



## BEST RECEPTION TABLE

BAND	MOST FAVORABLE TIME
49M	Night—Winter
31M	Day—Late Afternoon and Night—Winter

BAND	MOST FAVORABLE TIME
25M	Evenings or Late Summer Afternoons
19M	Early Mornings and Summer Evenings

BAND	MOST FAVORABLE TIME
16M	Early Mornings and Summer Evenings
13M	Day and Night

## HOW TO USE THE DIAL-O-MAP

To determine the present time of day in some other city in the world:

1. First check the map and note Time Zone in which you are located.
2. Outer circle of the dial indicates time of day—turn the inner dial of the Dial-O-Map so that your Zone Number lines up with the present time in your city.
3. Next, check the map for the Zone Number of the city from which you wish to receive a program, the time indicated in the outer dial opposite that Zone Number is the time in that area.

EXAMPLE: At 10 A.M. in Chicago (Zone 6) what is the time in London (Zone 12)? Turn dial so that Zone 6 arrow points to 10 A.M. and note that Zone 12 indicates time in London to be 4 P.M.

If you are on Daylight Saving Time, be sure to subtract one hour.

NOTE: If Zone Number of city from which you wish to receive a program is larger than your Zone Number, the time indicated is ahead of your time; if smaller, it is later than your time. Keep in mind the International Date Line which separates Zone 24 and Zone 1. For example, if it is 9 A.M. Tuesday in Zone 1, it will be 9 A.M. Monday.

## BRIEF OPERATING INSTRUCTIONS

*For more detailed instructions, be certain to read the instruction book supplied with this receiver.*

**1. BATTERY INSTALLATION**—Open the rear cover of the cabinet and place the nine 1½ volt type D cells in the battery compartment. When installing these batteries, be certain to install them as indicated by the battery outlines on the bottom of the battery compartment.

**2. OPERATING THE RECEIVER**—Turn the volume control knob clockwise. Advance the volume until sound is heard. Then rotate the band selector button at the right side of the cabinet to the band you desire and adjust the tuning control until you have tuned to the desired station. Since the wavemagnet is directional it may be necessary to rotate the receiver for best reception.

**3. DIAL LIGHT**—In the event you are operating this receiver in a dark room where it is very difficult to see the dial scale, press the dial light control located at the lower left control portion of the control panel to the left, this will illuminate the dial.

**4. TONE CONTROL**—This receiver has the tone control on the lower left portion of the control panel. This new type of control is continuously variable. When the control is turned clockwise the low notes are reduced, at the same time the high notes are given extra emphasis. As the control is turned counter-clockwise, the high notes are reduced and the lower tones are given added emphasis. When in the center position, both high and low tones are reproduced in normal relations.

**5. PHONO CONNECTION**—A phono input jack is provided at the back of this chassis. Any phonograph using a crystal type cartridge can be connected to this receiver. Connect the phonograph to this receiver by plugging the available cable into the phono jack. Then set the radio-phono switch to phono position. The volume can then be controlled by the volume control in the radio.

**6. STANDARD BROADCAST WAVEMAGNET**—When operating the receiver on the broadcast band, the Standard Broadcast Wavemagnet mounted in the top of the cabinet would normally be sufficient. However, if you are operating the receiver in a train, plane, hotel or in an automobile, remove the detachable wavemagnet mounted to the back

of the chassis; release the wavemagnet extension cable; remove the standard broadcast wavemagnet plug and install the plug on the end of the extension cable, into this socket. Then place this wavemagnet on the center of an outside window.

**7. SHORT WAVE RECEPTION**—To release the waverod, press on the outside base of the left handle support and lift the handle to a vertical position. Concealed within the handle is the waverod. Extend it to its full height. In average conditions this will be sufficient, however, if you are in a low signal area and wish additional signal pickup, we suggest that a good external antenna and ground be connected to the "A" and "G" terminals at the back of the chassis.

# WEATHER BROADCAST SCHEDULES

- Great Lakes Area
- Pacific Coast Area
- Atlantic Coast Area
- River Navigation
- Gulf of Mexico and Caribbean Sea Area

This weather broadcast schedule has been compiled from information obtained through the cooperation of the United States Department of Commerce, Weather Bureau, and the Canadian Department of Transport. The forecast and explanation of forecasts contained herein are supplied to be of help to sports enthusiasts and others using the Zenith Trans-Oceanic portable on the Great Lakes or in Coastal areas. It is not possible to reproduce

complete U.S. or Canadian Weather Broadcasting Schedules in a book this size, consequently we have only listed broadcast of A3 variety (voice transmission). If additional forecasts are desired they can be obtained from the United States Department of Commerce, Weather Bureau or the Canadian Department of Transport, Toronto, Canada.

## WEATHER INFORMATION 150 TO 400 KILOCYCLE BAND (ROYAL 1000D ONLY)

The Civil Aeronautics Authority operates a network of weather navigation stations on the 200-400 kc band throughout the U.S.A. and its territories. At 15 and 45 minutes after every hour, these stations broadcast complete summaries of local weather conditions at the stations broadcasting and at as many as eight or ten other CAA stations from 100 to 300 miles or more away in all directions. While these broadcasts are designed primarily for airmen, they include weather information of great value to boatmen, shippers, farmers, picnickers, tourists, hunters, and fishermen. Along with specialized aviation information, the stations report on temperature, visibility, and wind direction and velocity observed shortly before the hour at each station reported.

In addition, the CAA stations broadcast special storm warnings and radar reports giving the

location and intensity of thunderstorms, line squalls, etc., and their direction and rate of movement. There could be, for example, a line of thunderstorms existing from Milwaukee to Rockford moving to the southeast at 15 miles per hour, which would be invaluable information, not only for pilots, but also for people planning to sail or simply to go out on a picnic.

You can secure a catalog of charts showing the CAA stations and most marine beacons, together with their frequencies and call letters, from the Director of U.S. Coast and Geodetic Survey, Washington 25, D.C.

Books showing location, frequencies, and signal identification of marine beacons on the Great Lakes and coastal waters may be secured from United States Coast Guard Headquarters, Washington 25, D.C.

## LAFOT BULLETINS—FOR USE ON GREAT LAKES

(All references herein to time are in Eastern Standard Time.)

LAFOT BULLETINS issued by Weather Bureau Forecast Center, Chicago, Ill., are transmitted at 6-hourly intervals to supply mariners with wind and weather forecasts for the Great Lakes. To save time and other facilities, when radio or telegraph is used the forecasts are reduced to a system of code figures with plain language. The forecasts cover individual lakes, always appearing in the same order—SUPERIOR, MICHIGAN, HURON, ERIE and ONTARIO.

Each 6-hour issue of LAFOT BULLETINS will cover a 24-hour extent of time, divided into two PERIODS of 12 hours each, stated only as "First" and "Second." The FIRST period starts at Midnight in Lafots transmitted about 11 p.m.; at 6 a.m. in Lafots transmitted about 5 a.m.; at Noon in Lafots transmitted about 11 a.m.; and at 6 p.m. in Lafots transmitted about 5 p.m. The SECOND period runs for 12 hours beginning at the end of the FIRST period. Periods of time will be divided into PARTS or HOURS and the areas of the lakes divided into HALVES, THIRDS OR OTHER FRACTIONS.

Lafot bulletin broadcasts will also contain a weather synopsis for the area within 600 miles of the Great Lakes Region. Each synopsis is based on weather observations taken 4½ hours prior to the time of broadcast. The synopsis will include the location and anticipated movement of pressure centers, troughs, ridges and frontal systems, including barometric pressure, in inches, of HIGH and LOW centers. Transmission of the synopsis follows in Lafots.

Forecasts of wind velocity will show the average wind expected for the location and period stated. For winds below 16 mi/hr, variations from the stated value will usually run as high as 40% and occasionally 70%; for those above 15 mi/hr, variations will run as high as 20% and occasionally 30%. The weather element describes the average condition predicted.

### Explanation of LAFOT Code

"DDHW" will be the elements encoded in the 5-figure groups, "DD" being the first two figures, "HH" being the next two figures, and "W" the last figure. Wind direction "DD" will be given in two figures, each code figure equivalent to a direction as shown in the code table printed at right. For example, 0 is calm, 2 is east and 7 is northwest. Whenever the two "D" figures are the same, one of them should be disregarded and the other decoded from the table at right. For example, "44" as "DD" would be decoded as "south"; whenever the two figures are different, each will be decoded and the word "to" will be placed between the two decoded directions; for example, "35" as "DD" would be decoded as "SE to SW." Wind velocity "H" will be shown in mi/hr; for example, 03 will mean 3 mi/hr; 19 will mean 19 mi/hr, etc. Weather will be encoded in one figure using an appropriate figure from table "W".

Table for "D" (Wind Direction)

Code Direction
0 Calm
1 Northeast
2 East
3 Southeast
4 South

Code Direction
5 Southwest
6 West
7 Northwest
8 North
9 Variable

Code Weather
0 Fine (mostly clear)
1 Cloudy (or overcast)
2 Thundersqualls
3 Showers
4 Rain

Table for "W" (Weather)

Code Weather
5 Fog (visibility one-half mile or less)
6 Lake steam (visibility one-half mile or less)
7 Light to moderate snow
8 Freezing rain

Example of LAFOT Bulletin issued for broadcast at 11 p.m. EST.

**Superior:** First 18347 west half and 11287 east half. Second 87240 west half and 88277 east half. Much colder with temperature falling to 15 by late evening.

**Michigan:** First 99113 becoming 11193 middle period and 18307 end period. Second 87310. Example of above bulletin as translated. Lake forecasts for two 12-hour periods; the first commencing 12 Midnight and the second commencing at 12 Noon the next day.

### DECODED

**Lake Superior:** First period, wind northeast to north 34 mph with light to moderate snow west half of lake and northeast 28 mph with light to moderate snow east half of lake. Second period, wind north to northwest 24 mph fine weather west half and north 27 mph with light to moderate snow east half. Much colder with temperature falling to 15 by late evening.

**Lake Michigan:** First period, wind variable 11 mph showers becoming northeast 19 mph showers middle of period and northeast to north 30 mph with light to moderate snow end of period. Second period, wind north to northwest 31 mph fine weather.

Schedules of LAFOT Broadcasts on the Great Lakes are shown in circular entitled "Great Lakes Weather Forecast (LAFOT) and Weather Bulletin (LAWEB) Broadcasts, Marine Wavelengths," issued by this Office; copy of which may be obtained on application to U. S. Weather Bureau Office, Cleveland, Ohio or to any other Weather Bureau station located at a Great Lakes port.

## UNITED STATES GREAT LAKES WEATHER FORECAST (LAFOT)

Great Lakes Weather forecasts (LAFOTS), issued by the United States Weather Bureau Forecast Center, Chicago, Illinois are broadcast by radiotelephone every six hours during the navigation season. United States Radiotelephone Stations transmitting LAFOTS, their schedules, frequencies in kilocycles and weather forecasts included in each broadcast are indicated in the table which follows. All schedules are given in Eastern Standard Time. (75th Meridian Time.)

Station	Location	Lake Forecasts Included in Broadcasts
WAD	Port Washington, Wis.	Michigan, Superior and Huron
WAS	Duluth, Minn.	Superior, Michigan and Huron
WAY	Chicago, Ill.	Superior, Michigan, Huron, Erie and Ontario
WBL	Buffalo, N. Y.	Erie, Ontario and Huron
WLC	Rogers City, Mich.	Superior, Michigan, Huron, Erie and Ontario
WMI	Lorain, Ohio	Superior, Michigan, Huron, Erie and Ontario

Band	2-4 Mc	4-9 Mc	4-9 Mc
Channels	30	60	10
E.S.T.	2514 Kcs	4420.7 Kcs	8797.3 Kcs
12:02 a.m.	WMI	WMI	
12:09 a.m.	WAY	WAY	
12:16 a.m.	WLC	WLC	
12:23 a.m.	WAD	WBL	
12:27 a.m.	WAS	WAS	
6:02 a.m.	WMI	WMI	WMI
6:09 a.m.	WAY	WAY	WAY
6:16 a.m.	WLC	WLC	
6:23 a.m.	WAD	WBL	
6:27 a.m.	WAS	WAS	

Band	2-4 Mc	4-9 Mc	4-9 Mc
Channels	30	60	10
E.S.T.	2514 Kcs	4420.7 Kcs	8797.3 Kcs
12:02 p.m.	WMI	WMI	WMI
12:09 p.m.	WAY	WAY	WAY
12:16 p.m.	WLC	WLC	WLC
12:23 p.m.	WAS, WBL	WBL	
12:27 p.m.	WAD	WAS	
6:02 p.m.	WMI	WMI	WMI
6:09 p.m.	WAY	WAY	WAY
6:16 p.m.	WLC	WLC	WLC
6:23 p.m.	WBL	WBL	
6:27 p.m.	WAS	WAS	

## U.S. STORM AND WHOLE GALE WARNING BROADCAST SCHEDULES

These broadcasts are made immediately upon receipt of the warning at the radio station, on the first SCHEDULED HOIST TIME after receipt, and at 2-hour intervals thereafter until 5 hours after the EFFECTIVE broadcast once only, on the next SCHEDULED WARNING BROADCAST TIME after receipt. NOTE: warning broadcasts are made only during daylight hours by U. S. Coast Guard Radiotelephone Stations except Stations NOG-17, Portage, Michigan, NMP-15, Plum Island, Wisconsin and NMD-24, East Tawas, Michigan. Scheduled warning broadcast times given are in minutes past the even and odd hours, Eastern Standard Time.

## LAWEB BULLETIN BROADCASTS

Great Lakes Weather Bulletins (LAWEB), issued by the U. S. Weather Bureau Office, Cleveland, Ohio, are broadcast by Radiotelephone Station WMI, Lorain, Ohio, four times daily during the navigation season. These bulletins are broadcast in accordance with schedules and on frequencies in kilocycles as shown in the following table. All schedules are indicated in Eastern Standard Time.

Call Sign	Time of Broadcast	Frequencies	
		Even	Odd
WMI	0230	Channels 39—Band 2-4 mc (2514 kc.), 60—Band 4-9 mc (4420.7 kc.)	
WMI	0830	Channels 39—Band 2-4 mc (2514 kc.), 60—Band 4-9 mc (4420.7 kc.) and 10—Band 4-9 mc (8797.3 kc.)	
WMI	1430	Same as at 0830.	
WMI	2030	Same as at 0230 and channel 10—Band 4-9 mc (8797.3 kc.)	

## U.S. RADIOTELEPHONE STATIONS

All Broadcasts on Channel 51—2182 Kilocycles

Time	Lake Superior	Lake Michigan	Lake Huron	Lake Erie	Lake Ontario
Even HH + 35	Portage (NOG-17)	Plum Island (NMP-15)	# Port Huron (NMD-22)	—	—
Odd HH + 35	Lorain (WMI)	Lorain (WMI)	Lorain (WMI)	Lorain (WMI)	Lorain (WMI)
Even HH + 45	Rogers City (WLC)	Rogers City (WLC)	Rogers City (WLC)	—	—
Odd HH + 45	# Soo, Chicago (NOG) (WAY)	Chicago (WAY)	# Soo (NOG)	—	—
Even HH + 55	# Marquette (NOG-5)	# Mackinaw City (NMP-20)	—	# Erie (NMD-11)	—
Odd HH + 55	Duluth (WAS)	Port Wash. (WAD)	East Tawas (NMD-24)	Buffalo (WBL)	Buffalo (WBL)

# Broadcasts made only during daylight hours

## CANADIAN LAFOT BRAODCAST SCHEDULES

Great Lakes weather forecasts (LAFOTS), issued by the Meteorological Service of Canada are broadcast by Canadian Radiotelephone Stations every six hours during the navigation season. LAFOTS covering Lakes Superior, Huron, including Georgian Bay, Erie and Ontario and reports respecting dangers to navigation are transmitted in accordance with the schedules indicated below. All schedules are given in Eastern Standard Time. Schedules relating to Canadian LAFOT broadcasts and warnings have been furnished through the courtesy of the Director, Meteorological Service of Canada, 315 Bloor Street West, Toronto, Canada and are published for the convenience of Masters of U. S. ships plying the Great Lakes. Inquiries relating to Canadian broadcasts should be addressed to the Director at Toronto. All broadcasts are on 2514 kcs.

All Broadcasts Are on 2514 KCS.

Time	Station
3:40 and 9:40 a.m. and p.m.	VBG, Toronto
3:50 and 9:50 a.m. and p.m.	VBF, Fort Burwell *†
4:00 and 10:00 a.m. and p.m.	VBC, Midland
4:10 and 10:10 a.m. and p.m.	VBE, Sarnia
4:20 and 10:20 a.m. and p.m.	VBB, Sault Ste. Marie
4:30 and 10:30 a.m. and p.m.	VBA, Port Arthur
4:40 and 10:40 a.m. and p.m.	VBH, Kingston

\*Includes South East Shoal wind reports.

†Long Point Local Weather at 9:50

CANADIAN BROADCAST SCHEDULES OF LOCAL WEATHER REPORTS  
All Broadcasts Are on 2514 KCS.

Time	Station	Reports
9:10 a.m.]	VBH,	Main
2:00 p.m.]	Kingston	Duck
8:00 p.m.]		Island
9:10 a.m.]	VBA,	Caribou
1:40 p.m.]	Port Arthur	& Slave
7:40 p.m.]		Islands

Time	Station	Reports
9:20 a.m.]	VBB,	Caribou
1:50 p.m.]	Sault	& Slave
7:50 p.m.]	Ste. Marie	Islands
10:00 a.m.]	VBC,	Cove
4:00 p.m.]	Midland	Island
10:00 p.m.]		winds

CANADIAN WARNING BROADCAST SCHEDULES

Storm warnings and especially urgent reports respecting dangers to navigation are transmitted immediately on receipt by each of the radio stations listed in the preceding tables. These reports are repeated on 2514 KCS during the time schedules as shown in the table which follows:

TABLE OF TIME SCHEDULES, E.S.T.

7:00 a.m. to	7:30 a.m.	3:00 p.m. to	3:30 p.m.
8:00 a.m. to	8:30 a.m.	4:00 p.m. to	4:30 p.m.
9:00 a.m. to	9:30 a.m.	5:30 p.m. to	6:00 p.m.
10:00 a.m. to	10:30 a.m.	7:00 p.m. to	8:00 p.m.
11:00 a.m. to	11:30 a.m.	8:30 p.m. to	9:00 p.m.
1:00 p.m. to	2:00 p.m.	10:00 p.m. to	11:00 p.m.

BROADCAST SCHEDULES (ATLANTIC COAST AREA) OF MARINE WEATHER FORECASTS AND WARNINGS BY MARINE RADIOTELEPHONE STATIONS

City	Station	Band 2-4 Mc Kcs	Broadcast Times—EST
Boston, Mass.	WOU	2506 2450	Daily 5:20 am and pm 6:20 am 11:20 am and pm.
New York, N. Y.	WOX	2522 2590- 2482 day only	Daily 7:15 am* and pm*. *One hour earlier during Daylight Saving Time.
Cape May, N. J.	NMK	2662	Daily 12:50 am and pm.
New York, N. Y.	WOX	2522 2590- 2482 day only	Daily 7:15 am* and pm*. *One hour earlier during Daylight Saving Time.
Ocean Gate, N. J.	WAQ	2558	Daily 7:15 am and pm.
Baltimore, Md.	NMX	2702	Daily 11:30 am.
Cape May, N. J.	NMK	2662	Daily 12:50 am and pm.
Norfolk, Va.	WGB	2538	Daily 12 M 6 am 12 M 6 pm.
Ocean Gate, N. J.	WAQ	2558	Daily 7:15 am and pm.
Wilmington, Del.	WEH	2558	Daily 7:30 am and pm.

City	Station	Band 2-4 Mc Kcs	Broadcast Times—EST
Norfolk, Va.	WGB	2538	12 and 6 am and pm daily.
Fort Macon, N. C.	NMN3F	2702	12 noon daily.
Charleston, S. C.	WJO	2566	11:30 am and pm daily.
Jacksonville, Fla.	NMV	2678	1:20 am and pm daily.
Jacksonville, Fla.	WNJ	2566	7 am and pm daily.
Jacksonville, Fla.	NMV	2678	Daily 1:20 am and pm.
Jacksonville, Fla.	WNJ	2566	Daily 7 am and pm.
Miami, Fla.	WDR	2514 2490- day only	Daily 7:15 am and pm.
Tampa, Fla.	WFA	2550	Daily 7 am and pm.

\*after announcement on 2182 kc.

## SPECIAL BROADCASTS (ATLANTIC COAST AREA) OF STORM AND HURRICANE WARNINGS

City	Station	Band 2-4 Mc Kcs	Broadcast Times—EST
Boston, Mass.	NMF	2694	On receipt and at 11:20 am or pm.
Boston, Mass.	WOU	2506 2450	On receipt and 30 minutes past each ODD hour while the warning is in effect.
New York, N. Y.	NMY	2662	On receipt and at 11:50 am or pm.
New York, N. Y.	WOX	2522 2590- 2482 day only	On receipt and at 15 minutes past each ODD hour (winter) and EVEN hour (summer) while the warning is in effect.
Cape May, N. J.	NMK	2662	On receipt.
New York, N. Y.	NMY	2662	On receipt and at 11:50 am or pm.
New York, N. Y.	WOX	2522 2590- 2482 day only	On receipt and at 15 minutes past even hours (summer) and odd hours (winter) while in effect.
Ocean Gate, N. J.	WAQ	2558	On receipt and at 15 minutes past odd hours while in effect.
Baltimore, Md.	NMX	2702	On receipt.
Cape May, N. J.	NMK	2662	On receipt.
Norfolk, Va.	NMN	2702	On receipt and at 12:20 am or pm.
Norfolk, Va.	WGB	2538	On receipt and at intervals thereafter while in effect.
Ocean Gate, N. J.	WAQ	2558	On receipt and at 15 minutes past each odd hour while in effect.

City	Station	Band 2-4 Mc Kcs	Broadcast Times—EST
Wilmington, Del.	WEH	2558	On receipt and on the even hours while in effect.
Norfolk, Va.	WGB	2538	On receipt and intervals thereafter.
Norfolk, Va.	NMN	2702	On receipt and at 12:20 am or pm.
Fort Macon, N. C.	NMN37	2702	On receipt.
Charleston, S. C.	WJO	2566	On receipt and on odd hours thereafter.
Charleston, S. C.	NMB	2678	On receipt and at 11:20 am or pm.
Jacksonville, Fla.	WNJ	2566	On receipt and on even hours thereafter.
Jacksonville, Fla.	NMV	2678	On receipt.
Jacksonville, Fla.	NMV	2678*	On receipt.
Jacksonville, Fla.	WNJ	2566	On receipt and on each even hour while in effect.
Miami, Fla.	NMA	2678*	On receipt and at 11:50 am or pm.
Miami, Fla.	WDR	2514 2490- day only	On receipt and on each odd hour while in effect.
St. Petersburg, Fla.	NOF	2686*	On receipt and at 11:20 am or pm.
Tampa, Fla.	WFA	2550	On receipt and on each even hour while in effect.

\*after announcement on 2182 kc.

BROADCAST SCHEDULES (GULF OF MEXICO AND CARIBBEAN SEA AREA) OF MARINE WEATHER FORECASTS AND WARNINGS BY MARINE RADIOTELEPHONE STATIONS

City	Station	Band 2-4 Mc Kcs	Broadcast Times—CST
Mobile, Ala.	WLO	2572	Daily on odd hours from 5 am to 11 pm.
New Orleans, La.	NMG	2686	Daily 11:50 am and pm.
New Orleans, La.	WAK	2598 2482- 2558 day only	Daily 8 am and 11 pm.
Tampa, Fla.	WFA	2550	Daily 6 am and pm.
Galveston, Tex.	KQP	2530	Daily 12:30 and 7 am.

City	Station	Band 2-4 Mc Kcs	Broadcast Times—CST
Galveston, Tex.	NOY	2686	Daily 11:20 am and pm.
New Orleans, La.	NMG	2686	Daily 11:50 am and pm.
New Orleans, La.	WAK	2598 2482- 2558 day only	Daily 8 am and 11 pm.
Swan Island	WSG	2738	Daily 10:30 am.

\*after announcement on 2182 kc.

SPECIAL BROADCASTS (GULF OF MEXICO AND CARIBBEAN SEA AREA) OF STORM AND HURRICANE WARNINGS

City	Station	Band 2-4 Mc Kcs	Broadcast Times—CST
Mobile, Ala.	WLO	2572*	On receipt.

City	Station	Band 2-4 Mc Kcs	Broadcast Times—CST
Galveston, Tex.	KQP	2530	On receipt and 15 minutes past odd hours while in effect.

New Orleans, La.	NMG	2686	On receipt.
New Orleans, La.	WAK	2598 2482- 2558 day only	On receipt and on odd hours while in effect.
St. Petersburg, Fla.	NOF	2678*	On receipt and at 10:20 am or pm.
Tempe, Fla.	WFA	2550	On receipt and on each odd hour while in effect.

Galveston, Tex.	NOY	2686*	On receipt.
New Orleans, La.	NMG	2686*	On receipt.
New Orleans, La.	WAK	2598 2482- 2558 day only	On receipt and at odd hours while in effect.

\*after announcement on 2182 kc.

(PACIFIC COAST AREA)  
BROADCAST SCHEDULES OF MARINE WEATHER FORECASTS AND WARNINGS BY MARINE RADIOTELEPHONE STATIONS

City	Station	Band 2-4 Mc Kcs	Broadcast Times—PST
Astoria, Ore.	KFX	2598	Daily at 9:15 am and pm.
Eureka, Calif.	KOE	2506 2450	Daily at 9 am and pm.
Portland, Ore.	KQX	2598	Daily at 9:30 am and pm.
San Francisco, Calif.	KLH	2506 2450	Daily at 8:30 am and pm.
Seattle, Wash.	KOW	2522 2482	Daily at 9 am and pm.
Seattle, Wash.	NMW	2702	Daily at 9:20 am and pm.
Astoria, Ore.	KFX	2598	Daily 9:15 am and pm.
Eureka, Calif.	KOE	2506 2450	Daily 9 am and pm.

City	Station	Band 2-4 Mc Kcs	Broadcast Times—PST
Long Beach, Calif.	NMQ	2694	Daily 9 am and pm.
Portland, Ore.	KQX	2598	Daily 9:30 am and pm.
San Francisco, Calif.	KLH	2506 2450	Daily 8:30 am and pm.
San Pedro, Calif.	KOU	2566	Daily 8 am and pm.
Long Beach, Calif.	NMQ	2694	Daily 9 am and pm.
San Pedro, Calif.	KOU	2566	Daily 8 am and pm.

\*after announcement on 2182 kc.

## SPECIAL BROADCASTS (PACIFIC COAST AREA) OF STORM AND HURRICANE WARNINGS

City	Station	Band 2-4 Mc Kcs	Broadcast Times—PST
Astoria, Ore.	KFX	2598	On receipt and on odd hours while in effect.
Eureka, Calif.	KOE	2506 2450	On receipt and on odd hours while in effect.
Portland, Ore.	KQX	2598	On receipt and on odd hours while in effect.
San Francisco, Calif.	KLH	2506 2450	On receipt and on odd hours while in effect.
San Francisco, Calif.	NMC	2662	On receipt and at 8:30 am or pm.
Seattle, Wash.	KOW	2522 2482	On receipt and on odd hours while in effect.
Seattle, Wash.	NMW	2702	On receipt.
Astoria, Ore.	KFX	2598	On receipt and on odd hours while in effect.

City	Station	Band 2-4 Mc Kcs	Broadcast Times—PST
Eureka, Calif.	KOE	2506 2450	On receipt and on odd hours while in effect.
Long Beach, Calif.	NMQ	2694	On receipt.
Portland, Ore.	KQX	2598	On receipt and on odd hours while in effect.
San Francisco, Calif.	KLH	2506	On receipt and on odd hours while in effect.
San Francisco, Calif.	NMC	2662	On receipt and at 8:30 am or pm.
San Pedro, Calif.	KOU	2566	On receipt and on odd hours while in effect.
Long Beach, Calif.	NMQ	2694*	On receipt.
San Pedro, Calif.	KOU	2566	On receipt and at odd hours while in effect.

\*after announcement on 2182 kc.

## STANDARD FREQUENCIES AND TIME SIGNALS FROM STATIONS WWV, BELTSVILLE, MARYLAND AND WWVH, MAUI, HAWAII

Station WWV located near Washington, D. C., broadcasts continuously day and night and can be received on frequencies 2.5, 5, 10 and 15 megacycles. Two audio standard frequencies, 440 cycles per second and 600 cycles per second are broadcast on all carrier frequencies. These standard audio frequencies are interrupted each second by a five cycle pulse. The resultant tone is quite similar to a ticking clock.

The audio frequencies start on the hour and continue alternately beginning with a 600 cycle per second tone for three minutes, interrupted for two minutes of information and immediately followed by a 440 cycle per second tone for three minutes and again interrupted for two minutes. Both tones have a five cycle pulse at one second intervals superimposed on them. Each following ten minute period is identical.

The two minute information period for Station WWV on frequencies 2.5, 5, 10, and 15 mc. is composed of the following:

1. 0 to approximately 100 seconds—Silence. (No tone only a 5 cycle pulse at one second intervals.)
2. The interval of 100 seconds to 118 seconds consists of station identification and time in voice—"This is radio station WWV. When the tone returns it will be 2:15 P.M. Eastern Standard Time."
3. At 19.5 and 49.5 minutes past each hour, the interval of 89 seconds to approximately 99 seconds—consists of radio propagation forecast (announced in code).

Note: On WWV there is a 4 minute silent period starting at 45 minutes after the hour and ending at 49 minutes after the hour.

The two minute information period for station WWVH on frequencies 5, 10 and 15 mc. is composed of the following:

1. 0 to approximately 65 seconds—Silence. (No tone only a 5 cycle pulse at one second intervals.)
2. 65 to approximately 82 seconds—consists of universal time (Greenwich Mean Time) and station identification announced in code.
3. At 9.5 and 39.4 minutes past each hour, the interval of 83 seconds to approximately 96 seconds—consist of radio propagation forecast (announced in code).

Note: On WWVH there are two silent periods, the first a four minute period starting on the hour and ending four minutes after the hour. The second four minute silent period starts at 30 minutes after the hour and ends at 34 minutes after the hour.

For further information on Stations WWV and WWVH contact

U.S. Department of Commerce  
National Bureau of Standards  
Boulder Laboratories  
Boulder, Colorado

requesting letter circular LC1023.

## SHORT-WAVE STATION CHART

The time schedule below is designed to help you select any Short Wave Station operating at the time you wish to tune in your receiver. FIRST—select the time zone that affects your area. If you are not living in any of the time zones listed, space has been provided for you to write in your time. SECOND—select the time column that corresponds with the time you are starting to tune in. THIRD—run your finger down that time column and you will find various stations in operation or beginning to operate. Keep in mind the coding affecting A.M. and P.M. Open time in the Broadcast schedules is indicated below with open circles. Fill in the circles if you detect changes in the broadcast time. NOTE: ADJUST FOR DAYLIGHT SAVING TIME!

**CODE:**
**EASTERN STANDARD TIME →**

12 1 2 3 4 5 6 7 8 9 10 11

—Both A.M. & P.M.

—A.M. GREENWICH MEAN TIME →

5 6 7 8 9 10 11 12 1 2 3 4

—Open Time

—P.M.

**YOUR TIME →**

Log	Country	City	Call	Freqcy. Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
Albania	Tirana	ZAA	6.910	43	○	○	○	●	●	○	○	○	○	○	○	○
Algeria	Algiers	RA	6.160	48	○	○	○	●	●	○	○	○	○	○	○	○
Andorra	Andorra la Vieja	RA	5.979	50	○	●	●	●	●	●	●	●	○	○	○	○
Angola	Benguela	CR6RF	9.502	31	●	●	●	●	●	○	○	○	○	○	○	○
Angola	Luanda	CR6RL	9.632	31	○	●	●	●	●	●	○	○	○	○	○	○
Angola	Luanda	CR6RZ	11.862	25	○	●	●	●	●	●	○	○	○	○	○	○
Angola	Sa de Bendeira	CR6RH	5.024	59	○	●	●	●	●	○	○	○	○	○	○	○

**CODE:**
**EASTERN STANDARD TIME →**

12 1 2 3 4 5 6 7 8 9 10 11

—Both A.M. & P.M.

—A.M. GREENWICH MEAN TIME →

5 6 7 8 9 10 11 12 1 2 3 4

—Open Time

—P.M.

**YOUR TIME →**

Log	Country	City	Call	Freqcy. Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Argentina	Buenos Aires	LRX	9.660	31	●	●	●	●	●	●	●	●	●	●	●
	Argentina	Buenos Aires	LRY	9.760	30	●	●	●	●	●	●	●	●	●	●	●
	Argentina	Buenos Aires	LRA	15.345	19	●	●	●	●	●	●	●	●	●	●	●
	Australia	Brisbane	VLM4	4.920	60	●	●	●	●	●	●	●	●	●	●	●
	Australia	Brisbane	VLQ9	9.660	31	●	●	●	●	●	●	●	●	●	●	●
	Australia	Melbourne	VLR6	6.150	48	○	○	○	●	●	●	●	●	●	●	●
	Australia	Melbourne	VLD9	9.580	31	●	●	●	●	●	●	●	●	●	●	●
	Australia	Melbourne	VLB11	11.710	25	●	●	●	●	●	●	●	●	●	●	●
	Australia	Melbourne	VLA15	15.160	19	●	●	●	●	●	●	●	●	●	●	●
	Australia	Melbourne	VLB17	17.840	16	○	○	○	●	●	●	●	●	●	●	●
	Australia	Melbourne	VLA21	21.590	13	●	●	●	●	●	●	●	●	●	●	●
	Australia	Perth	VLW9	9.610	31	○	○	○	●	●	●	●	●	●	●	●
	Australia	Sydney	VL16	6.090	49	●	●	●	●	●	●	●	●	●	●	●
	Austria	Vienna	OEI23	9.665	31	○	○	○	●	●	●	●	●	●	●	●
	Azores	Ponta Delgada	CSA93	4.865	61	○	○	○	●	●	●	●	●	●	●	●
	Belgian Congo	Leopoldville	OTC	9.655	31	○	○	○	●	●	●	●	●	●	●	●

**CODE:**      EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ●—Both A.M. & P.M.    ○—A.M. GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 ○—Open Time            ●—P.M.                   YOUR TIME →

Log	Country	City	Call	Freqcy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Belgium	Brussels	ORU4	11.850	25	○	○	○	○	●	○	○	○	○	○	○	○
	Belgium	Brussels	ORU3	15.335	19	●	○	○	○	●	○	○	○	○	○	○	○
	Belgium	Brussels	ORU4	17.845	16	○	●	○	●	○	●	○	●	○	●	○	●
	Belgium	Brussels	ORU5	21.510	13	●	○	●	○	●	○	●	○	●	○	●	○
	Bolivia	La Paz	CP3B	9.444	31	●	○	○	○	●	●	●	●	●	●	●	●
	Brazil	Belo Horizonte	PRK9	15.190	19	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Fortaleza	ZYN7	15.165	19	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Manaus	ZY58	4.805	62	●	○	●	●	●	●	●	●	●	●	●	●
	Brazil	Porto Alegre	PRH2	9.730	30	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Recife	ZYK3	9.565	31	○	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Recife	PRA8	11.865	25	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Recife	ZYK33	15.145	19	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Rio de Janeiro	PRL9	6.147	48	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Rio de Janeiro	ZYC8	9.610	31	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Rio de Janeiro	ZYZ28	11.775	25	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Rio de Janeiro	PRL9	17.850	16	●	●	●	●	●	●	●	●	●	●	●	●

**CODE:**      EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ●—Both A.M. & P.M.    ○—A.M. GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 ○—Open Time            ●—P.M.                   YOUR TIME →

Log	Country	City	Call	Freqcy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Brazil	Sao Paulo	ZYB7	6.095	49	○	○	○	●	●	●	●	●	●	●	●	○
	Brazil	Sao Paulo	ZYR77	6.185	48	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Sao Paulo	PRB22	9.505	31	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Sao Paulo	Rad. Gaz.	9.685	30	●	●	●	●	●	●	●	●	●	●	●	●
	Brazil	Sao Paulo	ZYR78	11.925	25	●	●	●	●	●	●	●	●	●	●	●	●
	Brt. Guiana	Georgetown	ZFY	5.981	50	●	●	●	●	●	●	●	●	●	●	●	●
	Brt. Honduras	Belize	VPN	3.300	90	○	●	●	●	●	●	●	●	●	●	●	●
	Brt. New Guinea	Port Moresby	VLT6	6.130	48	●	●	●	●	●	●	●	●	●	●	●	●
	Brt. North Borneo	Jesselton	Rad. Sab.	7.180	41	●	●	●	●	●	●	●	●	●	●	●	●
	Bulgaria	Sofia	RS	7.670	39	●	●	●	●	●	●	●	●	●	●	●	●
	Bulgaria	Sofia	RS	9.700	30	○	○	○	●	●	●	●	●	●	●	●	●
	Burma	Rangoon	XYZ	11.764	25	○	○	○	○	●	●	●	●	●	●	●	●
	Cameroon (Fr.)	Douala	RD	6.115	49	●	●	●	●	●	●	●	●	●	●	●	●
	Canada	Calgary (Alta.)	CFVP	6.030	49	●	●	●	●	●	●	●	●	●	●	●	●
	Canada	Edmonton (Alta.)	VE9AI	9.540	31	●	●	●	●	●	●	●	●	●	●	●	●
	Canada	Halifax (N.S.)	CHNX	6.130	48	●	●	●	●	●	●	●	●	●	●	●	●

**CODE:**  
 ●—Both A.M. & P.M.    ○—A.M. GREENWICH MEAN TIME →  
 ○—Open Time            ●—P.M.  
 YOUR TIME →

12	1	2	3	4	5	6	7	8	9	10	11
5	6	7	8	9	10	11	12	1	2	3	4

Log	Country	City	Call	Freqy. Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Canada	Montreal	CHOL	11.720 25	○	○	○	●	○	○	○	○	●	○	●	○
	Canada	Montreal	CKRP	21.600 13	○	○	○	○	○	○	○	●	○	●	○	○
	Canada	Toronto	CFRX	6.070 49	●	●	●	●	●	●	●	●	●	●	●	●
	Canada	St. John's (Nfld.)	CBNX	5.970 50	●	●	●	●	●	●	●	●	●	●	●	●
	Canada	Vancouver (B.C.)	CBUX	6.160 48	●	●	●	●	●	●	●	●	●	●	●	●
	Canary Islands	Las Palmas	FET34	9.490 31	○	○	○	○	○	○	○	○	○	○	○	○
	Canary Islands	Santa Cruz	EAJBAB	7.295 41	○	○	○	○	○	○	○	○	○	○	○	○
	Cape Verde Islands	Praia	CR4AA	5.895 50	○	○	○	●	●	○	○	○	○	○	○	○
	Ceylon	Colombo	RC	9.520 31	●	○	○	○	○	○	○	●	●	●	●	●
	Ceylon	Colombo	RC	15.120 19	●	●	●	○	○	○	○	○	●	●	●	●
	Ceylon	Colombo	RC	15.265 19	○	○	○	○	○	○	○	○	●	●	●	●
	Chile	Santiago	CE960	9.600 31	●	●	●	●	●	●	●	●	●	●	●	●
	Chile	Santiago	CE1200	12.000 25	●	●	●	●	●	●	●	●	●	●	●	●
	Chile	Santiago	CE1515	15.150 19	●	●	●	●	●	●	●	●	●	●	●	●
	Chile	Valparaiso	CE1194	11.940 25	●	●	●	●	●	●	●	●	●	●	●	●
	China	Peking	RP	11.660 25	○	○	●	●	●	●	●	●	●	●	●	●

**CODE:**  
 ●—Both A.M. & P.M.    ○—A.M. GREENWICH MEAN TIME →  
 ○—Open Time            ●—P.M.  
 YOUR TIME →

12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9

Log	Country	City	Call	Freqy. Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	China	Peking	RP	11.660 25	○	○	●	●	●	●	●	●	●	●	●	●
	China	Peking	RP	15.060 19	○	○	●	●	●	●	●	●	●	●	●	●
	China	Peking	RP	17.745 16	○	○	○	○	○	○	○	○	○	○	○	○
	China	Shanghai	RS	9.980 30	○	○	○	○	○	○	○	○	○	○	○	○
	Clandestine	Unknown	REI	8.075 37	○	●	●	●	●	●	●	●	●	●	●	●
	Colombia	Barranquilla	HJAG	4.905 61	●	●	●	●	●	●	●	●	●	●	●	●
	Colombia	Bogota	HJCF	5.960 50	●	●	●	●	●	●	●	●	●	●	●	●
	Colombia	Cali	HJEK	6.055 49	●	●	●	●	●	●	●	●	●	●	●	●
	Colombia	Cucuta	HJKT	4.815 62	●	●	●	●	●	●	●	●	●	●	●	●
	Colombia	Ibaque	HJLB	6.040 49	●	●	●	●	●	●	●	●	●	●	●	●
	Colombia	Mendellin	HJDE	6.145 48	●	●	●	●	●	●	●	●	●	●	●	●
	Colombia	Sutatenza	HJGO	3.250 92	●	●	●	●	●	●	●	●	●	●	●	●
	Cook Islands	Rarotonga	ZLIZA	4.965 60	○	○	●	●	●	●	●	●	●	●	●	●
	Costa Rica	San Jose	TIDCR	9.615 31	●	●	●	●	●	●	●	●	●	●	●	●
	Cuba	Havana	COBC	9.632 32	●	●	●	●	●	●	●	●	●	●	●	●
	Cuba	Havana	CMC	11.750 25	●	○	○	○	○	●	●	●	●	●	●	●

**CODE:**      EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ●—Both A.M. & P.M.    ○—A.M. GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 ○—Open Time            ●—P.M.                   YOUR TIME →

Log	Country	City	Call	Freq., Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Cuba	Santiago	COKG	9.740 30	●	●	○	○	○	○	○	●	●	●	●	●
	Cyprus	Limassol	ZJMS	6.170 48	●	●	●	●	○	○	○	●	●	○	○	●
	Cyprus	Limassol	ZJM7	11.720 25	●	●	●	●	○	○	○	●	●	○	○	●
	Czechoslovakia	Prague	OLR83	7.255 41	○	○	○	○	○	○	○	○	○	○	○	○
	Czechoslovakia	Prague	OLR3A	9.550 31	●	●	○	○	○	○	○	○	○	○	○	○
	Czechoslovakia	Prague	OLR4J	11.935 25	○	●	○	○	○	○	○	●	●	○	○	●
	Czechoslovakia	Prague	OLR5H	15.285 19	○	●	○	○	○	○	○	●	○	○	○	●
	Denmark	Copenhagen	OZFS	9.520 31	○	○	○	○	○	○	○	○	○	○	○	●
	Denmark	Copenhagen	OZF7	15.165 19	○	○	○	○	○	○	○	○	○	○	○	●
	Dominican Republic	Ciudad Trujillo	HI4T	5.970 50	●	●	●	●	●	●	●	●	●	●	●	●
	Dominican Republic	Ciudad Trujillo	HI2T	9.735 30	●	●	●	●	●	●	●	●	●	●	●	●
	Dominican Republic	San Cristobal	HIIR	6.160 48	●	●	●	●	●	●	●	●	●	●	●	●
	Dutch New Guinea	Bika	RONG	7.190 41	○	○	○	○	○	○	○	○	○	○	○	○
	Ecuador	Esmeraldas	HC4NE	4.680 64	○	○	○	○	○	○	○	○	○	○	○	○
	Ecuador	Ibarra		6.210 48	●	●	○	○	○	○	○	○	○	○	●	●
	Ecuador	Quito	HCJB	11.915 25	●	●	●	●	●	●	●	●	●	●	●	●

**CODE:**      EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ●—Both A.M. & P.M.    ○—A.M. GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 ○—Open Time            ●—P.M.                   YOUR TIME →

Log	Country	City	Call	Freq., Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Ecuador	Quito	HCJB	15.115 19	●	●	●	●	●	●	●	●	●	●	●	●
	Ecuador	Quito	HCJB	17.890 16	●	●	●	●	●	●	●	●	●	●	●	●
	Egypt	Cairo	RC	6.215 48	○	○	○	○	○	○	○	○	○	○	○	○
	Egypt	Cairo	RC	9.795 30	●	●	●	●	●	●	●	●	●	●	●	●
	Egypt	Cairo	RC	15.465 19	●	●	●	●	●	●	●	●	●	●	●	●
	Egypt	Cairo	RC	17.915 16	○	○	○	○	○	○	○	○	○	○	○	○
	El Salvador	San Miguel	YSHQ	6.170 48	●	●	●	●	●	●	●	●	●	●	●	●
	El Salvador	San Salvador	YSS	9.555 31	○	○	○	○	○	○	○	○	○	○	○	○
	El Salvador	Santa Ana	YSMA	6.180 48	●	●	●	●	●	●	●	●	●	●	●	●
	England	London	GRH	9.825 30	○	○	○	○	○	○	○	○	○	○	○	○
	England	London	GVX	11.930 25	○	○	○	○	○	○	○	○	○	○	○	○
	England	London	GWC	15.070 19	○	○	○	○	○	○	○	○	○	○	○	○
	England	London	GVP	17.700 16	●	●	●	●	●	●	●	●	●	●	●	●
	England	London	GST	21.550 13	○	○	○	○	○	○	○	○	○	○	○	○
	Ethiopia	Addis Ababa	ETAA	15.085 19	○	○	○	○	○	○	○	○	○	○	○	○
	Fiji Islands	Suva	VRH4	3.980 75	●	●	●	●	●	●	●	●	●	●	●	●

**CODE:**

- Both A.M. & P.M.
- A.M. GREENWICH MEAN TIME→
- P.M. YOUR TIME→
- Open Time

EASTERN STANDARD TIME→ 12 1 2 3 4 5 6 7 8 9 10 11  
 5 6 7 8 9 10 11 12 1 2 3 4

Log	Country	City	Call	Freqcy. Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Finland	Helsinki	OIX4	15,190 19	●	○	○	○	○	●	●	○	○	●	●	●
	Finland	Helsinki	OIX5	17,800 16	●	○	○	○	○	●	●	○	○	●	●	●
	France	Paris	RDTF	7,240 41	○	●	○	○	○	○	○	○	○	○	○	○
	France	Paris	RDTF	11,700 25	○	○	○	○	○	○	○	●	●	○	○	○
	France	Paris	RDTF	15,430 19	○	○	○	○	○	○	○	○	○	○	○	○
	France	Paris	RDTF	17,920 16	○	○	○	○	○	○	○	○	○	○	○	○
	France	Paris	RDTF	21,620 13	○	○	○	○	○	○	○	○	○	○	○	○
	Fr. Guittes	Conakry	RC	4,910 61	○	●	●	○	○	○	○	●	●	○	○	○
	Fr. W. Africa	Dakar	RD	4,950 60	○	●	●	●	●	●	●	●	●	●	●	●
	Fr. W. Africa	Dakar	RD	11,895 25	○	●	●	○	○	○	○	○	○	○	○	○
	Germany	Beyreuth	AFN	5,470 54	●	●	●	●	●	●	●	●	●	●	●	●
	Germany (East)	Berlin	DDR	9,735 30	○	○	○	●	●	●	●	●	●	●	●	●
	Germany (West)	Berlin	RTAS	6,005 49	●	●	●	●	●	●	●	●	●	●	●	●
	Germany	Cologne	DMQ9	9,640 31	○	○	○	○	○	○	○	●	●	●	●	●
	Germany	Cologne	DMQ11	11,795 25	○	○	●	●	●	●	●	●	●	●	●	●
	Germany	Cologne	DMQ15	15,375 19	○	○	○	○	○	○	○	●	●	●	●	●

**CODE:**

- Both A.M. & P.M.
- A.M. GREENWICH MEAN TIME→
- P.M. YOUR TIME→

EASTERN STANDARD TIME→ 12 1 2 3 4 5 6 7 8 9 10 11  
 5 6 7 8 9 10 11 12 1 2 3 4

Log	Country	City	Call	Freqcy. Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Germany	Cologne	DMQ17	17,815 16	●	○	○	○	○	○	○	○	○	○	○	○
	Germany	Cologne	DMQ21	21,490 13	●	○	○	○	○	○	○	○	○	○	○	○
	Germany	Hamburg	DMR27	6,075 49	●	●	●	●	●	●	●	●	●	●	●	●
	Germany	Munich	DMR29	6,160 48	●	●	●	●	●	●	●	●	●	●	●	●
	Ghana	Accra	ZQY	4,915 61	○	●	●	○	○	○	○	○	○	○	○	○
	Greece	Athens	FBS	7,422 40	●	●	●	●	●	●	●	●	●	●	●	●
	Greece	Athens	RA	9,607 31	●	○	○	○	○	○	○	○	○	○	○	○
	Greece	Athens	RA	15,345 19	●	○	○	○	○	○	○	○	○	○	○	○
	Greece	Larissa	FBS	6,752 44	●	●	●	●	●	●	●	●	●	●	●	●
	Greenland	Angmagasalik	OZL	7,570 39	○	○	○	○	○	○	○	○	○	○	○	○
	Guatemala	Guatemala City	TGNA	5,952 50	○	●	●	○	○	○	○	○	○	○	○	○
	Guatemala	Guatemala City	TGNB	9,668 31	○	○	○	●	●	●	●	●	●	●	●	●
	Guatemala	Guatemala City	TGNC	11,850 25	○	○	○	●	●	●	●	●	●	●	●	●
	Guatemala	Quetzaltenango	TGQA	6,110 49	●	●	●	●	●	●	●	●	●	●	●	●
	Haiti	Cap Haitien	4VWA	6,155 48	○	○	○	●	●	●	●	●	●	●	●	●
	Haiti	Cap Haitien	4VEH	9,630 31	○	○	○	●	●	●	●	●	●	●	●	●

CODE:

●—Both A.M. &amp; P.M.

○—Open Time

EASTERN STANDARD TIME →

12 1 2 3 4 5 6 7 8 9 10 11

5 6 7 8 9 10 11 12 1 2 3 4

A.M. GREENWICH MEAN TIME →

YOUR TIME →

●—P.M.

CODE:

●—Both A.M. &amp; P.M.

○—Open Time

EASTERN STANDARD TIME →

12 1 2 3 4 5 6 7 8 9 10 11

5 6 7 8 9 10 11 12 1 2 3 4

A.M. GREENWICH MEAN TIME →

YOUR TIME →

●—P.M.

Log	Country	City	Call	Fracy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Haiti	Cap Haitien	4VWI	15.400	19	○	○	○	○	○	○	○	○	○	○	○	○
	Haiti	Cap Haitien	4VWI	17.820	16	○	○	○	○	○	○	○	○	○	○	○	○
	Haiti	Cap Haitien	4VWI	21.515	13	○	○	○	○	●	○	○	○	○	○	○	○
	Haiti	Cayes	4VEX	5.750	52	○	○	○	○	○	○	○	○	○	○	○	○
	Haiti	Port-au-Prince	4VB	5.980	50	○	○	○	○	○	●	●	●	●	○	○	○
	Haiti	Port-au-Prince	4VHW	6.194	48	●	○	●	○	●	○	●	●	●	●	●	○
	Hawaii	Honolulu	VOA	15.330	19	○	○	○	○	●	○	○	○	○	○	○	○
	Holland	Hilversum	RN	6.025	49	●	○	○	○	○	○	○	○	●	●	●	●
	Holland	Hilversum	RN	11.730	25	○	○	○	○	●	○	○	○	○	○	○	○
	Holland	Hilversum	RN	15.425	19	○	○	○	●	●	○	○	○	●	●	●	●
	Holland	Hilversum	RN	17.775	16	●	○	○	○	●	●	○	○	○	●	●	●
	Holland	Hilversum	RN	21.480	13	●	○	○	○	●	●	○	○	○	●	●	●
	Honduras	Comayaguela	HRXW	6.110	49	●	○	●	○	●	○	●	●	●	●	●	●
	Honduras	San Pedro Sula	HRO	6.125	48	●	○	●	○	●	○	●	●	●	●	●	●
	Honduras	Tequicigalpa	HRN	5.875	51	●	○	●	○	●	○	●	●	●	●	●	●
	Honduras	Tequicigalpa	HRTW	6.165	48	●	○	●	○	●	○	●	●	●	●	●	●

Log	Country	City	Call	Fracy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Hong Kong	Hong Kong	ZBW3	3.940	76	●	○	○	○	○	○	○	○	○	○	○	○
	Hungary	Budapest	RB	6.248	48	○	○	○	○	○	○	○	○	○	○	○	○
	Hungary	Budapest	RB	9.833	30	●	○	○	○	○	○	○	○	○	○	○	○
	Iceland	Reykjavik	TFJ	12.175	24	○	○	○	○	○	○	○	○	○	○	○	○
	India	Bombay	VUB	7.240	41	●	○	○	○	○	○	○	○	○	○	○	○
	India	Bombay	VUB	9.550	31	●	○	○	○	○	○	○	○	○	○	○	○
	India	Calcutta	VUC	7.210	41	●	○	○	○	○	○	○	○	○	○	○	○
	India	Calcutta	VUC	9.530	31	●	○	○	○	○	○	○	○	○	○	○	○
	India	Delhi	VUD	9.850	30	○	○	○	○	○	○	○	○	○	○	○	○
	India	Delhi	VUD	11.905	25	○	○	○	○	○	○	○	○	○	○	○	○
	India	Delhi	VUD	15.105	19	○	○	●	●	●	●	●	●	●	●	●	●
	India	Delhi	VUD	17.830	16	●	●	○	○	○	○	○	○	○	○	○	○
	India	Delhi	VUD	21.585	13	○	○	○	○	○	○	○	○	○	○	○	○
	Indo-China (DRV)	Hanoi	RH	9.950	30	○	○	○	○	○	○	○	○	○	○	○	○
	Indo-China (DRV)	Hanoi	RH	11.740	25	○	○	○	○	○	○	○	○	○	○	○	○
	Indo-China (DRV)	Hanoi	RH	15.025	19	○	○	○	○	○	○	○	○	○	○	○	○

16/11/13

CODE:	EASTERN STANDARD TIME →												
●—Both A.M. & P.M.	○—A.M. GREENWICH MEAN TIME →	5	6	7	8	9	10	11	12	1	2	3	4
○—Open Time	●—P.M. YOUR TIME →												

Log	Country	City	Call	Freqcy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Indo-China	Saigon	3WT11	9.620	31	○	○	○	○	●	●	●	●	●	●	●	○
	Indonesia	Djakarta	YDF6	9.710	30	○	○	○	○	○	○	○	○	○	○	○	○
	Indonesia	Djakarta	YDF3	11.795	25	●	●	●	●	○	○	○	○	○	○	○	○
	Indonesia	Jogjakarta	YDJ2	7.105	42	○	●	●	●	●	●	●	●	●	●	●	○
	Indonesia	Makassar	YDQ3	7.295	41	●	●	●	●	○	○	○	○	○	○	○	○
	Iran	Teheran	EPB	15.100	19	○	●	●	●	○	○	○	○	○	○	○	○
	Iran	Teheran	RT	17.775	16	○	●	●	●	○	○	○	○	○	○	○	○
	Israel	Tel Aviv	4XB31	9.009	33	●	●	●	●	●	●	●	●	●	●	●	●
	Italy	Rome	RAI	6.010	49	○	○	○	○	○	○	○	○	○	○	○	○
	Italy	Rome	RAI	9.575	31	○	○	○	○	○	○	○	○	○	○	○	○
	Italy	Rome	RAI	11.810	25	●	●	●	●	●	●	●	●	●	●	●	●
	Italy	Rome	RAI	15.400	19	○	○	○	○	○	○	○	○	○	○	○	○
	Italy	Rome	RAI	17.770	16	○	○	○	○	○	○	○	○	○	○	○	○
	Italy	Rome	RAI	21.560	13	○	●	●	●	●	●	●	●	●	●	●	●
	Jamaica	Kingston	RJ	4.950	60	●	●	●	●	●	●	●	●	●	●	●	●
	Japan	Tokyo	FEN	6.160	48	○	○	○	○	○	○	○	○	○	○	○	○

CODE:	EASTERN STANDARD TIME →																			
●—Both A.M. & P.M.	○—A.M. GREENWICH MEAN TIME →	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
○—Open Time	●—P.M. YOUR TIME →																			

Log	Country	City	Call	Freqcy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11		
	Japan	Tokyo	JKH	7.257	41	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Japan	Tokyo	JKI2	9.655	31	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Japan	Tokyo	JOB3	9.675	31	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Japan	Tokyo	JOA4	11.705	25	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Japan	Tokyo	JOB5	15.235	19	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Japan	Tokyo	JOA24	17.855	16	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Kenya Colony	Nairobi	VQ7LO	4.885	61	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Korea (North)	Pyongyang	RP	6.195	48	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Korea (South)	Seoul	HLKA	9.640	31	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Korea (South)	Seoul	HLKA	11.930	25	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Lebanon	Beirut	RL	8.036	37	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Leeward Islands	Montserrat	RM	3.255	92	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Liberia	Monrovia	ELWA	4.835	62	○	○	●	●	●	●	●	●	●	●	●	●	●	●
	Liberia	Monrovia	ELWA	9.670	31	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Liberia	Monrovia	ELWA	15.197	19	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Libya	Benghazi	FBS	3.305	90	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**CODE:**  
 ●—Both A.M. & P.M.    ●—A.M. GREENWICH MEAN TIME →  
 ○—Open Time            ○—P.M.                   YOUR TIME →

12	1	2	3	4	5	6	7	8	9	10	11
5	6	7	8	9	10	11	12	1	2	3	4

Log	Country	City	Call	Fracy.	Band Mc. Meters							
	Luxembourg	Luxembourg	RL	6.090	49	○	●	●	○	●	○	○
	Malaya	Kuala Lumpur	VS2K6	6.025	49	●	○	●	○	●	●	●
	Malaya	Singapore	Red. Maly.	7.200	41	○	○	○	●	●	○	○
	Malaya	Singapore	FES	9.690	30	○	○	○	●	●	○	○
	Malaya	Singapore	FES	11.725	25	○	○	○	●	●	○	○
	Malaya	Singapore	FES	15.310	19	○	○	○	●	●	○	○
	Malaya	Singapore	FES	21.655	13	○	○	○	○	●	○	○
	Mauritius	Forest Side	V3USE	15.042	19	●	○	○	●	●	○	○
	Mexico	Hermosillo	XEPR	11.820	25	●	○	○	○	●	●	●
	Mexico	Mexico City	XERCM	6.130	48	●	●	○	●	●	●	●
	Mexico	Mexico City	XEFT	9.625	31	●	●	○	●	●	●	●
	Mexico	Mexico City	XEXE	11.900	25	●	●	○	●	●	●	●
	Mexico	Mexico City	XESC	15.205	19	●	●	○	●	●	●	●
	Mexico	Morelia	XEKW	6.030	49	●	●	○	●	●	●	●
	Mexico	Tampico	XETW	6.045	49	●	●	○	●	●	●	●
	Mexico	Vera Cruz	XEUW	6.020	49	●	●	○	●	●	●	●

**CODE:**  
 ●—Both A.M. & P.M.    ●—A.M. GREENWICH MEAN TIME →  
 ○—Open Time            ○—P.M.                   YOUR TIME →

12	1	2	3	4	5	6	7	8	9	10	11
5	6	7	8	9	10	11	12	1	2	3	4

Log	Country	City	Call	Fracy.	Band Mc. Meters							
	Monaco	Monte Carlo	JAM3	6.035	49	●	●	●	●	●	●	●
	Monaco	Monte Carlo	JAM4	7.140	42	●	●	●	●	●	●	●
	Monaco	Monte Carlo	RMC	9.733	30	●	●	●	●	●	●	●
	Morocco	Rabat	RDNM	6.006	49	○	●	●	●	●	●	●
	Mozambique	Lourenco Marques	CR7BU	4.917	61	●	●	●	●	●	●	●
	Mozambique	Lourenco Marques	CR7BF	11.760	25	●	●	○	○	○	○	○
	Mozambique	Lourenco Marques	CR7BG	15.090	19	●	●	○	○	○	○	○
	New Caledonia	Noumea	FK8AA	6.035	49	○	●	●	●	●	●	●
	New Zealand	Wellington	ZL2	9.540	31	○	●	●	●	●	●	●
	New Zealand	Wellington	ZL4	15.280	19	●	●	○	●	●	●	●
	New Zealand	Wellington	ZL14	17.820	16	○	○	○	○	●	●	●
	Nicaragua	Bluefields	YNCA	7.753	38	●	●	●	●	●	●	●
	Nicaragua	Granada	YNWW	5.965	50	●	●	●	●	●	●	●
	Nicaragua	Granada	YNBX	7.675	39	●	●	●	●	●	●	●
	Nicaragua	Managua	YNOW	6.055	49	●	●	●	●	●	●	●
	Nigeria	Lagos	NBC	4.990	60	●	●	●	●	●	●	●

**CODE:** EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ●—Both A.M. & P.M. ○—A.M. GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 ○—Open Time ●—P.M. YOUR TIME →

Log	Country	City	Call	Freq., Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Nigeria	Ibadan	NBC	3.995 75	●	●	●	●	●	●	●	●	●	●	●	●
	Nigeria	Kaduna	NBC	2.326 90	○	●	●	●	●	●	○	○	○	○	○	○
	Norway	Oslo	LLG	9.610 31	●	○	○	○	○	○	○	○	○	○	○	○
	Norway	Oslo	LKO	11.735 25	●	●	●	●	●	●	●	●	●	●	●	●
	Norway	Oslo	LLM	15.175 19	●	●	●	●	●	●	●	●	●	●	●	●
	Norway	Oslo	LLN	17.825 16	●	●	●	●	●	●	●	●	●	●	●	●
	Norway	Oslo	LLP	21.670 13	●	●	●	●	●	●	●	●	●	●	●	●
	Okinawa	Naha	VOA	7.160 41	○	○	○	○	○	○	○	○	○	○	○	○
	Okinawa	Naha	VOA	9.635 31	○	○	○	○	○	●	●	●	●	●	●	●
	Okinawa	Naha	VOA	11.830 25	○	○	○	○	○	●	●	●	●	●	●	●
	Pakistan	Karachi	RP	15.240 19	●	●	●	●	●	○	○	○	○	○	○	○
	Pakistan	Karachi	RP	17.750 16	○	○	○	○	○	●	●	●	●	●	●	●
	Panama	Colon	HOLA	9.505 31	●	●	●	●	●	●	●	●	●	●	●	●
	Panama	Panama City	HOSO	5.995 50	●	●	●	●	●	●	●	●	●	●	●	●
	Panama	Panama City	HPSJ	9.607 31	●	●	●	●	●	●	●	●	●	●	●	●
	Paraguay	Asuncion	ZPA7	15.200 19	○	○	○	○	○	○	○	○	○	○	○	○

**CODE:** EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ●—Both A.M. & P.M. ○—A.M. GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 ○—Open Time ●—P.M. YOUR TIME →

Log	Country	City	Call	Freq., Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Paraguay	Encarnacion	ZPA5	11.900 25	●	●	●	●	●	●	●	●	●	●	●	●
	Peru	Lima	OAX4W	9.415 31	●	●	●	●	●	●	●	●	●	●	●	●
	Philippines	Cebu City	DYH2	6.140 48	●	●	●	●	●	●	●	●	●	●	●	●
	Philippines	Manilla	DZH2	9.540 31	●	●	●	●	●	●	●	●	●	●	●	●
	Philippines	Manilla	DZH7	9.730 30	●	○	○	○	○	○	○	○	○	○	○	○
	Philippines	Manilla	DZH8	11.855 25	●	●	●	●	●	●	●	●	●	●	●	●
	Philippines	Manilla	DZH9	15.300 19	●	●	●	●	●	●	●	●	●	●	●	●
	Philippines	Manilla	DZ16	17.805 16	●	●	●	●	●	●	●	●	●	●	●	●
	Poland	Warsaw	RW	9.555 31	●	●	●	●	●	●	●	●	●	●	●	●
	Poland	Warsaw	RW	11.740 25	●	●	●	●	●	●	●	●	●	●	●	●
	Poland	Warsaw	RW	15.120 19	●	●	●	●	●	●	●	●	●	●	●	●
	Poland	Warsaw	RW	17.800 16	○	○	○	○	○	○	○	○	○	○	○	○
	Portugal	Lisbon	CSB52	6.154 48	○	●	●	●	●	●	●	●	●	●	●	●
	Portugal	Lisbon	CSA23	9.635 31	○	○	○	○	○	○	○	○	○	○	○	○
	Portugal	Lisbon	CSA72	11.930 25	●	●	●	●	●	●	●	●	●	●	●	●
	Portugal	Lisbon	CSA39	15.100 19	○	○	○	○	○	○	○	○	○	○	○	○

CODE:

●—Both A.M. &amp; P.M.

○—Open Time

EASTERN STANDARD TIME →

12 1 2 3 4 5 6 7 8 9 10 11

5 6 7 8 9 10 11 12 1 2 3 4

A.M. GREENWICH MEAN TIME →

YOUR TIME →

●—P.M.

Log	Country	City	Call	Freqcy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Portugal	Lisbon	CSA66	17.895	16	●	●	●	●	●	●	●	●	●	●	●	●
	Portugal	Lisbon	CSA49	21.700	13	●	●	●	●	●	●	●	●	●	●	●	●
	Portugal	Paredes	CSB51	6.080	49	●	●	●	●	●	●	●	●	●	●	●	●
	Rhodes	THE COURIER	VOA	9.530	31	●	●	●	●	●	●	●	●	●	●	●	●
	Rhodes	THE COURIER	VOA	15.195	19	○	○	○	○	○	○	○	○	○	○	○	○
	Roumania	Bucharest	RB	6.210	48	●	○	●	●	●	●	●	●	●	●	●	●
	Roumania	Bucharest	RB	9.570	31	○	●	●	●	●	●	●	●	●	●	●	●
	Roumania	Bucharest	RB	11.937	25	●	●	●	●	●	●	●	●	●	●	●	●
	Sarawak	Kuching	RS	5.052	59	○	○	○	○	●	●	●	●	●	●	●	●
	Saudi Arabia	Mecca	SAB	5.975	50	○	○	○	○	○	○	○	○	○	○	○	○
	Saudi Arabia	Mecca	SAB	11.850	25	○	○	○	○	○	○	○	○	○	○	○	○
	South Africa	Johannesburg	SR	4.945	60	●	●	●	●	●	●	●	●	●	●	●	●
	South Africa	Johannesburg	SABC	9.630	30	○	●	●	●	●	●	●	●	●	●	●	●
	South Africa	Johannesburg	SABC	11.900	25	○	○	●	●	●	●	●	●	●	●	●	●
	Spain	Madrid	RNE	6.134	48	●	●	●	●	●	●	●	●	●	●	●	●
	Spain	Madrid	RNE	9.585	31	●	●	●	●	●	●	●	●	●	●	●	●

CODE:

●—Both A.M. &amp; P.M.

○—Open Time

EASTERN STANDARD TIME →

12 1 2 3 4 5 6 7 8 9 10 11

5 6 7 8 9 10 11 12 1 2 3 4

A.M. GREENWICH MEAN TIME →

Log	Country	City	Call	Freqcy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Spain	Madrid	RNE	11.815	25	○	○	○	○	○	○	○	○	○	○	○	○
	Spain	Valencia	EAJ3	6.993	42	○	●	●	●	●	●	●	●	●	●	●	●
	Sp. Morocco	Tetuan	EHT1	6.067	49	●	●	●	●	●	●	●	●	●	●	●	●
	Sudan	Omdurman	RO	4.975	60	●	●	●	●	●	●	●	●	●	●	●	●
	Dutch Guiana	Paramaribo	PZH5	4.852	61	○	○	●	●	●	●	●	●	●	●	●	●
	Dutch Guiana	Paramaribo	PZC	15.405	19	○	○	●	●	●	●	●	●	●	●	●	●
	Sweden	Stockholm	RS	9.620	31	○	○	●	●	●	●	●	●	●	●	●	●
	Sweden	Stockholm	RS	11.705	25	●	●	●	●	●	●	●	●	●	●	●	●
	Sweden	Stockholm	RS	15.240	19	○	○	○	○	○	○	○	○	○	○	○	○
	Sweden	Stockholm	RS	17.840	16	●	○	○	○	○	○	○	○	○	○	○	○
	Switzerland	Berne	HER3	6.165	48	○	○	○	○	○	○	○	○	○	○	○	○
	Switzerland	Berne	HEU3	9.665	31	●	●	●	●	●	●	●	●	●	●	●	●
	Switzerland	Berne	HER5	11.865	25	●	●	●	●	●	●	●	●	●	●	●	●
	Switzerland	Berne	HER6	15.305	19	○	○	○	○	○	○	○	○	○	○	○	○
	Switzerland	Berne	HER7	17.784	16	○	○	●	●	●	●	●	●	●	●	●	●
	Switzerland	Berne	HER8	21.520	13	○	○	○	○	○	○	○	○	○	○	○	○

**CODE:**  
 ●—Both A.M. & P.M.    ○—A.M.    EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ○—Open Time                 ○—P.M.    GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 YOUR TIME →

Log	Country	City	Call	Freq., Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Switzerland	Geneva	HBQ	6.675 44	●	●	●	○	○	○	○	○	○	○	○	○
	Syria	Damascus	RD	15.165 19	○	○	●	●	●	●	●	●	○	○	○	○
	Syria	Damascus	RD	17.850 16	○	○	○	○	○	○	○	●	●	○	○	○
	Tahiti	Papeete	FZP8	6.130 48	●	●	●	●	●	●	●	●	●	●	●	●
	Taiwan (Formosa)	Taipei	BED29	5.980 50	●	●	●	●	●	●	●	●	●	●	●	●
	Taiwan (Formosa)	Taipei	BED6	11.815 25	○	○	●	●	●	●	●	●	●	●	●	●
	Taiwan (Formosa)	Taipei	BED57	15.345 19	●	●	●	●	●	●	●	●	●	●	●	●
	Taiwan (Formosa)	Taipei	BED63	17.810 16	●	●	○	○	○	○	○	○	○	○	○	○
	Tangier	Tangier	WTAN	9.418 31	○	●	●	●	●	●	●	●	●	●	●	●
	Tangier	Tangier	IBRA	9.900 30	●	●	●	●	●	●	●	●	●	●	●	●
	Thailand	Bangkok	HSK9	11.670 25	○	○	○	●	●	●	●	●	●	●	●	●
	Trinidad	Port-of-Spain	VPARD	3.275 91	●	●	●	●	●	●	●	●	●	●	●	●
	Trinidad	Port-of-Spain	VPARD	6.085 49	●	●	●	●	●	●	●	●	●	●	●	●
	Turkey	Ankara	TAS	7.285 41	○	○	●	●	●	●	●	●	●	●	●	●
	Turkey	Ankara	TAV	17.825 16	○	○	○	○	○	●	●	●	●	●	●	●
	Uganda	Kampala	UBS	5.026 59	○	●	●	●	●	●	●	●	●	●	●	●

**CODE:**  
 ●—Both A.M. & P.M.    ○—A.M.    EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ○—Open Time                 ○—P.M.    GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 YOUR TIME →

Log	Country	City	Call	Freq., Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Uruguay	Colonia	CXAB	9.640 31	●	○	○	●	●	●	●	●	●	●	●	●
	Uruguay	Montevideo	CXA3	6.075 49	●	●	●	●	●	●	●	●	●	●	●	●
	Uruguay	Montevideo	CXA19	11.835 25	●	●	●	●	●	●	●	●	●	●	●	●
	USA	Boston	WRUL	17.750 16	○	○	●	●	●	●	●	●	●	●	●	●
	USSR	Khabarovsk	RK	5.940 50	○	○	○	●	●	●	●	●	●	●	●	●
	USSR	Kiev	RK	6.020 49	○	○	●	●	●	●	●	●	●	●	●	●
	USSR	Magadan	RM	9.500 31	●	●	●	●	●	●	●	●	●	●	●	●
	USSR	Moscow	RM	5.480 54	○	○	○	●	●	●	●	●	●	●	●	●
	USSR	Moscow	RM	7.290 41	●	●	●	●	●	●	●	●	●	●	●	●
	USSR	Moscow	RM	9.665 31	●	●	●	●	●	●	●	●	●	●	●	●
	USSR	Moscow	RM	11.740 25	●	●	●	●	●	●	●	●	●	●	●	●
	USSR	Moscow	RM	15.150 19	●	●	●	●	●	●	●	●	●	●	●	●
	USSR	Moscow	RM	17.740 16	○	○	○	●	●	●	●	●	●	●	●	●
	USSR	Petropavlovsk	RP	15.110 19	●	●	●	●	●	●	●	●	●	●	●	●
	USSR	Tashkent	RT	6.824 43	○	○	○	○	●	●	●	●	●	●	●	●
	USSR	Vladivostok	RV	5.015 56	○	○	○	○	●	●	●	●	●	●	●	●

CODE:

●—Both A.M. &amp; P.M.

○—Open Time

EASTERN STANDARD TIME →

12 1 2 3 4 5 6 7 8 9 10 11

5 6 7 8 9 10 11 12 1 2 3 4

A.M. GREENWICH MEAN TIME →

YOUR TIME →

●	—Both A.M. & P.M.
○	—Open Time

Log	Country	City	Call	Freqy. Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	Vatican	Vatican City	HVJ	11.685 25	●	●	●	●	●	○	●	●	●	●	●	●
	Vatican	Vatican City	HVJ	15.120 19	●	●	●	○	○	○	●	●	●	●	●	●
	Venezuela	Barquisimeto	YVXJ	9.510 31	●	●	●	●	●	●	●	●	●	●	●	●
	Venezuela	Caracas	YVLK	4.970 60	●	●	●	●	●	●	●	●	●	●	●	●
	Venezuela	Caracas	YVKO	6.170 48	●	●	●	●	●	●	●	●	●	●	●	●
	Venezuela	Maracaibo	YVME-F	4.800 62	●	●	●	●	●	●	●	●	●	●	●	●
	Venezuela	San Cristobal	YVOM	9.570 31	●	●	●	●	●	●	●	●	●	●	●	●
	Venezuela	Trujillo	YVOG	3.295 91	○	○	○	○	○	●	●	●	●	●	●	●
	Venezuela	Valencia	YVLA	4.780 62	●	●	●	●	●	●	●	●	●	●	●	●
	Windward Islands	St. George's, Gr.	WIBS	3.365 89	○	○	○	○	○	●	●	●	●	●	●	●
	Yugoslavia	Belgrade	RB	6.150 48	○	●	●	○	○	○	●	●	●	●	●	●
	Yugoslavia	Belgrade	RB	7.200 41	○	●	●	○	○	○	●	●	●	●	●	●

## VOICE OF AMERICA BROADCASTS

USA	Cincinnati	WLWO	9.685 30	●	●	○	○	○	○	○	○	●
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CODE:

●—Both A.M. &amp; P.M.

○—Open Time

EASTERN STANDARD TIME →

12 1 2 3 4 5 6 7 8 9 10 11

5 6 7 8 9 10 11 12 1 2 3 4

A.M. GREENWICH MEAN TIME →

YOUR TIME →

Log	Country	City	Call	Freqy. Band Mc. Meters	12	1	2	3	4	5	6	7	8	9	10	11
	USA	Cincinnati	WLWO	15.250 19	●	●	●	●	●	○	○	○	○	○	○	○
	USA	Cincinnati	WLWO	21.485 13	●	●	●	●	●	○	○	○	○	○	○	○
	USA	Delano	KCBR	6.185 48	○	○	○	○	○	●	●	●	●	●	●	●
	USA	Delano	KCBR	9.600 31	○	○	○	○	○	●	●	●	●	●	●	●
	USA	Delano	KCBR	17.880 16	○	○	○	○	○	●	●	●	●	●	●	●
	USA	Delano	KOBR	21.630 13	●	●	●	●	●	○	○	○	○	○	○	○
	USA	Dixon	KNBH	6.020 49	○	○	○	○	○	●	●	●	●	●	●	●
	USA	Dixon	KNBH	9.515 31	○	○	○	○	○	●	●	●	●	●	●	●
	USA	Dixon	KNBH	11.775 25	○	○	○	○	○	●	●	●	●	●	●	●
	USA	Dixon	KNBH	15.250 19	●	●	●	●	●	○	○	○	○	○	○	○
	USA	Dixon	KNBH	17.800 16	●	●	●	●	●	○	○	○	○	○	○	○
	USA	New York	WDSI	9.590 31	●	●	●	●	●	○	○	○	○	○	○	○
	USA	New York	WDSI	11.830 25	●	●	●	●	●	○	○	○	○	○	○	○
	USA	New York	WDSI	15.270 19	●	●	●	●	●	○	○	○	○	○	○	○
	USA	New York	WBOU	17.785 16	○	○	○	○	○	●	●	●	●	●	●	●
	USA	New York	WDSI	17.830 16	●	●	●	●	●	○	○	○	○	○	○	○

**CODE:** EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ●—Both A.M. & P.M. ○—A.M. GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 ○—Open Time ◉—P.M. YOUR TIME →

Log	Country	City	Call	Freqcy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
	USA	New York	WDSI	21.500	13	●	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	
	USA	Schenectady	WGEO	9.530	31	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	USA	Schenectady	WGEO	15.330	19	●	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○
	USA	Schenectady	WGEO	21.590	13	●	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○

### UNITED NATIONS BROADCASTS

USA	Cincinnati	WLWO	11.970	25	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○
USA	Delano	KCBR	9.600	31	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
USA	Dixon	KNBH	11.775	25	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
USA	Dixon	KNBH	17.800	16	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○
USA	New York	WBOU	11.870	25	○	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○
USA	New York	WBOU	15.440	19	○	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○

**CODE:** EASTERN STANDARD TIME → 12 1 2 3 4 5 6 7 8 9 10 11  
 ●—Both A.M. & P.M. ○—A.M. GREENWICH MEAN TIME → 5 6 7 8 9 10 11 12 1 2 3 4  
 ○—Open Time ◉—P.M. YOUR TIME →

Log	Country	City	Call	Freqcy. Mc.	Band Meters	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4
	USA	New York	WBOU	17.785	16	●	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○
	USA	New York	WBOU	21.690	13	●	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○

### ARMED FORCES RADIO AND TV SERVICE

USA	Boston	WRUL	15.350	19	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
USA	Delano	KCBR	9.570	31	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
USA	Delano	KCBR	11.870	25	○	○	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
USA	Delano	KCBR	15.315	19	●	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○
USA	Delano	KCBR	17.770	16	●	○	○	○	○	○	○	○	○	○	○	○	○	○	●	○	○	○
USA	New York	WBOU	15.285	19	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
USA	New York	WBOU	17.780	16	●	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

## YOUR SHORT-WAVE STATION LOG

STATION	CITY	TIME	BAND	MC.

STATION	CITY	TIME	BAND	MC.

STATION	CITY	TIME	BAND	MC.

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