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**STANDARD TIME
THROUGHOUT THE WORLD**

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STANDARD TIME THROUGHOUT THE WORLD ¹

ABSTRACT

This paper gives a brief historical sketch of the development of the standard time system, a map showing the time zone boundaries in the United States, and a list of the official stations sending out radio time signals. The legal time in nearly every foreign country and in most of the more important islands is also given, compared with both Greenwich mean time and with noon, eastern standard time.

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I. INTRODUCTION

In recent years there has been a great increase in the demand for information regarding time in the various cities and countries of the world. This is largely due to the development of international news services, world-wide telephony, transoceanic aviation, exploration, and the more precise timing of events.

This led to the compilation of Bureau of Standards Circular 280, published in 1925, of which this is a revised and enlarged edition. This revision contains the most up-to-date information available from reliable sources and supersedes the original circular of the same title. The rapid progress being made in world communication will doubtless necessitate further revision from time to time.

Some foreign countries and several States and cities of this country have adopted "summer" or "daylight saving" time for use during the summer months. This time is usually one hour faster than standard time. The subject is given no specific consideration in this circular.

II. HISTORICAL SKETCH

From the earliest civilization man has reckoned time by the apparent motion of the heavenly bodies. The rotation of the earth on its axis from west to east causes these bodies to "rise" in the east

¹ Prepared by Ralph E. Gould, chief time section.

and "set" in the west. Consequently points to the east of us have sunrise before we do, or, as we say, their time is faster than ours; while points to the west have time that is slower than ours. This rotation of the earth about its axis once in 24 hours gives a time change of one hour for every 15° of longitude. That is, if observations were made on the transit of the sun across the meridian at points separated by 15° of longitude, it would be found that the time of transit at two such points would differ by one hour. If the separation of the points of observation were decreased, the difference in time would be decreased in the same proportion. These times would all be true local times, using the transit of the sun across the meridian as a standard.

Since the distance around the earth is less at points not on the Equator than at the Equator the distance on the earth's surface corresponding to a time difference is also less in the same proportion. For example, at the Equator 15° corresponds to about 1,040 miles, while at the latitude of New York 15° corresponds to only about 784 miles. Or, at the Equator, a difference of about 17 miles makes a time difference of one minute, while in the latitude of New York a difference of only 13 miles makes a difference of one minute in true local time.

The need of a uniform time began to be felt in the United States about 1870, and the railroads gradually adopted a system for use on their roads specifying definite important centers or junction points at which changes of one hour should be made. As means of communication still further developed, it became apparent that some system of international time must be established.

In 1884 an international congress was called in Washington to consider the subject of a world standard of time. The world was divided into zones, each covering 15° of longitude, the time for each zone being that of the meridian passing through its approximate center and the time in adjacent zones differing by one hour. The meridian passing through the observatory at Greenwich, England, was chosen as the zero meridian from which all time should be reckoned. Although there was no definite agreement as to the adoption of this time by the different nations, the plan was gradually accepted.

In 1886 Japan made the time of the one hundred and thirty-fifth meridian east, nine hours faster than Greenwich, its standard time. Belgium and the Netherlands adopted Greenwich time in 1893, although the Netherlands later reverted to Amsterdam time, which it now uses. Germany, Italy, Denmark, and Switzerland in 1893-94 each adopted central European time, which is one hour faster than Greenwich, and Bulgaria, Rumania,² and Turkey established the time for those countries as two hours faster than Greenwich. The Australian States followed in 1895.

The adoption of time differing from Greenwich by an odd number of half hours soon made its appearance. This slight departure from the original plan is of advantage in some places, since it more nearly agrees with true local time. In New Zealand the time is $11\frac{1}{2}$ hours faster than Greenwich time, in Burma $6\frac{1}{2}$ hours faster, while in India, excepting Calcutta, it is $5\frac{1}{2}$ hours faster. Cape Colony formerly was $1\frac{1}{2}$ hours faster than Greenwich, but in 1903 the legal time was made 2 hours faster than Greenwich.

² Rumania is now using one hour faster than Greenwich as its standard.

In 1914 Brazil was divided into time zones on the international basis, and in 1930 Mexico abandoned local time for the zone system. An important change was made in 1924 in the complete zoning of the Soviet Union, which comprises old Russia and Siberia, into 11 time areas. A few countries still retain the time of some important city as the legal time of the country.

The United States, although using the system since 1884, did not legalize it until March 19, 1918, when Congress directed the Interstate Commerce Commission to establish limits for the various time zones in this country. Changes in these boundaries have been made from time to time, in order that the time changes may occur at such points as to result in a minimum of inconvenience. The division lines are not straight, but largely follow the railroads and pass through important cities and junction points. A map (fig. 1) has been prepared, corrected to April 1, 1932, from data furnished by the Interstate Commerce Commission.

III. STANDARD TIME IN THE UNITED STATES

1. TIME ZONES

[The United States is divided into four standard time zones, each approximately 15° of longitude in width. All places in each zone use, instead of their own local time, the time counted from the transit of the "mean sun"³ across the meridian which passes through the approximate center of that zone.

These time zones are designated as eastern, central, mountain, and Pacific, and the time in these zones is reckoned from the seventy-fifth, ninetieth, one hundred and fifth, and one hundred and twentieth meridians west of Greenwich, respectively. The time in the various zones is slower than Greenwich time by 5, 6, 7, and 8 hours, respectively.

The question of changing from the time of one time zone to that of an adjacent zone arises in practice largely in the operation of railroads. Because of the inconvenience of changing the time by the necessary amount of one hour at every point where a railroad crosses one of these boundary lines, the more convenient practice has usually been followed of making the change at some terminal or division point on the road, at some junction point, or at the boundary line between the United States and Canada. The result is that practically the boundaries of the time zones are defined by the lines connecting these points of railroad time change. Because of the location of these railroad junctions or terminals the resulting lines are somewhat irregular.

Figure 1 shows the time zones and boundary lines as defined and corrected to April 1, 1932, by the Interstate Commerce Commission.

³ The interval between successive passages of the sun across the meridian is somewhat variable, and for this reason apparent solar days are unequal. Therefore, mean time has been adopted, which is kept by a fictitious or "mean sun" moving uniformly in the Equator at the same average speed as that of the real sun, thus making days of equal length. It is "mean noon" when this "mean sun" crosses the meridian.

2. CITIES ON TIME ZONE BOUNDARIES

There are listed below some of the more important cities on the boundaries of the time zones.

(a) The following municipalities located on the boundary between the eastern and the central time zones use eastern standard time:

Detroit, Mich.	Asheville, N. C.	Perry, Ga.
Toledo, Ohio, and all other cities in Ohio situated on this boundary.	Franklin, N. C.	Thomasville, Ga.
Williamson, W. Va.	McDonough, Ga.	Apalachicola, Fla.
Dungannon, Va.	Macon, Ga., and points on Southern Railway between McDonough and Macon.	
Bristol, Va.		

All other places on this boundary use central standard time.

(b) The following municipalities located on the boundary between the central and the mountain time zones use central standard time:

Murdo, S. Dak.	Stockton, Kans.	Ellis, Kans.
Mackenzie, S. Dak.	Plainville, Kans.	Liberal, Kans.
Phillipsburg, Kans.		

All other places on this boundary use mountain standard time.

(c) All municipalities on the boundary between the mountain and the Pacific time zones use mountain standard time except Huntington, Oreg., which uses Pacific standard time.

3. TERRITORIES AND INSULAR POSSESSIONS

Standard time is also used in the Territories outside of the continental United States. The places and the time used are given below:

Alaska (see Table 2).....	10 hours slower than Greenwich.
Guam.....	9½ hours faster than Greenwich.
Hawaii.....	10½ hours slower than Greenwich.
Panama.....	5 hours slower than Greenwich.
Philippines.....	8 hours faster than Greenwich.
Puerto Rico.....	4 hours slower than Greenwich.

4. TIME IN SEVERAL LARGE CITIES OF THE UNITED STATES AT 12 NOON, EASTERN STANDARD TIME

Atlanta, Ga.....	11. 00 a. m.	Milwaukee, Wis.....	11. 00 a. m.
Baltimore, Md.....	12. 00 noon	Minneapolis, Minn.....	11. 00 a. m.
Birmingham, Ala.....	11. 00 a. m.	Newark, N. J.....	12. 00 noon
Boston, Mass.....	12. 00 noon	New Haven, Conn.....	12. 00 noon
Charleston, S. C.....	12. 00 noon	New Orleans, La.....	11. 00 a. m.
Chicago, Ill.....	11. 00 a. m.	New York, N. Y.....	12. 00 noon
Cincinnati, Ohio.....	12. 00 noon	Norfolk, Va.....	12. 00 noon
Cleveland, Ohio.....	12. 00 noon	Omaha, Nebr.....	11. 00 a. m.
Columbus, Ohio.....	12. 00 noon	Philadelphia, Pa.....	12. 00 noon
Dallas, Tex.....	11. 00 a. m.	Pittsburgh, Pa.....	12. 00 noon
Denver, Colo.....	10. 00 a. m.	Portland, Oreg.....	9. 00 a. m.
Des Moines, Iowa.....	11. 00 a. m.	Providence, R. I.....	12. 00 noon
Detroit, Mich.....	12. 00 noon	Richmond, Va.....	12. 00 noon
Hartford, Conn.....	12. 00 noon	Rochester, N. Y.....	12. 00 noon
Houston, Tex.....	11. 00 a. m.	Salt Lake City, Utah.....	10. 00 a. m.
Indianapolis, Ind.....	11. 00 a. m.	San Francisco, Calif.....	9. 00 a. m.
Kansas City, Mo.....	11. 00 a. m.	Seattle, Wash.....	9. 00 a. m.
Los Angeles, Calif.....	9. 00 a. m.	St. Louis, Mo.....	11. 00 a. m.
Louisville, Ky.....	11. 00 a. m.	St. Paul, Minn.....	11. 00 a. m.
Memphis, Tenn.....	11. 00 a. m.	Washington, D. C.....	12. 00 noon

IV. TIME SIGNALS IN UNITED STATES

The best generally available source of accurate time is the time signal as transmitted by telegraph from the United States Naval Observatory and broadcast by radio from Arlington, Va., and certain other naval stations as listed in the table below.

All naval time signals are made in a standard manner, which is as follows:

The signals begin five minutes before the hour and consist of a dash on each second, except that no dashes are sent on the seconds listed below:

55 minutes; 29, 51, and 56 to 59 seconds.

56 minutes; 29, 52, and 56 to 59 seconds.

57 minutes; 29, 53, and 56 to 59 seconds.

58 minutes; 29, 54, and 56 to 59 seconds.

59 minutes; 29, and 51 to 59 seconds.

Beginning exactly on the hour a much longer dash is sent. In all cases the exact second is denoted by the beginning of the dash, the end being without significance. It will be noted that the number of seconds sounded immediately following the single second omission and preceding the long omission at the end of each minute indicates the number of minutes of the signal yet to be sent. For instance, the signal for 56 minutes and 52 seconds is omitted and then 3 seconds are sounded, indicating that 3 minutes of the signal remain to be transmitted.

These time signals, if received directly and automatically are seldom in error by as much as 0.20 second. The average error is generally less than 0.03 second.

Of the stations listed, the first two automatically transmit the signal as received from the Naval Observatory at Washington, with errors averaging only 0.02 to 0.06 second. Most of the other stations automatically reradiate, and the error is somewhat larger. The signal, however, is sufficiently exact for commercial use.

TABLE 1.—Radio transmission of time signals ¹

Station	Call letters	Frequency	Wave length	Signal sent
		<i>Kilocycles</i>	<i>Meters</i>	
Arlington, Va.-----	NAA	<div> <div>113</div> <div>690</div> <div>4, 015</div> <div>8, 870</div> <div>12, 045</div> <div>16, 060</div> </div>	<div> <div>2, 653</div> <div>434.5</div> <div>74.7</div> <div>33.8</div> <div>24.9</div> <div>18.7</div> </div>	3 a. m., 12 noon, and 10 p. m., eastern standard time.
Annapolis, Md.-----	NSS	17.8	16, 844	Same as Arlington.
Astoria, Wash. (North Head)-----	NPE	102	2, 939.4	9 a. m., Pacific standard time.
Balboa, Canal Zone (Darien)-----	NBA	46	6, 517.8	1 p. m. and 11 p. m., eastern standard time.
Cavite, P. I.-----	NPO	<div> <div>56</div> <div>108</div> <div>8, 872</div> <div>13, 308</div> </div>	<div> <div>5, 353.9</div> <div>2, 776.1</div> <div>33.8</div> <div>22.5</div> </div>	11 a. m. and 10 p. m., Philippine standard time.
Colon, Canal Zone-----	NAX	132	2, 771.4	Same as Balboa.
Eureka, Calif.-----	NPW	108	2, 776.1	9 a. m. Pacific standard time.
Great Lakes, Ill.-----	NAJ	122	2, 457.5	12 noon, eastern standard time.
Key West, Fla.-----	NAR	106	2, 828.5	Do.
New Orleans, La.-----	NAT	104	2, 882.9	Do.
Honolulu, T. H. (Pearl Harbor)-----	NPM	26.1	11, 487	1.30 p. m., Hawaiian standard time.
San Diego, Calif. (Chollas Heights)-----	NPL	102	2, 939.4	9 a. m., Pacific standard time.
San Francisco, Calif. (Mare Island)-----	NPG	<div> <div>42.8</div> <div>66</div> <div>108</div> </div>	<div> <div>7, 005.1</div> <div>4, 542.7</div> <div>2, 776.1</div> </div>	Do.

¹ The values given in this table are subject to change by the Navy Department.



FIGURE 1.—Standard Time Zones of the United States, with parts of Canada and Mexico, as of April 1, 1932
NOTE. Since the preparation of this map, the time zones of Mexico have been changed by presidential decree. Effective April 1, 1932, all of Mexico, excepting the northern territory of Lower California, takes the time of the nineteenth meridian west, 6 hours slower than Greenwich.

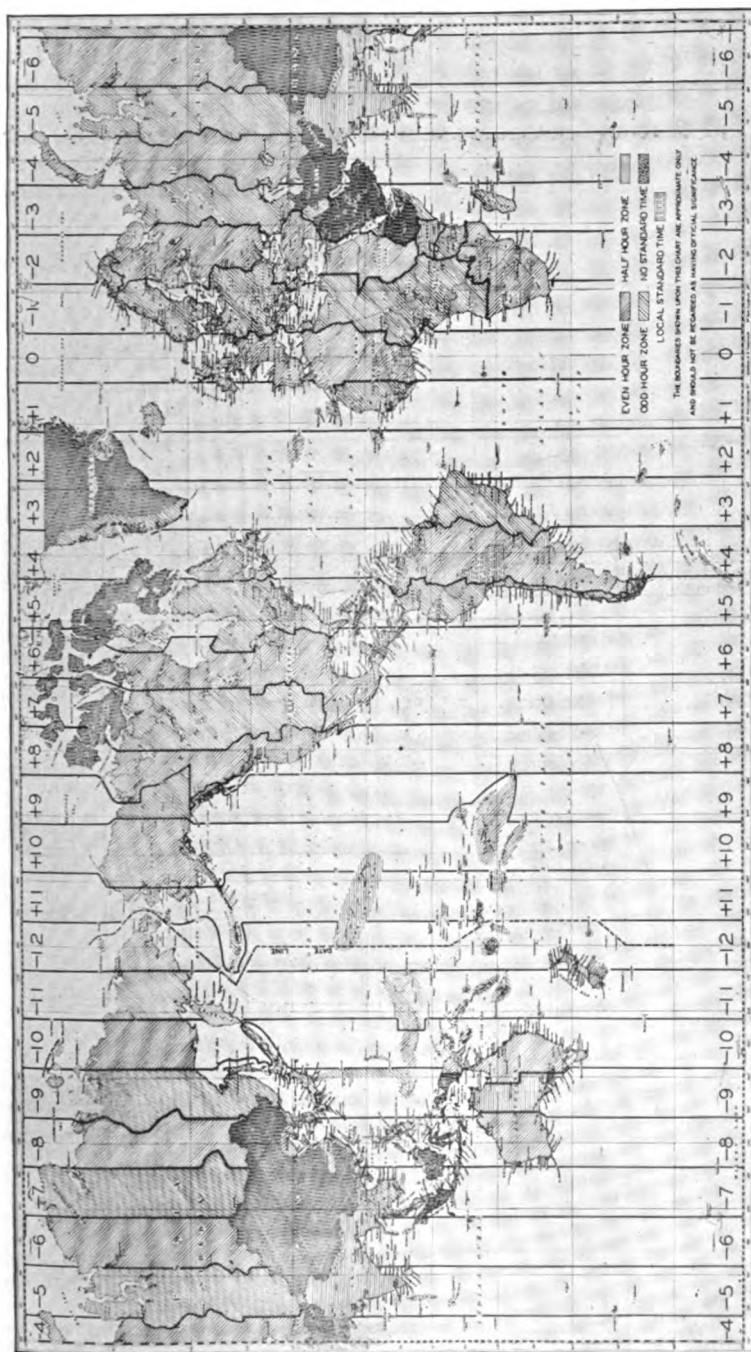


FIGURE 2.—Standard Time Zones of the World

This map shows the approximate boundaries of the time zones as used under the International Standard Time Zone System, with the Greenwich meridian as zero.



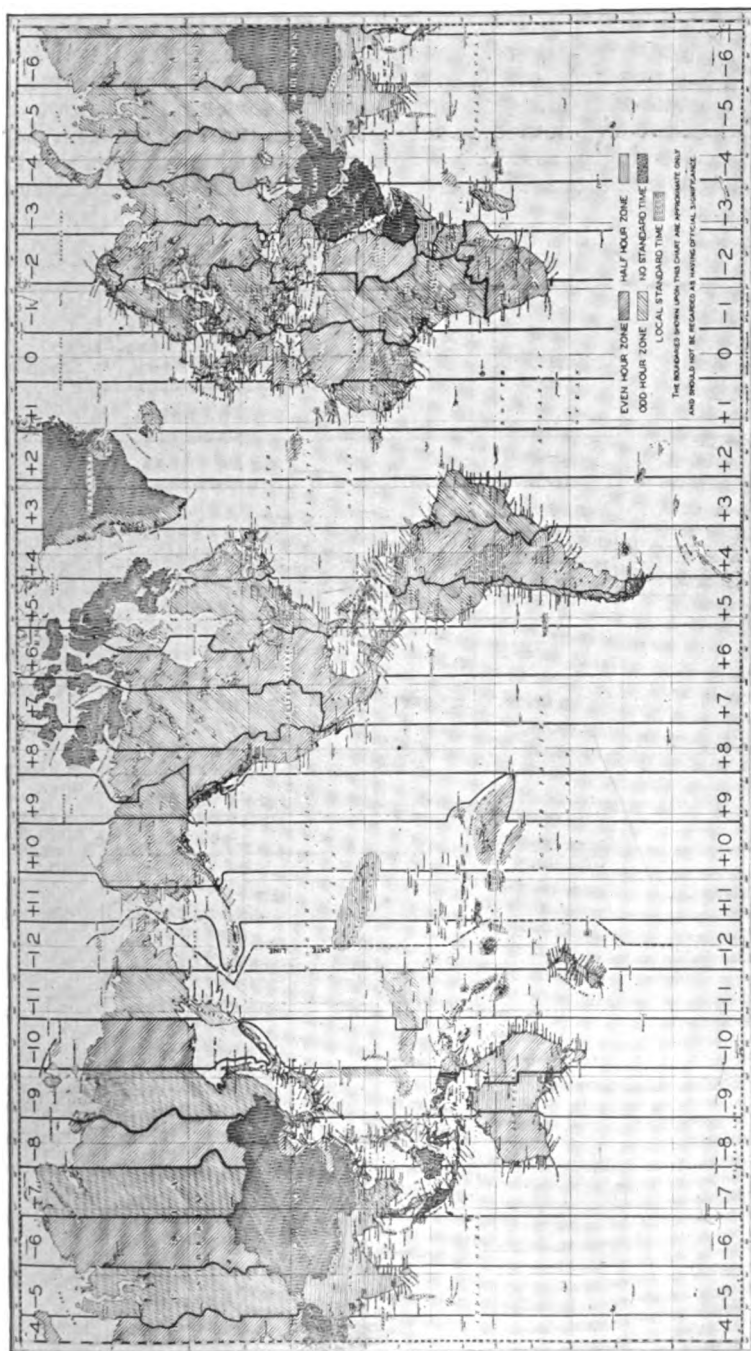


FIGURE 2.—Standard Time Zones of the World

This map shows the approximate boundaries of the time zones as used under the International Standard Time Zone System, with the Greenwich meridian as zero.

V. TIME IN FOREIGN COUNTRIES

Nearly every country of the world has established a legal time upon which to operate, and also a legal time for islands and dependencies under its control. (See fig. 2.) The following table shows the authorized time and compares this time with both Greenwich, England, and Washington, D. C. Where the legal time conforms to the International Standard Time System the standard-time meridian is indicated.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon

Country	General location	Standard meridian	Time compared with Greenwich		Noon at Washington, D. C. (eastern standard time)		Remarks
			H.	M. S.	H.	M. S.	
Admiralty Islands.....	South Pacific.....	150° E.	10	fast	3	1 a. m.	No standard time.
Afghanistan.....	Asia (70° E.).....						
Alaska.....	North America.....						
Ketchikan.....		120° W.	8	slow	9	a. m.	
Cordova.....							
Sitka.....		135° W.	9	slow	8	a. m.	
Southern portion.....							
Central portion.....		150° W.	10	slow	7	a. m.	
Aleutian Islands.....		165° W.	11	slow	6	a. m.	
West coast.....							Central European time Adopted Mar. 9, 1911.
Albania.....	Europe.....	15° E.	1	fast	6	p. m.	
Algeria.....	Africa.....	0°	0		5	p. m.	
Andaman Island.....	Indian Ocean.....	97° 30' E.	6 30	fast	11 30	p. m.	
Angola.....	Africa.....	15° E.	1	fast	6	p. m.	
Anguilla Island.....	West Indies.....	60° W.	4	slow	1	p. m.	
Antigua Island.....	do.....	60° W.	4	slow	1	p. m.	
Arabia.....	Asia (45° E.).....						
Aden.....			2 59 54	fast	7 59 54	p. m.	Adopted May 1, 1920.
Argentina.....	South America.....	60° W.	4	slow	1	p. m.	
Aru Islands.....	East Indies (135° E.).....						No standard time.
Ascension Island.....	South Atlantic.....	15° W.	1	slow	4	p. m.	Do.
Auckland Island.....	South Pacific (165° E.).....						
Austral Islands.....	South Pacific.....	150° W.	10	slow	7	a. m.	
Australia.....	do.....						
Western Australia.....		120° E.	8	fast	1	1 a. m.	
Central Australia.....							
Northern Territory.....		112° 30' E.	9 30	fast	2 30	1 a. m.	
South Australia.....							
New South Wales.....							
Queensland.....		150° E.	10	fast	3	1 a. m.	
Victoria.....							Central European time.
Austria.....	Europe.....	15° E.	1	fast	6	p. m.	
Azore Islands.....	North Atlantic.....	30° W.	2	slow	3	p. m.	Adopted Feb. 1, 1912.
Bahama Islands.....	do.....	75° W.	5	slow	12	noon	
Balleny Islands.....	Antarctic Ocean (162° E.).....						No standard time.
Barbados Island.....	West Indies.....	60° W.	4	slow	1	p. m.	Do.
Beur Island.....	Arctic Ocean (20° E.).....						
Bochuanaland.....	Africa.....	30° E.	2	fast	7	p. m.	Western European time.
Belgium.....	Europe.....	0°	0		5	p. m.	
Bennett Island.....	Arctic Ocean.....	150° E.	10	fast	3	1 a. m.	Central European time. La Paz time.
Bermuda Islands.....	North Atlantic.....	60° W.	4	slow	1	p. m.	
Bessarabia.....	Europe.....	15° E.	1	fast	6	p. m.	
Bolivia.....	South America.....		4 33	slow	12 27	p. m.	

¹ The time noted is in the morning of the following day.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon—Continued

Country	General location	Standard meridian	Time compared with Greenwich		Noon at Washington, D. C. (eastern standard time)		Remarks
			H.	M. S.	H.	M. S.	
Borneo	East Indies.....						
British North Borneo (Labuan).....		120° E.	8	fast	1	1 a. m.	
Dutch Borneo:							
Balik Papan.....			8 20	fast	1 20	1 a. m.	
Pontianak.....			7 17	fast	12 17	1 a. m.	
Sarawak.....		112° 30' E.	7 30	fast	12 30	1 a. m.	
Southern part.....							No standard time.
Brazil	South America.....						Adopted Jan. 1, 1914.
Fernando Noronha Island.....		30° W.	2	slow	3	p. m.	
Isle da Trindade.....							
Bahia.....							
Ceara.....							
Esperito Santo.....							
Goyaz.....							
Maranhao.....							
Minas-Geraes.....							
Para.....							
Parana.....		45° W.	3	slow	2	p. m.	
Parahyba.....							
Pernambuco.....							
Piauihy.....							
Rio de Janeiro.....							
Rio Grande do Norte.....							
Rio Grande do Sul.....							
Santa Catherina.....							
Sao Paulo.....							
Amazonas.....		60° W.	4	slow	1	p. m.	
Matto Grosso.....		75° W.	5	slow	12	noon	
Acre Territory.....		30° E.	2	fast	7	p. m.	
Bulgaria	Europe.....						Eastern European time
Burma	Asia.....	97° 30' E.	6 30	fast	11 30	p. m.	
Cameroon	Africa.....						
British.....		15° E.	1	fast	6	p. m.	
French.....		15° E.	1	fast	6	p. m.	Adopted Jan. 1, 1912.
Campbell Island	Antarctic Ocean (170° W.).....						No standard time.
Canada and Newfoundland	North America.....						
Belle Isle.....							
Labrador (coast).....			3 31	slow	1 29	p. m.	St. Johns time.
Newfoundland.....							
Anticosti Island.....							
Cape Breton Island.....							
Labrador (interior).....							
Magdalen Island.....							
New Brunswick.....		60° W.	4	slow	1	p. m.	Atlantic standard time.
Nova Scotia.....							
Quebec (east of 68° W.).....							
Sable Island.....							
Melville Peninsula.....							
Ontario (east of 90° W.).....		75° W.	5	slow	12	noon.	Eastern standard time.
Quebec (west of 68° W.).....							
Southampton Island.....							
Manitoba.....							
Northwest Territories (eastern).....		90° W.	6	slow	11	a. m.	Central standard time.
Ontario (west of 90° W.).....							
Alberta.....							
Northwest Territories (middle).....		105° W.	7	slow	10	a. m.	Mountain standard time.
Saskatchewan.....							
British Columbia.....							
Northwest Territories (western).....		120° W.	8	slow	9	a. m.	Pacific standard time.
Yukon.....		135° W.	9	slow	8	a. m.	Yukon standard time.

† The time noted is in the morning of the following day.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon—Continued

Country	General location	Standard meridian	Time compared with Greenwich			Noon at Wash- ington, D. C. (eastern stand- ard time)			Remarks
			H.	M.	S.	H.	M.	S.	
Canada and Newfound- land—Continued.									
Arctic Islands:									
Baffin Island	}								No standard time.
Banks Island									
Boothia Peninsula									
Ellesmore Island									
Melville Island									
North Devon Island									
North Somerset Island.									
Prince of Wales land.									
Victoria Island									
Canary Islands	North Atlantic	15° W.	1	slow		4	p. m.		
Cape Verde Islands	do	30° W.	2	slow		3	p. m.		
Caroline Islands	South Pacific								
Western		150° E.	0	fast		3	1 a. m.		
Eastern		165° E.	1	fast		4	1 a. m.		
Celebes Islands	East Indies (120° E.).								Do.
Macassar			7 57 37	fast		12 57 37	1 a. m.		
Ceram Island	East Indies (120° E.).								Do.
Amboina			8 33	fast		1 33	1 a. m.		
Chad	Africa	15° E.	1	fast		6	p. m.		
Chagos Archipelago	Indian Ocean	75° E.	5	fast		10	p. m.		
Chatham Island	South Pacific	172° 30' E.	11 30	fast		4 30	1 a. m.		
Chile	South America	75° W.	5	slow		12	noon		Adopted Sept. 1, 1918.
China	Asia								
Interior									No standard time.
East coast		120° E.	8	fast		1	1 a. m.		
Hoi hau		105° E.	7	fast		12	midnight		
Hong Kong		120° E.	8	fast		1	1 a. m.		
Luichow		105° E.	7	fast		12	midnight		
Pakhoi		105° E.	7	fast		12	midnight		
Cocos Islands (Keeling)	Indian Ocean	97° 30' E.	6 30	fast		11 30	p. m.		
Colombia	South America	75° W.	5	slow		12	noon		
Comoro Islands	Indian Ocean	45° E.	3	fast		8	p. m.		
Congo	Africa								
Belgian		15° E.	1	fast		6	p. m.		
French		15° E.	1	fast		6	p. m.		Adopted Jan. 1, 1912.
Cook Islands	South Pacific (160° W.).		10 38	slow		6 22	a. m.		
Corsica Island	Mediterranean Sea	0°	0			5	p. m.		
Costa Rica	Central America	90° W.	6	slow		11	a. m.		Adopted Jan. 15, 1921.
Crete Island	Mediterranean Sea.	30° E.	2	fast		7	p. m.		
Cuba	West Indies	75° W.	5	slow		12	noon		
Curacao Island	Caribbean Sea (69° W.).		4 36	slow		12 24	p. m.		
Cyprus Island	Mediterranean Sea.	30° E.	2	fast		7	p. m.		
Czechoslovakia	Europe	15° E.	1	fast		6	p. m.		Central European time.
Dahomey	Africa	0°	0			5	p. m.		Adopted Jan. 1, 1912.
Danzig	Europe	15° E.	1	fast		6	p. m.		Central European time.
Denmark	do	15° E.	1	fast		6	p. m.		Do.
Dominica Island	West Indies	60° W.	4	slow		1	p. m.		
Dominican Republic	do		4 40	slow		12 20	p. m.		
Ecuador	South America								
Guayaquil			5 19 24	slow		11 40 36	a. m.		
Quito			5 14 6.7	slow		11 45 53.3	a. m.		
Egypt	Africa	30° E.	2	fast		7	p. m.		
El Salvador	Central America	90° W.	6	slow		11	a. m.		
England	British Isles	0°	0			5	p. m.		Western European time.

¹ The time noted is in the morning of the following day.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon—Continued

Country	General location	Standard meridian	Time compared with Greenwich		Noon at Washington, D. C. (eastern standard time)		Remarks
			H.	M. S.	H.	M. S.	
Eritrea	Africa	45° E.	3	fast	8	p. m.	Eastern European time.
Estonia	Europe	30° E.	2	fast	7	p. m.	
Tallinn			1 38 57	fast	6 38 57	p. m.	No standard time.
Ethiopia	Africa (40° E.)						
Falkland Islands	South Atlantic	60° W.	4	slow	1	p. m.	Western European time.
Faroe Islands	British Isles	0°	0		5	p. m.	
Fernando Po Island	South Atlantic	0°	0		5	p. m.	Eastern European time.
Fiji Islands	South Pacific	180° E.	2	fast	5	a. m.	
Finland (Soumi)	Europe	30° E.	2	fast	7	p. m.	No standard time.
Flores Island	East Indies (120° E.)						No standard time.
Formosa Island (Taiwan)	China Sea	120° E.	8	fast	1	a. m.	Western European time. Adopted Mar. 9, 1911.
France	Europe	0°	0		5	p. m.	
Gabon	Africa	15° E.	1	fast	6	p. m.	No standard time.
Galapagos Islands	South Pacific (90° W.)						
Gambia	Africa		1 06	slow	3 54	p. m.	Central European time.
Germany	Europe	15° E.	1	fast	6	p. m.	
Gibraltar	do	0°	0		5	p. m.	Western European time.
Gold Coast	Africa	0°	0		5	p. m.	Eastern European time. Adopted July 28, 1916.
Great Lyakhov Island	Arctic Ocean	135° E.	9	fast	2	a. m.	
Greece	Europe	30° E.	2	fast	7	p. m.	No standard time.
Greenland	Arctic Ocean						No standard time.
Interior							Adopted June 8, 1911. No standard time.
Angmagssalik		45° W.	3	slow	2	p. m.	
Disko Island		45° W.	3	slow	2	p. m.	Adopted Jan. 1, 1911.
Scoresby Sound		30° W.	2	slow	3	p. m.	
Western coast		45° W.	3	slow	2	p. m.	Adopted Jan. 1, 1912.
Grenada Island	West Indies	60° W.	4	slow	1	p. m.	
Guadeloupe Island	do	60° W.	4	slow	1	p. m.	No standard time.
Guadalupe Island	North Pacific (120° W.)						Guam standard time.
Guam Island	North Pacific	150° E.	10	fast	3	a. m.	No standard time.
Guatemala	Central America						No standard time.
Guiana	South America						Adopted Jan. 1, 1911.
British			3 45	slow	1 15	p. m.	
Dutch			3 40 35	slow	1 19 25	p. m.	Adopted Jan. 1, 1912.
French		60° W.	4	slow	1	p. m.	
Guinea	Africa						Adopted Jan. 1, 1912.
French		15° W.	1	slow	4	p. m.	
Portuguese		15° W.	1	slow	4	p. m.	No standard time.
Hainan Island	China Sea	105° E.	7	fast	12	midnight	
Haiti, Republic of	West Indies	75° W.	5	slow	12	noon	No standard time.
Halmahera Island	East Indies (120° E.)						
Ternate		127° 30' E.	8 30	fast	1 30	a. m.	Hawaiian standard time.
Hawaiian Islands	North Pacific	157° 30' W.	10 30	slow	6 30	a. m.	
Hebrides Islands	British Isles	0°	0		5	p. m.	Central European time.
Honduras	Central America	90° W.	6	slow	1	a. m.	
British Honduras	do	90° W.	6	slow	11	a. m.	Central European time.
Hungary	Europe	15° E.	1	fast	6	p. m.	
Iceland	North Atlantic	15° W.	1	slow	4	p. m.	

¹ The time noted is in the morning of the following day.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon—Continued

Country	General location	Standard meridian	Time compared with Greenwich		Noon at Washington, D. C. (eastern standard time)		Remarks
			H. M. S.		H. M. S.		
India.....	Asia.....	82° 30' E.	5 30	fast	10 30	p. m.	Indian standard time.
Calcutta.....			5 53	20.8 fast	10 53	20.8 p. m.	
Chattagong.....			6 07	fast	11 07	p. m.	
Ceylon.....		82° 30' E.	5 30	fast	10 30	p. m.	Indian standard time.
French Establishments.....		82° 30' E.	5 30	fast	10 30	p. m.	Adopted July 18, 1911.
Portuguese Goa.....		82° 30' E.	5 30	fast	10 30	p. m.	Indian standard time.
Indo-China.....	Asia.....	105° E.	7	fast	12	midnight	Adopted May 1, 1931.
Iraq.....	do.....	45° E.	3	fast	8	p. m.	
Ireland.....	British Isles.....	0°	0		5	p. m.	Western European time.
Italy.....	Europe.....	15° E.	1	fast	6	p. m.	Central European time.
Ivory Coast.....	Africa.....	0°	0		5	p. m.	Adopted Jan. 1, 1911.
Jamaica.....	West Indies.....	75° W.	5	slow	12	noon	Adopted Feb. 1, 1912.
Jan Mayen Island.....	Arctic Ocean (10° W.).						No standard time.
Japanese Empire.....	Asia.....	135° E.	9	fast	2	1 a. m.	Japanese standard time.
Korea (Chosen).....		135° E.	9	fast	2	1 a. m.	
Java.....	East Indies.....		7 20	fast	12 20	1 a. m.	
Juan Fernandez Island.....	South Pacific.....	75° W.	5	slow	12	noon	
Karaginski Island.....	Bering Sea.....	165° E.	11	fast	4	1 a. m.	
Kenya.....	Africa.....	37° 30' E.	2 30	fast	7 30	p. m.	
Kodiak Island.....	Gulf of Alaska.....	150° W.	10	slow	7	a. m.	
Komandorski Islands.....	Bering Sea.....	165° E.	11	fast	4	1 a. m.	
Koteln Island.....	Arctic Ocean.....	135° E.	9	fast	2	1 a. m.	
Kuril Islands.....	Japan.....	135° E.	9	fast	2	1 a. m.	
Laccadive Islands.....	Indian Ocean.....	82° 30' E.	5 30	fast	10 30	p. m.	
Latvia.....	Europe.....	30° E.	2	fast	7	p. m.	Eastern European time.
Liberia.....	Africa.....		0 44	slow	4 16	p. m.	
Libia.....	do.....	15° E.	1	fast	6	p. m.	
Liechtenstein.....	Europe.....	15° E.	1	fast	6	p. m.	Central European time.
Lithuania.....	do.....	15° E.	1	fast	6	p. m.	
Lombok Island.....	East Indies (115° E.).						No standard time.
Lord Howe Island.....	South Pacific.....	150° E.	10	fast	3	1 a. m.	
Loyalty Islands.....	do.....	165° E.	11	fast	4	1 a. m.	
Luxemburg.....	Europe.....	15° E.	1	fast	6	p. m.	Central European time.
Macao.....	China Sea.....	120° E.	8	fast	1	1 a. m.	
Macquarie Island.....	Antarctic Ocean (160° E.).						No standard time.
Madagascar Island.....	Indian Ocean.....	45° E.	3	fast	8	p. m.	Adopted July 1, 1911.
Madeira Island.....	North Atlantic.....	15° W.	1	slow	4	p. m.	
Mahon Island.....	Mediterranean Sea.....	0°	0		5	p. m.	
Malay States, Confederated.....	Asia.....	105° E.	7	fast	12	midnight	
Maldives Islands.....	Indian Ocean.....		4 54	fast	9 54	p. m.	
Malta Island.....	Mediterranean Sea.....	15° E.	1	fast	6	p. m.	
Marianas Islands.....	South Pacific.....	150° E.	10	fast	3	1 a. m.	
Marquesas Islands.....	do.....	150° W.	10	slow	7	a. m.	
Marshall Islands.....	North Pacific.....	165° E.	11	fast	4	1 a. m.	
Martinique Island.....	West Indies.....	60° W.	4	slow	1	p. m.	Adopted May 1, 1911.
Mauritania.....	Africa.....	15° W.	1	slow	4	p. m.	Adopted Jan. 1, 1912.
Mauritius Island.....	Indian Ocean.....	60° E.	4	fast	9	p. m.	

¹ The time noted is in the morning of the following day.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon—Continued

Country	General location	Standard meridian	Time compared with Greenwich		Noon at Wash- ington, D. C. (eastern stand- ard time)		Remarks
			H. M. S.		H. M. S.		
Mexico (except Lower California north of 28°), Lower California (north of 28° N.).	Central Amer- ica.	90° W.	6	slow	11	a. m.	Adopted Apr. 1, 1932.
Miquelon Island.....	Gulf of St. Law- rence.	120° W.	8	slow	9	a. m.	
		60° W.	4	slow	1	p. m.	Adopted May 15, 1911. At- lantic stand- ard time.
Monaco.....	Europe.....	0°	0		5	p. m.	Western European time.
Mono Island.....	East Indies (155° E.)						No Standard time.
Morocco.....	Africa.....	0°	0		5	p. m.	
Mozambique.....	do.....	30° E.	2	fast	7	p. m.	
Nauru Island.....	South Pacific.	165° E.	11	fast	4	1 a. m.	
Netherlands.....	Europe.....		0 19 32 1	fast	5 19 32 1	p. m.	Amsterdam time.
New Britain Island.....	East Indies	150° E.	10	fast	3	1 a. m.	
New Caledonia Island.....	South Pacific.	165° E.	11	fast	4	1 a. m.	Adopted Jan. 13, 1912.
New Guinea Island.....	East Indies (140° E.)						
Western part.....							No standard time.
Eastern part: New Guinea.....	}	150° E.	10	fast	3	1 a. m.	
Papua.....							
New Hebrides Islands.....	South Pacific.	165° E.	11	fast	4	1 a. m.	Adopted Jan. 13, 1912.
New Ireland.....	East Indies	150° E.	10	fast	3	1 a. m.	
New Siberia Island.....	Arctic Ocean.....	150° E.	10	fast	3	1 a. m.	
New Zealand.....	South Pacific.....	172° 30' E.	11 30	fast	4 30	1 a. m.	
Nicaragua.....	Central Amer- ica.		5 45 10	slow	11 14 50	a. m.	Managua time.
Nicobar Islands.....	Indian Ocean.....	97° 30' E.	6 30	fast	11 30	p. m.	
Nigeria.....	Africa.....	15° E.	1	fast	6	p. m.	Adopted Sept. 1, 1919.
Niger Territory.....	do.....						
Western.....		0°	0		5	p. m.	Adopted Jan. 1, 1912.
Eastern.....		15° E.	1	fast	6	p. m.	
Norfolk Island.....	South Pacific.....		11 12	fast	4 12	1 a. m.	
Norway.....	Europe.....	15° E.	1	fast	6	p. m.	Central Euro- pean time.
Nova Zembla Island.....	Arctic Ocean.....	60° E.	4	fast	9	p. m.	
Nunivak Island.....	Bering Sea.....	165° W.	11	slow	6	a. m.	
Nyasaland.....	Africa.....	30° E.	2	fast	7	p. m.	
Oceania, French.....	South Pacific.....	150° W.	10	slow	7	a. m.	Adopted Oct. 1, 1912.
Ogasawara Island.....	Japan.....	135° E.	9	fast	2	1 a. m.	
Orkney Islands.....	British Isles.....	0°	0		5	p. m.	
Palau Island.....	East Indies.....	135° E.	9	fast	2	1 a. m.	
Palestine.....	Asia.....	30° E.	2	fast	7	p. m.	
Palma Island.....	Mediterranean Sea.....	0°	0		5	p. m.	
Panama.....	Central Amer- ica.....	75° W.	5	slow	12	noon	
Canal Zone.....		75° W.	5	slow	12	noon	Eastern standard time.
Paraguay.....	South America.....		3 37 12	slow	1 22 48	p. m.	Asuncion time.
Persia.....	Asia (55° E.).....						No standard time.
Peru.....	South America.....	75° W.	5	slow	12	noon	
Philippine Islands.....	China Sea.....	120° E.	8	fast	1	1 a. m.	Philippine standard time.

¹ The time noted is in the morning of the following day.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon—Continued

Country	General location	Standard meridian	Time compared with Greenwich		Noon at Wash- ington, D. C. (eastern stand- ard time)		Remarks
			H.	M. S.	H.	M. S.	
Poland.....	Europe.....	15° E.	1	fast	6	p. m.	Central Eu- ropean time Adopted Sept. 16, 1919.
Portugal.....	Europe.....	0°	0		5	p. m.	Western Eu- ropean time. Adopted Jan. 1, 1912.
Pribilof Islands.....	Bering Sea.....	165° W.	11	slow	6	a. m.	Puerto Rican standard time.
Principe Island.....	South Atlantic.....	0°	0		5	p. m.	
Puerto Rico.....	West Indies.....	60° W.	4	slow	1	p. m.	
Queen Charlotte Islands.....	Gulf of Alaska.....	120° W.	8	slow	9	a. m.	Adopted June 1, 1911. Eastern Eu- ropean time.
Raratonga Island.....	South Pacific.....		10 38	slow	6 22	a. m.	
Reunion Island.....	Indian Ocean.....	60° E.	4	fast	9	p. m.	
Rhodes Island.....	Mediterranean Sea.....	30° E.	2	fast	7	p. m.	Japanese standard time.
Rhodesia.....	Africa.....	30° E.	2	fast	7	p. m.	
Rio de Oro.....	do.....	15° W.	1	slow	4	p. m.	
Rio Muni.....	do.....	0°	0		5	p. m.	
Rumania.....	Europe.....	15° E.	1	fast	6	p. m.	
Sakhalin Island.....	Sea of Japan.....	135° E.	9	fast	2	1 a. m.	
Samoa Islands.....	South Pacific.....						
Eastern.....		165° W.	11	slow	6	a. m.	No standard time. Do.
Western.....		172° 30' W.	11 30	slow	5 30	a. m.	
Sandalwood Island.....	East Indies (120° E.).						Western Eu- ropean time. Adopted Jan. 1, 1912.
Sandwich Islands.....	South Atlantic (25° W.).						
Sardinia Island.....	Mediterranean Sea.....	15° E.	1	fast	6	p. m.	Western Eu- ropean time. Adopted Apr. 1, 1920. Central Eu- ropean time.
Savage Island.....	South Pacific.....		11 20	slow	5 40	a. m.	
Scotland.....	British Isles.....	0°	0		5	p. m.	Western Eu- ropean time. Adopted Apr. 1, 1920. Central Eu- ropean time.
Senegal.....	Africa.....	15° W.	1	slow	4	p. m.	
Seychelles Islands.....	Indian Ocean.....	60° E.	4	fast	9	p. m.	Western Eu- ropean time. Adopted Apr. 1, 1920. Central Eu- ropean time.
Shetland Islands.....	British Isles.....	0°	0		5	p. m.	
Siam.....	Asia.....	105° E.	7	fast	12	midnight.	No standard time. Do.
Sicily Island.....	Mediterranean Sea.....	15° E.	1	fast	6	p. m.	
Sierra Leone.....	Africa.....	15° W.	1	slow	4	p. m.	No standard time. Do.
Sokotra Island.....	Arabian Sea.....	45° E.	3	fast	8	p. m.	
Solomon Islands.....	South Pacific (160° E.).						Aden time. Adopted July 1, 1911.
Somaliland.....	Africa.....						
British.....			2 59 54	fast	7 59 54	p. m.	No standard time. Do.
French coast.....		45° E.	3	fast	8	p. m.	
Italian.....		45° E.	3	fast	8	p. m.	No standard time. Do.
South Georgia Islands.....	South Atlantic (45° W.).		2 07	slow	2 53	p. m.	
South Orkney Islands.....	South Atlantic (60° W.).						No standard time. Do.
South Shetland Islands.....	South Atlantic (60° W.).						
Southwest Africa.....	Africa.....	30° E.	2	fast	7	p. m.	No standard time. Do.
Soviet Union (U. S. S. R.).....	Europe and Asia.....						
Central Black Soil Area (western).....							
Crimean S. S. R.....							
Ivanovo Industrial Area (western).....							
Karelian S. S. R.....							
Kola Peninsula.....							
Leningrad Area.....							
Moldavian S. S. R.....							
Moscow Industrial Area.....							

¹ The time noted is in morning of the following day.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon—Continued

Country	General location	Standard meridian	Time compared with Greenwich		Noon at Washington, D. C. (eastern standard time)		Remarks
			H. M. S.	H. M. S.			
Soviet Union—Contd.							
Northern Area (western).							
Ukrainian S. S. R.		30° E.	2	fast	7	p. m.	
Western Area.							
White Russian S. S. R.							
Abkhassian S. S. R.							
Adjarsk S. S. R.							
Armenian S. S. R.							
Azerbaijdan S. S. R.							
Bashkirian S. S. R.							
(western).							
Central Black Soil Area							
(eastern).							
Chuvash S. S. R.							
Daghestan S. S. R.							
Georgian S. S. R.							
German Volga S. S. R.							
Ivanovo Industrial Area							
(eastern).							
Kalmyk Area.		45° E.	3	fast	8	p. m.	
Kazak S. S. R. (western)							
Lower Volga Area.							
Mari Area.							
Middle Volga Area.							
Nakhichevan S. S. R.							
Nizhni-Novgorod Area.							
North Caucasian Area.							
Northern Area (central)							
Tatar S. S. R.							
T v a n o v o Industrial							
Area (eastern).							
Ural Area (western).							
Votjak Area.							
Zyryan Area (western).							
Badakhshansk Area.							
Bashkir S. S. R. (east-							
ern).							
Kara Kalpak Area.							
Kazak S. S. R. (central).							
Middle Volga Area							
(southeastern).							
Northern Area (north-		60° E.	4	fast	9	p. m.	
eastern).							
Tadzhik S. S. R.							
Turkmen S. S. R.							
Ural Area (central).							
Uzbek S. S. R.							
Zyryan Area (eastern).							
Kazak S. S. R. (eastern).							
Kirghiz S. S. R.							
Siberian Area (western).		75° E.	5	fast	10	p. m.	
Ural Area (eastern).							
Yamal Peninsula.							
Oyrat Area.		90° E.	6	fast	11	p. m.	
Siberian Area (central).							
Mongolo-Buryat S. S. R.							
Siberian Area (eastern).							
Yakutsk S. S. R. (west-		105° E.	7	fast	12	midnight	
ern).							
Far Eastern Area (west-							
ern).							
Siberian Area (south-							
eastern).		120° E.	8	fast	1	a. m.	
Yakutsk S. S. R. (west							
central).							
Far Eastern Area (west							
central).							
Sakhalin Island.							
Yakutsk S. S. R. (central).		135° E.	9	fast	2	a. m.	

¹ The time noted is in the morning of the following day.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon—Continued

Country	General location	Standard meridian	Time compared with Greenwich		Noon at Washington, D. C. (eastern standard time)		Remarks
			H. M. S.		H. M. S.		
Soviet Union—Contd.							
Far Eastern Area (central).	}	150° E.	10	fast	3	1 a. m.	Western European time. Adopted Jan. 1, 1901. No standard time.
Yakutsk S. S. R. (east central).							
Far Eastern Area (east central).							
Kamchatka.	}	165° E.	11	fast	4	1 a. m.	
Yakutsk S. S. R. (eastern).							
Far Eastern Area (eastern).							
Spain.	Europe.	0°	0		5	p. m.	
Spitzbergen.	Arctic Ocean (15° E.).						
Santa Cruz Islands.	South Pacific.	165° E.	11	fast	4	1 a. m.	
Staten Island.	South Atlantic.	60° W.	4	slow	1	p. m.	
St. Croix Island.	West Indies.	60° W.	4	slow	1	p. m.	
St. Helena Island.	South Atlantic.		0 23	slow	4 37	p. m.	
St. Lawrence Island.	Bering Sea.	165° W.	11	slow	6	a. m.	
St. Lucia Island.	West Indies.	60° W.	4	slow	1	p. m.	
St. Matthew Island.	Bering Sea.	165° W.	11	slow	6	a. m.	
St. Miguel Island.	North Atlantic.	30° W.	2	slow	3	p. m.	
St. Thomas Island (Sao Thome).	South Atlantic.	0°	0		5	p. m.	
St. Thomas Island.	West Indies.	60° W.	4	slow	1	p. m.	
St. Vincent Island.	do.	60° W.	4	slow	1	p. m.	
Straits Settlements.	Asia.	105° E.	7	fast	12	midnight	
Sudan.	Africa.						
Anglo-Egyptian.		30° E.	2	fast	7	p. m.	
French:							
Eastern.		0°	0		5	p. m.	
Western.		15° W.	1	slow	4	p. m.	
Sumatra.	East Indies (100° E.).						Do.
Benkalis.		97° 30' E.	6 30	fast	11 30	p. m.	
Benkulen.			7 20	fast	12 20	1 a. m.	
Emma Harbor.			6 42	fast	11 42	p. m.	
Muntok.			7 20	fast	12 20	1 a. m.	
Padang.			6 42	fast	11 42	p. m.	
Sweden.	Europe.	15° E.	1	fast	6	p. m.	Central European time.
Switzerland.	do.	15° E.	1	fast	6	p. m.	Do.
Syria.	Asia.	30° E.	2	fast	7	p. m.	
Tanganyika.	Africa.	45° E.	3	fast	8	p. m.	
Tasmania.	Australia.	150° E.	10	fast	3	1 a. m.	
Thaddaeus Island.	Arctic Ocean.	150° E.	10	fast	3	1 a. m.	
Timor Island.	East Indies.	120° E.	8	fast	1	1 a. m.	
Kupang.			8 15	fast	1 15	1 a. m.	
Timor Laut.	East Indies (135° E.).						No standard time.
Togoland.	Africa.	0°	0		5	p. m.	
Tonga Islands.	South Pacific.		12 20	fast	5 20	1 a. m.	
Trinidad, British.	West Indies.	60° W.	4	slow	1	p. m.	
Tripolitania.	Africa.	15° E.	1	fast	6	p. m.	
Tuamotu Archipelago.	South Pacific.	150° W.	10	slow	7	a. m.	
Tunisia.	Africa.	15° E.	1	fast	6	p. m.	
Turkey.	Europe and Asia	30° E.	2	fast	7	p. m.	Adopted Apr. 12, 1911. Eastern European time.
Ubangi Shari.	Africa.	15° E.	1	fast	6	p. m.	
Uganda.	do.	37° 30' E.	2 30	fast	7 30	p. m.	
Union of South Africa.	do.						
Cape Colony.							
Natal.		30° E.	2	fast	7	p. m.	
Orange Free State.							
Transvaal.							

¹ The time noted is in the morning of the following day.

TABLE 2.—Time compared with Greenwich mean time and Washington, D. C., noon—Continued

Country	General location	Standard meridian	Time compared with Greenwich		Noon at Wash- ington, D. C. (eastern stand- ard time)		Remarks
			H. M. S.		H. M. S.		
United States of America.	North America.						
Eastern.....		75° W.	5	slow	12	noon	
Central.....		90° W.	6	slow	11	a. m.	
Mountain.....		105° W.	7	slow	10	a. m.	
Pacific.....		120° W.	8	slow	9	a. m.	
Uruguay.....	South America.	52° 30' W.	3 30	slow	1 30	p. m.	
Venezuela.....	do.	67° 30' W.	4 30	slow	12 30	p. m.	
Virgin Islands.....	West Indies	60° W.	4	slow	1	p. m.	
Volcano Islands.....	Japanese Sea.	135° E.	9	fast	2	¹ a. m.	
Wales.....	British Isles	0°	0		5	p. m.	Western Eu- ropean time.
Wrangell Island.....	Arctic Ocean.	180° E.	12	fast	5	¹ a. m.	
Yap Island.....	Japanese Sea.	135° E.	9	fast	2	¹ a. m.	
Yugoslavia.....	Europe.	15° E.	1	fast	6	p. m.	Central Eu- ropean time.
Zanzibar Island.....	Indian Ocean.	45° E.	3	fast	8	p. m.	

¹ The time noted is in the morning of the following day.

VI. SOURCES OF INFORMATION

In compiling the material given in this circular, much valuable information was derived from the following sources:

Annuaire de Bureau des Longitudes, France, 1892-1931.

British Hydrographic Office Map—Time Zone Map of the World.

Guide Book to Soviet Union, 1928, by A. Rado.

Geographic News Bulletin No. 2, February 21, 1931, United States Bureau of Foreign and Domestic Commerce.

United States Hydrographic Office Map 5192, August, 1931—Time Zone Map of the World.

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VII. OTHER GOVERNMENT PUBLICATIONS ON STANDARD TIME

The following Government publications are available at the prices quoted.

Bureau of Standards Miscellaneous 84, Standard Time Conversion Chart. 10 cents.

Bureau of Standards Miscellaneous 111, Time Zone Map of the United States. 10 cents.

These may be secured from the Superintendent of Documents, Government Printing Office, Washington, D. C.

The following map may be purchased from the Hydrographic Office of the Navy Department, Washington, D. C., for 50 cents.

Time Zone Chart of The World. No. 5192.

