	292	—	—	—	—	e 17·4	—
De Bilt		29·4	307	—	—	(e 11 55?)	+31	e 11·9	—
Uccle		29·8	304	—	—	(e 10 55?)	−36	e 10·9	—
Kew		32·7	305	—	—	—	—	15·9	—
Stonyhurst		34·2	307	(e 8 55?)	+108	—	—	e 19·0	—
Irkutsk		41·3	53	—	—	e 14 33	+ 8	e 23·6	—
Hong Kong		60·2	86	—	—	—	—	—	56·9
Manila		70·0	89	—	—	—	—	—	55·9

Additional readings and notes: Baku iP = +1m.46s. Piatigorsk eP = +1m.14s. Makeyevka i = +5m.50s., MZ = +9·7m., MN = +10·3m. Tashkent MZ = +15·2m., MN = +15·4m. Ekaterinburg MN = +13·4m., MZ = +15·6m. Budapest eN = +6m.25s. Pulkovo i = +4m.56s., MN = +13·3m. Leningrad i = +4m.59s. Vienna iE = +8m.7s. Hamburg MN = +20·6m. Stonyhurst i = +21m.57s.; each reading is given as a separate shock.

Oct. 22d. 17h. 20m. 52s. (I) } Epicentre 2°·4S. 98°·8E. (given by Batavia).
18h. 39m. 0s. (II) }

$A = -\cdot153$, $B = +\cdot987$, $C = -\cdot042$; $D = +\cdot988$, $E = +\cdot153$;
$G = +\cdot006$, $H = -\cdot041$, $K = -\cdot999$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
I Batavia	8·9	116	i 3 59	?S	(i 3 59)	− 2	—	—
II	8·9	116	i 2 2	−13	(i 4 15)	+14	—	—
I Phu-Lien	24·5	18	e 5 33	0	e 9 43	−11	11·6	—
II	24·5	18	e 5 24	− 9	e 9 50	− 4	13·0	—
II Kodaikanal	24·8	301	e 13 18	?L	—	—	(e 13·3)	—
II Manila	27·8	52	—	—	—	—	—	16·0
II Hong Kong	28·9	30	—	—	—	—	—	20·5
I Tashkent	51·3	332	(i 9 10)	− 5	(i 16 19)	−16	—	(25·0)
II	51·3	332	(i 9 14)	− 1	(i 16 35)	0	(e 29·5)	(31·5)
I Irkutsk	54·9	4	e 9 55	+17	e 17 17	− 3	30·1	—
II	54·9	4	e 9 38	0	e 17 22	+ 2	30·0	35·8
II Baku	61·8	320	—	—	—	—	32·0	—
I Ekaterinburg	66·7	340	11 2	+ 6	e 19 41	− 5	33·1	—
II	66·7	340	i 11 2	+ 6	19 55	+ 9	33·0	—
II Uccle	94·7	322	—	—	—	—	e 56·0	—

Additional readings: Batavia I i = +8m.31s., II i = +3m.35s. Tashkent I MNZ = (+34·1m.), II i = (+13m.2s.) = PR_2 +20s., e = (+20m.30s.) = SR_1 +0s. and (+21m.36s.) = SR_2 −24s., MZ = (+32·2m.), MN = (+32·6m.); all the readings have been diminished by 3m. Irkutsk II MZ = +35·9m.

Oct. 22d. 19h. 59m. 20s. Epicentre 40°·5N. 45°·0E. (as at 16h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Baku		3·7	91	i 1 28	+30	i 2 26	+44	i 3·1	8·8
Piatigorsk		3·9	338	i 1 7	+ 6	1 56	+ 9	2·2	2·5
Makeyevka		9·0	328	i 2 16	0	4 3	0	5·7	6·0
Helwan		15·4	231	e 3 47	+ 3	6 40	− 1	—	10·6
Kucino		16·0	345	i 3 52	0	i 7 2	+ 7	8·8	8·9
Athens	E.	16·7	268	e 3 59	− 2	e 7 11	0	—	10·4
	N.	16·7	268	e 3 59	− 2	i 7 16	+ 5	i 9·1	10·0
Tashkent		18·3	80	i 6 48	+147	i 10 26	+159	14·0	15·7
Ekaterinburg		19·3	26	i 4 42	+ 9	i 8 21	+13	9·7	15·2
Budapest		19·8	299	4 35	− 4	8 17	− 2	e 11·2	15·5
Pulkovo		21·4	340	i 4 55	− 3	8 44	− 9	11·7	14·1
Leningrad		21·6	340	i 4 57	− 3	e 8 47	−10	11·8	13·3
Vienna		21·7	300	4 55	− 6	8 52	− 7	—	17·7
Zagreb		21·7	294	e 4 57	− 4	e 8 54	− 5	i 15·4	—
Graz		22·1	297	i 5 3	− 3	(9 7)	0	—	—
Laibach		22·7	294	i 5 9	− 4	e 9 17	− 2	—	—
Pompeii		23·0	281	e 5 40	+23	—	—	—	—
Rocca di Papa	E.	24·2	284	e 5 28	− 2	e 10 1	+13	—	—
	N.	24·2	284	e 4 54	−36	e 9 41	− 7	—	10·1
	Z.	24·2	284	e 4 48	−42	e 9 36	−12	—	10·7
Cheb		24·6	304	e 5 30	− 4	i 9 51	− 4	e 12·7	17·7
Innsbruck		25·0	297	5 25	−13	9 48	−15	—	—
Florence	Z.	25·1	289	5 36	− 3	9 55	−10	—	12·0
Upsala		25·8	328	e 5 39	− 7	e 10 8	−10	e 13·7	16·4
Chur		26·2	296	5 41	− 9	10 14	−12	—	—
Ravensburg	E.	26·2	298	e 5 40	−10	e 10 26	0	e 10·7	11·0
Hohenheim	E.	26·5	300	i 5 50	− 3	e 10 16	−16	e 10·8	20·1
	N.	26·5	300	e 5 30	−23	e 10 0	−32	—	—
Hamburg		26·9	311	e 5 49	− 8	e 10 18	−21	e 14·7	18·3
Zurich		26·9	297	e 5 46	−11	e 10 38	− 1	—	—
Strasbourg		27·5	300	e 5 52	−11	11 16	+26	e 14·2	18·7
Moncalieri		27·5	292	5 58	− 5	10 24	−26	14·1	19·3
Simla	N.	27·5	100	11 4	?S	(11 4)	+14	(13·3)	17·9
Besançon		28·6	297	e 6 4	−10	e 11 11	+ 1	18·7	—
De Bilt		29·4	307	e 6 16	− 6	e 11 12	−12	e 13·7	23·5
Uccle		29·8	304	e 6 16	−10	e 11 11	−20	e 13·7	—
Paris		30·9	300	e 11 8	?S	(e 11 8)	−42	17·7	24·7
Bergen		31·4	323	i 5 32	−70	—	—	i 17·4	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Bombay		32·2	126	6 51	+ 1	e 12 6	− 5	e 17·9	23·8
Kew		32·7	305	—	—	e 11 52	−27	14·7	26·0
Oxford		33·4	305	—	—	12 2	−28	17·2	23·5
Tortosa	N.	33·4	284	—	—	(e 11 40?)	−50	e 11·7	21·5
Stonyhurst		34·2	307	—	—	e 12 22	−21	21·9	25·7
Edinburgh		34·7	313	—	—	e 12 40?	−11	—	23·7
Hyderabad		36·9	119	13 27	?S	(13 27)	+ 5	21·9	22·8
Granada		37·5	280	i 7 53	+19	e 14 22	+51	e 19·7	24·7
San Fernando		39·7	280	—	—	—	—	16·7	25·7
Lisbon		41·0	285	—	—	—	—	—	26·4
Irkutsk		41·3	53	8 8	+ 3	14 32	+ 7	22·7	—
Hong Kong		60·2	86	—	—	—	—	—	41·5
Manila		70·0	89	—	—	—	—	—	47·7
Cape Town		78·3	203	—	—	—	—	—	42·7
Ottawa		79·1	322	e 3 4	?	e 22 10	− 3	e 34·7	—
Toronto	N.	82·1	323	—	—	—	—	e 40·3	—

Additional readings: Piatigorsk i = +1m.13s., +1m.21s., and +1m.25s., e = +1m.15s. Makeyevka MZ = +5·8m., MN = +10·9m. Kucino i = +4m.7s. and +4m.20s., MN = +9·8m. Tashkent MN = +20·2m. Ekaterinburg i = +8m.12s. and +8m.15s., MN = +13·4m., MZ = +14·8m. Budapest iE = +4m.42s. and +5m.1s., MN = +19·7m. Pulkovo MN = +13·1m., MZ = +13·2m. Vienna PR_1 = +5m.29s. Zagreb e = +6m.14s. and +9m.51s. Graz S = +15m.2s., SR_1 = +20m.23s., S is given as PR_1. Upsala MN = +18·8m. Ravensburg iPR_1E = +6m.50s., iPR_2E = +6m.54s. Hohenheim iPR_1N = +6m.24s., iPR_2N = +6m.29s. Hamburg iE = +7m.40s., MZ = +19·3m., MN = +20·7m. Strasbourg e = +7m.18s. = PR_2 +19s., SR_1 = +13m.10s., SR_2 = +13m.30s. Simla PE = +11m.10s., ME = +20·1m., SN is given as PN and LN as SN. De Bilt MN = +16·6m., MZ = +23·9m. Paris eS = +14m.5s. = SR_2 +7s., MN = +22·7m. Irkutsk PR_1 = +9m.46s.

Oct. 22d. 23h. 53m. 54s. Epicentre 42°·0N. 22°·5E. (as on 1925 Jan. 15d.).

A = +·687, B = +·284, C = +·669; D = +·383, E = −·924;
G = +·618, H = +·256, K = −·743.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Belgrade		3·2	333	e 0 51	+ 1	i 1 32	+ 4	—	2·2
Athens		4·2	165	e 1 1	− 4	—	—	—	2·4
Zagreb		6·0	312	e 1 22	−10	i 2 57	+13	—	—
Laibach		7·0	309	e 1 49	+ 3	i 3 35	+25	—	5·0
Vienna	z.	7·6	328	e 2 5	+10	e 3 59	+33	—	4·1
Florence		8·4	286	e 1 36	−31	—	—	—	—
Innsbruck		9·5	308	e 3 14	+51	i 4 23	+ 7	e 4·8	—
Chur		10·4	301	e 2 7	−29	—	—	—	—
Ravensburg		10·8	307	e 1 46	−55	—	—	e 5·5	—
Moncalieri		11·1	291	e 2 51	+ 5	—	—	7·1	—
Zurich	z.	11·2	303	e 2 11	−36	—	—	—	—
Hohenheim		11·5	310	—	—	—	—	e 5·6	—
Strasbourg		12·3	307	e 3 21	+18	e 5 35	+ 9	—	—
Makeyevka		12·5	57	6 22	?	—	—	(6·4)	—
De Bilt		15·5	317	—	—	—	—	e 9·1	—
Kew		18·1	309	—	—	—	—	6·1	—
Ekaterinburg		28·4	45	5 51	−21	—	—	13·1	—
Tashkent		34·6	75	—	—	—	—	e 22·1	25·9

Additional readings: Belgrade eP = +52s., eS = +1m.33s., MN = +1·9m. Zagreb e = +2m.2s., eS = +2m.27s., i = +2m.39s., iSR_2 = +2m.53s., i = +3m.12s. +3m.22s., and +3m.49s. Laibach i = +2m.35s. and +3m.4s. Chur i = +3m.35s. Ravensburg eE = +2m.38s., +2m.53s., +4m.4s., and +5m.24s. Strasbourg e = +4m.28s. Makeyevka eS = +8m.18s., L = +9·2m.

Oct. 22d. Readings also at 1h. (Nagasaki), 2h. (Chur and Zurich), 5h. (Riverside and Pasadena), 6h. and 8h. (Pasadena), 10h. and 11h. (Nagasaki), 12h. (near Lick), 17h. (near Athens), 18h. (near Sucre and La Paz), 19h. (near Lick), 22h. (Ekaterinburg and near Sucre).

Oct. 23d. 1h. 58m. 40s. Epicentre 40°·0N. 20°·0E.

(as on 1924 Nov. 13d.).

A = +·720, B = +·262, C = +·643; D = +·342, E = −·940; G = +·604, H = +·220, K = −·766.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Athens		3·6	123	1 18	+22	2 12	+33	i 2·3	3·0
Mostar		3·7	335	0 58	0	1 14	−28	—	2·0
Pompeii		4·2	281	e 0 30	−35	e 1 20	−35	—	2·7
Naples	E.	4·5	283	e 0 20	−50	e 1 20	−44	—	2·3
Belgrade		4·8	4	i 1 12	− 2	i 2 24	+13	—	3·3
Rocca di Papa		5·8	291	e 1 27	− 3	e 2 45	+ 6	i 3·5	3·8
Zagreb		6·5	335	1 47	+ 8	i 2 50	− 7	i 3·4	—
Laibach		7·2	328	e 1 41	− 8	i 3 16	+ 1	i 3·8	4·6
Budapest		7·5	355	1 50	− 4	2 30	+ 6	e 3·8	—
Florence		7·5	303	1 50	− 4	—	—	—	3·6
Graz		7·8	337	i 2 10	+12	—	—	3·8	4·4
Venice		7·8	316	—	—	—	—	—	5·3
Vienna		8·6	344	e 2 12	+ 2	4 23	?L	(4·4)	5·3
Innsbruck		9·6	322	e 2 22	− 2	i 4 55	?L	(i 4·9)	5·4
Moncalieri		10·3	303	2 30	− 4	4 44	+ 7	6·4	8·8
Ravensburg	E.	10·8	320	e 3 4	+23	—	—	e 5·0	6·1
Cheb		11·4	335	e 4 41	?S	(e 4 41)	−23	(i 6·0)	6·3
Hohenheim	E.	11·6	322	—	—	e 5 12	+ 3	e 5·8	7·0
	N.	11·6	322	e 2 54	+ 1	e 5 16	+ 7	e 5·9	6·6
Strasbourg		12·2	318	e 3 10	+ 8	e 5 41	+17	6·3	7·8
Besançon		12·4	310	—	—	e 7 12	?L	9·2	—
Potsdam		13·3	341	e 5 32	+135	i 6 52	+61	e 7·1	7·7
Tortosa		14·8	279	—	—	—	—	e 8·3	10·9
Hamburg		15·2	337	e 4 20	+38	e 7 20	+43	8·3	10·3
Paris		15·2	311	e 4 14	+32	—	—	8·8	11·3
Makeyevka		15·2	52	i 3 44	+ 2	e 5 30	−67	7·4	8·9
Uccle		15·3	320	—	—	—	—	e 7·3	—
De Bilt		15·8	325	—	—	—	—	e 7·3	9·1
Alicante		16·0	271	—	—	7 8	+13	10·4	12·2
Almeria		17·7	267	i 4 24	+11	7 47	+14	10·5	11·2
Kew		18·1	316	—	—	e 7 32	−10	8·7	10·4
Toledo	N.W.	18·4	278	e 3 27	−55	7 41	− 8	e 8·3	14·0
Granada		18·6	269	i 4 30	+ 6	i 7 59	+ 6	e 10·8	12·8
Oxford		18·8	316	—	—	(7 43)	−15	7·7	13·4
Kucino		19·3	32	e 4 35	+ 2	—	—	9·8	—
Malaga		19·4	278	4 13	−21	8 9	− 1	9·5	13·2
Upsala		19·9	356	—	—	—	—	e 11·8	—
Stonyhurst		20·5	320	e 3 10	−97	e 7 58	−36	12·3	15·3
San Fernando		20·8	269	—	—	—	—	10·8	14·3
Pulkovo		20·8	15	4 42	− 9	8 31	− 9	10·8	12·8
Leningrad		21·0	15	4 43	−10	e 8 33	−11	10·3	12·8
Edinburgh		22·0	324	—	—	e 9 20?	+15	—	15·3
Lisbon		22·5	276	—	—	—	—	—	14·5
Baku		22·7	79	e 5 23	+10	e 9 28	+ 9	e 14·3	16·4
Ekaterinburg		31·1	44	6 26	−13	11 24	−29	15·8	19·5
Tashkent		36·9	72	e 7 55	+26	12 31	−51	e 21·3	26·1
Irkutsk		56·3	47	—	—	—	—	34·3	—
Ottawa		66·2	310	—	—	—	—	e 33·3	—
Victoria		85·9	337	—	—	—	—	—	52·7

Additional readings: Athens P = +1m.34s. Belgrade iP = +1m.35s., i = +1m.56s. Rocca di Papa ePE = +1m.49s., iLN = +3·4m. Zagreb iP = +1m.55s. and +2m.19s., i = +3m.6s., iS = +3m.14s. Vienna iE = +3m.10s., and +3m.44s., iN = +3m.28s. and +3m.58s., MN = +4·5m., MZ = +5·0m. Innsbruck eNE = +3m.25s., eNW = +3m.43s. Moncalieri MN = +7·7m. Cheb gives S as P and L as S. Hohenheim eN = +1m.42s. Strasbourg eP = +3m.38s., MN = +7·1m. Paris MN = +8·3m. Makeyevka MZ = +8·5m., MN = +9·6m. De Bilt MZ = +10·5m. Toledo MNE = +13·2m. Oxford MN = +10·4m. Pulkovo MNZ = +12·7m. Baku MZ = +16·6m., MN = +16·8m. Ekaterinburg i = +6m.33s., MZ = +19·6m. Tashkent e = +8m.6s., +8m.17s., and +15m.14s., MN = +28·8m.

Oct. 23d. 10h. 31m. 24s. Epicentre 41°·0N. 44°·0E. (as on 1925 May 13d.).

A = +·543, B = +·524, C = +·656; D = +·695, E = −·719; G = +·472, H = +·456, K = −·755.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Piatigorsk	3·1	347	e 1 7	+18	e 1 41	+15	1·8	—
Baku	4·5	85	e 1 10	0	e 2 6	+ 2	3·2	3·7
Makeyevka	8·2	331	e 1 15	−49	e 2 56	−46	4·6	—
Kucino	15·3	347	—	—	—	—	e 8·2	—
Tashkent	19·0	81	e 5 36?	+67	—	—	e 8·6	10·6
Ekaterinburg	19·1	29	4 22	− 8	7 59	− 5	10·1	14·0
Pulkovo	20·6	340	—	—	7 36?	−60	—	—
Leningrad	20·8	340	(5 18)	+27	—	—	5·3	—

Additional readings: Baku e = +2m.46s., MN = +4·7m., MZ = +5·9m. Ekaterinburg MZ = +14·4m.

Oct. 23d. 14h. 30m. 18s. Epicentre 25°·0N. 93°·0E. (as on 1924 Jan. 30d.).

A = −·047, B = +·905, C = +·423; D = +·999, E = +·052; G = −·022, H = +·422, K = −·906.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Calcutta	E.	4·9	240	1 21	+ 5	—	—	2·7	—
	N.	4·9	240	1 24	+ 8	—	—	2·6	—
Simla	N.	15·2	297	e 7 36	?L	—	—	(e 7·6)	—
Hyderabad		15·5	244	6 30	?S	(6 30)	−14	7·8	9·0
Hong Kong		19·6	94	4 36	0	—	—	—	11·9
Bombay		19·6	256	8 12	?S	(8 12)	− 3	10·4	—
Tashkent		25·5	316	e 8 30	?	—	—	16·7	18·7
Taihoku	E.	25·8	84	—	—	—	—	e 13·6	—
Irkutsk		28·6	15	e 6 10	− 4	e 11 3	− 7	15·7	—
Baku		38·9	305	e 8 4	+19	e 14 18	+27	24·7	29·3
Ekaterinburg		39·4	331	7 42	− 8	13 45	−12	19·7	23·7
Makeyevka		48·5	316	—	—	e 15 58	− 2	25·7	31·4
Kucino		50·1	322	e 10 24	?	—	—	27·0	—
Pulkovo		54·9	328	—	—	e 17 22	+ 2	26·7	31·6
Leningrad		55·0	328	—	—	e 17 30	+ 9	28·3	32·7
De Bilt		69·2	320	—	—	—	—	e 37·7	41·2

Additional readings: Simla ePE = +8m.24s. Hyderabad S = +7m.30s. Bombay S = +9m.47s. Tashkent e = +12m.42s., MN = +18·1m. Baku MN = +26·8m., MZ = +32·1m. Ekaterinburg iP = +7m.53s., S = +13m.56s., MN = +23·6m., MZ = +25·3m. Makeyevka e = +18m.44s., +22m.44s., and +24m.32s., MN = +31·0m. Leningrad MZ = +35·6m., MN = +36·4m.

Oct. 23d. 21h. 27m. 32s. Epicentre 30°·2S. 75°·0E. (as on 1926 March 6d.).

A = +·224, B = +·835, C = −·503; D = +·966, E = −·259; G = −·130, H = −·486, K = −·864.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Tashkent	71·7	356	11 28	0	i 20 46	0	e 36·5	42·6
Baku	74·3	341	—	—	e 21 27	+ 9	38·5	—
Ekaterinburg	87·9	353	12 59	− 5	23 54	+ 3	42·5	—

No additional readings.

Oct. 23d. Readings also at 0h. (Ekaterinburg, Nagasaki, Sucre, and near La Paz), 1h. (near Nagasaki), 2h. (Baku, Nagasaki, and near Mostar), 4h. (Bergen, Nagasaki, Tashkent, and La Paz), 5h. (Tashkent and near Lick), 6h. (Nagasaki, Hong Kong, and near Taihoku), 7h. (Tashkent, Ekaterinburg, and near Lick), 9h. (La Paz and Sucre), 12h. (Baku), 13h. (near Mizusawa) 14h. (Victoria), 16h. (Toronto, Ottawa, and Victoria), 18h. (Irkutsk and Manila), 19h. (Ekaterinburg, Makeyevka, and Tashkent), 23h. (Tashkent).

Oct. 24d. 22h. 51m. 45s. Epicentre 36°·5N. 122°·0W. (as on Oct. 22d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Lick		0·9	18	i 0 15	+ 1	i 0 22	− 3	—	—
Santa Clara		0·9	2	i 0 9	− 5	i 0 28	+ 3	—	—
Berkeley		1·4	352	e 0 20	− 1	i 0 33	− 6	—	—
Pasadena		4·0	125	1 14	+12	1 50	0	—	—
Tucson	N.	10·1	111	—	—	—	—	e 5·8	6·2
Toronto	N.	32·6	65	—	—	—	—	e 18·4	—
Ottawa		35·5	61	—	—	—	—	e 19·2	—

Additional readings: Lick eE = +19s., iZ = +20s., iN = +21s., iS = +24s., and several other i readings. Santa Clara iPEN = +11s., iZ = +14s., iEN = +17s. Berkeley iPN = +21s., iP = +22s. Pasadena PR_1 = +1m.23s., S = +2m.22s. and +2m.33s.; T_0 = 22h.51m.49s. Tucson eE = +5m.56s.

Oct. 24d. Readings also at 1h. (near Malabar), 8h. (Kucino), 9h. (Tashkent), 11h. (Nagasaki), 12h. (Ekaterinburg, Makeyevka, and near Mostar), 13h. (Hyderabad, Bombay, Baku, Tashkent, and Nagasaki), 16h. (Mizusawa), 17h. (Ekaterinburg), 21h. (near Athens), 23h. (Apia).

Oct. 25d. 14h. 2m. 0s. Epicentre 41°·5N. 40°·5E. (as on 1925 June 30d.).

A = +·570, B = +·486, C = +·663; D = +·649, E = −·760; G = +·504, H = +·430, K = −·749.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Piatigorsk	3·1	34	e 1 0	+11	e 1 34	+ 8	1·8	2·0
Makeyevka	6·7	345	2 47	+65	—	—	5·0	6·1
Baku	7·2	96	1 58	+ 9	3 5	−10	3·6	—
Pulkovo	19·3	344	—	—	—	—	e 11·6	—
Leningrad	19·5	344	—	—	—	—	e 11·8	—
Ekaterinburg	20·1	33	4 42	0	8 22	− 3	10·5	—
Tashkent	21·5	81	—	—	i 11 21	?L	e 13·5	16·4

Additional readings: Baku e = +2m.39s. Makeyevka MN = +6·5m.

Oct. 25d. 15h. 38m. 40s. Epicentre 34°·0S. 73°·0W. (as on 1926 March 5d.).

A = +·242, B = −·793, C = −·559; D = −·956, E = −·292; G = −·163, H = +·535, K = −·829.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
La Plata		12·5	98	3 11	+ 5	5 26	− 6	6·4	—
Sucre		16·5	27	i 4 0	+ 1	i 7 3	− 4	8·8	10·4
La Paz		18·0	15	i 4 25	+ 8	i 7 40	0	9·9	12·1
San Fernando	E.	93·9	48	—	—	—	—	—	61·8
Uccle		108·6	41	—	—	—	—	e 57·3	—
De Bilt		109·7	41	—	—	—	—	e 60·3	—
Pulkovo		125·3	36	—	—	—	—	e 71·3	—
Leningrad		125·3	36	—	—	—	—	72·1	—
Baku		134·9	64	e 23 14	?PR_1	e 41 20?	?SR_1	e 71·3	—
Ekaterinburg		141·4	39	22 46	?PR_1	—	—	61·3	—
Tashkent		149·5	65	e 23 2	?PR_1	—	—	e 78·3	90·6
Irkutsk		161·6	5	—	—	—	—	e 90·3	—

Additional readings: Sucre i = +7m.6s. and +7m.33s. La Paz MN = +11·4m.; T_0 = 15h.38m.58s. San Fernando MN = +58·8m. Tashkent e = +36m.51s. and +46m.38s., MN = +95·1m. (Possibly all the readings are 5 min. too large ?)

Oct. 25d. Readings also at 0h. (Ekaterinburg and Tashkent), 1h. (Batavia), 2h. (Kew, De Bilt, Makeyevka, Baku, Ekaterinburg, and Irkutsk), 3h. (Ekaterinburg, Makeyevka (2), De Bilt, and Nagasaki), 7h. (Nagasaki), 8h. (Riverview and Nagasaki), 9h. (Ekaterinburg), 10h. (near Athens), 11h. (Reykjavik), 12h. (Irkutsk, Tashkent, Manila, Zi-ka-wei, and near Taihoku), 13h. (De Bilt, Uccle, Ekaterinburg, Pulkovo, Leningrad, and near Batavia), 16h. (Sucre and La Plata), 18h. (La Plata, Ekaterinburg, and Tashkent).

Oct. 26d. 1h. 59m. 0s. Epicentre 2°·7S. 138°·8E. (see 3h.).

A = −·752, B = +·658, C = −·047 ; D = +·659, E = +·752 ;
G = +·035, H = −·031, K = −·999.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	24·7	315	e 5 41	+ 6	(10 25)	+28	10·4	—
Adelaide	32·3	180	—	—	17 0?	?L	19·0?	19·6
Riverview	33·2	161	e 15 16	?L	e 17 15	?	e 18·3	20·5
Melbourne	35·6	172	e 8 30	?PR_1	—	—	18·5	19·4
Christchurch	50·7	149	(9 36)	+25	(16 48)	+21	(20·2)	(32·7)
Irkutsk	62·2	338	i 10 26	0	18 55	+ 4	32·0	—
Tashkent	76·6	315	i 14 56	+177	i 24 46	+182	e 41·0?	47·7
Ekaterinburg	85·8	327	12 42	−10	23 15	−13	34·0	52·9
Baku	91·0	311	e 13 2	−19	e 24 0	−24	e 44·0	—
Makeyevka	99·2	319	—	—	—	—	57·0	64·0
Pulkovo	101·5	331	—	—	e 32 45	?SR_1	51·0	61·9
Leningrad	101·5	331	—	—	—	—	54·0	63·2
De Bilt	117·4	330	—	—	—	—	e 60·0	—
Uccle	118·6	330	—	—	—	—	60·0	—
Toronto N.	126·9	34	—	—	—	—	65·4	—
Ottawa	127·7	30	—	—	—	—	e 63·5	—
La Paz	147·2	126	i 20 11	[+20]	—	—	—	—
Sucre	147·9	133	19 49	[− 4]	—	—	—	—

Additional readings and notes : Adelaide MN = +20·3m. Riverview SR_1 = +17m.31s., MN = +20·7m. ; if the readings are diminished throughout by 3 min. then +12m.16s. = S −12s., +14m.15s. = SR_1 −3s. and +14m.31s. = SR_2 −16s. Christchurch S was recorded as SR_1. ; all readings have been increased by 15m. Tashkent i = +15m.20s. = PR_2 +0s. and +17m.53s. = PR_2 −9s., e = +25m.6s., MN = +47·4m. Ekaterinburg MZ = +46·8m. Baku ePR_1 = +16m.48s. Makeyevka e = +40m.2s. = SR_1 +6s. and +47m.14s., MZ = +61·8m., MN = +66·7m. Pulkovo MN = +60·6m., MZ = +61·6m. Leningrad MZ = +63·1m., MN = +65·1m. Ottawa eLN = +65·4m.

Oct. 26d. 3h. 44m. 35s. Epicentre 2°·7S. 138°·8E.

(as at 1h., and given by De Bilt).

A = −·752, B = +·658, C = −·047 ; D = +·659, E = +·752 ;
G = +·035, H = −·031, K = −·999.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	24·7	315	i 5 25	−10	e 11 25	+88	i 17·3	18·9
Malabar	31·4	264	6 34	− 8	(13 0)	+62	13·0	—
Batavia	32·0	265	i 6 35	−12	i 13 15	+67	20·6	—
Adelaide	32·3	180	6 25	−26	i 11 25	−48	i 12·8	19·4
Taihoku	32·4	330	6 40	−12	(11 57)	−17	12·0	16·9
Riverview	33·2	161	i 6 38	−20	12 1	−27	e 15·7	16·9
Sydney	33·2	161	6 37	−21	12 1	−26	15·0	17·7
Hong Kong	34·7	318	6 56	−15	10 50	−121	12·5	18·3
Melbourne	35·6	172	i 7 1	−17	i 12 37	−27	i 18·5	18·9
Nagasaki	36·4	349	7 14	−11	12 59	−17	15·8	18·5
Hukuoka	37·1	350	7 22	− 9	13 8	−17	17·0	18·8
Sumoto	37·2	356	7 19	−13	9 10	?PR_1	12·1	16·3
Osaka	37·5	356	7 24	−10	13 5	−26	18·2	21·2
Kobe	37·5	356	7 21	−13	13 11	−20	18·4	23·1
Zi-ka-wei	37·7	338	i 7 25	−11	i 13 16	−18	—	19·5

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya		37·9	358	7 13	−24	13 0	−37	16·0	23·0
Toyooka		38·5	356	7 30	−12	13 20	−25	16·4	19·3
Suva		41·7	115	i 7 55	−14	i 13 55	−36	18·0	—
Mizusawa	E.	41·9	3	8 0	−10	14 9	−25	20·4	—
	N.	41·9	3	7 57	−13	14 10	−24	20·4	—
Ootomari		49·5	3	8 58	− 6	(16 3)	−10	16·0	20·4
Apia		50·1	105	9 56	+48	17 5	+45	25·1	27·4
Wellington	E.	50·4	145	i 8 56	−13	i 16 2	−22	i 21·6	27·4
	N.	50·4	145	i 8 54	−15	i 15 58	−26	i 21·6	28·2
Christchurch		50·7	149	—	—	—	—	58·2	62·2
Calcutta	E.	55·3	300	9 50	+ 9	17 30	+ 5	—	32·1
	N.	55·3	300	9 51	+10	17 37	+12	24·0	29·4
Colombo		59·6	280	10 20	+11	14 35	?PR_1	22·3	30·0
Irkutsk		62·2	338	i 10 31	+ 5	18 53	+ 2	29·4	35·4
Kodaikanal		62·5	283	i 10 43	+14	(i 19 37)	?PS	i 19·6	52·6
Hyderabad		62·8	291	i 10 35	+ 4	19 3	+ 5	31·0	37·2
Honolulu	E.	66·2	66	i 10 54	+ 1	i 19 43	+ 3	i 30·2	31·5
	N.	66·2	66	e 11 1	+ 8	i 19 40	0	i 26·9	31·9
Simla	E.	67·6	306	10 49	−13	19 43	−14	33·6	41·6
	N.	67·6	306	10 49	−13	19 43	−14	32·1	45·2
Bombay		68·3	292	11 8	+ 2	19 56	−10	35·5	40·2
Tashkent		76·6	315	i 15 1	+182	i 24 44	+180	—	—
Ekaterinburg		85·8	327	i 12 47	− 5	i 23 15	−13	32·4	41·9
Sitka	E.	90·0	33	—	—	i 23 32	[+ 4]	e 36·7	43·4
	N.	90·0	33	—	—	23 38	[+10]	36·6	45·4
Baku		91·0	311	i 13 12	− 9	i 24 13	−11	—	—
Piatigorsk		95·9	315	e 13 28	−20	24 44	−31	—	52·4
Victoria	E.	97·2	41	14 34	+39	25 14	−14	35·9	47·8
	N.	97·2	41	14 40	+45	25 19	− 9	—	47·9
Berkeley		98·6	52	e 13 51	−12	i 24 22	[+ 5]	e 40·7	—
Makeyevka		99·2	319	e 13 48	−18	25 24	−24	45·4	67·8
Lick		99·3	52	e 17 57	?PR_1	e 24 22	[+ 1]	e 32·2	45·8
Spokane		101·2	41	e 17 34	[−17]	24 14	[−16]	i 42·5	55·4
Pulkovo		101·5	331	i 13 59	−19	i 25 37	−33	45·4	54·0
Leningrad		101·5	331	i 14 0	−18	i 25 39	−31	39·4	62·4
Entebbe		106·3	270	14 43	+ 2	25 19	[+26]	—	—
Helwan		106·5	300	14 4	−38	25 1	[+ 7]	—	66·2
Johannesburg		107·3	241	—	—	25 25?	[+27]	—	62·4
Upsala		107·5	334	e 14 29	−17	—	—	e 44·4	57·3
Lemberg	E.	107·8	321	e 17 7	?	e 28 31	+83	e 41·9	67·5
	N.	107·8	321	e 16 55	?	e 28 1	+53	—	67·5
Tucson		108·6	56	17 56	[−21]	26 9	−66	49·2	51·7
Athens		111·2	310	17 37	?	e 28 50	+71	e 52·4	56·8
Belgrade		111·7	318	e 19 20	?PR_1	e 28 29	+46	52·3	63·4
Budapest		111·7	321	14 47	−19	22 2	?PR_2	e 34·9	70·1
Denver		111·7	47	e 17 42	?	—	—	46·4	55·4
Bergen		112·3	337	21 13	?PR_1	31 23	?	46·4	60·4
Vienna		113·0	322	e 14 44	−17	25 15	[− 7]	e 40·4	70·4
Cape Town		113·1	230	14 59	−13	29 6	+71	53·4	61·2
Mazatlan		113·8	65	—	—	36 25	?	52·7	—
Hamburg		114·1	330	e 15 0	−16	—	—	e 48·4	60·4
Graz		114·1	321	e 19 14	[+40]	e 29 18	+75	43·4	70·8
Zagreb		114·3	320	19 6	[+31]	i 29 43	+99	e 39·4	68·2
Cheb		114·6	325	e 18 41	[+ 5]	e 27 42	−25	e 51·4	64·4
Laibach		115·1	320	e 19 42	?PR_1	—	—	e 57·0	65·0
Gorje		115·2	321	19 51	?PR_1	28 55	+43	—	58·6
Innsbruck	N.W.	116·5	323	—	—	—	—	—	58·2
Venice		116·7	320	20 25?	?PR_1	—	—	—	—
Hohenheim		117·0	325	—	—	e 28 1	−25	e 51·8	65·6
Pompeii		117·2	315	e 18 4	[−41]	e 29 4	+36	—	64·4
Dyce		117·3	337	—	—	i 29 45	+77	49·4	64·9
Ravensburg	E.	117·3	325	—	—	—	—	e 55·4	68·6
Naples	E.	117·4	315	e 19 25?	[+40]	e 28 25?	− 4	45·4	60·4
De Bilt		117·4	330	15 12	−19	—	—	e 52·4	62·4
Chur		117·9	323	e 18 51	[+ 4]	—	—	—	—
Strasbourg		118·0	325	—	—	i 29 45	+71	e 35·4	69·4
Rocca di Papa		118·0	317	e 19 4	[+17]	e 29 46	+72	e 48·0	74·7
Zurich		118·1	323	e 18 54	[+ 7]	—	—	—	—
Florence		118·2	318	e 15 25?	−10	—	—	58·4	72·4
Uccle		118·6	330	e 15 17	−19	—	—	e 36·4	58·1
Edinburgh		118·7	336	i 20 27	?PR_1	—	—	38·4	65·8
Besançon		119·7	324	e 20 25	?PR_1	—	—	36·4	59·4
Moncalieri		119·8	322	i 20 22	?PR_1	30 59	?	44·0	75·3
Stonyhurst		119·8	334	—	—	—	—	56·8	62·4

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Kew		120·5	332	e 15 29	−16	—	—	37·4	57·7
Oxford		120·7	333	i 20 26	?PR_1	—	—	e 47·4	74·2
Paris		120·7	328	e 20 32	?PR_1	e 28 56	+ 1	37·4	59·4
Tacubaya		121·0	69	20 23	?PR_1	30 23	+86	56·0	57·6
Puy de Dôme		122·2	325	e 22 25?	?	—	—	e 42·4	71·5
St. Louis	N.	122·8	44	e 18 47	[−13]	e 25 44	[− 9]	e 51·4	60·5
Chicago		123·0	40	—	—	i 26 12	[+18]	e 48·7	60·1
Barcelona		125·1	320	e 20 50	?PR_1	e 32 18	?	e 42·2	67·7
Ann Arbor		125·2	36	19 31	[+25]	e 31 1	?	e 54·2	63·8
Bagnères		125·3	324	—	—	e 30 55	?	e 47·4	71·9
Tortosa	E.	126·5	321	e 20 49	?PR_1	31 17	?	e 53·4	73·4
	N.	126·5	321	e 20 59	?PR_1	31 18	?	53·8	71·8
Algiers		126·9	316	e 19 10	[− 1]	21 25?	?PR_1	48·4	80·4
Toronto	E.	126·9	34	i 14 9	−125	i 28 2	−97	57·5	64·8
	N.	126·9	34	e 19 37	[+26]	i 28 0	−99	57·5	69·7
Ottawa		127·7	30	i 21 10	?PR_1	i 28 9	−96	e 59·4	67·4
Alicante		128·6	319	e 20 25	?	32 33	?	42·8	76·4
Ithaca		129·3	33	e 21 20	?PR_1	e 28 17	−99	64·4	—
Toledo		129·9	322	e 19 18	[0]	32 43	?	e 44·4	77·7
Almeria		130·6	319	19 27	[+ 7]	34 0	?	60·6	65·5
Granada		131·2	319	21 20	?PR_1	i 26 41	?	59·8	84·9
Cheltenham	N.	131·4	37	—	—	e 28 32	?	61·1	68·4
Fordham		131·8	33	17 2	?	—	—	56·1	70·4
Malaga		132·0	319	e 18 59	[−24]	29 27	?	40·2	76·7
Harvard	E.	132·1	30	—	—	23 0	?PR_1	57·4	72·4
Rio Tinto		132·8	322	21 25?	?PR_1	—	—	—	26·4
San Fernando		133·3	320	—	—	23 0	?PR_1	59·9	127·4
Lisbon		133·6	324	e 19 35	[+ 8]	40 35	?SR_1	—	63·6
Halifax		133·6	21	e 21 43	?PR_1	—	—	e 61·9	73·4
La Plata		139·3	158	i 19 34	[− 4]	—	—	59·4	—
Azores		142·2	340	83 49	?L	—	—	(83·8)	103·2
La Paz	E.	147·2	126	i 19 49	[− 2]	33 19	?	69·5	97·8
	N.	147·2	126	i 19 54	[+ 3]	33 27	?	—	95·1
Sucre		147·9	133	i 19 50	[− 3]	i 33 33	?	72·2	92·0
San Juan	E.	150·9	55	19 55	[− 2]	30 19	?PR_3	72·1	73·9
	N.	150·9	55	20 1	[+ 4]	30 12	?PR_3	73·7	76·9

Additional readings: Manila iPR_1 = +7m.15s., iPS = +10m.28s. = S +31s. Batavia i = +8m.4s. and +16m.41s. Adelaide i = +9m.23s. Taihoku MN = +16·7m. Riverview iP = +6m.48s., PR_1 = +7m.21s., PR_2 = +7m.53s., PR_3 = +8m.6s., S = +11m.42s., MZ = +20·6m.; T_0 = 3h.44m.33s. Sydney PR_2 = +7m.55s., PS = +10m.55s. Hong Kong SR_1 = +11m.25s. Melbourne i = 3h.41m.42s. Hukuoka MN = +19·3m. Sumoto SR_1 = +11m.42s., MN = +18·6m. Kobe MN = +18·9m. Nagoya PR_1 = +8m.51s. Suva PR_1 = +9m.7s., PR_2 = +9m.37s., SR_1 = +16m.25s.; T_0 = 3h.44m.54s. Apia PR_1 = +11m.59s., SR_1 = +19m.59s., SR_2 = +22m.15s.; T_0 = 3h.45m.28s. Wellington, PR_2N = +11m.52s., PR_2E = +11m.57s., iE = +13m.57s., iN = +14m.0s. and +14m.47s., SR_1E = +19m.52s., SR_1N = +20m.2s.; T_0 = 3h.44m.31s. Irkutsk MZ = +32·5m., MN = +34·8m. Honolulu ePR_1E = +13m.7s., eSN? = +19m.25s.; T_0 = 3h.44m.43s. and 3h.44m.48s. Ekaterinburg iPR_1 = +15m.29s., iPR_2 = +17m.55s., i = +22m.35s. = [S] − 27s., MZ = +53·4m. Sitka PR_1E = +16m.41s., ePSE = +25m.1s., ePPSE? = +26m.13s., SR_1E = +30m.39s., eSR_2N? = +32m.31s. Baku iPR_1 = +17m.6s. Piatigorsk PR_1 = +17m.29s., PR_2 = +19m.42s., PPS = +26m.15s., SR_1 = +31m.30s. Berkeley eE = +17m.49s., eN = +19m.7s. and +24m.25s., iE = +26m.41s. = PS − 8s. and +32m.19s. = SR_1 − 1s. Makeyevka PR_1 = +18m.0s., S_4P_4S = +24m.26s., PS = +26m.28s., SR_1 = +32m.0s., SR_2 = +36m.31s., MN = +80·9m., MZ = +88·3m. Lick eSE? = +20m.15s. = PR_2 − 36s., eSE = +24m.26s., eN = +26m.55s. = PS + 0s., MN = +44·3m. Pulkovo iPR_1 = +18m.16s., PR_2 = +20m.39s., iS_4P_4S = +24m.34s. = [S] + 3s., PS = +27m.13s., e = +29m.37s., SR_1 = +33m.1s., MN = +49·4m., MZ = +53·8m. Spokane ePR_1 = +17m.57s., ePR_1E = +20m.41s., iE = +24m.33s. = [S] + 3s., eE = +25m.2s. Leningrad PR_1 = +18m.2s., PR_2 = +20m.39s., iS_4P_4S = +24m.36s., iPS = +27m.16s., iSR_1 = +32m.46s., SR_2 = +37m.4s., MN = +55·4m. Entebbe PR_1? = +19m.7s. = PR_1 + 25s. Helwan PR_1 = +18m.45s. Upsala ePR_1 = +18m.55s., eE = +25m.54s., eN = +26m.25s., ePS = +28m.18s., i = +29m.23s., eSR_1 = +34m.3s., eSR_2 = +38m.41s. Tucson PR_1 = +18m.54s., SPS = +25m.12s. = [S] + 9s., PSE = +28m.21s., PSN = +28m.44s., PPSE = +29m.31s., PPSN = +29m.45s., SR_1E = +34m.7s., SR_1N = +34m.21s., SR_2E? = +37m.40s., LN = +44·5m., MN = +64·4m. Athens eLN = +45·8m., MN = +50·4m. Belgrade ePN = +19m.23s., eN = +19m.47s., +21m.29s.

Continued on next page.

and +22m.52s. =PR_2+16s., MN = +67·7m. Budapest MN = +70·6m. Denver PR_2 = +20m.1s., SR_1 = +32m.38s., SR_2 = +37m.33s. Vienna PZ = +18m.44s., PR_1 = +19m.53s., i = +21m.5s., PR_2 = +22m.16s., PS = +29m.31s., SR_1 = +35m.15s., SR_2 = +40m.4s. Hamburg ePNZ = +18m.45s. =[P]+11s., iPR_1 = +19m.45s., PR_2 = +22m.25s., ePSE = +29m.19s., SR_1 = +35m.43s., eSR_2Z = +41m.25s., MN = +55·8m., MZ = +64·2m. Graz iP = +22m.24s. =PR_2−31s., ePS = +30m.14s., SR_1 = +36m.0s., MN = +56·0m. Zagreb e = +19m.57s. =PR_1+13s., +20m.7s., +21m.6s., +25m.32s. =[S]+5s., +26m.46s., and +27m.37s. Cheb i = +20m.6s., =PR_1+18s. and +29m.40s. =PS−8s., e = +35m.51s. = SR_1+11s. Hohenheim ePR_1 = +20m.3s., i = +22m.5s., ePR_2 = +22m.45s., eE = +30m.57s. =PS+44s., iSR_1E = +34m.49s., iSR_1N = +34m.57s., MN = +66·2m. Dyce PR_1 = +20m.8s. Ravensburg ePR_1E? = +19m.53s.?, ePR_2E = +22m.39s., ePSE? = +29m.41s., eE = +36m.3s. =SR_1−10s. De Bilt eZ = +19m.0s. =[P]+15s., iPR_1 = +20m.11s., MN = +57·4m., MZ = +69·2m. Strasbourg PR_1? = +20m.5s., MN = +68·4m. Rocca di Papa P = +20m.15s., eSE = +29m.47s. Zurich ePR_1 = +20m.13s., ePR_2 = +22m.56s. Florence iP = +18m.55s. =[P]+8s., PR_1 = +20m.55s. Uccle PR_1 = +20m.14s. Edinburgh i = +29m.57s., +31m.31s., and +37m.37s. Moncalieri MN = +77·9m. Stonyhurst PR_1 = +20m.25s., PR_2 = +23m.6s., PR_3 = +24m.55s., PS = +30m.16s., SR_1 = +36m.36s., L = +61·1m. Kew PR_1 = +20m.30s., MN = +57·9m. Oxford PR_2 = +23m.35s. =PR_2−16s. Paris MN = +60·4m. St. Louis ePR_1N = +20m.44s., $S_cP_cP_cSN$ = +27m.34s., PSN = +30m.19s., SR_1N = +37m.5s., SR_2N = +41m.29s. Chicago PR_1N = +20m.45s., PR_1E = +20m.51s., i$S_cP_cP_cSE$ = +27m.45s., i$S_cP_cP_cSN$ = +27m.51s., PS = +30m.48s., PPSN = +32m.11s., iPPSE = +32m.12s., iSR_1N = +37m.27s., iSR_1E = +37m.58s., SR_2N = +42m.5s., iSR_2E = +42m.7s., SR_2E = +45m.15s., LN = +48·2m., MN = +60·6m. Barcelona PR_1 = +23m.53s. =PR_2−34s., SR_1 = +38m.1s., MN = +69·7m. Ann Arbor ePR_2 = +26m.13s. =PR_3−31s., iPS = +32m.25s., iSR_1 = +38m.7s., iSR_2 = +42m.49s., MN = +63·1m. Toronto iE = +21m.4s. =PR_1−5s., +22m.32s., and +26m.16s. =[S]+12s., eN = +21m.9s. =PR_1+0s., iN = +32m.46s. Ottawa MN = +72·4m. and several other i readings. Alicante i = +22m.30s., PE = +23m.50s. Ithaca e = +31m.17s., i = +34m.13s., e = +38m.39s. =SR_1−2s. Toledo iE = +21m.37s. =PR_1+8s., i = +22m.48s., eLNW = +39·3m., e = +55m.55s., MNW = +65·6m. Almeria i = +22m.39s., SR_1 = +39m.5s., MZ = +83·8m., MN = +98·2m. Granada PR_1 = +21m.58s., PR_2 = +24m.39s., PR_3 = +27m.59s., PS = +32m.3s., PPS = +33m.28s., i = +36m.48s., SR_1 = +39m.36s., SPSP = +42m.54s., SR_2 = +47m.19s. Cheltenham ePR_1N = +22m.44s., PPSN = +33m.32s., SR_1N = +39m.1s., SR_2N = +43m.31s. Fordham PN? = +21m.32s. =PR_1−8s., PR_1 = +21m.50s. =PR_1+10s., PR_2 = +26m.34s. =[S]+0s., iPR_1 = +28m.28s., iPSN = +31m.55s., PPS = +33m.0s., SR_1N = +38m.57s., SR_2 = +44m.22s., SR_3 = +47m.20s. Harvard PR_1E = +22m.0s., S_cP_cPE = +23m.0s., PR_2E = +24m.43s., S_cP_cSE = +26m.25s., $S_cP_cP_cSE$ = +28m.35s., PSE = +31m.52s., SR_1E = +39m.31s., SR_2E = +44m.37s., SR_3E = +47m.13s. San Fernando MN = +123·4m. Halifax i = +22m.47s., e = +28m.32s., +31m.39s., +39m.19s. =SR_1−17s., and +44m.49s. =SR_2−39s. La Paz i = +20m.39s., PR_1 = +23m.27s., PR_2 = +25m.57s., PR_3 = +30m.13s., SR_1 = +42m.13s., SR_2 = +43m.32s., SR_3 = +48m.2s., MN = +35·1m. ; T_0 =3h.45m.8s. Sucre PR_1 = +23m.24s., PR_2 = +25m.32s., PR_3 = +29m.13s., PS = +34m.42s., SR_1 = +42m.14s., SR_2 = +44m.41s., SR_3 = +49m.26s., SR_4 = +55m.20s. ; T_0 =3h.44m.57s. San Juan PR_1N = +22m.23s., PR_1E = +24m.25s., PR_2N = +27m.15s., ePSN = +36m.19s., SR_1N? = +42m.52s., SR_1E = +42m.57s., SR_1N = +43m.52s., SR_2E = +49m.1s., SR_2N? = +53m.37s.

Oct. 26d. 6h. 11m. 25s. Epicentre 2°·7S. 138°·8E. (as at 3h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		24·7	315	5 33	− 2	—	—	i 14·8	16·8
Batavia		32·0	265	i 6 37	−10	—	—	—	—
Adelaide		32·3	180	—	—	i 14 13	+120	i 17·4	19·8
Taihoku	E.	32·4	330	e 6 40	−12	(11 53)	−21	11·9	—
Riverview		33·2	161	i 5 50	−68	10 7	−140	e 13·9	20·4
Sydney		33·2	161	—	—	15 23	+176	18·1	19·1
Hong Kong		34·7	318	—	—	—	—	—	23·6
Melbourne		35·6	172	—	—	i 11 59	−65	i 19·0	19·4
Hukuoka	E.	37·1	350	e 8 11	+40	—	—	—	—
Sumoto		37·2	356	7 20	−12	13 3	−24	18·2	—
Osaka		37·5	356	7 22	−12	13 19	−12	18·9	20·7

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Zi-ka-wei		37·7	338	e 7 20	−16	13 13	−21	—	22·4
Mizusawa	E.	41·9	3	8 2	− 8	14 11	−23	20·2	—
	N.	41·9	3	8 3	− 7	14 9	−25	20·3	—
Apia		50·1	105	9 6	− 2	16 31	+11	23·8	27·9
Wellington		50·4	145	e 8 35?	−34	—	—	e 25·2	29·6
Christchurch		50·7	149	—	—	—	—	55·9	58·4
Irkutsk		62·2	338	10 30	+ 4	e 18 54	+ 3	35·5	—
Honolulu	E.	66·2	66	—	—	e 19 35	− 5	e 30·9	38·0
	N.	66·2	66	—	—	20 5	?PS	e 26·6	39·4
Ekaterinburg		85·8	327	i 12 47	− 5	i 23 17	−11	38·6	49·5
Kucino	E.	98·3	326	—	—	—	—	—	61·2
Spokane	E.	101·2	41	—	—	—	—	—	53·6
Leningrad		101·5	331	—	—	—	—	51·1	63·2
Pulkovo		101·5	331	—	—	—	—	46·6	63·2
Tucson	E.	108·6	56	—	—	—	—	e 50·8	56·6
Denver	E.	111·7	47	—	—	—	—	56·6	62·6
Vienna		113·0	322	e 19 39	?PR_1	—	—	—	71·1
Hamburg		114·1	330	e 18 35?	[+ 1]	—	—	e 54·6	69·6
De Bilt	E.	117·4	330	—	—	—	—	—	73·7
Edinburgh		118·7	336	—	—	e 36 35?	?SR_1	59·6	74·6
Kew		120·5	332	—	—	—	—	55·6	75·6
Oxford		120·7	333	—	—	—	—	68·6	76·6
St. Louis	N.	122·8	44	—	—	—	—	—	68·6
Chicago	E.	123·0	40	—	—	—	—	—	63·1
Granada		131·2	319	—	—	—	—	e 67·6	81·7
La Plata		139·3	158	e 19 35?	[− 3]	—	—	69·6	—
La Paz		147·2	126	18 37	[−74]	33 0	?	71·2	76·5
Sucre		147·9	133	18 59	[−54]	32 51	?	72·8	91·4

Additional readings: Batavia i = +8m.0s. Riverview S = +10m.33s., MN = +18·7m., MZ = +20·7m. Melbourne i = +15m.41s. = SR_2 −7s. Wellington e = +22m.35s.? = SR_2 +19s. Irkutsk MZ = +36·4m. Honolulu iSE = +19m.42s., eE = +21m.15s. Ekaterinburg MN = +51·8m., MZ = +52·8m. Kucino MN = +61·6m. Leningrad MN = +62·9m., MZ = +63·1m. Pulkovo MN = +59·9m., MZ = +63·3m. Tucson ePR$_1$E = +18m.59s. De Bilt MN = +67·0m., MZ = +73·5m. Kew MN = +73·6m. Chicago MN = +63·8m. La Paz MN = +79·3m.

Oct. 26d. 8h. 35m. 3s. Epicentre 2°·7S. 138°·8E. (as at 6h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		24·7	315	e 5 41	+ 6	—	—	i 15·0	16·6
Batavia		32·0	265	e 6 33	−14	—	—	—	—
Adelaide		32·3	180	e 8 39?	+108	e 14 13	+120	16·4	19·4
Taihoku	E.	32·4	330	—	—	—	—	e 14·3	—
Riverview		33·2	161	e 7 12	+14	12 2	−25	—	17·6
Sydney		33·2	161	11 45	?S	(11 45)	−42	17·0	18·4
Hong Kong		34·7	318	—	—	—	—	—	25·4
Melbourne		35·6	172	e 8 3	+45	i 12 39	−24	i 19·0	23·2
Perth		36·4	215	13 57	?S	(13 57)	+41	19·5	—
Osaka		37·5	356	7 14	−20	12 35	−56	18·3	19·8
Zi-ka-wei		37·7	338	e 7 20	−16	e 13 9	−25	—	—
Apia		50·1	105	—	—	e 16 57?	+37	26·0	—
Wellington		50·4	145	—	—	e 18 57	?	e 28·0	29·8
Irkutsk		62·2	338	e 10 28	+ 2	i 18 57	+ 6	30·0	37·6
Honolulu	E.	66·2	66	—	—	e 18 57?	−43	e 32·0	—
Ekaterinburg		85·8	327	12 47	− 5	i 23 14	−14	36·0	48·2
Victoria	E.	97·2	41	—	—	—	—	45·8	52·0
Kucino		98·3	326	—	—	e 26 36	?PS	47·1	61·7
Makeyevka		99·2	319	—	—	e 24 40	[+20]	e 32·7	61·8
Pulkovo		101·5	331	—	—	—	—	49·0	63·2
Leningrad		101·5	331	—	—	—	—	47·2	63·0
Upsala	N.	107·5	334	—	—	—	—	e 56·0	—
Hamburg		114·1	330	—	—	—	—	e 59·0	71·0
Cheb		114·6	325	—	—	—	—	e 61·0	71·0
De Bilt		117·4	330	—	—	—	—	e 53·0	73·8
Strasbourg		118·0	325	—	—	—	—	61·0	—
Uccle		118·6	330	—	—	—	—	55·0	—
Edinburgh		118·7	336	—	—	—	—	e 69·0	75·0
Moncalieri		119·8	322	—	—	—	—	67·2	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Kew		120·5	332	—	—	—	—	e 65·0	—
Oxford		120·7	333	—	—	—	—	—	74·4
Chicago	E.	123·0	40	—	—	—	—	—	63·6
Toronto	E.	126·9	34	—	—	—	—	66·0	—
Toledo		129·9	322	—	—	—	—	e 69·9	85·5
La Plata		139·3	158	—	—	—	—	72·0	—
La Paz		147·2	126	19 55	[+ 4]	—	—	77·3	85·4
Sucre		147·9	133	19 50	[− 3]	—	—	77·9	92·2

Additional readings: Batavia i = +7m.59s. = PR_1 +15s. Riverview MNZ = +20·6m. Sydney S = +15m.33s. = SR_2 +33s. Perth P? = +15m.2s. = SR_1 −26s., S = +17m.22s. = L? Irkutsk MZ = +35·9m. Honolulu eSN = +19m.39s. = S − 1s. Ekaterinburg MN = +43·3m., MZ = +53·4m. Kucino e = +32m.30s. = SR_1 +14s., MN = +57·2m. Makeyevka MZ = +61·5m., MN = +64·4m.: Is L = SR_1 ? Pulkovo MN = +59·9m., MZ = +63·4m. Leningrad MZ = +63·9m. De Bilt MN = +70·3m., MZ = +80·0m. Toronto LN = +65·2m.

Oct. 26d. 14h. 15m. 45s. Epicentre 2°·7S. 138°·8E. (as at 8h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Agana	E.	17·2	20	—	—	e 6 45	−37	—	—
Manila		24·7	315	i 5 45	+10	—	—	i 15·0	16·0
Batavia		32·0	265	i 7 4	+17	i 12 43	+35	—	—
Adelaide		32·3	180	—	—	e 12 35	+22	16·4	18·3
Taihoku	E.	32·4	330	6 42	−10	(12 5)	− 9	12·1	—
Riverview		33·2	161	e 6 45	−13	e 12 3	−24	e 15·8	18·2
Sydney		33·2	161	11 15	?S	(11 15)	−72	17·8	18·6
Hong Kong		34·7	318	7 5	− 6	12 42	− 9	16·2?	—
Melbourne		35·6	172	—	—	i 12 15	−49	i 18·8	19·8
Perth		36·4	215	(7 1)	−24	(13 10)	− 6	(17·5)	(23·2)
Sumoto		37·2	356	7 24	− 8	(13 29)	+ 2	18·7	—
Osaka		37·5	356	7 26	− 8	(13 27)	− 4	13·4	20·0
Zi-ka-wei		37·7	338	i 7 29	− 7	13 14	−20	—	21·9
Apia		50·1	105	16 9	?S	(16 9)	−11	26·2	—
Wellington		50·4	145	i 16 5	?S	(i 16 5)	−19	—	29·8
Irkutsk		62·2	338	i 10 36	+10	19 6	+15	30·2	36·1
Honolulu	E.	66·2	66	i 11 0	+ 7	e 19 15?	−25	30·2	38·2
Tashkent		76·6	315	—	—	—	—	38·2	47·6
Ekaterinburg		85·8	327	i 12 52	0	i 23 25	− 3	35·2	46·3
Baku		91·0	311	—	—	e 24 24	0	42·2	58·1
Victoria	E.	97·2	41	25 23	?S	(25 23)	− 5	45·9	56·4
Kucino		98·3	326	e 17 8	?PR_1	e 25 14	−25	47·8	60·9
Makeyevka		99·2	319	e 13 53	−13	—	—	50·2	63·9
Pulkovo		101·5	331	14 11	− 7	25 43	−27	49·2	61·2
Leningrad		101·5	331	e 14 8	−10	i 18 21	?PR_1	49·2	63·5
Upsala		107·5	334	—	—	e 28 15?	?PS	e 54·2	—
Budapest		111·7	321	—	—	—	—	e 52·8	—
Cape Town		113·1	230	—	—	—	—	—	66·6
Hamburg		114·1	330	—	—	—	—	e 58·2	—
Cheb		114·6	325	—	—	—	—	e 65·2	72·2
De Bilt		117·4	330	—	—	—	—	e 54·2	60·7
Strasbourg		118·0	325	—	—	—	—	60·2	73·2
Florence		118·2	318	e 20 15?	?PR_1	—	—	—	49·2
Uccle		118·6	330	—	—	e 36 15?	?SR_1	e 54·2	—
Edinburgh		118·7	336	—	—	—	—	e 60·2	—
Stonyhurst		119·8	334	—	—	—	—	e 62·2	74·6
Moncalieri		119·8	322	—	—	e 53 31	?	68·1	—
Kew		120·5	332	—	—	—	—	e 57·2	76·2
Oxford		120·7	333	—	—	—	—	61·8	75·2
Paris		120·7	328	—	—	—	—	e 66·2	72·2
Chicago	E.	123·0	40	—	—	—	—	—	62·0
Ann Arbor		125·2	36	—	—	—	—	e 55·4	—
Tortosa	N.	126·5	321	—	—	—	—	e 74·2	—
Toronto	N.	126·9	34	22 30	?PR_1	—	—	64·4	69·8
Ottawa	N.	127·7	30	—	—	e 22 33	?PR_1	65·2	72·2
Ithaca		129·3	33	—	—	—	—	69·2	—
Toledo		129·9	322	—	—	—	—	e 72·0	82·8
Granada		131·2	319	e 39 15?	?SR_1	—	—	—	—
La Plata		139·3	158	—	—	—	—	69·2	—
La Paz		147·2	126	i 20 1	[+10]	e 33 54	?	72·4	80·8
Sucre		147·9	133	i 20 1	[+ 8]	e 33 45	?	77·0	96·2

For Notes see next page.

NOTES TO OCT. 26d. 14h. 15m. 45s.

Additional readings and notes: Batavia readings are given as simply i. Riverview MN = +20·7m., MZ = +20·8m. Sydney S = +15m.39s. = SR_3 +39s. Perth i = +9m.0s. = PR_3 −2s., +12m.50s., +13m.15s. = PS −2s., +16m.55s. = SR_3 +34s., and + 17m.10s., all readings having been diminished by 14m. Sumoto S = +9m.45s. = PR_3 +25s., true S being recorded as SR_1. Zi-ka-wei PR_1 = +9m.1s., PR_2 = +11m.33s., SR_1 = +14m.31s., SR_2 = +17m.21s. Apia S = +21m.49s. = SR_1 +16s. Wellington iS = +19m.37s. = SR_1 −37s., MN = +28·2m. Irkutsk MZ = +36·2m. Tashkent MN = +45·1m. Ekaterinburg iPR_1 = +16m.8s., iPR_2 = +18m.13s., e = +23m.6s. = [S] +4s., SR_1 = +29m.8s., MZ = +53·3m. Baku MN = +47·1m. Kucino e = +32m.3s. = SR_1 −13s., MN = +61·2m. Makeyevka e = +17m.59s. = [P] +16s., +19m.50s., and +32m.32s. = SR_1 +4s., MN = +55·4m., MZ = +69·6m. Pulkovo PR_1 = +18m.15s., iS_4P_4S = +25m.9s., PS = +27m.14s., SR_1 = +32m.57s., SR_2 = +37m.39s., MN = +60·4m., MZ = +63·5m. Leningrad MN = +63·0m. De Bilt MN = +70·6m., MZ = +78·7m. Paris MN = +78·2m. Chicago MN = +66·0m. Ann Arbor eE? = +62m.15s. Ottawa ME = +69·2m. Sucre PR_1 = +24m.28s., SR_2 = +43m.34s. = SR_1 +67s.

Oct. 26d. 23h. 43m. 20s. Epicentre 2°·7S. 138°·8E. (as at 14h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Adelaide		32·3	180	—	—	e 11 38	−35	e 16·5	20·5
Taihoku	E.	32·4	330	—	—	—	—	e 13·0	—
Riverview		33·2	161	e 16 51	?L	e 20 20	?	e 21·9	24·8
Sydney		33·2	161	12 10	?S	(12 10)	−17	20·4	22·8
Melbourne		35·6	172	—	—	e 13 22	+18	i 19·4	23·4
Perth		36·4	215	12 40	?S	(12 40)	−36	20·2	21·2
Zi-ka-wei		37·7	338	e 7 6	−30	—	—	—	21·2
Wellington		50·4	145	—	—	—	—	e 27·7	—
Irkutsk		62·2	338	10 26	0	18 55	+ 4	29·7	—
Tashkent		76·6	315	12 35	+36	21 42	− 2	e 37·7	47·2
Ekaterinburg		85·8	327	12 51	− 1	23 25	− 3	38·7	53·0
Baku		91·0	311	—	—	—	—	46·7	—
Victoria	E.	97·2	41	—	—	—	—	47·3	57·0
Kucino		98·3	326	—	—	e 26 43	+64	47·6	61·1
Makeyevka		99·2	319	—	—	e 32 40?	?SR_1	50·7	61·6
Pulkovo		101·5	331	e 23 46	?	—	—	47·7	61·9
Leningrad		101·5	331	—	—	—	—	50·8	62·2
Cheb		114·6	325	—	—	—	—	e 61·7	70·7
De Bilt		117·4	330	—	—	—	—	e 56·7	—
Uccle		118·6	330	—	—	—	—	e 56·7	—
Kew		120·5	332	—	—	—	—	e 61·7	—
Oxford		120·7	333	—	—	—	—	—	73·7
Chicago	E.	123·0	40	—	—	—	—	—	68·2
Toronto	E.	126·9	34	—	—	—	—	69·7	—
Ottawa		127·7	30	—	—	—	—	e 63·7	—
San Fernando	E.	133·3	320	—	—	—	—	—	88·2
La Paz		147·2	126	20 4	[+13]	—	—	—	—
Sucre		147·9	133	19 51	[− 2]	—	—	80·4	92·8

Additional readings: Adelaide e = +13m.0s. Riverview eP = +17m.43s., eS = +20m.26s., MN = +22·7m.; the readings are all in excess by about 8 min., but it is easy to correct them. Sydney S = +17m.34s.(?L). Melbourne i = +21m.58s. Perth S? = +17m.40s., ? = +19m.40s. and +19m.55s. Tashkent e = +16m.22s. and +26m.40s., MN = +45·2m. Ekaterinburg MN = +46·8m., MZ = +52·9m. Kucino e = +31m.44s. = SR_1 −32s., MN = +57·8m. Makeyevka MN = +59·4m., MZ = +61·5m. Pulkovo e = +27m.53s. = PS +32s. and +32m.43s. = SR_1 −13s., MZ = +61·7m., MN = +62·6m. Leningrad MZ = +61·8m., MN = +62·6m. Toronto eN = +58m.43s., LN = +65·3m. San Fernando MN = +87·7m.

Oct. 26d. Readings also at 0h. (near Mizusawa), 5h. (Taihoku, Hamburg, Granada, Denver, Spokane, and St. Louis), 6h. (Melbourne, Adelaide, Riverview, Sydney, near La Paz, Sucre, near Tacubaya, and Puebla), 7h. (La Paz), 8h. (Cape Town), 11h. (Irkutsk, Strasbourg, and near Mostar), 12h. (Nagasaki), 13h. (Nagasaki), 14h. (Agana), 16h. (Apia, Ekaterinburg, Pulkovo, and Leningrad), 17h. (Ekaterinburg, Pulkovo, and Leningrad), 18h. (Ekaterinburg (2)), 19h. (Moncalieri).

Oct. 27d. 4h. 58m. 35s. Epicentre 2°·7S. 138°·8E. (as on 26d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		24·7	315	e 5 34	− 1	—	—	i 13·4	14·8
Batavia		32·0	265	i 7 56	+69	—	—	—	—
Adelaide		32·3	180	e 7 31	?PR_1	e 13 55	?SR_1	i 18·5	20·4
Taihoku	E.	32·4	330	—	—	e 12 1	−13	—	—
Riverview		33·2	161	e 6 43	−15	e 12 13	−14	e 17·2	20·0
Sydney		33·2	161	—	—	11 55	−32	17·4	18·7
Hong Kong		34·7	318	6 56	−15	—	—	—	24·4
Melbourne		35·6	172	—	—	e 13 1	− 3	i 19·8	20·7
Perth		36·4	215	9 0	?PR_1	13 10	− 6	20·1	24·4
Zi-ka-wei		37·7	338	i 7 21	−15	—	—	—	21·9
Wellington		50·4	145	—	—	—	—	e 22·4	—
Irkutsk		62·2	338	10 28	+ 2	18 56	+ 5	30·4	37·7
Honolulu	E.	66·2	66	—	—	19 25?	−15	32·4	39·4
Bombay		68·3	292	e 11 25?	+19	—	—	—	—
Tashkent		76·6	315	i 11 58	− 1	i 21 47	+ 3	e 38·4	45·0
Ekaterinburg		85·8	327	i 12 46	− 6	i 23 19	− 9	36·4	53·8
Baku		91·0	311	e 13 21	0	24 14	−10	46·4	53·3
Victoria	E.	97·2	41	23 45	?[S]	(23 45)	[−24]	47·5	58·9
Kucino		98·3	326	e 20 18	PR_2	—	—	47·4	61·7
Makeyevka		99·2	319	e 18 25?	?PR_1	—	—	49·4	61·6
Pulkovo		101·5	331	13 55	−23	25 23	−47	49·4	61·2
Leningrad		101·5	331	e 13 57	−21	e 25 25	−45	51·8	65·0
Upsala	N.	107·5	334	—	—	—	—	e 60·4	—
Tucson		108·6	56	—	—	e 25 13	[+ 9]	—	—
Hamburg		114·1	330	—	—	—	—	e 63·4	—
Cheb		114·6	325	—	—	—	—	e 59·4	72·4
De Bilt		117·4	330	—	—	—	—	e 56·4	67·2
Strasbourg		118·0	325	—	—	—	—	64·4	73·4
Uccle		118·6	330	—	—	e 36 25?	?SR_1	e 56·4	—
Edinburgh		118·7	336	—	—	—	—	e 71·4	—
Kew		120·5	332	—	—	—	—	e 56·4	—
Oxford		120·7	333	—	—	—	—	e 61·4	75·4
Chicago		123·0	40	—	—	—	—	e 66·5	69·8
Tortosa	N.	126·5	321	—	—	—	—	e 71·4	78·5
Toronto	N.	126·9	34	—	—	—	—	65·4	69·4
Ottawa		127·7	30	—	—	e 38 25?	?SR_1	e 65·4	—
San Fernando	E.	133·3	320	—	—	—	—	—	86·4
La Paz		147·2	126	19 55	[+ 4]	—	—	81·6	95·5
Sucre		147·9	133	i 19 51	[− 2]	—	—	87·2	97·4

Additional readings: Adelaide MN = +21·4m. Riverview MN = +20·8m., MZ = +21·9m. Perth = +17m.5s., +17m.20s., +18m.20s., and +19m.45s. Irkutsk MZ = +37·6m. Tashkent PS = +22m.29s., MN = +40·7m. Ekaterinburg i = +14m.0s., +15m.52s., and +17m.30s., MN = +46·8m. Baku ePR_1 = +17m.6s., MN = +62·2m., MZ = +63·6m. Kucino e = +26m.33s. = PS − 11s., +31m.27s., and +32m.23s. = SR_1 + 7s., MN = +53·0m. Makeyevka MN = +59·4m., MZ = +66·2m. Pulkovo PR_1 = +18m.10s., PPS = +27m.14s., SR_1 = +32m.55s., SR_2 = +36m.1s., MN = +61·6m. Leningrad PR_1 + 18m.11s., MN = +64·2m., MZ = +64·4m. Tucson eN = +26m.5s. De Bilt MZ = +73·3m., MN = +76·7m. San Fernando MN = +85·4m.

Oct. 27d. 9h. 21m. 40s. Epicentre 2°·7S. 138°·8E. (as at 4h.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Adelaide	32·3	180	—	—	e 13 5?	+52	17·9	20·4
Riverview	33·2	161	—	—	—	—	e 17·6	21·0
Melbourne	35·6	172	—	—	e 12 44	−20	—	21·3
Zi-ka-wei	37·7	338	e 7 22	−14	—	—	—	31·8
Irkutsk	62·2	338	e 10 25	− 1	18 53	+ 2	e 30·3	—
Tashkent	76·6	315	12 29	+30	21 40	− 4	e 37·3	45·4
Ekaterinburg	85·8	327	12 50	− 2	23 14	−14	39·3	53·7
Kucino	98·3	326	e 17 38	?PR_1	—	—	—	—
Pulkovo	101·5	331	—	—	e 27 4	?PS	59·3	63·4
Leningrad	101·5	331	—	—	—	—	57·3	63·7
Ravensburg	117·3	325	18 20	[−25]	—	—	—	—
De Bilt	117·4	330	—	—	—	—	e 56·3	—
Uccle	118·6	330	—	—	—	—	—	71·3
La Paz	147·2	126	20 12	[+21]	—	—	—	—
Sucre	147·9	133	19 46	[− 7]	—	—	—	—

Additional readings: Adelaide MN = +20·5m. Riverview +18m.20s. Tashkent e = +26m.38s. and +30m.47s. = SR_2 + 7s., MN = +40·5m.

Oct. 27d. 11h. 50m. 12s. Epicentre 58°·5S. 145°·5E. (as on 1925 April 26d.).

A = −·431, B = +·296, C = −·853; D = +·566, E = +·824; G = +·703, H = −·483, K = −·522.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Melbourne		20·7	359	e 4 48	− 1	—	—	e 11·4	12·5
Adelaide		24·0	346	—	—	—	—	e 13·1	14·7
Riverview		25·0	11	—	—	e 11 6	+63	—	17·2
Wellington		25·2	60	i 5 42	+ 2	e 10 12	+ 5	e 13·5	—
Tashkent		118·0	304	—	—	e 38 0	?SR_1	e 59·8	67·2
Baku		126·2	290	—	—	—	—	69·8	—
Ekaterinburg		133·5	311	—	—	—	—	59·8	—
San Fernando	E.	151·2	232	—	—	—	—	—	93·3
De Bilt		156·9	271	—	—	—	—	e 94·8	—

Additional readings: Riverview MN = +15·2m. Tashkent MN = +67·8m. San Fernando MN = +89·8m.

Oct. 27d. 14h. 14m. 0s. Epicentre 23°·0S. 66°·0W. (as on 1926 Jan. 8d.).

A = +·374, B = −·841, C = −·391; D = −·914, E = −·407; G = −·159, H = +·357, K = −·921.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Sucre	4·1	10	i 1 7	+ 3	i 1 57	+ 4	2·0	2·0
La Paz	6·8	343	i 1 39	− 5	i 3 7	+ 2	3·8	5·7
La Plata	13·8	151	3 9	−14	5 21	−42	6·2	—
Ekaterinburg	129·0	34	i 21 44	?PR_1	—	—	e 58·0	—
Tashkent	138·5	51	e 12 0?	?	—	—	e 51·0	—

Tashkent gives also e = +22m.0s. ? = PR_1 − 25s., i = +23m.14s., e = +28m.22s. = PR_2 − 19s.

Oct. 27d. 19h. 57m. 16s. Epicentre 2°·7S. 138°·8E (as at 9h.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	24·7	315	e 4 39	−56	—	—	—	—
Adelaide	32·3	180	e 13 54	?SR_1	e 18 20	—	e 19·7	20·1
Riverview	33·2	161	—	—	e 18 2	?L	(e 18·0)	22·9
Melbourne	35·6	172	—	—	e 13 50	+46	e 18·5	25·6
Irkutsk	62·2	338	10 27	+ 1	e 18 52	+ 1	31·7	—
Tashkent	76·6	315	i 11 57	− 2	i 21 46	+ 2	e 36·7	45·1
Ekaterinburg	85·8	327	i 12 43	− 9	23 18	−10	37·7	—
Kucino	98·3	326	—	—	—	—	e 51·1	—
Pulkovo	101·5	331	—	—	e 21 9	?	53·7	63·2
Leningrad	101·5	331	—	—	—	—	54·6	63·1
Athens	111·2	310	—	—	—	—	e 47·8	48·1
La Paz	147·2	126	19 37	[−14]	—	—	—	—

Additional readings: Adelaide MN = +20·4m. None of the observations (at 4h., 9h., and 19h.) are readily identifiable. Riverview e = +14m.26s., MN = +20·6m. Tashkent e = +30m.44s. = SR_2 + 4s., MN = +44·8m., MZ = +44·9m.

Oct. 27d. Readings also at 0h. (Irkutsk and Manila), 1h. (Nagasaki, Riverview(2), Melbourne, Perth, La Paz (2), Sucre (2), Kucino, Ekaterinburg, Pulkovo, Leningrad, Tashkent, and De Bilt), 3h. (Nagasaki), 4h. (Riverview (2), Nagasaki, Zi-ka-wei, Tashkent (2), and Sucre), 7h. (Nagasaki and Ekaterinburg), 8h. (Nagasaki), 11h. (Ekaterinburg and Taihoku), 12h. (Wellington, Riverview, and Adelaide), 15h. (near Almeria (2) and Malaga), 17h. (near Almeria and Malaga).

Oct. 28d. 1h. 0m. 35s. Epicentre 2°·7S. 138°·8E. (as on Oct. 27d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		24·7	315	e 5 36	+ 1	—	—	15·4	—
Adelaide		32·3	180	—	—	14 11	?SR_1	17·1?	20·4
Riverview		33·2	161	—	—	e 11 55	−32	e 17·2	18·7
Sydney		33·2	161	11 37	?S	(11 37)	−50	17·7	18·7
Hong Kong		34·7	318	—	—	—	—	—	26·4
Melbourne		35·6	172	—	—	e 12 13	−51	i 19·8	20·5
Zi-ka-wei		37·7	338	e 2 18	?	—	—	—	21·2
Irkutsk		62·2	338	10 26	0	i 18 51	0	30·4	37·4
Tashkent		76·6	315	i 12 3	+ 4	e 21 25	−19	e 36·4	48·8
Ekaterinburg		85·8	327	i 12 49	− 3	i 23 14	−14	37·4	52·6
Baku		91·0	311	e 13 28	+ 7	e 24 13	−11	46·4	57·8
Victoria	E.	97·2	41	—	—	—	—	46·7	58·8
Kucino		98·3	326	—	—	e 25 6	−33	45·4	59·8
Makeyevka		99·2	319	—	—	—	—	53·4	67·0
Pulkovo		101·5	331	e 13 47	−31	25 37	−33	48·4	61·2
Leningrad		101·5	331	e 18 12	?PR_1	—	—	47·2	63·3
Cheb		114·6	325	—	—	—	—	e 58·4	72·4
De Bilt		117·4	330	—	—	—	—	e 57·4	—
Uccle		118·6	330	—	—	—	—	e 55·4	—
Edinburgh		118·7	336	—	—	—	—	e 57·4	—
Kew		120·5	332	—	—	—	—	59·4	—
Chicago	N.	123·0	40	—	—	—	—	e 66·1	69·7
Toronto	E.	126·9	34	—	—	—	—	71·4	—
Ottawa		127·7	30	—	—	e 43 25?	?SR_3	e 61·4	—
San Fernando	E.	133·3	320	—	—	—	—	—	86·4
La Paz		147·2	126	19 37	[−14]	—	—	—	—
Sucre		147·9	133	(19 50)	[− 3]	—	—	86·2	98·7

Additional readings and notes: Riverview eS = +14m.43s. =SR_1 +25s., MNZ = +20·8m.; true S is given as e simply. Tashkent MN = +40·0m., MZ = +41·4m. Ekaterinburg MN = +46·5m., MZ = +52·5m. Baku ePR_1 = +16m.56s., MZ = +66·8m. Kucino e = +32m.9s. =SR_1 −7s., +35m.7s., and +37m.29s. =SR_2 +28s., MN = +52·9m. Makeyevka e = +45m.25s.?, MZ = +67·2m. Pulkovo e = +18m.13s., SR_1 = +32m.31s., MN = +57·6m., MZ = +63·0m. Leningrad MN = +64·3m., MZ = +64·4m. Edinburgh reading has been increased by 1h. San Fernando MN = +85·4m. Sucre P has been diminished by 10m.

Oct. 28d. 12h. 58m. 30s. Epicentre 28°·0S. 69°·0W.

A = +·316, B = −·824, C = −·469; D = −·934, E = −·358; G = −·168, H = +·438, K = −·883.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Sucre	9·6	22	i 2 23	− 1	1 4 7	−11	4·9	5·9
La Paz	11·5	4	i 2 48	− 4	5 11	+ 4	5·8	6·6
La Plata	11·7	129	i 2 55	0	1 5 11	− 1	6·0	—

La Paz gives also MN = +8·0m. T_0 = 12h.58m.15s.

Oct. 28d. Readings also at 0h. (Ekaterinburg, Tashkent, and Hong Kong), 1h. (Tashkent and Irkursk), 3h. (Ekaterinburg and Leningrad), 4h. (Nagasaki), 5h. (Ravensburg), 8h. (near Almeria and Malaga), 10h. (near Mizusawa and Nagoya), 12h. (Florence), 18h. (Tashkent), 21h. (Ekaterinburg, Manila, and Tashkent), 22h. (near Hukuoka), 23h. (Manila).

Oct. 29d. 0h. 2m. 32s. Epicentre 2°·7S. 138°·8E. (as on Oct. 28d.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia	32·0	265	e 7 4	+17	i 12 48	+40	—	—
Adelaide	32·3	180	—	—	—	—	19·0	19·9
Riverview	33·2	161	(e 6 52)	− 6	(e 12 45)	+18	(e 15·0)	(15·9)
Sydney	33·2	161	12 10	?S	(12 10)	−17	20·5	21·8
Melbourne	35·6	172	e 5 46	−92	—	—	i 20·8	24·1
Irkutsk	62·2	338	10 24	− 2	—	—	—	—
Tashkent	76·6	315	11 1	−58	i 21 41	− 3	e 31·5	35·6
Ekaterinburg	85·8	327	i 12 45	− 7	e 23 2	[0]	—	—
La Paz	147·2	126	e 20 22	[+31]	—	—	—	—
Sucre	147·9	133	20 3	[+10]	—	—	—	—

Additional readings and note: Adelaide MN = +22·9m. Riverview MN = (+16·4m.); all readings have been diminished by 7m. Tashkent MN = +36·3m.

Oct. 29d. 0h. 8m. 40s. Epicentre 16°·3N. 120°·6E. (given by De Bilt).

A = −·489, B = +·826, C = +·281; D = +·861, E = +·509; G = −·143, H = +·242, K = −·960.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		1·8	168	(e 0 14)	−14	(i 0 48)	− 3	(i 0·8)	—
Hong Kong		8·5	316	2 24	+15	3 50	0	4·4	4·8
Taihoku	E.	8·8	6	2 14	+ 1	3 45	−13	4·6	—
Sumoto		22·1	33	5 4	− 2	(9 12)	+ 5	9·2	—
Osaka		22·7	33	5 7	− 6	9 16	− 3	—	11·8
Nagoya		23·8	35	e 5 12	−14	—	—	—	—
Irkutsk		38·0	345	e 7 30	− 8	—	—	20·3	—
Tashkent		50·5	312	i 6 47	?	i 16 27	+ 2	e 20·3	29·5
Ekaterinburg		60·1	327	i 10 17	+ 4	i 18 33	+ 9	24·3	33·7
Baku		65·0	310	—	—	—	—	30·3	35·8
Kucino		72·5	325	—	—	i 20 59	+ 3	35·6	43·3
Makeyevka		73·1	317	e 12 3	+26	e 21 6	+ 3	35·3	43·1
Leningrad		76·0	330	i 11 56	+ 1	21 39	+ 2	34·4	45·3
Pulkovo		76·1	330	i 11 56	0	21 39	+ 1	37·3	46·7
Upsala	N.	82·3	331	—	—	—	—	e 43·3	—
Hamburg		88·6	326	—	—	—	—	e 44·3	47·3
Cheb		88·7	323	—	—	—	—	e 44·3	49·3
De Bilt		91·8	326	—	—	—	—	e 44·3	50·3
Strasbourg		92·1	324	—	—	—	—	51·3	—
Uccle		92·9	325	—	—	—	—	e 46·3	51·3
Victoria		94·3	37	—	—	—	—	40·3	—
Stonyhurst		94·6	330	—	—	—	—	e 50·3	—
Paris		94·9	324	—	—	—	—	e 50·3	52·3
Kew		95·0	329	—	—	—	—	e 48·3	—
Oxford		95·3	329	—	—	—	—	—	59·3
Bidston		95·3	330	—	—	—	—	50·6	54·0
Tortosa	N.	100·4	319	—	—	—	—	e 53·3	55·4
Granada		105·1	318	—	—	—	—	e 67·3	—
San Fernando	E.	107·2	318	—	—	—	—	—	62·3
Ottawa		116·2	12	—	—	—	—	e 53·3	—
Toronto		117·3	16	—	—	—	—	62·3	—

Additional readings and notes: Manila readings have been increased by 1m. Sumoto S = +7m.5s. Osaka MN = +11·6m. Irkutsk e = +9m.2s. = PR_1 +4s. Tashkent i = +15m.19s., MN = +30·2m.: Is L = SR_1 ? Ekaterinburg MN = +34·8m., MZ = +35·8m. Baku MN = +36·2m. Kucino MN = +40·2m. Makeyevka MN = +39·9m., MZ = +49·0m. Leningrad MN = +46·1m., MZ = +46·2m. Pulkovo SR_1 = +27m.50s., SR_2 = +30m.50s., MN = +42·4m., MZ = +46·2m. De Bilt MN = +50·2m., MZ = +59·3m. San Fernando MN = +70·3m.

Oct. 29d. Readings also at 0h. and 3h. (near Manila), 4h. (Nagasaki), 7h. (La Paz, Sucre, and near Manila), 9h. (Tacubaya), 11h. (Nagasaki and near Taihoku), 12h. (Nagasaki and Tashkent), 13h. (Nagasaki), 15h. (Tashkent), 16h. (Manila), 18h. (near La Paz, Sucre, near Almeria, and Malaga), 19h. (Tashkent and Mizusawa), 20h. (Baku, Ekaterinburg, Irkutsk, and Tashkent), 21h. (Sucre).

Oct. 30d. 1h. 37m. 58s. Epicentre 11°·5N. 43°·5E.

A = +·711, B = +·675, C = +·199 D = +·688, E = −·725 ;
G = +·145, H = +·137, K = −·980.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Baku	29·5	10	e 7 2	?PR$_1$	e 11 23	− 3	e 19·5	25·9
Makeyevka	36·9	355	e 7 24	− 5	13 14	− 8	21·0	23·7
Tashkent	37·4	32	7 35	+ 2	i 13 31	+ 1	19·5	25·9
Florence	42·6	325	—	—	—	—	e 24·8	28·0
Kucino	44·5	356	e 8 24	− 6	15 0	− 9	20·9	25·0
Ekaterinburg	47·3	12	i 8 50	+ 1	15 45	0	24·0	31·7
Strasbourg	47·5	329	—	—	—	—	e 24·0	—
Tortosa N.	47·8	316	—	—	—	—	e 25·0	27·3
Granada	49·3	310	—	—	—	—	e 28·2	34·1
Pulkovo	49·3	352	i 9 1	− 1	16 9	− 1	26·0	29·0
Leningrad	49·5	352	i 9 2	− 2	—	—	24·8	31·6
Uccle	50·6	328	—	—	—	—	27·0	—
De Bilt	51·0	330	—	—	e 16 39	+ 8	e 27·0	—
San Fernando	51·1	308	—	—	—	—	—	29·5
Kew	53·4	327	—	—	—	—	e 31·0	—
Edinburgh	57·2	331	—	—	—	—	e 40·0	—
Irkutsk	63·3	37	—	—	—	—	37·0	41·9

Additional readings and notes : Baku gives all its readings as e, e = +16m.45s. Makeyevka PR$_1$ = +8m.49s., SR$_1$ = +16m.12s., MN = +23·4m. Tashkent i = +8m.55s. = PR$_1$ +5s., e = +17m.7s. = SR$_2$ +23s. Kucino SR$_2$ = +18m.23s., MN = +28·2m. Ekaterinburg SR$_1$ = +19m.31s., MN = +30·9m., MZ = +31·6m. Strasbourg e = +28m.2s.? Pulkovo iPR$_1$ = +10m.59s., SR$_1$ = +20m.2s., MNZ = +31·9m. Leningrad PR$_1$ = +11m.2s., e = +20m.3s. = PR$_1$ +7s., MNZ = +32·0m.

Oct. 30d. 10h. 11m. 21s. Epicentre 16°·3N. 120°·6E. (as on 29d. and given by De Bilt).

A = −·489, B = +·829, C = +·281 ; D = +·861, E = +·509 ;
G = −·143, H = +·242, K = −·960.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	1·8	168	i 0 45	+17	—	—	i 1·2	—
Hong Kong	8·5	316	2 2	− 7	(3 56)	+ 6	3·9	—
Taihoku E.	8·8	6	e 2 31	+18	—	—	5·0	8·9
Zi-ka-wei	14·9	3	3 46	+ 8	i 6 49	+19	—	10·2
Hukuoka N.	19·4	25	5 0	+26	—	—	8·9	—
Amboina	21·3	159	e 6 12	+75	—	—	—	—
Sumoto	22·1	33	(e 4 43)	−23	(e 9 27)	+20	(18·5)	(19·8)
Osaka	22·7	33	5 37	+24	(9 24)	+ 5	9·4	11·6
Batavia	26·3	212	i 5 38	−13	i 10 8	−20	—	—
Calcutta E.	31·0	286	6 14	−24	—	—	17·5	—
N.	31·0	286	6 37	− 1	—	—	18·4	—
Irkutsk	38·0	345	i 7 32	− 6	13 28	−10	20·6	22·1
Hyderabad	40·3	278	7 39	−18	13 46	−25	21·4	25·4
Simla	42·1	300	e 13 51	?S	(e 13 51)	−45	e 23·4	—
Tashkent	50·5	312	i 9 6	− 4	i 16 17	− 8	e 26·6	33·3
Ekaterinburg	60·1	327	i 10 18	+ 5	—	—	—	37·3
Baku	65·0	310	e 10 47	+ 2	i 19 29	+ 4	33·6	47·2
Kucino	72·5	325	11 35	+ 2	20 54	− 2	33·6	41·5
Makeyevka	73·1	317	—	—	—	—	38·6	47·4
Leningrad	76·0	330	i 11 58	+ 3	21 39	+ 2	41·2	51·0
Pulkovo	76·1	330	i 11 56	0	21 38	0	40·6	47·6
Upsala	82·3	351	—	—	e 22 39	−10	—	45·4
Budapest	85·7	320	e 20 9	?	—	—	e 46·2	—
Vienna	87·0	321	e 12 56	− 3	e 23 26	−15	e 46·6	59·6
Hamburg	88·6	326	—	—	e 23 10	[− 9]	e 47·6	59·6
Cheb	88·7	323	—	—	e 23 39?	[+19]	e 46·6	50·6
Rocca di Papa	91·7	315	—	—	—	—	e 70·8	72·2
De Bilt	91·8	326	13 20	− 6	e 23 52	[+13]	e 48·6	52·8
Florence	91·8	317	13 19	− 7	—	—	e 50·6	58·9
Strasbourg	92·1	324	—	—	e 23 39?	[− 2]	39·6	62·5
Dyce	92·7	334	—	—	—	—	—	59·6
Uccle	92·9	325	—	—	—	—	e 47·6	51·6

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Moncalieri	93·6	320	e 20 54	?	33 55	?	49·8	—
Edinburgh	93·7	333	—	—	e 24 3	[+13]	50·6	52·6
Stonyhurst	94·6	330	—	—	e 24 9	[+14]	51·6	54·2
Paris	94·9	324	—	—	e 24 2	[+ 6]	51·6	57·6
Kew	95·0	329	—	—	e 24 8	[+11]	48·6	—
Oxford	95·3	329	i 22 9	?	—	—	e 51·6	60·2
Bidston	95·3	330	14 39?	+54	—	—	46·2	56·8
Barcelona	98·9	319	—	—	—	—	e 55·4	62·3
Toledo	103·1	320	—	—	—	—	e 57·9	—
Granada	105·1	318	e 18 24	?PR_1	—	—	e 55·2	60·6
San Fernando	107·2	318	—	—	—	—	—	69·6
Ottawa	116·2	12	—	—	e 27 51	−29	e 54·6	—
Toronto	117·3	16	—	—	—	—	—	68·6
La Paz	171·6	92	21 9	[+53]	—	—	30·0	34·4
Sucre	173·8	117	—	—	e 25 26	?PR_1	31·5	32·8

Additional readings: Sumoto eSR_1 = (+14m.17s.), MN = (+19·5m.); all readings have been increased by 9m. Osaka MN = +11·2m. Irkutsk SR_2 = +16m.47s., MZ = +26·6m., MN = +28·6m. Tashkent e = +10m.6s., i = +11m.8s. = PR_1 −13s., e = +20m.9s.? = SR_1 −7s., MZ = +38·3m., MN = +38·8m. Ekaterinburg MZ = +40·8m. Baku iP = +10m.50s., MN = +40·0m., MZ = +40·8m. Kucino PR_1 = +14m.19s., PR_2 = +16m.4s., PS = +21m.47s. Makeyevka MN = +44·5m., MZ = +48·6m. Leningrad PR_1 = +14m.57s., MN = +44·2m., MZ = +53·7m. Pulkovo PR_1 = +14m.54s., SR_2 = +29m.51s., MN = +42·0m., MZ = +53·5m. Hamburg eE = +23m.33s., MN = +50·6m. De Bilt MZ = +62·5m. Strasbourg MN = +54·1m. Ottawa e = +36m.14s. = SR_1 +14s.

Oct. 30d. 13h. 46m. 24s. Epicentre 9°·5N. 123°·0E. (as on 1925 May 5d.).

A = −·537, B = +·827, C = +·165; D = +·839, E = +·545; G = −·090, H = +·138, K = −·986.

A depth of focus 0·070 has been assumed. No correction for focus has been applied in forming residuals for [S].

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		•	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		+0·6	5·5	339	i 1 53	+20	—	—	i 3·2	—
Hong Kong		−2·0	15·4	328	3 31	+13	5 23	−30	6·2	6·4
Taihoku	E.	−2·0	15·6	355	e 3 34	+13	(6 11)	+13	6·2	—
Zi-ka-wei		−3·1	21·7	356	e 4 15	− 9	e 7 38	−15	—	—
Kobe		−4·0	27·5	21	5 9	−14	—	—	—	—
Osaka		−4·0	27·6	23	4 9	−75	(9 11)	−25	9·2	11·5
Mizusawa		−4·6	33·8	27	(6 10)	−10	(11 6)	−14	(15·8)	—
Hyderabad		−5·7	43·9	286	7 32	− 8	13 36	− 5	—	—
Irkutsk		−5·8	45·4	345	7 47	− 4	e 16 44	?SR_1	—	—
Simla	N.	−6·0	47·6	305	14 6	?S	(14 6)	−23	—	—
Tashkent		−6·8	56·8	315	i 8 12	−55	i 16 30	+11	e 28·6	36·6
Ekaterinburg		−7·5	67·1	328	i 10 17	+ 8	i 18 33	+15	25·1	—
Baku		−7·8	71·0	310	e 10 45	+12	i 19 24	+21	—	—
Kucino		−8·2	79·4	325	i 11 25	+ 1	20 42	+ 2	36·7	—
Makeyevka		−8·2	79·6	319	e 11 30	+.4	20 50	+ 7	42·6	51·1
Leningrad		−8·3	83·1	330	i 11 45	− 3	21 17	− 7	33·6	47·8
Pulkovo		−8·3	83·2	330	i 11 43	− 5	21 14	−11	40·6	49·4
Upsala		−8·6	89·4	331	—	—	e 21 53	[−91]	—	—
Hamburg		−8·7	95·5	327	—	—	e 22 30	[−90]	e 52·6	—
Florence		−8·8	98·6	318	e 16 41	?PR_1	—	—	—	—
De Bilt		−8·8	98·8	326	e 12 59	−17	—	—	e 48·6	60·5
Strasbourg		−8·8	98·9	324	—	—	i 22 43	[−95]	31·6	—
Dyce		−8·8	99·7	334	—	—	i 22 46	[−97]	—	53·9
Moncalieri		−8·8	100·5	320	e 17 36	?PR_1	22 52	[−94]	27·7	—
Edinburgh		−8·8	100·9	333	—	—	i 22 54	[−94]	—	—
Stonyhurst		−8·9	101·7	331	e 18 3	?PR_1	i 23 1	[−92]	26·6	—
Kew		−8·9	102·0	330	—	—	i 23 0	[−94]	34·6	—
Oxford		−8·9	102·4	330	—	—	i 23 0	[−96]	—	—
La Paz		—	167·1	124	19 21	[−52]	—	—	—	—
Sucre		—	167·6	141	i 19 17	[−57]	—	—	—	—

For Notes see next page.

NOTES TO OCT. 30d. 13h. 46m. 24s.

Additional readings and notes: Mizusawa readings have all been increased by 5m. Hyderabad $SR_1 = +17m.6s. = SR_2 + 0s.$ Simla eE = +14m.18s. Tashkent i = +16m.45s., $SR_1 = +20m.36s.$, MN = +29·1m., MZ = +31·2m. Ekaterinburg i = +12m.0s. and +13m.4s., iPS = +19m.20s., $SR_1 = +21m.42s.$ Kucino e = +13m.20s. and +14m.13s., $PR_1 = +14m.40s.$, $PR_2 = +17m.12s.$, PS = +20m.50s., $SR_1 = +24m.2s.$, $SR_2 = +29m.8s.$, e = +32m.58s. Makeyevka MN = +44·3m., MZ = +51·4m. Leningrad i = +13m.42s., $PR_1 = +14m.32s.$, e = +24m.47s., MZ = +45·4m., MN = +48·0m. Pulkovo i = +13m.40s., $PR_1 = +14m.29s.$, i = +24m.44s., $SR_1 = +27m.6s.$, MN = +44·5m. Upsala e = +22m.20s. = S − 13s. Hamburg iE = +22m.32s. De Bilt $ePR_1Z = +17m.14s.$, $ePR_2Z = +19m.57s.$, i = +22m.47s., e = +26m.30s., MN = +54·6m., MZ = +61·3m. Dyce e = +26m.26s.

Oct. 30d. 19h. 41m. 42s. Epicentre 48°·0N. 127°·5W. (as on 1921 May 28d.).

A = −·407, B = −·531, C = +·743; D = −·793, E = +·609; G = −·452, H = −·590, K = −·669.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Victoria	E.	2·8	77	2 7	?S	(2 7)	+50	3·3	4·0
Spokane		6·7	90	i 2 9	+27	i 4 5	+63	i 4·8	5·5
Sitka		10·2	335	2 28	− 5	(e 4 16)	−19	4·3	5·3
Berkeley		10·8	158	e 3 9	+28	e 5 38	?L	e 6·3	—
Lick		11·5	156	e 3 21	+29	5 57	?L	e 6·9	—
Denver		18·1	109	i 5 22	+64	i 9 12	+90	i 11·8	14·5
Tucson		20·1	135	e 5 9	+27	i 9 20	+55	e 12·1	14·1
St. Louis	E.	28·4	96	i 6 23	+11	i 11 25	+19	e 16·5	19·4
Chicago	E.	28·6	88	6 43	+29	11 40	+30	15·3	19·0
	N.	28·6	88	e 6 51	+37	e 11 51	+41	e 15·3	17·5
Ann Arbor	E.	30·9	85	e 6 36	− 1	e 12 0	+10	e 16·6	18·4
	N.	30·9	85	e 6 24	−13	e 12 0	+10	e 16·3	18·6
Toronto		33·2	80	7 5	+ 7	e 12 21	− 6	16·7	21·2
Ottawa		34·9	75	e 7 18	+ 6	i 12 51	− 3	e 17·5	20·5
Ithaca		35·6	80	—	—	e 12 58	− 6	e 17·0	21·3
Honolulu		36·2	234	—	—	—	—	e 14·9	17·2
Tacubaya		36·6	134	7 56	+29	—	—	21·2	24·9
Cheltenham	N.	37·2	85	—	—	—	—	e 20·9	21·8
Fordham		38·1	81	7 37	− 2	e 13 36	− 3	e 19·1	24·0
Harvard		39·2	78	7 50	+ 2	14 6	+12	e 19·9	22·7
Dyce		65·5	30	—	—	e 19 42	+11	25·3	34·1
Edinburgh		66·2	31	—	—	20 18?	?PS	30·3	38·9
Stonyhurst		68·0	32	e 12 33	+89	e 20 21	+19	—	37·3
Upsala	N.	68·5	19	—	—	e 20 18?	+10	e 37·3	44·0
Oxford		70·2	33	—	—	20 42	+14	e 31·3	39·7
Bidston		70·3	32	—	—	20 18	−12	31·5	40·5
Irkutsk		70·5	330	e 11 27	+ 7	e 20 32	0	37·3	—
Leningrad		70·5	11	e 11 32	+12	—	—	33·9	42·1
Pulkovo		70·7	11	11 31	+10	i 20 41	+ 7	33·3	42·2
Kew		70·8	33	e 11 38	+16	—	—	29·3	42·3
De Bilt		72·0	28	11 45	+15	21 4	+14	e 34·3	39·0
Hamburg		72·2	26	e 11 54	+23	e 21 9	+17	e 35·3	43·3
Uccle		72·9	30	—	—	e 21 13	+12	e 33·3	44·2
Paris		74·0	32	—	—	e 21 32	[−10]	35·3	42·3
Ekaterinburg		75·0	356	11 43	− 6	i 21 27	+ 1	33·8	41·8
Kucino		75·5	9	e 11 54	+ 2	21 36	+ 4	37·3	48·5
Strasbourg		75·9	29	—	—	e 21 18?	−18	e 31·3	45·8
Cheb		76·0	25	e 19 18?	?	—	—	e 40·3	46·3
Besançon		76·5	30	—	—	—	—	36·3	—
Vienna		78·8	24	e 12 19	+ 7	e 22 17	+ 7	e 41·3	49·3
Toledo	N.W.	78·9	41	—	—	e 22 22	+11	—	—
Moncalieri		79·1	31	—	—	e 22 25	+12	37·1	—
Rio Tinto		79·4	45	35 18?	?L	—	—	(35·3)	47·3
Graz		79·6	25	—	—	—	—	e 42·3	—
Tortosa	N.	80·0	37	—	—	—	—	e 38·3	44·9
Barcelona		80·1	37	—	—	—	—	e 39·9	48·0
Budapest		80·2	23	—	—	e 21 48	−37	43·8	—
San Fernando		80·7	45	—	—	34 30	?L	(34·5)	44·8
Granada		81·2	43	e 12 52	+26	—	—	e 40·8	44·3

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Florence	81·3	30	e 12 38	+11	23 18	+40	37·3	47·8
Makeyevka	83·2	10	e 12 29	− 8	e 22 59	0	39·3	59·2
La Paz	83·3	125	13 4	+26	e 23 24	+24	—	51·7
Sucre	87·0	124	13 12	+13	23 58	+17	47·1	54·1
Tashkent	89·5	349	i 13 9	− 4	24 7	− 2	e 39·3	52·0
Baku	91·6	3	e 13 27	+ 2	e 23 46	[+ 8]	43·3	59·6
Cape Town	151·0	74	—	—	—	—	—	80·8

Additional readings: Spokane iE = +1m.25s., +1m.37s., +1m.51s., +1m.58s., and +3m.14s., iSE = +4m.6s. Berkeley eP = +3m.10s., ePR_1EN? = +3m.14s., ePR_2EN? = +3m.16s., eN = +5m.43s. Lick PR_1N = +3m.33s., PR_2E = +3m.35s.?, eSN = +6m.0s., SR_1N = +6m.22s. Denver iPR_2N = +5m.46s., eSE = +9m.18s., eSR_1N = +10m.5s. Tucson PR_1 = +5m.31s., PR_2 = +5m.45s., eLN = +12·0m., MN = +12·8m. and several other e readings. St. Louis iPR_1E = +7m.12s. Chicago PR_1E = +7m.25s., PR_2E = +7m.48s., SR_1EN = +13m.18s., eSR_2N = +14m.12s.; T_0 = 19h.41m.53s. and 19h.42m.11s. Ann Arbor ePR_1 = +7m.24s., iSR_1 = +14m.0s.; T_0 = 19h.40m.54s. Toronto PE = +7m.8s., iE = +7m.36s., eE = +8m.3s., iSE = +12m.28s., MN = +20·0m. Ottawa MN = +20·6m.; T_0 = 19h.42m.1s. Fordham PR_1 = +9m.8s., i = +10m.30s., SR_1 = +16m.28s., and several other eE readings; T_0 = 19h.41m.52s. Harvard PR_1E = +9m.26s. and several e readings. Leningrad MZ = +42·2m., MN = +42·3m. Pulkovo SR_1 = +25m.12s., SR_2 = +28m.42s., MZ = +42·3m., MN = +42·4m. Kew: Is S = SR_2? De Bilt MZ = +46·2m. Ekaterinburg e = +14m.53s. = PR_1 −15s., SR_1 = +26m.19s., eSR_2 = +29m.29s., MN = +44·6m. Kucino PS = +22m.22s., e = +26m.24s., MN = +44·5m. Strasbourg MN = +47·3m. Moncalieri S? = +31m.34s. = SR_2 +6s. Tortosa readings are given for 31d. Makeyevka ePR_2 = +19m.23s. = PR_2 −1s., MN = +50·2m., MZ = +56·3m. Sucre PS = +24m.36s.; T_0 = 19h.41m.50s. Tashkent PR_1 = +16m.50s., PR_2 = +19m.26s., SR_1 = +30m.16s., SR_2 = +36m.39s., MZ = +53·4m., MN = +53·6m. Baku e = +20m.19s., MN = +58·8m., MZ = +60·7m.

Oct. 30d. Readings also at 0h. (Sucre), 1h. (Nagasaki, Pulkovo, Leningrad, La Plata (2), La Paz, Sucre, and near Athens), 5h. (near Victoria), 6h. (Toronto, Ottawa, Chicago, and Rocca di Papa), 8h. (Toronto, Ottawa, Chicago, near Tashkent, near Port au Prince, and San Juan), 9h. (De Bilt and near Tacubaya), 10h. (Nagasaki, Batavia, and near Malabar), 11h. (Hong Kong and near Manila), 12h. (Pulkovo, Leningrad, Ekaterinburg, and De Bilt), 15h. (Pulkovo, Leningrad, and Nagasaki), 16h. (Victoria), 17h. (near Nagasaki), 21h. (near Manila).

Oct. 31d. 11h. 43m. 15s. (I) } Epicentre 11°·5N. 43°·5E. (as on Oct. 30d.).
17h. 12m. 38s. (II) }

A = +·711, B = +·675, C = +·199; D = +·688, E = −·725;
G = +·145, H = +·137, K = −·980.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
I Entebbe	15·8	225	—	—	6 23	−27	7·4	—
II	15·8	225	4 16	+27	6 8	−42	8·0	10·0
I Baku	29·5	10	e 6 42	+19	i 11 25	− 1	15·8	19·4
II	29·5	10	e 6 31	+ 8	e 11 19	− 7	16·4	20·7
I Makeyevka	36·9	355	e 7 18	−11	e 13 12	−10	17·8	27·7
II	36·9	355	e 8 46	?PR_1	e 13 22	0	21·4	24·6
I Tashkent	37·4	32	i 7 32	− 1	i 13 25	− 5	e 20·8	24·8
II	37·4	32	i 7 31	− 2	13 29	− 1	e 19·4	26·6
I Ekaterinburg	47·3	12	e 8 50	+ 1	—	—	22·8	29·4
II	47·3	12	e 10 54	?PR_1	15 45	0	24·4	31·6
I Pulkovo	49·3	352	(e 9 4)	+ 2	(e 16 19)	+ 9	(29·8)	(32·0)
II	49·3	352	(10 56)	?PR_1	(e 16 21)	+11	(30·4)	(31·7)
I Irkutsk	63·3	37	—	—	—	—	e 34·8	—
II	63·3	37	—	—	—	—	e 34·4	—

Additional readings and notes: Baku I MN = +20·8m., II MN = +20·4m., MZ = +21·9m. Makeyevka I ePR_2 = +8m.50s., MNZ = +24·5m., II MN = +23·5m. Tashkent I eP = +8m.56s. = PR_1 +6s., i = +10m.42s., e = +14m.23s., iS = +16m.18s. = SR_2 −15s., MNZ = +25·9m., II iPR_2 = +9m.4s. = PR_2 −13s., iSR_1 = +16m.11s. = SR_2 −22s., MN = +25·9m., MZ = +26·5m. Ekaterinburg I e = +14m.46s. and +15m.16s. = S −29s., MN = +31·7m., II MN = +30·9m. Pulkovo I P = (+10m.55s.) = PR_1 −14s., S = (+20m.8s.) = SR_1 +16s., SR_1 = (+25m.27s.) = L?, II S = (+19m.58s.) = SR_1 +6s., MZ = (+32·0m.); all readings have been increased by 1m.

Oct. 31d. Readings also at 0h. (Tashkent and Entebbe), 1h. (Baku), 5h. (Ekaterinburg, Pulkovo, Leningrad, Tashkent, and Nagasaki), 9h. (Ekaterinburg, La Paz, and Sucre), 10h. (La Paz and Sucre), 12h. (Nagasaki), 13h. (Tashkent), 14h., 15h., 16h., and 17h. (Nagasaki), 18h. (La Paz), 21h. (La Paz), 22h. (Apia).

Nov. 1d. 1h. 39m. 15s. Epicentre 48°·0N. 127°·5W. (as on 1926 Oct. 30d.).

$A = -\cdot407$, $B = -\cdot531$, $C = +\cdot743$; $D = -\cdot793$, $E = +\cdot609$; $G = -\cdot452$, $H = -\cdot590$, $K = -\cdot669$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Spokane	E.	6·7	90	i 1 55	+13	i 3 30	+28	i 4·2	5·1
	N.	6·7	90	e 2 0	+18	i 3 30	+28	e 3·9	5·1
Sitka		10·2	335	2 13	−20	(4 8)	−27	i 5·0	5·4
Berkeley		10·8	158	e 2 57	+16	e 5 24	+34	e 6·7	—
Santa Clara		11·3	157	e 3 4	+15	i 5 35	+33	6·8	7·3
Lick		11·5	156	i 3 9	+17	e 5 37	+30	i 6·8	—
Saskatoon		13·9	65	i 3 33	+ 8	i 6 36	+30	i 7·3	8·7
Denver		18·1	109	(i 4 22)	+ 4	(e 8 9)	+27	(e 10·2)	(12·0)
Tucson		20·1	135	4 47	+ 5	8 50	+25	e 11·2	13·7
St. Louis	E.	28·4	96	i 6 11	− 1	e 11 3	− 3	e 16·1	19·0
Chicago	E.	28·6	88	6 38	+24	i 11 38	+28	14·4	19·0
	N.	28·6	88	6 43	+29	e 11 38	+28	e 16·4	17·2
Ann Arbor		30·9	85	e 6 27	−10	i 11 45	− 5	e 15·4	19·8
Toronto	E.	33·2	80	—	—	e 12 14	−13	16·6	21·4
Loyola		33·7	110	8 44	+102	12 53	+17	17·4	19·7
Ottawa		34·9	75	i 7 0	−12	i 12 38	−16	e 17·0	20·2
Ithaca		35·6	80	7 13	− 5	13 2	− 2	16·8	—
Honolulu	E.	36·2	234	—	—	12 23	−50	e 14·8	19·0
Tacubaya		36·6	134	7 12	−15	13 9	− 9	16·2?	24·2
Cheltenham		37·2	85	—	—	—	—	21·0	24·4
Fordham		38·1	81	e 7 57	+18	e 13 30	− 9	17·2	23·2
Harvard		39·2	78	—	—	13 54	0	19·4	23·2
San Juan	N.	57·4	100	—	—	e 19 9	+78	e 29·8	41·2
Bergen		65·1	24	—	—	—	—	e 30·8	—
Dyce		65·5	30	—	—	19 33	+ 2	e 26·8	34·3
Edinburgh		66·2	31	—	—	e 19 45?	+ 5	28·8	39·0
Stonyhurst		68·0	32	11 14	+10	20 3	+ 1	31·8	37·6
Upsala		68·5	19	e 11 3	− 5	e 20 6	− 2	e 34·8	43·6
Azores		69·7	57	37 3	?L	39 57	?	(37·0)	44·0
Oxford		70·2	33	—	—	i 20 38	+10	e 30·8	39·4
Bidston		70·3	32	—	—	—	—	27·4	40·4
Irkutsk		70·5	330	e 11 25	+ 5	20 22	−10	35·8	—
Leningrad		70·5	11	11 21	+ 1	20 30	− 2	29·8	45·2
Pulkovo		70·7	11	11 20	− 1	20 30	− 4	30·8	41·4
Kew		70·8	33	e 11 29	+ 7	e 20 40	+ 4	29·8	38·3
De Bilt		72·0	28	11 36	+ 6	20 55	+ 5	e 33·8	38·7
Hamburg		72·2	26	e 11 30	− 1	e 20 56	+ 4	e 29·8	38·8
Uccle		72·9	30	i 11 52	+17	i 21 3	+ 2	e 29·8	35·9
Paris		74·0	32	—	—	e 21 18	+ 4	31·8	34·8
Ekaterinburg		75·0	356	11 43	− 6	21 15	−11	34·8	41·5
Kucino		75·5	9	11 48	− 4	21 27	− 5	32·6	48·3
Strasbourg		75·9	29	—	—	i 21 46	+10	35·8	39·3
Cheb		76·0	25	—	—	e 21 41	+ 4	e 32·8	40·8
Besançon		76·5	30	—	—	—	—	31·8	40·8
Ravensburg	N.	77·2	28	e 11 45	−17	—	—	e 40·7	48·1
Zurich		77·3	30	e 11 57	− 6	e 22 28	?PS	—	—
Chur		78·0	30	12 15	+ 8	e 22 1	+ 1	—	—
Innsbruck	N.E.	78·2	27	e 12 13	+ 5	e 21 58	− 4	—	42·3
Vienna		78·8	24	e 12 8	− 4	e 22 11	+ 1	e 35·8	42·8
Toledo		78·9	41	—	—	e 22 10	− 1	e 32·3	43·3
Moncalieri		79·1	31	e 12 16	+ 2	22 5	− 8	35·0	43·8
Tortosa	N.	80·0	37	—	—	—	—	e 31·8	44·8
Barcelona	N.	80·1	37	e 22 26	?S	(e 22 26)	+ 2	37·2	45·7
Budapest		80·2	23	12 7	−13	22 31	+ 6	e 34·2	51·8
San Fernando		80·7	45	—	—	22 37	+ 6	33·8	45·2
Zagreb		80·9	25	—	—	—	—	e 33·8	—
Granada		81·2	43	e 12 27	+ 1	—	—	38·4	53·3
Malaga		81·2	43	e 22 27	?S	(e 22 27)	−10	e 31·8	42·1
Florence		81·3	30	12 30	+ 3	22 45	+ 7	—	47·4
Alicante		81·6	40	e 30 0	?	35 20	?	42·6	48·2
Makeyevka		83·2	10	e 12 32	− 5	22 54	− 5	39·8	51·5

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
La Paz		83·3	125	i 12 54	+16	i 23 12	+12	44·8	50·8
Algiers		84·5	38	—	—	—	—	—	46·8
Sucre		87·0	124	i 13 3	+ 4	i 23 36	− 5	45·6	45·4
Athens		90·4	23	—	—	e 23 59	−19	40·8	49·2
Hong Kong		90·7	306	19 25	?PR_1	—	—	—	51·2
Baku		91·6	3	13 13	−12	i 24 11	−20	43·8	58·9
Simla	N.	97·8	340	—	—	—	—	50·6	—
La Plata		103·5	129	—	—	—	—	50·8	—
Riverview		109·3	241	e 16 3	+69	—	—	50·0	72·4
Hyderabad		110·6	334	—	—	—	—	—	55·2
Bombay		110·7	340	—	—	—	—	e 54·8	—
Melbourne		115·7	242	—	—	e 35 21	?SR_1	—	63·2
Adelaide	N.	117·6	249	—	—	—	—	—	64·1
Entebbe		128·9	27	—	—	e 39 5	?SR_1	—	—

Additional readings and notes: Spokane iN = +3m.51s., iE = +3m.58s. Sitka S is given as L. Berkeley PR_1? = +3m.2s., PR_2? = +3m.3s., PR_2N? = +3m.5s., SR_1N = +5m.37s., eLN = +6·5m. Santa Clara iPE = +3m.6s., iE = +3m.32s., eE = +4m.8s. Lick eSE = +5m.39s., eSN = +5m.47s., eZ = +5m.44s. Saskatoon MN = +9·4m.; T_o = 1h.39m.1s. Denver iS = (+8m.10s.), MN = (+13·4m.), and several i readings; all the readings have been diminished by 1m. Tucson PR_1 = +5m.9s., PR_2N = +5m.20s., SR_1E = +9m.45s., SR_1N = +9m.49s., LN? = +10·8m., MN = +12·0m.; T_o = 1h.38m.47s. and 1h.38m.58s. St. Louis ePR_1E = +6m.57s. iSE = +11m.15s., SR_1E = +13m.3s., SR_2E = +13m.28s., SR_3 = +13m.46s. Chicago PR_1E = +7m.10s., iSN? = +11m.56s., SR_1E = +13m.19s.; T_o = 1h.39m.19s. and 1h.39m.34s. Ann Arbor iPR_1 = +7m.39s., eSR_1 = +13m.33s., MN = +20·2m.; T_o = 1h.38m.54s. Toronto PR_1E = +7m.46s., eN = +7m.48s., iSE = +12m.23s., iE = +12m.42s. Ottawa iPR_1? = +8m.0s., iE = +8m.24s., MN = +21·0m.; T_o = 1h.39m.9s. Honolulu SR_1E? = +14m.34s., MN = +19·2m. Fordham i = +8m.35s. = PR_1 − 24s. and +8m.50s. = PR_1 − 9s., e = +11m.45s., eSN = +13m.17s., MN = +20·9m.; T_o = 1h.39m.9s. Harvard SR_1N = +16m.15s., SR_1E = +16m.21s. San Juan ME = +37·8m. Edinburgh i = +27m.15s. = SR_3 − 4s. Upsala MN = +40·9m. Leningrad MZ = +42·0m., MN = +42·5m. Pulkovo SR_1 = +25m.3s., SR_2 = +28m.51s., MZ = +38·1m., MN = +39·0m. De Bilt MN = +38·8m., MZ = +44·1m. Hamburg eSN = +21m.3s., MZ = +44·8m. Uccle MN = +36·2m. Paris MN = +34·8m. Ekaterinburg SR_1 = +26m.3s., SR_2 = +29m.27s., MN = +40·3m. Kucino e = +14m.41s. = PR_1 − 31s., and +17m.30s. = PR_2 − 21s., PS = +22m.7s., SR_1 = +26m.15s., MN = +44·7m. Strasbourg iPS = +22m.59s., MN = +47·2m. Ravensburg eLE = +34·0m., ME = +41·2m. Toledo MNW = +46·8m. Moncalieri MN = +43·6m. Barcelona MN = +50·3m. San Fernando MN = +44·8m. Malaga iP = +22m.41s. = S + 4s., S = +28m.35s. = SR_1 + 5s. Makeyevka SR_1 = +29m.40s., MN = +50·6m., MZ = +64·9m. La Paz iSN = +23m.10s. = S + 10s., SR_2 = +29m.20s. = SR_1 + 20s., MN = +51·6m.; T_o = 1h.39m.39s. Sucre PS = +24m.12s., i = +24m.39s., +25m.8s., and +25m.48s., SR_1 = +29m.3s.; T_o = 1h.39m.28s. Baku S_2P_4S = +23m.41s. = (S) + 3s. Simla eE = +51m.33s. Riverview ePPS? = +30m.43s., eSR_1? = +34m.3s., eSR_2? = +40m.4s., eSR_3? = +43m.19s., MN = +75·2m.

Nov. 1d. 15h. 5m. 18s. Epicentre 52°·5N. 162°·0W.

A = −·579, B = −·188, C = +·793; D = −·309, E = +·951; G = −·755, H = −·245, K = −·609.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Chicago	N.	49·4	71	—	—	—	—	e 25·2	31·7
Toronto	E.	52·8	64	—	—	—	—	32·7	—
Irkutsk		52·9	310	e 9 24	− 1	e 16 55	0	e 28·7	—
Ottawa		53·7	60	—	—	—	—	e 27·7	—
Ekaterinburg		65·2	336	10 47	+ 1	19 29	+ 2	31·7	43·4
Leningrad		67·1	354	—	—	—	—	e 36·2	45·9
Pulkovo		67·3	354	e 11 1	+ 1	e 19 52	− 2	34·7	—
Kucino		70·5	348	—	—	e 20 28	− 4	40·7	—
Makeyevka		78·0	347	—	—	—	—	e 50·7	—
Baku		83·1	336	e 12 34	− 3	e 22 57	− 1	42·7	51·4

Additional readings: Chicago eLE = +28·7m., ME = +31·5m. Ekaterinburg i = +10m.48s., MZ = +45·0m. Leningrad MZ = +50·5m. Kucino e = +20m.50s. and +21m.40s. Baku MN = +60·2m., MZ = +60·3m.

Nov. 1d. 23h. 29m. 30s. Epicentre 23°·7N. 127°·0E.

A = −·551, B = +·731, C = +·402; D = +·799, E = +·602; G = −·242, H = +·321, K = −·916.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Taihoku	5·1	286	e 1 0	−19	—	—	1·3	1·4
Zi-ka-wei	9·0	328	(e 2 58)	+42	(4 23)	+20	—	(6·9)
Manila	10·8	213	—	—	—	—	e 5·5	—
Hong Kong	11·9	266	—	—	—	—	3·8	6·0
Phu-Lien	19·1	265	e 4 14	−16	—	—	—	—
Irkutsk	33·4	334	e 6 56	− 4	e 12 28	− 2	17·5	20·9
Ekaterinburg	57·5	324	i 10 5	+ 9	e 18 4	+11	29·5	35·6
Baku	65·5	307	e 10 54	+ 6	—	—	e 33·5	—
Kucino	70·1	324	—	—	—	—	34·6	42·8
Makeyevka	71·9	317	—	—	—	—	e 36·5	45·6
Leningrad	72·9	330	—	—	—	—	e 38·7	45·4
Pulkovo	72·9	330	e 11 50	+15	e 21 38	[+ 5]	38·5	46·5
De Bilt	88·8	329	—	—	—	—	e 46·5	55·6
Strasbourg	89·7	325	—	—	—	—	55·5	—
Uccle	90·1	329	—	—	—	—	e 46·5	—
Florence	90·5	319	—	—	—	—	e 54·5	57·5
Moncalieri	91·8	322	—	—	—	—	e 52·2	—
Kew	91·8	331	—	—	—	—	54·5	—

Additional readings and notes: Taihoku has a shock earlier by 2m.12s. in all three phases, P, L, and M. Zi-ka-wei readings have been increased by 2m., but the readings may belong to the earlier shock noted by Taihoku. Irkutsk MZ = +20·8m. Ekaterinburg e = +21m.50s. = SR_1 − 35s., MZ = +35·7m. Baku e = +23m.58s. = SR_1 − 40s., and +27m.2s. = SR_2 − 1s. Kucino MN = +43·2m. Makeyevka L = +39·5m. Leningrad MN = +45·2m., MZ = +46·4m. Pulkovo MN = +46·4m. De Bilt MNZ = +56·9m.

Nov. 1d. Readings also at 3h. (Amboina), 7h. and 8h. (Nagasaki), 10h. (Riverview), 12h. (Nagasaki), 16h. (Victoria), 20h. (La Plata), 22h. (near Lick), 23h. (Taihoku (2)).

Nov. 2d. 1h. 51m. 30s. Epicentre 15°·5N. 122°·0E.

A = −·511, B = +·817, C = +·267; D = +·848, E = +·530; G = −·142, H = +·227, K = −·964.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	1·4	227	i 0 27	+ 6	(i 0 44)	+ 5	i 0·7	—
Hong Kong	10·1	314	—	—	—	—	—	6·0
Zi-ka-wei	15·7	358	e 4 5	+17	—	—	—	11·5
Irkutsk	39·4	343	e 7 40	−10	e 13 38	−19	20·5	—
Ekaterinburg	61·5	327	i 10 25	+ 3	18 50	+ 8	30·5	37·7
Kucino	74·0	325	—	—	—	—	42·6	—
Makeyevka	74·6	318	—	—	—	—	e 42·5	—
Pulkovo	77·5	330	—	—	—	—	e 43·5	52·2
De Bilt	93·3	327	—	—	—	—	e 51·5	—
Uccle	94·4	326	—	—	—	—	e 50·5	—

No additional readings.

Nov. 2d. 16h. 3m. 55s. Epicentre 4°·5S. 131°·0E. (as on 1919 Nov. 18d.).

A = −·654, B = +·752, C = −·078; D = +·755, E = +·656; G = +·051, H = −·059, K = −·997.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	21·5	333	—	—	e 9 5?	+10	—	—
Perth	30·9	206	(e 7 0)	+23	(e 11 5)	−45	(e 14·6)	—
Adelaide	31·2	168	6 37	− 3	e 12 59?	+65	18·2	18·7
Riverview	34·8	150	(e 7 7)	− 4	(e 12 23)	−29	(e 15·6)	(16·5)
Sydney	34·9	150	8 41	?PR_1	—	—	e 18·6	19·2
Melbourne	35·7	161	—	—	e 12 23	−43	e 19·1	23·6
Zi-ka-wei	36·9	346	e 6 55	−34	—	—	—	24·0
Wellington	53·7	140	—	—	—	—	e 29·1	—
Irkutsk	61·2	342	10 29	+ 9	18 59	+21	32·1	—

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Ekaterinburg	83·3	329	i 12 47	+ 9	23 13	+13	36·1	53·3
Baku	86·2	311	e 13 18	+24	e 24 24	?PS	e 45·6	58·7
Makeyevka	95·4	316	—	—	—	—	e 60·1	—
Pulkovo	99·3	330	—	—	e 22 43?	?PR$_2$	57·1	63·3
Leningrad	99·3	330	—	—	—	—	59·1	—
De Bilt	114·9	326	—	—	—	—	e 62·1	—
Uccle	115·9	325	—	—	—	—	e 60·1	—
Chicago	129·3	36	—	—	—	—	e 62·9	—
Toronto	132·5	31	—	—	—	—	60·1	—
Ottawa	132·9	26	—	—	—	—	e 59·1	—
Sucre	151·6	146	20 0	[+ 2]	—	—	—	—
La Paz	151·7	138	19 54	[− 4]	—	—	—	—

Additional readings and notes : Perth readings have all been diminished by 6m. Adelaide SR$_1$ = +15m.55s., MN = +21·2m. Riverview readings have all been diminished by 3m. Baku e = +16m.44s. =PR$_1$ +6s., MN = +62·9m., MZ = +65·3m. Ekaterinburg MZ = +53·0m. Chicago eLN = +68·3m. Sucre i = +20m.24s. La Paz i = +20m.33s. and +20m.56s.

Nov. 2d. 19h. 46m. 0s. Epicentre 46°·0N. 154°·0E. (as on 1922 May 4d.).

A = −·624, B = +·305, C = +·719 ; D = +·438, E = +·899 ; G = −·647, H = +·315, K = −·695.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Ootomari		7·8	279	2 5	+ 7	(3 36)	+ 5	3·6	—
Mizusawa		11·7	239	3 8	+13	4 57	−15	11·2	—
Osaka		18·0	238	4 25	+ 8	7 39	− 1	11·4	12·5
Sumoto		18·6	238	4 27	+ 3	8 8	+15	11·8	—
Zi-ka-wei		29·1	251	6 3	−16	11 18	− 1	—	—
Irkutsk		32·4	300	6 36	−16	12 1	−13	18·0	20·0
Taihoku	E.	33·3	242	—	—	—	—	e 17·0	—
Phu-Lien		45·9	255	e 8 32	− 7	e 18 29	?SR$_1$	24·0	—
Ekaterinburg		54·5	319	i 9 32	− 4	e 17 0	−15	26·0	33·8
Simla	E.	59·5	285	—	—	—	—	e 32·1	—
Leningrad		64·5	332	i 10 42	0	19 29	+10	32·2	41·4
Pulkovo		64·7	332	10 40	− 3	19 26	+ 5	33·0	43·0
Kucino		65·0	326	10 43	− 2	e 19 20	− 5	32·6	37·7
Upsala		68·3	339	—	—	e 20 27	+21	e 39·0	45·1
Baku		70·3	309	i 11 20	+ 1	i 20 42	+12	36·0	45·3
Bombay		70·4	277	e 12 0?	+41	—	—	—	—
Makeyevka		70·6	321	e 11 19	− 2	—	—	35·0	48·8
Dyce		74·9	348	—	—	—	—	—	49·0
Hamburg		75·8	340	e 11 51	− 3	—	—	e 40·0	45·0
Chicago	E.	76·5	43	—	—	e 21 36	− 7	e 35·9	—
	N.	76·5	43	—	—	e 21 34	− 9	e 34·7	36·1
Stonyhurst		78·1	347	—	—	—	—	e 49·0	—
De Bilt		78·3	341	12 7	− 2	22 3	− 1	e 41·0	45·6
Budapest		78·5	331	—	—	e 22 0?	− 6	e 45·5	—
Toronto	N.	78·6	37	—	—	22 0	− 7	45·0	—
Ottawa		78·7	33	—	—	e 22 3	− 5	e 40·0	—
Vienna		78·8	333	e 11 12	−60	—	—	—	51·0
Uccle		79·7	341	e 12 22	+ 5	e 22 15	− 5	e 41·0	—
Graz		80·0	333	—	—	e 22 16	− 7	43·0	54·7
Kew		80·1	346	—	—	—	—	e 40·0	—
Strasbourg		81·0	339	—	—	—	—	e 40·0	—
Paris		82·0	342	—	—	—	—	e 45·0	—
Florence		84·3	334	i 12 30	−14	23 20	+ 9	—	54·5
Moncalieri		84·3	337	—	—	e 22 1	−70	49·2	52·5
Tortosa	N.	90·0	341	—	—	—	—	e 46·0	59·0
Toledo		91·9	345	—	—	—	—	e 50·8	63·0
Rio Tinto		94·4	345	62 0	?	—	—	—	69·0
Malaga	E.	95·0	343	—	—	—	—	e 43·8	—
San Fernando	E.	95·6	344	—	—	—	—	—	57·0

Additional readings : Irkutsk MN = +19·8m., MZ = +21·3m. Ekaterinburg i = +11m.15s. =PR$_1$ −46s., SR$_1$ = +20m.48s. =SR$_1$ −43s., MZ = +35·1m. Simla eN = +36m.12s. Leningrad i = +14m.45s. =PR$_2$ −12s. e = +19m.17s., PS = +20m.31s., MN = +40·3m., MZ = +42·9m. Pulkovo PR$_1$ = +14m.27s., PS = +20m.35s., SR$_1$ = +23m.54s., SR$_2$ = +26m.18s., MN = +40·3m., MZ = +42·9m. Kucino PR$_2$ = +14m.42s., MN = +41·0m. Upsala MN = +42·3m. Baku MNZ = +45·4m.

Continued on next page.

Makeyevka e = +16m.24s. = PR_3 − 26s., +22m.4s. and +29m.0s.? = SR_3 +14s., MN = +44·9m., MZ = +50·4m. Hamburg MN = +49·0m. Chicago eSR_1N = +26m.58s., eSR_1E = +27m.48s. De Bilt MN = +53·4m. Ottawa e = +30m.36s. = SR_2 − 44s. Toledo MNW = +61·4m. San Fernando MN = +62·5m.

Nov. 2d. 21h. 9m. 26s. Epicentre 46°·0N. 154°·0E. (as at 19h.).

		Δ	Az.	P.	O − C.	S.	O − C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Ootomari		7·8	279	2 7	+ 9	(3 35)	+ 4	3·6	4·7
Mizusawa	E.	11·7	239	3 10	+15	5 0	−12	—	—
	N.	11·7	239	3 9	+14	5 2	−10	—	—
Osaka		18·0	238	4 22	+ 5	7 46	+ 6	10·7	13·3
Sumoto		18·6	238	4 24	0	7 1	−52	11·7	—
Zi-ka-wei		29·1	251	6 7	−12	e 11 16	− 3	—	18·9
Irkutsk		32·4	300	e 6 20	−32	11 56	−18	18·6	21·0
Taihoku	E.	33·3	242	—	—	e 12 34?	+ 5	—	—
Phu-Lien		45·9	255	e 8 32	− 7	—	—	23·6	—
Honolulu	N.	46·0	104	—	—	—	—	e 21·2	23·4
Ekaterinburg		54·5	319	i 9 31	− 5	17 8	− 7	25·6	34·8
Simla	N.	59·5	285	—	—	—	—	e 32·6	36·2
Leningrad		64·5	332	i 10 40	− 2	19 18	− 1	31·6	41·3
Pulkovo		64·7	332	i 10 42	− 1	19 21	0	32·6	35·9
Kucino		65·0	326	10 43	− 2	e 19 23	− 2	32·9	36·9
Hyderabad		67·6	275	11 8	+ 6	21 4	+67	38·0	45·0
Upsala	N.	68·3	339	e 11 2	− 4	e 19 57	− 9	e 34·6	42·6
Baku		70·3	309	i 11 20	+ 1	i 20 41	+11	35·1	46·7
Bombay		70·4	277	e 11 19	0	—	—	—	—
Makeyevka		70·6	321	e 11 20	− 1	e 20 30	− 3	32·6	48·8
Dyce		74·9	348	—	—	e 21 34	+ 9	45·1	48·7
Hamburg		75·8	340	e 11 51	− 3	e 21 32	− 3	e 38·6	43·6
Edinburgh		76·3	348	—	—	—	—	e 47·6	—
Chicago	E.	76·5	43	—	—	21 26	−17	34·6	47·1
	N.	76·5	43	—	—	i 21 34	− 9	e 42·6	47·6
Stonyhurst		78·1	347	—	—	e 21 50	−11	e 48·6	53·1
De Bilt		78·3	341	12 7	− 2	22 3	− 1	e 41·6	50·9
Budapest		78·5	331	12 9	− 1	22 6	0	e 45·1	51·5
Toronto	E.	78·6	37	—	—	i 21 59	− 8	46·1	—
Ottawa		78·7	33	—	—	i 22 4	− 4	e 38·6	—
Vienna		78·8	333	e 12 7	− 5	—	—	—	53·6
Uccle		79·7	341	e 12 13	− 4	—	—	e 40·6	—
Oxford		80·0	346	—	—	i 22 14	− 9	42·6	57·6
Graz		80·0	333	e 12 32	+13	e 22 14	− 9	41·6	50·7
Kew		80·1	346	—	—	e 22 34?	+10	40·6	—
Strasbourg		81·0	339	e 12 19	− 6	e 23 34?	?PS	40·6	—
Zagreb		81·0	331	e 12 22	− 3	—	—	—	—
Innsbruck		81·1	336	e 12 12	−14	—	—	—	—
Ravensburg		81·1	339	—	—	—	—	45·3	—
Zurich		81·8	338	e 12 24	− 5	e 22 37	− 7	—	—
Paris		82·0	342	—	—	—	—	e 45·6	54·6
Chur		82·1	338	e 12 28	− 3	—	—	—	—
Florence		84·3	334	i 12 38	− 6	23 14	+ 3	—	54·6
Moncalieri		84·3	337	(e 12 5)	−39	(23 21)	+10	(44·0)	(67·6)
Rocca di Papa		85·7	332	e 12 35	−17	e 25 22	+115	—	—
Tortosa	N.	90·0	341	—	—	24 0	−14	e 47·6	59·3
Toledo		91·9	345	—	—	—	—	e 45·8	55·5
Rio Tinto		94·4	345	54 34	?L	—	—	(54·6)	68·6
Granada		94·5	342	—	—	—	—	55·1	57·2
Malaga	E.	95·0	343	—	—	—	—	e 53·3	60·8
San Fernando	E.	95·6	344	—	—	—	—	—	62·6

Additional readings and notes: Mizusawa SN = +5m.2s. Osaka MN = +12·1m. Irkutsk PR_1 = +7m.39s., MN = +19·7m., MZ = +21·2m. Ekaterinburg SR_1 = +20m.40s., MZ = +35·2m. Simla eE = +32m.40s. (?L). Leningrad iP = +10m.41s., PR_1 = +14m.37s., PS = +19m.36s., eSR_1 = +23m.39s., SR_3 = +26m.29s., MNZ = +40·3m. Pulkovo PR_1 = +14m.30s. = PR_3 − 29s., SR_1 = +23m.40s., SR_3 = +26m.22s., MN = +40·4m., MZ = +42·9m. Kucino PR_2 = +14m.37s., SR_1 = +23m.40s., SR_3 = +26m.40s., MN = +40·8m. Upsala ME = +45·1m. Baku MZ = +45·5m., MN = +45·6m. Makeyevka e = +21m.36s. = [S] +20s., MN = +44·9m., MZ = +46·7m. Hamburg MN = +48·6m. Chicago eSR_1E = +25m.46s. De Bilt MZ = +51·0m., MN = +53·4m. Ottawa e = +30m.40s. Graz SR_1 = +27m.14s. and +32m.48s., MN = +54·7m. Paris MN = +57·6m. Moncalieri readings have been increased by 10m. Tortosa SE? = +22m.34s.? Toledo MNW = +56·5m. Granada readings have been increased by 1h. San Fernando MN = +62·1m.

Nov. 2d. 22h. 58m. 54s. Epicentre 46°·0N. 154°·0E. (as at 21h.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa E.	11·7	239	3 1	+ 6	4 53	−19	—	—
Irkutsk	32·4	300	e 6 11	−41	e 12 8	− 6	18·1	—
Ekaterinburg	54·5	319	i 9 32	− 4	—	—	27·1	34·0
Leningrad	64·5	332	—	—	—	—	33·7	43·7
Pulkovo	64·7	332	—	—	—	—	35·1	40·8
Baku	70·3	309	e 11 20	+ 1	—	—	36·6	44·5
De Bilt	78·3	341	—	—	—	—	e 44·1	—
Vienna Z.	78·8	333	e 12 8	− 4	—	—	—	—
Uccle	79·7	341	—	—	—	—	e 43·1	—
Zurich	81·8	338	e 12 23	− 6	23 55	?PS	—	—
Florence	84·3	334	—	—	—	—	e 48·1	54·1
Granada	94·5	342	—	—	—	—	e 40·6	43·5

Additional readings: Ekaterinburg MZ = +35·1m. Leningrad MZ = +42·9m. Pulkovo MN = +44·0m. Baku MN = +45·3m., MZ = +45·4m. Zurich S is given as e simply.

Nov. 2d. Readings also at 0h. (Taihoku), 4h. (Nagasaki), 7h. (near La Paz), 10h. (Manila), 11h. (Rocca di Papa), 17h. and 19h. (Hong Kong), 22h. (Nagasaki and La Paz).

Nov. 3d. 17h. 59m. 42s. Epicentre 36°·0N. 5°·0W. (as on 1926 Aug. 18d.).

A = +·806, B = −·071, C = +·588.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Malaga	0·9	32	0 9	− 5	(0 19)	− 6	0·3	—
San Fernando	1·0	296	0 24	+ 9	—	—	—	—
Granada	1·6	43	i 0 23	− 1	0 45	0	0·8	1·0
Almeria	2·3	67	0 53	+17	i 1 20	+17	1·4	2·0

Granada gives also i = +31s.

Nov. 3d. 18h. 34m. 30s. Epicentre 14°·0S. 174°·0W. (as on 1926 Oct. 5d.).

A = −·965, B = −·101, C = −·242; D = −·105, E = +·995; G = +·241, H = +·025, K = −·970.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Apia	2·2	86	0 35	+ 1	(1 2)	+ 2	1·0	3·5
Wellington	29·0	198	—	—	e 10 30?	−47	—	—
Riverview	37·2	232	—	—	e 13 30	+ 3	—	21·9
Honolulu N.	38·7	24	—	—	e 13 42	− 6	e 17·5	20·0
Nagasaki	71·1	314	20 26	?S	(20 26)	−13	—	—
Tucson	76·0	51	11 33	−22	e 21 47	+10	e 35·6	—
Victoria	76·9	32	21 48	?S	(21 48)	0	36·3	40·5
Irkutsk	96·1	322	13 37	−13	24 57	−20	42·5	—
Chicago	96·7	49	—	—	—	—	e 43·2	58·0
La Paz	100·7	110	—	—	—	—	53·6	59·3
Sucre	102·5	114	—	—	—	—	56·5	60·6
Toronto	102·9	48	e 22 45	?PR_3	—	—	48·8	—
Ottawa	105·7	46	e 11 48	?	i 24 57	[+ 6]	e 48·5	—
Ekaterinburg	120·6	329	e 20 23	?PR_1	e 25 59	[+13]	48·5	63·4
Leningrad	130·7	344	e 21 32	?PR_1	—	—	63·9	—
Pulkovo	130·9	344	e 18 15	[−65]	e 22 17	?PR_1	67·5	72·0
Kucino	131·5	335	e 22 44	?PR_1	—	—	e 62·6	70·4
Makeyevka	136·9	329	e 22 30?	?PR_1	e 34 40	?	76·5	—
Edinburgh	137·5	7	—	—	—	—	e 75·5	—
De Bilt	141·9	1	—	—	—	—	e 70·5	82·8
Kew	142·2	6	—	—	—	—	e 69·5	—
Uccle	143·2	3	—	—	—	—	e 67·5	—
Vienna Z.	144·7	350	e 19 40	[− 7]	—	—	—	—
Florence	149·9	352	e 40 30	?SR_1	—	—	—	108·5
San Fernando	155·0	24	—	—	—	—	79·0	97·5

Additional readings: Riverview MN = +30·2m. Irkutsk S_4P_4S = +24m.11s. PS = +26m.18s. Toronto LE = +52·5m. Ottawa eE = +27m.48s., e = +33m.50s. = SR_1 +1s. Ekaterinburg e = +27m.23s. and +30m.26s. = PS −24s. Pulkovo MZ = +71·1m. Kucino e = +25m.5s. = PR_3 −9s., +28m.28s. = PR_3 +45s., +31m.45s., +39m.14s. = SR_1 +6s., +42m.37s., and +53m.14s. San Fernando MN = +85·5m.

Nov. 3d. Readings also at 0h. (Ekaterinburg, Baku, Irkutsk (2), and Pulkovo), 1h. (Irkutsk), 2h. (Baku, Ekaterinburg, and Irkutsk), 3h. (Irkutsk), 4h. (Baku), 5h. (Baku and Irkutsk), 8h. (Nagasaki), 12h. (Nagasaki, near Chur, and Zurich), 13h. (Azores and Nagasaki), 15h. (Ekaterinburg, Irkutsk, Nagasaki, and Mizusawa), 16h. (Irkutsk), 17h. (Christchurch and near Athens), 19h. (Sucre), 20h. (Moncalieri), 21h. (Sucre and La Paz).

Nov. 4d. Readings at 1h. (Ekaterinburg), 3h. (Ekaterinburg and Irkutsk), 6h. Riverview, near Kobe, and Sumoto), 8h. (Irkutsk), 11h. (2) and 13h. (Nagasaki), 14h. (Leningrad), 17h. (Irkutsk), 18h. (near Amboina).

Nov. 5d. 7h. 55m. 33s. Epicentre **12°·3N. 85°·8W.**

(as on 1925 Oct. 5d.).

$A = +\cdot072$, $B = -\cdot974$, $C = +\cdot213$; $D = -\cdot997$, $E = -\cdot073$; $G = +\cdot016$, $H = -\cdot212$, $K = -\cdot977$.

A depth of focus 0·020 has been assumed as on 1925 Oct. 5d.

This earthquake shook Managua, the capital of Nicaragua, in lat. 12°N. 86°·5W.. and was felt by two ships in lat. 10° long. 88°W. See note in introduction to this number).

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Balboa Heights		−0·1	7·0	117	1 44	− 1	3 24	+17	4·2	5·3
Merida		−0·2	9·4	338	2 5	−14	(3 41)	−27	3·7	4·3
Oaxaca		−0·3	11·6	296	1 21	−88	3 7	−115	3·3	3·4
Vera Cruz		−0·3	12·1	306	0 27	−149	—	—	2·9	5·7
Puebla		−0·4	13·7	301	2 36	−41	4 52?	−59	—	5·6
Port au Prince		−0·5	14·4	63	i 3 45	+20	—	—	9·5	10·6
Tacubaya		−0·5	14·7	300	3 5	−24	5 45	−28	6·0	6·9
Loyola	N.	−0·7	18·1	348	i 3 49	−21	i 7 6	−21	9·0	9·7
Guadalajara		−0·7	19·0	299	4 30	+ 9	(7 51)	+ 4	7·9	10·6
Manzanillo		−0·7	19·1	293	3 40	−42	—	—	—	—
San Juan		−0·8	19·9	70	4 41	+11	i 8 28	+24	9·8	16·6
Mazatlan		−0·9	22·4	302	3 5	−114	6 58	−117	7·0	—
St. Louis	E.	−1·2	26·6	352	e 5 30	−12	i 9 51	−20	e 10·5	11·9
Cheltenham		−1·3	27·6	15	i 5 45	− 6	i 10 20	− 8	e 14·0	17·6
Chicago		−1·4	29·5	357	5 39	−30	i 10 15	−46	14·0	—
Ann Arbor		−1·4	30·0	4	i 5 57	−17	e 9 57	−73	e 11·8	13·0
Fordham		−1·4	30·4	18	6 9	− 9	11 7	−10	14·8	19·8
Tucson		−1·4	30·5	315	5 58	−21	10 33	−46	e 16·0	30·0
Ithaca		−1·4	31·2	14	6 13	−13	11 9	−22	14·4	—
Toronto	E.	−1·5	31·8	10	i 6 17	−14	i 11 17	−22	i 14·2	15·4
	N.	−1·5	31·8	10	i 6 18	−13	i 11 22	−17	—	15·7
Denver	E.	−1·5	32·2	333	e 7 13	+38	i 12 11	+25	13·8	16·0
	N.	−1·5	32 2	333	e 7 13	+38	e 12 9	+23	14·3	15·4
Harvard		−1·5	32·6	20	i 6 34	− 5	i 11 40	−13	e 15·4	24·4
La Paz		−1·5	33·7	150	i 6 45	− 5	i 12 2	− 9	15·3	18·4
Ottawa		−1·6	34·2	14	i 6 39	−14	i 11 57	−21	e 15·0	18·0
Sucre		−1·6	37·3	149	i 7 13	− 6	i 12 54	−12	i 17·7	28·6
Halifax		−1·6	37·5	26	i 7 12	− 9	i 12 53	−16	16·6	29·4
Ste. Anne		−1·6	37·5	18	i 7 11	−10	i 12 47	−22	e 16·4	23·4
Lick		−1·6	40·6	316	e 7 29	−17	e 13 18	−34	—	—
Berkeley	E.	−1·6	41·4	316	e 7 35	−18	e 13 26	−37	e 16·8	—
	N.	−1·6	41·4	316	e 7 37	−16	e 13 33	−30	e 16·8	—
	Z.	−1·6	41·4	316	e 7 34	−19	—	—	—	—
Saskatoon		−1·8	43·2	343	i 8 1	− 5	i 14 11	−16	i 19·1	21·4
Spokane		−1·9	44·1	331	i 7 50	−22	i 14 7	−31	e 17·4	21·8
Victoria	E.	−2·0	47·7	328	8 26	−12	—	—	18·2	32·0
La Plata		−2·3	54·1	152	i 9 25	+ 6	i 16 56	+15	23·0	—
Sitka		−2·4	58·4	333	—	—	17 35	+ 1	e 29·4	29·8
Honolulu Un.	E.	−2·6	69·0	290	i 10 58	+ 4	i 19 47	+ 5	e 28·1	32·4
Honolulu	N.	−2·6	69·2	290	11 2	+ 7	19 47	+ 2	e 28·0	—

Continued on next page.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Lisbon		−2·6	71·9	54	11 21	+ 8	—	—	—	34·2
Rio Tinto		−2·6	73·9	55	13 27?	+122	—	—	—	29·4
San Fernando		−2·6	74·4	56	11 40	+12	21 9	+21	33·0	44·0
Edinburgh		−2·6	75·7	36	11 42	+ 5	21 10	+ 7	35·4	42·7
Malaga		−2·6	75·8	55	i 11 45	+ 8	i 21 23	+19	31·1	43·6
Bidston		−2·6	75·8	39	11 13	−24	22 1	[+ 6]	27·4	34·8
Toledo		−2·6	75·9	52	i 11 43	+ 5	i 21 9	+ 3	e 32·7	42·4
Dyce		−2·6	76·2	34	—	—	i 22 6	[+ 8]	—	33·8
Stonyhurst		−2·6	76·2	39	11 44	+ 4	i 21 19	+10	35·4	41·0
Granada		−2·6	76·4	55	i 11 48	+ 7	i 21 28	+16	i 35·9	41·0
Almeria		−2·6	77·4	55	i 11 54	+ 6	i 21 35	+11	36·5	40·0
Kew		−2·7	77·6	40	i 11 50	+ 2	21 30	+ 5	33·4	44·4
Alicante		−2·7	78·7	53	11 57	+ 2	22 2	[−12]	37·8	43·0
Tortosa	E.	−2·7	79·2	50	11 50	− 8	21 50	+ 7	37·3	43·3
Paris		−2·7	79·7	43	i 12 3	+ 2	e 21 54	+ 5	38·4	44·4
Bergen		−2·7	79·7	30	12 42	+41	—	—	34·4	44·4
Barcelona		−2·7	80·3	50	12 6	+ 1	i 22 5	+ 9	e 32·8	46·0
Uccle		−2·7	80·5	40	i 12 5	− 1	i 22 3	+ 5	e 37·4	44·5
De Bilt		−2·7	80·9	39	12 9	+ 1	22 7	+ 5	e 38·4	46·6
Algiers		−2·7	81·8	55	e 12 14	0	—	—	—	44·4
Besançon		−2·7	82·2	45	e 12 18	+ 2	e 23 12	[+34]	37·4	42·4
Strasbourg		−2·7	83·1	43	i 12 17	− 4	e 22 35	+ 7	e 34·4	48·0
Hamburg		−2·7	83·5	37	i 12 22	− 2	i 22 33	0	e 39·4	47·4
Moncalieri		−2·7	83·8	46	i 12 27	+ 1	i 22 33	− 3	33·5	46·9
Zurich		−2·7	83·9	45	e 12 18	− 8	i 22 31	− 6	—	—
Hohenheim	E.	−2·7	84·0	42	e 12 25	− 2	e 22 35	− 3	e 37·0	40·1
	N.	−2·7	84·0	42	i 12 16	−11	e 22 35	− 3	e 35·6	46·8
Ravensburg	E.	−2·7	84·5	42	e 12 21	− 8	i 22 43	− 1	e 39·6	47·1
	N.	−2·7	84·5	42	e 11 55	−34	—	—	e 35·8	36·8
Chur		−2·7	84·6	45	e 12 29	− 1	i 22 40	− 5	—	—
Potsdam		−2·7	85·6	37	i 12 33	0	i 23 43	− 9	40·4	49·9
Innsbruck	N.W.	−2·7	85·8	43	e 12 33	− 4	—	—	e 42·5	43·6
Cheb		−2·7	85·8	40	e 12 33	− 4	i 22 47	−11	e 36·4	46·4
Upsala	E.	−2·7	86·0	30	e 12 33	− 5	i 22 53	− 7	e 40·0	52·4
Florence		−2·7	86·5	47	i 12 45	+ 4	22 47	−20	41·0	45·9
Venice		−2·7	86·8	45	12 43	0	22 52	−17	—	—
Rocca di Papa	E.	−2·8	88·0	49	e 12 44	− 5	e 22 50	−31	37·2	—
	N.	−2·8	88·0	49	e 12 48	− 1	e 23 2	−19	—	—
Graz		−2·8	88·5	41	i 12 46	− 6	i 23 5	−22	37·4	50·1
Vienna		−2·8	88·8	40	e 12 48	− 5	i 23 6	−24	e 37·4	55·4
Apia		−2·8	89·1	259	e 17 25	? PR_1	(23 13)	[−16]	42·0	43·8
Zagreb		−2·8	89·2	43	e 12 52	− 3	e 24 8	+34	e 41·4	47·4
Naples	E.	−2·8	89·3	49	e 11 37	−79	e 19 27	? PR_2	41·4	64·4
Pompeii		−2·8	89·6	49	e 12 41	−17	e 22 1	−98	43·4	50·4
Budapest		−2·8	90·7	41	e 2 27?	?	—	—	e 24·4	50·1
Pulkovo		−2·8	91·8	27	i 13 2	− 8	23 20	[−19]	—	45·6
Belgrade		−2·8	92·5	44	e 13 17	+ 3	e 23 26	[−17]	e 42·1	53·3
Lemberg		−2·8	93·0	39	e 13 15	− 2	e 25 39	? PS	e 53·6	56·4
Athens		−2·8	97·1	49	e 12 51	−49	i 23 51	[−17]	e 43·6	46·6
Kucino		−2·8	97·4	29	13 27	−14	24 43	−19	41·4	43·9
Makeyevka		−2·8	101·8	36	e 13 35	−30	24 15	[−18]	46·4	59·0
Wellington		—	105·1	231	e 17 57	[− 8]	i 25 17	[+29]	e 43·4	51·0
Ekaterinburg		—	105·5	20	i 14 5	−32	24 26	[−24]	39·4	54·3
Helwan		—	106·3	55	e 14 12	−29	24 39	[−14]	—	61·6
Christchurch		—	106·8	229	e 14 27	−16	25 39	[+43]	51·4	69·4
Cape Town		—	108·6	122	18 53	[+35]	28 33	? PS	—	60·0
Baku		—	113·2	35	14 43	−29	25 8	[−15]	—	68·7
Irkutsk		—	114·9	353	e 14 47	−33	26 19	[+50]	54·4	71·9
Osaka		—	118·9	320	18 16	[−34]	27 30	−71	38·3	—
Riverview		—	124·2	237	e 19 20	[+16]	—	—	e 57·4	60·6
Melbourne		—	128·3	230	e 18 15	[−60]	—	—	i 60·2	67·4
Simla		—	133·6	20	21 27	? PR_1	31 51	?	—	66·2
Adelaide		—	134·0	232	e 19 13?	[−15]	33 27	?	65·2	78·0
Taihoku	E.	—	134·2	323	—	—	—	—	e 56·4	—
Hong Kong		—	140·2	330	21 52	? PR_1	—	—	40·5	—
Bombay		—	142·4	34	19 23	[−21]	—	—	—	—
Calcutta	E.	—	144·7	9	19 31	[−17]	—	—	—	—
Phu-Lien		—	144·8	339	e 19 27?	[−21]	—	—	—	—
Amboina		—	145·3	280	i 22 45	? PR_1	—	—	—	—
Hyderabad		—	146·4	28	19 33	[−17]	—	—	—	93·6
Kodaikanal		—	152·0	37	e 23 39	? PR_1	—	—	—	—
Colombo		—	156·1	37	13 2	[−421]	24 27	? PR_1	—	115·0
Batavia		—	166·1	295	i 19 55	[−17]	—	—	84·6	—

For Notes see next page.

NOTES TO NOV. 5d. 7h. 55m. 33s.

Additional readings: Loyola iN = +4m.25s., $iSR_2N?$ = +7m.42s.; T_0N = 7h.55m.16s. San Juan iPR_1E = +5m.3s., PR_1N = +5m.16s., iSR_1E = +9m.21s.; T_0 = 7h.55m.24s. and 7h.55m.30s. St. Louis iPR_1E = +6m.6s., PR_2 = +6m.24s. Cheltenham SR_1 = +11m.9s.; T_0 = 7h.55m.17s. and 7h.55m.32s. Chicago iPR_1N = +6m.28s., $ePR_1E?$ = +6m.38s., P_cPN = +8m.17s., $SR_1E?$ = +11m.35s., $SR_1N?$ = +11m.38s., SR_2N = +12m.49s.; T_0 = 7h.55m.9s. and 7h.55m.25s. Ann Arbor eSR_1 = +10m.39s. = S −31s., MN = +12·2m.; T_0 = 7h.56m.24s. Fordham PR_1 = +6m.45s., SR_1 = +13m.49s.; T_0 = 7h.55m.16s. Tucson PE = +6m.3s., PN = +6m.4s., and +6m.9s., $PR_2E?$ = +7m.0s. and $PR_2N?$ = +7m.9s., eSN? = +10m.42s., $SR_1N?$ = +11m.31s., $eSR_1?$ = +11m.54s. Denver iP = +7m.18s. Harvard PR_1 = +7m.18s., $PR_2E?$ = +7m.45s., $iPR_2N?$ = +7m.47s., iS_cS = +12m.35s., eSR_1N = +13m.45s.?, eSR_1E = +13m.57s.?, MN = +21·0m. La Paz iPE = +6m.46s., iPN = +6m.47s., PR_2 = +8m.47s., i = +9m.57s. and +12m.57s., SR_2 = +14m.2s., MN = +17·8m.; T_0 = 7h.55m.36s. Ottawa SR_2 = +13m.37s. = SR_1 − 27s., MN = +23·3m.; T_0 = 7h.55m.30s. Sucre i = +7m.47s., +9m.41s., and +10m.17s., PR_2 = +8m.44s., PR_3 = +9m.27s., iSR_1 = +13m.56s., iSR_2 = +15m.39s., iSR_3 = +16m.57s.; epicentre 13°·0N. 87°·8W. Halifax i = +8m.43s. = PR_1 +10s.; T_0 = 7h.55m.34s. Ste. Anne i = +8m.41s. = PR_1 +8s. and +15m.29s. = SR_1 +11s.; T_0 = 7h.55m.40s. Lick iPN = +7m.32s. Saskatoon PR_3 = +9m.49s. = PR_1 +11s., iSR_2 = +17m.35s. = SR_1 +19s.; T_0 = 7h.55m.47s. Spokane iPR_1E = +9m.38s., iPR_2E = +9m.57s., SR_1N = +17m.4s., and several i readings. Sitka $ePR_2E?$ = +14m.11s. = PR_3 +27s., $SR_2N?$ = +23m.57s., and several e readings. Honolulu University P_cPE = +11m.36s., ePR_1E = +13m.57s., iPSE = +20m.47s., $SR_1E?$ = +23m.51s., eSR_2E = +27m.27s.; T_0 = 7h.55m.43s. and 7h.55m.47s. Honolulu iN? = +12m.10s., eN = +12m.27s., and +20m.6s., iPSN = +20m.42s., SR_1N = +24m.23s., iN = +25m.7s., $SR_2N?$ = +27m.35s. Toledo PR_1 = +14m.29s., PR_2 = +17m.1s. = PR_1 − 24s., MNW = +40·6m. Stonyhurst PR_1 = +14m.38s., PR_3 = +18m.5s., SR_1 = +26m.42s. Granada PR_1 = +13m.52s., PR_2 = +16m.44s., SPS = +21m.41s., PS = +22m.28s., and many other i readings. Almeria PR_1 = +14m.17s., PR_2 = +17m.13s., PS = +22m.39s., MZ = +44·2m. Kew PR_1 = +14m.50s., MN = +34·3m. Tortosa MN = +46·2m. Paris PR_1 = +15m.45s., MN = +41·4m. Barcelona MN = +43·8m. Uccle iPR_1 = +15m.16s. De Bilt PR_1 = +15m.17s., MN = +45·7m., MZ = +45·9m. Strasbourg MN = +45·4m. Hamburg eLN = +36·4m. Moncalieri MN = +44·4m. Hohenheim iN = +12m.35s., eE = +13m.13s., ePR_1E = +15m.43s., iPR_1N = +15m.53s., e = +16m.20s., ePR_2 = +17m.33s., ePS = +23m.31s., ePPSE = +24m.23s., eSR_1E = +28m.43s. Ravensburg iPSE = +23m.35s., iPSN = +23m.41s., iPPS = +24m.37s. Innsbruck iPNE = +12m.38s., iNW = +13m.14s. and +13m.58s., eNW = +15m.37s., +15m.56s. = PR_1 − 19s., and +16m.49s., iNE = +13m.35s., eNE = +14m.43s., and +38m.40s., eLNE = +36·4m. Cheb $iPR_1?$ = +16m.2s. Upsala iPR_1 = +15m.57s., eSR_1 = +28m.42s., eLN = +36·0m., MN = +52·2m. Florence PR = +13m.27s. and +16m.57s. = PR_1 +37s. Venice +24m.17s. = PS − 11s. Graz iPR_1 = +16m.26s. Vienna iPZ = +12m.50s., PR_1 = +15m.50s., PR_2 = +18m.42s., PS = +23m.56s., PPS = +24m.6s., SR_1 = +28m.5s., $SR_2?$ = +34m.47s. Apia gives S as L. Zagreb i = +24m.27s.? = PS − 30s. and +26m.35s. Budapest MN = +52·1m. Pulkovo iPR_1 = +16m.47s., PPS = +25m.31s., SR_1 = +30m.3s., SR_2 = +34m.57s. = SR_2 +32s., MN = +52·4m., MZ = +54·0m. Belgrade PR_1 = +17m.0s. and +18m.10s., and many other e readings. Athens PR_1E = +17m.29s. Kucino PR_1 = +17m.22s., e = +18m.8s., S_4P_4S = +23m.50s., PPS = +26m.26s. Makeyevka PR_1 = +17m.59s., PPS = +27m.33s., SR_1 = +32m.7s., MN = 58·4m. Wellington i[S] = +24m.30s., SR_1 = +35m.12s., SR_2 = +41m.34s. = SR_1 − 16s. Ekaterinburg iPR_1 = +18m.24s. iPR_2 = +20m.49s., MN = +51·5m., MZ = +68·2m. Helwan PR_1 = +18m.42s. Christchurch PR_1 = +18m.9s. = [P] − 2s., S_cP_cS = +24m.21s., SR_1 = +34m.15s., SR_2 = +39m.9s. Baku PR_1 = +19m.25s., PPS = +30m.1s. Irkutsk PR_1 = +19m.28s., PS = +28m.58s., MZ = +71·6m. Riverview ePR_1 = +21m.1s. = PR_1 +11s., and +27m.32s. = PR_2 +58s., PS = +30m.32s. = PS − 54s, and +32m.19s. = PS +53s., eSR_1 = +37m.52s. = SR_1 +14s., and +38m.13s. = SR_1 − 35s., eSR_2 = +42m.1s. = SR_2 − 80s., and +42m.11s. = SR_2 − 70s., eSR_3 = +46m.19s. = SR_2 − 69s., and +46m.27s. = SR_3 − 66s., MN = +76·6m. Melbourne i = +30m.39s. and +36m.39s. Simla SN = +33m.27s., MN = +68·2m. Adelaide PR_1 = +22m.27s., SR_1 = +49m.42s. = SR_2 − 24s., MN = +73·4m. Calcutta PN = +19m.21s. = [P] − 27s. Colombo: Are the readings 7 min. too small? Batavia i = +19m.59s., and +24m.48s. = PR_1 − 25s., L = +58·1m.

Nov. 5d. 11h. 17m. 36s. Epicentre 36°·0N. 5°·0W. (as on Nov. 3d.).

A = +·806, B = −·071, C = +·588.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Malaga	0·9	32	0 18	+ 4	0 30	+ 5	—	0·6
Granada	1·6	43	i 0 34	+10	e 0 45	0	—	0·8
Almeria	2·3	67	0 20	−16	i 0 38	−25	e 0·7	1·4

Granada P is given as i simply. Almeria gives also i = +28s., MN = +1·2m.

Nov. 5d. 19h. 5m. 15s. Epicentre 37°·5N. 142°·5E. (as on 1925 Aug. 31d.).

A = −·630, B = +·483, C = +·609; D = +·609, E = +·793;
G = −·483, H = +·370, K = −·793.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	2·0	327	0 35	+ 4	1 4	+ 9	—	—
Nagoya	5·1	244	e 1 26	+ 7	(2 18)	− 2	2·3	2·4
Osaka	6·3	248	1 27	− 9	(2 32)	−20	2·5	3·4
Kobe	6·6	247	—	—	—	—	—	2·7
Baku	68·5	306	—	—	—	—	e 41·8	—

Mizusawa SN = +1m.6s.

Nov. 5d. Readings also at 0h. (Ekaterinburg, Baku, Makeyevka, and Kucino), 1h. (La Paz (2), Ekaterinburg, and Sucre), 3h. (Sucre), 5h. (Taihoku), 8h. (Granada), 9h. (Sucre), 10h. (Leningrad), 11h. and 14h. (Nagasaki), 16h. (Irkutsk and Pulkovo), 19h. (La Paz, La Plata, and Sucre), 21h. (Taihoku).

Nov. 6d. 9h. 19m. 55s. Epicentre 8°·0S. 157°·0E.

A = −·911, B = +·387, C = −·139; D = +·391, E = +·921;
G = +·128, H = −·054, K = −·990.

A focal depth 0·015 has been assumed.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Suva	−0·7	23·1	118	i 4 41	−29	e 8 41	−32	e 9·6	—
Riverview	−0·8	26·4	191	e 5 48	+ 4	e 10 18	+ 4	e 13·6	18·0
Sydney	−0·8	26·4	191	(6 13)	+29	—	—	(22·6)	(27·1)
Adelaide	−1·1	31·8	209	—	—	11 25	−21	14·5	17·8
Melbourne	−1·1	31·8	198	e 8 47	+132	i 11 41	− 5	—	—
Wellington	−1·2	36·9	157	i 9 12	+113	16 0	+174	e 20·4	24·3
Manila	−1·4	42·3	302	—	—	(i 14 5)	−15	i 14·1	—
Perth	−1·4	45·0	232	14 0	?	14 45	−11	22·3	—
Batavia	−1·5	49·8	270	i 9 47	+51	i 15 42	−16	—	—
Hong Kong	−1·5	51·7	307	10 54	?PR_1	—	—	—	—
Zi-ka-wei	−1·6	51·9	322	9 4	− 5	e 22 40	?SR_3	28·5	—
Honolulu N.	−1·6	53·0	56	—	—	—	—	23·3	28·3
Honolulu Un. E.	−1·6	53·1	56	—	—	—	—	e 24·3	26·8
Phu-Lien	−1·7	57·2	301	e 9 40	− 3	e 17 29	+ 1	26·1	—
Irkutsk	−2·0	75·1	330	e 11 38	+ 1	—	—	—	—
Bombay	−2·1	87·1	290	—	—	e 23 11	− 8	—	—
Victoria	−2·1	89·2	41	23 38	?S	(23 38)	− 4	41·6	—
Ekaterinburg	−2·2	100·2	327	e 13 41	−19	25 11	−25	41·1	58·7
Baku	—	108·2	310	e 18 43	[+27]	e 26 23	−49	e 50·1	61·2
Kucino	—	112·7	328	—	—	e 25 23	[+ 2]	50·2	57·1
Chicago N.	—	114·2	48	—	—	—	—	e 58·6	—
Leningrad	—	114·6	334	—	—	—	—	54·0	85·2
Pulkovo	—	114·7	334	e 19 58	?PR_1	—	—	55·1	—
Makeyevka	—	115·1	320	—	—	e 26 42	[+73]	e 56·1	—
Toronto N.	—	119·5	43	—	—	—	—	59·6	—
Ottawa	—	121·4	41	e 20 31	?PR_1	e 25 56	[+ 7]	e 54·1	—
Cape Town	—	122·6	220	—	—	—	—	—	66·4
La Paz	—	129·1	119	19 18	[+ 2]	i 22 44	?PR_2	—	—
De Bilt	—	130·3	337	—	—	—	—	e 60·1	—
Sucre	—	130·4	124	19 14	[− 5]	22 35	?	23·5	24·4
Uccle	—	131·6	337	—	—	—	—	e 60·1	—

For Notes see next page.

Notes to Nov. 6d. 9h. 19m. 55s.

Additional readings and notes: Suva readings are given as i and e simply. Riverview eS = +10m.32s. and +10m.41s. = $SR_1 - 27$s., MN = +21·5m., MZ = +24·5m. Sydney readings have all been increased by 12m. Adelaide PR_2 = +7m.20s. = $PR_1 - 8$s., MN = +18·2m. Wellington i = +12m.35s., MN = +22·6m. Perth S = +18m.51s. = $SR_2 - 11$s., true S given as P? Batavia readings are given as i simply. Zi-ka-wei PR_1 = +10m.24s. Victoria SE = +30m.3s. = SR_1 +12s. Ekaterinburg i = +24m.21s. = [S] +8s., MN = +50·3m. Baku MN = +56·7m. Kucino e = +26m.53s., +29m.7s. = PS − 21s. and +35m.5s. = $SR_1 - 12$s. Chicago LE = +63·6m. Leningrad MZ = +84·8m. Toronto eE = +53m.35s. Ottawa e = +30m.15s. = PS − 43s.

Nov. 6d. 9h. 53m. 22s. Epicentre 8°·0S. 157°·0E. (as on 6d. 9h. 19m.).

The depth of focus ·015 has been retained.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Riverview	−0·8	26·4	191	e 5 52	+ 8	e 10 15	+ 1	e 13·5	15·3
Adelaide	−1·1	31·8	209	—	—	11 28	−18	16·0	18·8
Melbourne	−1·1	31·8	198	—	—	12 32	+46	—	14·9
Wellington	−1·2	36·9	157	—	—	e 11 33	−93	—	—
Manila	−1·4	42·3	302	—	—	—	—	i 12·6	—
Perth	−1·4	45·0	232	—	—	(14 43)	−13	(20·0)	—
Batavia	−1·5	49·8	270	e 10 20	? PR_1	i 14 45	−73	—	—
Zi-ka-wei	−1·6	51·9	322	—	—	—	—	—	29·6
Honolulu N.	−1·6	53·0	56	—	—	—	—	e 27·2	—
Honolulu Un. E.	−1·6	53·1	56	—	—	—	—	e 27·6	44·3
Phu-Lien	−1·7	57·2	301	e 9 38	− 5	e 17 28	0	28·0	—
Irkutsk	−2·0	75·1	330	e 20 1	? S	(e 20 1)	−62	39·6	—
Victoria	−2·1	89·2	41	—	—	—	—	—	59·8
Ekaterinburg	—	100·2	327	—	—	i 24 25	[0]	39·6	58·9
Baku E.	—	108·2	310	—	—	—	—	—	58·4
Kucino	—	112·7	328	—	—	—	—	53·6	73·1
Ottawa	—	121·4	41	—	—	—	—	80·6	—
San Fernando E.	—	147·7	334	—	—	—	—	—	77·1

Additional readings and notes: Riverview eS = +10m.40s., +10m.45s., and +12m.29s., MZ = +15·2m., MN = +17·0m. Adelaide MN = +34·2m. Perth PR_1 = (+10m.3s.) = −3s.; all readings have been diminished by 4 min. Batavia readings are given as e and i simply. Ekaterinburg MN = +49·9m., MZ = +58·8m. Baku MN = +57·0m., MZ = +59·0m. San Fernando MN = +105·6m.

Nov. 6d. 21h. 0m. 30s. Epicentre 35°·5N. 2°·5W. (as on 1926 Oct. 19d.).

A = +·813, B = −·036, C = +·581; D = −·044, E = −·999; G = +·580, H = −·025, K = −·814.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Almeria	1·4	1	i 0 23	+ 2	i 0 48	+ 9	i 0·9	0·9
Granada	1·9	332	0 18	−11	0 48	− 5	—	1·4
Malaga	2·0	308	i 0 21	−10	0 45	−10	—	0·8
San Fernando	3·1	288	1 11	+22	1 40	+14	—	—
Alicante	3·2	30	2 0	?S	(2 0)	+32	2·9	—
Toledo	4·5	340	—	—	i 1 58	− 6	i 2·6	3·0
Uccle	16·1	16	—	—	—	—	e 8·1	—
De Bilt	17·4	16	—	—	—	—	e 9·5	10·5

Additional readings: Almeria PR_2 = +36s., MN = +1·4m. Granada P = +35s., i = +56s., SR_1 = +1m.2s. Toledo i = +2m.17s., iS = +2m.29s., MNW = +2·8m. Alicante S = +2m.30s.

Nov. 6d. 21h. 8m. 36s. Epicentre 4°·5S. 131°·0E. (as on 1926 Nov. 2d.).

A = −·654, B = +·752, C = −·078; D = +·755, E = +·656; G = +·051, H = −·059, K = −·997.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina	2·9	286	i 2 12	+87	i 2 36	+76	—	—
Batavia	24·1	267	i 5 26	− 3	i 9 38	− 8	—	—
Irkutsk	61·2	342	e 10 20	0	—	—	e 36·4	—
Ekaterinburg	83·3	329	i 12 38	0	e 23 2	+ 2	37·9	—
Baku	86·2	311	—	—	—	—	43·4	—
Sucre	151·6	146	20 27	[+29]	—	—	—	—

Baku readings are given as i.

Nov. 6d. Readings also at 2h. (near Mizusawa and near Victoria), 3h. (Nagasaki), 4h. (Nagasaki and Baku), 5h. (Ekaterinburg and near Mizusawa), 8h. (La Paz), 10h. (Ekaterinburg, Phu-Lien, La Paz (3), and Riverview), 13h. (Merida and Mizusawa), 15h. (La Paz and Sucre), 16h. (near Sucre, La Paz, and near Irkutsk), 17h. (Irkutsk, Ekaterinburg, near La Paz, Sucre, and near Mizusawa), 18h. (Baku), 20h. (near Malaga), 22h. (near Granada).

Nov. 7d. 16h. 1m. 35s. Epicentre 3°·0S. 148°·5E. (as on 1926 Sept. 15d.).

A = −·803, B = +·594, C = −·052; D = +·595, E = +·804; G = +·042, H = −·031, K = −·999.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		28·4	309	e 5 59	−13	—	—	—	—
Riverview		31·7	168	e 6 55	+11	e 11 49	−14	e 13·9	17·8
Adelaide		32·3	188	(6 44)	− 7	i 11 25	−48	i 15·2	22·7
Melbourne		34·8	178	e 12 13	?S	(e 12 13)	−39	17·8	18·8
Batavia	E.	36·7	264	i 7 30	+ 2	i 13 45	+25	—	—
Perth		38·9	219	—	—	e 14 52	+61	19·7	20·0
Irkutsk		64·4	335	e 10 33	− 8	19 3	−15	31·4	—
Ekaterinburg		88·6	328	12 49	−19	i 23 23	[+ 4]	38·4	46·3
Baku		94·7	311	e 13 13	−29	e 24 23	[+28]	44·4	55·2
Kucino		101·2	327	—	—	—	—	e 47·7	—
Leningrad		104·0	331	e 29 54	?	—	—	49·2	—
Pulkovo		104·1	331	e 29 50	?	—	—	53·4	—
De Bilt		120·0	332	—	—	—	—	e 55·4	—
Uccle		121·2	331	—	—	—	—	e 55·4	—
Kew		122·9	334	—	—	—	—	e 60·4	—
Toronto	E.	124·4	37	—	—	—	—	68·4	—
Ottawa		125·5	33	—	—	e 28 3	−87	58·4	—
La Paz		143·1	123	19 52	[+ 7]	—	—	—	—
Sucre		144·2	128	19 48	[+ 1]	—	—	—	—

Addtional readings: Riverview MN = +17·9m. Adelaide P = +5m.0s.; P in text given as PR_1; MN = +19·9m. Melbourne iS = +16m.13s. Perth SR_1 = +16m.25s., +17m.27s., and +18m.25s. Baku ePR_1 = +17m.1s., MN = +57·0m., MZ = +65·8m. Ottawa e = +38m.32s. = SR_1 +37s. Sucre i = +20m.36s.

Nov. 7d. 22h. 7m. 30s. Epicentre 8°·0N. 103°·0W.

A = −·223, B = −·965, C = +·139; D = −·974, E = +·225; G = −·031, H = −·136, K = −·990.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tacubaya		12·0	17	5 30	?S	(5 30)	+11	5·9	6·3
Tucson	E.	25·3	344	e 5 39	− 2	10 12	+ 3	13·3	16·1
	N.	25·3	344	e 5 42	+ 1	10 10	+ 1	14·9	15·8
Ottawa		44·2	28	—	—	e 15 0	− 5	e 22·5	—
San Fernando	E.	90·7	54	—	—	—	—	—	68·5
Uccle		94·5	38	—	—	—	—	e 66·5	—
De Bilt		94·6	36	—	—	—	—	e 60·5	—
Pulkovo		102·8	22	—	—	—	—	e 84·5	—
Ekaterinburg		113·8	10	—	—	—	—	e 65·8	—
Baku		125·6	25	—	—	—	—	e 64·1	—

Additional readings: San Fernando MN = +67·5m. De Bilt eL = +67·5m. Ekaterinburg L = +80·5m.

Nov. 7d. Readings also at 4h. and 6h. (Vera Cruz), 10h. (Zagreb), 12h. (Taihoku), 14h. (Baku and Victoria), 17h. (Batavia and Malaga), 18h. (La Paz and Manila), 19h. (near Port au Prince), 23h. (Ottawa).

Nov. 8d. Readings at 4h. (near Toyooka), 5h. and 6h. (Nagasaki), 7h. (near La Paz and Sucre), 9h. (Lick), 11h. (Ekaterinburg), 13h. (Manila, Amboina, Baku, Ekaterinburg, and Riverview), 19h. (Merida), 21h. (Batavia and near Malabar), 22h. (Ottawa and Toronto).

Nov. 9d. 3h. 57m. 0s. Epicentre 6°·0S. 99°·0E. (as on 1917 April 16d.).

A = −·156, B = +·982, C = −·105; D = +·988, E = +·156; G = +·016, H = −·103, K = −·995.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia	7·7	91	i 1 58	+ 1	i 2 42	−47	—	—
Malabar	8·6	99	1 55	−15	e 3 12	−41	—	—
Manila	30·0	47	e 5 37	−51	—	—	10·0	—
Nagasaki	48·6	35	15 52	?S	(15 52)	− 9	—	—
Melbourne	52·3	134	3 0	?	—	—	—	26·5
Riverview	55·6	129	—	—	e 21 30	?SR_1	e 24·1	28·3
Irkutsk	58·5	4	10 6	+ 4	e 18 20	+15	e 31·0	—
Baku	64·7	321	(e 10 27)	−16	(e 23 32)	?SR_1	(e 36·0)	(52·4)
Pulkovo	84·8	332	—	—	—	—	e 53·0	—
Leningrad	84·9	332	—	—	—	—	54·0	—

Additional readings and notes: Batavia P and S are given as iE and iN respectively. Riverview MN = +26·5m. Baku e = (+13m.45s.) = PR_1 +2s., MN = (+45·8m.), MZ = (+55·6m.); the readings have been increased by 2min.

Nov. 9d. 10h. 54m. 42s. Epicentre 46°·0N. 154°·0E. (as on 1926 Nov. 2d.).

A = −·624, B = +·305, C = +·719; D = +·438, E = +·899; G = −·647, H = +·315, K = −·695.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	32·4	300	—	—	e 12 18?	+ 4	e 17·3	—
Ekaterinburg	54·5	319	9 33	− 3	e 17 22	+ 7	28·3	36·9
Leningrad	64·5	332	—	—	—	—	e 72·3	—
Pulkovo	64·7	332	—	—	—	—	e 43·0	—
Baku	70·3	309	—	—	—	—	e 35·3	41·6

Additional readings and notes: Ekaterinburg MZ = +36·8m. Baku MN = +41·4m.

Nov. 9d. Readings also at 2h., 5h., 6h., and 10h. (Nagasaki), 11h. (near Sumoto), 13h. (La Paz), 15h., 16h., and 18h. (Irkutsk), 21h. (near Manila), 22h. (Irkutsk).

Nov. 10d. 8h. 56m. 54s. Epicentre 34°·0N. 136°·0E.

Rough. A = −·596, B = +·576, C = +·559.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Osaka	0·8	325	0 12	0	(0 27)	+ 5	0·5	0·8
Sumoto	0·9	291	0 19	+ 5	(0 35)	+10	0·6	0·6
Kobe	1·0	316	0 12	− 3	(0 22)	− 6	0·4	0·5
Nagoya	1·4	33	0 19	− 2	(0 34)	− 5	0·6	1·0
Toyooka	1·8	328	0 34	+ 6	(0 45)	− 6	0·8	0·8
Hukuoka	4·6	266	1 34	+23	—	—	2·6	—
Irkutsk	29·1	319	—	—	—	—	15·1	—
Ekaterinburg	54·4	319	—	—	—	—	27·6	—

Additional readings: Osaka MN = +1·0m, Nagoya MN = +0·6m., MZ = +1·1m.

Nov. 10d. Readings also at 4h. and 5h. (Nagasaki), 6h. (Irkutsk), 8h. (Nagasaki), 11h. (near Zurich), 12h. (Nagasaki). 13h. (near Amboina), 18h. (near Kobe and Sumoto), 19h. (near Lick), 23h. (near La Paz and Sucre).

Nov 11d. 3h. 1m. 15s. Epicentre 36°·0N. 143°·8E.

A = −·653, B = +·478, C = +·588 ; D = +·591, E = +·807 ;
G = −·474, H = +·347, K = −·809.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa		3·8	327	0 56	− 3	1 27	−17	—	—
Nagoya		5·6	264	1 25	− 2	(2 20)	−14	2·3	3·1
Osaka		7·0	262	1 39	− 7	(2 50)	−20	2·8	4·7
Kobe		7·2	262	1 51	+ 2	(3 25)	+10	3·4	5·2
Toyooka		7·2	270	1 51	+ 2	3 32	+17	e 4·5	—
Sumoto		7·4	260	1 55	+ 3	2 45	−36	3·9	4·6
Hukuoka		11·2	261	2 51	+ 4	5 48	?L	8·1	—
Zi-ka-wei		19·2	262	4 28	− 3	8 10	+ 4	—	12·7
Taihoku	E.	22·0	246	—	—	e 8 42	−23	—	—
Hong Kong		29·1	250	10 59	?S	(10 59)	−20	—	19·2
Irkutsk		32·1	314	e 6 32	−16	e 11 40	−30	16·8	21·4
Phu-Lien		35·8	258	e 7 7	−13	e 12 45?	−22	17·8	—
Honolulu	N.	52·3	90	—	—	—	—	e 24·2	—
Honolulu Univ.	E.	52·5	90	—	—	e 16 39	−11	e 26·6	—
Ekaterinburg		57·0	320	i 9 54	+ 2	e 17 47	+ 1	27·8	36·0
Kucino		68·8	325	—	—	20 7	− 5	33·2	40·7
Leningrad		69·7	330	e 11 24	+ 9	e 20 22	0	34·4	43·4
Pulkovo		69·8	330	—	—	i 20 23	− 1	36·8	42·1
Baku		70·2	307	—	—	e 20 24	− 4	33·8	39·1
Makeyevka		73·1	318	—	—	i 21 3	0	38·8	47·6
Upsala	E.	74·5	336	—	—	—	—	e 43·8	—
Hamburg		82·0	335	—	—	—	—	e 43·8	—
Budapest		83·0	326	—	—	—	—	e 44·8	—
Vienna		83·6	328	e 17 46	?PR_1	—	—	e 50·8	55·8
Cheb		83·9	330	—	—	—	—	e 43·8	53·8
De Bilt		84·8	336	—	—	—	—	e 45·8	48·5
Graz		84·9	328	—	—	e 23 8	−10	46·8	—
Uccle		86·1	336	—	—	—	—	e 45·7	—
Strasbourg		86·8	333	—	—	—	—	e 46·8	—
Moncalieri		89·8	330	—	—	—	—	46·0	—
Ottawa		91·1	26	—	—	—	—	e 49·8	—
Toronto		91·2	30	—	—	—	—	54·6	—
San Fernando		102·4	336	—	—	—	—	58·2	62·2

Additional readings : Mizusawa PE = +57s. Nagoya MZ = +3·2m. Osaka MN = +4·5m. Kobe MN = +5·0m. Sumoto MZ = +4·2m., MN = +4·5m. Irkutsk MZ = +22·1m. Honolulu University eE = +14m.27s. Ekaterinburg MZ = +36·2m. Kucino e = +21m.11s., SR_1 = +24m.47s., SR_2 = +28m.3s. Leningrad MN = +44·3m., MZ = +46·2m. Pulkovo SR_2 = +28m.21s., MN = +40·3m., MZ = +44·3m. Baku MN = +38·9m., MZ = +48·8m. Makeyevka e = +25m.45s.? MN = +40·9m., MZ = +48·2m. Upsala eLN = +47·2m. Budapest eL = +45·8m. De Bilt MN = +54·5m., MZ = +58·8m. Moncalieri e = +41m.17s. San Fernando MN = +61·2m.

Nov. 11d. Readings also at 3h. (Florence), 4h. (Phu-Lien), 6h. (near Tacubaya), 7h. (Baku, Irkutsk, and near Mizusawa), 11h. (Mizusawa), 14h. (Tacubaya and Nagasaki), 15h. (Nagasaki and Ekaterinburg), 16h. (Manila, La Paz, and Sucre), 18h. (Mizusawa), 19h. (La Paz and Sucre), 22h. (Wellington), 23h. (Baku, Ekaterinburg, Irkutsk, Manila, near Amboina, and near Tucson).

Nov. 12d. 17h. 53m. 12s. (I) } Epicentre 56°·8N. 33°·6W. (as on 1924 Dec. 12d.).
18h. 21m. 5s. (II) }

A = +·456, B = −·303, C = +·837 ; D = −·553, E = −·833 ;
G = +·697, H = −·463, K = −·548.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
I Edinburgh	16·7	80	—	—	—	—	e 7·8	9·3
II	16·7	80	—	—	—	—	e 7·9	10·9
I Stonyhurst	17·8	86	—	—	—	—	e 8·8	—
II	17·8	86	—	—	—	—	e 8·9	10·4
I Kew	20·0	88	e 4 35	− 6	—	—	9·8	—
II	20·0	88	e 4 46	+ 5	—	—	9·9	—
I De Bilt	22·7	85	5 16	+ 3	—	—	e 10·3	12·5
II	22·7	85	5 15	+ 2	—	—	e 10·7	12·8
I Uccle	22·9	89	e 5 15	− 1	e 9 20	− 3	e 10·8	—
II	22·9	89	e 5 14	− 2	e 9 14	− 9	e 10·5	—
I Paris	22·9	95	—	—	—	—	e 11·8	12·8
II	22·9	95	—	—	e 9 34	+11	11·9	13·9
II Hamburg	24·7	79	—	—	—	—	e 14·9	—
II Besançon	25·8	95	—	—	—	—	13·9	—
I Strasbourg	25·9	91	—	—	—	—	e 14·8	—
II	25·9	91	—	—	—	—	—	14·9
II Moncalieri	28·1	97	—	—	—	—	e 15·4	—
II Ottawa	28·3	265	—	—	—	—	e 15·9	—
I Florence	30·8	95	—	—	—	—	e 15·6	18·0
II	30·8	95	—	—	—	—	e 15·5	16·9
II Toronto	31·4	266	—	—	—	—	18·9	—
I Makeyevka	42·5	70	—	—	—	—	e 22·8	—
II	42·5	70	—	—	—	—	—	24·7
I Ekaterinburg	47·3	49	—	—	—	—	17·8	—
II	47·3	49	—	—	—	—	19·9	—
I Baku	53·9	70	—	—	—	—	e 27·8	32·2
II	53·9	70	—	—	e 17 7	− 1	26·7	32·9

Additional readings: De Bilt I MN = +14·6m., MZ = +14·7m., II MN = +14·7m., MZ = +15·0m. Strasbourg eL = 18h.20m., which fits neither shock. Baku I MN = +32·4m., II MN = +33·0m.

Nov. 12d. Readings also at 4h. (Nagasaki and Hong Kong), 6h. (Riverview), 8h. and 14h. (Mizusawa), 20h. (De Bilt, Uccle, and near Manila), 22h. (La Paz).

Nov. 13d. 3h. 41m. 8s. Epicentre 50°·5N. 177°·5W.

A = −·635, B = −·028, C = +·772 ; D = −·044, E = +·999 ;
G = −·771, H = −·034, K = −·636.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Honolulu	N.	32·9	146	—	—	e 12 25	+ 3	i 16·2	18·6
Honolulu Univ.	E.	33·1	146	—	—	—	—	14·2	18·1
Victoria		34·5	71	12 42	?S	(12 42)	− 6	16·9	17·4
Irkutsk		46·3	307	8 35	− 7	15 29	− 3	24·9	29·3
Chicago		59·0	61	—	—	17 52	−19	27·5	29·5
Toronto	E.	62·1	55	—	—	e 19 0	+11	34·1	—
Ekaterinburg		62·5	330	i 10 31	+ 2	18 52	− 3	28·9	37·5
Ottawa		62·7	51	e 10 40	+10	e 19 0	+ 3	e 23·9	33·9
Leningrad		67·2	347	10 59	0	20 0	+ 8	35·4	44·3
Pulkovo		67·5	347	e 11 1	0	e 20 4	+ 8	33·9	44·4
Upsala		69·0	353	—	—	e 20 22	+ 8	e 39·9	—
Kucino		69·7	340	11 18	+ 3	20 22	0	33·3	38·6
Hamburg		75·7	356	e 11 52?	− 1	—	—	e 38·9	42·9
Makeyevka		76·9	338	—	—	e 21 44	− 4	40·9	49·4
De Bilt		77·4	359	12 3	0	e 21 49	− 4	e 32·9	50·7
Kew		78·0	3	—	—	—	—	e 33·9	—
Uccle		78·6	359	—	—	e 22 1	− 6	e 32·9	—

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Piatigorsk	79·1	332	—	—	—	—	39·9	—
Cheb	79·1	354	—	—	—	—	e 38·9	54·9
Baku	80·1	326	i 12 20	0	i 22 33	+ 9	39·9	52·5
Vienna	80·5	352	e 12 29	+ 7	—	—	e 43·9	53·9
Strasbourg	80·8	357	—	—	—	—	e 49·9	—
Budapest	81·0	350	—	—	—	—	e 41·9	—
Graz	81·7	352	e 12 6	−23	e 23 46	+63	43·9	55·2
Moncalieri	84·4	357	—	—	e 23 15	+ 3	43·7	—
Hyderabad	85·2	292	23 9	?S	(23 9)	−12	—	53·4
Florence	85·4	353	i 12 42	− 8	e 22 52	[− 6]	43·9	50·9
Toledo	89·4	6	—	—	—	—	e 46·9	58·2
San Fernando	92·7	8	—	—	—	—	—	64·4
Melbourne	94·3	210	e 20 10	?PR_2	i 25 8	+ 9	i 31·7	57·3
La Paz	114·9	89	20 28	?PR_1	—	—	56·6	—

Additional readings and note: Honolulu $SR_1N = +14$m.2s., $eN = +15$m.28s. Victoria $LN = +15·4$m. Irkutsk $PR_1 = +10$m.29s., $SR_1 = +18$m.28s., $MZ = +30·0$m. Chicago $SR_2N = +24$m.22s., $MN = +30·1$m. Ekaterinburg $i = +14$m.27s. $= PR_2 - 7$s., $MZ = +39·4$m. Ottawa $MN = +35·4$m. Leningrad $MN = +42·2$m., $MZ = +44·2$m. Pulkovo $SR_2 = +27$m.52s., $MN = +44·3$m. Kucino $PR_2 = +15$m.38s., $PPS = +21$m.42s., $SR_2 = +27$m.58s., $MN = +40·8$m. Makeyevka $e = +26$m.52s.? $= SR_1 - 37$s., $MN = +52·4$m. De Bilt $MN = +45·5$m., $MZ = +54·0$m. Baku $MZ = +52·3$m., $MN = +52·4$m. San Fernando $MN = +61·4$m. Melbourne phases are only given as e and i.

Nov. 13d. 8h. 47m. 0s. Epicentre 35°·5N. 2°·5W. (as on 1926 Nov. 6d.).

$A = +·813$, $B = -·036$, $C = +·581$.

	Δ	P.	O−C.	S.	O−C.	L.	M.
	°	m. s.	s.	m. s.	s.	m.	m.
Almeria	1·4	0 29	+ 8	i 0 52	+13	1·0	1·2
Granada	1·9	e 0 54	?S	(e 0 54)	+ 1	(1·3)	1·5
Malaga	2·0	0 27	− 4	0 49	− 6	—	1·0

Almeria gives also $MZ = +1·1$m., $MN = +1·4$m. Granada gives S as eP and L as S.

Nov. 13d. 13h. 40m. 15s. Epicentre 31°·0S. 72°·0W. (as on 1926 May 12d.).

$A = +·265$, $B = -·815$, $C = -·515$; $D = -·951$, $E = -·309$; $G = -·159$, $H = +·490$, $K = -·857$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
La Plata	12·4	111	i 3 19	+14	i 5 30	+ 1	6·4	—
Sucre	13·4	29	e 3 20	+ 2	i 5 56	+ 3	6·8	7·8
La Paz	14·9	15	i 3 31	− 7	6 36	+ 6	7·2	8·8

No additional readings.

Nov. 13d. Readings also at 0h. (Sucre and La Paz), 1h. (2) and 2h. (Nagasaki), 3h. (near Oaxaca and Tacubaya), 9h. (Apia, Baku, Ekaterinburg, Irkutsk, and Kucino), 11h. (near Wellington), 13h. (La Plata), 14h. (Nagasaki), 15h. (Nagasaki and near Tacubaya), 19h. (Baku and near Athens), 20h. (La Paz).

Nov. 14d. Readings at 1h. (Manila), 4h. (Ekaterinburg), 6h. and 7h. (Nagasaki), 8h. (Nagasaki and Sucre), 10h. (Manila), 18h. (Malabar), 20h. (Manila), 23h. (Baku, Irkutsk, near Bombay, Hyderabad, and near Simla).

Nov. 15d. 4h. 21m. 6s. Epicentre 64°·2N. 147°·0W.

$A = -\cdot365$, $B = -\cdot237$, $C = +\cdot900$; $D = -\cdot545$, $E = +\cdot839$; $G = -\cdot755$, $H = -\cdot490$, $K = -\cdot435$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Sitka	E.	9·1	136	i 2 20	+ 2	i 4 10	+ 4	4·4	—
	N.	9·1	136	e 2 30	+12	4 12	+ 6	4·4	—
Victoria		20·3	130	4 34	−11	(8 30)	+ 1	8·5	8·5
Tucson		38·9	129	7 47	+ 2	—	—	—	9·5
Chicago		40·1	95	—	—	e 13 49	−19	17·2	20·0
Ann Arbor		41·3	92	—	—	e 14 36	+11	e 21·7	—
Toronto	N.	42·1	87	—	—	i 14 54?	+18	18·5	—
Ottawa		42·3	81	—	—	e 14 58	+19	e 18·9	24·4
Ithaca		44·4	85	—	—	—	—	e 23·9	—
Fordham		46·8	85	10 26	?PR_1	17 10	+92	23·9	27·6
Baku		74·6	348	—	—	e 21 20	− 1	37·9	39·4
Granada		74·6	30	—	—	(21 57)	+36	22·0	—
La Paz		100·1	107	e 18 6	?PR_1	—	—	—	—

Additional readings: Victoria PEN = +4m.54s. Tucson $PR_1E = +8$m.48s., PR_1N? = +9m.11s. Chicago $PR_1 = +9$m.39s., iEN = +14m.42s., MN = +18·3m.; L may be SR_1; all readings are given as for 3h. Ann Arbor eN = +14m.42s., e = +15m.24s., eE = +17m.42s. $=SR_1 + 25$s., eN = +18m.24s. $=SR_2 - 7$s. Ottawa i = +15m.51s., e = +18m.0s. $=SR_2 - 30$s. Fordham i = +18m.3s., $SR_1 = +20$m.31s. $=SR_2 + 15$s., $SR_2 = +21$m.44s., $SR_3 = +22$m.32s. Baku e = +32m.10s.

Nov. 15d. Readings also at 0h. (near La Paz and Sucre), 6h. (Barcelona), 8h. (Berkeley, Lick, and Santa Clara), 10h. (near La Paz and Sucre), 12h. (near Tacubaya), 15h. (Santa Clara), 16h. (Rocca di Papa), 20h. (Apia).

Nov. 16d. Readings at 2h. (Baku), 9h. (Nagasaki), 18h. (Batavia), 19h. (Nagasaki), 20h. (near Toyooka).

Nov. 17d. 21h. 21m. 36s. Epicentre 35°·5N. 2°·5W. (as on 13d.).

$A = +\cdot813$, $B = -\cdot036$, $C = +\cdot581$; $D = -\cdot044$; $E = -\cdot999$; $G = +\cdot580$, $H = -\cdot025$, $K = -\cdot814$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Almeria	1·4	1	i 0 26	+ 5	i 0 45	+ 6	i 0·8	1·0
Granada	1·9	332	i 0 29	0	0 55	+ 2	—	1·2
Malaga	2·0	308	0 21	−10	0 39	−16	0·7	1·1
San Fernando	3·1	288	1 6	+17	1 31	+ 5	—	—
Alicante	3·2	30	1 21	+31	1 54	+26	2·2	2·3
Toledo	4·5	340	i 1 4	− 6	i 2 47	+43	i 3·5	3·5
Tortosa	5·8	24	e 1 44	+14	e 3 5	+26	—	3·9
Kew	16·0	5	—	—	—	—	8·4	—
Uccle	16·1	16	—	—	—	—	e 8·4	—
De Bilt	17·4	16	—	—	—	—	e 9·4	10·4

Additional readings: Almeria $PR_1 = +35$s., MNZ = +0·9m. Granada i = +39s., MZ = +1·3m. Alicante MN = +2·6m. Toledo iS = +3m.4s. De Bilt MZ = +12·1m.

Nov. 17d. Readings also at 1h. (Ekaterinburg and Riverview), 8h. (Riverview), 9h. and 10h. (Nagasaki), 11h. (Kobe, Sumoto, and Toyooka), 13h. (Baku), 15h. (Baku and Matuyama), 17h. (Malaga, Almeria, and near Granada (2)), 18h. (Manila), 20h. (Sucre), 21h. (Granada and Tacubaya), 22h. (Sucre).

Nov. 18d. 16h. 31m. 18s. Epicentre 29°·7N. 147°·0E.

A = −·728, B = +·473, C = +·495; D = +·545, E = +·839; G = −·416, H = +·270, K = −·869.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Sumoto	11·2	298	e 2 42	− 5	—	—	2·8	—
Manila	28·3	243	e 6 12	+ 1	(11 11)	+ 7	11·2	—
Irkutsk	38·5	319	e 7 43	+ 1	e 13 43	− 2	19·7	27·6
Ekaterinburg	63·5	323	i 10 39	+ 4	e 19 21	+14	31·7	35·0
Kucino	75·5	326	—	—	—	—	40·3	41·3
Baku	76·1	310	—	—	—	—	38·2	—
Leningrad	76·5	332	—	—	—	—	e 47·7	—
Pulkovo	76·6	332	—	—	—	—	e 45·7	—

Kucino gives also MN = +41·2m.

Nov. 18d. Readings also at 0h. (near Sumoto), 1h. (Tacubaya), 2h. (Baku), 4h. (Oaxaca and near Tacubaya), 9h. (La Paz), 10h. (Manila), 16h. (near Malaga), 18h. (Granada), 19h. (Manila and near Malabar), 21h. (Granada), 22h. (Moncalieri, Florence, Strasbourg, Zurich, and near Malaga), 23h. (Makeyevka and Venice).

Nov. 19d. 0h. 40m. 0s. Epicentre 6°·0S. 113°·0E. (as on 1922 May 10d.).

A = −·389, B = +·915, C = −·105; D = +·921, E = +·391; G = +·041, H = −·096, K = −·995.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina	15·3	82	i 4 12	+29	i 10 0	?	—	—
Adelaide	37·3	145	—	—	13 23	− 5	19·6	22·0
Riverview	44·9	136	e 10 39	?PR_1	15 24	+10	e 19·0	21·5
Irkutsk	58·8	354	e 9 59	− 5	17 53	−16	e 30·0	—
Florence	102·6	314	—	—	—	—	e 61·0?	67·7

Additional readings: Adelaide MN = +22·8m. Riverview MN = +21·1m.
Irkutsk PR_2 = +13m.18s., SR_1 = +22m.5s.

Nov. 19d. Readings also at 1h. (Ekaterinburg), 5h. (near La Paz and Sucre), 6h. (Ekaterinburg), 8h. (Irkutsk, near Mizusawa, near Sucre, and La Paz), 10h. (Ekaterinburg, Irkutsk, and near Toyooka), 11h. (near Mizusawa), 13h. (Azores), 16h. (Nagasaki), 17h. (Baku, Ottawa, Toronto, and near Tucson).

Nov. 20d. Readings also at 1h. (Irkutsk), 2h. (Sucre and near Toyooka), 6h. (Apia), 7h. (near La Paz and Sucre), 12h. (Wellington), 13h. (2) and 15h. (Nagasaki), 18h. (Makeyevka, Nagasaki, and near Strasbourg), 19h. (near Tacubaya), 22h. (near Mizusawa).

Nov. 21d. 11h. 14m. 45s. Epicentre 23°·0N. 97°·0E.

A = −·112, B = +·914, C = +·391; D = +·993, E = +·122; G = −·048, H = +·388, K = −·921.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Calcutta	E.	8·0	269	3 25	?S	(3 25)	−12	7·2	—
	N.	8·0	269	3 45	?S	(3 45)	+ 8	7·4	—
Phu-Lien		9·2	102	e 2 23	+ 4	e 4 23	+15	4·7	5·0
Hong Kong		15·9	89	6 45	?S	(6 45)	− 8	7·8	8·0
Simla	N.	19·4	299	—	—	—	—	e 12·2	—
Taihoku	E.	22·5	80	—	—	e 9 8	− 7	—	—

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Bombay	23·0	264	(4 51)	−26	(9 11)	−14	(11·5)	—
Zi-ka-wei	23·2	64	e 5 5	−14	—	—	—	12·1
Manila	24·2	106	—	—	—	—	e 12·9	—
Irkutsk	29·8	9	e 6 29	+ 3	e 11 27	− 4	15·2	16·1
Baku	43·1	305	—	—	e 19 7	?SR_3	24·6	26·6
Makeyevka	52·6	315	—	—	—	—	e 28·2	—
Kucino	53·9	323	—	—	—	—	29·6	31·6
Pulkovo	58·6	328	—	—	e 27 37	?L	31·2	37·5
Leningrad	58·7	328	—	—	—	—	33·2	37·5
De Bilt	73·2	320	—	—	—	—	e 42·2	—

Additional readings and notes: Hong Kong S = +7m.30s. Simla eE = +12m.45s. Bombay: All the readings have been diminished by 6 min. Irkutsk·MZ = +17·6m. Baku e = +15m.27s. = PS + 29s., MN = +27·2m., MZ = +29·7m. Makeyevka L = +31·2m.

Nov. 21d. Readings also at 1h. (Ekaterinburg), 3h. (Baku and Port au Prince), 4h. (Ottawa, Toronto, and Nagasaki), 6h. (near La Paz and Sucre), 7h. (near Mizusawa and near Zurich), 11h. (near La Paz), 12h. (Ekaterinburg and near La Paz), 15h. (Ekaterinburg), 17h. (Taihoku), 18h. (near Manzanillo), 19h. (Pulkovo, Leningrad, and Ekaterinburg), 20h. (Ekaterinburg), 23h. (near Ekaterinburg, near La Paz, and Sucre).

Nov. 22d. 19h. 8m. 12s. Epicentre 30°·5N. 102°·0E.

A = −·179, B = +·843, C = +·508; D = +·978, E = +·208; G = −·106, H = +·496, K = −·862.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Phu-Lien	10·6	156	e 2 53	+15	e 4 55	+10	5·2	5·9
Hong Kong	13·6	124	4 56	?S	(4 56)	−62	6·6?	6·7
Zi-ka-wei	16·7	82	e 6 51	?S	(e 6 51)	−20	(e 8·3)	10·5
Taihoku N.	18·1	103	—	—	e 7 37	− 5	—	—
Irkutsk	21·8	4	i 5 2	− 1	9 13	+12	11·8	14·1
Baku	43·0	298	—	—	e 18 21	?SR_1	e 25·8	—

Zi-ka-wei gives S as P and L as S.

Nov. 22d. Readings also at 2h. and 4h. (Irkutsk), 8h. (near Sucre), 14h. (Nagasaki, near Mizusawa, and near Athens), 15h. (Baku), 18h. (near Malaga and near Toyooka), 19h. (Kucino and La Paz), 22h. (near Malaga).

Nov. 23d. 0h. 20m. 10s. Epicentre 46°·0N. 154°·0E. (as on Nov. 9d.).

A = −·624, B = +·305, C = +·719; D = +·438, E = +·899; G = −·647, H = +·315, K = −·695.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	11·7	239	3 8	+13	5 18	+ 6	—	—
Irkutsk	32·4	300	e 6 39	−13	e 12 1	−13	16·8	22·7
Ekaterinburg	54·5	319	i 9 34	− 2	17 8	− 7	25·8	36·0
Leningrad	64·5	332	10 44	+ 2	19 23	+ 4	33·5	43·5
Pulkovo	64·7	332	10 42	− 1	i 19 19	− 2	33·8	41·4
Kucino	65·0	326	e 10 46	+ 1	i 18 53	−32	34·8	42·4
Upsala N.	68·3	339	—	—	—	—	e 41·8	—
Baku	70·3	309	11 22	+ 3	i 20 40	+10	34·8	40·5
Makeyevka	70·6	321	e 11 23	+ 2	e 20 35	+ 2	32·8	49·1
Piatigorsk	71·2	315	—	—	—	—	e 37·8	47·8
Hamburg	75·8	340	—	—	—	—	e 42·8	—
De Bilt	78·3	341	i 12 6	− 3	—	—	e 39·8	52·7

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Cheb	78·3	335	—	—	—	—	e 40·8	47·8
Toronto	78·6	37	—	—	—	—	42·8	—
Ottawa	78·7	33	—	—	e 29 50?	?	42·8	—
Vienna z.	78·8	333	e 12 9	− 3	—	—	—	—
Uccle	79·7	341	—	—	—	—	e 40·8	—
Kew	80·1	346	—	—	—	—	e 38·8	—
Strasbourg	81·0	339	e 12 31	+ 6	—	—	44·8	—
Moncalieri	84·3	337	13 17	+33	24 14	+63	45·5	—
Rocca di Papa	85·7	332	—	—	—	—	e 49·4	58·3

Additional readings: Mizusawa SN = +5m.19s. Irkutsk MZ = +22·6m. Ekaterinburg SR_1 = +21m.2s., MN = +37·4m., MZ = +38·2m. Leningrad PR_2 = +14m.45s., MNZ = +43·4m. Pulkovo MNZ = +43·4m. Kucino ePR_2 = +14m.50s., PS = +19m.59s., eSR_1 = +23m.50s., eSR_2 = +26m.38s., MN = +44·9m. Baku MZ = +47·5m. Makeyevka MN = +53·2m., MZ = +53·5m. Strasbourg e = +12m.57s. and +13m.25s.

Nov. 23d. 11h. 5m. 5s. Epicentre 35°·2N. 136°·3E. (as on 1926 Oct. 20d.).

A = −·591, B = +·565, C = +·576.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya	0·5	93	0 12	+ 4	—	—	0·5	0·5
Kobe	1·1	240	—	—	(0 30)	− 1	0·5	0·6
Toyooka	1·2	291	0 19	+ 1	—	—	0·8	0·9
Sumoto	1·4	234	0 13	− 8	—	—	0·4	0·6

Sumoto gives also MN = +0·7m.

Nov. 23d. 20h. 37m. 8s. Epicentre 25°·0N. 108°·5E.

A = −·288, B = +·860, C = +·423; D = +·948, E = +·317;
G = −·134, H = +·401, K = −·906.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Phu-Lien	4·6	203	e 1 12	+ 1	e 2 1	− 5	2·1	—
Hong Kong	5·8	116	3 7	?S	(3 7)	+28	—	3·6
Taihoku N.	11·8	87	—	—	—	—	e 6·3	—
Zi-ka-wei	12·9	59	—	—	—.	—	e 7·1	—
Irkutsk	27·5	354	—	—	—	—	e 14·6	—
Ekaterinburg	46·7	326	—	—	—	—	24·9	—

No additional readings.

Nov. 23d. Readings also at 0h. (Tacubaya and Florence), 1h. and 2h. (2) (Nagasaki), 3h. (Riverview and Sydney), 4h. (Baku, La Paz (2), and Sucre (3)), 5h. (Nagasaki (2), Ekaterinburg, and Irkutsk), 12h. (Matuyama), 16h. (near Laibach), 17h. (near La Paz), 18h. (La Paz, Leningrad, and near Mizusawa), 19h. (Apia), 20h. (Sucre, near La Paz, and near Athens), 21h. (La Paz).

Nov. 24d. 17h. 40m. 54s. Epicentre 29°·7N. 147°·0E. (as on 18d.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	38·5	319	e 7 32	−10	e 13 13	−32	19·1	—
Ekaterinburg	63·5	323	i 10 39	+ 4	i 19 34	+27	30·1	—
Baku	76·1	310	e 11 55	− 1	e 21 45	+ 7	38·6	44·2
Pulkovo	76·6	332	—	—	—	—	e 41·3	—
Uccle	93·1	337	—	—	—	—	53·1	—

Baku gives also MN = +50·0m., MZ = +50·1m.

Nov. 24d. Readings also at 1h. (Apia), 5h. and 7h. (Nagasaki), 18h. (La Paz), 19h. (Sucre), 20h. (Moncalieri, Rocca di Papa, Matuyama, near La Paz, and Sucre), 21h. (Matuyama, near La Paz, and Sucre), 23h. (Irkutsk (2)).

Nov. 25d. Readings at 2h. (Baku), 3h. (Apia), 8h. (Lick), 11h. and 12h. (Nagasaki), 13h. (Hong Kong and near Manila), 16h. (Nagasaki near Merida, and near Tacubaya), 20h. (La Paz), 22h. (Ottawa, Toronto, Ekaterinburg, De Bilt, and Uccle), 23h. (Baku (2), Ekaterinburg, and Makeyevka).

Nov. 26d. 0h. 19m. 28s. Epicentre 43°·5N. 79°·0E.

$A = +\cdot138$, $B = +\cdot712$, $C = +\cdot688$; $D = +\cdot982$, $E = -\cdot191$; $G = +\cdot131$, $H = +\cdot676$, $K = -\cdot725$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Simla		12·4	187	—	—	—	—	e 7·4	—
Ekaterinburg		17·7	326	e 4 21	+ 8	i 7 49	+16	i 8·5	10·8
Baku		21·8	272	—	—	e 8 58	− 3	e 11·8	—
Makeyevka		28·6	294	—	—	e 11 32?	+22	e 14·5	—
Kucino		28·8	310	—	—	—	—	i 14·0	—
Pulkovo		33·3	317	i 6 55	− 4	e 12 19	−10	16·5	19·4
Leningrad		33·4	317	6 54	− 6	—	—	17·8	21·6
De Bilt	E.Z.	48·2	308	—	—	—	—	e 29·5	30·6
Uccle		49·1	306	—	—	—	—	25·5	—

Additional readings: Simla eN = 0h.15m.42s. Ekaterinburg i = +4m.26s. = PR_1 − 2s. and +8m.7s. = SR_1 +8s. Kucino L = +16·0m. Leningrad MZ = +21·8m. De Bilt eLN = +25·5m.

Nov. 26d. Readings also at 1h. and 2h. (Nagasaki), 3h. (near La Paz), 10h. (Amboina), 16h. (Rocca di Papa, Nagasaki, and near Batavia), 20h. (Nagasaki), 22h. (Baku, Ekaterinburg, and Granada), 23h. (Ekaterinburg and near Manila).

Nov. 27d. 5h. 19m. 18s. Epicentre 12°·0N. 126°·0E. (as on 1925 May 7d.).

$A = -\cdot575$, $B = +\cdot791$, $C = +\cdot208$; $D = +\cdot809$, $E = +\cdot588$; $G = -\cdot122$, $H = +\cdot168$, $K = -\cdot978$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		5·5	298	i 1 24	− 1	(i 2 32)	+ 1	i 2·5	4·0
Taihoku	E.	13·7	343	e 3 36	+14	—	—	7·4	9·3
Hong Kong		15·2	314	3 38	− 4	6 25	−12	7·2	8·5
Zi-ka-wei		19·6	348	i 4 44	+ 8	8 39	+24	—	15·5
Phu-Lien		20·6	298	e 4 37	−11	e 8 23	−13	9·7	15·8
Nagasaki		21·0	9	e 10 14	?S	(e 10 14)	+90	14·2	14·9
Hukuoka		21·9	10	5 14	+10	(9 20)	+17	9·3	—
Sumoto		23·7	18	5 33	+ 8	10 25	?SR_1	14·5	—
Kobe	E.	24·1	18	—	—	—	—	—	14·2
Osaka		24·2	19	5 3	−27	(9 52)	+ 4	9·9	14·7
Batavia		26·4	227	i 5 30	−22	i 10 4	−26	14·7	—
Irkutsk		43·9	341	8 17	− 8	14 51	−10	23·7	28·4
Colombo		45·8	268	5 7	?	18 17	?	27·5	30·1
Hyderabad		46·2	283	8 36	− 5	15 11	−20	25·9	33·4
Adelaide		48·5	167	—	—	15 2	−58	21·1	24·8

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Simla N.	48·8	301	e 15 48	?S	(e 15 48)	−16	—	—
Bombay	51·5	285	16 8	?S	(16 8)	−30	—	—
Riverview	51·7	153	—	—	e 17 2	+22	e 21·2	34·0
Melbourne	52·9	161	—	—	i 17 24	+29	e 22·4	29·6
Baku	71·7	310	i 11 29	+ 1	20 51	+ 5	35·7	47·6
Piatigorsk	76·6	314	12 20	+21	e 22 6	[+ 6]	40·7	—
Kucino	79·0	325	—	—	e 22 4	− 8	40·8	43·6
Makeyevka	79·8	319	e 12 16	− 2	e 22 14	− 7	36·7	52·6
Pulkovo	82·5	330	i 12 30	− 3	22 46	− 6	39·7	49·4
Upsala	88·5	332	—	—	e 23 43	−15	e 44·7	49·0
Budapest	92·3	320	e 14 42?	+73	—	—	e 48·7	—
Vienna	93·6	322	e 13 24	−12	—	—	—	52·7
Graz	94·1	321	—	—	—	—	47·9	61·1
Victoria	94·3	39	—	—	26 36	+97	—	—
Hamburg	95·0	328	—	—	—	—	e 45·7	49·7
Cheb	95·3	324	—	—	e 24 42?	−27	e 47·7	51·7
De Bilt	98·3	328	—	—	e 25 28	−11	e 47·7	55·0
Rocca di Papa	98·6	317	e 16 45	+162	e 25 21	−21	e 48·8	55·3
Strasbourg	98·7	325	—	—	e 26 42?	+59	51·7	54·7
Florence	98·7	318	17 42	?PR_1	—	—	e 41·7	65·7
Dyce	98·8	335	—	—	i 25 20	−24	47·7	54·4
Uccle	99·4	327	—	—	e 25 32	−18	e 47·7	54·2
Edinburgh	100·0	334	e 37 42?	?SR_2	—	—	e 48·7	55·2
Besançon	100·3	324	—	—	e 27 42?	+103	52·7	—
Stonyhurst	101·0	331	—	—	—	—	e 50·7	56·7
Kew	101·4	330	—	—	e 24 42?	[+11]	49·7	55·6
Oxford	101·7	330	—	—	e 25 24	−48	e 47·7	55·8
Tortosa N.	107·1	321	—	—	—	—	e 48·7	55·9
Granada	111·8	319	—	—	e 30 12	?	e 59·8	66·4
San Fernando E.	113·9	320	—	—	—	—	—	69·7
Ottawa	119·4	15	—	—	e 30 18	?PS	e 53·7	—
Toronto N.	119·8	20	—	—	e 30 25	?PS	51·3	—
La Paz	165·6	110	e 20 20	[+ 8]	33 53	?	87·5	107·0
Sucre	167·1	124	20 20	[+ 7]	33 56	?	86·3	94·1

Additional readings: Phu-Lien eSR_1 = +9m.23s., MN = +15·9m. Nagasaki readings are given as for 4h. Kobe MN = +12·2m. Batavia P = +5m.31s., i = +9m.42s. Irkutsk SR_1 = +18m.11s., MN = +28·6m. Simla ePE = +16m.54s. = PS − 26s. Riverview MN = +32·2m. Baku i = +21m.55s. = [S] + 31s., MZ = +43·6m., MN = +48·0m. Piatigorsk PS = +23m.12s. Kucino e = +23m.19s. = PS + 26s., +24m.46s., and +30m.34s., MN = +42·7m. Makeyevka MZ = +52·3m. Pulkovo SR_1 = +27m.6s., MN = +46·0m., MZ = +50·4m. Graz e = 5h.17m.34s. Hamburg MZ = +59·7m. De Bilt MN = +53·4m., MZ = +64·4m. Rocca di Papa ePEN = +16m.48s., e = +18m.54s. Strasbourg e = +32m.42s.? = SR_1 + 21s., and +43m.42s.? Uccle MN = +54·8m. Kew MN = +55·8m. San Fernando MN = +68·7m. Ottawa e = +36m.42s.? = SR_1 + 4s. Toronto eN = +37m.27s. Sucre i = +20m.30s., PR_2 = +26m.36s., SR_1 = +40m.8s.

Nov. 27d. 9h. 25m. 42s. Epicentre 36°·5N. 133°·0E. (as on 1926 Jan. 14d.).

A = − ·548, B = + ·588, C = + ·595.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Toyooka	1·8	123	0 40	+12	—	—	1·0	1·1
Kobe	2·5	136	e 0 42	+ 3	(1 8)	− 1	1·1	1·2
Sumoto	2·7	145	0 43	+ 1	(1 7)	− 7	1·1	1·2
Matuyama	2·7	184	e 0 58	+16	—	—	—	1·2
Hukuoka	3·7	218	0 52	− 6	(1 28)	−14	1·5	—

No additional readings.

Nov. 27d. 14h. 40m. 0s. Epicentre 15°·0N. 117°·0W.

$A = -\cdot438$, $B = -\cdot861$, $C = +\cdot259$; $D = -\cdot891$, $E = +\cdot454$; $G = -\cdot118$, $H = -\cdot231$, $K = -\cdot966$.

Very rough, uncertain.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Guadalajara		14·0	64	3 15	−11	—	—	4·2	—
Tacubaya		17·5	73	3 4	−67	5 12	−137	5·3	6·4
Tucson	E.	18·1	17	e 4 33	+15	8 4	+22	e 8·3	9·7
	N.	18·1	17	4 32	+14	—	—	8·8	11·2
Chicago	E.	36·8	38	—	—	e 12 38	−43	16·0	16·8
Toronto	N.	42·9	40	—	—	—	—	19·9	—
Ottawa		46·0	40	e 11 30	?PR_2	—	—	e 21·0	—
La Paz		57·6	123	9 51	− 5	—	—	—	—
Sucre		60·5	124	e 10 29	+13	—	—	—	—
Ekaterinburg		108·1	1	—	—	—	—	53·0	—

Additional readings: Tucson $eN = +5m.32s.$ and $+6m.29s.$ Chicago $eSR_1N? = +13m.55s.$, $SR_1E? = +14m.0s.$

Nov. 27d. Readings also 0h. (Baku), 3h. (Ekaterinburg and near Mizusawa), 4h. (Kodaikanal), 5h. (Manila, Taihoku, and near Lick), 6h. (Nagasaki and near Manila (2)), 7h. (Uccle), 8h. (Ekaterinburg and near Sumoto), 9h. (Taihoku), 11h. (Ekaterinburg and near Mizusawa), 12h. (Nagasaki), 13h. (Mizusawa), 14h. and 15h. (Nagasaki), 18h. (Sucre and Nagasaki), 19h. (Nagasaki), 20h. (La Paz and Nagasaki), 23h. (Nagasaki (2)).

Nov. 28d. Readings at 1h. (2) and 2h. (Nagasaki), 3h. and 4h. (Agana), 5h. (Honolulu), 6h. (La Paz), 9h. (Irkutsk), 15h. (near Algiers), 16h. (La Paz and near Sucre), 21h. (Nagasaki (2)), 22h. (near Algiers), 23h. (Baku).

Nov. 29d. Readings at 2h. (Nagasaki), 3h. (Nagasaki, La Paz, and Sucre), 4h. (San Juan), 5h. (La Plata), 8h. (Oaxaca, Tacubaya, Puebla, Vera Cruz, and Tucson), 9h. and 10h. (Nagasaki), 12h. (Sucre), 13h. (Azores and Mizusawa), 14h. (La Paz), 21h. (Manila, Strasbourg, and Zurich), 23h. (Nagasaki).

Nov. 30d. 10h. 56m. 6s. Epicentre 47°·0N. 9°·0E.

$A = +\cdot674$, $B = +\cdot107$, $C = +\cdot731$; $D = +\cdot156$, $E = -\cdot988$; $G = +\cdot722$, $H = +\cdot114$, $K = -\cdot682$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Zurich	0·5	329	i 0 6	− 2	i 0 14	0	—	—
Strasbourg	1·8	332	0 31	+ 3	0 54	+ 3	e 1·3	—
Hohenheim	1·8	5	e 0 24	− 4	i 0 58	+ 7	—	1·0
Besançon	2·1	277	e 0 25	− 8	i 0 47	−12	—	—
Makeyevka	19·5	76	e 3 12	−83	—	—	—	—

Additional readings: Strasbourg $PR_1 = +46s.$, $iS = +1m.0s.$, $iSR_1 = +1m.10s.$ Hohenheim $eN = +33s.$ and $+46s.$, $eE = +50s.$

Nov. 30d. Readings also at 1h. (Baku, Pulkovo, and Leningrad), 2h. (Nagasaki and near La Paz), 3h., 5h., 6h., and 7h. (Nagasaki), 8h. (Sucre (2)), 12h. (Baku), 13h., 14h., and 16h. (Nagasaki).

Dec. 1d. 1h. 8m. 27s. Epicentre 49°·0N. 174°·0E. (as on 1924 Sept. 17d.).

A = −·652, B = +·068, C = +·755; D = +·105, E = +·995; G = −·751, H = +·079, K = −·656.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	42·6	302	e 7 19	−56	—	—	12·6	21·0
Ekaterinburg	60·7	325	10 13	− 4	18 26	− 6	27·0	31·2
Leningrad	67·0	341	—	—	—	—	e 31·4	43·3
Pulkovo	67·3	341	e 11 15	+15	e 20 5	+11	33·0	43·2
Toronto	67·3	49	—	—	—	—	—	50·6
Ottawa	67·8	45	—	—	—	—	e 48·5	—
Kucino	69·0	336	—	—	e 31 9	?	37·0	—
Makeyevka	75·8	332	—	—	—	—	43·6	45·7
Baku	78·0	321	e 12 3	− 4	e 21 45	−15	37·0	46·0
De Bilt	78·4	353	—	—	—	—	e 44·5	—
Uccle	80·1	355	—	—	—	—	e 45·6	—

Additional readings: Ekaterinburg e = +21m.37s., MN = +30·9m., MZ = +35·5m. Pulkovo MNZ = +43·6m. Leningrad MNZ = +43·4m. Baku MN = +45·9m., MZ = +46·0m. De Bilt eLN = +43·4m.

Dec. 1d. 3h. 55m. 41s. Epicentre 31°·5N. 130°·0E. (as on 1926 Jan. 25d.).

A = −·548, B = +·653, C = +·522; D = +·766, E = +·643; G = −·336, H = +·400, K = −·853.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Nagasaki	1·3	356	0 9	−11	—	—	—	—
Matuyama	3·3	45	e 1 18	+26	e 1 44	+13	e 1·8	2·0
Sumoto	5·0	54	2 9	?S	(2 9)	− 8	2·6	3·0
Kobe	5·3	52	e 2 19	?S	(e 2 19)	− 6	—	—
Osaka	5·6	53	2 19	?S	(2 19)	−15	2·7	3·3
Toyooka	5·7	45	1 32	+ 4	—	—	2·0	2·1
Irkutsk	28·0	326	—	—	—	—	16·3	—

Toyooka "Off coast of Izumo."

Dec. 1d. 4h. 57m. 42s. Epicentre 35°·0N. 132°·5E.

A = −·554, B = +·604, C = +·574; D = +·737, E = +·676; G = −·388, H = +·423, K = −·819.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Matuyama	1·2	173	e 0 17	− 1	e 0 38	+ 5	e 0·9	1·2
Toyooka	2·0	74	0 21	−10	—	—	0·8	1·0
Sumoto	2·1	108	1 2	?S	(1 2)	+ 4	1·7	1·8
Hukuoka	2·2	230	0 33	− 1	—	—	1·3	—
Kobe	2·2	98	0 39	+ 5	—	—	1·3	1·3
Osaka	2·4	98	0 46	+ 9	—	—	1·4	2·7
Nagasaki	3·2	226	0 57	+ 7	1 57	+29	2·0	—
Nagoya	3·6	87	0 21	−35	—	—	1·2	1·5
Irkutsk	26·5	319	e 5 25	−28	e 9 58	−34	13·3	16·6
Baku	63·2	302	—	—	—	—	e 33·3	—
Kucino	64·1	321	—	—	—	—	e 35·9	—
Leningrad	65·8	328	—	—	—	—	e 37·2	—
Pulkovo	66·0	328	—	—	e 34 0	?	e 38·8	41·6
Makeyevka	67·5	314	—	—	e 40 18?	?	44·3	—

Additional readings: Toyooka MN = +1·2m., "Off coast of Izumo." Sumoto MZ = +1·9m. Irkutsk MZ = +16·3m. Kucino gives L as e, also e = +40m.36s.

Dec. 1d. 20h. 35m. 41s. (I) } Epicentre 36°·5N. 3°·5W.
21h. 4m. 12s. (II) }

A = +·802, B = −·049, C = +·595.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
I Granada	0·7	353	i 0 12	+ 1	0 19	− 1	—	0·4
II	0·7	353	i 0 12	+ 1	0 19	− 1	—	0·4
I Malaga	0·8	288	0 18	+ 6	0 26	+ 4	—	0·7
II	0·8	288	0 18	+ 6	0 26	+ 4	—	0·5
I Almeria	1·0	67	i 0 15	0	i 0 23	− 5	i 0·4	1·0
II	1·0	67	i 0 16	+ 1	i 0 25	− 3	i 0·5	0·5

Additional reading: Almeria I MNZ = +0·5m.

Dec. 1d. Readings also at 0h. (Sucre), 2h. (La Paz and Sucre; perhaps at 41°S. 92°W., as on 1924 July 17d.), 5h. (near Nagasaki), 6h. (near Sumoto), 7h. (near Nagasaki), 8h. (La Paz and Sucre), 9h. (Toyooka), 12h. (near Nagasaki), 13h. (near Mizusawa and Irkutsk), 14h. (Irkutsk and Baku), 15h. (Irkutsk), 17h. (Leningrad), 20h. (near Nagasaki), 21h. (near Mizusawa).

Dec. 2d. 8h. 13m. 34s. Epicentre 34°·0S. 57°·0E. (as on 1926 Sept. 21d.).

A = +·452, B = +·695, C = −·559; D = +·839, E = −·545;
G = −·305, H = −·469, K = −·829.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Cape Town		31·7	262	—	—	13 14	+71	—	18·7
Colombo		46·3	32	8 51	+ 9	15 26	− 6	22·4	25·8
Batavia		53·7	70	i 9 33	+ 2	i 17 4	− 1	—	—
Bombay		55·0	19	9 37	− 2	17 17	− 4	e 28·6	—
Hyderabad		55·4	25	10 5	+23	17 30	+ 4	24·2	28·3
Adelaide		65·2	116	8 30?	?	i 19 30	+ 3	e 36·6	38·4
Simla	N.	67·9	19	e 20 38	?PS	—	—	—	37·9
Melbourne		68·6	122	—	—	—	—	—	36·1
Baku		74·7	355	i 11 56	+ 9	i 21 35	[−12]	36·4	41·0
Riverview		74·9	121	—	—	e 21 32	+ 7	e 32·0	38·1
Sydney	E.	74·9	121	—	—	—	—	37·3	39·6
Manila		77·8	64	e 12 18	+12	—	—	—	—
Hong Kong		78·3	53	—	—	—	—	—	47·4
Makeyevka		83·8	349	—	—	e 23 6	− 1	30·4	50·1
Wellington		85·5	139	—	—	—	—	e 40·4	—
La Plata		88·0	229	—	—	—	—	37·7	—
Vienna	Z.	89·8	335	i 13 13	− 2	—	—	—	—
Granada		90·8	317	—	—	—	—	e 47·6	53·5
Ekaterinburg		90·9	3	e 13 17	− 4	i 24 13	−10	38·4	50·3
Kucino		91·2	350	e 13 19	− 3	e 24 19	− 7	49·9	51·2
San Fernando		91·8	315	—	—	—	—	—	59·9
Toledo	N.E.	92·8	319	—	—	—	—	e 48·2	53·5
Irkutsk		95·6	27	13 37	−10	—	—	47·4	56·5
Pulkovo		96·3	348	e 13 46	− 5	—	—	53·4	57·0
Uccle		96·6	330	—	—	e 24 26	[+20]	e 41·4	—
De Bilt		97·3	332	—	—	e 26 26	?PS	e 48·4	—
Upsala	N.	99·3	343	—	—	—	—	e 32·4	—
Sucre		103·6	235	e 18 40	?PR_1	—	—	45·6	52·9
La Paz		107·4	235	18 15	?PR_1	28 39	?PS	54·4	59·1
Ottawa		142·5	302	—	—	—	—	e 68·4	—
Toronto		145·1	299	—	—	31 26	?	—	—
Chicago		151·2	296	—	—	—	—	e 76·0	91·8
Victoria	E.	165·6	1	—	—	—	—	92·4	95·7

Additional readings and notes: Batavia iPZ = +9m.34s. Hyderabad gives T_g 8h.14m.18s. Adelaide eSR_2 = +28m.49s. = SR_2 +41s., MN = +43·4m. Simla ME = +34·5m. Melbourne e = +24m.2s. = SR_1 −86s. Baku MN = +47·7m., MZ = +48·4m. Riverview e = +14m.50s. = PR_1 −17s., MN = +40·3m. Ekaterinburg i = +13m.18s., e = +16m.46s. = PR_1 −27s., iS_4P_4S = +23m.50s. = [S] +17s., iPS = +25m.20s. = PS −1s., e = +26m.42s., eSR_1 = +29m.49s. = −52s., eSR_2 = +34m.12s. = −45s., MN = +49·0m.,

Continued on next page.

MZ = +53·8m. Kucino eSR_2 = +34m.0s. San Fernando MN = +57·9m. Toledo MNW = +53·8m. Irkutsk PR_1 = +17m.35s. = PR_1 −11s., PR_2 = +22m.22s., PPS = +26m.16s., SR_1 = +31m.36s. = SR_1 −6s., eSR_2 = +35m.12s. = SR_2 −67s., MN = +53·9m., MZ = +55·0m. Pulkovo PR_1 +17m.36s. = PR_1 −14s., PPS = +26m.33s., SR_1 = +31m.26s. = SR_1 −25s., MZ = +57·5m. De Bilt e = +41m.26s. Upsala = +32m.26s. = SR_1 −3s. Ottawa eE = +23m.8s. = PR_1 +19s., eN = +37m.50s.

Dec. 2d. 16h. 41m. 47s. Epicentre 3°·0N. 65°·0E.

A = +·422, B = +·905, C = +·052; D = +·906, E = −·423; G = +·022, H = +·047, K = −·999.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Kodaikanal	14·3	59	e 5 1	+91	—	—	i 5·5	6·3
Colombo	15·3	75	2 3	?	(6 48)	+ 9	6·8	8·5
Hyderabad	19·6	42	4 28	− 8	8 23	+ 8	9·7	10·6
Simla	30·4	21	—	—	—	—	e 16·3	—
Baku	39·8	342	e 7 50	− 3	e 14 8	+ 5	20·7	25·5
Ekaterinburg	54·0	358	e 9 40	+ 7	e 17 13	+ 4	25·7	—
Irkutsk	59·0	29	e 10 7	+ 2	e 18 15	+ 4	20·2	—
Pulkovo	62·7	341	—	—	—	—	e 39·5	—

Additional readings and notes: Hyderabad gives T_o 16h.41m.17s. Baku MN = +27·9m., MZ = +28·9m. Irkutsk ePR_1 = +12m.37s. = PR_1 −9s.

Dec. 2d. 17h. 28m. 54s. Epicentre 22°·0N. 121°·0E. (as on 1926 Aug. 3d.).

A = −·478, B = +·795, C = +·375; D = +·857, E = +·515; G = −·193, H = +·321, K = −·927.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Taihoku N.	3·1	9	e 0 38	−11	—	—	1·2	1·3
Hong Hong	6·3	275	2 49	?S	(2 49)	− 3	—	4·7
Manila	7·4	180	e 2 6	+14	—	—	3·8	—
Irkutsk	32·9	341	—	—	—	—	17·1	21·0
Ekaterinburg	55·6	325	—	—	—	—	29·1	—
Baku	61·9	307	—	—	—	—	e 34·1	—
Leningrad	71·5	329	—	—	—	—	e 53·8	—

Dec. 2d. 23h. 12m. 40s. Epicentre 57°·3N. 165°·0W. (as on 1920 April 18d.).

A = −·522, B = −·140, C = +·842; D = −·259, E = +·966; G = −·813, H = −·218, K = −·540.

	Δ	Az.	P.	O−C.	L.	M.
	°	°	m. s.	s.	m.	m.
Victoria E.	26·2	92	—	—	8·8	11·2
Irkutsk	48·6	308	e 8 56	− 2	e 28·3	—
Chicago N.	49·6	75	—	—	e 24·6	—
Toronto	52·3	67	—	—	29·7	—
Ottawa	52·9	61	—	—	e 26·3	—
Ekaterinburg	60·2	334	i 10 13	0	27·3	—
Leningrad	62·1	353	—	—	e 35·7	—
Pulkovo	62·4	353	—	—	e 41·0	—
Makeyevka	73·0	346	—	—	49·3	—
Baku	78·1	335	—	—	40·3	47·7

Additional readings: Toronto iE = +29m.32s., LE = +37·0m. Ekaterinburg i = +10m.25s. Baku MN = +55·2m., MZ = +58·9m.

Dec. 2d. Readings also at 0h. (Nagasaki and Sucre), 1h. (Sucre and Nagasaki), 2h. (Sucre, La Paz, and Nagasaki), 4h. (Nagasaki), 5h. (Nagasaki), 9h. (Granada), 10h. (Ekaterinburg), 13h. (Azores), 16h. (Sucre and La Paz (2)), 18h. (La Paz, Sucre, and Agana), 21h. (Taihoku), 22h. (Nagasaki and Mizusawa), 23h. (Toronto).

Dec. 3d. 5h. 19m. 20s. Epicentre 34°·0S. 73°·0W. (as on 1926 Oct. 25d.).

A = +·242, B = −·793, C = −·559; D = −·956, E = −·292; G = −·163, H = +·535, K = −·829.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
La Plata	12·5	98	i 3 12	+ 6	5 30	− 2	6·7	—
Sucre	16·5	27	i 3 58	− 1	i 7 18	+11	8·3	9·5
La Paz	18·0	15	4 23	+ 6	8 10	+30	8·7	11·4
Toronto	77·7	355	—	—	25 40?	?	—	—
Ottawa	79·4	359	—	—	(e 21 40?)	−36	e 21·7	—
Puy de Dôme	105·3	44	—	—	—	—	59·7	—
Baku	135·0	65	—	—	—	—	e 72·7	—
Ekaterinburg	141·4	39	—	—	—	—	64·7	—
Irkutsk	161·6	5	e 19·56	[−13]	e 24 38	?PR_1	e 88·7	—

Additional readings and notes: La Plata gives T_e=5h.19m.38s. Sucre i = +4m.35s. = PR_1 +25s.; T_e =5h.19m.6s. La Paz T_e =5h.18m.56s.

Dec. 3d. 6h. 50m. 15s. Epicentre 47°·2N. 6°·0E. (as on 1925 Jan. 8d.).

A = +·676, B = +·071, C = +·734; D = +·105, E = −·995; G = +·730, H = −·070, K = −·679.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Besançon	0·0	—	0 41	+41	—	—	—	—
Strasbourg	1·8	41	i 0 30	+ 2	i 0 45	− 6	—	—
Zurich	1·8	85	e 0 36	+ 8	i 0 53	+ 2	—	—

Additional readings: Strasbourg iPR_1 = +0m.34s. = +6s., PR_2 = +0m.42s., iSR_1 = +0m.56s. = +6s.

Dec. 3d. 22h. 42m. 45s. Epicentre 18°·0S. 167°·0E. (as on 1925 Nov. 28d.).

A = −·927, B = +·214, C = −·309; D = +·225, E = +·974; G = +·301, H = −·070, K = −·951.

Some of the European observations may belong to the next shock.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Suva		10·8	92	(i 3 15)	+34	—	—	(e 3·5)	—
Sydney	E.	21·3	219	4 45	−12	—	—	8·9	12·7
Riverview		21·3	219	e 4 55	− 2	i 8 51	+ 1	e 10·5	13·5
Wellington		24·2	166	5 35	+ 5	e 9 45	− 3	12·2	—
Melbourne		27·7	220	e 7 33	+88	10 33	−21	—	16·9
Adelaide		30·4	231	11 1	?S	14 55	?	16·0	20·3
Honolulu	N.	52·2	43	—	—	—	—	e 25·7	27·7
Honolulu Univ.	E.	52·3	43	—	—	—	—	e 21·2	29·2
Batavia		59·8	273	i 10 10	− 1	i 18 25	+ 4	—	—
Irkutsk		88·7	327	e 13 14	+ 5	24 56	+56	45·2	—
Victoria		90·7	39	e 23 45	?[S]	(e 23 45)	[+13]	43·4	51·2
Chicago	E.	113·2	50	—	—	—	—	e 63·2	65·5
Ekaterinburg		113·9	325	e 19 50	?PR_1	29 17	?PS	55·2	64·1
Toronto		119·3	49	—	—	—	—	62·0	—
Ottawa		121·7	48	—	—	—	—	e 55·3	—
Baku		122·0	308	e 20 41	?PR_1	e 31 17	?PS	e 57·2	—
Leningrad		127·9	334	—	—	—	—	69·8	—
Pulkovo		128·0	334	—	—	—	—	70·7	—
Rocca di Papa		147·7	323	e 19 44	[− 8]	—	—	48·7	56·2

Additional readings and notes: Suva e = (+0m.15s.); all the readings have been increased by 3 min. Riverview iS = +9m.9s., MN = +12·8m. Adelaide MN = +18·0m. Batavia P = +10m.14s. Irkutsk eS_4P_4S = +23m.44s. = [S] +24s. Ekaterinburg MZ = +76·0m. Rocca di Papa PN = +19m.52s., PE = +19m.53s.

Dec. 3d. 23h. 1m. 54s. Epicentre 47°·2N. 6°·0E. (Besançon ; as at 6h.).

$A = +\cdot676$, $B = +\cdot071$, $C = +\cdot734$; $D = +\cdot105$, $E = -\cdot995$; $G = +\cdot730$, $H = +\cdot070$, $K = -\cdot679$.

The P readings for the four stations are nearly the same. If we could assume a focal depth large compared with the surface separations the observations might be satisfied ; as it is we must make some hypothesis of error at one station.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Strasbourg	1·8	41	i 0 32	+ 4	i 0 55	+ 4	—	—
Moncalieri	2·5	152	e 0 33	− 6	i 1 17	+ 8	2·2	—
Paris	2·8	304	e 0 38	− 6	—	—	—	—
Rocca di Papa N.	7·2	136	e 0 35	−74	—	—	—	0·9

Additional readings: Strasbourg P is $\overline{P}_V$; $iPR_1 = +43s.$; S is $\overline{S}$; SR = +1m.8s., iSR = +1m.20s. Rocca di Papa PN = +43s., PE = +44s.

Dec. 3d. 23h. 39m. 20s. Epicentre 51°·5S. 144°·5E. (as on 1926 July 25d.).

$A = -\cdot507$, $B = +\cdot361$, $C = -\cdot783$.

Very doubtful. One or other station is apparently 6 min. in error.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Adelaide	17·1	343	(4 17)	+11	(7 22)	+ 2	(7·9)	(10·2)
Riverview	18·3	18	e 4 8	−13	e 7 17	−30	e 10·2	14·2
Victoria E.	126·9	54	—	—	—	—	40·0	46·7
Strasbourg	152·5	281	—	—	—	—	e 29·7	—
San Fernando E.	154·4	246	—	—	—	—	—	46·7
Kew	158·3	284	—	—	—	—	e 26·7	—

Additional readings: Adelaide MN = (+10·6m.) ; all readings having been diminished by 6m. Riverview MN = +11·9m.

Dec. 3d. Readings also at 2h. (Victoria), 3h. (Colombo, Toronto, and Ottawa), 7h. (Nagasaki), 8h. (Nagasaki), 11h. (Taihoku), 13h. (Nagasaki), 14h. (Tucson and La Plata), 15h. (Piatigorsk and Baku), 18h. (Nagasaki), 20h. (Nagasaki), 21h. (Nagasaki and Baku (2)), 23h. (Nagasaki).

Dec. 4d. 11h. 15m. 23s. Epicentre 29°·6N. 87°·8E. (as on 1923 April 24d.).

$A = +\cdot033$, $B = +\cdot869$, $C = +\cdot494$; $D = +\cdot999$, $E = -\cdot038$; $G = +\cdot019$, $H = +\cdot494$, $K = -\cdot870$.

An epicentre 1°·0 further south would suit Calcutta, Ekaterinburg, and Bombay (with assumed error of 1 min.) better.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Calcutta	E.	7·1	176	1 37	−11	2 42	−31	3·7	—
	N.	7·1	176	1 28	−20	2 34	−39	3·5	—
Bombay		17·3	235	e 8 19	?S	(e 8 19)	+54	11·3	—
Irkutsk		25·7	24	—	—	—	—	e 14·6	—
Ekaterinburg		33·2	333	7 5	+ 7	—	—	—	—
La Plata		150·7	251	—	—	—	—	27·1	—

Dec. 4d. Readings also at 4h. (Nagasaki), 5h. (Toronto, Ottawa, La Paz, and Sucre), 6h. (Nagasaki), 9h. (Nagasaki), 10h. (La Paz and Sucre), 13h. (near Victoria and near Baku), 18h. (La Paz, Sucre, and Cape Town), 19h. (Rocca di Papa, Moncalieri, and Baku), 21h. (Baku and near Sumoto).

Dec. 5d. 5h. 52m. 24s. Epicentre 30°·2N. 140°·3E.

A = −·665, B = +·552, C = +·503; D = +·639, E = +·769; G = −·387, H = +·321, K = −·864.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya		5·7	331	1 29	+ 1	(2 40)	+ 4	2·7	—
Osaka		6·1	317	1 34	+ 1	(2 48)	+ 2	2·8	3·4
Sumoto		6·2	313	e 2 14	+39	2 50	+ 1	3·4	3·5
Kobe		6·3	318	e 1 25	− 1	2 49	− 3	2·8	2·9
Toyooka		7·1	322	1 47	− 1	3 9	− 4	e 4·2	—
Mizusawa	E.	8·9	5	2 13	− 2	3 55	− 6	—	—
	N.	8·9	5	2 12	− 3	3 56	− 5	—	—
Nagasaki		9·3	289	7 18	+298	—	—	—	—
Ekaterinburg		59·6	323	—	—	i 17 0	−78	—	—

Osaka MN = +3·5m.

Dec. 5d. 19h. 40m. 36s. (I) / 19h. 44m. 8s. (II) } Epicentre 27°·0N. 100°·0E. (as on 1925 Oct. 15d.).

A = −·155, B = +·878, C = +·454; D = +·985, E = +·174; G = −·079, H = +·447, K = −·891.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
I Phu-Lien		8·6	134	e 1 29	−41	e 3 31	−22	3·7	4·3
I Calcutta	E.	11·5	253	3 41	+49	—	—	6·3	—
I	N.	11·5	253	3 55	+63	—	—	6·1	—
I Hong Kong		13·7	107	5 44	?S	(5 44)	−17	7·3	7·7
I Zi-ka-wei		19·2	72	—	—	e 8 33	+27	—	—
II		19·2	72	—	—	7 52	−14	—	—
II Taihoku	N.	19·4	91	e 6 13	+99	—	—	—	—
II Simla	N.	20·4	287	e 5 4	+18	—	—	—	—
I Hyderabad		22·1	249	4 49	−17	—	—	—	16·6
I Manila		23·1	118	—	—	e 10 0	+33	—	—
I Irkutsk		25·5	6	e 5 50	+ 7	e 10 47	+34	15·4	—
II Bombay		26·2	258	5 56	+ 6	10 8	−18	—	—
II Osaka		31·2	67	12 18	?S	(12 18)	+24	15·1	15·7
II Batavia	E.	33·8	170	—	—	i 12 28	−10	—	—
I Ekaterinburg		40·8	327	7 52	− 9	14 28	+10	21·9	25·9
I Baku		42·8	302	—	—	e 14 41	− 4	—	—
II		42·8	302	e 8 25	+ 8	e 14 46	+ 1	21·4	25·3
I Makeyevka		51·9	313	—	—	e 16 24	−19	25·4	32·4
II Kucino		52·4	321	—	—	—	—	e 27·4	31·5
I Pulkovo		56·8	326	e 10 28	+37	e 18 3	?PS	26·4	38·1
I Leningrad		56·8	326	—	—	e 15 54	−110	24·3	36·2
II Hamburg		68·6	320	—	—	—	—	e 34·9	—
II De Bilt	E.	71·9	320	—	—	—	—	e 36·9	38·2
II Uccle		72·8	319	—	—	—	—	e 36·9	—
II Kew		75·7	320	—	—	—	—	e 35·9	—

Additional readings: Phu-Lien I MN = +4·0m., Osaka II MN = +17·3m. Ekaterinburg I MN = +25·2m., MZ = +26·5m. Baku II MN = +28·1m., MZ = +31·8m. Pulkovo I MN = +33·9m., MZ = +38·0m. Leningrad I +16m.6s., MN = +36·5m., MZ = +37·9m. De Bilt II eLN = +34·9m., MZ = +44·7m.

Dec. 5d. 21h. 12m. 16s. Epicentre 37°·0N. 138°·5E. (as on 1925 Dec. 11d.).

A = −·599, B = +·529, C = +·602; D = +·663, E = +·749; G = −·451, H = +·399, K = −·799.

Very doubtful.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya		2·2	214	0 35	+ 1	—	—	1·4	1·9
Mizusawa	E.	2·9	44	0 49	+ 4	1 16	− 4	—	—
Osaka		3·5	227	2 29	?S	(2 29)	+52	2·9	3·8
Kobe	E.	3·6	230	—	—	—	—	—	4·4
Irkutsk		28·4	314	—	—	—	—	e 17·7	—
Ekaterinburg		53·5	319	—	—	—	—	32·7	—
Baku		66·2	305	—	—	—	—	41·7	—

Additional readings and notes: Mizusawa SN = +17s. Osaka MN = +3·9m. Kobe MN = +4·2m.

Dec. 5d. Readings also at 0h. (Sucre), 1h. (La Paz and Baku), 2h. (Nagasaki), 3h. (Nagasaki and Sumoto), 5h. (near Sumoto), 7h. (La Paz), 12h. (Baku and Ekaterinburg), 14h. (Agana), 15h. (Strasbourg and Makeyevka), 16h. (Taihoku), 19h. (near Mizusawa).

Dec. 6d. Readings at 0h. (near Mizusawa (2)), 1h. (Nagasaki (2), Irkutsk, and Sucre), 4h. (Nagasaki), 9h. (Nagasaki (2), Baku, Paris, and La Plata), 11h., 12h., and 13h. (Nagasaki), 20h. (near Mizusawa), 23h. (near Irkutsk).

Dec. 7d. 2h. 8m. 50s. Epicentre 34°·0S. 57°·0E. (as on 1926 Dec. 2d.).

$A = +·452$, $B = +·695$, $C = -·559$; $D = +·839$, $E = -·545$; $G = -·305$, $H = -·467$, $K = -·829$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Baku	74·7	355	e 11 51	+ 4	e 21 21	− 1	35·7	40·8
Granada	90·8	317	—	—	—	—	e 50·2	55·1
San Fernando	91·8	315	—	—	—	—	47·7	58·7
Irkutsk	95·6	27	—	—	—	—	e 48·2	—

Additional readings: Baku MN = +47·7m., MZ = +48·3m. San Fernando MN = +52·7m.

Dec. 7d. 19h. 40m. 20s. Epicentre 47°·0S. 78°·0W. (as on 1921 July 7d.).

$A = +·142$, $B = -·667$, $C = -·731$; $D = -·978$, $E = -·208$; $G = -·152$, $H = +·715$, $K = -·682$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
La Plata	19·3	58	5 3?	+30	8 34	+26	10·7	—
Sucre	29·9	25	6 18	− 9	11 36	+ 4	15·3	17·8
La Paz	31·6	18	6 42	− 1	11 52	− 9	14·9	20·3

Additional readings and notes: La Plata gives the T_g 19h.40m.49s.? La Paz SN = +11m.47s.

Dec. 7d. Readings also at 2h. (Nagasaki (2)), 4h. (Baku (2)), 6h. (Irkutsk and Hong Kong), 8h. (Nagasaki (2) and Ekaterinburg), 10h. (Ekaterinburg), 11h. (Nagasaki and Tucson), 14h. (Nagasaki, Baku, and near Athens), 15h. (Baku), 16h. (Puy de Dôme), 17h. (Ekaterinburg), 20h. (Baku and Kucino), 21h. (La Paz, Sucre, and Irkutsk), 22h. (Baku).

Dec. 8d. Readings at 4h. (Strasbourg, Nagasaki, and near Athens), 9h. (Nagasaki), 11h. (Nagasaki), 12h. (Nagasaki), 13h. (Nagasaki), 14h. (Nagasaki and Baku), 15h. (Nagasaki), 16h. (Nagasaki and Manila), 17h. (Sucre and Batavia), 18h. (Nagasaki), 19h. (Nagasaki), 20h. (Strasbourg, Rocca di Papa, and Wellington), 22h. (Baku and Taihoku), 23h. (Tacubaya).

Dec. 9d. 0h. 40m. 38s. Epicentre 33°·0N. 121°·5W. (as on 1922 March 10d.).

$A = -·438$, $B = -·715$, $C = +·545$; $D = -·853$, $E = +·522$; $G = -·284$, $H = -·464$, $K = -·839$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Lick		4·3	358	e 1 15	+ 8	e 1 43	−15	e 1·8	—
Berkeley		4·9	352	e 1 29?	+13	e 2 12	− 2	—	—
	Z.	4·9	352	e 1 24?	+ 8	e 2 14	0	—	—
Tucson	N.	9·0	92	4 18	+122	5 16	+73	5·9	—

Additional readings: Lick ePz = +1m.18s., ePN = +1m.19s., iRPSNZ? = +1m.40s. Berkeley iPR$_1$? = +1m.31s., PSRE? = +2m.2s. Tucson eE = +4m.35s., eN = +4m.50s., SE = +5m.25s., SN = +5m.28s., LE = +5·5m.

Dec. 9d. 3h. 22m. 24s. Epicentre 24°·7N. 145°·3E. (as on 1926 April 22d.).

A = −·747, B = +·517, C = +·418 ; D = +·569, E = +·822 ;
G = −·344, H = +·238, K = −·909.

The material is scanty but seems to fit this isolated epicentre fairly well.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	14·8	347	—	—	18 54	?	—	—
Irkutsk	41·4	322	e 8 4	− 2	e 14 29	+ 2	30·6	—
Ekaterinburg	66·7	325	—	—	—	—	36·6	—
Baku	78·2	310	—	—	31 28	?SR_2	49·6	53·4
De Bilt	95·7	337	—	—	—	—	e 59·6	—

Additional readings and notes : The Mizusawa observation probably belongs to a later shock, unless the time is 12 min. in error. Irkutsk e = +15m.58s. $=SR_1+42s.$, e = +17m.34s. $=SR_2-35s.$ Baku MZ = +59·2m., MN = +59·4m.

Dec. 9d. 12h. 6m. 42s. Epicentre 46°·5N. 28°·3W. (as on 1924 Dec. 7d.).

A = +·606, B = −·326, C = +·725 ; D = −·474, E = −·880 ;
G = +·639, H = −·344, K = −·688.

The material is scanty, and the evidence of Granada and Toledo is conflicting. The epicentre 45°·0N. 29°·0W. of 1926 Sept. 23 gives similar results, and no other which offers a decision between Granada and Toledo has yet been recorded. There was moreover an earlier shock (about 11h.53m), recorded by Baku, Kucino, Uccle, Irkutsk, Ekaterinburg, Piatigorsk, and Cape Town, but without sufficient precision to identify it.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Toledo	18·8	102	1 36	?	—	—	—	11·5
San Fernando	19·3	114	—	—	—	—	—	9·3
Granada	20·5	108	e 4 48	+ 1	i 8 24	−10	—	10·9
Almeria	21·5	107	e 5 12	+13	—	—	—	9·4
Uccle	21·8	67	—	—	—	—	e 13·3	—
De Bilt	22·3	63	—	—	e 8 18?	−53	10·3	—

Almeria MZ = +10·4m. Granada i = +7m.5s.

Dec. 9d. 22h. 38m. 48s. Epicentre 29°·5S. 71°·0W. (as on 1926 May 13d.).

A = +·283, B = −·823, C = −·492 ; D = −·946, E = −·326 ;
G = −·160, H = +·466, K = −·870.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Sucre	11·7	28	2 53	− 2	5 16	+ 4	5·8	6·4
La Plata	12·3	119	3 4	+ 1	5 21	− 5	6·5	—
La Paz	13·3	12	e 2 58	−19	e 5 50	− 1	6·7	7·0

Dec. 9d. Readings also at 0h. (Tucson (3)), 2h. (Nagasaki), 5h. (Tucson), 6h. (Manila), 7h. (Nagasaki), 8h. (Nagasaki (2), Mizusawa, and Hong Kong), 9h. (Nagasaki (2)), 11h. (Baku), 12h. (Kucino, Irkutsk, Piatigorsk, Ekaterinburg, and Cape Town ; see note to Dec. 9d. 12h. 7m. 0s.), 13h. (Matuyama and Nagasaki), 14h. (Nagasaki), 19h. (Batavia and Irkutsk), 20h. (Irkutsk).

Dec. 10d. 8h. 38m. 45s. Epicentre 41°·0N. 127°·0W. (as on 1925 Feb. 1d.).

$A = -\cdot453$, $B = -\cdot603$, $C = +\cdot656$; $D = -\cdot799$, $E = +\cdot602$; $G = -\cdot395$, $H = -\cdot524$, $K = -\cdot755$.

The readings at several stations suggest that T_0 should be about 20 sec. later.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Berkeley		4·8	130	1 13?	− 1	—	—	e 3·6	5·0
Santa Clara		5·2	130	e 2 25	?S	(e 2 25)	+ 3	—	—
Lick	N.	5·7	132	e 1 57	+29	e 2 58	+22	(i 3·2)	6·4
Victoria	E.	7·8	17	2 2	+ 4	—	—	4·1	5·1
	N.	7·8	17	1 57	− 1	—	—	3·9	5·0
Spokane		9·4	42	(e 2 23)	+ 1	(i 4 4)	− 9	(i 4·3)	(5·3)
Tucson	E.	15·5	119	4 5	+19	e 7 19	+35	e 9·3	10·1
	N.	15·5	119	e 4 9	+23	e 7 14	+30	e 8·4	10·0
Sitka	N.	16·9	344	—	—	6 26	−50	8·6	10·4
Saskatoon		17·7	44	e 4 17	+ 4	i 7 43	+10	e 9·6	11·4
St. Louis	N.	28·1	83	—	—	—	—	e 15·4	17·8
Chicago	E.	29·2	75	e 6 23	+ 3	11 11	− 9	14·2	18·4
	N.	29·2	75	—	—	e 11 21	+ 1	14·0	18·6
Loyola		31·7	100	—	—	11 47	−16	17·8	24·1
Ann Arbor		31·9	75	—	—	—	—	e 14·4	20·4
Honolulu Univ.	E.	32·7	243	—	—	—	—	e 15·0	15·7
Honolulu	N.	32·8	243	—	—	—	—	i 14·7	16·6
Toronto		34·7	70	—	—	e 12 29	−22	18·2	20·8
Ottawa		36·9	66	—	—	i 13 15	− 7	e 18·8	23·2
Ithaca		37·1	72	—	—	—	—	19·8	—
Fordham		39·5	74	7 17	−34	13 39	−20	e 18·8	22·0
Harvard	E.	40·9	69	—	—	—	—	e 21·2	25·0
	N.	40·9	69	—	—	18 21	?SR_3	e 21·1	25·6
Edinburgh		72·0	29	—	—	—	—	41·2	—
Kew		76·5	32	—	—	—	—	e 31·2	—
Irkutsk		76·7	331	e 12 12	+13	—	—	41·2	—
De Bilt		78·0	28	—	—	—	—	e 33·2	47·5
Uccle		78·7	29	—	—	—	—	e 33·2	—
Paris		79·7	31	—	—	e 35 15?	?	43·2	44·2
Strasbourg		81·9	31	—	—	—	—	e 41·2	50·2
Ekaterinburg		81·9	358	—	—	—	—	41·2	—
Cheb		82·2	26	—	—	—	—	e 56·2	60·2
Moncalieri		84·9	30	e 38 9	?	45 23	?L	(45·4)	—
Vienna	Z.	85·0	24	e 12 55	+ 7	—	—	—	—
San Fernando		85·4	45	—	—	—	—	—	50·8
Granada		86·4	43	e 13 3	+ 8	e 23 36	+ 2	43·2	47·2
Florence		87·2	30	e 42 15	?L	—	—	(e 42·2)	51·6
Rocca di Papa		89·4	29	—	—	—	—	e 46·4	55·4
Makeyevka		89·9	10	—	—	—	—	51·2	—
Baku		98·6	3	—	—	—	—	46·2	55·5

Additional readings and notes: Berkeley eZ = +1m.30s., ePEN = +1m.35s., eZ = +1m.36s., and +2m.36s., eE = +2m.39s., eN = +2m.47s. Santa Clara ePE? = +2m.48s., iSE = +3m.24s., and +4m.4s., iE = +5m.12s. Lick eZ = +2m.56s., eE = +3m.3s., iN = +3m.10s. (entered as L) and +4m.2s. Spokane ePE = (+2m.24s.), iEN = (+3m.17s.); all readings have been increased by 2m. Tucson ePR_1N = +4m.24s., eN = +5m.5s., iSN = +7m.21s., eE = +8m.37s. Saskatoon MN = +10·5m.; T_0 = 8h.38m.46s. St. Louis ePR_1N = +6m.57s., eN = +8m.8s., eSR_1N = +11m.56s., iSR_3N = +12m.37s. Chicago eN = +12m.5s. and +12m.31s. = SR_1 − 11s. Ann Arbor eE = +14m.33s. and +17m.3s., eN = +16m.9s. Toronto iE = +12m.37s. = S − 14s., eN = +13m.15s.? and +15m.15s.? = SR_3 − 10s. Ottawa eN = +13m.37s., MN = +21·2m. Fordham PR_2 = +10m.5s.; T_0 = 8h.39m.10s.; epicentre 41°7′N. 126°7′W. Harvard eE = +20m.32s., eN = +20m.53s. Irkutsk e = +15m.13s. = PR_1 − 8s. De Bilt MN = +42·0m., MZ = +50·2m. Baku MN = +60·4m.

Dec. 10d. Readings also at 0h. (near Manila), 2h. (Baku, Irkutsk, San Juan, and Port au Prince), 4h. (near Berkeley, Lick, and Santa Clara), 5h. (near Manila), 12h. (La Paz and Taihoku), 19h. (Nagasaki), 20h. (Tucson, Tacubaya, Manzanillo, and Guadalajara), 22h. (near Sucre), 23h. (near La Paz).

Dec. 11d. Readings at 4h. (near Tacubaya), 5h. (Irkutsk), 9h. (Ekaterinburg), 12h. and 13h. (Nagasaki), 16h. (Agana), 17h. (Riverview and Perth), 18h. (Irkutsk), 20h. (La Paz), 22h. (Wellington, Sydney, and Strasbourg), 23h. (Baku).

Dec. 12d. 22h. 1m. 12s. Epicentre 35°·5N. 141°·0E. (as on 1925 March 31d.).

A = −·633, B = +·512, C = +·581 ; D = +·629, E = +·777 ;
G = −·451, H = +·365, K = −·814.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya		3·4	265	e 0 47	− 6	(1 29)	− 5	1·5	1·9
Mizusawa	E.	3·6	1	0 52	− 4	1 37	− 2	—	—
	N.	3·6	1	0 51	− 5	1 36	− 3	—	—
Osaka		4·6	261	1 11	0	(2 9)	+ 3	2·2	3·1
Kobe		4·9	262	1 18	+ 2	(2 14)	0	2·2	2·4
Toyooka		5·0	273	1 21	+ 4	(2 21)	+ 4	2·4	2·5
Sumoto		5·2	258	e 1 30	+10	—	—	2·6	3·0
Zi-ka-wei		16·9	261	e 4 50	+46	e 8 13	+57	—	—

Additional readings : Nagoya P = +1m.0s. Osaka MN = +3·2m. Kobe MN = +3·4m. Zi-ka-wei P is given simply as eZ.

Dec. 12d. Readings also at 0h. (Granada and Spokane), 5h. (La Paz and Strasbourg), 6h. and 7h. (Nagasaki), 8h. (Taihoku), 13h. (near Athens), 15h. (Taihoku), 19h. (Taihoku and Zi-ka-wei), 20h. (Irkutsk), 21h. (La Paz).

Dec. 13d. Readings at 1h. (near Tacubaya), 5h. (Spokane), 10h. (Rocca di Papa, near Batavia, and Malabar), 14h. and 15h. (Nagasaki), 21h. (Taihoku).

Dec. 14d. 17h. 10m. 22s. Epicentre 14°·0S. 119°·5E.

A = −·478, B = +·845, C = −·242 ; D = +·870, E = +·492 ;
G = +·119, H = −·211, K = −·970.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina		13·4	40	i 2 14	−64	—	—	6·2	—
Malabar		13·5	299	3 31	+11	6 3	+ 7	—	—
Batavia		14·7	301	3 45	+10	—	—	8·6	—
Perth		18·3	190	i 4 18	− 3	i 7 30	−17	9·3	12·1
Adelaide		27·1	144	e 5 41	−18	e 10 8	−35	11·8	16·6
Manila		28·6	3	e 6 19	+ 5	(i 11 23)	+13	i 11·4	—
Melbourne		32·8	141	—	—	e 12 26	+ 5	i 18·0	20·8
Riverview		34·9	131	e 7 3	− 9	e 12 35	−19	e 17·4	21·5
Sydney	E.	34·9	131	11 22	+250	17 38	+284	21·1	21·9
Hong Kong		36·7	353	7 8	−20	—	—	—	18·6
Phu-Lien		37·0	340	i 7 17	−13	—	—	18·1	—
Hyderabad		51·3	308	9 14	− 1	16 36	+ 1	26·7	32·5
Bombay		56·5	306	9 47	− 2	17 47	+ 7	e 30·2	—
Irkutsk		67·6	350	i 11 1	− 1	19 56	− 1	32·6	—
Baku		84·3	315	i 12 43	− 1	i 23 7	− 4	42·1	50·6
Ekaterinburg		85·9	332	12 47	− 6	i 23 9	[+ 8]	38·6	46·8
Makeyevka		94·7	318	—	—	e 24 3	[+ 8]	36·6	56·7
Pulkovo		101·6	330	—	—	24 20	[−12]	47·6	64·4
Leningrad		101·7	330	—	—	—	—	e 21·8	—
Strasbourg		114·8	317	e 19 38?	?PR_1	e 29 38?	?PS	e 61·6	—
De Bilt		115·9	321	—	—	e 29 44	?PS	e 59·6	68·0
Uccle		116·6	320	—	—	—	—	e 59·6	—
Kew		119·3	321	—	—	—	—	e 58·6	—
Granada		124·6	305	i 20 52	?PR_1	e 31 31	?PS	70·1	73·0
La Paz		148·6	165	19 59	[+ 5]	—	—	82·7	87·3

Additional readings and notes : Amboina L = +9·6m. Malabar i = +3m.36s. Batavia iPZ = +3m.48s. = PR_1 +5s., i = +3m.54s. = PR_1 +21s. and +6m.54s. = SR_1 +14s., iN = +8m.15s. Adelaide MN = +16·8m. Melbourne i = +20m.2s. Riverview MN = +19·1m. Sydney : Query reduce all readings by 4 min. ? Phu-Lien e = +8m.48s. = PR_1 +2s. Irkutsk PR_2 = +15m.13s., SR_2 = +28m.7s. Baku MZ = +58·6m. Ekaterinburg iPR_1 = +16m.11s., iPS = +23m.37s. = S +8s., iPPS = +24m.22s. = PS +4s., SR_1 = +28m.48s., SR_2 = +32m.38s., MN = +46·0m., MZ = +55·5m. La Paz P = +46m.6s.

Dec. 14d. Readings also at 5h. (Batavia), 9h. (near La Paz), 12h. (Taihoku), 13h. (near La Paz), 19h. (Ekaterinburg), 21h. (Zagreb), 23h. (Pulkovo, Ekaterinburg, near Hukuoka, and near Nagasaki).

Dec. 15d. 13h. 58m. 52s. Epicentre 46°·7N. 7°·2E. (given by De Bilt).

A = +·680, B = +·086, C = +·728 ; D = +·125, E = −·992 ; G = +·722, H = +·091, K = −·686.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Besançon	0·9	304	i 0 11	− 3	i 0 22	− 3	—	—
Zurich	1·1	55	i 0 14	− 3	i 0 31	0	—	—
Chur	1·6	85	i 0 24	0	i 0 45	0	—	—
Moncalieri	1·8	168	0 30	+ 2	1 11	+20	—	—
Strasbourg	1·9	12	e 0 27	− 2	i 0 54	+ 1	—	1·5
Ravensburg	1·9	57	i 0 29	0	i 0 48	− 5	i 0·9	1·0
Hohenheim	2·4	34	i 0 38	+ 1	i 1 7	+ 1	—	1·3
Innsbruck	2·9	79	e 0 50	+ 5	i 1 26	+ 6	—	—
Puy de Dôme	3·1	253	—	—	1 32	+ 6	—	—
Paris	3·8	306	e 0 54	− 5	e 1 12	?	e 2·0	2·1
Uccle	4·5	337	e 1 8?	− 2	e 2 15	+11	—	—
De Bilt	5·4	345	—	—	—	—	e 3·1	—
Graz	5·7	84	e 1 36	+ 8	e 2 26	−10	—	3·0
Zagreb	6·1	95	—	—	—	—	e 3·1	—
Vienna	6·4	73	2 38	+60	3 39	+44	—	4·0

Additional readings: Strasbourg $iPR_1 = +31s.$, PR = +34s., $iSR_1 = +57s.$, SR = +1m.9s. Hohenheim $PR_1 = +51s.$, MN = +1·2m. Innsbruck S = +2m.4s. ; true S is given as i. Puy de Dôme $ePR_2 = +58s.$, PR = +1m.4s., $iSR_1 = +1m.37s.$, $SR_2 = +2m.4s.$ Vienna PR = +3m.10s. and +3m.33s.

Dec. 15d. 23h. 20m. 42s. Epicentre 7°·0S. 121°·5E. (adapted from 7°·5S. 121°·5E. of 1918 Oct. 9d.).

A = −·519, B = +·846, C = −·122 ; D = +·853, E = +·522 ; G = +·064, H = −·104, K = −·993.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	21·6	359	i 4 59	− 1	(8 53)	− 4	8·9	—
Melbourne	37·4	149	—	—	e 12 6	−84	—	22·7
Riverview	38·3	140	e 7 40	0	e 13 42	0	e 17·7	20·0
Sydney E.	38·3	140	—	—	—	—	18·8	20·6
Wellington	58·2	135	—	—	—	—	i 26·4	—
Irkutsk	61·1	349	e 9 52	−28	e 18 4	−33	28·3	—
Ekaterinburg	80·7	330	e 12 16	− 7	22 33	+ 2	37·3	43·4
Pulkovo	96·7	330	—	—	—	—	e 49·3	—
De Bilt	111·5	323	—	—	—	—	e 56·3	—
Kew	114·9	324	—	—	—	—	e 57·3	—
La Paz	154·6	158	20 22	[+20]	—	—	—	—

Additional readings: Riverview MN = +19·8m., MZ = +22·9m. Wellington i = +23m.4s.

Dec. 15d. Readings also at 0h. (Tucson, Strasbourg, Leningrad, and near Mizusawa), 1h. (Apia), 2h. (La Paz), 4h. (Azores), 5h. (Melbourne, Granada, Ekaterinburg), 6h. (Puy de Dôme), 14h. (near Zurich), 17h. (near Nagoya), 18h. (Nagasaki and near Toyooka), 23h. (Strasbourg).

Dec. 16d. 0h. 24m. 8s. Epicentre 10°·5S. 174°·5W.

A = −·979, B = −·094, C = −·182; D = −·096, E = +·995; G = +·181, H = +·017, K = −·983.

A very puzzling case. The distant stations suggest either a mistake of 1 min. in T_s or a deep focus; but the nearer ones, with the possible exception of Irkutsk, cannot be reconciled with either of these hypotheses.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Apia		4·3	142	1 8	+ 1	1 58	0	2·3	3·4
Suva		10·3	221	i 2 34	0	i 4 40	+ 3	i 5·4	6·2
Wellington		32·2	195	i 8 22	?PR_1	—	—	e 9·9	—
Honolulu	N.	35·7	28	—	—	—	—	e 19·3	28·4
Honolulu Univ.	E.	35·8	28	—	—	13 56	+49	e 17·4	20·0
Riverview		39·1	229	e 3 16	?	14 16	+23	e 15·6	18·4
Sydney	E.	39·1	229	—	—	—	—	16·9	18·7
Melbourne		45·4	227	—	—	—	—	—	26·6
Zi-ka-wei		74·1	309	e 9 43	−120	—	—	—	48·4
Irkutsk		93·0	324	e 13 1	−31	e 23 21	[−25]	47·9	—
Toronto	E.	100·9	48	—	—	—	—	55·9	—
La Paz		102·4	110	16 48	?	—	—	48·4	63·5
Ottawa	E.	103·6	46	—	—	e 27 52?	?PS	e 55·9	—
La Plata		104·9	132	—	—	—	—	55·1	—
Ekaterinburg		117·4	330	17 58	[−47]	—	—	47·9	67·8
Leningrad		127·2	343	e 22 16	?PR_1	—	—	46·9	76·5
Pulkovo		127·4	343	e 18 10	[−62]	i 21 50	?PR_1	69·9	79·4
Kucino		128·1	336	—	—	—	—	e 61·2	—
Baku		130·8	315	e 18 19	[−61]	e 21 5	?PR_1	—	91·5
Makeyevka		133·6	330	e 21 52?	?PR_1	—	—	68·9	79·0
Hamburg		136·7	356	e 18 34	[−59]	—	—	40·9	—
Vienna	Z.	141·1	348	e 18 41	[−60]	—	—	—	—
De Bilt		138·4	0	18 45	[−52]	—	—	e 84·9	—
Kew		138·8	5	e 17 48	[−110]	—	—	71·9	—
Uccle		139·7	1	e 18 42	[−57]	—	—	e 77·9	—
Cheb		140·0	352	—	—	—	—	e 79·9	92·9
Strasbourg		141·9	358	e 18 31	[−72]	—	—	75·9	95·9
Zagreb		143·5	347	e 18 58	[−48]	—	—	—	—
San Fernando	E.	152·0	20	—	—	—	—	—	93·4
Granada		152·1	16	i 19 13	[−46]	—	—	e 83·9	90·6

Additional readings: Apia MN = +9·2m. Honolulu University eE = +14m.37s. Riverview MN = +20·3m. Irkutsk ePS = +26m.24s. Ekaterinburg MN = +57·4m., MZ = +69·8m. Leningrad MN = +79·6m. Pulkovo MZ = +74·9m. Baku MZ = +78·8m. Makeyevka e = +31m.51s. and +40m.52s.? MZ = +83·1m., MN = +83·2m. Vienna iPZ = +18m.49s. Strasbourg ePR$_1$ = +22m.29s. San Fernando MN = +92·9m. Granada i = +19m.54s.

Dec. 16d. 3h. 41m. 0s. Epicentre 14°·0S. 174°·0W. (as on 1926 Nov. 3d.).

A = −·965, B = −·101, C = −·242; D = −·105, E = +·995; G = +·241, H = +·025, K = −·970.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Apia		2·2	86	e 0 30	− 4	e 1 15	+15	2·0	5·3
Suva		8·4	240	(1 48)	−19	(3 42)	− 5	(4·9)	(6·0)
Honolulu	N.	38·7	24	—	—	—	—	e 19·1	21·5
Honolulu Univ.	E.	38·7	24	—	—	—	—	e 18·5	19·5
Irkutsk		96·1	322	—	—	—	—	50·0	—
Ottawa		105·7	46	—	—	—	—	e 56·0	—
Ekaterinburg		120·6	329	—	—	e 38 8	?SR_1	53·0	—
Leningrad		130·7	344	—	—	—	—	e 67·0	—
Pulkovo		130·9	344	—	—	—	—	e 72·0	—
Baku		133·6	313	—	—	—	—	e 64·0	—
Makeyevka		136·9	329	—	—	—	—	71·0	—
Uccle		143·2	3	—	—	—	—	e 81·0	—
Strasbourg		145·4	358	—	—	—	—	—	82·0

Additional notes: Apia readings are given as e's simply. Suva readings are given as S and SR_1 respectively, and all readings have been diminished by 1m.

Dec. 16d. 17h. 53m. 50s. Epicentre 39°·0N. 31°·0E. (as on 1925 Sept. 20d.).

A = +·666, B = +·400, C = +·629; D = +·515, E = −·857; G = +·539, H = +·324, K = −·777.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·8	261	1 40	+10	i 2 59	+20	3·2	4·2
Helwan	9·1	178	—	—	—	—	e 4·7	12·6
Belgrade	9·8	310	e 1 42	−45	i 3 37	−46	i 3·8	4·0
Makeyevka	10·3	27	2 10	−24	4 19	−18	5·9	8·4
Mostar	10·8	298	1 34	−67	3 19	−91	—	4·0
Lemberg	11·9	337	e 4 34	?	e 5 28	+11	—	9·4
Budapest	12·2	318	e 4 10?	+68	—	—	e 7·2	8·9
Pompeii	12·7	283	e 5 52	?S	(e 5 52)	+15	(e 7·9)	10·2
Zagreb	13·0	306	e 3 8	−5	e 5 52	+8	i 7·2	7·9
Naples	13·0	283	e 6 2	?S	(e 6 2)	+18	e 7·5	—
Graz	13·9	310	e 3 19	−6	6 40	+34	7·2	8·7
Vienna	14·1	316	e 3 20	−7	6 45	+35	—	10·2
Rocca di Papa	14·2	286	e 3 44	+15	—	—	i 7·9	10·1
Baku	14·5	79	e 3 46	+13	e 6 36	+16	8·0	9·6
Venice	15·2	301	e 3 52	+10	7 51	+74	9·4	—
Florence	15·5	294	e 3 40	−6	7 50	?L	(7·8)	9·2
Innsbruck	16·5	306	3 58	−1	—	—	—	10·0
Cheb	17·2	316	e 4 4	−3	e 9 24	?L	(e 9·4)	11·7
Kucino	17·4	13	2 52	−78	5 32	−115	6·2	13·0
Chur	17·5	304	e 4 8	−3	—	—	—	—
Ravensburg	17·8	307	i 4 10	−5	e 9 10	?L	e 11·3	13·4
Moncalieri	18·2	297	4 6	−13	7 50	+6	9·8	13·2
Potsdam	18·2	323	i 4 10	−9	i 7 26	−20	i 11·6	—
Zurich	18·3	304	e 4 16	−5	—	—	—	—
Hohenheim	18·4	309	e 4 19	−3	e 10 2	?L	e 11·8	12·1
Strasbourg	19·3	307	e 4 29	−4	i 7 57	−11	10·2	11·4
Besançon	19·9	303	4 46	+6	8 23	+2	—	12·2
Hamburg	20·4	323	e 4 39	−7	i 8 19	−13	e 11·5	14·3
Pulkovo	20·7	359	4 34	−15	7 47	−51	11·7	15·0
Leningrad	21·0	359	i 4 36	−17	7 50	−54	10·0	15·1
Puy de Dôme	21·7	298	e 5 0	−1	—	—	e 11·7	—
De Bilt	22·1	315	5 3	−3	8 54	−13	e 11·2	13·6
Uccle	22·1	311	4 59	−7	i 8 52	−15	e 10·7	—
Barcelona	22·1	286	—	—	e 12 1	?L	e 12·4	15·2
Algiers	22·1	272	—	—	e 9 23?	+16	—	17·7
Paris	22·6	305	e 5 10	−2	i 9 8	−9	12·2	12·2
Upsala N.	22·6	342	e 4 56	−16	i 8 56	−21	e 10·2	15·4
Kew	25·0	310	e 5 34	−4	e 9 49	−14	12·2	15·3
Oxford	25·7	313	—	—	10 0	−16	16·1	16·2
Ekaterinburg	26·3	38	i 5 43	−8	i 10 6	−22	12·2	18·3
Toledo	26·9	283	e 5 54	−3	e 10 26	−13	e 13·1	18·8
Stonyhurst	27·1	314	—	—	i 10 27	−16	e 18·2	—
Granada	27·2	277	—	—	—	—	e 13·2	16·3
Bidston	27·3	313	—	—	—	—	17·2	—
Edinburgh	28·2	318	—	—	i 10 54	−9	—	—
San Fernando	29·3	277	—	—	—	—	14·2	17·2
Bombay	41·3	107	—	—	e 14 35	+10	—	—
Hyderabad	46·4	105	—	—	—	—	—	27·9
Irkutsk	50·6	50	e 11 29	?PR_1	e 20 5	?SR_1	29·2	—

Additional readings: Athens iLN = +3·3m., MN = +3·8m. Belgrade e = +2m.25s., and +3m.8s., i = +3m.27s. Makeyevka i = +3m.56s., MZ = +8·3m. Lemberg MN = +9·2m. Zagreb e = +3m.10s. and +5m.6s., i = +6m.14s. and +6m.36s. Graz iP = +3m.20s. Vienna iZ = +4m.3s. and +6m.36s., iN = +5m.40s., SR_1 = +7m.29s., SR_2 = +7m.40s. Baku MZ = +10·6m., MN = +18·2m. Rocca di Papa iPN = +3m.55s., eE = +6m.40s., eN = +6m.45s. Venice ePE = +5m.3s., PN = +5m.21s., SE = +7m.58s., SN = +8m.25s. Florence iP = +6m.50s. Innsbruck MNW = +10·4m. Kucino e = +4m.34s. = P +24s. Ravensburg iN = +4m.40s. and +6m.40s., iPR_2N = +5m.26s., MN = +10·9m. Moncalieri MN = +10·9m. Hohenheim eN = +7m.38s. = S −11s., eSN? = +10m.28s. Strasbourg SR_2 = +10m.48s. Hamburg MZ = +13·9m., MN = +18·3m. Pulkovo MNZ = +14·6m. Leningrad MNZ = +14·7m. Puy de Dôme i = +5m.4s. and +5m.7s., e = +9m.48s. De Bilt MZ = +17·0m. Barcelona MN = +16·4m. Upsala ME = +15·1m. Kew MN = +16·0m. Oxford MN = +16·7m. Ekaterinburg i = +10m.17s., iSR_1 = +11m.19s., MN = +15·7m. Toledo MNW = +18·7m. San Fernando MN = +18·2m.

Dec. 16d. Readings also at 2h. (Ekaterinburg, Irkutsk, and near Manila), 3h. (Apia, Suva, and Honolulu University), 4h. (Honolulu, Ottawa, Baku, Makeyevka, Irkutsk, Ekaterinburg, Pulkovo, and Leningrad), 5h. (Strasbourg and Uccle), 7h. (Batavia), 8h. (Nagasaki (2)), 12h. (near Hyderabad), 17h. and 18h. (Athens), 19h. (Mizusawa), 20h. (near Chur), 22h. (Amboina, Apia, and Baku), 23h. (Baku and near Mizusawa).

Dec. 17d. 6h. 17m. 33s. Epicentre 41°·0N. 19°·5E. (as on 1923 Sept. 27d.).

$A = +\cdot711$, $B = +\cdot252$, $C = +\cdot656$; $D = +\cdot334$, $E = -\cdot943$; $G = +\cdot618$, $H = +\cdot219$, $K = -\cdot755$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mostar	2·6	332	0 47	+ 6	1 12	0	—	1·4
Sarajevo	3·0	345	e 0 45	− 2	1 21	− 2	—	2·6
Athens	4·5	131	—	—	—	—	e 2·4	—
Rocca di Papa	5·2	281	e 1 27	+ 7	—	—	i 3·2	—
Zagreb	5·4	333	e 2 49	?L	—	—	(e 2·8)	—
Puy de Dôme	12·9	298	0 27?	?	—	—	—	—

Additional readings: Sarajevo i = +49s. Rocca di Papa eN = +1m.40s. Zagreb gives several other e readings.

Dec. 17d. 6h. 20m. 45s. Epicentre 41°·0N. 19°·5E. (as at 6h. 17m.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Sarajevo	3·0	345	e 0 42	− 5	1 18	− 5	—	1·8
Belgrade	3·9	10	e 1 10	+ 9	e 1 48	+ 1	—	2·0
Naples	4·0	279	e 1 9	+ 7	e 3 59	?	—	—
Athens	4·5	131	e 1 8	− 2	2 5	+ 1	2·3	2·6
Rocca di Papa	5·2	281	e 1 1	−19	—	—	—	3·4
Zagreb	5·4	333	e 1 54	+31	e 2 31	+ 3	e 2·7	—
Budapest	6·5	358	e 1 15?	−24	—	—	—	—
Graz	6·7	336	e 1 43	+ 1	e 3 27	+25	3·5	4·0
Florence	6·8	297	1 10	−34	—	—	—	5·2
Venice	6·8	312	1 42	− 2	—	—	—	—
Innsbruck N.W.	8·5	321	e 2 15	+ 6	i 3 50	0	—	—
Chur	9·2	312	e 0 35	−104	—	—	—	—
Moncalieri	9·5	299	3 41	+78	5 34	?L	(5·6)	—
Ravensburg	9·8	318	e 1 21	−66	—	—	e 5·4	5·8
Cheb	10·4	334	—	—	—	—	e 5·6	—
Hohenheim	10·6	321	—	—	—	—	e 5·0	—
Strasbourg	11·2	317	e 3 4	+17	—	—	e 6·1	6·6
Algiers	13·4	257	2 54	−24	—	—	e 7·2	8·2
Uccle	14·4	318	—	—	—	—	8·2	—
De Bilt	14·8	324	—	—	—	—	e 8·2	—
Makeyevka	14·9	55	—	—	e 6 42	+12	e 9·2	—
Kew	17·1	315	—	—	—	—	8·2	—
Pulkovo	19·9	16	e 4 29	−11	e 12 23	?L	(e 12·4)	—
Ekaterinburg	30·7	45	e 6 17	−18	16 33	?L	(16·6)	—

Additional readings: Sarajevo P = +45s. Belgrade i = +1m.18s. and +1m.39s., e = +1m.21s. Rocca di Papa E = +39s. Venice PN = +49s., PE = +1m.15s. Strasbourg MN = +6·7m. Makeyevka readings are given as e.

Dec. 17d. 6h. 31m. 5s. Epicentre **41°·0N. 19°·5E.**
(as at 6h. 20m.).

$A = +\cdot711$, $B = +\cdot252$, $C = +\cdot656$; $D = +\cdot334$, $E = -\cdot943$; $G = +\cdot618$, $H = +\cdot219$, $K = -\cdot755$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mostar	2·6	332	i 0 31	−10	1 3	− 9	—	1·6
Sarajevo	3·0	345	i 0 48	+ 1	1 23	0	—	2·0
Sebenico	3·8	317	e 0 48	−11	i 1 31	−13	i 1·7	1·7
Belgrade	3·9	10	e 0 59	− 2	i 1 44	− 3	—	2·5
Naples	4·0	279	e 0 39	−23	e 1 29	−21	—	3·6

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Athens		4·5	131	1 10	0	i 2 7	+ 3	2·3	3·0
Rocca di Papa		5·2	281	e 1 22	+ 2	i 2 15	− 7	4·2	4·9
Zagreb		5·4	333	e 1 23	0	i 2 31	+ 3	—	3·2
Budapest		6·5	358	2 22	+43	—	—	e 3·9	4·5
Graz		6·7	336	e 1 48	+ 6	i 3 8	+ 6	3·9	4·2
Florence		6·8	297	e 1 10	−34	3 5	0	—	7·4
Venice		6·8	312	1 30	−14	3 55	+50	—	—
Vienna		7·6	344	e 1 57	+ 2	3 35	+ 9	i 4·6	4·8
Innsbruck	N.W.	8·5	321	i 2 14	+ 5	i 3 48	− 2	—	—
Chur		9·2	312	i 2 19	0	—	—	—	—
Lemberg		9·4	18	—	—	e 4 13	0	—	5·3
Moncalieri		9·5	299	2 49	+26	4 17	+ 1	5·9	9·7
Ravensburg		9·8	318	e 2 3	−24	e 4 21	− 2	e 5·2	6·0
Zurich		10·1	313	e 2 44	+13	e 4 32	0	—	—
Cheb		10·4	334	—	—	e 4 41	+ 1	—	6·7
Hohenheim		10·6	321	e 2 35	− 3	e 5 7	+22	i 5·8	6·2
Strasbourg		11·2	317	e 2 43	− 4	—	—	—	7·3
Besançon		11·5	307	e 2 50	− 2	4 49	− 8	6·8	—
Puy de Dôme		12·9	298	e 4 25	+73	—	—	i 7·2	8·9
Barcelona		13·0	278	—	—	—	—	e 6·9	9·8
Algiers		13·4	257	e 3 19	+ 1	5 59	+ 6	8·2	8·9
Hamburg		14·1	336	e 3 27	0	e 6 10	0	e 6·9	9·5
Tortosa	N.	14·3	276	—	—	8 35	+140	9·8	10·7
Paris		14·3	309	e 3 44	+14	e 6 43	+28	7·4	9·9
Uccle		14·4	318	e 3 49	+17	—	—	e 7·5	—
De Bilt		14·8	324	—	—	e 6 43	+16	e 7·4	10·4
Makeyevka		14·9	55	e 3 32	− 6	e 6 32	+ 2	7·9	9·6
Alicante		15·6	267	4 7	+20	7 12	+26	8·0	11·0
Kew		17·1	315	e 4 7	+ 1	7 17	− 3	8·9	13·8
Almeria		17·4	264	4 27	+17	—	—	e 10·3	11·0
Oxford		17·8	314	—	—	e 7 43	+ 7	e 9·1	14·7
Toledo		17·9	274	e 4 28	+12	i 7 40	+ 2	e 8·1	13·1
Granada		18·3	265	i 4 27	+ 6	7 46	− 1	10·2	12·2
Upsala		18·9	358	e 4 19	− 9	e 7 41	−19	e 10·4	12·0
Malaga		19·1	265	4 38	+ 8	8 0	− 4	11·6	13·3
Stonyhurst		19·5	319	—	—	—	—	e 10·9	14·9
Bidston		19·6	317	—	—	7 55?	−20	—	—
Pulkovo		19·9	16	4 33	− 7	8 14	− 7	10·9	14·5
Leningrad		20·1	16	4 31	−11	8 11	−14	9·1	14·3
Rio Tinto		20·4	269	6 55?	+ 9	—	—	—	18·9
San Fernando		20·5	266	3 15	−92	i 8 45	+11	—	13·9
Edinburgh		21·8	325	—	—	—	—	i 11·2	14·9
Baku		22·9	81	e 5 8	− 8	i 9 38	+15	e 15·4	17·8
Ekaterinburg		30·7	45	i 6 18	−17	i 11 20	−26	12·9	19·5
Irkutsk		55·9	47	e 9 54	+ 9	—	—	30·9	36·2
Ottawa		65·3	310	—	—	e 19 31	+ 2	e 28·9	—
Toronto	N.	68·4	310	—	—	—	—	e 39·2	—
Chicago		74·2	312	—	—	—	—	34·9	46·9
Victoria	E.	84·8	336	—	—	—	—	50·4	52·2

Additional readings: Sarajevo P = +54s. Sebenico iP = +1m.2s. and many i's. Belgrade iPN = +1m.2s., iP = +1m.9s., iPEN = +1m.19s., iS = +1m.46s., MN = +2·2m., and many i's. Athens iP = +1m.20s. Rocca di Papa iP = +1m.25s., iE = +1m.32s. Zagreb iP = +1m.40s. and +1m.46s., i = +1m.54s., +2m.4s., and +2m.41s., iS = +2m.57s. Florence iP = +1m.55s. Venice P = +2m.37s., S = +4m.0s. Vienna iZ = +2m.10s. and +2m.25s., iE = +2m.20s., PR_1 = +2m.34s., iEZ = +2m.40s., iE = +3m.18s., PR_2 = +3m.20s., SR_2 = +3m.46s., and +4m.28s., iZ = +4m.20s., MZ = +4·9m., MN = +5·4m. Lemberg MN = +6·6m. Ravensburg eE = +2m.36s. Hohenheim e = +3m.27s., eN = +4m.23s. Strasbourg PR_1 = +3m.40s., SR_1 = +5m.22s., iSR_2 = +6m.27s., MN = +7·0m. Puy de Dôme i = +7m.35s. Barcelona MN = +9·9m. Hamburg MZ = +9·2m., MN = +10·0m. Paris MN = +7·9m. De Bilt MN = +10·8m. Makeyevka MN = +9·2m. Alicante MN = +10·8m. Kew MN = +10·6m. Almeria MN = +12·7m. Toledo MNW = +15·0m. Granada i = +8m.11s. = SR_1 − 3s., MZ = +12·6m. Upsala eLN = +11·9m., MN = +13·5m. Pulkovo MN = +12·6m., MZ = +12·7m. Leningrad MN = +12·6m. Baku e = +7m.56s., MZ = +17·1m. Ekaterinburg MN = +19·9m. Irkutsk MN = +36·0m., MZ = +37·2m. Chicago MN = +45·2m. Victoria LN = +49·4m.

Dec. 17d. 11h. 39m. 55s. Epicentre **41°·0N. 19°·5E.**

(as at 6h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mostar		2·6	332	0 32	− 9	1 4	− 8	—	1·6
Sarajevo		3·0	345	e 0 47	0	1 25	+ 2	—	2·1
Sebenico		3·8	317	e 0 47	−12	i 1 20	−24	—	1·4
Pompeii		3·8	268	e 1 12	+13	e 1 37	− 7	—	3·1
Belgrade		3·9	10	i 0 59	− 2	i 1 41	− 6	i 1·8	2·1
Naples		4·0	279	e 1 45	+43	e 2 35	+45	—	4·1
Athens		4·5	131	1 8	− 2	i 1 59	− 5	e 2·1	2·7
Rocca di Papa		5·2	281	i 1 20	0	i 2 36	+14	i 2·7	4·1
Zagreb		5·4	333	e 1 28	+ 1	i 2 33	+ 5	—	—
Budapest		6·5	358	2 18	+39	—	—	e 4·1	5·6
Graz		6·7	336	i 1 41	− 1	i 2 39	−23	—	3·8
Florence		6·8	297	e 1 30	−14	3 5	0	—	5·1
Venice		6·8	312	1 45	+ 1	4 5	+60	5·6	—
Vienna		7·6	344	e 0 59	−56	—	—	i 4·2	4·6
Innsbruck		8·5	321	e 2 3	− 6	i 2 36	−74	—	—
Chur		9·2	312	2 5?	−14	—	—	—	—
Lemberg		9·4	18	e 2 17	− 5	e 4 5	− 8	—	6·1
Moncalieri		9·5	299	2 45	+22	4 37	+21	6·1	7·8
Ravensburg		9·8	318	e 2 17	−10	e 4 35	+12	e 5·2	6·0
Zurich		10·1	313	e 1 27	− 4	4 29	− 3	—	—
Cheb		10·4	334	e 2 46	+10	e 4 29	−11	i 5·5	6·0
Hohenheim		10·6	321	e 2 30	− 8	(i 4 49)	+ 4	e 5·6	6·5
Strasbourg		11·2	317	e 2 40	− 7	—	—	—	6·6
Besançon		11·5	307	2 56	+ 4	4 51	−16	6·8	—
Potsdam		12·2	341	i 2 56	− 6	i 6 8	+44	7·7	—
Puy de Dôme		12·9	298	e 2 35	−37	e 5 24	−18	i 6·5	8·1
Barcelona		13·0	278	—	—	—	—	e 7·0	10·7
Algiers		13·4	257	3 17	− 1	e 6 3	+10	8·4	9·4
Hamburg		14·1	336	e 3 26	− 1	i 6 22	+12	—	10·5
Tortosa	N.	14·3	276	—	—	8 51	?	10·2	11·4
Paris		14·3	309	e 3 44	+14	i 7 11	+56	8·1	10·1
Uccle		14·4	318	e 3 37	+ 5	—	—	e 7·1	—
De Bilt		14·8	324	—	—	e 6 41	+14	e 7·1	10·4
Makeyevka		14·9	55	3 31	− 7	6 23	− 7	8·1	9·4
Alicante		15·6	267	3 37	−10	6 40	− 6	10·6	12·1
Kew		17·1	315	e 4 9	+ 3	e 7 23	+ 3	8·1	13·6
Almeria		17·4	264	4 16	+ 6	7 44	+17	9·5	11·3
Oxford		17·8	314	—	—	e 7 33	− 3	e 9·4	10·3
Toledo		17·9	274	e 4 13	− 3	e 7 27	−11	e 8·1	14·9
Granada		18·3	265	i 4 22	+ 1	7 48	+ 1	e 11·5	14·4
Upsala		18·9	358	e 4 21	− 7	e 7 41	−19	e 11·1	12·2
Kucino		19·0	33	(4 33)	+ 4	(i 8 4)	+ 2	9·5	11·6
Malaga		19·1	265	4 29	− 1	8 5	+ 1	8·3	9·8
Stonyhurst		19·5	319	—	—	—	—	e 11·1	15·1
Bidston		19·6	317	—	—	8 5?	−10	—	—
Pulkovo		19·9	16	i 4 32	− 8	8 12	− 9	10·4	12·6
Leningrad		20·1	16	4 30	−12	8 8	−17	9·1	13·3
San Fernando		20·5	266	—	—	i 8 33	− 1	—	14·1
Bergen	Z.	21·3	341	—	—	—	—	e 14·8	—
Edinburgh		21·8	325	—	—	—	—	e 11·1	14·9
Baku		22·9	81	e 5 5	−11	i 9 34	+11	e 13·6	18·4
Ekaterinburg		30·7	45	i 6 16	−19	i 11 17	−29	14·1	19·3
Bombay		50·3	100	—	—	e 16 13	−10	—	—
Hyderabad		55·4	97	—	—	—	—	—	39·7
Irkutsk		55·9	47	e 9 43	− 2	17 32	− 1	30·1	35·9
Ottawa		65·3	310	—	—	e 19 29	0	e 29·1	—
Toronto		68·4	310	—	—	—	—	32·7	—
Cape Town		74·9	181	—	—	—	—	—	43·1
Victoria	E.	84·8	336	—	—	—	—	48·5	52·9

Additional readings: Sarajevo P = +56s. Sebenico iP = +51s. Belgrade ePE = +1m.0s., iP = +1m.12s., and +1m.13s., iS = +1m.45s., MN = +2·5m., and several other i's. Athens iP = +1m.15s., MN = +2·8m. Rocca di Papa PR_1 = +1m.22s. Zagreb iP = +1m.33s. and +1m.49s., iS = +3m.1s., and several i's. Graz i = +1m.54s. Vienna eZ = +1m.41s., i = +2m.8s., MN = +4·7m., MZ = +4·8m., and several i's. Moncalieri MN = +9·1m. Cheb S and L are given simply as e and i. Hohenheim ePN = +2m.31s., i = +2m.37s., eS = +5m.9s. = S+24s., MN = +6·0m. Strasbourg SR_1 = +5m.47s., iSR_2 = +6m.37s., MN = +7·2m.

Continued on next page.

Puy de Dôme i = +7m.19s. Barcelona MN = +10·1m. Hamburg MN = +8·4m., MZ = +8·6m. Tortosa eLE = +10·0m. De Bilt MN = +10·3m. Makeyevka i = +3m.47s., e = +7m.13s. Alicante MN = +14·3m. Kew MN = +9·9m. Almeria MN = +12·8m. Upsala MN = +12·8m. Kucino P = +4m.18s., eS = +7m.34s. Pulkovo MN = +12·3m., MZ = +12·5m. Leningrad MN = +14·2m. San Fernando MN = +14·6m. Baku MZ = +16·2m. Ekaterinburg i = +6m.33s. Irkutsk MN = +35·5m.

Dec. 17d. Readings also at 0h. (near Amboina), 4h. (Bergen, Nagasaki, near La Paz, near Batavia, and Malabar), 5h. (Ekaterinburg, Nagoya, near Baku, near Algiers, and near Mizusawa), 6h. (near Mizusawa, near Sarajevo, and Belgrade), 8h. (Nagasaki, Nagoya, Baku, Ekaterinburg, and near Athens), 9h. (near Kobe and Sumoto), 10h. (Nagasaki, Moncalieri, Rocca di Papa, and near Sarajevo), 11h. (Zagreb and Nagasaki), 13h. (Batavia), 15h. and 19h. (Ekaterinburg).

Dec. 18d. 9h. 38m. 45s. Epicentre 22°·0N. 151°·0E. (as on 1918 Nov. 30d.).

A = −·811, B = +·450, C = +·375; D = +·485, E = +·875; G = −·328, H = +·182, K = −·927.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	29·4	261	6 7	−15	(10 15)	−69	10·2	—
Irkutsk	46·7	322	e 8 39	− 6	i 15 29	− 8	20·2	—
Ekaterinburg	71·9	325	i 11 34	+ 5	i 20 51	+ 2	33·2	—
Kucino	84·0	329	—	—	—	—	45·4	—
Makeyevka	87·9	322	—	—	—	—	45·2	50·3
La Paz	142·8	88	19 46	[+ 1]	—	—	—	—

Additional readings and note: Manila readings are given for 10h. Ekaterinburg eSR_1 = +25m.37s.

Dec. 18d. 14h. 44m. 54s. Epicentre 42°·3N. 10°·5W.

A = +·727, B = −·135, C = +·673; D = −·182, E = −·983; G = +·662, H = −·123, K = −·740.

The Times of Dec. 20 prints a telegram from Lisbon under date Dec. 19: "A severe earthquake shock was felt here at 2.39 p.m. yesterday. The seismograph at the observatory was put out of action and the instrument at Coimbra did not register the shock. . . It was not felt at Oporto and in the north. The main shock, which was followed at 5.20 p.m. yesterday and at 6 a.m. and 8 a.m. to-day by lesser tremors, was not as severe as in 1909. No lives were lost, and the material damage is slight, etc., etc."

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Lisbon	3·7	154	0 34	−24	—	—	—	—
Toledo	5·5	114	i 1 38	+13	i 2 44	+13	i 3·0	—
San Fernando	6·7	149	1 50	+ 8	3 18	+16	—	—
Malaga	7·3	138	1 42	− 9	3 25	+ 7	—	—
Granada	7·4	132	e 2 1	+ 9	3 6	−15	—	3·6
Almeria	8·3	128	—	—	i 3 40	− 5	3·9	4·1
Tortosa E.	8·4	96	e 3 46	?S	(e 3 46)	− 1	(4·9)	—
Alicante	8·6	114	3 41	?S	(3 41)	−12	—	—

Additional readings: Toledo eP = +1m.53s., PR_2 = +2m.23s., iS = +2m.54s. Granada iP = +2m.39s., i = +2m.47s., and +3m.11s. Almeria MZ = +3·9m., MN = +4·0m. Tortosa SN = +4m.47s., S is given as P and L as S.

Dec. 18d. Readings also at 3h. (Kucino), 8h. (near Irkutsk), 9h. (Nagasaki and near Mizusawa (2)), 10h. (Rocca di Papa and Nagasaki), 15h. (Nagasaki), 16h. (Nagasaki, Irkutsk, Rocca di Papa, Ekaterinburg (2), and near Pompeii), 17h. (Ekaterinburg, Rocca di Papa, Irkutsk, Agana, Hong Kong, Leningrad, Pulkovo, and near Manila), 18h. (La Paz and near Manila), 19h. (Agana), 21h. (Naples, Venice, Irkutsk, Ekaterinburg, Manila, near Pompeii, and Rocca di Papa), 23h. (La Paz and Sucre).

Dec. 19d. 9h. 17m. 45s. Epicentre 52°·0N. 32°·0W.

A = +·522, B = −·326, C = +·788; D = −·530, E = −·848;
G = +·668, H = −·418, K = −·616.

Adopted after comparison with 50°·4N. 31°·6W., as on 1924 July 14d. The old epicentre suits the nearer stations better, but not the distant ones.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Edinburgh		17·3	65	—	—	—	—	e 8·2	10·2
Oxford		18·8	78	—	—	—	—	—	11·2
Kew		19·5	79	—	—	—	—	e 6·2	11·2
Uccle		22·5	78	e 5 13	+ 2	e 9 16	+ 1	e 10·2	—
De Bilt		22·6	75	—	—	e 9 26	+ 9	e 11·2	13·2
Toledo		22·7	111	—	—	e 9 26	+ 7	e 12·7	13·1
Rio Tinto		22·7	119	15 15?	?L	—	—	(15·2)	24·2
San Fernando		23·9	120	—	—	—	—	11·8	14·8
Granada		24·8	115	i 5 30	− 6	e 9 21	−38	12·2	13·2
Hamburg		25·1	70	—	—	—	—	e 14·2	16·2
Strasbourg		25·3	82	e 5 15?	−26	e 9 15?	−54	e 12·2	14·2
Moncalieri		26·9	89	—	—	—	—	e 14·4	—
Cheb		27·5	76	—	—	e 9 15?	−95	—	16·8
Upsala		28·1	54	—	—	—	—	14·2	—
Ottawa		29·2	275	—	—	—	—	e 14·2	—
Graz		30·6	80	—	—	—	—	e 18·2	—
Toronto		32·3	275	—	—	—	—	17·9	—
Leningrad		34·3	52	—	—	—	—	18·8	23·9
Pulkovo		34·4	52	6 59	− 9	12 29	−17	17·2	20·6
Chicago	E.	38·4	277	—	—	—	—	e 21·3	—
Kucino		39·6	56	e 9 17	?PR_1	e 13 48	−12	20·2	23·8
Makeyevka		43·4	66	—	—	e 14 44	−10	22·2	27·8
Ekaterinburg		49·9	46	9 7	+ 1	16 19	+ 1	23·2	27·7
Baku		54·8	68	e 9 46	+ 8	e 17 32	+13	e 27·2	31·9
Irkutsk		69·4	27	—	—	—	—	e 39·2	—

Additional readings: De Bilt MZ = +13·8m. San Fernando MN = +15·2m. Granada i = +10m.12s. = SR_1 +13s. Pulkovo MZ = +20·2m., MN = +21·5m. Makeyevka e = +18m.13s. = SR_1 +15s., MZ = +26·6m., MN = +28·2m. Ekaterinburg MZ = +30·8m. Baku MNZ = +33·3m.

Dec. 19d. 11h. 1m. 30s. Epicentre 37°·7N. 73°·6E. (as on 1923 Nov. 28d.).

A = +·223, B = +·759, C = +·612; D = +·959, E = −·282;
G = +·173, H = +·587, K = −·791.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Simla	E.	7·2	155	1 24	−25	—	—	2·7	—
	N.	7·2	155	1 30	−19	—	—	1·7	—
Bombay		18·8	182	e 8 2	?S	(e 8 2)	+ 4	9·4	—
Hyderabad		20·7	167	—	—	8 52	+14	—	—
Ekaterinburg		21·0	340	(4 47)	− 6	(8 38)	− 6	(13·5)	(15·7)
Irkutsk		25·9	46	—	—	—	—	e 18·5	—
Pulkovo		35·1	323	—	—	—	—	e 24·5	—

Ekaterinburg readings have all been diminished by 2 min.

Dec. 19d. Readings also at 0h. (Nagasaki, Baku, and La Paz), 2h. (Nagasaki (3)), 3h. (La Paz), 5h. (Nagasaki), 6h. (Christchurch), 7h. (Nagasaki, La Paz, Sucre, and near Athens), 9h. (La Paz), 13h. (Ekaterinburg and Lisbon), 16h. (La Paz), 17h. (Ekaterinburg and near Mizusawa), 23h. (Ekaterinburg).

Dec. 20d. 10h. 31m. 6s. Epicentre 39°·0N. 31°·0E. (as on Dec. 16d.).

A = +·666, B = +·400, C = +·629; D = +·515, E = −·857; G = +·539, H = +·324, K = −·777.

This epicentre has been assumed to be the same as that of Dec. 16d. 17h. on the suggestion of De Bilt: and no better suggestion offers itself. But the observations of Pulkovo and Ekaterinburg indicate a T_0 about 1 min. earlier than those of Athens, Makeyevka, and Leningrad; while those of Kucino and Moncalieri are earlier still.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·8	261	e 2 37	+67	e 3 34	+55	3·8	4·3
Makeyevka	10·3	27	e 4 14	+100	e 5 20	+43	6·9	8·5
Budapest	12·2	318	6 41	?L	—	—	e 8·4	10·2
Baku	14·5	79	—	—	—	—	e 7·1	11·2
Cheb	17·2	316	—	—	—	—	e 8·9	11·9
Kucino	17·4	13	—	—	e 6 53	−34	e 8·3	—
Moncalieri	18·2	297	e 3 22	−57	—	—	10·9	—
Hamburg	20·4	323	—	—	—	—	13·9	—
Pulkovo	20·7	359	4 49	0	8 29	− 9	10·9	13·3
Leningrad	21·0	359	e 6 6	+73	e 10 8	+84	11·8	15·5
Puy de Dôme	21·7	298	—	—	(8 54)	− 5	e 8·9	10·9
De Bilt	22·1	315	—	—	—	—	e 11·9	—
Uccle	22·1	311	—	—	—	—	10·9	—
Upsala	22·6	342	—	—	—	—	e 12·9	—
Ekaterinburg	26·3	38	5 59	+ 8	10 27	− 1	13·9	—

Additional readings and notes: Athens MN = +4·5m. Makeyevka MZ = +8·4m., MN = +10·6m., P and S are given as e simply. Budapest MN = +11·7m. Baku L = +9·9m., MZ = +12·1m., MN = +12·3m. Pulkovo MNZ = +13·1m. Leningrad MN = +15·8m., MZ = +18·2m., P and S are given as e simply.

Dec. 20d. Readings also at 1h. (Nagasaki), 2h. (La Plata, La Paz, Nagasaki (2), and Wellington), 3h. (Zagreb), 9h. (Graz), 11h. (Apia), 15h. and 16h. (Nagasaki), 17h. (Rocca di Papa), 18h. (Tacubaya), 19h. (La Paz), 20h. (Nagasaki and near Granada), 21h. (Nagasaki).

Dec. 21d. 20h. 3m. 12s. Epicentre 6°·5N. 127°·0E. (as on 1924 April 26d.).

A = −·598, B = +·793, C = +·113; D = +·799, E = +·602; G = −·068, H = +·090, K = −·994.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	10·0	325	e 2 37	+ 7	(i 4 23)	− 6	i 4·4	—
Hong Kong	20·1	323	4 28	−14	—	—	—	11·3
Batavia	23·8	238	e 5 28	+ 2	i 9 40	0	i 10·9	—
Irkutsk	49·4	342	e 9 2	− 1	e 16 11	0	23·8	—
Ekaterinburg	71·8	329	i 11 36	+ 8	20 50	+ 2	31·8	44·2
Baku	76·0	311	—	—	e 21 32	− 5	e 37·8	—
Kucino	84·2	325	—	—	—	—	e 43·8	—
Makeyevka	84·5	319	—	—	—	—	53·8	—
Leningrad	87·7	330	—	—	—	—	51·0	—
Pulkovo	87·8	330	—	—	—	—	e 47·2	—
De Bilt	103·5	328	—	—	—	—	e 52·8	—
Uccle	104·5	327	—	—	—	—	e 51·8	—
Edinburgh	105·4	333	—	—	—	—	e 41·8	—

Additional readings and notes: Irkutsk SR_1 = +19m.47s. Kucino L = +49·8m. Edinburgh reading has been increased by 1h.

Dec. 21d. Readings also at 3h. (Moncalieri and near Pompeii), 5h. (Ekaterinburg), 6h. (Baku and near La Paz), 7h. (near Manila), 13h. and 14h. (Nagasaki), 17h. (Nagasaki and near Sumoto), 18h. (Nagasaki), 19h. (De Bilt, Uccle, La Paz, and Nagasaki), 20h. (Ekaterinburg), 21h., 22h., and 23h. (Nagasaki).

Dec. 22d. 4h. 22m. 2s. Epicentre 41°·0N. 127°·0W. (as on 1926 Dec. 10d.).

A = −·453, B = −·603, C = +·656; D = −·799, E = +·602; G = −·395, H = −·524, K = −·755.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Victoria	E.	7·8	17	2 0	+ 2	(3 30)	− 1	3·5	4·3
Spokane		9·4	42	(i 2 37)	+15	(i 3 58)	−15	(e 5·1)	(7·4)
Tucson		15·5	119	3 44	− 2	—	—	10·2	—
Chicago	E.	29·2	75	—	—	—	—	18·3	18·6
Honolulu Univ.	E.	32·7	243	—	—	—	—	e 15·4	16·6
Honolulu	N.	32·8	243	—	—	—	—	e 14·7	15·6
Toronto	E.	34·7	70	—	—	—	—	19·0	—
Ottawa		36·9	66	—	—	—	—	e 18·4	—
Irkutsk		76·7	331	—	—	—	—	e 43·0	—
Ekaterinburg		81·9	358	—	—	—	—	36·0	—
Baku		98·6	3	—	—	—	—	e 58·0	—

Additional readings: Spokane iEN = (+3m.13s.), iSN = (+4m.59s.); all readings have been increased by 1m. Tucson iE = +3m.54s., eE = +4m.36s., eN? = +7m.17s. Chicago iLN = +16·6m.

Dec. 22d. Readings also at 1h. and 2h. (Nagasaki), 3h. (La Paz), 4h. (3), 5h. (2), and 6h. (Nagasaki), 7h. (Tacubaya), 8h., 10h., and 14h. (Nagasaki), 15h. (near Taihoku), 16h. (near Manila), 17h. (La Plata), 19h. (near Sumoto), 20h. (near Matuyama), 23h. (near Mizusawa).

Dec. 23d. Readings at 1h. (Nagasaki), 2h. (near Tacubaya), 3h. (near La Paz, Taihoku, and Belgrade), 4h. (Strasbourg and near Manila), 5h. (Baku, Ekaterinburg, La Paz, La Plata, Sucre, Nagasaki, near Kobe, and Sumoto), 6h. (Amboina, Ekaterinburg, La Paz, and La Plata), 8h. (Taihoku and Ekaterinburg), 9h. (Baku), 11h. (Batavia), 12h. (Nagasaki and near Mizusawa), 13h. and 14h. (Nagasaki), 16h. (Nagasaki and near Sarajevo), 21h. (Baku), 23h. (near La Paz and Sucre).

Dec. 24d. 6h. 26m. 36s. Epicentre 42°·0N. 44°·0E.

A = +·535, B = +·516, C = +·669; D = +·695, E = −·719; G = +·481, H = +·465, K = −·743;

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Piatigorsk	2·1	342	0 44	+11	—	—	—	1·8
Baku	4·8	108	1 18	+ 4	e 2 7	− 4	3·4	4·0
Makeyevka	7·4	327	—	—	—	—	5·3	—
Kucino	14·3	346	—	—	—	—	e 7·5	8·3
Ekaterinburg	18·3	30	i 4 15	− 6	i 7 49	+ 2	10·4	12·4
Pulkovo	19·7	339	4 38	+ 1	—	—	10·4	11·2
Leningrad	19·9	339	—	—	—	—	16·2	—
Hamburg	25·3	309	—	—	—	—	e 14·4	—
De Bilt	27·9	305	—	—	—	—	e 16·4	—

Additional readings: Piatigorsk i = +48s., P = +54s., i = +1m.27s. and +1m.33s. Baku i = +2m.38s., MN = +6·2m., MZ = +6·9m. Makeyevka e = +3m.59s., i = +4m.21s. Ekaterinburg e = +7m.42s.

Dec. 24d. 7h. 1m. 0s. Epicentre 19°·0S. 65°·0E.

A = +·400, B = +·857, C = −·326; D = +·906, E = −·423; G = −·138, H = −·295, K = −·946.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Colombo	29·8	31	11 40	?S	(11 40)	+ 9	—	17·6
Kodaikanal	31·8	22	e 14 12	?L	—	—	(14·2)	—
Bombay	38·7	12	8 2	+18	13 27	−21	18·4	21·6
Hyderabad	38·8	20	—	—	13 34	−15	17·2	21·7
Batavia	42·7	78	e 8 39	+23	i 14 39	− 5	—	—
Simla	51·5	13	—	—	—	—	e 26·0	—
Baku	61·1	348	10 23	+ 3	e 18 46	+ 9	30·0	32·6
Hong Kong	63·4	51	35 35	?L	—	—	(35·6)	38·0
Ekaterinburg	75·9	357	11 55	+ 1	e 21 40	+ 4	42·0	44·9
Kucino	78·3	345	—	—	—	—	49·6	—
Irkutsk	79·1	23	12 11	− 3	—	—	42·0	45·4
Strasbourg	84·7	326	e 12 35	−11	—	—	—	—
Granada	85·5	312	—	—	—	—	e 51·0	55·3
Hamburg z.	86·6	331	e 12 53	− 4	—	—	—	—
Paris	87·6	325	e 13 3	0	—	—	—	—
De Bilt	88·0	329	i 13 9	+ 4	—	—	e 50·0	—
Sucre	118·1	235	—	—	—	—	60·7	65·7
La Paz	121·8	235	e 22 4	?	—	—	62·1	68·6

Additional readings: Batavia P and S are given as e and iE respectively. Simla eN = +26m.12s. Baku MN = +32·7m., MZ = +39·1m. Ekaterinburg ePS = +22m.15s., eSR$_1$ = +26m.31s., MZ = +47·1m., MN = +47·8m. Irkutsk PR$_1$ = +15m.9s. Strasbourg e = +16m.38s. = PR$_1$ +11s., and +24m.35s. = PS −27s.

Dec. 24d. Readings also at 3h. (Azores), 12h. (Baku), 14h. (La Paz), 15h. (Zagreb, De Bilt, Ekaterinburg, Merida, Tacubaya, Oaxaca, Vera Cruz, near Sucre, and La Paz), 16h. (La Plata, Sucre, and La Paz), 17h. (Ekaterinburg), 21h. (Irkutsk and Strasbourg), 22h. (La Paz), 23h. (La Plata and Sucre).

Dec. 25d. 5h. 13m. 12s. Epicentre 75°·5N. 5°·0E.

A = +·249, B = +·022, C = +·968; D = +·087, E = −·996; G = +·964, H = +·084, K = −·250.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Leningrad	17·9	136	4 16	0	—	—	9·2	—
Pulkovo	18·1	136	4 12	− 6	e 7 39	− 3	9·3	—
Kucino	23·3	129	5 17	− 3	e 9 25	− 6	e 12·0	—
De Bilt	23·4	180	—	—	e 9 36	+ 3	e 11·8	—
Strasbourg	27·0	176	e 6 48?	+50	e 10 48	+ 7	16·8	—
Ekaterinburg	27·4	101	5 59	− 3	i 10 45	− 3	12·8	16·4
Makeyevka	30·7	134	—	—	—	—	15·8	—
Baku	40·3	124	—	—	—	—	18·8	—
Irkutsk	42·2	64	e 8 18	+ 6	e 14 37	− 1	24·8	—
Manila	82·1	61	e 28 7	?SR$_1$	—	—	—	—

Additional readings: Strasbourg e = +12m.42s. and +6m.20s., PR$_1$ = +6m.54s., e = +10m.36s. Ekaterinburg i = +6m.7s.

Dec. 25d. 6h. 43m. 18s. Epicentre 5°·5S. 145°·0E. (as on 1926 Sept. 7d.).

$A = -\cdot 815$, $B = +\cdot 571$, $C = -\cdot 096$; $D = +\cdot 574$, $E = +\cdot 819$; $G = +\cdot 078$, $H = -\cdot 055$, $K = -\cdot 995$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina		16·8	275	i 3 12	−50	—	—	—	9·9
Riverview		28·9	169	e 7 36	+79	e 12 24	+69	e 14·6	18·7
Sydney	E.	28·9	169	(6 12)	− 5	(11 12)	− 3	(13·2)	(14·4)
Adelaide		30·0	190	e 6 30	+ 2	i 11 44	+10	14·4	18·9
Manila		31·2	312	i 6 47	+ 7	i 11 30	−24	i 13·7	15·4
Melbourne		32·3	181	—	—	e 11 48	−25	i 15·2	20·3
Batavia		37·9	270	8 44	+67	—	—	—	—
Perth		37·9	224	i 7 42	+ 5	i 13 29	− 8	20·0	22·0
Taihoku	E.	38·1	326	—	—	e 12 42?	−57	—	—
Hong Kong		41·0	316	—	—	—	—	—	19·7
Zi-ka-wei		43·1	332	e 7 37	−42	e 13 47	−62	—	—
Apia		43·4	104	e 7 4	−77	—	—	11·1	12·3
Wellington		44·6	148	e 9 0	+30	15 11	+ 1	27·2	31·2
Christchurch		45·1	152	—	—	19 42	?SR_2	29·2	30·3
Honolulu	N.	61·9	62	—	—	—	—	e 26·7	30·5
Honolulu Un.	E.	62·1	62	—	—	18 57	+ 8	e 28·4	34·3
Irkutsk		67·3	335	10 40	−20	19 16	−38	30·7	38·1
Kodaikanal		69·1	283	e 18 48	?S	(e 18 48)	−87	—	—
Hyderabad		69·6	292	11 9	− 6	19 54	−27	33·4	45·1
Bombay		75·0	292	11 44	− 5	20 59	−27	e 37·0	—
Ekaterinburg		91·5	328	e 12 52	−32	i 23 36	[− 1]	40·7	54·8
Victoria	E.	95·2	42	25 42	?S	(25 42)	+34	43·0	49·5
Baku		97·4	311	—	—	e 25 48	+18	46·7	52·2
Kucino		104·1	327	—	—	e 24 47	[+ 4]	50·2	—
Tucson		104·9	57	—	—	—	—	e 46·4	46·7
Makeyevka		105·4	320	—	—	—	—	50·7	60·6
Pulkovo		107·0	333	e 12 47	−117	e 24 12	[−45]	50·7	64·5
Leningrad		107·0	333	—	—	—	—	51·3	64·2
Upsala		112·7	335	—	—	—	—	e 57·7	—
Budapest		117·7	322	—	—	—	—	e 61·2	—
Hamburg		119·7	331	—	—	—	—	e 58·7	61·7
Graz		120·1	323	—	—	—	—	e 71·7	—
Cheb		120·4	327	—	—	e 25 42?	[− 4]	—	59·7
Chicago	E.	121·0	43	—	—	—	—	e 55·7	63·0
Dyce		122·2	340	—	—	—	—	60·2	69·4
De Bilt		122·9	331	i 20 43	?PR_1	—	—	e 55·7	61·6
Edinburgh		123·6	338	—	—	—	—	e 56·7	72·7
Strasbourg		123·8	327	e 20 22	?PR_1	e 31 32	?PS	e 46·7	69·7
Uccle		124·1	331	—	—	—	—	e 54·7	74·3
Toronto	E.	125·5	38	—	—	—	—	61·2	67·1
Kew		125·8	335	e 22 42?	—	—	—	65·7	—
Oxford		126·0	335	—	—	—	—	e 55·7	77·0
Paris		126·3	330	e 20 44	?PR_1	e 33 22	?	64·7	—
Ottawa	E.	126·7	34	—	—	e 37 42?	?SR_1	e 52·7	—
Ithaca		127·9	38	—	—	—	—	64·7	—
San Fernando	N.	139·4	323	—	—	—	—	—	85·7
La Paz		140·5	124	19 42	[+ 2]	33 19	?	78·3	99·3
Sucre		141·4	130	19 35	[− 7]	—	—	78·7	93·1

Additional readings: Riverview MN = +20·5m., MZ = +21·2m.; T_o = 6h.44m.35s. Sydney; the readings have all been diminished by 5 min. Adelaide MN = +17·5m. Manila e = +6m.16s., iPS = +10m.0s., MN = +15·0m. Melbourne i = +18m.18s. Batavia i = +9m.36s. = PR_1 +39s. Perth SR_1 = +15m.2s., L = +20·7m. Wellington e = +20m.40s. Hyderabad SR_1? = +24m.18s.; T_o = 6h.43m.37s. Ekaterinburg iP = +12m.57s., ePR_1 = +16m.31s., eS_oP_oS = +23m.11s. = [S] − 26s., iPS = +24m.40s. = S +11s., e = +26m.13s., +27m.15s., and +30m.44s. = SR_1 − 5s., i = +28m.31s., iSR_2 = +33m.10s., MN = +46·4m. Baku MN = +55·8m. Kucino e = +32m.39s. Tucson MN = +46·8m. Makeyevka MZ = +60·7m. Pulkovo e = +28m.10s. = PS − 14s., MN = +60·6m., MZ = +64·7m. Leningrad MN = +58·0m., MZ = +65·3m. Budapest e = +60m.12s. Hamburg MZ = +70·7m. Chicago SR_1E = +37m.9s., e = +44m.58s. De Bilt MZ = +71·8m., MN = +73·0m. Toronto LN = +56·0m. Ottawa eLN = +55·7m. La Paz iP = +19m.55s.

Dec. 25d. 15h. 43m. 45s. Epicentre 1°·0N. 116°·0E.

$A = -\cdot438$, $B = +\cdot899$, $C = +\cdot017$; $D = +\cdot899$, $E = +\cdot438$; $G = -\cdot008$, $H = +\cdot016$, $K = -1\cdot000$.

Riverview readings are anomalous; the T_e as indicated by S−P agrees with that adopted, but P and S separately correspond to $\Delta = 31\cdot5°$.

A simultaneous shock at a focus much nearer Riverview seems a possibility, which might perhaps explain the readings at La Paz, etc.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia		11·6	231	i 2 56	+ 3	i 5 15	+ 6	—	—
Malabar		11·7	225	i 2 53	− 2	i 5 8	− 4	—	—
Manila		14·5	20	e 6 26	?S	(e 6 26)	+ 6	i 10·0	—
Hong Kong		21·4	356	5 30	+32	—	—	—	9·8
Zi-ka-wei	z.	30·7	10	e 6 35	0	—	—	—	—
Perth		32·9	180	4 50	−126	11 25	−57	—	—
Hyderabad		40·4	298	8 54	+56	12 59	−74	16·6	20·2
Bombay		45·9	297	e 8 16	−23	—	—	—	19·1
Simla		47·5	315	e 8 57	+ 6	e 15 45	− 3	—	—
Riverview		47·7	140	i 6 44	−128	i 11 58	−232	i 15·2	19·7
Irkutsk		52·2	351	i 9 24	+ 3	i 16 51	+ 5	28·2	—
Ekaterinburg		71·0	332	i 11 16	− 7	i 29 26	−12	—	—
Baku		71·4	314	i 11 18	− 8	i 20 33	−10	33·8	—
Makeyevka		81·3	320	—	—	e 22 15?	−23	—	—
Kucino		82·5	326	—	—	i 22 32	−20	35·0	—
Pulkovo		87·0	330	12 31	−28	—	—	—	—
Leningrad		87·0	330	e 12 36	−23	(23 15?)	[+ 6]	23·2	—
Strasbourg		101·5	320	e 11 15?	?	—	—	20·2	—
De Bilt		101·8	325	—	—	e 30 57	?	e 59·2	—
La Plata		145·6	189	21 1	?	27 14	?	—	—
La Paz		164·0	165	18 57	[−74]	i 28 47	?PR_2	42·4	—

Additional readings: Batavia iP = +3m.2s., iZ = +4m.15s., iS = +5m.20s., i = +6m.34s. Malabar i = +4m.58s. Hong Kong ? = +7m.3s. Perth +8m.20s. Riverview PS = +12m.4s., iL = +15·7m., MN = +17·8m.; T_e = 15h.43m.37s. Irkutsk PR_1 = +11m.27s., PR_2 = +12m.37s., SR_1 = +20m.34s. Ekaterinburg e = +13m.15s., iPR_1 = +14m.36s., PR_2 = +16m.25s., iPS = +21m.18s., iS_4P_4S = +21m.50s., iSR_1 = +26m.10s., and several i readings. Makeyevka e = +27m.32s. Kucino e = +23m.32s. = PS − 5s., +25m.8s., and +27m.51s. Pulkovo e = +21m.51s., ePPS = +24m.21s. Leningrad e = +12m.1s.

Dec. 25d. 16h. 14m. 40s. Epicentre 41°·0N. 19°·5E. (as on 17d.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Sarajevo	3·0	345	(i 0 55)	+ 8	(1 28)	+ 5	—	(1·8)
Pompeii	3·8	268	e 1 20	+21	e 2 20	+36	—	—
Belgrade	3·9	10	e 0 41	−20	i 1 30	−17	—	1·8
Athens	4·5	131	—	—	(2 6)	+ 2	e 2·1	2·4
Rocca di Papa	5·2	281	i 1 34	+14	i 2 32	+10	—	3·1
Zagreb	5·4	333	(e 1 32)	+ 9	(e 2 29)	+ 1	(i 3·1)	—
Budapest	6·5	358	2 16	+37	3 31	+34	4·2	—
Zurich	10·1	313	e 0 58	−93	e 4 8	−24	—	—
Strasbourg	11·2	317	4 26	?S	(4 26)	−33	(5·6)	—
Uccle	14·4	318	—	—	6 20?	+ 2	—	—
De Bilt	14·8	324	—	—	e 6 20?	− 7	—	—

Additional readings and notes: Sarajevo readings have been increased by 1m. Belgrade eE = +47s., eS = +1m.32s., iN = +1m.38s., MN = +2·0m. Athens MN = +2·6m. Rocca di Papa e = +1m.7s. Zagreb eP = (+1m.45s.), iS = (+2m.52s.), and several other readings; all have been increased by 2m. Budapest eE = +3m.20s.? Zurich readings are given as e simply. Strasbourg S? = +6m.1s., SR_2? = +6m.13s.; S is given as P and L as S.

Dec. 25d. Readings also at 0h. (Ekaterinburg), 7h. (near Athens), 9h. (Agana), 10h. (La Paz), 11h. (near Hukuoka), 14h. (near Tacubaya), 15h. (near Athens), 16h. and 18h. (Nagasaki), 19h. (Amboina and La Paz), 21h. (Matuyama).

Dec. 26d. 22h. 2m. 52s. Epicentre 41°·0N. 19°·5E. (as on 25d.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Pompeii	3·8	268	e 2 28	?S	(e 2 28)	+44	—	—
Belgrade	3·9	10	e 0 54	− 7	1 57	+10	—	2·7
Athens	4·5	131	e 1 8	− 2	e 2 5	+ 1	2·3	2·6
Zagreb	5·4	333	—	—	—	—	e 3·0	—
Moncalieri	9·5	299	—	—	e 3 40	−36	6·6	—
Strasbourg	11·2	317	e 4 8?	+81	—	—	—	—
De Bilt	14·8	324	—	—	—	—	e 9·1	—
Ekaterinburg	30·7	45	(7 8?)	+33	—	—	7·1	—

Additional readings and notes: Belgrade e = +1m.2s. and +1m.45s. Athens readings are given as for 20h. Zagreb i = +3m.18s., e = +6m.8s.?

Dec. 26d. Readings also at 1h. (Nagasaki and La Paz), 2h. (La Paz), 4h. (Nagasaki), 7h. (Nagasaki, near Batavia, and Malabar), 8h. (La Plata, near La Paz, and near Sucre), 11h. (near Athens), 12h., 14h., 16h., 17h., and 18h. (2) (Nagasaki), 19h. (Nagasaki), 21h. (Batavia and Malabar).

Dec. 27d. 8h. 42m. 43s. (I) } Epicentre 58°·0S. 108°·5W.
9h. 20m. 15s. (II) }

A = −·168, B = −·503, C = −·848; D = −·948, E = +·317;
G = +·269, H = +·804, K = −·530.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
I	La Plata	40·4	78	—	—	—	—	19·3	—
II		40·4	78	—	—	—	—	18·6	—
I	Wellington	49·4	256	—	—	i 16 15	+ 4	e 22·2	—
II		49·4	256	—	—	i 16 18	+ 7	e 22·0	25·6
I	Sucre	50·1	57	9 2	− 6	i 16 20	0	22·3	25·0
II		50·1	57	9 2	− 6	i 16 12	− 8	21·5	25·8
I	La Paz	51·1	52	9 15	+ 1	i 16 31	− 1	23·7	28·0
II		51·1	52	9 18	+ 4	i 16 34	+ 2	24·1	27·6
I	Apia	64·3	286	—	—	—	—	e 27·3	—
I	Melbourne	66·4	235	—	—	—	—	—	20·8
I	Riverview	66·9	242	—	—	e 20 44	+55	e 32·2	35·7
II		66·9	242	—	—	e 20 50	+61	e 31·2	35·3
I	Sydney	66·9	242	28 47	?SR_2	—	—	34·5	36·0
II		66·9	242	—	—	—	—	32·8	36·6
II	Cape Town	78·0	137	—	—	—	—	—	43·8
I	Honolulu N.	89·3	315	—	—	—	—	e 38·6	40·1
II	N.	89·3	315	—	—	—	—	e 37·8	40·8
I	Tucson N.	90·3	358	—	—	—	—	e 41·3	41·9
II	N.	90·3	358	—	—	—	—	42·0	—
II	Toronto N.	104·5	21	—	—	—	—	52·3	53·8
II	Ottawa	106·9	24	—	—	—	—	e 49·8	—
II	Victoria	107·0	350	—	—	—	—	51·2	—
II	Paris	139·7	71	—	—	—	—	e 69·8	75·8
II	Oxford	139·7	66	—	—	—	—	—	70·8
II	Kew	140·0	66	—	—	—	—	e 66·8	—
I	Bombay	140·9	182	—	—	—	—	e 71·8	—
I	Uccle	141·9	70	—	—	—	—	e 67·3	—
II	Strasbourg	142·2	76	—	—	—	—	e 69·8	—
I	De Bilt	143·1	70	—	—	—	—	e 69·3	—
II		143·1	70	—	—	—	—	e 68·8	75·2
I	Baku	157·6	133	—	—	—	—	e 80·3	105·7
II		157·6	133	—	—	—	—	80·8	105·6
II	Makeyevka	157·8	103	—	—	—	—	62·8	100·4
II	Leningrad	159·0	67	—	—	—	—	91·0	—
I	Irkutsk	160·6	267	—	—	—	—	77·3	—
II		160·6	267	e 21 15	[+66]	e 24 49	?PR_1	—	86·8
I	Kucino	161·7	82	—	—	—	—	e 84·6	—
I	Ekaterinburg	174·0	97	e 35 2	?	e 47 2	?SR_1	75·3	95·1
II		174·0	97	—	—	—	—	74·8	97·4

Additional readings: La Paz I T_o = 8h.42m.47s., II PR_1 = +11m.35s., SR_1 = +19m.9s., SR_2 = +21m.53s.; T_o = 9h.20m.22s. Riverview I MN = +38·8m., II MN = +33·0m. Tucson I LE = +41·5m. De Bilt II MZ = +74·8m., MN = +75·0m. Baku I MZ = +105·3m., MN = +106·6m. II MZ = +106·1m., MN = +106·6m. Makeyevka II MZ = +98·8m. Ekaterinburg II MN = +90·4m.

Dec. 27d. Readings also at 0h. (Strasbourg, Zurich, near Toyooka (2), Matuyama, Sumoto, and Kobe), 7h. (Strasbourg), 8h. (Nagasaki), 9h. (Berkeley, Lick, and Santa Clara ; these do not accord with any definite determination), 10h. (Nagasaki), 14h. (Matuyama and near Sumoto), 16h. (Makeyevka and near Belgrade), 17h. (Strasbourg and Rocca di Papa), 18h. (Spokane, near Sumoto, Matuyama, Toyooka, and Kobe), 19h. (Apia).

Dec. 28d. 4h. 51m. 20s. Epicentre 12°·5S. 58°·5W.

A = +·510, B = −·833, C = −·216 ; D = −·853, E = −·522 ; G = −·113, H = +·185, K = −·976.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Sucre	9·2	224	i 2 8	−11	—	—	3·0	3·1
La Paz	10·1	246	i 2 33	+ 2	i 4 35?	+ 3	4·6	5·6
La Plata	22·4	179	5 11	+ 1	(9 16)	+ 3	9·3	—
Ekaterinburg	116·2	32	—	—	—	—	67·7	—

Additional readings: La Paz i = +3m.7s. and +3m.25s. La Plata S = +7m.51s.

Dec. 28d. Readings also at 1h. (near Manila), 2h. (near Irkutsk), 3h. (Bombay, Calcutta, and Phu-Lien), 4h. (near Tacubaya), 5h. (Nagasaki and Tucson), 8h. (Baku, Ekaterinburg, and Irkutsk), 10h. (near Sumoto), 13h. (Amboina, near Berkeley, and Lick), 15h. (Irkutsk and near Mizusawa), 16h. (Baku and Ekaterinburg), 17h. (near Sarajevo), 21h. (near Irkutsk and near Matuyama), 22h. (Apia), 23h. (near Matuyama).

Dec. 29d. 12h. 50m. 0s. Epicentre 34°·0S. 57°·0E. (as on 1926 Dec. 7d.).

A = +·452, B = +·695, C = −·559 ; D = +·839, E = −·545 ; G = −·305, H = −·469, K = −·829.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Cape Town	31·7	262	—	—	—	—	—	24·0
Kodaikanal	48·3	26	e 21 0	?SR_3	—	—	—	—
Bombay	55·0	19	9 37	− 2	17 17	− 4	28·2	—
Hyderabad	55·4	25	17 16	?S	(17 16)	−10	23·7	27·0
Melbourne	68·6	122	—	—	—	—	—	36·3
Baku	74·7	355	e 11 49	+ 2	i 21 27	+ 5	35·0	44·0
Sydney E.	74·9	121	34 30	?	—	—	37·7	39·7
Hong Kong	78·3	53	—	—	—	—	—	46·0
Makeyevka	83·8	349	—	—	e 22 54	−13	43·0	—
Wellington	85·5	139	—	—	—	—	e 42·0	—
Almeria	89·8	318	13 16	+ 1	—	—	—	61·8
Granada	90·8	317	i 13 11	− 9	e 23 51	−31	53·0	56·5
Ekaterinburg	90·9	3	i 13 11	−10	i 24 5	−18	37·0	—
Kucino	91·2	350	—	—	e 24 11	−15	32·9	—
San Fernando E.	91·8	315	—	—	—	—	—	58·5
Toledo	92·8	319	—	—	—	—	e 41·9	61·6
Strasbourg	93·5	330	(e 13 0?)	−35	(23 0)	[−49]	(59·0)	—
Irkutsk	95·6	27	e 14 43	+56	e 24 43	−29	44·0	—
Paris	95·9	329	—	—	—	—	e 53·0	—
Uccle	96·6	330	—	—	—	—	e 38·0	—
De Bilt	97·3	332	—	—	—	—	e 51·0	—
Kew	99·1	328	—	—	—	—	e 56·0	—
Chicago E.	151·2	296	—	—	—	—	e 78·9	86·5

Additional readings: Baku MN = +42·1m., MZ = +48·5m. Makeyevka e = 12h.33m. Ekaterinburg eS_1P_4S = +23m.39s., ePPS = +25m.31s., e = +26m.19s. Kucino e = +25m.20s. = PS − 2s. Toledo MNW = +61·8m. Strasbourg e = (+17m.0s.?) ; the readings have all been increased by 4 min. Irkutsk e = +24m.1s. = [S] + 1s., and +26m.4s. = PS − 11s.

Dec. 29d. 21h. 25m. 30s. Epicentre 38°·5N. 34°·5E.

A = +·645, B = +·443, C = +·622 ; D = +·566, E = −·824 ;
G = +·513, H = +·353, K = −·783.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Piatigorsk	8·5	47	—	—	e 3 30?	−20	—	—
Makeyevka	9·9	14	—	—	e 3 54	−32	—	—
Baku	12·0	76	—	—	e 5 23	+ 4	7·5	7·9
Kucino	17·4	7	—	—	—	—	e 8·9	—
Pulkovo	21·4	354	e 5 4	+ 5	e 8 56	+ 3	10·5	—
Strasbourg	21·7	306	e 5 30?	+29	—	—	—	—
Ekaterinburg	25·2	35	e 5 38	− 2	i 10 3	− 4	e 14·5	—

Additional readings: Baku e = +6m.47s., MZ = +9·3m., MN = +10·3m.
Ekaterinburg i = +5m.39s., e = +9m.51s.

Dec. 29d. Readings also at 0h. (near Matuyama), 2h. (Nagasaki (2) and Tucson), 3h. (Nagasaki), 4h. (Nagasaki and La Paz), 5h. (Nagasaki and Sydney), 6h. (Nagasaki, Irkutsk, and Wellington), 7h. (Nagasaki), 8h. (Ottawa, Toronto, Chicago, and Tucson), 9h. (Matuyama), 11h. (Tacubaya and Oaxaca), 12h., 15h., and 17h. (Nagasaki), 18h. (Azores), 21h. (Nagasaki), 23h. (near La Paz).

Dec. 30d. Readings at 0h. (La Plata), 1h. (Baku), 2h. (Nagasaki (2)), 3h. (Nagasaki, near Matuyama, and near Mostar), 4h. (Tacubaya), 7h. (Hong Kong and Matuyama), 8h. (Strasbourg, near Bagnères, and Tortosa), 12h. and 13h. (Bombay), 14h. (Leningrad), 17h. (near Spokane), 22h. (Matuyama).

Dec. 31d. 16h. 53m. 45s. Epicentre 25°·0N. 77°·5E.

A = +·196, B = +·885, C = +·423 ; D = +·976, E = −·216 ;
G = +·091, H = +·413, K = −·906.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Simla N.	6·1	357	e 1 33	0	—	—	—	—
Bombay	7·5	216	1 55	+ 1	3 20	− 4	3·9	6·0
Hyderabad	7·6	173	(1 54)	− 1	(3 28)	+ 2	—	(5·2)
Baku	27·7	310	(e 6 34)	+29	(e 10 45)	− 9	(e 16·2)	(17·7)
Irkutsk	34·0	30	—	—	e 10 15?	?	19·2	—
Ekaterinburg	34·1	343	e 9 12	?PR$_1$	e 13 20	+38	—	—
Kucino	42·1	328	—	—	—	—	e 19·0	—
Pulkovo	47·5	330	—	—	—	—	e 20·2	—

Additional readings and notes: Simla eE = +2m.3s. Hyderabad readings have been increased by 8m. Baku MZ = (+20·8m.), MN = (+21·4m.); the readings have all been increased by 5m. Ekaterinburg readings are given as e's simply; are they both 1min. too large ?

Dec. 31d. Readings also at 1h. (Riverview), 4h. (Nagasaki), 5h. (near Athens (3)), 7h. (La Paz and near Athens), 8h. (Nagasaki), 9h. (near Athens), 14h. (Tucson), 15h. (Ekaterinburg, Nagasaki, and near Nagoya), 20h. (near Berkeley and Lick).

Belated Readings from Kew, 1926 Jan.—June.

Jan. 1d. 18h. 4m. 6s. Epicentre 45°·0N. 14°·8E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
11·9	308	—	—	e 5 2?	−15	5·9	7·2?

Jan. 5d. 7h. 27m. 40s. Epicentre 14°·0S. 166°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
141·1	347	—	—	—	—	77·3	—

Jan. 13d. 1h. 46m. 44s. (I) } Epicentre 38°·0N. 29°·5E.
8h. 8m. 24s. (II) }

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
I 24·8	312	—	—	i 10 57?	?SR_1	14·3	15·8?
II 24·8	312	—	—	(e 9 36?)	−23	e 9·6	15·2?

Jan. 18d. 11h. 20m. 30s. Epicentre 43°·0N. 75°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
49·5	307	—	—	—	—	i 32·5	—

Jan. 18d. 16h. 55m. 45s. Epicentre 6°·0N. 125°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
106·1	328	—	—	—	—	e 55·2	—

Jan. 18d. 21h. 7m. 18s. Epicentre 1°·5S. 88°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
90·4	321	—	—	i 23 55	[+25]	38·7	59·8

MN = +59·4m. ; epicentre given as 0°N. 87°E.

Jan. 25d. 0h. 36m. 12s. Epicentre 9°·0S. 159°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
134·4	342	19 32	[+ 4]	—	—	58·8	70·8

i = +22m.8s. = PR_1 +9s.

Jan. 26d. 7h. 4m. 24s. Epicentre 20°·6S. 168°·8E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
148·0	348	(23 36?)	PR_1	—	—	—	—

Feb. 4d. 6h. 44m. 10s. Epicentre 42°·5N. 139°·2E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
79·6	336	—	—	—	—	e 35·8	—

Feb. 6d. 8h. 49m. 50s. Epicentre 45°·1N. 147°·2E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
79·4	340	—	—	—	—	e 40·2	—

Feb. 7d. 7h. 49m. 22s. Epicentre 18°·0S. 173°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
146·2	353	i 19 54	(+ 4]	—	—	—	—

i = +20m.30s.

Feb. 7d. 22h. 41m. 58s. Epicentre 50°·1N. 178°·7E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
78·4	359	—	—	—	—	e 45·0	—

Feb. 8d. 15h. 17m. 40s. Epicentre 12°·0N. 89°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
79·8	39	e 12 24	+ 6	22 30	+ 9	34·3	39·1

PR_1 = +15m.24s. = −24s., MN = +38·5m.

Feb. 9d. 0h. 24m. 24s. Epicentre 27°·0S. 59°·5W.

Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	°	m. s.	s.	m. s.	s.	m.	m.
−10·9	94·1	32	—	—	i 22 51	− 8	34·6	—

iZ = +21m.59s.

Feb. 10d. 14h. 48m. 20s. Epicentre 13°·0N. 85°·4W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
76·8	40	—	—	—	—	e 43·7	—

Feb. 12d. 7h. 40m. 12s. Epicentre 17°·0S. 177°·5W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
145·5	3	—	—	—	—	83·8	—

Feb. 13d. 9h. 8m. 20s. Epicentre 23°·5S. 178°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
152·0	358	—	—	—	—	85·7	95·7

Feb. 15d. 2h. 59m. 42s. Epicentre 11°·7N. 89°·6W.

Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
−2·1	80·4	39	i 12 14	+ 6	21 59	− 2	37·3	44·5

$PR_1 = +15m.12s.$, MN = +43·3m.; epicentre given as 14°·5N. 86°·5W.

Feb. 15d. 23h. 11m. 40s. Epicentre 25°·0N. 123°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
88·8	329	—	—	—	—	e 48·3	—

Feb. 26d. 15h. 46m. 20s. (I) } Epicentre 37°·5N. 23°·0E.
16h. 8m. 10s. (II) }

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
I 21·5	318	—	—	—	—	e 11·7	12·7
II 21·5	318	—	—	e 8 50?	− 5	11·8	12·9

Feb. 28d. 22h. 12m. 24s. Epicentre 39°·0N. 7°·5W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
13·4	20	—	—	5 36?	−17	—	—

Mar. 1d. 20h. 1m. 42s. Epicentre 36°·8N. 30°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
25·9	314	e 5 41	− 6	10 20	0	13·3	17·2

Mar. 4d. 9h. 30m. 52s. Epicentre 6°·5N. 128°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
107·2	330	—	—	—	—	e 49·1	—

Mar. 7d. 20h. 32m. 30s. Epicentre 9°·5S. 84°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
93·5	38	—	—	24 51	0	—	—

Mar. 8d. 20h. 21m. 32s. Epicentre 43°·0N. 148°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
81·8	341	—	—	—	—	e 49·5	—

Mar. 13d. 19h. 36m. 0s. Epicentre 22°·5N. 126°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
92·4	330	—	—	—	—	e 47·0	—

Mar. 15d. 1h. 30m. 30s. Epicentre 34°·0S. 57°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
99·1	328	—	—	—	—	e 54·5	—

Mar. 16d. 17h. 37m. 25s. Epicentre 16°·0S. 171°·0W.

Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	°	m. s.	s.	m. s.	s.	m.	m.
—	143·9	10	—	—	—	—	e 70·6	80·6

Mar. 17d. 4h. 36m. 40s. Epicentre 30°·0N. 129°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
87·1	331	—	—	—	—	e 47·3	56·3

Mar. 17d. 11h. 53m. 30s. Epicentre 13°·0N. 83°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
75·3	40	e 12 0	+ 9	21 32	+ 3	31·5	40·2

eN = +12m.31s., SR_1 = +26m.37s. = −29s., MN = +35·2m.

Mar. 18d. 14h. 6m. 0s. Epicentre 35°·0N. 29°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
26·5	317	e 6 2	+ 9	10 27	− 5	13·0	17·6

PR_1 = +7m.38s. = +68s., MN = +15·3m.

Mar. 18d. 17h. 52m. 44s. Epicentre 35°·5N. 29°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
26·3	316	e 6 33	=PR_1	e 10 45	+17	13·3	16·5

Mar. 19d. 0h. 28m. 24s. Epicentre 35°·5N. 29°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
26·3	316	—	—	—	—	e 10·6	—

Mar. 21d. 12h. 5m. 48s. Epicentre 34°·0S. 57°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
99·1	328	—	—	—	—	e 59·2	—

Mar. 21d. 14h. 19m. 6s. Epicentre 61°·0S. 25°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
114·2	14	e 19 36	[+62]	e 29 18	+65	45·9	64·1

SR_1 = +35m.17s. = −17s., MN = +64·6m.

Mar. 22d. 16h. 24m. 0s. Epicentre 35°·0N. 69°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
51·0	312	—	—	—	—	30·0	—

Mar. 22d. 18h. 29m. 0s. Epicentre 7°·0S. 150°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
129·2	337	—	—	—	—	e 66·0	—

Mar. 23d. 1h. 58m. 35s. Epicentre 35°·5N. 29°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
26·3	316	1 25?	?	—	—	—	—

Mar. 24d. 7h. 4m. 30s. Epicentre 35°·5N. 29°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
26·3	316	—	—	e 10 4	−44	10·5	17·1

Mar. 24d. 11h. 7m. 8s. Epicentre 50°·0N. 97°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
56·7	312	—	—	—	—	e 31·9	—

Mar. 25d. 19h. 8m. 50s. Epicentre 8°·0S. 135°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
123·2	329	—	—	—	—	76·2	—

Mar. 27d. 10h. 48m. 22s. Epicentre 9°·5S. 157°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
134·1	340	e 22 7	?PR_1	—	—	57·6	70·8

$_1N$ = +78·7m.

April 1d. 16h. 3m. 46s. Epicentre 33°·0N. 137°·5E.

Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
−5·9	17·7	335	—	—	1 22 17	[−19]	40·2	—

$_1R$ = +28m.15s. = −25s.

April 2d. 11h. 56m. 0s. Epicentre 35°·0N. 44°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
3[illegible]	311	—	—	—	—	e 10·0	—

April 5d. 23h. 29m. 6s. Epicentre 39°·0N. 30°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
24·1	49	e 5 29	0	e 9 47	+ 1	11·9	13·1

MN = +13·4m.

April 6d. 19h. 32m. 20s. Epicentre 42°·5N. 144°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
81·0	338	—	—	—	—	e 37·7	—

April 8d. 10h. 20m. 30s. Epicentre 5°·5S. 147°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
126·7	335	—	—	—	—	e 57·5	—

April 9d. 10h. 4m. 35s. Epicentre 73°·5N. 127°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m
50·0	320	—	—	—	—	e 25·4	—

April 11d. 6h. 26m. 12s. Epicentre 40°·0N. 71°·0E.

Δ	Az.	P.	O−C.	S	O−C	L	M
°	°	m. s.	s.	m. s.	s.	m.	m.
49·0	308	—	—	—	—	e 26·8	—

April 12d. 8h. 32m. 18s. Epicentre 11°·2S. 161°·2E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
137·0	343	i 19 35	[+ 1]	e 34 25	?	54·7	69·7

PR_1 = +22m.9s. = −7s., MN = +69·1m.

April 22d. 23h. 47m. 52s. Epicentre 24°·7N. 145°·3E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
98·1	339	—	—	—	—	e 48·1	—

April 23d. 1h. 31m. 30s. Epicentre 27°·5N. 55°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
47·5	316	—	—	—	—	e 22·5	—

April 24d. 0h. 8m. 18s. Epicentre 30°·2S. 177°·7W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
158·6	5	e 20 11	[+ 5]	—	—	—	—

April 28d. 11h. 13m. 40s. Epicentre 21°·5S. 72°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
96·0	36	e 13 13	−36	i 23 27	[−26]	36·3	50·2

$PR_1 = +16m.59s.$, MN = +49·7m.

May 5d. 6h. 21m. 18s. Epicentre 3°·0N. 91°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
88·4	39	i 13 8	+ 1	—	—	43·7	—

$e = +16m.41s. = PR_1 - 13s.$

May 7d. 6h. 11m. 18s. Epicentre 31°·5N. 141°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
90·5	337	—	—	—	—	34·7	65·2

$eN = +21m.34s. = PR_2?$, $L = SR_2$.

May 7d. 21h. 8m. 50s. Epicentre 38°·0S. 73°·5W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
109·9	38	—	—	—	—	e 60·2	—

May 9d. 9h. 47m. 30s. Epicentre 45°·0S. 34°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
100·9	340	—	—	—	—	e 44·5	—

May 10d. 8h. 18m. 55s. Epicentre 27°·0N. 96°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
72·9	319	e 12 1	+26	—	—	31·1	—

May 11d. 11h. 20m. 15s. Epicentre 21°·0N. 106°·5W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
83·2	39	—	—	—	—	39·7	—

May 12d. 3h. 45m. 30s. Epicentre 31°·0S. 72°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
103·6	37	—	—	—	—	e 56·5	—

May 17d. 17h. 18m. 0s. Epicentre 9°·0S. 159°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
134·4	342	e 19 0?	[−28]	—	—	73·0	—

May 17d. 21h. 42m. 10s. Epicentre 14°·5S. 14°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
67·0	9	—	—	—	—	e 27·8	—

May 19d. 21h. 13m. 44s. Epicentre 27°·2N. 59°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
50·5	316	—	—	—	—	30·3	—

May 20d. 7h. 2m. 10s. Epicentre 5°·1N. 124°·8E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
106·7	328	17 50?	[−21]	e 27 31	+33	45·8	63·1

MN = +60·3m.

May 26d. 17h. 53m. 30s. Epicentre 14°·5N. 88°·7W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
77·7	39	—	—	—	—	e 34·5	—

May 26d. 18h. 43m. 56s. Epicentre 61°·0S. 25°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
114·2	14	—	—	—	—	e 53·1	61·4

May 26d. 19h. 44m. 58s. Epicentre 42°·0N. 142°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
81·0	339	1 12 19	− 6	e 22 2?	−33	36·0	45·0

PR_1 = +15m.28s. = −30s., MN = +50·0m.

May 31d. 13h. 35m. 38s. Epicentre 34°·0N. 57°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
99·1	328	e 13 58	− 8	e 25 2	+15	44·4	68·4

eZ = +18m.4s. = PR_1 −4s., MN = +70·4m.

June 3d. 4h. 46m. 44s. Epicentre 16°·0S. 168°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
143·4	348	e 19 38	[− 7]	—	—	66·3	—

PR_1 = +23m.24s. = +28s.

June 4d. 0h. 12m. 30s. Epicentre 47°·0N. 149°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
78·1	341	—	—	—	—	e 39·5	—

June 4d. 6h. 50m. 45s. (I)
8h. 3m. 0s. (II) } Epicentre 35°·0N. 90°·5E.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
I	63·8	318	e 10 15?	−22	—	—	29·2	36·6
II	63·8	318	—	—	—	—	e 33·0	—

I MN = +36·5m.

June 4d. 15h. 7m. 18s. Epicentre 43°·0N. 114°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
80·7	339	—	—	—	—	e 45·7	—

June 5d. 1h. 20m. 15s. Epicentre 17°·0S. 78°·5W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
96·1	38	—	—	—	—	48·7	—

June 5d. 19h. 50m. 16s. Epicentre 43°·0N. 130°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
75·9	30	e 12 1	+ 7	e 21 36	0	35·7	42·9

MN = +43·8m.

June 6d. 18h. 20m. 0s. Epicentre 43°·0N. 144°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
80·7	339	—	—	—	—	e 48·0	—

June 10d. 19h. 16m. 0s. Epicentre 38°·5N. 22°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
20·5	316	—	—	e 8 23	−11	—	—

June 12d. 23h. 29m. 45s. Epicentre 37°·0N. 2°·5W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
14·5	5	—	—	e 7 15?	+55	—	—

June 13d. 2h. 3m. 0s. Epicentre 20°·0N. 116°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
89·8	326	—	—	—	—	e 46·0	—

June 14d. 23h. 32m. 30s. Epicentre 40°·0N. 143°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
83·3	338	—	—	—	—	e 50·5	—

June 16d. 2h. 59m. 27s. Epicentre 46°·5N. 8°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
7·6	313	0 33?	−82	—	—	—	—

June 19d. 11h. 22m. 30s. Epicentre 7°·0S. 145°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
127·1	332	e 22 5	=PR_1	—	—	—	—

June 20d. 6h. 54m. 18s. Epicentre 55°·0S. 27°·5W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
108·8	17	e 14 49	− 3	e 24 49	[−15]	49·7	61·2

e = +18m.54s. =PR_1 −16s., iZ = +28m.18s.

June 21d. 8h. 48m. 50s. Epicentre 32°·5N. 143°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
90·0	338	e 13 15	− 1	—	—	—	—

PR_1 = +16m.49s. = −17s.

June 22d. 4h. 51m. 30s. Epicentre 12°·0S. 177°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
140·5	3	e 19 36	− 4	—	—	—	—

June 24d. 21h. 16m. 24s. Epicentre 7°·6S. 128°·3E.

Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	°	m. s.	s.	m. s.	s.	m.	m.
—	119·2	326	e 18 36?	[−14]	—	—	71·6	—

June 24d. 21h. 16m. 44s. Epicentre 5°·5S. 130°·0E.

Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	°	m. s.	s.	m. s.	s.	m.	m.
—	118·4	327	e 18 16	[−32]	—	—	71·3	—

June 25d. 20h. 45m. 45s. Epicentre 22°·0N. 123°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
91·6	329	—	—	—	—	55·3	—

e = +46m.15s.

June 26d. 19h. 46m. 15s. Epicentre 36°·0N. 28°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
25·3	316	1 5 34	− 7	e 9 4	−65	10·8	13·8

June 27d. 2h. 13m. 12s. Epicentre 36°·0N. 28°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
25·3	316	—	—	e 10 9	0	—	—

June 27d. 18h. 1m. 54s. Epicentre 19°·0S. 177°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
147·5	4	e 19 56	[+ 4]	—	—	83·1	—

June 28d. 3h. 23m. 20s. (I) }
6h. 15m. 36s. (II) } Epicentre 0°·5S. 100°·5E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
I 97·1	322	e 13 39	−16	24 17	+ 9	39·7	72·1
II 97·1	322	e 13 42	−13	24 17	+ 9	45·4	62·6

MN I = +74·9m., MN II = +64·3m.

June 28d. 21h. 14m. 36s. Epicentre 44°·5N. 11°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
10·2	317	e 2 24?	− 9	—	—	—	—

June 28d. 22h. 0m. 48s. Epicentre 48°·0N. 8°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
6·4	306	e 2 12?	+34	—	—	—	—

June 29d. 14h. 26m. 58s. Epicentre 27°·3N. 126°·8E.

Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
−2·8	88·5	330	i 12 45	− 7	i 23 7	[+ 6]	40·0	52·9

PR_1 = +16m.20s., SR_1 = +29m.26s., MN = +50·0m.

June 29d. 18h. 55m. 40s. Epicentre 7°·0N. 107°·0W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
73·8	36	e 12 42	+61	—	—	44·3	—

June 29d. 23h. 20m. 40s. Epicentre 33°·0N. 123°·5W.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
81·9	32	—	—	—	—	e 38·3	—

June 30d. 22h. 51m. 48s. Epicentre 38°·8N. 70°·0E.

Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
°	°	m. s.	s.	m. s.	s.	m.	m.
49·0	310	e 4 12?	?	—	—	28·2	—

Readings for Kew are also given at the following times, which do not fit any determined earthquake: Feb. 5d.2h., Mar. 16d.3h., April 2d.17h., 9d.4h., May 7d.22h., 23d.3h., 30d.11h., June 9d.5h., 6h., and 16h., 19d. 1h., 21d.1h.

TABLE.

Degrees.	P sec.	S sec.	S − P sec.	Degrees.	P sec.	S sec.	S − P sec.	Degrees.	P sec.	S sec.	S − P sec.
1	15	28	13	51	553	991	438	101	855	1565	710
2	31	55	24	52	560	1004	444	102	860	1575	715
3	47	83	36	53	566	1016	450	103	865	1584	719
4	62	110	48	54	573	1029	456	104	870	1593	723
5	77	137	60	55	579	1041	462	105	874	1602	728
6	92	164	72	56	586	1054	468	106	879	1612	733
7	106	190	84	57	592	1066	474	107	884	1621	737
8	121	217	96	58	599	1079	480	108	888	1630	742
9	136	243	107	59	605	1091	486	109	893	1639	746
10	150	269	119	60	612	1103	491	110	897	1648	751
11	164	294	130	61	619	1116	497	111	902	1657	755
12	179	319	140	62	625	1128	503	112	907	1666	759
13	193	344	151	63	632	1141	509	113	911	1674	763
14	206	368	162	64	638	1153	515	114	916	1682	766
15	219	392	173	65	645	1165	520	115	920	1690	770
16	232	415	183	66	651	1177	526	116	925	1698	773
17	245	438	193	67	658	1190	532	117	929	1706	777
18	257	460	203	68	664	1202	538	118	934	1714	780
19	269	482	213	69	671	1214	543	119	938	1722	784
20	281	503	222	70	677	1226	549	120	942	1729	787
21	293	524	231	71	683	1238	555	121	947	1737	790
22	305	545	240	72	690	1250	560	122	952	1744	792
23	317	565	248	73	696	1262	566	123	957	1752	795
24	328	584	256	74	702	1274	572	124	961	1759	798
25	338	603	265	75	709	1286	577	125	966	1766	800
26	348	622	274	76	715	1297	582	126	970	1773	803
27	358	641	283	77	721	1309	588	127	974	1780	806
28	368	659	291	78	727	1320	593	128	978	1787	809
29	378	677	299	79	733	1332	599	129	983	1794	811
30	388	694	306	80	739	1343	604	130	988	1801	813
31	398	711	313	81	745	1355	610	131	992	1807	815
32	407	728	321	82	750	1366	616	132	996	1814	818
33	416	744	328	83	756	1377	621	133	1001	1821	820
34	425	760	335	84	762	1388	626	134	1005	1827	822
35	433	775	342	85	768	1399	631	135	1009	1833	824
36	442	790	348	86	773	1410	637	136	1014	1840	826
37	450	804	354	87	779	1421	642	137	1018	1846	828
38	458	818	360	88	785	1432	647	138	1023	1852	829
39	466	832	366	89	790	1443	653	139	1027	1858	831
40	475	847	372	90	796	1454	658	140	1031	1864	833
41	483	861	378	91	801	1464	663	141	1035	1869	834
42	491	875	384	92	807	1475	668	142	1039	1875	836
43	498	888	390	93	812	1485	673	143	1043	1881	838
44	506	902	396	94	818	1496	678	144	1047	1886	839
45	513	915	402	95	823	1506	683	145	1051	1892	841
46	520	928	408	96	829	1516	687	146	1055	1897	842
47	527	941	414	97	834	1526	692	147	1059	1902	843
48	534	954	420	98	840	1536	696	148	1063	1907	844
49	540	966	426	99	845	1546	701	149	1067	1912	845
50	547	979	432	100	851	1556	705	150	1071	1917	846

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