The International Seismological Summary for 1925 July, August, September.

FORMERLY THE BULLETIN OF THE BRITISH ASSOCIATION SEISMOLOGY COMMITTEE.

The present number of the Summary deals with 123 epicentres, 38 of which are new and 85 repetitions from old epicentres.

Abnormal Focus.

The cases of abnormal focal depth are :—

Date	Epicentre	Focal Depth. (below normal)
d. h.	° °	
1925 Sept. 23 20	36·5N. 70·5E.	+0·020
Sept. 29 17	18·0N. 64·0W.	+0·005

The second of these is an alternative solution after a careful study of the residuals from a solution 18°·0N. 63°·0W.

The Earthquakes of 1925 June 28-29, &c.

At the end of the last number of this Summary appear two shocks in N. America which assumed inverted importance in the Press, as remarked in a letter to *The Times* on July 2. The first in Montana (46°·4N. 111°·2W. on June 28d. 1h. 20m. 59s.) was much the more severe, but did comparatively little damage. "It set buildings rocking and caused many chimneys to fall in the town of Butte. Thousands of people rushed into the streets. There were no casualties and no serious damage was done" (*Times*, 1925 June 29). After-shocks followed at 2h. 5m. 35s., 3h. 40m. 45s., and 22h. 31m. 50s. The Californian shock (34°·0N. 119°·0W. on June 29d. 14h. 42m. 10s.) affected the Oxford records only about one-sixth as much, but obtained six times the notice in the Press because it shook the summer resort of Santa Barbara and did considerable damage. The death roll, reported as 65 on the first day, was reduced to 12 on the second; but many buildings were destroyed, and some of those left standing were shaken down by after-shocks. The times of these were June 29d. 16h. 3m., 16h. 6m., 16h. 34m., 18h. 56m., June 30d. 9h. 18m.; July 3d. 16h. 37m., and 18h. 20m. (thus extending

into the present number of the Summary). It was reported on July 1 that " the greatest present danger is a huge pool, covering several acres, in the midst of which are the timber-stacks of the Lumber Yard Company. This pool has been formed from 70,000 gallons of petrol and 35,000 gallons of oil from burst tanks belonging to the Associated Oil Company."

Shocks near Athens.

On 1925 July 8d. 19h., August 5d. 5h. 1m., and August 7d. 6h. 46m. there were shocks from the epicentre 37°·4N. 30°·5E., or 5°·4 from Athens (following others from the same epicentre on 1922 June 3). In the study " Sur la sismicité des Cyclades et de la Crète " from Prof. N. A. Critikos, the epicentre is given (for those on Aug. 5 and 7) as 29°·1N. 38°·7E., probably by mistake for 38°·7N. 29°·1E. ; for in the text (p. 19) it is given as 480 km. distant from Athens. It is there remarked that on Aug. 11 the volcano of Santorin became active, and that the seismic activity near Athens thereupon ceased. " Depuis (le 11 août) aucun secousse n'a été sentie jusqu'aujourdhui (Mai 1926) dans la mer Egée et en Crète. Au contraire, en Asie Mineure et dans les Sporades méridionales il y a eu, à plusieurs reprises, même après la manifestation de l'activité volcanique dans les Cyclades, de violents sismes."

Prof. Grablovitz.

The death of Prof. G. Grablovitz on September 19, 1928, robs seismology of its doyen. He was for 43 years director of the R. Osservatorio Geodinamico di Casamicciola, founded as a consequence of the severe shocks of 1881 and 1883. A sympathetic biographical notice by Prof. G. Agamennone (in *Il Messagero* for Sunday Sept. 22, 1928) recalls, among other incidents, that when news of earthquakes was sent from the Observatories of Casamicciola and Ischia to the papers, the general public thought them a very bad advertisement for the neighbourhood, and insisted on their suppression.

The Oxford Station.

The seismographs of the Oxford University Observatory have been placed until recently on two piers in the basement of the Clarendon Laboratory, lent for the purpose by the courtesy of the Professor of Experimental Philosophy during the years 1918-1928. The piers were built by Professor R. B. Clifton for the use of Mr. C. V. Boys, F.R.S., in making his Cavendish Experiment 1890-1894.

By the help of a generous subsidy from Dr. J. E. Crombie, a basement for the seismographs has now been added to the University Observatory, together with rooms for computation and for housing the John Milne Library, and the Clarendon Laboratory basement has been vacated during the summer, the seismographs being transferred to "the Crombie Basement" under the superintendence of Mr. J. J. Shaw, who kindly visited Oxford for the purpose.

A small brass plate with inscription commemorating the use of the Clarendon Laboratory piers and basement for these extraneous purposes has been fixed in that basement, and thanks were formally tendered to Professor Lindemann on Nov. 23 by Professor Turner and Mr. C. V. Boys, who took the opportunity to recall the circumstances of his experiments in 1890-1894, during which he was on one occasion disturbed by an earthquake, viz., that in Roumania on 1893 Sept. 10d. 3h. 45m.

H. H. TURNER.

University Observatory, Oxford,
1928 Nov. 28.

1925 JULY, AUGUST, SEPTEMBER.

July 1d. 1h. 18m. 10s. Epicentre 45°·5N. 15°·0E. (as on 1920 May 5d.).

A = +·677, B = +·181, C = +·713 ; D = +·259, E = −·966 ;
G = +·689, H = +·185, K = −·701.

Laibach gives 45°·9N., 15°·5E., and the above is the nearest epicentre already used.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Laibach	0·6	329	i 0 14	+ 5	i 0 31	+14	—	0·8
Zagreb	0·8	65	i −0 2	−14	i 0 3	−19	—	0·3
Venice	1·9	268	0 38	+ 9	(1 0)	+ 7	—	—
Vienna	2·9	19	0 41	− 4	1 21	+ 1	—	1·8
Mostar	3·0	137	0 34	−13	1 2	−21	—	—
Innsbruck	3·1	305	e 1 8	+19	—	—	—	—
Budapest	3·4	55	e 0 50?	− 3	—	—	—	—
Rocca di Papa	4·0	205	e 1 25	+23	—	—	—	—
Zurich	4·8	296	i 0 14	−60	—	—	—	1·8
Strasbourg	5·8	305	—	—	—	—	e 3·3	4·1
Granada	16·2	246	—	—	—	—	—	19·5

Additional readings and notes: Zagreb i = +1s. Venice S is given as PN, also S = +1m.27s. Vienna iE = +44s. and +53s., P = +47s., S = +1m.28s.

July 1d. Readings also at 1h. (Taihoku and near Malabar), 4h. (near Nagasaki), 12h. (near Sumoto), 16h. (Ekaterinburg and Irkutsk), 20h. (Ekaterinburg).

July 2d. 16h. 38m. 55s. Epicentre 36°·5N. 1°·5E. (as on 1922 Nov. 19d.).

A = +·804, B = +·021, C = +·595 ; D = +·026, E = −·1·000 ;
G = +·595, H = +·016, K = −·804.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Algiers	1·3	76	i 0 22	+ 2	(0 32)	− 4	0·5	0·6
Barcelona	5·0	6	—	—	—	—	e 3·1	3·9
Moncalieri	9·7	28	—	—	—	—	e 5·6	—
Rocca di Papa	10·1	55	—	—	e 3 35	−57	e 5·7	—
Paris	12·4	3	—	—	—	—	e 7·1	7·1
Strasbourg	12·9	19	—	—	—	—	6·1	—
Uccle	14·5	8	—	—	—	—	e 7·1	—
Oxford	15·4	354	—	—	—	—	e 7·8	8·6
De Bilt	15·8	8	—	—	—	—	e 9·1	—
Edinburgh	19·6	352	—	—	—	—	e 9·1	—

Barcelona gives also MN = +3·7m.

July 2d. Readings also at 0h. (Ekaterinburg and Ottawa), 1h. (Rio Tinto), 3h. (near Nagasaki), 5h. (Apia), 7h. (Taihoku), 12h. (La Paz), 14h. and 15h. (near Athens), 18h. (near Algiers), 22h. (Apia and Rio Tinto).

July 3d. 6h. 16m. 40s. Epicentre 42°·4N. 21°·4E. (given by De Bilt and as on 1922 Sept. 3d.).

A = +·688, B = +·269, C = +·674; D = +·365, E = −·931; G = +·628, H = +·246, K = −·738.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Belgrade	2·5	344	e 0 28	−11	i 1 2	− 7	—	1·3
Zagreb	5·1	313	e 1 23	+ 4	e 2 26	+ 6	i 3·7	—
Rocca di Papa	6·4	262	e 2 29	+51	e 3 1	+ 6	3·4	4·4
Venice	7·2	297	e 3 36	?S	(e 3 36)	+21	5·3	—
Moncalieri	10·2	289	e 3 21	+48	—	—	6·9	—
Strasbourg	11·3	308	—	—	—	—	5·3	—
Uccle	14·4	311	—	—	—	—	7·3	—
De Bilt	14·6	317	—	—	—	—	e 7·9	—

Additional readings: Belgrade iP = +32s. Zagreb eP = +1m.37s., PR = +2m.12s.

July 3d. 16h. 37m. 45s. (I) } Epicentre 34°·0N. 119°·0W. (as on June 30d.)
18h. 20m. 55s. (II) }

A = −·402, B = −·725, C = +·559; D = −·875, E = +·485; G = −·271, H = −·489, K = −·829.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
I Lick	E.	4·0	329	i 0 59	− 3	i 1 50	0	—	—
I	N.	4·0	329	i 0 48	−14	i 1 45	− 5	—	—
II	E.	4·0	329	e 1 2	0	i 1 48	− 2	i 2·1	—
II	N.	4·0	329	e 0 53	− 9	i 1 51	+ 1	i 2·2	—
I Santa Clara	E.	4·2	327	−0 5	−70	—	—	0·7	1·3
I Berkeley	Z.	4·7	327	e 1 16	+ 3	e 2 18	+ 9	—	—
I	N.	4·7	327	e 1 17	+ 4	e 2 20	+11	—	—
II		4·7	327	e 1 15	+ 2	e 2 7	− 2	—	—
II Tucson	E.	7·0	102	4 5	?L	—	—	5·5	5·8
I Victoria	E.	14·8	349	—	—	—	—	9·2	10·4
II	E.	14·8	349	—	—	—	—	8·2	10·9
II Chicago	N.	25·8	63	—	—	12 5	?	14·3	14·8
II Ann Arbor		28·7	63	—	—	—	—	17·0	—
I Toronto	N.	32·0	60	—	—	—	—	17·6	—
II	E.	32·0	60	—	—	—	—	e 17·3	20·4
I Georgetown		33·8	69	—	—	e 13 51	+73	(e 17·7)	—
II		33·8	69	—	—	e 13 31	+53	21·1	—
I Ottawa		34·7	58	—	—	e 15 23	?SR_2	e 18·8	—
II		34·7	58	—	—	e 15 35	?SR_2	e 18·1	—
II Honolulu		36·6	263	—	—	—	—	e 17·2	—
II Harvard		38·0	62	—	—	—	—	e 19·1	21·2

Additional readings: Lick I gives also iPR_2N = +1m.7s., iPR_2E? = +1m.12s., iSR_2E? = +1m.56s., iSR_2N? = +1m.57s., II iPR_2 = +1m.11s., and gives many other i readings. Berkeley I ePE = +1m.21s., II eSEZ = +2m.8s. Tucson II eE = +5m.5s. Victoria II LN = +9·2m. Chicago II eN = +13m.37s. and +14m.3s., eLE = +15·9m., ME = +16·9m. Ann Arbor II e = +15m.16s. Toronto I eE = +19m.8s., LE = +20·2m., II LN = +17·6m. Georgetown I eSN? = +17m.49s., L is given as eSE, II eN = +13m.27s. Harvard II eLE = +23·6m.

July 3d. 19h. 20m. 54s. Epicentre 35°·7N. 134°·8E. (as on June 23d.).

A = −·572, B = +·576, C = +·584; D = +·710, E = +·705; G = −·411, H = +·414, K = −·812.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Kobe	1·1	163	0 22	+ 5	(0 44)	+13	0·7	1·0
Osaka	1·2	154	0 31	+13	—	—	0·9	1·7
Sumoto	1·4	177	0 21	0	(0 40)	+ 1	0·7	0·7
Nagoya	1·8	107	0 27	− 1	—	—	1·2	1·4
Hukuoka	4·3	240	0 42	−25	—	—	1·4	1·6
Nagasaki	5·1	235	1 3	−16	1 56	−24	2·1	2·1

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	27·1	317	—	—	e 9 6?	−97	14·1	—
Phu-Lien	28·8	246	—	—	—	—	15·1	—
Ekaterinburg	52·4	319	—	—	—	—	25·6	—
Baku	64·3	303	—	—	—	—	34·1	—
Kucino	64·7	322	—	—	—	—	33·9	35·9
Pulkovo	66·2	328	—	—	—	—	35·1	—
De Bilt	81·8	331	—	—	—	—	e 44·1	—
Uccle	83·1	331	—	—	—	—	e 44·1	—

Additional readings: Kobe MN = +0·8m., MZ = +0·7m. Osaka MN = +1·8m.

July 3d. 23h. 53m. 50s. Epicentre 35°·7N. 134°·8E. (as at 19h.).

	Δ	P.	O−C.	S.	O−C.	L.	M.
	°	m. s.	s.	m. s.	s.	m.	m.
Kobe	1·1	0 11	− 6	—	—	0·6	0·6
Osaka	1·2	0 20	+ 2	—	—	0·7	0·8
Sumoto	1·4	0 15	− 6	(0 35)	− 4	0·6	0·6
Nagoya	1·8	0 34	+ 6	—	—	—	—

Osaka gives also MN = +1·6m.

July 3d. Readings also at 5h. (Agana), 9h. (near La Paz), 10h. (Ekaterinburg), 17h. (near Osaka, Kobe, and Sumoto), 18h. (near Lick), 19h. (near Hukuoka, Kobe, and Sumoto), 23h. (near Athens (2) and near Hukuoka).

July 4d. 8h. 13m. 2s. Epicentre 30°·0N. 119°·5E. (as on 1921 Dec. 1d.).

A = −·426, B = +·754, C = +·500; D = +·870, E = +·492; G = −·246, H = +·435, K = −·866.

Very doubtful.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Phu-Lien	14·8	235	e 3 32	− 4	e 8 11	+104	e 11·4	—
Hyderabad	39·4	263	e 8 34	+44	—	—	—	—
Bombay	43·6	268	7 58?	−25	—	—	—	—
Ekaterinburg	48·4	321	i 8 56	0	e 15 59	0	26·0	—
Baku	56·4	301	—	—	e 20 53	+194	27·8	28·0
Pulkovo	64·0	326	e 10 39	+ 1	e 19 18	+ 5	33·0	—
Eskdalemuir	81·6	331	—	—	—	—	47·0	—
Chicago	102·4	21	—	—	—	—	42·0	—

Baku gives also e = +24m.46s. = SR_e +6s.

July 4d. 9h. 9m. 45s. Epicentre 8°·4S. 155°·8E.

(as on 1924 Sept. 6d.).

A = −·902, B = +·406, C = −·146; D = +·410, E = +·912; G = +·133, H = −·060, K = −·989.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Sydney	25·8	189	—	—	10 57	+39	15·0	18·2
Riverview	25·8	189	e 6 19	+33	e 10 36	+18	e 11·4	15·7
Amboina	27·8	278	6 51	+45	i 11 27	+32	18·2	—
Adelaide	30·9	208	e 6 51	+14	i 11 57	+ 7	i 15·6	20·6
Melbourne	31·0	197	e 6 39	+ 1	i 12 15	+24	i 16·0	19·2
Apia	32·3	101	7 3	+12	—	—	e 17·2	—
Wellington	37·0	157	7 34	+ 4	e 13 14	−10	e 19·1	24·1
Manila	41·5	303	i 7 58	− 9	(i 13 45)	−43	i 13·8	—
Perth	43·9	231	6 10	−135	15 5	+ 4	24·7	—
Osaka	47·2	337	8 8	−40	—	—	21·4	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Malabar		47·7	269	8 49	− 3	15 39	−11	—	—
Batavia		48·5	269	8 28	−29	15 45	−15	24·2	—
Mizusawa	E.	49·4	349	(9 17)	+14	9 17	?P	—	—
Hong Kong		51·1	309	9 2	−12	16 5	−27	—	26·1
Zi-ka-wei		51·5	323	i 9 39	+22	e 17 1	+23	26·6	30·3
Honolulu	E.	54·2	56	e 9 18	−16	17 33	+22	—	27·5
	N.	54·2	56	9 15	−19	—	—	e 25·6	26·2
Phu-Lien	E.	56·4	301	i 9 46	− 2	e 17 26	−13	26·2	—
Hyderabad		80·6	290	i 21 58	?S	(i 21 58)	−32	—	45·2
Bombay		86·1	290	23 1	?S	(23 1)	−30	—	23·3
Victoria	E.	90·3	41	24 53	?S	(24 53)	+36	42·1	44·7
	N.	90·3	41	—	—	31 43	?SR_1	42·6	—
Ekaterinburg		99·8	326	i 13 47	−23	i 24 19	[− 4]	41·2	61·6
Baku		107·5	310	e 18 50	?PR_1	e 27 37	+31	44·2	55·8
Kucino		112·4	328	e 19 15	?PR_1	e 25 17	[− 3]	48·0	68·5
Pulkovo		114·5	334	14 47	−31	—	—	54·2	64·0
Chicago	E.	115·3	47	—	—	e 29 30	?	54·6	60·7
Ann Arbor	E.	118·0	45	—	—	e 43 15	?	e 57·2	65·2
Upsala	N.	119·8	337	—	—	—	—	e 58·2	68·2
Toronto		120·6	44	—	—	e 26 37	[+50]	58·4	64·8
Cape Town		121·4	221	—	—	—	—	—	66·2
Konigsberg		121·6	331	—	—	e 37 15?	?SR_1	e 60·2	66·2
Ottawa		122·3	41	e 14 23	−91	e 26 39	[+48]	63·2	—
Ithaca		123·0	43	—	—	—	—	60·2	—
Georgetown		123·8	48	—	—	—	—	64·6	—
Fordham		125·5	44	—	—	e 27 37	−113	59·6	66·2
Harvard	E.	126·7	42	—	—	e 59 45	?L	62·9	65·8
	N.	126·7	42	—	—	e 60 46	?L	e 62·7	64·9
Hamburg		127·1	335	e 19 15?	[+ 4]	—	—	e 60·2	—
Vienna		127·5	328	i 19 13	[0]	28 11	−93	e 64·2	73·2
Zagreb		129·1	324	e 19 15?	[− 1]	—	—	—	—
Edinburgh		129·7	345	e 7 15?	?	—	—	—	—
La Paz		129·9	120	i 19 31	[+13]	22 53	?PR_1	—	—
De Bilt		130·2	337	19 18	[0]	—	—	e 54·2	73·6
Eskdalemuir		130·2	345	21 29	?PR_1	—	—	55·2	—
Innsbruck		130·7	329	i 18 19	[−61]	—	—	—	—
Stonyhurst		131·3	341	—	—	—	—	e 65·2	—
Venice		131·4	327	20 15?	[+53]	—	—	—	25·2
Uccle		131·5	337	e 19 19	[− 3]	1 22 45	?PR_1	57·2	72·0
Strasbourg		131·7	329	19 20	[− 2]	—	—	40·2	—
Bidston		131·8	343	10 42?	?	22 40	?PR_1	54·0	69·0
Oxford		132·7	340	i 22 45	?PR_1	—	—	58·5	79·2
Pompeii		132·9	320	e 21 31	?PR_1	—	—	—	—
Rocca di Papa		133·4	322	e 19 24	[− 2]	e 22 44	?PR_1	—	—
Besançon		133·5	332	e 22 50	?PR_1	—	—	—	—
Paris		133·7	337	i 19 26	[− 1]	—	—	65·2	73·2
Moncalieri		134·2	328	19 31	[+ 3]	31 37	—	49·7	—
Algiers		142·3	324	e 19 16	[−28]	23 14?	?PR_1	61·0	—
Toledo		143·7	334	e 19 36	[−10]	e 27 48	?	—	77·8
Almeria		145·3	330	19 47	[− 2]	e 27 41	?	e 41·2	—
Granada		145·7	331	19 47	[− 2]	—	—	e 78·2	87·2
Malaga		146·4	331	19 44	[− 6]	27 44	?	41·0	—
San Fernando		147·5	332	i 19 53	[+ 1]	—	—	71·2	80·8

Additional readings and notes: Riverview eS = +11m.17s., MZ = +16·5m., MN = +16·7m. Amboina i = +7m.27s. = PR_2 + 24s., iN = +12m.9s. = SR_1 − 3s. Adelaide iSR_1 = +13m.57s. Perth PR_1 = +10m.50s. = PR_1 + 41s., SR_1 = +15m.30s., SR_2 = +21m.35s. Mizusawa SN = +9m.16s.; all readings having been diminished by 1h. Honolulu iE = +9m.57s. and +17m.20s., eE = +11m.23s., eN = +17m.6s., SR_1N = +22m.34s., SR_1E = +23m.2s., SR_2N = +24m.30s., SR_2E = +24m.55s. Victoria SE = +30m.3s. = SR_1 − 31s. Ekaterinburg iPR_1 = +17m.50s., iPR_2 = +19m.59s., MN = +56·4m. Baku MZ = +70·2m. Kucino e = +28m.45s., and +33m.3s., MN = +68·2m. Pulkovo PR_1 = +19m.27s., PR_2 = +25m.24s. = [S] − 3s., ePS = +29m.4s., MN = +67·2m. Chicago ePR_2N = +19m.43s. = PR_1 − 10s., SR_2N = +35m.36s. = SR_1 − 13s., SR_2E = +36m.4s., LN = +54·5m., MN = +62·4m. Ann Arbor eLN = +62·2m. Toronto LE = +31m.53s. Konigsberg ePR_1? = +20m.15s., eL = +62·2m. Ottawa eE = +20m.45s. = PR_1 + 5s., eL = +32·2m., LN = +64·2m. Georgetown LN = +67·6m. Fordham e = +37m.50s. = SR_1 − 5s. Vienna SR_1 = +33m.2s., SR_2 = +36m.4s. De Bilt e = +21m.23s. = PR_1 − 9s., and +22m.41s., MN = +71·3m., MZ = +73·8m. Eskdalemuir e = +30m.15s. and +39m.15s. = SR_1 + 23s. Strasbourg ePZ = +19m.21s., ePEN = +19m.25s., e = +22m.42s. Paris PR_1 = +22m.47s., MN = +75·2m. Toledo MNW = +77·6m. Granada i = +20m.59s. and +21m.41s. San Fernando PR_1 = +21m.28s.

July 4d. 17h. 48m. 5s. Epicentre 46°·0N. 12°·0E. (as on 1922 Nov. 8d.).

A = +·679, B = +·144, C = +·719 ; D = +·208, E = −·978 ; G = +·704, H = +·150, K = −·695.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Venice	0·6	158	i 0 7	− 2	i 0 19	+ 2	—	0·4
Innsbruck	1·3	342	i 0 13	− 7	(i 0 32)	− 4	i 0·5	—
Zurich	2·7	302	i 0 41	− 1	i 1 15	+ 1	—	—
Zagreb	2·8	94	e 0 32	−12	i 1 10	− 7	—	—
Moncalieri	3·2	252	e 1 9	+19	—	—	—	—
Vienna	3·7	51	e 0 48	−10	i 1 38	− 4	i 1·7	1·9
Strasbourg	3·9	314	e 1 3	+ 2	e 1 54	+ 7	—	2·6
Besançon	4·2	289	e 1 22	+17	—	—	—	—
Budapest	5·1	70	—	—	e 2 25	+ 5	—	—
Hamburg	7·7	351	—	—	—	—	e 3·9	—

Additional readings: Zagreb eP = +39s., iPR$_1$ = +1m.0s., iPR$_2$S = +1m.7s., iSR$_1$ = +1m.17s. Vienna P = +54s., iN = +1m.0s., +1m.16s. Strasbourg eP = +1m.19s.

July 4d. 22h. 16m. 54s. Epicentre 2°·0N. 126°·0E.

A = −·587, B = +·809, C = +·035 ; D = +·809, E = +·588 : G = −·021, H = +·028, K = −·999.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina	6·1	159	i 1 42	+ 9	3 0	+14	—	—
Manila	13·5	339	e 3 36	+16	—	—	i 7·0	—
Malabar	20·5	243	e 4 43	− 4	8 42	+ 8	—	—
Batavia	20·8	247	e 5 0	+ 9	—	—	—	—
Hong Kong	23·3	331	2 16	?	9 36	+ 5	—	11·3
Phu-Lien	26·6	316	e 5 48	− 6	e 10 19	−14	e 12·6	—
Ekaterinburg	75·1	329	i 11 48	− 2	i 21 20	− 7	33·1	—
Baku	78·1	311	i 12 8	0	i 22 0	− 1	39·1	47·8
Pulkovo	91·1	330	13 8	−14	24 3	−22	45·1	58·2
Konigsberg E.	97·2	325	—	—	e 24 14	[+ 5]	—	—
Strasbourg	106·6	322	e 24 6?	?PR$_2$	e 34 6?	?SR$_1$	e 63·1	—
De Bilt	106·7	325	—	—	e 25 0	[+ 5]	e 55·1	—
Uccle	107·7	325	e 25 6	?S	(e 25 6)	[+ 6]	e 56·1	—
Eskdalemuir	108·3	332	—	—	e 25 10	[+ 7]	49·1	—
Edinburgh	108·9	331	—	—	e 25 6?	[0]	—	—
Granada	118·7	315	e 21 50	?PR$_1$	e 33 34	?	e 63·6	73·2
La Paz	159·9	137	13 13	?	—	—	—	—

Additional readings: Amboina i = +2m.36s. [S] +3s. Eskdalemuir e = +28m.26s. PR$_2$ −27s., and +25m.46s. = [S] +5s. Pulkovo i = +23m.37s. = Granada i = +23m.6s.

July 4d. Readings also at 2h. (Taihoku and near Sumoto), 4h. (Chicago and near Lick), 5h. (Apia and near Sumoto), 8h. (near Nagasaki and near Osaka), 14h. (Manila), 17h. (Florence), 18h. (near Santa Clara), 19h. (Zagreb, La Paz, near Laibach, and near Lick and Berkeley), 20h. (Kucino and Zagreb).

July 5d. 7h. 1m. 56s. Epicentre 13°·0N. 43°·0W.

A = +·713, B = −·665, C = +·225 ; D = −·682, E = −·731 ; G = +·165, H = −·153, K = −·974.

Was there a previous shock (Paris, Strasbourg, Konigsberg) ?

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
La Paz	38·6	220	i 7 44	+ 1	—	—	20·9	23·0
San Fernando	40·4	48	—	—	—	—	—	29·6
Rio Tinto	40·7	46	13 4	?	—	—	—	25·1
Malaga	41·4	49	8 10	+ 4	13 31	+ 4	—	—
Granada	42·6	49	i 8 14	− 1	14 49	+ 6	i 20·2	21·5

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Ottawa	42·7	326	e 7 20	−56	e 13 34	−70	e 18·1	—
Almeria	43·4	49	8 21	0	i 14 53	− 1	e 22·8	36·7
Toledo	43·5	45	e 8 18	− 4	e 14 48	− 7	e 20·6	26·2
Toronto	43·7	321	e 9 27	?PR_1	e 14 3	−55	19·5	—
Ann Arbor	45·8	318	e 12 10	?	—	—	e 19·1	—
Chicago	48·2	315	9 15	+20	15 12	−44	21·3	27·8
Bidston	51·3	30	14 24	?	16 27	− 8	21·8	25·1
Paris	51·8	37	e 6 57	−142	e 16 39	− 2	27·1	30·1
Eskdalemuir	52·3	27	e 9 23	+ 1	e 16 41	− 7	22·1	—
Edinburgh	52·7	27	—	—	i 16 52	0	—	28·1
Uccle	53·8	34	—	—	e 17 8	+ 2	e 24·1	—
Dyce	54·0	26	—	—	17 1	− 8	26·8	29·8
De Bilt	54·8	33	9 45	+ 7	17 23	+ 4	—	—
Strasbourg	54·8	39	e 8 4?	−94	e 17 4?	−15	26·1	—
Rocca di Papa	56·0	48	e 7 19	?	—	—	—	—
Konigsberg	64·3	35	9 30	−70	e 19 10	− 7	e 34·9	37·4
Pulkovo	70·4	30	11 19	0	20 33	+ 2	33·1	40·2
Victoria E.	74·0	318	—	—	—	—	37·4	40·8
Kucino	74·2	35	—	—	20 26	−50	38·1	41·0
Ekaterinburg	86·5	32	12 57	+ 1	e 23 23	−13	38·1	45·7

Additional readings: San Fernando MN = +21·1m. Granada i = +10m.2s. and +22m.7s. Ottawa e = +9m.4s., eSN? = +13m.42s. Toledo MNW = +25·8m. Chicago eN = +18m.28s. and +19m.33s. = SR_1 +1s., eE = +18m.32s., LN = +20·1m., MN = +28·8m. Rocca di Papa eZ = +10m.4s. = P +18s. Konigsberg eE = +22m.34s., +23m.30s., and +32m.10s. Pulkovo MZ = +37·0m. Victoria LN = +34·4m. Kucino e = +29m.46s. = SR_2 −7s. Ekaterinburg MZ = +50·2m.

July 5d. Readings also at 2h. (Granada, Ottawa, Toronto, and Victoria (2)), 4h. (Honolulu, Granada, Ottawa, Toronto, and Victoria (2)), 5h. (Taihoku), 6h. (near Athens), 8h. (Stonyhurst), 9h. (Zagreb), 11h. (Kobe), 13h. (Ekaterinburg and Zagreb), 14h. (near Taihoku, near Hukuoka, Kobe, Osaka, and Sumoto), 16h. (Ekaterinburg), 17h. (Granada, De Bilt, La Paz, and La Plata), 18h. (Ekaterinburg), 19h. (Granada), 20h. (Uccle, Ekaterinburg, De Bilt, Kucino, and Pulkovo), 23h. (Zagreb and near Laibach).

July 6d. 7h. 4m. 0s. Epicentre 18°·5S. 176°·0W. (as on 1923 June 18d.).

A = −·946, B = −·066, C = −·317; D = −·070, E = +·998;
G = +·317, H = +·022, K = −·948.

Very uncertain.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Apia	6·2	42	—	—	—	—	e 3·0	—
Riverview	33·0	235	e 8 20	?PR_1	i 10 55	−89	—	14·0
Honolulu N.	43·5	25	—	—	i 14 57	+ 2	—	15·1
Batavia	75·8	270	i 11 44	−10	i 20 27	−68	—	—
Victoria E.	81·7	33	—	—	(23 19)	+36	23·3	23·6
Toronto E.	107·3	48	—	—	i 24 37	[−21]	29·2	—
Ottawa	110·1	46	—	—	24 40	[−30]	—	—
Pulkovo	134·6	340	i 19 26	[− 3]	i 22 59	?PR_1	24·0	—
Baku	135·1	310	i 19 27	[− 3]	i 22 7	?PR_1	—	—
Hamburg Z.	144·6	354	e 19 46	[− 2]	—	—	—	—
De Bilt Z.	146·4	357	e 19 50	[0]	—	—	—	—
Paris	149·6	2	e 19 56	[+ 1]	e 22 5	?PR_1	—	—
Rocca di Papa	155·6	344	e 20 0	[− 3]	—	—	50·0	—
Granada	160·4	18	i 20 5	[− 3]	29 20	?	—	—

Additional readings: Apia e = +5m.0s. Honolulu eE = +15m.0s. (O−C = +5s.). Toronto eE = +28m.20s. Ottawa eE = +25m.42s. and +28m.38s., eN = +30m.0s. Hamburg iPZ = +19m.50s. De Bilt iZ = +19m.56s., e = +22m.2s. Rocca di Papa eN = +20m.24s. Granada i = +22m.32s. and +32m.13s.

July 6d. 12h. 15m. 45s. Epicentre **38°·0N. 21°·5E.**
(as on 1918 July 11d.).

A = +·733, **B** = +·289, **C** = +·616; **D** = +·366, **E** = −·930; **G** = +·573, **H** = +·226, **K** = −·788.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Athens		1·8	91	i 0 33	+ 5	(0 49)	− 2	0·8	1·4
Mostar	E.	6·0	334	i 1 32	0	i 2 16	−28	—	3·3
	N.	6·0	334	i 1 33	+ 1	i 2 24	−20	—	3·0
Pompeii		6·1	299	e 1 30	− 3	e 1 53	−53	—	5·2
Sarajevo		6·3	339	i 1 44	+ 8	2 48	− 4	—	4·2
Naples		6·3	299	e 1 15	−21	e 1 45	−67	—	5·2
Belgrade		6·8	354	i 1 49	+ 5	—	—	—	4·6
Rocca di Papa		7·7	302	e 1 50	− 7	3 16	−13	i 4·4	5·0
Zagreb		8·8	334	i 2 17	+ 4	i 3 58	0	—	6·0
Florence		9·6	310	2 30	+ 6	5 15	?L	(5·2)	6·2
Budapest		9·6	350	e 2 45	+21	5 21	?L	(5·4)	—
Laibach		9·6	329	i 2 25	+ 1	i 4 6	−12	—	6·3
Venice		10·1	320	e 2 36	+ 5	5 50	?L	(5·8)	9·6
Vienna		10·9	341	2 41	− 2	5 7	+15	i 5·8	7·3
Helwan		11·5	132	e 2 43	− 9	i 4 35	−32	—	—
Lemberg		11·9	8	e 3 2	+ 4	e 5 27	+10	—	7·6
Innsbruck		11·9	325	i 2 59	+ 1	i 5 8	− 9	—	5·2
Moncalieri		12·4	308	3 6	+ 1	5 52	+23	7·5	8·4
Zurich		13·3	319	i 3 19	+ 2	i 5 45	− 6	—	—
Cheb		13·7	335	e 3 22	0	e 6 26	+25	—	10·2
Grenoble		13·8	306	e 2 41	−42	—	—	—	—
Strasbourg		14·5	321	3 34	+ 1	6 34	+14	7·2	9·2
Besançon		14·6	314	3 38	+ 4	i 6 12	−10	—	—
Algiers		14·7	271	i 3 36	+ 1	6 15?	−10	—	14·2
Barcelona		15·3	289	3 54	+11	e 6 39	0	e 8·1	12·3
Puy de Dôme		15·8	306	e 3 56	+ 7	—	—	—	—
Tortosa		16·4	287	4 1	+ 4	6 57	− 7	11·0	14·5
Konigsberg		16·8	358	4 1	− 1	7 11	− 2	e 9·2	11·8
Piatigorsk		17·3	63	i 4 3	− 6	i 7 18	− 7	—	11·2
Alicante	E.	17·3	278	i 4 8	− 1	7 50	+25	12·2	—
	N.	17·3	278	4 6	− 3	7 32	+ 7	12·2	—
Paris		17·4	314	i 4 12	+ 2	i 7 33	+ 6	10·2	11·2
Hamburg		17·5	337	i 4 12	+ 1	i 7 35	+ 6	—	10·2
Uccle		17·6	322	i 4 17	+ 5	i 7 38	+ 7	9·2	—
De Bilt		18·1	326	i 4 23	+ 5	7 50	+ 8	9·0	—
Almeria		19·0	274	i 4 32	+ 3	8 19	+17	10·5	12·5
Granada		19·8	275	i 4 37	− 2	8 25	+ 6	e 15·2	17·7
Toledo		19·9	283	e 4 37	− 3	i 8 22	+ 1	e 9·6	16·2
Malaga		20·6	274	4 44	− 4	8 40	+ 4	12·6	—
Kucino		20·9	26	i 4 39	−13	i 8 24	−18	10·4	—
Oxford		21·1	318	i 4 51	− 3	i 8 43	− 3	—	9·6
West Bromwich		21·8	319	4 54	− 9	8 50	−11	—	—
Upsala		22·0	355	4 58	− 7	i 8 56	− 9	e 9·8	14·5
Baku		22·0	75	i 4 58	− 7	9 15	+10	10·6	10·7
San Fernando		22·1	274	i 5 19	+13	i 9 35	+28	—	14·8
Pulkovo		22·4	11	i 5 2	− 8	i 9 2	−11	10·8	14·0
Stonyhurst		22·8	322	i 5 9	− 6	i 9 15	− 6	—	10·0
Bidston		22·9	320	5 12	− 4	9 20	− 3	9·4?	9·8
Lisbon		23·9	281	5 20	− 7	9 29	−13	—	—
Eskdalemuir		24·0	324	5 21	− 7	9 34	−10	12·2	—
Edinburgh		24·3	325	5 27	− 4	i 9 51	+ 1	—	10·4
Bergen		24·6	341	3 35	−119	i 7 45	−130	—	—
Dyce		24·7	329	5 27	− 8	9 54	− 3	12·7	16·8
Ekaterinburg		31·8	41	i 6 28	−17	i 11 31	−34	16·2	19·7
Bombay		48·3	98	8 38	−18	—	—	—	—
Irkutsk		56·8	47	—	—	—	—	e 42·2	—
Ottawa		68·4	312	e 11 19	+12	e 20 11	+ 4	e 28·2	—
Toronto		71·5	313	e 11 48	+21	e 20 44	0	30·9	—
Georgetown	E.	72·8	307	e 11 47	+12	e 20 25	−33	e 22·4	—
	N.	72·8	307	e 11 44	+ 9	e 20 59	− 1	—	—
Victoria	N.	88·1	339	—	—	—	—	48·4	—
Batavia		90·1	98	e 11 38	−99	i 23 41	[+12]	—	—
La Paz		99·8	259	16 15	+125	—	—	—	—

Additional readings: Zante (Δ = 2°·3) gives 14h.15m. Sarajevo P = +1m.58s., MN = +2·9m., LN = +5·8m., LE = +7·2m. Belgrade i = +2m.7s., + 2m.18s., and +3m.35s., SR_i = +4m.9s., MN = +4·9m. Rocca di Papa ePN = +2m.2s. and +2m.14s., iPN = +2m.12s. and +2m.19s.,

Continued on next page.

MZ = +4·4m., MN = +5·4m. Zagreb i = +2m.25s., +2m.37s. and +3m.21s. Vienna iE = +3m.53s., iZ = +3m.59s., iN = +4m.1s., MNZ = +8·0m. Moncalieri MN = +9·5m. Grenoble eP = +2m.47s., e = +5m.4s. and +5m.18s. Strasbourg P = +3m.35s., SN = +6m.35s., SE = +6m.52s. and +6m.58s. Barcelona MN = +12·0m. Konigsberg eN = +4m.16s., +4m.25s., and +7m.17s., PR_1 = +4m.18s., eE = +4m.45s., e = +7m.34s. and +8m.26s., SR_1N = +8m.11s. Alicante iPZ = +4m.10s. (O − C = +1s.). Paris +7m.57s. = SR_3 − 1s. Almeria MN = +11·3m., MZ = +11·6m. Granada PS = +8m.50s. = SR_1 − 2s. Toledo PR = +4m.56s., PR_2NW = +5m.7s., PR_2NE = +5m.8s., SR_1NW = +8m.47s., SR_1NE = +8m.54s., MNW = +16·6m. Kucino PR_3 = +5m.5s. = PR_1 − 8s. Upsala iSN = +8m.58s., SR_1N = +9m.31s. Baku i = +5m.29s. = PR_1 +1s., MZ = +10·9m. Pulkovo MNZ = +14·7m. Bidston S = +7m.25s. Edinburgh i = +9m.39s. Dyce i = +5m.45s., +5m.55s., and +6m.24s. Ekaterinburg i = +6m.53s. = P +8s., and +12m.10s. = S +5s., iSR_1 = +12m.1s., MN = +19·2m., MZ = +19·9m.

July 6d. 16h. 46m. 55s. Epicentre 35°·7N. 134°·8E. (as on 1925 July 3d.).

A = −·572, B = +·576, C = +·584; D = +·710, E = +·705; G = −·411, H = +·414, K = −·812.

		Δ	Az.	P.	O − C.	S.	O − C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Kobe		1·1	163	0 18	+ 1	0 30	− 1	0·7	2·6
Osaka		1·2	154	0 19	+ 1	—	—	0·6	1·2
Sumoto		1·4	177	0 27	+ 6	—	—	0·8	1·0
Nagoya		1·8	107	0 3	−25	(0 13)	−38	0·2	—
Nagasaki		5·1	235	2 2	+43	(2 2)	−18	3·4	4·0
Hukuoka	N.	4·3	240	1 28	+21	—	—	2·8	3·2
Mizusawa	E.	6·0	54	1 15	−17	2 19	−25	—	—
	N.	6·0	54	1 20	−12	2 18	−26	—	—
Irkutsk		27·1	317	e 5 50	− 9	e 11 18	+35	16·1	—
Ekaterinburg		52·4	319	9 13	− 9	e 16 44	− 5	27·6	33·8
Baku		64·3	303	e 11 7	+27	e 19 27	+10	e 33·1	—
Pulkovo		66·2	328	10 58	+ 5	19 38	− 2	33·6	42·3
De Bilt		81·8	331	—	—	22 32	−12	e 43·1	—
Eskdalemuir		82·2	338	—	—	—	—	42·1	—
Uccle		83·1	331	—	—	—	—	e 44·1	—
Strasbourg		83·5	329	—	—	—	—	e 48·1	—
Paris		85·4	331	—	—	—	—	e 50·1	—
Granada		97·5	328	23 38	?S	(23 38)	[−32]	60·6	62·3

Additional readings: Kobe MNZ = +0·8m. Osaka MN = +1·0m. Nagasaki MN = +3·9m. Pulkovo MZ = +42·8m. Granada S = +33m.28s.

July 6d. Readings also at 5h. (Zagreb), 11h. (Almeria, Eskdalemuir, De Bilt, Ekaterinburg, Granada, Toronto, Ottawa, and Victoria), 12h. (Victoria), 13h. (Granada), 14h. (Apia), 21h. (Georgetown, Ottawa, Toronto, Ann Arbor, Ithaca, Harvard, Ekaterinburg, and near Batavia and Malabar).

July 7d. 8h. 4m. 5s. Epicentre 14°·0S. 174°·0W. (as on 1925 May 3d.).

A = −·965, B = −·101, C = −·242.

The effect of this shock was masked by the following shock and only the following times are recognisable:—

	Δ	Az.	P.	O − C.	M.
	°	°	m. s.	s.	m.
Apia	2·2	86	i 0 43	+ 9	1·2
De Bilt	141·9	1	e 19 44	[+ 1]	—
Uccle	143·2	3	e 19 30	[−15]	—
Paris	145·1	356	e 19 38	[−10]	—
Strasbourg	145·4	358	e 19 38	[−11]	—
Granada	155·3	19	i 20 20	[+18]	—

July 7d. 8h. 14m. 0s. Epicentre 34°·0S. 57°·0E. (as on 1925 May 28d.).

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	—	—	—	—	12·0	—
Colombo	46·3	32	8 40?	− 2	15 0	−32	22·7	25·0
Kodaikanal	48·3	26	23 12	?L	—	—	(23·2)	—
Batavia	53·7	70	9 32	+ 1	—	—	—	—
Bombay	55·0	19	9 37	− 2	17 15	− 6	26·2	—
Hyderabad	55·4	25	9 41	− 1	17 24	− 2	23·4	30·4
Simla E.	67·9	19	—	—	—	—	e 32·6	—
Melbourne	68·6	122	—	—	—	—	—	35·0
Phu-Lien	72·3	49	e 11 31	− 1	e 20 49	− 5	38·0	—
Baku	74·7	355	i 11 54	+ 7	21 43	+21	36·0	49·4
Riverview	74·9	121	(e 11 30)	−18	(20 6)	−79	—	(46·1)
Sydney	74·9	121	29 30	?SR_2	—	—	37·9	39·5
Hong Kong	78·3	53	12 0	− 9	22 5	+ 1	—	50·0
Wellington	85·5	139	—	—	—	—	e 40·0	—
Rocca di Papa	85·9	329	12 55	+ 2	—	—	—	—
Algiers	86·8	320	e 12 55	− 3	—	—	e 25·5	—
Moncalieri	90·7	328	e 12 25	−55	23 9	[−23]	38·2	—
Granada	90·8	317	i 13 18	− 2	e 24 7	−15	e 47·3	55·4
Ekaterinburg	90·9	3	i 13 14	− 7	23 32	[− 1]	40·0	53·9
Malaga	90·9	317	13 18	− 3	—	—	—	—
Tortosa N.	91·1	321	—	—	—	—	e 47·0	52·2
Kucino	91·2	350	13 30	+ 8	24 16	−10	46·0	55·1
San Fernando	91·8	315	—	—	—	—	—	58·0
Strasbourg	93·5	330	(13 28)	− 7	(26 0)?	+69	26·0	—
Konigsberg N.	94·2	341	—	—	—	—	e 39·9	—
Paris	95·9	329	(13 40)	− 8	—	—	53·0	64·0
Pulkovo	96·3	348	12 38	−73	24 15	[+11]	46·0	57·8
De Bilt	97·3	332	e 13 46	−10	e 17 44	?PR_1	e 54·0	—
Oxford	99·7	328	—	—	e 24 47	[+24]	—	64·8
Bidston	101·6	329	18 20	?PR_1	24 44	[+12]	—	—
Edinburgh	103·4	330	e 18 0?	?PR_1	—	—	—	—
Dyce	103·9	331	e 18 24	?PR_1	e 24 52	[+ 9]	e 33·8	—
La Paz	107·4	235	e 19 25	?PR_1	—	—	56·8	58·0
Ottawa	142·5	302	e 20 0?	[+16]	e 23 0?	?PR_1	81·5	—
Toronto E.	145·1	299	e 19 48	[0]	—	—	81·2	89·4
Chicago E.	151·2	296	—	—	—	—	78·3	88·4
Victoria N.	165·6	1	—	—	—	—	86·3	96·6

Additional readings and notes: Simla eN = +34m.24s. Baku MN = +47·9m., MZ = +48·4m. Riverview MN = +46·3m.; all the readings have been increased by 6 min. Granada i = +16m.38s. (?PR_1). Ekaterinburg i = +16m.48s., e = +18m.45s., +23m.10s., and other values, MZ = +50·0m., MN = +54·0m. Kucino ePR_1 = +16m.46s. San Fernando MN = +53·0m. Strasbourg P is given as PR_1, also PR_1 = +13m.30s. Konigsberg eN = +40m.18s. Paris P is given as PR_1. Pulkovo PR_1 = +17m.30s., PR_2 = +19m.36s., MN = +56·4m. La Paz MN = +62·2m. Ottawa eE? = +15m.24s., e or eLN = +41·4m. = SR_1 +0·0m.

In several cases the [P] of the previous shock has been given as the real P of this shock.

July 7d. 14h. 12m. 12s. Epicentre **19°·6N. 106°·5W.**
(as on 1919 April 18d.).

A = −·268, B = −·903, C = +·336; D = −·959, E = +·284; G = −·095, H = −·322, K = −·942.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manzanillo	2·1	105	2 17	+104	—	—	2·8	3·0
Guadalajara	3·0	69	1 18	+31	—	—	2·1	3·2
Mazatlan	3·5	2	2 25	?	—	—	3·2	4·0
Tacubaya	6·9	91	1 54	+ 9	—	—	3·5	4·8
Oaxaca	9·6	104	2 16	− 8	4 24	+ 6	4·6	6·8
Vera Cruz	9·8	91	2 33	+ 6	4 36	+13	5·0	6·5
Tucson E.	13·2	344	3 39	+23	6 16	+27	7·0	8·5
Lick	22·1	327	i 5 14	+ 8	e 9 31	+24	e 11·9	14·2
Berkeley E.	22·8	326	e 5 17	+ 2	e 9 45	+24	e 11·9	14·2

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
St. Louis		23·7	33	e 5 30	+ 5	e 9 48	+10	e 12·8	14·2
Chicago		27·3	32	6 8	+ 7	10 54	+ 8	14·1	16·4
Balboa Heights		28·2	108	—	—	11 48?	+45	—	—
Ann Arbor		29·8	35	e 6 24	− 2	i 11 18	−15	17·5	17·7
Victoria	N.	31·8	340	6 43	− 2	11 53	−12	18·1	20·0
Georgetown	E.	31·9	46	e 6 42	− 4	e 12 4	− 3	18·4	19·4
	N.	31·9	46	e 6 42	− 4	e 12 4	− 3	e 15·0	19·3
Cheltenham		31·9	47	—	—	12 6	− 1	15·2	19·3
Toronto	E.	33·0	37	e 6 50	− 6	? 12 20	− 4	15·1	21·1
Ithaca		34·0	41	e 7 33	+28	e 12 13	−27	e 18·3	19·6
Fordham		35·0	45	i 7 6	− 7	12 48	− 7	18·5	20·9
Ottawa		36·2	38	e 7 16	− 8	i 13 8	− 5	e 17·6	23·4
Harvard	E.	37·5	43	7 30	− 4	13 30	− 1	20·5	27·3
	N.	37·5	43	7 33	− 1	13 33	+ 2	19·1	22·3
Sitka		43·0	339	—	—	14 58	+10	22·9	29·0
Honolulu	E.	48·1	281	8 59	+ 4	i 15 56	+ 1	20·5	26·5
	N.	48·1	281	e 9 23	+28	16 7	+12	i 20·3	24·0
La Paz		52·2	130	i 9 27	+ 6	i 16 53	+ 7	22·8	28·0
Fanning Is.		54·0	262	—	—	16 33	−36	22·8	30·8
Apia		72·4	248	—	—	—	—	37·8	—
Rio de Janeiro		75·1	121	e 21 33	?S	(e 21 33)	+ 6	e 39·9	—
Edinburgh		81·0	34	12 25	0	23 0	+25	44·8	51·1
Dyce		81·1	32	12 48	+22	22 47	+11	34·4	46·0
Eskdalemuir		81·2	34	e 12 40	+14	22 49	+12	38·8	47·8
Bergen		83·2	27	e 18 48	?PR_1	—	—	—	—
Oxford		83·7	38	12 48	+ 8	23 8	+ 2	e 39·8	50·8
San Fernando		86·4	52	13 23	+28	23 43	+ 9	41·8	51·8
Toledo		86·7	49	e 13 1	+ 4	23 45	+ 7	e 37·8	45·6
De Bilt		87·1	35	13 5	+ 5	23 52	+10	e 41·8	54·6
Paris		87·1	39	e 13 9	+ 9	e 23 51	+ 9	43·8	49·8
Uccle		87·2	37	e 13 2	+ 2	23 56	+13	38·8	44·9
Malaga		87·6	51	13 7	+ 4	23 55	+ 7	—	—
Granada		88·0	50	i 13 4	− 1	i 24 16	+24	45·6	52·1
Upsala		88·6	25	—	—	e23 39	−20	—	49·5
Hamburg		88·9	31	e16 48?	?PR_1	e24 12	+10	e38·8	48·8
Almeria		89·0	50	e13 14	+ 4	e24 30	+27	e50·1	61·8
Tortosa		89·4	46	e14 7	+55	—	—	e43·8	86·0
Alicante	N.	89·7	49	e13 22	+ 8	23 52	−19	56·0	82·7
Besançon		89·9	39	e19 14	?PR_1	e24 20	+ 7	47·8	—
Barcelona		90·2	45	e16 54	?PR_1	—	—	e52·5	85·3
Strasbourg		90·3	39	e13 22	+ 4	e23 53	−24	38·8	58·3
Moncalieri		92·1	40	e13 56	+28	25 25	+49	40·5	59·8
Innsbruck		93·0	37	e13 30	− 2	e26 18	+93	e43·8	—
Konigsberg		93·0	27	e18 19	?PR_1	—	—	e46·8	50·3
Algiers		93·0	49	e13 40	+ 8	e24 6	−39	—	59·8
Pulkovo		93·2	20	13 29	− 4	24 37	−10	39·8	48·3
Wellington		94·8	227	—	—	—	—	e42·9	—
Florence		94·9	40	—	—	—	—	e21·8	48·3
Vienna		95·2	34	e14 51	+67	26 25	+77	e46·8	63·3
Rocca di Papa		96·9	41	e13 23	−31	—	—	e54·8	—
Budapest		97·1	33	e17 18	?PR_1	—	—	e47·3	—
Pompeii		98·5	41	e13 18	−15	e24 8	[− 7]	—	—
Kucino		98·8	20	e15 46	+102	e25 54	+10	45·7	49·1
Ekaterinburg		102·8	7	e14 11	−13	26 1	−21	43·8	65·0
Irkutsk		103·2	342	e14 17	− 9	26 9	−17	52·8	—
Riverview		110·8	241	—	—	—	—	e51·2	64·2
Baku		116·1	20	e20 17	?PR_1	e31 16	?	56·8	71·1
Adelaide		121·1	241	—	—	e46 0	?SR_3	e60·2	68·6
Hong Kong		122·2	315	8 58	?	30 38	?	—	60·8
Simla		129·1	356	—	—	—	—	e66·2	—
Bombay		141·5	0	—	—	—	—	71·8	—
Hyderabad		142·6	354	—	—	—	—	—	87·9
Batavia		144·9	287	18 48?	[−60]	—	—	—	—

Additional readings: Guadalajara readings have been increased by 2min. Tucson eE = +3m.47s. and +4m.48s.; T_g = 14h.12m.36s. Lick eE = +10m.31s., iN = +9m.33s., iE = +9m.41s. and +10m.57s., eN = +10m.37s. Berkeley iPN = +5m.20s., iPE = +5m.22s., eLN = +12·3m. St. Louis iSE = +10m.9s., iSN = +10m.10s. (probably both SR_1?), L = +13·8m., MN = +15·1m. Chicago e = +11m.16s., eN = +11m.46s., eE = +11m.50s., eSR_1N = +12m.18s., eSR_1E = +12m.51s., iSR_1N? = +13m.3s., eN = +13m.38s.. LN = +14·7m., MN = +16·8m.; T_g = 14h.12m.4s. and 14h.12m.20s. Ann Arbor iPS = +11m.18s., used as S, iS = +12m.24s. = SR_1?, SR_1 = +14m.42s., SR_3 = +15m.30s. Cheltenham LN = +15·5m.,

Continued on next page.

$S_eSN = +17m.24s.$ Toronto $MN = +21{\cdot}0m.$; $T_e = 14h.12m.6s.$ Ithaca $PR_1 = +8m.18s.$, $e = +16m.3s.$ Fordham $iPR_1 = +8m.21s.$, $i = +17m.10s.$ Ottawa $PR_1 = +8m.42s.$, $SR_1N = +15m.18s.$, $SR_2N = +15m.56s.$, $MN = +20{\cdot}2m.$; $T_e = 14h.12m.4s.$ Harvard $PR_1 = +8m.51s.$, $eE = +9m.57s.$ and $+14m.33s.$, $eN = +11m.56s.$, $+13m.54s.$, and $+18m.6s.$, iPSN used as SN, $SR_1 = +16m.8s.$, $= SR_2 - 28s.$; $T_e = 14h.11m.54s.$ and $14h.12m.8s.$ Sitka $MN = +26{\cdot}1m.$ Honolulu $PR_1N = +10m.48s.$, PSN used as SN, $eN = +17m.28s.$, $SR_1E = +18m.55s.$, $SR_2N = +19m.38s.$, $= SR_1 + 8s.$, $SR_2E = +19m.48s.$, $= SR_1 + 18s.$; $T_e = 14h.12m.19s.$ and $14h.12m.25s.$ Rio de Janeiro $S = +29m.56s.$ Eskdalemuir $SR_1 = +33m.48s.$? San Fernando $MN = +54{\cdot}8m.$ Toledo $eSZ = +23m.47s.$, $MNW = +50{\cdot}0m.$ De Bilt $PR_1Z = +16m.26s.$, $SR_1 = +29m.34s.$, $MN = +44{\cdot}2m.$, $MZ = +55{\cdot}7m.$ Paris $MN = +53{\cdot}8m.$ Uccle $SR_1 = +29m.38s.$, $MN = +47{\cdot}2m.$ Granada $i = +14m.36s.$ and $+22m.36s.$, $PS = +25m.34s.$ Upsala $MN = +55{\cdot}0m.$ Hamburg $MNZ = +55{\cdot}8m.$ Alicante $ME = +83{\cdot}4m.$ Barcelona $MN = +58{\cdot}6m.$ Strasbourg $ePE = +13m.26s.$, $ePR_1 = +16m.58s.$ Konigsberg $eE = +25m.58s.$, $e = +27m.10s.$, $MZ = +55{\cdot}8m.$ Pulkovo $PR_1 = +17m.6s.$, $eSR_1 = +29m.6s.$, $MZ = +55{\cdot}5m.$ Vienna $eN = +29m.36s.$, $SR_2? = +32m.47s.$ $= SR_1 + 69s.$ Kucino $eSR_1 = +31m.14s.$; $eSR_2 = +35m.1s.$, $MN = +57{\cdot}6m.$ Ekaterinburg $i = +18m.29s.$ $= PR_1 - 3s.$; $iSR_1 = +33m.20s.$, $MNZ = +66{\cdot}0m.$ Irkutsk $PR_1 = +18m.34s.$, $PR_2 = +20m.55s.$ Riverview $MN = +67{\cdot}2m.$ Baku $MN = +70{\cdot}6m.$, $MZ = +70{\cdot}8m.$ Adelaide $e = +62m.48s.$ Simla $eN = +67m.18s.$

July 7d. 15h. 5m. 8s. Epicentre 18°·0N. 62°·0W. (see July 7d. 17h.).

$A = +{\cdot}446$, $B = -{\cdot}840$, $C = +{\cdot}309$; $D = -{\cdot}883$, $E = -{\cdot}469$; $G = +{\cdot}145$, $H = -{\cdot}273$, $K = -{\cdot}951$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Port au Prince		9·8	275	e 4 44	?S	(e 4 44)	+21	10·2	11·2
Cheltenham		24·4	331	e 5 30	− 2	e 11 4	+72	e 15·9	17·6
Georgetown		24·7	331	e 5 41	+ 6	e 10 19	+22	e 11·9	—
Fordham		25·0	338	—	—	i 10 27	+24	12·1	15·2
Harvard	E.	25·6	344	—	—	(10 15)	+ 1	10·2	12·1
	N.	25·6	344	—	—	(9 52?)	−22	9·9?	11·7
Ithaca		27·4	336	6 43	+41	12 15	+87	14·9	—
Toronto	N.	29·5	334	—	—	—	—	14·0	20·9
Ottawa	N.	29·7	340	i 8 16	+111	—	—	e 13·1	20·5
Ann Arbor	E.	30·5	328	—	—	—	—	e 12·9	21·9
La Paz		35·0	190	i 7 11	− 2	12 51	− 4	18·6	24·1
Rio de Janeiro		44·9	155	—	—	—	—	e 24·1	27·4
San Fernando		52·2	58	—	—	(16 22)	−24	16·4	28·9
Malaga		53·8	57	9 27	− 5	16 57	− 9	—	—
Granada		54·3	56	i 9 31	− 4	17 13	0	26·1	29·6
Eskdalemuir		57·7	35	—	—	—	—	25·9	31·9
Tortosa		57·9	52	—	—	—	—	—	33·1
Dyce		58·8	33	10 4	0	18 15	+ 6	27·4	34·5
De Bilt		61·9	40	—	—	—	—	e 28·9	35·7
Hamburg		65·0	39	e 10 52?	+ 7	i 19 30	+ 5	e 28·9	—
Innsbruck	N.W.	65·7	45	e 10 22	−27	—	—	—	—
Florence		65·7	50	—	—	19 52	+19	30·4	34·9
Rocca di Papa	Z.	66·9	51	e 10 57	0	—	—	—	—
Pompeii		68·3	51	e 11 12	+ 6	e 18 52	−74	—	—
Upsala	N.	69·3	31	—	—	—	—	e 38·9	—
Konigsberg		71·1	37	e 11 40	+16	—	—	—	39·9
Pulkovo		75·6	30	i 11 52	− 1	—	—	35·9	48·7

Additional readings: Port au Prince $iP = +6m.5s.$, $S = +7m.21s.$ Cheltenham $MN = +18{\cdot}3m.$ Fordham $i = +11m.31s.$ $= SR_1 + 27s.$ Ithaca: Are the readings PR_1 and SR_1 respectively ?. Toronto $ME = +19{\cdot}6m.$ Ottawa $eLE = +12{\cdot}6m.$, $ME = +20{\cdot}6m.$ San Fernando $MN = +31{\cdot}4m.$ Granada $i = +12m.56s.$ $= PR_2 + 2s.$ De Bilt $MZ = +39{\cdot}2m.$

July 7d. 17h. 43m. 30s. Epicentre **18°·0N. 62°·0W.**
(as on July 7d. 15h.).

A = +·446, B = −·840, C = +·309 ; D = −·883, E = −·469 ;
G = +·145, H = −·273, K = −·951.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Port au Prince		9·8	275	e 3 20	+53	7 24	+181	10·8	11·1
Balboa Heights		19·3	244	3 46	−47	—	—	—	—
Cheltenham	N.	24·4	331	5 38	+ 6	10 8	+16	12·1	21·3
Georgetown		24·7	331	5 39	+ 4	i 10 15	+18	e 12·3	20·6
Fordham		25·0	338	i 5 36	− 2	e 10 7	+ 4	11·3	14·2
Harvard	E.	25·6	344	—	—	10 22	+ 8	11·3	20·2
	N.	25·6	344	5 44	0	10 18	+ 4	11·2	18·5
Ithaca		27·4	336	5 59	− 3	10 46	− 2	14·0	—
Toronto	E.	29·5	334	i 6 20	− 3	e 11 15	−11	13·8	17·2
Ottawa		29·7	340	i 6 21	− 4	i 11 19	−10	13·6	19·5
Ann Arbor		30·5	328	—	—	e 11 36	− 7	e 14·7	21·5
Chicago		32·3	323	6 51	0	12 12	− 1	15·9	24·5
La Paz		35·0	190	i 7 9	− 4	e 14 59	+124	23·6	24·3
Rio de Janeiro		44·9	155	—	—	(e 15 0?)	−14	e 15·0	—
Lisbon		50·1	54	—	—	15 16	−64	—	—
San Fernando		52·2	58	9 41	+20	16 42	− 4	24·0	33·5
Malaga		53·8	57	9 31	− 1	16 57	− 9	27·4	—
Toledo		54·2	53	e 9 28	− 6	e 16 58	−13	e 25·0	38·2
Granada		54·3	56	i 9 30	− 5	17 4	− 9	25·5	31·1
Almeria		55·3	56	i 9 34	− 7	17 11	−14	27·4	31·1
Berkeley		55·8	305	—	—	—	—	e 34·7	—
Alicante	E.	56·8	55	9 5	−46	17 9	−35	28·5	—
	N.	56·8	55	9 1	−50	17 1	−43	28·4	—
Eskdalemuir		57·7	35	—	—	18 0	+ 5	26·5	32·5
Victoria	E.	57·7	318	10 15	+18	20 25	+150	32·3	39·6
Tortosa	N.	57·9	52	e 9 44	−14	17 50	− 8	—	33·6
Edinburgh		57·9	35	e 10 0	+ 2	e 18 0	+ 2	27·5	32·5
Oxford		58·0	40	e 9 59	0	i 17 53	− 6	26·5	30·8
Barcelona		59·0	51	—	—	—	—	e 25·5	34·7
Algiers		59·6	57	e 10 8	− 1	18 13	− 5	e 29·5	32·5
Paris		59·9	43	i 10 13	+ 2	e 18 23	+ 1	28·5	33·5
Uccle		61·3	41	e 10 21	0	e 18 37	− 3	e 28·5	35·5
De Bilt		61·9	40	10 25	+ 1	18 50	+ 3	e 28·5	36·7
Besançon		62·1	46	e 10 27	+ 1	—	—	31·5	—
Moncalieri		63·2	48	10 34	+ 1	18 54	− 9	27·7	38·8
Strasbourg		63·3	44	10 35	+ 1	18 57	− 8	30·5	35·5
Bergen		63·3	30	e 16 30?	?	—	—	—	—
Hamburg		65·0	39	e 10 48	+ 3	e 19 30	+ 5	e 30·5	38·5
Innsbruck		65·7	45	e 10 51	+ 2	—	—	e 34·5	—
Florence		65·7	50	—	—	—	—	30·5	34·5
Rocca di Papa		66·9	51	e 11 3	+ 6	19 47	− 2	e 34·0	38·4
Vienna		69·0	44	e 11 11	0	20 21	+ 7	—	42·0
Upsala		69·3	31	e 11 12	− 1	e 20 17	− 1	e 35·5	43·1
Budapest		70·9	44	—	—	—	—	e 41·0	—
Konigsberg		71·1	37	e 11 25	+ 1	—	—	e 34·3	42·5
Pulkovo		75·6	30	i 11 53	0	21 40	+ 7	35·5	44·2
Kucino		80·6	35	—	—	—	—	44·0	47·6
Honolulu		88·9	291	—	—	e 24 0	− 2	—	—
Ekaterinburg		91·3	28	13 13	−10	e 23 41	[+ 5]	42·5	55·2
Baku		94·0	45	13 29	− 9	24 8	[+16]	46·5	67·1
Irkutsk		108·7	10	e 19 10	?PR_1	28 39	+83	48·5	69·3
Bombay		122·3	51	—	—	—	—	—	73·5
Hyderabad		127·4	49	—	—	—	—	—	81·7
Melbourne		149·2	224	e 20 6	[+12]	—	—	—	30·7

Additional readings and notes : Port au Prince iP = +5m.0s. Cheltenham eN = +7m.13s. and +10m.43s. = SR_1 − 5s., LE = +12·3m. and +17·5m., ME = +18·3m. ; T_o = 17h.43m.28s. Georgetown ePN = +5m.40s., LE = +14·0m., LN = +14·4m. Fordham PR_1 = +8m.3s. Harvard PR_1E = +6m.8s., PcPN = +8m.36s. : T_o = 17h.43m.29s. Toronto eE = +11m.32s., MN = +15·4m. ; T_o = 17h.43m.38s. Ottawa SR_2E = +12m.38s., SR_2E = +13m.0s., eLN = +13·7m., MN = +22·5m. ; T_o = 17h.43m.36s. Ann Arbor i = +13m.0s. = SR_1 − 16s. Chicago eE = +8m.49s. and +9m.57s., SE? = +12m.26s., SR_1 = +14m.30s., LN? = +15·8m., MN = +23·4m. ; T_o = 17h.43m.21s. La Paz : Is S = SR_1? San Fernando MN = +32·5m. Toledo P = +9m.30s.?, MNW = +29·6m. Almeria MN = +29·8m. Berkeley eZ = +36m.29s. and +37m.41s. Eskdalemuir MN = +34·5m.

Continued on next page.

Victoria LN = +29·6m. Tortosa PE = +9m.52s. Oxford gives an earlier movement at +8m.42s.; see also Rocca di Papa and perhaps Budapest. Barcelona MN = +33·0m. De Bilt MN = +34·1m., MZ = +47·0m. Hamburg MN = +36·5m. Innsbruck ePNE = +10m.58s. Rocca di Papa e = +9m.36s. (see also Oxford), P = +11m.23s. Vienna PS = +21m.6s., SR_1 = +24m.18s. Upsala MN = +43·9m. Budapest eE = +25m.0s. = SR_1 −64s., eN = +27m.0s. = SR_3 −110s. Konigsberg ePR_1? = +14m.20s., eLZ = +37·2m. Pulkovo MZ = +44·4m., MN = +46·7m. Kucino MN = +46·8m. Honolulu eN = +24m.7s., PSE = +26m.5s. Ekaterinburg MN = +55·5m., MZ = +55·6m. Baku MN = +56·4m., MZ = +56·9m. Irkutsk PR_3 = +25m.15s. = [S] +11s., MN = +69·7m., MZ = +70·0m.

July 7d. 18h. 28m. 50s. Epicentre 40°·0N. 2°·0W.

A = +·766, B = −·027, C = +·643; D = −·035, E = −·999; G = +·642, H = −·023, K = −·766.

Very uncertain.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Toledo	z.	1·6	265	e 0 20	− 4	i 0 39	− 6	—	—
Alicante		2·0	145	0 40	+ 9	—	—	(1·2)	—
Tortosa		2·1	67	2 10?	?	2 40	?	—	—
Granada		3·1	205	e 0 30	−19	1 15	−11	1·3	1·6
Almeria		3·2	186	e 1 3	+13	i 1 40	+12	i 1·8	2·5
Malaga		3·8	211	1 1	+ 2	1 37	− 7	—	—
Lisbon		5·6	259	i 0 56	−31	1 14	−80	—	—

Additional readings and notes. Alicante readings are given as PN and PE respectively. Granada P = +44s., MZ = +1·5m. Lisbon readings have been increased by 2m.

July 7d. Readings also at 2h. (Loyola, near Taihoku, and near Nagasaki), 3h. (near Batavia), 5h. (Manila), 10h. (Ekaterinburg, Pulkovo, Wellington, Adelaide, Riverview, Hong Kong, near Manila, and near Mizusawa), 11h. and 12h. (Apia), 14h. (Sydney), 16h. (Balboa Heights), 17h. (Kobe), 20h. (near Nagasaki).

July 8d. 1h. 24m. 45s. Epicentre 7°·0S. 150°·0E. (as on 1923 Jan. 5d.).

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

Very uncertain.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Sydney		26·8	178	5 45	−11	10 39	+ 2	13·0	15·0
Riverview		26·8	178	e 1 39	?	8 27	−130	e 12·8	18·7
Adelaide		29·9	199	e 6 15?	−12	e 11 15?	−17	e 14·0	16·5
Christchurch		41·6	155	—	—	—	—	e 16·4	23·0
Honolulu		58·3	60	—	—	e 21 25	?	23·4	30·0
Victoria	E.	94·0	41	21 4	?PR_3	—	—	39·3	47·7
	N.	94·0	41	20 57	?PR_3	—	—	34·2	36·8
Ekaterinburg		95·5	326	e 10 17	?	21 29	?PR_3	39·7	51·8
Baku		102·2	310	e 15 8	+47	—	—	46·2	—
Kucino		108·1	326	e 21 54	?PR_3	e 24 51	[−10]	45·3	58·4
Pulkovo		110·7	332	i 15 58	+57	25 18	[+ 5]	52·2	67·4
Ottawa		124·9	37	—	—	e 25 31	[−27]	54·2	—
De Bilt		126·5	333	—	—	e 27 53	−104	e 58·2	—
Edinburgh		126·7	340	—	—	—	—	72·2	—
Eskdalemuir		127·2	340	35 15?	?	—	—	—	—
Strasbourg		127·7	328	—	—	—	—	e 60·2	—
Uccle		127·8	333	—	—	—	—	e 58·2	—
Paris		130·0	332	—	—	—	—	e 67·2	—
Tortosa	N.	136·6	330	—	—	—	—	e 67·2	—
Granada		141·5	325	e 20 0	[+18]	—	—	e 70·2	77·0

Additional readings: Riverview MN = +14·8m.; if the readings were increased by 4m. P would accord and S would be SR_1. Honolulu MN = +26·6m. Ekaterinburg MZ = +52·3m. Kucino eSR_1 = +30m.44s. Pulkovo SR_1 = +31m.9s., MZ = +61·0m. Ottawa eE = +27m.23s., eS? = +34m.3s. Strasbourg eL = +70·2m. Granada i = +20m.30s.

July 8d 4h. 55m. 57s. Epicentre 13°·5S. 68°·5E. (as on 1922 Feb. 14d.).

A = +·356, B = +·905, C = −·233 ; D = +·930, E = −·366 ;
G = −·086, H = −·217, K = −·972.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Colombo	23·3	29	10 28	?L	—	—	(10·5)	14·6
Kodaikanal	25·3	21	12 3	?L	—	—	(12·0)	—
Hyderabad	32·4	17	12 24	?S	(12 24)	+10	15·4	18·8
Bombay	32·6	8	6 47	− 6	12 17	− 1	16·8	—
Simla E.	45·4	10	—	—	—	—	e 24·2	—
Baku	56·6	345	e 10 58	+68	—	—	28·4	—
Ekaterinburg	70·6	356	i 11 29	+ 8	e 20 41	+ 8	30·0	—
Vienna	77·1	329	e 12 2	0	e 21 46	− 4	—	55·0
Pulkovo	79·4	343	e 12 17	+ 2	—	—	—	—
Strasbourg	82·0	325	12 33	+ 3	(22 3?)	−43	22·0?	—
Granada	84·4	311	11 37	−67	e 23 2	−10	43·6	49·2
Malaga	84·9	311	12 40	− .7	23 28	+10	—	—
Uccle	85·0	326	—	—	e 23 3?	−16	—	—
De Bilt	85·2	328	12 45	− 4	e 23 15	− 6	e 54·0	—
Paris	85·2	323	e 12 44	− 5	—	—	—	—
Eskdalemuir	91·0	328	—	—	—	—	49·0	—
Edinburgh	91·3	328	—	—	25 3?	+36	—	—
Ottawa	136·1	324	—	—	—	—	e 75·0	—

Additional readings: Hyderabad S = +14m.42s. = SR_2 +12s. Simla eN = +23m.21s. Ekaterinburg e = +32m.39s. Vienna eSR_2 = +31m.7s.

July 8d. 8h. 23m. 40s. Epicentre 3°·0N. 125°·0E. (as on 1924 Dec. 5d.).

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.
Manila	12·3	341	e 3 16	+13	—	—	i 4·5	5·1
Phu-Lien	25·3	316	e 5 35	− 6	e 9 56	−13	12·3	—
Ekaterinburg	73·7	330	i 11 59	+19	i 20 53	−17	33·3	—
Baku	76·8	312	—	—	—	—	36·3	—
Kucino	85·9	326	—	—	e 23 3	[+ 2]	e 42·8	—
Pulkovo	89·8	331	—	—	e 23 45	[+18]	37·3	51·6
De Bilt	105·3	326	—	—	—	—	e 54·3	—
Uccle	106·3	326	—	—	—	—	e 54·3	—
Paris	108·3	325	—	—	—	—	e 62·3	—
Granada	117·7	316	—	—	—	—	e 70·3	72·6

Manila gives also MN = +4·9m.

July 8d. 11h. 27m. 30s. (I)
14h. 38m. 30s. (II)
18h. 38m. 15s. (III)
} Epicentre 18°·0N. 62°·0W. (as on July 7d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
II	Georgetown	24·7	331	e 5 30?	− 5	e 10 5	+ 8	—	—
I	Fordham	25·0	338	e 5 30	− 8	e 10 12	+ 9	e 14·3	16·7
I	Harvard E.	25·6	344	—	—	—	—	e 11·6	15·5
I	N.	25·6	344	—	—	—	—	e 13·5	16·2
II	N.	25·6	344	—	—	e 10 13	− 1	e 11·5	12·5
III	N.	25·6	344	—	—	—	—	e 12·8	16·2
I	Toronto E.	29·5	334	—	—	e 11 7	−19	12·8	20·9
II	E.	29·5	334	—	—	e 12 0	+34	14·2	25·8
III	E.	29·5	334	—	—	—	—	14·4	20·0
I	Ottawa	29·7	340	—	—	e 11 22	− 7	e 14·5	—
II		29·7	340	—	—	—	—	e 7·5	—
III		29·7	340	—	—	e 11 15	−14	13·8	—
II	Ann Arbor	30·5	328	—	—	e 12 30	+47	14·2	14·7
I	Chicago E.	32·3	323	—	—	e 11 14	−59	20·8	34·0
I	N.	32·3	323	—	—	12 11	− 2	20·8	34·7
II	N.	32·3	323	—	—	e 12 30	+17	15·8	—
III	N.	32·3	323	—	—	e 14 28	?SR_2	17·2	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
I	La Paz	35·0	190	7 9	− 4	—	—	21·2	23·7
II		35·0	190	6 43	−30	—	—	22·2	23·5
III		35·0	190	7 16	+ 3	—	—	22·5	—
I	Granada	54·3	56	1 9 33	− 2	e 17 4	− 9	e 25·8	28·5
II		54·3	56	e 14 10	?	—	—	e 27·7	29·5
III		54·3	56	e 9 30	− 5	—	—	e 27·2	31·5
I	Victoria E.	57·7	318	—	—	—	—	38·0	41·0
II	E.	57·7	318	—	—	—	—	37·8	41·1
II	N.	57·7	318	—	—	—	—	30·7	33·1
III	E.	57·7	318	—	—	—	—	37·6	39·7
I	Edinburgh	57·9	35	—	—	—	—	e 27·5	—
III		57·9	35	—	—	—	—	e 29·8	—
II	Oxford	58·0	40	—	—	—	—	—	36·1
III		58·0	40	—	—	—	—	—	30·8
I	Paris	59·9	43	e 10 12	+ 1	—	—	29·5	—
II		59·9	43	—	—	—	—	e 26·5	—
III		59·9	43	e 10 14	+ 3	—	—	29·8	—
I	Uccle	61·3	41	—	—	—	—	26·5	—
II		61·3	41	—	—	—	—	24·5	—
III		61·3	41	—	—	—	—	26·8	—
I	De Bilt	61·9	40	e 10 36	+12	—	—	e 28·5	39·0
II		61·9	40	10 24	0	—	—	e 26·5	38·9
III		61·9	40	—	—	—	—	e 33·8	—
I	Strasbourg	63·3	44	—	—	22 30?	?	—	—
II		63·3	44	e 10 30?	− 4	18 30?	−35	—	—
III		63·3	44	—	—	—	—	e 31·8	—
I	Pulkovo	75·6	30	e 11 52	− 1	e 21 29	− 4	36·5	46·5
II		75·6	30	e 11 51	− 2	—	—	34·5	44·6
III		75·6	30	11 56	+ 3	21 45	+12	35·8	44·2
III	Kucino	80·6	35	—	—	e 38 44	?	e 45·7	—
I	Ekaterinburg	91·3	28	—	—	e 23 46	[+10]	43·5	—
II		91·3	28	—	—	e 23 30	[− 6]	42·5	—
III		91·3	28	—	—	e 23 31	[− 5]	43·8	—
I	Baku	94·0	45	—	—	e 24 3	[+11]	50·5	—

Additional readings and notes: Harvard III eN = +15m.25s. Toronto I eS has been increased by 10m. Ottawa I eN = +10m.50s. Ann Arbor II i = +13m.30s. $=SR_2-12$s. Chicago I eN = +14m.1s. $=SR_1+4$s., $SRE_1 = +14$m.56s. $=SR_2+28$s., $SR_2N = +15$m.33s., eE = +16m.17s., eN = +16m.18s. La Paz II i = +7m.0s. Granada II i = +14m.25s. Victoria I LN = +37·7m., III LN = +32·8m. Eskdalemuir gives readings for 15h. and 19h. simply. De Bilt I MZ = +39·1m.

July 8d. 19h. 42m. 0s. Epicentre 37°·4N. 30°·5E. (as on 1922 June 3d.).

A = +·684, B = +·403, C = +·607; D = +·508, E = −·862: G = +·523, H = +·308, K = −·794.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	1 18	− 5	e 2 20	− 8	i 2·5	3·4
Rocca di Papa	14·4	293	—	—	—	—	e 6·7	11·8
Baku	15·2	73	—	—	—	—	e 7·4	—
Kucino	19·0	13	4 35	+ 6	e 8 18	+16	—	—
Pulkovo	22·3	0	5 10	+ 1	(9 23)	+12	e 12·4	—
Uccle	22·9	314	—	—	e 9 18	− 5	—	—
De Bilt	23·0	318	—	—	—	—	e 10·0	—

Additional readings: Athens MN = +3·0m. Kucino i = +8m.30s., e = +12m.55s. Pulkovo PR_1 = +9m.23s., entered above as S. De Bilt eL = +13·0m. The eL at +10m.0s. $=SR_1-14$s.

July 8d. Readings also at 0h. (Balboa Heights and near Sumoto), 4h. (Apia), 10h., 17h., and 18h. (La Paz), 19h. (Taihoku), 20h. (Rio Tinto), 22h. (Ekaterinburg and La Paz), 23h. (Ekaterinburg and near Manila).

July 9d. Readings at 0h. (Pulkovo, Zagreb, and Kucino), 6h. (Venice, Kobe, and near Rocca di Papa), 7h. (Pulkovo, De Bilt, Baku, and near Athens), 8h. (Pulkovo, De Bilt, La Paz, and near Athens), 9h. (Agana), 12h. (near Malabar). 18h. (Balboa Heights), 23h. (near Manila and near Nagasaki).

July 10d. 15h. 58m. 10s. Epicentre 23°·0S. 66°·0W. (as on 1924 Jan. 20d.).

$A = +\cdot374$, $B = -\cdot841$, $C = -\cdot391$; $D = -\cdot914$, $E = -\cdot407$; $G = -\cdot156$, $H = +\cdot357$, $K = -\cdot921$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
La Paz		6·8	343	i 1 54	+10	3 7	+ 2	3·7	4·2
La Plata	E.	13·8	151	3 20	− 3	5 59	− 4	7·3	9·2
	N.	13·8	151	3 24	+ 1	6 2	− 1	7·2	—
Rio de Janeiro		21·0	94	e 4 50	− 3	8 28	−16	e 9·7	12·3
Granada		83·6	45	—	—	i 22 37	−28	81·3	96·7
Pulkovo		113·0	33	19 56	?PR_1	i 24 54	[−28]	—	—
Ekaterinburg		129·0	34	i 22 4	?PR_1	e 27 49	?PR_2	e 51·8	—

Pulkovo gives also e = +28m.40s. (?S, O−C = +46s.).

July 10d. Readings also at 7h. (Ekaterinburg, Tacubaya, and Oaxaca), 8h. (near Port au Prince), 10h. (Rocca di Papa), 11h. (Granada), 13h. (Ekaterinburg and Irkutsk), 14h. (Taihoku, Ithaca, Chicago, Toronto, Ottawa, Georgetown, and near Victoria), 16h. (near Wellington), 18h. (Baku), 22h. (Apia).

July 11d. 1h. 54m. 36s. Epicentre 18°·0N. 62°·0W. (as on 8d.).

$A = +\cdot446$, $B = -\cdot840$, $C = +\cdot309$; $D = -\cdot883$, $E = -\cdot469$; $G = +\cdot145$, $H = -\cdot273$, $K = -\cdot951$.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Harvard	E.	25·6	344	—	—	—	—	e 11·4	15·9
	N.	25·6	344	—	—	—	—	e 12·1	16·7
Toronto		29·5	334	—	—	—	—	14·6	18·9
Ottawa	E.	29·7	340	—	—	e 11 14	−15	e 11·9	—
Chicago	E.	32·3	323	—	—	—	—	16·4	23·3
	N.	32·3	323	—	—	e 12 23	+10	16·5	17·6
Granada		54·3	56	e 9 29	− 6	e 16 50	−23	e 20·9	33·2
Eskdalemuir		57·7	35	—	—	e 17 54	− 1	27·4	—
Victoria	E.	57·7	318	—	—	—	—	37·4	41·2
	N.	57·7	318	—	—	—	—	30·5	34·4
Paris		59·9	43	—	—	—	—	e 27·4	—
Uccle		61·3	41	—	—	e 18 42	+ 2	e 25·4	—
De Bilt		61·9	40	—	—	e 19 24?	+37	e 27·4	—
Pulkovo		75·6	30	—	—	e 21 39	+ 6	33·4	47·2
Ekaterinburg		91·3	28	—	—	e 24 20	− 7	35·9	—

Additional readings: Ottawa eN = +11m.24s.?, eLN = +12·4m. Pulkovo MZ = +46·0m.

July 11d. 21h. 52m. 22s. Epicentre 29°·5N. 59°·5E. (as on 1923 Sept. 14d.).

$A = +\cdot442$, $B = +\cdot750$, $C = +\cdot492$; $D = +\cdot862$, $E = -\cdot508$; $G = +\cdot250$, $H = +\cdot424$, $K = -\cdot870$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Baku	13·4	327	e 3 27	+ 9	e 7 44	+111	8·9	—
Ekaterinburg	27·4	1	6 7	+ 5	10 57	+ 9	15·6	18·2
Kucino	30·4	336	—	—	e 11 33	− 8	—	—
Pulkovo	36·1	336	i 7 12	−11	12 53	−18	15·6	—
De Bilt	45·6	316	—	—	—	—	e 23·6	—

Ekaterinburg gives also e = +11m.38s. = SR_1 −24s., MZ = +19·3m.

July 11d. Readings also at 8h. (near Hukuoka, Kobe, and Sumoto), 12h. (Merida), 14h. (Ekaterinburg), 16h. (Apia), 21h. (near Baku).

July 12d. Readings at 1h. (Rocca di Papa), 2h. (Nagoya and near Lick), 4h. (Amboina and Rocca di Papa), 18h. (near Batavia and Malabar), 20h. (Apia and near Malabar), 21h. (Victoria, Ottawa, Vienna, and Ekaterinburg).

July 13d. Readings at 1h. (Kodaikanal), 5h. (Kobe and near Taihoku), 6h. (near Kobe and Hukuoka), 14h. and 16h. (Ekaterinburg), 17h. (near Malabar), 19h. (near Mostar).

July 14d. 20h. 18m. 12s. Epicentre 23°·0S. 66°·0W. (as on July 10d.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
La Plata	E.	13·8	151	3 9	−14	6 11	+ 8	—	8·4
	N.	13·8	151	3 15	− 8	6 12	+ 9	7·5	8·0
Rio de Janeiro		21·0	94	i 4 48	− 5	8 48	+ 4	e 10·0	15·8
Granada		83·6	45	e 12 8	−32	e 23 15	+10	e 47·8	52·3
Pulkovo		113·0	33	—	—	e 24 44	[−38]	—	—
Ekaterinburg		129·0	34	—	—	—	—	e 91·3	—

Additional readings: Granada i = +12m.47s., PS = +24m.1s. Pulkovo e = +34m.37s. = SR_4 −43s. Ekaterinburg e = +49m.30s. = SR_4 +42s., i = +51m.56s.

July 14d. Readings also at 4h. (near Kobe and Sumoto), 10h. (Ekaterinburg and near Amboina), 20h. (near Athens), 23h. (Agana and near Athens).

July 15d. Readings at 1h. (near Athens), 7h. (near Manila), 8h. (Ekaterinburg (2), Uccle, near Athens, and near Malabar), 9h. (Ekaterinburg, Mizusawa, and near Manila (2)), 10h. (near Athens), 12h. (Agana), 13h. (La Plata (2) and Rio de Janeiro), 14h. (Ekaterinburg), 16h. (near Athens), 18h. (Ekaterinburg (2) and near Algiers), 20h. (Rio Tinto).

July 16d. 22h. 28m. 30s. Epicentre 45°·0N. 16°·0E. (as on 1924 Dec. 3d.).

A = +·680, B = +·195, C = +·707.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Zagreb	0·8	359	e 0 16	+ 4	i 0 20	− 2	—	0·6
Laibach	1·5	315	e 0 21	− 2	e 0 30	−12	—	1·0
Venice	2·6	280	1 19	?L	—	—	(1·3)	—
Vienna	3·3	4	e 0 55	+ 3	i 1 32	+ 1	—	1·6
Innsbruck	3·9	305	—	—	e 1 48	+ 1	—	—

Additional readings: Zagreb iPR_1 = +24s., +31s., and +35s. Vienna P? = +1m.9s., iN = +1m.20s., iZ = +1m.26s., and +1m.38s.

July 16d. Readings also at 5h. (Kobe), 6h. (near Granada), 11h. (Athens and Malabar), 13h. (near Nagasaki), 16h. (La Paz (2)), 18h. (Granada), 20h. (near Zagreb), 23h. (Apia).

July 17d. 3h. 13m. 45s. Epicentre 12°·0N. 141°·5E.

A = −·765, B = +·609, C = +·208 ; D = +·623, E = +·783 ;
G = −·163, H = +·126, K = −·978.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		20·1	280	i 4 53	+11	—	—	i 10·1	11·9
Amboina		20·5	221	5 21	+34	8 51	+17	—	—
Taihoku		22·9	307	—	—	(e 9 35)	+13	e 9·6	—
Osaka		23·3	347	5 19	− 1	(9 34)	+ 3	9·6	13·3
Nagasaki		23·3	335	e 9 43	?S	(e 9 43)	+12	—	—
Kobe		23·4	347	5 53	+32	—	—	e 12·0	13·7
Zi-ka-wei		26·6	319	5 50	− 4	e 12 12	?L	(e 12·2)	29·0
Hong Kong		28·0	296	6 5	− 3	10 53	− 6	—	—
Phu-Lien		34·5	290	—	—	12 36	−12	15·2	—
Batavia		38·9	243	7 39	− 6	—	—	—	—
Riverview		46·8	170	—	—	e 15 27	−11	e 22·2	23·8
Sydney		46·8	170	15 45	?S	(15 45)	+ 7	22·4	24·0
Adelaide		47·2	184	13 33?	?	e 19 27?	?SR_1	e 23·6	26·2
Honolulu	E.	58·3	72	—	—	—	—	e 26·4	41·2
	N.	58·3	72	—	—	—	—	e 24·2	27·6
Ekaterinburg		74·9	326	i 11 53	+ 5	21 30	+ 5	34·2	—
Baku		83·5	311	e 12 46	+ 7	e 23 50	+47	43·8	—
Victoria	E.	84·5	42	12 41	− 4	23 6	− 8	38·5	42·5
Kucino		87·5	327	—	—	23 38	− 9	40·0	45·2
Pulkovo		89·9	333	13 8	− 7	23 43	+16]	42·2	52·5
Konigsberg		96·9	331	—	—	—	—	e49·4	52·0
Hamburg		102·6	334	e18 15?	?PR_1	—	—	e50·2	55·2
Vienna		102·7	327	e18 18	?PR_1	—	—	—	56·2
Dyce		104·5	341	—	—	24 10	[−35]	53·2	57·8
De Bilt		105·7	334	e14 33	− 5	e27 59	+70	e50·2	56·8
Edinburgh		106·0	340	—	—	e25 15	[+23]	54·2	—
Strasbourg		107·0	330	e 18 15?	?PR_1	—	—	47·2	—
Uccle		107·0	334	e 18 51	?PR_1	—	—	e 50·2	—
Stonyhurst		107·3	338	—	—	—	—	e 55·2	—
Bidston		107·9	338	19 1	?PR_1	28 51	+102	50·6	56·4
Florence		108·2	324	—	—	—	—	49·2	55·2
Rocca di Papa		108·6	322	e 18 51	?PR_1	—	—	e 56·8	57·8
Oxford		108·6	336	e 19 4	?PR_1	—	—	e 49·6	56·2
Paris		109·2	334	e 19 12	?PR_1	—	—	50·2	66·2
Moncalieri		109·4	327	—	—	e 25 9	[+ 1]	57·4	—
Chicago	N.	109·8	37	—	—	e 28 38	+72	e 52·1	57·3
Toronto		113·1	30	—	—	e 25 25	[+ 3]	39·2	59·2
Ottawa	E.	113·5	27	e 19 39	?PR_1	e 26 39	−79	40·9	—
	N.	113·5	27	e 19 34	?PR_1	e 25 37	[+13]	39·8	—
Tortosa	N.	116·0	329	—	—	e 28 15?	− 3	57·2	62·9
Almeria		120·5	327	e 19 6	[+12]	e 30 51	?	—	—
Granada		120·9	329	e 18 58	[+ 3]	e 30 6	?	e 60·2	70·2
San Fernando		122·8	330	20 43	?PR_1	37 29	?SR_1	63·8	70·2
La Paz		151·0	102	e 19 8	[−49]	—	—	—	—

Additional readings and notes: Manila MN = +11·2m. Osaka MN = +14·4m. Riverview e = +10m.57s. = PR_1 +15s., MN = +29·6m. Victoria LN = +35·0m. ; T_o = 3h.13m.59s. Kucino SR_1 = +29m.38s., SR_2 = +33m.10s., MN = +45·6m. Pulkovo PR_1 = +16m.43s., MN = +49·4m., MZ = +50·2m. Dyce PR_1 = +18m.35s., e = +27m.45s., +28m.52s., and +33m.25s. De Bilt ePR_1 = +18m.45s., MN = +58·0m. Edinburgh i = +33m.51s. = SR_1 − 1s. Strasbourg e = +7m.15s.? Moncalieri S = +37m.42s. Chicago eN = +31m.33s., +34m.27s. = SR_1 −13s., and +37m.29s., readings having been increased by 1h. Toronto eN = +29m.13s. Ottawa eN = +28m.59s., eL = +35·2m. Tortosa readings have been increased by 1h. Granada i = +20m.13s. = PR_1 −18s., +20m.31s. = PR_1, and +22m.11s. San Fernando MN = +73·2m.

July 17d. 16h. 59m. 8s. Epicentre 5°·7S. 103°·8E.

A = −·237, B = +·966, C = −·099; D = +·971, E = +·239;
G = +·024, H = −·096, K = −·995.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia		3·1	101	i 0 51	+ 2	i 1 29	+ 3	i 1·7	—
Malabar		4·1	112	1 2	− 2	i 1 43	−10	i 1·9	—
Manila		26·5	40	e 5 52	− 1	—	—	11·0	—
Phu-Lien	E.	26·6	6	—	—	e 10 57	+24	18·9	—
Colombo		27·0	297	10 52	?S	(10 52)	+11	16·1	17·4
Hong Kong		29·8	20	10 57	?S	(10 57)	−34	—	19·4
Kodaikanal		30·7	301	17 58	?L	—	—	(18·0)	—
Bombay		39·2	311	8 52?	+64	—	—	—	—
Zi-ka-wei		40·5	22	7 45	−14	—	—	—	25·2
Adelaide		43·4	136	—	—	—	—	e 21·5	28·9?
Sydney		52·1	130	27 40	?L	—	—	32·8	35·2
Irkutsk		57·9	0	i 9 59	+ 1	i 17 56	− 2	30·9	38·6
Baku		67·5	318	e 11 5	+ 4	e 20 3	+ 7	34·1	—
Ekaterinburg		71·6	336	i 11 29	+ 2	i 20 47	+ 2	29·9	37·6
Kucino		81·5	329	—	—	22 35	− 6	41·2	—
Pulkovo		86·7	331	i 12 51	− 6	i 23 27	−11	42·9	58·0
Vienna	Z.	92·5	318	13 29	− 1	—	—	—	—
Florence		95·8	314	61 22	?	—	—	—	—
Hamburg		96·8	323	—	—	—	—	e 58·9	61·9
Strasbourg		98·2	319	—	—	—	—	60·9	—
De Bilt		99·8	321	—	—	—	—	e 51·9	—
Uccle		100·4	320	—	—	—	—	e 52·9	—
Paris		101·7	319	—	—	—	—	e 64·9	—
Dyce		103·4	327	—	—	—	—	60·0	—
Eskdalemuir		104·3	325	—	—	—	—	63·9	—
Granada		107·3	307	—	—	—	—	—	68·4
Ottawa		140·3	359	—	—	—	—	e 71·5	—

Additional readings: Batavia i = +1m.4s. Phu-Lien eS = +13m.43s. Adelaide eL = +24·7m. Irkutsk MN = +38·5m. Ekaterinburg PR_1 = +14m.7s., PR_2 = +16m.27s. Pulkovo SR_1 = +29m.10s., MZ = +57·5m.

July 17d. 21h. 7m. 40s. Epicentre 2°·0S. 137°·0E. (as on 1922 April 5d.).

A = −·731, B = +·682, C = −·035; D = +·682, E = +·731;
G = +·026, H = −·024, K = −·999.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina		8·9	259	i 2 26	+11	—	—	5·3	—
Manila		23·0	317	i 5 35	+18	—	—	i 10·5	—
Batavia		30·4	261	e 6 20?	−12	—	—	30·3	—
Taihoku	E.	30·9	333	—	—	e 11 59	+ 9	—	—
Hong Kong		33·0	320	6 56	0	12 3	−21	—	23·7
Adelaide		33·0	176	e 5 8?	−108	e 12 2	−22	16·5	20·3
Riverview		34·5	159	e 6 52	−17	e 12 13	−35	e 16·3	21·7
Sydney		34·5	159	7 2	− 7	13 8	+20	19·9	21·4
Perth		36·0	212	(7 35)	+12	(13 12)	+ 2	15·6	18·7
Zi-ka-wei		36·4	337	i 7 25	0	15 58	?SR_2	25·7	31·2
Osaka		36·7	358	7 30	+ 2	(13 2)	−18	13·0	21·5
Phu-Lien		37·5	310	e 7 39	+ 5	13 39	+ 8	19·3	—
Wellington		52·0	144	—	—	—	—	e 27·2	—
Hyderabad		60·9	291	—	—	—	—	—	19·1
Bombay		66·5	292	—	—	20 20?	+36	—	—
Honolulu	E.	67·7	64	11 1	− 1	19 47	−11	30·2	38·1
	N.	67·7	64	—	—	19 55	− 3	31·5	38·7
Ekaterinburg		84·3	328	i 12 53	+ 9	23 41	+30	43·3	58·4
Baku		89·1	312	e 13 52	+41	e 24 18	+14	43·3	—
Kucino		96·7	326	e 13 52	− 1	e 24 47	−36	50·2	59·4
Victoria	E.	98·0	42	24 20	?[S]	(24 20)	[+ 7]	44·7	51·1
Pulkovo		100·1	331	14 5	− 6	25 48	− 9	49·3	63·0
Upsala	N.	106·0	333	—	—	—	—	e 55·3	—

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		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Konigsberg		106·6	328	—	—	—	—	e 58·3	66·3
Vienna		111·4	321	—	—	—	—	e 62·3	74·3
Hamburg		112·6	329	e 19 20?	?PR$_1$	—	—	e 57·3	71·3
De Bilt		116·0	330	e 15 18	− 7	—	—	e 59·3	75·1
Dyce		116·0	337	—	—	27 57	−21	57·5	—
Rocca di Papa		116·3	317	e 20 3	?PR$_1$	—	—	e 61·8	76·4
Strasbourg		116·4	324	e 20 3	?PR$_1$	—	—	59·3	74·5
Florence		116·5	318	—	—	—	—	—	60·3
Uccle		117·0	329	e 20 14	?PR$_1$	—	—	e 57·3	—
Edinburgh		117·4	336	e 20 26	?PR$_1$	—	—	62·3	—
Eskdalemuir		117·7	336	e 20 28	?PR$_1$	e 30 18	+106	56·3	—
Moncalieri		118·3	322	e 20 35	?PR$_1$	30 30	?	57·0	—
Stonyhurst		118·4	333	—	—	e 30 20?	?	—	73·8
Paris		119·2	327	e 20 39	?PR$_1$	e 31 56	?	65·3	78·3
Oxford		119·2	332	e 20 35	?PR$_1$	—	—	e 59·8	74·3
Tortosa	E.	124·8	320	—	—	—	—	e 72·3	—
Ann Arbor		125·7	35	—	—	e 29 8	−23	50·3	—
Toronto	N.	127·3	33	e 19 32	[+20]	—	—	53·3	—
Ottawa		128·0	29	e 21 20?	?PR$_1$	e 28 18	−89	e 55·3	—
Toledo		128·2	321	—	—	—	—	e 62·3	84·6
Granada		129·5	319	e 19 40	[+23]	i 21 59	?PR$_1$	—	85·7
Malaga		130·4	318	—	—	—	—	e 69·8	—
San Fernando		131·6	320	—	—	23 4	?PR$_1$	71·3	86·3
Georgetown		131·8	35	e 13 39	?	—	—	—	—
La Paz		149·0	127	e 20 8	[+14]	—	—	—	—

Additional readings and notes: Amboina i = +7m.20s. Riverview MZ = +21·6m., MN = +22·5m. Perth SR$_1$ = +13m.12s., used as S above, S = +12m.45s.; all the readings have been diminished by 4m. Zi-ka-wei PR$_1$ = +9m.2s., PR$_2$ = +11m.45s., PR$_3$ = +14m.22s., PSZ = +16m.35s., SR$_1$Z = +20m.12s., SR$_2$Z = +23m.37s. [But none of these suggestions is in accord with the tables]. Osaka MN = +17·7m. Honolulu eN = +18m.31s. and +19m.31s., eE = +22m.51s., and +26m.11s., SR$_2$N = +27m.38s., SR$_3$N = +28m.42s.; T$_0$ = 21h.7m.55s. and = 21h.8m.0s. Ekaterinburg PR$_1$ = +16m.3s., MZ = +58·6m. Baku e = +27m.3s. Kucino MN = +57·2m. Victoria SE = +32m.14s. = SR$_1$ +2s., LN = +46·6m. Pulkovo PR$_1$ = +18m.14s., e = +24m.51s. = [S] +27s., SR$_1$ = +32m.56s., MN = +57·4m. MZ = +62·6m. De Bilt e = +20m.14s. (?PR$_1$), MN = +74·3m., MZ = +74·6m. Dyce PR$_1$ = +20m.5s., e = +22m.40s. Rocca di Papa eL = +66·6m. Strasbourg e = +20m.16s. = PR$_1$ +16s., MZ = +74·6m. Paris MN = +72·3m. Uccle e = +30m.10s. Tortosa eLN = +65·3m. Ann Arbor e = +26m.50s. = PR$_3$ +1s., e = +34m.20s. Ottawa e = +22m.34s. and +31m.38s., eN = +38m.28s. = SR$_1$ +2s., eE = +41m.20s. Toledo MNW = +85·1m. Georgetown eN = +13m.40s., eEN = +22m.49s.

July 17d. 22h. 30m. 40s. Epicentre 12°·0N. 141°·5E. (as at 3h.).

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Manila		20·1	280	e 4 58	+16	—	—	i 10·0	—
Taihoku	E.	22·9	307	e 5 25	+ 9	—	—	—	—
Osaka		23·3	347	4 21	−59	(9 38)	+ 7	9·6	12·5
Kobe		23·4	347	e 9 20	?S	(e 9 20)	−13	—	—
Zi-ka-wei		26·6	319	5 45	− 9	13 49	?L	(13·8)	19·0
Hong Kong		28·0	296	6 10	+ 2	10 57	− 2	—	19·2
Phu-Lien		34·5	290	e 7 10	+ 1	e 12 33	−15	15·3	—
Batavia		38·9	243	e 8 14	+29	—	—	—	—
Riverview		46·8	170	—	—	e 19 44	?SR$_1$	e 23·1	28·6
Ekaterinburg		74·9	326	i 11 58	+10	21 29	+ 4	34·3	43·0
Baku		83·5	311	i 12 44	+ 5	e 23 26	+23	43·4	—
Victoria	E.	84·5	42	23 12	?S	(23 12)	− 2	39·1	42·7
	N.	84·5	42	23 14	?S	(23 14)	0	35·1	—
Kucino		87·5	327	e 12 56	− 6	e 23 58	+11	41·6	53·1
Pulkovo		89·9	333	13 13	− 2	—	—	46·3	58·6
Upsala		95·4	335	—	—	—	—	—	54·3
Konigsberg		96·9	331	—	—	—	—	e 56·3	61·3
Hamburg		102·6	334	e 19 20?	?PR$_1$	—	—	—	55·3
Dyce		104·5	341	18 30	?PR$_1$	i 24 0	[−45]	55·0	58·0

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	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
De Bilt	105·7	334	—	—	—	—	e 50·3	56·9
Edinburgh	106·0	340	—	—	—	—	e 57·3	—
Eskdalemuir	106·5	340	—	—	e 33 53	?SR_1	51·3	—
Strasbourg	107·0	330	—	—	—	—	e 57·3	—
Uccle	107·0	334	—	—	—	—	e 51·3	64·3
Florence	108·2	324	—	—	—	—	—	52·3
Rocca di Papa	108·6	322	—	—	—	—	57·6	—
Paris	109·2	334	e 19 18	?PR_1	—	—	59·3	69·3
Moncalieri	109·4	327	—	—	e 27 48	+25	64·0	—
Toronto N.	113·1	30	e 30 17	?	—	—	60·2	68·5
Almeria	120·5	327	e 20 24	?PR_1	—	—	—	—
Granada	120·9	329	i 20 33	?PR_1	30 33	?	e 67·3	71·0
San Fernando	122·8	330	—	—	—	—	—	71·3

Additional readings: Osaka MN = +10·7m. Zi-ka-wei PR_1 = +7m.5s., PR_2 = +9m.18s., PR_3 = +11m.5s. Riverview MN = +29·8m. Ekaterinburg MZ = +48·4m. Kucino MN = +51·9m. Pulkovo PR_1 = +16m.49s. Dyce e = +33m.35s. De Bilt ePR_1 = +18m.50s., MN = +59·8m. Paris MN = +73·3m. Moncalieri eS? = +41m.41s. Toronto eN = +31m.17s. San Fernando MN = +74·3m.

July 17d. Readings also at 1h. (Kodaikanal), 2h. (near Sumoto), 4h. (near Zurich), 5h. (Ottawa, Uccle, and near Sumoto), 10h. (Konigsberg), 12h. (Manila), 13h. (Agana, near Zagreb, and Laibach), 18h. (Zagreb), 19h. (Zurich), 21h. (Tacubaya), 23h. (Ekaterinburg).

July 18d. Readings at 1h. (near Malabar), 2h. (Balboa Heights), 5h. (Nagasaki), 6h. (Granada), 7h. (Honolulu and Apia), 8h. (Agana), 9h. (Granada), 13h. (Manila, Pulkovo, De Bilt, and near Athens), 14h. (Apia, Pulkovo, Zagreb, and Vienna), 15h. (Kucino and Ekaterinburg), 16h. (Pulkovo and near Athens), 19h. (Moncalieri and near Mizusawa), 22h. (Athens).

July 19d. 20h. 30m. 32s. Epicentre 23°·6N. 123°·5E. (as on 1915 Feb. 28d.).

A = −·506, B = +·764, C = +·400; D = +·834, E = +·552; G = −·221, H = +·334, K = −·916.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	m. s.	s.	m. s.	s.	m.	m.
Taihoku	2·3	308	0 37	+ 1	—	—	0·8	0·9
Hokoto	3·7	269	0 59	+ 1	—	—	e 1·4	—
Zi-ka-wei	7·8	347	2 3	+ 5	3 49	+18	—	5·2
Hong Kong	8·7	263	1 57	−15	3 28	−28	—	5·0
Manila	9·3	195	e 4 10	?S	(e 4 10)	0	8·0	—
Phu-Lien	15·9	263	e 6 58	?S	(e 6 58)	+ 5	9·7	—
Ekaterinburg	55·7	325	e 9 43	− 1	—	—	26·5	36·0
Baku	62·9	305	e 4 46	?	—	—	30·5	—
Pulkovo	71·4	328	—	—	—	—	35·5	—
De Bilt	87·2	327	—	—	—	—	e 47·5	—
Uccle	88·4	327	—	—	—	—	e 47·5	—
Rocca di Papa	88·7	316	e 17 7	?PR_1	—	—	e 48·5	—
Eskdalemuir	89·0	333	—	—	—	—	44·5	—

Additional readings and notes: Hokoto readings have been increased by 1m. Phu-Lien eS = +9m.20s. Pulkovo e = +8m.59s. +12m.37s., and +15m.10s.; if these are increased by 2min. throughout they would accord with P − 27s., PR_1 − 1s., PR_2 + 8s.

July 19d. Readings also at 0h. (Baku), 4h. (La Paz), 7h. (Taihoku and near Zagreb), 8h. (Manila), 10h. (Taihoku), 11h. (Baku), 12h. (Pompeii, Rocca di Papa, and near Lick), 13h. and 15h. (Ekaterinburg), 17h. (Irkutsk), 18h. (Tortosa), 19h. (near Berkeley), 20h. (Ekaterinburg), 21h. (Taihoku and Manila), 23h. (Pulkovo, Ekaterinburg, and Eskdalemuir.)

July 20d. 15h. 3m. 30s. Epicentre 42°·5N. 7°·5E. (as on 1924 May 20d.).

$A = +\cdot731$, $B = +\cdot096$, $C = +\cdot676$; $D = +\cdot130$, $E = -\cdot991$; $G = +\cdot669$, $H = +\cdot088$, $K = -\cdot737$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Moncalieri	2·5	3	e 0 37	− 2	1 9	0	—	—
Rocca di Papa	3·9	99	e 1 7	+ 6	e 1 36	−11	—	—
Venice	4·6	48	0 57	−14	—	—	—	—
Zurich	4·9	9	0 50	−26	—	—	—	2·0
Strasbourg	6·0	2	3 3	?L	—	—	(3·0)	—
Zagreb	7·0	58	e 1 46	0	—	—	—	—

Additional readings: Rocca di Papa gives its two readings as eEN and eZ respectively. Venice PN = +34s. Strasbourg P = +3m.8s., S = +3m.38s. Zagreb e = +1m.30s., eS = +1m.58s., e = +2m.4s.

July 20d. Readings also at 4h. (Ekaterinburg), 6h. (near Athens), 9h. (Ekaterinburg), 10h. (Zi-ka-wei), 11h. (De Bilt, Ekaterinburg, Pulkovo, Rocca di Papa, Manila, and Sydney), 12h. (Florence), 17h. (near Victoria), 18h. (Lemberg), 23h. (Ekaterinburg and near Port au Prince).

July 21d. 13h. 40m. 6s. Epicentre 43°·5N. 85°·5E.

$A = +\cdot057$, $B = +\cdot723$, $C = +\cdot688$; $D = +\cdot997$, $E = -\cdot078$; $G = +\cdot054$, $H = +\cdot686$, $K = -\cdot725$.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	15·3	48	i 3 41	− 2	6 41	+ 2	26·9	—
Ekaterinburg	20·5	319	4 57	+10	i 8 49	+15	10·9	11·6
Baku	26·5	276	—	—	e 11 12	+40	e 14·4	—
Pulkovo	36·6	316	e 8 44	?PR_1	13 5	−13	14·9	—
Konigsberg	42·3	309	—	—	—	—	e 22·8	—
Hamburg	48·6	310	—	—	—	—	e 24·9	—
De Bilt	51·8	309	—	—	—	—	e 27·9	34·0
Strasbourg	51·9	305	—	—	—	—	e 27·9	—
Uccle	52·8	308	—	—	—	—	e 26·9	30·0
Paris	54·7	307	—	—	—	—	e 29·9	—
Eskdalemuir	54·9	317	—	—	—	—	27·9	—

Additional readings: Irkutsk P = +3m.49s. and +3m.57s., S = +6m.46s. and +6m.57s. Baku readings are given as e simply, also e = +18m.6s. Konigsberg e = +26m.54s.? Strasbourg L = +31·9m.

July 21d. Readings also at 1h. (near Tortosa), 6h. (Ekaterinburg), 8h. (Apia), 9h. (Azores), 10h. (Tacubaya), 11h. (near Sumoto), 12h. (Besançon, Paris, Strasbourg, Puy de Dôme, near Zurich, and near Hukuoka), 17h. (Irkutsk), 18h. (Toledo), 20h. (Ekaterinburg), 22h. (near Hukuoka).

July 22d. Readings at 0h. (La Paz), 1h. (Ekaterinburg), 2h. (Pulkovo, near Sumoto, and Kobe), 4h. (Manila), 10h. (La Paz, Pulkovo, Manila, and Ekaterinburg), 13h. (near Kobe and Sumoto), 17h. (near Sumoto), 18h. (near Ootomari).

July 23d. Readings at 9h. (near Zurich), 10h. (Ekaterinburg), 13h. (Taihoku), 14h. (Irkutsk, and Ekaterinburg), 15h. (Baku).

July 24d. Readings at 1h. (De Bilt, Granada, Pulkovo, Ekaterinburg, Adelaide, Riverview, Wellington, and Ottawa), 2h. (Uccle, Granada, Baku, near Sumoto (2), and Kobe), 3h. (Pulkovo, Baku, Granada, Ekaterinburg), 4h. (De Bilt, Uccle, and Ottawa), 8h. (near La Paz), 13h. (near Manila and near Sumoto), 14h. (Phu-Lien).

July 25d. 13h. 5m. 48s. Epicentre 42°·8N, 1°·0W. (as on 1924 Feb. 22d.).

A = +·734, B = −·013, C = +·679

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M
		°	°	m. s.	s.	m. s.	s.	m.	m.
Bagneres		1·0	75	0 15	0	—	—	—	0·4
Tortosa	N.	2·3	159	0 38	+ 2	1 3	0	—	—
	Z.	2·3	159	0 34	− 2	1 5	+ 2	—	—
Barcelona		2·7	119	1 11	+29	(1 11)	− 3	1·4	—
Granada		5·9	200	—	—	—	—	e 3·0	3·6
Paris		6·6	21	—	—	—	—	e 3·4	4·2
Strasbourg		8·4	44	3 12?	?	—	—	—	—
Uccle		8·8	23	—	—	—	—	e 4·4	—

Additional readings: Granada i = +3m.11s. and +3m.19s., L = +3·5m.
Paris e = +4m.9s.

July 25d. Readings also at 3h. (Kucino), 5h. (Granada, Ekaterinburg, Ottawa, and Chicago), 7h. (Apia), 10h. (Batavia), 13h. (near Kobe and Sumoto).

July 26d. 2h. 53m. 50s. Epicentre 40°·5N. 41°·0E.

A = +·574, B = +·499, C = +·649; D = +·656, E = −·755;
G = +·490, H = +·426, K = −·760.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Piatigorsk		3·9	23	i 1 28	+27	(i 1 28)	−19	i 2·3	—
Baku		6·8	88	e 1 44	0	i 3 0	− 5	3·9	5·2
Ksara		7·8	213	e 2 8	+10	—	—	—	—
Vienna	Z.	19·1	302	e 4 35	+ 5	—	—	—	—
Pulkovo		20·4	344	4 45	− 1	8 34	+ 2	10·2	14·1
Hamburg		24·6	312	—	—	e 10 10?	+15	—	—
Strasbourg		24·8	300	—	—	—	—	17·2	—
De Bilt		27·0	308	e 5 53	− 5	e 10 55	+14	17·2	—
Eskdalemuir		32·4	312	—	—	e 12 10?	− 4	21·2?	—
Granada		34·5	279	e 9 10?	?	—	—	15·4	22·6

Additional readings: Piatigorsk iP = +1m.33s. Baku i = +2m.6s.,
MN = +6·3m. Vienna reading is given for 3h. Pulkovo MN = +14·7m.

July 26d. 12h. 46m. 0s. Epicentre 38°·5N. 139°·0E. (as on 1923 Aug. 24d.).

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 26	− 0	0 50	+ 2	—	—
	N.	1·7	69	0 27	− 1	0 51	+ 3	—	—
Nagoya		3·7	207	0 54	− 4	(1 42)	0	1·7	2·2
Osaka		4·8	217	1 31	+17	—	—	2·8	2·9
Kobe		4·9	220	1 26	+10	2 10	− 4	2·7	3·1
Ekaterinburg		52·6	317	i 9 22	− 2	—	—	26·0	34·9
Baku		65·7	303	—	—	—	—	e 35·0	—
Pulkovo		65·7	328	e 10 48	− 1	—	—	—	—

Osaka gives also MN = +3·2m.

July 26d. Readings also at 0h. (near Batavia and Malabar), 1h. (Apia), 5h. (near Amboina), 14h. (Florence), 15h. (near Amboina), 17h. (Victoria and Ekaterinburg), 23h. (Baku).

July 27d. Readings at 0h. (Ekaterinburg and near Manila), 12h. (Georgetown, Toronto, Ottawa, Ann Arbor, near Victoria, and near Chicago), 15h. (Riverview and near Mostar), 16h. (Ekaterinburg), 23h. (Bombay, Ekaterinburg, and Tacubaya),

July 28d. 4h. 37m. 55s. Epicentre 0°·0, 125°·0E.

A = −·574, B = +·819, C = ·000 ; D = +·819, E = +·574 ;
G = ·000, H = ·000, K = −1·000.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s	s.	m. s.	s.	m.	m.
Amboina	4·8	139	i 0 41	−33	i 1 35	−36	—	—
Manila	15·1	345	e 3 49	+ 9	—	—	i 4·7	—
Batavia	19·2	251	4 34	+ 3	—	—	—	—
Hong Kong	24·7	335	5 25	−10	10 3	+ 6	—	15·6
Phu-Lien	27·5	320	i 5 51	−12	e 10 56	+ 6	14·1	—
Zi-ka-wei	31·4	355	e 5 9	?	—	—	—	18·2
Riverview	41·8	147	—	—	—	—	e 18·9	26·8
Ekaterinburg	76·3	330	i 11 54	− 3	21 30	−11	60·1	—
Baku	78·8	313	e 12 13	+ 1	e 22 14	+ 4	39·1	—
Kucino	88·4	326	—	—	23 48	− 8	—	—
Pulkovo	92·4	330	13 14	−15	24 14	−25	41·1	59·8
Eskdalemuir	110·6	331	—	—	e 29 5?	+92	54·1	—
Granada	119·8	314	—	—	—	—	e 64·1	77·2

Riverview gives also MN = +24·9m.

July 28d. Readings also at 2h. (Tacubaya), 3h. (near Rocca di Papa, Pompeii, and Naples), 5h. (Ekaterinburg), 6h. (Zi-ka-wei and Taihoku), 9h. (Baku and Ekaterinburg), 12h. (near Nagasaki), 13h. (Ekaterinburg), 16h. (near Sumoto), 17h. (near Athens), 20h. (Nagoya and near Mizusawa).

July 29d. 4h. 54m. 18s. Epicentre 26°·5S. 179°·0W. (as on 1925 Mar. 8d.).

A = −·895, B = −·016, C = −·446 ; D = −·017, E = +1·000 ;
G = +·446, H = +·008, K = −·895.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Suva	8·7	343	(2 0)	−12	2 0	?P	6·5	10·0
Apia	14·3	30	—	—	—	—	13·2	—
Wellington	15·7	197	e 3 59	+11	i 5 4	−104	6·3	6·8
Christchurch	18·4	199	e 2 48	−94	6 54	−55	9·3	10·5
Sydney	26·8	247	6 6	+10	9 42	−55	14·0	15·2
Riverview	26·8	247	e 5 58	+ 2	e 9 54	−43	e 12·7	15·0
Melbourne	32·3	240	e 10 18	?	—	—	—	17·7
Adelaide	37·2	247	—	—	e 13 6	−21	e 20·0	22·3
Honolulu	52·0	25	17 46	?S	(17 46)	+62	30·4	33·1
Victoria E.	89·9	33	—	—	24 29	+16	44·8	59·3
N.	89·9	33	—	—	—	—	47·3	54·2
Chicago	108·2	50	—	—	e 29 27	+135	e 59·0	76·0
Toronto	114·6	50	—	—	—	—	61·1	—
Ottawa	117·5	49	—	—	e 30 6	+96	e 54·7	—
Ekaterinburg	128·4	322	19 8	[+ 3]	—	—	52·7	61·2
Baku	137·5	301	—	—	—	—	e 61·7	—
Kucino	140·5	328	—	—	—	—	83·4	—
Pulkovo	141·1	335	19 32	[− 9]	29 49	?	52·7	97·8
Eskdalemuir	151·0	5	e 23 42?	?PR_1	e 43 42?	?SR_1	84·7	—
De Bilt	154·2	354	e 20 22	[+21]	—	—	e 87·7	—
Uccle	155·5	355	—	—	—	—	e 89·7	—
Strasbourg	157·3	349	e 21 42?	?	e 29 42?	?	89·7	—
Paris	157·6	357	—	—	—	—	106·7	—
Rocca di Papa	162·0	331	e 16 6	?	—	—	—	—
San Fernando	168·3	30	—	—	33 15	?	91·2	108·2
Granada	168·6	19	i 19 49	[−25]	31 26	?	85·9	105·4

Additional readings: Riverview MN = +13·9m. Adelaide iSR_1 = +16m.48s. Honolulu eSE = +23m.58s., eE = +25m.23s., SR_1N = +28m.12s., eE = +28m.59s. Chicago eE = +50m.35s. Ottawa eE = +25m.12s., e = +36m.58s. Ekaterinburg iPR_1 = +22m.37s. Pulkovo PR_1 = +22m.55s. De Bilt eZ = +24m.44s., eE = +44m.30s. San Fernando MN = +103·7m. Granada i = +22m.7s., +25m.48s. = PR_1 +20s., +29m.55s. = PR_1 +24s., and +39m.58s., PS = +32m.55s. = PR_2 +9s.

July 29d. 14h. 3m. 8s. Epicentre 58°·0N. 99°·0E.

A = −·083, B = +·523, C = +·848; D = +·988, E = +·156;
G = −·133, H = +·838, K = −·530.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Irkutsk	6·5	149	i 1 37	− 2	i 1 55	− 2	3·4	—
Ekaterinburg	20·4	283	4 45	− 1	8 29	− 3	10·9	12·8
Kucino	32·3	293	—	—	—	—	e 17·0	—
Pulkovo	34·0	303	e 7 28	+23	e 11 33	−67	18·9	21·7
Baku	35·6	263	—	—	e 14 34	?SR_1	16·6	—
De Bilt	49·7	307	—	—	—	—	e 27·9	28·6
Uccle	50·9	307	—	—	—	—	—	27·9
Strasbourg	51·1	302	3 52?	?	—	—	e 24·9	—
Rocca di Papa	53·8	292	—	—	—	—	e 30·2	33·3
Granada	65·1	301	—	—	—	—	e 31·9	48·4

Additional readings: Irkutsk P = +1m.39s., +1m.41s., and +1m.43s., S = +2m.57s. and +3m.0s. Baku e = +14m.55s. = SR_1 −17s. and +15m.49s. = SR_1 +1s. Pulkovo MZ = +21·8m. De Bilt MZ = +32·4m. Rocca di Papa i = +33m.11s.

July 29d. 19h. 8m. 54s. Epicentre 37°·5N. 27°·5E. (as on 1920 Nov. 27d.).

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.
Athens		3·0	278	e 1 26?	+39	e 2 26?	+63	2·6	4·9
Rocca di Papa		12·1	295	e 3 1	+ 1	i 8 24	?L	(i 8·4)	10·2
Moncalieri		16·6	303	4 20	+20	7 35	+26	10·0	—
Baku		17·6	74	—	—	e 6 6?	−85	—	—
Strasbourg	Z.	18·1	314	e 4 16	− 2	—	—	—	—
Uccle		21·1	316	—	—	—	—	12·1	—
De Bilt		21·4	320	e 5 0	+ 2	—	—	e 12·1	—
Pulkovo		22·3	4	4 33	−36	8 50	−21	11·1	—
Granada		24·6	279	e 5 36	+ 2	—	—	16·1	18·6
Ekaterinburg		29·2	38	—	—	11 14	− 6	14·1	—

Additional readings: Athens MN = +3·4m. Rocca di Papa ePE = +3m.36s. Strasbourg eEN = +4m.18s.

July 29d. Readings also at 3h. (near Mizusawa), 4h. (Apia), 6h. (La Paz), 9h. (Nagoya), 17h. (near Mizusawa), 18h. (Baku, Ekaterinburg, and Irkutsk), 22h. (near Sumoto).

July 30d. 12h. 16m. 50s. Epicentre 35°·5N. 101°·5W.

A = −·162, B = −·798, C = +·581; D = −·980, E = +·199;
G = −·116, H = −·569, K = −·814.

De Bilt says felt near Panhandle, Texas. Very rough determination.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tucson	E.	8·4	250	—	—	e 3 56	+ 9	i 4·2	5·0
St. Louis		9·5	68	i 3 29	+66	i 4 18	+ 2	i 5·0	—
Chicago		12·5	56	3 10?	+ 4	5 28	− 4	i 6·2	7·4
Ann Arbor		15·4	58	e 5 52	?S	(5 52)	−49	e 7·5	—
Toronto		18·8	58	—	—	e 8 47	+49	10·8	10·9
Georgetown		19·7	73	—	—	e 7 29	−48	(9·6)	—
Ithaca		20·5	63	—	—	—	—	10·2	—
Victoria	E.	20·6	315	10 25	?L	—	—	12·1	12·8
Ottawa		21·8	55	—	—	e 8 58	− 3	e 10·6	12·8
Harvard	E.	24·4	65	—	—	—	—	12·0	14·3
	N.	24·4	65	—	—	e 10 50	+58	11·7	13·0
De Bilt		71·6	38	—	—	—	—	e 45·2	—
Pulkovo		76·8	23	—	—	—	—	e 28·9	—
Ekaterinburg		86·4	10	—	—	e 22 41	−53	25·2	—

Additional readings: Denver (Δ = 5°·0) gives P = 12h.40m. Tucson eL = +4m.31s. St. Louis gives many other i readings. Chicago ePN = +3m.27s, eE = +5m.6s. and eN = +5m.10s., eE = +6m.2s., eN = +5m.57s., MN = +5·3m.; T_g = 12h.17m.7s. Toronto iE = +9m.17s. Georgetown eN = +7m.30s.; L is given as S. Victoria MN = +13·6m. Ottawa LN = +10·8m.

July 30d. 18h. 43m. 10s. Epicentre 30°·0N. 51°·0E.

A = +·545, B = +·673, C = +·500; D = +·777, E = −·629;
G = +·315, H = +·389, K = −·866.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Baku	10·4	355	e 2 58	+22	6 4	+84	7·2	13·1
Ksara	13·4	291	e 3 35	+17	—	—	—	—
Helwan	17·0	274	e 4 14	+ 9	(7 33)	+15	(i 10·0)	12·3
Kucino	27·4	344	e 6 20	+18	e 11 2	+14	18·5	—
Ekaterinburg	27·7	11	e 6 5	0	10 50	− 4	13·8	17·2
Rocca di Papa	32·9	302	9 21	?	10 17	−125	—	10·3
Pulkovo	32·9	341	6 46	−10	12 7	−15	14·3	25·4
Innsbruck	34·9	314	—	—	e 12 41	−13	—	—
Moncalieri	36·9	308	—	—	e 13 13	− 9	(18·6)	—
Strasbourg	37·6	312	—	—	e 12 50?	−42	21·8?	—
Hamburg	37·8	322	e 10 50?	?	—	—	—	—
De Bilt	40·1	319	—	—	e 15 20	+72	e 26·8	—
Irkutsk	44·6	44	8 25	− 5	15 5	− 5	23·8	—
Bidston	45·2	318	16 18?	?S	(16 18?)	+60	(19·3?)	31·3
Granada	45·4	294	—	—	—	—	e 22·8	46·8
Eskdalemuir	45·6	320	—	—	e 15 39	+17	e 18·8	—

Additional readings and notes: Baku MN = +8·1m. Helwan gives S as PR_1 and L as S. Kucino eSR_1 = +12m.20s., eSR_2 = +13m.26s. Ekaterinburg MN = +18·8m. Rocca di Papa ePE = +9m.27s. Pulkovo MN = +25·1m. Innsbruck eNW = +12m.42s. Moncalieri gives S as e and L as S., also L = +22·6m. Bidston gives S as P and L as S. Granada eL = +43·0m.

July 30d. Readings also at 1h. (Granada and near La Paz), 2h. (near Mizusawa), 3h. (La Paz), 7h. (Honolulu), 10h. (Rocca di Papa), 16h. (near Taihoku), 18h. (Ekaterinburg), 19h. (Granada), 20h. (La Paz).

July 31d. 8h. 46m. 18s. Epicentre 5°·5N. 77°·5W. (as on 1924 June 22d.).

A = +·215, B = −·972, C = +·096; D = −·976, E = −·216;
G = +·021, H = −·094, K = −·995.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Balboa Hts.	E.	4·0	330	1 42	+40	3 34	+104	7·0	7·3
	N.	4·0	330	1 42	+40	3 42	+112	6·9	10·6
La Paz		23·9	157	e 4 17	−70	i 8 50	−52	13·4	16·6
Georgetown		33·5	0	—	—	e 15 53	?	e 19·2	—
Ann Arbor		37·2	353	—	—	e 12 54	−33	e 16·8	—
Chicago		37·4	349	e 7 26	− 7	12 27	−63	15·9	22·8
Toronto	E.	38·2	357	—	—	e 13 20	−21	18·2	24·2
	N.	38·2	357	7 30	−10	e 13 22	−19	21·0	26·2
Ottawa		39·9	3	e 7 42	−12	e 13 47	−18	e 19·7	—
Rio de Janeiro		44·0	133	e 8 12	−14	14 57	− 5	e 22·1	29·2
La Plata	E.	44·4	157	—	—	—	—	24·2	30·4
Victoria		57·8	326	10 1	+ 3	16 1	+ 5	23·4	45·6
Granada		73·9	53	i 11 49	+ 8	e 21 24	+11	e 35·7	41·0
Eskdalemuir		76·6	35	—	—	i 21 47	+ 3	—	—
Tortosa	N.	77·4	49	—	—	21 56	+ 3	e 36·7	—
Dyce		80·5	32	—	—	21 55	−34	38·7	—
Uccle		80·6	40	e 12 20	− 3	22 28	− 2	e 41·7	—
De Bilt		81·2	38	12 25	− 1	22 36	− 1	e 39·7	49·0
Strasbourg		82·8	42	e 12 36	+ 1	e 22 42?	−13	36·7	—
Moncalieri		82·8	46	e 12 35	0	e 22 53	− 2	e40·0	—
Hamburg		84·1	37	e 12 46	+ 3	e 23 7	− 2	—	—
Innsbruck	N.W.	85·2	42	e 15 12	+143	—	—	—	—
Pulkovo		94·0	29	e 13 26	−12	e 23 56	[+ 4]	50·7	59·1
Kucino		99·3	31	e 25 42	?S	(25 42)	− 7	50·2	—
Ekaterinburg		109·0	23	e 22 42	?	e 26 39	−40	44·7	66·0
Baku		113·5	41	—	—	e 28 42	+44	—	—
Zi-ka-wei		139·1	335	e 21 32	?PR_1	e 34 1	?	—	83·4

For Notes see next page.

NOTES TO JULY 31d. 8h. 46m. 18s.

Additional readings: La Paz i = +5m.17s. and +9m.42s., MN = +16·9m. Chicago PR_1N = +8m.40s., PR_2 = +8m.57s., eN = +10m.59s., MN = +24·5m. Toronto eN = +8m.58s. = PR_1 − 2s., and +13m.4s., eE = +10m.54s., IN = +10m.58s. and +12m.27s., iSE = +13m.23s., iE = +16m.52s. = SR_2 − 1s. Ottawa SR_2 = +17m.18s.; T_o = 8h.46m.19s. Rio de Janeiro SR_2 = +19m.12s.; T_o = 8h.45m.58s. La Plata LN = +25·5m., MN = +33·4m. Victoria LN = +41·0m.; T_o = 8h.48m.45s. Granada PR_1 = +15m.18s., PR_2 = +16m.44s., PS = +22m.59s. Eskdalemuir i = +25m.14s. Dyce PR_1 = +15m.20s., i = +25m.22s. De Bilt ePR_1Z = +15m.54s., e = +26m.5s. Strasbourg eZ = +15m.59s. and +26m.24s. Kucino eSR_1 = +29m.12s. Ekaterinburg MZ = +66·1m. Zi-ka-wei PR_1 = +22m.16s., PR_2 = +25m.40s.

July 31d. Readings also at 1h. (Ekaterinburg), 4h. and 6h. (Apia), 8h. (Uccle), 15h. (near Balboa Heights), 19h. (Toronto and Taihoku), 20h. (Baku, Ottawa, and Ekaterinburg).

Aug. 1d. 2h. 25m. 40s. Epicentre 28°·0S. 163°·5W. (as on 1924 Aug. 6d.).

A = −·846, B = −·251, C = −·469; D = −·284, E = +·959; G = +·450, H = +·133, K = −·883.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Suva	19·4	297	e 4 50	+16	8 20	+10	9·4	—
Wellington	22·2	227	5 4	−3	8 50	−19	10·1	13·4
Christchurch	24·7	225	(e 5 20)	−15	—	—	e 5·3	14·1
Riverview	39·0	250	e 6 8	−98	e 9 32	?PR_1	e 11·8	13·7
Melbourne	43·8	244	e 11 20	?	—	—	—	17·3
Ottawa	108·0	47	—	—	—	—	e 53·3	—
Ekaterinburg	137·7	325	e 22 58	?PR_1	e 30 6	?	53·3	66·5
Pulkovo	146·9	347	e 18 2	[−109]	—	—	64·3	76·4
Kucino	148·3	337	—	—	—	—	64·1	—
Baku	150·0	303	—	—	—	—	78·3	—
De Bilt	154·4	16	e 20 3	[+ 2]	—	—	e 75·3	—
Uccle	155·4	19	—	—	—	—	e 72·3	—
Vienna z.	159·8	0	e 19 59	[− 9]	—	—	—	—
Granada	160·8	57	e 28 57	?PR_2	—	—	e 88·7	93·0

Additional readings and notes: Suva readings have been increased by 9m. Ekaterinburg MZ = +66·6m. Pulkovo MZ = +74·9m. Granada = +30m.22s. and +36m.54s., e = +42m.35s. and +43m.46s.

Aug. 1d. Readings also at 0h. (Malabar and near Batavia), 4h. (Amboina), 8h. (Kobe), 9h. (Kucino), 13h. (La Paz (2) and Pompeii), 15h. (La Paz, Ekaterinburg, and near Manila), 16h. (Irkutsk, Pulkovo, and La Paz), 19h. (Baku), 20h. (near Victoria), 21h. (Tacubaya (2)), 22h. (Manila, Oaxaca, and Tacubaya), 23h. (Pulkovo, Baku, Kucino, and Ekaterinburg).

Aug. 2d. Readings at 1h. (near Irkutsk), 2h. (Guadalajara, Manzanillo, Tacubaya, and Vera Cruz), 3h. (Ottawa, Toronto, and Baku), 8h. (near Kobe and Sumoto), 10h. (Granada, Ottawa, and La Paz), 11h. (De Bilt, Baku, Ekaterinburg (2), Pulkovo, and Rio de Janeiro).

Aug. 3d. Readings at 0h. (Innsbruck, Zurich, Zagreb, and near Laibach), 4h. (La Paz), 6h. (La Paz and near Baku), 7h. (Ekaterinburg), 10h. (Toronto), 11h. (near Algiers), 13h. (near Athens), 15h. (Ekaterinburg and near Irkutsk), 20h. (near Hukuoka), 21h. (Batavia, Ekaterinburg, and near Hukuoka), 22h. (near Baku), 23h. (Taihoku and Ekaterinburg).

Aug. 4d. 0h. 22m. 6s. Epicentre 23°·7N. 0°·0.

A = +·916, B = ·000, C = +·402 ; D = ·000, E = −1·000 ;
G = +·402, H = ·000, K = −·916.

The longitude is only rough.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Algiers	13·4	11	e 3 24	+ 6	e 5 24	−29	6·2	—
Almeria	13·4	352	e 3 18	0	5 53	0	—	—
Granada	13·8	348	3 21	− 2	5 59	− 4	i 7·0	9·6
San Fernando	13·8	339	—	—	—	—	7·9	9·9
Toledo	16·5	349	—	—	—	—	—	7·8
Tortosa N.	17·1	1	(e 4 54?)	+48	—	—	e 4·9	6·0
Rocca di Papa	20·9	27	e 3 29	−83	—	—	—	7·6
Strasbourg	25·6	12	7 54?	?	—	—	—	—
Uccle	27·3	6	e 5 30	−31	(e 9 24)	−82	e 9·4	—
De Bilt	28·7	7	—	—	(e 11 18)	+ 6	e 11·3	—
Eskdalemuir	31·7	356	e 7 39	+55	—	—	12·9	—
Pulkovo	41·8	22	(8 54?)	+45	—	—	8·9	—
Ekaterinburg	54·4	36	(9 54)	+19	—	—	9·9	—

Granada gives also i = +4m.3s.

Aug. 4d. Readings also at 2h. (Ekaterinburg), 5h. (near La Paz), 7h. (Uccle, Baku, and near Athens), 15h. (Baku), 17h. (Agana), 18h. (Irkutsk, Zi-ka-wei, and Ekaterinburg), 23h. (Manila).

Aug. 5d. 5h. 1m. 0s. Epicentre 37°·4N. 30°·5E. (as on 1925 July 8d.).

A = +·684, B = +·403, C = +·607 ; D = +·508, E = −·862 ;
G = +·523, H = +·308, K = −·794.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	e 1 30	+ 7	2 23	− 5	i 2·6	3·5
Ksara	5·6	127	1 40	+13	—	—	—	—
Belgrade E.	10·6	318	e 4 15	?S	(e 4 15)	−30	(e 5·9)	—
Zagreb	13·7	313	—	—	—	—	e 6·8	—
Rocca di Papa	14·4	293	e 5 56	?S	(e 5 56)	−22	7·8	8·5
Moncalieri	18·7	301	e 4 7	−18	e 7 0	−55	9·0	10·4
Konigsberg	18·7	342	—	—	—	—	e 11·3	—
Kucino	19·0	13	e 5 3	+34	8 45	+43	10·9	—
Strasbourg	19·9	311	e 3 38	−62	e 8 25	+ 4	11·0	15·4
Hamburg	21·5	326	—	—	e 9 0?	+ 5	—	—
Puy de Dôme	22·1	301	4 0?	−66	—	—	—	—
Pulkovo	22·3	0	5 6	− 3	i 9 24	+13	11·0	14·4
Uccle	22·9	314	—	—	e 9 15	− 8	e 12·5	—
De Bilt	23·0	318	—	—	9 29	+ 4	e 12·0	—
Paris	23·2	308	5 14	− 5	(9 0?)	−29	9·0	15·0
Upsala	23·9	344	—	—	e 9 48	+ 6	e 13·6	—
Granada	27·0	280	e 4 16	−102	e 11 9	+28	e 16·4	17·5
Ekaterinburg	27·8	36	e 6 20	+14	e 10 57	+ 2	14·0	16·5
Eskdalemuir	28·9	319	—	—	e 11 18	+ 3	16·0	—
Edinburgh	29·1	320	—	—	—	—	24·0	—
Dyce	29·2	323	—	—	11 40	+20	17·4	19·2

Additional readings and notes : Athens MN = +4·1m., all readings being given as for 3h. Belgrade gives S as P and L as S. Zagreb eS? = +8m.38s. Pulkovo MN = +15·1m. Granada i = +5m.48s.

Aug. 5d. 20h. 11m. 33s. Epicentre 40°·0N. 78°·0E.

A = +·159, B = +·749, C = +·643 ; D = +·978, E = −·208 ;
G = +·134, H = +·629, K = −·766.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Simla E.	8·9	184	e 4 39	?L	e 5 21	?	—	—
N.	8·9	184	e 4 45	?L	e 5 33	?	—	—
Ekaterinburg	20·2	332	i 4 45	+ 2	8 25	− 2	10·4	12·9
Baku	21·4	280	e 4 54	− 4	e 9 13	+20	13·8	14·2
Irkutsk	21·7	47	5 10	+ 9	9 17	+18	12·4	—
Hyderabad	22·6	179	9 35	?S	(9 35)	+18	13·2	16·2
Piatigorsk	26·1	290	e 8 37	?	e 13 27	?L	(e 13·4)	19·4
Kucino	30·5	315	—	—	e 11 44	+ 1	16·6	19·4
Phu-Lien	31·0	120	—	—	—	—	19·4	—
Hong Kong	35·3	110	12 57	?S	(12 57)	− 3	—	26·3
Pulkovo	35·4	320	i 7 7	−10	12 38	−23	15·4	22·0
Zi-ka-wei	36·0	90	e 10 14	?PR_1	13 25	+15	14·0	15·9
Konigsberg N.	40·3	312	—	—	—	—	i 21·3	—
Upsala	41·8	320	—	—	—	—	e 20·4	30·8
Cheb	45·9	304	—	—	e 18 57	?SR_1	e 24·4	25·4
Hamburg	46·6	311	—	—	e 19 27	?SR_1	e 24·6	29·4
Strasbourg	49·2	305	e 10 27	?PR_1	—	—	27·4	—
De Bilt	49·8	310	—	—	e 16 17	+ 1	e 27·4	32·0
Uccle	50·6	309	—	—	e 16 27?	+ 1	e 27·4	—
Grenoble	51·7	301	—	—	—	—	45·4	—
Paris	52·4	307	—	—	—	—	e 28·1	32·4
Batavia	53·3	144	e 13 27	?PR_3	—	—	—	—
Edinburgh	53·3	316	—	—	—	—	e 32·4	—
Eskdalemuir	53·5	316	—	—	e 17 3	0	28·4	—
Oxford	53·6	311	—	—	—	—	—	34·8
Algiers	57·0	293	e 11 29	?	—	—	34·4	—
Granada	61·4	296	—	—	e 18 9	−32	36·2	39·8

Additional readings: Baku i = +5m.13s. = PR_1 −7s. Hyderabad S = +12m.25s. Kucino e = +15m.28s., MN = +17·9m. Pulkovo SR_1 = +14m.20s., MZ = +21·7m., MN = +21·9m. Zi-ka-wei readings have been diminished by 10m. Konigsberg eE = +24m.45s. De Bilt MN = +28·4m. Uccle e = +20m.15s. = SR_1 −3s.

Aug. 5d. Readings also at 3h. (Amboina), 12h. (near Batavia and Malabar), 17h. (La Paz), 18h. (Zi-ka-wei), 19h. (Ekaterinburg), 21h. (Ekaterinburg (2), near Batavia, and Malabar), 22h. (near Toledo, Granada, Almeria, and Malaga), 23h. (near Ootomari).

Aug. 6d. 7h. 15m. 24s. Epicentre 36°·7N. 63°·0E.

A = +·364, B = +·714, C = +·598 ; D = +·891, E = −·454 ;
G = +·271, H = +·532, K = −·802.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Baku	10·9	294	e 3 45	+62	—	—	e 6·8	—
Simla	13·0	111	3 12	− 1	—	—	—	—
Ekaterinburg	20·2	356	i 4 42	+ 1	i 8 29	+ 2	11·6	—
Hyderabad	23·6	141	8 9	?	—	—	—	11·5
Kucino	25·5	326	—	—	e 10 12	− 1	e 12·4	—
Pulkovo	31·1	328	i 6 42	+ 3	11 56	+ 3	14·6	—

Ekaterinburg gives also i = +5m.19s. and +5m.46s.

Aug. 6d. 10h. 37m. 4s. Epicentre 35°·7N. 134°·8E. (as on July 6d.).

A = −·572, B = +·576, C = +·584.

	Δ	P.	O−C.	L.	ME.	MN.
	°	s.	s.	m.	m.	m.
Kobe	1·1	15	−2	0·5	0·5	0·5
Osaka	1·2	20	+2	0·6	1·0	1·4
Sumoto	1·4	20	−1	0·6	0·6	—

No additional readings.

Aug. 6d. 14h. 20m. 48s. Epicentre 0°·5S. 152°·0E. (as on 1925 Mar. 18d.).

A = −·883, B = +·470, C = −·009; D = +·470, E = +·883; G = +·008, H = −·004, K = −1·000.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Riverview	33·3	181	e 8 24	?PR_1	e 12 24	− 5	e 16·6	20·5
Sydney	33·3	181	10 48	?S	(10 48)	−101	16·7	18·0
Manila	34·1	298	e 6 56	−10	—	—	—	—
Adelaide	36·6	198	—	—	—	—	e 14·9?	19·0
Melbourne	37·9	190	—	—	e 12 48	−49	—	22·2
Zi-ka-wei	43·0	323	e 10 26	?PR_2	e 17 42	?SR_1	—	23·0
Batavia	45·4	262	9 6	+30	—	—	—	—
Perth	46·4	225	22 41	?L	—	—	(22·7)	—
Irkutsk	66·1	330	e 10 54	+ 2	19 37	− 1	35·2	—
Victoria E.	86·9	42	24 38	?S	(24 38)	+58	43·1	45·6
Ekaterinburg	91·1	327	e 13 9	−13	e 25 12	+47	43·2	53·4
Pulkovo	105·8	334	—	—	e 26 26	−24	44·2	64·3
Toronto	117·3	38	—	—	—	—	59·4	—
Ottawa	118·6	37	—	—	—	—	e 55·7	—
De Bilt E.	121·4	337	—	—	—	—	e 56·2	—
Uccle	122·8	336	—	—	—	—	e 59·2	—
Strasbourg	122·9	333	—	—	—	—	e 63·2	—
Paris	125·0	335	—	—	—	—	e 71·2	75·2
Granada	137·0	331	—	—	e 48 12?	?	67·2	82·8

Additional readings: Riverview MN = +19·1m. De Bilt eLN = +60·2m.

Aug. 6d. Readings also at 0h. (Ekaterinburg (2)). 2h. (Johannesburg), 3h. (near Batavia and Malabar), 6h. (Batavia and Ottawa), 12h. (Batavia and near Kobe), 17h. (Ann Arbor), 19h. (near Amboina), 23h. (La Paz and near Sumoto and Kobe).

Aug. 7d. 2h. 52m. 45s. Epicentre 38°·0N. 137°·5E. (as on 1923 Dec. 4d.).

A = −·581, B = +·532, C = +·616.

	Δ	P.	O−C.	S.	O−C.	L.	M.
	°	m. s.	s.	m. s.	s.	m.	m.
Nagoya	2·9	0 33	−12	—	—	—	—
Mizusawa E.	3·0	0 48	+ 1	1 24	+ 1	—	—
Osaka	3·7	1 18	+20	—	—	2·3	3·1
Kobe	3·9	1 0	− 1	—	—	2·1	2·3
Granada	96·7	—	—	—	—	e 46·8	48·2

Osaka gives also MN = +2·6m.

Aug. 7d. 6h. 46m. 27s. Epicentre 37°·4N. 30°·5E. (as on 1925 Aug. 5d.).

A = +·684, B = +·403, C = +·607; D = +·508, E = −·862; G = +·523, H = +·308, K = −·794.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	i 1 30	+ 7	i 2 23	− 5	2·6	3·5
Helwan	7·6	174	e 2 13	+18	3 38	+12	—	—
Belgrade	10·6	318	2 42	+ 4	(4 36)	− 9	—	5·8
Sarajevo	11·2	309	—	—	6 7	?L	(6·1)	6·4
Platigorsk	11·6	52	e 6 6	?L	8 31	?	(e 6·1)	12·4
Pompeii	12·8	290	e 3 13	+ 3	e 6 3	+24	—	9·2
Naples	13·1	290	e 3 29	+15	e 6 14	+28	—	10·3
Lemberg	13·2	342	e 2 57	−19	e 5 51	+ 2	—	9·4
Zagreb N.W.	13·7	313	e 3 21	− 1	i 6 1	0	—	8·8
Rocca di Papa	14·4	293	e 3 30	− 2	i 6 29	+11	i 8·8	10·2
Laibach	14·7	311	e 4 7	+32	e 6 24	− 1	—	9·4
Vienna	14·9	321	e 3 42	+ 4	6 24	− 6	i 7·3	9·1
Baku	15·4	73	e 1 46	−118	i 5 19	−82	7·8	10·2
Venice	15·7	306	4 6	+18	8 41	?L	(8·7)	12·6
Florence	15·9	300	3 53	+ 2	6 58	+ 5	—	9·6
Cheb	18·1	320	i 4 28	+10	i 7 54	+12	e 9·6	12·0
Moncalieri	18·7	301	2 24	−121	5 57	−118	8·6	10·3

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Konigsberg	E.	18·7	342	i 4 35	+10	7 53	− 2	e 9·6	13·6
	N.	18·7	342	i 4 32	+ 7	8 2	+ 7	e 10·8	—
Zurich		18·9	309	i 4 30	+ 2	e 7 57	− 3	—	—
Kucino		19·0	13	i 5 49	+80	i 8 39	+37	11·4	—
Strasbourg		19·9	311	i 4 41	+ 1	i 8 21	0	9·6	12·9
Besançon		20·5	306	4 44	− 3	8 33	− 1	—	12·8
Hamburg		21·5	326	i 4 58	− 1	i 8 54	− 1	e 10·6	15·0
Algiers		21·8	277	5 3	0	8 58	− 3	16·6	—
Barcelona		22·2	289	e 5 3	− 4	e 9 2	− 7	13·8	17·2
Pulkovo		22·3	0	i 5 13	+ 4	i 9 10	− 1	11·6	14·1
Uccle		22·9	314	i 5 12	− 4	i 9 20	− 3	10·6	12·9
De Bilt		23·0	318	5 15	− 2	9 18	− 7	10·6	15·3
Paris		23·2	308	i 5 14	− 5	i 9 25	− 4	11·6	12·6
Tortosa		23·4	288	5 19	− 2	9 30	− 3	—	16·4
Upsala		23·9	344	5 23	− 4	9 39	− 3	—	13·7
Alicante	E.	24·4	282	4 2	−90	8 26	−86	13·8	20·6
	N.	24·4	282	4 10	−82	8 40	−72	13·8	20·4
Almeria		26·1	279	i 5 49	0	10 19	− 5	e 13·8	19·2
Oxford		26·5	313	i 5 48	− 5	i 10 26	− 6	—	17·4
Toledo		26·9	286	e 5 50	− 7	e 10 33?	− 6	e 12·1	19·5
Granada		27·0	280	i 5 55	− 3	i 10 40	− 1	e 15·6	23·0
West Bromwich		27·2	314	5 54	− 6	10 22	−23	—	—
Malaga	Z.	27·7	279	e 5 51	−14	—	—	—	—
Stonyhurst		27·9	317	6 1	− 6	i 10 53	− 4	19·6	19·9
Bidston		28·1	316	9 27	?	12 1	+60	15·8	16·8
Eskdalemuir		28·9	319	e 6 11	− 6	i 11 17	+ 2	14·6	16·3
Edinburgh		29·1	320	6 13	− 6	11 17	− 2	16·0	16·7
Dyce		29·2	323	—	—	—	—	16·3	18·0
San Fernando		29·2	279	3 23	−177	11 18	− 2	17·0	18·0
Phu-Lien		66·8	81	—	—	19 33?	−15	—	—
Ottawa		74·0	315	e 11 53	+11	e 21 23	+ 9	e 32·6	—
Toronto	E.	77·1	316	e 12 7	+ 5	—	—	41·2	—
Victoria	E.	91·1	343	—	—	—	—	46·8	62·8

Additional readings and notes: Athens MN = +3·7m. Belgrade ePE = +2m.43s. and +3m.21s., ePN = +3m.24s., iE = +3m.35s. and +4m.36s., used as S above, iN = +5m.5s., iSR_1N = +5m.17s., iSR_1E = +5m.23s., MN = +6·4m. Piatigorsk iP = +6m.10s. Lemberg MN = +10·0m. Zagreb i = +3m.27s., +3m.42s., and +7m.2s., e = +5m.0s. Rocca di Papa PZ = +3m.36s., iPE = +3m.42s., iPN = +3m.49s. Laibach eSN = +6m.58s. Vienna iPZ = +3m.45s., iZ = +4m.20s., +5m.17s., and +5m.41s., MN = +8·8m., MZ = +9·4m. Baku iP = +2m.3s., MN = +8·4m. Venice SE = +8m.53s., Florence P = +3m.58s., S = +7m.3s. Konigsberg iE = +4m.35s., SE = +8m.2s., eLN = +10·8m., MN = +11·6m. Strasbourg MN = +11·8m., MZ = +13·0m. Barcelona MN = +15·7m. Pulkovo MNZ = +14·9m. De Bilt MZ = +13·3m. Upsala MN = +16·2m. Almeria MN = +17·1m. Toledo iNW = +10m.38s., iNE = +10m.40s., MNW = +19·4m. Granada i = +7m.32s., +7m.58s., and +8m.14s., PS = +11m.33s., MZ = +21·6m. Eskdalemuir eS = +11m.2s. San Fernando MN = +22·0m. Ottawa e = +25m.57s. $=SR_1 - 51s.$, +29m.29s. $=SR_2 - 20s.$

Aug. 7d. 7h. 47m. 40s. Epicentre 19°·0N. 100°·0W.

(as on 1924 April 21d.).

A = −·164, B = −·931, C = +·326; D = −·985, E = +·174; G = −·057, H = −·321, K = −·946.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tacubaya		0·8	62	0 47	+35	—	—	1·1	1·2
Puebla		1·7	88	0 47	+21	—	—	1·4	1·8
Oaxaca		3·6	121	1 2	+ 6	—	—	2·1	2·2
Vera Cruz		3·7	86	0 46	−12	—	—	1·8	2·3
Guadalajara		3·7	298	0 23	−35	—	—	1·0	1·2
Manzanillo		4·1	272	0 59	− 5	—	—	—	1·6
Mazatlan		7·3	307	2 9	+18	3 25	+ 7	3·6	4·2
Merida		9·9	76	1 20	−69	3 26	−60	3·6	4·4
Tucson	E.	16·5	326	3 58	− 1	6 46	−21	8·2	9·2
Denver	E.	21·1	349	5 20?	+26	8 20?	−26	11·8	11·8
Chicago		25·1	22	i 5 45	+ 6	10 12	+ 7	e 12·2	15·3
Lick		26·3	319	e 5 41	−10	e 11 1	+33	e 13·8	—
Berkeley		27·1	319	e 5 36	−13	e 11 4	+21	13·5	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Ann Arbor		27·1	27	e 5 26	−33	e 10 2	−41	—	11·5
Georgetown	E.	28·1	40	e 6 37	+28	11 37	+36	13·1	21·1
	N.	28·1	40	e 6 31	+22	e 11 42	+41	13·4	20·5
Cheltenham	E.	28·1	41	—	—	e 11 44	+43	22·5	23·4
	N.	28·1	41	—	—	e 11 32	+31	17·6	21·8
Toronto		30·1	30	e 6 22	− 7	i 11 19	−17	13·9	20·4
Fordham		31·2	40	e 7 15	+35	12 40?	+46	19·6	20·9
Ottawa		33·2	32	e 6 48	−10	e 12 12	−15	e 16·3	22·3
Harvard	E.	33·8	40	—	—	—	—	e 16·1	23·9
	N.	33·8	40	6 41	−22	11 27	−71	15·4	21·2
Victoria	E.	34·9	333	6 49	−23	12 22	−32	18·5	22·1
	N.	34·9	333	6 56	−16	12 19	−35	—	—
Sitka		46·1	335	—	—	—	—	e 24·8	26·1
La Paz		47·4	137	i 8 45	− 5	15 42	− 4	23·8	26·1
Honolulu	E.	54·2	283	—	—	i 16 58	−13	e 23·8	27·4
Rio de Janeiro		69·5	125	e 11 20	+ 6	20 50	+30	34·8	—
Edinburgh		78·0	35	e 12 30	+23	e 22 35	+35	39·3	—
Eskdalemuir		78·2	35	e 12 19	+11	22 11	+ 9	36·3	—
Dyce		78·2	33	—	—	22 4	+ 2	32·8	52·1
Bidston		78·8	37	13 21	+69	23 12	+62	34·0	41·3
Stonyhurst		79·0	37	e 12 10	− 3	22 20	+ 8	40·3	45·3
Oxford		80·4	38	—	—	i 22 32	+ 4	—	—
San Fernando		81·7	54	12 52	+23	i 22 52	+ 9	34·8	53·3
Toledo		82·3	50	e 12 35	+ 3	e 22 39	−10	e 35·5	51·2
Malaga		83·0	54	12 37	+ 1	23 43	+46	—	—
Granada		83·5	53	i 12 38	− 1	e 23 4	+ 1	42·3	53·7
Paris		83·7	40	—	—	e 22 58	− 8	42·3	49·3
De Bilt		84·0	37	—	—	23 3	− 5	e 40·3	42·3
Uccle		84·0	38	e 12 42	0	23 2	− 6	e 36·3	43·3
Almeria		84·5	52	12 55	+10	23 13	− 1	33·8	52·9
Tortosa	N.	85·3	48	e 12 58	+ 8	23 13	− 9	—	—
Alicante	E.	85·4	50	—	—	22 8	−75	—	—
Hamburg		85·9	34	e 12 59	+ 6	e 23 14	−15	e 41·3	43·3
Barcelona		86·2	46	—	—	e 23 14	−18	e 37·8	—
Upsala		86·5	26	—	—	23 16	−20	e 41·3	—
Strasbourg		87·0	39	12 57	− 2	e 23 37	− 4	e 42·3	—
Moncalieri		88·5	42	e 12 9	−59	21 20	−158	39·9	—
Algiers		88·7	50	—	—	23 31	[+11]	—	69·3
Cheb		88·9	36	—	—	e 22 20?	?	—	24·3
Konigsberg		90·6	30	—	—	(e 23 40)	[+ 8]	e 23·7	—
Florence		91·2	41	—	—	—	—	37·3	—
Venice		91·2	40	—	—	22 20?	?	—	—
Pulkovo		91·5	23	13 21	− 3	23 49	[+12]	39·3	53·9
Zagreb		93·0	39	—	—	23 20?	[−26]	—	—
Rocca di Papa		93·1	43	e 13 38	+ 5	23 57	[+10]	—	25·8
Kucino		97·1	21	—	—	24 51	−36	42·6	57·8
Wellington		98·6	229	—	—	—	—	e 48·3	—
Ekaterinburg		102·4	10	—	—	—	—	—	58·6
Platigorsk		108·5	27	—	—	e 28 20?	+65	46·3	—
Baku		114·3	25	e 17 40	?	—	—	56·3	—
Riverview		115·8	240	—	—	e 29 26	+70	e 42·5	50·4
Sydney		115·8	240	17 38	?	—	—	49·3	51·0
Zi-ka-wei		115·9	320	e 18 44	[+ 3]	26 31	[+60]	—	77·9
Melbourne		121·1	235	e 4 20	?	i 35 8	?SR_1	i 44·7	46·5
Adelaide		126·2	240	—	—	e 28 2?	−92	e 38·3	46·4
Hong Kong		126·8	318	21 34	?PR_1	26 19	?PR_2	30·9	32·8
Manila		127·5	307	e 24 45	?PR_2	—	—	—	—
Amboina		130·5	281	i 21 38	?PR_1	i 24 14	?	—	—
Phu-Lien		132·4	325	e 22 48	?PR_1	37 36	?	—	87·5
Bombay		141·4	8	36 20?	?	—	—	—	—
Hyderabad		143·5	3	—	—	37 15	?	—	83·2
Malabar		150·7	290	19 59	[+ 2]	25 33	?	—	—
Batavia		150·9	292	20 24	[+27]	i 25 34	?	—	—

Additional readings and notes: Puebla readings have been diminished by 9m. Oaxaca readings have been increased by 4m. Vera Cruz readings have been increased by 1m. Guadalajara readings have been increased by 7m. Manzanillo readings have been increased by 5m. Tucson $PR_1E = +4m.18s.$, $eE = +4m.56s.$; $T_0 = 7h.48m.10s.$ Chicago $eN = +9m.50s.$, $iN = +10m.23s.$, $iSR_1N = +10m.50s.$, $iSR_1E = +10m.58s.$, $MN = +14·8m.$; $T_0 = 3h.47m.36s.$ or $3h.47m.49s.$ Lick $eZ = +5m.50s.$, $ePE = +6m.26s.$, $= PR_1 - 4s.$, $eZ = +6m.34s.$, $= PR_1 + 4s.$, $ePR_1E = +6m.44s. = PR_2 + 2s.$, $ePR_1Z = +6m.46s. = PR_2 + 4s.$, also several other e's. Berkeley $iPR_1Z = +6m.25s.$, $ePR_1E = +6m.27s.$, $eE = +10m.25s.$ Ann Arbor $SR_1? = +10m.50s.$; $T_0 = 7h.47m.30s.$ Georgetown $PR_1E = +7m.12s.$

Continued on next page.

Cheltenham iLN? = +12·7m., eN = +20m.32s. Toronto LN = +16·3m.; T_0 = 7h.47m.48s. Fordham iPR_1 = +8m.17s., SR_1 = +15m.22s., SR_2 = +16m.15s.; T_0 = 7h.47m.50s. Ottawa ePR_2 = +7m.56s. = PR_1 − 4s., iSR_2 = +14m.20s., MN = +22·1m.; T_0 = 7h.47m.40s. Harvard PR_2E = +7m.55s., PR_2N = +7m.56s., eN = +10m.32s., SR_2N = +13m.2s.; T_0 = 7h.48m.4s. or 7h.48m.21s. Sitka MN = +26·5m. La Paz iPN = +8m.51s., i = +9m.11s., PR_2 = +11m.19s.; T_0 = 7h.47m.36s. Honolulu S_6SE? = +19m.20s., SR_2N? = +22m.20s., and many L and M's; T_0 = 7h.49m.23s. and +7h.49m.28s. Dyce PR_1 = +15m.34s. Bidston P = +16m.20s. (?PR_1). San Fernando MN = +44·3m. Toledo MNW = +50·3m. Granada i = +13m.30s., LZ = +43·3m., MZ = +46·5m. Paris MN = +45·3m. De Bilt eSR_1E = +29m.1s., MN = +42·9m. Tortosa SE = +23m.8s. Alicante SN = +22m.44s. Strasbourg i = +23m.22s. Venice +29m.20s. Pulkovo PR_1 = +16m.32s., MN = +54·1m., MZ = +54·2m. Rocca di Papa eN = +11m.17s., eE = +12m.37s., ePE = +13m.8s., ePN = +14m.2s. (O − C. = +29s.), eE = +16m.38s. Kucino e = +27m.20s., +32m.35s., and +35m.58s., MN = +58·2m. Ekaterinburg MN = +59·3m., MZ = +59·5m. Baku e = +23m.30s., i = +44m.11s., = SR_2 − 27s. Riverview e = +34m.32s., MN = +47·5m. Zi-ka-wei SR_1 = +28m.47s. = S +30s. Adelaide e = +40m.38s.

Aug. 7d. 16h. 12m. 56s. Epicentre 37°·4N. 30°·5E. (as at 6d.).

	Δ	Az.	P.	O − C.	S.	O − C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	e 1 32	+ 9	e 2 25	− 3	e 2·6	3·2
Pulkovo	22·3	0	e 4 57	−12	9 6	− 5	—	—
Uccle	22·9	314	—	—	—	—	e 12·1	—
De Bilt	23·0	318	—	—	—	—	e 12·1	—
Ekaterinburg	27·8	36	—	—	e 10 56	+ 1	—	—

No additional readings.

Aug. 7d. 17h. 23m. 42s. Epicentre 52°·0N. 36°·0W.

A = +·498, B = −·362, C = +·788; D = −·588, E = −·809; G = +·638, H = −·463, K = −·616.

Adapted from 51°N. 34°W., as on 1919 Aug. 18d.

	Δ	Az.	P.	O − C.	S.	O − C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Edinburgh	19·5	65	—	—	—	—	e 9·3	—
Eskdalemuir	19·5	67	e 5 41	+66	—	—	9·3	—
Bidston	19·8	73	—	—	9 21	+62	10·4	13·4
Dyce	20·1	62	—	—	8 17	− 8	10·3	14·3
Oxford	21·2	77	5 0	+ 5	—	—	—	—
Paris	24·5	82	e 5 32	− 1	—	—	15·3	15·3
Uccle	24·9	77	e 5 34	− 3	e 10 0	− 1	e 11·8	—
De Bilt	25·0	73	5 37	− 1	9 59	− 4	e 12·3	—
Granada	27·1	110	—	—	i 9 46	−57	e 12·9	13·8
Hamburg	27·4	68	e 6 0	− 2	—	—	—	17·3
Strasbourg	27·7	79	e 6 2	− 3	—	—	15·3	—
Moncalieri	29·3	86	e 4 44	−97	—	—	15·1	—
Rocca di Papa	34·1	88	e 6 11	−55	e 15 6	?SR_2	e 30·7	—
Pulkovo	36·4	51	—	—	e 11 45	−91	20·3	22·7
Ekaterinburg	51·7	44	i 9 20	+ 2	16 38	− 2	24·3	—

Additional readings: Granada MZ = +14·6m. Rocca di Papa ePN = +6m.23s., eS = +15m.14s. Pulkovo S = +15m.52s.

Aug. 7d. Readings also at 3h. (Ekaterinburg), 6h. (Perth), 7h. (La Paz), 8h. (Strasbourg, La Paz, and near Amboina), 9h. (La Paz), 10h. (Pulkovo and Athens), 11h. (Taihoku and Ekaterinburg), 12h. (Taihoku (3) and near Sumoto), 13h. (Taihoku (2), Zi-ka-wei, and Ekaterinburg), 16h. (La Paz), 17h. (near Athens), 18h. (De Bilt, Uccle, and near Athens, 20h. (near Tortosa), 21h. (Taihoku, near Tacubaya, and Oaxaca).

Aug. 8d. 3h. 4m. 12s. Epicentre 37°·4N. 30°·5E. (as on Aug. 7d.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	e 1 34	+11	e 2 27	− 1	i 2·6	3·1
Belgrade	10·6	318	e 3 37	+59	e 5 5	+20	(e 5·1)	5·4
Hamburg	21·5	326	—	—	—	—	e 10·8	—
Pulkovo	22·3	0	4 58	−11	8 58	−13	11·8	—
De Bilt	23·0	318	—	—	—	—	e 11·8	—
Paris	23·2	308	i 5 24	+ 5	—	—	11·8	—
Ekaterinburg	27·8	36	e 6 14	+ 8	—	—	—	—
Eskdalemuir	28·9	319	—	—	—	—	13·8	—
Ottawa	74·0	315	—	—	—	—	e 37·8	—

Additional readings and notes: Athens MN = +3·5m. Pulkovo e = +2m.8s. Paris P has been increased by 6min.

Aug. 8d. Readings also at 0h. (La Paz), 2h. (Kucino, Riverview, and Melbourne), 3h. (Cheb, Granada, Paris, Strasbourg, Rocca di Papa, Moncalieri, De Bilt, Ekaterinburg, Batavia, Manila, Victoria, and Toronto), 4h. (Taihoku), 5h. (Ekaterinburg, De Bilt, and near Kobe), 8h. (Batavia), 14h. (Batavia, Manila, Ekaterinburg, Irkutsk), 15h. (Pulkovo), 16h. (near Manila), 18h. (Manzanillo and Tacubaya), 21h. (near Hukuoka).

Aug. 9d. 17h. 16m. 40s. Epicentre 37°·4N. 30°·5E. (as on 8d.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	e 1 26	+ 3	2 19	− 9	e 2·5	2·9
Rocca di Papa	14·4	293	e 3 32	0	(e 6 16)	− 2	—	—
Moncalieri	18·7	301	e 1 58	?	—	—	—	—
Strasbourg	19·9	311	—	—	—	—	9·3	—
Pulkovo	22·3	0	e 6 19	+70	e 10 17	+66	15·3	—
Uccle	22·9	314	—	—	—	—	11·3	—
De Bilt	23·0	318	—	—	—	—	e 12·3	—
Ekaterinburg	27·8	36	—	—	—	—	11·8	—

Rocca di Papa gives also ePE = +2m.16s., ePN = +2m.20s., PR_1E = +5m.13s., PR_2 = +6m.4s.; S is given as PR_2N.

Aug. 9d. Readings also at 0h. (Kobe), 3h. (Ekaterinburg), 9h. (Manila), 11h. (Pulkovo, Ekaterinburg, Honolulu, Toronto, Ottawa, Georgetown, Malabar, and near Amboina (2)), 12h. (Manila, Batavia, Malabar, and near Amboina), 14h. (La Paz and Tacubaya), 15h. (near Granada), 17h. (La Paz and Manzanillo), 18h. (Taihoku), 19h. (Ekaterinburg), 21h. (Taihoku).

Aug. 10d. Readings at 0h. (Granada and near Hukuoka and Nagasaki), 3h. (near Tacubaya), 4h. (near Hukuoka and near Tacubaya), 11h. (Ekaterinburg (2)), 16h. (near Kobe), 19h. (near Tacubaya), 20h. (Agana, Nagoya, and near Mizusawa).

Aug. 11d. 17h. 12m. 18s. Epicentre 21°·5N. 40°·5W.

A = +·707, B = −·604, C = +·367; D = −·649, E = −·760; G = +·259, H = −·238, K = −·930.

The observations at Edinburgh, Uccle, and De Bilt would be better suited by an epicentre near 2°N. 12°W.; but this would not suit Ottawa and Toronto.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Granada	35·5	55	e 7 16	− 2	i 13 0	− 3	e 20·4	24·9
Ottawa	37·3	320	—	—	e 13 23	− 5	e 16·3	—
Toronto N.	39·0	315	—	—	—	—	20·0	—
Eskdalemuir	43·7	30	—	—	—	—	21·7	—
Edinburgh	44·0	30	—	—	e 15 42?	+40	—	—

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Uccle	45·5	39	—	—	e 16 24	+63	—	—
De Bilt	46·4	38	—	—	e 16 42?	+69	e 24·7	—
Strasbourg	46·7	42	—	—	e 14 42	−55	25·7	—
Pulkovo	61·9	33	—	—	—	—	e 30·7	—
Ekaterinburg	77·9	33	e 12 9	+ 3	—	—	35·7	47·1

Additional readings: Ottawa eLN = +16·6m. Granada i = +8m.20s. = PR_1 −8s., e = +12m.47s.

Aug. 11d. 19h. 41m. 21s. Epicentre 35°·5S. 72°·0W.

A = +·252, B = −·774, C = −·581; D = −·951, E = −·309; G = −·179, H = +·552, K = −·814.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
La Plata	E.	11·5	91	2 59	+ 7	5 13	+ 6	6·4	7·5
	N.	11·5	91	i 3 1	+ 9	—	—	6·2	6·9
La Paz		19·3	11	i 4 37	+ 4	i 8 28	+20	11·2	14·2
Rio de Janeiro	E.	28·0	71	e 6 3	− 5	10 54	− 5	14·1	15·9
	N.	28·0	71	e 6 9	+ 1	10 54	− 5	14·0	15·9
Georgetown	E.	74·6	356	—	—	e 21 14	− 7	—	—
Harvard	N.	77·9	1	e 8 39?	?	—	—	—	—
Toronto	N.	79·4	355	—	—	e 21 59	−17	33·5	—
Ottawa	N.	81·0	357	—	—	e 22 28	− 7	45·6	—
San Fernando		94·4	47	—	—	—	—	46·6	54·2
Victoria		95·5	330	—	—	—	—	47·9	51·0
Granada		96·4	48	i 13 59	+ 8	e 22 31	[−93]	27·7	33·0
Paris		107·1	42	—	—	—	—	e 56·6	—
Eskdalemuir		108·1	35	—	—	e 28 39?	+88	50·6	—
Edinburgh		108·4	35	—	—	—	—	e 60·6	—
Uccle		109·2	40	—	—	e 28 45	+84	e 50·6	—
Rocca di Papa		109·3	51	—	—	e 50 57	?L	e 63·0	—
Dyce		109·7	33	—	—	—	—	54·2	64·9
Strasbourg		109·8	44	—	—	—	—	51·6	—
De Bilt		110·3	40	—	—	e 28 58	+87	e 51·6	64·1
Pulkovo		126·1	37	—	—	—	—	e 67·6	72·8
Kucino		129·5	43	—	—	—	—	e 70·6	—
Ekaterinburg		142·0	40	19 25	[−18]	—	—	63·2	81·6
Irkutsk		163·0	8	e 21 7	[+57]	31 27	?	44·6	—

Additional readings: Rio de Janeiro ePN = +6m.9s. Ottawa eE = +22m.9s., eLE = +34·1m. San Fernando MN = +57·6m. Granada readings have been increased by 16m. Ekaterinburg MZ = +81·4m.

Aug. 11d. Readings also at 3h. (near Granada), 4h. (Ekaterinburg), 5h. (Taihoku), 6h. (Fordham), 10h. (Granada (2)), 11h. (Taihoku), 15h. (La Paz), 17h. and 18h. (near Almeria), 19h. (Ekaterinburg), 21h. (Hamburg).

Aug. 12d. 0h. 5m. 20s. Epicentre 37°·4N. 30°·5E. (as on Aug. 9d.).

A = +·684, B = +·403, C = +·607; D = +·508, E = −·862; G = +·523, H = +·308, K = −·794.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	e 1 27	+ 4	e 2 20	− 8	e 2·5	3·4
Zagreb	13·7	313	4 40?	+78	—	—	—	—
Strasbourg	19·9	311	—	—	e 7 40?	−41	—	—
Pulkovo	22·3	0	e 5 24	+15	9 38	+27	10·7	14·3
Uccle	22·9	314	—	—	e 9 19	− 4	e 12·7	—
De Bilt	23·0	318	—	—	—	—	e 12·7	—
Paris	23·2	308	—	—	—	—	13·7	—
Granada	27·0	280	—	—	—	—	e 16·7	19·4
Ekaterinburg	27·8	36	—	—	e 11 4	+ 9	14·7	—

Athens gives also MN = +3·1m.

Aug. 12d. 6h. 58m. 33s. Epicentre 24°·0N. 46°·0W. (as on 1924 Oct. 14d.).

$A = +\cdot635$, $B = -\cdot657$, $C = +\cdot407$; $D = -\cdot719$, $E = -\cdot695$; $G = +\cdot283$, $H = -\cdot292$, $K = -\cdot914$.

See note at end on the possibility of a high focus.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Azores		22·1	47	7 39	+153	10 51	+104	—	13·4
Harvard	N.	27·7	318	—	—	e 10 55	+ 1	—	13·4
Georgetown	E.	30·2	307	6 25	− 5	11 35	− 2	e 16·4	—
Ottawa		32·2	320	e 6 44	− 6	e 12 3	− 9	e 15·6	—
Toronto	E.	33·6	316	e 7 56	?PR_1	e 12 26	− 8	15·4	19·2
San Fernando		36·2	61	—	—	13 43	+30	17·0	20·4
Malaga		37·7	62	7 42	+ 6	13 38	+ 4	18·8	—
Granada		38·4	60	i 7 36	− 5	i 13 28	−16	18·1	20·5
Toledo		38·5	57	e 7 38	− 4	e 13 34	−11	e 17·6	19·9
Chicago	N.	38·7	309	e 6 24	−80	e 10 47	−181	14·1	20·4
Almeria		39·4	61	i 7 46	− 4	i 13 50	− 7	e 21·2	23·1
Alicante	E.	41·0	59	10 47	?PR_1	15 27?	+66	22·1	—
Tortosa		42·1	54	e 7 27?	−45	14 41	+ 5	e 19·4	26·9
Barcelona		43·4	54	—	—	e 14 48	− 6	e 20·8	—
Bidston		43·5	37	11 50	?PR_2	15 55	+60	19·4	21·6
Algiers		43·7	60	e 8 15	− 9	e 14 57	− 1	—	27·0
Oxford		43·8	40	e 8 22	− 2	i 15 0	+ 1	i 18·5	23·0
Stonyhurst		44·0	37	—	—	e 15 0	− 2	—	21·8
Eskdalemuir		44·2	34	e 8 32	+ 5	15 8	+ 3	19·4	22·4
Edinburgh		44·5	34	—	—	i 15 9	0	21·4	23·0
Paris		45·2	45	i 8 34	0	e 15 7	−11	21·4	23·4
Dyce		45·6	31	—	—	15 25	+ 3	19·4	25·9
La Paz		45·9	211	8 37	− 2	i 15 26	− 1	23·0	26·6
Uccle		46·9	42	8 46	0	15 41	+ 1	e 21·4	23·3
Rio de Janeiro		47·0	176	e 15 35	?S	(e 15 35)	− 6	25·0	26·3
Besançon		47·1	47	8 48	0	—	—	22·4	—
De Bilt		47·7	41	8 51	− 1	15 54	+ 4	e 21·4	—
Strasbourg		48·5	46	8 58	+ 1	16 3	+ 3	—	—
Innsbruck		50·7	47	e 9 16	+ 5	—	—	—	—
Hamburg		50·9	39	e 9 15	+ 3	e 16 39	+ 9	e 23·4	24·4
Venice		51·2	51	e 9 26	+12	15 38	−56	—	—
Rocca di Papa		51·3	56	e 9 21	+ 6	i 16 47	+12	25·8	31·2
Zagreb		53·8	50	e 9 36	+ 4	e 17 28	+22	e 27·4	—
Vienna		54·2	46	9 51	+17	—	—	—	33·0
Budapest		55·9	48	e 10 27?	+42	—	—	—	—
Upsala		56·2	33	—	—	—	—	—	29·4
Konigsberg		57·2	39	—	—	e 18 5	+16	e 30·0	32·4
Pulkovo		62·6	35	i 10 51	+22	19 23	+27	28·4	33·3
Victoria		64·1	315	11 1	+22	19 31	+17	30·4	35·5
Kucino		67·0	39	e 11 45	+47	e 21 3	+73	33·2	38·6
Ekaterinburg		78·6	34	i 12 18	+ 7	i 22 20	+13	32·4	42·5
Baku		79·0	51	e 12 25	+12	e 22 29	+17	38·4	49·2

Additional readings and notes: Azores readings have been increased by 1h. Ottawa SR_2? = +14m.7s.; T_o = 6h.58m.34s. Toronto LN = +15·2m. Granada PR_1 = +9m.1s. and +9m.8s., PR_2 = +9m.43s., MZ = +20·3m. Toledo MNW = +19·1m. Alicante LN = +23·1m. Dyce PR_2 = +11m.39s. La Paz PR_1 = +10m.31s., SR_1 = +18m.49s.?; T_o = 6h.58m.29s. Strasbourg i = +16m.11s. Innsbruck iNW = +9m.35s. Rocca di Papa eE = +9m.6s. Zagreb e = +10m.5s. Konigsberg eN = +17m.27s.?, iS = +18m.11s., SR_1 = +22m.43s., eLN = +27·8m., MN = +29·0m. Victoria MN = +31·7m.; T_o = 6h.59m.6s. Ekaterinburg MN = +41·7m., MZ = +43·6m.

NOTE ON POSSIBLE HIGH FOCUS.—It will be seen that the residuals in P and S are negative for small and positive for large values of Δ. This would accord with the supposition of a focus about ·030 *above* normal (with an accompanying displacement of the epicentre), if the observing stations were all in the same azimuth, as they almost all are. But the azimuths of La Paz and Rio de Janeiro differ by approximately 180° from those of the majority; and of Harvard, Georgetown, and Ottawa by approximately 90°. The hypothesis of a high focus therefore will not work: there must be some other explanation of the systematic error depending on Δ.

Aug. 12d. Readings also at 12h. (Amboina and Athens), 14h. (Pulkovo, Ekaterinburg, and Batavia), 16h. (Batavia) 17h. (Batavia and near Malabar (2)), 22h. (Taihoku, Venice, and near Nagasaki (2)).

Aug. 13d. Readings at 1h. (Tacubaya), 2h. (Granada; near Victoria, and La Paz (2)), 3h. (Georgetown, Toronto, Ottawa, Rio de Janeiro, Ekaterinburg, and De Bilt), 10h. (Ottawa), 16h. (Batavia and Malabar), 17h. (Agana), 18h. (Ottawa), 19h. (Toronto and Ekaterinburg), 23h. (Granada and near Batavia and Malabar).

Aug. 14d. 4h. 8m. 30s. Epicentre 59°·5S. 151°·5E.

A = −·446, B = +·242, C = −·862 ; D = +·477, E = +·879 ; G = +·757, H = −·411, K = −·508 ;

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Melbourne		22·1	346	—	—	i 9 18	+11	—	11·1
Wellington		23·2	49	i 5 15	− 4	e 9 33	+ 4	i 11·6	13·3
Riverview		25·7	359	e 5 40	− 5	e 10 11	− 5	e 11·1	11·4
Sydney		25·7	359	5 48	+ 3	9 36	−40	11·1	12·0
Adelaide		26·0	335	e 10 0	?S	(e 10 0)	−22	—	12·4
Perth		36·4	304	12 30?	?S	(12 30?)	−46	16·5	—
Malabar		61·9	310	10 19	− 5	—	—	—	—
Batavia		63·1	310	10 31	− 2	19 1	− 1	29·7	—
Manila		78·2	330	e 18 30?	?PR_2	—	—	—	—
La Plata	E.	82·5	156	12 42	+ 9	—	—	34·6	37·5
	N.	82·5	156	12 33	0	22 36	−16	—	59·0
Colombo		86·9	289	23 0	?[S]	(23 0)	[− 8]	44·0	48·0
Hong Kong		87·4	326	13 55	+54	23 21	[+10]	29·2	35·8
Phu-Lien		88·3	319	e 15 16	+129	23 30	[+13]	35·5	—
Honolulu	E.	90·8	45	—	—	24 12	−10	e 42·0	51·5
	N.	90·8	45	—	—	23 54	[+21]	e 42·5	52·0
Zi-ka-wei	Z.	94·0	336	e 13 33	− 5	—	—	—	—
Rio de Janeiro		96·7	166	—	—	e 24 54	−29	e 38·8	—
Hyderabad		96·7	293	—	—	26 15	+52	31·8	52·7
La Paz		96·9	143	e 14 4	+10	e 25 35	+10	45·5	47·3
Bombay		100·6	289	23 45	?	32 15	?SR_1	46·2	55·2
Simla	E.	109·1	299	—	—	—	—	e 52·2	—
Victoria	E.	128·0	57	19 46	[+32]	—	—	53·7	62·9
Baku		129·5	284	—	—	—	—	—	72·0
Ekaterinburg		136·5	307	19 32	[− 1]	—	—	—	75·3
Chicago		140·2	89	23 13	?PR_1	—	—	66·3	75·7
Georgetown	N.	143·4	100	e 19 45	[− 1]	—	—	—	—
Kucino		145·7	292	e 20 24	[+35]	e 24 12	?PR_1	—	—
Toronto		145·7	93	e 19 46	[− 3]	—	—	73·5	80·0
Pompeii		147·5	256	e 19 55	[+ 3]	—	—	—	—
Naples		147·7	256	e 20 8	[+16]	—	—	—	—
Ottawa		148·8	94	e 19 59	[+ 5]	e 30 6	?PR_2	77·5	—
Rocca di Papa		149·2	253	i 19 53	[− 1]	—	—	e 79·3	87·1
Pulkovo		151·3	296	20 4	[+ 6]	—	—	76·5	84·3
Vienna		151·9	267	20 6	[+ 7]	—	—	e 76·5	98·5
Venice		152·0	258	e 19 30	[−29]	—	—	—	—
Alicante	E.	152·4	233	—	—	—	—	82·7	—
Granada		152·5	227	i 20 10	[+10]	31 41	?PR_2	e 68·9	84·3
Malaga		152·5	225	20 3	[+ 3]	31 15	?PR_2	41·8	91·6
San Fernando		152·8	222	e 20 41	[+41]	36 50	?	69·5	89·0
Konigsberg		153·7	282	—	—	e 68 30?	?	e 82·5	84·5
Innsbruck		153·8	260	e 20 0	[− 1]	—	—	—	—
Barcelona		153·8	240	—	—	—	—	e 82·8	96·1
Tortosa	N.	154·0	237	e 20 10	[+ 9]	—	—	e 56·5	94·6
Toledo		155·1	229	e 20 11	[+ 9]	e 31 23	?PR_2	e 49·1	77·4
Strasbourg		156·5	259	20 5	[+ 1]	—	—	53·5	—
Upsala	N.	157·2	291	—	—	—	—	78·5	—
Hamburg		158·3	271	e 20 19	[+13]	—	—	e 82·5	—
Paris		159·2	253	—	—	—	—	54·5	111·5
Uccle		159·6	259	e 20 30?	[+22]	e 44 6	eSR_1	64·5	80·5
De Bilt		160·0	263	20 11	[+ 3]	e 44 24	?SR_1	e 77·5	85·7
Oxford		163·0	255	e 27 2	?	—	—	e 75·5	96·2
Bidston		164·8	258	—	—	—	—	—	97·0
Stonyhurst		164·8	260	e 30 30?	?	—	—	e 91·5	—
Eskdalemuir		165·9	264	e 25 30?	?PR_1	—	—	—	95·5
Edinburgh		166·1	266	35 30?	?	—	—	—	96·5
Dyce		166·1	272	—	—	—	—	78·8	97·7

Additional readings and notes: Melbourne e = 3h.54m.30s. Wellington PR_2 = +5m.50s., i = +8m.7s., SR_1 = +10m.24s. ; T_0 = 4h.8m.15s. Riverview eP = +6m.16s., PS = +10m.30s., MZ = +12·8m., MN = +13·5m. Sydney readings are given for 10h. Perth S = +15m.30s. ? = SR_1.

Continued on next page.

Colombo S = +37m.45s. Hong Kong MN = +46·2m. Simla eN = +50m.18s. Ekaterinburg MN = +71·1m., MZ = +76·6m. Chicago PSE = +38m.13s., also several e's, MN = +82·5m. Georgetown eE = +19m.51s. =[P]+5s. Toronto LE = +41·4m. Rocca di Papa ePE = +19m.57s., iP = +20m.6s., PR_1 = +22m.31s., e = +42m.24s. =SR_1 −18s. Pulkovo MN = +85·0m., MZ = +92·9m. Granada i = +23m.40s. =PR_1, +25m.32s., +30m.30s. =PR_3 −7s., +34m.0s., and +43m.10s. =SR_1 −10s. San Fernando MN = +87·5m. Konigsberg eLN = +75·5m., MN = +83·5m. Tortosa ePE = +20m.39s. Toledo MNW = +110·6m. Paris e =4h.5m.? De Bilt MN = +97·8m., MZ = +98·4m. Eskdalemuir e = +31m.30s., +35m.30s., and +45m.30s. =SR_1 −23s. Dyce PR_1 = +25m.36s., PR_3 = +32m.48s., SR_1 = +45m.39s.

Aug. 14d. 6h. 19m. 10s. Epicentre 7°·0S. 150°·0E. (as on 1925 July 8d.).

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

	△	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Riverview	26·8	178	—	—	e 9 56	−41	e 15·1	16·0
Sydney	26·8	178	13 2	?L	—	—	15·8	16·9
Manila	36·0	309	e 7 15	− 7	—	—	9·2	—
Malabar	42·1	269	8 16	+ 4	—	—	—	—
Taihoku	42·4	320	—	—	—	—	17·8	—
Batavia	42·9	270	8 24	+ 7	—	—	—	—
Hong Kong	45·8	311	(8 39)	0	8 39	?P	—	23·8
Zi-ka-wei	47·0	326	i 8 40	− 7	16 0	+19	—	—
Phu-Lien	50·9	304	e 9 17	+ 5	e 16 40	+10	24·8	—
Honolulu	58·3	60	—	—	e 17 44	−19	—	—
Victoria E.	94·0	41	24 6	?S	(24 6)	[+14]	45·7	53·8
Ekaterinburg	95·5	326	i 13 36	−10	e 24 4	[+ 4]	43·3	51·1
Ann Arbor	121·1	42	—	—	—	—	e 61·1	—
Ottawa	124·9	37	—	—	—	—	e 55·8	—
De Bilt	126·5	333	e 19 16	[+ 6]	e 21 7	?PR_1	e 59·8	—
Uccle	127·8	333	—	—	—	—	e 61·8	—
La Paz	135·5	123	19 38	[+ 7]	—	—	—	—

Additional readings: Ekaterinburg MN = +48·1m., MZ = +55·9m. Ottawa eLN = +53·8m.

Aug. 14d. 9h. 17m. 6s. Epicentre 2°·1N. 127°·8E. (as on 1925 April 20d.).

A = −·612, B = +·790, C = +·037; D = +·790, E = +·613; G = −·022, H = +·029, K = −·999.

	△	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Amboina	5·8	177	2 12	+42	i 2 54	+15	—	—
Manila	14·2	332	i 3 54	+25	—	—	—	—
Batavia	22·5	248	5 18	+ 7	e 8 29	−46	—	—
Sydney	42·1	150	23 54	?L	—	—	26·5	28·6
Ekaterinburg	75·9	329	i 11 51	− 3	21 26	−10	36·9	—
Baku	79·4	312	e 12 13	− 2	e 22 21	+ 5	44·9	—
Pulkovo	91·9	330	—	—	i 24 21	−13	—	—
De Bilt	107·6	326	—	—	—	—	e 55·9	—
La Paz	158·8	134	20 44	[+37]	—	—	—	—

Additional readings: Amboina i = +2m.48s. De Bilt eLN = +54·9m.

Aug. 14d. Readings also at 0h. (near Victoria), 2h. (Uccle, De Bilt, Paris, Eskdalemuir, and Granada), 8h. (Venice, Pulkovo, Baku, and Ekaterinburg), 9h. (De Bilt and La Paz), 10h. (La Paz and Taihoku), 11h. (Batavia and near Malabar), 13h. (Manila), 18h. (near La Paz), 19h. (Irkutsk, Baku, and Ekaterinburg), 21h. (near Nagasaki), 22h. (Taihoku).

Aug. 15d. Readings at 0h. (Ekaterinburg), 4h., 8h., and 13h. (Azores), 14h. (Ottawa and Toronto), 15h. (Ekaterinburg), 16h. (Azores).

Aug. 16d. 2h. 25m. 12s. Epicentre 52°·0N. 148°·0E.

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

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Ootomari	6·3	215	1 41	+ 5	—	—	3·3	—
Irkutsk	26·4	288	—	—	—	—	e 12·8	—
Taihoku	33·6	227	—	—	(12 48?)	+14	12·8	—
Hong Kong	39·4	234	8 48	+58	15 59	+122	—	21·0
Ekaterinburg	47·5	313	i 8 26	−25	15 5	−43	21·3	27·6
Victoria E.	53·2	55	—	—	—	—	21·7	34·3
Pulkovo	57·5	328	10 4	+ 8	17 54	+ 1	27·3	37·6
Kucino	57·8	321	—	—	e 18 0	+ 4	31·0	35·4
Baku	63·6	303	10 26	−10	—	—	33·8	39·8
Piatigorsk	64·3	310	—	—	—	—	e 35·7	44·8
Bombay	66·1	272	—	—	—	—	33·8	—
Dyce	68·1	343	—	—	20 3	0	39·4	46·8
Hamburg	68·8	335	e 11 9	− 1	—	—	e 34·8	39·8
Edinburgh	69·5	344	—	—	—	—	e 39·8	—
Eskdalemuir	70·0	344	—	—	e 20 29	+ 3	39·8	—
Cheb	71·2	331	—	—	e 22 48?	+128	e 35·8	46·3
De Bilt	71·3	337	11 26	+ 1	20 40	− 2	e 35·8	38·8
Vienna	71·6	329	i 11 25	− 2	—	—	—	44·8
Bidston	71·8	342	—	—	—	—	—	45·3
Uccle	72·7	337	e 11 32	− 2	e 20 48	−10	e 35·8	—
Oxford	73·1	342	—	—	—	—	38·8	—
Strasbourg	73·9	335	e 11 39	− 2	—	—	39·8	—
Innsbruck	74·0	331	e 11 41	− 1	—	—	—	—
Paris	75·0	338	e 11 47	− 2	—	—	39·8	42·8
Ottawa	75·6	30	—	—	—	—	e 38·8	—
Toronto E.	75·9	33	—	—	—	—	43·3	—
Rocca di Papa	78·6	327	e 12 5	− 6	—	—	e 46·3	—
Tortosa N.	83·0	336	—	—	—	—	e 44·8	47·0
Toledo	85·0	339	e 12 42	− 6	e 23 22	+ 3	—	57·5
Granada	87·4	339	i 12 52	− 9	24 19	+34	i 46·5	52·4
Almeria	87·4	337	12 52	− 9	—	—	—	—
San Fernando	88·7	340	—	—	—	—	—	51·8

Additional readings : Hong Kong film confirms these readings, though there is an earlier movement (by about 1 minute) which may be the real S. It remains an open question whether the time zero is 1 minute in error. Ekaterinburg MN = +26·1m., MZ = +29·1m. Pulkovo SR_1 = +22m.18s., MN = +38·9m. Kucino e = +22m.30s. = SR_1 and +25m.44s. = SR_2 +28s. Cheb e = +30m.18s. = SR_1 −6s. De Bilt MN = +47·9m., MZ = +51·6m. Rocca di Papa eZ = +10m.43s. Granada MZ = +51·0m.

Aug. 16d. 20h. 58m. 54s. Epicentre 37°·4N. 30°·5E. (as on Aug. 12d.).

A = +·684, B = +·403, C = +·607 ; D = +·508, E = −·862 ; G = +·523, H = +·308, K = −·794.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	e 1 19	− 4	2 12	−16	2·4	3·4
Ksara	5·6	127	1 49	+22	—	—	—	—
Belgrade	10·6	318	e 3 2	+24	e 4 23	−22	—	5·1
Pompeii	12·8	290	e 4 27	+77	e 6 57	+78	—	—
Naples	13·1	290	e 4 21	+67	—	—	—	—
Budapest	13·1	324	—	—	e 6 6?	+20	e 7·1	—
Zagreb	13·7	313	e 3 6?	−16	e 6 7	+ 6	e 7·3	—
Rocca di Papa	14·4	293	i 3 39	+ 7	e 6 4	−14	e 8·3	9·0
Vienna	14·9	321	e 3 40	+ 2	6 47	+17	e 8·8	10·0
Innsbruck N.E.	17·2	311	e 4 32	+25	—	—	—	—
Cheb	18·1	320	e 4 6?	−12	—	—	e 10·6	11·5
Moncalieri	18·7	301	e 4 14	−11	7 42	−13	—	11·5
Konigsberg	18·7	342	e 6 12	+107	—	—	e 10·6	11·6
Kucino	19·0	13	5 14	+45	i 9 0	+58	e 11·1	—
Strasbourg	19·9	311	i 4 41	+ 1	8 27	+ 6	11·1	12·9
Besançon	20·5	306	4 6?	−41	—	—	—	—
Hamburg	21·5	326	e 4 59	0	e 9 6?	+11	—	—
Algiers	21·8	277	e 4 58	− 5	e 8 48	−13	—	14·4

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Pulkovo	22·3	0	5 35	+26	9 44	+33	11·6	14·3
Uccle	22·9	314	e 5 12	− 4	e 9 18	− 5	—	—
De Bilt	23·0	318	5 16	− 1	9 25	0	e 13·1	13·8
Paris	23·2	308	e 4 56	−23	e 7 47	−102	9·1	9·1
Tortosa N.	23·4	288	e 5 20	− 1	e 9 40	+ 7	12·3	—
Upsala	23·9	344	e 5 28	+ 1	e 9 48	+ 6	—	16·7
Almeria	26·1	279	e 5 38	−11	e 10 31	+ 7	e 13·9	14·8
Oxford	26·5	313	e 8 16	?	e 10 44	+12	—	—
Toledo	26·9	286	e 5 46	−11	e 10 26	−13	e 12·3	—
Granada	27·0	280	i 5 37	−21	i 10 32	− 9	e 15·9	19·2
Malaga	27·7	279	e 6 46	?PR_1	—	—	—	—
Stonyhurst	27·9	317	—	—	—	—	e 14·7	—
Bidston	28·1	316	—	—	—	—	—	17·6
Eskdalemuir	28·9	319	—	—	e 11 17	+ 2	16·1	—
Edinburgh	29·1	320	—	—	—	—	e 16·1	—
Dyce	29·2	323	6 12	− 8	11 37	+17	13·6	19·2

Additional readings: Athens MN = +2·7m. Rocca di Papa eP = +4m.13s. Vienna readings given for 17d. Venice (Δ = 15°·7) gives simply 21h. Konigsberg e = +8m.13s. and +8m.21s., MN = +13·6m. Kucino i = +9m.13s. Strasbourg MZ = +12·8m., MN = +13·1m. Pulkovo MZ = +15·3m., MN = +15·4m. De Bilt MZ = +15·9m. Tortosa PE = +5m.12s. (O−C = +1s.). Almeria MN = +15·9m. Granada i = +8m.20s., PS = +11m.33s., SR_1 = +13m.18s., SR_2 = +14m.3s., MZ = +17·6m. Dyce PR_1 = +7m.24s.

Aug. 16d. Readings also at 2h. (Capetown), 3h. (Nagasaki), 10h. (Baku, Ekaterinburg, Pulkovo, and Batavia), 15h. (Wellington), 17h. (La Paz), 20h. (Batavia and Wellington), 21h. (Batavia, Wellington, and near Tortosa), 22h. (Uccle, De Bilt, and near Athens), 23h. (Granada).

Aug. 17d. Readings also at 0h. (Granada), 1h. (near La Paz), 2h. (Granada), 8h. (Amboina), 9h. (La Paz, Manila, Batavia, and Azores), 11h. (near Sumoto), 12h. (Merida), 18h. (Kobe and Venice), 20h. (Ottawa and Chicago).

Aug. 18d. Readings also at 1h. (Azores and Rocca di Papa), 2h. (Azores), 3h. (Baku and Granada), 4h. and 5h. (Fordham), 8h. (Ekaterinburg and Pulkovo), 9h. (Strasbourg), 10h. (near La Paz), 18h. (De Bilt, Strasbourg, Paris, Baku, and near Athens), 19h. (Port au Prince), 20h. (Azores), 21h. (Dyce).

Aug. 19d. 4h. 6m. 30s. Epicentre 19°·5N. 65°·0W. (as on 1923 Mar. 15d.).

A = +·398, B = −·854, C = +·334; D = −·906, E = −·423; G = +·141, H = −·303, K = −·943.

Uncertain.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Port au Prince	7·0	264	e 1 15	−31	—	—	2·1	3·2
Harvard E.	23·4	349	—	—	e 9 24	− 9	—	—
Toronto	27·0	337	—	—	e 9 51	−50	15·9	—
Ottawa N.	27·4	344	e 6 4	+ 2	(e 10 4)	−44	16·5	—
Chicago	29·4	324	5 28	−54	10 15	−69	11·6	—
La Paz	36·1	186	6 37	−46	14 34	+83	23·6	—
Toledo	55·6	55	e 9 31	−12	e 17 14	−15	—	—
Granada	55·8	59	e 9 34	−11	i 17 23	− 8	i 24·0	26·0
De Bilt	62·6	40	e 10 47	+18	18 49	− 7	e 30·5	—
Pulkovo	75·8	30	e 11 55	+ 1	e 21 37	+ 2	41·0	—
Ekaterinburg	91·2	27	i 12 48	−34	e 23 45	[+10]	33·5	—

Additional readings: Port au Prince MNW = +3·0m. Harvard eN = +9m.10s. Toronto LN = +17·3m. Chicago eN = +10m.40s. Ekaterinburg e = +23m.8s.

Aug. 19d. 5h. 13m. 40s. Epicentre 37°·4N. 30°·5E. (as on Aug. 16d.).

	△	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	e 1 27	+ 4	e 2 20	− 8	2·5	3·4
Strasbourg	19·9	311	e 4 42	+ 2	e 8 24	+ 3	12·3	—
Pulkovo	22·3	0	—	—	e 9 55	+44	—	—
Uccle	22·9	314	—	—	e 9 14	− 9	e 12·1	—
De Bilt	23·0	318	—	—	e 9 20?	− 5	—	—
Paris	23·2	308	e 7 20?	?	—	—	—	—

Athens gives also MN = +3·2m.

Aug. 19d. 5h. 24m. 50s. Epicentre 52°·5N. 170°·0W. (as on 1923 Nov. 12d.).

A = −·600, B = −·106, C = +·793 ; D = −·174, E = +·985 :
G = −·781, H = −·138, K = −·609.

	△	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Victoria E.	29·5	79	6 17	− 6	11 18	− 8	13·0	15·7
Honolulu	32·4	158	—	—	11 48	−26	15·2	17·8
Zi-ka-wei	53·1	276	i 9 20	− 7	—	—	—	—
Chicago	53·9	68	i 17 2	?S	(i 17 2)	− 6	24·8	31·9
Toronto	57·1	61	—	—	i 17 53	+ 6	27·8	36·5
Ottawa	57·8	57	—	—	e 18 0	+ 4	e 29·2	—
Georgetown E.	61·7	62	—	—	e 19 55	+71	—	—
Harvard	62·3	56	—	—	—	—	e 32·2	36·7
Ekaterinburg	63·1	333	10 32	− 1	—	—	30·2	36·2
Pulkovo	66·6	350	i 11 20	+25	—	—	29·2	40·2
Upsala	67·5	356	—	—	e 19 56	0	e 32·2	—
Kucino	69·4	345	—	—	e 20 58	+39	33·2	47·3
Dyce	69·8	9	11 31	+15	20 27	+ 3	36·2	47·2
Bidston	73·5	10	13 22?	+103	21 10	+ 2	36·8	43·3
De Bilt	75·4	4	11 52	+ 1	21 35	+ 5	e 33·2	52·4
Uccle	76·6	5	e 11 59	0	e 21 46	+ 2	e 32·2	—
Cheb	77·6	358	—	—	e 20 10?	−106	—	53·2
Paris	78·6	7	i 12 12	+ 1	—	—	—	—
Strasbourg	79·0	2	i 12 15	+ 2	e 22 14	+ 2	53·2	—
Vienna	79·1	357	12 14	0	—	—	—	—
Rocca di Papa	85·8	358	12 50	− 2	—	—	—	—
Toledo	86·9	11	e 12 54	− 4	23 21	−19	e 42·3	64·1
Granada	89·6	11	i 13 9	− 5	e 23 57	−13	45·8	55·3
San Fernando	90·0	12	—	—	23 40	[+12]	43·2	57·7

Additional readings: Honolulu e = +13m.48s. = SR_1 −12s., LE = +17·4m.
Chicago PR_1N = +19m.11s., MN = +32·2m. Toronto LE = +31·4m.
Ottawa eN = +19m.47s. Ekaterinburg e? = +9m.52s., MN = +37·4m.
MZ = +43·3m. Kucino e = +26m.10s. = SR_1 −32s., MN = +46·3m.
Dyce PR_1? = +14m.17s. De Bilt eLN = +38·2m., MNZ = +53·0m.
Granada MZ = +60·7m. San Fernando MN = +57·2m.

Aug. 19d. 12h. 7m. 22s. Epicentre **54°·7N. 167°·0E.**

A = −·563, B = +·130, C = +·816 ; D = +·225, E = +·974 ;
G = −·795, H = +·184, K = −·578.

	△	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Ootomari	17·2	252	4 20	+13	—	—	8·8	10·2
Mizusawa	23·3	239	5 22	+ 2	9 38	+ 7	13·8	—
Osaka	29·6	241	6 2	−22	11 16	−11	13·6	15·5
Sumoto	29·9	241	2 31	?	(11 27)	− 5	11·4	15·8
Sitka E.	31·4	61	6 22	−20	e 11 54	− 4	14·8	17·3
Hukuoka	33·1	245	6 59	+ 2	12 25	− 1	15·6	22·1
Nagasaki	34·1	245	e 4 57	−129	—	—	22·6	32·4
Irkutsk	36·1	291	e 7 13	−10	12 47	−24	17·6	—
Zi-ka-wei	39·8	253	e 7 46	− 7	13 48	−15	19·9	26·4
Victoria	42·0	70	7 57	−14	14 22	−13	20·8	23·0
Honolulu	42·4	129	i 8 3	−11	i 14 36	− 4	17·6	19·8
Taihoku E.	44·5	246	10 15	?PR_1	15 8	− 1	18·5	29·5
Berkeley	49·3	80	e 9 10	+ 8	e 16 17	+ 7	e 23·6	30·1
Hong Kong	50·7	252	9 11	0	16 29	+ 2	24·5	34·0
Ekaterinburg	53·5	320	i 9 22	− 8	16 55	− 8	23·6	36·5
Manila	53·6	240	e 9 43	+13	(i 16 38)	−26	i 16·6	18·8

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Phu-Lien		56·2	259	e 9 52	+ 5	i 17 44	+ 8	27·6	39·5
Denver	E.	57·6	66	17 38?	?S	(17 38)	−16	31·6	—
Tucson	E.	59·8	77	9 42	−29	18 28	+ 7	30·0	38·1
Pulkovo		60·5	337	i 10 16	0	i 18 36	+ 6	32·6	39·7
Kucino		62·0	330	i 11 5	+40	i 19 31	+43	29·0	37·2
Upsala		62·9	344	10 34	+ 3	e 18 53	− 7	e 29·6	40·4
Bergen		64·0	350	12 38	+120	21 38	+145	34·6	—
Chicago		64·6	54	10 30	−12	i 19 17	− 3	28·8	34·8
Simla	N.	64·9	290	e 11 2	+18	19 26	+ 2	32·3	37·4
Dehra Dun		65·1	288	9 53	−53	18 53	−33	35·6	36·4
Calcutta	E.	65·3	275	10 48	+ 1	20 0	+31	—	—
	N.	65·3	275	11 5	+18	20 14	+45	—	—
St. Louis		65·8	57	e 10 57	+ 7	i 19 42	+ 7	29·2	37·2
Ann Arbor		65·9	50	e 10 14	−36	i 19 2	−34	e 31·5	37·7
Amboina		66·6	225	e 10 50	− 5	i 19 20	−25	27·6	—
Ottawa		66·7	43	e 10 57	+ 1	i 19 46	0	e 30·6	37·6
Toronto	E.	66·7	46	e 10 58	+ 2	i 19 43	− 3	23·9	36·8
	N.	66·7	46	e 10 56	0	e 19 51	+ 5	—	36·9
Konigsberg		67·0	340	i 11 8	+10	19 56	+ 6	e 31·1	39·6
Dyce		67·8	354	11 6	+ 3	20 3	+ 3	28·0	37·8
Ithaca		68·9	45	11 14	+ 4	20 8	− 5	e 31·1	—
Edinburgh		69·1	355	11 28	+16	20 17	+ 2	34·6	60·0
Eskdalemuir		69·7	355	i 11 13	− 2	i 20 22	0	33·6	45·9
Hamburg		70·1	346	e 11 18	0	i 20 34	+ 7	e 34·6	49·6
Piatigorsk		70·4	321	i 11 28	+ 9	20 35	+ 4	32·6	42·0
Baku		70·8	315	i 11 27	+ 5	—	—	—	—
Lemberg		71·0	336	e 10 56	−27	e 20 38	0	e 41·2	45·6
Harvard		71·1	42	e 12 8	+44	20 40	+ 1	31·5	39·1
Stonyhurst		71·1	354	e 11 38	+14	20 41	+ 2	36·1	40·1
Fordham		71·2	45	i 11 44	+20	i 21 1	+21	32·8	39·2
Georgetown	E.	71·6	48	e 11 26	− 1	i 20 42	− 3	e 33·6	38·4
	N.	71·6	48	i 11 27	0	e 20 43	− 2	e 33·6	40·8
Bidston		71·6	354	11 28	+ 1	20 48	+ 3	33·6	40·2
Cheltenham	E.	71·8	48	—	—	21 43	+55	33·4	36·9
	N.	71·8	48	—	—	20 47	− 1	33·9	37·0
De Bilt		72·2	349	11 31	0	20 54	+ 2	e 37·6	53·5
West Bromwich		72·4	355	11 38	+ 6	20 56	+ 1	—	—
Oxford		73·1	354	e 11 41	+ 4	i 20 58	− 5	e 29·6	53·7
Cheb		73·1	345	i 12 0	+23	i 21 26	+23	e 38·6	47·6
Uccle		73·5	350	11 39	0	i 21 7	− 1	35·6	47·0
Suva		73·5	170	10 32	−67	19 38	−90	31·6	—
Vienna	E	74·1	341	e 11 41	− 2	e 21 19	+ 4	e 34·6	50·1
Budapest		74·3	338	11 51	+ 7	e 21 38?	[− 6]	e 36·6	47·8
Hyderabad		75·0	280	11 56	+ 7	21 28	+ 2	36·9	43·0
Strasbourg		75·3	348	11 50	− 1	21 33	+ 4	36·6	47·2
Paris		75·6	350	e 11 52	− 1	e 21 31	− 2	37·6	49·6
Zurich		76·3	347	e 11 59	+ 2	e 21 37	− 4	—	—
Tacubaya		76·4	77	11 55	− 2	21 50	+ 8	37·4	50·7
Zagreb		76·5	340	e 12 0	+ 2	i 21 48	+ 5	e 37·0	44·8
Belgrade		76·5	337	e 11 58	0	e 21 45	+ 2	e 32·0	49·0
Laibach		76·6	341	e 12 23	+24	e 22 4	[+ 4]	e 40·2	50·6
Besançon		76·9	348	e 12 15	+15	21 47	− 1	34·6	44·6
Bombay		77·0	285	12 1	0	21 46	− 3	39·8	44·8
Venice		77·6	345	12 1	− 4	i 22 38	+42	e 37·6	54·6
Batavia		78·6	242	13 18	+67	22 13	+ 6	35·6	—
Puy de Dôme		78·7	350	e 12 13	+ 2	e 22 10	+ 2	36·6	53·6
Moncalieri		78·8	347	i 12 0	−12	21 52	−18	40·6	49·4
Malabar		79·1	241	—	—	—	—	26·6	—
Florence		79·3	342	12 18	+ 3	22 18	+ 3	35·6	40·6
Marseilles		80·8	349	e 12 33	+ 9	22 38	+ 5	38·6	51·1
Rocca di Papa		81·1	341	e 12 22	− 4	22 34	− 2	e 44·3	54·1
Kodaikanal		81·4	276	25 44	?	—	—	46·0	46·5
Naples		81·6	340	e 13 25	+57	e 23 55	+73	45·6	49·6
Pompeii		81·7	340	e 12 8	−21	e 22 18	−25	44·6	50·6
Athens	E.	82·2	332	e 12 31	0	22 44	− 4	31·9	47·3
	N.	82·2	332	—	—	22 42	− 6	31·5	52·9
Colombo		82·7	273	12 8	−26	22 38	−16	47·6	51·8
Barcelona		83·0	350	12 36	0	23 1	+ 4	41·3	56·8
Tortosa	E.	83·8	351	12 39	− 2	23 2	− 5	38·3	53·4
	N.	83·8	351	i 12 35	− 6	i 23 1	− 6	37·7	53·2
Toledo		85·2	355	e 12 43	− 6	i 23 7	−14	e 38·4	56·7
Alicante	E.	86·3	351	e 12 52	− 3	i 23 24	− 9	46·7	61·0
	N.	86·3	351	—	—	i 23 22	−11	42·7	59·8
Lisbon		86·5	357	12 51	− 5	23 21	−15	e 40·8	45·8

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	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Helwan	87·3	324	12 55	− 6	23 22	−22	—	36·4
Rio Tinto	87·4	356	15 38?	?	—	—	—	66·6
Algiers	87·5	348	12 56	− 6	23 24	−23	42·6	51·6
Granada	87·8	354	i 12 54	−10	i 23 35	−15	41·3	59·8
Almeria	88·0	353	12 50	−15	i 23 30	−22	i 44·3	52·6
Malaga	88·3	354	12 54	−13	i 23 38?	−17	41·6	54·8
San Fernando	88·7	356	e 12 49	−20	i 23 38	−22	43·1	56·1
Riverview	89·6	194	e 13 8	− 6	e 24 8	− 2	e 37·9	43·1
Sydney	89·6	194	21 20	?	29 44	?	38·6	40·6
Melbourne	94·4	198	e 12 2	?	i 24 56	− 4	e 49·7	55·9
Wellington	96·3	175	—	—	i 24 58	−21	44·2	45·6
La Paz	123·3	71	19 3	[+ 1]	33 3	?	59·7	73·0
Johannesburg	138·7	297	—	—	—	—	76·6	—
Rio de Janeiro	141·1	47	e 22 53	?PR_1	—	—	e 57·4	80·4
La Plata E.	143·4	77	22 39	?PR_1	31 54	?	—	68·2
Cape Town	149·8	300	22 4	?PR_1	—	—	—	82·6

Additional readings and notes: Ootomari MN = +10·8m. Mizusawa SE = +9m.39s. Osaka MN = +15·1m. Sitka PR_1 = +7m.28s., SE? = +11m.25s., SR_1N = +13m.11s., SR_1E = +13m.26s., MN = +25·6m. Hukuoka MN = +17·8m. Nagasaki MN = +28·9m. Zi-ka-wei MN = +26·9m. Victoria MN = +27·7m.; T_0 = 12h.7m.13s. Honolulu PCPN = +9m.26s., PR_1E = +10m.2s., PR_1N = +10m.4s., i = +12m.19s., iE = +14m.18s., iPSN = +14m.57s., eE = +16m.20s., eN = +16m.59s., eLN = +18·0m., MN = +19·1m.; T_0 = 12h.7m.0s. Berkeley iPR_1E? = +11m.1s. Hong Kong PR_1 = +11m.10s., MN = +34·5m. Ekaterinburg PR_1 = +11m.26s., MN = +36·4m., MZ = +42·0m. Manila MN = +19·6m. Phu-Lien MN = +33·3m. Denver SE = +24m.38s. = SR_2 + 20s. Tucson PR_2E? = +14m.12s., SR_1E? = +22m.32s., SR_2E = +26m.23s.; T_0 = 12h.6m.18s. Pulkovo PR_1 = +12m.33s., PR_2 = +14m.3s., PS = +19m.18s., SR_1 = +22m.32s., SR_2 = +25m.14s., MN = +37·6m., MZ = +39·2m. Kucino P = +11m.9s., PR_2 = +15m.1s., i = +19m.17s., iSR_1 = +23m.26s., MN = +39·6m. Upsala PR_2N = +14m.20s. iS = +19m.2s., MN = +39·5m. Chicago PN? = +11m.35s., PR_1N = +13m.26s., PR_2N = +14m.35s., PSN = +19m.46s., SR_1E = +23m.26s., SR_1N = +23m.33s., SR_2N = +26m.20s., SR_2E = +26m.26s., MN = +35·3m., also several e and i readings. Simla SE = +19m.32s., LE = +32·2m. St. Louis ePN = +11m.3s., e = +20m.12s., eLN = +31·2m. Ann Arbor eSR_1 = +24m.8s., eSR_2 = +26m.38s. Amboina readings have all been increased by 7m. Ottawa eN = +14m.38s., iSR_2 = +27m.11s.; T_0 = 12h.7m.30s. Toronto iSN = +19m.55s.; T_0 = 12h.7m.23s. Konigsberg P? = +12m.8s., PR_1 = +13m.36s., and +14m.8s. = PR_1 + 6s., SE = +20m.0s., e = +20m.16s., PS = +20m.40s., PPS = +21m.2s., iE = +21m.22s., S? = +21m.45s., e = +24m.11s., SR_1 = +24m.22s., SR_2 = +27m.8s., MN = +42·1m. Dyce PR_2 = +15m.11s., PR_3 = +16m.3s., i = +21m.6s., SR_1? = +24m.23s. Ithaca i = +27m.58s. = SR_2 − 15s. Eskdalemuir SR_1 = 25m.8s., MN = +37·4m. Hamburg iPZ = +11m.22s., PS = +21m.5s. = [S] − 7s., MNZ = +38·6m. Piatigorsk PR_2 = +15m.44s., PR_3 = +17m.24s., PS = +20m.54s. = [S] − 20s., MN = +42·3m. Harvard PN = +11m.27s., PR_1N = +14m.8s., PR_1E = +14m.13s., PR_2E = +15m.19s., SR_1E = +24m.56s., SR_1N = +25m.14s., SR_2N = +27m.43s., SR_3N = +29m.2s., MN = +46·6m.; T_0 = 12h.7m.35s. or 12h.7m.44s., and several e readings. Fordham PR_2 = +16m.18s., PS = +21m.54s. = [S] − 26s., SR_1 = +25m.39s., SR_2 = +29m.1s.; T_0 = 12h.7m.54s. Georgetown SR_2EZ = +28m.58s.. SR_2NZ = +29m.8s. Cheltenham SR_2E = +29m.2s., SR_2N = +29m.8s., eE = +31m.38s., eN = +32m.14s. De Bilt MZ = +47·2m., MN = +59·9m. Uccle i = +16m.12s. = PR_2 − 27s., SR_1 = +25m.42s., i = +25m.57s. = SR_1 − 44s., MN = +41·2m., MZ = +52·5m. Vienna iPZ = +11m.46s., PR_1 = +14m.31s., PR_2 = +16m.27s., iS = +21m.23s., PS = +21m.55s. = [S] +13s., SR_1 = +26m.28s., MZ = +45·6m., MN = +48·6m., also several other i readings. Budapest iE = +21m.49s., +22m.9s., and +23m.8s., iN = +22m.26s., and +26m.5s., MN = +48·2m. Strasbourg MZ = +44·1m., MN = +53·1m. Paris iP = +11m.56s., iS = +21m.36s., SR_1 = +26m.39s., MN = +39·6m. Zagreb i = +12m.2s., iPR_1 = +15m.8s., e = +16m.39s., ePR_2 = +18m.10s., iSR_3? = +31m.24s. Belgrade PR = +14m.52s. and +16m.50s. = PR_3 − 19s. Puy de Dôme MN = +58·4m. Moncalieri MN = +47·1m. Rocca di Papa iPN = +12m.25s., iPE = +12m.28s., SN = +22m.32s. Colombo S = +42m.8s., L = +50·6m. Barcelona SR_1 = +28m.14s. Toledo PR_2NE = +17m.39s., PR_2NW = +18m.12s., SR_1NW = +28m.17s., SR_1NE = +28m.32s., SR_2NW = +32m.32s. SR_2NE = +32m.40s., MZ = +47·9m., MNW = +53·4m. Algiers MN = +46·6m. Granada PR_1 = +16m.22s., PS = +24m.38s., MN = +48·2m., MZ = +60·8m. Almeria MN = +57·5m. Malaga MN = +56·9m. San Fernando MN = +69·6m. Riverview eS = +23m.38s. = [S] +12s., eSR_1 = +29m.53s., +30m.42s., and +30m.49s., MN = +42·8m., MZ = +43·0m. Wellington [S] = +24m.10s., SR_1 = +32m.15s. La Paz PR_1 = +23m.52s. = PR_2 − 20s., SR_1 = +38m.22s. = SR_1 + 55s., SR_2 = + +42m.49s. = SR_3 − 17s.; T_0 = 12h.6m.38s. Rio de Janeiro MN = +77·3m.

Aug. 19d. 12h. 51m. 22s. Epicentre 35°·7N. 134°·8E. (as on 1925 Aug. 6d.).

A = −·572, B = +·576, C = +·584 ; D = +·710, E = +·705 ;
G = −·411, H = +·414, K = −·812.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s	s.	m.	m.
Kobe	1·1	163	0 18	+ 1	—	—	0·6	0·9
Osaka	1·2	154	0 16	− 2	(0 30)	− 3	0·5	1·2
Sumoto	1·4	177	0 23	+ 2	(0 39)	0	0·6	0·8
Nagoya	1·8	107	0 13	−15	(0 22)	−29	0·4	0·5
Hukuoka N.	4·3	240	1 17	+10	—	—	2·2	—
Mizusawa E.	6·0	54	—	—	3 4	+20	(3·1)	—

Additional readings: Kobe MZ = +0·6m., MN = +0·7m. Osaka MN = +0·5m. Sumoto MN = +0·7m. Nagoya MN = +0·6m.

Aug. 19d. Readings also at 1h. (Granada), 8h. (Pompeii, Rocca di Papa, Ekaterinburg, and near Athens), 10h. (Azores), 11h. (Malabar and Kobe), 16h. (near Sumoto and near Tacubaya), 18h. (Victoria, Pulkovo, Mizusawa, Ekaterinburg, and near Manila), 20h. (Kucino, Riverview, Manila, and Azores), 21h. (Ekaterinburg, Pulkovo, Uccle, Honolulu, and Victoria), 22h. (Granada).

Aug. 20d. 23h. 1m. 0s. Epicentre 40°·0N. 2°·0E.

A = +·766, B = +·027, C = +·643 ; D = +·035, E = −·999 ;
G = +·642, H = +·022, K = −·766.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Tortosa	1·4	306	0 21	0	0 41	+ 2	—	—
Barcelona	1·5	4	0 20	− 3	0 42	0	0·8	—
Almeria	4·6	229	e 1 55	+44	i 3 8	+62	3·7	4·3
Toledo	4·6	270	e 1 13	+ 2	2 5	− 1	e 2·4	2·9
Granada	5·2	239	e 1 17	− 3	e 2 34	+12	e 3·2	3·6
Malaga	6·0	239	3 37	?L	—	—	(3·6)	—
Besançon	7·7	21	—	—	e 3 8	−21	—	—
Strasbourg	9·5	24	e 4 19	?S	(e 4 19)	+ 3	—	5·0
Uccle	10·9	8	e 3 54	+71	4 39	−13	—	—
Cheb	12·4	32	—	—	—	—	e 7·5	—
Eskdalemuir	15·7	349	—	—	e 7 2	+14	—	—

Additional readings: Tortosa PN = +22s. Toledo MNW = +3·3m. Granada e = +2m.26s. (?S, O−C = + 4s.).

Aug. 20d. 23h. 4m. 20s. Epicentre 1°·0S. 21°·5W.

A = +·930, B = −·366, C = −·017 ; D = −·367, E = −·930 ;
G = −·017, H = +·006, K = −1·000.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Rio de Janeiro	30·4	222	—	—	—	—	e 15·4	—
San Fernando	40·0	20	1 52	?	9 42	?PR$_2$	19·7	26·7
Malaga	40·9	22	7 55	− 7	9 19	?PR$_1$	—	—
Granada	41·6	21	i 8 1	− 7	i 14 19	−10	21·6	24·7
Almeria	41·8	23	i 8 2	− 7	e 14 22	−10	e 22·6	—
Toledo	43·8	20	(i 8 16)	− 8	i 8 16	?P	e 8·8	—
Tortosa N.	46·3	22	e 8 40	− 2	—	—	e 23·7	28·2
La Paz	48·5	249	8 57	0	16 0	0	23·8	25·1
Rocca di Papa	52·7	32	9 30	+ 6	—	—	—	—
Paris	53·9	20	—	—	—	—	e 32·7	—
Oxford	55·4	16	—	—	—	—	—	37·7
Strasbourg	55·6	23	e 9 50	+ 7	—	—	29·7	—
Uccle	56·2	20	e 9 52	+ 5	e 17 39	+ 3	e 23·7	—
Bidston	56·5	15	—	—	24 55?	?SR$_4$	—	30·3
Stonyhurst	57·1	15	—	—	—	—	e 27·7	—

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
De Bilt	57·6	20	10 3	+ 7	18 3	+ 9	e 29·7	31·3
Eskdalemuir	58·2	12	e 9 58	− 2	e 18 0	− 1	24·7	—
Cheb	58·7	25	e 10 40?	+37	—	—	e 23·7	27·2
Edinburgh	58·8	12	—	—	—	—	e 27·7	—
Vienna Z.	59·1	29	10 12	+ 6	—	—	—	—
Dyce	60·2	12	10 25	+12	14 0	?PR_2	26·4	30·7
Hamburg	60·5	21	—	—	—	—	e 29·7	38·7
Ottawa	66·5	322	—	—	e 19 31	−13	e 28·7	—
Pulkovo	72·7	25	i 11 46	+12	e 21 12	+14	35·7	46·4
Kucino	74·2	30	—	—	e 21 52	[+ 9]	36·3	41·3
Baku	76·6	48	e 12 13	+14	—	—	43·2	—
Ekaterinburg	86·5	33	e 12 57	+ 1	24 30	+54	40·2	52·1
Victoria E.	98·6	320	—	—	—	—	51·1	54·1

Additional readings: San Fernando. MN = +28·7m. Granada i = +10m.39s. = PR_3 +15s. and +13m.49s., MZ = +27·5m. Rocca di Papa iPN = +9m.32s., iPE = +9m.33s. De Bilt MN = +37·6m. Ottawa eLN = +26·7m. Kucino e = +26m.10s. = SR_1 −40s. Ekaterinburg i = +16m.19s. = PR_1 −21s.

Aug. 20d. Readings also at 0h. and 2h. (Florence), 7h. (Ekaterinburg), 8h. (near La Paz), 11h. (Agana and near Mizusawa), 15h. (Azores), 16h. (near Amboina), 20h. (Azores, Toronto, and near La Paz).

Aug. 21d. 11h. 14m. 20s. Epicentre 37°·7N. 118°·5W. (as on 1924 Feb. 21d.).

A = −·378, B = −·695, C = +·612; D = −·879, E = +·477; G = −·292, H = −·537, K = −·791.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Lick	2·5	262	e 0 42	+ 3	i 1 15	+ 6	—	1·4
Santa Clara	2·7	264	e 0 40	− 2	1 11	− 3	1·4	2·0
Berkeley	3·0	273	e 0 45	− 2	i 1 24	+ 1	—	—
Tucson E.	8·3	129	—	—	—	—	e 4·6	5·6
Victoria E.	11·2	343	—	—	—	—	5·7	6·2
Ottawa	32·5	62	—	—	—	—	e 15·0	—
Ekaterinburg	85·5	1	—	—	—	—	35·2	—

Additional readings: Lick iP = +45s., iPR_2 = +55s., iSN = +1m.21s., iSE = +1m.23s. Santa Clara MN = +1·4m. Berkeley eP = +50s., iSZ = +1m.27s. and +1m.32s., iSN = +1m.30s., iSE = +1m.34s., SR_2E = +1m.52s. Ottawa eLN = +16·7m.

Aug. 21d. 20h. 14m. 0s. Epicentre 14°·5N. 115°·0E.

A = −·409, B = +·877, C = +·250; D = +·906, E = +·423; G = −·106, H = +·227, K = −·968.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	5·7	89	i 1 28	0	(i 2 37)	+ 1	i 2·6	2·9
Hong Kong	7·9	354	—	—	3 30	− 4	—	7·3
Phu-Lien	10·2	309	—	—	—	—	4·0	—
Irkutsk	38·7	350	—	—	e 16 0?	?SR_1	27·0	—
Ekaterinburg	58·8	330	(e 9 16)	−48	e 9 16	?P	20·0	24·8
Baku	61·8	310	—	—	—	—	39·0	—
Pulkovo	74·8	330	—	—	e 22 32	+68	42·0	43·3
Cheb	86·7	322	—	—	—	—	e 48·0	61·0
De Bilt	90·2	325	—	—	—	—	e 51·0	—

Additional readings: Manila MN = +2·7m. Hong Kong P? = 20h.7m.34s.

Aug. 21d. Readings also at 0h. (near Taihoku), 2h. (Granada), 5h. (near Zurich), 12h. (La Paz), 15h. (Zagreb, near Belgrade, and Sarajevo), 16h. (Azores and near Sumoto), 19h. (Rocca di Papa, Pompeii, Pulkovo, De Bilt, and Ekaterinburg), 21h. (Pulkovo, Ekaterinburg, Baku, and De Bilt).

Aug. 22d. Readings at 1h. (Pulkovo, Ekaterinburg, and Baku), 2h. (Rocca di Papa), 3h. (near La Paz), 7h. (near Mizusawa), 9h. (near Tacubaya), 12h. (La Plata and La Paz), 15h. (Irkutsk, Baku, Pulkovo, and Ekaterinburg), 21h. (near Nagasaki (2)).

Aug. 23d. Readings at 1h. (Chicago, Ottawa, and near Sumoto), 7h. (Azores), 8h. (near Manila), 11h. (La Paz), 20h. (Tacubaya), 21h. (Azores).

Aug. 24d. Readings at 2h. (Pulkovo, Baku, and Granada), 3h. (Pulkovo and Baku), 4h. (La Paz), 7h. (Malabar), 11h. (La Paz, La Plata, Ottawa, Toronto, and Phu-Lien), 13h. (Honolulu, Riverview, Sydney, Melbourne, Victoria, Pulkovo, Ekaterinburg, and near Sumoto (2)), 14h. (Uccle and De Bilt), 18h. (near Mizusawa).

Aug. 25d. 5h. 10m. 48s. Epicentre 41°·0N. 16°·0E.

A = +·725, B = +·208, C = +·656 ; D = +·276, E = −·961 ;
G = +·631, H = +·181, K = −·755.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Pompeii	1·1	257	e 0 37	+20	e 1 7	+36	—	1·2
Naples	1·3	263	e 0 17	− 3	e 0 37	+ 1	—	—
Rocca di Papa	2·6	287	e 0 37	− 4	e 1 14	+ 2	—	1·5
Sarajevo	3·4	32	e 0 37	−16	1 24	−10	—	1·6
Zagreb	4·8	0	e 1 14	0	1 58	−13	e 2·5	—
Belgrade E.	5·0	39	e 1 17	0	i 2 19	+ 2	—	2·5
N.	5·0	39	e 1 18	+ 1	i 2 26	+ 9	—	—
Laibach	5·2	349	e 0 20	−60	i 1 48	−34	—	3·1
Budapest	6·8	18	2 6	+22	e 3 12	+ 7	—	—
Innsbruck N.W.	7·1	334	e 1 47	− 1	—	—	—	—
Vienna	7·2	2	e 2 6	+17	i 3 7	− 8	—	3·7
Strasbourg	9·6	325	e 4 28	?S	(e 4 28)	+10	—	5·2
Hamburg	13·2	344	—	—	—	—	e 6·2	—
De Bilt	13·3	330	—	—	—	—	e 7·2	—
Granada	15·7	262	e 5 38	+110	—	—	8·5	9·4

Additional readings: Rocca di Papa PE = +42s., PN = +46s., iSN = +1m.20s. Sarajevo P = +44s. Zagreb i = +1m.18s., iP = +1m.28s., ePR$_1$ = +1m.29s., iS = +2m.11s., e = +2m.48s. Belgrade iPN = +1m.31s. Ekaterinburg (Δ = 32°·5) gives e = 5h.11m.3s.

Aug. 25d. 12h. 56m. 36s. Epicentre 13°·0S. 10°·0W. (as on 1917 Aug. 21d.).

A = +·960, B = −·169, C = −·225 ; D = −·174, E = −·985 ;
G = −·222, H = +·039, K = −·974.

Very uncertain.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
San Fernando	49·6	4	—	—	16 16	+ 2	23·9	29·9
Almeria	50·4	8	e 9 33	+24	e 17 37	+73	—	—
Granada	50·5	6	i 10 15	+65	16 21	− 4	23·2	25·0
Algiers	51·3	15	—	—	—	—	e 8·4	25·4
Toledo	53·2	5	e 9 32	+ 5	e 16 53	− 6	e 24·0	26·8
Moncalieri	60·2	14	22 0	?	32 53	?	46·6	48·2
Strasbourg	63·6	13	—	—	—	—	—	30·4
Uccle	65·0	10	—	—	—	—	—	30·4
Cheb	66·1	16	—	—	—	—	e 31·4	34·4
De Bilt	66·4	10	—	—	e 20 20	+38	e 32·4	35·5
Pulkovo	79·0	19	—	—	e 23 29	+70	34·4	45·9
Ekaterinburg	90·7	31	e 15 2	+102	e 25 54	+93	39·4	—

Additional readings: San Fernando MN = +28·4m. Granada i = +10m.25s., +12m.0s., +14m.9s., +19m.11s., and +19m.48s., LZ = +23·4m., MZ = +27·0m. De Bilt MZ = +38·6m. Pulkovo MZ = +47·5m. Ekaterinburg readings are given as e simply.

Aug. 25d. Readings also at 4h. (Ekaterinburg (2)), 18h. (Azores), 20h. (Ekaterinburg), 21h. (Pulkovo).

Aug. 26d. 16h. 8m. 30s. Epicentre 31°·0N. 96°·0E.

A = −·090, B = +·852, C = +·515 ; D = −·995, E = −·105 ;
G = −·054, H = +·512, K = −·857.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Phu-Lien	13·9	134	e 3 32	+ 7	e 6 12	+ 6	6·6	7·1
Hyderabad	20·9	234	8 53	?S	(8 53)	+11	(11·7)	—
Irkutsk	22·1	14	5 4	− 2	9 13	+ 6	11·5	—
Bombay	24·2	245	9 45	?S	(9 45)	− 3	—	—
Pulkovo	51·5	324	—	—	e 20 58	?SR_1	26·5	34·5
De Bilt	66·5	318	—	—	—	—	e 38·5	—
Uccle	67·4	317	—	—	—	—	—	37·5
Eskdalemuir	69·8	323	—	—	—	—	35·5	—

Hyderabad gives S as P and L as S.

Aug. 26d. Readings also at 5h. (Toronto and Ottawa), 6h. (near Berkeley), 7h. (Ekaterinburg), 12h. (near Sumoto), 15h. (Agana and Azores), 17h. (Wellington and near La Paz).

Aug. 27d. Readings at 0h. (Ekaterinburg and Azores), 5h. (Azores), 7h. (Ekaterinburg), 9h. (Taihoku and near Tacubaya), 13h. (Cheb), 22h. (Granada).

Aug. 28d. 8h. 57m. 30s. Epicentre 37°·4N. 30°·5E. (as on Aug. 19d.).

A = +·684, B = +·403, C = +·607 ; D = +·508, E = −·862 ;
G = +·523, H = +·308, K = −·794.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·4	278	e 2 7	+44	e 3 0	+32	e 3·2	4·2
Strasbourg	19·9	311	e 4 55	+15	—	—	12·5	—
Pulkovo	22·3	0	i 5 8	− 1	9 5	− 6	12·5	—
De Bilt	23·0	318	—	—	e 9 30?	+ 5	e 13·5	—
Granada	27·0	280	i 14 40	?L	e 17 8	?	e 17·9	18·8
Ekaterinburg	27·8	36	—	—	e 9 37	−78	14·5	—

Athens gives also MN = +3·8m.

Aug. 28d. Readings also at 1h. (near Sumoto), 5h. (near Batavia and Malabar), 10h. (Ekaterinburg, Pulkovo, Honolulu, Ottawa, Toronto, and Victoria), 17h. (Azores), 18h. (Irkutsk (4) and La Paz), 20h. (La Paz).

Aug. 29d. 22h. 36m. 25s. Epicentre 25°·5N. 110°·5W.

A = −·316, B = −·845, C = +·431 ; D = −·937, E = +·350 ;
G = −·151, H = −·403, K = −·903.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Tucson	E.	6·7	357	e 1 9	−33	e 2 52	−10	3·2	3·8
Guadalajara		8·0	125	—	—	—	—	5·1	7·3
Tacubaya		12·1	118	3 12	+12	5 58	+37	6·4	7·7
Vera Cruz		14·7	112	1 55	−100	5 5	−80	6·6	8·4
Berkeley		15·9	324	e 3 39	−12	—	—	e 7·3	8·1
Chicago	E.	24·9	43	5 32	− 5	10 3	+ 2	12·8	14·6
	N.	24·9	43	—	—	9 57	− 4	11·6	14·3
Victoria		25·0	340	5 33	− 5	10 3	0	12·9	15·0
Ann Arbor		27·6	46	e 7 41	+97	10 59	+ 7	e 15·1	15·8
Georgetown		31·0	56	e 6 50	+12	—	—	e 16·5	17·2
Cheltenham	N.	31·1	56	—	—	—	—	e 16·4	17·2
Toronto	E.	31·1	45	—	—	e 11 35	−18	e 13·6	18·6
Ithaca		32·5	49	e 7 20	+27	—	—	16·0	—
Fordham		33·9	54	—	—	e 12 17	−22	16·9	18·6

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Ottawa		34·2	45	e 6 59	− 8	e 12 20	−23	e 15·6	19·1
Harvard	E.	36·3	51	—	—	—	—	e 19·1	20·1
	N.	36·3	51	—	—	12 37	−37	i 18·9	20·5
Honolulu	E.	43·5	275	—	—	—	—	e 19·8	23·7
	N.	43·5	275	—	—	14 59	+ 4	18·7	22·1
La Paz		58·9	131	10 25	+21	e 20 2	+112	48·5	—
Edinburgh		78·1	33	—	—	—	—	—	41·6
Eskdalemuir		78·3	33	—	—	—	—	36·6	—
Oxford		81·1	37	—	—	—	—	e 38·6	47·8
De Bilt		84·2	33	—	—	e 23 17	+ 7	e 38·6	49·6
Uccle		84·6	35	—	—	e 21 35?	−100	e 33·6	—
Upsala		84·7	23	—	—	e 23 20	+ 4	—	—
Paris		84·7	38	—	—	—	—	e 41·6	47·6
Toledo		85·4	47	e 12 55	+ 5	e 23 29	+ 6	e 38·8	43·3
San Fernando		85·6	51	e 10 50	−121	24 47	+81	42·1	46·1
Hamburg		85·7	30	—	—	—	—	e 44·6	—
Granada		87·0	50	i 13 3	+ 4	i 23 42	+ 1	i 41·6	44·6
Strasbourg		87·7	36	—	—	—	—	45·6	—
Tortosa	N.	87·9	45	—	—	—	—	e 38·6	44·4
Almeria		88·0	49	e 12 57	− 8	23 37	−15	—	—
Pulkovo		88·8	19	—	—	e 24 0	− 1	44·6	52·6
Cheb		89·1	32	—	—	—	—	e 40·6	54·6
Rocca di Papa		94·7	39	—	—	—	—	e 46·2	61·1
Ekaterinburg		97·3	5	e 14 47	+51	24 21	[+11]	38·6	60·3

Additional readings and notes: Berkeley ePE = +3m.50s., ePN = +3m.58s., eN = +7m.49s., MZ = +9·3m. Chicago eE = +8m.45s., e = +9m.47s., eN = +10m.38s.; T_o = 22h.36m.22s. Toronto eE = +10m.43s. and +12m.55s. Ottawa eSR_1N = +13m.45s., eSR_1E = +14m.11s.; T_o = 22h.36m.39s. Harvard SR_2N? = +15m.36s. = SR_1 +10s., eN = +16m.49s. = SR_3 − 2s. De Bilt MZ = +49·8m. Rocca di Papa L = +55·4m. Toledo MNW = +50·4m. San Fernando MN = +48·6m. Granada PR_1 = +16m.6s., PR_2 = +17m.50s., SZ = +23m.46s., LZ = +43·4m., MZ = +47·0m. Pulkovo MZ = +53·2m. Paris MN = +43·6m. Ekaterinburg MN = +61·3m., MZ = +61·4m.

Aug. 29d. Readings also at 3h. (La Paz), 6h. (Granada and near Sumoto), 8h. (near Algiers), 10h. (St. Louis), 12h. (Bidston), 13h. (Puy de Dôme), 21h. (Ottawa).

Aug. 30d. 13h. 15m. 50s. Epicentre 38°·0N. 69°·5E.

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.
Simla	N.	9·4	135	4 10	?S	(4 10)	− 3	—	—
Bombay		19·3	170	8 9	?S	(8 9)	+ 1	—	—
Ekaterinburg		19·7	346	4 46	+ 9	8 16	− 1	10·2	—
Hyderabad		22·0	157	8 54	?S	(8 54)	−11	(11·6)	16·0
Irkutsk		28·0	48	6 10	+ 2	e 10 58	− 1	15·2	—
Kodaikanal		28·7	163	14 10	?L	—	—	(14·2)	—
Pulkovo		32·9	325	i 6 55	− 1	e 11 44	−38	14·2	—
Upsala		39·0	321	—	—	—	—	e 16·2	—
Vienna		39·2	303	e 8 7	+19	—	—	—	—
Hamburg		42·9	311	—	—	—	—	e 21·2	—
De Bilt		45·9	310	—	—	—	—	e 27·2	—
Uccle		46·6	309	—	—	—	—	e 23·2	—
Oxford		49·9	310	—	—	—	—	e 31·2	—
Granada		56·3	292	—	—	—	—	e 33·4	40·0

Simla gives also PE = +4m.22s. Hyderabad gives S as P and L as S.

Aug. 30d. Readings also at 4h. (Strasbourg), 5h. (near Manila), 7h. (Ottawa Toronto, Riverview, and La Paz), 12h. (near Tacubaya), 19h. (Irkutsk 22h. (near Masatlan).

Aug. 31d. 9h. 58m. 0s. Epicentre 35°·0N. 90°·5E. (as on 1920 May 2d.).

A = −·007, B = +·819, C = +·574; D = +1·000, E = +·009; G = −·005, H = +·574, K = −·819.

Rough.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Simla		11·8	255	—	—	e 5 6	− 8	e 6·2	—
Calcutta	E.	12·6	189	2 56	−11	6 10	+36	—	—
	N.	12·6	189	2 45	−22	5 47	+13	—	—
Phu-Lien		20·1	131	i 4 34	− 8	e 8 11	−14	e 10·1	10·9
Hyderabad		20·6	214	8 8	?S	(8 8)	−28	10·0	10·8
Bombay		22·4	229	8 43	?S	(8 43)	−30	12·6	13·5
Hong Kong		24·2	115	—	—	9 39	− 9	—	13·3
Kodaikanal		27·5	208	—	—	—	—	11·6	13·6
Ekaterinburg		29·6	327	i 6 31	+ 7	11 40	+13	15·0	19·2
Colombo		29·8	202	10 45	?S	(10 45)	−46	15·7	16·8
Manila		34·2	119	e 14 40	?SR_1	—	—	e 19·0	—
Piatigorsk		37·1	300	—	—	—	—	e 23·0	—
Batavia		44·0	156	—	—	—	—	23·0	—
Pulkovo		45·5	324	8 44	+ 7	15 40	+19	20·0	29·9
Konigsberg		50·9	317	—	—	—	—	e 28·5	—
Upsala	N.	51·9	324	—	—	—	—	e 27·0	30·0
Cheb		56·7	312	—	—	—	—	e 27·0	40·0
Hamburg		57·2	316	—	—	—	—	e 24·0	—
Rocca di Papa		59·3	303	—	—	—	—	e 34·3	39·9
Florence		59·5	306	—	—	—	—	e 25·0	36·5
Strasbourg		60·1	310	—	—	—	—	e 32·0	—
De Bilt		60·4	315	—	—	—	—	e 30·0	35·2
Uccle		61·3	315	—	—	—	—	e 27·0	32·0
Paris		63·2	313	—	—	—	—	e 35·0	41·0
Edinburgh		63·5	321	—	—	—	—	35·0	37·0
Bidston		63·7	319	—	—	19 48	+39	32·5	36·5
Eskdalemuir		63·8	321	—	—	—	—	32·0	36·0
Stonyhurst		64·0	319	—	—	—	—	e 35·0	43·0
Oxford		64·2	318	—	—	—	—	e 35·1	41·9
Granada		72·5	305	i 29 28	?SR_2	36 3	?L	39·8	42·2
Victoria	E.	91·3	23	—	—	—	—	49·2	53·8
Ottawa		98·6	351	—	—	—	—	e 46·0	—
Toronto	E.	100·8	354	—	—	—	—	53·2	—

Additional readings: Phu-Lien MN = +10·8m. Hyderabad S = +9m.8s. = SR_1 −6s. Bombay S = +11m.28s. Ekaterinburg MN = +19·8m., MZ = +20·1m. Pulkovo MN = +27·7m. Upsala ME = +37·4m. De Bilt MZ = +40·0m. Paris MN = +36·0m. Granada i = +37m.58s., LZ = +40·7m., MZ = +43·6m. Toronto LN = +67·2m.

Aug. 31d. 19h. 46m. 50s. Epicentre 37°·5N. 142°·5E. (as on 1923 Nov. 10d.)

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

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Mizusawa	E.	2·0	327	0 30	− 1	0 54	− 1	—	—
	N.	2·0	327	0 32	+ 1	0 57	+ 2	—	—
Nagoya		5·1	244	1 22	+ 3	(2 21)	+ 1	2·4	3·0
Osaka		6·3	248	1 34	− 2	—	—	3·5	5·0
Hukuoka		10·6	252	e 4 55	?S	(e 4 55)	+10	e 7·4	—
Irkutsk		30·4	312	e 6 32	0	—	—	15·2	—
Ekaterinburg		55·2	319	9 25	−15	e 17 22	− 2	26·2	36·5
Pulkovo		68·0	330	10 54	−10	—	—	36·2	—
Ottawa		90·3	26	—	—	—	—	e 47·7	—
Granada		99·0	333	—	—	—	—	e 61·2	65·7

Additional readings: Nagoya MN = +2·8m. Osaka MN = +4·1m. Ekaterinburg e = +18m.47s., MN = +34·2m., MZ = +39·3m. Ottawa eE = +51m.34s.

Aug. 31d. Readings also at 1h. (Ottawa, Toronto, Chicago, and Tucson), 3h. (Pulkovo and Ekaterinburg), 4h. (Hamburg, Upsala, Cheb, De Bilt, Uccle, Paris, Eskdalemuir, Oxford, and Granada), 5h. (near Kobe and Sumoto), 6h. (Agana), 7h. (Riverview), 8h. (Ottawa), 9h. (Bombay, Hyderabad, Kucino, Pulkovo, and Ekaterinburg), 10h. (Eskdalemuir, Uccle, and De Bilt), 12h. (Zi-ka-wei), 14h. (Florence), 17h. (Taihoku), 19h. (Toronto and near Taihoku), 20h. (Kobe). 22h. (near Berkeley).

Sept. 1d. 8h. 16m. 0s. Epicentre 39°·0N. 31°·0E. (as on 1924 Nov. 20d.).

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

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·8	261	i 1 32	+ 2	i 2 37	− 2	2·8	3·4
Helwan	9·1	178	e 2 20	+ 2	3 47	−19	—	—
Belgrade E.	9·8	310	e 2 2	−25	e 4 16	− 7	—	4·8
N.	9·8	310	e 2 9	−18	i 4 17	− 5	—	5·0
Piatigorsk	10·4	57	e 8 22	?	12 39	?	—	—
Lemberg	11·9	337	e 5 54	?L	—	—	(e 5·9)	10·0
Budapest	12·2	318	3 1	− 1	7 12	?L	(7·2)	—
Pompeii	12·7	283	e 2 25	−44	e 8 50	?L	(e 8·8)	—
Naples	13·0	283	e 6 12	?S	(e 6 12)	+28	—	—
Zagreb	13·0	306	e 3 24	+11	i 7 3	?L	(i 7·0)	—
Graz	13·9	310	e 3 16	− 9	6 24	+18	8·0	8·6
Vienna	14·1	316	e 3 32	+ 5	6 41	+31	—	8·7
Rocca di Papa	14·2	286	i 3 42	+13	6 28	+15	e 8·6	—
Florence	15·5	294	7 10	?S	(7 10)	+26	—	9·4
Innsbruck	16·5	306	e 4 8	+ 9	e 6 17	−40	—	—
Konigsberg	17·3	339	i 6 38	?S	(i 6 38)	−47	(i 10·3)	11·5
Kucino	17·4	13	4 58	+48	i 8 32	+65	11·6	—
Moncalieri	18·2	297	4 29	+10	—	—	10·7	12·2
Strasbourg	19·3	307	i 4 43	+10	i 8 22	+14	10·0	12·7
Besançon	19·9	303	5 19	+39	—	—	—	—
Hamburg	20·4	323	e 5 0?	+14	—	—	—	14·0
De Bilt	22·1	315	—	—	—	—	e 11·0	15·2
Barcelona	22·1	286	e 4 31	−35	9 17	+10	e 14·5	14·6
Algiers	22·1	272	e 5 0	− 6	—	—	—	17·0
Paris	22·6	305	e 5 17	+ 5	—	—	12·0	13·0
Upsala	22·6	342	—	—	e 9 0?	−17	—	—
Tortosa	23·3	284	e 5 16	− 4	—	—	e 15·1	16·6
Alicante E.	24·5	278	6 27	+54	10 47	+53	20·7	—
Ekaterinburg	26·3	38	e 7 11	+80	e 11 50	+82	16·0	—
Toledo	26·9	283	5 47	−10	i 10 38	− 1	e 12·4	20·9
Granada	27·2	277	i 5 56	− 4	i 10 45	0	i 12·8	19·0
Bidston	27·3	313	—	—	—	—	14·6	15·8
Eskdalemuir	28·0	317	—	—	—	—	14·0	—
San Fernando	29·3	277	—	—	11 10	−12	18·5	21·5
Ottawa	73·1	316	—	—	e 21 24	[−11]	e 34·0	—
Toronto E.	76·2	316	—	—	e 25 0	?SR_1	36·6	—

Additional readings : Piatigorsk i = +8m.36s. Zagreb e = +6m.46s., i = +7m.30s., +7m.42s., and +8m.15s. Graz MN = +8·2m. Vienna i = +5m.3s., MZ = +9·2m. Rocca di Papa ePN = +3m.46s., eS = +6m.33s. Innsbruck iNW = +4m.22s. Konigsberg iN = +10m.38s., iE = +10m.51s., MN = +12·5m. Moncalieri MN = +11·8m. Strasbourg MZ = +12·6m., MN = +12·9m. De Bilt MN = +13·1m., MZ = +15·3m. Paris e = +6m.10s. Toledo MN = +16·0m. Granada i = +7m.40s., +8m.29s., and +12m.50s., MZ = +18·7m.

Sept. 1d. Readings also at 5h. (Taihoku), 11h. (Toronto and Ottawa), 14h. (Taihoku), 15h. (Adelaide, Riverview, and near Batavia (2)), 16h. (Irkutsk, Ottawa, and Ekaterinburg), 17h. (near Amboina), 18h. (Irkutsk), 19h. (La Paz and near Mizusawa), 20h. (Taihoku).

Sept. 2d. Readings at 2h. and 4h. (La Paz), 8h. (near Mizusawa), 10h. (Strasbourg), 11h. (Chicago, St. Louis, Toronto), 12h. (Ottawa, Ekaterinburg, and near Ithaca), 14h. (near Batavia and Malabar).

Sept. 3d. Readings at 1h. (near Azores), 7h. (near Amboina), 9h. (Athens, Pulkovo, Ekaterinburg, Ottawa, Toronto, and near Sumoto), 12h. (Apia), 13h. (Apia and near Algiers), 17h. (near Azores), 21h. (Toronto, Ottawa, Chicago, Victoria, near Vera Cruz, and Tacubaya), 22h. (Ekaterinburg and near Oaxaca).

Sept. 4d. 10h. 36m. 0s. Epicentre 16°·0N. 90°·W. (as on 1925 Feb. 10d.).

A = 000, B = −·961, C = +276 ; D = −1·000, E = 000 ; G = ·000, H = −·276, K = −·961.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Merida		4·9	4	1 6	−10	(2 19)	+ 5	2·3	2·4
Vera Cruz		6·6	299	1 4	−37	2 24	−36	2·7	3·9
Oaxaca		6·6	280	1 33	− 8	(2 42)	−18	2·7	2·8
Tacubaya		9·4	292	2 28	+ 6	4 30	+17	4·8	5·7
Georgetown		25·5	24	e 5 50	+ 7	e 11 17	+64	e 21·0	—
Chicago		25·8	4	5 48	+ 2	10 10	− 8	12·8	—
Toronto	E.	29·0	16	—	—	—	—	13·4	16·4
	N.	29·0	16	e 6 19	+ 1	i 11 16	− 1	14·4?	22·2
Ottawa		31·7	20	i 6 41	− 3	i 11 58	− 5	e 16·3	—
La Paz		39·0	145	8 6	+20	—	—	—	—
Victoria		42·3	330	14 27	?S	(14 27)	−12	23·0	—
Granada		77·6	55	i 12 39	+34	23 18	+82	e 38·7	41·4

Additional readings and notes : Merida readings have been diminished by 6m. Vera Cruz readings have been increased by 1m. Oaxaca readings have been diminished by 5m. Georgetown $SR_1E? = +12m.17s.$ Is the recorded $S = SR_1 - 1s.?$ Chicago $SN = +10m.20s.$, $SR_1E = +11m.12s.$, $SR_1N = +11m.18s.$; $T_0 = 10h.36m.5s.$ and 10h.36m.18s. Ottawa $ePR_1N = +7m.24s.$, $iE = +14m.20s. = SR_2 + 7s.$; $T_0 = 10h.36m.1s.$

Sept. 4d. Readings also at 4h. (Bombay and Ekaterinburg), 7h. (near Athens), 10h. (Ottawa and Kobe), 12h. (La Paz), 17h. (Cape Town), 23h. (near Sumoto).

Sept. 5d. 7h. 43m. 24s. Epicentre 45°·5N. 15°·0E. (as on 1925 July 1d.).

A = +·677, B = +·181, C = +·713 ; D = +·259, E = −·966 ; G = +·689, H = +·185, K = −·701.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Zagreb		0·8	65	i 0 15	+ 3	—	—	—	—
Graz		1·6	11	0 31	+ 7	—	—	—	0·7
Venice		1·9	268	0 31	+ 2	0 54	+ 1	—	3·8
Vienna		2·9	19	e 0 48	+ 3	1 47	+27	i 1·8	1·9
Sarajevo		3·0	124	e 0 43	− 4	1 29	+ 6	—	2·1
Innsbruck		3·1	305	i 0 50	+ 1	i 1 32	+ 6	—	1·8
Florence		3·1	229	0 44	− 5	1 19	− 7	—	1·6
Budapest		3·4	55	1 17	+24	2 1	?L	(2·0)	—
Belgrade	N.	3·9	98	1 1	0	1 57	+10	(2·0)	2·4
Rocca di Papa	E.	4·0	205	e 1 2	0	1 36	−14	i 2·2	2·6
	N.	4·0	205	1 6	+ 4	—	—	i 2·2	2·4
Naples		4·7	187	e 2 1	?S	(e 2 1)	− 8	—	—
Zurich		4·8	296	e 1 11	− 3	i 2 39?	?L	(i 2·6?)	2·7
Pompeii		4·8	181	e 2 12	?S	(e 2 12)	+ 1	(e 2·9)	—
Cheb		4·9	340	e 2 32	?S	(e 2 32)	+18	(e 3·1)	3·9
Moncalieri		5·1	269	1 40	+21	2 36	+16	3·3	4·2
Strasbourg		5·8	305	e 1 39	+ 9	e 3 1	+22	3·4	3·6
Besançon		6·4	289	e 1 33	− 5	—	—	—	3·6
Hamburg		8·7	340	—	—	—	—	e 4·6	6·6
Uccle		8·8	311	—	—	—	—	e 4·2	—
Paris		9·1	296	e 3 50	?S	(e 3 50)	−16	5·0	—
De Bilt		9·3	319	—	—	—	—	e 5·1	—
Athens		10·0	136	2 31	+ 1	4 28	− 1	4·9	5·8
Bidston		14·1	311	—	—	—	—	—	8·3
Upsala		14·4	5	—	—	—	—	e 7·6	—
Eskdalemuir		15·1	317	—	—	—	—	8·6	—
Granada		16·2	246	e 3 54	− 1	e 6 55	− 5	8·7	10·9
Kucino		17·7	46	—	—	—	—	e 9·9	—
Ekaterinburg		30·1	51	—	—	—	—	12·6	—

Additional readings : Graz $iP = +34s.$ Vienna $iPZ = +49s.$, $iE = +56s.$, $P = +59s.$, $iE = +1m.15s.$, $iN = +1m.17s.$, $i = +1m.25s.$, $PR = +1m.29s.$, and $+1m.41s.$, $MN = +2·2m.$ Sarajevo $P = +47s.$ Innsbruck $MNW = +2·3m.$ Florence $P = +46s.$ Budapest $iE = +2m.10s.$ and $+2m.24s.$ Belgrade $iPN = +1m.10s.$, $iPE = +1m.21s.$, $SE = +2m.19s.$, $ME = +2·8m.$ Naples $eP = +2m.21s.$ Pompeii and Cheb gives S as P and L as S. Hamburg $MN = +5·9m.$ Paris $eS = +4m.37s.$ Granada $LZ = +9·2m.$, $MZ = +9·7m.$

Sept. 5d. 16h. 30m. 10s. Epicentre 54°·0N. 170°·0E.

A = −·579, B = +·102, C = +·809 ; D = +·174, E = +·985 ;
G = −·797, H = +·140, K = −·588.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Ootomari		18·7	258	4 37	+12	(8 18)	+23	8·3	12·6
Mizusawa	E.	24·5	244	5 28	− 5	10 2	+ 8	—	—
	N.	24·5	244	5 26	− 7	10 0	+ 6	—	—
Sitka		30·2	62	—	—	e 10 26	−71	15·4	20·5
Irkutsk		38·0	295	i 7 31	− 7	13 10	−28	17·8	20·6
Victoria		40·6	70	7 43	−17	13 53	−22	19·5	26·4
Honolulu		40·6	131	—	—	16 25	?SR_1	22·9	22·6
Hong Kong		52·2	257	—	—	16 27	−19	—	33·0
Manila		54·8	243	e 11 50?	?PR_1	—	—	—	—
Ekaterinburg		55·2	322	i 9 42	+ 2	i 17 27	+ 3	25·8	35·3
Phu-Lien	N.	57·8	263	—	—	e 18 20	+24	32·3	—
Chicago	E.	63·6	56	e 11 0	+24	19 6	− 2	31·3	34·6
	N.	63·6	56	e 10 58	+22	—	—	31·2	38·2
Upsala	N.	64·1	346	e 10 45	+ 6	—	—	e 32·8	49·0
Ann Arbor		65·0	52	—	—	e 19 20	− 5	—	—
Toronto		65·9	49	10 58	+ 8	19 39	+ 3	30·4	42·3
Ottawa		66·0	45	i 19 34	?S	(i 19 34)	− 3	e 33·2	35·8
Simla	E.	66·9	291	e 20 26	?S	(e 20 26)	+37	—	37·5
	N.	66·9	291	e 20 8	?S	(e 20 8)	+19	—	38·8
Ithaca		68·1	48	—	—	—	—	e 32·8	—
Konigsberg		68·2	343	—	—	e(20 2)	− 2	e(30·3)	(33·3)
Edinburgh		70·0	356	—	—	—	—	e 43·8	—
Harvard		70·4	45	—	—	20 26	− 5	33·3	37·5
Fordham		70·5	47	e 13 25	+125	—	—	34·6	43·0
Eskdalemuir		70·6	356	—	—	e 20 50?	+17	30·8	—
Georgetown		70·7	50	e 11 23	+ 2	e 20 34	0	33·9	—
Hamburg		71·2	349	e 11 50	+26	—	—	e 34·8	45·8
Stonyhurst		71·9	356	—	—	—	—	e 45·3	—
Piatigorsk		72·0	323	e 11 22	− 8	20 38	−12	—	43·8
Bidston		72·4	356	18 20	?	(20 54)	− 1	34·9	52·0
De Bilt		73·1	351	11 41	+ 4	21 10	+ 7	e 31·8	49·8
Oxford		74·0	356	—	—	21 24	+10	48·1	—
Cheb		74·2	346	—	—	e 26 20	?SR_1	e 45·8	46·8
Uccle		74·5	352	—	—	e 21 20	0	e 36·8	39·3
Vienna		75·4	344	e 11 52	+ 1	—	—	e 41·8	47·8
Budapest		75·6	341	11 52	− 1	e 21 50?	+17	e 40·8	51·3
Graz		76·3	344	e 11 58	+ 1	e 22 40	+59	43·5	48·1
Strasbourg		76·4	349	e 11 58	+ 1	—	—	30·8	48·8
Hyderabad		76·9	282	12 11	+11	21 50	+ 2	36·6	44·6
Paris		76·7	352	—	—	e 20 50?	−55	47·8	—
Bombay		78·9	287	11 57	−15	21 57	−14	41·6	44·2
Florence		80·6	346	18 50	?PR_2	—	—	38·8	39·1
Rocca di Papa		82·3	345	i 12 42	+10	i 22 49	0	i 52·9	54·5
Kodaikanal		83·2	279	—	—	—	—	46·8	52·4
Athens		83·7	335	e 13 4	+24	e 23 51	+45	42·8	45·8
Barcelona		84·0	352	—	—	—	—	e 52·0	56·4
Colombo		84·5	275	22 50?	?S	(22 50?)	[− 3]	(48·8)	57·8
Tortosa	N.	84·8	354	12 50	+ 3	23 5	−12	e 37·8	54·3
Toledo		86·0	356	12 57	+ 4	23 27	− 3	e 38·4	56·4
Alicante	E.	87·3	354	—	—	—	—	37·8	—
Rio Tinto		88·2	358	33 50?	?SR_2	—	—	—	70·8
Algiers		88·5	350	—	—	23 49	− 9	—	—
Granada		88·6	356	i 13 6	− 2	i 23 46	−13	e 45·9	61·8
Riverview		89·3	196	—	—	e 36 50	?SR_2	e 40·5	44·3
San Fernando		89·5	358	e 12 58	−15	23 44	−25	40·8	58·8
Melbourne		94·3	200	—	—	e 24 14	[+20]	46·8	—
La Paz		121·8	74	20 58	?PR_1	35 6	?SR_1	75·6	78·1
Cape Town		151·7	303	64 11	?L	—	—	(64·2)	84·2

Additional readings and notes: Sitka MN = +21·8m. Irkutsk PR_3 = +9m.25s., SR_3 = +16m.17s., MN = +21·2m., MZ = +22·7m. Victoria LN = +19·2m. ; T_0 = 16h.30m.7s. Honolulu SR_1N = +19m.38s., SR_1E = +19m.44s. Ekaterinburg PR_1 = +13m.57s. = PR_3 + 25s. Chicago ePR_1E = +14m.26s. = PR_2 − 21s., SR_1E = +24m.8s., SR_2 = +26m.11s., eN = +28m.2s., eE = +28m.8s. ; T_0 = 16h.31m.2s. Upsala ME = +41·2m. Toronto ePE = +19m.30s., eN = +19m.42s., MN = +44·5m. Ottawa iS = +27m.0s. = SR_2 − 15s. Konigsberg, the readings have been diminished by 10min. Harvard S_0SN? = +21m.50s., SR_1N = +24m.47s., SR_2N = +27m.51s., SR_2E = +28m.33s., LN? = +29·8m., MN = +38·2m.

Continued on next page.

Fordham e = +24m.47s., i = +25m.30s. = $SR_1 - 28$s., and +29m.2s. = $SR_2 - 43$s. Georgetown ePN = +11m.25s., LN = +37·8m. Hamburg MZ = +44·8m. Piatigorsk readings have been diminished by 6m. Bidston S = +25m.58s. ; true S (above) was read as a second P. De Bilt SR_1N = +26m.13s., eLNZ = +36·8m., MZ = +41·8m., MN = +49·0m. Cheb : Are the readings perhaps 5m. too large ? Uccle i = +26m.32s. = $SR_1 - 23$s. Vienna PR_1? = +15m.0s. Budapest MN = +49·1m. Graz eS = +26m.50s. = $SR_1 - 30$s. Paris readings are given for 6d. Rocca di Papa iPE = +12m.45s., eP = +13m.2s. Athens MN = +51·7m. Colombo gives S as P and L as S. Toledo MNW = +56·1m. Granada PR_1 = +16m.32s., i = +17m.10s., +23m.50s., and +25m.12s., PR_2 = +17m.57s., MN = +63·8m. Riverview MN = +44·4m.

Sept. 5d. Readings also at 2h. (Guadalajara), 8h. (Zagreb and Ekaterinburg), 11h. (Ekaterinburg, near Athens, and near Ootomari), 12h. (Irkutsk, Ekaterinburg, and Taihoku), 14h. (Apia), 17h. (near Dehra Dun), 23h. (Zagreb and Zurich).

Sept. 6d. 0h. 39m.0s. Epicentre 45°·5N. 15°·0E. (as on Sept. 5d.).

A = +·677, B = +·181, C = +·713 ; D = +·259, E = −·966 ; G = +·689, H = +·185, K = −·701.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Zagreb	0·8	65	0 5	− 7	—	—	—	—
Graz	1·6	11	e 0 21	− 3	0 56	+11	—	1·1
Venice	1·9	268	e 0 45	+16	2 3	?	—	3·2
Vienna	2·9	19	0 42	− 3	—	—	—	2·0
Rocca di Papa	4·0	205	e 1 24	+22	—	—	—	—
Zurich	4·8	296	e 1 17	+ 3	—	—	—	2·4
Strasbourg	5·8	305	e 2 55	?L	—	—	(e 2·9)	—

Graz gives also iP? = +52s.

Sept. 6d. 1h. 4m. 40s. Epicentre 30°·5S. 53°·0E.

A = +·519, B = +·688, C = −·508 ; D = +·799, E = −·602 ; G = −·305, H = −·405, K = −·862.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Colombo	45·4	38	15 20	?S	(15 20)	0	(22·3)	24·3
Bombay	53·0	24	9 30	+ 4	—	—	—	—
Hyderabad	53·9	29	e 17 8	?S	(e 17 8)	0	—	26·4
Granada	85·9	318	—	—	e 23 35	+ 6	e 44·8	53·1
Malaga	86·1	318	e 14 14	+80	e 25 18	+107	—	—
San Fernando	87·0	317	—	—	24 18	+37	—	58·8
Kucino	87·3	351	—	—	e 23 14	−30	e 54·3	—
Ekaterinburg	87·6	4	12 55	− 8	i 23 33	−15	36·3	53·6
Toledo	88·1	318	e 13 19	+13	e 24 26	+33	e 43·4	55·7
Uccle	91·9	331	—	—	—	—	—	55·3
De Bilt	92·2	333	—	—	—	—	e 57·3	—
Pulkovo	92·6	349	—	—	e 26 0	+79	54·3	—
Ottawa	137·7	306	—	—	—	—	e 75·3	—
Toronto	140·4	304	—	—	—	—	76·3	—
Chicago E.	146·6	300	—	—	—	—	e 78·3	88·6

Additional readings and notes : Colombo gives S as P and L as S. Granada MZ = +55·6m. Ekaterinburg MZ = +55·0m. Ottawa eLN = +73·8m.

Sept. 6d. Readings also at 4h. (Manila), 8h. (near Nagasaki), 9h. (Manila), 10h. (near La Paz), 14h. (near Taihoku), 21h. (Phu-Lien, Hong Kong, Ekaterinburg, and near Taihoku).

Sept. 7d. Readings at 0h. (Apia), 14h. (near Sumoto), 15h. (La Paz), 18h. and 19h. (near Manila), 20h. (Nagoya and near Kobe), 22h. (Ekaterinburg, Pulkovo, and La Paz).

Sept. 8d. Readings at 0h. (Mizusawa), 1h. (near Manila), 4h. (near Taihoku), 14h. (near Sumoto), 21h. (Granada and Ekaterinburg).

Sept. 9d. Readings at 0h. (Manila), 1h. (Pulkovo, Ekaterinburg, Taihoku, and La Paz), 2h. (near La Paz), 7h. (near Dehra Dun), 10h. (Agana), 15h. (Agana, Taihoku, and near Sarajevo), 18h. (Irkutsk, Ekaterinburg, and Pulkovo), 21h. (near Amboina), 22h. (Pulkovo, Ekaterinburg, and Manila).

Sept. 10d. 10h. 33m. 30s. Epicentre 45°·5N. 15°·0E. (as on Sept. 6d.).

A = +·677, B = +·181, C = +·713 ; D = +·259, E = −·966 ; G = +·689, H = +·185, K = −·701.

	△	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Laibach	0·6	329	0 1	− 8	0 12	− 5	—	0·4
Zagreb	0·8	65	1 13	?	—	—	—	—
Venice	1·9	268	i 0 52	+23	1 52	+59	—	2·3
Rocca di Papa	4·0	205	e 2 7	?L	—	—	(e 2·1)	2·5
Zurich	4·8	296	e 1 19	+ 5	—	—	—	2·7
Strasbourg	5·8	305	e 3 10	?L	—	—	(e 3·2)	—

Additional readings: Venice iP = +55s., S = +2m.9s. Rocca di Papa ePN = +2m.8s.

Sept. 10d. 12h. 56m. 48s. Epicentre 7°·0S. 148°·0E. (as on 1925 Mar. 21d.).

A = −·842, B = +·526, C = −·122 ; D = +·530, E = +·848 ; G = +·103, H = −·065, K = −·992.

	△	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Riverview	27·0	174	e 6 12	+14	e 10 42	+ 1	e 12·4	15·9
Adelaide	29·3	196	—	—	i 11 18	− 4	16·2?	20·4
Melbourne	30·9	185	—	—	i 11 48	− 2	i 14·5	19·8
Manila	34·4	309	e 7 12	+ 4	(i 12 29)	−17	i 12·5	—
Batavia	40·9	269	e 9 36	?PR_1	—	—	—	—
Wellington	41·8	149	—	—	i 14 4	−28	23·2	24·0
Hong Kong	44·3	312	8 29	+ 1	14 52	−14	—	19·7
Honolulu N.	60·1	60	—	—	e 20 12?	+108	—	—
Irkutsk	70·0	333	? 11 23	+ 6	e 20 13	−13	31·2	—
Bombay	78·5	291	—	—	19 12?	−174	—	—
Ekaterinburg	94·4	327	(e 13 27)	−13	e 25 7	+ 7	42·2	53·1
Victoria E.	94·4	42	12 8	−92	25 16	+16	43·7	50·0
Pulkovo	109·8	332	e 11 11	?	e 19 9	?PR_1	27·2	29·4
Toronto N	124·8	40	e 20 57	?PR_1	—	—	38·6	—
De Bilt	125·6	331	e 21 10	?PR_1	—	—	e 62·2	—
Ottawa	126·1	37	e 21 48	?PR_1	—	—	65·2	—
Strasbourg	126·6	328	(e 21 12?)	?PR_1	—	—	e 21·2	—
Granada	140·3	324	i 19 42	[+ 2]	—	—	e 68·9	73·9
San Fernando	142·3	325	—	—	—	—	—	43·7

Additional readings: Riverview MZ = +17·7m., MN = +18·4m. Adelaide SR_1 = +13m.24s. Melbourne i = +2m.0s. Hong Kong ? = +16m.12s. Irkutsk iP = +12m.37s., eS = +21m.47s. Ekaterinburg eP = +9m.58s., e = +13m.27s. (entered in the table), +14m.17s., +23m.40s. = [S] − 14s., +25m.7s., and +26m.40s., i = +17m.23s. = PR_1 − 13s., and +18m.31s., MN = +47·2m., MZ = +55·0m. Pulkovo MZ = +29·9m. De Bilt eZ = +22m.18s. Granada i = +22m.32s. = PR_1 − 4s., +23m.54s., +24m.7s., +31m.0s. (=S?) and +42m.3s.

Sept. 10d. Readings also at 7h. (La Paz), 16h. (Bombay, Zagreb, and near Laibach), 17h. (La Paz and near Malabar), 20h. (near Tacubaya), 21h. (Athens and Ekaterinburg), 22h. (near Mizusawa), 23h. (Chicago, Toronto, Ottawa, Pulkovo, Ekaterinburg, and Granada).

Sept. 11d. 3h. 33m. 5s. Epicentre 15°·0S. 172°·0W. (as on 1925 June 30d.).

A = −·956, B = −·134, C = −·259 ; D = −·139, E = +·990 ;
G = +·256, H = +·036, K = −·966.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Apia		1·2	11	0 18	0	—	—	0·6	1·1
Honolulu	E.	38·8	21	—	—	—	—	e 15·9	18·4
Chicago	N.	95·9	50	—	—	—	—	48·9	—
Toronto	N.	102·2	48	—	—	—	—	44·6	—
Ottawa	N.	105·0	45	—	—	e 33 31	?SR_1	e 43·9	—
Ekaterinburg		122·5	329	e 20 14	?PR_1	e 36 59	?SR_1	52·9	—
Pulkovo		132·4	345	22 29	?PR_1	e 28 9	?PR_2	67·9	77·4
De Bilt		142·9	3	—	—	—	—	e 87·9	—
Strasbourg		146·5	0	e 18 55?	[−56]	—	—	—	—
Granada		155·6	22	e 15 54	?	—	—	e 24·2	41·8

Additional readings and notes: Apia P = +5m.52s. (probably a repetition), and epicentre 15°·0S. 173°·0W. The one adopted is the nearest old origin to the position given by Apia. Honolulu eLN = +17·9m. Chicago eE = +57m.55s. Ottawa eN = +38m.11s. Pulkovo MN = +77·5m. Granada i = +16m.52s., +20m.30s. =[P]+28s., and +21m.30s. Readings for Granada may not be connected with the Apia shock.

Sept. 11d. 4h. 41m. 0s. (I)
6h. 58m. 56s. (II)
9h. 51m. 21s. (III)
} Epicentre 45°·0N. 14°·8E.

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

De Bilt gives epicentre 45°12′N. 14°43′E. for shock I and 45°0′N. 14°54′E. for shock II. Shock III is entered tentatively.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
I	Laibach	1·1	349	0 8	− 9	0 22	− 9	—	0·6
II		1·1	349	0 4	−13	0 18	−13	—	0·6
I	Zagreb	1·2	45	0 11	− 7	—	—	—	—
II		1·2	45	0 11	− 7	—	—	—	—
III		1·2	45	e 1 26	+68	—	—	—	—
I	Venice	1·8	284	i 0 23	− 5	i 0 45	− 6	—	3·9
II		1·8	284	i 0 25	− 3	0 47	− 4	—	4·2
III		1·8	284	1 7	+39	—	—	—	—
I	Graz	2·2	11	0 24	−10	—	—	—	1·0
II		2·2	11	i 0 25	− 9	0 50	−10	—	1·0
I	Sarajevo	2·8	114	e 0 29	−15	1 15	− 2	—	1·4
II		2·8	114	e 0 30	−14	1 4?	−13	—	—
I	Florence	2·8	244	0 37	− 7	1 17	0	—	1·8
II		2·8	244	0 35	− 9	—	—	—	1·8
III		2·8	244	0 37	− 7	—	—	—	—
I	Innsbruck	3·3	313	e 0 40	−12	i 1 26	− 5	—	2·0
II		3·3	313	e 0 35	−11	i 1 26	− 5	—	—
I	Vienna	3·4	19	e 0 44	− 9	1 35	+ 1	—	1·9
II		3·4	19	e 0 46	− 7	—	—	—	1·8
III		3·4	19	—	—	—	—	e 2·8	3·5
I	Rocca di Papa E.	3·6	205	i 1 6	+10	i 1 34	− 5	i 2·1	2·7
I	N.	3·6	205	i 1 5	+ 9	i 1 31	− 8	—	2·3
II	E.	3·6	205	e 1 9	+13	1 33	− 6	i 2·1	2·6
II	N.	3·6	205	—	—	i 1 34	− 5	i 2·0	2·3
III		3·6	205	e 0 59	+ 3	i 1 39	0	—	3·1
I	Budapest	3·9	49	1 3	+ 2	e 2 0?	+13	—	—
II		3·9	49	1 7	+ 6	—	—	—	—
I	Belgrade E.	4·0	91	e 0 52	−10	i 1 55	+ 5	—	2·1
I	N.	4·0	91	e 1 7	+ 5	i 1 54	+ 4	—	2·2
II	E.	4·0	91	e 0 58	− 4	e 2 3	+13	—	2·2
II	N.	4·0	91	e 1 7	+ 5	e 1 59	+ 9	—	2·2
I	Naples	4·1	186	e 1 38	+34	e 2 28	+35	—	—
II		4·1	186	e 2 12	?S	(e 2 12)	+19	—	—
I	Pompeii	4·2	182	e 1 30	+25	e 2 45	+50	—	—
II		4·2	182	—	—	e 2 44	+49	—	—

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
I Zurich	4·9	301	i 1 7	− 9	i 2 31	+17	—	2·7
II	4·9	301	e 0 5	−71	i 2 29	+15	—	—
III	4·9	301	1 28	+12	—	—	—	2·3
I Moncalieri	5·0	272	1 9	− 8	2 30	+13	3·1	4·4
II	5·0	272	—	—	e 2 19	+ 2	3·6	—
III	5·0	272	e 1 2	−15	—	—	—	—
I Cheb	5·3	343	e 1 14	− 8	e 2 42	+17	—	3·4
II	5·3	343	—	—	e 2 44	+19	—	3·1
I Strasbourg	6·0	309	e 1 17	−15	e 2 32	−12	3·0	3·5
II	6·0	309	e 2 23	+51	e 3 7	+23	3·3	3·5
III	6·0	309	—	—	e 2 39?	− 5	—	—
I Besançon	6·5	294	i 1 27	−12	—	—	—	3·4
II	6·5	294	e 2 37	+58	3 28	+31	(3·5)	—
II Puy de Dôme	8·4	280	—	—	4 4?	+17	—	—
I Uccle	9·1	313	e 2 6	−12	—	—	e 4·5	—
II	9·1	313	—	—	—	—	e 4·8	—
I Hamburg	9·2	342	—	—	e 4 0?	− 8	—	6·0
II	9·2	342	—	—	—	—	e 4·8	—
I Paris	9·2	299	e 2 39	+20	e 4 51	+43	5·2	—
II	9·2	299	—	—	—	—	e 5·1	—
I De Bilt	9·6	322	—	—	—	—	e 4·7	—
II	9·6	322	—	—	—	—	e 6·2	—
I Athens	9·7	133	e 2 45	+19	e 4 42	+21	e 5·2	5·6
I Konigsberg	10·5	18	—	—	e 5 38	+55	e 6·6	8·5
II	10·5	18	—	—	—	—	e 5·1	8·9
I Oxford	12·6	308	—	—	—	—	e 6·8	7·4
I Bidston	14·4	313	—	—	7 21?	?L	(7·4?)	8·2
I Upsala	15·0	6	—	—	—	—	e 8·0	—
I Eskdalemuir	15·4	318	—	—	—	—	8·0	—
I Edinburgh	15·7	320	—	—	—	—	e 8·0	—
I Granada	15·9	247	—	—	6 46	− 7	8·2	10·2
II	15·9	247	—	—	—	—	7·2	—
I Pulkovo	17·4	27	3 54	−16	—	—	—	9·5
II	17·4	27	—	—	—	—	e 8·6	—
I Kucino	18·1	46	—	—	—	—	e 9·8	—
I Ekaterinburg	30·5	51	—	—	—	—	15·0	—

Additional readings and notes: Laibach II MN = +0·4m. Zagreb I reading is given for 5h., III i = +1m.50s., +1m.56s., and +2m.22s. Venice I MN = +2·6m., II MN = +3·5m. Graz I iP = +26s., II e = +21s. Sarajevo I P = +33s., II P = +33s. Florence I P = +40s. Innsbruck I MNW = +1·8m. Vienna I iPZ = +45s., P = +56s., PR_1 = +1m.20s. and +1m.29s., SR_1 = +1m.42s., MNZ = +1·8m., II P = +59s., and several other i readings. Rocca di Papa I PZ = +1m.3s., III MN = +2·0m. Budapest I iE = +2m.10s., iN = +2m.15s., and +2m.44s., i = +2m.19s., and +2m.38s. Belgrade I iPE = +1m.6s. Moncalieri II S? = +3m.20s. Cheb I eS = +2m.44s., MN = +3·6m. Strasbourg I P = +1m.35s. Athens I MN = +7·0m. Granada II e = +10m.0s. Pulkovo I MN = +9·6m. Kucino I e = +10m.14s., +11m.48s., and +13m.30s.

Sept. 11d. 5h. 9m. 0s. Epicentre 12°·0N. 127°·0E.

A = −·589, B = +·781, C = +·208; D = +·799, E = +·602; G = −·125, H = +·166, K = −·978.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	6·4	295	i 2 42	+64	—	—	i 5·0	—
Batavia	27·1	229	6 15	+16	10 3	−40	—	—
Ekaterinburg	67·1	327	i 10 55	− 4	—	—	38·0	—
Kucino	79·6	325	—	—	e 22 42	+23	—	—
Pulkovo	83·0	330	12 18	−18	e 22 50	− 7	46·5	—
De Bilt	98·8	328	—	—	—	—	e 58·0	—
Eskdalemuir	100·9	334	—	—	—	—	51·0	—
Chicago N.	117·5	29	—	—	—	—	e 59·0	—

Chicago gives also eE = +43m.0s.

Sept. 11d. Readings also at 4h. (Granada and near Laibach), 9h. (La Paz), 10h. (Budapest and Port au Prince), 12h. (Irkutsk), 15h. (Pulkovo, Ekaterinburg, Irkutsk, and Ottawa), 16h. (La Paz (2) and Simla), 17h. (Irkutsk, Ekaterinburg, and Pulkovo), 23h. (Manila).

Sept. 12d. 0h. 48m. 6s. Epicentre 43°·0N. 93°·0E. (as on 1924 July 12d.).

A = −·038, B = +·730, C = +·682 ; D = +·999, E = +·052 ;
G = −·036, H = +·681, K = −·731.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Ekaterinburg		24·6	315	i 5 36	+ 2	10 0	+ 5	12·9	—
Phu-Lien	N.	25·0	148	—	—	—	—	14·6	—
Kucino		36·9	310	—	—	—	—	i 20·4	—
Pulkovo		40·7	318	e 7 55	− 6	e 14 5	−12	23·4	25·8
Upsala		46·9	319	—	—	—	—	e 26·9	—
De Bilt		56·3	313	—	—	—	—	e 29·9	—
Strasbourg		56·5	308	—	—	—	—	e 27·9	—
Uccle		57·3	312	—	—	—	—	e 30·9	—
Eskdalemuir		58·9	320	—	—	e 18 22	+12	30·9	—
Paris		59·4	311	—	—	—	—	e 31·9	36·9
Granada		69·8	302	e 22 18	?S	(e 22 18)	+114	e 41·1	44·6

Additional readings : Kucino e = 0h.47m. and 1h.14m.30s. Pulkovo MN = +27·0m. Eskdalemuir e = +22m.54s. = SR_1 +4s.

Sept. 12d. 9h. 26m. 0s. Epicentre 8°·0S. 75°·0W.

A = +·256, B = −·956, C = −·139 ; D = −·966, E = −·259 ;
G = −·036, H = +·134, K = −·990.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
La Paz	E.	10·8	143	2 45	+ 4	5 49	+59	7·8	7·9
	N.	10·8	143	—	—	5 45	+55	6·9	8·6
La Plata	E.	31·1	152	—	—	—	—	18·2	19·6
Rio de Janeiro	N.	34·0	120	e 11 38	?S	(e 11 38)	−62	(i 18·1)	21·2
Georgetown	E.	46·9	358	—	—	(15 40)	0	15·7	—
Chicago		51·1	349	—	—	—	—	e 29·0	33·8
Toronto	N.	51·8	356	9 15	− 4	e 16 40	− 1	27·0	—
Ottawa	N.	53·4	0	e 9 28	− 1	e 17 3	+ 2	27·0	—
Malaga		79·5	50	e 12 37	+21	e 22 25	+ 7	—	—
Granada		80·3	50	i 12 24	+ 3	e 21 20	−67	e 30·7	34·2
Toledo		80·9	47	e 12 24	0	e 22 32	− 2	e 37·3	47·6
Paris		87·9	40	—	—	e 23 0?	[−14]	—	—
Uccle		89·5	39	13 8	− 5	e 23 37	[+12]	e 43·0	—
De Bilt		90·3	38	13 13	− 5	e 24 7	−10	e 43·0	—
Strasbourg		91·2	41	—	—	e 24 0?	−26	—	—
Pulkovo		104·6	30	e 18 37	?PR_1	—	—	48·0	—
Ekaterinburg		120·3	26	e 20 31	?PR_1	—	—	34·0	—

Additional readings : La Plata LN = +18·6m., MN = +23·7m. Rio de Janeiro gives LN as iSN, also SN = +15m.38s., iLE = +18·0m. Chicago eN = +20m.30s. = SR_1 +3s., e = +25m.12s., LN = +30·8m. Toronto LE = +29·1m. ; T_s = 9h.25m.56s. Toledo iZ = +12m.29s.

Sept. 12d. 14h. 14m. 48s. Epicentre 1°·0S. 21°·5W. (as on 1925 Aug. 20d.).

A = +·930, B = −·366, C = −·017 ; D = −·367, E = −·930 ;
G = −·017, H = +·006, K = −1·000.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
San Fernando	40·0	20	—	—	—	—	16·2	22·7
Malaga	40·9	22	e 8 54	+52	e 13 38	−42	—	—
Granada	41·6	21	i 7 58	−10	e 14 26	− 3	e 21·7	26·9
Toledo	43·8	20	e 8 11	−13	e 14 40	−19	e 18·3	22·8
La Paz	48·5	249	e 9 13	+16	—	—	24·0	24·8
Paris	53·9	20	e 13 6	?PR_2	e 17 7	− 1	23·2	29·2
Strasbourg	55·6	23	e 9 44	+ 1	e 17 30	+ 1	24·2	35·2
Uccle	56·2	20	—	—	17 36	0	e 24·2	—

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
De Bilt	57·6	20	10 7	+11	18 0	+ 6	e 25·2	34·1
Cheb	58·7	25	—	—	—	—	e 25·2	46·2
Edinburgh	58·8	12	—	—	—	—	e 23·2	—
Hamburg	60·5	21	—	—	—	—	e 34·2	—
Ottawa	66·5	322	—	—	e 19 52	+ 8	e 27·5	—
Toronto N.	68·1	318	—	—	e 19 35	−28	29·2	—
Pulkovo	72·7	25	e 11 40	+ 6	e 21 0	+ 2	35·2	—
Ekaterinburg	86·5	33	12 53	− 3	e 23 21	−15	43·2	—
Irkutsk	111·8	32	—	—	—	—	e 56·2	—

Additional readings and notes: San Fernando MN = +22·2m. Granada i = +10m.0s. = PR_1 +18s., and +14m.36s. Toledo e = +18m.2s. = SR_1 −4s., MNW = +22·6m. Paris e = +15m.5s., MN = +34·2m. De Bilt eZ = +12m.11s. = PR_1 −21s., MN = +38·0m. Cheb readings have been diminished by 1h. Irkutsk L = +65·2m.

Sept. 12d. Readings also at 0h. (Malabar), 6h. (near Manila), 17h. (Ekaterinburg (2)), 9h. (near Granada), 10h. (near Osaka and Mizusawa), 11h. (Irkutsk and La Paz), 21h. (La Paz), 22h. (Ekaterinburg (2) and near Amboina).

Sept. 13d. Readings at 0h. (near Sumoto), 1h. (near Amboina), 2h. (Taihoku), 4h. (La Paz and near Amboina), 6h. (Ekaterinburg and Pulkovo), 7h. and 8h. (Manila), 15h. (Ekaterinburg), 16h. (Irkutsk), 19h. (Malabar and near Batavia).

Sept. 14d. 9h. 6m. 45s. Epicentre 39°·0N. 31°·0E. (as on Sept. 1d.).

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

Several assumptions of an error of 1m. must be made if this is to be regarded as a repetition of Sept. 1d.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·8	261	e 1 45	+15	e 2 52	+13	e 3·1	4·2
Belgrade	9·8	310	e 0 24	−123	e 3 50	−33	—	5·0
Pulkovo	20·7	359	e 3 47	−62	e 9 38	+60	—	—
De Bilt	22·1	315	—	—	e 8 35	−32	e 11·2	—
Uccle	22·1	311	—	—	e 8 27	−40	e 10·8	—
Ekaterinburg	26·3	38	e 4 59	−52	9 17	−71	13·2	—

Athens gives also MN = +4·1m.

Sept. 14d. Readings also at 6h. (near Amboina), 8h. (near Mizusawa), 12h. (Ottawa and Toronto), 13h. (Cape Town), 15h. (Irkutsk and Agana), 19h. (La Paz, Ekaterinburg, and near Tacubaya), 20h. (La Paz).

Sept. 15d. 20h. 53m. 24s. Epicentre 12°·0N. 127°·0E. (as on Sept. 11d.).

A = −·589, B = +·781, C = +·208; D = +·799, E = +·602; G = −·125, H = +·166, K = −·978.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	6·4	295	e 1 40	+ 2	(i 3 2)	+ 7	i 3·0	3·9
Irkutsk	44·2	341	—	—	—	—	e 20·6	—
Ekaterinburg	67·1	327	11 3	+ 4	—	—	34·1	—
Pulkovo	83·0	330	e 12 41	+ 5	e 22 41	−16	38·1	—
De Bilt	98·8	328	—	—	—	—	e 55·6	—

Additional readings: Manila MN = +3·4m. Irkutsk L = +25·6m. De Bilt eL = +58·6m.

Sept. 15d. Readings also at 0h. (Zagreb), 2h. (Ekaterinburg), 5h. (La Paz (2), Toronto, Ottawa, Uccle, De Bilt, and Eskdalemuir), 11h. (near Wellington), 13h. (Apia and near Sumoto), 16h. (La Paz), 23h. (La Paz and La Plata).

Sept. 16d. Readings at 1h. (Riverview), 3h. (Ottawa, Chicago, Riverview, and Victoria), 4h. (Toronto), 5h. (Riverview), 17h. (Cape Town), 19h. (near Sumoto), 21h. (Pulkovo, Ekaterinburg, Baku, Cheb, and near Sumoto), 23h. (Ekaterinburg).

Sept. 17d. Readings at 4h. (Ekaterinburg), 8h. (near Hukuoka and Nagasaki), 17h. (La Paz and near Amboina), 19h. (Baku, Irkutsk, and near Amboina), 20h. (La Paz), 22h. (near Manila), 23h. (Baku, Ekaterinburg, Pulkovo, and Uccle).

Sept. 18d. Readings at 11h. (near Sumoto and near Manila), 12h. (Taihoku, Pulkovo, Ekaterinburg, and near Tacubaya).

Sept. 19d. Readings at 0h. (Pulkovo and Ekaterinburg), 1h. (Ekaterinburg and Malabar), 3h. (near Kobe and Sumoto), 7h. (near Hukuoka and Nagasaki), 9h. (near Nagasaki), 12h. (near Sumoto), 13h. (Taihoku), 14h. and 17h. (near Sumoto).

Sept. 20d. 7h. 10m. 30s. Epicentre 1°·5S. 93°·5E. (as on 1923 Sept. 5d.).

A = −·061, B = +·998, C = −·026; D = +·998, E = +·061; G = +·002, H = −·026, K = −1·000.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Batavia	14·1	110	3 30	+ 3	6 11	+ 1	i 7·5	—
Malabar	15·2	112	3 48	+ 6	—	—	—	—
Colombo	16·0	302	9 10	?L	—	—	11·2	13·5
Kodaikanal	19·8	307	9 12	?S	(9 12)	+53	12·3	15·4
Hyderabad	24·1	323	5 20	− 9	9 28	−18	—	14·8
Phu-Lien	25·7	29	e 5 55	+10	i 9 50	−26	12·5	—
Bombay	28·8	316	10 11	?S	(10 11)	−62	—	—
Hong Kong	31·2	41	6 56	+16	—	—	—	—
Manila	31·6	60	e 12 3	?S	(e 12 3)	+ 2	18·5	—
Simla	36·1	336	—	—	—	—	e 20·9	—
Melbourne	59·5	134	—	—	e 23 0	?SR$_1$	—	39·2
Sydney	62·8	128	30 0	?L	—	—	40·8	42·5
Ekaterinburg	64·0	343	i 15 20	?PR$_2$	i 19 58	+45	32·5	42·1
Pulkovo	78·2	334	12 53	+45	e 22 40	+38	39·0	51·5
De Bilt	90·2	323	—	—	—	—	e 51·5	—
Ottawa	135·1	349	—	—	—	—	e 76·7	87·5
Toronto N.	137·4	352	—	—	—	—	83·5	—
La Paz	154·5	225	20 57	[+56]	—	—	—	—

Additional readings and notes: Batavia i = +4m.4s. Pulkovo MZ = +51·6m.

Sept. 20d. 18h. 6m. 52s. Epicentre 39°·0N. 31°·0E. (as on Sept. 14d.).

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

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	5·8	261	e 1 18	−12	—	—	1 1·9	2·3
Baku	14·5	79	—	—	e 7 20	+60	9·2	—
Cheb	17·2	316	—	—	—	—	e 9·1	12·1
Moncalieri	18·2	297	—	—	e 7 32	−12	—	—
Strasbourg	19·3	307	—	—	—	—	e 12·1	—
Pulkovo	20·7	359	e 5 4	+15	—	—	11·6	—
De Bilt	22·1	315	—	—	—	—	e 12·1	—
Paris	22·6	305	—	—	—	—	e 14·1	—
Ekaterinburg	26·3	38	—	—	(10 38)	+10	10·6	—

Additional readings: Athens MN = +2·6m. Moncalieri S = +8m.55s.

Sept. 20d. Readings also at 2h (La Paz and near Athens), 3h. (Florence), 4h. (Zante), 6h. and 11h. (La Paz), 15h. (Apia and Victoria), 16h. (Ekaterinburg).

Sept. 21d. Readings at 1h. (near Mizusawa), 5h. (La Paz), 8h. (La Paz and near Amboina), 9h. (Ekaterinburg and near Sumoto), 10h. (near Sumoto), 11h. (Manila), 15h. (La Paz (2) and Athens), 16h. (Apia and Baku), 17h. and 20h. (Cape Town), 21h. (La Paz (2)).

Sept. 22d. 6h. 8m. 36s. Epicentre 12°·0N. 127°·0E. (as on Sept. 15d.).

A = −·589, B = +·781, C = +·208 ; D = +·799, E = +·602 ;
G = −·125, H = +·166, K = −·978.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	6·4	295	e 1 39	+ 1	(i 3 0)	+ 5	i 3·0	3·6
Batavja	27·1	229	10 5	?S	(10 5)	−38	—	—
Ekaterinburg	67·1	327	10 57	− 2	—	—	26·4	—
Pulkovo	83·0	330	—	—	—	—	e 44·4	—
De Bilt	98·8	328	—	—	—	—	e 55·4	—
Eskdalemuir	100·9	334	—	—	—	—	57·4	—

Manila gives also MN = +3·8m.

Sept. 22d. Readings also at 3h. (La Paz, Pulkovo, Ekaterinburg, and near Nagasaki), 5h. (near Port au Prince), 20h. (Ekaterinburg).

Sept. 23d. 20h. 12m. 15s. Epicentre 36°·5N. 70°·5E. (as on 1925 May 14d.).

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

The correction for focal depth +0·020 of 1925 May 14d. has been retained.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Simla	E.	−0·1	7·7	132	1 39	−16	2 51	−35	—	—
Baku		−0·6	16·6	290	—	—	e 6 56	+ 1	9·4	—
Ekaterinburg		−0·9	21·4	345	e 4 56	+ 9	e 8 42	+ 8	11·8	—
Irkutsk		−1·3	28·4	46	—	—	e 12 28	+105	14·8	—
Pulkovo		−1·6	34·6	327	—	—	—	—	21·8	—
Cheb		−1·8	43·2	307	e 3 45	?	—	—	—	14·8

Simla gives also PN = +1m.27s. (O−C = −28s.). Irkutsk : Is S = SR_3 +16s.?

Sept. 23d. Readings also at 18h. (Baku and near Athens), 19h. (near Athens), 22h. (near La Paz), 23h. (Ekaterinburg and near Athens).

Sept. 24d. 4h. 38m. 36s. Epicentre 27°·5N. 55°·0E.

A = +·509, B = +·727, C = +·462 ; D = +·819, E = −·574 ;
G = +·265, H = +·378, K = −·887.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Ksara	17·6	297	4 3	− 9	—	—	—	—
Bombay	18·5	114	4 6	−17	7 43	− 8	—	—
Piatigorsk	19·1	333	i 4 46	+16	i 8 26	+22	—	12·9
Simla	19·6	74	—	—	—	—	—	14·1?
Dehra Dun	20·3	77	7 4	+139	10 34	+125	16·6	17·2
Helwan	20·9	282	4 53	+ 1	i 8 51	+ 9	—	15·5
Hyderabad	23·8	110	5 5	−21	9 37	− 3	13·2	16·4
Kodaikanal	27·3	125	13 24	?L	—	—	(13·4)	—

Continued on next page.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Athens	E.	28·1	300	e 6 5	− 4	i 10 53	− 8	12·7	20·4
	N.	28·1	300	—	—	i 10 56	− 5	—	19·5
Ekaterinburg		29·6	6	e 7 19	?PR_1	11 21	− 6	15·4	17·4
Kucino		30·8	341	e 7 37	+61	e 12 44	+56	15·4	—
Budapest	N.	34·3	316	—	—	e 10 24?	−140	—	—
Pompeii		35·7	302	e 12 15	?S	(e 12 15)	−51	—	—
Zagreb		35·8	311	e 8 16	+56	e 13 54	+47	e 22·4	—
Vienna		36·3	317	7 18	− 6	13 5	− 9	—	27·5
Pulkovo		36·4	340	7 22	− 3	13 7	− 9	16·9	28·2
Graz		36·5	314	7 27	+ 1	12 16	−61	—	26·6
Konigsberg		37·0	327	—	—	e 13 18	− 6	e 19·1	25·4
Rocca di Papa		37·2	304	7 28	− 4	—	—	—	—
Florence		38·6	306	13 24	?S	(13 24)	−22	—	22·4
Innsbruck		39·2	313	i 13 46	?S	(i 13 46)	− 8	—	—
Cheb		39·4	317	e 7 44	− 6	i 13 52	− 5	e 25·4	28·4
Upsala		41·1	333	—	—	e 14 10	−12	—	28·8
Zurich		41·1	311	e 7 57	− 7	e 14 6	−16	—	—
Moncalieri		41·2	309	i 9 53	+108	i 17 32	+188	24·6	28·9
Strasbourg		41·9	313	e 8 5	− 5	e 14 32	− 2	21·4	29·2
Hamburg		42·0	321	e 7 48	−23	e 14 24?	−11	e 22·4	28·4
De Bilt		44·3	318	8 29	+ 1	15 5	− 1	e 22·4	29·5
Algiers		44·4	296	e 8 11	−18	15 0	− 7	22·8	28·9
Uccle		44·7	316	e 8 27	− 4	15 6	− 5	e 21·4	—
Paris		45·3	313	—	—	e 16 19	+60	26·4	29·4
Oxford		48·2	316	—	—	i 15 54	− 2	19·5	31·8
Bidston		49·5	319	10 13?	+69	16 19	+ 6	28·3	33·4
Granada		49·7	296	e 8 13	−52	i 16 21	+ 6	e 21·3	31·6
Eskdalemuir		49·8	321	—	—	e 16 24?	+ 8	26·4	—
Edinburgh		49·9	321	—	—	—	—	e 20·4	37·4
Ottawa	E.	94·4	328	—	—	—	—	e 54·4	—
Victoria		104·0	359	—	—	—	—	59·0	66·6

Additional readings: Simla MN = +13·2m.? Budapest eE = +11m.24s.? Zagreb e = +9m.13s. = PR_2 +11s. Vienna SR_2 = +16m.11s. Pulkovo PR_2 = +8m.50s., MN = +25·7m., MZ = +28·9m. Konigsberg e = +17m.54s. Rocca di Papa eP = +7m.12s. Florence S = +14m.48s. Cheb i = +19m.38s. Moncalieri: Is P = PR_1 +17s. and S = SR_1 +20s.? De Bilt MN = +28·6m., MZ = +29·7m. Uccle SR_1 = +18m.18s. Granada eS = +14m.55s. Ottawa eLN? = +52·4m.

Sept. 24d. 13h. 33m. 24s. Epicentre 40°·0N. 12°·5E. (as on 1917 Dec. 28d.).

A = +·748, B = +·166, C = +·643; D = +·216, E = −·976; G = +·628, H = +·139, K = −·766.

Some of the readings suggest that there were at least two shocks separated by an interval of about 20sec.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Rocca di Papa	1·7	3	i 0 22	− 4	i 0 40	− 8	—	0·8
Pompeii	1·7	64	i 0 27	+ 1	e 0 38	−10	—	1·1
Florence	3·9	346	1 1	0	1 41	− 6	—	2·1
Venice	5·5	358	1 36	+11	2 51	+20	—	3·5
Moncalieri	6·1	326	1 49	+16	2 53	+ 7	3·5	13·8
Zagreb	6·3	22	i 1 26	−10	i 2 27	−25	—	2·8
Innsbruck	7·3	354	i 1 32	−19	i 2 48	−30	—	—
Graz	7·4	16	e 1 24	−28	e 2 32	+11	—	3·3
Belgrade	7·6	48	i 1 53	− 2	i 3 26	0	—	3·5
Zurich	7·9	340	e 1 41	−19	—	—	—	4·6
Barcelona	8·0	284	e 2 24	+23	—	—	e 6·0	7·6
Algiers	8·0	249	e 0 22	−99	e 4 58	?L	5·8	6·9
Besançon	8·6	329	e 2 34	+24	4 54	+61	—	—
Vienna	8·7	17	e 1 42	−30	3 13	−43	—	4·8
Budapest	8·8	30	e 2 6	− 7	i 3 57	− 1	—	—
Athens	9·0	100	e 1 59	−17	3 31	−32	—	5·0
Strasbourg	9·2	340	e 2 33	+14	4 3	− 5	—	5·2
Cheb	10·1	359	—	—	e 4 21	−11	—	6·1
Alicante	E. 10·2	265	3 41	+68	6 50	+135	11·3	—
Paris	11·3	325	e 4 44	+115	e 5 58	+56	7·0	7·6

Continued on next page.

	Δ °	Az. °	P. m. s.	O−C. s.	S. m. s.	O−C. s.	L. m.	M. m.
Uccle	12·2	335	e 3 36	+34	—	—	e 6·6	—
Toledo	12·7	275	e 3 3	− 6	e 6 21	+44	e 7·1	10·5
Granada	12·9	262	i 3 31	+19	6 22	+40	7·7	10·4
De Bilt	13·1	340	—	—	—	—	e 6·6	8·2
Hamburg	13·7	354	—	—	e 5 36?	−25	—	7·6
Malaga	13·7	262	e 3 32	+10	—	—	—	—
Oxford	15·1	326	—	—	—	—	i 8·2	—
San Fernando	15·1	262	—	—	—	—	9·3	10·1
Konigsberg	15·8	17	—	—	e 6 0	−50	e 8·0	12·1
Bidston	17·1	327	—	—	—	—	—	10·3
Eskdalemuir	18·5	331	—	—	—	—	9·6	—
Upsala	20·1	7	—	—	—	—	e 10·0	—
Pulkovo	22·7	24	5 42	+29	9 33	+14	11·1	15·3
Kucino	23·0	38	—	—	e 8 42	−43	e 12·5	—
Ekaterinburg	35·2	45	—	—	e 12 1	−57	16·6	—
Irkutsk	60·4	45	—	—	—	—	e 29·6	—

Additional readings: Rocca di Papa $PR_1 = +24$s. Zagreb $iPR_1 = +1$m.35s., iPS = +2m.12s. Innsbruck iPR = +2m.42s. Graz MN = +4·0m. Belgrade iP = +1m.32s., PS = +3m.9s. Vienna iZ = +1m.57s., +2m.38s., +2m.43s., and +3m.17s., $PR_2 = +2$m.14s., iN = +3m.26s., $SR_1 = +3$m.46s., MZ = +4·4m. Budapest eE = +3m.36s.? and +4m.7s., iN = +4m.28s. Athens iN = +2m.40s., iS = +3m.36s., MN = +5·9m. Strasbourg MN = +5·6m. Toledo MNW = +9·4m. Granada i = +6m.31s., MZ = +9·9m. De Bilt MN = +7·9m. Oxford i = +9m.56s. San Fernando MN = +12·1m. Irkutsk L = +35·6m.

Sept. 24d. Readings also at 0h. (Chicago, Ottawa, Toronto, and Victoria), 1h. (Rio de Janeiro and Ekaterinburg), 2h. (Pulkovo, Rio de Janeiro, and near Nagasaki), 3h. (Kobe and Ekaterinburg), 8h. (near Athens), 9h. (near Sumoto), 12h. (La Paz and near La Plata), 13h. (Rocca di Papa), 14h. (Irkutsk, Pompeii, and near Rocca di Papa), 18h. (near Kobe and Sumoto), 19h. (near Tacubaya), 22h. (Apia and Ekaterinburg), 23h. (Baku, Pulkovo, Ekaterinburg, Eskdalemuir, Ottawa, Toronto, and near Mizusawa).

Sept. 25d. 2h. 32m. 24s. Epicentre 19°·0N. 100°·0W. (as on 1925 Aug. 7d.).

A = −·164, B = −·931, C = +·326; D = −·985, E = +·174; G = −·057, H = −·321, K = −·946.

Tentative origin.

		Δ °	Az. °	P. m. s.	O−C. s.	L. m.	M. m.
Tacubaya		0·8	62	0 32	+20	1·1	1·3
Oaxaca		3·6	121	0 44	−12	1·4	1·5
Vera Cruz		3·7	86	1 0	+ 2	1·9	2·0
Toronto	N.	30·1	30	—	—	25·0	—
Ottawa		33·2	32	—	—	e 19·6	27·1
Victoria		34·9	333	—	—	23·7	24·9
Ekaterinburg		102·4	10	—	—	52·6	—

Tacubaya readings have been diminished by 4m.

Sept. 25d. 8h. 45m. 10s. Epicentre 5°·6S. 102°·0E. (as on 1920 July 8d.).

A = −·207, B = +·973, C = −·098; D = +·978, E = +·208; G = +·020, H = −·095, K = −·995.

The position 5°·6S. 102°·3E. deduced from the residuals would suit the observed times better, but as there is so little difference between the position the epicentre of 1928 July 8 is retained.

	Δ °	Az. °	P. m. s.	O−C. s.	S. m. s.	O−C. s.	L. m.	M m.
Batavia	4·8	98	1 9	− 5	—	—	—	—
Malabar	5·8	107	i 1 21	− 9	—	—	—	—
Colombo	25·4	299	10 50	?S	(10 50)	+39	12·2	13·6
Phu-Lien	26·8	10	e 5 52	− 3	e 10 39	+ 2	14·8	19·0
Manila	27·6	43	e 6 3	− 1	—	—	7·2	—
Kodaikanal	29·1	303	—	—	—	—	14·8	23·1

Continued on next page.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Hong Kong	30·4	23	6 22	−10	11 33	− 8	14·4	21·0
Hyderabad	32·8	316	e 6 57	+ 2	12 15	− 6	—	24·3
Bombay	37·8	311	3 32	−244	—	—	—	—
Zi-ka-wei	41·2	26	e 7 55	−10	e 14 17	− 7	—	—
Simla E.	43·7	329	—	—	e 14 56	− 2	—	—
Adelaide	44·6	136	—	—	17 54	?SR_1	20·9	24·1
Melbourne	50·5	136	—	—	—	—	—	33·5
Riverview	53·5	129	e 16 41	?S	(e 16 41)	−22	e 26·8	31·7
Ekaterinburg	70·9	339	i 11 32	+10	i 20 52	+15	34·8	48·9
Kucino	80·6	330	—	—	e 22 25	− 5	—	—
Pulkovo	85·8	332	12 54	+ 2	i 23 30	+ 2	41·8	57·7
Pompeii	91·8	311	e 18 40	?PR_1	—	—	—	—
Rocca di Papa	93·2	312	e 18 26	?PR_1	—	—	—	—
Strasbourg	97·0	320	—	—	—	—	e 54·8	—
De Bilt	98·7	322	—	—	e 24 50?	[+33]	e 59·8	70·7
Ottawa	140·2	357	—	—	e 29 38	?	e 81·8	84·8
Toronto N.	142·0	2	—	—	(41 28)	?SR_1	81·8	—

Additional readings: Batavia i = +1m.53s., +2m.24s., +3m.49s., +6m.9s., +7m.51s., +11m.7s., and +14m.42s. Phu-Lien MN = +20·8m. Simla eN = +15m.2s. Adelaide MN = +24·8m. Melbourne e = 8h.43m.6s. Riverview MN = +31·0m. Ekaterinburg PR_1 = +14m.14s., PR_2 = +16m.7s., PR_3 = +17m.21s., SR_1 = +25m.32s., MN = +50·1m., MZ = +54·6m. Rocca di Papa iPE = +18m.33s., iS = +18m.47s. De Bilt MN = +68·4m., MZ = +69·4m.

Sept. 25d. 19h. 37m. 18s. Epicentre 12°·0N. 127°·0E. (as on Sept. 22d.).

A = −·589, B = +·781, C = +·208; D = +·799, E = +·602; G = −·125, H = +·166, K = −·978.

Revised from provisionally adopted 12°·0N. 126°·0E. of 1925 May 7d.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	6·4	295	e 1 36	− 2	(i 3 7)	+12	i 3·1	3·3
Irkutsk	44·2	341	e 8 14	−13	e 14 44	−21	19·7	—
Ekaterinburg	67·1	327	i 11 1	+ 2	19 51	0	32·7	38·2
Baku	72·5	310	—	—	e 20 58	+ 2	39·7	—
Pulkovo	83·0	330	—	—	—	—	46·7	52·8
De Bilt	98·8	328	—	—	—	—	e 55·7	—
Eskdalemuir	100·9	334	—	—	—	—	52·7	—

Additional readings: Manila MN = +4·2m. Ekaterinburg iP = +11m.10s.

Sept. 25d. Readings also at 0h. (De Bilt), 9h. (Manila), 10h. (Irkutsk and Pompeii), 12h. (Irkutsk), 13h. (Irkutsk and near Mizusawa), 15h. (Baku and Ekaterinburg), 16h. (Irkutsk), 17h. (Irkutsk and near Nagasaki (2)), 18h. (Irkutsk, Pulkovo, Baku, and Ekaterinburg), 21h. (Baku and Pulkovo).

Sept. 26d. 5h. 4m. 42s. Epicentre 44°·5N. 4°·0E.

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

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Puy de Dôme	1·4	330	0 19	− 2	0 34	− 5	—	—
Besançon	3·0	32	—	—	e 1 30	+ 7	i 2·1	—
Barcelona	3·4	204	3 26	?	—	—	—	—
Zurich	4·3	47	e 1 54	+47	—	—	—	3·0
Paris	4·4	348	e 1 19	+11	e 1 48	−13	—	1·9
Tortosa	4·5	215	0 28	−42	e 3 51	+107	—	—
Strasbourg	4·8	31	e 2 44	+90	2 54	+43	—	3·0
Rocca di Papa	6·9	111	—	—	e 2 23	−44	—	—
De Bilt	7·6	6	—	—	—	—	e 3·3	—
Toledo	7·6	235	e 3 30	?S	(e 3 30)	+ 4	e 4·0	—
Pompeii	8·6	111	e 2 8	− 2	—	—	—	—
Vienna Z.	9·3	62	—	—	—	—	e 5·9	—

Puy de Dôme gives also e = +2s., PR_1 = +22s., PR_2 = +28s., SR_1 = +1m.1s.

Sept. 26d. 17h. 44m. 36s. Epicentre 12°·0N. 127°·0E. (as on Sept. 25d.).

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Manila	6·4	295	e 1 43	+ 5	(i 3 7)	+12	i 3·1	3·7
Taihoku E.	14·0	339	—	—	—	—	4·4	—
Hong Kong	16·0	312	(3 51)	− 1	(7 0)	+ 5	7·0	9·7
Phu-Lien	21·4	297	e 4 46	−12	e 8 34	−19	10·4	—
Irkutsk	44·2	341	i 8 22	− 5	14 52	−13	23·4	24·6
Ekaterinburg	67·1	327	11 56	+57	19 56	+ 5	31·4	38·3
Baku	72·5	310	e 11 39	+ 6	e 21 12	+16	38·6	42·4
Pulkovo	83·0	330	12 42	+ 6	i 22 54	− 3	45·4	52·4
De Bilt	98·8	328	—	—	—	—	e 48·4	—
Strasbourg	99·2	324	—	—	—	—	53·4	—
Edinburgh	100·5	334	—	—	—	—	—	62·4
Eskdalemuir	100·9	334	—	—	—	—	55·4	—

Additional readings: Manila MN = +3·6m. Hong Kong gives P as S and S as L. Irkutsk SR_1 = +18m.18s. Baku MN = +41·6m., MZ = +45·3m. Pulkovo MZ = +53·6m.

Sept. 26d. Readings also at 0h. (Manila and Ekaterinburg), 1h. (near Sumoto), 3h. (Berkeley), 5h. (near Nagasaki), 6h. (near Manila), 7h. (near Sumoto), 9h. (La Paz), 10h. (Cape Town, Chicago, Vera Cruz, Victoria, Ottawa, near Tacubaya, and near Rocca di Papa), 11h. (Irkutsk, Batavia, Apia, Baku, Pulkovo, La Paz, Manila, Toronto, near Vienna, and near Amboina), 13h. (Kobe and near Sumoto), 17h. (Manila), 18h. (Manila (2) and Ekaterinburg).

Sept. 27d. Readings at 3h. (near Tacubaya), 8h. (Cape Town), 9h. (Florence), 10h. (Baku), 11h. (Ekaterinburg and Irkutsk), 15h. (near Nagoya), 18h. and 20h. (near Sumoto), 22h. (Granada).

Sept. 28d. 21h. 42m. 25s. Epicentre 45°·0N. 77°·0E.

A = +·159, B = +·689, C = +·707; D = +·974, E = −·225; G = +·159, H = +·689, K = −·707.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Simla E.	13·9	179	—	—	—	—	e 6·7	—
Dehra Dun	14·7	177	4 35	+60	5 45	−40	6·8	7·2
Ekaterinburg	15·6	325	i 3 59	+12	6 54	+ 8	8·1	9·2
Irkutsk	19·3	58	4 32	− 1	8 6	− 2	9·6	—
Piatigorsk	24·0	280	—	—	—	—	e 7·6	—
Bombay	26·3	189	9 45	?S	(9 45)	−43	—	—
Kucino	26·7	308	—	—	e 10 59	+24	e 16·6	—
Pulkovo	31·2	315	6 28	−12	e 11 45	− 9	14·6	20·3
Konigsberg	36·6	308	—	—	—	—	e 17·1	19·6
Upsala	37·6	315	—	—	—	—	e 20·0	23·8
Cheb	42·5	302	—	—	—	—	e 19·6	27·1
Hamburg	42·9	308	—	—	—	—	e 22·6	—
Strasbourg	45·9	300	—	—	—	—	24·6	—
De Bilt	46·1	307	—	—	—	—	e 24·6	30·0
Uccle	47·0	306	—	—	—	—	e 24·6	—
Oxford	49·9	309	i 27 35	?I,	i 32 28	?	(i 27·6)	—
Granada	58·7	293	—	—	(e 17 35?)	−32	e 17·6	—

Additional readings: Simla eN = +6m.29s. Ekaterinburg MZ = +10·2m. Piatigorisk reading has been increased by 30m. Kucino e = +14m.38s. Pulkovo MN = +18·1m., MZ = +20·0m. Konigsberg eZ = +18m.29s. De Bilt MN = +26·7m.

Sept. 28d. Readings also at 0h. (Wellington), 1h. and 6h. (Florence), 7h. (near Manila), 13h. (Granada), 22h. (Cheb).

Sept. 29d. 17h. 33m. 40s. Epicentre 18°·0N. 63°·0W.

A = +·432, B = −·847, C = +·309; D = −·891, E = −·454; G = +·140, H = −·275, K = −·951.

See note and alternative solution below.

		Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	m. s.	s.	m. s.	s.	m.	m.
Port au Prince		8·9	275	e 2 18	+ 3	(4 13)	+12	11·3	—
Cheltenham	N.	24·0	333	e 5 23	− 5	9 11	−33	13·8	—
Georgetown		24·2	332	5 20	−10	i 9 39	− 9	e 11·3	—
Fordham		24·7	340	i 5 29	− 6	i 9 41	−16	i 10·3	12·1
Harvard	E.	25·3	346	—	—	9 44	−25	10·8	12·3
	N.	25·3	346	5 41	0	9 35	−34	10·8	12·8
Ithaca		27·0	338	e 6 0	+ 2	10 23	−18	12·3	—
Toronto	N.	29·1	335	e 5 57	−22	i 10 49	−30	13·3	19·8
Ottawa		29·4	342	e 6 32	+10	i 10 50	−34	i 12·5	19·5
Ann Arbor		30·0	328	e 7 8	?PR_1	e 12 44	?SR_1	e 16·0	—
Chicago	E.	31·7	325	—	—	e 11 30	−33	12·8	22·0
La Paz		34·9	190	i 7 10	− 2	14 36	?SR_1	19·3	23·1
Rio de Janeiro		45·2	154	e 15 12	?S	(e 15 12)	− 6	e 23·8	28·8
San Fernando		52·9	58	8 42	−43	16 56	+ 1	25·8	35·0
Malaga		54·4	57	e 9 11	−24	17 11	− 3	21·9	32·6
Toledo		54·9	54	9 36	− 2	17 24	+ 4	e 25·8	27·7
Granada		55·0	57	i 9 36	− 3	i 17 16	− 5	25·4	28·2
Victoria		57·1	318	9 53	0	(17 33)	−14	28·7	35·5
Alicante	E.	57·5	55	9 51	− 5	18 31	+38	18·7	—
Bidston		57·8	39	13 58?	?PR_3	17 59	+ 3	23·6	30·0
Eskdalemuir		58·2	35	e 9 20?	−40	17 56	− 5	26·3	30·3
West Bromwich		58·3	40	18 1	?S	(18 1)	− 2	27·2	30·3
Stonyhurst		58·3	39	e 10 50	+49	e 18 0	− 3	27·3	31·3
Edinburgh		58·4	35	—	—	e 21 20?	?	28·3	31·3
Tortosa		58·5	53	—	—	e 18 5	0	e 28·3	31·8
Oxford		58·5	40	—	—	i 18 2	− 3	26·9	30·3
Dyce		59·3	33	—	—	18 6	− 9	25·5	30·0
Barcelona		59·7	52	—	—	—	—	e 29·3	32·5
Paris		60·5	43	—	—	e 18 20?	−10	26·3	35·3
Uccle		61·9	42	e 10 20?	− 4	18 45	− 2	28·3	30·3
De Bilt		62·5	40	10 30	+ 1	18 54	− 1	e 27·3	33·5
Moncalieri		63·8	49	8 2	−155	i 19 11	0	30·6	—
Strasbourg		63·9	45	e 9 20?	−77	—	—	17·3	31·3
Hamburg		65·5	39	e 10 52	+ 4	i 19 31	0	e 31·3	36·3
Florence		66·4	50	18 20	?S	(18 20)	−82	—	31·3
Innsbruck		66·4	46	i 11 2	+ 8	—	—	—	—
Cheb		67·0	42	e 10 0	−58	e 19 49	− 1	e 31·3	40·3
Rocca di Papa		67·6	51	—	—	e 21 14	+77	—	41·3
Vienna		69·7	44	e 11 17	+ 2	20 20	− 2	e 33·3	37·3
Upsala	E.	69·8	32	—	—	—	—	e 34·3	—
Budapest		71·6	45	—	—	—	—	e 36·3	—
Konigsberg		71·6	38	—	—	e 24 51	?	e 37·3	39·3
Pulkovo		76·1	30	12 4	+ 8	21 34	− 4	35·3	42·3
Kucino		81·1	34	—	—	—	—	40·3	—
Ekaterinburg		91·7	27	e 13 24	− 1	23 45	[+ 7]	41·3	49·9
Baku		94·7	45	—	—	e 24 7	[+11]	46·0	56·8
Irkutsk		108·8	9	—	—	e 27 20?	+ 3	57·3	62·6

Additional readings: Port au Prince S = +7m.56s., a second P is entered as S. Cheltenham ePE = +8m.30s. Georgetown eSN = +9m.35s. Toronto ME = +15·0m. Ottawa MN = +19·3m. Chicago eE = +8m.44s., eN = +11m.20s., MN = +16·3m. Rio de Janeiro S = +18m.50s. = SR_1 +16s., MN = +26·2m. San Fernando MN = +33·3m. Toledo MNW = +31·5m. Granada i = +17m.28s., MZ = +28·4m. Victoria PN is entered as S, LE = +34·8m. Eskdalemuir e = +11m.29s. West Bromwich S = +21m.43s. Tortosa eLN = +24·3m. Dyce PR_3 = +14m.19s. Paris MN = +31·3m. De Bilt SR_1 = +22m.45s., eLN = +26·3m, MN = +33·1m. Konigsberg MN = +43·3m. Pulkovo SR_1 = +27m.20s., MZ = +55·1m. Ekaterinburg e = +17m.15s. = PR_1 − 3s. and +25m.32s., MN = +49·0m. Irkutsk MN = +62·2m., MZ = +62·8m.

After the solution 18°·0N. 63°·0W. had been made it was noticed that the epicentre 18°·0N. 62°·0W. had been used on 1925 July 11d. and previous dates. A new solution was made accordingly, but was not found to be an improvement. The evidence for this judgment is as follows: There are two

Continued on next page.

large groups of stations near azimuths 40° and 330°, which on the second supposition (18°·0N. 62°·0W.) give residuals as below when compared with the *actual observations* of July 7d., which was a large shock:—

Near 40°				Near 330°			
Az.	Station	Resid.	Should be	Az.	Station	Resid.	Should be
°		°	°	°		°	°
28	Ekaterinburg	(−2·0)	(+0·9)	318	Victoria	−3·2	−1·3
35	Eskdalemuir	−0·3	+1·1	323	Chicago	−2·4	−1·2
39	Hamburg	+0·4	+1·2	328	Ann Arbor	+4·2	−1·1
40	Oxford	+0·5	+1·3	331	Georgetown	−1·8	−1·0
40	De Bilt	+0·5	+1·3	331	Cheltenham	−1·8	−1·0
41	Uccle	+0·5	+1·3	334	Toronto	−1·8	−0·9
43	Paris	−0·2	+1·4	336	Ithaca	−0·6	−0·8
45	Innsbruck	+1·6	+1·4	338	Fordham	−1·0	−0·7
48	Moncalieri	+0·8	+1·5	340	Ottawa	+0·9	−0·7
51	Rocca di Papa	(−6·7)	(+1·6)			−2·0	−0·7
52	Tortosa	+2·0	+1·6	344	Harvard	−0·5	−0·5
53	Toledo	+1·7	+1·6				
56	Granada	+1·0	+1·7				
58	San Fernando	−0·3	+1·7				
58	Malaga	−2·8	+1·7				
		+0·8	+1·7				

There are also three outlying stations:

Az.	Station	Resid.	Should be
°		°	°
155	Rio de Janeiro	+1·0	+0·8
190	La Paz	−0·4	−0·3
275	Port au Prince	−0·4	−2·0

The columns headed "should be" show the approximate residuals calculated on the supposition that the epicentre should be moved 2° (in arc) to the West, *i.e.*, to 18°·0N. 64°·0W., as adopted below, and they correspond fairly with those observed. Hence a new solution was made, and incidentally it was found desirable to assume a focal depth of +0·005.

ALTERNATIVE SOLUTION.

Sept. 29d. 17h. 33m. 40s. Epicentre 18°·0N. 64°·0W.

$A = +\cdot417$, $B = -\cdot855$, $C = +\cdot309$; $D = -\cdot899$, $E = -\cdot438$; $G = +\cdot135$, $H = -\cdot278$, $K = -\cdot951$.

A depth of focus 0·005 has been assumed.

		Corr. for Focus	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
		°	°	°	m. s.	s.	m. s.	s.	m.	m.
Port au Prince		−0·0	7·9	275	e 2 18	+18	—	—	(4·2)	—
Cheltenham	N.	−0·2	23·6	334	e 5 23	+ 2	9 11	−22	13·8	—
Georgetown		−0·2	23·8	334	5 20	− 4	i 9 39	+ 3	e 11·3	—
Fordham		−0·2	24·4	342	i 5 29	− 1	i 9 41	− 7	i 10·3	12·1
Harvard	E.	−0·3	25·1	347	—	—	9 44	−15	10·8	12·3
	N.	−0·3	25·1	347	5 41	+ 5	9 35	−24	10·8	12·8
Ithaca		−0·3	26·7	339	e 6 0	+ 8	10 23	− 7	12·3	—
Toronto	N.	−0·3	28·8	336	e 5 57	−16	i 10 49	−19	13·3	19·8
Ottawa		−0·3	29·1	343	e 6 32	+16	i 10 50	−23	i 12·5	19·5
Ann Arbor		−0·3	29·5	330	e 7 8	?PR_1	e 12 44	?SR_1	e 16·0	—
Chicago	E.	−0·4	31·2	324	—	—	e 11 30	−18	12·8	22·0
La Paz		−0·4	34·7	188	i 7 10	+ 3	14 36	?SR_1	19·3	23·1
Rio de Janeiro		−0·5	45·7	153	e 15 12	?S	(e 15 12)	− 6	e 23·8	28·8
San Fernando		−0·5	53·8	59	8 42	−46	16 56	− 4	25·3	35·0
Malaga		−0·6	55·2	59	e 9 11	−26	17 11	− 5	21·9	32·6
Toledo		−0·6	55·7	54	9 36	− 4	17 24	+ 2	e 25·8	27·7
Granada		−0·6	55·9	58	i 9 36	− 5	i 17 16	− 9	25·4	28·2
Victoria		−0·6	56·4	318	9 53	+ 8	17 33	+ 2	28·7	35·5
Alicante	E.	−0·6	58·3	56	9 51	− 6	18 31	+36	18·7	—
Bidston		−0·6	58·4	39	13 58?	?PR_1	17 59	+ 3	23·6	30·0
Eskdalemuir		−0·6	58·8	36	e 9 20?	−40	17 56	− 5	26·3	30·3
West Bromwich		−0·6	58·9	40	18 1	?S	(18 1)	− 2	27·2	30·3
Stonyhurst		−0·6	58·9	39	e 10 50	+49	e 18 0	− 3	27·3	31·3
Edinburgh		−0·6	59·0	36	—	—	e 21 20?	?	28·3	31·3

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		−0·6	59·2	40	—	—	i 18 2	− 4	26·9	30.3
Tortosa		−0·6	59·3	53	—	—	e 18 5	− 2	e 28·3	31·8
Dyce		−0·6	59·9	34	—	—	18 6	− 9	25·5	30·3
Barcelona		−0·6	60·5	52	—	—	—	—	e 29·3	32·5
Paris		−0·6	61·2	44	—	—	e 18 20?	−11	26·3	35·3
Uccle		−0·6	62·5	42	e 10 20?	− 4	18 45	− 2	28·3	30·3
De Bilt		−0·6	63·2	40	10 30	+ 1	18 54	− 2	e 27·3	33·5
Moncalieri		−0·6	64·6	49	8 2	−156	i 19 11	− 2	30·6	—
Strasbourg		−0·6	64·6	45	e 9 20?	−78	—	—	17·3	31·3
Hamburg		−0·6	66·2	39	e 10 52	+ 3	i 19 31	− 1	e 31·3	36·3
Florence		−0·6	67·1	50	18 20	?S	(18 20)	−84	—	31·3
Innsbruck		−0·6	67·1	45	i 11 2	+ 7	—	—	—	—
Cheb		−0·6	67·7	41	e 10 0	−59	e 19 49	− 2	e 31·3	40·3
Rocca di Papa		−0·6	68·4	51	—	—	e 21 14	+74	—	41·3
Vienna		−0·6	70·4	44	e 11 17	+ 1	20 20	− 4	e 33·3	37·3
Upsala	E.	−0·6	70·4	31	—	—	—	—	e 34·3	—
Budapest		−0·6	72·3	45	—	—	—	—	e 36·3	—
Konigsberg		−0·6	72·3	37	—	—	e 24 51	?	e 37·3	39·3
Pulkovo		−0·7	76·7	30	12 4	+ 9	21 34	− 3	35·3	42·3
Kucino		−0·7	81·7	35	—	—	—	—	40·3	—
Ekaterinburg		−0·7	92·1	27	e 13 24	+ 1	23 45	[+ 4]	41·3	49·9
Baku		—	95·3	45	—	—	e 24 7	[+ 8]	46·0	56·8
Irkutsk		—	109·0	9	—	—	e 27 20?	+ 1	57·3	62·6

Sept. 29d. Readings also at 1h. (near Mizusawa), 4h. (La Paz), 5h. (near Nagasaki), 8h. (Zi-ka-wei), 12h. (Toronto, Ottawa, and near Batavia), 18h. (Ekaterinburg and near Manila (2)), 21h. (Kobe and near Manila).

Sept. 30d. 13h. 25m. 25s. Epicentre 34°·0N. 4°·0E. (as on 1924 July 19d.).

A = +·827, B = +·058, C = +·559 ; D = +·070, E = −·998 ;
G = +·558, H = +·039, K = −·829.

Very uncertain.

	Δ	Az.	P.	O−C.	S.	O−C.	L.	M.
	°	°	m. s.	s.	m. s.	s.	m.	m.
Algiers	2·9	344	—	—	—	—	12·6	18·1
Granada	6·9	299	—	—	—	—	—	24·8
Malaga	7·4	294	e 1 57	+ 5	e 3 25	+ 4	—	—
Toledo	8·7	315	e 2 0	−12	4 0	+ 4	—	18·4
San Fernando	8·7	290	—	—	—	—	13·1	15·8
Rocca di Papa	10·3	39	—	—	—	—	e 22·0	23·5
Strasbourg	14·8	10	—	—	—	—	22·6	—
Uccle	16·8	1	—	—	—	—	e 13·6	—
De Bilt	18·1	2	—	—	e 7 35?	− 7	e 13·6	—
Pulkovo	31·0	26	—	—	—	—	29·6	—
Ekaterinburg	44·2	41	e 12 58	?S	(e 12 58)	−127	26·6	34·1
La Paz	85·1	246	(13 1)	+12	—	—	13·0	15·2

Additional readings and notes: Algiers i = 13h.10m.35s., MN = +14·1m. Granada MZ = +24·3m. Toledo MNW = +18·8m. San Fernando MN = +16·1m. Ekaterinburg eSR_1 = +18m.25s., MN = +33·9m.

Sept. 30d. Readings also at 2h. (Ekaterinburg and near Manila), 3h. (Uccle, De Bilt, and Eskdalemuir), 4h. (Kobe (2)), 5h. (Sydney), 8h. (near Athens), 11h. (Wellington, Riverview, and Sydney), 12h. (Ekaterinburg, Ottawa and near Irkutsk) 14h. (Irkutsk), 15h. (near Lick and Berkeley), 22h. (near Sumoto), 23h. (Riverview and Sydney).

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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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