The International Seismological Summary for 1927 April, May, June.

FORMERLY THE BULLETIN OF THE BRITISH ASSOCIATION SEISMOLOGY COMMITTEE.

The present number of the Summary deals with 178 epicentres, 38 of which are new and 140 repetitions from old epicentres. For the separate months the numbers are April, 7 new, 41 old; May, 17 new, 66 old; June, 14 new, 33 old. The cases of abnormal focus were as follows :—

Date, 1927.	d.	h.	m.	s.	Epicentre. °	°	Focal Depth. (Below normal).
April	1	19	6	6	21·5S.	176·0W.	+·070
April	3	13	47	8	30·6N.	141·8E.	+·015
April	6	18	54	5	9·0S.	66·0W.	+·080
April	9	16	51	30	21·0S.	67·0W.	+·010
April	13	13	44	10	15·8N.	119·4E.	+·020
April	13	14	34	32	15·8N.	119·4E.	+·020
April	14	6	23	28	32·5S.	69·5W.	+·015
April	17	9	5	42	6·5S.	126·0E.	+·020
April	19	17	30	0	15·8N.	119·4E.	+·010
April	24	11	20	20	36·5N.	70·5E.	+·020
April	28	2	59	10	5·2S.	103·3E.	+·025
May	2	11	47	37	32·5S.	69·5W.	+·015
May	17	21	44	12	44·0N.	131·0E.	+·060
May	22	21	43	0	36·8N.	102·8E.	—·005
May	22	22	32	32	36·8N.	102·8E.	—·005
May	23	2	45	40	36·8N.	102·8E.	—·005
May	23	13	51	6	36·8N.	102·8E.	—·005
June	3	7	12	6	6·7S.	131·2E.	+·025
June	18	2	26	15	32·0N.	139·0E.	+·050

The number of cases is exceptionally great, especially in April. The shock of April 1 provided some noteworthy phenomena. There were a number of cases of Gutenberg's S_cP_c P_cS, which for convenience has been denoted by Σ. They show the effects of the depth of focus by arriving about 75 sec. early at stations from $\Delta=122°$ to $\Delta=165°$, as tabulated in a note to the case; whereas [P] arrives about 50sec. early. The values of L show the effect of the depth. With a few exceptions the L waves do not start before $\Delta=70°$ or so where they are apparently started by the arrival of S waves, or perhaps [S]. See note below.

The earthquake of April 14d. 6h. receives special notice in the Boletin Del Servicio Sismologico de la Univ. de Chile, No. XIX, from Dr. Carlos Bobillier. There were 7 deaths and 90 injuries in Santiago; 2 deaths and 4 injuries in San Bernardo; 1 death in Los Andes; injuries in San Felipe and Valparaiso; total, 12 deaths and more than 100 injuries.

Also by Dr. P. A. Loos in the Contrib. Geofis Tom II, No. 2, of the La Plata Astron. Observatory, who writes a quarto pamphlet of 40 pages with several plates.

The deep focus on June 18d. 2h. was anticipated by Mr. Wadati in his first paper on "Shallow and Deep Earthquakes" (*Tokyo Geophys Maga.*, Vol. I, No. 4, p. 177, Mar. 1928).

On 1920 Dec. 16, it will be remembered that there was a terrible earthquake in Kansu, China, with epicentre 35°·79N. 105°·74E., followed by another considerable shock from the same epicentre on Dec. 25. In 1927 May, there were some very destructive shocks from the same neighbourhood as below, the number of observing stations being added as a rough indication of the relative magnitude of each shock :—

1927 May 22d. 21h. 43m. 0s. (21 stations).
May 22d. 22h. 32m. 32s. (128 stations).
May 23d. 2h. 45m. 40s. (38 stations).
May 23d. 13h. 51m. 6s. (25 stations).
May 23d. 23h. 44m. 54s. (36 stations).
May 24d. 16h. 1m. 24s. (19 stations).

The position 36°·8N. 102°·8E. suits the first three with a focal *height* of ·005 radius above normal; and possibly suits all six, but for the last three a position 37°·5N. 100°·5E., with normal focal height, seems perhaps better. The number of deaths was reported to be so high as 100,000. The destruction in the country led to the departure of the occupants of the China Inland Mission, under a general order for withdrawal. "Ordinarily they would have made for Hankow and Shanghai, but circumstances compelled them to risk the journey by raft down the Yellow River, through bandit-ridden country. During the perilous voyage the intrepid leader of the party, Dr. G. E. King, was drowned. By his directions eight rafts had been constructed, which navigated the river with its whirlpools. Raft No. 5 was caught in a whirlpool for four hours, during which the passengers had breakfast and morning worship. At one point, while the whole party was sleeping on shore, they were awakened by a slight earthquake, and in addition to these perturbations from natural causes they were shot at by pirates, who demanded a toll of $30 per raft. With the sad loss of Dr. King the party reached Peking.

Effect of Deep Focus on L.

For a number of earthquakes of normal depth the observed values of L in minutes have been compared with the formulæ

$$L = 0{\cdot}405\,\Delta = C_1 \text{ and } L = 0{\cdot}477\,\Delta = C_2$$

where Δ is expressed in degrees. The formula C_1 was suggested by the earthquake of 1926 Oct. 3d. 19h., as fully explained in the introduction to that number; but was found quite unsuitable for the majority of earthquakes, which indicated the formula C_2. The differences $L-C_2$ have been tabulated for every 0·1 min. and for every 5° in Δ, and these results will be fully discussed later; but to show their general nature it will suffice here to give the totals for every 1·5 min. and every 25° in Δ, and to omit the larger residuals.

$L-C_2$ m.	0°—50°	51°—100°	101°—150°
−4·5	20	157	80
−3·0	74	182	86
−1·5	199	303	121
0·0	695	374	132
+1·5	541	372	110
+3·0	201	292	125
+4·5	60	225	134

Inspection shows that the maximum numbers, at any rate so far as $\Delta = 100°$, fall between $L-C_2 = 0{\cdot}0$m. and $L-C_2 = +1{\cdot}5$m., so that the complete expression for L would be something like

$$L = +0{\cdot}5\text{m.} + C_2 = +0{\cdot}5\text{m.} + {\cdot}477\,\Delta$$

the constant 0·5m. representing the time taken to start the L waves at the origin; and though the results for $\Delta = 101°$ to 150° increase again later, which shows that other L waves follow the main series, it is clear that the main series has a small positive constant such as +0·5m.

Now when the focus is deep we get one or more very different constants, as the case of April 1d. 19h. at 21°·5S. 176°·0W., with focus ·070 below normal, will illustrate :—

First Series for 1927 April 1d. 19h.

Δ °	$L-C_1$ m.	$L-C_2$ m.	Δ °	$L-C_1$ m.	$L-C_2$ m.
31·4	+0·1	(−2·2)	100·1	− 2·6	(−9·8)
37·3	−0·4	(−3·1)	100·9	0·0	(−7·1)
41·8	−0·5	(−3·5)	109·3	(+ 5·6)	−2·2
46·3	(+2·4)	−0·9	112·2	(+ 8·5)	+0·5
86·6	−0·7	(−6·9)	152·8	(+16·0)	(+5·0)

These are all the cases where either $L-C_1$ or $L-C_2$ is small. In six of them $L-C_1$ is small and has a mean value $-0{\cdot}7$m.; in three others $L-C_2$ is small and has a mean value $-0{\cdot}9$m.; the last (at $\Delta=152°{\cdot}8$) may be deferred for a moment. It seems probable that these series both for C_1 and C_2 are started by the S waves when they reach the surface at some distance from the epicentre. We can determine these initial distances by finding when the times for S agree with the formulæ $C_1-0{\cdot}7$ and $C_2-0{\cdot}9$ respectively. The times for S must, of course, be calculated with the *effective* values of Δ, to allow for the deep focus. We may trace them thus :—

Δ	Eff.	$C_1-0{\cdot}7$	S.	$C_2-0{\cdot}9$	Δ	Eff.	$C_1-0{\cdot}7$	S.	$C_2-0{\cdot}9$
°	°	m.	m.	m.	°	°	m.	m.	m.
11	10·0	4·0	4·5	4·4	16	13·9	5·8	6·1	6·8
12	10·8	4·3	4·8	4·9	17	14·7	6·2	6·4	7·3
13	11·6	4·7	5·2	5·4	18	15·5	6·6	6·7	7·7
14	12·4	5·0	5·5	5·9	19	16·3	7·0	7·1	8·2
15	13·1	5·4	5·8	6·3	20	17·2	7·4	7·4	8·6

The C_2 formula crosses S at about $\Delta=11°$ or $12°$. If at $\Delta=11°{\cdot}5$ waves are started by S in *both* directions, one of them will pass through the epicentre and reach the distance $\Delta=11°{\cdot}5$ on the other side in $23\times{\cdot}477$min.$=$11m., and will thus appear to follow the former by 11min. We cannot account for the $+5{\cdot}0$m. at $\Delta=152°{\cdot}8$ in this way. But the C_1 waves appear to be started by S at $\Delta=20°$; and the reverse one will thus follow the other after a time $40\times{\cdot}405$m.$=16{\cdot}2$min., which would account very accurately for the residual at $\Delta=152°{\cdot}8$.

Second Series.

As above remarked, there are only these 10 cases where the residuals for either $L-C_1$ or $L-C_2$ are at all small. In other cases they are large negatives; and it is tolerably obvious why these cannot appear at the smaller values of Δ.

Δ	$L-C_2$	$+15{\cdot}4$m.	Δ	$L-C_2$	$+15{\cdot}4$m.	Δ	$L-C_2$	$+15{\cdot}4$m.
°	m.	m.	°	m.	m.	°	m.	m.
71·6	−15·0	+0·4	76·3	−16·2	−0·8	137·5	−14·7	+0·7
72·7	−15·3	+0·1	77·6	−17·5	−2·1	149·7	−16·3	−0·9
72·8	−15·3	+0·1	99·7	−13·4	+2·0	152·8	−19·0	−3·6
72·9	−14·6	+0·8	105·9	−15·5	−0·1			

These might possibly be started by P waves which reach $\Delta=50°$ (effectively diminished by the focal depth to $43°{\cdot}8$) at $T_0+8{\cdot}4$m.$=T_0+50\times{\cdot}477-15{\cdot}4$; or more probably by S waves which reach $\Delta=73°{\cdot}3$ (dim. to $65°{\cdot}4$) at $T_0+19{\cdot}5$m.$=T_0+73{\cdot}3\times{\cdot}477=15{\cdot}4$m. The distance $\Delta=73°{\cdot}3$ is a little greater than the first Δ of the series, viz., $71°{\cdot}6$, but accidental errors may account for the difference.

Third and Fourth Series.

We also seem to have two sets of C_1 waves thus :—

Δ	L−C_1	+13·7	Δ	L−C_1	+18·8
°	m.	m.	°	m.	m.
84·3	−12·5	+1·2	140·4	−17·7	+1·1
110·3	−14·6	−0·9	149·4	−19·6	−0·8
137·3	−12·2	+1·5	149·9	−18·8	0·0
138·7	−13·3	+0·4	150·3	−19·0	−0·2
151·4	−16·4	−2·7	150·7	−19·1	−0·3
156·4	−15·0	−1·3			
163·0	−13·3	+0·4			

The third series could be started by S near Δ=90° (errors of tables might perhaps reduce this to 84°, though this rather strains the possibilities), or of course by P at a much smaller Δ; the fourth series by [S] about Δ=108°.

Fifth Series.

Δ	L−C_1	m. +24·2	L−C_2	m. +35·8
°	m.		m.	m.
156·4	−24·5	−0·3	−35·8	0·0
160·4	−23·9	+0·3	−35·4	+0·4
162·8	−26·7	−2·5	−38·4	−2·6
164·7	−21·8	+2·4	−33·6	+2·2

The values of Δ are too close together to allow us to discriminate between C_1 and C_2 as more probable. The waves could be started by [S]=S_cP_cS at about Δ=120°.

These series account for all the observed values of L except two at Δ=163°·1 and 163°·7, which are probably errors for [S] or S_cP_cS.

Opinions may differ as to the suitability of C_1 or C_2 for individual cases; but there can be no doubt that a large negative constant is required in any case; which means that when the focus is deep L waves are started at a considerable distance from the epicentre, probably by the arrival of S waves at the ring from which they start.

The Italian Earthquake of 1930 July 23.

We can scarcely send this number for Press without an expression of deep sympathy with Italy in the disaster of July 23, which adds one more to the terrible series of her sufferings of this

kind. The epicentre 41°·1N. 15°·4E. was given by Strasbourg with T_0=1930 July 23d. 0h. 8m. 44s. Residuals for P at 34 stations within 20° of this epicentre and T_0 were calculated by Miss Bellamy and found to have a mean value −9s., the mean deviation from this being ±4s. [Readings of S are only available for nine stations, with mean value −5s.; the mean deviation from this mean is ±6s.; but if we refer it to the value −9s. derived from P it rises to ±8s.]. But there is a sensible difference between the residuals within Δ=5°, mean value −4s.±2s.; and those outside this distance; mean value −11s.±3s. Doubtless these observations will receive close attention from those specially interested in the study of observations near the epicentre.

H. H. TURNER.

University Observatory, Oxford.
1930 Aug. 10.

1927 APRIL, MAY, JUNE.

April 1d. 19h. 6m. 6s. Epicentre 21°·5S. 176°·0W.

A = −·928, B = −·065, C = −·367; D = −·070, E = +·998; G = +·366, H = +·026, K = −·930.

A depth of focus 0·070 below normal has been assumed; see note at end. The symbol Σ is used for Gutenberg's $S_cP_cP_cS$. For note on the values of L, see introduction to this no. (p. 111).

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Suva	E.	+0·3	6·3	302	i 1 18	−23	i 2 18	−42	—	—
	N.	+0·3	6·3	302	i 1 24	−17	i 2 24	−36	—	3·0
Apia		−0·4	8·7	28	e 2 4	− 2	(3 29)	−16	3·5	3·9
Wellington	E.	−3·0	21·2	199	i 4 28	+ 9	i 8 4	+20	—	15·0
	N.	−3·0	21·2	199	i 4 27	+ 8	i 8 8	+24	—	15·0
Riverview		−4·5	31·4	240	i 5 51	− 6	i 10 24	−15	e 12·7	20·1
Sydney		−4·5	31·4	240	5 48	− 9	—	—	12·9	13·7
Melbourne		−5·1	37·3	235	(i 7 6)	+16	i 7 6	?P	e 14·7	16·3
Adelaide		−5·5	41·8	241	i 7 16	− 8	i 11 57	−77	i 16·4	21·6
HonoluluT.H.	E.	−5·9	46·3	24	i 8 0	+ 2	i 14 9	− 4	e 20·9	21·8
	N.	−5·9	46·3	24	i 8 0	+ 2	e 14 13	0	e 21·6	21·9
Amboina		−6·8	57·0	280	i 8 41	−27	i 15 55	−26	—	—
Perth		−7·0	60·8	245	9 29	− 3	17 19	+13	—	—
Manila		−7·8	71·6	295	e 10 41	+ 4	(i 19 14)	+ 3	i 19·2	19·9
Nagoya		−7·8	72·1	321	i 10 39	− 1	e 19 16	− 1	—	—
Osaka		−7·9	72·7	320	10 45	+ 1	(19 26)	+ 3	19·4	20·2
Mizusawa	E.	−7·9	72·7	326	10 42	− 2	19 20	− 3	—	—
	N.	7·9	72·7	326	10 44	0	19 23	0	—	—
Sumoto		−7·9	72·8	320	10 44	0	(19 24)	0	19·4	—
Kobe		−7·9	72·9	320	10 38	− 7	(20 11)	+46	20·2	21·2
Batavia		−8·0	75·8	270	i 11 4	+ 1	i 20 3	+ 3	—	—
Taihoku	N.	−8·1	76·3	306	—	—	e 19 23	−41	20·2	—
Ootomari		−8·1	77·7	332	10 9	−65	(19 29)	−51	19·5	—
Hong Kong		−8·2	81·0	299	—	—	—	—	—	21·1
Tucson	N.	−8·3	82·2	50	11 54	+13	i 21 39	[− 2]	—	—
Victoria	E.	−8·4	84·3	32	11 57	+ 3	(21 39)	+ 3	21·6	21·7
Tacubaya		−8·4	85·4	67	12 0	− 1	22 15	[+12]	—	—
Phu-Lien	E.	−8·5	86·6	292	e 12 1	− 7	e 21 41	−20	34·4	—
La Plata		—	98·6	134	17 29	?PR_1	i 23 14	[−63]	—	—
La Paz		—	99·7	112	e 16 1	?PR_1	i 24 16	[− 6]	34·2	37·0
St. Louis		—	100·1	53	e 13 32	−39	e 24 16	[− 8]	37·9	48·9
Irkutsk		—	100·9	323	e 13 3	−72	24 1	[−27]	e 40·9	—
Chicago	N.	—	103·0	50	—	—	i 24 38	[0]	—	—
Ann Arbor		—	105·9	50	—	—	—	—	35·0	—
Toronto	N.	—	109·3	49	e 16 57	?	i 25 41	[+34]	49·9	—
Hyderabad		—	110·3	281	—	—	25 28	[+17]	30·1	37·2
Ottawa	E.	—	112·2	47	i 18 50	[+22]	i 25 9	[−10]	53·9	—
Fordham	E.	—	112·8	53	e 18 46	[+16]	—	—	—	57·4
Simla	E.	—	114·8	295	e 25 6	?S	(e 25 6)	[−22]	—	—
Tashkent		—	122·3	306	e 18 16	[−43]	26 24	Σ	—	67·2
Cape Town		—	122·9	193	20 11	?PR_1	—	—	—	32·3
Ekaterinburg		—	125·9	325	e 18 29	[−39]	—	—	—	73·8
Baku		—	137·0	307	i 18 42	[−52]	e 25 50	[−34]	—	—
Leningrad		—	137·3	340	e 18 41	[−54]	27 36	Σ	43·4	—
Pulkovo		—	137·5	340	e 18 40	[−55]	i 25 17	[−67]	—	—
Kucino		—	137·5	332	e 22 23	?PR_1	—	—	e 40·9	—
Helsingfors	E.	—	138·7	344	e 21 24	?PR_1	—	—	e 42·9	—
Tiflis		—	140·4	310	e 18 53	[−57]	—	—	e 39·2	72·5
Upsala		—	140·5	350	e 21 36	?PR_1	—	—	—	—
Makeyevka		—	142·0	323	e 18 46	[−57]	—	—	—	67·6
Entebbe		—	144·9	235	18 57	[−51]	20 30	?	—	—
Copenhagen		—	145·2	351	18 53	[−55]	28 27	Σ	—	—
Hamburg		—	147·6	353	e 19 2	[−50]	i 28 43	Σ	—	—
Potsdam		—	148·4	350	i 19 6	[−47]	—	—	—	—
Ksara		—	149·4	300	19 11	[−44]	28 51	Σ	40·9	—
De Bilt		—	149·4	359	19 6	[−49]	i 28 52	Σ	—	—

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.
Oxford	—	149·7	8	i 19 15	[−40]	—	—	55·2	—
Kew	—	149·9	5	i 19 9	[−47]	i 28 54	Σ	41·9	—
Prague	—	150·3	347	i 19 16	[−40]	i 28 56	Σ	e 41·9	43·9
Cheb	—	150·7	349	e 20 50	[+53]	i 29 3	Σ	—	43·9
Uccle	—	150·7	0	e 19 7	[−50]	i 29 0	Σ	e 41·9	—
Budapest	—	151·4	339	19 15	[−43]	22 52	?PR_1	e 44·9	—
Vienna	—	151·5	343	e 19 6	[−52]	26 4	[−32]	—	29·2
Paris	—	152·7	2	e 19 15	[−45]	i 29 9	Σ	—	—
Strasbourg	—	152·8	355	19 9	[−51]	i 29 11	Σ	77·9	—
Graz	—	152·8	343	i 19 17	[−43]	32 44	?	53·9	67·2
Belgrade	—	153·1	334	e 19 12	[−48]	i 29 12	Σ	—	—
Innsbruck	—	153·5	349	e 19 16	[−45]	29 9	Σ	—	—
Zagreb	—	153·8	341	e 19 22	[−39]	e 26 34	[− 3]	—	—
Zurich	—	153·9	353	e 19 19	[−42]	i 29 14	Σ	—	—
Helwan	—	154·1	294	e 19 11	[−50]	29 14	Σ	—	—
Besançon	—	154·3	357	19 35	[−26]	e 29 15	Σ	—	—
Chur	—	154·3	351	e 19 16	[−45]	i 29 16	Σ	—	—
Venice	—	155·1	346	i 19 48	[−14]	26 43	[+ 4]	—	—
Athens	—	156·4	318	e 19 9	[−55]	i 29 20	Σ	e 48·3	—
Moncalieri E.	—	156·4	353	19 10	[−54]	29 7	Σ	39·1	—
	—	156·4	353	19 29	[−35]	29 17	Σ	38·4	—
Florence	—	156·9	347	i 19 42	[−23]	—	—	—	24·9
Rocca di Papa E.	—	158·5	342	e 19 48	[−18]	—	—	—	—
Pompeii	—	158·8	338	e 19 41	[−26]	e 31 31	?	—	—
Toledo	—	160·4	19	19 2	[−66]	i 28 52	?	e 41·1	—
Rio Tinto	—	161·4	27	22 54?	?PR_1	—	—	—	49·9
San Fernando	—	162·6	29	20 10	[0]	i 30 12	Σ	—	36·4
Alicante	—	162·8	12	19 37	[−33]	—	—	e 39·2	41·4
Granada	—	163·0	21	e 19 23	[−47]	e 29 44	Σ	52·7	59·0
Malaga	—	163·1	24	i 20 15	[+ 5]	24 7	?PR_1	26·0	—
Almeria	—	163·7	19	e 19 46	[−25]	—	—	27·0	27·5
Algiers	—	164·7	3	e 20 9	[− 3]	i 30 14	Σ	44·9	—

Additional readings: Apia MN = +3·6m. Riverview PR = +6m.11s., 6m.50s., and 7m.20s., MN = +15·8m., MZ = +19·4m.; T_0 = 19h.6m.13s.; epicentre 28 S. 179 W. Adelaide iSR_1 = +15m.19s., MN = +16·6m. Honolulu ePR_1N = +9m.12s.; T_0 = 19h.6m.10s. and 19h.6m.20s. Amboina i = +17m.15s. Perth P = +11m.49s. = PR_1 − 5s. Manila MN = +20·0m. Nagoya L = +12m.32s.; S is given as e. Osaka S = +15m.20s. = PR_2 − 20s. Mizusawa records two separate shocks, the recorded P is given for a shock for which SN = +13m.19s. = PR_1 − 25s., SE = +13m.24s., and S for a shock for which P = +18m.14s. Kobe MN = +21·1m. Batavia iN = +11m.38s. Tucson eN = +13m.21s.; T_0 = 19h.6m.13s. and 19h.6m.22s. La Paz i = +17m.21s. = [P] − 24s., and +27m.1s. = PS +0s., SR_1 = +28m.46s. St. Louis e = +23m.12s. = [S] −72s. Irkutsk e = +14m.35s., PR_1 = +16m.39s. = [P] − 71s., i = +23m.3s. = [S] − 85s., iPS = +25m.44s. Chicago eE = +23m.24s., eN = +23m.30s., iE = +24m.7s., iSE? = +24m.41s.; all readings are given for 20h. Ann Arbor iE = +23m.42s. = [S] − 70s., iEN = +25m.12s., eE = +26m.42s., eN = +28m.0s. Toronto iE = +25m.39s. = [S] + 10s. and +28m.7s., iN = +28m.26s. and +33m.19s. = SR_1 − 71s. Ottawa iE = +24m.4s. = PR_2 − 30s., i = +26m.2s., eN = +28m.40s., iN = +34m.2s. = SR_1 − 68s. Fordham iE = +24m.4s. = PR_2 − 36s., +25m.16s. = [S] − 5s., +26m.6s., and +30m.31s., eE = +27m.58s., and +34m.11s. = SR_1 − 67s. Simla PN = +26m.0s., SN = 34m.12s. = SR_1 − 90s. Tashkent e = +16m.8s., ePR_1 = +18m.34s. = PR_1 − 25s., ePR_2 = +22m.24s., PS = +29m.20s., S_4P_4SP = +29m.59s., iPPS = +30m.47s., iSR_1 = +35m.51s. = SR_1 − 84s., SR_2 = +42m.13s. = SR_2 − 40s., MZ = +60·1m. Ekaterinburg i = +19m.53s., +20m.6s., +21m.20s., +21m.33s., +24m.47s., +26m.24s., +26m.38s., +29m.24s., and +30m.59s. Baku iPR_1 = +21m.21s., i = +21m.35s., e = +28m.42s., and +30m.50s., i = +32m.52s., ePPS = +33m.38s., iSR_1 = +38m.46s., and several other readings. Leningrad PR_1 = +20m.22s., P_4P_4S = +21m.20s. = PR_1 − 57s., PR_2 = +23m.30s., PS = +30m.48s., i = +33m.24s. Pulkovo PR_1 = +20m.21s., PR_2 = +23m.47s., $S_4P_4P_4S$ = +27m.32s., PS = +30m.42s., SR_1 = +38m.37s. Kucino i = +24m.50s. = PR_2 − 67s. and +26m.22s., e = +28m.39s., +29m.2s., and +31m.59s., i = +39m.44s. = SR_1 − 38s. Helsingfors eE = +23m.55s., +27m.43s. = PR_2 − 60s., and +28m.7s. Tiflis e = +19m.38s. = [P] − 1s., and +21m.45s. = PR_1 − 51s., i = +27m.56s. = PR_2 − 60s., e = +31m.46s., +33m.10s., and +39m.15s., MN = +79·6m. Upsala i = +21m.42s. and +27m.53s. Makeyevka iPR_1 = +21m.49s. = PR_1 − 57s., PR_2 = +25m.2s. = PR_2 − 86s., PS = +31m.54s.? SR_1 = +39m.29s. = SR_1 − 107s., SR_2 = +47m.27s., MZ = +72·8m. Copenhagen P_6P_6S = +21m.55s. = PR_1 − 73s., PR_2 = +25m.13s. = PR_2 − 96s., S_6P_6SP = +31m.49s.,

Continued on next page.

PPS = +34m.7s., SR_1 = +40m.54s. = SR_1 − 60s., SR_2 = +45m.12s. = SR_2 − 165s. Hamburg iPZ = +19m.3s., iZ = +20m.38s., PR_1Z = +22m.1s., iSN = +28m.41s. Potsdam i = +20m.42s., +22m.40s., = PR_1 − 46s., and +28m.43s. = PR_2 − 81s. Ksara PS = +29m.31s., LN = +57·9m. De Bilt i = +20m.45s. Kew PR_1 = +22m.41s. Uccle i = +19m.17s. and +20m.47s., PR_1 = +22m.42s. Vienna iPZ = +19m.8s. = [P] − 50s., iZ = +20m.51s., iN = +20m.58s., PR_1 = +21m.4s., PR_2 = +21m.33s., PS = +26m.10s., SR_1 = +29m.10s. = PR_2 − 77s. Paris iP = +19m.27s., iZ = +20m.53s., PR_1 = +22m.51s. Strasbourg iPR_1 = +22m.54s., ePR_2 = +26m.18s. Graz iP = +19m.27s. = [P] − 32s., ePR_1 = +21m.33s., ePR_2 = +26m.32s. = PR_2 − 72s., SR_1 = +32m.44s., SR_2 = +42m.42s. = SR_1 − 32s. Belgrade PR_1E = +22m.58s., PR_2N = +24m.43s. Innsbruck iP = +19m.19s., i = +19m.28s., eNE = +21m.28s., eNW = +21m.38s. Zagreb e = +21m.24s., +21m.44s., +23m.11s. = PR_1 − 49s., and +29m.18s. = PR_2 − 88s. Athens eSR_2 = +38m.32s. Moncalieri P = +19m.29s. Rocca di Papa iPZ = +19m.49s., PR_1 = +23m.31s. San Fernando ? = +20m.28s., i = +34m.30s., MN = +35·9m. Alicante i = +20m.51s., MN = +40·6m. Granada i = +20m.16s., +21m.49s., +22m.45s., +24m.0s. = PR_1 − 56s., +25m.25s., and +28m.13s. = PR_2 − 32s., eS = +31m.42s. = PR_2 − 22s., and +36m.56s. Malaga i = +22m.1s.; L is either [S] or PR_2. Almeria i = +22m.34s., MN = +27·9m.; L is either [S] or PR_2. Algiers i = +34m.28s.

NOTE ON THE DEEP FOCUS ASSUMPTION.

Arranging the informative stations in order of azimuth, $\delta\Delta$, represents the correction required by the observations to the calculated Δ when no correction for deep focus is used, $\delta\Delta_2$ when that given is used.

Az.	$\delta\Delta_1$	$\delta\Delta_2$	C.	$\delta\Delta_2$ − C.	Az.	$\delta\Delta_1$	$\delta\Delta_2$	C.	$\delta\Delta_2$ − C.
°	°	°	°	°	°	°	°	°	°
28	−0·8	−0·3	+0·1	−0·4	270	−7·8	+0·2	−0·7	+0·9
32	−8·0	+0·4	+0·1	+0·3	280	−10·4	−3·6	−0·8	(−2·8)
67	−7·3	+1·1	+0·6	+0·5	293	−10·0	−1·3	−0·8	−0·5
199	−2·2	+0·8	+0·1	+0·7	295	−7·4	+0·5	−0·8	+1·3
235	−3·2	+1·9	−0·4	(+2·3)	321	−8·0	−0·2	−0·7	+0·5
240	−5·4	−0·9	−0·5	−0·4	325	−7·9	0·0	−0·7	+0·7
241	−6·6	−1·1	−0·5	−0·6	325	−8·9	−1·0	−0·7	−0·3
245	−6·7	+0·3	−0·5	+0·8	326	−8·0	−0·1	−0·7	+0·6

The Column C represents 0°·8 Cos. (Az. − 113°), which was calculated by a summary process, and gives small residuals for $\delta\Delta_2$ for most stations, excepting perhaps Melbourne (+2°·3) and Amboina (−2°·8). The mean residual is, however, +0°·3, indicating that the depth 0·070 is slightly too large. To get $\delta\Delta_2$ from $\delta\Delta_1$ we have added a mean correction of +6°·7 and apparently this has made $\delta\Delta_2$ too large by +0°·3. Hence we should reduce the correction in the ratio 0·3/6·7, *i.e.*, we should reduce ·070 to ·076. At present it has not been considered necessary to revise the detailed solution for this or for the position of epicentre.

It may be remarked that deep foci have several times occurred in this neighbourhood, *e.g.*,

1924 May	25d.	19°·0S.	179°·0E.	+·070
1924 May	4d.	22°·0S.	179°·0E.	+·060
1922 Mar.	10d.	22°·0S.	180°·0E.	+·060
1924 Jan.	16d.	20°·5S.	178°·5W.	+·030
1919 Aug.	18d.(2)	17°·0S.	177°·5W.	+·050
1926 Mar.	16d.	16°·0S.	171°·0W.	+·020

The formula adopted for [S] is that given in Oct. 11, 1922 (p.167), as follows :—

$$[S] - S = (80° - \Delta) \times 4·6s.,$$

which agrees fairly well with Gutenberg's curve as revised in 1928. It is an entirely provisional formula and will be revised with the general revision of the tables. But it will be seen that most of the S residuals do not follow this formula, but represent another wave, which is readily identified with Gutenberg's $S_cP_cP_cS$, which for brevity has been denoted as Σ. The following values are read from Gutenberg's diagram :—

$S_cP_cP_cS$ or Σ.

Δ	Σ		Δ	Σ	
°	m.	s.	°	m.	s.
110	26	13	150	30	11
120	27	14	160	31	9
130	28	14	170	32	0
140	29	13	180	32	48

The above observations give residuals as below :—

Δ	O − Σ	Δ	O − Σ	Δ	O − Σ	Δ	O − Σ
°	s.	°	s.	°	s.	°	s.
122·3	−64	150·3	−76	153·5	−83	156·4	−91
137·3	−80	150·7	−71	153·9	−79	158·8	(+31)
145·2	−77	150·7	−74	154·1	−80	160·4	−77
147·6	−73	152·7	−77	154·3	−80	162·6	−68
149·4	−76	152·8	−75	154·3	−79	163·0	−100
149·4	−75	152·8	−82	156·4	−88	164·7	−77
149·9	−76	153·1	−76	156·4	−101		

The effect of the deep focus is just as apparent in this phase as in others. It seems clear, however, that different earthquakes exhibit different phases of the complex types, sometimes SR_1, sometimes P[S], sometimes $S_cP_cP_cS$, and so on. The reasons for this varied choice are still to be explored.

April 1d. Continuation of the list of after-shocks from the epicentre 35°·7N. 134°·8E., of 1927, March 31d.

h.	m.	s.		h.	m.	s.	
0	33	22	T	7	25	32	T
0	48	51	TO	7	53	18	T
0	54	30	T	9	23	28	TKOSNMH
1	37	11	T	10	24	51	T
2	17	28	T	10	52	57	T
2	20	36	T	11	28	33	T
2	41	38	TKS	20	6	29	T
4	27	32	T	23	25	59	TKON
5	49	57	TKOS				

April 1d. Readings also at 0h. (Chicago, Tucson, Ottawa, and Toronto), 2h. (Santiago), 7h. (Tiflis), 12h. (Makeyevka), 13h. (near Mizusawa), 19h. (La Paz), 20h. (near Kobe and Sumoto), 21h. (La Plata), 23h. (Makeyevka).

April 2d. Continuation of the list of after-schocks from the epicentre 35°·7N. 134°·8E., of April 1d.

h.	m.	s.		h.	m.	s.	
1	29	36	T	15	5	19	T
2	35	47	T	15	34	46	T
5	58	47	T	17	7	6	T
14	38	41	T				

April 2d. Readings also at 1h. (Wellington), 2h. (Tashkent), 3h. (Makeyevka), 5h. (La Paz and Sucre), 7h. (near Nagoya), 8h. (Suva), 11h. (near Sumoto) 12h. (near Rocca di Papa), 14h. (Makeyevka), 17h. (La Paz (2)), 18h. (Uccle), 19h. (Baku, Tashkent, and Tiflis (2)), 20h. (Baku, Irkutsk, Tashkent, and Tiflis), 21h. (Tashkent (2) and Tiflis), 23h. (Baku, Tashkent and Tiflis).

April 3d. 13h. 47m. 8s. Epicentre 30°·6N. 141°·8E.
(as on 1925 May 22d. and see also 1927 April 27d.).

$A = -\cdot677$, $B = +\cdot532$, $C = +\cdot509$; $D = +\cdot618$, $E = +\cdot786$; $G = -\cdot400$, $H = +\cdot315$, $K = -\cdot861$.

A depth of focus 0·015 has been assumed. Direct comparison of these times with those of April 27 shows a sensible difference between the residuals for Japan and Europe which can only be explained in this way, unless there is some curious error.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya	0·0	6·2	319	i 1 33	− 2	(2 58)	+ 9	3·1	3·2
Osaka	−0·1	6·7	308	1 44	+ 3	—	—	3·2	3·6
Sumoto	−0·1	6·9	304	1 42	− 2	(3 7)	+ 2	3·1	—
Mizusawa	−0·2	8·5	355	2 6	0	3 39	− 6	—	—
Manila	−0·8	24·9	235	e 5 52?	+23	—	—	—	—
Irkutsk	−1·2	34·9	319	e 6 47	−15	e 12 13	−23	18·8	—
Tashkent	−1·8	58·0	304	i 9 41	− 6	i 17 37	+ 1	—	45·0
Baku	−2·0	72·1	307	—	—	e 20 37	+10	e 37·9	—
Kucino	−2·0	72·3	325	—	—	e 20 37	+ 7	e 43·0	—
Pulkovo	−2·0	73·6	331	i 11 22	− 5	i 20 52	+ 7	40·9	—
Leningrad	−2·0	73·6	331	11 23	− 4	e 20 54	+ 9	45·2	—
Makeyevka	−2·0	76·1	319	—	—	e 20 52?	−23	38·9	50·3
Copenhagen	−2·1	83·5	334	—	—	—	—	45·9	—
De Bilt	−2·1	89·1	335	—	—	—	—	e 45·9	—
Strasbourg	−2·1	90·9	332	—	—	—	—	e 55·9	—
La Paz	—	149·3	70	19 39	[−16]	—	—	—	—

Additional readings and note: Nagoya S is given as another L. Osaka MN = +3·8m. Tashkent e = +8m.22s., i = +10m.23s., e = +18m.16s., and +19m.25s. = [S] −15s.

April 3d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 2d.

h.	m.	s.		h.	m.	s.	
1	22	0	T	12	19	57	T
2	26	33	T	23	24	53	T
12	18	25	TOSN				

April 3d. Readings also at 1h. (Baku, Tashkent, and Tiflis), 6h. and 8h. (La Paz), 11h. (Naples and Suva), 12h. (Nagoya), 17h. (Tiflis), 20h. (near Taihoku), 22h. Makeyevka).

April 4d. 4h. 58m. 35s. Epicentre 40°·0N. 141°·5E. (as on 1925 April 20d.).

$A = -\cdot600$, $B = +\cdot477$, $C = +\cdot643$; $D = +\cdot623$, $E = +\cdot783$; $G = -\cdot503$, $H = +\cdot400$, $K = -\cdot766$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa		0·9	199	0 21	+ 7	0 31	+ 6	—	—
Nagoya		6·0	218	e 1 26	− 6	(2 26)	−18	2·4	3·0
Osaka		7·2	224	2 5	+16	—	—	3·6	4·0
Kobe	E.	7·3	225	—	—	—	—	—	4·4
Sumoto		7·7	225	2 18	+21	—	—	2·6	2·6
Irkutsk		28·2	308	6 2	− 8	e 10 52	−11	15·4	18·6
Ekaterinburg		52·8	317	—	—	—	—	55·4	—
Tashkent		53·2	297	i 9 27	0	e 17 0	+ 1	e 25·4	33·7
Kucino		64·6	323	—	—	—	—	e 36·9	42·3
Pulkovo		65·4	330	10 52	+ 5	19 44	+14	30·4	42·0
Leningrad		65·4	330	—	—	—	—	32·4	43·2
Baku		66·4	304	e 10 56	+ 2	e 20 39	[− 5]	33·9	42·6

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Tiflis	68·9	309	e 11 9	− 1	e 20 40	+27	e 37·5	42·5
Makeyevka	69·0	316	—	—	—	—	40·4	44·8
Copenhagen	75·0	333	—	—	e 22 7	+41	39·4	—
De Bilt	80·4	335	—	—	—	—	e 42·4	52·6
Uccle	81·8	335	—	—	—	—	e 42·4	—
Strasbourg	82·5	331	—	—	—	—	e 45·4	—
Kew	82·6	338	—	—	—	—	e 42·4	—
Paris	84·2	335	—	—	—	—	e 51·4	—

Additional readings: Mizusawa PN = +22s. Kobe MN = +4·1m. Irkutsk MZ = +18·5m. Tashkent iPS = +17m.18s., SR_1 = +20m.56s., SR_2 = +23m.25s., MZ = +30·2m., MN = +33·4m. Kucino MN = +41·8m. Pulkovo MZ = +42·2m., MN = +43·0m. Baku MNZ = +43·1m. Tiflis e = +13m.58s., MN = +44·9m. Makeyevka MN = +41·5m., MZ = +45·2m. De Bilt MNZ = +52·2m.

April 4d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 3d. :—

h.	m.	s.		h.	m.	s.	
4	22	38	T	18	46	5	T
6	11	35	T	20	4	26	T

April 4d. Readings also at 2h. (Makeyevka), 7h. (Tashkent), 8h. (Ekaterinburg), 10h. (Graz and Tiflis), 13h. (Tiflis, La Plata, and Santiago), 14h. (Moncalieri and Rocca di Papa), 16h. (Rocca di Papa), 17h. (Pompeii), 18h. (near Sumoto).

April 5d. 5h.18m.0s. Epicentre 3°·0N. 125°·0E. (as on 1925 July 8d.).

A = −·573, B = +·818, C = +·052; D = +·819, E = +·574; G = −·030, H = +·043, K = −·999.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina	7·4	155	i 0 13	−99	i 1 26	−115	—	—
Manila	12·3	341	e 3 14	+11	(5 19)	− 7	5·3	—
Batavia	20·3	243	e 4 36	− 9	i 8 33	+ 4	—	—
Irkutsk	52·2	345	e 9 4	−17	e 16 14	−32	e 31·0	—
Tashkent	62·8	316	(10 43)	+12	(i 19 8)	+10	(e 28·0)	(40·3)
Baku	76·8	312	e 11 47	−13	21 28	−19	40·0	—
Kucino	85·9	326	—	—	e 23 14	−15	e 44·5	—

Additional readings and notes: Tashkent iPR_1 = (+13m.54s.), iPS = (+19m.38s.), eSR_1 = (+24m.0s.?), all readings having been increased by 3m. Baku eSR_2 = +32m.50s. Kucino e = +22m.45s. = [S] − 16s.

April 5d. 14h. 24m. 47s. Epicentre 46°·3N. 16°·8E. (as on 1927 Feb. 20d.).

A = +·661, B = +·200, C = +·723; D = +·289, E = −·957; G = +·692, H = +·209, K = −·691.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Zagreb	0·8	230	i 0 13	+ 1	i 0 26	+ 4	—	0·5
Graz	1·1	310	i 0 16	− 1	(0 26)	− 5	0·4	0·6
Vienna	1·9	351	0 30	+ 1	0 53	0	—	1·3
Venice	3·2	256	1 48	?L	—	—	(1·8)	—
Innsbruck	3·9	287	e 1 51	?S	(e 1 51)	+ 4	—	—
Zurich	5·8	284	e 1 20	−10	i 2 59	+20	—	—
Strasbourg	6·5	294	e 2 37	?S	(e 2 37)	−20	—	—

Additional readings: Zagreb i = +14s., +19s., and +22s. Vienna PR_1 = +39s., PR_2 = +49s., SR_2 = +56s., MN = +1·2m.; epicentre 46°9′N. 16°50′E. Budapest (Δ = 1°·9 Az. = 53°) gives eP = 14h.18·5m. Venice P = +2m.7s. If the readings are diminished by 1min. we have (0m. 48s.) = P − 2s., (1m.7s.) = S − 21s. Strasbourg PR_2 = +3m.35s.

April 5d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 4d. :—

h.	m.	s.		h.	m.	s.	
2	29	18	T	17	57	59	T
6	53	21	T	18	20	14	T
7	5	54	T	19	51	12	T
15	51	29	T				

April 5d. Readings also at 0h. (Chicago), 2h. (near Tacubaya), 3h. (Suva), 6h. (Tiflis and near La Paz), 8h. (Tashkent and near Athens), 9h. (Agana), 11h. (Baku), 21h. (Makeyevka).

April 6d. 18h. 54m. 5s. (I)
19h. 4m. 25s. (II)
19h. 15m. 15s. (III)
20h. 14m. 35s. (IV)
} Epicentre 9°·0S. 66°·0W. (as on 1922 Sept. 4d.).

A = +·402, B = −·902, C = −·156 ; D = −·914, E = −·407 ;
G = −·064, H = +·143, K = −·988.

The depth of focus 0·080 of 1922 Sept. 4d. is retained.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
I La Paz	−0·1	7·8	195	i 2 9	+12	i 3 43	+14	3·9	4·1
II	−0·1	7·8	195	i 2 8	+11	i 3 34	+ 5	4·1	4·6
III	−0·1	7·8	195	i 2 8	+11	i 3 43	+14	4·0	—
IV	−0·1	7·8	195	i 2 9	+12	i 3 40	+11	4·0	4·8
I Sucre	−0·9	10·1	176	i 2 16	− 3	i 4 17	+ 9	4·5	5·7
II	−0·9	10·1	176	i 2 13	− 6	4 14	+ 6	—	4·6
IV	−0·9	10·1	176	i 2 16	− 3	i 4 16	+ 8	—	4·6
I Rio de Janeiro E.	−4·2	25·9	125	e 5 2	+ 1	9 45	+46	12·9	13·1
I N.	−4·2	25·9	125	e 5 1	0	9 45	+46	13·0	13·1
IV	−4·2	25·9	125	—	—	e 9 45	+46	—	—
I La Plata	−4·4	26·9	165	—	—	—	—	11·9	—
II	−4·4	26·9	165	6 51?	+100	i 9 15	0	—	—
IV	−4·4	26·9	165	9 16	+245	12 45	+210	14·8	—
I Toronto	−7·5	54·0	348	—	—	i 15 9	−26	—	—
III N.	−7·5	54·0	348	—	—	i 14 39	−56	18·8	—
I Chicago N.	−7·6	54·5	341	—	—	(e 15 4)	−36	e 15·1	—
I Ottawa	−7·6	55·1	353	e 8 41	−10	e 17 23	+95	27·9	—
IV	−7·6	55·1	353	e 8 45	− 6	e 15 37	−11	e 18·4	—
I Tucson N.	−7·9	59·4	317	e 8 55	−22	e 15 55	−43	—	—
IV N.	−7·9	59·4	317	e 8 49	−28	e 16 25	−13	—	—
I Granada	−8·7	74·3	48	—	—	e 20 26	+54	—	21·0
I De Bilt	−9·4	85·8	37	—	—	e 22 55?	[− 6]	—	—
I Strasbourg	−9·4	86·2	40	e 12 7	+ 7	—	—	—	—
I Copenhagen	−9·8	91·0	34	18 55?	?PR$_3$	—	—	—	—
IV	−9·8	91·0	34	22 25?	?S	(22 25?)	−12	—	—
I Pulkovo	—	100·9	30	(25 44)	?S	(25 44)	−20	(36·9)	—
I Leningrad	—	100·9	30	—	—	—	—	26·5	31·6
I Kucino	—	105·2	36	—	—	e 26 25	−19	e 38·4	—
I Makeyevka	—	106·0	41	—	—	e 24 15	[−37]	30·9	33·0
IV	—	106·0	41	—	—	e 26 51	− 1	30·4	—
I Tiflis	—	111·4	48	—	—	e 24 18	[−58]	—	—
IV	—	111·4	48	—	—	e 24 58	[−18]	—	—
I Baku	—	115·4	49	e 19 22	?PR$_1$	—	—	—	—
IV	—	115·4	49	—	—	e 32 13	?	—	—
I Tashkent	—	129·1	42	i 19 17	?PR$_1$	i 22 48	?PR$_3$	e 36·4	47·4
IV	—	129·1	42	i 19 21	?PR$_1$	i 22 52	?PR$_3$	—	65·3
I Irkutsk	—	136·0	9	e 18 25	[−67]	—	—	—	—

Additional readings: La Paz II i = +3m.53s. Ottawa I eN = +13m.33s., e = +15m.25s. Tucson I eN = +10m.49s., IV iN = +16m.2s. Strasbourg I e = +14m.14s. and +23m.8s. = [S] +5s. Pulkovo S = (+22m.23s.) = SR$_1$ −26s. ; the readings have been increased by 3min. Kucino I e = +30m.23s., +32m.32s., and +36m.2s. Makeyevka I e = +26m.45s. = S −7s. Tiflis I e = +28m.30s., +30m.10s., +30m.56s., and +31m.4s., II e = +28m.55s., 29m.9s., and +31m.28s. Baku I e = +22m.22s., +30m.31s., and +32m.17s. Tashkent I i = +21m.33s., +25m.59s. = [S] −10s., and +32m.7s., IV i = +21m.53s., e = +25m.2s., +25m.53s., and +29m.34s. Irkutsk I e = +20m.45s. and +21m.13s.

April 6d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 5d. :—

h.	m.	s.		h.	m.	s.	
2	20	54	T	19	47	20	TKS
2	23	0	T	20	36	55	T
6	54	12	T	22	26	56	T
9	46	57	T				

April 6d. Readings also at 0h. (Suva), 1h. (Santiago), 8h. (Agana), 9h. (near Kobe and Sumoto), 11h. (Tashkent), 12h. (near Athens), 16h. (near Malabar), 17h. (Agana, near Batavia, and Malabar), 19h. (near Victoria and near Granada (2)), 20h. (La Paz), 21h. (Manila), 22h. (Tashkent), 23h. (Baku, Tiflis, Tucson, and Wellington).

April 7d. 0h. 8m. 25s. Epicentre 17°·0S. 60°·0W. (as on 1915 June 6d.).

A = +·476, B = −·828, C = −·292 ; D = −·866, E = −·500 ; G = −·146, H = +·253, K = −·956.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Sucre		5·4	247	i 1 21	− 2	i 2 21	− 7	2·5	3·2
La Paz		7·8	270	2 16	+18	i 3 34	+ 3	4·1	5·3
Rio de Janeiro	N.	16·9	113	—	—	e 6 5	−71	—	—
La Plata		18·0	174	—	—	(7 35?)	− 5	7·6	—
Baku		115·9	53	(e 20 11)	?PR_1	—	—	e 20·2	—
Tashkent		130·4	50	—	—	e 23 54	?PR_2	e 51·6	52·4

Additional readings : Rio de Janeiro eE = +6m.15s. Tashkent i = +51m.23s.

April 7d. 17h. 48m. 56s. Epicentre 6°·5N. 126°·0E. (as on 1926 July 27d.).

A = −·584, B = +·804, C = +·113 ; D = +·809, E = +·588 ; G = −·066, H = +·092, K = −·994.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		9·5	330	e 2 48	+25	(3 36)	−40	3·6	—
Hong Kong		19·5	326	5 10	+35	—	—	—	9·2
Batavia		22·9	237	e 5 16	0	—	—	—	—
Phu-Lien		23·6	309	e 5 24	0	9 34	− 2	—	—
Irkutsk		49·1	344	9 0	− 1	16 10	+ 3	e 27·1	—
Tashkent		61·1	316	i 10 24	+ 4	i 18 44	+ 7	e 33·4	36·0
Ekaterinburg		71·2	330	11 59	+35	e 19 47	−53	29·1	—
Baku		75·2	312	e 11 55	+ 5	e 21 35	+ 7	39·1	43·6
Tiflis	E.	79·1	313	—	—	(e 22 16)	+ 3	e 22·3	—
Kucino		83·6	326	—	—	e 24 8	+63	e 41·1	—
Pulkovo		87·2	331	12 53	− 7	23 31	−12	—	—
Leningrad		87·2	331	e 12 53	− 7	e 23 32	−11	—	—
Copenhagen		97·5	329	—	—	—	—	52·1	—

Additional readings and notes : Irkutsk e = +18m.44s., eSR_1 = +19m.24s. Tashkent iPR_1 = +12m.49s., ePR_2 = +13m.58s., eSR_2 = +25m.58s., eSR_3 = +26m.28s., MNZ = +39·2m. Ekaterinburg S is recorded as e. Baku e = +12m.19s., PS = +22m.19s., SR_3 = +31m.47s., MN = +42·8m. Tiflis eLN = +22·6m. Kucino e = +24m.47s. and +30m.25s.

April 7d. 21h. 16m. 50s. Epicentre 6°·5N. 126°·0E. (as at 17h.).

The assumption that this is a repetition from 17h. is far from satisfactory; but in view of the fact that a further repetition occurs on April 9 it seems to be the best that can be made.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		9·5	330	e 2 48	+25	(3 31)	−45	3·5	—
Phu-Lien	E.	23·6	309	—	—	—	—	16·2	—
Irkutsk		49·1	344	—	—	—	—	23·2	—
Tashkent		61·1	316	i 17 3	?	e 20 46	?	e 26·2	32·2
Ekaterinburg		71·2	330	—	—	—	—	31·2	—
Baku		75·2	312	—	—	—	—	e 42·7	—
Pulkovo		87·2	331	—	—	—	—	e 46·2	—
Leningrad		87·2	331	—	—	—	—	e 47·2	—

Tashkent e = +20m.34s.

April 7d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 6d. :—

h.	m.	s.		h.	m.	s.	
0	45	0	T	10	36	57	T
1	18	52	T	20	16	54	T
4	13	56	T	22	13	33	T
7	59	0	T	22	24	18	T
10	33	20	T				

April 7d. Readings also at 1h. (Makeyevka), 2h. (Apia and near Athens), 3h. (Tiflis), 7h. (Mizusawa), 8h. (Tashkent), 9h. (La Paz and Sucre), 15h. (Barcelona), 16h. (near Batavia and Malabar), 18h. (Cape Town) Mizusawa, Tashkent, Tiflis, and near Taihoku), 19h. (Santiago, near Almeria, Granada, and Malaga), 20h. (Kobe), 21h. (near Tacubaya).

April 8d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 7d.

h.	m.	s.		h.	m.	s.	
3	41	54	T	10	28	27	T
4	26	18	T	13	5	26	TKOSNMH(N)
6	55	37	T	14	37	39	T
8	42	21	TKOSN	19	8	29	T
10	27	46	T	23	2	42	TK

April 8d. Readings also at 0h. (Hamburg), 2h. (Tacubaya and Tiflis), 4h. (near La Paz), 7h. (Makeyevka), 9h. (Adelaide), 11h. (Ksara, Tashkent, and Tiflis), 12h. (Baku), 13h. (near Tashkent), 17h. (near Tacubaya), 20h. (Tiflis and Rocca di Papa), 23h. (near Tacubaya).

April 9d. 8h. 56m. 50s. Epicentre 6°·5N. 126°·0E. (as on 7d.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	9·5	330	e 2 37	+14	—	—	5·2	—
Amboina	10·4	168	e 2 46	+10	1 4 56	+16	—	—
Hong Kong	19·5	326	12 20	?L	—	—	(12·3)	—
Batavia	22·9	237	i 5 18	+ 2	i 9 45	+22	—	—
Phu-Lien	23·6	309	e 5 21	− 3	e 9 36	0	12·2	—
Tashkent	61·1	316	—	—	e 18 14	−23	e 28·2	35·3
Baku	75·2	312	—	—	—	—	38·7	—
Kucino	83·6	326	—	—	—	—	43·9	—
Pulkovo	87·2	331	—	—	—	—	e 46·2	—
Leningrad	87·2	331	—	—	—	—	49·8	—
Copenhagen	97·5	329	—	—	—	—	51·2	—
De Bilt	102·9	327	—	—	—	—	e 54·2	—

Additional readings and notes: Tashkent e = +17m.40s., MN = +33·6m. De Bilt gives 7°·5N. 128°·5E. Irkutsk (Δ = 49°·1) failed to register from 2h. to 13h.

April 9d. 16h. 51m. 30s. Epicentre 21°·0S. 67°·0W. (as on 1927 Jan. 20d.).

A = +·365, B = −·860, C = −·358; D = −·920, E = −·391; G = −·140, H = +·330, K = −·934.

The depth of focus 0·010 used previously is retained.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	s	°	°	m. s.	s.	m. s.	s.	m.	m.
Sucre	+0·1	2·6	40	i 0 47	+ 5	i 1 35	+21	1·8	2·1
La Paz	0·0	4·6	345	i 1 8	− 3	i 2 1	− 5	2·3	2·6
La Plata	−0·2	16·1	152	3 43?	− 8	i 7 17	+24	9·1	—
Rio de Janeiro	−0·6	22·2	101	e 5 5	+ 5	9 0	+ 3	—	—
Toronto N.	−1·2	65·6	350	—	—	i 19 19	+ 1	—	—
Ottawa	−1·2	66·9	354	—	—	i 19 32	− 1	e 30·5	—
Cape Town	−1·3	74·9	121	21 25	?S	(21 25)	+16	—	—
Granada	−1·4	83·3	47	i 12 55	+25	e 22 55	+10	—	—
Kew	—	92·8	34	—	—	e 22 30?	[−75]	—	—
De Bilt	—	96·1	36	—	—	e 23 30?	[−33]	e 49·5	—
Hamburg	—	99·4	36	—	—	e 24 18	[− 3]	—	—
Copenhagen	—	101·5	34	—	—	24 29	[− 2]	e 44·5	—
Leningrad	—	111·6	28	—	—	—	—	e 60·0	—
Ekaterinburg	—	127·7	33	19 8	[− 5]	—	—	62·5	—
Tashkent	—	138·0	50	—	—	e 23 24	?PR_1	—	30·8
Irkutsk	—	147·1	9	e 14 3	?	—	—	—	—
Manila	—	170·1	239	e 21 30?	?	—	—	—	—

Additional readings and notes: La Paz i = +2m.2s.; T_0 = 16h.51m.31s. Copenhagen e = +28m.42s. Ekaterinburg i = +19m.36s., +21m.40s. = PR_1 +26s., +22m.20s., +23m.10s., and +28m.4s. Irkutsk e = +19m.45s. = [P] −6s., and +20m.13s.

April 9d. 19h. 5m. 8s. Epicentre 17°·0N. 97°·0W. (as on 1920 Mar. 9d.).

A = −·117, B = −·949, C = +·292; D = −·992, E = +·122; G = −·036, H = −·290, K = −·956.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Oaxaca		0·2	86	0 8	+ 4	—	—	0·4	0·5
Puebla		2·3	331	0 27	− 9	—	—	1·5	1·6
Vera Cruz		2·4	20	(0 42)	+ 5	—	—	(1·5)	(2·0)
Tacubaya		3·2	319	(0 56)	+ 6	—	—	(1·8)	(2·2)
Guadalajara		7·2	301	—	—	(2 53)	−22	2·9	3·0
Merida		8·0	59	(1 59)	− 2	(3 34)	− 3	(3·7)	(3·8)
Tucson	E.	19·8	323	e 3 22	−77	e 9 48	+89	10·0	10·1
	N.	19·8	323	e 3 58	−41	e 8 16	− 3	9·9	10·4
Chicago	N.	26·1	19	—	—	—	—	e 17·5	—
Ottawa	E.	33·5	29	—	—	—	—	e 15·4	—
Victoria		38·0	331	9 4	?PR_1	—	—	19·4	23·9

Additional readings and notes: Vera Cruz readings have been diminished by 1m. Tacubaya readings have been increased by 1m. Merida readings have been increased by 2m. Tucson eN = +5m.4s. Chicago eLN (Rayleigh) = +24·6m. Ottawa eL? = +19·9m. Victoria LN = +19·9m.

April 9d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 8d.

h.	m.	s.		h.	m.	s.	
0	18	52	T	11	1	17	T
1	33	15	T	17	31	35	T
3	3	52	T	20	0	2	T
5	53	7	T	21	2	49	T

April 9d. Readings also at 0h. (near Kobe and Sumoto), 1h. (Tashkent), 2h. (Tashkent, Leningrad, Tiflis, and near Algiers), 3h. (Tiflis), 6h. (near Nagasaki), 8h. (near La Paz and Sucre), 11h. (Tashkent (2)), 15h. (near Manila), 18h. (Tashkent), 19h. (Copenhagen), 20h. (Ekaterinburg), 21h. (Tashkent, Merida, Tacubaya, Toronto, and Ottawa), 22h. (De Bilt).

April 10d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 9d.

h.	m.	s.		h.	m.	s.	
10	36	26	T	15	55	17	TKOSN
10	36	46	T	15	59	55	S
10	36	54	T	16	32	22	TN
10	37	1	T	17	59	45	T
11	56	27	T	20	55	54	T
11	56	34	T	22	46	19	T

The reading for Toyooka for 15h. 55m. 17s. has been corrected by +3h.

April 10d. Readings also at 2h. (near Mizusawa), 3h. and 4h. (near Sumoto), 12h. (Budapest and Copenhagen), 14h. (near Irkutsk), 15h. (near La Paz), 21h. (La Paz and near Sucre).

April 11d. 22h. 3m. 40s. Epicentre 34°·0S. 57°·0E. (as on 1927 March 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.
Bombay		55·0	19	e 9 36	− 3	17 16	− 5	—	—
Hyderabad		55·4	25	17 23	?S	(17 23)	− 3	—	30·5
Ksara	N.	70·6	341	11 30	+ 9	—	—	36·3	—
Baku		74·7	355	e 11 52	+ 5	—	—	e 38·3	53·8
Tashkent		76·1	10	i 11 56	0	i 21 39	+ 1	e 34·2	45·9
Tiflis	N.	76·5	351	e 12 2	+ 4	e 21 51	+ 8	e 39·3	45·9
Zi-ka-wei		89·0	50	e 13 2	− 8	—	—	—	49·2
Granada		90·8	317	i 13 25	+ 5	—	—	—	55·2
Ekaterinburg		90·9	3	—	—	—	—	44·3	—
San Fernando	E.	91·8	315	—	—	—	—	—	58·8
Irkutsk		95·6	27	—	—	e 23 55	[− 5]	35·3	—
Agana	E.	95·7	77	—	—	—	—	e 35·5	—
Sucre		103·6	235	—	—	—	—	54·3	57·4
La Paz		107·4	235	—	—	—	—	56·3	59·5
Ottawa		142·5	302	—	—	—	—	e 75·3	—

Additional readings: Baku e = +27m.34s. = SR_1 +36s. Tashkent iPS = +22m.20s., eSR_1 = +26m.14s., eSR_2 = +29m.38s., eSR_3 = +31m.2s., MZ = +41·7m., MN = +42·0m.; all readings are given as for 20h. Tiflis eE = +12m.6s., ME = +50·7m. San Fernando MN = +50·3m. Irkutsk i = +26m.12s. = PS − 3s.

April 11d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 10d.:

h.	m.	s.		h.	m.	s.	
2	3	5	T	11	50	31	T
2	23	24	T	19	19	4	T
3	45	58	T	19	30	37	T
9	54	6	T	20	6	39	T

April 11d. Readings also at 0h. (Tiflis), 2h. (near Nagasaki), 3h. (Makeyevka and Athens), 10h. (Hohenheim), 14h. (near Manila), 15h. (Ekaterinburg and Irkutsk (2)), 16h. (Kucino and near Tacubaya), 20h. (La Plata).

April 12d. 23h. 13m. 18s. Epicentre 18°·5S. 168°·5E. (as on 1927 Feb. 4d.).

A = −·929, B = +·189, C = −·317; D = +·199, E = +·980; G = +·311, H = −·063, K = −·948.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Suva	E.	9·4	89	—	—	i 4 18	+ 5	i 7·0	7·6
	N.	9·4	89	e 2 30	+ 8	—	—	i 6·2	6·5
Riverview		21·8	222	e 5 3	0	e 9 3	+ 2	e 11·2	13·3
Sydney		21·8	222	—	—	8 48	−13	12·0	13·4
Wellington	E.	23·4	168	i 5 13	− 8	i 9 28	− 5	—	—
	N.	23·4	168	i 5 53	?PR_1	—	—	i 12·0	—
Melbourne		28·2	221	—	—	i 11 12	+ 9	e 15·3	17·0
Manila		57·3	303	e 9 42?	−12	—	—	—	—
Batavia		61·2	274	e 10 18	− 2	i 18 52	+14	—	—
Zi-ka-wei		67·1	320	e 11 0	+ 1	—	—	—	40·0
Irkutsk		89·8	326	e 13 4	−11	e 23 52	−20	e 43·7	—
Tashkent		108·9	308	e 18 39	[+21]	e 28 29	?PS	e 47·7	63·3
Ekaterinburg		115·1	325	—	—	e 29 36	?PS	55·7	—
Ottawa		121·0	47	—	—	—	—	e 58·7	—
Baku		123·5	307	—	—	e 32 42	?	e 55·7	74·3
Tiflis		127·2	308	—	—	—	—	e 58·7	81·4
Kucino		127·5	328	—	—	—	—	64·3	—
De Bilt		144·0	341	—	—	—	—	e 75·7	82·6
Uccle		145·3	341	e 19 53	[+ 4]	—	—	e 73·7	—
Kew	Z.	145·9	349	e 19 44	[− 6]	—	—	—	—
Strasbourg		146·1	337	i 19 47	[− 3]	—	—	e 87·7	—
Zurich	Z.	146·8	334	i 19 48	[− 3]	—	—	—	—
Paris		147·6	344	—	—	—	—	e 83·7	—
Florence		148·3	327	19 52	[− 1]	—	—	—	—
Rocca di Papa	N.	148·9	322	i 19 56	[+ 2]	—	—	—	—
San Fernando	E.	161·5	347	—	—	—	—	—	112·2

Additional readings and notes: All stations except Riverview, Sydney, and those recording [P] give their P and S simply as i or e. Riverview eS = +9m.10s., MN = +12·6m. Tashkent i = +34m.23s. = SR_1 −6s., MN = +60·9m., MZ = +63·4m. Ottawa eN = +53m.42s.? Baku MN = +71·9m. De Bilt e = +73m.42s.? eLN = +76·7m. Rocca di Papa iPE = +19m.58s.

April 12d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 11d.

h.	m.	s.		h.	m.	s.	
0	33	50	T	14	12	10	T
3	31	20	TKOSN	15	28	34	T
12	21	5	T	16	13	57	T
13	18	59	T	22	6	40	T

April 12d. Readings also at 7h. (Manila), 11h. (near Sumoto), 14h. (Simla), 16h. (Simla and near Sumoto), 17h. (Simla), 20h. (Tashkent and near Mizusawa), 23h. (near Berkeley, Lick, and near Mizusawa).

April 13d. 13h. 44m. 10s. Epicentre 15°·8N. 119°·4E.

(given by De Bilt).

A = −·472, B = +·838, C = +·272; D = +·871, E = +·491; G = −·134, H = +·237, K = −·962.

A depth of focus 0·020 is assumed.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		+0·4	1·9	128	i 0 33	− 3	(i 0 54)	− 9	i 0·9	—
Hong Kong		−0·1	8·2	324	2 16	+13	3 57	+17	—	4·8
Taiboku	N.	−0·2	9·5	12	(2 22)	+ 2	—	—	2·4	2·8
Phu-Lien		−0·4	13·1	294	i 3 22	+13	i 6 4	+27	6·6	10·4
Zi-ka-wei		−0·5	15·5	6	i 3 37	− 2	6 34	+ 2	—	—

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.
Hukuoka		−0·8	20·4	27	4 30	− 6	(8 5)	−10	8·1	—
Amboina		−0·9	21·3	155	i 4 46	0	i 8 15	−17	—	—
Sumoto		−1·0	23·2	34	4 54	−13	(8 50)	−19	8·8	9·9
Kobe		−1·0	23·6	34	e 4 52	−20	—	—	—	9·9
Osaka		−1·0	23·7	34	5 4	− 9	(9 14)	− 5	9·2	10·2
Toyooka		−1·0	24·1	32	5 11	− 7	—	—	e 10·2	—
Agana	E.	−1·0	24·6	92	—	—	—	—	(e 11·1)	—
Nagoya		−1·0	24·9	36	e 5 9	−18	—	—	—	—
Batavia		−1·0	25·3	210	e 5 24	− 7	i 9 52	+ 2	—	—
Irkutsk		−1·7	38·4	345	7 16	−12	i 13 2	−18	i 19·7	—
Hyderabad		−1·7	39·2	280	7 36	+ 2	13 36	+ 5	20·6	31·3
Colombo		−1·7	39·7	264	7 30	− 8	—	—	—	34·4
Kodaikanal		−1·7	41·2	270	12 56	?S	(12 56)	−63	24·9	34·6
Simla	N.	−1·8	41·3	300	7 56	+ 5	e 14 2	+ 3	e 22·9	—
Bombay		−1·9	44·4	282	8 12	− 3	15 42	+60	26·3	27·0
Perth		−2·0	47·8	185	8 25	−14	15 2	−23	22·2	—
Tashkent		−2·1	50·0	312	i 8 54	+ 1	i 15 59	+ 6	25·5	29·9
Adelaide		−2·2	53·9	161	7 16?	−122	i 14 18	−142	18·3	28·5
Riverview		−2·4	58·1	150	9 45	+ 1	18 26	+56	e 24·7	32·2
Melbourne		−2·4	58·7	157	e 12 56	?PR$_1$	—	—	—	26·6
Ekaterinburg		−2·4	59·9	328	i 10 4	+ 8	i 18 8	+15	26·8	33·9
Baku		−2·5	64·3	309	i 10 33	+ 9	i 19 7	+21	30·3	36·2
Tiflis		−2·6	68·1	310	10 58	+10	e 19 54	+23	e 37·8	44·6
Kucino		−2·6	72·2	325	11 18	+ 3	i 20 30	+ 9	33·8	39·7
Pulkovo		−2·6	75·9	330	11 39	+ 1	21 7	+ 1	38·8	47·5
Leningrad		−2·6	75·9	330	i 11 39	+ 1	21 7	+ 1	30·3	46·6
Ksara	N.	−2·6	76·0	302	11 45	+ 7	22 27	+20	31·4	43·8
HonoluluT.H.	E.	−2·7	77·8	70	—	—	—	—	e 48·8	—
Helsingfors		−2·7	78·5	330	—	—	e 21 38	+ 3	e 39·8	46·4
Upsala	N.	−2·7	82·2	330	e 12 12	− 4	e 22 13	− 5	e 39·8	47·4
Athens		−2·7	84·7	309	e 12 31	+ 1	22 35	−11	34·8	—
Belgrade	N.	−2·7	85·1	316	e 12 28	− 4	22 44	− 6	—	—
Budapest		−2·7	85·3	319	12 32	− 2	22 37	−16	e 36·8	—
Copenhagen		−2·7	86·1	328	e 12 32	− 6	i 22 55	− 6	e 42·8	47·7
Vienna	Z.	−2·7	86·6	320	12 32	− 9	—	—	—	—
Potsdam	N.	−2·7	87·1	325	—	—	—	—	e 43·9	—
Prague		−2·7	87·2	322	—	—	e 22 50?	[−20]	e 46·8	52·8
Zagreb		−2·8	87·7	317	12 42	−5	e 22 50?	[−23]	e 47·8	—
Hamburg		−2·8	88·3	326	e 12 42	− 9	i 23 2	[−15]	e 35·8	49·8
Cheb		−2·8	88·4	322	e 20 43	?	i 23 0	[−18]	e 45·8	62·8
Innsbruck		−2·8	90·1	320	12 49	−12	—	—	—	—
Ravensburg		−2·8	91·0	323	—	—	—	—	e 49·6	—
Rocca di Papa		−2·8	91·4	315	e 13 6	− 2	—	—	e 17·9	20·5
De Bilt		−2·8	91·6	326	—	—	—	—	e 47·8	48·7
Florence		−2·8	91·6	316	13 20	+11	24 35	+34	45·8	51·3
Zurich	Z.	−2·8	91·8	320	e 13 0	−10	—	—	—	—
Strasbourg		−2·8	91·8	323	12 58	−12	24 54	+51	45·8	61·5
Dyce		−2·8	92·5	334	—	—	e 23 55	−16	—	50·6
Uccle		−2·8	92·6	325	13 4	−11	e 23 57	−15	e 42·8	58·4
Besançon		−2·8	93·4	321	e 13 13	− 6	—	—	50·8	—
Moncalieri	E.	−2·8	93·4	320	12 33	−46	25 1	+41	47·1	60·8
		−2·8	93·4	320	12 31	−48	24 40	+20	51·0	—
Edinburgh		−2·8	93·8	332	—	—	—	—	e 47·8	52·8
Paris		−2·8	94·7	325	e 13 15	−11	e 24 50	+16	48·8	55·8
Kew		−2·8	94·8	328	e 13 14	−13	24 42	+ 7	46·8	53·8
Victoria		−2·8	95·1	37	23 37	?[S]	(23 37)	[−21]	27·4	41·5
Oxford		−2·8	95·2	328	—	—	e 24 48	+ 9	e 48·8	60·0
Toledo		—	103·5	320	—	—	—	—	e 32·1	57·6
Rio Tinto		—	106·3	318	e 28 50?	?P[S]	—	—	—	63·8
San Fernando		—	106·8	316	—	—	29 16	?P[S]	57·8	68·3
Ottawa	E.	—	117·3	11	—	—	—	—	63·8	—
Toronto	E.	—	118·2	15	—	—	—	—	36·8	—
La Paz		—	172·8	97	e 19 56	[−20]	i 27 8	?	34·4	36·6
Sucre		—	174·5	126	i 19 41	[−35]	e 26 29	?PR$_1$	—	—

Additional readings and notes: Hong Kong $i = +3$m.10s. Phu-Lien MN = +9·1m. Sumoto S = +5m.59s. =PR$_1$ +27s., SR$_1$ = +7m.10s., MN = +9·5m. Kobe MN = +10·0m. Agana reading has been diminished by 30m. Batavia i = +6m.0s. =PR$_1$ −2s., iN = +10m.28s. =SR$_1$ −17s. Irkutsk i = +9m.36s., +18m.6s., and +19m.24s. Simla eSE = +17m.26s. =SR$_2$ −15s., eLE = +26·4m. Perth PR$_1$ = +11m.0s. =PR$_2$ −8s. Tashkent i = +9m.48s., +10m.15s., and +13m.49s., PR$_1$ = +10m.57s., SR$_1$ = +18m.41s., SR$_2$ = +19m.13s., MN = +28·9m. Adelaide MN = +28·3m. Riverview MN = +31·4m. Ekaterinburg i = +11m.0s.,

Continued on next page.

$PR_1 = +12m.16s.$, $PR_2 = +13m.14s.$, e = +14m.42s., i = +18m.53s. = PS +0s., MZ = +37·7m. Baku PS = +20m.11s. = [S] −17s., iPPS = +21m.27s., $iSR_3 = +27m.27s.$, MN = +35·6m. Tiflis eN = +20m.56s. = [S] −2s., and +25m.28s., eLN = +35·8m., MN = +37·6m. Kucino e = +12m.23s., $ePR_1 = +14m.47s.$, $ePR_2 = +15m.54s.$, e = +16m.22s. = PR_3 −18s., PS = +21m.37s., $SR_1 = +25m.22s.$, $SR_2 = +28m.45s.$ Pulkovo e = +12m.22s. and +22m.18s. = PS +3s., MN = +42·1m., MZ = +47·6m. Leningrad i = +12m.19s. and +20m.10s., MN = +43·9m., MZ = +47·6m. Helsingfors e = +22m.47s. = PS +0s., eN = +25m.50s., eE = +31m.23s., MN = +42·4m. Upsala ME = +49·0m. Athens SE = +22m.42s. Copenhagen e = +13m.11s. and +22m.38s., PS = +24m.3s., $SR_1 = +29m.2s.$, $SR_2 = +33m.2s.$, e = +35m.32s., and +40m.50s., eL = +45·8m., MN = +45·3m. Prague MN = +47·8m. Hamburg iE = +24m.14s. Rocca di Papa e = +13m.0s., iPN = +13m.8s. De Bilt MN = +49·5m., MZ = +58·5m. Florence e = +12m.0s. Strasbourg iPR_1? = +16m.44s., PS? = +26m.6s. Uccle i = +24m.37s., MN = +51·2m. Paris PR_1 = +17m.12s. Kew MZ = +59·5m. Victoria LN = +25·2m. Rio Tinto and San Fernando. The observations would fit in with an extension of Gutenberg's curve for S_cP_cSP, which we have denoted by P[S], though he stops his curve at $\Delta = 114°$ as lower limit. San Fernando MN = +67·3m. Ottawa L = +35m.50s.

April 13d. 14h. 34m. 32s. Epicentre 15°·8N. 119°·4E. (as at 13h.).

The focal depth 0·020 is retained.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		s	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		+0·4	1·9	128	i 0 55	−91	—	—	—	—
Hong Kong		−0·1	8·2	324	2 15	+12	—	—	—	4·7
Taihoku	N.	−0·2	9·5	12	e 1 50	−30	—	—	—	—
Phu-Lien		−0·4	13·1	294	i 3 21	+12	e 5 58	+21	6·5	—
Zi-ka-wei		−0·5	15·5	6	e 3 36	− 3	—	—	—	—
Osaka		−1·0	23·7	34	5 12	− 1	(9 1)	−18	9·0	12·4
Batavia		−1·0	25·3	210	e 6 4	+33	—	—	—	—
Tashkent		−2·1	50·0	312	i 8 51	− 2	i 15 57	+ 4	e 26·5	29·9
Ekaterinburg		−2·4	59·9	328	i 10 3	+ 7	—	—	28·5	33·6
Baku		−2·5	64·3	309	i 10 33	+ 9	—	—	31·5	39·2
Tiflis	E.	−2·6	68·1	310	e 11 17	+29	e 19 58	+27	37·5	44·9
	N.	−2·6	68·1	310	e 10 48	0	—	—	35·5	40·9
Pulkovo		−2·6	75·9	330	i 11 37	− 1	—	—	—	—
Vienna	Z.	−2·7	86·6	320	e 12 36	− 5	—	—	—	—
Zurich	Z.	−2·8	91·8	320	e 12 59	−11	—	—	—	—
La Paz		—	172·8	97	19 56	[−20]	—	—	—	—

Additional readings: Tashkent i = +15m.19s., MN = +28·8m. Baku MN = +36·5m.

April 13d. Continuation of the list of after-shocks from the epicentre 35°·7E. 134°·8N. of April 12d.

h.	m.	s.		h.	m.	s.	
8	55	9	T	14	16	26	T
11	59	55	T	16	17	0	T
12	52	10	T	20	57	12	T
13	49	13	T				

April 13d. Readings also at 1h. (Sucre and La Paz), 2h. (Agana), 3h. (La Paz), 6h. (Entebbe and near Ootomari), 7h. (Malabar and near Batavia), 9h. (La Paz and near Sucre), 11h. (Baku, Tashkent, and Tiflis), 13h. (Taihoku and Tiflis), 14h. (Sucre and near Nagasaki (2)), 15h. (Irkutsk), 17h. (La Paz), 18h. (Tiflis).

April 14d. 6h. 23m. 28s. Epicentre 32°·5S. 69°·5W.

A = +·295, B = −·790, C = −·537; D = −·937, E = −·350;
G = −·188, H = +·503, K = −·843.

A focal depth 0·015 has been assumed. See note at end.

Dr. P. Loos has investigated this earthquake. See Boletin d Serv. Sismolog. de l a Univ. di Chile, XIX, 1927.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Santiago		+0·3	1·4	351	—	—	—	—	0·5	—
Pilar	E.	0·0	4·9	80	1 20	+ 4	—	—	—	—
La Plata		−0·2	10·0	108	i 2 25	− 2	4 19	− 4	5·3	—
Sucre		−0·4	14·0	17	i 3 4	−17	i 5 52	− 6	7·0	7·5
La Paz		−0·4	16·0	5	i 3 50	+ 3	i 6 55	+ 9	8·0	8·9
Rio de Janeiro	E.	−0·8	25·2	74	i 5 17	−15	9 46	− 6	11·4	14·1
	N.	−0·8	25·2	74	i 5 22	−10	9 42	−10	11·1	13·7
Balboa Hts.	E.	−1·4	42·6	346	5 26	−159	11 49	−155	12·0	12·2
	N.	−1·4	42·6	346	5 28	−157	11 43	−161	12·0	12·1
San Juan	E.	−1·5	51·0	4	e 5 58	−186	i 12 58	−195	i 17·7	17·9
Port au Prince		−1·5	51·1	357	e 9 0	− 4	16 32?	+18	—	—
Merida		−1·7	56·8	339	9 56	+16	17 46	+24	26·5	—
Vera Cruz	E.	−1·8	57·6	330	11 12	+87	19 15	+108	25·1	27·6
Tacubaya		−1·8	59·1	327	9 58	+ 4	17 55	+ 5	25·8	—
Loyola		−1·9	65·4	340	10 40	+ 5	i 19 20	+13	30·4	—
Cape Town		−2·0	71·1	119	11 19	+ 7	20 14	− 1	—	20·6
Cheltenham	N.	−2·0	71·6	355	e 11 19	+ 4	(e 20 28)	+ 7	e 20·5	—
Fordham		−2·0	73·4	356	i 11 32	+ 6	i 20 52	+ 9	e 34·8	—
St. Louis	E.	−2·0	73·7	344	i 11 14	−14	i 20 33	−13	e 29·9	—
Harvard	N.	−2·0	74·8	359	i 11 49	+14	21 2	+ 2	—	—
Ithaca		−2·0	75·1	355	11 41	+ 4	21 8	+ 5	34·5	—
Tucson	E.	−2·0	75·6	325	11 45	+ 5	i 21 17	+ 8	—	40·9
	N.	−2·0	75·6	325	11 43	+ 3	e 21 21	+12	e 36·5	—
Ann Arbor		−2·0	75·9	350	i 11 38	− 3	i 21 8	− 5	e 36·1	37·0
Chicago	E.	−2·0	76·1	347	i 11 42	− 1	i 21 9	− 6	e 32·4	34·3
	N.	−2·0	76·1	347	i 11 41	− 2	i 21 11	− 4	e 36·9	—
Toronto		−2·0	76·6	353	i 11 45	− 1	i 21 22	+ 1	34·5	35·0
Halifax		−2·0	77·3	4	i 11 55	+ 4	i 21 35	+ 6	e 33·5	—
Ottawa		−2·1	78·1	356	i 11 56	+ 1	i 21 32	− 5	e 34·5	—
Ste. Anne		−2·1	79·8	0	i 12 6	+ 1	i 21 57	0	e 35·2	—
Azores		−2·1	81·3	34	17 44	?PR$_4$	—	—	—	50·1
Lick		−2·1	85·1	320	e 12 32	− 4	e 22 56	− 1	—	—
Wellington	E.	−2·1	85·4	223	i 12 37	− 1	i 22 58	− 2	42·7	—
Berkeley		−2·1	85·8	320	e 12 31	− 9	e 23 5	− 1	—	—
San Fernando		−2·1	90·8	46	13 10	+ 1	i 23 30	−30	37·5	38·5
Rio Tinto		−2·1	91·5	45	13 32?	+20	—	—	—	32·5
Malaga		−2·1	92·1	47	i 13 10	− 6	i 24 4	−10	34·5	—
Apia		−2·1	92·6	252	13 15	− 4	24 6	−13	42·7	45·8
Granada		−2·1	92·9	47	i 18 13	?PR$_1$	i 24 22	0	—	—
Almeria		−2·1	93·5	47	i 13 15	− 8	i 24 15	−13	44·3	50·9
Victoria	E.	−2·1	94·0	328	13 13	−13	24 3	[+11]	44·4	47·2
	N.	−2·1	94·0	328	13 13	−13	23 33	[−19]	42·0	42·0
Toledo		−2·1	94·3	44	e 13 11	−17	i 23 40	[−13]	e 39·8	55·2
Alicante		−2·2	95·6	47	e 13 17	−17	24 10	[+10]	40·5	51·9
Algiers		−2·2	96·9	50	13 28	−14	i 23 58	[− 9]	41·5	56·5
Tortosa	E.	−2·2	97·6	45	13 39	− 6	23 39	[−32]	—	—
	N.	−2·2	97·6	45	13 38	− 7	24 6	[− 5]	38·8	52·6
Suva		−2·2	97·8	241	13 20	−27	e 18 8	?PR$_2$	—	—
Bagnères		−2·2	98·9	44	e 13 46	− 7	25 1	−22	41·5	—
Barcelona		−2·2	99·0	46	e 17 30	?	23 58	[−21]	e 29·3	40·4
HonoluluT.H.	E.	−2·2	99·1	290	—	—	e 26 44	+79	e 42·2	47·3
	N.	−2·2	99·1	290	—	—	e 24 50	[+31]	e 41·5	—
Puy de Dôme		−2·2	102·0	43	e 13 57	−13	e 25 10	−44	42·5	—
Melbourne		−2·2	102·7	206	i 18 44	[+47]	i 26 2	+ 1	i 33·9	34·8
Oxford		−2·2	103·2	37	i 14 9	− 6	i 24 24	[−15]	—	—
Bidston		−2·2	103·3	35	13 32?	−44	23 50	[−49]	41·7	47·5
Riverview		−2·2	103·4	214	e 18 15	?PR$_3$	25 28	−39	e 43·7	57·1
Sydney		−2·2	103·4	214	14 2	−14	—	—	32·9	33·8
Paris		−2·2	103·5	40	i 13 58	−19	e 24 29	[−11]	38·5	59·5
Kew		−2·2	103·6	37	i 13 58	−19	—	—	47·5	58·0

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.
Stonyhurst		−2·2	103·9	35	e 14 29	+10	e 24 29	[−13]	—	—
Moncalieri	E.	−2·2	104·4	46	14 6	−15	29 5	+168	40·4	67·1
		−2·2	104·4	46	14 8	−13	28 57	+160	39·8	47·4
Besançon		−2·2	104·5	44	e 14 33	+11	24 31	[−14]	46·5	60·5
Edinburgh		−2·2	104·8	31	e 18 32?	?PR_1	i 27 9	+49	46·5	58·5
Sitka	N.	−2·2	105·3	330	—	—	e 24 44	[− 5]	—	28·6
Uccle		−2·2	105·6	40	14 11	−16	i 24 38	[−12]	49·5	60·9
Rocca di Papa		−2·2	105·8	50	e 14 13	−15	24 26	[−25]	e 36·5	—
Florence		−2·2	105·9	48	e 17 47	[−21]	e 26 32	+ 2	44·0	50·5
Dyce		−2·2	106·0	30	14 10	−19	i 24 34	[−18]	45·5	49·4
Zurich		−2·2	106·1	45	e 14 9	−21	i 26 3	−29	—	—
Strasbourg		−2·2	106·2	42	i 14 12	−18	—	—	49·5	66·0
Naples		−2·2	106·4	52	e 17 8	?PR_1	e 24 8	[−46]	—	67·5
Pompeii		−2·2	106·6	52	e 17 7	?PR_1	e 24 57	[+ 2]	—	50·5
De Bilt		−2·2	106·7	39	i 14 13	−19	e 27 57	?PS	e 49·5	52·0
Ravensburg		−2·2	106·9	42	e 14 17	−16	i 26 12	−27	e 36·9	63·1
Hohenheim		−2·2	107·2	42	(e 16 32)	− 2	(e 28 32)	−10	—	(61·5)
Venice		−2·2	107·4	46	17 32?	[−41]	—	—	—	—
Adelaide		−2·2	107·6	203	(13 32)	−64	22 12	?	44·5	—
Innsbruck	N.W.	−2·2	107·7	44	18 30	?PR_1	—	—.	—	—
Laibach		−2·2	109·0	46	e 18 56	?PR_1	—	—	—	—
Cheb		−2·2	109·6	42	i 14 25	−21	i 25 0	[− 8]	e 46·5	58·5
Zagreb		−2·2	109·8	47	15 32	+46	e 24 54	[−15]	e 36·5	—
Hamburg		−2·2	109·9	38	e 14 32	−15	25 50	[+40]	e 47·5	57·5
Graz		−2·3	110·1	45	e 17 52	[−22]	i 28 54	+106	44·3	59·1
Prague		−2·3	110·8	43	i 19 37	?PR_1	e 25 2	[−11]	e 44·5	58·5
Potsdam		−2·3	111·0	40	e 18 59	?PR_1	i 19 57	?	e 47·6	63·6
Vienna		−2·3	111·2	45	e 18 27	[+ 1]	29 30	?P[S]	e 48·5	66·0
Athens		−2·3	111·6	57	e 14 38	−16	i 29 30	?P[S]	e 47·5	57·3
Belgrade	E.	−2·3	112·2	50	e 15 48	+51	e 29 41	?P[S]	—	—
Copenhagen		−2·3	112·2	36	14 30	−27	26 55	−32	e 48·5	64·2
Budapest		−2·3	112·5	45	19 4	[+34]	29 41	?P[S]	e 38·5	70·4
Helwan		—	113·9	70	—	—	—	—	—	69·8
Perth		—	115·3	185	16 32	+70	28 7	− 5	56·2	—
Konigsberg		—	116·1	40	—	—	—	—	e 51·5	55·5
Upsala		—	116·3	33	—	—	e 27 22	−58	e 51·5	66·9
Ksara		—	119·0	66	18 52	[+ 2]	—	—	60·5	—
Helsingfors		—	119·9	35	e 16 8	+26	25 34	[−10]	58·1	60·1
Pulkovo		—	122·4	36	—	—	e 27 13	?Σ	—	76·5
Leningrad		—	122·5	36	e 15 25	−30	26 54	[+62]	50·1	78·5
Makeyevka		—	124·7	50	e 15 32?	−33	—	—	29·5	62·2
Kucino		—	125·9	41	e 18 57	[−11]	—	—	53·3	58·4
Tiflis		—	128·1	60	e 19 14	[0]	—	—	—	67·9
Baku		—	131·6	62	e 16 43	?	—	—	52·5	—
Amboina		—	140·1	208	19 43	[+ 4]	i 23 14	?PR_1	—	—
Batavia		—	141·2	173	i 19 28	[−13]	i 21 59	?PR_1	—	—
Colombo		—	141·7	125	19 32	[−10]	41 7	?SR_1	81·1	87·5
Kodaikanal		—	142·3	118	19 26	[−18]	—	—	79·8	80·6
Bombay		—	143·7	100	19 34	[−12]	e 31 14	?	59·9	64·2
Tashkent		—	146·2	62	i 19 33	[−17]	29 41	?Σ	59·7	73·0
Hyderabad		—	147·5	109	19 45	[− 7]	29 51	?Σ	48·3	79·3
Simla		—	151·8	84	20 14	[+15]	38 32	?	—	—
Mizusawa	E.	—	154·4	294	19 50	[−11]	20 21	?	—	—
Nagoya		—	157·9	284	e 20 2	[− 4]	—	—	—	—
Calcutta	N.	—	158·0	112	20 4	[− 2]	—	—	—	—
Osaka		—	159·1	283	19 57	[−10]	26 11	?	45·0	50·9
Kobe		—	159·4	283	e 20 31	[+24]	—	—	—	—
Toyooka		—	159·6	285	20 30	[+22]	e 24 53	?PR_1	e 28·7	—
Irkutsk		—	159·7	11	19 57	[−11]	30 26	?Σ	66·5	—
Manila		—	159·7	210	e 20 1	[− 7]	37 32	?	—	—
Phu-Lien	N.	—	167·8	162	e 20 8	[− 6]	—	—	—	—
Taihoku	E.	—	167·8	235	20 48	[+34]	—	—	—	—
Hong Kong		—	169·3	199	20 13	[− 1]	—	—	—	—
Zi-ka-wei		—	170·6	265	e 19 35	[−40]	e 25 11	?PR_1	—	50·5

Additional readings and notes: Santiago gives a long report on this destructive earthquake, but no readings of seismograms. Pilar PN = +1m.26s. Sucre i = +3m.47s., +4m.8s., and +6m.1s. La Paz i = +4m.32s., +5m.40s., and +7m.5s.; T_e = 6h.23m.23s. San Juan eP_cPE = +7m.7s., ePR_2E = +8m.40s. Port au Prince iP = +9m.28s. Loyola iP_cP = +11m.10s., iPR_1? = +14m.8s. = PR_2 − 36s., iPR_2? = +15m.52s. = PR_2 + 29s., iPPS = +19m.54s., iSR_1 = +24m.26s. Cheltenham eE = +6m.0s., eN = +11m.48s., +12m.32s., and +14m.41s., eE = +15m.4s., eLE = +15·9m.

Continued on next page.

Fordham iP$_c$P = +12m.22s., PR$_1$ = +14m.32s., i = +21m.47s., iSR$_1$ = +25m.37s., iSR$_2$ = +28m.25s., iSR$_3$ = +30m.27s. ; T$_0$ = 6h.23m.46s. St. Louis iP$_c$PE = +11m.52s., ePR$_1$E = +14m.55s., ePR$_2$ = +16m.16s., ePR$_3$ = +17m.38s., iS$_c$S = +21m.33s., eE = +22m.14s., SR$_1$E = +25m.40s., SR$_2$E = +29m.33s. Harvard ePR$_1$N = +14m.41s. Tucson ePSE = +21m.43s., iPSN = +21m.56s., eSR$_2$ = +29m.32s. ; T$_0$ = 6h.23m.39s. and 6h.23m.47s. Ann Arbor iPR$_1$ = +15m.2s., iPS = +21m.50s., iSR$_1$ = +26m.50s., eSR$_3$ = +29m.50s., MN = +40·7m. ; T$_0$ = 6h.23m.36s. Chicago iPN = +12m.13s. and +12m.27s., ePR$_1$N? = +14m.15s., ePR$_2$N? = +17m.5s., iSR$_1$E = +26m.55s. ; T$_0$ = 6h.23m.38s. and 6h.23m.50s. Toronto iPE = +11m.47s., iPR$_1$N = +15m.17s., N = +22m.2s. = PS − 1s., iE = +22m.12s., SR$_2$E = +30m.7s., LN = +33·8m. ; T$_0$ = 6h.23m.34s. Halifax iN = +24m.46s. and +25m.29s. ; T$_0$ = 6h.23m.41s. Ottawa iN = +18m.36s., iE = +22m.32s., eSR$_2$N = +30m.12s. ; T$_0$ = 6h.23m.46s. Lick iP = +12m.34s., eSE = +22m.58s., eE = +23m.32s., eN = +23m.33s. Wellington PR$_1$N = +16m.18s., iPR$_1$E = +16m.31s., iPR$_2$E = +18m.45s. ; T$_0$E = 6h.23m.29s., T$_0$N = 6h.23m.31s. Berkeley ePE = +12m.32s., ePR$_1$E = +16m.22s., ePR$_1$Z = +16m.36s., ePR$_2$Z? = +20m.48s., eSEN = +23m.38s., eSZ = +23m.39s., and other e and i readings. San Fernando MN = +45·5m. Malaga iN = +13m.40s. and +25m.2s. = PS − 30s. Apia PS? = +26m.0s. Granada PR$_1$ = +16m.59s. and many i readings. Almeria PR$_1$ = +16m.59s., PR$_2$ = +20m.14s., PS = +23m.32s., SR$_1$ = +26m.11s., SR$_2$ = +28m.47s., MN = +56·5m., MZ = +65·3m. Toledo iPEN = +13m.15s., PRNE = +16m.31s. and +17m.31s., MNW = +52·8m., and several other readings. Alicante iN = +13m.57s. and +25m.1s. = PS − 47s., MN = +50·6m. Algiers MN = +43·5m. Suva eE = +16m.20s. Bagnères e = +14m.12s. Barcelona PR = +20m.17s. = PR$_2$ − 15s., and +22m.16s., PS = +24m.53s., SR = +27m.19s., and +28m.19s., MN = +42·6m. Honolulu ePR$_1$E? = +18m.32s., ePR$_1$N = +19m.2s., eS$_c$P$_c$SE = +25m.2s., ePSN = +27m.50s,, SE is probably PS. Puy de Dôme iPR$_1$ = +18m.39s., eS = +25m.13s., e = +28m.46s., and +28m.56s. Melbourne readings have all been increased by 1h. Oxford i = +17m.47s. = [P] − 11s. Bidston S = +35m.50s. Riverview PS = +27m.27s., SR$_1$ = +33m.48s., eL = +48·8m., MN = +53·5m. Sydney L may be SR$_1$. Paris eP = +14m.34s., PR$_1$ = +18m.7s., MN = +54·5m. Kew iZ = +14m.29s., e = +17m.21s. = [P] − 39s., PR$_1$ = +18m.13s. = PR$_1$ − 9s., PR$_2$ = +21m.2s., SR$_1$ = +32m.49s., SR$_2$ = +37m.12s., MNZ = +57·7m. Sitka ePR$_1$E = +19m.2s., eS$_c$P$_c$SE? = +25m.24s., ePSN = +28m.32s. Uccle i = +14m.38s., PR$_1$ = +18m.29s., MN = +62·8m. Rocca di Papa eN = +14m.32s., eE = +14m.38s., ePN = +18m.10s., ePE = +18m.13s. Dyce PR$_1$ = +18m.26s. Zurich P = +17m.53s. = [P] − 15s., PR$_1$ = +18m.53s. ; T$_0$ = 6h.23m.23s. Strasbourg iPR$_1$ = +18m.58s., PR$_2$ = +21m.18s., PS = +28m.32s., PPS = +29m.29s., MZ = +62·5m. De Bilt iZ = +14m.43s., eZ = +17m.51s. = [P] − 20s., ePR$_1$ = +18m.32s., e = +24m.48s. = [S] − 7s., MZ = +61·6m., MN = +70·3m. Ravensburg iPE? = +17m.0s., ePR$_1$E = +18m.35s., iS$_c$P$_c$S = +24m.46s., iPPS = +29m.38s., iSR$_1$E = +35m.52s., MN = +63·0m. Hohenheim eE = +(22m.44s.) = PR$_2$ − 38s., e = (+27m.48s.) = PS − 39s., eSR$_1$ = (+33m.32s.) = SR$_1$ − 8s. ; all the readings have been diminished by 2 min. Adelaide gives P as PR$_1$. Innsbruck eNW = +19m.48s. Zagreb e = +18m.50s. = PR$_1$ − 14s., +26m.39s., and +29m.14s. = PS + 19s. ; all readings have been increased by 1h. Hamburg eZ = +15m.0s., P = +18m.5s. = [P] − 17s., PR$_1$ = +18m.53s., and +19m.29s., PR$_2$ = +22m.13s., S$_c$P$_c$P$_c$SN = +26m.53s., PSE = +28m.32s., eN = +37m.50s., MN = +62·5m. Graz i = +26m.35s., MN = +67·6m. Vienna PR$_1$ = +22m.39s., PR$_2$? = +25m.49s., PS = +30m.33s., SR$_1$ = +36m.37s., SR$_2$ = +40m.0s., and several i readings. Athens PR$_1$ = +19m.17s., MN = +66·4m. Copenhagen P = +18m.27s. = [P] − 1s., PR$_1$ = +19m.14s., ePR$_2$ = +22m.8s., iS$_c$P$_c$P$_c$SE = +26m.3s., iS$_c$P$_c$P$_c$SN = +26m.10s., PS = +28m.38s., PPS = +29m.35s., SR$_1$ = +34m.32s?, SR$_2$ = +38m.32s.?, MN = +50·8m., MZ = +64·4m. Budapest MN = +68·2m. Perth P = +18m.47s. = [P] + 8s., SR$_1$ = +36m.2s., SR$_2$ = +40m.2s. Konigsberg iPR$_1$ = +20m.17s., PPS = +26m.9s. = Σ − 41s., PR$_2$ = +27m.35s., SR$_1$E = +30m.42s., SR$_2$N = +31m.0s. Upsala iE = +30m.48s., MN = +69·5m. Ksara PN? = +22m.34s., PR$_1$E = +26m.56s., PR$_1$E = +29m.56s., PR$_1$N = +30m.4s., PPS = +36m.34s., and many other readings. Helsingfors ePZ = +18m.42s. = [P] − 10s., ePR$_1$Z = +20m.8s., S$_4$P$_4$P$_4$S = +26m.33s., PS = +29m.49s., SR$_1$ = +36m.23s., SR$_2$ = +41m.38s. Pulkovo PR$_1$ = +20m.26s., PS = +30m.2s., SR$_1$ = +37m.12s., MZ = +76·8m. Leningrad P = +18m.51s. = [P] − 8s., iPR$_1$ = +20m.29s., PS = +29m.55s., MZ = +78·6m., MN = +79·6m. Makeyevka e = +19m.37s., +20m.53s. = PR$_1$ − 2s., +23m.7s., and +28m.39s., MN = +60·2m. Kucino e = +20m.49s. = PR$_1$ − 14s., i = +22m.12s., and +22m.47s., SR$_1$ = +37m.23s. Tiflis P = +21m.9s. = PR$_2$ − 8s., PR$_2$ = +27m.56s. and several other readings. Baku i = +19m.12s. = [P] − 10s., +19m.15s. = [P] − 7s., +19m.45s., +22m.28s., +23m.5s., +31m.25s., and +32m.1s. Ekaterinburg recording suspended from 14d.2h. to 14d.9h.

Continued on next page.

Amboina i = +20m.30s. Kodaikanal L = +29m.2s. Tashkent iP_4P_4S = +23m.32s., iPR_2 = +25m.38s., iPS = +34m.7s., iPPS = +35m.34s., SR_1 = +41m.50s., iSR_2 = +46m.52s., MN = +69·4m., MZ = +73·2m. Hyderabad PR_1 = +23m.43s. Simla SN = +38m.50s., S may be P[S] by the long arc, 208°·2?. Mizusawa SN = +20m.19s. Irkutsk PR_1 = +24m.5s., e = +32m.27s., +32m.58s., and +34m.51s., PPS = +38m.18s. Manila: Is S = P[S] by the long arc 200°·3?

NOTE ON THE DEEP FOCUS ASSUMPTION.

Collecting the residuals according to azimuth and converting them into corrections to Δ; $\delta\Delta_1$ shows the corrections necessary if normal depth is assumed, $\delta\Delta_2$ with assumed depth of 0·015 radius (below normal). It is clear that no profitable solution can be made with the residuals $\delta\Delta_1$. Those headed $\delta\Delta_2$ give x = 0°·0, y = +0°·3; but these are small compared with the accidental errors and no change of epicentre has been made in consequence. They indicate the revised position 32°·8S. 69°·5W.

No. Stns.	Mean Az.	Mean $\delta\Delta_1$	Mean $\delta\Delta_2$	Coeff Sin Az. (x)	Coeff Cos Az. (y)	C	$\delta\Delta_2 - C$
	°	°	°			°	°
3	3	−1·2	+0·3	+0·05	+1·00	+0·3	0·0
3	47	−2·8	−0·7	+0·73	+0·68	+0·2	−0·9
2	95	−1·4	0·0	+1·00	−0·08	0·0	0·0
2	238	−2·6	−0·5	−0·85	−0·53	−0·2	−0·3
5	325	−1·4	+0·4	−0·57	+0·82	+0·2	+0·2
7	351	−2·0	0·0	−0·16	+0·99	+0·3	−0·3

April 14d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 13d. :—

h.	m.	s.		h.	m.	s.	
2	25	20	T	17	44	43	T
12	20	49	T	18	51	43	T
13	2	10	T	19	6	51	T
16	59	31	TKOSN	19	55	56	T

April 14d. Readings also 0h. (near Mizusawa), 2h. (Tiflis), 5h. (Florence), 7h. (Sucre), 8h. (La Plata), 9h. (Ekaterinburg), 11h. (near Nagoya), 12h. (La Paz), 13h. (near Ksara), 14h. (Tashkent), 16h. (Santiago), 20h. (Tiflis), 22h. (Santiago), 23h. (Amboina).

April 15d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of April 14d. :—

h.	m.	s.		h.	m.	s.	
1	49	15	T	19	52	46	T
5	36	43	T				

April 15d. Readings also at 0h. (Santiago), 2h. and 3h. (Lemberg), 4h. and 6h. (Santiago), 7h. (Tacubaya), 10h. (Ottawa, Toronto, and Tucson), 11h. (Agana and Santiago), 12h. (Sucre), 13h. (Tiflis and near Malabar), 14h. (Simla), 15h. (Santiago), 16h. (Santiago and near Batavia), 17h. (Santiago and Taihoku), 20h. (La Plata, La Paz, Sucre, Ksara (2), and near Athens).

April 16d. 8h. 14m. 51s. Epicentre 51°·0N. 179°·5W.

(as on 1926 Oct. 13d.).

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 51	+14	(10 12)	+11	10·2	—
Sitka	E.	26·1	59	—	—	—	—	14·6	17·6
	N.	26·1	59	—	—	e 10 35	+11	15·5	18·4
Honolulu T.H.		34·1	142	—	—	e 12 9	−33	14·2	16·4
Victoria	E.	35·6	73	7 2	−16	12 31	−33	22·5	23·7
Toyooka		35·9	265	7 29	+ 8	e 13 1	− 8	e 17·4	—
Sumoto		36·7	263	7 26	− 2	—	—	9·4	—
Berkeley		41·7	86	e 7 56	−13	e 12 54	−97	e 21·4	—
Irkutsk		45·0	304	8 30	− 3	e 15 10	− 5	21·2	28·0
Zi-ka-wei		47·2	270	e 8 49	+ 1	15 47	+ 3	—	34·4
Taihoku	E.	51·4	265	—	—	—	—	21·2	—
Tucson	E.	52·5	85	e 9 45	+22	16 43	− 7	e 23·8	29·8
	N.	52·5	85	9 26	+ 3	e 16 56	− 6	e 23·1	—
Hong Kong		58·0	269	10 26	+27	18 18	+19	—	38·8
Manila		59·7	259	e 10 53	+43	17 34	−45	25·5	—
Chicago	E.	60·0	60	e 10 9	− 3	i 18 13	−10	e 28·2	40·4
Ekaterinburg		61·3	329	—	—	—	—	33·2	38·6
Ann Arbor		61·6	57	—	—	i 20 15	[+ 8]	e 31·2	34·7
Toronto	E.	62·8	53	10 14	−17	i 18 52	− 6	—	34·6
	N.	62·8	53	10 14	−17	i 18 56	− 2	e 29·5	40·4
Ottawa		63·4	50	e 10 47	+13	i 18 58	− 8	e 28·6	36·2
Phu-Lien		63·9	273	e 10 47	+10	e 19 28	+16	30·6	—
Ste. Anne		64·6	46	e 11 1	+19	i 19 21	+ 1	e 29·8	39·8
Ithaca		65·2	52	—	—	—	—	e 31·2	—
Apia		65·2	172	—	—	—	—	35·2	—
Pulkovo		66·6	346	11 2	+ 7	19 45	0	33·2	40·0
Helsingfors		67·1	348	e 10 54	− 5	—	—	e 44·8	—
Fordham		67·6	54	11 11	+ 9	e 19 59	+ 2	e 29·3	37·4
Cheltenham	E.	67·7	56	—	—	—	—	e 34·9	—
Harvard	N.	67·8	50	—	—	—	—	e 32·4	39·6
Upsala		68·3	353	—	—	—	—	e 39·2	44·4
Kucino		68·8	340	—	—	e 20 18	+ 6	33·2	42·0
Tacubaya		69·0	87	11 12	+ 1	20 12	− 2	—	—
Tashkent		70·0	314	e 11 21	+ 4	i 20 40	+14	e 32·2	35·2
Dyce		71·7	2	—	—	i 21 47	[−23]	40·2	52·2
Copenhagen		72·8	355	e 11 33	− 2	e 21 7	+ 7	e 42·2	—
Konigsberg	E.	72·8	349	—	—	i 35 37	?L	e 43·3	45·2
Edinburgh		73·0	3	—	—	—	—	e 41·2	—
Simla	E.	73·9	300	21 21	?S	(21 21)	+ 8	37·4	44·4
Hamburg		75·1	355	i 11 55	+ 5	e 22 15	?PS	e 37·2	52·2
Makeyevka		75·9	336	e 12 27	+33	e 22 18	+42	37·2	46·8
Potsdam		76·1	354	—	—	—	—	e 46·8	—
De Bilt		76·8	357	—	—	e 21 49	+ 2	e 37·2	49·7
Oxford		77·2	2	—	—	i 21 50	− 1	e 34·2	55·2
Kew		77·5	0	e 12 0	− 4	22 9?	[+ 3]	40·2	50·5
Uccle		78·1	358	e 12 7	− 1	e 22 2	+ 1	e 38·2	—
Prague		78·2	353	e 11 9?	−59	—	—	e 36·2	53·2
Cheb		78·4	353	e 12 9?	0	—	—	e 36·2	52·2
Baku		79·0	324	i 12 17	+ 4	i 22 21	+ 9	38·6	42·6
Tiflis	E.	79·6	329	—	—	—	—	—	58·5
Vienna		79·8	350	12 18	0	—	—	54·2	—
Hohenheim	E.	80·0	356	—	—	—	—	e 38·2	—
Strasbourg		80·2	356	i 12 22	+ 2	e 22 48	+23	e 39·2	54·2
Paris		80·2	359	e 12 21	+ 1	e 22 55	+30	42·2	50·2
Budapest		80·2	348	12 25	+ 5	—	—	e 37·2	54·8
Ravensburg		80·8	356	e 12 37	+13	e 22 39	+ 6	e 42·8	49·2
Graz		81·0	350	e 12 56	+31	23 36	+ 1	47·9	54·5
Innsbruck	N.E.	81·2	355	e 12 23	− 3	—	—	—	—
Zurich		81·4	356	i 12 27	0	e 22 36	− 3	—	—
Laibach		82·2	351	—	—	—	—	e 48·8	—
Zagreb		82·2	350	e 12 35	+ 4	e 22 50	+ 2	e 49·2	54·2
Belgrade	N.	82·6	347	e 12 26	− 8	e 23 56	+63	e 47·3	—
Moncalieri	E.	83·8	355	12 24	−17	23 7	0	38·0	57·1
Hyderabad		83·8	291	12 42	+ 1	23 7	0	42·8	53·2
Batavia		84·6	257	i 12 49	+ 3	i 23 12	− 3	—	—
Florence		84·7	354	e 10 44	−122	22 19	−57	47·2	53·2

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Bombay		85·9	297	12 51	− 2	23 26	− 3	44·8	49·4
Rocca di Papa		86·6	351	e 12 15	−42	e 20 39	−178	55·6	55·8
Barcelona		87·5	359	—	—	—	—	e 50·9	58·8
Athens	N.	88·8	343	e 12 4	−65	23 29	[+ 8]	46·6	55·0
Ksara		89·6	332	13 12	− 2	—	—	50·7	—
Kodaikanal		90·1	286	24 45	?S	(24 45)	+30	51·8	54·8
Rio Tinto		91·1	7	24 9?	?S	(24 9?)	−16	—	71·2
Colombo		91·2	282	15 9	+107	56 59	?L	(57·0)	—
Granada		91·8	5	—	—	—	—	57·1	62·4
Almeria		92·1	3	14 14	+46	—	—	49·7	53·5
Malaga		92·2	5	e 13 6	−22	e 24 10	−27	35·1	—
Algiers		92·2	358	—	—	—	—	—	59·1
San Fernando		92·4	5	10 21	−188	24 3	−36	46·6	64·1
Wellington		92·4	185	—	—	e 24 9?	−30	—	—
Melbourne		94·1	209	—	—	i 25 33	+36	i 39·8	45·5
La Paz		116·2	84	19 56	?PR_1	e 31 22	?	60·6	72·9
Sucre		119·9	84	e 18 41	[−11]	e 29 50	+62	61·1	—
La Plata		135·7	92	e 22 27	?PR_1	—	—	70·1	—
Rio de Janeiro	N.	136·8	67	e 22 29	?PR_1	—	—	—	—

Additional readings: Honolulu MN = +16·2m. Berkeley ePZ = +7m.59s., and many other e readings. Irkutsk PR_2 = +11m.8s., MN = +26·0m., MZ = +31·2m. Chicago eSR_1E = +22m.45s. Ekaterinburg MZ = +42·4m. Ann Arbor eE = +26m.33s. =SR_3 − 11s., and +27m.3s. Toronto iN = +20m.21s. =[S] + 5s.; T_0 = 8h.14m.24s. Ottawa MN = +35·3m.; T_0 = 8h.15m.30s. Pulkovo SR_1 = +24m.33s., MN = +43·4m., MZ = +45·4m. Fordham iS = +20m.29s. =[S] − 25s. Harvard ME = +39·2m. Upsala MN = +50·3m. Kucino e = +21m.49s., +24m.34s., and +25m.32s. =SR_1 + 0s., MN = +38·3m. Tashkent iP = +11m.23s., ePR_1 = +14m.21s., PR_2 = +15m.15s., iPS = +21m.17s., iS_4P_4S = +22m.10s., eSR_2 = +27m.37s., SR_3 = +29m.9s., MZ = +33·6m., MN = +35·5m. Copenhagen e = +34m.3s., eLN = +39·2m. Konigsberg eLN = +46·0m., MN = +47·2m., MZ = +50·2m. Simla PN = +21m.27s. =S + 14s. Hamburg MNZ = +57·2m. Makeyevka SR_1 = +27m.28s., MN = +51·4m MZ = +52·4m. De Bilt MN = +53·9m., MZ = +54·1m. Kew MN = +48·5m., MZ = +53·6m. Baku MN = +42·8m., MZ = +55·4m. Tiflis MN = +65·6m. Strasbourg MZ = +51·7m. Ravensburg MN = +60·5m. Graz i = +16m.10s. =PR_1 + 12s., MN = +55·3m. Florence, if we increase readings by 2min. S would be PS + 17s. Barcelona MN = +60·2m. Athens LE = +44·4m. Ksara P = +17m.2s. =PR_1 + 0s., PR_2 = +20m.25s. =PR_3 − 15s., PR_3N = +23m.33s. =[S] + 7s., PPSN = +28m.11s., SR_2N = +37m.12s. =SR_3 + 20s. Almeria MZ = +52·1m., MZ = +65·4m. San Fernando PR_1 = +15m.38s., MN = +63·1m. Wellington eLN = +33·8m. La Paz MN = +69·5m. La Plata ePN = +22m.57s. Rio de Janiero eE = +22m.31s. =PR_1 + 17s.

April 16d. 9h. 11m. 10s. Epicentre 34°·0S. 57°·0E. (as on 1927 April 11d.).

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.
Johannesburg		26·1	280	—	—	9 50?	−34	—	—
Cape Town		31·7	262	—	—	11 57	− 6	17·8	20·9
Colombo		46·3	32	—	—	—	—	22·8	25·8
Kodaikanal		48·3	26	—	—	—	—	22·3	23·3
Batavia		53·7	70	i 9 28	− 3	i 17 0	− 5	—	—
Hyderabad		55·4	25	—	—	17 22	− 4	23·4	28·1
Simla		67·9	19	20 2	?S	(20 2)	+ 1	29·8	—
Ksara	N.	70·6	341	11 29	+ 8	20 46	+13	31·8	—
Phu-Lien		72·3	49	e 11 31	− 1	e 20 49	− 5	33·8	—
Riverview		74·9	121	—	—	—	—	e 31·7	40·7
Sydney		74·9	121	—	—	—	—	37·3	39·6
Tiflis		76·5	351	e 12 6	+ 8	e 21 53	+10	e 35·8	38·7
Manila		77·8	64	e 12 22	+16	(21 50)	− 8	21·8	—
Athens		78·3	335	i 12 14	+ 5	i 22 10	+ 6	50·8	—
Belgrade	N.	85·5	336	e 12 50	− 1	23 3	[+ 4]	—	—
Wellington	E.	85·5	139	—	—	—	—	—	46·5
Algiers		86·8	320	e 13 3	+ 5	23 27	−12	—	58·8

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		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Zagreb		88·0	334	e 12 50?	−15	—	—	—	—
Vienna	Z.	89·8	335	13 6	− 9	—	—	—	—
Almeria		89·8	318	—	—	—	—	—	54·6
Granada		90·8	317	i 12 24	−56	—	—	48·8	53·5
Malaga		90·9	317	13 23	+ 2	24 19	− 4	32·8	56·8
Ekaterinburg		90·9	3	i 13 14	− 7	i 24 18	− 5	38·8	—
Zurich		92·2	330	e 13 18	−10	e 23 54	[+13]	—	—
Toledo	N.W.	92·8	319	e 13 1	−30	—	—	e 39·2	58·5
Besançon		93·2	329	—	—	—	—	51·8	—
Strasbourg		93·5	330	i 33 26	− 9	—	—	—	—
Konigsberg		94·2	341	i 13 24	−15	—	—	e 18·8	26·8
Sucre		103·6	235	e 17 46	[−14]	—	—	51·7	55·6
La Paz		107·4	235	e 18 18	[+ 5]	—	—	54·8	58·6
Chicago	E.	151·2	296	—	—	—	—	e 86·4	—
Berkeley	E.	176·1	352	—	—	e 25 26	?PR_1	—	—

Additional readings: Batavia iE = +16m.48s. Simla eSN = +24m.8s. Tiflis eN = +21m.49s., MN = +46·3m. Wellington MN = +46·1m. Almeria MZ = +65·8m. Granada PR_1 = +15m.33s. Toledo MNE = +59·1m. Konigsberg iZ? = +10m.11s., iZ = +13m.30s. Berkeley eZ = +25m.55s. = PR_1 − 16s., and +31m.14s.

April 16d. 13h. 3m. 35s. Epicentre 6°·5N. 126°·0E. (as on April 9d.).

A = −·584, B = +·804, C = +·113; D = +·809, E = +·588;
G = −·066, H = +·092, K = −·994.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	9·5	330	e 3 8	+45	—	—	5·4	—
Hong Kong	19·5	326	8 46	?S	(8 46)	+33	—	—
Batavia	22·9	237	i 5 6	−10	i 9 59	+36	—	—
Phu-Lien	23·6	309	5 25?	+ 1	—	—	—	—
Tashkent	61·1	316	i 10 27	+ 7	i 18 52	+15	e 29·4	33·5
Baku	75·2	312	e 12 32	+42	e 21 39	+11	—	—
Tiflis N.	79·1	313	—	—	e 20 42	−91	—	—

Tashkent iSR_1 = +23m.1s.

April 16d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 15d.:—

h.	m.	s.		h.	m.	s.	
2	39	41	T	13	34	22	TKSN
6	36	7	T	13	59	42	T
11	56	59	TS	16	53	29	T
11	57	26	T				

April 16d. Readings also at 2h. (Tucson), 5h. (Tashkent), 6h. (St. Louis), 8h. (Manila), 10h. (Tiflis), 13h. (near Mizusawa), 14h. (La Paz), 15h. (Tashkent), 16h. (La Paz), 18h. (Sucre and La Paz), 19h. (near Taihoku), 20h. (Irkutsk and Tiflis), 21h. (Tashkent), 23h. (Florence).

April 17d. 9h. 5m. 42s. Epicentre 6°·5S. 126°·0E. (as on 1925 Jan. 18d.).

A = −·584, B = +·804, C = −·113 ; D = +·809, E = +·588 ;
G = +·067, H = −·092, K = −·994.

Batavia gives epicentre 6°·6S. 125°·7E., close to the position which has been frequently adopted.

A focal depth 0·020 below normal has been assumed.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina	+0·2	3·6	37	i 0 51	− 8	i 1 41	− 3	—	—
Batavia	−0·8	19·0	270	i 4 26	+ 7	i 7 54	+10	i 9·1	—
Manila	−0·9	21·7	346	e 5 3	+12	(8 54)	+14	8·9	—
Perth	−1·2	27·2	199	—	—	(i 10 18)	− 4	(i 13·8)	(16·1)
Adelaide	−1·4	30·8	159	6 50	+28	12 0	+36	16·2?	18·8?
Hong Kong	−1·4	31·0	339	6 58	+34	11 22	− 5	—	15·0
Phu-Lien	−1·5	33·3	326	e 6 45	0	i 11 54	−11	—	—
Riverview	−1·6	35·9	143	—	—	i 11 56	−48	—	19·2
Tashkent	−2·6	70·4	318	i 11 15	+12	i 20 12	+12	e 34·3	42·0
Ekaterinburg	−2·7	82·4	330	(i 12 21)	+ 4	(22 16)	− 4	(31·3)	—
Baku	−2·7	83·7	314	i 12 28	+ 3	i 22 40	+ 5	—	—
Sucre	—	151·8	157	19 35	[−23]	—	—	—	—
La Paz	—	153·1	149	i 19 49	[−11]	—	—	—	—

Additional readings and notes: Batavia iN = +5m.25s. ; Readings except P are given as i simply. Perth readings have been increased by 4 min. Riverview MN = +20·2m. Tashkent ePR$_1$ = +13m.42s., iPS = +20m.42s. iS$_4$P$_4$S = +21m.50s., eSR$_1$ = +24m.38s., eSR$_2$ = +26m.18s.?, MZ = +43·0m., MN = +45·4m. Ekaterinburg, the readings have been increased by 1 min.

April 17d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of April 16d.

h.	m.	s.		h.	m.	s.	
4	33	45	T	10	43	28	T
6	23	51	T	14	4	11	T
6	43	47	KS	20	6	51	T

April 17d. Readings also at 1h. (Agana), 4h. (Honolulu T.H. and near Amboina), 5h. (Taihoku), 7h. (Baku, Tashkent, and Makeyevka), 13h. (Makeyevka and Tashkent), 17h. (Agana), 18h. (near Barcelona), 21h. (Agana).

April 18d. 15h. 1m. 45s. Epicentre 38°·5N. 71°·0E. (as on 1926 July 6d.).

A = +·255, B = +·740, C = +·623 ; D = +·946, E = −·326 ;
G = +·203, H = +·589, K = −·783.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Simla		9·0	143	3 3	+47	(4 21)	+18	4·4	—
Baku		16·4	283	i 3 57	0	i 7 11	+ 7	e 9·2	14·0
Ekaterinburg		19·5	343	i 4 44	+ 9	i 8 29	+16	10·2	13·4
Bombay		19·7	175	4 45	+ 8	8 7	−10	—	—
Tiflis		20·2	288	i 4 41	− 2	e 8 31	+ 4	e 9·8	—
Calcutta	E.	21·8	132	4 51	−12	8 35	−26	11·8	—
	N.	21·8	132	4 54	− 9	8 34	−27	11·7	—
Hyderabad		22·1	160	8 8	?	9 8	+ 1	—	11·4
Irkutsk		26·8	48	5 41	−15	e 10 7	−30	—	—
Ksara	E.	28·5	272	5 58	−15	11 54	+46	—	—
Pulkovo		33·2	325	i 6 42	−16	—	—	—	—
Leningrad		33·3	325	i 6 44	−15	i 12 35	+ 6	—	—
Vienna	Z.	40·0	304	7 37	−18	—	—	—	—
Hamburg	Z.	43·4	312	e 8 9	−12	—	—	—	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Florence		44·3	297	e 6 30	−118	—	—	—	8·2
Zurich	Z.	45·3	303	e 8 21	−14	—	—	—	—
Strasbourg		45·6	305	8 25	−12	—	—	—	—
Paris		48·9	306	e 8 50	− 9	—	—	—	—
Manila		49·9	105	e 9 10	+ 4	—	—	—	—
Agana	E.	69·0	91	—	—	e 20 15	+ 1	—	—

Additional readings: Tiflis i = +6m.3s., e = +8m.57s., eN = +11m.14s., and +11m.46s. Irkutsk ePR_1 = +6m.8s., ePR_2 = +6m.20s., eSR_1 = +11m.1s., ePR_2 = +11m.18s. Ksara PR_2E = +7m.11s. Strasbourg e = +8m.47s. and +10m.11s. = PR_1 −19s.

April 18d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8N. of April 17d. :—

h.	m.	s.		h.	m.	s.	
0	39	4	T	11	25	6	TS
9	2	57	T	22	18	7	T

April 18d. Readings also at 1h. (Santiago), 2h. (near Mizusawa), 3h. (Taihoku, Tiflis, near Mizusawa, and near Dehra Dun), 7h. (near Berkeley), 10h. (Apia and Tiflis), 11h. (Tacubaya, near Kobe, and near Nagasaki), 13h. (Tacubaya, La Paz, and near Sumoto), 14h. (Ottawa, Toronto, Tacubaya, Victoria, Honolulu T.H., La Paz, and Sucre), 15h. (near Almeria and near Sumoto), 18h. (Manila), 23h. (Leningrad, Makeyevka, and Tashkent).

April 19d. 8h. 33m. 42s. (I)
9h. 28m. 58s. (II)
15h. 51m. 52s. (III)
} Epicentre 7°·7S. 106°·5E. (as given by Batavia).

A = −·281, B = +·950, C = −·134; D = +·959, E = +·284;
G = +·048, H = −·128, K = −·991.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
I	Malabar	1·2	66	i 0 15	− 3	i 0 30	− 3	0·6	—
II		1·2	66	0 20	+ 2	i 0 32	− 1	—	—
I	Batavia	1·5	12	i 0 25	+ 2	i 0 45	+ 3	0·9	—
II	Z.	1·5	12	0 20	− 3	0 44	+ 2	—	—
III		1·5	12	0 23	0	i 0 41	− 1	i 1·2	—
I	Tashkent	59·7	328	—	—	—	—	e 15·3	36·1
I	Ekaterinburg	74·6	336	i 11 36	−10	e 20 59	−22	—	—

Additional readings: Malabar I eN = +8h.33m.27s., iE = +8h.33m.48s. Batavia I iPZ = +26s., III iE = +34s.

April 19d. 17h. 30m. 0s. Epicentre **15°·8N. 119°·4E.**
(as on April 13d.).

A = −·472, B = +·838, C = +·272; D = +·871, E = +·491;
G = −·134, H = +·237, K = −·962.

A depth of focus 0·010 has been assumed instead of 0·020 as on April 13d.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		+0·2	1·9	128	i 0 42	+ 9	—	—	i 1·0	—
Hong Kong		−0·1	8·2	324	2 19	+16	(3 57)	+17	4·0	5·0
Taihoku	N.	−0·1	9·5	12	(2 25)	+ 3	—	—	2·4	2·5
Phu-Lien		−0·2	13·1	294	i 3 29	+17	i 6 8	+26	e 6·6	8·3
Zi-ka-wei		−0·2	15·5	6	i 3 46	+ 3	—	—	—	16·0

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.
Nagasaki		−0·4	19·4	27	4 24	− 5	7 57	− 5	10·9	—
Hukuoka		−0·4	20·4	27	i 4 35	− 6	(8 16)	− 7	8·3	8·4
Amboina		−0·4	21·3	155	i 5 53	+61	i 9 46	+64	—	—
Sumoto		−0·5	23·2	34	5 6	− 7	(9 16)	− 3	8·0	9·3
Kobe		−0·5	23·6	34	5 8	−10	(9 11)	−16	9·2	10·4
Osaka		−0·5	23·7	34	5 11	− 8	(9 19)	−10	9·3	10·9
Toyooka		−0·5	24·1	32	5 14	−10	(e 9 21)	−15	e 9·4	10·5
Nagoya		−0·5	24·9	36	e 5 2	−30	—	—	—	—
Batavia		−0·5	25·3	210	i 5 24	−12	i 9 38	−21	—	—
Malabar		−0·5	25·8	208	i 5 33	− 8	i 10 0	− 9	—	—
Mizusawa	E.	−0·7	30·1	35	6 8	−14	10 54	−30	—	—
	N.	−0·7	30·1	35	6 11	−11	10 57	−27	13·2	—
Irkutsk		−0·8	38·4	345	7 26	− 9	i 13 14	−18	16·0	22·7
Hyderabad		−0·8	39·2	280	7 37	− 4	13 37	− 7	21·4	27·3
Colombo		−0·8	39·7	264	8 0?	+15	—	—	—	25·0
Dehra Dun		−0·8	40·5	300	7 45	− 7	12 33	−89	17·0	17·2
Kodaikanal		−0·8	41·2	270	10 48	?	—	—	23·8	33·5
Simla		−0·8	41·3	300	8 0	+ 1	14 0	−14	22·7	23·3
Bombay	N.	−0·9	44·4	282	7 44	−38	—	—	25·9	—
Perth		−1·0	47·8	185	e 8 10	−36	i 15 10	−28	e 23·6	—
Tashkent		−1·0	50·0	312	i 9 1	+ 1	i 16 6	0	24·5	29·6
Adelaide		−1·1	53·9	161	—	—	16 23	−31	23·3	26·1
Riverview		−1·2	58·1	150	—	—	e 23 12	?SR$_1$	e 29·6	34·5
Sydney		−1·2	58·1	150	—	—	17 18	−27	29·5	31·3
Melbourne		−1·2	58·7	157	—	—	i 16 54	−59	—	32·2
Ekaterinburg		−1·2	59·9	328	i 10 16	+13	i 18 22	+15	28·0	33·8
Baku		−1·2	64·3	309	i 10 43	+10	i 19 22	+20	32·0	36·3
Tiflis		−1·3	68·1	310	11 5	+ 8	19 59	+11	33·0	40·0
Kucino		−1·3	72·2	325	e 12 32	+70	e 21 41	+64	29·7	43·8
Makeyevka		−1·3	72·6	317	e 15 31	?PR$_1$	—	—	33·0	50·1
Pulkovo		−1·3	75·9	330	i 11 47	+ 1	21 18	− 3	39·0	47·6
Leningrad		−1·3	75·9	330	i 11 49	+ 3	i 21 21	0	i 30·6	47·6
Ksara		−1·3	76·0	302	11 54	+ 7	21 33	+11	43·0	—
Honolulu T.H.		−1·3	77·8	70	—	—	e 21 18	−25	e 37·7	46·6
Helsingfors		−1·3	78·5	330	e 12 4	+ 2	e 21 48	− 3	40·6	51·1
Helwan		−1·3	80·6	299	e 12 15	0	22 16	+ 1	—	—
Upsala		−1·3	82·2	330	i 12 22	− 2	i 22 27	− 7	43·0	48·9
Athens		−1·4	84·7	309	12 28	−10	22 49	−12	38·0	—
Belgrade		−1·4	85·1	316	e 12 34	− 6	e 22 53	−13	e 47·3	—
Budapest		−1·4	85·3	319	12 39	− 2	23 2	− 6	e 34·0	—
Copenhagen		−1·4	86·1	328	e 12 40	− 6	23 8	− 8	43·0	54·0
Vienna		−1·4	86·6	320	12 43	− 6	23 16	− 5	e 44·0	52·5
Potsdam		−1·4	87·1	325	—	—	i 23 16	−11	e 48·7	—
Prague		−1·4	87·2	322	e 12 55	+ 3	e 23 20	− 8	e 47·0	53·0
Graz		−1·4	87·5	319	e 12 46	− 8	e 24 23	?PS	43·0	55·8
Zagreb		−1·4	87·7	317	e 12 52	− 3	23 0?	[−13]	e 45·0	48·0
Hamburg		−1·4	88·3	326	e 12 55	− 3	i 23 16	[− 1]	e 42·0	47·0
Cheb		−1·4	88·4	322	e 12 59	0	e 23 11	[− 7]	e 42·0	55·0
Laibach		−1·4	88·6	318	e 12 44	−16	i 22 34	[−45]	e 48·7	53·7
Innsbruck		−1·4	90·1	320	e 12 58	−11	24 54	?PS	42·9	—
Venice		−1·4	90·2	318	i 13 6	− 3	i 23 54	− 7	—	—
Pompeii		−1·4	90·5	313	e 13 0	−11	e 23 30	[− 1]	—	—
Ravensburg	E.	−1·4	91·0	323	e 13 6	− 8	e 24 0	−10	e 49·0	55·5
Rocca di Papa		−1·4	91·4	315	e 13 6	−10	e 23 56	−18	e 38·0	51·8
Florence		−1·4	91·6	316	e 12 15	−62	—	—	—	—
De Bilt		−1·4	91·6	326	13 8	− 9	24 0	−16	e 45·0	48·8
Strasbourg		−1·4	91·8	323	i 13 10	− 8	e 24 0	−18	e 43·0	51·6
Zurich		−1·4	91·8	320	e 13 9	− 9	e 23 26	[−13]	—	—
Dyce		−1·4	92·5	334	—	—	e 24 10	−15	44·0	51·8
Uccle		−1·4	92·6	325	e 13 12	−10	e 24 8	−18	e 45·0	49·8
Besançon		−1·4	93·4	321	—	—	—	—	51·0	—
Monsalieri	E.	−1·4	93·4	320	10 2	−205	24 17	−18	39·1	57·4
Edinburgh		−1·4	93·8	332	—	—	—	—	e45·0	53·0
Paris		−1·4	94·7	325	e 13 23	−11	e 24 32	−16	51·0	56·0
Kew		−1·4	94·8	328	—	—	e 25 43	?PS	49·0	53·0
Bidston		−1·4	95·1	329	19 0?	?PR$_2$	—	—	40·0	55·0
Victoria		−1·4	95·1	37	23 45	?[S]	(23 45)	[−13]	—	40·6
Oxford		−1·4	95·2	328	—	—	e 24 25	−29	e 44·2	56·7
Barcelona		−1·4	98·6	317	—	—	—	—	e 55·6	62·9
Tortosa	N.	−1·4	100·0	318	—	—	—	—	e 41·0	55·1
Toledo		−1·5	103·5	320	e 14 47	+27	e 25 41	−34	e 33·2	57·0
Almeria		−1·5	104·0	316	e 16 22	+119	28 26	+126	59·4	69·1
Granada		−1·5	104·7	316	e 16 12	+106	i 28 33	+127	44·8	57·5

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.
Malaga		−1·5	105·5	316	—	—	—	—	e 55·5	65·2
Rio Tinto		−1·5	106·3	318	26 0?	?S	(26 0?)	−40	—	63·0
San Fernando		−1·5	106·8	316	15 50	+74	29 9	+144	58·5	64·0
Cape Town		−1·5	107·7	238	28 20	?PS	—	—	—	60·0
Ottawa		—	117·3	11	e 20 30	?PR_1	26 30	?	61·0	—
Toronto	N.	—	118·2	15	e 20 36	?PR_1	—	—	37·1	—
La Paz		—	172·8	97	20 9	[− 7]	—	—	46·0	49·1
Sucre		—	174·5	126	i 20 5	[−11]	e 30 30	?PR_2	47·8	49·9

Additional readings: Phu-Lien MN = +7·5m. Nagasaki SR_1 = +8m.8s. Hukuoka eS = +6m.11s. Sumoto S = +6m.14s. Toyooka PN = +5m.12s. Batavia P = +5m.26s., i = +6m.3s. =PR_1 − 7s., +6m.7s. = PR_1 − 3s., and +7m.6s.; S is given as i simply. Irkutsk P = +7m.29s., +7m.43s., +8m.10s., +8m.22s. =PR_1 − 32s., and +9m.30s.? =PR_2 + 2s., S = +13m.20s., +13m.32s., 13m.59s., +14m.10s., and +15m.20s. = SR_1 − 36s. Perth ePR_1 = +10m.25s. Tashkent iP? = +9m.32s., ePR_1 = +10m.7s., S = +17m.2s., SR_1 = +20m.0s., SR_2 = +21m.19s., SR_3 = +22m.4s., MN = +28·9m., MZ = +32·3m. Adelaide MN = +31·3m. Riverview e = +16m.0s., eS? = +28m.13s., MN = +33·2m. Ekaterinburg MN = +33·9m., MZ = +35·4m. Baku MN = +39·9m. Tiflis PS = +20m.44s., e = +24m.31s. =SR_1 − 29s., and +25m.12s., SR_2N = +28m.15s., MN = +39·5m. Kucino e = +13m.17s., +17m.47s., +22m.47s., MN = +31·9m. Makeyevka e = +16m.21s. =PR_1 + 4s., +23m.50s., and +24m.37s. Pulkovo PS = +22m.18s., MN = +43·4m., MZ = +45·0m. Leningrad iPS = +22m.19s., MN = +42·4m. Ksara SR_1N = +22m.27s., LN = +42·0m.; T_0 =17h.30m.22s. Honolulu eLN = (Rayleigh) = +33·5m. Helsingfors PS = +22m.47s., PPS = +23m.26s., SR_1 = +27m.8s., e = +27m.53s., and +33m.3s., MN = +45·6m. Upsala MN = +47·4m. Athens iSN = +22m.55s., SR_1 = +28m.48s. Copenhagen e = +13m.12s., ePR_1Z = +17m.1s., ePR_2Z = +19m.25s., PS = +24m.2s., SR_1 = +29m.12s., iN = +35m.37s. =SR_2 + 27s., MN = +46·0m., MZ = +54·1m. Vienna PPS = +25m.18s. Graz e = +35m.27s. = SR_2 − 15s., MN = +47·9m. Hamburg PS = +24m.32s., MN = +51·2m., MZ = +56·0m. Innsbruck i = +13m.5s., eNW = +13m.39s., eNE = +13m.46s. Rocca di Papa e = +12m.17s. De Bilt eZ = +14m.0s., eE + 23m.29s. =[S] − 9s., MN = +49·6m., MZ = +58·5m. Strasbourg PR_1 = +16m.58s., PS = +24m.57s., MZ = +55·5m. Uccle SR_1 = +30m.30s., MN = +51·3m. Paris PR_1 = +17m.21s., MN = +52·0m. Kew ePR_1Z = +17m.18s., e = +40m.0s.?, MN = +52·8m., MZ = +58·8m. Victoria PN = +23m.53s. Oxford e = +38m.0s. Toledo MN = +57·4m. Granada i = +17m.32s. San Fernando MN = +65·5m.; if the readings are 1 min. too large S might be PS. Sucre PR_1 for the long arc 185°·5 would be +31m.12s.

April 19d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 18d. :—

h.	m.	s.	
20	49	6	TKSN

April 19d. Readings also at 9h. (near Sucre and La Paz), 10h. (Santiago), 13h. (Sucre), 15h. (near Sumoto), 17h. (Tashkent), 18h. (Manila, near Sucre, and La Paz), 19h. (Manila), 20h. (Chicago), 21h. (Tashkent).

April 20d. 3h. 10m. 30s. Epicentre 31°·0S. 65°·5W.

A = +·355, B = −·780, C = −·515; D = −·910, E = −·415; G = −·213, H = +·469, K = −·857.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Santiago	5·0	239	1 22	+ 5	(2 21)	+ 4	2·4	—
La Plata	7·5	123	i 1 59	+ 5	i 3 17	− 7	—	—
Sucre	12·0	1	3 0	+ 1	—	—	—	—
La Paz	14·7	350	3 34	− 1	6 21	− 4	7·6	—

No additional readings.

April 26d. 7h. 56m. 50s. Epicentre 34°·5N. 135°·0E. (as on 1926 Oct. 19d.).

A=−·583, B=+·583, C=+·566.

	Δ	Az.	P.	O−C.	L.	M.
	°	°	m. s.	s.	m.	m.
Kobe	0·2	39	0 4	0	0·2	0·2
Sumoto	0·2	214	0 0	− 4	0·1	0·0
Osaka	0·4	67	0 14	+ 8	0·4	2·0
Tyooka	1·1	352	—	—	0·7	—
Nagoya	1·7	67	e 0 25	− 1	0·8	1·7

Osaka gives also MN =+1·5m.

April 26d. 14h. 15m. 30s. Epicentre 4°·0S. 68°·0E. (as on 1922 Sept. 8d.).

A=+374, B=+925, C=−·070; D=+·927, E=−·375; G=−·026, H=−·065, K=−·998.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Colombo	16¼	47	7 30?	?L	—	—	(7·5)	9·5
Kew (third)	17¼	33	—	—	—	—	8·7	9·4
Bombay	23¼	12	5 26	+ 5	9 34	+ 1	12·6	14·0
Hyderabad	23¼	25	5 6	−20	9 8	−32	10·8	13·6
Tashkent	45½	1	8 34	− 1	i 13 8	−130	e 20·5	24·0
Baku	47¼	342	e 8 49	− 1	e 15 45	− 1	26·1	—
Cape Town	54½	230	—	—	—	—	—	30·5
Makeyevka	58½	337	—	—	—	—	36·5	—
Ekaterinburg	61½	355	10 36	+16	—	—	29·5	—
Irkutsk	64½	24	—	—	e 19 23	+ 9	31·5	—
La Paz	132¼	244	e 23 21	?PR$_1$	—	—	72·5	79·2

Tashkent gives also i=+18m.37s. =SR$_1$+1s., e=+19m.23s. =SR$_2$−19s., MN=+13·4m., MZ=+25·7m.

April 26d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·4E. of April 19d.:—

h.	m.	i		h.	m.	s.	
19	50	?	T	21	32	18	T

April 26d. Readings also at 3h. (near Tacubaya), 6h. (Tiflis and Tucson), 7h. (Kew), 8h. (Manila), 9h. (Rocca di Papa), 11h. (near Tacubaya), 12h. (Scheibong, De Bilt, Kew, and near Sumoto), 15h. (near Manila), 17h. (Tashkent), 20h. (Manila and near Sumoto), 21h. (Tashkent).

April 26d. 21h. 15m. 36s. Epicentre 31°·0N. 140°·0E. (as on 1923 Sept. 17d.).

A=−467, B=+451, C=+·515; D=+·643, E=+·766; G=−·395, H=+·331, K=−·857.

The absence of any Japanese observations is extraordinary.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	24·0	231	e 5 24	− 4	—	—	—	—
Irkutsk	33·6	320	e 7 4	+ 3	e 8 14	?PR$_1$	(18·4)	—
Tashkent	56·6	303	e 9 48	− 1	e 17 36	− 4	e 27·4	36·1
Ekaterinburg	58·8	322	e 10 13	+ 9	e 18 14	+ 5	24·4	35·8
Baku	70·6	307	—	—	—	—	e 38·4	—
Kazan	71·1	325	—	—	—	—	e 36·1	—
Leningrad	72·5	331	—	—	—	—	e 41·0	—
Makeyevka	74·7	318	—	—	41 54	?	44·4	51·1
Copenhagen	82·5	334	—	—	—	—	47·4	—
De Bilt	88·0	334	—	—	52 24	?	—	53·1
Uccle	89·3	334	—	—	50 24	?	—	—
Strasburg	89·8	331	—	—	—	—	e 50·4	—
Paris	91·7	334	—	—	—	—	e 56·4	—

Tashkent also i=+17m.24s. MN=+34·0m., MZ=+34·6m.

April 21d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 20d.

h.	m.	s.		h.	m.	s.
2	23	20	T	8	21	25
7	43	26	T			

April 21d. Readings also at 3h. (Santiago), 4h. (Tashkent), 5h. (Rocca di Papa (2) and Tashkent), 6h. (Ottawa), 8h. (Santiago), 10h. (near Sumoto), 11h. (Ottawa, Honolulu, Tucson, and near Vera Cruz), 12h. (Ekaterinburg and Tashkent), 15h. (Kobe, Malabar, and near Batavia), 16h. (near Sumoto), 21h. (near Ksara), 23h. (near Nagoya).

April 22d. 10h. 54m. 50s. Epicentre 43°·0N. 142°·5E. (as on 1921 June 22d.).

A = −·580, B = +·445, C = +·682; D = +·609, E = +·793; G = −·541, H = +·415, K = −·731.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Ootomari	3·7	3	1 7	+ 9	—	—	2·0	—
Mizusawa	4·0	195	1 0	− 2	1 43	− 7	—	—
Nagoya	8·9	211	e 2 17	+ 2	—	—	—	—
Osaka	10·0	215	2 59	+29	—	—	5·4	6·1
Irkutsk	27·0	303	e 5 55	− 3	e 10 22	−19	14·2	—
Tashkent	52·5	296	—	—	e 16 40	−10	e 23·2	27·4
Baku	65·4	303	—	—	e 27 23	?SR_2	33·2	35·2
Makeyevka	67·4	317	e 9 10?	?	e 19 41	−14	35·2	36·8
Copenhagen	72·6	333	—	—	—	—	37·2	—

Additional readings: Mizusawa SN = +1m.44s. Osaka MN = +5·3m. Irkutsk e = +12m.10s.? = SR_2 + 1s. Tashkent i = +21m.3s. = SR_1 + 9s., MN = +27·8m. Baku MN = +36·1m. Makeyevka e = +27m.10s. = SR_2 − 33s., MN = +37·1m., MZ = +43·8m.

April 22d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 21d.

h.	m.	s.		h.	m.	s.	
3	31	41	TS	21	21	9	T
14	8	42	T	22	13	27	T
15	9	52	T				

April 22d. Readings also at 0h. (Makeyevka, Rocca di Papa, Strasbourg, near Belgrade, and near Zagreb), 3h. (La Paz and Sucre), 7h. (La Paz and near Ksara and Athens), 8h. (Baku and Strasbourg), 10h. (Ekaterinburg), 14h. (La Paz), 15h. (Tashkent), 19h. (Baku and Tashkent), 20h. (Ekaterinburg), 22h. (near Ksara), 23h. (Ekaterinburg, Tiflis, Baku, and near Athens).

April 23d. 13h. 20m. 30s. Epicentre 19°·0N. 120°·5E. (as on 1924 Dec. 24d.).

A = −·480, B = +·815, C = +·326; D = +·862, E = +·507; G = −·165, H = +·280, K = −·946.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	4·4	173	e 1 12	+ 4	(e 2 5)	+ 4	e 2·1	2·7
Taihoku	6·1	9	1 38	+ 5	(2 36)	−10	2·6	—
Hong Kong	6·7	301	1 52	+10	—	—	—	4·7
Phu-Lien	13·2	281	e 3 18	+ 2	—	—	6·8	—
Sumoto	20·0	37	4 34	− 7	—	—	5·0	—
Irkutsk	35·6	344	e 7 4	−14	e 12 42	−22	e 21·5	—
Tashkent	48·7	310	e 9 17	+19	15 57	− 5	e 24·5	31·8
Ekaterinburg	57·8	327	9 57	− 1	17 56	0	26·5	32·3
Baku	63·3	309	—	—	—	—	36·5	—
Kucino	70·3	325	—	—	—	—	36·8	—
Makeyevka	71·1	317	—	—	e 26 2	?SR_1	45·5	48·9
Leningrad	73·7	330	—	—	—	—	42·6	47·2
Pulkovo	73·8	330	e 11 39	− 2	—	—	43·5	46·8
De Bilt	89·5	326	—	—	—	—	e 51·5	56·8

Additional readings: Manila MN = +2·3m. Tashkent SR_1 = +18m.38s., eSR_1 = +19m.30s. = SR_1 − 11s., MN = +27·7m. Ekaterinburg i = +9m.58s. Makeyevka MZ = +46·4m. Pulkovo MZ = +47·0m.

April 23d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 22d.

h.	m.	s.		h.	m.	s.	
8	50	44	T	19	13	53	T
18	0	56	T	19	46	55	T

April 23d. Readings also at 4h. (near Osaka and near Nagoya), 5h. (Taihoku), 7h. (La Plata, near La Paz, and Sucre), 8h. (Ekaterinburg and near Amboina), 9h. (La Plata, near La Paz, and Sucre), 10h. (Suva), 11h. (near Sucre), 13h. (Apia and near Ksara), 16h. (Apia), 17h. (Ekaterinburg and Irkutsk), 18h. (Tashkent), 20h. (near Ksara), 23h. (near Santiago).

April 24d. 1h. 13m. 8s. Epicentre 37°·5N. 140°·0E. (as on 1927 Jan. 14d.).

A = −·608, B = +·510, C = +·609; D = +·643, E = +·766; G = −·466, H = +·391, K = −·793.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	1·9	28	0 28	− 1	0 48	− 5	—	—
Nagoya	3·4	227	e 1 11	+18	—	—	2·1	2·8
Osaka	4·6	233	2 23	?S	(2 23)	+17	3·1	3·6
Kobe	4·8	235	e 1 50	+36	—	—	—	—
Sumoto	5·2	234	1 11	− 9	—	—	2·9	3·2
Tashkent	53·3	299	i 9 32	+ 4	18 57	[− 5]	e 27·9	33·4
Ekaterinburg	53·9	319	i 9 25	− 7	—	—	30·9	—
Baku	66·9	305	—	—	—	—	e 30·5	42·8

Additional readings: Sumoto MN = +3·5m. Tashkent iPR_2 = +13m.53s., ePS = +19m.40s., eS_4P_4S = +20m.10s., MN = +34·1m. Baku MN = +43·1m. Irkutsk (Δ = 28°·9) failed to register from 23d.22h.27m. to 24d.10h.36m.

April 24d. 11h. 20m. 20s. Epicentre 36°·5N. 70°·5E. (as on 1926 May 26d.).

A = +·268, B = +·758, C = +·595; D = +·943, E = −·334; G = +·199, H = +·561, K = −·804.

A depth of focus 0·020 is assumed as for previous shocks from this origin.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Tashkent	0·0	4·9	350	i 1 23	+ 7	i 2 24	+10	—	3·4
Simla	−0·1	7·7	132	2 52	+57	—	—	—	—
Baku	−0·6	16·6	290	i 3 56	+ 4	i 7 3	+ 8	—	—
Bombay	−0·7	17·7	173	4 5	0	e 7 20	+ 2	—	—
Hyderabad	−0·8	20·3	157	4 36	+ 1	—	—	—	10·8
Ekaterinburg	−0·9	21·4	345	i 5 49	+62	i 9 41	+67	11·7	—
Makeyevka	−1·3	26·4	306	e 5 37	− 2	e 10 23	+18	22·7	—
Irkutsk	−1·3	28·4	46	e 5 57	− 2	e 10 41	− 2	e 31·1	—
Kucino	−1·4	29·2	322	e 6 43	+37	11 33	+38	—	—
Pulkovo	−1·6	34·6	327	i 6 49	− 7	e 12 8	−16	16·7	—
Leningrad	−1·6	34·7	327	6 50	− 7	—	—	17·8	—
Copenhagen	−1·8	43·1	316	—	—	e 14 19	− 6	—	—

Additional readings: Tashkent e = +1m.44s., iPR_1 = +1m.51s., i = +2m.2s., iPR_2 = +2m.16s.; epicentre 36°24′N. 69°45′E. Ekaterinburg i = +6m.32s. and +9m.48s. Makeyevka e = +6 m.23s. = PR_1 +10s. Irkutsk e = +6m.39s. = PR_1 − 2s., +7m.31s., i = +11m.53s. = SR_1 − 1s.; the phases entered are also given as simply e. Kucino e = +12m.1s. = SR_1 − 11s. and +12m.45s. = SR_2 +11s. Pulkovo e = +12m.59s. Copenhagen e = +15m.9s. = [S] +11s., +17m.35s. = SR_1 +1s., and +21m.10s.

April 24d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 23d.

h.	m.	s.		h.	m.	s.	
4	28	20	T	23	37	51	T
6	45	21	T				

April 24d. Readings also at 2h. (Ekaterinburg), 3h. and 4h. (Tashkent), 6h. (Santiago), 8h. (Konigsberg), 9h. (Nagoya), 11h. (La Paz (2) and La Plata), 12h. (Tashkent and Baku), 15h. (Tiflis, Agana, and near Tucson), 20h. (La Paz), 21h. (Batavia), 23h. (Baku, Ekaterinburg, and Tashkent).

April 25d. Continuation of the list of after-shocks, from the epicentre 35°·7 134°·8E. of April 24d.

h.	m.	s.		h.	m.	s.	
2	58	13	T	14	3	29	T
10	26	14	TKSN	17	45	45	T
13	8	46	T	19	35	57	T

April 25d. Readings also at 0h. (Tashkent), 1h. (Manila), 2h. (Baku, Ekaterinburg, and Tashkent), 4h. (Tashkent), 5h. (Victoria, Chicago, Ottawa, and near Tucson), 7h. (Baku and near Ksara), 9h. (Makeyevka), 12h. and 13h. (La Paz), 16h. (Bagnères (2)), 20h. (La Paz and Tashkent), 22h. (Wellington), 23h. (Baku, Tashkent, and Tiflis).

April 26d. 7h. 55m. 24s. Epicentre 39°·5N. 72°·0E. (as on 1926 May 2d.).

A = +·234, B = +·734, C = +·636 ; D = +·951, E = −·309 ;
G = +·197, H = +·605, K = −·772.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Tashkent	2·9	310	0 54	+ 9	i 1 37	+17	i 2·0	3·4
Baku	17·2	280	—	—	—	—	e 8·1	—
Ekaterinburg	18·9	340	e 4 20	− 8	e 7 56	− 4	e 10·1	—
Tiflis	20·7	285	—	—	—	—	e 12·4	12·6
Irkutsk	25·3	49	—	—	—	—	e 14·6	—

Additional readings: Tashkent i = +58s., P = +1m.10s., iPR$_1$ = +1m.16s., iS = +1m.43s., MN = +3·2m. Baku e = +10m.50s.

April 26d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 25d.

h.	m.	s.		h.	m.	s.	
6	53	30	T	17	3	16	T
6	57	16	T	22	19	23	T
12	43	18	T	22	22	29	T
14	38	8	T	23	7	37	T
14	38	37	T	23	19	44	T

April 26d. Readings also at 6h. (Sucre and La Paz), 9h. (Baku), 10h. (Irkutsk and Taihoku), 11h. (Ekaterinburg and Tashkent), 12h. (Bombay, Taihoku, Ekaterinburg, Tashkent, and Irkutsk), 13h. (Tiflis and Baku), 14h. (Makeyevka), 15h. (Prague and Konigsberg), 16h. (Santiago), 17h. (Tashkent), 18h. (near Belgrade, Mostar, and near Zagreb), 23h. (La Paz).

April 27d. 2h. 50m. 12s. Epicentre 19°·0S. 179°·0E. (as on 1924 May 25d.).

A = −·945, B = +·017, C = −·326; D = +·017, E = +·1·000;
G = +·325, H = −·006, K = −·946.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Suva	N.	1·1	328	e 0 24	+ 7	i 1 12	+41	—	—
Apia		10·3	61	3 9	+35	5 5	+28	5·6	8·9
Wellington	E.	22·6	188	i 5 5	− 7	i 9 10	− 7	—	10·2
	N.	22·6	188	i 5 5	− 7	i 9 15	− 2	11·5	—
Christchurch		25·1	191	9 36	?S	(9 36)	−29	13·1	13·8
Riverview		28·8	234	i 6 53	+37	12 0	+47	—	17·8
Adelaide		39·0	239	(8 1)	+15	(13 28)	−24	(16·7)	(18·5)
Manila		66·3	297	e 10 48	− 6	—	—	—	—
Batavia	E.	71·1	271	i 11 7	−17	—	—	—	—
Irkutsk		96·0	324	e 13 24	−25	e 24 4	[+ 2]	e 44·8	—
Toronto	E.	111·3	49	e 19 33	?PR_1	(29 0)	?PS	60·2	—
Ottawa	E.	114·0	47	e 19 48	?PR_1	e 29 33	?PS	63·8	—
	N.	114·0	47	—	—	e 28 6	+ 4	e 48·8	—
Tashkent		117·0	307	e 18 45	[+ 1]	29 26	+60	e 54·8	63·0
Ekaterinburg		121·2	326	i 18 57	[0]	e 27 15	−103	50·8	67·6
Baku		131·7	308	—	—	e 33 24	?	60·8	71·0
Kucino		133·1	330	i 22 45	?PR_1	—	—	e 60·0	—
Leningrad		133·3	339	—	—	i 39 48?	?SR_1	e 67·0	—
Pulkovo		133·5	339	e 19 15	[−11]	i 22 46	?PR_1	64·8	73·2
Helsingfors		134·9	340	e 22 49	?PR_1	—	—	e 69·4	—
Tiflis	N.	135·2	311	e 19 27	[− 3]	39 12	?SR_1	e 57·8	71·4
Makeyevka		137·2	320	e 19 34	[0]	—	—	45·8	77·0
Copenhagen		142·0	346	19 24	[−19]	—	—	67·8	—
Ksara		144·0	300	e 18 48?	[−59]	—	—	—	—
Hamburg	Z.	144·1	348	e 19 39	[− 8]	—	—	—	—
De Bilt		146·6	351	19 44	[− 7]	—	—	e 68·8	84·6
Vienna	Z.	147·6	339	e 19 45	[− 7]	—	—	—	—
Kew		147·6	0	i 19 48?	[− 4]	—	—	70·8	—
Uccle		147·9	352	19 46	[− 7]	—	—	e 68·8	—
Belgrade	E.	148·6	330	e 20 42	[+48]	—	—	—	—
Strasbourg		149·6	349	19 51	[− 4]	e 32 34	?	e 74·8	—
Zagreb		149·8	336	e 19 48?	[− 8]	—	—	—	—
Innsbruck		150·0	343	e 17 52	[−124]	—	—	—	—
Paris		150·1	356	e 19 52	[− 4]	—	—	75·8	—
Zurich	Z.	150·6	347	e 19 50	[− 7]	—	—	—	—
Moncalieri	E.	153·0	347	19 53	[− 7]	31 0	?	44·0	—
Rocca di Papa	E.	154·5	336	e 20 18	[+16]	—	—	—	—
Granada		161·7	7	i 20 4	[− 5]	—	—	78·8	85·8
San Fernando	E.	162·0	14	—	—	—	—	—	100·3

Additional readings and notes: Suva eE = +1m.12s., iSE = +1m.30s.; T_3 = 2h.49m.36s. Apia P = +4m.12s., MN = +8·1m. Riverview MN = +17·1m.; are P and S really PR_1 = +7m.5s. and SR_1 = +12m.36s. ? Adelaide, all the readings have been diminished by 4 min. Batavia i = +11m.17s. Irkutsk e = +26m.0s. =PS −19s. Toronto gives S as L and eE = +59m.11s. as connected with a later shock which also includes the true L for this one. Tashkent e = +19m.44s., iP = +19m.45s. =PR_1 −19s., i = +20m.16s. =PR_1 +12s., P = +20m.44s., and +21m.55s., PR_1 = +23m.8s. =PR_2 −10s., and +24m.18s., PR_2 = +25m.48s. =[S] +12s., iPR_2 = +26m.46s. = Σ −10s., S_4P_4S = +30m.43s. =PS +30s., PS = +31m.31s., PPS = +33m.24s. and +35m.18s., SR_1 = +39m.30s., and +41m.0s. = SR_2 −36s., eSR_2 = +43m.12s., and +47m.48s.?, MN = +62·8m. Ekaterinburg e = +20m.14s. =PR_1 −18s. Baku e = +38m.58s. =SR_1 −13s., MN = +70·3m. Kucino e = +23m.36s., +28m.0s. =PR_2 +5s., and +32m.18s. Tiflis eE = +22m.21s. =PR_1 +17s., ME = +73·4m. Makeyevka e = +22m.57s. =PR_1 +41s., +28m.54s. =PR_2 +26s., and +35m.24s., MZ = +77·2m., MN = +78·3m. Copenhagen readings at +22m.30s. =PR_1 −16s., +23m.12s., and +24m.48s. De Bilt iZ = +19m.47s., eZ = +21m.40s. Vienna iPZ = +19m.47s. Strasbourg PR_1? = +23m.26s. = PR_1 −10s. Zagreb e = +19m.57s. Granada i = +24m.37s. =PR_1 −11s. San Fernando MN = +97·8m.

April 27d. 13h. 57m. 0s. (I) } Epicentre 16°·0N. 96°·0W. (as on 1927 Feb. 12d.)
21h. 53m. 0s. (II) }

A = −·100, B = −·956, C = +·276 ; D = −·995, E = +·105 ;
G = −·029, H = −·274, K = −·961.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
I Oaxaca		1·2	324	0 28	+10	—	—	0·9	1·1
II		1·2	324	0 23	+ 5	(0 35)	+ 2	0·6	0·6
I Vera Cruz		3·2	358	0 48	− 2	—	—	1·8	2·5
II		3·2	358	1 36	?S	(1 36)	+ 8	2·3	2·8
I Puebla		3·7	327	0 43	−15	(1 27)	−15	1·5	1·6
II		3·7	327	0 45	−13	(1 14)	−28	1·2	1·3
I Tacubaya		4·6	318	1 18	+ 7	(2 4)	− 2	2·1	2·6
II		4·6	318	1 12	+ 1	(1 52)	−14	1·9	2·3
II Merida		7·8	50	—	—	(3 1)	−30	3·0	3·2
I Guadalajara		8·5	304	2 37	+28	3 53	+ 3	4·0	—
II		8·5	304	2 34	+25	3 51	+ 1	3·9	4·1
I Tucson	N.	21·0	323	e 4 38	−15	e 8 33	−11	10·6	11·2
II	E.	21·0	323	4 47	− 6	e 8 26	−18	10·4	10·9
II	N.	21·0	323	4 45	− 8	e 8 26	−18	10·5	10·8
I Chicago	N.	26·7	14	e 5 45	−10	10 30	− 5	—	—
II	N.	26·7	14	e 5 48	− 7	10 20	−15	—	—
I Ann Arbor	N.	28·3	19	—	—	—	—	e 14·6	—
I Toronto	E.	31·0	24	—	—	e 11 20	−31	21·0	—
I Ottawa		33·9	26	e 7 0?	− 4	—	—	22·0	—
II		33·9	26	—	—	e 12 24	−15	e 19·0	—
I Victoria	E.	39·4	331	13 28	?S	(13 28)	−29	20·7	21·7
II	E.	39·4	331	16 34	?SR_1	—	—	20·7	24·7
I Ekaterinburg		104·6	12	—	—	—	—	30·0	—
II		104·6	12	—	—	—	—	62·5	—
I Baku		115·3	28	—	—	—	—	e 64·0	—
I Tashkent		121·1	11	e 20 39	?PR_1	—	—	e 58·0	—
II		121·1	11	—	—	—	—	e 70·0	76·0

Additional readings: Tucson I LN (Rayleigh) = +11·7m.; T_0 = 3h.56m.34s. and 13h.56m.45s., II T_0 = 21h.53m.4s. and 21h.53m.14s. Chicago I iSE = +10m.28s.; T_0 = 13h.56m.31s. and 13h.56m.46s., II eSE? = +10m.18s.

April 27d. 19h. 16m. 14s. Epicentre **30°·6N. 141°·8E.**
(as on 1927 April 3d.).

A = −·677, B = +·532, C = +·509 ; D = +·618, E = +·786 ;
G = −·400, H = +·315, K = −·861.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya		6·2	319	1 34	− 1	(2 53)	+ 4	2·9	—
Osaka		6·7	308	1 46	+ 4	—	—	3·4	4·1
Sumoto		6·9	304	1 50	+ 5	4 20	?L	5·9	8·1
Kobe		7·0	308	1 48	+ 2	—	—	4·1	—
Toyooka		7·7	313	1 57	0	—	—	e 4·1	7·6
Mizusawa		8·5	355	2 7	− 2	3 32	−18	4·9	—
Hukuoka		10·2	290	i 2 35	+ 2	—	—	5·5	6·2
Nagasaki		10·4	285	e 2 35	− 1	—	—	5·8	7·4
Ootomari		16·1	2	3 53	0	(7 12)	+15	7·2	—
Zi-ka-wei		17·5	277	e 4 9	− 2	—	—	—	11·6
Taihoku	E.	18·8	258	4 34	+ 7	7 52	− 6	10·0	—
Manila		24·9	235	e 5 36	− 1	—	—	i 15·0	—
Hong Kong		26·0	258	5 41	− 7	10 31	+ 9	—	15·8
Phu-Lien		33·1	260	e 6 39	−18	—	—	17·8	—
Irkutsk		34·9	319	i 6 56	−16	12 27	−27	17·8	21·7
Dehra Dun		54·2	288	(9 23)	−11	(19 29)	[+19]	24·7	27·3
Honolulu T.H.	E.	54·5	84	—	—	e 17 10	− 5	e 26·0	—
Simla		54·7	289	—	—	—	—	e 33·5	—
Tashkent		58·0	304	i 9 59	0	i 17 53	− 6	e 27·2	36·8
Hyderabad		58·6	275	10 4	+ 1	18 12	+ 6	31·8	39·8
Ekaterinburg		60·1	322	i 10 14	+ 1	i 18 22	− 2	25·8	37·1
Colombo		62·5	263	18 46	?S	(18 46)	− 9	45·1	—
Kodaikanal		62·8	268	38 16	?L	—	—	(38·3)	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Bombay		62·8	277	e 10 26	− 5	—	—	—	37·4
Victoria	E.	70·6	45	20 39	?S	(20 39)	+ 6	41·6	—
Baku		72·1	307	i 11 31	0	i 20 55	+ 4	35·3	42·6
Kucino		72·3	325	11 31	− 1	e 20 52	− 2	35·0	45·5
Pulkovo		73·6	331	11 38	− 2	21 8	− 1	33·8	43·6
Leningrad		73·6	331	11 38	− 2	21 8	− 1	36·8	51·2
Tiflis	E.	75·0	311	11 45	− 4	21 22	− 4	e 37·3	47·8
	N.	75·0	311	11 48	− 1	e 21 38	+12	—	47·8
Helsingfors		75·6	333	—	—	e 21 9	−24	e 40·4	47·2
Makeyevka		76·1	319	e 11 52	− 4	21 34	− 4	36·8	50·0
Upsala		78·7	335	—	—	e 22 0	− 8	e 42·8	—
Copenhagen		83·5	334	e 12 32	− 7	22 55	− 8	43·8	45·6
Ksara		85·0	309	12 47	− 7	23 17	− 2	49·8	—
Hamburg		86·0	334	e 12 47	− 6	e 23 5	[+ 3]	e 44·8	—
Prague		86·6	330	—	—	e 23 29	− 8	e 49·8	55·8
Budapest		86·6	326	12 49	− 8	23 23	−14	e 45·8	55·5
Tucson		86·8	55	e 13 4	+ 6	e 23 22	−17	e 47·0	52·3
Vienna		87·2	327	12 52	− 8	23 33	−10	e 45·8	56·8
Cheb		87·8	330	e 12 41	−23	e 23 35	−15	e 46·8	53·6
Graz		88·5	327	e 16 41	?PR_1	e 23 41	−17	48·5	56·4
De Bilt		89·1	335	e 12 59	−12	e 23 47	−17	e 43·8	54·4
Zagreb		89·2	326	e 13 2	− 9	e 16 34	?PR_1	52·8	—
Uccle		90·4	335	e 13 5	−13	23 56	−22	e 46·8	—
Strasbourg		90·9	332	13 8	−13	23 53	−30	e 47·8	—
Zurich		91·4	330	e 13 11	−12	—	—	—	—
Kew		91·5	339	e 13 30	+ 6	e 23 46?	[+ 9]	49·8	55·3
Oxford		91·6	339	—	—	—	—	e 51·3	58·0
Paris		92·7	335	e 13 19	−12	—	—	49·8	57·8
Moncalieri		93·6	329	e 11 37	−119	23 19	−93	51·0	—
Rocca di Papa		93·8	325	e 13 23	−14	—	—	e 50·1	63·0
Ottawa		96·7	25	—	—	e 24 10	[+ 4]	e 43·8	—
Barcelona		98·9	330	—	—	—	—	e 56·8	62·4
Tortosa	N.	100·1	332	—	—	—	—	e 52·8	60·0
Algiers		102·3	328	e 18 16	?PR_1	—	—	59·8	65·8
Toledo	N.W.	102·7	334	—	—	e 24 41	[+ 4]	—	62·1
Almeria		104·6	333	—	—	—	—	e 66·6	68·9
Granada		104·9	334	i 18 34	?PR_1	—	—	57·8	67·4
San Fernando		106·6	335	—	—	—	—	57·8	77·8
La Paz		149·3	70	19 57	[+ 2]	—	—	—	—

Additional readings and notes: Osaka MN = +4·3m. Sumoto MN = +6·9m. Toyooka L = +4·8m. Mizusawa PN = +2m.8s. Irkutsk MZ = +21·6m. Dehra Dun, the readings have been diminished by 7 min. Honolulu eLN = +27·5m. Tashkent ePR_1 = +11m.51s., ePR_2 = +13m.5s., PR_2 = +14m.11s., iSR_1 = +21m.45s., eSR_2 = +23m.40s., MN = +35·2m. Ekaterinburg i = +12m.25s. = PR_1 − 32s., and +19m.56s. = [S] + 1s., MN = +34·8m., MZ = +38·0m. Baku MN = +46·2m. Kucino e = +12m.10s., PR_1 = +14m.13s., eSR_1 = +25m.47s., MN = +39·5m. Pulkovo PR_1 = +14m.26s., PR_2 = +16m.10s., MN = +43·0m., MZ = +47·2m. Leningrad PR_1 = +14m.24s., PR_2 = +16m.10s., MN = +46·0m. Helsingfors MN = +55·4m. Makeyevka PR_1 = +16m.32s., MN = +47·1m., MZ = +53·3m. Tucson ePR_1N = +17m.4s., eSN = +23m.16s. De Bilt MN = +54·7m., MZ = +56·8m. Strasbourg PR_1 = +16m.28s., ePS = +25m.17s. Zurich reading has been diminished by 1h. Paris MN = +60·8m. Rocca di Papa PZ = +17m.11s., PEN = +17m.12s. Ottawa e = +31m.26s. = SR_1 − 1s. Tortosa readings have been increased by 1h. Toledo MNE = +66·3m. San Fernando MN = +73·8m.

April 27d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 26d. :—

h.	m.	s.		h.	m.	s.	
17	4	25	T	23	37	27	TKOSN

April 27d. Readings also at 3h. (near Lick), 7h. (Baku), 13h. (La Plata, near La Paz, and Sucre), 17h. (Tashkent and Baku), 19h. (Manila), 22h. (Nagoya and near Wellington).

April 28d. 0h. 49m. 42s. Epicentre 38°·0N. 69°·5E. (as on 1925 Aug. 30d.).

A = +·276, B = +·738, C = +·616 ; D = +·937, E = −·350 ;
G = +·216, H = +·577, K = −·788.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Tashkent	3·3	358	i 1 8	+16	i 1 57	?L	(i 2·0)	3·0
Simla	9·4	135	e 2 18	− 4	—	—	—	—
Baku	15·3	285	e 3 45	+ 2	e 6 44	+ 5	—	—
Tiflis	19·2	290	4 21	−10	e 8 2	− 4	e 9·4	—
Ekaterinburg	19·7	346	i 4 28	− 9	8 15	− 2	—	—

Additional readings: Tashkent i = +1m.24s., iPR_1 = +1m.51s., MN = +2·3m., MZ = +3·2m. Tiflis S is given only as e. Ekaterinburg i = +8m.21s.

April 28d. 2h. 4m. 42s. Epicentre 15°·5N. 92°·5E. (as on 1926 July 12d.).

A = −·042, B = +·963, C = +·267 ; D = +·999, E = +·044 ;
G = −·015, H = +·267, K = −·964.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Phu-Lien	14·4	66	e 3 23	− 9	—	—	7·1	—
Bombay	19·1	283	8 8	?S	(8 8)	+ 4	15·8	—
Hong Kong	21·6	68	8 23	?S	(8 23)	−34	—	11·8
Tashkent	32·7	326	—	—	—	—	e 12·5	22·2
Irkutsk	38·0	11	—	—	—	—	e 19·3	—
Baku	44·5	313	—	—	—	—	25·3	—
Ekaterinburg	47·8	336	9 2	+ 9	e 15 50	− 1	25·8	—
Tiflis	48·6	313	—	—	—	—	e 20·2	20·4
Kucino	57·7	326	—	—	—	—	32·3	—
De Bilt	76·3	320	—	—	—	—	e 44·3	—
Kew	79·7	321	—	—	—	—	e 46·3	—

Tashkent gives e = 2h.3m.55s., MN = +19·2m., MZ = +22·3m.

April 28d. 2h. 59m. 10s. Epicentre 5°·2S. 103°·3E. (given by Batavia).

A = −·229, B = +·969, C = −·091 ; D = +·973, E = +·230 ;
G = +·021, H = −·088, K = −·996.

A depth of focus 0·025 has been assumed. See note at the end.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia	+0·2	3·7	105	i 0 53	− 8	i 1 38	− 9	—	—
Malabar	+0·1	4·7	116	1 15	+ 1	i 2 10	− 1	—	—
Tashkent	−2·9	55·9	329	i 9 23	− 3	e 16 50	− 6	e 28·8	32·6
Baku	−3·1	66·8	318	—	—	—	—	e 55·8	—
Tiflis E.	−3·2	70·8	317	—	—	e 19 59	+ 2	—	—
Ekaterinburg	−3·2	71·0	337	i 11 4	+ 1	—	—	35·3	—

Additional readings: Batavia iP = +56s., i = +1m.10s. and +1m.34s., iS = +1m.40s. Tashkent eSR_2 = +23m.2s. Tiflis eN = +20m.5s., e = +20m.12s.

NOTE TO SHOCK APRIL 28D.2H.59M.10S.

Taking the T_0 and origin (from Batavia) adopted above we have for the residuals :—

	Az.	Δ O−C.	Corr. for focus	Diff.
	°	°	°	°
Batavia	105	−0·2	+0·2	+0·4
Malabar	116	+0·1	+0·1	0·0
Tiflis	317	−3·1	−3·2	+0·1
Tashkent	329	−3·4	−2·9	−0·5
Ekaterinburg	337	−3·0	−3·2	+0·2

The second column shows that the Batavia epicentre will not fit without an assumption of focal depth, nor is it possible to satisfy both the close and the distant stations by the adoption of any origin in the neighbourhood without this assumption.

April 28d. 10h. 24m. 36s. Epicentre 26°·3N. 121°·5E. (as on 1927 Feb. 27d.).

A = −·468, B = +·764, C = +·443; D = +·853, E = +·522; G = −·231, H = +·378, K = −·896.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Taihoku	1·3	179	0 44	+24	—	—	1·2	1·3
Zi-ka-wei	4·9	359	—	—	—	—	e 3·5	—
Hong Kong	7·8	240	1 49	− 9	2 49	−42	—	4·0
Manila	11·7	182	e 2 50	− 5	—	—	5·4	—
Phu-Lien	14·7	251	e 6 39	?S	(e 6 39)	+14	8·4	—
Irkutsk	29·0	338	e 6 18	0	—	—	19·4	20·3
Tashkent	45·2	305	7 25	−69	i 15 17	− 1	e 25·3	31·6
Ekaterinburg	52·4	323	9 25	+ 3	e 17 9	?PS	26·4	—
Baku	59·8	303	—	—	—	—	e 39·4	—
Tiflis	63·3	305	—	—	—	—	e 33·5	43·1
Leningrad	68·0	328	—	—	—	—	e 40·4	—
Pulkovo	68·1	328	—	—	—	—	e 41·4	—
Copenhagen	78·4	327	—	—	—	—	—	48·4
De Bilt	84·0	326	—	—	e 34 24	?SR_3	e 45·4	—

Additional readings and notes: Hong Kong S is given as "?" Irkutsk e = +15m.11s. and +17m.28s. Tashkent PS = +15m.34s. = PS +6s., SR_1 = +16m.3s., eSR_2 = +21m.6s., eSR_3 = +21m.54s., L = +26·9m., MZ = +29·6m., MN = +30·7m. Tiflis eL = +41·1m., MN = +42·1m.

April 28d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 27d.

h.	m.	s.		h.	m.	s.	
7	10	37	T	20	11	20	T

April 28d. Readings also at 2h. (Tiflis and Irkutsk), 4h. (Ekaterinburg and Tashkent), 7h. and 9h. (Tiflis), 14h. (Pompeii and Rocca di Papa), 19h. (near Tacubaya), 20h. (La Paz and Sucre), 21h. (Baku, Taihoku, Tashkent, Tiflis, and Ksara), 22h. (Ekaterinburg, Irkutsk, and Tashkent).

April 29d. 11h. 19m. 40s. Epicentre 70°·0N. 19°·0W. (as on 1925 Nov. 28d.).

A = +·323, B = −·111, C = +·940; D = −·326, E = −·946; G = +·889, H = −·306, K = −·342.

The residuals suggest an origin about 1° further west.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Reykjavik		6·0	192	i 2 0	+28	2 29	−15	—	—
Edinburgh		15·8	146	—	—	—	—	e 6·3	7·3
Upsala		18·1	105	—	—	—	—	—	13·3
Oxford		20·0	147	—	—	e 8 35	+12	9·7	10·1
Kew		20·5	145	—	—	—	—	e 9·3	—
Hamburg		21·0	126	—	—	—	—	e 11·3	—
De Bilt	E.	21·1	135	—	—	—	—	e 8·3	10·8
	N.	21·1	135	—	—	—	—	e 9·3	10·7
Uccle		22·0	138	—	—	—	—	e 9·3	—
Leningrad		22·3	92	—	—	—	—	e 11·8	—
Pulkovo		22·4	92	5 18	+ 8	9 28	+15	12·3	—
Paris		23·6	142	e 4 53	−31	—	—	10·3	11·3
Cheb		24·8	127	—	—	—	—	e 10·3	14·3
Strasbourg		25·0	135	e 5 20?	−18	—	—	10·3	—
Prague		25·4	124	—	—	e 9 20?	−51	—	16·3
Kucino		28·1	91	—	—	e 11 14	+13	15·4	—
Moncalieri		28·3	138	—	—	—	—	13·7	—

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		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Makeyevka		34·6	99	—	—	e 14 20?	?SR_1	19·3	21·3
Ekaterinburg		34·9	70	—	—	—	—	15·8	—
Ottawa		36·9	259	—	—	e 13 8	−14	e 16·3	—
Tiflis	N.	42·4	97	—	—	—	—	e 24·1	27·3
Chicago	E.	44·0	268	—	—	—	—	e 24·1	—
Victoria	E.	49·7	303	—	—	—	—	27·4	28·3
Tashkent		51·1	76	—	—	e 17 14	?PS	e 26·7	29·0

Additional readings: Oxford i = +9m.24s. De Bilt MZ = +14·2m.; epicentre 66°9′N. 18°55′W., which was tried but could not be made to fit any observations except those of Reykjavik. Strasbourg e = 11h.22m.5s. Moncalieri e = 11h.15m.24s. Chicago eLN = +24·8m. Tashkent e = +21m.11s., MN = +35·2m.

April 29d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of April 28d.

h.	m.	s.		h.	m.	s.	
0	2	54	T	8	34	0	T
0	21	25	TS	8	37	50	T
4	0	18	T	22	51	30	T
5	36	9	T				

April 29d. Readings also at 2h. (Kew), 4h. (Tiflis), 8h. (Suva), 10h. (near Batavia and Malabar), 11h. (near Zurich), 13h. (Kucino), 14h. (Suva, Tiflis, and near Taihoku), 17h. (Taihoku and near Zurich), 23h. (Taihoku).

April 30d. 13h. 56m. 30s. Epicentre 39°·5N. 79°·0E.

A = +·147, B = +·757, C = +·636; D = +·982, E = −·191; G = +·121, H = +·624, K = −·772.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tashkent		7·6	287	i 2 2	+ 7	i 2 52	−34	—	5·5
Simla	N.	8·5	190	2 12	+ 3	—	—	4·6	—
Calcutta	E.	18·5	152	7 43	?S	(7 43)	− 8	10·8	—
	N.	18·5	152	8 10	?S	(8 10)	+19	11·1	—
Ekaterinburg		21·0	332	e 5 9	+16	9 0	+16	11·0	—
Bombay		21·3	196	4 55	− 2	8 45	− 5	10·9	13·2
Hyderabad		22·1	181	5 27	+21	9 3	− 4	11·9	13·2
Baku		22·2	282	i 5 9	+ 2	i 9 12	+ 3	13·0	15·0
Tiflis		25·9	286	5 46	− 1	e 10 28	+ 8	e 15·2	20·3
Kodaikanal		29·3	183	—	—	—	—	15·6	16·2
Phu-Lien		30·1	122	e 8 30	?	—	—	17·5	—
Makeyevka		30·4	300	e 6 31	− 1	—	—	17·8	19·6
Kucino		31·4	315	e 6 50	+ 8	e 11 34	−24	12·7	22·9
Hong Kong		34·4	110	12 53	?S	(12 53)	+ 7	—	21·2
Ksara	N.	34·7	275	e 7 15	+ 4	15 31	?L	23·5	—
Pulkovo		36·3	321	7 24	0	e 12 34	−40	17·5	22·4
Leningrad		36·3	321	7 26	+ 2	—	—	14·2	26·0
Helsingfors		39·0	320	—	—	e 20 45	?L	(e 20·8)	—
Lemberg		39·5	303	—	—	—	—	e 16·4	23·6
Athens		42·5	285	e 5 43	−152	14 30	−12	26·5	32·1
Upsala		42·6	320	—	—	e 17 25	?SR_1	e 22·5	26·3
Budapest		43·1	300	17 14	?SR_1	—	—	e 24·5	—
Manila		44·3	112	e 10 9	?PR_1	—	—	—	27·5
Vienna		44·7	304	e 10 12	?PR_1	18 31	?SR_1	—	27·5
Graz		45·5	302	e 12 24	?	—	—	26·5	71·2
Zagreb		45·5	299	e 8 30?	− 7	—	—	e 24·5	—
Prague		45·5	307	e 10 33	?PR_1	e 18 30?	?SR_1	e 25·5	26·5
Copenhagen		45·7	315	—	—	e 15 10	−14	e 24·3	28·0
Potsdam	E.	45·9	309	—	—	—	—	e 25·3	—
Cheb		46·8	307	10 37	?PR_1	e 15 35	− 3	e 18·5	25·5
Hamburg		47·5	311	e 12 30?	?	e 19 13	?PR_1	—	25·5
Venice		48·1	300	—	—	20 30?	?SR_1	—	—

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		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Rocca di Papa		49·1	295	e 9 10	+ 9	—	—	e 26·9	30·8
Ravensburg	E.	49·2	305	—	—	—	—	e 26·7	28·2
Zurich		50·0	303	e 9 22	+15	e 21 7	?SR_2	e 27·5	—
Strasbourg		50·1	306	9 30?	+22	—	—	e 19·5	27·8
De Bilt		50·7	310	e 12 30?	?PR_3	e 16 30?	+ 3	e 24·5	33·1
Moncalieri		51·3	301	—	—	e 16 35	0	28·0	33·1
Uccle		51·5	309	—	—	e 15 30?	−68	e 25·5	—
Besançon		51·7	305	—	—	—	—	28·5	—
Dyce		53·2	319	—	—	e 17 14	+15	27·2	33·2
Paris		53·3	308	e 16 57	?S	(e 16 57)	− 3	30·5	33.5
Kew		54·0	310	—	—	e 21 30?	?SR_1	27·5	30·6
Edinburgh		54·1	317	—	—	e 22 30?	?SR_1	28·5	38·2
Stonyhurst		54·4	314	—	—	e 20 30?	?SR_1	e 31·5	—
Oxford		54·5	311	—	—	e 22 14	?SR_1	e 28·5	32·8
Barcelona		56·4	298	—	—	—	—	e 31·6	34·5
Tortosa		57·8	299	—	—	—	—	e 30·5	34·3
Granada		62·4	296	—	—	e 19 12	+19	35·5	40·5
San Fernando		64·6	297	—	—	—	—	34·5	42·0
Victoria	E.	89·9	14	—	—	—	—	47·1	56·4
Ottawa		92·1	342	—	—	e 38 18	?SR_2	e 42·5	—
Toronto	E.	94·6	345	—	—	—	—	50·5	—
Chicago	E.	97·8	350	—	—	—	—	e 47·2	—

Additional readings: Tashkent iP = +2m.10s., iPR_1 = +2m.19s., iPR_2 = +2m.26s., i = +3m.9s.; epicentre 39°50′N. 74°15′E. Simla PE = +3m.12s., eLE = +5·6m. Baku i = +5m.27s., MN = +14·2m. Tiflis eN = +5m.53s., eE = +12m.38s., MN = +17·4m. Makeyevka e = +4m.39s., +10m.23s., and +12m.34s., i = +12m.27s. and +13m.37s. Kucino MN = +17·3m. Ksara PR_1N = +8m.44s., PR_2N = +9m.50s., PR_3N = +10m.56s. Pulkovo MN = +20·2m., MZ = +22·5m. Leningrad MN = +20·3m., MZ = +22·8m. Helsingfors ePR_1? = +16m.6s., iPS? = +21m.8s., and several other e readings. If we subtract 7 min. from the readings ePR_1 = +9m.6s. = PR_1 − 4s., and S = +13m.45s. = S − 7s., iPS = +14m.8s. = PS + 11s. Athens MN = +31·0m. Upsala MN = +23·9m. Zagreb e = +9m.39s. Copenhagen e = +15m.18s., +19m.20s. = SR_3 − 33s., +21m.54s., and +22m.54s. Potsdam e = +19m.1s., eSR_1 = i = +21m.29s., and +25m.12s., eLN = +25·7m. Hamburg eSR_1 = +21m.30s. = SR_3 + 25s. Rocca di Papa eZ = +8m.49s., eE = +9m.1s., eLN = +27·0m., eL = +27·6m. Ravensburg eE = +20m.4s. = SR_1 + 14s., and +26m.54s., eN = +23m.42s. and +26m.4s., MN = +27·2m. Strasbourg MZ = +30·2m. De Bilt MN = +28·8m., MZ = +33·2m. Moncalieri S = +23m.10s., MN = +32·5m. Paris e = +28m.38s., MN = +31·5m. Kew MZ = +35·8m. San Fernando MN = +39·5m. Chicago SR_1E? = +38m.13s.

April 30d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 29d.

h.	m.	s.		h.	m.	s.	
0	58	24	T	15	29	0	T
3	19	8	T	17	46	55	T
4	30	14	T	18	8	55	T
5	38	30	T	18	26	30	T
13	17	34	T	23	48	59	T

April 30d. Readings also at 1h. (Florence, Strasbourg, and Zurich), 3h. (Ekaterinburg and Tashkent), 4h. (Tashkent and Tiflis), 5h. and 6h. (Taihoku), 10h. (Rocca di Papa), 15h. (Nagoya), 18h. (Baku, Tashkent, and Tiflis), 19h. (near Almeria), 22h. (Tashkent and near Lick), 23h. (Baku (3)).

May 1d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of April 30d. :—

h.	m.	s.		h.	m.	s.	
9	20	35	T	11	47	20	T
11	32	30	T				

May 1d. Readings also at 0h. (Baku (5) and Tashkent), 1h. (Baku and Tashkent), 2h. (Baku (2) and La Paz), 3h. (Baku, Ekaterinburg, Tashkent, Ottawa, and Toronto), 5h. (Baku), 6h. (Tacubaya (2), Oaxaca, Vera Cruz, Tucson, and Baku), 8h. (Baku), 9h. (Irkutsk, Strasbourg, near Moncalieri, and Zurich), 10h., 11h., and 14h. (Baku), 19h. (Baku and Agana), 21h. (Granada, Pompeii, Naples, Rocca di Papa, and La Paz), 22h. (Apia, Baku, and near Sumoto).

May 2d. 6h. 20m. 24s. Epicentre 32°·5N. 31°·0E.

A = +·723, B = +·434, C = +·537; D = +·515, E = −·857; G = +·461, H = +·277, K = −·843.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Ksara	4·3	71	i 1 28	+21	2 2	+ 4	—	—
Makeyevka	16·4	17	—	—	—	—	e 8·6	14·0
Baku	17·1	57	e 5 7	+61	e 7 20	0	9·1	—
Kucino	23·8	10	—	—	e 10 36	+56	13·2	—
Copenhagen	26·6	336	—	—	—	—	16·6	—
Pulkovo	27·3	359	e 6 45	?PR_1	e 9 12	−94	—	—
Tashkent	31·6	63	e 6 36?	− 7	e 11 36?	−25	e 14·6	20·7
Ekaterinburg	31·7	31	e 6 43	− 1	e 11 59	− 4	17·6	—

Additional readings: Ksara iPE = +1m.31s., iPR_1E = +1m.33s., iPR_3E = +1m.36s., iSR_2 = +2m.4s. Makeyevka L = +12·6m.

May 2d. 11h. 23m. 30s. Epicentre 16°·0N. 96°·0W. (as on 1927 April 27d.).

A = −·100, B = −·956, C = +·276; D = −·995, E = +·105; G = −·029, H = −·274, K = −·961.

Very rough.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Oaxaca	1·2	324	(0 22)	+ 4	—	—	(1·1)	—
Vera Cruz	3·2	358	1 2	+12	—	—	1·8	3·0
Tacubaya	4·6	318	1 22	+11	—	—	2·8	3·7
Merida	7·8	50	0 40	−78	(3 0)	−31	3·0	3·0
Ottawa	33·0	26	—	—	(14 30?)	?SR_1	17·0	—

Oaxaca readings have been increased by 2m. Ottawa eL = +10·5m., SR_1 is given as L.

May 2d. 11h. 47m. 37s. Epicentre 32°·5S. 69°·5W. (as on 1927 April 14d.).

A = +·295, B = −·790, C = −·537.

The focal depth +·015 of April 14 has been retained.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Santiago	+0·3	1·4	315	0 26	0	—	—	0·8	—
La Paz	−0·4	16·0	5	e 3 44	− 3	i 6 49	+ 3	8·1	—

May 2d. 12h. 34m. 10s. Epicentre 5°·7S. 151°·8E. (as on 1923 Nov. 4d.).

A = −·877, B = +·470, C = −·099; D = +·473, E = +·881; G = +·088, H = −·047, K = −·995.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Agana	N.	20·4	340	(e 5 45)	+59	—	—	—	—
Riverview		28·2	181	e 6 8	− 2	—	—	e 14·8	18·1
Adelaide		31·7	200	i 6 47	+ 3	(i 12 25)	+22	17·5	19·1
Melbourne		32·7	189	—	—	e 12 14	− 5	i 18·0	20·8

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		36·7	305	e 7 29	+ 1	—	—	15·8	—
Wellington	N.	41·1	153	i 10 14	?PR$_3$	—	—	e 17·3	—
Hong Kong		46·3	309	15 20	?S	(15 20)	−12	—	24·2
Phu-Lien		51·7	304	8 50?	−28	—	—	—	—
Honolulu T.H.	E.	56·3	59	—	—	—	—	e 26·8	—
Irkutsk		70·6	332	e 11 22	+ 1	i 20 26	− 7	32·8	—
Bombay		81·5	290	e 8 18	?	—	—	—	—
Tashkent		88·2	314	e 12 56	−10	i 23 38	−16	e 37·8	48·5
Victoria	E.	90·8	41	—	—	—	—	44·1	49·9
Ekaterinburg		95·4	327	e 13 27	−18	i 23 59	[0]	37·8	48·5
Baku		102·7	311	e 18 58	?PR$_1$	24 42	[+ 5]	e 50·8	67·1
Kucino		108·0	327	—	—	e 25 0	[− 1]	47·0	55·2
Leningrad		110·2	333	—	—	e 26 6	?Σ	55·0	67·0
Pulkovo		110·3	333	e 19 26	?PR$_1$	25 7	[− 4]	52·8	68·6
Copenhagen		120·5	335	—	—	25 55	[+ 8]	55·8	—
De Bilt		126·1	335	—	—	—	—	e 56·8	62·1
Uccle		127·4	332	—	—	—	—	e 56·8	—
Strasbourg		127·4	330	—	—	e 30 50?	?	63·8	—
Kew		128·7	337	22 50?	?PR$_1$	—	—	64·8	—
Paris		129·6	333	—	—	—	—	e 70·8	—
Granada		141·3	328	—	—	—	—	73·8	79·8

Additional readings and notes: Agana reading has been diminished by 20m. Riverview MN = +18·2m. Adelaide S = +15m.59s.; true S is given as iPR$_1$. Honolulu T.H. eN? = +28m.50s. (?L). Irkutsk e = +11m.49s., ePR$_1$ = +14m.19s., iPS = +21m.17s. Tashkent PR$_1$ = +16m.40s., i = +23m.18s. = [S] +2s., iS$_4$P$_4$S = +23m.34s., i = +24m.4s., PS = +24m.42s., eSR$_1$ = +29m.56s., eSR$_2$ = +33m.14s., MZ = +50·6m. Ekaterinburg i = +13m.46s. and +18m.35s., iS = +24m.22s. = S − 48s., MZ = +57·7m. Baku SR$_1$ = +32m.50s., SR$_2$ = +36m.52s., MN = +57·3m. Kucino e = +25m.50s. and +28m.39s. = PS +3s. Pulkovo S = +26m.7s. = S − 84s., PPS = +28m.30s. = PS − 30s. De Bilt MZ = +72·5m., MN = +73·4m.

May 2d. 22h. 4m. 55s. Epicentre 39°·0N. 81°·5E.

A = +·115, B = +·769, C = +·629; D = +·989, E = −·148; G = +·093, H = +·622, K = −·777.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Simla	8·6	206	—	—	e 3 53	0	e 4·6	—
Tashkent	9·6	288	i 2 24	0	i 4 10	− 8	e 4·9	5·1
Irkutsk	20·6	42	—	—	e 9 32	+56	e 13·0	—
Bombay	21·4	203	8 52	?S	(8 52)	− 1	—	14·1
Hyderabad	21·7	188	9 4	?S	(9 4)	+ 5	—	13·3
Ekaterinburg	22·5	330	e 5 9	− 2	e 9 13	− 2	11·1	13·2
Baku	24·2	283	e 5 37	+ 7	e 9 21	−27	11·7	—
Tiflis	27·9	287	e 5 46	−21	e 10 27	−30	e 17·1	17·7
Makeyevka	32·3	302	—	—	e 12 5?	− 8	20·1	20·6
Kucino	33·2	315	—	—	—	—	e 16·3	—
Pulkovo	37·9	321	—	—	—	—	20·1	28·8
Leningrad	38·0	321	—	—	—	—	e 18·3	—
Helsingfors	40·6	321	—	—	—	—	e 24·1	—
Upsala	44·3	320	—	—	—	—	—	31·1
Copenhagen	47·5	315	—	—	—	—	25·1	33·6
Cheb	48·7	308	—	—	—	—	e 28·9	29·9
Hamburg	49·3	313	—	—	—	—	e 28·1	—
Strasbourg	52·0	307	—	—	—	—	e 28·1	31·1
De Bilt	52·5	311	—	—	—	—	e 28·1	33·0
Uccle	53·4	310	—	—	—	—	29·1	—
Kew	55·9	313	—	—	—	—	e 30·1	—
Granada	64·3	298	—	—	—	—	37·1	41·1

Additional readings: Tashkent e = 22h.5m.41s. and 22h.6m.53s., iPR$_1$ = +2m.33s., iPR$_2$ = +3m.12s., i = +3m.29s., +4m.0s., and +4m.31s., e = +3m.54s., MZ = +5·3m., MN = +5·5m. Baku e = +14m.22s. Tiflis MN = +18·2m. Makeyevka e = +14m.58s. and +16m.12s., MZ = +20·7m., MN = +20·8m. Kucino e = +19m.44s., eL = +24·1m.

May 2d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 1d. :—

h.	m.	s.		h.	m.	s.	
12	6	30	T	22	15	5	T

May 2d. Readings also at 0h. (Tacubaya, Tashkent, and Santiago), 2h. (Baku), 3h. (near Ksara), 4h. (Tashkent), 7h. and 8h. (Ekaterinburg), 10h. (Baku), 11h. (Tashkent (2), Ekaterinburg, and near Mizusawa), 12h. (De Bilt, Uccle, Tashkent, and Copenhagen), 13h. (Suva and near Ksara), 14h. (Baku), 19h. (Tiflis).

May 3d. 13h. 40m. 40s. Epicentre 7°·0S. 150°·0E. (as on 1926 March 22d.).

A = −·860, B = +·496, C = −·122 ; D = +·500, E = +·866 ;
G = +·106, H = −·061, K = −·992.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Riverview		26·8	178	e 6 2	+ 6	e 11 0	+23	e 14·8	15·9
Sydney		26·8	178	8 2	+126	13 2	+145	15·6	17·1
Suva	E.	29·8	115	e 5 26	−60	—	—	—	—
Adelaide		29·9	199	6 32	+ 5	i 11 36	+ 4	13·8?	20·8
Melbourne		31·1	186	—	—	i 11 38	−15	—	18·1
Manila		36·0	309	e 7 20	− 2	—	—	20·3	—
Perth		40·4	227	9 30	?PR_1	e 13 40	−33	21·8	24·2
Wellington	N.	40·8	150	i 8 26	+25	—	—	i 21·3	23·0
Batavia		42·9	270	e 8 45	+28	i 14 45	− 2	—	—
Hong Kong		45·8	311	8 39	0	(15 30)	+ 5	15·5	24·3
Phu-Lien		50·9	304	—	—	14 20?	−130	—	—
Honolulu, T.H.		58·5	60	—	—	e 17 50	−15	e 27·2	—
Irkutsk		70·9	333	e 11 25	+ 3	20 42	+ 5	43·3	—
Tashkent		87·8	312	i 13 1	− 3	i 23 27	[+13]	41·3	51·7
Victoria	E.	94·0	41	—	—	—	—	48·4	54·1
Ekaterinburg		95·5	326	i 13 36	−10	i 24 10	[+10]	39·3	56·8
Baku		102·2	310	e 14 7	−14	e 19 20	?PR_1	51·3	60·6
Tiflis		106·0	311	e 18 7	[− 1]	e 25 1	[+ 9]	e 55·3	63·5
Kucino		108·1	326	—	—	e 25 14	[+12]	57·1	63·6
Makeyevka		109·8	320	e 11 20?	?	e 25 24	[+15]	60·3	67·4
Leningrad		110·6	332	e 19 16	?PR_1	—	—	54·9	66·0
Pulkovo		110·7	332	e 19 11	?PR_1	e 28 40	?PS	57·3	65·8
Helsingfors		112·9	333	—	—	—	—	e 63·3	67·3
Copenhagen		120·9	333	—	—	25 20?	[−28]	63·3	72·9
Hamburg		123·3	332	—	—	—	—	e 71·3	—
Toronto	E.	123·5	40	—	—	—	—	69·6	—
Ottawa		124·9	37	—	—	e 28 52	−33	55·3	—
De Bilt		126·5	333	e 21 8	?PR_1	—	—	e 61·3	80·9
Edinburgh		126·7	340	—	—	—	—	e 74·3	—
Strasbourg		127·7	328	e 21 20?	?PR_1	e 31 20?	?PS	69·3	—
Uccle		127·8	333	e 19 20?	[+ 7]	e 28 2	?Σ	e 64·3	—
Fordham		128·4	41	—	—	—	—	66·3	—
Kew		129·2	337	e 22 40	?PR_1	—	—	72·3	—
Paris		130·0	332	—	—	—	—	e 75·3	79·3
Granada		141·5	325	e 19 46	[+ 4]	i 23 46	?PR_1	e 34·3	39·0

Additional readings : Riverview MN = +17·5m. Sydney readings have been diminished by 1h. Suva eN = +4m.38s. Adelaide MN = +22·2m. Perth iS = +17m.20s. =SR_1 +26s. Batavia P and S are given as simple e and i. Honolulu T.H. eLN = +27·9m. Irkutsk ePR_1 = +14m.54s. Tashkent ePR_1 = +16m.8s., ePS = +24m.14s., ePPS = +24m.38s., MN = +46·7m., MZ = +51·2m. Ekaterinburg i = +17m.30s. =PR_1 −15s., MZ = +57·0m. Baku e = +4m.36s. (clearly an earlier shock), P and PR_1 are given as simple e's. Tiflis eE = +4m.49s., eN = +4m.54s. (clearly an earlier shock, see Baku), MN = +57·8m. Kucino e = +28m.23s. = PS −14s. Makeyevka e = +19m.15s. =PR_1 −1s. and +26m.18s., MN = +64·4m., MZ = +67·6m., P and S are given simply as e's. Leningrad MN = +65·0m. Pulkovo MZ = +66·0m., P and S are given simply as e's. Copenhagen +36m.20s.? =SR_1 −38s. Ottawa e = +37m.37s. =SR_1 −11s De Bilt MZ = +82·6m., MN = +82·8m. Kew e = +52m.20s.?

May 3d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 2d. :—

h.	m.	s.		h.	m.	s.	
2	47	40	S	3	21	18	T
2	48	1	TKS	18	36	24	T

May 3d. Readings also at 3h. (Kodaikanal), 9h. (Ekaterinburg), 11h. (Makeyevka), 13h. (Tashkent), 15h. (Kew and Tiflis), 16h. (Granada), 22h. (Tashkent).

May 4d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 3d. :—

h.	m.	s.		h.	m.	s.	
0	1	35	T	21	13	45	T
0	28	20	T	22	4	5	T
1	57	11	T				

May 4d. Readings also at 1h. (Ksara), 2h. (Ksara, Tashkent, and Tiflis), 4h. (Tashkent), 5h. (Suva and Tashkent), 6h. (4) and 9h. (Tashkent), 14h. (Copenhagen, De Bilt, Tashkent, and near Manila), 15h. (San Fernando), 16h. (near Sumoto), 19h. (Tashkent), 22h. (Tiflis).

May 5d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 4d. :—

h.	m.	s.	
21	33	0	T

May 5d. Readings also at 8h. and 9h. (Tashkent), 10h. (Tiflis), 14h. (Rocca di Papa), 15h. (Ottawa), 17h. (Tucson), 18h. (Irkutsk, near Amboina, and near Manila), 19h. (Tashkent), 23h. (near Wellington).

May 6d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 5d. :—

h.	m.	s.		h.	m.	s.	
8	19	41	TK	16	25	57	TKOSN
8	34	55	T	23	13	25	T
8	52	34	T	23	54	34	T

May 6d. Readings also at 5h. (near Taihoku), 7h. (La Paz), 9h. (near Taihoku), 13h. (Ann Arbor and Nagoya), 18h. (Manila), 20h. (Suva), 23h. (Taihoku).

May 7d. 21h. 56m. 52s. Epicentre 49°·0N. 124°·0W. (as on 1926 Sept. 22d.).

$A = -\cdot367$, $B = -\cdot544$, $C = +\cdot755$; $D = -\cdot829$, $E = +\cdot559$; $G = -\cdot422$, $H = -\cdot626$, $K = -\cdot656$.

Adopted as being the only previously adopted origin very close to Victoria, B.C.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Victoria	E.	0·8	141	0 13	+ 1	(0 21)	− 1	0·4	1·3
Sitka	E.	10·5	324	(e 3 6)	+29	—	—	e 3·1	—
Chicago		26·3	92	—	—	—	—	e 13·0	14·1
Toronto	E.	30·8	82	—	—	—	—	e 15·3	18·7
Ottawa		32·5	78	—	—	e 10 50	−86	e 15·1	16·6
Ithaca		33·2	82	—	—	—	—	17·1	—
Dyce		63·0	30	—	—	—	—	31·0	38·1

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Edinburgh		64·1	33	—	—	—	—	e 33·1	—
Kew		68·7	35	—	—	—	—	e 36·1	—
Leningrad		69·0	13	—	—	—	—	e 35·7	—
Copenhagen		69·1	25	—	—	—	—	35·1	—
De Bilt		70·1	29	—	—	—	—	e 34·1	36·7
Ekaterinburg		74·1	358	—	—	e 20 14	−61	34·1	—
Cheb		74·1	26	e 13 8?	+85	—	—	—	40·1
Granada		79·0	45	—	—	—	—	e 36·1	42·1
Makeyevka		81·8	12	—	—	—	—	46·1	—
Tiflis	E.	88·8	8	—	—	—	—	e 50·6	54·2
Tashkent		89·0	350	—	—	—	—	e 39·1	51·1
Baku		90·5	5	—	—	—	—	e 52·4	56·3

Additional readings: Sitka eLN = +3·2m. Irkutsk (Δ = 70°·8); instrument failed to register from 7d. 21h. 23m. to 8d. 9h. 58m. De Bilt MN = +37·1m., MZ = +44·0m. Tiflis eLN = +49·6m., MN = +50·7m. Baku MN = +58·2m.

May 7d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 6d. :—

h.	m.	s.		h.	m.	s.	
0	0	5	T	12	15	25	T
10	39	27	T	21	2	15	T

May 7d. Readings also at 0h. (Reykjavik (3) and Sydney), 3h. (Copenhagen), 6h. (Baku), 8h. (Chicago, Toronto, and St. Louis), 10h. (2) and 12h. (Wellington), 14h. (La Paz and Wellington), 15h. (Almeria), 16h. (Santiago), 20h. (Ekaterinburg), 21h. (Edinburgh).

May 8d. 7h. 57m. 3s. Epicentre 35°·7N. 132°·5E.

A = −·549, B = +·599, C = +·584; D = +·737, E = +·676; G = −·394, H = +·430, K = −·812.

On 1926 Dec. 1d. 4h. the epicentre 35°·0N. 132°·5E. was used; but the one here adopted seems to suit the observations (on Dec. 1) better, especially those of Irkutsk.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Toyooka		1·9	94	(0 34)	+ 5	(0 55)	+ 2	(0·9)	(1·1)
Matuyama	E.	1·9	174	e 0 31	+ 2	e 0 39	−14	e 0·8	—
Sumoto		2·4	125	0 33	− 4	(0 57)	− 9	1·0	1·0
Kobe		2·4	115	0 35	− 2	(1 2)	− 4	1·0	1·1
Osaka		2·6	114	0 42	+ 1	(1 12)	0	1·2	1·5
Hukuoka		2·7	219	0 44	+ 2	1 17	+ 3	—	1·5
Nagoya		3·6	98	e 0 59	+ 3	—	—	1·8	1·9
Nagasaki		3·7	216	0 56	− 2	1 41	− 1	1·8	2·1
Baku		62·8	302	—	—	—	—	e 34·0	—

Additional readings and notes: Toyooka readings have been increased by 1m. Osaka MN = +2·2m. Nagasaki MN = +1·8m., MZ = +2·0m. Irkutsk instrument failed to register from 7d. 21h. 30m. to 8d. 9h. 58m.

May 8d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 7d. :—

h.	m.	s.		h.	m.	s.	
0	7	18	TK	18	12	57	T
2	44	33	T	18	52	29	T
8	0	0	TM	20	39	49	T
8	6	5	T	20	46	51	T

May 8d. Readings also at 0h. (San Fernando and near Granada), 2h. (Santiago), 3h. (Baku, De Bilt, Makeyevka, Moncalieri, Tashkent, and Tiflis), 4h. (La Paz), 7h. (near Taihoku), 11h. (near Nagasaki), 13h. (near La Paz), 15h. (Almeria), 18h. (Irkutsk), 19h. (Irkutsk, Mizusawa (2), Strasbourg Tiflis, and Zurich), 21h. (near Almeria and Malaga), 22h. (Paris and Strasbourg).

May 9d. 10h. 31m. 40s. Epicentre 28°·5N. 56°·0E.

A = +·491, B = +·729, C = +·477 ; D = +·829, E = −·559 ;
G = +·267, H = +·396, K = −·879.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Baku		12·9	339	i 3 31	+19	i 6 10	+28	7·8	9·5
Tiflis		16·1	328	e 4 8	+15	e 7 32	+35	9·7	11·3
Tashkent		16·7	37	i 6 6	+125	—	—	i 11·2	15·3
Ksara		18·0	292	i 4 31	+14	i 8 12	+32	—	—
Bombay		18·1	118	4 10	− 8	9 37	?L	14·2	14·8
Simla		18·5	77	4 26	+ 3	e 8 2	+11	e 11·8	12·4
Dehra Dun		19·2	79	4 27	− 4	10 3	+117	12·8	13·2
Helwan		21·6	280	5 7	+ 7	i 9 11	+14	—	16·7
Hyderabad		23·3	113	5 12	− 8	9 27	− 4	11·3	17·6
Kodaikanal		27·1	128	10 26	?S	(10 26)	−17	15·6	19·2
Calcutta	E.	29·6	94	6 3	−21	11 4	−23	16·7	—
Kucino		30·2	340	i 6 31	+ 1	11 35	− 2	12·3	24·8
Colombo		31·2	131	11 1	?S	(11 1)	−53	(18·2)	24·4
Belgrade		32·5	310	e 6 57	+ 4	e 12 6	−10	e 19·8	—
Budapest		34·3	315	7 4	− 3	12 35	− 9	e 18·3	26·2
Zagreb		35·8	310	7 20?	0	e 13 9	+ 2	e 20·3	—
Pulkovo		35·8	339	i 7 16	− 4	i 12 59	− 8	19·3	24·6
Pompeii		35·9	301	e 7 20	− 1	—	—	—	—
Leningrad		36·0	339	i 7 19	− 3	i 13 3	− 7	18·9	28·0
Naples		36·1	301	e 7 23	0	e 13 27	+16	26·3	—
Vienna		36·2	316	e 7 20	− 4	13 15	+ 2	—	25·3
Entebbe		36·3	223	7 13	−11	10 6	−188	—	—
Graz		36·5	313	i 7 34	+ 8	i 13 21	+ 4	21·3	25·4
Konigsberg		36·7	325	—	—	i 13 21	+ 1	e 28·3	30·3
Rocca di Papa		37·4	302	e 7 29	− 4	e 15 5	+95	(e 17·1)	—
Helsingfors		38·0	335	e 7 35	− 3	e 13 35	− 3	e 20·3	23·6
Prague		38·1	316	e 7 40	+ 1	e 13 42	+ 3	e 21·8	28·3
Venice		38·2	309	e 7 47	+ 7	13 8	−27	—	—
Florence		38·7	304	e 7 20	−24	—	—	—	22·3
Innsbruck		39·2	311	7 41	− 7	i 13 46	− 8	e 20·4	28·4
Cheb		39·3	316	e 7 47	− 2	e 14 0	+ 4	e 22·3	29·3
Potsdam		39·6	319	i 7 51	0	i 14 1	+ 1	—	—
Ravensburg	E.	40·5	312	i 7 58	− 1	e 14 8	− 6	e 23·7	28·6
Upsala		40·7	331	e 8 5	+ 4	e 14 16	− 1	—	28·5
Zurich		41·1	310	i 8 1	− 3	i 14 17	− 5	—	—
Copenhagen		41·2	325	i 8 5	0	14 22	− 2	20·3	33·2
Moncalieri	E.	41·4	307	7 2	−64	14 38	+11	24·3	27·3
	N.	41·4	307	e 8 6	0	17 49	?SR,	23·9	25·7
Hamburg		41·8	320	i 7 59	−10	e 14 30	− 2	25·3	31·9
Strasbourg		41·9	311	8 6	− 4	e 14 30	− 4	e 21·3	29·3
Irkutsk		42·7	42	i 8 7	− 9	14 35	− 9	23·3	28·5
Besançon		42·8	310	8 17	0	14 45	0	30·3	—
De Bilt		44·2	317	8 27	0	15 8	+ 3	e 21·3	32·2
Uccle		44·4	315	e 8 29	0	i 15 9	+ 2	e 21·3	33·0
Algiers		44·8	295	i 10 33	+121	15 13	+ 1	20·7	31·3
Barcelona		45·3	302	e 8 44	+ 9	—	—	—	31·6
Paris		45·3	312	i 8 36	+ 1	e 15 19	0	25·3	27·3
Phu-Lien		46·3	89	e 8 33	− 9	16 20?	+48	27·3	—
Tortosa	E.	46·5	301	8 44	0	15 38	+ 3	—	—
	N.	46·5	301	8 46	+ 2	15 39	+ 4	e 21·3	32·3
Kew		47·4	315	e 8 52	+ 2	e 15 51	+ 5	22·3	29·7
Alicante		47·5	298	e 9 8	+17	16 5	+17	19·7	20·6
Oxford		48·1	315	—	—	i 16 0	+ 5	e 21·3	30·9
Almeria		49·1	296	e 9 5	+ 4	e 16 20	+13	24·0	25·4
Stonyhurst		49·1	318	e 9 7	+ 6	16 13	+ 6	—	—
Dyce		49·3	323	—	—	16 23	+13	—	32·2
Edinburgh		49·7	321	—	—	i 16 25	+10	29·3	38·3
Granada		50·0	296	i 9 14	+ 7	16 30	+11	30·4	38·2

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Toledo		50·0	300	e 9 12	+ 5	e 16 24	+ 5	e 23·2	37·0
Malaga		50·8	295	9 16	+ 4	16 40	+11	20·0	—
San Fernando		52·2	295	—	—	16 56	+10	26·8	28·3
Hong Kong		52·4	83	16 50	?S	(16 50)	+ 1	—	36·8
Zi-ka-wei		55·9	70	e 9 50	+ 5	—	—	—	35·9
Cape Town		71·8	212	21 41	?[S]	(21 41)	+53	—	39·9
Ottawa		94·1	329	—	—	e 32 32	?	e 44·3	—
Victoria	E.	103·1	359	—	—	—	—	58·5	66·5
Sucre		125·9	267	—	—	33 20	?	70·3	77·7
La Paz		127·5	270	i 19 21	[+ 8]	33 30	?	69·7	78·9

Additional readings and notes: Baku MZ = +10·7m. Tiflis i = +4m.11s., e = +8m.20s.?, MN = +34·4m. Tashkent i = +6m.14s. Ksara iN = +10m.55s., +11m.38s., +12m.28s., +13m.4s., +16m.38s., and +17m.38s.; T_0 = 10h.31m.30s. Simla LN = +10·6m., MN = +11·9m. Kucino MN = +24·0m. Colombo L = +23·7m.; true L is given as S and S as P, the alternative set of readings are adopted. Zagreb e = +8m.34s. = PR_1 +2s. Pulkovo PR_1 = +8m.45s., PR_2 = +9m.30s., MN = +26·2m., MZ = +26·6m. Leningrad iPR_1 = +8m.50s., iPR_2 = +9m.35s., iSR_2 = +16m.1s., MZ = +27·8m. Vienna iPZ = +7m.21s., PR_1Z = +9m.6s., iN = +11m.30s. Graz e = +14m.30s. Rocca di Papa L is given as a later eSE, also ePN = +7m.35s., eSN = +16m.23s. Helsingfors eSR_1N = +16m.45s. = SR_2 −3s., MN = +26·5m. Innsbruck i = +9m.51s. = PR_2 +3s. Ravensburg eE = +11m.30s. Upsala MN = +30·8m. Copenhagen iPZ = +8m.2s., ePN = +8m.20s., ePR_1 = +9m.43s., ePR_2 = +9m.53s., SR_1 = +17m.38s., MN = +32·4m. Moncalieri SE? = +16m.39s. Hamburg e = +20m.20s. ?, MNZ = +33·3m. Strasbourg PR_1 = +9m.55s., PR_2 = +10m.16s. Irkutsk ePR_1 = +9m.59s., e = +14m.7s., SR_2 = +18m.1s., MN = +26·9m., MZ = +28·6m. De Bilt PR_1Z = +10m.22s., SR_1 = +18m.35s., MN = +27·0m. Uccle SR_1 = +18m.26s., MN = +26·5m. Paris MN = +26·3m. Algiers P may be PR_1 +13s., or, of course, 2 min. in error. Kew MN = +30·4m. Almeria PR_1 = +10m.28s., MZ = +26·8m. Stonyhurst PR_1 = +11m.48s. Dyce SR_1 = +18m.57s. Granada PR_1 = +11m.20s., i = +12m.43s. = PR_2 +19s., and +14m.32s. Toledo MNW = +35·7m.

May 9d. 20h. 5m. 40s. Epicentre **15°·5N. 92°·5W.**

(as on 1925 Dec. 11d.).

A = −·042, B = −·963, C = +·267; D = −·999, E = +·044; G = −·012, H = −·267, K = −·964.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Oaxaca		4·4	292	(0 56)	−12	(1 47)	−14	(1·8)	(2·1)
Vera Cruz		5·1	318	(1 44)	+25	—	—	(2·5)	(4·2)
Merida		6·1	26	(1 26)	− 7	(2 44)	− 2	(2·7)	(3·6)
Puebla		6·5	304	2 34	+55	—	—	3·7	4·3
Tacubaya		7·5	302	2 4	+10	(3 31)	+ 7	3·5	4·0
Guadalajara		11·7	298	3 29	+34	—	—	5·9?	6·9
Port au Prince		19·5	78	i 5 19	+44	—	—	—	—
St. Louis	N.	23·2	4	i 5 18	− 1	i 9 38	+ 9	—	—
Tucson	E.	23·7	318	5 27	+ 2	e 10 2	+24	i 13·4	13·7
	N.	23·7	318	5 28	+ 3	e 9 47	+ 9	i 13·2	14·0
Chicago	E.	26·6	8	—	—	e 10 56	+23	e 14·9	18·9
Ann Arbor		27·9	14	i 6 2	− 5	i 10 44	−13	14·3	16·4
Fordham		30·1	30	e 6 38	+ 9	i 11 55	+19	i 18·0	18·5
Ithaca		30·2	25	7 40	+70	e 11 10	−27	17·3	—
Toronto	N.	30·3	20	e 6 35	+ 4	i 11 55	+16	19·3	20·3
Harvard	N.	32·6	30	—	—	e 12 38	+20	e 16·4	—
Ottawa		33·1	23	e 6 46	−11	i 12 34	+ 8	e 18·1	24·8
Berkeley		34·5	317	e 6 56	−13	e 12 34	−14	e 17·3	—
La Paz		40·0	144	i 7 45	−10	i 13 50	−17	18·8	21·7
Victoria	E.	41·5	330	9 2	+55	15 25	+57	23·6	27·7
Sucre		43·7	143	9 4	+40	15 10	+12	22·6	26·4
Rio de Janeiro		61·7	129	—	—	e 18 34	−10	—	—
Honolulu T.H.	E.	62·1	286	—	—	e 18 50	+ 1	e 28·9	—
Edinburgh		76·9	36	—	—	e 22 20?	?PS	39·3	48·3
Dyce		77·3	33	—	—	21 51	− 1	33·2	41·0

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
San Fernando		78·0	56	—	—	—	—	37·8	50·3
Oxford		78·7	40	—	—	e 22 15	+ 7	e 37·8	45·8
Toledo		79·0	51	e 12 13	0	e 22 7	− 5	e 37·1	44·1
Kew		79·3	40	—	—	e 22 10	− 5	39·3	—
Malaga		79·3	55	12 46	+31	i 22 33	+18	—	—
Granada		79·9	55	i 12 19	+ 1	e 22 47	+25	34·3	44·3
Almeria		80·9	55	12 18	− 6	e 22 20	−14	40·0	42·7
Paris		81·7	42	e 12 29	0	e 22 43	0	40·3	42·3
Tortosa	N.	82·2	50	—	—	22 42	− 6	e 35·3	53·7
Uccle		82·3	40	—	—	e 22 38	−11	e 38·3	—
De Bilt		82·4	39	e 12 30	− 2	e 22 49	− 1	e 36·3	47·2
Hamburg		84·8	37	e 12 43	− 4	e 23 14	− 3	e 40·3	49·3
Strasbourg		85·0	41	12 41	− 7	e 23 6	−13	38·3	48·0
Algiers		85·2	53	—	—	—	—	—	47·3
Copenhagen		85·3	33	12 50	0	23 8	−14	39·3	45·6
Upsala	E.	86·3	28	—	—	e 23 17	−16	49·2	—
Cheb		87·4	37	e 12 20?	−41	e 23 28	−17	e 40·3	57·3
Prague		88·6	37	e 14 20?	+72	e 23 27	[+ 8]	e 39·3	49·3
Graz		90·4	40	—	—	—	—	e 47·3	51·4
Vienna		90·5	39	e 14 3	+44	24 16	− 3	52·3	—
Helsingfors		90·6	26	—	—	23 32	[0]	44·3	47·5
Leningrad		91·7	25	—	—	—	—	34·8	55·9
Pulkovo		91·8	25	e 13 14	−12	24 18	−15	40·3	49·7
Kucino		97·5	26	—	—	i 24 22	[+12]	43·6	55·0
Wellington	E.	102·1	230	—	—	—	—	e 46·9	51·1
Makeyevka		102·7	31	—	—	e 24 40	[+ 3]	46·3	55·6
Ekaterinburg		104·3	15	e 18 37	?PR_1	i 24 55	[+11]	44·3	59·2
Tiflis	E.	110·6	32	e 19 20	?PR_1	e 25 20	[+ 8]	e 52·3	59·4
	N.	110·6	32	e 18 59	?PR_1	e 25 24	[+12]	—	58·0
Irkutsk		110·7	350	i 19 23	?PR_1	e 25 22	[+ 9]	e 55·3	73·6
Baku		114·1	30	—	—	e 25 41	[+15]	51·3	67·5
Cape Town		115·8	121	—	—	—	—	—	62·3
Tashkent		120·8	15	e 19 8	[+14]	i 25 58	[+11]	e 55·3	60·3
Melbourne		125·0	234	—	—	—	—	—	64·3

Additional readings and notes: Oaxaca and Vera Cruz readings have been increased by 1m. Merida readings have been increased by 2m. St. Louis iN = +5m.30s., and +5m.53s., eN = +6m.27s., +6m.57s., +7m.37s., +9m.57s. Tucson ePR_1E = +6m.20s., eSR_1E = +11m.14s. Ann Arbor ePR_1 = +6m.44s., eSR_1 = +11m.50s., eLN = +13·3m., MN = +15·3m.; T_e = 20h.5m.48s. Fordham ePR_2 = +7m.55s.; T_e = 20h.5m.6s., and many other e and i readings. Ithaca e = +13m.20s.? = SR_1 +12s. Toronto eN = +13m.20s.? = SR_1 +9s., ME = +15·7m. Harvard eSE = +14m.28s. = SR_2 −6s., eLE = +16·7m. Ottawa PR_2 = +8m.5s., i = +12m.8s., SR_1E = +14m.36s., SR_2 = +15m.12s., MN = +21·3m.; T_e = 20h.5m.6s. Berkeley eSZ = +13m.2s. La Paz PR_1 = +9m.23s., PR_2 = +10m.45s., SR_1 = +16m.8s., LN = +19·0m. Victoria LN = +25·2m. Sucre SR_1 = +18m.55s. = SR_2 −9s. Rio de Janeiro e = +18m.36s. Toledo MNW = +43·8m. Almeria PR_1 = +15m.23s., PR_2 = +18m.23s., MZ = +41·6m., MN = +42·3m. Tortosa SE = +22m.41s. De Bilt MZ = +47·1m., MN = +50·2m. Copenhagen SR_2 = +29m.20s. = SR_1 −7s., MN = +51·0m. Vienna PR_1 = +17m.8s. Helsingfors PS? = +25m.5s., SR_1? = 30m.25s., MN = +52·6m. Leningrad MZ = +52·7m. Pulkovo S_1P_4S = +23m.49s., MZ = +52·6m., MN = +54·8m. Kucino e = +26m.45s. = PS +20s., +32m.51s., MN = +55·6m. Wellington eLN = +45·7m. Makeyevka e = +27m.47s. = PS +12s. Ekaterinburg i = +25m.22s., e = +27m.54s. = PS +1s.; S is given as i. Tiflis e = +29m.16s. = PS +11s. Irkutsk e = +26m.1s., +26m.23s., and +29m.13s. = PS +7s., MZ = +73·9m. Baku e = +29m.42s. = PS −1s., MN = +63·3m. Tashkent ePR_1 = +20m.28s., ePR_2 = +23m.8s., S_1P_4S = +26m.28s., ePS = +29m.38s., S_1P_4SP = +30m.8s., PPS = +32m.8s., eSR_1 = +36m.44s., eSR_2 = +41m.44s., MN = +69·2m.

May 9d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 8d. :—

h.	m.	s.		h.	m.	s.	
1	25	0	T	13	49	47	T
6	55	30	T	16	5	28	T
7	4	54	TKM	16	33	26	T
12	1	14	T	16	35	37	T

May 9d. Readings also at 0h. (near Zurich and Strasbourg), 2h. (near Mizusawa), 4h. (near Belgrade and Sarajevo), 5h. (Bombay (2) and near La Paz), 6h. (Kodaikanal and near Sumoto), 7h. (Tiflis), 9h. (Baku), 12h. (Barcelona), 13h. (Tiflis), 16h. (Manila), 17h. (Baku and Tashkent), 18h. (Tiflis), 22h. (Ekaterinburg, Tiflis, and Granada).

May 10d. 6h. 3m. 46s. Epicentre 1°·0S. 99°·0E. (as on 1926 Oct. 12d.).

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

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia		9·3	123	2 8	−12	i 4 0	−10	i 4·8	—
Colombo		20·7	293	6 41	+112	—	—	—	14·6
Phu-Lien		23·0	19	e 5 3	−14	e 9 28	+ 3	12·5	16·8
Kodaikanal		24·2	298	11 32	?S	(11 32)	+104	13·5	17·1
Manila		26·8	54	e 5 53	− 3	—	—	15·2	—
Hyderabad		27·4	313	6 8	+ 6	10 49	+ 1	13·1	17·5
Hong Kong		27·6	32	6 45	?PR	—	—	—	18·6
Bombay		32·5	309	6 47	− 6	12 6	−10	17·4	19·6
Taihoku	E.	34·0	39	—	—	—	—	19·7	—
Simla	N.	38·2	329	—	—	—	—	e 24·0	—
Zi-ka-wei		38·6	32	e 7 35	− 8	—	—	—	—
Irkutsk		53·5	4	9 32	+ 2	e 17 8	+ 5	29·2	—
Baku		60·8	320	e 10 28	+10	e 18 37	+ 4	29·7	34·6
Tiflis		64·8	318	10 50	+ 6	19 35	+12	e 32·7	34·7
Ekaterinburg		65·5	338	10 56	+ 8	i 19 41	+10	e 38·2	—
Ksara		68·5	309	e 12 23	+75	21 23	+75	43·2	—
Makeyevka		71·9	322	e 7 13	?	e 20 50	+ 1	37·2	—
Kucino		75·1	330	—	—	e 21 29	+ 2	—	—
Pulkovo		80·3	332	12 21	0	22 26	− 1	43·2	52·3
Leningrad		80·4	332	12 23	+ 2	e 22 29	+ 1	39·6	54·1
Copenhagen		88·9	326	—	—	e 23 47	−15	50·2	—
De Bilt		93·1	323	—	—	e 24 50	+ 4	e 49·2	69·4
Granada		100·6	309	—	—	—	—	52·2	58·7
San Fernando		102·7	309	—	—	—	—	57·7	59·2
Ottawa		135·3	354	—	—	—	—	e 65·2	—

Additional readings: Batavia i = +2m.26s. Phu-Lien MN = +16·7m. Irkutsk e = +19m.18s. = [S] +13s., SR_1 = +21m.14s.?; epicentre 1°·7S. 140°·3E. Baku MN = +37·4m. Tiflis MN = +35·5m. Ksara LN = +36·2m.; T_0 = 6h.5m.1s. Pulkovo MZ = +52·5m. Leningrad MN = +50·5m., MZ = +52·5m. De Bilt eE = +26m.2s. = PS +18s.; T_0 = 6h.3m.7s.; epicentre 2°·4S. 96°·3E.

May 10d. 7h. 26m. 38s. Epicentre 1°·0S. 99°·0E. (as at 6h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia		9·3	123	e 2 12	− 8	i 4 22	+12	—	—
Colombo		20·7	293	8 39	?S	(8 39)	+ 1	—	15·8
Phu-Lien		23·0	19	e 5 12	− 5	e 9 31	+ 6	12·9	—
Kodaikanal		24·2	298	13 4	?L	—	—	(13·1)	—
Hong Kong		27·6	32	16 47	?L	—	—	(16·8)	17·8
Bombay		32·5	309	—	—	e 12 22?	+ 6	—	—
Taihoku	E.	34·0	39	—	—	—	—	19·1	—
Irkutsk		53·5	4	i 9 26	− 4	e 17 4	+ 1	29·4	—
Baku		60·8	320	—	—	—	—	28·4	—
Tiflis		64·8	318	e 10 48	+ 4	e 19 29	+ 6	e 42·9	44·1
Ekaterinburg		65·5	338	—	—	—	—	38·4	—
De Bilt		93·1	323	—	—	—	—	e 51·4	—
Granada		100·6	309	—	—	—	—	e 63·4	75·4
Ottawa		135·3	354	—	—	—	—	e 73·4	—

Additional readings: Batavia iN = +3m.2s. Irkutsk e = +21m.22s.? = SR_1 +10s. Tiflis SN = +19m.33s., MN = +44·2m.

May 10d. 18h. 52m. 3s. Epicentre 42°·3N. 17°·8E. (as on 1927 Feb. 14d.).

$A = +·704$, $B = +·226$, $C = +·673$; $D = +·309$, $E = -·952$; $G = +·641$, $H = +·206$, $K = -·740$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Belgrade		3·2	37	i 0 32	−18	—	—	—	—
Zagreb		3·8	341	e 0 52	− 7	i 1 33	−11	—	—
Rocca di Papa	E.	3·8	264	e 1 3	+ 4	—	—	i 2·5	2·8
	N.	3·8	264	e 1 6	+ 7	—	—	i 2·0	2·6
Venice		5·0	310	0 48	−29	2 42	+25	—	—
		5·0	310	1 3	−14	2 39	+22	—	—
Budapest		5·2	9	1 43	+23	(2 22)	0	2·4	—
Vienna		6·0	351	e 1 38	+ 6	2 38	− 6	—	3·4
Innsbruck		6·7	320	e 2 38	?S	(e 2 38)	−24	(i 3·5)	—
Moncalieri	E.	7·8	294	—	—	—	—	e 4·2	—
Prague		8·1	345	e 2 57?	+54	—	—	—	4·4
Zurich		8·3	311	e 2 3	− 3	e 3 41	− 4	—	—
Cheb		8·6	336	e 2 57?	+47	—	—	—	4·4
Strasbourg		9·4	315	(e 2 20)	− 2	e 2 20	?P	—	—
De Bilt		13·0	323	—	—	—	—	e 7·0	—
Copenhagen		13·8	347	—	—	e 5 57?	− 6	e 8·0	—

Additional readings: Zagreb i = +55s., +1m.2s., +1m.8s., iNE = +1m.38s., iNW = +1m.40s. Vienna P = +1m.56s., R_3P_3S = +2m.25s., R_1PS = +2m.32s., RPS = +2m.50s., S = +2m.56s. Innsbruck gives S as P and L as S. Moncalieri LE = +5·7m. Zurich eSR_1 = +4m.22s. Strasbourg SR_2 = +5m.3s.

May 10d. 19h. 59m. 22s. Epicentre 52°·0N. 89°·0E.

$A = +·011$, $B = +·616$, $C = +·788$; $D = +1·000$, $E = -·017$; $G = +·014$, $H = +·788$, $K = -·616$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk		9·4	82	2 24	+ 2	4 13	0	—	—
Ekaterinburg		17·0	298	4 5	0	i 7 37	+19	9·6	11·6
Tashkent		17·2	239	e 3 58	− 9	i 7 22	0	i 9·4	10·2
Baku		29·0	262	—	—	e 12 26	+69	17·1	19·6
Kucino		29·6	298	—	—	—	—	14·5	—
Tiflis	E.	31·4	270	—	—	e 11 22	−36	e 20·6	21·4
Zi-ka-wei	Z.	31·5	120	—	—	e 13 1	+61	—	—
Makeyevka		32·3	284	—	—	e 14 8	+115	e 18·5	—
Leningrad		32·6	309	—	—	—	—	19·2	21·4
Pulkovo		32·7	309	e 6 27	−27	e 13 49	?SR_1	18·1	21·4
Copenhagen		43·0	308	—	—	—	—	e 19·6	—
Prague		44·8	299	—	—	—	—	e 23·6	26·6
Hamburg		45·3	306	—	—	—	—	e 22·6	—
Cheb		45·9	300	—	—	—	—	e 23·6	30·6
De Bilt		48·5	306	—	—	—	—	e 26·6	29·0
Dyce		49·0	315	—	—	—	—	—	33·0
Strasbourg		49·3	300	—	—	—	—	e 26·6	32·6
Uccle		49·7	305	—	—	—	—	27·6	—
Kew		51·6	309	—	—	—	—	e 29·6	—
Paris		51·8	304	—	—	—	—	e 29·6	—
Granada		63·0	296	—	—	—	—	36·5	41·9

Additional readings and notes: All readings except those for Irkutsk, Ekaterinburg, and Tashkent are given as e simply. Tashkent iP = +4m.0s., iSR_1 = +7m.49s., iSR_2 = +8m.5s., i = +8m.28s., +9m.10s., and +9m.14s., MZ = +9·6m., MN = +9·7m. Baku e = +13m.57s., +16m.29s., MN = +19·7m. Tiflis eN = +11m.42s., e = +14m.20s. Makeyevka i = +15m.1s., L = +23·6m.; should S be SR_1? De Bilt MZ = +32·8m.

May 10d. 20h. 47m. 20s. Epicentre 34°·0S. 57°·0E. (as on 1927 April 16d.).

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.
Baku		74·7	355	—	—	e 21 26	+ 4	37·7	43·2
Tashkent		76·1	10	i 11 52	− 4	21 31	− 7	e 34·7	38·8
Tiflis	E.	76·5	351	e 12 12	+14	e 21 40	− 3	e 34·7	41·4
	N.	76·5	351	e 12 3	+ 5	e 21 43	0	—	41·1
Granada		90·8	317	i 13 3	−17	—	—	52·2	57·8
Ekaterinburg		90·9	3	i 13 6	−15	—	—	44·7	—
Irkutsk		95·6	27	—	—	e 24 40?	[+40]	—	—
De Bilt		97·3	332	—	—	—	—	e 54·7	—

Additional readings: Baku MN = +40·9m. Tashkent PS = +22m.4s., MN = +39·1m.

May 10d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 9d.:—

h.	m.	s.		h.	m.	s.	
6	25	34	T	17	30	36	T

May 10d. Readings also at 0h. (Melbourne), 1h. (Bombay, Hyderabad, Irkutsk, Ekaterinburg, Tiflis, Kucino, and De Bilt), 2h. (Ekaterinburg), 3h. (La Paz, Strasbourg, and Tiflis), 4h. (near Ksara and near Sucre), 7h. (Budapest), 8h. (near Hukuoka, Matuyama, and Sumoto), 9h. (near Ksara), 10h. (near Ksara), 14h. (near La Paz), 17h. (Taihoku), 18h. (Tashkent), 20h. (La Paz), 21h. (Rocca di Papa), 22h. (Baku), 23h. (Mizusawa and near Matuyama).

May 11d. 1h. 18m. 40s. Epicentre 2°·0S. 146°·5E.

A = −·833, B = +·552, C = −·035; D = +·552, E = +·834; G = +·029, H = −·019, K = −·999.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		30·2	304	e 6 42	+12	—	—	13·3	—
Riverview		32·1	174	e 7 32	?PR_1	12 14	+ 4	e 15·5	17·2
Sydney		32·1	174	6 50	+ 2	12 44	+34	16·0	18·8
Adelaide		33·7	191	e 12 40?	?S	(e 12 40?)	+ 4	17·7	17·8
Melbourne		35·8	182	(e 5 20)	−120	—	—	e 17·1	19·1
Perth		41·6	220	(e 8 30)	+22	—	—	(13·2)	(15·0)
Wellington	E.	46·8	150	—	—	e 19 21	?SR_1	e 25·8	27·2
Irkutsk		64·8	334	10 56	+12	19 40	+17	e 31·3	—
Bombay		75·2	290	—	—	e 21 20?	− 8	—	—
Tashkent		81·8	314	i 12 22	− 7	i 22 29	−15	e 34·3	46·3
Ekaterinburg		89·4	327	i 13 5	− 7	23 58	− 9	41·3	58·0
Victoria	E.	91·6	42	—	—	—	—	46·2	48·6
Baku		96·3	311	e 13 35	−16	e 24 54	−25	e 46·3	—
Tiflis		100·0	313	e 17 55	[+ 8]	e 28 5	?	e 53·3	60·0
Kucino		102·0	327	—	—	e 25 48	−27	48·5	57·4
Leningrad		104·5	333	—	—	—	—	51·8	65·9
Pulkovo		104·6	333	—	—	e 34 15	?SR_1	56·3	66·2
Copenhagen		114·9	333	—	—	27 20?	?Σ	58·3	—
Cheb		118·2	329	—	—	—	—	e 57·3	70·3
Dyce		119·4	340	—	—	—	—	—	75·2
De Bilt		120·5	333	—	—	e 30 20?	?PS	e 60·3	74·8
Uccle		121·7	333	—	—	—	—	e 60·3	—
Toronto	E.	121·9	37	—	—	—	—	64·7	—
Ottawa		123·0	33	—	—	—	—	e 60·3	—
Kew		123·2	335	—	—	—	—	e 71·3	—
Paris		123·9	333	—	—	—	—	e 73·3	—
Granada		135·4	325	i 19 32	[+ 1]	—	—	74·3	83·8
La Paz		141·1	119	19 56	[+15]	—	—	—	—

For Notes see next page.

NOTES TO MAY 11d. 1h. 18m. 40s.

Additional readings: Riverview MN = +17·6m.; P is given simply as e. Adelaide iS = +16m.16s., MN = +21·6m. Melbourne P is given as e = 1h.14·0m., and has been corrected by 10m. Perth PR_1 = (+9m.40s.) = PR_1 −2s., PR_2 = (+10m.38s.) = PR_2 +25s., PR_3 = +(11m.20s.) = PR_3 +56s.; all the readings have been diminished by 6 min. Wellington eLN = +24·6m. Irkutsk eSR_1 = +27m.20s.? = SR_2 +29s. Tashkent iPR_1 = +15m.26s., PS = +23m.50s., eSR_1 = +28m.19s., SR_2 = +30m.31s., MN = +46·2m., MZ = +46·6m. Baku e = +17m.20s. = PR_1 −30s. Tiflis eE = +39m.41s. = SR_3 −31s., MN = +57·8m. Kucino e = +32m.40s. = SR_1 −22s. De Bilt MN = +63·7m., MZ = +73·4m. Granada PR_1 = +31m.9s.

May 11d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 10d.

h.	m.	s.		h.	m.	s.	
0	28	19	T	16	30	6	T
5	13	22	T	22	40	50	T
14	48	23	T				

May 11d. Readings also at 0h. (Zi-ka-wei and near Sumoto), 1h. (Ksara), 3h. (Suva), 7h. (Sucre and near La Paz), 9h. (Ekaterinburg, Irkutsk, and near Manila), 10h. (Baku, Manila, Ekaterinburg, Tashkent (2), and Victoria), 13h. (Ekaterinburg and near Taihoku), 15h. (Baku, Ksara, and Tiflis), 18h. (Ekaterinburg), 19h. (Baku, Ksara, Tashkent, and Tiflis), 22h. (Zagreb).

May 12d. 4h. 6m. 45s. Epicentre 1°·0S. 127°·0E. (as on 1923 April 27d.).

A = −·602, B = +·798, C = −·017; D = +·799, E = +·602; G = +·011, H = −·014, K = −1·000.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina	2·9	157	i 1 51	+66	i 2 20	+60	—	—
Manila	16·7	340	e 4 10	+ 9	—	—	—	—
Batavia	20·8	255	i 4 32	−19	i 9 38	+58	—	—
Riverview	39·9	147	—	—	—	—	e 17·4	22·9
Irkutsk	56·6	345	e 10 13	+23	e 17 49	+ 8	—	—
Tashkent	67·1	317	i 10 56	− 3	19 52	+ 1	e 31·2	38·9
Ekaterinburg	77·9	329	e 17 15	?PR_3	e 21 56	− 3	—	—
Baku	80·9	312	e 12 21	− 3	e 22 30	− 4	e 41·2	—
Tiflis	84·9	313	—	—	(e 23 3)	−15	e 23·0	—
La Paz	157·0	140	20 30	[+25]	—	—	—	—

Additional readings: Batavia i = +4m.34s. Riverview MN = +21·8m. Tashkent PS = +20m.20s., MN = +40·2m. Tiflis eN? = +20m.19s.

May 12d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 11d.:—

h.	m.	s.	
11	38	29	T

May 12d. Readings also at 4h. (Agana), 11h. (Sucre and near La Paz), 13h. (near Taihoku), 14h. (Ekaterinburg, Tashkent, and Zagreb), 18h. (Hukuoka), 19h. (Ekaterinburg, Ksara, and Tashkent), 20h. (Zurich), 21h. (Zagreb).

May 13d. 0h. 23m. 40s. Epicentre 45°·0N. 29°·0W. (as on 1926 Sept. 23d.).

A = +·618, B = −·343, C = +·707; D = −·485, E = −·875;
G = +·618, H = −·343, K = −·707.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Stonyhurst		19·3	53	e 4 37?	+ 4	e 8 13	+ 5	e 9·5	—
Edinburgh		19·6	47	—	—	—	—	e 9·3	—
Kew		20·0	61	e 4 50	+ 9	—	—	9·3	—
Malaga		20·3	105	e 4 17	−28	e 7 27	−62	—	—
Granada		20·6	104	i 5 0	?PR_1	9 12	?SR_1	11·5	—
Almeria		21·6	103	e 4 54	− 6	e 8 56	− 1	—	13·3
Paris		21·7	69	5 9	+ 8	—	—	10·3	11·3
Tortosa	N.	21·9	90	—	—	—	—	e 11·3	—
Uccle		22·9	63	—	—	e 8 56	−27	e 11·3	—
De Bilt		23·4	60	—	—	—	—	e 11·3	13·8
Strasbourg		25·2	69	e 5 40	0	e 10 20?	+13	e 12·3	—
Copenhagen		28·0	53	—	—	(10 20?)	−39	10·3	—
Cheb		28·1	65	—	—	e 11 20?	+19	—	15·3
Rocca di Papa		30·2	81	—	—	—	—	e 14·2	18·6
Ottawa	E.	32·4	290	—	—	e 12 20?	+ 6	e 16·3	—
Toronto	E.	35·5	286	—	—	—	—	e 20·8	—
Leningrad		37·5	45	—	—	—	—	19·6	—
Pulkovo		37·6	45	—	—	e 13 2	−30	18·3	—
Kucino		42·2	50	—	—	—	—	21·2	—
Makeyevka		44·8	61	—	—	i 15 7	− 5	25·3	27·5
Tiflis		51·9	67	—	—	e 16 50	+ 7	e 28·3	34·2
Ekaterinburg		53·6	44	e 9 39	+ 9	e 18 14	+70	27·3	—
Baku		55·8	65	—	—	—	—	e 29·8	—
Tashkent		67·0	55	—	—	—	—	e 32·3	43·1

Additional readings and note: De Bilt MN = +14·2m., MZ = +14·3m. Makeyevka e = +18m.52s. =SR_1 +26s., MN = +26·6m. Tiflis MN = +32·0m. Ekaterinburg P and S are given as simple e readings.

May 13d. 15h. 13m. 0s. Epicentre 14°·5N. 120°·5E.

A = −·491, B = +·834, C = +·250; D = +·862, E = +·508;
G = −·127, H = +·216, K = −·968.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Hong Kong		9·8	324	2 33	+ 6	—	—	5·6	6·3
Taihoku	E.	10·6	7	2 57	+19	—	—	8·6	—
Phu-Lien		14·6	297	i 3 38	+ 4	e 6 26	+ 4	7·0	—
Zi-ka-wei		16·7	3	i 4 8	+ 7	7 25	+14	—	—
Hukuoka		21·1	24	4 51	− 3	(8 45)	− 1	8·8	—
Sumoto		23·7	31	5 20	− 5	(e 9 45)	+ 7	e 9·8	—
Kobe		24·1	31	e 5 15	−14	—	—	—	—
Osaka		24·3	31	5 23	− 8	(9 58)	+ 8	10·0	—
Batavia	Z.	24·7	214	5 18	−17	—	—	—	—
Irkutsk		39·9	346	i 7 40	−14	13 46	−19	e 21·0	—
Hyderabad		40·4	281	—	—	—	—	—	13·9
Simla	N.	42·9	303	14 30	?S	(14 30)	−17	—	—
Bombay		45·7	284	9 3	+25	15 3	−21	e 20·9	—
Tashkent		51·6	314	i 9 13	− 4	i 16 25	−14	e 26·0	28·0
Ekaterinburg		61·6	329	i 10 23	0	i 18 43	0	29·0	40·1
Baku		66·0	310	i 10 52	+ 1	i 19 38	+ 1	32·5	38·1
Tiflis	E.	69·8	311	e 11 13	− 3	20 20	− 4	e 40·8	46·3
	N.	69·8	311	e 11 16	0	—	—	e 36·1	51·6
Kucino		73·9	326	e 11 40	− 1	21 2	−11	37·7	46·9
Makeyevka		74·3	318	e 11 40	− 4	21 8	−10	37·0	49·2
Ksara	N.	77·6	304	12 3	− 2	21 47	− 9	33·6	—
Pulkovo		77·6	330	11 57	− 8	21 42	−14	38·0	50·9
Leningrad		77·6	330	11 59	− 6	21 45	−11	33·6	46·1
Helsingfors		80·1	330	e 11 48	−32	e 22 9	−15	e 39·0	51·3
Upsala		83·8	331	—	—	i 22 44	[− 5]	e 46·0	—
Copenhagen		87·8	328	—	—	23 13	[− 1]	47·0	55·7
Vienna		88·3	320	12 54	−13	23 15	[− 2]	e 33·0	—
Zagreb		89·4	318	e 15 19	+127	22 4	[−80]	—	—
Hamburg		90·0	327	—	—	i 23 26	[− 2]	51·0	—
De Bilt		93·3	327	—	—	e 23 45	[− 3]	e 48·0	60·4

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Strasbourg	93·5	324	e 13 19	−16	(e 25 30)	?PS	e 50·0	—
Zurich	93·5	321	e 13 21	−14	—	—	—	—
Dyce	94·2	334	—	—	e 23 44	[− 9]	e 52·2	63·5
Uccle	94·4	326	e 15 23	+103	e 23 53	[− 1]	e 46·0	—
Edinburgh	95·4	333	—	—	—	—	e 52·0	—
Paris	96·4	325	e 17 30	?PR_1	e 24 0	[− 4]	58·0	—
Kew	96·5	329	—	—	—	—	e 56·0	—
Algiers	102·0	315	e 17 47	[− 7]	e 25 13	[+39]	—	—
Granada	106·4	317	—	—	e 29 9	?PS	e 60·0	67·7

Additional readings and notes: Sumoto eS = +7m.46s. Batavia i = +5m.19s. Irkutsk PR_1 = +9m.20s.; epicentre 16°·5N. 124°·1E. Tashkent iP = +9m.45s., iPR_1 = +11m.14s., iPR_2 = +11m.50s., iS = +16m.59s. =PS − 2s., i = +18m.51s. =[S] +1s., SR_1 = +20m.15s., MN = +27·4m., MZ = +27·9m. Ekaterinburg i = +10m.57s., PR_1 = +12m.43s. e = +18m.37s., i = +20m.3s. =[S] −4s., SR_1 = +22m.50s., SR_2 = +25m.32s., MN = +39·6m. Baku i = +11m.26s., eSR_2 = +27m.19s. Tiflis ePR_2E = +15m.40s., e = +30m.2s. Kucino e = +12m.10s., PR_1 = +14m.27s., PR_2 = +16m.13s., PS = +21m.37s., eSR_1 = +25m.32s., SR_2 = +29m.43s. Makeyevka e = +12m.14s., PS = +21m.43s., SR_1 = +26m.9s. MN = +41·1m. Ksara PSN = +22m.11s.; T_0 =15h.13m.25s. Pulkovo MN = +43·8m., MZ = +50·8m. Leningrad MN = +49·6m., MZ = +51·2m. Helsingfors e = +17m.48s. =PR_2 +3s. Copenhagen PS = +24m.28s., SR_1 = +29m.0s.? Zagreb readings have been diminished by 1h. De Bilt MN = +56·2m., MZ = +61·1m. Strasbourg PR_1 = +17m.5s.; S is given as PS. Granada ePR_1 = +18m.45s.

May 13d. 23h. 9m. 8s. Epicentre **1°·3S. 143°·4E.**

(as on 1918 Nov. 14d.).

A = −·803, B = +·596, C = −·023; D = +·596, E = +·803; G = +·018, H = −·014, K = −1·000.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina		15·4	261	i 5 4	+80	i 8 16	+95	—	—
Manila		27·3	308	e 6 55	+54	—	—	—	—
Riverview		33·3	168	e 8 22	+83	e 12 10	−19	e 16·1	19·8
Sydney		33·3	168	5 4	−115	12 34	+ 5	14·9	16·4
Taihoku	E.	33·8	324	7 12	+ 9	12 48	+10	15·6	—
Adelaide		33·9	187	e 6 37	−27	i 10 58	−101	12·4	20·9
Melbourne		36·5	178	—	—	—	—	i 15·8	19·3
Sumoto		36·5	349	7 28	+ 2	—	—	9·5	13·4
Osaka		36·8	348	7 23	− 5	(13 12)	− 9	13·2	16·1
Batavia		36·8	261	i 7 14	−14	i 8 43	?PR_1	—	—
Hukuoka		37·0	343	7 27	− 3	13 25	+ 1	16·8	—
Hong Kong		37·0	312	7 32	+ 2	—	—	—	17·5
Suva	N.	38·2	121	(e 7 58)	+18	(e 13 28)	−13	(20·4)	(21·3)
Zi-ka-wei		38·6	330	i 7 49	+ 6	e 17 26	?SR_2	—	21·4
Perth		40·2	220	—	—	i 13 57	−13	20·4	21·2
Mizusawa	E.	40·5	358	8 1	+ 2	(14 14)	0	—	—
	N.	40·5	358	7 58	− 1	(14 22)	+ 8	—	—
Phu-Lien		42·3	305	i 8 13	0	i 14 40	+ 1	19·9	—
Wellington		49·0	150	i 8 51	− 9	(15 39)	−27	e 20·8	21·4
Honolulu T.H.		61·7	64	—	—	(e 25 52)	?SR_2	—	—
Irkutsk		62·9	335	i 10 43	+12	i 19 19	+19	30·9	34·7
Hyderabad		66·6	290	10 58	+ 3	19 49	+ 4	—	—
Bombay		72·1	291	11 34	+ 3	—	—	—	23·1
Tashkent		79·1	314	i 12 13	− 1	22 8	− 5	e 32·1	43·4
Ekaterinburg		87·2	328	i 12 56	− 4	i 23 33	−10	36·9	54·6
Victoria	E.	93·2	42	24 35	?S	(24 35)	−12	46·2	49·6
Baku		93·5	312	e 13 26	− 9	i 23 40	[− 9]	44·9	55·1
Tiflis		97·3	313	e 13 38	−18	e 24 4	[− 5]	e 49·9	54·3
Kucino		99·7	327	e 13 49	−20	25 32	−21	47·3	52·2
Makeyevka		101·2	320	e 13 56	−20	24 21	[− 9]	48·9	55·1
Leningrad		102·5	333	i 14 4	−19	—	—	43·6	61·3
Pulkovo		102·6	333	14 2	−21	24 24	[−12]	47·9	53·0
Helsingfors		104·9	334	e 18 7	[+ 2]	e 26 1	−40	e 44·9	54·7

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Upsala		108·2	335	—	—	e 28 40	?PS	e 52·9	—
Copenhagen		112·9	330	19 46	?PR_1	—	—	e 54·9	60·9
Budapest		113·5	322	19 46	?PR_1	—	—	e 58·9	—
Vienna		114·7	325	18 36	[− 1]	—	—	—	61·9
Prague		114·9	326	e 20 4	?PR_1	e 31 22	?	e 52·9	60·9
Hamburg		115·2	331	e 19 27	?PR_1	—	—	e 55·9	59·9
Cheb		116·0	326	e 20 7	?PR_1	e 30 22	?PS	e 53·9	59·9
Zagreb		116·1	322	e 18 52?	[+11]	—	—	—	—
Dyce		117·8	340	—	—	e 26 56	Σ	e 54·9	—
De Bilt		118·5	332	i 20 25	?PR_1	—	—	e 54·9	60·7
Chicago	E.	118·9	41	—	—	e 29 46	+65	e 65·3	—
Edinburgh		119·1	340	—	—	e 36 52?	?SR_1	54·9	—
Strasbourg		119·4	328	e 15 20	−20	—	—	56·9	—
Uccle		119·6	332	e 20 34	?PR_1	e 30 7	?PS	e 54·9	—
Zurich		119·6	325	e 18 41	[−10]	—	—	—	—
Rocca di Papa		120·1	320	e 18 43	[− 9]	e 31 6	?PS	e 61·3	65·2
Stonyhurst		120·5	337	e 20 47	?PR_1	29 58	+65	—	—
Kew		121·3	334	e 20 44	?PR_1	—	—	59·9	62·0
Oxford		121·5	334	—	—	e 37 29	?SR_1	e 51·7	65·5
Paris		121·8	331	e 20 47	?PR_1	e 30 48	?PS	50·9	61·9
Toronto		123·1	36	—	—	e 27 15	? Σ	55·4	—
Ottawa		124·1	32	—	—	e 27 4	? Σ	e 56·9	—
Tortosa	N.	128·2	324	21 14	?PR_1	33 14	?	e 51·9	71·1
Algiers		129·0	318	e 21 27	?PR_1	e 28 43	−71	33·7	—
Toledo		131·4	326	e 18 40	[−42]	—	—	—	69·8
Almeria		132·5	322	i 19 12	[−12]	31 21	?	e 59·8	61·6
Granada		133·0	323	i 18 43	[−42]	—	—	e 67·4	73·2
San Fernando		135·9	326	—	—	—	—	69·4	76·9

Additional readings and notes: Riverview eS? = +14m.59s. = SR_1 +8s., MZ = +19·9m., MN = +20·0m.; P is given simply as e. Adelaide iPR_1 = +7m.12s. Melbourne e = +21m.28s. Sumoto S = +8m.25s. = PR_1 −15s. Suva iE = (+9m.40s.) = PR_2 +6s.; all the readings have been increased by 3 min. Zi-ka-wei PR_1 = +9m.32s. Perth PR_1? = +8m.52s., SR_1 = +15m.42s., SR_2 = +16m.57s. Mizusawa P and S are given as the P's of two separate local shocks to the first of which S = +8m.34s. Wellington ME = +19·1m.; S is given as LE. Irkutsk ePR_1 = +13m.11s. Tashkent iPR_1 = +15m.26s., iSR_1 = +27m.46s., iSR_2 = +30m.49s., MN = +42·6m., MZ = +43·3m. Ekaterinburg iPR_1 = +16m.31s., iPR_2 = +18m.30s., i = +22m.57s. = [S] − 13s., iPS = +24m.29s., iPPS = +24m.52s., i = +25m.49s., SR_1 = +30m.4s., SR_2 = +33m.16s., MN = +45·5m. Victoria PN = +25m.14s. = PS − 34s., SE = +31m.55s. = SR_1 +43s. Baku iPR_1 = +17m.22s., e = +25m.10s. = S +19s., iPPS = +26m.12s., iSR_1 = +32m.32s., MN = +51·5m. Tiflis e = +17m.46s. = PR_1 −10s., eE = +26m.44s., +38m.2s., and +40m.28s., MN = +56·5m. Kucino PR_1 = +18m.7s., S_4P_4S = +24m.13s. = [S] − 9s., PS = +27m.17s., PPS = +28m.17s., SR_1 = +32m.30s., MN = +52·0m. Makeyevka e = +17m.12s. = [P] − 39s., PR_1 = +18m.19s., e = +24m.32s., iPS = +27m.29s., SR_1 = +33m.0s., MN = +53·8m., MZ = +66·6m. Leningrad PR_1 = +18m.32s., PS = +27m.48s., MN = +59·3m., MZ = +61·2m. Pulkovo P = +17m.49s. = [P] − 7s., iPR_1 = +18m.30s., S_4P_4S = +25m.11s., S = +25m.41s. = S +39s., PS = +27m.48s., SR_1 = +33m.22s., MZ = +61·9m. Helsingfors ePR_1Z? = +20m.8s., ePR_2E? = +21m.13s., e = +22m.21s., and +24m.31s. = [S] − 16s., eS_4S? = +28m.7s. = PS +7s., eLN = +32·9m., MN = +55·0m. Copenhagen e = +27m.17s., +28m.30s., and +29m.24s. = PS − 6s., SR_1 = +35m.44s., eLN = +51·9m., MN = +58·2m. Vienna iPZ = +19m.58s. = PR_1 +9s., PR_1? = +21m.49s. Hamburg iZ = +20m.4s. = PR_1 +12s. Dyce e = +36m.46s. = SR_1 +26s. De Bilt i = +23m.3s. = PR_1 −30s., e = +36m.56s. = SR_1 +28s., MN = +63·8m. Chicago eN? = +52m.46s. Strasbourg PR_1 = +20m.24s., ePR_2 = +23m.7s. Uccle e = +36m.52s. = SR_1 +10s. Rocca di Papa ePN = +18m.52s. Kew MN = +62·3m. Ottawa e = +37m.22s. = SR_1 −15s. Algiers PR_1 = +22m.35s. Almeria PR_1 = +21m.58s., PS = +29m.44s., SR_1 = +33m.44s., MZ = +63·9m. Granada i = +19m.24s. = [P] − 1s., +21m.59s. = PR_1 +9s., +23m.31s., +25m.26s. = PR_2 −2s., +27m.1s., +29m.35s., +31m.27s., and +32m.27s.

May 13d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 12d.:—

h.	m.	s.		h.	m.	s.	
8	43	30	TKOSN	15	1	0	T

May 13d. Readings also at 2h. (near Sucre), 3h. (Suva), 10h. (Tiflis, Hohenheim, near Zurich, and Strasbourg), 13h. (Vienna), 14h. (near Matuyama (2)), 15h. (near Manila), 16h. (Baku, Tiflis, Ksara, and Tashkent), 17h. (Ekaterinburg, Taihoku, Sucre, and near La Paz), 18h. (Ekaterinburg, Tashkent, Taihoku, and near Manila), 19h. (Taihoku), 22h. (Irkutsk, Tashkent, and near La Paz).

May 14d. 2h. 24m. 55s. Epicentre 37°·0N. 2°·5W. (as on 1926 June 12d.).

A = +·798, B = −·035, C = +·602.

	△	Az.	P.	O−C.	S.	O−C.	M.
	°	°	m. s.	s.	m. s.	s.	m.
Almeria	0·2	169	i 0 0	− 4	i 0 3	− 3	—
Granada	0·9	282	i 0 18	+ 4	i 0 32	+ 7	0·6
Malaga	1·5	260	e−0 37	−60	—	—	—

Additional readings: Almeria PR_1 = +12s. and +20s., PR_2 = +26s., +31s., +38s., +41s., and +45s., SR_1 = +57s. Granada iP = +21s.

May 14d. 6h.36m.30s. Epicentre 39°·5N. 140°·5E. (as on 1923 Oct. 9d.).

A = −·595, B = +·491, C = +·636; D = +·636, E = +·772; G = −·492, H = +·405, K = −·772.

	△	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	0·6	129	0 9	0	0 20	+ 3	—	—
Nagoya	5·2	214	e 1 8	−12	(2 12)	−10	2·2	2·8
Ekaterinburg	52·6	319	—	—	e 16 52	+ 1	28·5	34·5
Tashkent	52·7	297	e 9 0	−24	e 16 59	+ 7	e 26·5	33·3
Leningrad	65·3	329	—	—	—	—	e 33·5	—
Pulkovo	65·4	329	—	—	—	—	e 33·5	—
Baku	66·0	305	—	—	—	—	36·5	42·8
Copenhagen	75·1	333	—	—	—	—	41·5	—
De Bilt	80·5	335	—	—	—	—	e 50·5	—
Uccle	81·8	335	—	—	—	—	48·5	—

Additional readings: Ekaterinburg MZ = +34·7m. Tashkent eSR_1 = +21m.30s.?, MN = +33·1m., MZ = +33·5m.

May 14d. 20h. 29m. 15s. Epicentre 42°·0N. 46°·0E. (as on 1920 Feb. 20d.).

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

The epicentre 42°·0N. 44°·0E. of 1926 Dec. 24 seems definitely unsuitable.

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tiflis		1·0	252	i 0 18	+ 3	(i 0 30)	+ 2	i 0·5	2·0
Baku		3·3	119	e 1 4	+12	i 1 56	+25	—	2·6
Makeyevka		8·3	320	e 2 14	+ 8	e 4 28	+43	7·3	8·0
Ksara		11·4	227	2 54	+ 4	6 7	+123	7·8	—
Tashkent		17·3	85	i 4 2	− 7	7 24	− 1	e 8·2	12·0
Ekaterinburg		17·6	27	—	—	i 7 20	−11	10·8	12·8
Pulkovo		20·2	337	4 42	− 1	8 24	− 3	11·8	13·3
Leningrad		20·4	337	e 4 45	− 1	e 8 28	− 4	9·6	13·5
Vienna	z.	21·7	297	4 55	− 6	—	—	—	—
Zagreb		21·8	290	e 4 45?	−18	—	—	—	—
Rocca di Papa		24·7	281	e 3 22	?	—	—	—	6·2
Copenhagen		25·7	314	—	—	e 9 45?	−31	—	—
Hamburg		26·5	308	—	—	—	—	e 11·8	—
De Bilt		29·2	304	—	—	—	—	e 15·8	—

Additional readings: Tiflis iN = +19s., MN = +3·2m. Baku iP = +1m.14s. Makeyevka e = +5m.13s., i = +5m.58s. Ksara SR_1N = +6m.47s. Tashkent iPR_1 = +4m.15s., SR_1 = +7m.48s., MN = +10·6m., MZ = +11·9m. Ekaterinburg i = +7m.36s., MNZ = +13·2m. Leningrad MNZ = +13·4m. Rocca di Papa eE = +3m.50s., PR_1N = +5m.29s. = P −6s., PR_1E = +5m.41s. = PR_1 −27s.

May 14d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 13d. :—

h.	m.	s.		h.	m.	s.	
2	43	15	T	17	23	52	T
6	8	48	T	18	56	29	T
10	24	2	TK	20	34	47	T

May 14d. Readings also at 0h. (Ksara), 1h. (near Manila), 2h. (Tashkent and near Manila), 6h. (La Paz and Leningrad), 11h. (near Malaga), 12h. (Tiflis), 15h. (Tashkent and near Manila), 16h. (near Manila), 18h. (near Amboina), 19h. (Ekaterinburg and Tashkent), 21h. (Taihoku).

May 15d. 2h. 47m. 5s. Epicentre 44°·0N. 21°·0E.

A = +·672, B = +·258, C = +·695 ; D = +·358, E = −·934 ;
G = +·649, H = +·249, K = −·719.

The residuals suggest a slight focal depth below normal.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Belgrade	E.	0·9	334	i 0 25	+11	i 0 35	+10	—	3·5
Sarajevo		1·9	266	i 0 40	+11	—	—	—	1·1
Mostar		2·4	254	0 50	+13	—	—	—	—
Budapest		3·7	341	1 5	+ 7	(1 41)	− 1	1·7	2·5
Zagreb		4·0	298	i 1 8	+ 6	i 2 9	+19	—	2·6
Laibach		5·0	296	i 1 29	+12	—	—	—	3·1
Graz		5·0	311	i 1 20	+ 3	i 2 28	+11	—	3·1
Vienna		5·3	325	1 26	+ 4	3 0	+35	—	3·3
Pompeii		5·8	238	e 1 30	0	2 25	−14	2·9	4·9
Naples		5·9	240	e 1 43	+12	e 2 43	+ 2	—	4·9
Venice		6·3	286	e 1 47	+11	i 3 12	+20	—	6·4
Rocca di Papa		6·4	252	1 44	+ 6	e 3 3	+ 8	i 3·7	4·7
Florence		7·0	271	1 55	+ 9	3 15	+ 5	—	3·8
Innsbruck		7·5	300	i 1 55	+ 1	i 3 20	− 4	—	4·4
Prague		7·5	326	e 2 0	+ 6	e 3 25	+ 1	e 4·7	5·2
Cheb		8·4	319	e 2 9	+ 2	i 3 46	− 1	e 4·6	5·1
Ravensburg	E.	8·8	300	i 2 17	+ 4	e 4 3	+ 5	i 4·9	5·2
Zurich		9·3	296	e 2 20	0	i 4 9	− 1	—	—
Hohenheim		9·4	305	i 2 22	0	e 4 11	− 2	i 5·0	5·8
Moncalieri		9·5	281	e 3 17	+54	4 14	− 2	4·9	6·5
	Z.	9·5	281	2 28	+ 5	4 5	−11	—	8·3
Potsdam		9·9	331	i 2 37	+ 8	i 4 16	−10	e 4·6	7·2
Strasbourg		10·2	301	2 32	− 1	4 33	− 2	e 5·9	6·9
Feldberg		10·5	310	e 2 45	+ 8	—	—	e 5·8	7·4
Konigsberg	E.	10·8	359	i 3 11	+30	e 4 34	−16	e 5·7	—
	N.	10·8	359	i 3 5	+24	—	—	e 5·7	6·9
	Z.	10·8	359	i 2 52	+11	e 4 49	− 1	e 5·9	8·9
Grenoble		10·9	282	e 2 51	+ 8	e 5 5	+13	—	6·9
Besançon		11·0	292	i 2 44	0	5 3	+ 9	5·9	—
Hamburg		12·0	327	e 3 2	+ 3	5 15	− 4	—	8·8
Makeyevka		12·5	65	e 3 12	+ 6	e 5 57	+25	7·9	7·9
Copenhagen		13·0	338	3 10	− 3	5 35	− 9	e 7·2	11·3
Uccle		13·1	307	e 3 13	− 1	e 5 46	0	6·7	8·8
De Bilt		13·3	313	3 19	+ 2	e 5 59	+ 8	e 6·7	10·3
Paris		13·6	297	e 3 21	0	e 5 54	− 4	6·9	6·9
Barcelona		14·1	266	e 3 30	+ 3	e 6 1	− 9	7·0	9·9
Bagnères		15·0	274	e 3 44	+ 5	—	—	e 7·9	9·4
Tortosa		15·4	265	3 42	− 2	6 38	− 3	e 7·4	15·6
Algiers		15·4	248	3 47	+ 3	6 43	+ 2	9·2	11·6
Ksara		15·4	126	3 53	+ 9	6 57	+16	9·4	—
Upsala		16·0	354	i 3 54	+ 2	e 6 47	− 8	e 8·9	10·7
Kew		16·1	305	e 3 56	+ 3	7 4	+ 7	7·9	10·7
Helsingfors		16·3	7	e 4 1	+ 5	e 6 52	−10	8·4	9·5
Helwan		16·3	146	3 59	+ 3	7 1	− 1	—	17·2
Pulkovo		16·7	17	4 2	+ 1	7 10	− 1	8·1	10·7
Oxford	E.	16·8	306	e 3 59	− 3	i 7 16	+ 3	9·2	11·2
	N.	16·8	306	—	—	i 7 15	+ 2	9·2	9·9

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		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Leningrad		16·9	17	4 4	0	7 13	− 3	8·0	9·6
Alicante		17·1	258	e 4 37	+31	8 9	+49	e 10·0	15·0
Tiflis	E.	17·5	89	e 4 19	+ 8	—	—	e 10·0	12·2
	N.	17·5	89	e 4 42	+31	—	—	e 7·0	9·2
Bidston		18·4	309	3 20	−62	6 45	−64	8·4	11·6
Toledo		19·0	266	e 4 30	+ 1	e 8 2	0	e 9·0	11·3
Almeria		19·1	256	i 4 33	+ 3	i 8 6	+ 2	i 10·4	15·9
Edinburgh		19·4	316	4 26	− 8	8 7	− 3	11·2	11·6
Dyce		19·6	321	i 4 42	+ 6	e 8 18	+ 3	10·6	14·8
Granada		19·8	258	i 4 39	0	8 6	−13	i 11·1	14·1
Malaga		20·6	258	4 51	+ 3	8 45	+ 9	10·0	13·8
Baku		21·6	90	—	—	—	—	—	16·1
Rio Tinto		21·7	263	8 55?	?S	(8 55?)	− 4	—	17·9
San Fernando		22·0	259	5 4	− 1	9 6	+ 1	11·9	14·4
Ekaterinburg		27·8	48	i 6 5	− 1	10 48	− 7	i 14·7	17·5
Tashkent		35·1	79	i 7 8	− 6	i 12 46	−11	—	26·3
Bombay		49·8	104	—	—	e 14 55	−81	—	—
Ottawa		64·2	310	—	—	e 19 25	+10	34·9	—
Victoria	E.	82·5	339	—	—	—	—	46·0	50·0
Manila		86·9	73	—	—	—	—	e 49·6	—

Additional readings: Zagreb i = +1m.12s., iP = +1m.22s., iE = +1m.30s. i = +1m.36s., +1m.44s., +1m.48s., +1m.51s., +1m.53s., +2m.0s., +2m.2s., +2m.7s. Graz MN = +3·4m. Vienna P = +1m.38s. and +1m.46s.; also PS = +2m.21s., +2m.26s., and +2m.50s., MN = +5·3m. Venice iS = +3m.23s. Rocca di Papa iP = +1m.47s., iSE = +3m.12s., MZ = +4·1m., MN = +5·9m. Florence PR_1 = +2m.35s. Cheb i = +4m.25s., MN = +5·7m. Ravensburg eE = +3m.37s., MN = +5·4m. Zurich iP = +2m.22s. Hohenheim iPR_1 = +3m.9s., iE = +3m.33s., iN = +4m.47s., iE = +4m.49s., MN = +6·5m. Moncalieri MNZ = +7·4m. Strasbourg PR_1 = +3m.25s., SR_1 = +4m.40s., SR_2 = +5m.22s., SR_3 = +5m.40s., MN = +5·9m.; epicentre 44°·0N. 20°·5E. Feldberg eE = +6m.6s., eN = +6m.8s., MN = +6·9m. Konigsberg SZ? = +5m.22s. iE = +6m.8s. Grenoble i = +5m.41s., and +5m.50s., iSR_2 = +6m.25s. Hamburg SE = +5m.18s., MZ = +7·1m., MN = +8·7m. Makeyevka e = +6m.55s.?, MZ = +10·6m., MN = +14·0m. Copenhagen i = +3m.36s., e = +6m.11s., +6m.43s., and +6m.52s., iN = +7m.27s., MZ = +9·6m. Uccle i = +6m.7s., MN = +7·6m. De Bilt e = +6m.12s., MN = +8·6m., MZ = +9·0m. Barcelona MN = +10·4m. Tortosa LN = +7·8m., MN = +9·1m. Ksara eN = +5m.52s., and +8m.41s., SN = +7m.0s. Upsala e = +7m.1s., MN = +11·8m. Kew MN = +9·2m., MZ = +9·7m.; epicentre 44°·0N. 20°·5E. Helsingfors eSN = +7m.4s. = S + 2s., eE = +9m.16s. Pulkovo MZ = +11·9m., MN = +12·4m. Leningrad MZ = +10·8m., MN = +12·0m. Alicante MN = +12·2m. Tiflis eN = +1m.20s. Toledo iP = +4m.32s., MNW = +13·7m.; epicentre 44°·0N. 20°·5E. Almeria MZ = +11·8m. Granada i = +5m.8s., +5m.30s., and +8m.50s. San Fernando MN = +12·9m. Ekaterinburg iPR_1 = +6m.28s., i = +11m.14s., MZ = +16·5m. Tashkent ePR_2 = +8m.34s., e = +12m.37s., eSR_1 = +14m.50s., eSR_2 = +15m.17s., MN = +23·0m., MZ = +26·8m.

May 15d. 3h. 11m. 55s. Epicentre 44°·0N. 21°·0E. (as at 2h.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Belgrade	0·9	334	i 0 18	+ 4	i 0 23	− 2	—	0·5
Sarajevo	1·9	266	i 0 33	+ 4	i 1 3	+10	—	1·2
Mostar	2·4	254	0 48	+11	1 14	+ 8	—	1·4
Budapest	3·7	341	0 58	0	(e 1 35)	− 7	e 1·6	2·5
Zagreb	4·0	298	1 4	+ 2	—	—	—	—
Graz	5·0	311	i 1 15	− 2	—	—	2·1	3·0
Vienna	5·3	325	e 1 20	− 2	2 26	+ 1	—	3·7
Pompeii	5·8	238	e 1 35	+ 5	e 3 17	+38	—	—
Venice	6·3	286	i 1 57	+21	3 17	?L	(3·3)	6·2
Rocca di Papa	6·4	252	i 1 37	− 1	3 10	+15	e 3·8	6·8
Florence	7·0	271	e 1 48	+ 2	e 2 5	−65	—	4·3
Innsbruck	7·5	300	e 1 51	− 3	i 2 56	−28	i 4·0	4·3
Prague	7·5	326	e 2 40	+46	e 4 5?	?L	(e 4·1)	5·6
Cheb	8·4	319	e 2 8	+ 1	—	—	—	5·1
Ravensburg E.	8·8	300	e 2 31	+18	e 4 9	+11	i 4·7	5·3

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Zurich		9·3	296	e 2 17	− 3	i 4 58	+48	—	—
Hohenheim		9·4	305	e 2 38	+16	e 4 27	+14	e 5·2	5·6
Moncalieri	Z.	9·5	281	e 2 45	+22	4 1	−15	—	6·2
Potsdam		9·9	331	—	—	i 4 13	−13	—	—
Strasbourg		10·2	301	e 3 24	+51	e 5 22	+47	6·1	7·1
Konigsberg	E.	10·8	359	—	—	—	—	i 6·5	7·1
	N.	10·8	359	—	—	—	—	i 6·0	8·1
Grenoble		10·9	282	—	—	—	—	e 5·2	—
Besançon		11·0	292	2 40	− 4	5 54	+60	—	—
Hamburg	Z.	12·0	327	—	—	—	—	e 6·1	7·1
Copenhagen		13·0	338	—	—	—	—	7·1	10·3
Uccle		13·1	307	—	—	e 6 17	+31	e 7·1	—
De Bilt		13·3	313	—	—	—	—	e 7·1	8·4
Paris		13·6	297	—	—	—	—	e 7·1	7·1
Ksara		15·4	126	3 56	+12	7 38	+57	—	—
Upsala	N.	16·0	354	e 3 54	+ 2	—	—	—	11·4
Kew		16·1	305	—	—	—	—	e 8·6	9·1
Helsingfors	E.	16·3	7	—	—	—	—	e 9·2	10·0
Pulkovo		16·7	17	e 4 0	− 1	—	—	8·4	—
Toledo		19·0	266	e 3 24	−65	e 6 58	−64	e 8·4	—
Granada		19·8	258	i 4 35	− 4	—	—	11·5	14·1

Additional readings: Budapest MN = +2·7m. Zagreb i = +1m.8s., iP = +1m.20s., i = +1m.34s., and +1m.37s. Vienna P = +1m.34s., and +1m.44s., PS = +2m.12s., and +2m.23s., S = +2m.53s. Rocca di Papa eP = +1m.39s., eLZ = +3·7m., MZ = +8·0m., MN = +8·3m. Innsbruck i = +3m.7s. and +3m.56s., MNW = +4·4m. Ravensburg MN = +5·2m. Hohenheim eE = +4m.43s., eN = +4m.53s., MN = +5·5m. Moncalieri MN = +6·4m. Potsdam i = +4m.56s., +5m.11s., +5m.36s., and +7m.11s. Hamburg MN = +8·6m., and ME = +8·9m. Copenhagen MN = +10·8m. De Bilt MN = +8·3m., MZ = +9·0m. Upsala ME = +10·6m. Kew MZ = +9·6m.

May 15d. Continuation of the list of aftershocks from the epicentre 35°·7N. 134°·8E. of May 14d. :—

h.	m.	s.	
18	29	41	T

May 15d. Readings also at 0h. (Fordham and Tiflis), 5h. (Zagreb), 6h. (Pulkovo, Leningrad, and Copenhagen), 11h. (near Mizusawa), 14h. (Tashkent), 16h. (Taihoku and near Wellington), 19h. (Suva), 22h. (Apia).

May 16d. 12h. 1m. 2s. Epicentre **30°·6N. 141°·8E.**

(as on 1927 April 27d.).

A = −·677, B = +·532, C = +·509; D = +·618, E = +·786; G = −·400, H = +·315, K = −·861.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya		6·2	319	i 1 40	+ 5	—	—	3·9	—
Osaka		6·7	308	1 58	+16	—	—	3·7	5·5
Sumoto		6·9	304	e 1 56	+11	e 4 8	+61	e 5·9	7·0
Kobe		7·0	308	1 56	+10	—	—	e 4·9	7·3
Toyooka		7·7	313	2 3	+ 6	e 4 20	?L	(e 4·3)	8·6
Mizusawa		8·5	355	0 58	−71	—	—	4·6	—
Hukuoka		10·2	290	2 39	+ 6	—	—	6·1	9·9
Ootomari		16·1	2	4 7	+14	—	—	—	—
Zi-ka-wei		17·5	277	i 4 12	+ 1	1 7 42	+13	10·9	12·2
Taihoku	E.	18·8	258	e 4 3	−24	—	—	—	—
Manila		24·9	235	e 5 41	+ 4	—	—	i 11·0	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Hong Kong		26·0	258	5 41	− 7	(10 29)	+ 7	10·5	—
Phu-Lien		33·1	260	e 6 45	−12	e 12 31	+ 5	17·0	—
Honolulu T.H.	E.	54·5	84	—	—	e 17 18	+ 3	e 27·7	30·5
Simla	E.	54·7	289	—	—	—	—	e 35·8	—
Tashkent		58·0	304	i 10 1	+ 2	18 3	+ 4	e 28·0	37·6
Hyderabad		58·6	275	10 32	+29	—	—	—	40·2
Ekaterinburg		60·1	322	i 10 16	+ 3	i 18 30	+ 6	26·0	45·1
Kodaikanal		62·8	268	41 58	? L	—	—	(42·0)	—
Bombay		62·8	277	e 8 58?	−93	—	—	—	—
Victoria	E.	70·6	45	21 42	?S	(21 42)	+69	33·4	39·2
Baku		72·1	307	e 11 36	+ 5	i 21 1	+10	35·0	53·2
Kucino		72·3	325	e 11 35	+ 3	20 56	+ 2	35·2	46·4
Pulkovo		73·6	331	11 43	+ 3	21 12	+ 3	37·0	45·8
Leningrad		73·6	331	11 42	+ 2	e 21 11	+ 2	34·4	43·0
Tiflis		75·0	311	e 11 49	0	21 28	+ 2	e 37·0	48·8
Makeyevka		76·1	319	11 55	− 1	21 39	+ 1	35·0	61·9
Upsala		78·7	335	e 12 9	− 2	e 22 5	− 3	—	50·5
Konigsberg	E.	80·8	330	—	—	e 22 35	+ 2	e 43·0	50·0
	N.	80·8	330	—	—	e 22 34	+ 1	e 44·0	47·0
Copenhagen		83·5	334	12 34	− 5	22 57	− 6	43·0	50·5
Ksara		85·0	309	12 51	+ 3	23 20	+ 1	44·0	—
Hamburg		86·0	334	e 12 49	− 4	23 21	− 9	e 46·0	53·0
Budapest		86·6	326	e 23 28	?S	(e 23 28)	− 9	e 47·0	51·2
Prague		86·6	330	i 23 33	?S	(i 23 33)	− 4	e 47·0	57·0
Dyce		87·1	344	—	—	e 23 21	[+11]	e 44·0	62·0
Vienna		87·2	327	e 12 52	− 8	23 39	− 4	—	55·0
Cheb		87·8	330	—	—	e 23 37	−13	e 47·0	57·0
Graz		88·5	327	—	—	e 23 44	−14	51·0	56·7
Edinburgh		88·6	343	—	—	i 23 50	− 9	44·0	65·0
De Bilt		89·1	335	13 5	− 6	e 23 52	−12	e 46·0	52·6
Zagreb		89·2	326	e 16 51	?PR_1	e 23 40	[+17]	e 55·0	—
Uccle		90·4	335	—	—	e 23 43	[+13]	e 47·0	—
Strasbourg		90·9	332	e 13 14	− 7	e 23 42	[+ 9]	39·0	59·5
Kew		91·5	339	e 13 16	− 8	e 24 16	−13	49·0	60·8
Oxford		91·6	339	—	—	e 24 8	−23	e 46·0	52·0
Paris		92·7	335	e 13 25	− 6	e 23 57	[+13]	44·0	63·0
Moncalieri		93·6	329	e 5 51	?	18 44	?	e 46·0	—
Rocca di Papa		93·8	325	17 12	?PR_1	—	—	e 52·1	66·2
Ottawa		96·7	25	—	—	e 24 13	[+ 7]	e 39·0	—
Toronto	E.	96·7	29	—	—	e 24 15	[+ 9]	59·4	—
Tortosa	N.	100·1	332	—	—	—	—	e 54·0	64·2
Toledo		102·7	334	—	—	e 31 18	?	—	65·3
Almeria		104·6	333	—	—	57 59	?L	(58·0)	66·9
Granada		104·9	334	i 14 29	− 5	i 19 38	?PR_1	55·0	70·3
San Fernando	E.	106·6	335	—	—	—	—	—	64·5
La Paz		149·3	70	i 19 58	[+ 3]	—	—	—	—

Additional readings: Sumoto MN = +7·2m. Kobe MN = +7·8m. Toyooka SN = +5m.3s., MN = +9·2m. Mizusawa PE = 12h.0m.37s., LN = +5·7m. Zi-ka-wei PR_1 = +4m.42s. Honolulu T.H. eE = +24m.58s., eLqN = +26·3m., eLrN = +28·2m., MN = +30·5m. Tashkent i = +10m.33s., PR_1 = +12m.9s., PR_2 = +13m.7s., SR_1 = +22m.4s., eSR_2 = +24m.40s., MN = +32·1m., MZ = +37·5m. Ekaterinburg i = +10m.19s. and +12m.26s. = PR_1 −31s., e = +18m.25s., iPS = +19m.6s., i = +20m.4s. = [S] +9s., MN = +40·4m., MZ = +45·2m. Baku MN = +53·5m. Kucino PR_1 = +14m.14s., PR_2 = +15m.50s., PS = +21m.35s., PPS = +22m.1s., eSR_1 = +24m.31s., SR_2 = +28m.57s., MN = +39·4m. Leningrad PR_1 = +14m.29s., PR_2 = +16m.15s., MN = +44·0m., MZ = +46·9m. Pulkovo PR_1 = +14m.30s., PR_2 = +16m.16s., MN = +43·9m., MZ = +46·4m. Tiflis e = +11m.52s., SR_1N = +29m.54s., MN = +41·4m. Makeyevka PR_2 = +14m.53s., PR_2 = +16m.37s., PS = +22m.23s., SR_1 = +26m.58s.?, MN = +48·5m., MZ = +55·2m. Upsala MN = +48·4m. Copenhagen SR_2 = +28m.28s., MN = +57·3m. Hamburg MN = +50·0m., MZ = +61·0m. Prague eS = +31m.25s. Cheb e = +23m.43s. De Bilt PR_1Z = +16m.37s., e = +23m.35s. = [S] +12s., MN = +56·9m., MZ = +60·7m. Strasbourg ePR_1 = +16m.47s., ePS = +24m.12s. = S −11s., MZ = +65·0m. Kew PR_1 = +16m.53s., MN = +52·8m., MZ = +60·7m. Paris PR_1 = +17m.2s., MN = +52·0m. Rocca di Papa PE = +17m.15s., PR_1 = +21m.43s. = PR_2 +15s. Ottawa e = +31m.38s. = SR_1 −19s. Toronto eE = +31m.30s. = SR_1 −27s. Almeria MZ = +68·7m. Moncalieri: Should the readings be increased by 7 min. ? San Fernando MN = +68·5m.

May 16d. 23h. 57m. 30s. Epicentre 39°·5N. 72°·0E. (as on 1927 April 26d.).

A = +·234, B = +·734, C = +·636 ; D = +·951, E = −·309 ;
G = +·197, H = +·605, K = −·772.

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tashkent		2·9	310	e 0 47	+ 2	1 35	+15	1·7	2·7
Baku		17·2	280	—	—	e 7 43	+21	—	—
Ekaterinburg		18·9	340	e 4 22	− 6	e 8 1	+ 1	10·0	11·5
Tiflis		20·7	285	e 4 39	−10	—	—	14·5	—
Pulkovo		33·0	323	—	—	—	—	e 18·7	—

Additional readings: Tashkent i = +0m.55s. and +1m.2s., iP = +1m.4s., MZ = +2·5m. Ekaterinburg MZ = +11·8m.

May 16d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 15d. :—

h.	m.	s.		h.	m.	s.	
2	24	17	T	13	57	9	T
5	17	20	T				

May 16d. Readings also at 0h. (Apia), 6h. (Ekaterinburg (2)), 7h. (near Amboina (2)), 8h. (Ekaterinburg), 10h. (Ekaterinburg (2) and Makeyevka), 11h. (Nagasaki), 14h. (near Malabar), 15h. (La Paz), 16h. (near Sumoto), 17h. (Tiflis), 18h. (Ekaterinburg, Kobe, and near Mizusawa), 19h. (Tashkent), 20h. (Sucre, La Paz, Ekaterinburg, Tashkent, and Tiflis).

May 17d. 0h. 22m. 18s. Epicentre 54°·0N. 161°·0E. (as on 1927 Jan. 31d.).

A = −·556, B = +·191, C = +·809.

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk		33·2	290	—	—	e 12 42	+14	e 19·7	—
Ekaterinburg		51·7	318	i 9 20	+ 2	—	—	26·7	—
Tashkent		58·7	300	i 9 51	−12	—	—	e 28·7	32·4
Pulkovo		59·6	335	e 10 27	+18	—	—	—	—
Baku		68·8	311	—	—	—	—	e 37·7	—
Tiflis	E.	69·9	315	e 11 18	+ 2	—	—	34·4	—

Baku gives also e = +31m.0s.

May 17d. 6h. 11m. 40s. Epicentre 8°·0N. 94°·0E.

A = −·069, B = +·988, C = +·139 ; D = +·998, E = +·070 ;
G = −·010, H = +·139, K = −·990.

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Kodaikanal		16·5	279	9 26	?L	—	—	(9·4)	—
Phu-Lien		17·7	42	4 20	+ 7	e 7 46	+13	8·8	—
Hyderabad		17·9	303	4 2	−14	7 34	− 4	9·3	14·0
Batavia		19·1	138	e 5 29	+59	—	—	—	—
Bombay		23·3	300	5 16	− 4	9 34	+ 3	12·4	17·3
Manila		27·2	74	e 5 54	− 6	—	—	14·8	—
Simla	E.	28·0	328	—	—	e 11 50	+51	—	—
Tashkent		39·9	331	i 7 42	−12	i 13 47	−18	e 19·3	21·6
Baku		50·4	319	e 9 36	+27	16 30	+ 6	25·3	32·0
Tiflis		54·9	318	e 9 37	− 1	e 17 18	− 2	e 30·3	34·7
Ekaterinburg		55·3	340	i 9 42	+ 1	i 17 24	− 1	28·3	—
Ksara	N.	59·2	307	e 10 12	+ 6	e 18 49	?PS	25·3	—
Makeyevka		61·7	321	e 10 22	− 1	18 44	0	30·3	44·2
Pulkovo		70·1	332	11 17	− 1	20 27	0	37·3	42·4
Leningrad		70·2	332	e 11 20	+ 2	e 20 29	+ 1	33·3	48·8
Vienna		75·8	320	11 50	− 4	21 48	+13	—	—
Upsala		76·3	330	—	—	i 21 36	− 5	e 42·3	—
Copenhagen		78·7	327	—	—	e 22 3	− 5	41·3	—
De Bilt		83·0	323	e 12 55	+19	e 22 45	−12	e 42·3	—
Uccle		83·6	321	—	—	e 22 47	−18	e 44·3	—
Granada		91·2	309	e 2 46	?	—	—	e 53·3	57·8

For Notes see next page.

NOTES TO MAY 17d. 6h. 11m. 40s.

Additional readings: Batavia reading is given as simply e. Tashkent $PR_1 = +9$m.23s., $PR_2 = +9$m.43s., i = +14m.20s., $SR_2 = +16$m.55s., MN = +23·5m. Baku MN = +28·5m. Tiflis eN = +10m.9s., eE = +19m.19s. =[S]+4s., MN = +32·7m. Ekaterinburg e = +11m.36s., i = +17m.30s., e = +23m.53s. $=SR_3 - 22$s. Makeyevka e = +10m.52s., $PR_1 = +12$m.44s., $PR_2 = +14$m.11s., PS = +19m.9s., $SR_1 = +23$m.2s., MN = +36·3m., MZ = +46·0m. Pulkovo $SR_2 = +28$m.38s., MN = +43·8m., MZ = +46·5m. Copenhagen e = +27m.32s. $=SR_1 - 21$s.

May 17d. 17h. 40m. 6s. Epicentre 46°·3N. 16°·8E. (as on 1927 April 5d.).

A = +·661, B = +·200, C = +·723; D = +·289, E = −·957; G = +·692, H = +·209, K = −·691.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Graz	1·1	310	e 0 17	0	e 0 31	0	—	0·9
Vienna	1·9	351	e 0 23	− 6	—	—	—	1·0
Rocca di Papa	5·4	217	e 1 38	+15	—	—	—	2·1
Zurich z.	5·8	284	e 1 38	+ 8	—	—	—	—
Strasbourg	6·5	294	—	—	e 3 47	+50	—	—
De Bilt	9·5	312	—	—	—	—	e 5·4	—

Additional readings: Zagreb gives Δ = 0°·8, Az = 230°, P = 17h.37m.49s. Rocca di Papa iPE = +1m.51s., iPN = +1m.54s.

May 17d. 21h. 44m. 12s. Epicentre 44°·0N. 131°·0E. (as on 1920 May 6d.).

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

A depth of focus 0·060 has been assumed. On 1918 April 10d. the depth 0·070 was adopted and retained for 1920 May 6d. (recorded at comparatively few stations), but is too great for the present case. See note at the end.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	−0·6	9·0	119	2 12	+ 5	(3 54)	+ 7	3·9	—
Toyooka	−0·6	9·0	159	—	—	(3 47)	0	3·8	3·9
Osaka	−0·7	9·9	158	2 20	+ 1	(4 6)	− 2	4·1	5·1
Kobe	−0·7	9·9	160	—	—	(4 2)	− 6	4·0	6·4
Sumoto	−0·7	10·2	161	2 21	− 2	(4 9)	− 7	4·2	4·2
Hukuoka	−0·7	10·4	183	e 2 25	− 1	(4 20)	− 1	4·3	—
Nagasaki	−0·9	11·3	185	—	—	(e 3 32)	−68	e 3·5	—
Zi-ka-wei	−1·6	14·9	214	e 3 23	+ 6	i 5 40	−11	—	—
Hong Kong	−3·1	25·7	218	6 36	+84	—	—	—	15·3
Manila	−3·8	30·6	198	e 5 48	− 8	(9 54)	−43	9·9	—
Phu-Lien	−3·8	30·8	230	e 5 37	−21	e 9 55	−46	e 12·8	—
Ekaterinburg	−5·1	44·4	314	i 6 40	−69	i 12 39	−77	18·8	27·6
Tashkent	−5·1	44·4	290	i 7 36	−13	i 13 34	−22	—	31·0
Baku	−6·1	57·7	298	e 9 17	0	i 16 34	− 5	23·8	—
Leningrad	−6·1	57·7	325	9 15	− 2	e 18 3	+84	23·8	37·2
Pulkovo	−6·1	57·8	325	9 15	− 3	16 36	− 4	23·8	36·6
Tiflis	−6·2	60·2	302	e 9 19	−14	17 2	− 7	e 34·8	37·7
Makeyevka	−6·2	60·6	311	e 9 39	+ 4	17 6	− 8	24·8	24·9
Konigsberg N.	−6·5	64·9	325	—	—	e 18 5	+ 1	—	—
Copenhagen	−6·7	67·6	329	9 48?	−30	18 37	+ 2	—	—
Hamburg	−6·8	70·2	329	—	—	e 19 8	+ 2	—	—
Ksara	−6·8	70·5	300	10 37	+ 1	19 8	− 1	27·8	—
Vienna	−6·8	71·4	321	10 40	− 2	19 24	+ 4	—	—
Edinburgh	−6·9	72·9	335	—	—	i 19 36	− 1	—	—
De Bilt	−6·9	73·2	328	10 51	− 3	19 40	− 1	—	—
Uccle	−7·0	74·5	328	—	—	e 19 52	− 4	—	—
Strasbourg	−7·0	75·0	326	e 11 0	− 4	i 19 59	− 3	25·8	—
Zurich	−7·0	75·6	323	e 11 6	− 2	e 20 4	− 5	—	—

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.
Kew		−7·0	75·6	333	e 11 7	− 1	e 20 5	− 4	27·8	—
Oxford	E.	−7·0	75·8	333	—	—	i 20 8	− 4	—	—
Paris		−7·1	76·8	328	e 13 11	?	e 20 19	− 3	47·8	—
Rocca di Papa		−7·1	78·0	319	e 10 54	−28	e 20 32	− 5	e 23·9	—
Tortosa	N.	−7·4	84·2	324	21 13	?S	(21 13)	−34	—	—
Algiers		−7·4	86·5	320	e 12 19	+ 5	21 34	−39	31·8	—
Granada		−7·4	89·0	326	15 55	?PR$_1$	i 23 35	[+13]	37·3	—
Sucre		—	151·5	34	18 11	[−107]	—	—	—	—

Additional readings and notes: Mizusawa SN = +3m.3s., SE = +3m.6s. Osaka MN = +4·9m. Kobe MN = +7·1m. Zi-ka-wei P is given as simply e. Irkutsk (Δ = 19°·5 − 2°·3) has no time marks, but records i = P + 3m.11s., e = P + 5m.54s., i = P + 10m.15s., where P is circa 22h. Ekaterinburg i = +8m.38s., +11m.8s., and +15m.31s. Tashkent i = +7m.38s., ePR$_1$ = +9m.23s., iSR$_2$ = +16m.29s. Baku SR$_1$ = +19m.49s. Leningrad MZ = +36·6m., MN = +37·0m., S is given simply as e. Pulkovo PR$_1$ = +11m.32s., i = +18m.2s., SR$_1$ = +20m.42s., MZ = +36·5m. Tiflis e = +20m.26s. Makeyevka PR$_1$ = +11m.26s., e = +18m.25s. and +20m.29s. Konigsberg eE = +18m.6s. and +22m.34s. = SR$_1$ − 6s., eEN = +19m.2s. Copenhagen PR$_1$ = +13m.2s., PS = +19m.23s., SR$_2$ = +23m.6s. Ksara PR$_2$ = +12m.53s.; T$_0$ = 21h.44m.22s. De Bilt eZ = +12m.47s. and +13m.48s. = PR$_1$ − 3s. Paris P is given as e simply. Rocca di Papa eP = +17m.8s., = PR$_3$ + 14s. Tortosa PE = +21m.21s. Sucre L = +19m.42s. = [P] − 16s.

Note to the Above Shock.

The following are the observed residuals in degrees of Δ. Column (A) gives them uncorrected for focal depth, (B) when corrected for focal depth 0·060, and (C) for focal depth ·070.

No.	Az.	Station or Group.	(A) Uncorrected.	(B) Corrected for 0·060	(C) for 0·070
	°		°	°	°
1	119	Mizusawa	−0·4	+0·2	+0·2
4	160	Japan	−0·7	0·0	+0·2
1	183	Hukuoka	−0·7	0·0	+0·2
1	214	Zi-ka-wei	−2·1	−0·5	−0·2
2	214	Manila and Phu-Lien	−5·3	−1·5	−0·9
1	290	Tashkent	−6·7	−1·7	−0·9
2	299	Baku and Ksara	−6·6	−0·1	+0·8
17	324	European and North Asia	−6·9	−0·2	+0·7

Most of the observations are in the European group, with mean azimuth 324°; and the details for individual stations are given below. It will be seen that supposition (B) (depth +·060) is distinctly preferable for these stations. The other groups are suited almost equally well with ·060 or ·070.

	A	B	C		A	B	C
Ekaterinburg	−6·2	−1·2	−0·4	De Bilt	−7·1	−0·2	+0·8
Leningrad	−6·4	−0·3	+0·5	Uccle	−7·3	−0·3	+0·7
Pulkovo	−6·4	−0·3	+0·5	Strasbourg	−7·5	−0·5	+0·5
Makeyevka	−6·2	−0·3	+0·8	Zurich	−7·3	−0·3	+0·7
Konigsberg	−6·4	+0·1	+0·9	Kew	−7·3	−0·3	+0·7
Copenhagen	−6·5	+0·2	+1·0	Oxford	−7·3	−0·3	+0·7
Hamburg	−6·6	+0·2	+1·1	Paris	−7·4	−0·3	+0·6
Vienna	−6·8	0·0	+1·0	Rocca di Papa	−7·5	−0·4	+0·6
Edinburgh	−7·0	−0·1	+0·9				

Columns A, B, C, give the residuals as before, (A) with no correction for focus, (B) correction for focal depth 0·060, and (C) correction for focal depth 0·070. The evidence points to a depth between those assumed, say 0·062.

May 17d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 16d. :—

h.	m.	s.		h.	m.	s.	
12	42	5	T	14	52	39	T
14	1	26	T				

May 17d. Readings also at 0h. (Tiflis), 2h. (Tiflis and Ksara), 3h. (Sydney and Tiflis), 4h. (Tiflis), 8h. (Agana and Tashkent), 9h. (Ekaterinburg and Tashkent), 10h. (Ekaterinburg, Tashkent, and Zagreb), 11h. (Tiflis and Ekaterinburg), 12h. (Tortosa (2) and Ekaterinburg (3)), 13h. (Prague, Tiflis, and Ekaterinburg (5)), 14h. (Ekaterinburg (2)), 17h. (Taihoku and De Bilt), 18h. (Hohenheim, Strasbourg, Tortosa, and near Zurich), 21h. (La Paz, Mizusawa, and Tashkent).

May 18d. 1h. 42m. 30s. Epicentre 39°·0N. 7°·5W. (as on 1926 Feb. 28d.).

A = +·770, B = −·101, C = +·629 ; D = −·131, E = −·991 ;
G = +·624, H = −·082, K = −·777.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
San Fernando	2·8	158	0 46	+ 2	1 13	− 4	—	—
Toledo	2·8	72	e 0 41	− 3	e 1 24	+ 7	—	—
Malaga	3·3	132	0 43	− 9	1 30	− 1	—	—
Granada	3·6	120	1 35	+39	2 11	+32	—	2·3
Almeria	4·6	116	e 1 48	+37	i 2 29	+23	—	3·3
Tortosa	6·4	71	3 43	?L	—	—	(3·7)	—
Paris	12·1	33	—	—	—	—	e 17·5	—
Kew	13·4	20	—	—	—	—	e 13·5	—
Zurich	14·3	49	—	—	—	—	e 7·5	—
Uccle	14·4	31	—	—	—	—	e 13·0	—
Strasbourg	14·5	44	—	—	—	—	e 10·5	—
Rocca di Papa N.	15·6	73	—	—	—	—	e 7·6	10·5
De Bilt	15·7	30	—	—	—	—	e 13·4	—
Pompeii	16·9	77	e 8 30	?L	—	—	(e 8·5)	—
Edinburgh	17·1	8	—	—	—	—	—	23·5
Hamburg	18·8	34	—	—	—	—	e 14·5	—
Vienna	19·5	54	—	—	—	—	e 9·4	13·4
Copenhagen	21·3	32	—	—	—	—	13·5	—
Pulkovo	31·4	36	10 48	?S	(10 48)	−70	18·5	21·7
Leningrad	31·5	36	—	—	e 10 47	−73	19·0	21·8
Makeyevka	33·7	59	i 9 40	?	e 12 54	+18	16·5	16·7
Tiflis	39·3	69	—	—	e 14 1	+ 5	e 16·2	19·6
Ekaterinburg	46·7	44	e 11 20	?PR_2	—	—	23·5	25·7
Tashkent	56·7	61	—	—	—	—	e 25·8	—

Additional readings: Toledo ePNE = +49s., PR_1NE = +52s., SNE = +1m.24s., S = +1m.43s., SR_1 = +1m.48s., SR_2 = +2m.4s. Granada P = +1m.38s., i = +1m.43s., +1m.56s., +1m.59s., and +2m.7s. Almeria eP = +1m.54s., PR_2 = +2m.4s., P_2S = +2m.14s., SR_1 = +2m.38s., PS_4 = +2m.49s., SR_3 = +2m.57s., MNZ = +3·2m. Uccle e = +15m.30s. ; Does this belong to a later shock recorded also by Makeyevka, Leningrad, Pulkovo, and De Bilt ? Rocca di Papa e = +9m.14s., iN = +10m.5s., iE = +10m.9s., ME = +10·9m. De Bilt e = +16m.24s. Pulkovo e = +15m.4s. Leningrad e = +15m.3s., MZ = +21·9m. Makeyevka e = +14m.54s., MZ = +16·8m. Ekaterinburg MZ = +25·8m. Tashkent e = +32m.12s., and +35m.42s.

May 18d. 9h. 24m. 57s. Epicentre 30°·6N. 141°·8E. (as on May 16d.).

A = −·677, B = +·532, C = +·509 ; D = +·618, E = +·786 ;
G = −·400, H = +·315, K = −·861.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Zi-ka-wei	17·5	277	(4 15)	+ 4	4 15	?P	—	11·8
Irkutsk	34·9	319	e 7 2	−10	e 12 34	−20	e 18·0	22·2
Tashkent	58·0	304	e 10 4	+ 5	e 18 1	+ 2	e 27·0	37·6
Ekaterinburg	60·1	322	i 10 16	+ 3	e 18 30	+ 6	28·0	45·8
Kucino	72·3	325	—	—	e 21 0	+ 6	38·2	46·5
Pulkovo	73·6	331	—	—	—	—	e 35·0	—
Leningrad	73·6	331	—	—	—	—	e 40·6	—
Tiflis E.	75·0	311	e 11 58	+ 9	e 21 32	+ 6	e 40·0	48·5
Makeyevka	76·1	319	—	—	i 21 37	− 1	44·0	49·6
Konigsberg E.	80·8	330	—	—	—	—	e 32·0	—
Copenhagen	83·5	334	—	—	—	—	41·0	—
Edinburgh	88·6	341	—	—	—	—	e 48·0	—
De Bilt	89·1	335	—	—	e 23 54	−10	e 51·1	—
Strasbourg	90·9	332	—	—	—	—	e 56·0	—
Paris	92·7	335	—	—	—	—	e 56·0	—

Additional readings: Zi-ka-wei eZ = 9h.15m.24s. Tashkent eSR_1 = +22m.15s., MN = +38·8m. Ekaterinburg MZ = +39·2m. Tiflis N = +21m.43s. = [S] − 6s.

May 18d. 22h. 52m. 12s. Epicentre 31°·0N. 132°·0E. (as on 1914 Jan. 12d.).

A = −·574, B = +·637, C = +·515 ; D = +·743, E = +·669 ;
G = −·345, H = +·383, K = −·857.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Nagasaki		2·6	314	e 0 37	− 4	e 1 4	− 8	1·2	1·4
Hukuoka		2·9	333	—	—	—	—	e 2·4	—
Zi-ka-wei		9·1	274	e 2 17	− 1	—	—	—	—
Hong Kong		18·1	246	7 38	?S	(7 38)	− 4	—	11·6
Phu-Lien		25·0	252	—	—	9 48?	−15	—	—
Irkutsk		29·3	325	—	—	e 11 48?	+26	e 17·8	19·7
Tashkent		50·5	301	—	—	e 18 14	+109	26·8	32·4
Ekaterinburg		54·5	322	—	—	e 17 31	+16	29·8	35·8
Baku		65·0	305	—	—	—	—	e 35·8	—
Kucino		67·0	323	—	—	—	—	33·0	43·3
Tiflis		68·1	308	—	—	e 21 15	[+17]	e 39·8	45·0
Leningrad		69·0	330	—	—	—	—	e 37·6	45·6
Pulkovo		69·1	330	—	—	—	—	e 37·8	45·6
Makeyevka		70·0	315	—	—	e 35 15	?L	39·8	46·4
Upsala		74·5	332	—	—	—	—	—	48·8
Copenhagen		79·2	330	—	—	22 46	?PS	42·8	47·4
Cheb		83·0	325	—	—	—	—	e 42·8	54·8
De Bilt		84·9	330	—	—	—	—	e 46·8	51·1
Uccle		86·1	330	—	—	—	—	e 46·8	—
Strasbourg		86·2	328	—	—	—	—	47·8	55·8
Kew		87·5	334	—	—	—	—	e 47·8	—
Oxford		87·7	334	—	—	—	—	—	58·3
Paris		88·4	330	—	—	—	—	e 51·8	57·8
Tortosa	N.	95·3	326	—	—	—	—	e 49·8	63·1
Granada		100·2	326	—	—	—	—	e 49·8	56·8

Additional readings and notes: Tashkent eSR_2 = +19m.48s.? = SR_1 −28s., MN = +32·0m., MZ = +32·6m. Kucino MN = +43·5m. Tiflis eN? = +32m.25s., MN = +43·7m. Pulkovo MN = +45·9m. Leningrad MN = +45·5m., MZ = +46·7m. Makeyevka e = +36m.1s., MN = +44·4m., MZ = +47·3m. Copenhagen MN = +52·8m. De Bilt MN = +55·9m., MZ = +56·0m.

May 18d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 17d. :—

h.	m.	s.	
11	47	14	T

May 18d. Readings also at 2h. (Granada, Simla, Tashkent, near Kobe, and Sumoto), 5h. (Fordham), 6h. (Ekaterinburg), 7h. (near Tacubaya, Oaxaca, Vera Cruz, and near Manila), 8h. (Konigsberg, Zagreb, near Naples, Pompeii, and Rocca di Papa), 9h. (Konigsberg and Tiflis), 11h. (near Tacubaya), 12h. (Tortosa and Tiflis), 15h. and 16h. (Manila), 17h. (near Hukuoka, Matuyama, Sumoto, near La Paz, Sucre, and near Taihoku), 18h. (Ekaterinburg, Hyderabad, Tiflis, Tashkent, and Zurich), 21h. (near Mizusawa).

May 19d. 5h 25m. 50s. Epicentre 3°·0N. 85°·0W. (as on 1923 Sept. 28d.).

A = +·087, B = −·995, C = +·052 ; D = −·996, E = −·087 ;
G = +·005, H = −·052, K = −·999.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tacubaya		21·7	320	5 4	+ 3	9 39	?SR_2	11·3	13·5
La Paz	E.	25·6	140	i 5 26	−18	i 10 11	− 3	14·0	—
	N.	25·6	140	i 5 26	−18	i 10 13	− 1	13·7	16·4
Sucre		29·4	139	e 6 32	+10	i 11 37	+13	16·1	20·7
Tucson	N.	38·0	324	e 7 46	+ 8	—	—	—	—
Chicago		38·9	357	—	—	e 13 46	− 5	e 21·1	—
Ithaca		40·2	10	—	—	—	—	20·2	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Toronto	E.	41·0	7	e 12 42	?	e 14 10?	−11	18·7	20·9
Ottawa		43·2	11	—	—	e 14 48	− 3	e 18·6	23·2
Rio de Janciro	E.	48·3	125	e 14 33	?S	(e 14 33)	−85	24·2	30·0
	N.	48·3	125	e 14 55	?S	(e 14 55)	−63	24·6	29·7
Victoria	E.	56·0	331	—	—	—	—	30·7	34·0
	N.	56·0	331	17 49	?S	(17 49)	+15	28·2	34·7
HonoluluT.H.	E.	72·9	291	—	—	—	—	e 34·7	36·4
	N.	72·9	291	—	—	—	—	e 35·2	38·3
Granada		81·4	54	i 12 32	+ 5	22 51	+12	39·2	44·0
Almeria		82·3	54	e 12 39	+ 7	22 51	+ 2	51·6	—
Edinburgh		83·0	35	e 12 10?	−26	—	—	39·2	—
Oxford		83·8	39	—	—	i 23 5	− 2	—	43·2
Kew		84·4	39	e 12 10?	−34	—	—	40·2	—
Paris		86·2	41	e 12 53	− 1	e 23 31	− 1	41·2	43·2
Uccle		87·3	40	—	—	e 23 43	− 1	e 41·2	45·2
De Bilt		87·7	39	13 1	− 2	e 23 50	+ 1	e 40·2	45·2
Strasbourg		89·6	42	e 13 8	− 6	e·24 18?	+ 8	42·2	—
Hamburg		90·6	37	e 22 10?	?	—	—	—	—
Copenhagen		91·7	34	13 10?	−15	23 46	[+ 8]	e 42·2	49·6
Cheb		92·4	40	—	—	e 23 10?	[−32]	e 44·2	47·7
Rocca di Papa	Z.	93·7	48	13 33	− 3	—	—	—	—
Suva	N.	97·2	254	—	—	—	—	i 41·5	41·9
Wellington		99·6	230	—	—	—	—	—	64·2
Leningrad		99·7	27	e 17 10?	[−35]	—	—	39·2	51·9
Pulkovo		99·8	27	e 12 3	?	e 18 6	?PR_1	44·2	52·4
Kucino		105·2	30	—	—	—	—	50·8	—
Makeyevka		109·0	36	—	—	e 26 57	−22	55·2	63·0
Ksara		113·4	50	—	—	—	—	e 61·2	—
Ekaterinburg		114·1	20	—	—	e 26 48	?Σ	47·2	63·3
Tiflis	N.	116·3	39	—	—	—	—	e 59·2	61·6
Baku		120·2	38	—	—	e 31 50	?PS	61·2	64·8
Irkutsk		124·2	353	—	—	—	—	e 60·2	—
Tashkent		129·9	25	e 19 57	[+39]	—	—	e 54·2	88·7

Additional readings: La Paz iPR_1N = +6m.21s., iN = +6m.51s., and +7m.29s., iSR_1E = +11m.21s.; T_o = 5h.25m.13s. Sucre i = +6m.36s. Chicago eSN? = +13m.52s., eSR_1E = +16m.20s. Toronto MN = +26·0m. Ottawa eN? = +10m.40s. = PR_2 −4s., MN = +27·2m. Rio de Janeiro SN = +19m.10s., SE = +19m.18s. Almeria i = +13m.19s., and +13m.51s., PR_1 = +18m.7s. = PR_2 +0s., MZ = +45·0m., MN = +50·3m. Oxford MN = +45·2m. De Bilt eE = +23m.31s. = [S] +18s., MZ = +45·0m., MN = +47·1m. Strasbourg ePS = +25m.8s. Copenhagen PR_1 = +16m.46s., PR_2 = +21m.22s. = PR_2 +17s., SR_1 = +29m.10s.?, eLN = +40·2m., MN = +48·5m. Rocca di Papa ePE = +13m.44s., ePN = +13m.50s., e = +25m.29s. = PS − 23s. Leningrad MZ = +52·6m., MN = +53·4m. Pulkovo MZ = +51·7m. Makeyevka e = +28m.39s. = PS − 8s., and +40m.21s., MN = +66·4m. Ekaterinburg MZ = +65·6m. Baku e = +41m.58s., MN = +66·5m. Tashkent i = +23m.4s., and +39m.28s., e = +32m.1s., and +52m.10s.?, MZ = +67·9m., MN = +87·7m.

May 19d. 19h. 18m. 3s. Epicentre 35°·5N. 140°·0E. (as on 1926 Aug. 3d.).

A = −·624, B = +·523, C = +·581; D = +·643, E = +·766; G = −·445, H = +·373, K = −·814.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya	2·5	262	i 0 36	− 3	(1 1)	− 8	1·0	1·2
Mizusawa	3·7	14	1 2	+ 4	1 48	+ 6	—	—
Osaka	3·8	259	1 1	+ 2	(1 48)	+ 4	1·8	2·5
Kobe	4·1	266	1 1	− 3	(1 49)	− 4	1·8	2·2
Toyooka	4·2	273	1 9	+ 4	(1 53)	− 2	1·9	1·9
Sumoto	4·4	256	e 1 7	− 1	(2 3)	+ 2	2·0	2·1
Hukuoka	8·1	259	e 2 7	+ 4	—	—	4·0	4·0
Nagasaki	8·9	255	—	—	(e 4 7)	+ 6	e 4·1	—
Tashkent	54·2	299	—	—	—	—	e 24·0	33·8
Ekaterinburg	55·4	320	—	—	—	—	30·4	—
Baku	68·0	305	—	—	—	—	e 36·0	—
Copenhagen	78·5	333	—	—	—	—	43·0	—

Additional readings: Nagoya MZ = +1·1m., MN = +1·3m. Mizusawa SE = +1m.49s. Osaka MN = +2·8m. Kobe MN = +2·0m.

May 19d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 18d. :—

h.	m.	s.		h.	m.	s.	
5	7	28	T	12	53	10	T
6	57	8	T				

May 19d. Readings also at 3h. (Tashkent and Ekaterinburg), 6h. (Oxford and Tiflis) 14h. (Zi-ka-wei and Tortosa), 17h. (Taihoku), 18h. (Innsbruck).

May 20d. 10h. 51m. 0s. Epicentre 24°·5N. 94°·5E. (as on 1926 Aug. 18d.).

A = −·071, B = +·907, C = +·415 ; D = +·997, E = +·078 ;
G = −·033, H = +·413, K = −·910.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Calcutta	E.	5·9	252	1 22	− 9	2 22	−19	3·2	—
	N.	5·9	252	1 33	+ 2	2 25	−16	3·7	—
Phu-Lien		11·8	106	i 2 55	− 1	—	—	—	—
Bombay		20·8	259	e 7 51	?S	(e 7 51)	−49	11·4	—
Zi-ka-wei	Z.	24·7	68	e 5 46	+11	—	—	—	—
Tashkent		26·8	315	i 5 54	− 2	e 10 30	− 7	e 14·0	18·5
Irkutsk		28·7	13	—	—	e 10 0?	−72	—	—
Baku		40·3	306	(e 9 0?)	?PR_1	—	—	e 9·0	—
Ekaterinburg		40·4	332	i 7 54	− 4	—	—	22·0	—
Makeyevka		49·8	315	i 9 6	0	i 16 18	+ 2	20·0	
Pulkovo		56·0	328	i 9 52	+ 6	e 17 41	+ 7	33·0	—
Leningrad		56·1	328	i 9 52	+ 5	e 17 42	+ 7	32·4	—
Copenhagen		65·6	323	—	—	—	—	24·0	—
De Bilt		70·5	319	—	—	—	—	e 35·0	47·5
Uccle		71·3	319	—	—	—	—	e 37·0	—
Edinburgh		74·0	325	—	—	—	—	—	69·0

Additional readings : Bombay S = +10m.24s. Tashkent e = +10m.0s., iSR_1 = +11m.41s., MN = +15·9m. Ekaterinburg iP = +13m.1s. and +50m.3s., which cannot be connected with this Shock. De Bilt MN = +39·4m.

May 20d. 13h. 59m. 6s. Epicentre 37°·5N. 27°·5E. (as on 1926 July 5d.).

A = +·704, B = +·366, C = +·609 ; D = +·462, E = −·887 ;
G = +·540, H = +·281, K = −·793.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Zagreb		11·9	318	e 4 30	+92	i 5 13	− 4	—	—
Rocca di Papa	E.	12·1	295	e 3 6	+ 6	i 5 38	+17	—	6·4
Vienna		13·4	326	—	—	e 6 27	+34	—	6·9
Venice		13·8	310	5 48	?S	(5 48)	−15	—	—
Zurich		17·0	312	—	—	e 7 54?	+36	—	—
Strasbourg		18·1	314	—	—	i 6 54?	−48	—	—
Copenhagen		20·8	336	—	—	—	—	7·9	—
Uccle		21·1	316	—	—	—	—	9·9	—
De Bilt		21·4	320	—	—	—	—	e 10·4	—

Additional readings and notes : Zagreb readings have been increased by 1h., e = +5m.0s., i = +5m.9s. Rocca di Papa eN = +3m.36s., iN = +5m.32s.

May 20d. 22h. 9m. 9s. Epicentre 30°·6N. 141°·8E. (as on May 18d.).

A = −·677, B = +·532, C = +·509; D = +·618, E = +·786; G = −·400, H = +·315, K = −·861.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa		8·5	355	3 1	+52	3 33	−17	—	—
Zi-ka-wei		17·5	277	e 4 16	+ 5	e 7 31	+ 2	—	11·9
Irkutsk		34·9	319	—	—	—	—	e 18·8	22·0
Tashkent		58·0	304	i 10 0	+ 1	e 18 0	+ 1	e 27·8	36·8
Ekaterinburg		60·1	322	i 10 19	+ 6	e 18 36	+12	31·8	—
Baku		72·1	307	—	—	e 21 9	+18	36·4	46·4
Kucino		72·3	325	—	—	—	—	37·6	—
Pulkovo		73·6	331	e 11 46	+ 6	e 21 8	− 1	37·8	48·4
Leningrad		73·6	331	e 11 42	+ 2	—	—	41·8	51·1
Tiflis	E.	75·0	311	e 11 50	+ 1	e 21 38	+12	e 39·8	47·8
Makeyevka		76·1	319	—	—	e 20 59	−39	41·8	47·2
Copenhagen		83·5	334	—	—	22 57	− 6	43·8	—
De Bilt		89·1	335	—	—	e 23 54	−10	e 47·8	—
Uccle		90·4	335	—	—	—	—	e 41·8	—
Strasbourg		90·9	332	—	—	—	—	53·8	—
Paris		92·7	335	—	—	—	—	e 55·8	—
Granada		104·9	334	—	—	—	—	59·8	63·8

Additional readings: Tashkent eSR_1 = +22m.4s., eSR_2 = +24m.33s., MZ = +36·9m., MN = +37·3m. Ekaterinburg e = +12m.29s. = PR_1 − 28s. Baku MN = +46·2m. Leningrad MN = +47·4m., MZ = +48·0m. Pulkovo MN = +47·3m., MZ = +47·9m. Tiflis MN = +47·5m. Makeyevka MN = +47·4m.

May 20d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 19d.: —

h.	m.	s.		h.	m.	s.	
0	12	32	T	7	51	46	T
6	11	52	T	10	31	59	T
7	51	12	T				

May 20d. Readings also at 2h. (Ekaterinburg, Irkutsk, and Tashkent), 3h. (Tiflis), 6h. (La Paz and Sucre), 9h. (De Bilt and Tacubaya), 11h. (Santiago), 15h. (near Mizusawa), 16h. (Tashkent (2) and Ekaterinburg), 17h. (Rocca di Papa and Zurich), 19h. (Tiflis and Zurich), 20h. (Almeria).

May 21d. 8h. 4m. 45s. Epicentre 30°·5N. 69°·0E. (as on 1914 Nov. 4d.).

A = +·309, B = +·804, C = +·508; D = +·934, E = −·358; G = +·182, H = +·474, K = −·862.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Simla	E.	7·1	81	3 3	?S	(3 3)	−10	5·2	—
Dehra Dun		7·8	89	4 13	+135	5 31	+120	6·6	6·8
Tashkent		10·8	1	2 50	+ 9	i 4 56	+ 6	5·1	9·0
Hyderabad		15·7	144	6 46	+178	8 10	+82	9·4	10·0
Baku		18·4	308	4 31	+ 9	i 8 7	+18	10·8	13·1
Tiflis	N.	22·4	307	e 5 18	+ 8	e 9 23	+10	—	21·4
Ekaterinburg		27·1	350	e 5 58	− 1	e 10 39	− 4	15·2	17·5
Makeyevka		29·4	315	—	—	(11 15)	− 9	11·2	25·8
Kucino		33·4	328	—	—	e 14 15	?SR_1	19·0	23·4
Irkutsk		33·7	40	—	—	e 12 15?	−21	e 20·2	—
Pulkovo		39·0	330	7 37	− 9	e 13 50	− 2	21·2	26·4
Leningrad	Z.	39·1	330	—	—	—	—	—	27·8
Copenhagen		46·6	320	—	—	15 39	+ 3	17·2	—
Hamburg		47·8	317	—	—	—	—	e 27·2	—
Strasbourg		49·1	310	—	—	—	—	e 31·2	—
De Bilt		50·6	315	—	—	—	—	e 29·2	—

Additional readings: Simla PN = +3m.9s. Tashkent e = +3m.25s., i = +3m.58s. and +4m.55s., MZ = +8·7m., MN = +8·8m.; epicentre 30°43′N. 69°18′E. Baku MN = +13·9m. Tiflis eN = +6m.49s., eE = +9m.18s., eN = +9m.23s., eE? = +14m.59s., ME = +17·2m. Ekaterinburg MNZ = +18·6m. Makeyevka e = 8h.0m.15s. and 8h.6m.33s. Pulkovo PR_1 = +9m.14s., SR_1 = +16m.33s., MN = +25·0m., MZ = +27·6m.

May 21d. 16h. 53m. 30s. Epicentre 22°·5S. 173°·5W. (as on 1926 Aug. 3d.).

$A = -\cdot 918$, $B = -\cdot 104$, $C = -\cdot 383$; $D = -\cdot 113$, $E = +\cdot 994$; $G = +\cdot 381$, $H = +\cdot 043$, $K = -\cdot 924$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Suva	E.	8·8	299	i 2 42	+29	i 3 48	−10	—	—
	N.	8·8	299	i 2 54	+41	i 4 6	+ 8	i 4·5	4·7
Apia		8·9	11	e 2 35	+20	—	—	—	4·0
Wellington	E.	21·2	205	i 8 52	?S	(i 8 52)	+ 4	i 16·0	16·2
	N.	21·2	205	i 8 47	?S	(i 8 47)	− 1	i 16·0	16·1
Riverview		33·0	242	e 7 36	+40	e 11 24	−60	—	19·5
Honolulu T.H.		46·4	20	—	—	14 56	−37	e 18·5	—
Manila		74·1	294	e 11 30	−13	(20 22)	−53	20·4	—
Batavia		78·3	273	e 13 18	+69	i 21 10	−54	—	—
Tucson	E.	81·1	49	i 12 32	+ 6	i 22 30	− 6	—	—
	N.	81·1	49	e 12 34	+ 8	i 22 29	− 7	—	—
Victoria		83·9	31	—	—	(22 35)	[−14]	22·6	22·7
La Paz		97·2	111	e 18 25	?PR_1	—	—	—	—
Chicago	N.	101·9	49	—	—	e 25 36	−38	—	—
Irkutsk		103·1	322	e 13 30?	−56	i 26 40	+15	—	—
Toronto	N.	108·1	49	e 22 30?	?PR_2	i 26 30?	−41	50·4	—
Ottawa		111·1	48	—	—	e 25 0	[−14]	e 45·9	—
Tashkent		124·8	306	18 58	[− 7]	i 25 33	[−26]	—	58·3
Ekaterinburg		128·0	326	i 19 8	[− 6]	—	—	36·5	—
Leningrad		139·0	342	e 19 26	[−12]	—	—	36·1	40·3
Pulkovo		139·2	342	e 19 25	[−13]	—	—	56·5	—
Baku		139·4	307	e 22 12	?PR_1	—	—	e 63·5	—
Kucino		139·4	334	e 22 6	?PR_1	—	—	—	—
Upsala	E.	141·8	351	—	—	e 40 21	?SR_1	—	—
Tiflis		142·7	310	e 18 58	[−46]	—	—	e 65·5	72·7
Makeyevka		144·2	323	e 19 42	[− 5]	—	—	56·5	70·0
Edinburgh		145·9	10	—	—	i 34 53	?	—	—
Konigsberg	N.	146·0	346	—	—	e 29 25	?Σ	e 41·5	—
Copenhagen		146·5	355	19 28	[−22]	—	—	—	—
Hamburg		149·1	356	e 19 47	[− 7]	i 29 44	?Σ	—	—
De Bilt	Z.	150·4	1	i 19 56	[0]	e 29 55	?Σ	—	—
Kew		150·6	9	e 19 55	[− 2]	—	—	e 32·5	—
Uccle		151·7	3	e 19 53	[− 5]	—	—	—	—
Ksara	E.	151·9	300	e 19 53	[− 6]	—	—	—	—
Vienna		153·1	345	e 19 51	[− 9]	30 3	?Σ	—	—
Paris		153·5	6	e 19 59	[− 1]	i 30 11	?Σ	41·5	—
Strasbourg		153·9	358	e 19 56	[− 5]	i 30 11	?Σ	—	—
Zurich		155·1	357	e 20 0	[− 2]	—	—	—	—
Rocca di Papa		160·1	347	e 20 5	[− 3]	—	—	—	—
San Fernando		162·2	35	—	—	—	—	44·5	52·5
Granada		163·0	29	i 20 9	[− 1]	—	—	e 51·5	54·0

Additional readings and notes: Apia e = +2m45s. Riverview MN = +15·7m. Honolulu T.H., eN = +16m.30s., eSR_1E = +17m.27s., eLqN = +18·2m. Batavia readings are given simply as e and i respectively. Tucson ePR_1E = +15m.40s. Irkutsk e = +17m.38s. = [P] − 20s., i = +24m.6s. = [S] − 32s. Toronto eN = +28m.21s. = PS − 16s. Ottawa iN = +26m.53s. = Σ +33s., and +34m.41s. = SR_1 − 16s., eN = +34m.0s. Tashkent iPR_2 = +21m.24s. i = +27m.20s. = Σ − 23s., iSR_2 = +30m.3s., MZ = +60·4m. Ekaterinburg i = +19m.12s., +20m.53s. = PR_1 − 23s., +21m.52s., +25m.50s. = [S] − 16s., +27m.29s., +28m.37s. = Σ +35s., and +30m.38s. Leningrad e = +22m.36s. = PR_1 + 8s., and +28m.36s. = PR_2 − 8s. Pulkovo e = +22m.2s., i = +22m.35s. = PR_1 + 7s., e = +24m.36s., +28m.38s. = PR_2 − 6s., and +39m.38s. Baku i = +22m.40s. = PR_1 +10s. Kucino e = +28m.40s. and +29m.2s. = Σ − 7s. Tiflis eE = +19m.30s. = [P] − 14s., and +22m.24s. = PR_1 − 27s., eN = +29m.4s. = Σ − 24s., MN = +68·5m. Makeyevka e = +22m.50s. = PR_1 − 11s., +26m.32s. = [S] + 0s., +29m.9s. = Σ − 28s., +32m.46s., +35m.0s., and +40m.55s., MZ = +74·4m., MN = +77·8m. Copenhagen P = +19m.42s., e = +22m.56s. = PR_1 − 19s., +29m.29s. = Σ − 21s., and +41m.22s. = SR_1 +12s. Hamburg e = +41m.30s. ? De Bilt eZ = +21m.0s., eE = +42m.10s. Uccle e = +21m.3s. Vienna iPZ = +19m.56s. Strasbourg i = +21m.27s. Rocca di Papa eP = +20m.8s. San Fernando MN = +54·5m. Granada i = +20m.32s.

May 21d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 20d. :—

h.	m.	s.		h.	m.	s.	
0	6	10	T	6	39	12	T

May 21d. Readings also at 0h. (Tortosa and near Tacubaya), 4h. (near La Paz, Matuyama, near Naples (2), Pompeii (2), and Rocca di Papa (2)), 5h. (Tiflis), 6h. (near La Paz), 7h. (Bombay and Ekaterinburg), 8h. (Matuyama), 14h. (Melbourne, De Bilt, and Strasbourg), 17h. (near Sumoto and near Tacubaya), 18h. (La Paz).

May 22d. 1h. 45m. 10s. Epicentre 21°·0S. 67°·0W. (as on 1927 April 9d.).

A = +·365, B = −·860, C = −·358 ; D = −·920, E = −·391 ;
G = −·140, H = +·330, K = −·934.

The residuals suggest a focus rather deeper than normal.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Sucre		2·6	40	i 0 57	+16	i 1 33	+21	i 1·7	2·3
La Paz	N.	4·6	345	1 9	− 2	i 2 6	0	2·4	2·6
Santiago		12·9	194	3 3	− 9	e 5 29	−13	5·9	—
Rio de Janeiro	E.	22·2	101	e 4 58	− 9	10 1	+52	14·0	—
	N.	22·2	101	e 4 55	−12	10 6	+57	14·5	—
Chicago	E.	65·6	344	—	—	e 19 44	+12	—	—
Toronto		65·6	350	e 10 26	−23	i 18 57	−35	20·9	—
Ottawa		66·9	354	e 10 20	−37	e 19 14	−35	—	—
Granada		83·3	47	e 12 10	−28	23 47	?PS	48·8	52·8
Almeria		84·0	46	12 54	+12	22 34	[−16]	e 38·7	67·9
Tortosa	N.	88·0	45	—	—	23 0	[−15]	e 34·8	—
Kew		92·8	34	—	—	e 23 25	[−20]	—	—
Paris		93·2	38	e 9 58	?	e 23 29	[−18]	47·8	—
Edinburgh		93·7	30	16 50?	?PR_1	—	—	—	—
De Bilt		96·1	36	—	—	e 23 44	[−19]	—	—
Strasbourg		96·1	40	e 17 8	?PR_1	e 22 50?	?	—	—
Hamburg		99·4	36	—	—	e 24 2	[−19]	—	—
Cheb		99·4	40	e 22 50?	?PR_2	—	—	—	24·0
Copenhagen		101·5	34	13 50?	−28	24 11	[−20]	—	—
Leningrad		111·6	28	e 19 2	?PR_1	(29 20)	?PS	29·3	—
Pulkovo		111·7	28	19 0	?PR_1	e 28 22	+39	54·8	
Makeyevka		115·3	44	e 19 59	?PR_1	—	—	31·4	35·5
Kucino		115·5	36	—	—	e 25 7	[−23]	e 35·2	—
Baku		123·6	53	e 20 39	?PR_1	e 25 43	[−12]	e 32·8	—
Tashkent		138·0	50	i 19 17	[−19]	—	—	e 40·2	82·9

Additional readings : Chicago eE = +18m.50s., eN? = +19m.32s. Granada i = +12m.48s., and +23m.16s. = S +16s., SPS = +22m.43s. Almeria PR_1 = +15m.57s., SR_1 = +24m.24s. = PS +28s., MZ = +42·0m. Tortosa SE = +23m.1s. De Bilt e = +25m.50s. = S +33s. = PS −30s. Copenhagen PR_1 = +17m.50s. = [P] −2s., S = +25m.8s. = Σ −12s. ; S given as S_cP_cS Pulkovo i = +24m.50s. = [S] −27s., and +25m.52s. = Σ −31s. Makeyevka e = +25m.7s. = PR_2 +2s., +26m.17s., and +29m.7s. Kucino e = +26m.12s. and +29m.30s. = PS −28s. Tashkent i = +22m.33s. = PR_1 +11s., +23m.21s., and +28m.47s. = Σ −14s., e = +32m.1s.

May 22d. 11h. 56m. 40s. Epicentre 14°·0N. 126°·0E. (as on 1917 May 12d.).

A = −·570, B = +·785, C = +·242 ; D = +·809, E = +·588 ;
G = −·142, H = +·196, K = −·970.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		4·9	277	e 1 20	+ 4	(i 2 14)	0	2·2	5·1
Taihoku	N.	11·8	340	3 9	+13	—	—	6·8	—
Hong Kong		14·0	308	3 22	− 4	—	—	—	7·8
Zi-ka-wei		17·7	347	i 4 14	+ 1	e 8 38	+65	11·2	12·0
Nagasaki		19·1	10	—	—	(e 8 1)	− 3	e 8·0	—
Phu-Lien		19·7	293	e 4 36	− 1	8 19	+ 2	9·6	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Hukuoka		20·0	11	e 4 44	+ 3	e 8 28	+ 5	e 10·6	—
Sumoto		21·9	20	4 57	− 7	(9 7)	+ 4	9·1	—
Nagoya		23·4	23	e 4 10	−71	—	—	—	—
Batavia		27·7	225	i 5 55	−10	i 10 32	−22	—	—
Irkutsk		42·0	340	7 57	−14	14 21	−14	22·3	23·6
Tashkent		56·0	312	e 10 40	+54	i 18 34	+60	e 27·3	38·2
Ekaterinburg		64·9	327	i 10 47	+ 3	19 29	+ 5	30·3	43·7
Kucino		77·4	325	—	—	e 21 46	− 7	e 39·9	49·9
Makeyevka		78·3	318	e 13 1	+52	e 21 55	− 9	33·3	50·2
Pulkovo		80·5	330	e 12 16	− 6	22 23	− 6	41·3	50·7
Leningrad		80·7	330	e 12 18	− 5	—	—	44·3	51·2
Ksara		82·3	304	12 32	0	e 20 5	−164	30·3	—
Upsala		86·8	325	—	—	—	—	48·3	—
Copenhagen		91·0	330	16 56	?PR_1	e 25 24	?PS	e 48·3	58·1
Pompeii		96·4	315	e 17 0	?PR_1	—	—	—	—
De Bilt		96·6	328	—	—	—	—	e 52·3	63·7
Naples		96·7	315	e 17 7	?PR_1	—	—	—	—
Strasbourg		97·0	325	—	—	e 31 20?	?SR_1	48·3	—
Rocca di Papa	E.	97·2	317	16 26	?PR_1	—	—	—	—
Uccle		97·7	328	—	—	—	—	e 52·3	—
Edinburgh		98·2	325	—	—	—	—	—	58·3
Kew		99·7	330	—	—	—	—	e 57·3	—
Almeria		109·7	320	19 30	?PR_1	—	—	e 56·6	62·3
Granada		110·3	320	e 19 24	?PR_1	30 2	?	61·3	66·3
Ottawa		117·4	15	—	—	—	—	e 56·3	—
La Paz		166·1	102	e 20 34	[+22]	—	—	—	—

Additional readings and notes: Irkutsk eSR_1 = +17m.35s. Tashkent iP = +10m.45s., ePR_2 = +14m.4s., iPR_3 = +14m.20s., iPS = +18m.58s., eSR_1 = +21m.38s., SR_2 = +24m.20s., MN = +33·9m. Ekaterinburg i = +10m.59s., and +21m.23s., MN = +36·9m., MZ = +43·8m. Kucino e = +23m.40s., and +26m.48s. Makeyevka e = +15m.49s. = PR_i +14s., MN = +48·6m., MZ = +52·6m. Pulkovo MN = +47·1m., MZ = +51·3m. Leningrad MZ = +50·8m. Copenhagen MN = +51·2m. De Bilt MN = +55·1m. Rocca di Papa eN = +16m.30s., iE = +17m.21s., iN = +17m.34s. Almeria MZ = +57·1m., MN = +65·8m.

May 22d. 21h. 43m. 0s. Epicentre 36°·8N. 102°·8E. (see May 22d. 22h.).

$A = -·177$, $B = +·781$, $C = +·599$; $D = +·975$, $E = +·222$.
$G = -·133$, $H = +·582$, $K = -·801$.

A *height* of focus 0·005 *above* normal is assumed for this and subsequent repetitions.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk		+0·1	15·5	3	3 52	+ 5	6 55	+ 9	i 7·0	8·5
Phu-Lien		+0·1	16·3	167	—	—	7 0?	− 4	—	—
Zi-ka-wei		+0·1	16·4	105	e 3 39	−20	7 33	+26	—	11·3
Tashkent		+0·3	26·2	290	i 5 57	+ 4	e 10 21	−11	e 14·2	19·3
Manila		+0·3	27·5	139	e 6 25	+19	—	—	18·2	—
Hyderabad		+0·3	28·9	235	—	—	—	—	—	18·5
Bombay		+0·4	31·7	244	—	—	e 12 8	− 2	—	—
Ekaterinburg		+0·4	34·3	320	i 7 6	− 5	12 27	−24	17·0	21·6
Tiflis	N.	+0·4	44·3	295	e 8 17	−14	e 15 1	−10	25·8	28·0
Kucino		+0·5	46·6	316	—	—	—	—	e 29·5	—
Makeyevka		+0·5	47·7	306	—	—	e 15 51	− 5	e 24·3	—
Pulkovo		+0·5	50·3	322	9 12	0	16 22	− 7	25·0	31·7
Leningrad		+0·5	50·3	322	e 9 14	+ 2	—	—	22·5	32·6
Upsala		+0·5	56·5	323	—	—	—	—	31·0	—
Copenhagen	E.	+0·6	60·5	320	—	—	—	—	e 28·0	38·0
	N.	+0·6	60·5	320	—	—	—	—	e 29·0	33·3
Vienna	Z.	+0·6	61·3	311	e 10 36	+12	—	—	—	—
Hamburg		+0·6	62·7	319	—	—	—	—	e 32·0	—
De Bilt		+0·6	66·0	319	—	—	—	—	e 35·0	42·4
Strasbourg		+0·6	66·3	315	—	—	—	—	34·0	—
Uccle		+0·6	67·0	318	—	—	—	—	e 36·0	—
Edinburgh		+0·6	68·1	325	—	—	—	—	e 37·0	—

For Notes see next page.

NOTES TO MAY 22d. 21h. 43m. 0s.

Additional readings: Irkutsk P = +3m.57s., e = +6m.5s. Tashkent iPR_1 = +6m.36s., iPR_2 = +7m.7s., i = +10m.37s., SR_1 = +11m 15s., eSR_2 = +12m.47s., MN = +18·5m., MZ = +19·0m. Ekaterinburg i = +7m.11s. MN = +21·8m., MZ = +21·9m. Tiflis eE = +8m.32s., and +14m.58s., eN = +20m.18s., ME = +29·9m.; all readings are given as e's simply. Kucino e = +18m.51s. and +24m.46s. Makeyevka e = +19m.16s., +23m.33s., and +27m.20s. Pulkovo PR_1 = +11m.12s., SR_1 = +19m.54s., MZ = +31·8m. Leningrad MZ = +32·3m. Copenhagen MN = +33·3m.

May 22d. 22h. 32m. 32s. Epicentre 36°·8N. 102°·8E.

(as at 21h.).

A = −·177, B = +·781, C = +·599; D = +·975, E = +·222; G = −·133, H = +·582, K = −·801.

A *height* of focus 0·005 *above* normal has been assumed.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Tsingtau	E.	+0·1	14·1	88	4 7	+38	6 52	+39	7·6	11·5
Irkutsk		+0·1	15·5	3	i 3 42	− 5	6 26	−20	8·5	—
Phu-Lien		+0·1	16·3	167	i 4 9	+12	7 18	+14	8·2	10·1
Zi-ka-wei		+0·1	16·4	105	i 4 10	+11	7 20	+13	—	—
Hong Kong		+0·2	17·5	143	4 19	+ 6	7 38	+ 5	8·0	—
Calcutta	N.	+0·2	19·0	225	4 31	0	8 1	− 5	12·0	—
Taihoku		+0·2	19·9	121	5 4	+22	8 47	+22	—	—
Dehra Dun		+0·2	21·5	260	5 24	+23	9 12	+13	13·0	15·1
Simla	E.	+0·2	21·9	263	5 10	+ 4	9 4	− 3	—	—
	N.	+0·2	21·9	263	5 16	+10	9 22	+12	—	—
Nagasaki		+0·2	22·5	92	e 6 3	+50	10 15	+56	13·2	—
Hukuoka		+0·2	22·7	90	i 5 21	+ 5	9 30	+ 7	12·2	12·8
Toyooka	E.	+0·3	25·8	83	5 54	+ 5	10 33	+ 9	14·0	21·6
	N.	+0·3	25·8	83	e 5 51	+ 2	10 20	− 4	13·8	16·6
Sumoto		+0·3	26·1	86	5 53	+ 1	10 23	− 7	14·4	16·9
Kobe		+0·3	26·2	85	5 49	− 4	10 31	− 1	13·8	18·4
Tashkent		+0·3	26·2	290	i 5 46	− 7	—	—	—	—
Osaka		+0·3	26·5	85	5 57	+ 1	(10 29)	− 8	10·5	18·0
Manila	E.	+0·3	27·5	139	i 6 6	0	i 12 5	+70	i 16·0	—
Nagoya		+0·3	27·5	83	6 8	+ 2	10 55	0	14·1	16·0
Hyderabad		+0·3	28·9	235	6 18	− 2	11 15	− 5	15·2	20·1
Mizusawa		+0·4	30·1	74	6 28	− 5	(11 33)	−10	11·6	—
Ootomari		+0·4	31·0	59	6 15	−27	(11 44)	−14	11·7	20·0
Bombay		+0·4	31·7	244	6 43	− 5	12 21	+11	—	—
Ekaterinburg		+0·4	34·3	320	i 6 56	−15	i 12 16	−35	—	—
Kodaikanal		+0·4	35·0	230	6 52	−25	(12 16)	−45	12·3	31·3
Colombo		+0·4	36·5	222	7 28?	− 1	13 28?	+ 6	—	37·5
Batavia		+0·4	43·1	176	i 8 18	− 4	i 14 55	0	20·2	24·9
Malabar		+0·4	44·3	175	8 33	+ 2	i 15 28	+17	18·9	22·9
Tiflis	E.	+0·4	44·3	295	i 8 20	−11	e 15 10	− 1	e 21·2	36·0
	N.	+0·4	44·3	295	i 8 17	−14	i 15 11	0	—	28·3
Amboina		+0·5	45·9	145	i 10 0	+77	—	—	20·8	—
Kucino		+0·5	46·6	316	i 8 38	−10	i 15 31	−11	—	—
Makeyevka		+0·5	47·7	306	i 8 46	− 9	15 55	− 1	33·5	47·8
Pulkovo		+0·5	50·3	322	i 9 4	− 8	i 16 11	−18	21·5	28·3
Leningrad		+0·5	50·3	322	i 9 7	− 5	i 16 15	−14	22·5	28·1
Helsingfors	E.	+0·5	52·8	323	e 9 24	− 4	e 16 48	−12	25·2	32·7
	N.	+0·5	52·8	323	e 9 24	− 4	e 16 50	−10	—	28·7
	Z.	+0·5	52·8	323	e 9 24	− 4	e 16 52	− 8	25·3	32·6
Ksara		+0·5	53·5	289	9 35	+ 2	i 17 20	+11	—	21·8
Lemberg	E.	+0·6	56·0	310	e 9 57	+ 7	e 17 48	+ 7	e 22·2	33·8
	N.	+0·6	56·0	310	e 9 46	− 4	e 17 38	− 3	—	33·8
Konigsberg	E.	+0·6	56·5	318	e 9 54	+ 1	e 17 42	− 5	e 27·0	30·8
	N.	+0·6	56·5	318	e 9 58	+ 5	e 17 51	+ 4	e 27·0	—
	Z.	+0·6	56·5	318	e 9 54	+ 1	e 17 34	−13	e 27·0	39·6
Upsala		+0·6	56·5	323	i 9 50	− 3	i 17 39	− 8	e 26·5	34·8
Helwan		+0·6	58·7	285	i 10 7	0	i 18 10	− 5	—	34·1
Budapest		+0·6	60·0	310	10 17	+ 1	18 36	+ 5	e 28·5	37·7

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.
Belgrade	N.	+0·6	60·1	306	e 10 18	+ 1	i 18 38	+ 6	25·4	51·6
Copenhagen		+0·6	60·5	320	10 20	0	18 40	+ 3	27·5	33·5
Vienna		+0·6	61·3	311	e 10 23	− 1	18 58	+11	i 28·7	40·5
Potsdam		+0·6	61·5	316	i 10 28	+ 2	i 18 51	+ 2	e 26·9	32·0
Prague		+0·6	61·7	314	i 10 30	+ 3	i 19 17	?PS	e 27·5	32·5
Bergen		+0·6	62·0	327	10 31	+ 2	18 18	−38	e 24·5	32·8
Graz		+0·6	62·3	310	i 10 34	+ 3	i 19 11	+11	28·5	48·6
Zagreb		+0·6	62·5	309	e 10 36	+ 3	i 19 11	+ 9	—	—
Hamburg		+0·6	62·7	319	i 10 35	+ 1	i 19 5	0	—	—
Cheb		+0·6	62·9	314	e 10 37	+ 2	e 19 13	+ 6	e 28·2	41·5
Laibach		+0·6	63·4	310	e 10 40	+ 2	i 19 16	+ 3	e 20·7	—
Innsbruck		+0·6	64·7	312	10 46	− 1	19 30	+ 1	24·9	36·7
Venice		+0·6	65·0	309	i 10 54	+ 5	19 53?	+21	35·5	—
Feldberg	E.	+0·6	65·2	316	e 10 46	− 4	e 19 38	+ 3	e 26·4	34·5
	N.	+0·6	65·2	316	—	—	e 19 38	+ 3	e 30·5	31·5
Hohenheim		+0·6	65·3	315	i 10 55	+ 5	i 19 38	+ 2	e 31·8	40·3
Ravensburg		+0·6	65·5	315	i 10 55?	+ 3	i 19 46	+ 8	e 30·6	36·1
Pompeii		+0·6	65·8	304	e 9 13	−101	e 19 53	+11	—	47·5
Naples		+0·6	66·0	304	e 11 10	+15	e 20 15	?PS	—	51·5
De Bilt		+0·6	66·0	319	10 58	+ 3	19 51	+ 6	e 29·5	42·4
Strasbourg		+0·6	66·3	315	i 10 58	+ 1	i 19 52	+ 3	30·5	39·7
Zurich		+0·6	66·4	312	i 10 59	+ 1	i 19 56	+ 6	—	—
Florence		+0·6	66·4	307	i 10 53	− 5	20 10	?PS	28·5	—
Rocca di Papa		+0·6	66·5	306	11 0	+ 1	20 0	+ 9	e 32·5	42·1
Dyce		+0·6	66·9	325	11 5	+ 4	19 51	− 5	—	43·8
Uccle		+0·6	67·0	318	i 11 3	+ 1	i 19 58	+ 1	31·5	44·9
Moncalieri		+0·6	68·1	310	i 11 11	+ 2	i 20 13	+ 3	25·7	63·0
Edinburgh		+0·6	68·1	325	11 10	+ 1	20 14	+ 4	30·5	38·1
Stonyhurst		+0·6	68·9	321	11 13	− 1	—	—	e 32·5	40·6
Kew		+0·6	69·1	320	i 11 18	+ 3	e 20 23	+ 1	30·5	37·0
Paris		+0·6	69·1	317	i 11 18	+ 3	i 20 30	+ 8	31·5	46·5
Grenoble		+0·6	69·2	312	—	—	i 20 30	+ 6	32·5	—
Bidston		+0·6	69·5	322	11 21	+ 3	20 28	+ 1	28·2	47·5
Oxford		+0·6	69·5	320	i 11 18	0	i 20 30	+ 3	i 28·1	47·5
Perth		+0·6	69·8	169	11 30	+11	20 48	+17	34·2	45·5
Reykjavik		+0·6	70·1	339	10 37	−44	19 53	−41	35·2	43·0
Marseilles		+0·6	70·4	310	e 11 25	+ 2	20 42	+ 4	31·5	48·8
Puy de Dôme		+0·6	70·5	315	11 27	+ 3	i 20 33	− 6	31·5	40·1
Plymouth		+0·6	71·2	320	11 40	+12	21 3	+15	—	—
Barcelona		+0·6	73·4	310	11 44	+ 2	i 21 19	+ 5	34·6	41·2
Bagnères		+0·6	73·6	313	e 11 48	+ 5	e 21 17	+ 1	e 33·5	—
Sitka	E.	+0·6	74·2	29	e 11 50	+ 2	e 21 22	− 2	e 42·8	43·0
	N.	+0·6	74·2	29	e 11 46	− 2	e 20 48	−36	e 39·3	42·8
Entebbe		+0·6	74·3	260	i 11 57	+ 9	21 33	+ 8	—	—
Tortosa	E.	+0·6	74·8	311	11 53	+ 2	21 33	+ 3	—	50·6
	N.	+0·6	74·8	311	i 11 53	+ 2	21 39	+ 9	34·6	47·6
	Z.	+0·6	74·8	311	11 51	0	—	—	—	—
Algiers		+0·7	75·5	306	i 11 58	+ 2	i 21 44	+ 5	38·5	46·6
Alicante		+0·7	76·8	310	11 58	− 6	22 8	+13	—	52·9
Toledo		+0·7	78·1	312	12 10	− 2	e 22 1	− 9	—	59·5
Almeria		+0·7	78·9	310	i 12 20	+ 3	i 22 28	+ 9	38·2	57·8
Adelaide		+0·7	79·1	151	i 12 19	+ 1	i 22 33	+12	37·3	55·2
Granada		+0·7	79·5	310	i 12 19	− 1	i 22 28	+ 3	38·9	55·1
Malaga		+0·7	80·3	310	12 21	− 4	22 37	+ 2	28·9	50·1
Rio Tinto		+0·7	81·0	312	13 28?	+59	—	—	—	58·5
San Fernando		+0·7	81·1	310	12 33	+ 4	22 38	− 6	38·0	61·5
Riverview		+0·7	83·9	143	i 12 54	+ 8	e 23 17	+ 2	e 39·0	49·2
Sydney		+0·7	83·9	143	12 28	−18	23 28	+13	50·5	53·4
Melbourne		+0·7	84·2	149	i 12 52	+ 5	i 23 16	− 2	i 39·8	55·7
Honolulu T.H.	N.	+0·7	84·6	69	12 51	+ 1	(i 23 28)	+ 6	i 35·5	41·2
Victoria		+0·7	85·5	29	10 51	−123	23 26	− 6	39·8	48·1
Saskatoon		+0·7	87·8	17	i 14 42	+94	i 25 9	+71	e 40·0	50·0
Suva	E.	+0·7	89·8	114	i 13 46	+27	i 27 16	+177	51·1	—
	N.	+0·7	89·8	114	i 13 34	+15	i 28 10	+231	52·4	—
Azores		+0·7	91·6	322	13 40	+11	24 46	+ 8	37·5	58·4
Johannesburg		+0·7	94·3	240	—	—	—	—	—	53·5
Berkeley		+0·7	94·5	35	e 13 36	− 8	e 24 16	[+22]	e 46·5	56·8
Apia		+0·7	94·7	104	18 42	?PR$_1$	25 15	+ 5	41·8	53·6
Lick	N.	+0·7	95·2	35	e 13 49	+ 1	i 25 7	− 8	e 47·0	59·7
Ste. Anne		+0·7	95·6	355	e 13 34	−17	i 24 48	−31	e 45·5	65·5
Halifax		+0·7	97·6	350	e 13 45	−17	24 28	[+17]	e 44·8	58·7
Ottawa		+0·7	97·7	358	e 13 45	−17	24 30	[+19]	e 45·1	51·5
Denver		+0·7	99·4	21	e 13 0	−71	—	—	41·5	50·5

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.
Toronto	E.	+0·7	99·5	1	—	—	i 25 35	−23	—	56·5
	N.	+0·7	99·5	1	e 13 56	−16	i 25 41	−17	53·2	65·8
Harvard	N.	+0·7	100·6	355	e 18 0	?PR_1	e 32 22	?SR_1	e 58·3	66·5
Ann Arbor		+0·7	100·7	5	e 13 58	−19	i 24 58	[+31]	e 50·8	58·1
Ithaca		+0·7	100·8	359	14 5	−13	—	—	46·0	65·4
Chicago	E.	+0·7	100·9	8	e 13 58	−20	e 25 28	−43	42·1	55·2
	N.	+0·7	100·9	8	13 59	−19	i 24 42	[+14]	47·6	59·5
Wellington	E.	+0·7	102·1	135	i 14 20	− 4	i 27 35	?PS	53·3	65·6
	N.	+0·7	102·1	135	e 14 14	−10	i 27 29	?PS	51·7	52·4
Christchurch		+0·7	102·3	137	14 16	− 9	26 34	+10	54·9	72·4
St. Louis		+0·7	103·7	10	e 14 17	−15	e 25 0	[+19]	e 45·5	57·3
Tucson	N.	+0·7	104·1	30	e 0 28?	?	—	—	—	—
Cheltenham	N.	+0·7	104·4	0	—	—	e 25 16	[+31]	e 48·7	65·9
Cape Town		+0·7	105·6	239	14 30	−11	25 17	[+27]	38·0	59·8
Mazatlan		—	114·0	29	—	—	30 6	?PS	51·5	65·5
Guadalajara		—	117·4	28	—	—	28 43	+14	39·0	62·4
Tacubaya		—	120·1	24	19 16?	[+24]	30 27?	?PS	51·8	66·4
Merida		—	121·0	13	—	—	28 49	− 8	49·0	73·6
Vera Cruz		—	121·2	21	17 34	?	28 56	− 2	40·5	75·9
San Juan	N.	—	123·8	348	—	—	—	—	e61·8	70·3
Balboa Hts.	N.	—	134·2	4	17 36	?	30 56	?	48·1	51·5
Rio de Janeiro	E.	—	147·6	285	i 19 58	[+ 6]	28 53	?	42·7	91·6
	N.	—	147·6	285	i 19 52	[0]	28 47	?	42·6	80·5
La Paz		—	158·2	336	20 12	[+ 6]	—	—	e 65·8	94·7
Sucre		—	159·3	326	i 20 10	[+ 3]	—	—	68·0	83·3
Pilar	E.	—	167·8	291	20 40	[+26]	—	—	—	111·3
	N.	—	167·8	291	20 46	[+32]	—	—	—	114·0
Santiago		—	173·7	300	e 20 41	[+25]	e 26 2	?PR_1	33·1	—

Additional readings and notes: Calcutta PE = +4m.28s. Kobe PR_1 = +7m.21s., MN = +15·4m. Tashkent e = +16m.47s., +17m.5s., and +17m.53s. Nagoya MZ = +18·4m., MN = +18·8m. Osaka MN = +18·2m. Mizusawa SE = +10m.15s., SN = +10m.28s. Ootomari MN = +19·6m. Ekaterinburg MZ = +20·3m., MN = +21·0m. Batavia i = +18m.15s. = SR_1 +15s. Baku records suspended from 22d. to 25d. Tiflis iPE = +8m.21s., ePN = +8m.23s., eE = +13m.31s., SR_1N = +18m.15s. = SR_1 −9s., eSR_1E = +18m.28s. Kucino i = +14m.20s. Makeyevka e = +8m.59s., +9m.48s., and +16m.44s. = PS +39s., PR_1 = +10m.45s., PR_2 = +11m.20s., SR_2 = +19m.20s., MN = +46·0m. Leningrad iPR_1 = +10m.58s., iSR_1 = +19m.40s. Pulkovo PR_1 = +10m.54s. iSR_1 = +19m.38s., MZ = +30·4m., MN = +32·0m.; epicentre 38°10′N. 102°33′E. Helsingfors iE = +9m.26s., iN = +9m.27s., ePR_1E = +11m.18s. ?, ePR_1Z = +11m.34s., ePR_1N = +11m.42s., eS_4SE = +19m.10s., eS_4SN = +19m.22s., eSR_1N = +20m.46s., eSR_1Z = +20m.58s., eSR_1E = +21m.4s. Ksara PRE = +11m.42s. and +13m.24s. = PR_2 +4s., PSE = +17m.34s., SR_1E = +21m.38s., MN = +37·4m.; T_g = 22h.32m.24s. Konigsberg $PcP?N$ = +10m.52s., $PcP?E$ = +10m.54s., iPR_1EN = +12m.2s., iPR_1Z = +12m.8s., and +12m.39s., iPR_2Z = +12m.51s., iPR_2E = +12m.52s., $PcS?E$ = +14m.57s., SR_1N = +21m.37s., SR_1E = +21m.52s., SR_2Z = +21m.59s.; epicentre 37°·5N. 102°·0E. Upsala iN = +19m.46s. = [S] + 17s., iSR_1E = +22m.15s., iSR_2E = +23m.58s., MN = +30·5m. Copenhagen ePR_1Z = +13m.22s., ePR_2E = +14m.22s., ePR_2N = +14m.34s., eN = +16m.28s., eEN = +20m.16s. = [S] +18s., SR_1 = +23m.28s., MN = +30·5m., MZ = +34·5m. Vienna iPZ = +10m.27s., PR_1 = +12m.58s., PR_2 = +14m.24s., PS? = +19m.44s., SR_1 = +23m.17s., SR_2 = +26m.8s. Potsdam iP = +10m.36s., PR_1 = +12m.48s., PR_2 = +14m.42s., i = +20m.31s. = [S] +2s., SR_1 = +23m.36s., i = +25m.26s. = SR_2 −28s. Prague PR_1 = +13m.0s., PR_2 = +14m.18s., PS = +20m.28s. = [S] +20s., SR_1 = +25m.28s. ? =SR_2 −30s. Bergen MZ = +38·8m. Graz iSR_1 = +24m.11s., MN = +38·7m. Zagreb i = +10m.46s., and +10m.57s.; all readings having been diminshed by 1 hour. Hamburg iSN = +19m.9s. Cheb MN = +38·9m. Innsbruck i = +10m.55s., +11m.39s., +12m.30s., +13m.29s., and +13m.41s., SNE = +19m.36s., MNW = +39·0m. Feldberg iPR_2E = +14m.55s. and many other e readings. Hohenheim iPR_2 = +15m.4s., $iS_cP_cP_cS$ = +20m.56s., i = +21m.0s., eSR_1E = +24m.18s., eSR_2 = +26m.35s., MN = +45·0m. Ravensburg ePR_2E = +15m.4s., ePPSE = +20m.58s., eSR_1E = +23m.48s. = SR_1 −62s., iSR_2 = +26m.58s., MN = +40·9m. De Bilt MN = +38·3m. Strasbourg iPS = +20m.49s., iSR_1 = +24m.43s., iSR_2 = +27m.14s., MN = +36·5m., MZ = +40·5m. Florence P = +11m.8s. Rocca di Papa iPE = +11m.2s., iPN = +11m.7s., SN = +20m.2s. Uccle PR_1 = +13m.33s., PR_2 = +15m.22s., MN = +38·2m., MZ = +42·8m. Moncalieri MN = +49·5m. Edinburgh PR_1 = +14m.12s. PR_2 = +15m.50s., i = +21m.20s. = [S] +22s., SR_1 = +25m.23s. Stonyhurst PR_1 = +14m.10s., PR_2 = +15m.46s., SR_1? = +26m.3s. Kew

Continued on next page.

$PR_1 = +14m.8s.$, $PR_2 = +15m.24s.$, $SR_1 = +25m.9s.$, $SR_2 = +27m.54s.$, $MZ = +45{\cdot}5m.$ Paris $SR_3 = +27m.52s.$, $MN = +48{\cdot}5m.$ Grenoble $iS = +20m.36s.$, $PS = +21m.19s. = [S] + 13s.$, $iSR_2 = +28m.16s.$ Oxford $PR_1 = +14m.24s.$ Perth $P = +11m.38s.$, $PR_1 = +15m.55s.$, $SR_1 = +26m.38s.$ Marseilles $eP = +11m.27s.$, $PS = +21m.38s.$, $SR_1 = +25m.52s.$, $SR_2 = +28m.6s.$ Puy de Dôme $iS = +20m.37s.$, $iPS = +21m.37s.$, $SR_1 = +25m.59s.$, $SR_2 = +28m.11s.$, and $+28m.21s.$, $MN = +45{\cdot}6m.$ Barcelona $PR_1 = +14m.30s.$, $PR_2 = +16m.25s.$, $PS = +22m.0s.$, $SR_1 = +29m.38s. = SR_2 - 11s.$, $MN = +45{\cdot}6m.$ Bagnères $eP = +11m.50s.$, $eS = +21m.25s.$ Sitka $ePR_2N = +16m.18s.$, $eSR_1N? = +25m.48s.$, $eSR_1E = +26m.6s.$; $T_0 = 22h.32m.48s.$ and $22h.32m.58s.$ Alicante $iP = +12m.10s.$, $MZ = +49{\cdot}8m.$, $MN = +54{\cdot}4m.$ Toledo $iPZ = +12m.12s.$, $iSNE = +22m.14s.$, $MNW = +43{\cdot}8m.$, $MZ = +55{\cdot}8m.$ Almeria $PR_1 = +15m.20s.$, $PR_2 = +17m.17s.$, $PS = +23m.13s.$, $SR_1 = +27m.18s.$, $MZ = +45{\cdot}2m.$, $MN = +53{\cdot}7m.$ Adelaide $iSR_1 = +28m.39s.$, $i = +30m.56s. = SR_2 - 43s.$, $iSR_3 = +33m.28s.$, $MN = +49{\cdot}7m.$ Granada $i = +15m.5s.$, $PR_1 = +15m.44s.$, $PR_3 = +19m.4s.$, $SPS = +22m.48s.$, $SPPS = +23m.19s.$, $SR_3 = +33m.24s.$, $i = +34m.6s.$, $MN = +51{\cdot}2m.$, $MZ = +53{\cdot}2m.$ Malaga $PR_1 = +16m.6s.$, $MN = +45{\cdot}2m.$, $MZ = +56{\cdot}0m.$ Riverview $iPR_1 = +16m.10s.$, $iS = +23m.23s.$, and $+23m.34s.$, $PS = +24m.13s.$, $SR_1 = +29m.12s.$, $MZ = +48{\cdot}2m.$, $MN = +52{\cdot}2m.$; $T_0 = 22h.33m.6s.$ Sydney $SR_1 = +28m.52s.$, $SR_2 = +37m.46s.$, $SR_3 = +42m.40s.$, $SR_4 = +47m.58s.$ Melbourne $i = +32m.16s. = SR_2 - 56s.$, and $+37m.46s.$ Honolulu T.H. $eN = +15m.40s.$, and $(+22m.58s.) = [S] + 4s.$, $iSR_1N = (+28m.42s.)$, LN (Rayleigh) $= +38{\cdot}3m.$; the second eN and iSN have been increased by 10m. Suva $iSR_1N = +35m.46s.$ Azores $PR_1 = +17m.28s.$, $SR_1 = +30m.28s.$ Saskatoon $eSR_1 = +31m.2s.$, $eSR_2 = +35m.28s.$, $eLN = +42{\cdot}5m.$, $MN = +52{\cdot}0m.$ Berkeley $ePR_1EZ = +17m.24s.$, $ePR_1N = +17m.28s.$, $eSN = +24m.19s. = [S] + 25s.$, $eSE = +24m.21s.$, $eLN = +45{\cdot}0m.$ Apia $+26m.40s. = PS + 36s.$, and $+31m.28s. = SR_1 - 12s.$ Lick $eSN? = +24m.16s. = [S] + 18s.$, $ePSN = +26m.21s.$, $eSR_1N = +31m.54s.$, $MZ = +59{\cdot}5m.$, and several eN readings. Ste. Anne $iPR_1 = +17m.34s.$, $iPPS = +26m.32s.$, $SR_1 = +31m.15s.$, $SR_2 = +35m.18s.$, $i = +38m.59s.$, and $+42m.46s.$; $T_0 = 22h.32m.47s.$ Halifax $iPPS = +26m.43s.$, $SR_1 = +31m.31s.$, $SR_2 = +35m.39s.$; $T_0 = 22h.32m.59s.$ Ottawa $iPR_1N = +17m.43s.$, $iE = +25m.8s.$, $iPPS = +26m.38s.$, $iSR_1 = +31m.28s.$, $iSR_2 = +35m.43s.$, $MN = +61{\cdot}5m.$; $T_0 = 22h.32m.59s.$ Denver $ePR_1E = +16m.57s. = [P] - 47s.$, and many e readings. Toronto $PN = +14m.0s.$, $iS_cP_cSN = +24m.44s.$, and many i readings; $T_0 = 22h.32m.34s.$ Harvard gives many other e readings. Ann Arbor $ePR_1 = +18m.10s.$, $iPR_2 = +20m.34s.$, $iPS = +27m.22s.$, $iSR_1 = +33m.16s.$, $iSR_2 = +36m.52s.$, $MN = +67{\cdot}0m.$; $T_0 = 22h.32m.12s.$ Ithaca $PR_1 = +18m.4s.$, $e = +20m.3s.$, $+32m.24s. = SR_1 - 32s.$, and $+36m.20s.$, $i = +24m.47s. = [S] + 19s.$, and $+27m.7s. = PS - 8s.$ Chicago $PR_1EN = +18m.7s.$, $PR_2N = +20m.1s.$, $PR_2N = +21m.53s.$, $S_cP_cSE = +24m.43s. = [S] + 15s.$, $PSN = +27m.3s.$, $PSE = +27m.19s.$, $SR_1E = +32m.3s.$, $SR_1N = +32m.27s.$, $SR_2E = +36m.7s.$, $eSR_2N = +36m.16s.$, $SR_3N = +40m.17s.$; $T_0 = 22h.32m.47s.$, and $22h.32m.54s.$ Christchurch $PR_1 = +18m.34s.$, $SR_1 = +41m.10s. = SR_2 + 2s.$ St. Louis $ePN = +18m.16s.$, $ePR_1N = +18m.45s.$, $ePR_2N = +20m.53s.$, $ePR_2E = +21m.27s.$, $iPR_2E = +22m.46s.$, $eS_cP_cSE = +25m.1s.$, $eS_cP_cP_cSE = +26m.9s.$, $ePSN = +27m.34s.$, $ePPSN = +28m.49s.$, $ePPSE = +28m.57s.$, $eSR_1N = +33m.6s.$, $iSR_2EN = +37m.28s.$, $SR_3 = +40m.55s.$ Cheltenham $ePSN = +28m.0s.$, $eSR_1N = +33m.44s.$ Capetown $PR_1 = +19m.0s.$, $SR_1 = +28m.17s. = PS + 9s.$ Guadalajara readings have been increased by 1h. San Juan $eLE = +54{\cdot}5m.$ La Paz $iSR_1E = +44m.42s.$, $iSR_1N = +45m.42s.$, $iSR_2N = +51m.2s.$, and $iSR_2E + 51m.18s.$, $iSR_3 = +55m.30s.$, $iLN = +65{\cdot}9m.$, $MN = +99{\cdot}7m.$; epicentre 36°·8N. 104°·5E. Sucre $PR_1 = +24m.39s.$, $PR_2 = +28m.7s.$, $PR_3 = +30m.55s.$, $PPS = +37m.45s.$, $iSR_1 = +44m.30s.$, $iSR_2 = +50m.25s.$, $SR_3 = +55m.7s.$

Note to the Shock of May 22d. 22h. 32m. 32s.

Assume the origin 37°·0N. 103°·0E. and collect the residuals into groups as follow, where column I represents their uncorrected values and column II their values when a correction has been applied for a focal *height* 0·005 *above* normal :—

No. of Stations.	Mean Az.	Localities.	Residuals. I	Residuals. II
	°		°	°
3	27	Irkutsk and California	+0·4	−0·1
10	90	Japan and Honolulu	+0·6	+0·2
10	160	East Indies and Australia	+0·8	+0·4
5	245	India	+0·1	−0·2
57	315	European	+0·7	+0·1

The solution making allowance for the weight of the last group indicates the adopted origin 36°·8N. 102°·8E. The need for the assumption of high focus is shown by the uniformly positive values of the residuals I.

May 22d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 21d. :—

h.	m.	s.		h.	m.	s.	
5	21	21	T	16	55	29	T
9	35	35	T	16	55	33	T
16	36	30	T	16	55	35	T

May 22d. Readings also at 1h. (Wellington), 3h. (near Sumoto), 4h. (near Mizusawa and Nagoya), 8h. (Ekaterinburg, Tashkent, La Paz, near Oaxaca, and Merida), 9h. (Tacubaya), 11h. (Kew), 12h. (near Manila), 13h. (Tacubaya), 14h. (Ekaterinburg, Tashkent, and Tiflis), 15h. (Tashkent), 17h. (Harvard), 20h. (Florence and near Manila), 21h. (Honolulu T.H.).

May 23d. 2h. 45m. 40s. Epicentre 36°·8N. 102°·8E. (as on May 22d.).

$A = -\cdot177$, $B = +\cdot781$, $C = +\cdot599$; $D = +\cdot975$, $E = +\cdot222$; $G = -\cdot133$, $H = +\cdot582$, $K = -\cdot801$.

The *height* of focus 0·005 *above* normal has been retained.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	+0·1	15·5	3	—	—	—	—	8·3	—
Phu-Lien	+0·1	16·3	167	—	—	—	—	8·3	—
Zi-ka-wei	+0·1	16·4	105	e 3 59	0	7 38	+31	—	—
Hong Kong	+0·2	17·5	143	4 25	+12	7 50	+17	9·6	10·2
Taihoku	+0·2	19·9	121	e 5 6	?PR$_1$	—	—	11·1	—
Simla	+0·2	21·9	263	e 9 26	?S	(e 9 26)	+19	e 13·0	—
Nagasaki	+0·2	22·5	92	(e 4 17)	−56	—	—	e 4·3	—
Hukuoka	+0·2	22·7	90	(e 5 39)	+23	(e 9 27)	+ 4	(e 11·7)	—
Tashkent	+0·2	26·2	290	i 5 50	− 2	i 10 40	+10	14·9	18·3
Osaka	+0·3	26·5	85	7 58	+122	—	—	12·6	15·8
Manila	+0·3	27·5	139	e 7 2	+56	—	—	i 16·1	—
Hyderabad	+0·3	28·9	235	11 11	?S	(11 11)	− 9	—	17·5
Bombay	+0·4	31·7	244	11 57	?S	(11 57)	−13	—	18·2
Ekaterinburg	+0·4	34·3	320	i 7 0	−11	i 12 25	−26	16·3	21·8
Kodaikanal	+0·4	35·0	230	14 14	?	—	—	—	—
Batavia	+0·4	43·1	176	i 8 10	−12	i 17 28	?SR$_3$	25·7	—
Tiflis	+0·4	44·3	295	e 8 24	− 7	e 15 14	+ 3	e 21·3	30·3
Kucino	+0·5	46·6	316	—	—	—	—	22·4	27·7
Makeyevka	+0·5	47·7	306	e 8 49	− 6	e 15 46	−10	23·3	31·9
Pulkovo	+0·5	50·3	322	9 6	− 6	16 16	−13	23·3	31·4
Leningrad	+0·5	50·3	322	9 9	− 3	e 16 20	− 9	24·5	31·6
Ksara	+0·5	53·5	289	9 36	+ 3	17 12	+ 3	—	—
Upsala	+0·6	56·5	323	—	—	—	—	e 30·3	35·1
Copenhagen	+0·6	60·5	320	—	—	—	—	29·3	38·1
Vienna	+0·6	61·3	311	10 28	+ 4	19 19	?PS	—	33·8
Prague	+0·6	61·7	314	—	—	—	—	e 31·8	34·3
Hamburg	+0·6	62·7	319	e 10 20?	−14	—	—	e 30·3	37·3
Cheb	+0·6	62·9	314	—	—	—	—	i 33·9	37·8
Innsbruck	+0·6	64·7	312	10 54	+ 7	—	—	—	—
De Bilt	+0·6	66·0	319	—	—	—	—	e 33·3	41·4
Strasbourg	+0·6	66·3	315	e 11 20?	+23	—	—	38·3	—
Uccle	+0·6	67·0	318	—	—	—	—	e 33·3	—
Edinburgh	+0·6	68·1	325	—	—	—	—	e 35·3	42·3
Paris	+0·6	69·1	317	—	—	—	—	e 36·3	42·3
Kew	+0·6	69·1	320	—	—	—	—	e 35·3	—
Oxford	+0·6	69·5	320	—	—	—	—	e 37·3	—
Granada	+0·7	79·5	310	—	—	—	—	i 47·4	54·3
Santiago	—	173·7	300	—	—	—	—	89·8	—

For Notes see next page.

NOTES TO MAY 23d. 2h. 45m. 40s.

Additional readings: Simla ePN = +9m.38s. Hukuoka, all the readings have been diminished by 3m. Tashkent iPR_1 = +6m.33s., SR_1 = +11m.32s., MZ = +16·5m. Ekaterinburg MN = +20·6m., MZ = +20·7m. Batavia P and S are given simply as i. Tiflis eN = +14m.23s., eE = +14m.33s., MN = +30·6m. Makeyevka PR_1 = +10m.40s., SR_2 = +19m.32s. = SR_1 +0s., MN = +30·6m. Pulkovo PR_1 = +11m.4s., MZ = +32·3m., MN = +33·2m. Leningrad iPR_1 = +11m.6s. Upsala MN = +34·0m. Copenhagen MN = +33·3m. Prague eL = +33·3m. Cheb e = +25m.20s. ? De Bilt MN = +38·2m. Strasbourg e = +34m.20s. ? Paris L = +42·3m.

May 23d. 6h. 38m. 6s. Epicentre 50°·0N. 91°·8E. (as on 1922 August 25d.).

A = −·020, B = +·643, C = +·766; D = +1·000, E = +·031; G = −·024, H = +·766, K = −·643.

Doubtful. The additional readings suggest more than one shock.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk		8·2	69	e 1 24	−40	—	—	i 5·5	—
Tashkent		17·9	250	(4 11)	− 5	7 41	+ 3	e 10·4	12·3
Ekaterinburg		19·6	302	i 4 37	+ 1	e 8 5	−10	12·9	16·3
Phu-Lien		31·5	155	e 5 26	−77	—	—	7·4	—
Hong Kong		32·8	140	—	—	—	—	—	8·2
Tiflis		33·2	273	—	—	e 12 31	+ 4	e 23·9	25·9
Taihoku	E.	33·9	127	e 8 49	?	—	—	—	—
Hyderabad		34·3	205	—	—	(13 54?)	+70	—	13·9
Bombay		34·6	213	e 7 54?	+44	—	—	—	—
Pulkovo		35·3	312	—	—	—	—	e 20·2	—
Manila		42·6	137	e 6 54?	−81	(14 54)	+11	14·9	—
Copenhagen		45·6	310	—	—	—	—	29·9	—
De Bilt		51·2	309	—	—	—	—	e 32·9	—
Strasbourg		51·8	303	—	—	—	—	e 31·9	—
Uccle		52·3	308	—	—	—	—	e 29·9	—
Paris		54·4	308	—	—	—	—	e 32·9	35·9
Granada		65·5	300	—	—	—	—	e 39·9	—

Additional readings: Irkutsk e = 6h.34m.19s. and 6h.36m.48s. Tashkent eP = +3m.21s. (P above is given as PR_2), i = +8m.23s. = PR_2 −11s., SR_1 = +9m.17s., MN = +17·3m. Ekaterinburg MZ = +18·9m. Tiflis eN = +17m.11s., eE = +17m.30s., MN = +28·7m.

The following seem to be anticipations of the big shock at 23h. 44m.:—

May 23d. 10h. 11m. 42s. Epicentre 37°·5N. 100°·5E.

A = −·145, B = +·780, C = +·609.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	15·0	9	e 3 9	−30	e 6 11	−21	—	—
Phu-Lien	17·5	161	—	—	8 18?	+49	—	—
Tashkent	24·3	289	i 5 45	+14	9 50	0	e 11·3	14·3
Ekaterinburg	32·6	326	e 6 28	−23	—	—	15·8	—
Pulkovo	48·6	322	e 16 36	?PS	(e 16 36)	+35	—	—
Leningrad	48·6	322	—	—	—	—	e 12·8	—
Copenhagen	58·8	320	—	—	(18 18?)	+ 9	18·3	—

Additional readings: Irkutsk i = +7m.15s., i = +7m.45s. Tashkent MN = +14·6m.

May 23d. 10h. 56m. 30s. Epicentre 37°·5N. 100°·5E. (as at 10h. 11m.).

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Phu-~~lien~~		17·5	161	—	—	7 30?	+ 1	—	—
Tashkent		24·3	289	—	—	—	—	e 12·4	16·6
Ekaterinburg		32·6	326	e 5 15	−98	—	—	13·5	—
Tiflis	E.	42·4	295	—	—	—	—	26·5	—
Leningrad		48·6	322	—	—	e 16 24	+23	—	—

Irkutsk (△ =15°·0 Az =9°) gives e =11h.50m., which must belong to another shock, unless there is some numerical error.

May 23d. 13h. 51m. 6s. Epicentre 37°·5N. 100°·5E. (as at 10h.).

A = −·145, B = +·780, C = +·609; D = +·983, E = +·182; G = −·111, H = +·599, K = −·793.

This may, however, be a repetition from 36°·8N. 102°·8E., as at 2h.; see alternative solution below. The residuals suggest that T_0 should be increased by 4s.

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk		15·0	9	i 3 38	− 1	6 27	− 5	7·9	—
Phu-Lien		17·5	161	e 4 14	+ 3	e 7 47	+18	9·5	10·3
Zi-ka-wei		18·3	104	4 12	− 9	i 7 34	−13	—	11·5
Hong Kong		19·2	138	4 32	+ 1	—	—	10·0	10·6
Simla		20·3	259	—	—	e 9 18	+49	(12·6)	—
Taihoku		21·8	119	e 5 14	+11	—	—	11·5	—
Nagasaki		24·3	92	—	—	—	—	e 13·3	—
Tashkent		24·3	289	e 4 54	−37	i 10 24	+34	14·0	18·1
Hukuoka		24·5	91	5 24	− 9	—	—	13·1	15·3
Hyderabad		27·9	230	10 59	?S	(10 59)	+ 2	—	18·2
Osaka		28·2	85	6 31	+21	—	—	14·6	17·8
Manila		29·2	136	e 6 33	+13	—	—	i 16·4	—
Bombay		30·5	240	11 55	?S	(11 55)	+12	(16·0)	18·3
Ekaterinburg		32·6	320	i 6 50	− 3	12 8	−10	15·4	21·1
Tiflis	E.	42·4	295	e 8 18	+ 4	e 14 48	+ 8	e 24·9	29·6
	N.	42·4	295	e 8 21	+ 7	e 14 45	+ 5	—	29·2
Batavia		44·1	174	i 8 25	− 2	i 14 59	− 4	24·9	—
Kucino		44·9	316	8 35	+ 3	e 15 16	+ 2	23·0	28·0
Pulkovo		48·6	322	9 0	+ 2	16 6	+ 5	22·9	31·2
Leningrad		48·6	322	9 2	+ 4	—	—	22·4	32·1
Upsala	N.	54·9	323	—	—	—	—	e 29·9	32·8
Budapest	N.	58·1	310	—	—	—	—	e 30·9	33·6
Copenhagen		58·8	320	e 17 54?	?S	(e 17 54)	−15	30·9	33·0
Vienna		59·5	312	10 25	+16	—	—	—	31·9
Prague		59·9	314	—	—	—	—	e 31·9	32·9
Hamburg		60·9	318	e 10 32	+14	—	—	e 30·9	39·9
Cheb		61·1	314	—	—	—	—	e 21·9	37·9
Innsbruck		62·9	311	10 54?	+23	—	—	—	—
De Bilt		64·2	319	e 10 56	+17	—	—	e 33·9	41·9
Strasbourg		64·5	315	e 10 54	+12	—	—	30·9	—
Dyce		65·3	325	—	—	—	—	—	36·6
Uccle		65·3	317	e 11 0	+13	—	—	e 33·9	—
Moncalieri		66·3	310	—	—	—	—	e 30·1	—
Edinburgh		66·5	324	—	—	—	—	e 35·9	—
Paris		67·4	317	—	—	—	—	36·9	41·9
Kew		67·5	320	—	—	—	—	e 32·9	—
Oxford		67·8	320	—	—	—	—	e 33·0	42·9
Toledo		76·3	311	—	—	—	—	e 36·2	44·1
Granada		77·7	309	—	—	—	—	e 41·9	52·9
San Fernando	E.	79·8	310	—	—	—	—	—	48·9
Ottawa		97·0	357	—	—	—	—	e 48·9	—

Additional readings and notes: Phu-Lien MN = +11·3m. Simla S is given as eE and L as PN. Tashkent i = +5m.42s. and +5m.54s., PR_1 = +6m.36s., SR_1 = +11m.48s., MN = +18·6m. Bombay gives S as P and L as S, but possibly the readings should be diminished by 5m. ? Ekaterinburg MN = +18·5m., MZ = +20·2m. Tiflis eE = +18m.46s. $-SR_1$ +13s., eN = +20m.3s. Batavia P and S are given simply as i readings. Kucino ePR$_1$ = +10m.23s., eSR$_1$ = +18m.28s., MN = +25·3m. Pulkovo PR$_1$ = +10m.53s., MN = +26·4m., MZ = +31·3m. Leningrad ePR$_1$ = +10m.55s. MN = +27·4m. Upsala e = +27m.54s.?, ME = +34·9m. Budapest eE = +26m.54s. ? Hamburg MN = +35·1m. De Bilt MN = +37·7m. Moncalieri eE = +30m.17s., S?E = +37m.4s. Paris e = +31m.54s. ?

ALTERNATIVE SOLUTION.

May 23d. 13h. 51m. 6s. Epicentre 36°·8N. 102°·8E. (as at 2h.).

The focal height 0·005 above normal has been adopted as at 2h.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	+0·1	15·5	3	i 3 38	− 9	6 27	−19	7·9	—
Phu-Lien	+0·1	16·3	167	e 4 14	+17	e 7 47	+43	9·5	10·3
Zi-ka-wei	+0·1	16·4	105	4 12	+13	i 7 34	+27	—	11·5
Hong Kong	+0·2	17·5	143	4 32	+19	—	—	10·0	10·6
Taihoku	+0·2	19·9	121	e 5 14	+32	—	—	11·5	—
Simla	+0·2	21·9	263	—	—	e 9 18	+11	(12·6)	—
Nagasaki	+0·2	22·5	92	—	—	—	—	e 13·3	—
Hukuoka	+0·2	22·7	90	5 24	+ 8	—	—	13·1	15·3
Tashkent	+0·3	26·2	290	e 4 54	−59	i 10 24	− 8	14·0	18·1
Osaka	+0·3	26·5	85	6 31	+35	—	—	14·6	17·8
Manila	+0·3	27·5	139	e 6 33	+27	—	—	i 16·4	—
Hyderabad	+0·3	28·9	235	10 59	?S	(10 59)	−21	—	18·2
Bombay	+0·4	31·7	244	11 55	?S	(11 55)	−15	(16·0)	18·3
Ekaterinburg	+0·4	34·3	320	i 6 50	−21	12 8	−43	15·4	21·1
Batavia	+0·4	43·1	176	i 8 25	+ 3	i 14 59	+ 4	24·9	—
Tiflis E.	+0·4	44·3	295	e 8 18	−13	e 14 48	−23	e 24·9	29·6
N.	+0·4	44·3	295	e 8 21	−10	e 14 45	−26	—	29·2
Kucino	+0·5	46·6	316	8 35	−13	e 15 16	−26	23·0	28·0
Pulkovo	+0·5	50·3	322	9 0	−12	16 6	−23	22·9	31·2
Leningrad	+0·5	50·3	322	9 2	−10	—	—	22·4	32·1
Vienna	+0·6	61·3	311	10 25	+ 1	—	—	—	31·9
Hamburg	+0·6	62·7	319	e 10 32	− 2	—	—	e 30·9	39·9
Innsbruck	+0·6	64·7	312	10 54?	+ 7	—	—	—	—
De Bilt	+0·6	66·0	319	e 10 56	+ 1	—	—	e 33·9	41·9
Strasbourg	+0·6	66·3	315	e 10 54	− 3	—	—	30·9	—
Uccle	+0·6	67·0	318	e 11 0	− 2	—	—	e 33·9	—

May 23d. 16h. 18m. 40s. Epicentre 39°·5N. 140°·5E. (as on 1927 May 14d.).

$A = -·595$, $B = +·491$, $C = +·636$; $D = +·636$, $E = +·772$;
$G = -·492$, $H = +·405$, $K = -·772$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	0·6	129	0 7	− 2	0 21	+ 4	—	—
Zi-ka-wei	17·6	248	e 4 0	−12	e 7 36	+ 5	—	—
Irkutsk	27·3	310	—	—	e 13 20?	?	e 15·0	—
Phu-Lien	34·5	247	—	—	14 20?	?	—	—
Ekaterinburg	52·6	319	i 8 58	−26	14 4	?	25·3	34·0
Tashkent	52·7	297	8 59	−25	e 17 51	?	e 20·3	29·3
Leningrad	65·3	329	—	—	—	—	34·3	—
Pulkovo	65·4	329	—	—	—	—	e 33·3	—
Tiflis	68·5	307	—	—	—	—	e 37·3	—
Copenhagen	75·1	333	—	—	—	—	39·3	—

Ekaterinburg gives the two readings (printed above as P and S for trial) as P_1 and P_2, and it seems possible that there was another shock in the shape of a repetition from 37°·5N. 100°·5E., which accounts for the readings queried as below :—

May 23d. 16h. 25m. 30s. Epicentre 37°·5N. 100°·5E. (as on 23d. 13h.).

	Δ	Az.	P.	O−C.	S.	O−C.
	°	°	m. s.	s.	m. s.	s.
Irkutsk	15·0	9	—	—	e 6 30	− 2
Phu-Lien	17·5	161	—	—	7 30?	+ 1
Tashkent	24·3	289	—	—	e 11 1	+71
Ekaterinburg	32·6	320	7 14	+21	—	—

May 23d. 22h. 0m. 54s. Epicentre 49°·0S. 97°·0E.

A = −·080, B = +·651, C = −·755; D = +·993, E = +·122; G = +·092, H = −·749, K = −·656.

Very rough; and in an unusual region. The nearest old epicentre is 41°·5S. 80°·0E. on 1924 Dec. 11d.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Perth		22·1	46	5 1	− 5	9 11	+ 4	—	11·8
Adelaide		33·4	80	—	—	i 15 35	?SR_2	16·6	17·9
Batavia		43·6	14	—	—	e 13 54	−62	—	—
Wellington		53·0	113	—	—	—	—	29·1	—
Phu-Lien		70·3	9	—	—	19 6?	−84	—	—
Suva		70·8	96	—	—	—	—	29·1	—
Bombay		71·3	336	—	—	—	—	e 32·1	—
Simla	E.	82·1	343	—	—	—	—	e 43·9	—
Tashkent		93·5	340	e 13 32	− 3	i 24 33	−18	e 42·1	48·3
Irkutsk		101·5	5	—	—	e 24 6?	[−25]	e 46·1	—
Tiflis		101·7	323	—	—	e 25 50	−22	e 44·1	53·2
Makeyevka		109·6	323	—	—	e 27 6?	−18	49·1	64·6
Ekaterinburg		110·1	340	e 19 11	?PR_1	—	—	46·1	56·3
Kucino		115·7	329	—	—	—	—	52·3	61·2
Vienna	Z.	119·4	312	—	—	e 24 46	[−58]	—	—
Pulkovo		121·4	329	—	—	—	—	56·1	68·1
Leningrad		121·6	329	—	—	—	—	57·3	71·0
Granada		123·5	290	—	—	—	—	e 64·1	68·1
Strasbourg		124·1	307	—	—	—	—	e 59·1	—
San Fernando	N.	124·7	288	—	—	—	—	—	76·1
Copenhagen		126·1	317	—	—	35 6?	?	56·1	76·3
Paris		127·0	305	—	—	—	—	e 79·1	—
De Bilt		127·5	310	—	—	—	—	e 69·1	77·7
Kew		130·0	306	—	—	—	—	e 79·1	—
Dyce		133·7	313	—	—	—	—	71·8	81·6
Victoria	E.	153·7	76	—	—	—	—	74·2	80·6
Ottawa		173·9	237	—	—	—	—	e 81·1	—

Additional readings: Simla eN = +45m.30s. Tashkent iS_4P_4S = +24m.12s., MNZ = +50·2m. Tiflis eN = +32m.55s. =SR_2, −4s., MN = +53·1m. Makeyevka e = +34m.39s. =SR_1 +1s., MN = +59·3m., MZ = +59·5m. Ekaterinburg MN = +57·6m., MZ = +60·4m. Pulkovo e = +44m.44s., MZ = +68·4m. Leningrad MN = +67·6m., MZ = +68·4m. Copenhagen MN = +73·3m.

May 23d. 23h. 44m. 54s. Epicentre 37°·5N. 100°·5E. (as on May 23d. 16h.).

A = −·145, B = +·780, C = +·609; D = +·983, E = +·182; G = −·111, H = +·599, K = −·793.

This earthquake has been discussed by the Rev. P. E. Gherzi, S.J., in No. 9 of the Notes de Seismologie of the Observatoire de Zi-ka-wei. He quotes determinations of the epicentre by M. Rothé (37°·5N. 102°·0E.), Father Pigot (36°·0N. 106°·0E.), and the Jesuit Seismological Society (36°·5N. 100°·0E.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk		15·0	9	e 3 39	0	6 28	− 4	8·1	—
Phu-Lien		17·5	161	e 4 14	+ 3	e 7 29	0	9·1	10·0
Zi-ka-wei		18·3	104	e 4 11	−10	7 31	−16	—	11·2
Hong Kong		19·2	138	7 46	?S	(7 46)	−20	9·8	10·7
Simla	E.	20·3	259	—	—	—	—	12·2	—
Taihoku	E.	21·8	119	—	—	e 7 48	−73	e 10·9	—
Nagasaki		24·3	92	—	—	—	—	e 12·4	—
Tashkent		24·3	289	i 5 38	+ 7	e 9 59	+ 9	13·0	18·0
Hukuoka		24·5	91	e 9 32	?S	(e 9 32)	−22	—	—
Hyderabad		27·9	230	—	—	—	—	—	17·9
Manila		29·2	136	e 6 1	−19	—	—	i 17·1	—
Bombay		30·5	240	e 10 40	?S	(e 10 40)	−63	(14·8)	17·9
Ekaterinburg		32·6	320	i 6 48	− 5	e 12 9	− 9	15·1	21·1
Tiflis		42·4	295	e 8 29	+15	e 14 52	+12	e 23·9	40·9
Kucino		44·9	316	—	—	e 15 14	0	23·6	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Makeyevka		45·8	305	—	—	e 15 27	+ 2	26·1	31·3
Pulkovo		48·6	322	8 59	+ 1	16 6	+ 5	25·1	30·1
Leningrad		48·6	322	e 9 0	+ 2	e 16 6	+ 5	24·0	34·1
Upsala	N.	54·9	323	—	—	—	—	e 30·1	—
Copenhagen		58·8	320	—	—	e 18 30	?PS	e 32·1	33·0
Prague		59·9	314	—	—	—	—	e 32·1	34·1
Hamburg		60·9	318	—	—	—	—	e 29·1	34·1
Cheb		61·1	314	—	—	—	—	e 29·1	38·1
De Bilt		64·2	319	—	—	—	—	e 33·1	44·7
Strasbourg		64·5	315	—	—	e 22 58	?SR_1	e 35·1	—
Dyce		65·3	325	—	—	—	—	e 32·8	36·8
Uccle		65·3	317	—	—	—	—	e 33·1	—
Moncalieri	E.	66·3	310	e 28 35	?	34 39	?L	e 41·4	—
Edinburgh		66·5	324	—	—	—	—	e 36·1	—
Paris		67·4	317	—	—	—	—	e 33·1	39·1
Kew		67·5	320	—	—	—	—	e 33·1	—
Oxford		67·8	320	—	—	—	—	e 33·3	—
Tortosa	N.	72·9	310	—	—	—	—	e 38·1	—
Granada		77·7	309	—	—	—	—	e 47·1	51·1
San Fernando	E.	79·8	310	—	—	—	—	—	47·6
Ottawa		97·0	357	—	—	—	—	e 48·1	—

Additional readings and notes: Simla eN = +12m.18s. Tashkent S = +10m.14s., e = +11m.46s., MN = +15·1m.; true S is given as e. Bombay gives S as P and L as S. Ekaterinburg MN = +19·3m., MZ = +20·8m. Tiflis eN = +18m.20s. = SR_2 − 13s., eE? = +21m.58s., MN = +30·2m.; P and S are given as eN simply. Kucino e = +18m.32s., and +21m.8s. Makeyevka e = +16m.45s. +19m.13s., and +21m.51s., MZ = +31·2m. Pulkovo SR_1 = +19m.48s., MN = +27·8m., MZ = +30·2m. Leningrad MN = +27·5m., MZ = +42·5m. Copenhagen eLN = +31·1m. De Bilt MN = +37·8m. Paris L = +38·1m.

May 23d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 22d. :—

h.	m.	s.		h.	m.	s.	
3	27	40	T	12	46	53	T

May 23d. Readings also at 0h. (Alicante), 1h. (Taihoku (2)), 2h. (Tashkent (2) and Ekaterinburg), 3h. (Irkutsk (2), Tashkent, and Ekaterinburg), 4h. (Irkutsk (2), Phu-Lien, Tashkent (2), Ekaterinburg, and Bombay), 5h. (Copenhagen, Pulkovo, and Leningrad), 6h. (Phu-Lien), 8h. (Agana, Phu-Lien, Irkutsk (2), Ekaterinburg, and Tashkent), 9h. (Pulkovo, Leningrad, Phu-Lien, and Irkutsk (2)), 12h. (Simla and Tashkent), 13h. (Bombay, Graz, Irkutsk (2), and Tashkent), 15h. (Simla and Irkutsk) 16h., 17h. (3), and 18h. (Irkutsk), 19h. (Irkutsk, Tashkent, and Ekaterinburg), 20h. (Ekaterinburg, Irkutsk (2), and Tashkent), 21h. (Irkutsk and Melbourne), 23h. (Edinburgh).

May 24d. 9h. 3m. 30s. (I) / 9h. 15m. 20s. (II) } Epicentre 37°·5N. 100°·5E. (as on May 23d.).

A = −·145, B = +·780, C = +·609.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
I Irkutsk	15·0	9	e 3 41	+ 3	—	—	—	—
II	15·0	9	e 3 19	−21	—	—	—	—
II Phu-Lien	17·5	161	3 40?	−31	—	—	—	—
II Tashkent	24·3	289	e 5 29	− 2	e 9 57	+ 7	—	11·9
I Ekaterinburg	32·6	320	13 50	?SR_1	—	—	—	—
II	32·6	320	—	—	(11 40?)	−38	11·7	—
II Pulkovo	48·6	322	—	—	—	—	e 21·1	—
II Leningrad	48·6	322	—	—	—	—	e 21·7	—

Irkutsk gives also for shock II e = +2m.55s.

May 24d. 11h. 52m. 24s. Epicentre 74°·0N. 173°·0W.

A = −·274, B = −·034, C = +·961; D = −·122, E = +·993; G = −·954, H = −·117, K = −·276.

There are a number of readings near 12h. on this day which suggest several overlapping and rather feeble shocks. Identification is therefore specially difficult. A few readings have been picked out which seem to be accordant, but some other selection may be better.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	38·6	282	e 7 49	+ 6	e 13 56	+10	—	—
Ekaterinburg	44·3	320	14 15	?S	(14 15)	−51	23·6	—
Tashkent	57·5	308	e 9 57	+ 1	17 43	−10	e 22·2	24·1
Hong Kong	63·9	260	—	—	—	—	—	17·8
Phu-Lien	67·4	268	14 36?	?PR_1	—	—	17·1	—

Additional readings and notes: Irkutsk e = +14m.53s.; P is given as a separate shock. Tashkent e = +18m.3s. = PS − 19s., and +21m.36s. ?

The observations bracketed can scarcely be correct. There seems to have been a possible repetition from the same epicentre as below.

May 24d. 12h. 8m. 0s. Epicentre 74°·0N. 173°·0W. (as above).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	38·6	282	—	—	—	—	22·0	—
Ekaterinburg	44·3	320	i 10 14	?PR_1	e 21 19	?	34·0	50·9
Leningrad	45·1	344	—	—	—	—	e 20·0	—
Pulkovo	45·4	344	—	—	e 16 27	+67	18·0	23·1
Kucino	48·6	337	—	—	e 16 19	+18	22·1	—
Copenhagen	50·3	356	—	—	—	—	21·0	—
Hamburg	52·4	357	—	—	—	—	e 22·0	—
De Bilt	53·1	1	—	—	—	—	e 27·0	—
Uccle	55·2	2	—	—	—	—	e 27·0	—
Makeyevka	56·2	335	9 40	− 7	e 17 57	+21	22·0	23·0
Strasbourg	56·4	359	—	—	—	—	27·0	—
Tashkent	57·5	308	i 9 1	−55	—	—	e 32·0	40·3
Tiflis E.	61·6	329	e 9 5	−78	(e 19 48)	[−19]	e 19·8	—
N.	61·6	329	e 9 3	−80	e 18 57	+14	e 37·0	42·9

Additional readings: Ekaterinburg MN = +51·1m. Kucino e = +19m.2s. and +21m.24s. = SR_3 − 6s. Makeyevka e = +13m.38s. = PR_3 − 8s., and +20m.12s. = Σ +20s. Tashkent MZ = + +37·8m., MN = +37·9m. Tiflis eN = +15m.12s., eE = +15m.15s.

May 24d. 16h. 1m. 24s. Epicentre 37°·5N. 100°·5E. (as at 9h.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	15·0	9	3 37	− 2	e 6 36	+ 4	7·6	9·2
Phu-Lien	17·5	161	e 4 8	− 3	—	—	9·6	—
Zi-ka-wei	18·3	104	e 4 6	−15	—	—	—	11·1
Hong Kong	19·2	138	7 53	?S	(7 53)	−13	—	10·2
Manila	29·2	136	—	—	e 11 36?	+16	e 17·6	—
Bombay	30·5	240	—	—	—	—	e 15·6	—
Ekaterinburg	32·6	320	6 51	− 2	12 13	− 5	16·6	18·7
Kucino	44·9	316	—	—	e 15 12	− 2	24·2	—
Makeyevka	45·8	305	—	—	e 15 35	+10	29·6	—
Pulkovo	48·6	322	—	—	e 16 8	+ 7	23·6	27·5
Leningrad	48·6	322	—	—	e 16 3	+ 2	24·0	31·2
Copenhagen	58·8	320	—	—	—	—	26·6	33·0
Hamburg	60·9	318	—	—	—	—	e 31·6	—
De Bilt	64·2	319	—	—	—	—	e 34·6	37·8
Strasbourg	64·5	315	—	—	—	—	34·6	—
Uccle	65·3	317	—	—	—	—	e 33·6	—
Edinburgh	66·5	324	—	—	—	—	42·6	—
Paris	67·4	317	—	—	—	—	e 38·6	—
Kew	67·5	320	—	—	—	—	e 41·6	—

Additional readings and notes: Bombay reading has been diminished by 1h. Ekaterinburg MZ = +26·3m. Kucino e = +18m.36s. = SR_1 +8s. Makeyevka e = +22m.52s. Leningrad MN = +31·5m. De Bilt MZ = +40·3m.

May 24d. Continuation of the list of after-shocks, from the epicentre 35°·7N., 134°·8E. of May 23d. :—

h.	m.	s.		h.	m.	s.	
12	18	0	T	18	29	26	T
14	1	44	T				

May 24d. Readings also at 0h. (De Bilt, Dyce, Hyderabad, Irkutsk (2), Phu-Lien and Hong Kong), 2h. (Irkutsk), 3h. (Ekaterinburg, Irkutsk, Pulkovo, and Tashkent), 4h. (Ekaterinburg (2), Irkutsk (3), Phu-Lien, and Tashkent (2)), 5h. (Copenhagen, Pulkovo, and Leningrad), 6h. (Graz), 7h. (Phu-Lien, Tashkent, Ekaterinburg, Irkutsk, Tiflis, Pulkovo, and Copenhagen), 8h. (Irkutsk, Ekaterinburg, Pulkovo, and Tashkent), 10h. (Irkutsk), 12h. (Cape Town and Irkutsk), 13h. (Irkutsk), 14h. (Tiflis), 15h. (Irkutsk and Tashkent), 16h. (Tashkent (2) and near Ksara), 17h. (Tashkent), 18h. (Irkutsk (2)), 19h. (Irkutsk (3), Ekaterinburg, and Tashkent), 20h. (Irkutsk, Ekaterinburg, Tashkent, Tiflis, Pulkovo, Leningrad, and Copenhagen), 22h. (Fordham, Irkutsk, and near Mizusawa).

May 25d. 2h. 50m. 30s. Epicentre 41°·0N. 16°·0E. (as on 1925 Aug. 25d.).

A = +·725, B = +·209, C = +·656 ; D = +·276, E = −·961 ;
G = +·631, H = +·181, K = −·755.

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Pompeii		1·1	257	i 0 20	+ 3	e 0 23	− 8	—	—
Naples		1·3	263	e 0 17	− 3	0 19	−17	—	0·6
Rocca di Papa		2·6	287	e 0 28	−13	0 41	−31	i 0·9	1·8
Florence		4·5	311	1 7	− 3	—	—	—	2·7
Zagreb		4·8	0	i 1 17	+ 3	i 2 18	+ 7	i 2·6	—
Belgrade	N.	5·0	39	e 1 29	+12	i 2 44	+27	—	3·4
Venice		5·2	330	e 1 42	+22	—	—	—	5·1
Graz		6·1	356	e 1 30	− 3	e 2 31	−15	2·9	3·3
Budapest		6·8	18	e 3 0	?S	(e 3 0)	− 5	e 4·5	—
Innsbruck		7·1	334	2 0	+12	e 2 47	−26	—	—
Vienna		7·2	2	e 2 12	+23	i 3 6	− 9	i 4·1	4·5
Moncalieri	E.	7·2	306	e 2 20	+31	—	—	3·5	4·2
Zurich		8·3	323	e 1 58	− 8	—	—	—	—
Prague		9·1	353	—	—	e 4 0	− 6	(e 5·5)	6·0
Hohenheim		9·1	331	—	—	e 3 44	−22	e 5·9	6·3
Cheb		9·4	346	e 3 30?	+68	—	—	—	5·5
Strasbourg		9·6	325	e 2 13	−11	e 4 11	− 7	—	—
Barcelona		10·4	277	e 2 23	−13	—	—	e 3·3	7·4
Potsdam	E.	11·5	351	—	—	—	—	e 5·9	—
Tortosa	N.	11·7	274	—	—	(e 4 30?)	−42	e 4·5	8·6
Paris		12·3	314	e 1 30?	?	—	—	e 6·5	7·5
Uccle		12·7	324	—	—	—	—	e 6·2	—
Hamburg		13·2	344	—	—	—	—	e 6·5	—
De Bilt		13·3	330	—	—	—	—	e 7·0	8·5
Konigsberg	E.	14·1	11	—	—	—	—	e 7·4	—
Almeria		14·8	260	e 3 37	+ 1	e 6 37	+10	—	9·4
Copenhagen	E.	14·9	352	—	—	—	—	e 6·5	8·6
Kew		15·3	319	—	—	—	—	e 7·5	—
Toledo		15·3	272	e 4 5	+22	—	—	—	10·7
Granada		15·7	262	i 3 34	−14	i 6 39	− 9	i 8·1	10·8
Oxford		16·0	318	—	—	—	—	e 8·4	9·5
Makeyevka		17·1	58	—	—	e 7 32	+12	10·5	12·2
Upsala		18·9	2	—	—	—	—	e 10·3	—
Kucino		20·5	37	—	—	e 8 34	0	11·5	—
Pulkovo		20·7	20	4 43	− 6	8 35	− 3	10·5	14·5
Leningrad		20·9	20	e 4 45	− 7	e 8 38	− 4	11·5	13·7
Tiflis		21·5	79	e 4 48	−11	e 9 12	+17	—	—
Ekaterinburg		32·5	46	6 41	−12	—	—	16·5	—
Tashkent		39·5	71	—	—	e 16 30?	?SR_1	e 18·5	20·4

Additional readings : Rocca di Papa iP = +30s. and +33s. Zagreb e = +1m.20s., +1m.29s., and +1m.35s., i = +1m.39s., e = +1m.45s., i = +1m.53s., and +2m.2s. Venice +5m.6s. Moncalieri eZ = +38s., SZ? = +3m.42s. Prague gives S as e and L as eS ? Hohenheim e = +5m.8s. Strasbourg PR_2 = +3m.10s., SR_2 = +5m.30s. Potsdam iE = +6m.53s. De Bilt MZ = +9·1m., MN = +9·5m. Konigsberg eN = +11m.2s., eE = +11m.3s. Almeria i = +4m.21s., MZ = +8·6m., MN = +10·1m. Copenhagen eN = +7m.30s. ? Makeyevka e = +8m.57s., MZ = +12·0m. Leningrad MZ = +14·4m.

May 25d. 3h. 23m. 20s. (I)
5h. 9m. 0s. (II)
6h. 18m. 7s. (III)
6h. 21m. 10s. (IV)
6h. 54m. 50s. (V)
} Epicentre 41°·0N. 16°·0E. (as at 2h.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
I Pompeii	1·1	257	e 0 20	+ 3	—	—	—	—
II	1·1	257	e 0 20	+ 3	—	—	—	—
III	1·1	257	e 0 20	+ 3	—	—	—	—
IV	1·1	257	e 0 20	+ 3	—	—	—	—
V	1·1	257	e 0 20	+ 3	—	—	—	—
I Naples	1·3	263	e 0 27	+ 7	—	—	—	—
II	1·3	263	e 0 42	+22	—	—	—	—
III	1·3	263	e 0 35	+15	—	—	—	—
IV	1·3	263	e 0 23	+ 3	—	—	—	—
V	1·3	263	e 0 22	+ 2	—	—	—	—
I Rocca di Papa	2·6	287	i 0 38	− 3	i 0 49	−23	i 1·1	1·5
II	2·6	287	0 34	− 7	0 57	−15	1·1	1·3
III	2·6	287	0 37	− 4	0 53	−19	e 1·2	1·5
IV	2·6	287	e 0 33	− 8	0 57	−15	1·2	1·5
V	2·6	287	0 32	− 9	0 42	−30	0·9	1·1

Rocca di Papa gives several P and S readings, that entered is the earliest for each shock.

May 25d. 10h. 12m. 25s. (VI)
10h. 13m. 35s. (VII)
13h. 34m. 55s. (VIII)
18h. 17m. 30s. (IX)
23h. 5m. 35s. (X)
} Epicentre 41°·0N. 16°·0E. (as above).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
VII Pompeii	1·1	257	e 0 20	+ 3	—	—	—	—
IX	1·1	257	e 0 20	+ 3	—	—	—	—
X	1·1	257	e 0 20	+ 3	—	—	—	—
VI Naples	1·3	263	e 0 27	+ 7	—	—	—	—
VII	1·3	263	e 0 22	+ 2	—	—	—	—
VIII	1·3	263	e 0 22	+ 2	—	—	—	—
IX	1·3	263	e 0 13	− 7	—	—	—	—
X	1·3	263	e 0 25	+ 5	—	—	—	—
VI Rocca di Papa	2·6	287	0 9	−32	0 52	−20	1·1	1·4
VII	2·6	287	0 37	− 4	0 49	−23	1·2	1·6
VIII	2·6	287	0 28	−13	i 0 48	−24	1·1	1·2
IX	2·6	287	0 29	−12	0 48	−24	—	0·9
X	2·6	287	1 48	?	2 1	?	2·2	2·2
VI Zagreb	4·8	0	e 1 16	+ 2	e 1 55	−16	—	—
VIII	4·8	0	e 1 49	+35	—	—	i 2·6	—
VI Moncalieri	7·2	306	e 0 5	?	—	—	4·0	—
VI Strasbourg	9·6	325	—	—	—	—	e 5·6	—
VIII	9·6	325	—	—	—	—	e 6·1	—

May 25d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of May 24d. :—

h.	m.	s.		h.	m.	s.	
5	54	26	T	23	25	37	T
5	57	4	T	23	35	58	T
7	7	30	T				

May 25d. Readings also at 0h. (Phu-Lien), 1h. (Tashkent), 3h. (Tashkent, Ekaterinburg, Naples, La Paz, and near Mizusawa), 4h. (Irkutsk (2) and Tashkent), 5h. (Irkutsk and Tashkent), 6h. (Irkutsk), 7h. (Tashkent (2) and Ksara), 9h. (Tiflis), 14h. (Tiflis and Ekaterinburg), 15h. (La Paz and Zi-ka-wei), 16h. (Pulkovo and Leningrad), 17h. (Fordham, Irkutsk, and Ekaterinburg), 20h. (Florence), 23h. (Tiflis, Ekaterinburg, and near Amboina).

May 26d. 2h. 20m. 7s. (I)
2h. 41m. 57s. (II)
5h. 23m. 40s. (III)
12h. 3m. 50s. (IV)
13h. 57m. 0s. (V)
17h. 26m. 0s. (VI)
} Epicentre 41°·0N. 16°·0E. (as on May 25d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
I	Pompeii	1·1	257	e 0 20	+ 3	—	—	—	—
II		1·1	257	e 0 20	+ 3	—	—	—	—
III		1·1	257	e 0 20	+ 3	—	—	—	—
IV		1·1	257	e 0 20	+ 3	—	—	—	—
V		1·1	257	e 0 20	+ 3	—	—	—	—
VI		1·1	257	e 0 20	+ 3	—	—	—	—
I	Naples	1·3	263	e 0 20	0	—	—	—	—
III		1·3	263	e 0 42	?S	(e 0 42)	+ 6	—	—
IV		1·3	263	e 0 32	+12	—	—	—	—
VI		1·3	263	e 0 52	?S	(e 0 52)	+16	—	—
I	Rocca di Papa	2·6	287	e 1 32	+51	1 43	+31	1·9	2·6
II		2·6	287	e 1 34	+53	2 1	+49	2·2	2·4
III		2·6	287	e 1 35	+54	1 49	+37	1·9	2·1
IV		2·6	287	0 29	−12	0 44	−28	1·0	1·2
VI		2·6	287	e 0 54	+13	—	—	—	1·2
II	Florence	4·5	311	e 1 33	+23	—	—	—	3·5
II	Zagreb	4·8	0	3 2	?L	—	—	(e 3·0)	—
II	Venice	5·2	330	e 5 3?	?L	—	—	(e 5·0)	—
II	Vienna z.	7·2	2	e 4 55	?L	—	—	(e 4·9)	—
II	Zurich	8·3	323	—	—	e 3 44	− 1	—	—
II	Copenhagen	14·9	352	—	—	—	—	—	8·9

Naples IV reading has been diminished by 1h. Rocca di Papa readings appear to be 1m. in error, those for shock IV are given as for 13h.

May 26d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 25d. :—

h.	m.	s.	
21	34	15	T

May 26d. Readings also at 0h. (Baku), 3h. (Ekaterinburg, Irkutsk, and Phu-Lien), 4h. (Baku), 8h. (Apia and Irkutsk), 9h. (Ekaterinburg, La Paz, and Riverview), 10h. (Ekaterinburg), 11h. (Ekaterinburg, Irkutsk, Baku, and Phu-Lien), 12h. (Makeyevka and Copenhagen), 13h. (Budapest and Tashkent), 15h. (Tashkent), 17h. (Copenhagen, Ekaterinburg, Irkutsk, and Phu-Lien), 20h. (Irkutsk and near Mizusawa), 21h. (Tashkent, Ekaterinburg, near La Paz, and Sucre), 22h. (Naples), 23h. (Mizusawa).

May 27d. 2h. 54m. 40s. Epicentre 40°·0N. 110°·0E. (as on 1918 April 10d.).

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

Rough. The epicentre 38°·0N. 107°·0E. of 1921 Jan. 6 and 7 would suit at least as well. The readings at Baku and Kucino refer almost certainly to a shock near Baku ; and there was another shock about 2h.33m., possibly from the same epicentre as above.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Zi-ka-wei	12·8	130	e 3 18	+ 8	—	—	—	11·2
Irkutsk	12·9	344	(e 3 2)	−10	(e 6 0)	+18	—	—
Hong Kong	18·0	167	8 6	?SR_1	(8 6)	+26	—	8·3
Phu-Lien	19·4	190	7 20	?S	(7 20)	−50	9·7	—
Ekaterinburg	35·8	315	e 7 15	− 5	e 12 38	−29	16·3	—
Bombay	38·3	248	14 1	?S	(14 1)	+19	—	18·5
Baku	45·0	291	e 1 39	?	e 3 13	?	e 20·3	—
Kucino	48·4	315	e 3 20	?	—	—	26·3	—
Makeyevka	50·5	305	—	—	—	—	28·3	28·7
Leningrad	51·3	322	—	—	—	—	27·8	29·8
Pulkovo	51·4	322	e 8 18	−58	—	—	26·3	33·0
Copenhagen	61·7	321	11 20?	+57	—	—	e 31·3	33·4

Continued on next page,

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Hamburg		64·0	320	—	—	—	—	e 29·3	—
De Bilt		67·3	320	—	—	—	—	e 34·3	38·3
Dyce		67·5	327	—	—	—	—	34·0	37·8
Strasbourg		68·0	316	—	—	—	—	34·3	—
Uccle		68·4	319	—	—	—	—	e 33·3	—
Kew		70·3	323	—	—	—	—	e 36·3	—
Paris		70·6	318	—	—	—	—	e 37·3	—
Suva	E.	86·1	118	—	—	—	—	i 42·9	44·8
	N.	86·1	118	—	—	—	—	i 42·8	45·2
Apia		90·1	108	—	—	—	—	42·9	46·4

Additional readings and notes: All the P and S readings except those for Hong Kong, Phu-Lien, Ekaterinburg, and Bombay, are given simply as e. Irkutsk, the readings have been diminished by 11 min. Makeyevka e = +22m.54s., +23m.36s., +24m.49s., and +25m.46s., MZ = +35·4m. Pulkovo MN = +27·9m., MZ = +29·7m. Apia e = +42m.19s., MN = +45·0m. Copenhagen eLN = +30·3m. De Bilt MZ = +42·3m.

May 27d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 26d. :—

h.	m.	s.		h.	m.	s.	
2	15	13	T	16	41	42	T
8	35	9	T				

May 27d. Readings also at 0h. (Ekaterinburg), 1h. (Ekaterinburg, Irkutsk, Tashkent, and Phu-Lien), 2h. (Ekaterinburg, Irkutsk, and Phu-Lien), 4h. (Ekaterinburg), 6h. and 7h. (Tashkent), 8h. (La Paz), 10h. (Tiflis (2), Pompeii, Naples, Rocca di Papa, and near Belgrade), 11h. (Baku, Strasbourg, Edinburgh, La Paz, and Ekaterinburg), 12h. (Ekaterinburg, Irkutsk, and Tiflis), 13h. (La Paz (2), Sucre, and Tashkent), 14h. (Ekaterinburg), 16h. (Tashkent), 17h. (Irkutsk, Ekaterinburg (2), and Copenhagen), 18h. (Tashkent (2) and Ekaterinburg), 20h. (Tashkent), 21h. (Irkutsk), 22h. (Irkutsk (2), Ekaterinburg, Naples, Pompeii, and Rocca di Papa), 23h. (Irkutsk, Strasbourg, and Tiflis).

May 28d. 17h. 37m. 40s. Epicentre 37°·35N. 121°·8W.

Given by Mr. Perry Byerly, with full discussion, in Bull. Seism. Soc. Am., Sept. 1927, Plate 20.

A = −·419, B = −·675, C = +·607.

	Δ	P.	O−C.	S.	O−C.	L.
	°	m. s.	s.	m. s.	s.	m.
Lick	0·2	i 0 2	− 2	i 0 7	+ 1	—
Berkeley	0·6	i 0 15	+ 6	i 0 25	+ 8	—
Tucson	10·3	e 2 56	+22	e 5 15	+38	e 5·4

Additional readings: Lick iZ = +0m.13s. Berkeley i = +0m.18s., +0m.26s. +0m.29s., and +0m.36s. Tucson eN = +5m.35s., eLN = +5·8m.

May 28d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 27d. :—

h.	m.	s.		h.	m.	s.	
16	29	42	T	19	33	12	TKSN
16	30	37	T				

May 28d. Readings also at 0h. (Irkutsk and Tashkent (2)), 1h. (Ekaterinburg, Irkutsk, Tashkent, and Rio de Janeiro), 2h. (Irkutsk, Pulkovo, Leningrad, Tiflis, Makeyevka, Copenhagen (2), Oxford, Kew, De Bilt, Uccle, Paris, Strasbourg, Granada, and Ottawa, and near Zagreb), 3h. (Irkutsk and Tashkent), 4h. (Tashkent), 15h. (Mizusawa), 18h. (Pompeii and near Rocca di Papa), 22h. (Ekaterinburg (2), Hong Kong, Phu-Lien, Tiflis, and Zi-ka-wei), 23h. (Tiflis, Makeyevka, Baku, Bombay, Copenhagen, Manila, De Bilt, and Uccle).

May 29d. 10h. 28m. 34s. Epicentre 41°·2N. 75°·2E. (given by Tashkent).

A = +·192, B = +·727, C = +·659 ; D = +·967, E = −·255 ;
G = +·168, H = +·637, K = −·752.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tashkent		4·5	273	i 1 10	0	i 2 4	0	—	2·4
Ekaterinburg		18·2	334	i 4 39	+20	7 42	− 2	i 9·6	11·1
Baku		19·1	276	—	—	e 8 44	?SR_1	11·3	—
Bombay		22·4	186	—	—	—	—	e 13·4	—
Makeyevka		27·0	297	—	—	—	—	e 16·4	18·2
Kucino		28·2	314	—	—	—	—	e 14·6	—
Pulkovo		33·1	320	—	—	—	—	19·4	20·0
Leningrad		33·2	320	—	—	—	—	18·3	20·0
Copenhagen		42·4	312	—	—	—	—	22·4	—
Hamburg		44·2	309	—	—	—	—	e 23·4	—
De Bilt	N.	47·4	308	—	—	—	—	e 26·4	27·0

Additional readings: Tashkent iP = +1m.12s., i = +1m.15s., and +1m.22s. Baku e = +10m.16s., and +10m.46s. Makeyevka e = +13m.56s. and +14m.57s. Pulkovo e = +13m.59s. =SR_1 −17s., and +17m.1s., MZ = +20·2m. Leningrad e = +16m.58s. De Bilt eLEZ = +30·0m.

May 29d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 28d. :—

h.	m.	s.		h.	m.	s.	
1	30	51	T	3	16	6	T
3	6	10	T	21	35	18	T

May 29d. Readings also at 6h. (near Mizusawa), 7h. (near Belgrade), 10h. and 13h. (Ekaterinburg), 14h. (Suva, Manila, and near Zurich), 15h. (Simla), 16h. (Irkutsk), 17h. (Irkutsk, Tashkent, Ekaterinburg, and Copenhagen), 23h. (Baku, Ekaterinburg, Makeyevka, and near Tiflis).

May 30d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 29d. :—

h.	m.	s.		h.	m.	s.	
1	5	14	T	2	25	31	T
2	23	10	T				

May 30d. Readings also at 5h. (Apia and Suva), 6h. (Baku, Tashkent, Naples, Pompeii, and near Rocca di Papa), 7h. (Irkutsk), 8h. (Baku and Tiflis), 9h. (Apia, Ekaterinburg, Simla, and Irkutsk), 10h. (Ekaterinburg, and Leningrad), 11h. (Irkutsk), 12h. (Baku and Ksara), 16h. (Baku), 17h. (La Paz and Santiago), 21h. (Tiflis), 23h. (Irkutsk).

May 31d. 7h. 40m. 0s. Epicentre 38°·5N. 139°·0E. (as on 1925 July 26d.).

A = −·591, B = +·513, C = +·623 ; D = +·656, E = +·755 ;
G = −·470, H = +·408, K = −·783.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	E.	1·7	69	0 34	+ 8	1 2	+14	—	—
Nagoya		3·7	207	e 0 50	− 8	(1 27)	−15	1·5	—
Irkutsk		27·6	311	—	—	—	—	e 18·0	—
Tashkent		52·1	296	—	—	—	—	e 22·0	33·2
Ekaterinburg		52·6	317	9 19	− 5	—	—	28·0	—
Baku		65·7	303	—	—	—	—	e 42·0	—
Apia		69·7	129	e 12 37	+82	—	—	—	55·1

Mizusawa gives also PN = +58s.

May 31d. 13h. 0m. 54s. Epicentre 13°·0N. 97°·0W.

A = −·119, B = −·967, C = +·225 ; D = −·993, E = +·122 ;
G = −·027, H = −·223, K = −·974.

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tucson	N.	23·1	329	e 5 24	+ 6	e 9 18	− 9	e 15·5	—
Chicago		29·9	14	e 6 30	+ 3	11 31	− 1	e 13·6	—
Toronto		34·2	24	—	—	e 11 6?	−97	21·1	—
Fordham		34·4	33	—	—	—	—	19·1	—
Ottawa		37·1	26	—	—	—	—	e 19·1	—
La Paz		41·0	137	8 4	+ 1	—	—	—	—
De Bilt		87·0	37	—	—	—	—	e 31·1	—
Copenhagen	E.	89·8	31	e 12 12	−63	e 22 30	?	—	—
Ekaterinburg		107·9	13	—	—	—	—	33·1	—
Baku		118·4	27	—	—	—	—	e 59·1	—
Tashkent		124·2	11	—	—	—	—	e 57·1	77·2

No additional readings.

May 31d. 22h. 58m. 15s. Epicentre 45°·0N. 22°·0E. (as on 1924 August 12d.).

A = +·656, B = +·265, C = +·707 ; D = +·375, E = −·927 :
G = +·656, H = +·265, K = −·707.

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Belgrade	E.	1·1	261	i 0 16	− 1	i 0 27	− 4	—	0·6
Budapest		3·2	321	0 52	+ 2	(1 31)	+ 3	1·5	2·5
Zagreb		4·3	283	e 1 8	+ 1	i 2 8	+10	—	2·8
Vienna		5·0	312	e 1 22	+ 5	2 25	+ 8	—	3·2
Graz		5·0	297	e 1 14	− 3	—	—	—	2·7
Venice		6·8	277	3 3	?S	(3 3)	− 2	(4·0)	—
Prague		7·2	318	e 4 18	?	e 4 55	?	—	5·3
Rocca di Papa		7·5	247	e 1 45	− 9	(2 54)	−30	(3·9)	4·0
Zurich		9·6	289	e 2 29	+ 5	e 4 45	+27	—	—
Moncalieri		10·1	275	e 1 20	−71	e 4 45	+13	(5·5)	—
Strasbourg		10·4	295	e 3 45?	+69	—	—	i 5·8	—
Makeyevka		11·4	69	2 19	−31	—	—	8·8	—
Hamburg		11·6	322	—	—	—	—	e 5·8	—
Copenhagen		12·3	334	—	—	—	—	5·8	—
Uccle		13·1	303	—	—	—	—	5·8	—
De Bilt		13·2	308	—	—	—	—	e 6·8	9·0
Pulkovo		15·6	16	—	—	e 7 15	+29	10·2	11·6
Leningrad		15·8	15	—	—	—	—	e 10·2	—
Ekaterinburg		26·6	50	—	—	—	—	13·8	—
Tashkent		34·2	79	—	—	—	—	e 21·8	25·2

Additional readings and notes : Vienna P = +1m.32s. and +1m.41s., P_gS = +2m.11s., PS_2 = +2m.37s., S = +2m.53s., SR_1 = +2m.59s. Venice gives S as P and L as S. Rocca di Papa gives P as e, S as P, and L as PR_1. Moncalieri eP = +1m.47s., S? = +5m.49s. Strasbourg i = +5m.49s. and +5m.55s. Makeyevka e = 22h.57m.23s. and +8m.20s., i = +7m.9s. De Bilt MN = +7·7m. Tashkent MZ = +25·5m.

May 31d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 30d. :—

h.	m.	s.		h.	m.	s.	
5	28	36	T	5	52	51	T

May 31d. Readings also at 1h. (near Ksara), 7h. (near Mizusawa), 10h. (Irkutsk), 11h. (La Paz, Pompeii, and Rocca di Papa), 14h. (near Tashkent), 16h. (Ekaterinburg, Irkutsk, Makeyevka, Tashkent, and Tiflis), 20h. (Tashkent), 21h. (Manila), 23h. (Irkutsk Moncalieri, and Rocca di Papa).

June 1d. 7h. 27m. 12s. Epicentre 22°·0N. 125°·5E. (as on 1922 Aug. 20d.).

A = −·538, B = +·755, C = +·375; D = +·814, E = +·581;
G = −·218, H = +·305, K = −·927.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Taihoku	4·7	310	—	—	e 2 10	+ 1	—	—
Manila	8·6	211	e 2 17	+ 7	—	—	i 5·3	—
Hong Kong	10·4	274	—	—	—	—	—	5·8
Phu-Lien	17·6	269	—	—	—	—	—	5·8
Irkutsk	34·4	337	—	—	—	—	e 18·8	—
Tashkent	50·6	307	9 10	− 1	e 16 23	− 3	e 24·8	35·5
Ekaterinburg	58·0	325	10 24	+25	—	—	25·8	—
Baku	65·3	306	—	—	—	—	e 37·3	—
Pulkovo	73·7	329	—	—	—	—	e 40·8	47·6

Tashkent gives $eSR_1 = +19m.26s. = \Sigma +22s.$

June 1d. 17h. 0m. 25s. Epicentre 45°·5N. 94°·0E. (as on 1920 Sept. 20d.)

A = −·049, B = +·699, C = +·713; D = +·998, E = +·070;
G = −·050, H = +·711, K = −·701.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	9·6	41	e 2 34	+10	e 4 36	+18	5·7	—
Tashkent	18·4	266	3 29	−53	i 8 19	+30	13·4	16·7
Ekaterinburg	23·5	311	4 39	−44	—	—	14·6	—
Phu-Lien	26·8	153	1 35?	?	—	—	—	—
Hong Kong	28·4	138	7 15	+63	—	—	—	7·9
Baku	32·3	279	—	—	—	—	e 19·0	—
Tiflis	35·3	282	—	—	e 12 37	−23	e 18·0	—
Kucino	35·9	309	—	—	—	—	22·5	—
Pulkovo	39·4	317	—	—	—	—	e 17·6	27·0
Leningrad	39·4	317	—	—	—	—	21·6	28·5
Copenhagen	49·7	315	—	—	—	—	—	29·6
Hamburg	51·9	311	—	—	—	—	e 29·6	—
De Bilt	55·2	311	—	—	—	—	e 33·6	39·0
Strasbourg	55·6	308	—	—	—	—	32·6	—
Edinburgh	57·2	319	—	—	—	—	—	40·6
Kew	58·3	314	—	—	—	—	e 36·6	—

Additional readings: Tashkent i = +3m.35s., $iSR_1 = +9m.2s.$, $eSR_2 = +9m.15s.$, e = +9m.51s., MZ = +14·5m., MN = +18·0m. Baku e = 16h.56m.23s. and 17h.15m.20s.

June 1d. 10h. 9m. 36s. Epicentre 45°·0S. 180°·0.

A = −·707, B = ·000, C = −·707; D = ·000, E = +1·000;
G = +·707, H = ·000, K = −·707.

Very rough.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Wellington	E.	5·3	313	(i 1 27)	+ 4	(i 2 24)	− 1	—	—
	N.	5·3	313	(i 1 30)	+ 8	(i 2 19)	− 6	—	—
Suva	N.	26·9	357	e 6 0	+ 3	—	—	—	—
Tashkent		130·9	292	19 6	[−15]	—	—	64·4	72·5
Baku		143·6	281	e 19 33	[−13]	—	—	e 65·4	82·3
Tiflis		147·7	280	—	—	—	—	e 83·3	84·5
Leningrad		156·6	321	i 19 46	[−18]	—	—	—	—
Pulkovo		156·7	321	(i 19 46)	[−18]	—	—	—	—
Copenhagen		166·7	328	—	—	—	—	74·4	—
Edinburgh		168·9	9	—	—	29 24?	?PR_2	—	—
Granada		171·7	160	—	—	—	—	90·4	—
De Bilt		172·2	336	—	—	—	—	e 88·4	—
Uccle		173·5	335	—	—	—	—	e 39·4	—
Strasbourg		173·6	307	—	—	—	—	e 85·4	—
Paris		175·8	337	e 20 8	[− 9]	—	—	91·4	—

Additional readings and notes: Wellington readings have been diminished by 3m. Tashkent i = +20m.58s. and +22m.25s., MZ = +72·4m., MN = +72·9m. Baku e = +23m.18s., +35m.20s., MN = +84·7m., MZ = +87·3m. Pulkovo reading is given as iPR_1.

June 1d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of May 31d. :—

h.	m.	s.	
15	2	24	T

June 1d. Readings also at 0h. (Ekaterinburg and Tashkent), 2h. (near Belgrade), 4h. (Uccle and Taihoku), 6h. (Uccle, near Mizusawa, and near Manila), 7h. (Santiago, Tashkent, and Ekaterinburg), 11h. (Edinburgh, Ekaterinburg (2), Tashkent, and Tortosa), 12h. (Apia, Fordham, and La Paz), 13h. (Almeria, Baku, Taihoku, Tiflis, and Tortosa), 14h. (Wellington, Suva, La Paz, De Bilt, and Prague), 16h. (Irkutsk and Tashkent), 17h. (Malabar and near Batavia), 21h. (Batavia and near Manila), 22h. (Santiago, Taihoku, and near Manila), 23h. (Pompeii and Taihoku).

June 2d. 16h. 37m. 24s. Epicentre 24°·0N. 82°·3E.

A = +·122, B = +·905, C = +·407 ; D = +·991, E = −·134 ; G = +·054, H = +·403, K = −·914.

		△	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Calcutta	E.	5·7	104	1 36	+ 8	2 36	0	2·9	3·2
	N.	5·7	104	1 35	+ 7	2 29	− 7	3·0	—
Dehra Dun		7·4	330	2 19	+27	3 31	+10	4·1	5·2
Hyderabad		7·5	210	1 50	− 4	3 3	−21	3·5	4·1
Simla		8·4	329	2 18	+11	3 54	+ 7	e 6·1	—
Bombay		10·2	245	2 23	−10	4 8	−27	e 4·8	—
Kodaikanal		14·5	199	(3 24)	− 9	—	—	7·3	7·3
Tashkent		20·4	331	i 4 47	+ 1	i 8 33	+ 1	10·6	12·6
Phu-Lien		22·6	93	e 5 13	+ 1	i 9 23	+ 6	11·6	15·0
Hong Kong		29·3	87	11 17	?S	(11 17)	− 5	—	18·3
Baku		31·7	311	i 6 34	−10	i 11 57	− 6	16·4	22·2
Irkutsk		32·8	25	e 6 49	− 6	i 12 2	−19	i 18·2	18·7
Zi-ka-wei	Z.	35·2	70	e 7 13	− 2	—	—	—	23·6
Tiflis	E.	35·7	311	7 2	−17	e 12 46	−20	e 16·5	22·3
	N.	35·7	311	e 7 0	−19	e 12 48	−18	e 16·3	22·4
Ekaterinburg		36·4	341	i 7 15	−10	i 12 58	−18	15·6	21·4
Manila	N.	37·5	98	—	—	—	—	—	22·6
Ksara	N.	41·4	295	7 57	− 9	14 16	−11	22·6	—
Makeyevka		42·3	318	8 2	−11	14 17	−22	19·6	27·1
Kucino		45·3	327	8 24	−11	15 2	−17	22·5	29·2
Pulkovo		50·6	330	i 9 8	− 3	16 20	− 6	26·6	31·8
Leningrad		50·7	330	i 9 10	− 1	i 16 23	− 4	23·4	32·0
Budapest	E.	54·7	315	—	—	—	—	e 29·6	—
Vienna		56·5	316	i 9 51	+ 2	—	—	e 32·6	—
Upsala		56·8	329	e 9 54	+ 3	e 17 44	0	e 28·6	35·0
Prague		57·7	318	e 18 1	?S	(e 18 1)	+ 6	e 32·6	34·6
Cheb		59·1	318	—	—	e 17 54	−18	e 32·6	—
Copenhagen		59·1	323	10 10	+ 4	e 18 17	+ 5	e 33·6	40·5
Rocca di Papa		59·4	307	e 10 12	+ 4	—	—	e 46·0	46·5
Innsbruck	N.W.	59·9	314	i 10 18	+ 7	—	—	—	—
Florence		60·3	309	10 16	+ 2	—	—	—	—
Hamburg		60·5	321	—	—	e 18 36?	+ 6	e 32·6	39·3
Zurich		61·8	313	e 10 26	+ 2	e 18 46	0	—	—
Strasbourg		62·3	315	i 10 29	+ 2	e 19 7	+15	29·6	42·6
Moncalieri		62·6	311	e 10 38	+ 9	23 40	?SR_1	33·4	—
De Bilt		63·5	319	10 38	+ 3	19 14	+ 7	e 34·6	40·2
Uccle		64·1	318	e 10 41	+ 2	e 19 20	+ 6	e 34·6	—
Paris		65·6	316	e 10 53	+ 4	e 19 38	+ 6	31·6	43·6
Kew		66·9	319	e 11 1	+ 4	19 55	+ 6	36·6	44·1
Oxford		67·5	319	—	—	i 19 59	+ 3	38·0	44·8
Algiers		67·7	302	11 1	− 1	e 20 39	[−16]	e 31·6	—
Edinburgh		67·8	324	—	—	e 20 6	+ 6	37·6	46·6
Tortosa	N.	68·6	308	—	—	—	—	e 23·6	41·5
Almeria		71·8	305	11 29	+ 1	e 20 53	+ 5	—	44·1
Granada		72·7	305	i 11 33	− 1	21 6	+ 8	42·6	48·7
Malaga		73·4	305	e 11 40	+ 2	20 50	−17	—	—
Cape Town		83·9	229	—	—	—	—	—	45·6
Victoria	E.	104·0	19	—	—	—	—	51·6	56·4
Ottawa		107·8	345	—	—	e 44 12	?	e 50·6	—
Toronto	E.	110·3	346	—	—	—	—	57·0	—
La Paz		151·4	280	i 20 3	[+ 5]	—	—	—	—

For Notes see next page.

NOTES TO JUNE 2d. 16h. 37m. 24s.

Additional readings and note: Kodaikanal P has been increased by 7m. Tashkent MZ = +12·0m., MN = +12·7m. Baku MN = +21·2m., MZ = +26·3m. Irkutsk SR_2 = +14m.46s., MZ = +20·8m. Tiflis ePR_1N = +8m.12s., SR_1N = +14m.24s., eN = +16m.0s. = SR_3 − 6s. Ekaterinburg MN = +20·0m., MZ = +22·0m.; epicentre 24°58′N. 81°48′E. Ksara PR_2N = +9m.55s. = PR_1 + 17s., SR_2N = +17m.48s.; T_0 = 16h.37m.45s. Makeyevka PR_1 = +9m.48s., SR_1 = +17m.27s., MZ = +30·2m. Kucino PR_1 = +10m.8s., e = +14m.0s., SR_1 = +18m.16s., eSR_2 = +18m.28s., MN = +25·5m. Pulkovo PR_1 = +11m.5s., SR_1 = +20m.0s., MN = +28·2m., MZ = +31·9m. Leningrad iPR_1 = +11m.7s., SR_1 = +20m.16s., MN = +29·0m., MZ = +31·9m. Budapest eN = +31m.6s., ?LN. Vienna PR_1? = +14m.48s. Upsala e = +19m.42s. = [S] + 12s., MN = +31·7m. Prague eS? = +22m.36s.? = SR_1 − 8s. Cheb e = +22m.42s. = SR_1 − 11s. Copenhagen e = +22m.6s. and +27m.36s., eLN = +32·6m., MN = +33·5m. Rocca di Papa PR_1 = +14m.2s. = PR_3 − 26s. Strasbourg MNZ = +39·3m. De Bilt ePR_1Z = +13m.1s., eSR_1E = +23m.25s., MN = +37·1m., MZ = +42·8m. Uccle SR_1 = +23m.29s. Paris MN = +42·6m. Kew MN = +38·5m. Granada PR_1 = +14m.25s. Toronto LN = +58·6m.

June 2d. Readings also at 2h. (Tashkent), 3h. (near Zurich), 4h. (near Honolulu, T.H.), 6h. (Phu-Lien, Calcutta, Bombay, Tashkent, Baku, Kucino, Ekaterinburg, Pulkovo, Leningrad, Copenhagen, De Bilt, and Uccle), 9h. (Irkutsk and near Granada), 15h. (Kodaikanal), 16h. (near Tacubaya), 19h. (Tashkent, Baku, Ekaterinburg, Hyderabad, Bombay, and Calcutta), 20h. (Tashkent), 22h. (Kodaikanal).

June 3d. 1h. 53m. 40s. Epicentre 34°·0S. 57°·0E. (as on 1927 May 10d.).
A = +·452, B = +·695, C = −·559.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Baku	74·7	355	e 11 58	+11	e 21 44	[− 3]	e 30·0	—
Tashkent	76·1	10	i 11 55	− 1	i 21 36	− 2	e 36·8	45·2
Granada	90·8	317	—	—	—	—	52·3	55·0
Ekaterinburg	90·9	3	e 13 14	− 7	e 24 12	−11	41·8	—

Additional readings: Tashkent i = +12m.2s., eSR_2 = +30m.20s. Ekaterinburg e = +23m.51s. = [S] + 18s.

June 3d. 7h. 12m. 6s. Epicentre 6°·7S. 131°·2E.

(Epicentre given by Batavia; the nearest old epicentre is 6°·5S. 131°·5E. on 1921 March 24d.).

A = −·654, B = +·747, C = −·117; D = +·752, E = +·659;
G = +·077, H = −·088, K = −·993.

A depth of focus 0·025 has been assumed.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina		+0·1	4·3	315	i 2 9	?S	(i 2 9)	+ 8	—	—
Malabar		−1·2	23·4	267	i 5 2	− 5	i 9 6	− 3	10·9	—
Manila		−1·2	23·6	335	i 5 7	− 3	—	—	i 13·6	—
Batavia		−1·2	24·2	270	i 5 8	− 9	i 9 47	+22	12·9	—
Perth		−1·6	29·0	208	i 5 57	− 5	i 10 44	− 4	—	10·9
Adelaide		−1·6	29·0	167	i 5 53	− 9	i 10 44	− 4	i 13·1	20·3
Riverview		−1·8	32·8	149	e 6 32	− 6	i 11 50	− 1	e 16·2	18·0
Sydney	E.	−1·8	32·8	149	6 42	+ 4	11 48	− 3	17·4	18·2
Taihoku		−1·8	33·1	345	7 27	?PR_1	(12 12)	+16	12·2	23·9
Melbourne		−1·9	33·5	160	i 5 42	−61	i 11 18	−43	i 16·5	—
Hong Kong		−1·9	33·5	330	6 37	− 6	(11 44)	−17	11·7	15·9
Phu-Lien		−2·0	36·6	319	e 6 54	−16	12 20	−29	15·9	17·3
Zi-ka-wei		−2·1	39·0	349	i 7 24	− 5	i 13 13	− 9	—	17·5

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.
Nagasaki		−2·1	39·5	358	e 7 28	− 5	13 19	−11	16·2	17·6
Hukuoka		−2·1	40·3	359	7 34	− 6	13 22	−19	16·6	18·6
Matuyama		−2·1	40·6	3	7 27	−15	(e 13 27)	−18	13·4	19·7
Sumoto		−2·2	41·2	5	7 41	− 5	(13 35)	−17	13·6	13·6
Osaka		−2·2	41·6	5	7 28	−22	(14 1)	+ 4	14·0	14·6
Kobe		−2·2	41·6	5	7 44	− 6	13 49	− 8	19·7	24·0
Nagoya		−2·2	42·2	8	e 7 47	− 8	(14 4)	− 3	14·1	14·2
Toyooka		−2·2	42·4	5	7 56	− 1	14 11	+ 1	18·5	—
Mizusawa	E.	−2·4	46·7	12	8 25	− 3	15 11	+ 5	21·2	—
	N.	−2·4	46·7	12	8 26	− 2	15 13	+ 7	21·1	—
Suva	E.	−2·5	47·3	111	e 9 30	+58	i 13 24	−108	17·7	19·6
	N.	−2·5	47·3	111	e 8 18	−14	i 13 6	−126	15·7	19·9
Calcutta		−2·6	50·8	308	8 48	− 7	14 48	− 68	21·3	27·3
Wellington	E.	−2·6	51·9	140	i 9 8	+ 6	i 16 22	+12	i 24·8	29·2
	N.	−2·6	51·9	140	i 9 11	+ 9	i 16 21	+11	25·1	26·4
Ootomari		−2·8	54·3	10	9 35	+18	(17 5)	+27	17·1	30·3
Kodaikanal		−2·9	56·2	287	9 18	−10	—	—	21·2	24·0
Apia		−2·9	56·4	103	9 51	+21	17 56	?PS	28·0	—
Hyderabad		−3·0	57·4	296	9 39	+ 4	13 17	?PR$_3$	15·5	19·3
Bombay	E.	−3·1	62·9	296	10 28	+17	18 44	+23	31·7	34·3
	N.	−3·1	62·9	296	10 29	+18	18 42	+21	31·7	33·6
Dehra Dun		−3·1	62·9	310	10 25	+14	18 19	− 2	23·6	35·0
Irkutsk		−3·1	63·3	343	10 20	+ 7	18 52	+26	29·9	33·6
Simla	E.	−3·1	64·0	310	10 30	+12	18 54	+19	e 29·9	34·3
	N.	−3·1	64·0	310	10 30	+12	19 0	+25	33·0	36·0
Tashkent		−3·2	74·1	317	i 11 27	+ 5	i 21 1	+24	—	—
HonoluluT.H.	E.	−3·3	75·0	66	i 11 47	+19	i 21 23	[−26]	29·6	36·7
	N.	−3·3	75·0	66	11 50	+22	i 21 24	[−25]	30·8	31·9
Baku		−3·5	87·8	312	i 12 40	− 4	23 15	+ 4	—	57·7
Tiflis	E.	−3·5	91·8	313	i 13 8	+ 1	i 23 24	[−15]	e 44·9	57·5
	N.	−3·5	91·8	313	—	—	i 23 54	− 1	e 41·9	55·2
Makeyevka		−3·6	97·1	319	—	—	—	—	19·9	61·3
Kucino		−3·6	97·4	325	13 23	− 14	24 3	[− 7]	44·1	50·9
Sitka	N.	−3·6	97·5	34	—	—	e 24 6	[− 4]	—	42·9
Ksara		−3·6	98·1	304	13 35	− 6	24 45	−16	40·4	—
Pulkovo		−3·7	101·3	330	i 13 47	−11	i 25 8	−24	44·9	59·4
Leningrad		−3·7	101·3	330	13 45	−13	i 24 14	[−16]	—	—
Helwan		−3·7	101·9	299	—	—	—	—		57·8
Helsingfors	E.	—	103·9	331	e 13 54?	−36	e 24 32	[−10]	e 45·9	55·9
	N.	—	103·9	331	e 13 54?	−36	e 24 17	[−25]	e 42·9	53·4
Cape Town		—	104·6	232	17 14	[−49]	24 41	[− 4]	48·8	50·0
Victoria	E.	—	105·3	42	14 9	−27	24 47	[− 2]	33·7	49·0
	N.	—	105·3	42	14 9	−27	26 17	−28	34·1	45·8
Lemberg	E.	—	106·2	319	(e 18 0)	[− 9]	(e 24 24)	[−29]	(e 60·5)	(71·0)
	N.	—	106·2	319	(e 17 42)	[−27]	(e 24 12)	[−41]	—	(69·7)
Berkeley		—	107·1	51	e 14 23	−21	e 24 59	[+ 2]	e 49·4	—
Konigsberg	E.	—	107·3	325	e 14 17	−28	e 26 24	−40	e 46·9	57·9
	N.	—	107·3	325	e 14 18	−27	i 25 0	[+ 2]	e 46·0	49·9
Upsala		—	107·5	332	e 14 14	−32	—	—	e 45·9	66·5
Lick	N.	—	107·7	52	e 14 26	−21	i 24 56	[− 4]	i 44·7	—
Belgrade	N.	—	109·4	315	—	—	—	—	57·2	—
Budapest		—	109·8	319	14 29	−27	(26 2)	? Σ	26·0	55·8
Vienna		—	111·4	320	15 33	+29	26 42	? Σ	e 35·9	55·9
Copenhagen		—	111·5	328	14 31	−34	26 40	? Σ	53·9	68·2
Prague		—	112·2	321	i 19 24	?PR$_3$	e 28 56	?PS	e 45·9	61·9
Graz		—	112·3	319	e 15 52	+44	29 23	?PS	44·9	62·2
Zagreb		—	112·3	316	14 39	−29	i 29 25	?PS	e 48·9	68·6
Potsdam		—	112·3	324	i 19 1	?PR$_3$	i 25 42	[+23]	i 51·8	58·1
Bergen		—	112·9	334	14 47	−24	e 28 54?	+61	—	67·9
Laibach		—	113·2	318	e 18 47	[+15]	—	—	48·9	—
Cheb		—	113·4	322	e 19 32	?PR$_1$	e 28 54	+57	e 47·9	65·6
Hamburg		—	113·6	326	e 14 43	−31	i 27 6	−53	e 51·7	55·9
Pompeii		—	114·5	311	e 18 29	[− 7]	e 28 54	+48	57·9	—
Venice		—	114·8	317	18 55	[+18]	29 54	?PS	—	—
Rocca di Papa	E.	—	115·6	313	e 14 49	−34	e 25 24	[− 7]	58·2	—
	N.	—	115·6	313	e 15 1	−22	e 25 37	[+ 6]	59·2	73·8
Hohenheim		—	115·8	321	e 18 2	[−38]	e 29 22	+66	i 46·6	62·6
Feldberg		—	115·8	323	e 18 54	?PR$_1$	e 26 33	? Σ	e 54·5	59·9
Ravensburg		—	115·9	321	e 15 36	+11	i 29 14	+57	e 45·2	66·1
Florence		—	116·0	314	e 14 54	−31	27 24	? Σ	42·9	60·9
		—	116·0	314	15 24	− 1	29 24	?PS	39·9	—
Zurich		—	116·6	320	e 14 57	−30	29 21	?PS	—	—
Strasbourg		—	116·7	321	i 14 57	−31	i 29 17	+53	47·9	64·9
De Bilt		—	116·8	326	—	—	i 29 37	?PS	e 52·9	60·8

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.
Tucson	E.	—	117·1	57	—	—	i 26 56	? Σ	e 48·9	55·4
	N.	—	117·1	57	—	—	26 54	? Σ	e 47·9	49·6
Jccle		—	117·8	325	15 5	−28	i 29 55	?PS	e 46·9	63·1
Dyce		—	117·8	333	15 1	−32	29 53	?PS	55·8	61·0
Moncalieri	E.	—	118·1	318	15 6	−28	29 48	?PS	45·2	63·7
	N.	—	118·1	318	e 18 40	[− 7]	i 29 48	?PS	44·3	70·9
Besançon		—	118·4	320	e 18 47	[− 1]	29 37	+60	45·9	61·9
Edinburgh		—	119·1	332	e 15 24	−14	i 28 36	− 7	38·9	64·0
Grenoble		—	119·3	319	—	—	—	—	e 51·9	—
Paris		—	119·8	323	e 15 17	−24	i 27 57	? Σ	49·9	59·9
Stonyhurst		—	119·9	330	e 18 56	[+ 4]	30 9	?PS	—	—
Kew		—	120·4	328	e 15 15	−29	28 5	−47	55·9	64·9
Oxford		—	120·5	328	e 15 13	−32	30 8	?PS	—	62·2
Bidston		—	120·5	330	e 19 30	[+36]	30 14	?PS	50·0	67·8
Barcelona		—	123·1	315	19 31	[+31]	—	—	e 52·9	73·0
Algiers		—	124·1	310	—	—	e 28 32	−48	52·9	67·9
Tortosa	N.	—	124·5	315	e 19 0	[− 5]	i 30 52	?PS	53·7	67·1
Alicante		—	126·2	314	19 4	[− 5]	e 37 12	?SR_1	71·1	73·2
Toledo		—	128·0	316	i 19 8	[− 6]	e 37 53	?SR_1	e 52·7	63·6
Almeria		—	128·2	312	i 19 1	[−13]	31 11	?	63·5	67·0
Granada		—	128·9	313	i 15 51	−32	—	—	59·1	73·7
Tacubaya		—	129·5	70	19 2	[−15]	28 6	? Σ	—	62·2
Malaga		—	129·6	313	19 5	[−12]	32 17	?PS	43·3	—
Chicago	E.	—	130·9	38	19 16	[− 5]	26 11	[− 2]	62·0	62·3
	N.	—	130·9	38	19 17	[− 4]	26 16	[− 3]	e 53·1	63·9
St. Louis		—	130·9	42	e 19 15	[− 6]	e 25 58	[−15]	e 55·0	—
San Fernando		—	131·1	314	19 18	[− 3]	—	—	—	93·4
Vera Cruz			132·4	69	13 54	?	—	—	—	—
Ann Arbor		—	132·9	35	e 12 48	?	i 22 48	?	63·7	69·9
Toronto		—	134·4	31	i 19 1	[−28]	—	—	39·9	66·6
Ottawa		—	134·8	26	e 19 22	[− 8]	—	—	i 64·3	67·9
Santiago		—	134·8	153	e 18 37	[−53]	22 47	?PR_1	—	—
Ithaca		—	136·7	30	e 21 59	?PR_1	—	—	e 62·4	—
La Plata		—	137·5	169	19 25	[−10]	—	—	58·4	—
Merida		—	138·0	65	(19 9)	[−27]	(28 39)	? Σ	(40·6?)	—
Pilar	N.	—	139·0	160	23 6	?PR_1	—	—	—	81·8
Fordham		—	139·2	30	e 19 16	[−22]	—	—	e 58·8	68·6
Harvard	E.	—	139·3	25	—	—	e 36 6	?	e 63·9	67·9
	N.	—	139·3	25	19 58	[+20]	e 35 12	?	e 59·9	69·1
Azores		—	142·6	330	20 30	[+46]	—	—	—	40·8
Sucre		—	149·6	147	i 19 46	[− 9]	i 31 4	?	64·1	80·0
La Paz		—	149·9	140	e 19 42	[−14]	i 30 54	? Σ	i 63·9	103·2
Rio de Janeiro	E.	—	149·9	190	i 19 49	[− 7]	—	—	42·9	—
	N.	—	149·9	190	i 19 54	[− 2]	—	—	42·6	—
Port au Prince		—	154·3	60	e 20 20	[+19]	—	—	—	—

Additional readings: Amboina i = +2m.3s. Malabar i = +5m.8s. and +5m.52s. Manila P = +5m.57s. Batavia i = +5m.37s., +6m.14s., and +9m.47s. (entered as S), iS = +10m.8s. = SR_1 − 10s. Perth iP = +6m.19s. Adelaide iPR_1 = +6m.27s., iSR_1 = +11m.58s., iSR_2 = +12m.22s. Riverview iP = +6m.36s., iPR_1 = +7m.33s., PR_2 = +7m.47s., iSR_1 = +13m.54s., SR_2 = +14m.36s., MZ = +16·5m., MN = +17·7m.; T_o = 7h.11m.41s. Taihoku SE = +10m.8s., MN = +19·1m. Melbourne i = +13m.24s. = SR_1 − 16s. Phu-Lien MN = +18·6m. Zi-ka-wei MZ = +17·7m. Nagasaki MN = +19·5m. Hukuoka MN = +17·6m. Matuyama eS = +10m.12s. Sumoto S = +10m.34s., MZ = +14·1m. Kobe MN = +24·1m., MZ = +24·6m. Toyooka P = +9m.43s., PR_1 = +10m.28s., SN = +14m.1s. Wellington iSR_2E = +21m.3s., iSR_2N = +21m.6s., T_oE = 7h.12m.5s., T_oN = 7h.12m.12s. Apia +12m.10s. = PR_1 +19s., +12m.53s. = PR_2 − 18s., +14m.44s., and +18m.19s. Irkutsk e = +17m.36s. Tashkent iP = +11m.34s. Honolulu iPR_1E = +14m.50s., iPR_2E = +16m.49s., eN = +14m.42s., iPSN? = +21m.47s.; T_o = 7h.12m.15s. and 7h.12m.24s. Baku i = +12m.47s. Tiflis eN? = +12m.58s., eE = +13m.0s., ePR_2N = +19m.18s., eSR_1E = +29m.30s., eSR_1N = +30m.36s. Kucino PR_1 = +17m.27s., PR_2 = +20m.21s., $S_4P_4P_4S$ = +24m.34s., PS = +26m.11s., MN = +47·3m. Sitka iS_0P_0SE = +24m.10s., ePSE = +26m.16s., eSR_1N = +31m.53s., eSR_2N = +36m.6s. Ksara PR_2N = +19m.52s., SR_1N = +31m.45s.; T_o = 7h.12m.26s. Pulkovo iPR_1 = +18m.11s., S_4P_4S = +24m.14s. = [−16], $S_4P_4P_4S$ = +24m.44s. = Σ − 34s., PS = +26m.45s., SR_1 = +32m.48s., MN = +51·7m., MZ = +67·3m. Leningrad i = +13m.49s., iPR_1 = +18m.5s., iPR_2 = +20m.55s., iS_4P_4S = +24m.41s. Helsingfors iPR_1 = +17m.30s. = [P] − 31s., eN = +22m.21s.

Continued on next page.

ePSE = +26m.51s., eSR$_1$N = +32m.48s., eSR$_1$E = +33m.54s.?, eSR$_2$N = +36m.54s.? Lemberg readings are increased by 6 mins. Berkeley eSE = +25m.2s. and very many other e readings. Konigsberg ePR$_1$N = + +18m.48s., ePR$_1$E = +21m.1s., iS$_c$P$_c$SE = +24m.58s., S$_c$P$_c$P$_c$S?E = +25m.23s., eSN = +26m.7s., iPSN = +26m.58s., iPPSN = +28m.38s., iPPSE = +29m.28s., SR$_1$N = +33m.13s., SR$_1$E = +33m.48s. Upsala ePR$_1$ = +18m.37s., iN = +26m.2s., iE = +29m.27s., SR$_1$E = +33m.35s., MN = +54·9m. Lick iN = +25m.46s. and +26m.57s. Belgrade ePR$_1$E = +17m.49s. =[P] −31s., eSR$_1$E = +26m.35s. = Σ +27s. Budapest S? = +19m.7s. =PR$_1$ −9s. Vienna iNZ = +18m.6s. =[P] −20s., PR$_1$ = +19m.21s., iE = +20m.59s., PR$_2$ = +21m.46s., iN = +23m.14s., iZ = +27m.27s., PS = +28m.2s., PPS = +28m.29s., iN = +30m.6s. and +35m.38s. =SR$_1$ +38s., iE = +30m.19s. Copenhagen eP = +14m.35s. and +17m.52s., e = +18m.30s. =[P] +4s., ePR$_1$EZ = +19m.9s., ePR$_1$N = +19m.17s., PR$_2$ = +21m.18s., S$_c$P$_c$P$_c$S = +25m.42s., ePSZ = +28m.29s., iPSEN = +28m.45s., eSR$_1$N = +34m.30s., eLqN = +49·9m., MN = +62·1m., MZ = +66·8m. Graz iPR$_1$ = +19m.23s., i = +26m.51s. = Σ +24s., MN = +78·6m. Zagreb eP = +17m.53s. =[P] −36s., iPR$_1$ = +19m.23s., iSPS = +25m.19s. =[S] = +0s., and many i readings. Potsdam i = +19m.13s. = PR$_1$ −21s., e = +28m.45s. =PS −38s. Bergen PR$_1$ = +19m.27s. Cheb e = +14m.46s., MN = +61·5m. Hamburg ePR$_1$E = +19m.21s., iPR$_1$Z = +19m.33s., eZ = +28m.44s., eLN = +46·6m., MN = +60·9m. Venice (Vicentini) PN = +19m.10s., PE = +19m.36s. =PR$_1$ −14s. Rocca di Papa PR$_1$E = +18m.23s. =[P] −16s., PR$_1$N = +18m.27s. =[P] −12s., iE = +18m.41s., iN = +18m.46s. Hohenheim eN = +18m.24s. =[P] −16s., iPR$_1$E = +19m.44s., ePR$_2$ = +22m.6s., eS$_c$P$_c$SE = +25m.30s. =[S] −1s., iSR$_1$ = +35m.44s., MN = +47·4m. Feldberg gives very many other e readings. Ravensburg iPR$_1$? = +19m.38s., ePR$_2$N = +22m.34s., iS$_c$P$_c$S = +25m.20s., iPS = +30m.46s., iSR$_1$ = +35m.38s., MN = +65·1m. Florence PR$_1$ = +19m.44s. Zurich eP = +18m.27s. =[P] −15s., iPR$_1$ = +19m.44s., S$_c$P$_c$S = +25m.26s., PPS = +31m.11s. Strasbourg iPR$_1$ = +19m.43s., iPS = +30m.57s., MN = +67·6m., MZ = +83·9m. De Bilt iPR$_1$Z = +19m.51s., MN = +63·8m., MZ = +75·8m.; epicentre 6°·7S. 131°·2E. Tucson ePR$_1$E = +19m.35s., ePR$_1$N = +19m.54s., eN = +20m.28s., S$_c$P$_c$SE = +25m.36s., ePSE = +29m.37s., eSR$_1$N = +35m.48s., eSR$_2$N = +39m.30s., eSR$_2$E = +40m.24s. Uccle e = +18m.20s. =[P] −29s., PR$_1$ = +19m.52s., i = +27m.3s. = Σ +2s. and +29m.55s. =PS −26s., MN = +64·0m. Dyce PR$_1$ = +20m.10s. Moncalieri iN = +19m.2s., iE = +19m.4s. Edinburgh PR$_2$ = +25m.41s. =[S] −2s. Grenoble ePR$_1$ = +19m.3s. =[P] +16s., i = +20m.17s. =PR$_1$ −2s., SR$_1$ = +36m.14s. Paris PR$_1$ = +20m.16s., MN = +60·9m. Kew PZ = +18m.52s. =[P] −1s., PR$_1$ = +20m.17s. PS = +30m.6s., MN = +66·0m., MZ = +78·8m. Oxford iPR$_1$ = +20m.4s. =PR$_1$ −23s. Bidston SR$_1$ = +36m.45s. Barcelona eL = +43·8m., MN = +72·8m. Algiers MN = +79·9m. Tortosa ePE = +18m.12s. Alicante PR$_1$ = +21m.20s., MZ = +75·3m. Toledo PR$_1$NW = +19m.17s., iZ = +21m.5s. =PR$_1$ −11s., MNW = +62·0m. Almeria PR$_1$ = +20m.58s., PS = +32m.22s., SR$_1$ = +35m.13s. Granada iP = +19m.8s. =[P] −8s., PR$_1$ = +21m.14s., i = +23m.21s., and +45m.57s., PR$_2$ = +24m.24s. Chicago ePR$_1$E = +21m.30s., ePR$_1$N = +21m.36s., iS$_c$P$_c$PE = +22m.30s., iS$_c$P$_c$PN = +22m.33s., iE = +23m.9s., iN = +23m.11s., iS$_c$P$_c$P$_c$SN = +28m.12s., iS$_c$P$_c$P$_c$SE = +28m.17s., iPS$_c$P$_c$SN = +31m.22s., iPS$_c$P$_c$SE = +31m.24s., ePSN = +31m.36s., ePSE = +31m.42s., eSR$_1$E = +38m.0s., eSR$_1$N = +38m.12s., iSR$_2$E = +43m.48s., iSR$_2$N = +43m.53s. St Louis ePR$_1$E = +21m.34s., iS$_c$P$_c$P$_c$S = +28m.14s., ePSE = +31m.21s., ePPS = +33m.12s., eSR$_1$N = +38m.52s., eSR$_2$E = +43m.49s., eSR$_2$E? = +46m.58s., eLN = +55·1m., and several e readings. San Fernando MN = +77·9m. Ann Arbor eE = +21m.36s. =PR$_1$ −13s., iSR$_1$ = +28m.30s. = Σ −1s., iSR$_2$ = +32m.24s.; T$_o$ =7h.12m.48s. Toronto iE =eN = +19m.19s. =[P] −9s., MN = +68·2m., and many other i and e readings. Ottawa gives many e and i readings. Ithaca i = +22m.47s. = PR$_1$ +24s., and +28m.50s. = Σ −3s., e = +40m.4s. =SR$_1$ −9s., and +44m.48s. Merida, all readings increased by 1m. Pilar PE = +23m.12s., ME = +84·5m. Fordham iPR$_1$ = +23m.1s., i = +23m.46s., and +32m.54s., PR$_2$ = +29m.15s. = Σ −7s., PS = +34m.46s., PPS = +35m.54s., SR$_1$ = +41m.31s., SR$_2$ = +50m.16s. Harvard iPR$_1$E = +23m.12s., iPR$_1$N = +23m.22s., iPR$_2$ = +29m.14s. = Σ −5s., ePSN = +33m.20s., eSRN$_1$ = +40m.50s., eSR$_2$E = +46m.16s., iSR$_2$N = +47m.26s. Sucre iP = +19m.52s., iPR$_1$ = +24m.19s., SR$_1$ = +43m.22s., SR$_2$? = +48m.28s., L = +71·6m. La Paz iP = +19m.47s., PR$_1$E = +24m.16s., PR$_2$ = +27m.49s., PPS = +38m.9s., SR$_1$ = +44m.15s., SR$_2$ = +50m.18s., SR$_3$ = +55m.12s. Port au Prince iP = +20m.54s.

June 3d. Readings also at 0h. (Leningrad), 2h. (Sucre and near La Paz), 4h. (Tortosa), 7h. (near Balboa Heights), 9h. (Pompeii, Rocca di Papa, Toledo, Tiflis, and Ekaterinburg), 11h. (near Kobe), 12h. (Colombo), 13h. (Tortosa and Uccle), 17h. (Agana), 18h. (Wellington), 19h. (Prague, Irkutsk, and near Manila), 20h. (Baku, Ekaterinburg, Copenhagen, Irkutsk, Makeyevka, and Tashkent).

June 4d. Readings at 1h. (Tiflis), 2h. (Apîa), 3h. (Ekaterinburg, Tashkent, Baku, and Tiflis), 6h. (Wellington), 7h. (Ekaterinburg and Tashkent), 9h. (Ekaterinburg), 11h. (La Paz and Ekaterinburg), 14h. (Wellington), 17h. (Denver), 18h. (Tiflis), 19h. (La Paz), 20h. (Apia, Baku, Ksara, Tashkent, and Tiflis).

June 5d. 8h. 24m. 48s. Epicentre 36°·5N. 31°·0E.

$A = +\cdot689$, $B = +\cdot414$, $C = +\cdot595$; $D = +\cdot515$, $E = -\cdot857$; $G = +\cdot510$, $H = +\cdot306$, $K = -\cdot804$.

(The epicentre 36°·8N. 30°·0E. was adopted on 1926 March 1d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Ksara		4·8	122	1 19	+ 5	2 12	+ 1	—	—
Helwan		6·7	177	1 38	− 4	e 2 42	−20	—	3·3
Belgrade		11·5	319	e 2 48	− 4	e 6 16	+69	e 6·7	7·0
Tiflis		11·9	60	e 2 24	−34	—	—	—	6·7
Pompeii		13·5	293	e 3 35	+15	e 7 35	?L	(e 7·6)	—
Naples		13·7	294	e 3 49	+27	e 7 19	?L	(e 7·3)	—
Budapest		14·1	324	3 34	+ 7	—	—	e 7·7	9·9
Lemberg		14·2	341	e 3 24	− 5	e 6 18	+ 5	e 8·1	9·4
Zagreb		14·6	314	4 40	+66	i 8 13	?L	(i 8·2)	9·9
Rocca di Papa	N.	15·1	294	e 3 39	− 1	e 6 39	+ 5	e 9·1	11·0
Baku		15·3	69	e 3 49	+ 6	i 6 49	+10	8·2	10·5
Graz		15·6	317	e 3 52	+ 5	7 5	+19	8·2	9·5
Laibach		15·6	313	e 3 54	+ 7	i 9 10	?L	(i 9·2)	—
Vienna		15·9	322	i 3 56	+ 5	7 42	+49	—	9·7
Florence	N.	16·7	302	4 10	+ 9	7 29	+18	9·2	10·2
	Z.	16·7	302	4 7	+ 6	7 29	+18	10·2	12·1
Innsbruck	N.W.	18·1	313	i 4 18	0	i 8 1	+19	e 16·0	—
Prague		18·1	324	i 4 27	+ 9	e 8 10	+28	e 10·5	12·2
Cheb		19·1	321	e 4 35	+ 5	e 8 19	+15	e 10·2	13·2
Ravensburg	E.	19·4	312	i 4 34	0	i 8 22	+12	i 10·5	11·3
Moncalieri		19·5	303	4 48	+13	8 22	+ 9	10·7	15·2
Konigsberg	E.	19·7	342	e 4 41	+ 4	i 8 22	+ 5	e 10·3	13·2
	N.	19·7	342	e 4 40	+ 3	i 8 30	+13	—	14·2
Zurich		19·8	310	i 4 41	+ 2	e 8 30	+11	—	—
Kucino		19·8	12	i 4 39	0	8 18	− 1	10·3	14·5
Hohenheim		20·0	315	i 4 44	+ 3	i 8 24	+ 1	—	12·1
Potsdam		20·3	327	i 4 45	0	i 8 53	+24	e 11·8	—
Strasbourg		20·8	313	i 4 51	0	i 8 44	+ 4	10·2	14·2
Grenoble		20·9	303	e 4 58	+ 6	e 8 53	+11	—	—
Besançon		21·3	308	i 4 58	+ 1	8 55	+ 5	14·2	—
Hamburg		22·5	326	i 5 9	− 2	i 9 15	0	e 11·2	13·2
Barcelona		22·9	291	i 5 13	− 3	e 9 3	−20	e 12·2	12·3
Copenhagen		23·0	332	i 5 14	− 3	9 25	0	13·2	—
Pulkovo		23·3	359	i 5 19	− 1	i 9 29	− 2	12·2	14·3
Leningrad		23·5	359	i 5 2	− 2	9 32	− 3	11·6	16·7
Uccle		23·8	315	i 5 22	− 4	i 9 36	− 4	e 12·2	16·4
De Bilt		24·0	319	5 24	− 4	e 9 37	− 7	e 11·6	15·0
Helsingfors		24·0	353	e 5 25	− 3	e 9 48	+ 4	13·9	—
Paris		24·1	310	i 5 24	− 5	e 9 40	− 6	14·2	—
Tortosa	N.	24·1	290	5 22	− 7	9 42	− 4	e 12·5	—
Upsala		24·9	344	e 5 33	− 4	e 10 2	+ 1	e 15·2	17·4
Almeria		26·6	281	5 54	0	e 10 33	0	e 15·4	22·6
Kew		26·7	314	i 5 48	− 7	e 10 20	−15	12·2	18·0
Oxford		27·4	314	i 5 52	−10	i 10 30	−18	e 14·2	18·5
Toledo		27·6	288	e 5 57	− 7	i 10 37	−15	e 12·2	20·1
Ekaterinburg		28·3	35	i 6 6	− 5	i 10 50	−14	14·2	20·2

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Malaga		28·3	281	6 2	− 9	10 41	−23	14·2	—
Stonyhurst		28·8	318	e 5 21	−55	—	—	15·2	—
Tashkent		29·9	69	i 6 17	−10	i 11 0	−22	15·0	17·4
Edinburgh		30·1	321	e 6 18	−11	e 11 15	−21	17·2	21·4
Dyce		30·2	324	—	—	11 49	+12	—	22·4
Irkutsk		52·3	48	—	—	—	—	30·2	—
Ottawa		74·9	316	—	—	e 21 27	+ 2	e 33·2	—
Victoria	E.	92·0	343	—	—	—	—	48·6	56·8
La Paz		106·9	262	14 7	−37	—	—	—	—

Additional readings: Ksara P = +1m.28s., PR_1N = +2m.21s., PR_2 = +2m.42s., SR_1N = +3m.9s. Belgrade MN = +7·4m. Tiflis e = +3m.24s. and +4m.42s. Lemberg MN = +6·9m. Zagreb iPR_1 = +5m.2s., iPR_2 = +5m.9s., iPR_3 = +5m.19s., iSR_1 = +9m.47s., and several other i readings. Rocca di Papa ePZ = +3m.46s., iP = +3m.49s., PR_1 = +3m.58s., eSE = +6m.47s. Baku i = +5m.24s., MN = +9·9m., MZ = +12·0m. Graz MN = +9·1m. Vienna PR_1 = +4m.31s., iN = +5m.29s., and +6m.23s., iE = +5m.49s., SR_1 = +8m.50s., SR_2 = +8m.58s. Ravensburg iSR_1E = +8m.44s. Moncalieri ePZ = +4m.38s., SZ = +9m.5s., MN = +12·8m. Konigsberg ePR_1N = +5m.1s., ePR_1E = +5m.3s., iZ = +5m.52s., +6m.12s., +6m.43s., and +7m.17s., SR_1E = +8m.39s., SR_1Z = +8m.40s.; epicentre 36°·8N. 30°·5E. Kucino ePR_1 = +4m.57s., e = +5m.55s., SR_1 = +8m.50s., MZ = +14·7m.; epicentre 36°24′N. 32°26′E. Hohenheim i = +4m.55s., iPR_1N = +5m.38s., iE = +6m.0s., i = +6m.52s., iN = +8m.59s. Strasbourg PR_2 = +5m.17s., PR_3 = +5m.20s., SR_1 = +9m.18s., SR_2 = +9m.24s., SR_3 = +9m.29s., MN = +12·7m. Hamburg MZ = +16·2m. Barcelona SR_1 = +10m.22s., MN = +16·0m. Copenhagen eZ = +5m.36s., eE = +7m.14s. Pulkovo MN = +15·5m., MZ = +15·6m. Leningrad MN = +17·9m. Uccle MN = +14·2m. De Bilt MN = +14·1m., MZ = +16·8m. Helsingfors iP = +5m.39s., ePR_1 = +6m.25s., $eP_1P?$ = +9m.24s. eSR_1 = +11m.37s. Tortosa PE = +5m.24s. Upsala MN = +16·5m. Almeria PR_1 = +6m.59s., MN = +17·7m., MZ = +18·6m. Kew MN = +15·7m. Oxford MN = +16·4m. Ekaterinburg i = +11m.16s. and +11m.32s., MN = +22·2m. Tashkent ePR_1 = +6m.48s., iPR_2 = +7m.32s., i = +11m.14s., iSR_1 = +12m.34s., iSR_2 = +12m.46s., MN = +17·5m., MZ = +20·1m. Irkutsk failed to record from June 4d.20h.56m. to 5d.8h.55m. Ottawa eN = +27m.6s. = SR_1 + 5s.

June 5d. 17h. 29m. 36s. Epicentre 28°·0S. 69°·0W. (as on 1926 Oct. 28d.).

$$A = +·316,\ B = -·824,\ C = -·469.$$

An increase of 36 sec. in T_0 would bring P and S into accord if La Paz S is 1 min. in error, but the Δ's would all be too large, and no reasonable assumption of abnormal focus is available to reduce them.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Santiago	5·6	194	1 25	− 2	1 55	−39	2·4	—
Sucre	9·6	22	2 34	+10	4 11	− 7	—	—
La Paz	11·5	4	e 2 3	+10	i 5 54	+47	7·3	8·2
La Plata	11·7	129	2 49	− 6	—	—	6·1	—

No additional readings.

June 5d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 1d. :—

h.	m.	s.	
2	26	40	T

June 5d. Readings also at 1h. (Suva, Sucre, La Paz (2), and Ekaterinburg), 3h. (La Paz), 4h. (Tashkent and Copenhagen), 6h. (La Paz (2) and Sucre), 8h. (La Paz), 10h. (Tiflis). 11h. and 12h. (Makeyevka), 14h. (La Paz, Naples (2), Pompeii, and Rocca di Papa), 15h. (Rocca di Papa and near Sumoto), 16h. (La Paz, Sucre, and Tiflis), 20h. (Amboina), 21h. (Ekaterinburg), 22h. (Phu-Lien and Irkutsk), 23h. (Hong Kong, Tashkent, Copenhagen, Tiflis, Baku, Pulkovo, Leningrad, Ekaterinburg, La Paz, and Sucre).

June 6d. 3h. 23m. 12s. Epicentre 24°·0N. 124°·0E. (as on 1926 Aug. 20d.).

A = −·511, B = +·757, C = +·407; D = +·829, E = +·559; G = −·228, H = +·337, K = −·914.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Taihoku	2·5	294	1 45	+66	—	—	2·0	2·4
Zi-ka-wei	7·5	343	e 1 56	+ 2	3 33	+ 9	—	—
Hong Kong	9·2	262	—	—	—	—	—	5·9
Phu-Lien	16·4	262	e 3 58	+ 1	e 7 6	+ 2	8·0	—
Tashkent	48·3	305	8 51	− 5	e 15 39	−19	e 22·8	26·1
Ekaterinburg	55·6	324	—	—	—	—	24·8	29·8
Baku	63·0	307	—	—	—	—	e 32·4	—
Makeyevka	69·8	315	—	—	e 20 22	− 2	41·8	—
Pulkovo	71·2	326	e 11 34	+10	—	—	34·8	45·1
Leningrad	71·2	326	—	—	—	—	e 36·8	45·1
Copenhagen	81·6	329	—	—	—	—	39·8	—
De Bilt	87·2	327	—	—	—	—	e 41·8	—
Granada	101·4	320	—	—	—	—	55·8	58·3

Additional readings and notes: Taihoku MN = +2·1m. Tashkent e = +9m.38s., ePR_1 = +10m.42s., ePR_2 = +10m.58s., eSR_1 = +18m.48s., e = +24m.48s. Granada readings have been increased by 1h.

June 6d. 5h. 35m. 28s. Epicentre 8°·0N. 128°·0E. (as on 1922 June 2d.).

A = −·610, B = +·780, C = +·139; D = +·788, E = +·616; G = −·086, H = +·110, K = −·990.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	9·5	314	e 2 24	+ 1	(i 4 36)	+20	i 4·6	—
Zi-ka-wei	24·0	346	5 22	− 6	9 37	− 7	—	—
Phu-Lien	24·3	304	e 5 21	−10	e 9 20	−30	11·5	—
Batavia	25·5	237	5 40	− 3	—	—	—	—
Tashkent	61·4	313	i 10 23	+ 2	i 18 55	+14	e 31·5	37·7
Ekaterinburg	71·0	328	—	—	e 20 53	+15	36·5	—
Baku	75·8	310	e 11 58	+ 4	e 21 58	[+ 3]	40·5	58·0
Tiflis N.	79·7	311	e 12 26	+ 9	e 22 32	+12	e 39·5	46·5
Makeyevka	84·1	319	e 12 40	− 3	e 23 13	+ 4	40·5	52·8
Pulkovo	87·0	330	12 57	− 2	e 23 21	[+12]	44·5	53·5
Leningrad	87·0	330	12 57	− 2	e 23 22	[+13]	47·1	58·8
Copenhagen	97·3	330	—	—	e 24 37	[+28]	e 50·5	—
De Bilt	102·7	328	—	—	—	—	e 53·5	55·5
Strasbourg	103·1	322	—	—	—	—	e 55·5	—
Paris	105·9	325	—	—	—	—	e 62·5	—
Granada	116·1	318	—	—	—	—	e 66·5	73·2

Additional readings: Tashkent e = +10m.28s., PS = +19m.9s., eSR_1 = +22m.32s., MZ = +39·1m. Tiflis eE = +14m.50s. and +24m.50s., ME = +52·5m. Makeyevka MN = +44·8m., MZ = +52·3m. Pulkovo MN = +49·0m., MZ = +54·5m. Leningrad MZ = +55·9m., MN = +59·3m. Copenhagen eLN = +48·5m.

June 6d. 12h. 29m. 8s. Epicentre 8°·0S. 135°·0E. (as on 1926 March 25d.).

A = −·700, B = +·700, C = −·139; D = +·707, E = +·707; G = +·098, H = −·098, K = −·990.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	26·6	328	e 6 52	+58	—	—	—	—
Riverview	30·2	153	—	—	e 10 58	−39	16·4	—
Hong Kong	36·5	326	14 41	?	—	—	—	23·4
Phu-Lien	40·1	315	—	—	14 52?	+44	—	—
Zi-ka-wei	41·3	343	e 8 2	− 3	e 14 34	+ 9	—	—
Irkutsk	65·7	340	e 10 59	+10	e 19 37	+ 4	e 31·9	—
Honolulu T.H. E.	71·9	64	—	—	e 16 28	?PR_2	e 24·9	—

Continued on next page.

		Δ °	Az. °	P. m. s.	O−C. s.	S. m. s.	O−C. s.	L. m.	M. m.
Tashkent		77·6	316	i 12 12	+ 7	i 22 50	+54	e 38·9	44·3
Ekaterinburg		88·3	328	i 12 44	−23	i 23 11	[− 6]	38·9	47·7
Baku		91·5	312	e 17 54	?PR_1	—	—	—	—
Tiflis		95·5	313	—	—	e 24 11	[+11]	52·9	55·1
Victoria	E.	103·7	41	—	—	—	—	40·5	54·5
Pulkovo		104·3	330	—	—	—	—	e 16·9	—
Leningrad		104·3	330	—	—	—	—	53·9	—
Copenhagen		114·6	328	19 10	?PR_1	—	—	52·9	—

Additional readings: Riverview e = +11m.58s. =S +21s. Honolulu T.H. eLN = +25·3m. Tashkent iPPS = +24m.2s., eSR_2 = +33m.10s., e = +38m.48s., MZ = +50·0m. Tiflis e = +27m.27s.

June 6d. 18h. 24m. 6s. Epicentre 30°·2S. 179°·0W. (as on 1924 August 10d.).

A = −·864, B = −·015, C = −·503; D = −·017, E = +1·000; G = +·503, H = +·009, K = −·864.

Identification uncertain.

		Δ °	Az. °	P. m. s.	O−C. s.	S. m. s.	O−C. s.	L. m.	M. m.
Wellington	E.	12·2	202	i 4 30	+88	i 5 19	− 5	—	8·4
	N.	12·2	202	i 4 44	+102	i 5 33	+ 9	—	9·6
Suva		12·3	348	i 6 42?	?	i 11 30?	—	—	13·9
Christchurch		14·9	204	—	—	—	—	e 5·5	21·9
Riverview		25·5	254	5 42	− 1	—	—	e 12·1	13·3
Sydney	E.	25·5	254	5 6	−37	10 24	+11	12·5	14·9
Adelaide		35·8	252	e 10 12?	?	15 28	?	18·4	25·1
Honolulu, T.H.	N.	55·4	25	—	—	e 17 36	+10	e 29·9	—
Manila		73·1	300	e 11 45	+ 8	—	—	—	—
Batavia		73·2	274	11 35	− 2	—	—	—	—
Hong Kong		82·9	300	23 17	?S	(23 17)	?Σ	—	—
Zi-ka-wei		83·4	313	i 12 39	+ 1	e 24 18	+77	—	48·6
Phu-Lien		87·8	295	e 13 1	− 3	—	—	—	—
Tucson	E.	89·9	50	e 13 12	− 3	e 23 36	[+ 9]	—	—
Victoria		93·0	34	23 55	?S	(23 55)	[+ 9]	43·6	46·4
La Paz		98·7	116	e 13 56	− 8	i 24 24	[+ 7]	43·9	48·3
Sucre		99·5	119	—	—	—	—	46·9	—
Irkutsk		106·0	321	e 14 23	−16	—	—	50·9	64·6
Chicago	E.	110·5	51	—	—	(e 29 12)	?PS	e 54·1	—
Rio de Janeiro	E.	112·1	136	—	—	—	—	e 55·1	—
Ann Arbor	E.	113·4	52	—	—	—	—	e 61·7	—
Cape Town		113·8	195	—	—	—	—	—	69·9
Bombay		114·8	279	—	—	—	—	e 63·9	—
Toronto	N.	116·8	51	—	—	e 30 4	?PS	60·4	—
Ottawa		119·8	50	—	—	e 22 54?	?	60·9	—
Tashkent		124·9	301	i 19 7	[+ 1]	31 7	?PS	e 56·9	69·2
Ekaterinburg		131·3	321	19 23	[+ 1]	—	—	52·9	81·8
Baku		139·3	299	19 32	[− 6]	—	—	e 68·9	82·5
Tiflis		143·2	300	e 19 40	[− 5]	e 30 6	?	e 67·9	79·1
Kucino		143·6	325	19 38	[− 8]	—	—	72·1	83·1
Leningrad		144·4	334	i 19 46	[− 1]	33 18	?	65·9	85·9
Pulkovo		144·5	334	i 19 43	[− 4]	33 15	?	63·9	80·4
Helsingfors		146·0	339	e 19 48	[− 2]	—	—	e 68·9	79·9
Makeyevka		146·7	313	i 19 52	[+ 1]	—	—	47·9	85·3
Upsala		148·3	344	e 19 50	[− 3]	e 23 27	?PR_1	e 78·9	—
Ksara	N.	150·3	285	20 3	[+ 7]	—	—	75·9	—
Dyce		152·9	4	20 25	[+25]	e 33 15	?	e 76·9	89·2
Copenhagen		153·2	346	e 19 58	[− 2]	—	—	e 79·9	87·0
Edinburgh		154·2	5	—	—	—	—	e 83·9	—
Hamburg		155·7	347	e 20 2	[− 1]	—	—	e 75·9	—
De Bilt		157·9	353	20 5	[− 1]	—	—	e 75·9	92·0
Oxford		158·4	356	—	—	—	—	e 81·9	91·9
Cheb		158·4	340	—	—	—	—	e 85·9	92·2
Vienna	Z.	158·5	331	e 20 2	[− 4]	—	—	—	—
Kew		158·7	2	e 20 6	[− 1]	e 32 24	?	76·9	—
Uccle		159·2	354	20 5	[− 2]	e 30 7	?	e 75·9	—
Graz		159·8	330	—	—	—	—	e 83·9	—
Strasbourg		160·9	346	i 20 6	[− 3]	—	—	—	75·9
Paris		161·3	357	i 20 12	[+ 3]	—	—	80·9	92·9
Zurich		161·9	343	e 20 9	[0]	e 24 24	?PR_1	—	—
Florence		164·2	332	e 20 54	[+43]	—	—	—	65·9

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Moncalieri	E.	164·3	342	e 35 30	?	47 45	?	57·4	—
Pompeii		164·8	318	e 25 16	?PR_1	—	—	—	—
Rocca di Papa		165·1	324	e 19 51	[−21]	e 23 8	—	—	43·1
Tortosa	N.	169·4	2	e 20 21	[+ 7]	—	—	e 42·9	—
Toledo	N.E.	169·5	22	e 20 13	[− 1]	—	—	—	—
San Fernando		171·3	42	—	—	31 36	?Σ	85·4	103·9
Alicante		171·8	8	e 19 56	[−20]	—	—	—	—
Malaga		172·1	33	e 20 10	[− 6]	30 56	?	—	—
Granada		172·1	28	i 20 21	[+ 5]	—	—	79·9	105·9
Almeria		172·8	22	20 20	[+ 4]	—	—	—	100·1

Additional readings: Suva iPN = +7m.18s., iSR_2N = +12m.24s. Riverview MN = +16·6m. Adelaide MN = +19·9m. Honolulu T.H., eN = +16m.30s. and +25m.24s. Batavia i = +16m.46s. =PR_2+10s. Tucson eE = +16m.48s. =PR_1−17s. Victoria SN = +31m.5s. =SR_1−5s., SE = +31m.13s. =SR_1+3s. La Paz PS = +24m.54s. = Σ−48s., SR_2 = +32m.30s. =SR_1+9s., MN = +57·2m. Irkutsk e = +18m.1s. =[P]−7s., and +29m.29s., MZ = +64·2m. Chicago eN = +57m.6s., S is given as ePSE. Ann Arbor eLN = +63·4m. Toronto eN = +36m.24s. = SR_1+16s. Ottawa e = +30m.14s. =PS−28s., eLN? = +50·9m. Tashkent iPR_1 = +23m.44s. =PR_2−41s., PR_2 = +26m.30s. =PR_2−11s., i = +28m.14s. = Σ+31s., $S_4P_4P_4S$ = +30m.26s., ePS = +33m.5s., S_4P_4SP = +33m.54s., eSR_1 = +42m.42s. =SR_2−47s., eSR_2 = +46m.54s.?, MN = +67·5m., MZ = +80·5m. Ekaterinburg i = +19m.36s., PR_1 = +21m.43s., P_4P_4S = +22m.46s., i = +23m.4s. and +23m.11s., PPS = +34m.13s., eSR_1 = +40m.38s., MZ = +70·8m., MN = +74·9m. Baku iPR_2 = +25m.35s., e = +30m.10s., ePPS = +35m.48s., e = +38m.14s., eSR_1 = +43m.8s. Kucino ePR_1 = +22m.53s., eP_4P_4S = +23m.16s., e = +23m.38s., MN = +81·8m., MZ = +82·1m. Leningrad PR_1 = +23m.1s., MZ = +85·6m. Pulkovo PR_1 = +22m.58s., SR_1 = +41m.54s., MN = +84·6m., MZ = +85·4m. Helsingfors iPZ = +19m.51s., ePEN = +19m.52s., eE = +23m.17s. = PR_1+5s. Makeyevka e = +21m.5s., e$S_4P_4P_4S$ = +30m.32s., eS_4P_4SP = +33m.31s., ePPS = +36m.33s., MN = +80·0m., MZ = +92·2m. Copenhagen e = +20m.12s., +20m.27s., + 23m.54s. =PR_1−4s., and +25m.6s., eN = +38m.54s.?, eLN = +72·9m. De Bilt iZ = +24m.22s. =PR_1−3s., e = +34m.36s., MN = +88·8m., MZ = +91·8m. Vienna iPZ = +20m.4s. = [P]−2s. Strasbourg PR_1 = +24m.36s. San Fernando PR_1 = +20m.30s. =[P]+15s., MN = +102·9m. Granada i = +21m.51s., +22m.50s., and +25m.40s. =PR_1−7s. Almeria e = +25m.32s. = PR_1−18s., i = +29m.31s. =PR_1−17s., MN = +90·0m., MZ = +97·8m.

June 6d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E., of June 5d.:—

h.	m.	s.		h.	m.	s.	
0	12	10	T	18	12	35	T
1	45	8	T				

June 6d. Readings also at 4h. (Irkutsk and Tashkent), 9h. (La Plata and La Paz), 11h. (Ekaterinburg and Irkutsk), 12h. (Ekaterinburg), 15h. (Ekaterinburg, Melbourne, and Tashkent), 16h. (Rocca di Papa), 17h. (La Paz, near Batavia, and Malabar), 19h. (La Paz (2) and Kodaikanal), 20h. (Tiflis).

June 7d. 2h. 58m. 24s. Epicentre 14°·5N. 145°·5E. (as on 1921 Dec. 16d.).

A = −·798, B = +·548, C = +·250; D = +·566, E = +·824; G = −·206, H = +·142, K = −·968.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Tashkent	70·2	309	i 11 20	+ 2	e 20 36	+ 8	e 33·6	46·7
Ekaterinburg	75·1	327	i 11 48	− 2	21 19	− 8	34·6	—
Baku	84·8	310	e 12 43	− 4	e 23 11	− 6	e 43·1	—
Tiflis	88·2	313	—	—	e 23 27	[+11]	e 47·0	57·0
Makeyevka	90·5	320	—	—	e 23 39	[+ 8]	57·6	61·3
Copenhagen	100·0	336	—	—	—	—	50·6	—
Moncalieri	109·3	330	e 20 28	?PR_1	e 26 16	−66	28·4	—
La Paz	147·5	98	e 19 53	[+ 1]	—	—	—	—

Additional readings and notes: Tashkent e = +11m.22s. Makeyevka e = +52m.36s.? Is Moncalieri one minute too large? then P = PR_1+14s. and S = [S]+9s..

June 7d. 9h. 36m. 25s. Epicentre 9°·8N. 126°·2E. (as on 1925 Dec. 26d.).

$A = -\cdot582$, $B = +\cdot795$, $C = +\cdot170$; $D = +\cdot807$, $E = +\cdot591$; $G = -\cdot101$, $H = +\cdot137$, $K = -\cdot985$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		7·0	314	e 2 5	+19	—	—	i 5·3	6·2
Hong Kong		17·0	319	4 7	+ 2	—	—	—	—
Phu-Lien		21·8	302	4 35?	−28	—	—	—	—
Batavia		25·0	231	i 5 39	+ 1	—	—	—	—
Irkutsk		46·1	343	e 8 33	− 8	e 15 18	−11	e 26·6	—
Tashkent		58·9	314	i 10 9	+ 5	18 16	+ 6	e 30·6	34·2
Ekaterinburg		68·6	328	i 11 13	+ 5	i 20 16	+ 7	32·6	38·7
Baku		73·3	310	e 11 42	+ 4	e 21 16	+10	38·9	45·2
Tiflis	E.	77·1	311	e 12 9	+ 7	e 21 54	+ 4	e 49·1	50·7
Pulkovo		84·5	330	i 12 40	− 5	e 23 3	−11	51·6	—
Leningrad		84·5	330	e 12 42	− 3	e 23 6	− 8	49·6	59·4
Copenhagen		94·8	329	—	—	—	—	49·6	—
De Bilt		100·3	326	—	—	—	—	e 55·6	—

Additional readings: Manila MN = +6·0m. Irkutsk ePR_1 = +10m.24s. Tashkent MZ = +37·8m. Baku MN = +41·8m. Tiflis eN = +21m.46s.

June 7d. 15h. 14m. 15s. Epicentre 50°·0N. 170°·0W. (as on 1924 July 8d.).

$A = -\cdot633$, $B = -\cdot112$, $C = +\cdot766$; $D = -\cdot174$, $E = +\cdot985$; $G = -\cdot754$, $H = -\cdot133$, $K = -\cdot643$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Victoria	N.	30·0	75	11 29	?S	(11 29)	− 5	14·0	14·9
Honolulu T.H.	E.	30·2	157	—	—	—	—	e 14·3	—
Ottawa		59·2	55	—	—	—	—	e 31·8	—
Ekaterinburg		65·3	333	i 10 52	+ 5	19 32	+ 3	32·8	—
Leningrad		68·8	350	—	—	—	—	e 39·3	—
Pulkovo		69·0	350	i 11 12	+ 1	—	—	—	—
Tashkent		75·0	320	i 11 50	+ 1	e 22 23	− 3	e 37·7	47·3
Baku		83·1	331	12 38	+1	e 22 56	− 2	43·8	46·5
Tiflis	N.	83·4	336	—	—	—	—	e 55·7	56·5

Additional readings: Honolulu T.H. eLN = +17·8m. Tashkent MZ = +46·9m., S is given as e simply. Baku MN = +55·1m.

June 7d. 23h. 4m. 20s. Epicentre 32°·7N. 120°·7E. (as on 1927 Feb. 3d.).

$A = -\cdot430$, $B = +\cdot724$, $C = +\cdot540$; $D = +\cdot860$, $E = +\cdot511$; $G = -\cdot276$, $H = +\cdot465$, $K = -\cdot842$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Hong Kong		11·8	211	—	—	—	—	—	12·5
Phu-Lien		17·3	230	—	—	—	—	9·7	—
Irkutsk		22·9	334	—	—	e 9 17	− 6	11·2	—
Ekaterinburg		47·0	321	8 49	+ 2	15 42	+ 1	19·2	—
Baku		55·9	302	—	—	—	—	e 24·7	—
Tiflis	E.	59·2	305	—	—	—	—	e 26·3	—
Makeyevka		61·8	314	—	—	—	—	e 27·8	—
Copenhagen		72·7	327	—	—	—	—	33·7	—
De Bilt		78·4	326	—	—	—	—	e 37·7	—

Irkutsk gives also i = +10m.10s. = PR_1 − 1s.

June 7d. Readings also at 1h. (Moncalieri, near Tacubaya, Oaxaca, and Vera Cruz), 7h. (La Paz), 11h. (Manila), 13h. (Ekaterinburg), 14h. (Baku, Manila, Tashkent, and La Paz (2)), 17h. (Rocca di Papa and near Taihoku), 19h. (near La Paz).

June 8d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 6d. :—

h.	m.	s.		h.	m.	s.	
3	50	58	T	22	58	50	T
13	15	42	T				

June 8d. Readings also at 0h. (Ekaterinburg, Taihoku, Tashkent, and Santiago), 2h. (Ekaterinburg), 4h. (Irkutsk), 5h. (Baku, Copenhagen, Tashkent, and Ekaterinburg), 7h. (near La Paz and Sucre), 8h. and 12h. (La Paz), 20h. (Agana, Baku, and Tiflis), 21h. (Malaga).

June 9d. 3h. 23m. 42s. Epicentre 39°·3N. 142°·4E.

A = −·613, B = +·472, C = +·633 ; D = +·610, E = +·792 ; G = −·502, H = +·386, K = −·774.

The epicentre 39°·0N. 143°·5 (1923 Feb. 5d.) was tried.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	E.	1·0	261	0 23	+ 8	0 37	+ 9	—	—
	N.	1·0	261	0 24	+ 9	0 38	+10	—	—
Nagoya		6·0	229	e 1 26	− 6	(2 29)	−15	2·5	3·1
Osaka		7·2	233	1 55	+ 6	(3 19)	+ 4	3·3	4·1
Kobe		7·4	234	e 2 7	+15	—	—	—	5·6
Sumoto		7·8	233	1 52	− 6	(3 13)	−18	3·2	3·8
Irkutsk		29·1	309	—	—	—	—	e 15·3	—
Ekaterinburg		53·8	319	i 9 31	− 1	17 9	+ 3	28·3	35·9
Tashkent		54·1	299	i 9 29	− 5	17 9	− 1	e 27·3	33·8
Kucino		65·5	324	—	—	—	—	e 35·0	—
Leningrad		66·2	329	—	—	—	—	e 38·7	—
Pulkovo		66·4	329	i 11 56	+62	—	—	36·3	42·1
Baku		67·4	305	—	—	—	—	36·3	42·8
Makeyevka		69·9	317	—	—	—	—	36·9	44·3
Copenhagen		75·9	335	—	—	—	—	42·3	—
De Bilt		81·3	336	—	—	—	—	e 43·3	—

Additional readings: Osaka MN = +4·0m. Sumoto MZ = +4·0m. Ekaterinburg MN = +29·9m., MZ = +36·0m. Tashkent eSR_2 = +24m.54s., MN = +33·4m. Baku MNZ = +43·2m. Makeyevka MZ = +45·2m.

June 9d. 11h. 36m. 30s. Epicentre 22°·0N. 120°·5E. (as on 1926 Sept. 12d.).

A = −·471, B = +·799, C = +·375 ; D = +·862, E = +·508 ; G = −·190, H = +·323, K = −·927.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Taihoku	N.	3·2	18	1 8	+18	—	—	1·8	2·9
Hong Kong		5·9	274	3 3	?L	—	—	(3·0)	6·1
Manila		7·4	176	e 2 9	+17	(3 33)	+12	3·6	—
Zi-ka-wei		9·2	5	e 2 34	+15	—	—	—	—
Phu-Lien		13·0	267	e 3 9	− 4	—	—	—	—
Irkutsk		32·7	342	—	—	e 14 19	?SR_1	e 20·5	—
Tashkent		46·9	310	i 8 43	− 3	e 15 41	+ 1	e 23·0	27·5
Ekaterinburg		55·4	325	(i 9 46)	+ 4	(e 17 34)	+ 8	(30·5)	—
Pulkovo		71·2	329	i 11 27	+ 3	—	—	41·5	47·1
Leningrad		71·2	329	—	—	—	—	41·8	47·2
De Bilt	Z.	87·0	326	—	—	—	—	e 55·5	—
Strasbourg		87·6	322	—	—	—	—	49·5	—

Tashkent gives also e = +19m.23s. = SR_1 +15s. Ekaterinburg readings have been increased by 10m.

June 9d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 8d. :—

h.	m.	s.		h.	m.	s.	
10	24	37	T	16	21	46	T

June 9d. Readings also at 4h. (Matuyama), 6h. (near Malabar), 8h. (Ksara and Rocca di Papa), 9h. (near La Paz), 15h. (Irkutsk (2)), 17h. (near Merida and near Nagasaki), 22h. (Ekaterinburg and Ottawa), 23h. (Tashkent).

June 10d. 17h. 8m. 12s. Epicentre 1°·0S. 79°·0W. (as on 1924 July 22d.).

A = +·191, B = −·981, C = −·017 ; D = −·982, E = −·191 ;
G = −·003, H = +·017, K = −1·000.

There is no indication of depth of focus as was found for 1924 July 22d.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
La Paz		18·8	146	4 22	− 5	i 7 50	− 8	9·2	12·1
Sucre		22·5	144	i 5 2	− 9	i 9 8	− 7	11·6	16·8
La Plata		39·2	152	7 32	−16	13 22	−32	19·8	—
Chicago		43·4	351	—	—	—	—	e 24·1	26·8
Toronto	N.	44·6	0	—	—	e 15 11	+ 1	30·2	—
Ottawa	E.	46·5	4	—	—	i 15 40	+ 5	e 22·8	—
Victoria		62·5	330	21 13	?	—	—	31·9	39·6
Malaga		78·2	52	12 24	+16	21 20	−42	—	—
Granada		79·0	52	i 12 19	+ 6	i 22 26	+14	39·8	45·4
Almeria		79·9	52	12 24	+ 6	22 38	+16	e 38·9	—
Tortosa	N.	82·7	49	e 12 40	+ 6	—	—	e 37·8	55·1
Edinburgh		82·9	33	—	—	i 23 6	+10	—	—
Kew		83·7	38	i 12 44	+ 4	e 23 6	0	41·8	—
Paris		85·2	41	i 12 52	+ 3	—	—	42·8	—
Uccle		86·5	40	e 12 56	0	e 22 53	[−13]	e 41·8	—
De Bilt		87·1	38	13 2	+ 2	e 23 27	−15	e 41·8	47·5
Strasbourg		88·5	42	e 13 7	− 1	23 48	−10	40·8	—
Hamburg		90·2	37	—	—	e 24 48?	+32	e 47·8	—
Cheb		91·6	40	e 24 0	?S	(e 24 0)	−31	e 47·8	54·8
Copenhagen		91·6	35	—	—	e 24 30	− 1	47·8	—
Rocca di Papa		91·9	48	e 13 26	0	24 29	− 5	e 44·5	—
Cape Town		95·7	125	—	—	—	—	—	56·8
Pulkovo		100·4	28	—	—	e 26 12	+12	48·8	56·4
Kucino		105·6	31	—	—	e 25 9	[+19]	48·3	57·5
Makeyevka		108·4	39	—	—	e 25 21	[+18]	38·8	60·4
Ekaterinburg		115·6	23	e 20 2	?PR_1	29 49	?PS	47·8	—
Baku		119·3	42	—	—	e 24 40	[−63]	61·0	69·4
Irkutsk		128·6	358	—	—	—	—	e 42·8	—
Tashkent		130·6	30	i 19 23	[+ 3]	—	—	e 63·8	71·0

Additional readings: La Paz iPR_1 = +4m.32s. ; T_o =7h.8m.12s. ; epicentre 2°·0S. 80°·5W. Chicago ePR_1N = +10m.0s., eSR_1E = +18m.18s. Ottawa eE = +18m.38s. =SR_1 − 22s., eN = +19m.48s.? =SR_2 − 24s. Granada i = +13m.31s. and +15m.16s. =PR_1 − 26s. De Bilt MN = +47·2m., MZ = +47·7m. Rocca di Papa eE = +12m.55s. Kucino e = +28m.12s. = PS +4s. and +34m.23s. =SR_1 +35s., MN = +57·3m. Makeyevka e = +28m.35s. =PS −5s., MN = +68·0m. Baku e = +35m.29s., +43m.16s., and +52m.27s., MZ = +69·1m., MN = +69·8m. Tashkent eP = +22m.48s. e = +25m.18s. =PR_2 +11s., +28m.42s. = Σ +24s., +41m.0s., and +50m.48s.?, MN = +71·6m.

June 10d. 18h. 13m. 24s. Epicentre 47°·5N. 137°·0E.

A = −·494, B = +·461, C = +·737 ; D = +·682, E = +·731 ;
G = −·539, H = +·503, K = −·676.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	E.	8·9	159	2 5	−10	3 33	−28	—	—
Osaka		12·9	186	3 17	+ 5	(5 50)	+ 8	5·8	7·2
Sumoto		13·2	188	3 18	+ 2	(5 56)	+ 7	5·9	6·0
Zi-ka-wei		20·2	222	e 5 53	+70	e 11 11	?L	(e 11·2)	—
Irkutsk		21·4	295	i 6 17	+79	—	—	e 7·6	—
Ekaterinburg		45·2	312	i 8 29	− 5	i 15 9	− 9	—	—
Tashkent		47·2	289	i 8 48	0	i 15 48	+ 4	—	—
Tiflis	E.	61·9	302	e 10 24	0	e 18 49	+ 2	—	—

Additional readings: Mizusawa SN = +3m.31s. Osaka MN = +6·3m. Zi-ka-wei gives P as e and L as S. Irkutsk e = +6m.32s. Tashkent e = +8m.49s.

June 10d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 9d.

h.	m.	s.		h.	m.	s.	
13	52	36	T	18	35	34	T

June 10d. Readings also at 2h. (Moncalieri), 3h. and 4h. (Tiflis), 9h. (near Tacubaya), 18h. (Tiflis), 20h. (Manila and Tashkent), 21h. (La Paz), 22h. (Taihoku and near Malabar).

June 11d. 2h. 32m. 6s. Epicentre 1°·0S. 130°·5E. (as on 1925 Nov. 10d.).

A = −·649, B = +·760, C = −·017; D = +·760, E = +·649; G = +·011, H = −·013, K = −1·000.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina		3·5	220	i 2 17	+82	i 2 56	+79	—	—
Manila		18·2	329	e 4 20	+ 1	—	—	i 9·2	11·4
Malabar		23·7	254	i 5 23	− 2	—	—	—	—
Batavia		24·2	257	i 5 22	− 8	i 9 55	+ 7	—	—
Taihoku	N.	27·4	342	e 6 8	+ 6	(11 52)	+64	11·9	—
Hong Kong		28·2	327	5 54	−16	—	—	—	11·5
Phu-Lien		31·9	313	e 6 32	−14	(11 39)	−28	11·6	—
Zi-ka-wei		33·3	347	i 6 42	−17	e 11 35	−54	—	17·3
Perth		33·9	203	e 6 44	−20	i 12 19	−20	e 16·4	16·4
Adelaide		34·8	170	e 6 59	−12	e 12 34	−18	e 15·7	23·6
Riverview		38·1	152	e 9 0	?PR_1	—	—	e 22·0	25·3
Sydney	E.	38·2	152	11 42	?	—	—	21·1	24·2
Wellington	N.	56·7	141	—	—	—	—	e 29·6	—
Irkutsk		57·6	342	9 53	− 3	e 17 33	−21	29·9	—
Bombay		59·9	293	e 18 24	?S	(e 18 24)	+ 2	—	—
Tashkent		69·5	316	i 11 15	+ 1	i 20 22	+ 2	e 32·9	45·3
Honolulu T.H.		73·1	68	—	—	21 24	+21	—	—
Ekaterinburg		79·9	329	i 12 14	− 4	22 12	−10	30·9	—
Baku		83·5	312	i 12 36	− 3	i 23 17	+14	43·4	53·4
Tiflis	E.	87·4	313	e 12 53	− 8	23 35	−10	e 40·9	53·3
	N.	87·4	313	e 13 1	0	23 46	+ 1	e 40·6	—
Kucino		92·2	326	e 13 48	+20	25 0	+23	46·3	—
Makeyevka		92·4	319	e 13 17	−12	23 52	[+10]	44·9	59·8
Pulkovo		96·0	330	e 13 31	−18	e 24 52	−24	52·9	71·8
Helsingfors		98·5	331	15 54?	+111	—	—	e 51·9	57·9
Upsala	E.	102·1	333	—	—	—	—	e 58·9	—
Copenhagen		106·2	329	—	—	e 24 42	[−11]	51·9	—
Cheb		108·4	323	e 18 54?	?PR_1	e 27 54?	+40	—	46·9
Hamburg		108·4	327	e 17 54?	[−22]	—	—	e 56·9	—
Strasbourg		110·8	323	e 19 12	?PR_1	—	—	i 36·7	—
Rocca di Papa		111·1	314	e 19 55	?PR_1	—	—	—	28·5
De Bilt		111·7	327	e 19 26	?PR_1	e 28 48	?PS	e 58·9	73·6
Uccle		112·7	326	—	—	e 28 54?	?PS	e 56·9	—
Moncalieri	E.	113·3	319	e 19 28	?PR_1	(28 48)	+52	28·8	—
Edinburgh		113·7	333	—	—	—	—	e 35·9	—
Paris		114·7	325	e 20 2	?PR_1	e 29 28	?PS	62·9	68·9
Kew		114·9	330	e 18 54?	[+16]	e 28 54?	+45	62·9	—
Oxford		115·2	220	—	—	26 33	−99	e 67·9	72·9
Tortosa	N.	119·8	317	—	—	—	—	e 41·9	84·4
Granada		124·4	315	e 20 43	?PR_1	i 38 9	?SR_1	71·4	73·1
Ottawa		129·9	23	(21 39)	?PR_1	—	—	(e 57·9)	—
La Paz		154·6	134	20 46	[+44]	—	—	—	—

Additional readings and notes: Manila MN = +12·4m. Batavia iP = +5m.25s. Perth eP = +6m.57s. Adelaide MN = +22·6m. Riverview MN = +25·0m. Sydney S = +15m.54s. = SR_1 − 14s. Wellington eE = +33m.6s. Irkutsk eSR_1 = +22m.31s. Tashkent iPR_1 = +13m.46s., iPS = +20m.58s., eSR_1 = +24m.54s., SR_2 = +27m.54s., MN = +39·9m. Ekaterinburg i = +12m.17s., iPR_1 = +15m.17s., e = +27m.26s. Baku PS = +24m.47s., iSR_1 = +29m.49s., iSR_1 = +33m.13s., MN = +59·6m., MZ = +63·5m. Tiflis SR_2N = +29m.35s. = SR_1 − 21s. Kucino ePR_1 = +17m.30s., ePR_2 = +19m.30s., S_1P_4S = +24m.30s., PS = +26m.6s., SR_1 = +31m.18s., SR_2 = +35m.18s. Makeyevka PR_1 = +18m.11s., S_1P_4S = +23m.52s., PPS = +25m.44s., SR_1 = +30m.59s., MN = +53·0m., MZ = +69·5m. Pulkovo MZ = +63·8m. Copenhagen eEN = +28m.0s. = PS − 15s. De Bilt MN = +67·3m., MZ = +73·9m. Ottawa readings have been diminished by 1 min, e = (+38m.30s.) = SR_1 − 19s., eN = (+42m.54s.)?

June 11d. 2h. 49m. 25s. Epicentre 1°·0S. 130°·5E. (as at 2h. 32m.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina		3·5	220	i 2 14	+79	i 2 57	+80	—	—
Manila		18·2	329	e 4 18	− 1	—	—	i 10·1	—
Malabar		23·7	254	i 5 19	− 6	—	—	—	—
Batavia	z.	24·2	257	i 5 23	− 7	i 10 18	+30	—	—
Hong Kong		28·2	327	—	—	—	—	—	11·6
Irkutsk		57·6	342	9 54	− 2	—	—	—	—
Ekaterinburg		79·9	329	i 12 14	− 4	22 12	−10	—	—
Cheb		108·4	323	—	—	—	—	e 42·6	58·6
La Paz		154·6	134	20 13	[+11]	—	—	—	—

Batavia iZ = +5m.21s. =P −9s. Ekaterinburg i = +15m.14s. =PR_1 −35s.

June 11d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 10d. :—

h.	m.	s.	
23	52	25	T

June 11d. Readings also at 3h. (Amboina), 4h. (Wellington), 5h. (Ekaterinburg), 8h. (Chicago, Ottawa, and Tucson (2)), 10h. (Sydney), 12h. (Manila and Sydney), 13h. (Ekaterinburg and Tashkent), 14h. (Sydney), 15h. (La Paz), 18h. (Tucson).

June 12d. 8h. 20m. 0s. Epicentre 37°·5N. 134°·5E. (as on 1921 Oct. 10d.).

A = −·556, B = +·566, C = +·609 ; D = +·713, E = +·701 ;
G = −·425, H = +·434, K = −·793.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Toyooka	1·0	173	(0 46)	+15	—	—	0·7	—
Osaka	2·9	165	0 52	+ 7	(1 26)	+ 6	1·4	1·4
Kobe	2·9	169	0 30	−15	(1 7)	−13	1·0	1·1
Nagoya	3·1	140	e 0 52	+ 3	(1 30)	+ 4	1·4	1·5
Sumoto	3·2	174	e 0 49	− 1	(1 27)	− 1	1·4	1·4

No additional readings.

June 12d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 11d. :—

h.	m.	s.	
19	3	30	T

June 12d. Readings also at 0h. (Tiflis), 2h. (De Bilt, Uccle, Strasbourg, Tashkent, Granada, and Ottawa), 3h. (La Paz), 6h. (near Belgrade), 11h. (Makeyevka), 12h. (Batavia), 13h. (Ekaterinburg and Tashkent), 16h. (Tashkent and Tiflis), 20h. (Ekaterinburg), 21h. (La Paz).

June 13d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 12d. :—

h.	m.	s.	
17	46	9	T

June 13d. Readings also at 6h. (near Belgrade), 7h. (Ekaterinburg and Tashkent), 8h. (Pulkovo), 11h. (Makeyevka), 12h. (Apia), 14h. (Batavia), 15h. (near La Paz and Sucre), 17h. (Toronto), 22h. (Moncalieri).

June 14d. 0h. 35m. 15s. Epicentre 26°·3N. 121°·5E. (as on 1927 April 28d.).

A = −·468, B = +·764, C = +·443 ; D = +·853, E = +·522 ;
G = −·231, H = +·378, K = −·896.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Taihoku	E.	1·3	179	0 14	− 6	(0 26)	−10	0·4	0·5
Hong Kong		7·8	240	—	—	—	—	—	4·4
Phu-Lien		14·7	251	4 45?	+70	—	—	—	—
Irkutsk		29·0	338	e 6 9	− 9	—	—	e 18·8	—
Tashkent		45·2	305	—	—	e 15 17	− 1	e 24·8	29·5
Ekaterinburg		52·4	323	9 28	+ 6	—	—	31·8	—
Baku		59·8	305	—	—	—	—	e 35·4	—
Tiflis	N.	63·3	308	—	—	e 18 43	−22	—	19·4
Leningrad		68·0	328	—	—	—	—	40·0	—
Pulkovo		68·1	328	e 8 49	?	—	—	e 35·8	—
Copenhagen		78·4	328	—	—	—	—	—	41·8
De Bilt		84·0	326	—	—	—	—	e 46·8	—
Strasbourg		84·6	324	—	—	—	—	e 49·8	—
Uccle		85·1	325	—	—	—	—	e 46·8	—
Rocca di Papa		85·4	315	—	—	—	—	e 46·2	70·0

Additional readings: Irkutsk e = +6m.25s., +7m.23s., and +16m.47s. Tiflis readings have been diminished by 1h. Rocca di Papa e = +59m.45s. and +68m.3s.

June 14d. 4h. 2m. 12s. Epicentre 43°·2N. 147°·2E. (as on 1925 Feb. 3d.).

A = −·613, B = +·395, C = +·685 ; D = +·542, E = +·841 ;
G = −·575, H = +·371, K = −·729.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa		6·2	230	1 42	+ 7	2 55	+ 6	—	—
Zi-ka-wei		23·6	248	5 23	− 1	9 40	+ 4	—	15·8
Irkutsk		29·8	303	e 7 21	?PR_1	e 11 37	+ 6	16·8	19·3
Ekaterinburg		53·3	318	i 9 26	− 2	—	—	29·3	—
Tashkent		55·5	297	i 9 42	− 1	i 17 26	− 2	e 27·1	36·3
Kucino		64·5	324	—	—	e 20 18	[−11]	34·6	42·9
Leningrad		64·7	330	e 10 42	− 1	—	—	31·6	40·8
Pulkovo		64·8	330	e 10 43	− 1	e 19 17	− 6	32·8	41·8
Helsingfors		66·4	333	—	—	—	—	e 5·8	—
Baku		68·1	306	e 11 8	+ 3	e 20 11	+ 8	35·8	43·8
Makeyevka		69·6	319	i 11 16	+ 1	e 20 48?	?PS	39·8	44·1
Tiflis		70·3	310	e 11 21	+ 2	e 20 29	− 1	e 39·1	48·8
Copenhagen		74·0	336	—	—	e 21 6	− 8	39·8	—
Hamburg		76·5	335	e 11 54	− 4	—	—	e 44·8	—
Prague		78·1	331	—	—	—	—	e 41·8	57·8
Cheb		78·8	332	—	—	—	—	e 41·8	47·8
Vienna	Z.	78·9	330	i 11 8	−64	—	—	—	—
De Bilt		79·2	338	12 10	− 4	22 6	− 8	e 36·8	43·4
Uccle		80·6	338	—	—	e 22 20	−10	e 38·8	—
Kew		81·2	341	—	—	e 22 27	−10	43·8	—
Strasbourg		81·6	334	e 12 24	− 4	—	—	40·8	—
Paris		82·9	338	e 12 30	− 5	e 22 45	−11	47·8	53·8
Ottawa		83·6	28	—	—	—	—	e 40·8	—
Tortosa	N.	90·7	336	18 26	?PR_1	24 15	− 6	e 32·8	—
Granada		95·3	338	—	—	—	—	e 52·8	61·3

Additional readings: Irkutsk e = +14m.31s. Tashkent eSR_4 = +21m.48s., MN = +35·0m., MZ = +36·4m. Kucino e = +21m.54s. and +27m.54s. = SR_4 +3s., MN = +42·2m. Leningrad MZ = +41·8m., MN = +43·1m. Pulkovo MN = +39·4m., MZ = +41·9m. Baku MZ = +44·5m., MN = +44·6m. Copenhagen eN = +36m.36s. De Bilt eLN = +38·8m., MN = +51·5m., MZ = +61·6m.

June 14d. 4h. 44m. 36s. Epicentre 43°·2N. 147°·2E. (as at 14d. 4h. 2m.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	6·2	230	1 44	+ 9	2 54	+ 5	—	—
Irkutsk	29·8	303	—	—	—	—	17·4	19·3
Ekaterinburg	53·3	318	—	—	—	—	29·4	—
Kucino	64·5	324	—	—	—	—	36·4	—
Leningrad	64·7	330	—	—	—	—	29·4	—
Pulkovo	64·8	330	—	—	—	—	35·4	—
Makeyevka	69·6	319	i 11 16	+ 1	(19 24?)	−57	19·4	48·1
De Bilt	79·2	338	12 11	− 3	—	—	e 39·4	—

De Bilt eLN = +40·4m.

June 14d. 9h. 23m. 52s. Epicentre 6°·5N. 127°·0E. (as on 1926 Dec. 21d.).

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 6·3	—
Hong Kong	20·1	323	4 40	− 2	8 21	− 4	9·8	—
Batavia	23·8	238	e 5 27	+ 1	i 9 41	+ 1	i 10·8	—
Phu-Lien	24·4	308	e 5 25	− 7	e 9 34	−18	11·6	—
Tashkent	61·8	315	e 10 26	+ 2	i 19 15	?PS	e 31·1	36·2
Ekaterinburg	71·8	329	(e 11 38)	−10	(e 20 46)	− 2	(32·1)	(38·3)
Baku	76·0	311	e 12 0	+ 5	e 21 37	0	37·6	42·7
Kucino	84·2	325	—	—	—	—	40·9	45·8
Makeyevka	84·5	319	e 13 0	+15	e 23 3	−11	40·1	46·7
Leningrad	87·7	330	—	—	—	—	e 47·2	57·9
Pulkovo	87·8	330	13 3	− 1	23 30	−20	41·1	54·6
Strasbourg	103·7	325	—	—	—	—	e 54·1	—
Uccle	104·5	327	—	—	—	—	e 50·1	—
Paris	106·6	326	—	—	—	—	e 57·1	58·1
Kew	106·6	329	—	—	—	—	e 64·1	—
Granada	116·6	317	—	—	—	—	66·1	—

Additional readings and notes: Batavia gives its three readings as simply e, i and i respectively. Irkutsk (Δ = 49°·4) failed to register from 8h.30m. to 14h.30m. Tashkent i = +12m.51s., MN = +34·9m., MZ = +35·7m. Ekaterinburg readings have been increased by 1 min., i = (+20m.59s.), e = (+29m.7s.) = SR_2 − 1s. Baku MN = +41·9m. Makeyevka ePS = +24m.11s., eSR_1 = +28m.13s., MN = +47·4m., MZ = +54·8m. Leningrad MN = +59·2m., MZ = +59·6m. Pulkovo MN = +48·4m., MZ = +56·5m.

June 14d. 17h. 16m. 45s. Epicentre 51°·0S. 140°·0E.

A = −·482, B = +·405, C = −·777 ; D = +·643, E = +·766 ;
G = +·595, H = −·500, K = −·629.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Adelaide		16·1	356	i 3 51	− 2	i 6 50	− 7	7·2	7·7
Riverview		19·0	29	e 4 31	+ 2	e 8 6	+ 4	e 9·4	10·2
Sydney	E.	19·0	29	4 27	− 2	7 57	− 5	9·6	11·0
Wellington	E.	25·7	82	5 42	− 3	i 10 11	− 5	—	16·5
	N.	25·7	82	i 5 42	− 3	i 10 8	− 8	10·8	11·4
Perth		26·1	308	i 5 40	− 9	i 10 15	− 9	11·8	13·8
Suva		44·7	58	i 9 21	+50	—	—	i 24·8	28·8
Batavia		52·5	318	i 9 25	+ 2	i 18 45	[−10]	e 26·2	—
Apia		53·7	65	e 9 40	+ 9	—	—	28·4	29·6
Manila		67·7	340	e 11 9	+ 7	—	—	—	—
Hong Kong		76·8	336	—	—	—	—	—	41·8
Phu-Lien		77·6	328	e 12 8	+ 3	e 21 56	0	36·2	—
Cape Town		80·8	227	22 43	?S	(22 43)	+10	38·7	47·7
Kodaikanal		81·5	298	40 15	?L	—	—	50·2	60·6
Zi-ka-wei		83·8	346	e 12 31	−10	—	—	43·4	50·7

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Hyderabad		87·0	304	—	—	—	—	—	47·4
Honolulu T.H.		90·5	56	—	—	—	—	e 42·2	45·2
Bombay		91·2	299	e 13 21	− 1	23 44	[+ 9]	43·9	52·4
La Plata		92·7	166	—	—	—	—	52·2	—
Simla	E.	98·9	310	—	—	—	—	e 50·8	—
Entebbe		100·9	256	25 51	?S	(25 51)	−13	—	—
Rio de Janeiro	E.	106·0	176	—	—	—	—	e 43·5	—
Irkutsk		107·6	337	e 17 2	[−72]	e 28 7	?PS	e 47·2	—
Tashkent		110·9	310	e 17 58	[−27]	—	—	e 51·2	70·9
Baku		120·2	297	e 20 24	?PR_1	30 25	?PS	e 51·2	69·7
Ksara	N.	124·0	282	e 20 15?	?PR_1	—	—	60·2	—
Ekaterinburg		125·9	317	e 20 4	?PR_1	—	—	52·2	70·8
Victoria	E.	129·0	57	22 46	?PR_1	38 51	?SR_1	—	65·3
Makeyevka		131·7	298	e 19 27	[+ 5]	—	—	61·2	72·0
Kucino		135·7	307	e 23 9	?PR_1	—	—	66·4	78·2
Pulkovo		141·1	310	e 19 39	[− 2]	—	—	64·2	81·7
Leningrad		141·2	310	e 23 22	?PR_1	—	—	62·0	80·6
Rocca di Papa		143·3	275	e 20 58	[+72]	—	—	i 44·3	94·2
Helsingfors		143·7	310	e 18 59	[−47]	—	—	68·6	78·6
Vienna		144·2	289	19 46	[− 1]	—	—	—	97·2
Florence		145·3	277	e 19 38	[−11]	27 55	?	—	—
Venice		145·4	280	20 7	[+18]	—	—	—	—
Algiers		146·4	262	e 20 12	[+22]	—	—	—	85·2
Chicago	E.	146·5	87	—	—	—	—	e 75·6	—
Innsbruck	N.W.	146·8	283	e 19 53	[+ 2]	—	—	—	—
Upsala		147·3	308	e 20 15?	[+23]	—	—	e 77·2	—
Moncalieri		148·1	276	20 14	[+21]	30 44	?Σ	60·2	88·7
Zurich		148·6	280	e 19 59	[+ 5]	—	—	—	—
Copenhagen		149·1	299	e 20 1	[+ 7]	—	—	71·2	—
Strasbourg		149·6	284	e 19 56	[+ 1]	—	—	68·2	—
Almeria		149·9	257	20 12	[+16]	—	—	e 71·9	73·8
Hamburg		149·9	295	e 19 58	[+ 2]	—	—	e 74·2	—
Tortosa	N.	150·4	266	e 19 54	[− 2]	—	—	e 47·2	84·0
Granada		150·8	256	i 20 5	[+ 8]	—	—	71·2	83·0
San Fernando		151·9	252	—	—	—	—	76·2	88·2
De Bilt		152·3	290	e 20 7	[+ 8]	—	—	e 73·2	91·4
Uccle		152·4	287	e 20 7	[+ 8]	—	—	e 69·2	—
Toronto	E.	152·7	90	—	—	—	—	e 75·7	—
Toledo	N.E.	152·7	260	e 20 30	[+30]	—	—	—	84·8
Paris		152·9	282	e 30 9	?Σ	—	—	77·2	90·2
Kew		155·4	287	e 20 21	[+19]	—	—	75·2	—
Ottawa		155·8	89	e 17 51	?	e 44 3	?SR_1	80·2	—
Oxford		156·1	287	i 22 36	?	—	—	e 78·4	96·4
Dyce		157·2	301	—	—	—	—	—	101·0
Edinburgh		157·8	297	e 23 15?	?	—	—	e 75·2	101·2

Additional readings: Adelaide MN = +8·2m. Riverview iP = +4m.35s., MN = +10·0m., MZ = +10·7m. Suva eN = +9m.27s. Batavia i = +11m.23s. = PR_1 − 18s., +12m.21s. = PR_2 − 12s., and +16m.37s. = S − 13s. Zi-ka-wei ePS? = +27m.59s. Honolulu, T.H. eLN = +42·8m. Simla eN = +49m.45s. Entebbe S = +32m.37s. = SR_1 − 12s. Rio de Janeiro eLN = +43·4m. Irkutsk ePR$_1$ = +21m.16s. = PR_2 − 46s., e = +25m.8s. = [S] +9s., eSR_1 = +33m.46s. Tashkent i = +20m.26s., e = +25m.15s. = [S] − 1s., i = +28m.44s. = PS − 24s., e = +34m.42s. = SR_1 − 12s., and +38m.27s., MZ = +60·9m., MN = +65·5m. Baku MN = +65·4m., MZ = +68·0m. Ekaterinburg e = +26m.56s. = PR_2 +5s., +29m.44s. = S +12s., +31m.29s. = PS − 14s., and +36m.50s. Makeyevka e = +21m.41s. = PR_1 +1s., i = +22m.52s. Kucino e = +24m.39s., +26m.27s. = [S] +5s., +34m.15s., and +39m.39s. = SR_1 +22s., MN = +78·8m. Pulkovo MN = +77·4m., MZ = +81·5m. Leningrad MN = +87·8m. Helsingfors eZ = +20m.27s., eE = +28m.33s., and +41m.3s. = SR_1 − 34s. Copenhagen eN = +20m.15s.? eEN = +42m.15s.? = SR_1 − 26s. Almeria i = +24m.25s. Granada i = +20m.29s., +21m.19s., +22m.38s., +24m.38s., and +26m.3s. = [S] − 33s. San Fernando MN = +84·2m. De Bilt MN = +81·2m., MZ = +100·4m. Toledo MNW = +86·6m. Ottawa eN = +49m.45s. = SR_2 − 35s.

June 14d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 13d. :—

h.	m.	s.		h.	m.	s.	
1	16	22	T	23	28	1	T
18	7	21	T				

June 14d. Readings also at 0h. (near Zurich), 8h. (Ekaterinburg, Batavia, and near Malabar), 9h. (near San Juan and Port au Prince), 11h. (Edinburgh and Tashkent), 18h. (Apia), 19h. (Granada and Tiflis), 20h. (Tiflis).

June 15d. 6h. 46m. 10s. Epicentre 35°·5N. 48°·0E. (as on 1924 Nov. 12d.).

A = +·545, B = +·605, C = +·581 ; D = +·743, E = −·669 ; G = +·389, H = +·432, K = −·814.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Baku		5·1	17	—	—	e 2 41	+21	e 5·8	—
Tiflis	N.	6·6	338	e 1 37	− 4	e 2 39	−21	—	—
Ksara	N.	10·1	264	e 2 18	−13	4 6	−26	5·5	—
Tashkent		17·6	65	—	—	—	—	e 13·3	19·2
Ekaterinburg		23·0	18	e 5 28	+11	e 9 31	+ 6	12·3	—

Additional readings and note: Baku e = +3m.43s. and +4m.7s. Tiflis eN = +2m.25s. All readings except those for Ksara are given simply as e.

June 15d. Readings also at 7h. (Pulkovo, Leningrad, and Ekaterinburg), 8h. (Ekaterinburg), 10h. (Ekaterinburg and Manila), 12h. (Wellington), 15h. (Tiflis), 23h. (Leningrad).

June 16d. 2h. 40m. 12s. Epicentre 6°·0N. 99°·5E.

A = −·164, B = +·981, C = +·105 ; D = +·986, E = +·165 ; G = −·017, H = +·103, K = −·995.

Very uncertain.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia		14·3	149	i 4 31	+61	—	—	i 9·0	—
Bombay		29·0	299	—	—	e 10 48?	−29	—	—
Zi-ka-wei		32·5	38	e 6 48	− 5	e 15 58	?L	(e 16·0)	24·5
Tashkent		44·4	328	e 8 25	− 4	i 15 1	− 6	i 19·1	—
Baku		56·0	317	—	—	e 17 35	+ 1	—	—
Ekaterinburg		59·2	337	—	—	i 18 23	+10	24·3	—
Tiflis	E.	60·1	317	—	—	(e 18 6)	−18	e 18·1	18·4
Vienna	Z.	80·9	318	12 51	+27	—	—	—	—
La Paz		164·0	228	20 7	[− 4]	—	—	—	—

Additional readings and notes: Batavia readings are given as iE and iN. Tashkent i = +18m.1s. = SR_1 −17s. Ekaterinburg i = +19m.47s. = [S] −2s. and +20m.51s.

June 16d. Readings also at 1h., 5h., and 6h. (La Paz), 9h. (near Sumoto), 12h. (Ekaterinburg), 14h. (Agana), 15h. (Makeyevka, near La Paz, and Sucre), 18h. (Ekaterinburg, Irkutsk, Tashkent, and La Paz), 22h. (La Paz).

June 17d. 6h. 4m. 0s. Epicentre 3°·0S. 101°·0W.

A = −·191, B = −·980, C = −·052 ; D = −·982, E = +·191 ; G = +·010, H = +·051, K = −·999.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tacubaya		22·5	5	4 58	−13	9 26	+11	11·0	13·0
Vera Cruz		22·7	12	(4 52)	−21	(9 4)	−15	(9·4)	(12·3)
La Paz		35·0	117	e 7 13	0	i 12 54	− 1	16·0	20·0
Sucre		38·5	119	—	—	11 27	−138	16·4	19·4
Toronto	E.	50·5	20	—	—	e 16 20	− 5	28·3	—
La Plata		51·1	135	—	—	—	—	25·2	—
Ottawa		53·3	23	—	—	i 17 2	+ 2	e 27·0	32·0
Victoria		54·9	344	16 54	?S	(16 54)	−26	24·4	30·1

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Honolulu T.H.	E.	60·6	298	—	—	—	—	e 26·9	28·7
	N.	60·6	298	—	—	—	—	e 26·7	30·5
Azores		80·3	51	74 12	?	—	—	—	—
Wellington	E.	83·6	230	—	—	—	—	e 37·2	—
Granada		97·7	53	—	—	—	—	47·5	50·5
Uccle		102·0	38	—	—	—	—	e 50·0	—
De Bilt		102·2	37	—	—	—	—	e 51·0	—
Copenhagen		105·5	31	—	—	—	—	57·0	—
Pulkovo		112·2	23	—	—	—	—	e 56·0	—
Makeyevka		122·9	30	—	—	—	—	74·0	—
Irkutsk		126·4	340	—	—	—	—	e 62·0	—
Tiflis	N.	130·7	34	—	—	—	—	89·6	110·6
Baku		134·3	30	—	—	—	—	e 70·5	80·2
Tashkent		140·7	10	e 20 5	[+25]	—	—	e 70·0	87·1

Additional readings and note : Vera Cruz readings have been increased by 5m. La Paz i = +8m.49s. Toronto iN = +16m.23s. Victoria LN = +27·1m. Baku MN = +78·9m. Tashkent e = +40m.53s. =SR_1 −8s., +59m.0s.? and +65m.0s.?, MZ = +78·2m., MN = +86·4m.

June 17d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 14d. :—

h.	m.	s.		h.	m.	s.	
9	29	59	T	22	2	18	T
17	50	28	T	22	3	38	T

June 17d. Readings also at 2h. (Baku, Tashkent, Ekaterinburg, Irkutsk, Mizusawa, and La Paz (2)), 7h. (Budapest), 8h. (Baku, Tashkent, De Bilt, and La Paz), 9h. and 10h. (Manila), 13h. (Baku, Ekaterinburg, Tashkent, and near Mizusawa), 14h. (near Hukuoka and Sumoto and Matuyama), 15h. (La Paz), 17h. (Moncalieri), 18h. (near Tortosa), 19h. (Moncalieri), 22h. (Ekaterinburg).

June 18d. 0h. 56m. 0s. Epicentre 18°·0N. 119°·5E. (as on 1915 Nov. 18d.).

A = −·468, B = +·828, C = +·309 ; D = +·870, E = +·492 ; G = −·152, H = +·269, K = −·951.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		3·7	157	i 1 5	+ 7	—	—	i 1·9	2·7
Hong Kong		6·6	312	1 50	+ 9	—	—	—	3·8
Taihoku	N.	7·3	15	2 0	+ 9	—	—	—	—
Phu-Lien		12·5	285	2 0	−66	(5 45)	+13	5·8	—
Zi-ka-wei		13·3	7	3 15	− 2	e 5 54	+ 3	—	10·0
Osaka		21·9	37	5 15	+11	(8 54)	− 9	8·9	10·2
Nagoya		23·1	39	e 5 7	−11	—	—	—	—
Irkutsk		36·3	345	(e 7 30)	+ 6	(13 52)	+38	(e 21·0)	—
Tashkent		48·6	310	9 19	+21	i 15 59	− 2	e 23·9	31·6
Ekaterinburg		58·1	326	i 9 2	− 8	17 5	−55	26·0	35·8
Baku		63·1	308	e 10 50	+17	19 18	+16	32·0	36·9
Kucino		70·5	324	—	—	—	—	37·9	—
Makeyevka		71·1	316	—	—	—	—	e 38·0	45·7
Pulkovo		74·1	328	e 11 43	0	e 20 51	−24	—	47·1
Leningrad		74·1	328	—	—	—	—	e 40·6	47·3
Copenhagen		84·4	328	—	—	e 23 6	− 6	44·0	—
De Bilt		89·8	326	—	—	—	—	e 49·0	57·7
Rocca di Papa		89·9	314	e 23 54	?S	(e 23 54)	−19	—	—
Strasbourg		90·1	322	—	—	—	—	45·0	—
Dyce		90·6	333	—	—	—	—	56·0	60·0
Uccle		91·2	325	—	—	—	—	e 48·0	—
Paris		92·9	324	—	—	—	—	e 51·0	—
Kew		93·0	327	—	—	—	—	e 47·0	—
Granada		103·1	317	—	—	—	—	69·0	74·3
Ottawa		115·1	12	—	—	—	—	e 61·0	—

Additional readings and note : Manila P = +1m.13s. Osaka MN = +10·4m. Irkutsk PR_1 =(+9m.40s.) ; all readings have been increased by 41m. Tashkent iSR_1 = +18m.44s., eSR_1 = +20m.31s., e = +23m.52s., MN = +27·9m., MZ = +30·6m. Baku MZ = +40·6m. Makeyevka L = +41·0m. De Bilt MN = +50·2m.

June 18d. 2h. 26m. 15s. Epicentre 32°·0N. 139°·0E. (as on 1924 April 3d.).

A = −·640, B = +·556, C = +·530 ; D = +·656, E = +·755 ; G = −·400, H = +·348, K = −·848.

A depth of focus 0·050 has been adopted from 1924 April 3d.

	Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya	+0·7	3·6	332	1 13	+ 6	(2 0)	+ 2	2·0	2·0
Osaka	+0·6	4·0	313	1 9	− 2	(2 2)	− 4	2·0	2·4
Kobe	+0·5	4·2	311	e 1 17	+ 4	(2 6)	− 3	2·1	2·1
Sumoto	+0·5	4·2	306	1 5	− 8	(1 51)	−18	1·9	2·0
Toyooka	+0·3	5·0	315	1 17	− 5	2 16	− 9	2·7	—
Matuyama	+0·1	5·6	291	e 1 34	+ 6	—	—	—	2·6
Mizusawa E.	−0·1	7·3	13	2 21	+32	3 15	0	—	—
Hukuoka	−0·1	7·4	285	1 52	+ 1	(3 10)	− 8	3·2	3·2
Zi-ka-wei	−1·3	15·0	272	e 3 21	− 1	6 30	+29	—	—
Irkutsk	−3·4	32·3	319	e 6 5	−12	—	—	e 13·1	—
Tashkent	−5·2	55·2	300	—	—	—	—	e 22·4	33·3
Ekaterinburg	−5·3	57·5	320	8 21	−60	e 15 45	−61	—	—
Baku	−5·9	69·3	305	—	—	—	—	e 41·8	—
Rocca di Papa	−6·5	91·3	323	—	—	—	—	e 44·0	45·8

Additional readings: Nagoya MN = +2·3m. Osaka MN = +2·9m. Sumoto MZ = +2·1m. Toyooka SN = +2m.12s. Mizusawa SN = +3m.16s.

June 18d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 17d. :—

h.	m.	s.		h.	m.	s.	
7	1	20	T	20	53	32	T

June 18d. Readings also at 2h. (Santiago and near Nagasaki), 3h. and 4h. (Agana), 5h. (Apia and Mizusawa), 6h. (Graz, Rocca di Papa, Zagreb, near Belgrade, and near Manila), 8h. (Tashkent), 9h. (Budapest and Zagreb), 10h. (Agana, Chicago, Ottawa, Toronto, Victoria, and La Paz), 11h. (Tashkent), 14h. (Paris and near Tashkent), 15h. (Victoria (2)), 16h. (Ottawa, Toronto, Honolulu T.H., and Tashkent), 20h. (La Plata), 22h. (Tashkent), 23h. (near Nagasaki).

June 19d. 0h. 27m. 42s. Epicentre 55°·0N. 35°·0W. (as on 1924 April 29d.).

A = +·470, B = −·329, C = +·819 ; D = −·574, E = −·819 ; G = +·671, H = −·470, K = −·574.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Edinburgh	17·9	75	e 4 18?	+ 2	—	—	—	—
Dyce	18·3	69	—	—	e 8 3	+16	9·3	11·9
Oxford	20·2	85	—	—	—	—	e 9·3	12·3
Kew	20·9	84	e 4 54	+ 2	9 8	+26	10·3	11·8
Paris	23·6	89	—	—	—	—	e 11·3	14·3
De Bilt	23·7	80	5 28	+ 3	9 49	+11	11·6	13·9
Uccle	23·8	83	—	—	—	—	e 11·3	—
Toledo N.E.	25·5	113	—	—	—	—	e 12·0	—
Hamburg	25·8	74	—	—	e 9 18?	−60	—	—
Copenhagen	26·4	69	—	—	10 18?	−12	13·3	—
Strasbourg	26·8	86	e 5 18?	−38	—	—	11·3	17·3
Ottawa	27·3	266	—	—	e 10 40	− 6	e 13·3	—
Tortosa N.	27·3	106	—	—	—	—	e 12·3	20·6
Granada	27·7	117	e 6 38	+33	—	—	13·6	14·6
Zurich	27·9	88	—	—	—	—	e 15·3	—
Almeria	28·6	116	—	—	—	—	e 14·2	15·8

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Prague		29·8	79	—	—	—	—	e 15·3	18·3
Toronto	E.	30·5	266	—	—	e 11 28	−15	16·7	—
Algiers		31·6	109	—	—	—	—	e 16·3	19·3
Rocca di Papa		33·5	92	—	—	—	—	e 15·5	27·3
Leningrad		34·0	55	e 7 0	− 5	e 12 26	−14	14·8	20·5
Pulkovo		34·1	55	7 1	− 5	12 26	−16	16·3	19·6
Chicago	E.	36·3	271	7 26	+ 2	13 4	−10	e 18·8	21·1
Kucino		39·5	59	e 9 18	?PR_1	e 13 52	− 7	e 19·3	21·8
Makeyevka		43·9	67	e 8 23	− 2	e 14 46	−15	24·3	30·0
Victoria	N.	51·4	302	—	—	—	—	27·9	29·9
Tiflis	E.	51·6	70	—	—	—	—	e 29·3	32·6
Baku		55·3	67	—	—	e 17 41	+16	28·3	33·3
Tashkent		64·3	55	e 10 51	+11	e 19 23	+ 6	e 30·8	36·1

Additional readings: Kew MN = +12·5m. De Bilt MN = +13·7m., MZ = +14·9m. Strasbourg MZ = +18·8m. Rocca di Papa e = 0h.15m.27s. Leningrad MZ = +19·0m., MN = +21·4m. Pulkovo MZ = +19·3m., MN = +22·5m., Chicago eLN = +18·9m., MN = +21·2m. Makeyevka e = +15m.52s. and +19m.22s. = SR_3 − 12s., MN = +28·4m., MZ = +29·2m. Tiflis eLN = +27·3m., MN = +31·1m. Baku MN = +33·8m. Tashkent e = +14m.47s. = SR_2 − 8s., +22m.48s., and +26m.13s. = SR_2 − 28s., MZ = +34·4m., MN = +39·0m. Irkutsk (Δ = 67°·5) failed to register from 18d.20h.59m. to 19d.9h.37m.

June 19d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 18d. :—

h.	m.	s.		h.	m.	s.	
9	33	31	T	12	24	5	T
11	4	0	T	16	36	58	T

June 19d. Readings also at 0h. (Tiflis), 2h. (Amboina), 4h. (Suva), 10h. (Manila), 11h. (Agana), 16h. (Toronto, Ottawa, Chicago, near Oaxaca, Vera Cruz, and Tacubaya), 20h. (Ekaterinburg), 21h. (Baku and Tiflis), 22h. (Ekaterinburg, Tashkent, and Honolulu, T.H.).

June 20d. 14h. 15m. 20s. Epicentre 43°·2N. 147°·2E. (as on June 14d.).

A = −·613, B = +·395, C = +·685; D = +·542, E = +·841; G = −·575, H = +·371, K = −·729.

A slight depth of focus is probable but there is not sufficient evidence to estimate it definitely.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Ootomari		4·7	319	1 26	+13	—	—	2·6	3·2
Mizusawa	E.	6·2	230	1 38	+ 3	2 51	+ 2	—	—
Osaka		12·5	231	2 36	−30	—	—	4·6	7·1
Sumoto		13·0	230	e 3 14	+ 1	e 5 56	+12	e 10·1	—
Irkutsk		29·8	303	—	—	—	—	16·7	19·1
Hong Kong		34·4	242	—	—	—	—	—	19·5
Manila		36·4	226	e 7 19	− 6	—	—	25·7	—
Phu-Lien		40·5	249	e 7 42	−17	—	—	20·7	—
Honolulu T.H.	E.	50·1	98	—	—	e 16 10	−10	e 23·5	—
Tashkent		55·5	297	i 12 4	?PR_1	—	—	e 26·7	39·0
Victoria	E.	58·9	51	17 58	?S	(17 58)	−12	27·8	31·3
Kucino		64·5	324	10 40	− 2	19 14	− 5	35·2	41·1
Leningrad		64·7	330	i 10 37	− 6	—	—	33·3	50·9
Pulkovo		64·8	330	10 36	− 8	18 50	−33	31·7	41·8
Bombay		66·0	274	—	—	—	—	e 38·7	—
Baku		68·1	306	i 11 9	+ 4	i 20 28	?PS	e 34·7	43·9
Upsala		69·0	336	—	—	e 20 46	?PS	e 40·7	45·0
Makeyevka		69·6	319	i 11 8	− 7	e 20 15	− 6	32·7	44·2
Tiflis	E.	70·3	310	11 14	− 5	e 20 27	− 3	e 38·7	45·2
	N.	70·3	310	11 15	− 4	e 20 58	?PS	—	50·1

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Copenhagen	E.	74·0	336	10 40?	−62	e 21 5	− 9	e 37·7	47·8
	N.	74·0	336	—	—	e 21 22	+ 8	e 38·7	48·1
Hamburg		76·5	335	e 11 52	− 6	e 22 9	[+10]	e 38·7	48·7
Edinburgh		77·8	345	—	—	—	—	e 44·7	—
Prague		78·1	330	—	—	—	—	e 34·7	49·7
Budapest		78·5	328	11 40?	−30	e 21 40?	−26	e 44·7	50·0
Cheb		78·8	332	—	—	e 23 40?	?PS	e 42·7	48·7
Vienna		78·9	330	12 1	−11	—	—	—	50·7
De Bilt		79·2	338	12 7	− 7	e 22 2	−12	e 37·7	43·8
Graz		80·2	329	—	—	—	—	e 44·7	52·0
Uccle		80·6	338	e 12 10	−13	—	—	e 38·7	—
Ksara	N.	80·8	309	e 12 1	−23	e 21 38	−55	e 32·7	—
Oxford		81·2	341	—	—	—	—	e 43·7	52·0
Kew		81·2	341	e 12 15	−11	—	—	43·7	—
Strasbourg		81·6	334	e 12 17	−11	e 22 20	[−14]	41·7	—
Paris		82·9	338	e 11 56	−39	—	—	44·7	53·7
Ottawa		83·6	28	—	—	e 22 40?	[− 7]	e 35·7	—
Toronto	N.	83·7	31	—	—	—	—	45·2	58·7
Moncalieri		84·8	333	—	—	—	—	e 42·9	—
Rocca di Papa		85·8	328	e 12 19	−33	—	—	e 39·8	57·3
Fordham	N.	88·1	30	—	—	—	—	e 56·7	—
Toledo	N.W.	93·0	339	—	—	e 24 32	−13	—	53·3
Alicante		93·3	336	e 24 24	?S	(e 24 24)	?Σ	43·0	—
Granada		95·3	338	—	—	—	—	56·0	61·5
San Fernando	E.	96·7	340	—	—	—	—	—	60·7

Additional readings: Mizusawa SN = +2m.48s. Irkutsk MZ = +19·2m., MN = +19·3m.; preliminary phases lost during the changing of the paper. Honolulu T.H., eLrN = +23·4m. Tashkent e = +27m.46s., MN = +34·8m. Kucino PR_2 = +15m.2s., PS = +19m.37s., S_4P_4S = +20m.49s., SR_1 = +23m.49s. Leningrad MZ = +42·9m., MN = +51·4m. Pulkovo MN = +39·3m., MZ = +42·2m. Baku MZ = +44·5m., MN = +44·6m. Upsala MN = +47·6m. Makeyevka e = +13m.6s. Tiflis eE = +36m.16s. Copenhagen eSR_1N = +26m.40s.?, eSR_1E = +28m.40s.? De Bilt eLN = +39·7m., MN = +51·3m., MZ = +61·6m. Moncalieri L = +46·7m. Rocca di Papa e = +9m.49s. San Fernando MN = +63·7m.

June 20d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 19d.:—

h.	m.	s.		h.	m.	s.	
0	56	25	T	2	24	44	T

June 20d. Readings also at 1h. (Tashkent), 2h. (Ekaterinburg), 6h. (Baku, Ekaterinburg, Pulkovo, Leningrad, Makeyevka, Tashkent, and near Ksara), 7h. (Apia and Manila), 8h. (La Paz (2), Ekaterinburg, and Tashkent), 10h. (Ekaterinburg and Tashkent), 11h. (Tashkent, Suva, and near Mizusawa), 13h. (near Mizusawa), 14h. (near La Paz), 18h. (Tashkent and Mizusawa), 22h. (near La Paz).

June 21d. 15h. 13m. 30s. Epicentre 44°·6N. 7°·7E.

A = +·706, B = +·095, C = +·702; D = +·134, E = −·991; G = +·696, H = +·094, K = −·712.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Moncalieri	0·4	0	0 5	− 1	0 13	+ 2	—	0·6
Besançon	2·9	336	i 0 46	+ 1	1 16	− 4	—	—
Zurich	2·9	13	e 0 46	+ 1	i 1 19	− 1	—	—
Strasbourg	4·0	1	0 57	− 5	2 1	+11	—	—
Tiflis	27·0	83	—	—	—	—	e 15·5	17·0

Additional readings: Moncalieri MN = +0·5m. Zurich iP = +48s. and +50s. Strasbourg SR_1 = +2m.7s., SR_2 = +2m.12s.

June 21d. 23h. 46m. 20s. Epicentre 14°·0S. 59°·0E.

$A = +\cdot500$, $B = +\cdot832$, $C = -\cdot242$; $D = +\cdot857$, $E = -\cdot515$; $G = -\cdot125$, $H = -\cdot207$, $K = -\cdot970$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Entebbe	29·8	296	6 28	+ 2	12 28	+57	—	—
Kodaikanal	30·4	40	—	—	—	—	14·5	16·5
Bombay	35·6	23	e 7 54	+36	12 14	−50	e 15·7	—
Hyderabad	36·9	31	12 8	?S	(12 8)	−74	—	19·4
Cape Town	41·7	234	14 23	?S	(14 23)	− 8	—	23·1
Ksara	52·7	336	e 9 18	− 6	e 18 59	[− 2]	e 26·7	—
Baku	55·0	352	e 10 9	+30	i 17 45	+24	26·2	30·7
Tashkent	56·1	10	i 9 16	−31	17 17	−18	e 23·7	29·2
Tiflis	57·2	348	—	—	—	—	e 27·4	30·6
Phu-Lien	58·3	55	—	—	—	—	22·7	—
Makeyevka	64·8	346	—	—	e 19 36	+13	29·7	34·8
Hong Kong	65·2	58	—	—	—	—	—	27·7
Kucino	72·0	349	—	—	e 20 54	+ 4	34·1	38·2
Pulkovo	77·3	347	e 12 1	− 2	21 50	− 2	35·7	—
Leningrad	77·5	347	12 2	− 2	e 21 51	− 4	33·2	49·2
Granada	77·9	314	—	—	—	—	43·7	49·5
Toledo N.W.	79·5	316	—	—	e 21 44	−34	—	—
Copenhagen	79·9	336	—	—	e 22 31	+ 9	37·7	—
De Bilt	80·8	330	—	—	—	—	e 53·7	—
Ottawa	130·7	318	—	—	—	—	e 56·7	—

Additional readings: Baku $i = +21$m.51s. $= SR_1 + 11$s. and $+24$m.17s., $SR_2 + 9$s., $MN = +31\cdot3$m. Tashkent $ePR_1 = +11$m.40s., $MZ = +29\cdot3$m. Kucino $MN = +37\cdot6$m. Pulkovo $SR_1 = +26$m.58s. Copenhagen $eEN = +27$m.40s. $= SR_1 - 32$s. $eN = +34$m.46s. Irkutsk light failed at 21d., 22h.

June 21d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 20d. :—

h.	m.	s.	
5	27	20	T

June 21d. Readings also at 2h. (Tashkent), 8h. (Entebbe and Tashkent), 9h. (near Sumoto), 10h. (Tashkent), 11h. (Baku, Kucino, Makeyevka, Pulkovo, Leningrad, and Tiflis), 15h. (Moncalieri (2) and Tashkent), 16h. (near Moncalieri), 23h. (La Paz and Mizusawa).

June 22d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 21d. :—

h.	m.	s.	
1	33	44	T

June 22d. Readings also at 1h. (near Sumoto), 3h. (Manila), 4h. (Wellington), 7h. (Apia), 12h. (Prague), 18h. (near Mizusawa), 19h. (La Paz), 20h. (Ottawa).

June 23d. 23h. 42m. 15s. Epicentre 37°·5N. 100°·5E. (as on 1927 May 24d.).

$A = -\cdot145$, $B = +\cdot780$, $C = +\cdot609$; $D = +\cdot983$, $E = +\cdot182$; $G = -\cdot111$, $H = +\cdot599$, $K = -\cdot793$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk		15·0	9	i 3 36	− 3	e 6 9	−23	7·8	—
Phu-Lien		17·5	161	e 7 41	?S	(e 7 41)	+12	9·8	10·2
Zi-ka-wei		18·3	104	7 38	?S	(7 38)	− 9	—	11·4
Hong Kong		19·2	138	8 8	?S	(8 8)	+ 2	—	10·6
Simla		20·3	259	—	—	e 9 21	+52	e 12·2	—
Taihoku		21·8	119	—	—	—	—	e 10·7	—
Tashkent		24·3	289	i 5 33	+ 2	10 7	+17	14·0	14·4
Manila		29·2	136	—	—	e 10 45	−35	—	17·8
Bombay		30·5	240	e 15 42	?L	—	—	(e 15·7)	18·0
Baku		39·0	292	—	—	e 14 11	+19	e 19·8	—
Tiflis	E.	42·4	295	e 8 5	− 9	14 6	−34	e 27·8	29·6
	N.	42·4	295	e 8 18	+ 4	14 58	+18	—	31·4
Kucino		44·9	316	—	—	e 16 9	+55	23·6	26·1
Makeyevka		45·8	305	—	—	e 15 25	0	23·8	30·9
Pulkovo		48·6	322	8 55	− 3	e 15 55	− 6	24·8	31·0
Leningrad		48·6	322	e 8 57	− 1	—	—	25·6	31·9
Upsala	N.	54·9	323	—	—	—	—	e 29·8	—
Copenhagen		58·8	320	—	—	—	—	31·8	32·6
Potsdam		59·8	316	—	—	—	—	e 32·6	—
Prague		59·9	314	—	—	—	—	e 31·8	35·8
Hamburg		60·9	318	—	—	—	—	e 28·8	33·6
Cheb		61·1	314	—	—	e 20 45?	?Σ	—	27·8
De Bilt		64·2	319	—	—	—	—	e 32·8	37·5
Strasbourg		64·5	315	—	—	—	—	e 32·8	—
Uccle		65·3	317	—	—	—	—	e 33·8	—
Moncalieri	E.	66·3	310	—	—	e 29 34	?	e 37·0	—
Edinburgh		66·5	324	—	—	—	—	e 36·8	—
Paris		67·4	317	—	—	—	—	e 34·8	41·8
Kew		67·5	320	—	—	—	—	e 32·8	—
Oxford		67·8	320	—	—	—	—	e 36·5	42·2
Granada		77·7	309	—	—	—	—	e 42·8	51·2
Ottawa	E.	97·0	357	—	—	—	—	e 50·8	—
Toronto	E.	98·9	0	—	—	—	—	e 51·2	—

Additional readings and note: Phu-Lien MN = +11·7m. Simla readings are given as eE and eN respectively. Tashkent i = +6m.29s., e = +10m.1s., eSR_1 = +11m.59s. Baku e = +15m.5s. and +17m.10s. = SR_2 − 2s., i = +23m.32s. Tiflis eN = +21m.3s., eE = +22m.11s. and +23m.55s. Kucino e = +19m.27s. = SR_2 − 7s. and +21m.33s. Makeyevka e = +19m.1s. = SR_1 +15s., MN = +25·9m. Pulkovo SR_1 = +19m.33s., MN = +27·4m., MZ = +31·2m. Leningrad MN = +29·4m. Copenhagen MN = +33·2m. Hamburg MN = +34·8m. De Bilt MZ = +41·6m. Toronto LE = +57·5m.

June 23d. Readings also at 5h. (near Malabar), 6h. (Riverview), 10h. (Apia, Wellington, and Tashkent), 11h. (Copenhagen), 12h. (Granada), 13h. (Irkutsk), 14h. (Tashkent, Ksara, and near Taihoku), 15h. (Taihoku), 16h. (Tashkent), 19h. (Ksara), 20h. (near Manila), 23h. (near Lick).

June 24d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 22d.:—

h.	m.	s.		h.	m.	s.	
10	42	9	T	14	22	40	T

June 24d. Readings also at 1h. (Sucre and near Sumoto), 3h. (Tiflis), 8h. (Baku, Irkutsk, and Tashkent), 9h. (near Tashkent), 10h. (near Ksara), 11h. (Port au Prince), 13h. (Nagoya), 19h. (Tiflis), 20h. (Ekaterinburg, Tiflis (2), and near Manila), 21h. (Prague).

June 25d. 8h. 20m. 27s. Epicentre 29°·0S. 73°·0W. (as on 1925 Oct. 5d.).

A = +·256, B = −·836, C = −·485 ; D = −·956, E = −·292 ;
G = −·142, H = +·464, K = −·875.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Santiago		4·8	157	e 1 27	+13	1 55	−16	2·8	—
Sucre		12·2	37	3 2	0	i 5 27	+ 3	6·0	6·2
La Paz		13·3	21	i 3 15	− 2	e 5 54	+ 3	6·6	7·2
La Plata		14·1	118	3 18	− 9	5 38	−32	6·4	—
Pulkovo		121·3	35	—	—	—	—	e 70·6	—
Leningrad		121·3	35	—	—	—	—	e 65·6	—
Makeyevka		124·8	49	—	—	—	—	45·6	—
Tiflis	N.	128·8	58	—	—	—	—	e 62·9	—
Baku		132·5	60	—	—	—	—	e 69·6	—
Ekaterinburg		137·4	36	—	—	—	—	65·6	—
Tashkent		147·1	58	—	—	—	—	e 86·6	92·8

La Paz gives also iS = +6m.2s.

June 25d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 24d. :—

h.	m.	s.		h.	m.	s.	
6	4	11	T	11	18	57	T
8	2	48	T				

June 25d. Readings also at 1h. (Baku and Tashkent), 2h. (Irkutsk and Tashkent), 3h. (Baku, Pulkovo, Leningrad, and Kucino), 4h. (near La Paz), 6h. (Ekaterinburg and near Tashkent), 11h. (Granada and Baku), 13h. (Tiflis), 14h. (Irkutsk, Kobe, Osaka, Sumoto, and Nagoya), 15h. (Pulkovo and Ekaterinburg), 16h. (Hohenheim), 17h. (Tiflis, Zi-ka-wei, Tashkent, and near Taihoku (2)), 18h. (Baku, Ekaterinburg, Pulkovo, Leningrad, Irkutsk, Tashkent, and Strasbourg), 19h. (near Algiers), 20h. (Baku, Ekaterinburg, Ksara, Tashkent, and Tiflis).

June 26d. 11h. 20m. 42s. Epicentre 44°·5N. 34°·0E.

A = +·591, B = +·399, C = +·701 ; D = +·559, E = −·829 ;
G = +·581, H = +·392, K = −·713.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Makeyevka		4·5	37	i 1 15	+ 5	i 2 12	+ 8	3·3	3·8
Tiflis		8·3	106	e 2 6	0	i 3 31	−14	4·0	8·0
Lemberg	E.	8·6	312	e 2 27	+17	e 4 5	+12	—	6·3
	N.	8·6	312	e 2 16	+ 6	e 3 54	+ 1	—	4·9
Belgrade		9·6	276	e 2 27	+ 3	i 4 16	− 2	—	6·7
Ksara		10·8	172	2 41	0	4 33	−17	5·7	—
Budapest		10·8	291	2 48	+ 7	—	—	e 6·3	8·2
Kucino		11·5	11	2 54	+ 2	4 52	−15	—	7·5
Baku		12·4	104	i 3 10	+ 5	i 5 38	+ 9	—	14·6
Vienna		12·7	293	e 3 6	− 3	5 44	+ 7	—	9·5
Zagreb		12·8	282	e 2 13	−57	i 5 6	−33	—	—
Graz		13·1	288	i 3 19	+ 5	e 5 43	− 3	6·3	9·5
Konigsberg		13·5	326	i 3 16	− 4	e 5 41	−15	—	7·7
Laibach		13·8	283	e 3 26	+ 3	—	—	e 7·8	—
Prague		14·4	300	e 3 28	− 4	e 6 38	+20	e 9·3	10·3
Helwan		14·8	189	e 3 34	− 2	6 14	−13	—	—
Pompeii		14·8	262	e 3 48	+12	e 6 48	+21	—	—
Naples	N.	15·0	263	e 1 40	−119	e 6 56	+24	18·3	—
Venice	Z.	15·3	281	4 10	+27	8 51?	?L	(8·8)	—
Pulkovo		15·4	353	i 3 41	− 3	6 21	−20	7·8	8·8
Leningrad		15·6	353	3 43	− 4	i 6 24	−22	8·0	9·9
Cheb		15·6	299	e 3 47	0	e 6 52	+ 6	e 9·0	10·8
Potsdam		15·7	307	i 4 51	+63	i 7 0	+12	e 8·5	9·8
Rocca di Papa		15·8	267	3 56	+ 7	9 10	?L	(9·2)	10·3
	Z.	15·8	267	3 52	+ 3	(7 4)	+14	(8·4)	8·8

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Innsbruck	N.W.	15·9	288	e 3 54	+ 3	7 11	+18	—	11·3
Florence		16·3	275	3 58	+ 2	7 18	+16	—	11·3
Helsingfors	Z.	16·6	344	e 3 51	− 9	e 6 50	−19	e 8·5	10·2
Ravensburg		17·2	290	i 4 0	− 7	i 7 16	− 6	e 8·6	12·2
Hohenheim		17·4	293	i 4 8	− 2	e 7 38	+11	e 9·8	12·5
Copenhagen		17·7	317	4 10	− 3	7 20	−13	9·3	11·7
Zurich		17·8	289	e 4 18	+ 3	e 7 44	+ 8	—	—
Hamburg		18·0	309	i 4 19	+ 2	e 7 42	+ 2	e 10·3	12·7
Feldberg	E.	18·1	297	e 4 21	+ 3	e 7 48	+ 6	i 10·8	11·7
	N.	18·1	297	e 4 23	+ 5	e 7 48	+ 6	e 10·0	11·6
Upsala		18·2	333	e 4 16	− 3	i 7 27	−17	e 9·3	9·9
Strasbourg		18·4	292	4 23	+ 1	i 7 53	+ 4	10·3	12·8
Moncalieri		18·6	281	4 49	+25	i 7 58	+ 5	11·3	12·9
Besançon		19·6	288	4 37	+ 1	e 8 30	+15	11·3	13·3
Grenoble		20·0	282	e 4 43	+ 2	8 24	+ 1	e 11·3	—
De Bilt		20·5	302	4 49	+ 2	8 41	+ 7	10·4	13·5
Ekaterinburg		20·7	44	i 4 44	− 5	i 8 27	−11	10·3	13·2
Uccle		20·8	298	4 53	+ 2	i 8 47	+ 7	e 9·3	14·0
Puy de Dôme		21·8	285	5 1	− 2	i 9 2	+ 1	11·8	—
Paris		21·9	293	e 5 7	+ 3	i 9 0	− 3	12·3	14·3
Bergen		23·3	323	(5 48)	+28	(10 10)	+39	—	(13·3)
Barcelona		23·4	274	5 21	0	9 36	+ 3	e 11·6	15·9
Kew		23·7	299	e 5 23	− 2	e 9 41	+ 3	12·3	15·8
Oxford		24·4	300	e 5 36	+ 4	i 9 55	+ 3	i 14·3	16·4
Algiers		24·5	262	e 5 28	− 5	e 9 51	− 3	11·8	12·6
Tortosa	E.	24·7	273	5 34	− 1	—	—	—	17·6
	N.	24·7	273	5 40	+ 5	i 9 52	− 5	11·7	18·1
Stonyhurst		25·3	305	—	—	10 3	− 6	—	10·1
Bidston		25·6	304	6 37	?PR_3	9 44	−30	13·2	16·9
Tashkent		25·8	85	i 5 39	− 7	i 10 7	−11	14·3	19·3
Edinburgh		26·0	309	e 5 36	−12	10 34	+12	15·3	19·4
Alicante		26·4	268	5 53	+ 1	e 11 13	?SR_1	—	16·7
Toledo		28·3	274	e 6 1	−10	e 10 46	−18	e 12·4	19·1
Almeria		28·4	267	6 7	− 5	10 56	−10	—	19·3
Granada		29·1	269	i 6 13	− 6	i 11 7	−12	i 13·0	20·0
Malaga		29·9	269	e 6 24	− 3	11 8	−24	22·6	—
San Fernando		31·3	269	—	—	10 37	−79	17·8	21·3
Simla	N.	36·1	97	—	—	—	—	e 15·7	—
Bombay		41·2	116	7 55	−10	14 0	−24	20·7	—
Irkutsk		45·4	55	—	—	—	—	e 20·3	—
Phu-Lien		63·4	87	10 18?	−16	—	—	32·3	—
Zi-ka-wei		67·0	69	e 11 1	+ 3	—	—	—	46·5
Hong Kong		67·7	80	—	—	—	—	—	39·3
Ottawa		70·8	316	e 11 30	+ 8	e 20 46	+10	e 35·3	—
Fordham	E.	72·9	311	—	—	(e 21 14)	+13	e 39·3	—
Toronto	E.	73·8	317	—	—	e 21 18?	+ 6	39·7	—
Manila		77·7	83	—	—	e 22 18	[+10]	47·3	—
Chicago	E.	79·2	320	—	—	—	—	e 41·0	—
Cape Town		79·7	193	—	—	—	—	—	46·3
Victoria		85·0	346	23 21	?S	(23 21)	+ 2	38·9	44·4

Additional readings: Makeyevka e = +1m.52s., MZ = +4·2m., MN = +5·0m.; epicentre 44°·2N. 34°·1E. Tiflis i = +2m.9s., e = +2m.59s. Budapest MN = +9·0m. Vienna iP = +3m.10s., PR_1 = +4m.9s., SR_1 = +7m.10s. Zagreb i = +2m.19s., +2m.24s., +2m.43s., +5m.36s., and +6m.11s. Graz MN = +7·9m. Konigsberg ePE = +3m.20s., iZ = +5m.49s., MN = +6·6m. Venice P = +4m.6s., S = +10m.11s. Pulkovo MZ = +10·1m. Leningrad MN = +9·8m., MZ = +10·7m. Potsdam i = +5m.41s. Rocca di Papa gives SZ as PR_1 and LZ as SZ, also MN = +9·4m. Innsbruck iPNW = +4m.0s. Helsingfors ePNZ = +4m.0s., e = +5m.30s., eSN = +6m.48s., MN = +9·2m. Hohenheim iE = +4m.30s., iN = +4m.38s., eN = +8m.56s., MN = +11·0m. Copenhagen eSN = +7m.16s., MZ = +9·9m., MN = +10·5m. Hamburg eSE = +7m.46s., MZ = +14·2m., MN = +16·1m. Feldberg iPE = +4m.23s. and several e readings. Strasbourg MZ = +12·9m., MN = +13·7m. Moncalieri P = +4m.49s., MN = +12·9m., Grenoble i = +5m.9s. =PR_1 +9s. De Bilt iZ = +4m.52s., MN = +11·8m., MZ = +13·8m.; epicentre 44°30′N. 35°50′E. Ekaterinburg gives epicentre 44°45′N. 34°5′E. Uccle MN = +11·9m. Puy de Dôme i = +5m.59s. Paris MN = +13·3m. Bergen readings increased by 3 min. Barcelona MN = +18·5m. Kew MZ = +15·6m. Bidston S = +10m.43s. Tashkent iPR_1 = +6m.24s., iPR_2 = +6m.41s., MN = +16·3m.; epicentre 44°11′N. 33°36′E. Alicante MN = +15·5m. Toledo MNW = +20·0m. Granada i = +6m.44s. =PR_1 −23s., +7m.17s. = PR_3 −1s., and +12m.24s. =SR_1 −18s. Simla eE = +15m.64s. =SR_2 −5s. Fordham gives S as eLE. Chicago eLN = +42·6m. Victoria LN = +42·6m.

June 26d. Readings also at 2h. (Ekaterinburg), 3h. (Batavia and near Malaga), 7h. (near Ksara), 12h. (near Mizusawa), 13h. (Pulkovo, Kucino, and Makeyevka), 14h. (Mizusawa), 15h. (Baku, Ekaterinburg, Irkutsk, Makeyevka, Tashkent, and near Malabar), 16h. (Tortosa), 19h. (La Paz), 20h. (Ekaterinburg).

June 27d. 8h. 12m. 15s. Epicentre 34°·0N. 73°·0E. (see June 29d.).

$A = +\cdot242$, $B = +\cdot793$, $C = +\cdot559$; $D = +\cdot956$, $E = -\cdot292$; $G = +\cdot163$, $H = +\cdot535$, $K = -\cdot829$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tashkent		7·9	339	i 2 1	+ 1	i 3 34	0	—	16·2
Baku		19·4	296	—	—	e 9 27	?L	e 12·7	—
Tiflis	E.	23·5	297	—	—	e 10 3	+28	—	—
Makeyevka		29·6	309	—	—	e 12 8	+41	15·8	—
Kucino		32·5	323	—	—	—	—	e 16·6	—
Pulkovo		37·9	326	—	—	—	—	e 18·6	—
Fordham		99·2	335	—	—	—	—	e 58·8	—

Additional readings and notes: Tashkent i = +2m.14s. and +2m.18s., MZ = +15·9m. Tiflis eN = +8m.15s. Kucino e = +17m.6s. Pulkovo e = +15m.59s. = $SR_1 - 3$s. All readings except those for Tashkent are given simply as e.

June 27d. 12h. 24m. 0s. Epicentre 23°·5S. 178°·0E. (as on 1926 Feb. 13d.).

$A = -\cdot916$, $B = +\cdot032$, $C = -\cdot399$; $D = +\cdot035$, $E = +\cdot999$; $G = +\cdot398$, $H = -\cdot014$, $K = -\cdot917$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Wellington	N.	18·0	188	—	—	e 7 36	− 4	—	—
Riverview		25·6	240	i 10 40	?S	(i 10 40)	+26	(i 16·0)	28·0
Manila		67·5	301	e 11 12	+11	—	—	—	—
Zi-ka-wei		77·0	313	12 2	+ 1	e 15 5	?PR_1	—	—
Irkutsk		99·1	324	e 17 0?	[−43]	—	—	—	—
La Plata		102·3	136	—	—	(23 42)	[−53]	23·7	—
Tashkent		119·0	305	i 18 51	[+ 1]	e 29 3	+21	e 46·0	—
Ekaterinburg		124·4	324	i 18 57	[− 7]	i 25 8	[−50]	38·0	—
Baku		133·6	306	i 19 25	[− 2]	—	—	51·0	—
Kucino		136·5	330	e 23 5	?	—	—	e 39·0	—
Pulkovo		136·9	337	e 19 22	[−12]	i 22 2	?PR_1	—	—
Leningrad		137·2	337	e 19 23	[−11]	i 22 3	?PR_1	—	—
Tiflis	E.	137·3	307	e 19 28	[− 7]	e 22 8	?PR_1	—	—
	N.	137·3	307	e 19 30	[− 5]	e 22 11	?PR_1	—	—
Ksara		145·4	296	19 45	[− 4]	—	—	—	—
Copenhagen		146·1	345	19 36	[−14]	—	—	—	—
Hamburg	Z.	148·6	347	e 19 42	[−12]	—	—	—	—
De Bilt	Z.	150·9	351	i 19 49	[− 8]	e 23 2	?PR_1	—	—
Uccle		152·3	351	19 52	[− 7]	—	—	—	—
Strasbourg	Z.	153·8	345	e 19 50	[−11]	—	—	—	—
Paris		154·4	353	e 19 48	[−13]	—	—	26·0	—
Zurich		154·7	343	e 19 54	[− 8]	—	—	—	—
Granada		166·3	5	i 20 59	[+47]	42 0?	?	—	—

Additional readings: Wellington eE = +7m.48s. Riverview eL = +19·6m., S is given as P and true L as iS. Tashkent i = +20m.27s. = PR_1 +9s., +24m.58s. and +26m.25s., e = +31m.49s. Ekaterinburg i = +20m.45s. = PR_1 −7s., and +29m.13s. = S −9s. Baku i = +22m.2s. = PR_1 +9s., e = +26m.4s. = [S] −13s., and +37m.41s. Kucino e = +23m.55s., +27m.8s., +29m.5s. = Σ +13s., and +33m.12s. Strasbourg e = +20m.0s.? Granada i = +24m.43s. = PR_1 −31s.

June 27d. Readings also at 1h. (Tashkent and near Nagasaki), 5h. (Copenhagen and Ekaterinburg), 7h. (Tiflis), 10h. (near Tortosa), 11h. (Edinburgh), 23h. (Baku, Tashkent (2), and Tiflis).

June 28d. 1h. 41m. 39s. Epicentre 11°·0N. 122°·0E. (as on 1924 June 9d.).

A = −·520, B = +·832, C = +·191 ; D = +·848, E = +·530 ;
G = −·101, H = +·162, K = −·982.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	3·7	345	i 1 49	?S	(i 1 49)	+ 7	i 3·0	3·5
Amboina	15·9	157	i 3 29	−22	—	—	—	—
Batavia	22·9	222	i 5 17	+ 1	i 9 25	+ 2	—	—
Irkutsk	43·7	346	—	—	e 14 21?	−37	e 23·4	—
Tashkent	55·1	314	i 9 49	+ 9	i 17 39	+17	—	32·5
Ekaterinburg	65·3	329	i 10 51	+ 4	i 19 36	+ 7	—	—
Baku	69·3	310	i 11 24	+11	i 20 39	+21	e 36·4	—
Tiflis	73·1	311	(e 11 21)	−16	(e 20 51)	−12	—	(33·2)
Kucino	77·6	325	—	—	e 22 52	+56	e 34·0	—
Makeyevka	77·8	318	e 12 8	+ 2	e 22 3	+ 5	33·4	—
Leningrad	81·3	329	i 12 23	− 4	e 22 31	− 7	e 41·6	—
Pulkovo	81·4	329	12 22	− 5	22 31	− 8	42·4	47·0
Copenhagen	91·5	328	—	—	—	—	e 43·4	—
De Bilt	97·0	326	—	—	—	—	e 51·4	—
La Paz	168·8	120	e 19 54	[−20]	—	—	—	—

Additional readings: Manila MN = +3·3m. Tashkent iPR_2 = +14m.8s., i = +18m.38s., eSR_1 = +22m.24s., MN = +31·9m., MZ = +37·9m.; epicentre 12°49′N. 120°14′E. Ekaterinburg i = +20m.31s.: epicentre 9°36′N. 120°37′E. Baku e = +29m.39s. Tiflis readings are diminished by 1 min., eE = (+16m.57s.) = PR_3 − 25s., MN = (+30·0m.) Kucino e = +24m.2s., +24m.57s., +29m.18s., and +32m.48s. = SR_2 +8s. Makeyevka PS = +23m.14s., SR_1 = +26m.21s.?

June 28d. 17h. 19m. 25s. Epicentre 40°·0N. 168°·0E.

A = −·749, B = +·159, C = +·643 ; D = +·208, E = +·978 ;
G = −·629, H = +·134, K = −·766.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Honolulu T.H.	E.	34·5	114	—	—	—	—	e 17·3	—
Irkutsk		44·3	310	e 9 25	+57	—	—	e 23·6	26·3
Ekaterinburg		65·6	325	—	—	—	—	55·6	—
Tashkent		70·3	309	e 11 18	− 1	e 20 26	− 4	e 32·4	38·3
Leningrad		74·1	340	—	—	—	—	31·6	45·8
Pulkovo		74·3	340	—	—	—	—	31·6	44·8
Kucino		75·3	334	—	—	e 21 29	0	e 35·6	—
Toronto	E.	76·6	45	—	—	—	—	40·6	—
Ottawa		77·3	40	—	—	—	—	e 32·6	—
Makeyevka		81·4	329	—	—	e 26 35?	+236	e 38·6	44·4
Baku		81·9	317	e 12 36	+ 6	e 22 21	−24	37·9	44·8
Copenhagen		82·0	347	—	—	—	—	37·6	—
De Bilt		86·7	350	—	—	—	—	e 45·6	—

Additional readings: Honolulu T.H. eN = +21m.5s. Tashkent e = +11m.30s. and +24m.36s., MN = +37·4m., MZ = +44·9m. Leningrad MN = +45·5m. Pulkovo MNZ = +45·6m. Makeyevka MN = +46·9m., MZ = +50·6m. Baku MN = +51·2m., MZ = +52·0m.

June 28d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 25d. :—

h.	m.	s.	
18	32	40	T

June 28d. Readings also at 0h. (Tiflis), 1h. (Tashkent), 2h. (Amboina), 4h. (Strasbourg, Moncalieri, and near Zurich), 6h. (La Paz), 7h. (Tashkent (2) and Sucre), 8h. (Ekaterinburg and Taihoku), 10h. (Tiflis), 11h. (Riverview, Wellington, Taihoku, Irkutsk, Tashkent, Manila, Tiflis, Ekaterinburg, Baku (2), and La Paz), 13h. (Ekaterinburg), 14h. (Pulkovo, Leningrad, Ekaterinburg, and Tashkent), 15h. (Reykjavik and Taihoku), 19h. (near Amboina), 22h. (Taihoku and near Tashkent).

June 29d. 21h. 21m. 20s. Epicentre 32°·0S. 179°·0W. (as on 1927 Jan. 21d.).

A = −·848, B = −·015, C = −·530; D = −·017, E = +1·000; G = +·530, H = +·009, K = −·848.

Very uncertain.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Suva	E.	14·1	350	e 2 52	−35	—	—	i 10·3	—
	N.	14·1	350	e 3 40	+13	e 6 34	+24	—	8·7
Apia		19·3	21	—	—	—	—	9·7	—
Irkutsk		107·5	320	—	—	—	—	e 56·7	—
Ottawa		120·9	51	—	—	—	—	e 63·7	—
Tashkent		125·8	300	—	—	—	—	e 84·7	93·6
Ekaterinburg		132·7	319	19 15	[− 9]	22 42	?	—	—
Baku		140·2	295	—	—	—	—	e 83·7	—
Tiflis	N.	144·1	297	e 19 42	[− 5]	—	—	—	—
Kucino		145·0	322	—	—	—	—	e 58·9	—
Makeyevka		147·9	310	e 19 48	[− 5]	e 23 28	?PR_1	—	—
De Bilt		159·7	352	e 19 58	[−10]	e 24 10	?PR_1	e 89·7	—
Uccle		161·0	353	—	—	—	—	e 89·7	—
Strasbourg		162·7	345	e 19 40?	[−30]	—	—	93·7	—
Paris		163·1	357	—	—	—	—	e 93·7	—

Suva readings are all given as e. Apia gives another reading at 21h. 42m.

June 29d. 22h. 0m. 50s. Epicentre 34°·0N. 73°·0E. (as on 1927 June 27d.).

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.
Simla		4·5	128	1 34	+24	—	—	(e 2·6)	—
Tashkent		7·9	339	e 1 54	− 6	i 3 24	−10	e 3·6	—
Baku		19·4	296	e 4 41	+ 7	e 8 11	+ 1	e 13·4	—
Tiflis	N.	23·5	297	e 5 22	− 1	e 9 6	−29	—	—
Ekaterinburg		24·4	343	i 5 15	−17	e 9 33	−19	11·7	14·4
Makeyevka		29·6	309	—	—	e 12 10?	+43	17·2	20·4

Additional readings and notes: Simla gives its readings as PN and ePE. Tashkent i = +2m.29s., +3m.12s., and +3m.19s. Tiflis eE = +5m.14s. = P −9s.

June 29d. Continuation of the list of after-shocks, from the epicentre 35°·7N. 134°·8E. of June 28d.:—

h.	m.	s.		h.	m.	s.	
0	28	2	T	0	54	25	T

June 29d. Readings also at 0h. (Pulkovo and Makeyevka), 6h. (Ekaterinburg and Tashkent), 8h. (near Guadalajara, Manzanillo, and Tacubaya), 9h. (Ekaterinburg, Tashkent, Ottawa, and near Tacubaya), 12h. (Agana, Baku, Ekaterinburg, Kucino, and Tashkent (2)), 17h. (Ottawa, La Paz, and Sucre), 18h. (Baku, Ekaterinburg, Irkutsk, Kucino, Strasbourg, Tashkent, and Vienna), 21h. (Pulkovo, Leningrad, and near Mizusawa), 22h. (Ekaterinburg).

June 30d. 22h. 59m. 36s. Epicentre 39°·0N. 22°·0E. (as on 1925 June 6d.).

A = +·721, B = +·291, C = +·629; D = +·375, E = −·927;
G = +·584, H = +·236, K = −·777.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Belgrade	E.	5·9	344	1 34	+ 3	(i 2 33)	− 8	(i 3·4)	3·6
Pompeii		6·0	289	e 1 36	+ 4	e 3 6	?L	(e 3·1)	—
Naples	E.	6·2	290	e 1 24	−11	e 2 54	+ 5	—	—
Rocca di Papa	E.	7·6	294	e 1 52	− 3	3 6	−20	e 3·9	4·9
	N.	7·6	294	e 1 59	+ 4	2 52	−34	e 3·7	5·1
Zagreb		8·1	329	e 2 11	+ 8	i 3 41	+ 1	i 4·5	—
Budapest		8·8	347	2 54	+41	—	—	5·2	6·1
Laibach		9·0	324	e 2 34	+18	i 5 18	?L	(i 5·3)	—
Graz		9·4	332	e 2 20	− 2	i 4 44	+31	5·4	5·6
Florence		9·4	304	2 16	− 6	5 19	?L	(5·3)	6·4
Venice		9·6	315	2 49	+25	4 14	− 4	—	7·4
Vienna		10·0	338	e 2 35	+ 5	5 36	+67	i 6·0	6·3
Lemberg		10·9	7	e 2 48	+ 5	e 3 24	−88	—	7·4
Innsbruck	N.W.	11·3	320	e 2 45	− 4	4 52	?L	(5·9)	—
Moncalieri		12·2	304	e 3 11	+ 9	5 43	+19	6·7	8·9
	E.	12·2	304	e 3 3	+ 1	5 37	+13	6·7	12·1
	Z.	12·2	304	e 2 37	−25	6 20	+56	(6·3)	7·9
Prague		12·3	337	e 2 56	− 7	e 5 54	+28	e 6·4	7·4
Ksara		12·3	110	3 25	+22	6 21	?L	7·5	—
Zurich		12·8	315	e 3 3	− 7	e 5 36	− 3	—	—
Cheb		13·0	331	e 4 11	+58	e 5 32	−12	e 7·2	7·6
Hohenheim	N.	13·4	321	e 3 12	− 6	e 6 0	+ 7	e 7·7	7·9
Grenoble		13·6	303	—	—	e 6 24?	+26	—	—
Strasbourg		14·0	318	e 3 32	+ 6	e 6 9	+ 1	7·4	9·6
Besançon		14·2	310	e 3 27	− 2	e 5 39	−34	8·9	—
Makeyevka		14·7	47	3 50	+15	i 6 51	+26	16·4	17·2
Feldberg		14·7	324	e 4 24	+49,	—	—	e 8·4	—
Potsdam		14·8	338	e 3 24?	−12	i 6 37	+10	e 8·4	—
Algiers		15·0	268	—	—	—	—	—	11·4
Barcelona		15·3	385	—	—	—	—	7·5	10·0
Puy de Dôme		15·6	302	—	—	—	—	e 8·4	—
Konigsberg	E.	15·9	357	—	—	e 7 6	+13	e 8·4	9·9
	N.	15·9	357	e 3 46	− 5	e 6 58	+ 5	e 9·3	10·9
Hamburg		16·7	335	e 4 0	− 1	i 7 19	+ 8	e 9·6	10·1
Bagnères		16·8	291	—	—	(e 7 24?)	+11	7·4	—
Paris		17·1	312	e 3 59	− 7	e 7 8	−12	9·4	10·4
Uccle		17·1	319	e 4 2	− 4	e 7 10	−10	e 9·0	11·1
Alicante		17·5	275	e 4 47	+36	e 8 2	+33	13·1	17·8
Tiflis	E.	17·5	74	4 35	+24	8 16	+47	10·4	13·1
	N.	17·5	74	4 37	+26	e 8 3	+34	e 9·8	11·8
De Bilt		17·6	324	4 10	− 2	7 32	+ 1	e 9·1	12·1
Copenhagen		17·9	342	4 14	− 2	7 35	− 3	10·4	10·8
Almeria		19·3	271	e 4 45	+12	e 8 6	− 2	13·2	15·8
Kucino		19·9	27	e 4 52	+12	8 53	?SR_1	10·7	11·7
Kew		19·9	316	e 4 58	+18	e 8 37	+16	10·4	12·3
Toledo		20·0	281	e 4 43	+ 2	e 7 59	−24	—	13·6
Granada		20·2	273	i 4 31	−12	i 9 19	?SR_2	12·5	13·4
Oxford		20·6	316	i 4 44	− 4	i 8 26	−10	10·7	12·0
Upsala		21·1	354	e 4 56	+ 2	e 8 43	− 3	e 11·0	13·1
Helsingfors		21·3	4	e 5 0	+ 3	e 9 0	+10	12·0	14·4
Pulkovo		21·4	11	5 0	+ 2	8 53	0	10·9	13·2
Baku		21·5	77	e 5 15	+16	9 29	?SR_1	13·9	15·6
Leningrad		21·7	11	e 5 3	+ 2	8 57	− 2	11·3	13·2
San Fernando	E.	22·4	272	—	—	—	—	—	15·4
Edinburgh		23·7	324	e 5 24?	− 1	i 9 30	− 8	—	15·8
Bergen		23·8	340	e 11 24?	?L	—	—	(e 11·4)	—
Dyce		24·1	327	5 26	− 3	9 41	− 5	—	14·8
Ekaterinburg		30·9	42	6 30	− 7	e 11 36	−14	i 17·2	20·0
Tashkent		35·8	71	e 7 20	0	i 13 8	+ 1	e 18·4	24·1
Irkutsk		55·9	47	—	—	e 17 24?	− 9	32·4	34·6
Ottawa		68·0	311	—	—	e 20 6	+ 4	e 31·4	—

Additional readings and note: Belgrade MN = +3·9m., S is given as iPE. L is given as iSR_1. Rocca di Papa eN = +1m.46s., PR_1Z = +3m.12s., PR_2Z = +3m.38s. Zagreb e = +2m.31s., i = +2m.36s., +2m.59s., +3m.44s., +4m.0s., and +4m.17s. Graz MN = +6·7m. Vienna ePZ = +2m.59s., PR_1 = +4m.8s., iN = +4m.25s., PR_2 = +4m.58s., iEN = +5m.14s., SR_1 = +5m.46s. Lemberg MN = +6·9m., the two readings are

Continued on next page.

given as eN and eE simply. Moncalieri (first line) MN = +8·9m. Hohenheim eN = +5m.30s. and +7m.16s. Strasbourg MN = +8·9m., MZ = +9·4m. Makeyevka e = +4m.9s., eSR_1 = +7m.16s., e = +8m.25s. and +15m.29s., MN = +16·8m. Uccle MN = +10·0m. Alicante MN = +15·7m. Tiflis eE = +5m.2s., SN and LN are given simply as e. De Bilt MN = +10·3m., MZ = +12·3m. Copenhagen SN = +7m.43s., MZ = +11·8m., MN = +12·0m. Almeria i = +6m.12s., MZ = +14·0m. Kucino PR_1 = +5m.21s., e = +8m.36s. =S +15s. Upsala MN = +16·1m. Pulkovo MNZ = +15·1m. Baku MN = +15·4m., MZ = +16·0m. Leningrad MNZ = +15·1m. San Fernando MN = +14·4m. Ekaterinburg MN = +18·4m. Tashkent e = +8m.53s. =PR_2 −9s., and +15m.24s. = SR_2 +8s., i = +18m.3s., MN = +25·0m., MZ = +25·3m. Irkutsk MN = +33·3m.

June 30d. Readings also at 0h. (Suva and near Lick), 1h. (Sucre), 2h. and 3h. (La Paz), 4h. (near Honolulu T.H., and near Tortosa), 16h. (Vienna), 18h. (Ekaterinburg and Wellington), 19h. (Ekaterinburg, near La Paz, and Sucre), 22h. (Tiflis), 23h. (Batavia and near Malabar).

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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