

Public (1899) Department.

ORDINARY M.S.

G.O., No. 484

Dated 2-5-99

INDEXED.

[Despatch Abstract.]

Receiving letter from the
Sydney forms a copy of a paper published
by Professor Milne embodying the results
of his enquiries regarding the differences
of local time to Greenwich mean time
in various parts of the world.

5/5/99

BACK PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

FURTHER PAPERS.

G.O.	No.	Department.	Date.	G.O.	No.	Department.	Date.

Public (1899) Department.

CURRENT No.

From

The Govt of India

Order no 484 of 2-5-99.

Recorded.

No. 16-23-3

En 29.11.99.

Myself.

Dated 20 April 99

Received 27. "

Registered 28. "

Enclosures 1. Pamphlet

Spare copies. -

note. The Observatory Office
are now under the Govt. of India,
and will doubtless receive copies
direct. This copy is sent
"for information" & may be
used as desired.

En

SUBJECT.

Forwarding for information
a copy of a paper published by
Professor Milne, embodying the
results of his enquiries regarding
the differences of local time and
Greenwich mean time in various
parts of the world.

BACK PAPERS.

G.O.	No.	Department.	Date.
	127	Pub.	2.1.98
	357	"	1.3.98
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FURTHER PAPERS.

G.O.	No.	Department.	Date.

CURRENT NO.

Circular No. 16-23-2

FROM

W. M. HAILEY, Esq., I.C.S.,

Offg. Under-Secretary to the Government of India,

To

The Secretary to the Government of Madras.

Simla, the 20th April 1899

Department of Revenue
and Agriculture.

SIR,

(Metecrology)

With reference to Mr. Maconochie's Circular
No. 1-70-2, dated the 6th January 1898, I am directed
to forward, for information, a copy of a paper published
by Professor Milne, embodying the results of his en-
quiries regarding the differences of local time and
Greenwich meantime in various parts of the world.

I have the honour to be,

Sir,

Your most obedient servant,

W. M. Hailey

Offg. Under-Secretary.

B. B. D.

When given for copying _____
 When copied _____
 When examined _____
 When signed _____ } 189 .

READ AGAIN G.O., No. _____, DATED
 189 .

CURRENT No.

ENCLOSURES TO C. No.

ORDER OF GOVERNMENT A A A A A A A

LETTER OF GOVERNMENT.

STATEMENT WITH DITTO.

PAPERS NOT FILED UP, BEING WANT FOR DESPATCH
 IN ORIGINAL.

N.B.—

- A = Copy in full.
- B = Not to be copied.
- P = Copy abstract only.
- Q = Copy heading only.



CIVIL TIME;

OR, TABLES SHOWING THE DIFFERENCES IN
TIME BETWEEN THAT USED IN VARIOUS
PARTS OF THE WORLD AND GREENWICH
MEAN TIME.

By JOHN MILNE, F.R.S.

(From 'The Geographical Journal' for February, 1899.)

CIVIL TIME ;

FOR TABLES SHOWING THE DIFFERENCES IN TIME BETWEEN
THAT USED IN VARIOUS PARTS OF THE WORLD AND GREEN-
WICH MEAN TIME.

By JOHN MILNE, F.R.S.

(From *The Geographical Journal* for February.)

[It is requested that corrections and additions to these tables may be sent to Mr.
John Milne, Royal Geographical Society, Savile Row, London.]

PREFACE.

THE greater part of the information contained in the following tables is based upon replies to a circular which, through the kindness of the Foreign, Colonial, and India Offices, was forwarded to Her Majesty's representatives in various parts of the world.

This circular is here reproduced, first, because it explains the object of the tables; secondly, because it shows the difficulty there is in obtaining the information required; and thirdly, with the hope that persons interested in the matter of time differences will forward notes on the subject, especially in connection with countries and places not included in the following list.

“British Association, Burlington House, London, W.

To

“Sir,—It is, I think, remarkable that there appears to be no publication which shows the corresponding value in Greenwich mean time, of the local time employed throughout the world.

“Such a table is indispensable in order to determine accurately the instant of occurrence of earthquakes, sea-waves, magnetic phenomena, the despatch of telegrams, and many other events, the sequence of which in absolute time has to be determined.

“Although application has been made to the Royal Observatory at Greenwich, to the Royal Geographical Society, to the Central Telegraph Office in London, to the offices of cable companies, and to other possible sources of information, very little has been obtained.

A

"As a secretary of the British Association Committee whose names are appended, I desire to publish in their forthcoming report a table showing the differences between Greenwich mean time as used in England and Scotland and that of the civil times used in various parts of the world.

"By civil time I mean the time used by railways, telegraphs, and for ordinary public affairs.

"If different times are used in various parts of your country, I trust that you will be able to give information relating to the same.

"Feeling assured of the value of the table it is intended to compile, I sincerely trust that you will favour me with a full and explicit statement of the time generally employed in your country. If it is mean time, state the meridian; the observatory, or the place to which this refers; and also, as a check against any misunderstanding, please state distinctly the equivalent of December 1, 9 a.m. G.M.T. in the local time, or times adopted in your own country.

"I have the honour to remain, Sir,

"Your obedient servant,

"JOHN MILNE."

Although the notes based on the replies to the above are marked O.D. (Official Document), it must not be imagined that in all cases the information they convey is absolutely correct, but simply the best, and this in many instances after great trouble, that could be obtained.

A certain number of notes marked L.T.S. are taken from a "List of Time Signals" compiled by Captain T. H. Tizard, R.N., for the use of seamen, as an aid for ascertaining the errors and rates of chronometers, and published by order of the Lords Commissioners of the Admiralty. These signals, in most instances, refer to the mean time at certain ports, and therefore do not necessarily indicate the time used in chronicling events in newspapers, by the railways and telegraphs, and by the public at such places.

Much information relating to the railway and other times used in the United States, Canada, and Mexico, was obtained through Sir Sanford Fleming, Mr. W. F. Allen, and by reference to the 'Traveller's Official Guide,' published at 24, Park Place, 19, Barclay Street, New York. For further information in connection with India, see the 'Indian Telegraph Guide,' published in Calcutta.

Notes marked I.T.B. are compiled from information furnished to the International Telegraph Bureau in response to an inquiry reproduced in the Berne notifications. For these notes I am indebted to W. H. Preece, C.B., F.R.S., who obtained the same from Mr. R. J. Mackay. Those notes which refer to differences of time used for telegraph purposes show many inconsistencies, and judgment must be exercised in their acceptance.

In the table of difference of telegraph time as used by various cable companies and that of Greenwich mean time inconsistencies again appear; but even if the various entries do not in all cases refer to the standard time of the countries to which they are annexed, so long as they have a practical application it seems desirable to record the same. A glance at this table indicates the necessity of greater uniformity, whilst a comparison of the same with the entries which precede it shows that closer approximations are desirable. For example, we find, in the list of times used by telegraph companies, Tokio and Nagasaki entered as being respectively 9h. 18m. and 8h. 40m. fast on Greenwich time. As a matter of fact, the time used throughout Japan since January, 1888, has been 9h. fast on Greenwich.

When a time difference is given to within a second or a fraction of a second, it

must be remembered that such attempts at accuracy are dependent upon determinations of longitude which in themselves, for various reasons, are in most instances but rough approximations to the truth. As illustrative of the greatest accuracy with which this quantity has at present been obtained, we may refer to Madras, and for the accuracy of ordinary determinations to St. Helena.

The arrangement in the tables is alphabetical—in the first according to countries and islands, and in the second according to countries, islands, and towns. The letter F indicates that the time at a given place is "fast," or ahead of Greenwich mean time, whilst the letter S indicates that it is "slow," or behind that of Greenwich. West European time means Greenwich time. Mid or Central European time means one hour in advance of Greenwich. East European time means two hours in advance of Greenwich.

	h.	m.	s.	
ALGERIA	0	9	21 F.	I.T.B. The meridian of Paris. O.D.
ANNAM				(See COCHIN CHINA.)
ARABIA—				
Aden	2	59	54 F.	Meridian of the saluting battery at Aden. O.D.
Muskat	3	54	24 F.	Meridian of Muskat Tidal Observatory, O.D.
Yemen	1	55	56 F.	I.T.B. Meridian of St. Sophia, Constantinople. O.D.
ARGENTINA—				
Buenos Aires	4	16	48.2 S.	This is Cordova time. This is the legal (civil) time for the whole republic, and is telegraphed each day to control the time-pieces in various cities. It is used by railway and telegraph offices, but many citizens in the provinces use a doubtful local time. O.D.
La Plata	3	51	38.95 S.	Local mean time. L.T.S.
AUSTRALIA—				
New South Wales	10	0	0 F.	Since December 22, 1894. On July 23, 1896, the Act was amended, and a time 9h. F. was applied to the municipal district of Broken Hill and the electoral district of Sturt in respect to Licensing and other Acts. O.D.
Queensland—				
Brisbane	10	0	0 F.	In the Standard Time Act of November 27, 1894, issued from the Surveyor-General's Office, Brisbane, there is a table showing the difference between the above time, which is that of the 150th meridian, and the local time of a large number of towns in Queensland. O.D.
South Australia *	9	0	0 F.	O.D.
Victoria—				
Melbourne	10	0	0 F.	O.D.
West Australia	8	0	0 F.	Since July 17, 1895. O.D.

* A bill to repeal the Act of 1894, and make standard time 9h. 30m. F., is now (January, 1899) under consideration.

AUSTRIA	h. m. s. 1 0 0 F.	For railways and for telegrams handed in at railway stations; but other offices keep Vienna time, which is 1h. 5m. 21s. F. I.T.B.
BAHAMAS— Nassau	5 9 29.5 S.	O.D.
BAHRAIN ISLANDS	Oriental time from "sunset to sunset." O.D. See SYRIA.	
BALEARIC ISLANDS— Palma	0 10 32 F.	O.D.
BARBADOS	3 58 29.2 S.	O.D.
BECHUANALAND	1 30 0 F.	Regulated by the Cape Town Signal. O.D.
BELGIUM	0 0 0	Since April 29, 1892, this has been the official time. It is used by railways, telegraphs, and the marine with the twenty-four hours' system, the day commencing after midnight. O.D.
BERMUDA— Ireland island	4 19 18.3 S.	Meridian of the clock tower, Bermuda dock-yard. O.D.
BORNEO, DUTCH	Local mean time. See JAVA.	
BOSNIA	1 0 0 F.	I.T.B.
BRAZIL— Rio de Janeiro	2 52 41.1 S.	Meridian of the observatory. This is used by telegraphs, state railways, and by public offices throughout the greater part of the administration. It is regulated by an electric signal sent to all telegraph stations, and to the state railway each day. In some places a local time is employed. O.D.
BULGARIA	2 0 0 F.	Mean time of Eastern Europe. I.T.B.
BURMA— Rangoon	6 24 40 F.	Time ball observatory at Rangoon. O.D.
CANADA— East coast to 67½°	4 0 0 S.	Inter-Colonial time. Nova Scotia, Prince Edward's island. The time used on the railways from Halifax to Fort William is Eastern time.
67½° to 82½°	5 0 0 S.	Eastern time. New Brunswick, Montreal, Ontario.
82½° to 97½°	6 0 0 S.	Central time. Manitoba, Kewatin. This time is used from Port Arthur and Fort William to Brandon.
97½° to 112½°	7 0 0 S.	Mountain time. Saskatchewan, Assiniboia, Alberta, Athabasca. On the railway Brandon to Donald.
112½° to west coast	8 0 0 S.	Pacific time. British Columbia.
The above times are used by railways and telegraphs. Westward from Port Arthur the twenty-four hours system is used. The time 5h. 0m. 0s. S. on Greenwich is used for railways and telegraphs from Port Arthur and		

CAPE COLONY	h. m. s. 1 30 0 F.	Since February 8, 1892. Regulated by a time signal sent from the General Post Office, Cape Town, to all principal towns. O.D.
CAYENNE	No reply received.	
CELEBES	Local mean time. See JAVA.	
CEYLON—	Madras mean time used from May 1, 1898. Prior to this Colombo mean time, 5h. 4m. 21.9s. F., was used. O.D.	
CHILE— Valparaiso	4 46 30 S.	This is telegraph time used by the offices of the West Coast of America Telegraph Company at Arica, Pisagua, Iquique, Antofagasta, Caldera, La Serena, Coquimbo, Valparaiso, Santiago, Talcahuano, Concepcion, and Coronel in Chile. O.D. Valparaiso mean time is given as 4h. 46m. 34s. S., L.T.S.
CHINA—	8 5 0 F.	This is used by the telegraph companies (Great Northern and Great Eastern). It is approximately Shanghai time. The foreigners at ports on the coast use their own local mean time. The Chinese at most places use an approximate apparent sun time, obtained from sun-dials. O.D.
Amoy	7 52 16.2 F.	Amoy Custom House mean time. L.T.S.
Chifu	8 5 40 F.	O.D.
Chunking	Local mean time should be 7h. 8m. 8s. F. O.D.	
Fuchau	7 57 46.5 F.	Mean time for the meridian of Pagoda anchorage, about 12 miles from Fuchau. O.D.
Hankau	7 37 20 F.	Meridian of Hankau, 114° 20' 0" E. O.D.
Hong Kong, Kaulung	7 36 41.7 F.	L.T.S.
Newchwang	8 9 2 F.	This is local mean time of the Chinese town of Zingtzu, known to foreigners as Newchwang. The real Newchwang is 30 miles to the north-east. O.D. The meridian used is that of the Custom House flagstaff, 122° 15' 30" E. This has recently been corrected to 122° 14' 0" E. A time gun is fired weekly at noon.
Pekin	7 45 54 F.	This is local mean time used by foreigners in Pekin and railways in North China. The telegraphs do not appear to keep a uniform time. It is not Pekin, Tientsin, Shanghai, nor apparent time. O.D.
Shanghai	8 5 43.2 F.	(Zikawei Observatory time). O.D.
	8 5 56.7	is Shanghai mean time. L.T.S.

Fort William to the Atlantic coast. At St. John's (N.B.) a local mean time, 4h. 24m. 16s. S., is used, and local mean times are in use at other places. Halifax uses 4h. 0m. 0s. S. Yarmouth, N.S., has several times. For time used at Dividing Points, see UNITED STATES. O.D.

Since February 8, 1892. Regulated by a time signal sent from the General Post Office, Cape Town, to all principal towns. O.D.

No reply received. Local mean time. See JAVA. Madras mean time used from May 1, 1898. Prior to this Colombo mean time, 5h. 4m. 21.9s. F., was used. O.D.

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Amoy Custom House mean time. L.T.S.

O.D.

Local mean time should be 7h. 8m. 8s. F. O.D.

Mean time for the meridian of Pagoda anchorage, about 12 miles from Fuchau. O.D.

Meridian of Hankau, 114° 20' 0" E. O.D.

L.T.S.

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(Zikawei Observatory time). O.D.

is Shanghai mean time. L.T.S.

CIVIL TIME.

CHINA (<i>continued</i>)—			
Swatau	h. m. s. 7 46 55 F.	Swatau mean time. L.T.S.	
Tientsin	7 49 12 F.	Naval school time. The Tientsin Town Hall clock should be 7h. 47m. F. The civil time is determined by the municipal chronometer, from which the community may every Saturday set their watches. This chronometer, however, has sometimes been known to have an error of three minutes. O.D.	
COCHIN CHINA—			
Saigon	7 16 56 F.	This refers to the meridian of Saigon. This time is used in Lower Laos, Cambodia, Annam. O.D.	
Tongking, Haifong	7 4 39.5 F.	Haifong mean time. L.T.S.	
COLOMBIA (Republic of)	4 56 16.4 S.	This is Bogota time, and is used at the principal towns. For certain smaller towns apparent solar time is in use. After December 1, 1898, it is expected that Bogota time will be used throughout the Republic. O.D.	
CONGO FREE STATE			
CORSICA—	1 0 0 F.	A variation of fifteen minutes in the public clocks of Bogota is not rare. Throughout the territory. O.D.	
Ajaccio	0 25 36 F.	Time in Corsica is measured as that of the meridian 6° 24' 12" east of Paris, which corresponds to the Citadel Lighthouse of Ajaccio. O.D.	
COSTA RICA	5 36 13.13 S.	This is San José mean time, and is used for all purposes. O.D.	
CUBA—			
Havana	5 28 50.45 S.	This refers to the meridian of the observatory. For contributions to the <i>Bulletin</i> of international meteorological observations, a difference of 5h. 30m. Os. S. is used. O.D.	
CURAÇAO	4 35 46.9 S.	5h. 29m. 23.57s. mean time of the meridian. L.T.S.	
CYPRUS—		Curaçao mean time. L.T.S.	
Nicosia	2 14 0 F.	This is the time adopted at the stations of the Eastern Telegraph Company in Cyprus. O.D.	
DENMARK	1 0 0 F.	I.T.B.	
ECUADOR—			
Guayaquil	5 24 15 S.	(It may be noticed that this is 0h. 24m. 15s. fast on New York.) This time is used by the Central and South American Telegraph Company stations in Ecuador. O.D.	
St. Elena	5 24 3 S.	O.D.	

CIVIL TIME.

EGYPT	h. m. s. 2 5 8.9 F.	This is the local mean time of the Abbasizeh observatory. It is used in Cairo, on the Nile, and by railways and telegraphs. O.D. See ALEXANDRIA.
Alexandria	2 4 30.5 F.	A time ball drops to show mean noon at the Great Pyramid. This is the official time for Egypt. O.D.
	1 59 33 F.	The time ball drops a second time for mean noon at Alexandria. O.D.
Port Said	2 9 15 F.	L.T.S.
FALKLAND ISLANDS	3 51 24 S.	O.D.
FIJI—		
Suva	11 55 44 F.	O.D.
FORMOSA	9 0 0 F.	I.T.B.
FRANCE	0 9 21 F.	I.T.B. Paris mean time.
		The <i>Standard</i> of April 7, 1898, says, "Lately the French Chamber of Deputies has passed a law which probably will be approved by the Senate, the text of which is, 'The legal time of France and Algeria is the time which is 9m. 21s. slow on Paris mean time.'" Paris mean time is used by telegraphs and railways, but real railway time is about 5m. slower than this, or 55m. slow on Central European time. Also generally the clocks inside stations are 5m. slow on those outside, these latter showing Paris mean time. Some years ago there was a difference between town time and railway time, but this distinction between a local mean time and Paris mean time is disappearing, and it is only at places without stations that the former is sometimes observed. The times of handing in and receipt of telegrams are usually marked.
GAMBIA—		
Bathurst	1 6 0 S.	Clocks are regulated weekly by the time kept at the telegraph station. O.D.
GERMANY	1 0 0 F.	I.T.B. Used generally.
Potsdam Observatory	0 52 15.4 F.	
Strassburg Observa- tory	0 31 47 F.	
GIBRALTAR	0 21 23 S.	At 10 a.m. daily a telegraph signal is received from Greenwich. O.D.
GOLD COAST—		
Accra	0 0 46 S.	Used throughout the Gold Coast. This is corrected every day by telegraph from Greenwich, and transmitted to all Government telegraph offices. O.D.

CIVIL TIME.

GREAT BRITAIN		Greenwich mean time is the standard time, and is with rare exceptions used for all purposes. Amongst these exceptions we find residents in Canterbury using a time about four minutes fast on Greenwich, and clocks at certain railway stations are sometimes one or two minutes fast. "Apparent Greenwich" and sometimes "local sun" time are used in connection with regulations relating to lamp-lighting. See IRELAND.
GREECE	1 34 53.7 F.	Meridian of Athens. I.T.B.
GUADELOUPE	4 4 0 S.	This approximate local time is regulated by occasional observations. The West Indian and Panama Canal Company use Demerara time, and the Cie Française des Câbles Télégraphiques that of Santiago de Cuba. O.D.
GUATEMALA	6 2 3 S.	Used for all purposes throughout the Republic. O.D.
GUIANA, BRITISH (DEMERARA)— George Town	3 52 39.5 S.	This is post office mean time, and is used throughout the colony.
	3 52 46 S.	is given as the time adopted by the West Indian stations of the West India and Panama Telegraph Company. O.D.
GUIANA, DUTCH— Paramaribo	3 40 35 S.	L.T.S. Paramaribo mean time.
HAWAII	10 30 0 S.	Called standard time. O.D.
HEJAZ	1 55 56 F.	See TURKEY. I.T.B.
HERZEGOVINA	1 0 0 F.	I.T.B.
HONDURAS, BRITISH— Belize	5 52 47 S.	The clock over the Court House, usually regulated by the time kept by ships in the harbour, is the one referred to by the public and public offices. O.D.
HUNGARY	1 0 0 F.	I.T.B.
ICELAND— Reykjavik	1 27 34 S.	O.D.
INDIA		In towns and villages in many parts of India, local and other time is announced by clocks striking, gongs, bells, guns—these signals being given from churches, treasury buildings, forts, telegraph offices, etc. Local time is determined for each place, where there is a Government telegraph office, with reference to its meridian, as so many minutes (the nearest minute to the exact time being taken) in advance of or behind the mean time of the Madras Observatory, which has been adopted as the standard time for the whole of India. This time is telegraphed daily from Madras to every telegraph office. Section XII. of the 'Indian Telegraph Guide,' published in Calcutta, consists of a closely printed table extending over forty-nine pages, showing the difference between Madras time and local mean time for all Government telegraph offices in India.

CIVIL TIME.

INDIA (continued)—

		Madras time is used on through lines of railway, and in recording the time of despatch of foreign telegraphic messages. For all other ordinary public and official transactions, as well as private business, local time is employed. To this, however, there appear to be exceptions, as in Rajputana, Delhi, Umballa, Simla, etc., where Madras time is employed for all purposes. O.D.
		The determinations of the difference between Madras time and Greenwich mean time are as follows:—
	h. m. s.	s.
Series A.	5 20 59.750	±0.155
" B.	5 20 59.910	±0.163
" C.	5 20 59.115	±0.0227
" D.	5 20 59.233	±0.127
" E.	5 20 59.121	±0.125
		Series C. is the most recently determined, and probably the most accurate. (Meteorological reporter to the Government North-West Provinces and Oudh.)
		The Director of the Madras Observatory gives 5h. 20m. 59.4s. F. as the most correct. O.D.
Ajmere—		
Merwara		Madras time is used, but at the Ajmere Observatory the time used is 22m. later than this. O.D.
Baluchistan—	h. m. s.	
Quetta	5 20 59.4 F.	Madras or railway time. O.D.
Bengal—		
Calcutta	5 53 20.77 F.	This time is in ordinary use at Bankura, Bhagalpur, Bardwan, Darjiling, Dinajpur, Hooghly, Howrah, Jalpaiguri, Jessore, Khulna, Malda, Midnapore, Murshidabad, Nadiya, Rajshahi, the Twenty-four Parganas.
		Madras time is used for railways and telegraphs. It is also used by the public at Champaran, Darbhanga, and possibly other places.
		A local mean time is also in use. O.D.
Bombay, Colaba Observatory	4 51 15.7 F.	L.T.S. This is local mean time used at the observatory.
Central Provinces—		
Nagpur		Madras civil time. 5h. 20m. 59.4s. F. O.D.
Coorg—		
Merkasra	5 2 57 F.	O.D.
Hyderabad		Madras or railway time used in Government offices, but local Amraoti time is 10m. S. on this. O.D.
Karachi	4 27 52 F.	L.T.S.
Karikal (French India)	5 21 56 F.	Madras time. O.D.
Lucknow		Madras time used by railways, telegraphs, and for public affairs. O.D.

INDIA (continued)—

	b. m. s.	
Madras	5 20 59.4 F.	See INDIA.
Nepal		At Katmandu, the capital, there are neither railways nor telegraphs, and its longitude has not been accurately determined. O.D.
North-West Provinces—		
Allahabad		Madras time used by railways, telegraphs, and for public affairs. O.D.
Oudh		See ALLAHABAD. (Madras time.)
Panjin (Goa)	4 55 28.12 F.	This is official time. The West of India Portuguese railway use Madras time. O.D.
Pondichéry (French India)	5 21 5.6 F.	Madras time. O.D.
Rajputana		Madras time for railways, telegraphs, and public affairs. (Local time is therefore not in use.) O.D.
IRELAND	0 25 22 S.	I.T.B.
ITALY	1 0 0 F.	Since November 1, 1893, the hours are counted consecutively, one to twenty-four, from midnight. O.D.
JAMAICA	5 7 10.11 S.	This time is used throughout the island. O.D.
JAPAN	9 0 0 F.	Since January, 1888, this time has been used for all purposes. It is regulated daily by a time signal sent to all telegraph stations.
JAVA—		
Batavia	7 7 20 F.	For towns in Java and the Dutch East Indies, local mean time is used. For the railways, Batavia time is kept for West Java, Samarang time for Mid-Java, and Surabaya time for East Java. O.D.
Tanjong Priok	7 7 32.6 F.	L.T.S. Tanjong Priok mean time.
Surabaya	7 30 57.4 F.	L.T.S. Surabaya mean time.
KOREA	9 0 0 F.	I.T.B. O.D.
LAGOS	0 13 43 F.	A time signal is obtained daily by telegraph. The time shown by the station clock is 0h. 14m. 0s. F. O.D.
LEEWARD ISLANDS—		
Antigua	4 20 0 S.	The time used is that shown by the cathedral clock in the city of St. John, which is regulated by a daily telegraph signal from British Guiana, which is said to be 0h. 14m. 49s. fast on Antigua. O.D. See GUIANA, BRITISH.
MADAGASCAR—		
Antananarivo	3 10 7 F.	The meridian is that of the Observatory. 15° 11' 30" E. of Paris. O.D.
Tamatave	3 17 41 F.	or Central European mean time since November 1, 1894. O.D.
MALTA	1 0 0 F.	
MARTINIQUE	1 4 44 S.	Meridian of the St. Pierre lighthouse. O.D.

MAURITIUS—
Port Louis

b. m. s.
3 50 12.6 F. Meridian of the Royal Alfred Observatory. O.D.

The railways keep a time 5m. behind that shown by the cathedral clock in Mexico, and this is telegraphed every morning to the stations on the line.

MEXICO—
Mexico

6 36 31.56 S Longitude of the Central Meteorological Observatory at Mexico, and is the time kept on Mexican railways. O.D.

Mexico

6 35 0 S. Statement by the Mexican Telegraph Company.

Tampico

6 15 0 S. Ditto ditto.

Vera Cruz

6 24 0 S. Ditto ditto.

MIQUELON

3 44 44 S. O.D.

NATAL

2 0 0 F. Throughout the colony, regulated by a signal from Durban. O.D.

NETHERLANDS

(HOLLAND)

Greenwich mean time for railways, telegraphs, and post. Many places use Amsterdam mean time, which is approximately 20m. fast on Greenwich. Some places use Greenwich mean time or their own local time. O.D.

Amsterdam

0 19 39 F. Amsterdam mean time. L.T.S.

Flushing

0 14 23.2 F. Flushing mean time. L.T.S.

Hellevoetsluis

0 16 30.7 F. Hellevoetsluis mean time. L.T.S.

Nieuwe Diep (Willemsoord)

0 19 6.4 F. Nieuwe Diep mean time. L.T.S.

Rotterdam

0 17 59.1 F. Rotterdam mean time. L.T.S.

NEW CALEDONIA

11 5 48 F. O.D. This is stated as being 1h. 12m. 0s. F. on Queensland. See AUSTRALIA.

NEWFOUNDLAND—

St. John's

3 30 49.5 S. This is used for all purposes throughout the island, including telegraph offices, excepting that of Heart's Content, which uses its local time of 3h. 33m. 33s. S. on Greenwich mean time, and is obtained by signal from London. All foreign cable business is transmitted from Heart's Content with Greenwich time. O.D. St. John's mean time. L.T.S.

NEW GUINEA, BRITISH

Daru

9 32 52 F.

Mouth of Mamberi river

9 52 8 F.

Port Moresby

9 48 36 F.

Samarai

10 2 39 F.

NEW GUINEA, DUTCH

New Zealand

11 30 0 F.

NICARAGUA

5 45 10 S.

Local mean time. See JAVA.

This has been in use since 1868. O.D.

This is based on the longitude of Managua.

It is used between 11° 15' 44" N. lat. to

12° 46' 0" N. lat., and 84° 22' 37" W. long.

			to 87° 12' 31" W. long. In this area we find the principal telegraph offices—Managua, Granada, San Juan del Sur, Leon, Chinandega, Corinto, Metagalpa, El Orotal, San Carlos, El Castillo. On the Atlantic coast (Greytown, Bluefield, Cape Gracias di Dios) the local time depending on longitude is used. An official time is not strictly observed. O.D. Since June 29, 1894. O.D. Regulated by the Cape Town signal.	
NORWAY	n. m. s.			
ORANGE FREE STATE	1 0 0 F.			
PERSIA—	1 30 0 F.			
Teheran	3 26 0 F.		This local mean time for Teheran is kept on the Indo-European telegraph system, and is practically the same for all stations on the north-south line to Bushir. It is regulated by a time signal received daily from Greenwich. Local mean time is also kept for Meshed and Ispahan. The Persians keep sun time, watches being set at sunset. In Teheran there is a mid-day gun fired by the time shown on a sun-dial. The tramway company keep gun-time. The railway trains start when full or when required. Persian telegraphists do not give time of issue or receipt of telegrams. O.D.	
PERU—				
Arequipa	4 46 12 S.		As this is determined by primitive methods it may occasionally be in error one or two minutes.	
Cable companies	4 46 30 S.		This is the time kept in the offices of the West Coast of America Telegraph Company at Callao, Lima, and Mollendo. See CHILE.	
Central Railway				
Lima	5 8 9 S.		Mean Lima time. O.D. The meridian is that of the cathedral tower in Lima. O.D.	
Pacasmayo			Time taken from steamers and by telegraph. O.D.	
Paita Railway	5 28 0 S.		Time comes by cable from New York, and is then corrected. O.D.	
Southern Railway			Arequipa time is used on the southern railways which extend from Mollendo to Puno on Lake Titicaca to Sicuani. This time is used in Mollendo, and probably at other places on the line. O.D.	
Trujillo.			Time taken from steamers and by telegraph. O.D.	
PESCADORES	9 0 0 F.		I.T.B.	
PHILIPPINE ISLANDS—				
Manila	8 3 52 F.		Manila mean time. L.T.S.	

PORTUGAL—	n. m. s.			
Lisbon	0 36 44-68 S.		This is the time at the Tapada Royal Observatory. It is also telegraph time. Railway clocks show a time five minutes slow on this. In the country towns a rough local time is kept.	
RÉUNION	3 43 20 F.		The railway keeps a time 10m. slow on this.	
RHODESIA	1 30 0 F.		Regulated by the Cape Town signal.	
RUMANIA	2 0 0 F.		O.D. For telegraph purposes the meridian of Bucharest is employed. I.T.B.	
RUSSIAN EMPIRE (Russia, Finland, Caucasus, Siberia, Turkestan)			Throughout the Russian Empire local mean times are used at observatories, for a complete list of which see 'Resumés Mensuels et Annuels des Observations Météorologiques,' année 1895. For telegraphic purposes in Russia, St. Petersburg mean time is used. O.D.	
			The following are examples of local mean time employed in the Russian Empire:—	
Abo	1 29 9 F.		L.T.S.	
Char Kow	2 24 58-8 F.			
Ekaterinburg	4 2 32-9		O.D.	
Helsingfors	1 39 48-5 F.		Helsingfors mean time. L.T.S.	
	1 39 49-2 F.		O.D.	
Irkutsk	6 57 15		O.D.	
Kroustadt	1 59 3-6		L.T.S.	
Nicolaeff (Black sea)	2 7 53-9 F.		L.T.S.	
Pavlosk	2 1 54-7 F.		O.D.	
Riga	1 36 22 F.		Riga (Sailors' Home mean time).	
	1 36 28 F.		Polytechnique House time. L.T.S.	
St. Petersburg	2 1 18-7 F.		Pulkova Observatory mean time. From the longitude of St. Petersburg, 30° 18' 22" E., it becomes 2h. 1m. 13-4s. F. L.T.S.	
	2 1 4-7 F.		O.D.	
Tashkent	4 37 10-8 F.		O.D.	
Tiflis	2 59 5-7 F.		O.D.	
Uleåborg	1 42 2 F.		L.T.S.	
Vladivostok	8 47 33-5 F.		L.T.S.	
St. CROIX	4 19 43 S.		Meridian of St. Thomas. O.D.	
St. HELENA	0 22 50 S.		This is local time, but the ball at the time office drops at 1h. 0m. 0s. P.M. Greenwich mean time.	
			Long. 5° 42' 25" W. approx. L.T.S.	
			„ 5° 42' 42" W.	
			„ 5° 42' 30" W. This is the longitude of Ladder Hill Observatory, and is used for local time.	
			Long. 5° 40' 28" W. In some Admiralty charts.	
			Long. 5° 43' 55" W. Admiralty chart, 1898. The difference between the two latter in time is 13-8s. O.D.	

ST. JOHN (WEST INDIES)	h. m. s.	
ST. LUCIA—	4 19 43 S.	Meridian of St. Thomas. O.D.
Castries	4 4 0 S.	L.T.S.
	4 4 1 S.	O.D.
ST. PAUL DE LOANDA	0 52 53.7 F.	St. Paul de Loanda mean time. L.T.S.
ST. PIERRE	3 44 44 S.	O.D.
ST. THOMAS	4 19 43 S.	Meridian of St. Thomas. O.D.
SAMOA	11 26 59.7 S.	This is local mean time determined by observation at Ruge's Wharf, Apia harbour. O.D.
SENEGAL, French—		
Dakar, West Africa	1 9 42 S.	This return was furnished by Captain S. Harvard, of the French ship <i>Héroïne</i> , who also gave the longitude of Dakar as 19° 45' 35" west of Paris. It is only used in the colony of Senegal proper. O.D. The telegraphs employ the mean time of the meridian of the roadstead of Dakar. I.T.B.
SERBIA		Meridian of Belgrade. I.T.B.
SEYCHELLES—		
Port Victoria	3 41 49.44 F.	O.D.
SIAM—		
Bangkok	6 41 58.4 F.	This refers to the meridian of the old flag-staff at the palace, Bangkok. Time is wired daily to telegraph stations. The railway uses this time, but regulates its clocks five minutes <i>behind</i> it. O.D.
SIERRA LEONE—		
Freetown	0 52 58.3 S.	O.D.
SPAIN		Official time is determined by the meridian of each locality. Railway time is that of Madrid, and therefore an exception to the general rule. O.D. The telegraphs also use Madrid time.
Algeciras	0 21 43	O.D.
Barcelona	0 8 38 F.	O.D.
Bilbao	0 11 42 S.	
Cadiz	0 25 10 S.	O.D.
Cartagena	0 24 49.6 S.	For San Fernando. L.T.S.
Ferrol	0 3 59 S.	O.D.
Madrid and the railways	0 32 51 S.	O.D.
Malaga	0 14 45 S.	O.D.
Seville	0 17 44 S.	O.D.
Toledo	0 23 58 S.	O.D.
Valencia	0 16 8 S.	O.D.
Valladolid	0 1 29 S.	O.D.
	0 18 52 S.	O.D.
STRAITS SETTLEMENTS—		
Penang	6 41 22 F.	O.D.
Singapore	6 55 25.05 F.	O.D.

SUMATRA	h. m. s.	Local mean time. See JAVA.
SUNDA ISLANDS		Local mean time. See JAVA.
SWEDEN	1 0 14 F.	O.D.
SWITZERLAND	1 0 0 F.	I.T.B.
SYRIA—		
Beirut		

The ordinary reckoning used in Mohammedan countries. Twelve o'clock is at sunset, which is the beginning of the day, and two periods of twelve hours pass till next sunset, when the watch is set backwards or forwards according to the season. The observatory at Beirut uses its mean time, 2h. 21m. 53s. $\pm$ 2s. F. O.D.

Telegraphs and the Beirut-Damascus Railway do not keep accurate time.

TASMANIA—		
Hobart	10 0 0 F.	Since August 23, 1895. O.D.
TONGA—		
Nukualofa	11 40 48.12 F.	This is a local mean time kept throughout the kingdom. This time is verified by the chronometers of men-of-war, mail steamers, and by meridian altitudes. O.D. The longitude of Nukualofa town flagstaff is 175° 12' 3" W., but because all business relations, with the exception of Samoa, are in east longitude, east longitude time for the day of the week and month are kept. O.D.
TRANSVAAL	1 30 0 F.	O.D.
TRINIDAD	4 6 2.5 S.	This is local mean time for the meridian of Port of Spain. The accuracy with which it is kept depends upon comparisons with a regulator and a ship's chronometer, and it is not great. O.D.
TRIPOLI	1 55 56 F.	Like Turkey. I.T.B.
TUNIS	0 9 21 F.	I.T.B. This is Paris time. O.D.
TURKEY	1 55 56 F.	I.T.B.
	2 0 0	O.D.
UNITED STATES—		
East coast to 82½°	5 0 0 S.	Eastern time. Maine, New Hampshire, Vermont, Massachusetts, Connecticut, New York, Rhode Island, New Jersey, Pennsylvania, Maryland, Virginia, N. Carolina, S. Carolina, Georgia, Florida.
82½° to 97½°	6 0 0 S.	Central time. Minnesota, Wisconsin, Michigan, Iowa, Illinois, Indiana, Ohio, Missouri, Kentucky, Tennessee, Arkansas, Mississippi, Alabama, Louisiana.
97½° to 112½°	7 0 0 S.	Mountain time. Montana, Dakota, Wyoming, Nebraska, Utah, Colorado, Kansas, Arizona, New Mexico, Texas.
112½° to west coast	8 0 0 S.	Pacific time. Washington, Oregon, Idaho, Nevada, California. L.T.S. The time of "handing in" is not stated on telegrams. I.T.B.

DIVIDING POINTS.

On the time used for city or local purposes at Dividing Points between the standard time sections in the United States and Canada. C.T. = Central Time; M.T. = Mountain Time; P.T. = Pacific Time; E.T. = Eastern Time. The names of states, etc., are abbreviated in the usual manner.

Between Central and Mountain Sections.

Alliance, Neb. ...	M.T. locally.	Mandan, N. Dak. ...	M.T. locally.
Brandon, Man. ...	C.T. "	McCook, Neb. ...	M.T. "
Dodge City, Kan. ...	C.T. for city.	Minot, N. Dak. ...	C.T. "
Ellis, Kan. ...	C.T. locally.	North Platte, Neb. ...	C.T. "
El Paso, Tex. ...	M.T. "	Oakley, Kan. ...	M.T. "
Holyoke, Colo. ...	C.T. "	Portal, N. Dak. ...	C.T. "
Hoisington, Kan. ...	C.T. "	Phillipsburg, Kan. ...	C.T. "
Long Pine, Neb. ...	C.T. "	Texline, Tex. ...	M.T. "

Between Mountain and Pacific Sections.

Barstow, Cal. ...	M.T. locally.	Hope, Idaho ...	P.T. locally.
Deming, N.M. ...	M.T. "	Huntington, Oregon ...	P.T. "
Donald, B.C. ...	P.T. "	Mojave, Cal. ...	P.T. "
E. Spokane, Wash. ...	M.T. "	Ogden, Utah ...	M.T. "

Between Eastern and Central Sections.

Asheville, N.C. ...	E.T. locally.	Jamestown, N.Y. ...	E.T. locally.
Ashley Junction, S.C. ...	E.T. "	Kane, Pa. ...	E.T. "
Athens, Ga. ...	C.T. for city.	Kenova, W. Va. ...	C.T. "
Atlanta, Ga. ...	C.T. "	Mount Jewett, Pa. ...	E.T. "
Augusta, Ga. ...	E.T. "	Oil City, Pa. ...	E.T. "
Benwood, W. Va. ...	E.T. locally.	Parkersburg, W. Va. ...	E.T. for city.
Bristol, Tenn. ...	E.T. "	Pittsburg, Pa. ...	E.T. "
Buffalo, N.Y. ...	E.T. for city.	Port Huron, Mich. ...	E.T. "
Butler, Pa. ...	E.T. locally.	St. Thomas, Ont. ...	E.T. "
Columbia, S.C. ...	E.T. "	Salamanca, N.Y. ...	E.T. locally.
Corry, Pa. ...	E.T. "	Salisbury, N.C. ...	E.T. "
Detroit, Mich. ...	C.T. legal time	Sarnia, Ont. ...	E.T. city.
	Local time is 28m. fast on C.T.	Sault Ste. Marie, Mich. ...	C.T. locally.
Dunkirk, N.Y. ...	E.T. for city.	Sault Ste. Marie, Ont. ...	E.T. "
Erie, Pa. ...	E.T. "	Sheffield Junction, Pa. ...	E.T. "
Fort William, Ont. ...	C.T. "	Union City, Pa. ...	E.T. "
Foxburg, Pa. ...	E.T. "	Washington, Pa. ...	E.T. for city.
Franklin, Pa. ...	E.T. "	West Clifton Forge, Va. ...	E.T. locally.
Gainesville, Ga., city uses mean local time.		Wheeling, W. Va. ...	E.T. for city.
		Windsor, Ont. (see Detroit).	
		Clifton Forge, Va. ...	E.T. locally.

The railroads meeting or passing through the above places use at least two times differing by an hour, one for the westward-bound trains, and the other for those bound eastwards. At El Paso, Tex., where lines converge from various directions, there are four kinds of railway time: C.T. for the Southern Pacific-Atlantic System, Texas and Pacific; M.T. for the Atchison, Topeka, and Santa Fe; P.T. for the Southern Pacific-Pacific System; City of Mexico time for the Mexican Central.

There are but few points of importance where mean solar time is used in the United States. It is used at Detroit, Michigan (population 200,000), and Savannah, Ga. (population 44,000). There are also a few points mostly in Ohio, Indiana, and Michigan. For further information, see 'Travellers' Official Guide of the Railways and Steam Navigation Lines in the United States, Canada, and Mexico,' from which the above tables were taken, 24, Park Place, New York.

URUGUAY—

Monte Video	h. m. s.	3 44 49.56 S.	This is local mean time, and is supposed to be used throughout the country. Railway time is about 5m. slower than this. O.D.
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WINDWARD ISLANDS—

Grenada	h. m. s.	4 6 59.40 S.	This is about the time. It depends on a periodical telegram from Demerara, and on the time from ships of war when the clocks are set. O.D.
St. Vincent	h. m. s.	4 5 0 S.	

ZULULAND	h. m. s.	2 0 0 F.	Every day, excepting Sundays, a telegraphic time signal is received from Durban. O.D.
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TABLES ISSUED BY TELEGRAPH COMPANIES.

They may now be different. See Preface.

December 1, 1898.

Place.	Eastern Telegraph Company, Ltd., July 1, 1897.	Indo-European Telegraph Company, Ltd., Oct. 1897.	Western Union Telegraph Company.
	h. m. s.	h. m. s.	h. m. s.
Acapulco ...	6 39 S.	—	—
Accra ...	9 0 F.	9 14 F.	9 14 F.
Adelaide ...	3 0 F.	—	3 0 F.
Aden ...	—	5 11 F.	—
Agra ...	6 11 F.	6 11 F.	—
Akyab ...	2 5 F.	—	1 59 F.
Alexandria ...	0 10 F.	—	0 11 F.
Algiers ...	8 5 F.	7 52 F.	7 52 F.
Amoy ...	—	—	0 19 F.
Amsterdam ...	3 50 S.	—	—
Assuncion ...	1 35 F.	—	1 34 F.
Athens ...	11 23 F.	11 32 F.	—
Auckland ...	—	—	6 0 S.
Augusta, Ga. ...	2 52 S.	—	2 33 S.
Bahia ...	—	—	5 0 S.
Baltimore ...	6 41 F.	6 41 F.	—
Bangkok ...	7 7 F.	7 37 F.	—
Banjoewangie ...	3 58 S.	—	3 58 S.
Barbados ...	7 7 F.	7 7 F.	—
Batavia ...	1 6 S.	—	—
Bathurst (Africa) ...	—	9 16 F.	—
Bathurst (New South Wales) ...	5 53 S.	—	5 53 S.
Belize ...	—	6 49 F.	—
Bencoelen ...	0 53 F.	—	—
Benguella ...	1 0 F.	0 53 F.	0 53 F.
Berlin ...	—	—	—

Place.	Eastern Tele- graph Company, Ltd., July 1, 1897.	Indo-European Telegraph Com- pany, Ltd., Oct. 1897.	Western Union Telegraph Company.
	h. m.	h. m.	h. m.
Bermuda	4 19 S.	—	4 19 S.
Berne	1 0 F.	—	0 29 F.
Bogota	4 57 S.	—	4 57 S.
Bombay	5 21 F.	4 51 F.	4 51 F.
Bona	0 10 F.	—	—
Bonny	0 28 F.	—	—
Borneo	7 39 F.	—	—
Boston	—	—	5 0 S.
Bremen	—	—	0 35 F.
Brest	0 18 S.	—	0 18 S.
Brisbane	10 0 F.	10 12 F.	—
Brussels	—	—	0 17 F.
Buenos Ayres	4 16 S.	—	3 53 S.
Bushir	3 23 F.	3 23 F.	—
Bussora	—	3 11 F.	—
Cadiz	0 15 S.	—	0 25 S.
Cairo	2 5 F.	—	2 5 F.
Calcutta	5 21 F.	5 53 F.	5 53 F.
Callao	5 8 S.	—	5 8 S.
Canton	7 33 F.	7 33 F.	—
Cape de Verd islands	1 40 S.	—	1 40 S.
Cape Town... ..	1 30 F.	—	1 13 F.
Cayenne	3 29 S.	—	3 29 S.
Ceara	2 34 S.	—	2 34 S.
Charlestown	5 20 S.	—	5 0 S.
Chicago	5 50 S.	—	6 0 S.
Christchurch, New Zealand	11 32 F.	11 32 F.	11 32 F.
Christiania	1 0 F.	—	0 43 F.
Colombo	5 19 F.	5 19 F.	—
Conception	4 52 S.	—	4 52 S.
Constantinople	2 0 F.	1 56 F.	1 56 F.
Copenhagen	1 0 F.	—	0 50 F.
Copiapó	4 42 S.	—	—
Coquimbo	4 45 S.	—	4 45 S.
Dallas, Texas	—	—	6 0 S.
Delagoa bay	2 12 F.	—	—
Denver	—	—	7 0 S.
Detroit	—	—	6 0 S.
Dunedin	11 22 F.	11 22 F.	—
Durban	1 58 F.	—	2 2 F.
Duxbury	4 44 S.	—	—
Fernando Po	0 36 F.	—	—
Florence	—	—	0 45 F.
Fuchau	8 5 F.	—	—
Funchal	1 8 S.	—	1 8 S.
Gainesville	—	—	6 0 S.
Galle	5 20 F.	5 20 F.	—
Galveston	—	—	6 0 S.
Genoa	—	—	0 36 F.
George Town (Demerara)	3 53 S.	—	3 53 S.
Gibraltar	0 21 S.	—	0 21 S.
Graham's Town	1 46 S.	—	—
Great Salt Lake City (Utah)	7 28 S.	—	—
Guatemala	6 2 S.	—	6 2 S.
Guayaquil	5 19 S.	—	5 19 S.
Halifax	4 15 S.	—	5 0 S.
Hamburg	—	—	0 39 F.
Havana	5 29 S.	—	5 29 S.
Heart's Content	3 34 S.	—	—
Hobart Town	8 5 F.	9 50 F.	—

Place.	Eastern Tele- graph Company, Ltd., July 1, 1897.	Indo-European Telegraph Com- pany, Ltd., Oct. 1897.	Western Union Telegraph Company.
	h. m.	h. m.	h. m.
Hokitika	11 24 F.	11 24 F.	—
Hong Kong	8 5 F.	7 36 F.	7 36 F.
Honolulu	10 31 S.	—	10 31 S.
Houston, Texas	—	3 27 F.	—
Ispahan	—	11 12 F.	—
Ivercargill	—	—	5 6 S.
Jamaica	5 6 S.	—	—
Jerusalem	2 21 F.	2 21 F.	—
Jitomir	—	1 55 F.	—
Juan Fernandez	5 16 S.	—	—
Kabul	4 57 F.	—	—
Kansas city	—	2 26 F.	6 0 S.
Kerteh	—	—	5 26 S.
Key West, Flo.	5 26 S.	—	5 7 S.
Kingston (Jamaica)	5 7 S.	—	—
Kioto	9 0 F.	—	—
Kurrachi	5 21 F.	4 27 F.	—
Lahore	—	4 57 F.	—
Larnaca	—	—	5 8 S.
Lima	2 14 F.	—	0 36 S.
Lisbon	5 8 S.	—	—
Loanda	0 36 S.	—	—
Madeira	0 53 F.	—	1 7 S.
Madras	1 7 S.	5 21 F.	5 21 F.
Madrid	5 21 F.	—	0 15 S.
Malacca	0 15 S.	—	—
Malta	6 49 F.	6 49 F.	—
Manila	0 58 F.	—	0 58 F.
Marsailles	8 3 F.	8 3 F.	8 3 F.
Mauritius	0 10 F.	—	0 21 F.
Meecca	3 50 F.	3 50 F.	3 50 F.
Melbourne	2 0 F.	2 40 F.	—
Memphis	10 0 F.	9 40 F.	9 40 F.
Mendoza	—	—	6 0 S.
Mexico	—	—	6 36 S.
Milan	—	—	0 37 F.
Milwaukee	—	—	6 0 S.
Minneapolis	—	—	6 0 S.
Mobile, Ala.	—	—	6 0 S.
Montevideo	3 45 S.	—	3 45 S.
Montreal	4 54 S.	—	5 0 S.
Moscow	—	—	2 30 F.
Mossamedes	—	—	—
Moulmein	0 49 F.	6 30 F.	—
Mozambique	6 30 F.	—	2 43 F.
Munich	2 43 F.	—	0 46 F.
Nagasaki	—	—	8 40 F.
Nanking	9 0 F.	8 40 F.	8 40 F.
New Orleans	7 55 F.	—	—
Newport	—	—	6 0 S.
Nice	6 0 S.	—	5 0 S.
Norfolk, Va.	6 4 S.	—	5 0 S.
Odessa	4 56 S.	—	0 22 F.
Otago	—	—	5 0 S.
Panama	—	—	2 2 F.
Para	2 2 F.	2 2 F.	—
Paranahyba	11 23 F.	—	—
Paris	5 18 S.	—	5 18 S.
Pekin	2 52 S.	—	3 14 S.

Place.	Eastern Tele- graph Company, Ltd., July 1, 1897.	Indo-European Telegraph Com- pany, Ltd., Oct. 1897.	Western Union Telegraph Company.
Penang	h. m. 6 42 F.	h. m. 6 42 F.	h. m. —
Pensacola, Flo.	—	—	6 0 S.
Perim	3 0 F.	—	—
Pernambuco	2 20 S.	—	2 20 S.
Perth, West Australia	—	7 43 F.	—
Philadelphia	5 1 S.	—	5 0 S.
Pondicherry	—	5 19 F.	—
Port Darwin	9 0 F.	8 44 F.	—
Portland	—	—	8 0 S.
Port Nolloth	1 8 F.	—	—
Porto Rico	4 26 S.	—	4 26 S.
Pouma	—	4 55 F.	—
Pretoria	1 54 F.	—	1 54 F.
Principe	0 40 F.	—	—
Providence, R.I.	—	—	5 0 S.
Quebec	4 45 S.	—	5 0 S.
Quito	5 13 S.	—	5 13 S.
Rangoon	6 20 F.	6 20 F.	—
Rio Grande do Sul	2 52 S.	—	3 29 S.
Rio de Janeiro	2 52 S.	—	2 52 S.
Rome	1 0 F.	—	0 49 F.
Saigon	7 6 F.	7 6 F.	—
St. Louis	6 0 S.	—	6 0 S.
St. Paul	—	—	6 0 S.
St. Petersburg	2 1 F.	—	2 1 F.
St. Thomas	4 19 S.	—	4 19 S.
St. Thomé	0 26 S.	—	—
St. Vincent (Cape de Verd)	1 40 S.	—	1 40 S.
Salonica	1 0 F.	—	1 32 F.
Samarang	7 7 F.	7 21 F.	—
Sandwich islands	10 31 S.	—	10 31 S.
San Francisco	8 8 S.	—	8 0 S.
San José	5 35 S.	—	5 35 S.
Santa Catharina	3 13 S.	—	3 13 S.
Santiago de Chili	4 43 S.	—	4 43 S.
Santos	3 6 S.	—	3 6 S.
Savannah	—	—	6 0 S.
Seio	2 0 F.	—	1 44 F.
Shanghai	8 5 F.	8 5 F.	8 5 F.
Sierra Leone	0 53 S.	—	—
Simla	—	5 1 F.	—
Singapore	6 55 F.	6 55 F.	6 55 F.
Smyrna	2 0 F.	1 49 F.	1 49 F.
Sourabaya	7 7 F.	7 30 F.	—
Stockholm	—	—	1 12 F.
Suakin	2 29 F.	—	2 29 F.
Suez	2 5 F.	—	2 10 F.
Sukum Kaleh	—	2 44 F.	—
Sydney	10 0 F.	10 5 F.	—
Tabriz	—	3 5 F.	—
Tamatave	3 17 F.	—	—
Tangier	0 23 S.	—	—
Teheran	3 25 F.	3 25 F.	—
Tiflis	—	2 59 F.	—
Tokio	9 0 F.	—	9 18 F.
Toronto	5 18 S.	—	5 0 S.
Trieste	1 0 F.	—	0 55 F.
Trinidad	4 6 S.	—	4 6 S.
Tripoli	2 0 F.	—	0 52 F.
Truxillo	5 16 S.	—	5 16 S.

Place.	Eastern Tele- graph Company, Ltd., July 1, 1897.	Indo-European Telegraph Com- pany, Ltd., Oct. 1897.	Western Union Telegraph Company.
Tunis	h. m. 0 40 F.	h. m. —	h. m. 0 40 F.
Valdivia	4 53 S.	—	4 53 S.
Valentia (Ireland)	0 41 S.	—	—
Valparaiso	4 46 S.	—	4 46 S.
Vancouver island	8 14 S.	—	8 0 S.
Venice	—	—	0 49 F.
Vera Cruz	6 25 S.	—	6 25 S.
Vigo	1 0 F.	—	1 5 F.
Vienna	0 15 S.	—	0 35 S.
Villa Real	0 36 S.	—	0 29 S.
Warsaw	—	1 24 F.	—
Washington	5 8 S.	—	5 0 S.
Wellington	11 38 F.	11 38 F.	11 38 F.
Yeddo	—	9 18 F.	—
Yokohama	—	—	9 19 F.
Zanzibar	2 37 F.	—	2 37 F.
Zürich	—	—	0 34 F.

ORIGINAL TIME.

The following table gives the particulars of the time recognized by the forwarding country (see footnote) :—

Austria.	Mid-Europe.
Bavaria.	Mid-Europe.
Belgium.	West Europe.
Bosnia-Herzegovina.	Mid-Europe.
Bulgaria.	East Europe.
Cape Colony and Orange Free State.	One and a half hour in advance of Greenwich.
Cochin China and Cambodia.	Saigon.
Denmark.	Mid-Europe.
Egypt.	Cairo.
France and Algeria.	Paris.
Germany.	Mid-Europe.
Great Britain and Ireland.	Greenwich.
Greece.	Athens.
Holland.	West Europe.
Hungary.	Mid-Europe.
India.	Madras.
Italy.	Mid-Europe.
Japan.	Kioto.
Java and Sumatra.	Batavia.
Luxemburg.	West Europe.
New South Wales.	Ten hours in advance of Greenwich.
Norway.	Mid-Europe.
Portugal.	Lisbon.
Queensland.	Ten hours in advance of Greenwich.
Roumania.	East Europe.
Russia.	St. Petersburg.
Senegal.	St. Louis.

Servia.	Mid-Europe.
Siam.	Bangkok.
South Australia.	Nine hours in advance of Greenwich.
Spain.	Madrid.
Sweden.	Mid-Europe.
Switzerland.	Mid-Europe.
Tasmania.	Ten hours in advance of Greenwich.
Tunis.	Tunis.
West Turkey.	Mid-Europe.
East Turkey, including Hedjaz, Yemen, } and Tripoli.	East Europe.
Victoria.	Ten hours in advance of Greenwich.
Württemberg.	Mid-Europe.

Local time is used at the companies' stations, except at places where telegraphs are under Government control.

On telegrams from North America London time is signalled (*pro ex.*, see Newfoundland).

[Extracted from the Rules and Regulations of the Eastern Telegraph Company, the Eastern Extension, Australasia and China Telegraph Company, West African Telegraph Company, the Europe and Azores Telegraph Company, and the Eastern and South African Telegraph Company.]