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Every Air Castle chassis is constructed with this outstanding engineering feature! Perfected with latest patents from R. C. A. and Hazeltine laboratories — your guarantee of the finest in the world of radio!



Super Air Castle Tubes

Every Air Castle is equipped with R. C. A. licensed Super Air Castle tubes. Countless rigid tests have proven the vast superiority of these tubes. Improved shielding in both glass and all metal tubes adds greater sensitivity and clearer tone.

AIR CASTLE BATTERIES

Every battery-operated Air Castle is equipped with Air Castle batteries! The Bureau of Standards of the U.S. Government sets the standards for all batteries and Air Castle batteries have been constructed and tested to exceed even these rigid specifications.



"The Voice of Jwo Worlds"

This Service Manual and Log Book was designed by Spiegel's to help you get the finest possible performance and the greatest possible pleasure from your Air Castle Radio.

Just as it would be unwise to try to operate a machine as intricate as a camera without first reading the instructions carefully, so it is with your radio. You will be amply rewarded if you will spend just a few minutes NOW with this booklet. Read it through from beginning to end—see just which stations you can expect to receive on your radio; see WHY you may not be able to receive certain other stations.

If your radio is designed to pick up Short Wave stations you have an extra treat in store, for the distance-getting powers of your Air Castle will delight you. On pages 18 and 19 there is a log of Intermediate and Short Wave stations. It shows you at just what time Short Wave stations in all parts of the world are broadcasting, and it automatically adjusts itself to YOUR time zone.

A convenient log of stations of the Standard or Long Wave band and the Weather band has been compiled on pages 12 and 13, detailed instructions for tuning and operating your Air Castle — with special attention to the tuning peculiarities of each band — appear on pages 6 and 7.

On pages 20 and 21 you will find a list of all the Standard broadcast stations in North America, arranged alphabetically.

Do not forget that many forces beyond man's control often prevent best reception—storms, man-made electrical disturbances such as power signs, ignition systems, metal eaves, etc. But there are many things you can do to assure yourself the best possible reception. First of all, have your tubes and batteries tested frequently; one defective tube or worn out battery may undermine the work of good tubes and batteries in your set. Plan to test the tubes every six months to a year, depending on the amount of time your set is in operation.

The quality of reception depends largely on your aerial — be sure you install it correctly. Before you even attempt to locate any stations on your Air Castle, be sure you have made the proper aerial and ground connections. Very often the only difference between good and poor reception is in the installation of your aerial. For best results a good OUTDOOR aerial should be used. We strongly recommend an Air Castle All-Wave Doublet Antenna system for greater distance-getting power and clarity.

The regular Single Wire aerial is the next best type. Erect your aerial as high as possible and as far away from power lines, telephone lines, metal eaves, rain pipes, trees and other obstructions. If it is impossible to avoid these obstructions, erect your aerial at right angles to them. If you live on or close to a highway with considerable traffic it is very important that the aerial be kept as far away from the road as possible because of the motor ignition interference from passing cars and trucks. Also a number of household electric appliances may cause interference. This interference is especially noticeable on short wave reception particularly below the 25 meter band.

On pages 12 and 13 you will note that the super-power stations are printed in extra large type. Score 2 points for each of these stations you receive on your radio and see how close to 100 you can reach—50 stations, 60 points (30 stations) indicate that your tubes, batteries and aerial are in good shape.

Keep this booklet near your radio at all times. Get in the habit of consulting it often.

Best wishes for the finest radio performance and enjoyment.

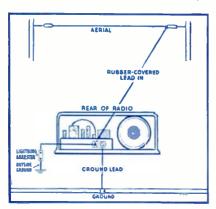
IMPORTANT

Before your Air Castle was shipped to you it was tested in our Radio Laboratories and its reception and tone qualities were found to be 100% satisfactory. If you have any difficulties, they are probably caused by some local condition in your community or as a result of damage in transit.

In case of any service difficulty, fill out questionnaire attached and await your reply from our RADIO ENGINEERING DEPARTMENT.



IF YOU HAVE A SINGLE WIRE AERIAL:



This type of aerial should be erected between 50 and 60 feet including the lead-in wire. Erect as high as possible and as far away from power lines, telephone lines, metal eaves, rain pipes, trees, etc., as is convenient. Connect the lead-in wire to the screw marked "A" at the rear of the radio and connect the ground wire to the screw marked "G". If your set is equipped with aerial and ground lead wires, hook the aerial to the Blue lead wire and hook the ground to the Black lead wire. The length of the aerial can be increased for better daytime reception. Further detailed instructions are included with your aerial.

Experiment to find which length brings most satisfactory results, then keep it as short as possible, consistent with good reception.

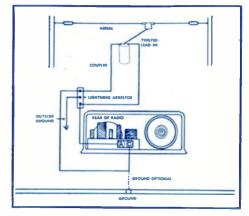
IF YOU HAVE AN ALL-WAVE DOUBLET ANTENNA:

Splice the twisted leads from aerial to the twisted lead wires of the radio set coupler. When splicing, the red lead from the coupler should be connected to the red lead of the transmission line. When possible, solder each connection and cover the splicing with electrician's tape.

The radio set coupler may be mounted outside of the building on the window casement, or inside the building near the radio.

Connect a wire from the post marked (Å) on the radio set coupler to either of the outside binding posts on the lightning arrestor. Continue this wire to the antenna connection (Å) on the radio. The ground connection to post marked (G) on the radio set coupler is to be connected to the opposite outside binding post, on the lightning arrestor, and continued to the ground (G) on the radio set. Connect an external ground to the center connector on the lightning arrestor.

For best results follow the diagram shown at the right—detailed instructions are included with your antenna system.



GROUND INSTRUCTIONS

In most instances a good ground connection will tend to improve reception and decrease the noise level. Connect the ground wire to either a cold water pipe or a steam radiator if possible. If these are not avail-

able, drive an iron pipe 3 or 4 feet into the ground in a moist place and connect the ground wire to it. Connect other end of ground wire to the screw at the rear of the radio marked "G".



How to

READ CAREFULLY BEFORE TUNING YOUR RADIO

Anxious as you probably are to start tuning, you will be amply repaid if you take just a few minutes to check your aerial and ground connections first; see page 5. If your Air Castle has the wonderful new Automatic Push-Button Tuning, follow the instructions included with your set to make the few simple adjustments necessary to enable you to the line in any force is retained. to tune in on your favorite stations by merely pressing a

If you have a battery-operated Air Castle, consult the battery chart enclosed with your radio; make sure every connection has been made correctly. If yours is an electrically-operated Air Castle, plug it into an outlet socket of proper voltage.

NEXT, CHECK YOUR TUBES CAREFULLY

Reach into the back of the chassis and press each tube down firmly into its socket, making sure each tube is securely in place and leaving no chance for poor connec-tions. Also be sure that the leads to the tops of those tubes having caps are firmly attached to these caps.

Examine the dial of your Air Castle. You will notice that it consists of from one to four distinct bands, depending on the number of wave bands your particular radio is equipped to receive.

Locate the logs or lists of stations in this book on pages 12 and 13 and on pages 18 and 19. When you tune in on stations on the standard Broadcast band you will refer to pages 12 and 13; when tuning on the Short wave and Intermediate bands refer to pages 18 and 19.

Locate the knob labeled "Band Switch" on the front of your radio. If you do not have such a knob, your set is designed to receive standard Broadcast reception only. If there is a Band Switch knob on your set you may or may not have a wave band indicator on the dial.

NOW YOU ARE READY TO TUNE

Turn the knob marked "VOLUME" to the right until it clicks. This turns on the power. After allowing about 30 seconds for the tubes to warm up, your Air Castle is ready for operation.

Turn the Band Switch knob to the band on which you rurn the Band Switch knob to the band on which you wish to tune. We strongly recommend that you first tune in on the standard Broadcast band because reception conditions are more nearly ideal on this band. Consult the paragraphs below dealing with the band on which you are tuning.

If your set has Automatic Push-Button Tuning and you have already made the adjustments described above, you have only to press the button bearing the label of the station you want and that station will come in instantly, automatically and accurately. To tune other stations, see instructions following, remembering that the knob marked "TUNING" turns the needle indicator on the dial.

Because of Air Castle's high sensitivity you may find that there is some noise interference BETWEEN stations. It is therefore very important that you tune slowly and carefully to find just that point on the dial where reception of the particular station you are tuning in is clearest and loudest; this point is known as the "PEAK". After station is tuned on PEAK, increase or decrease volume to desired level by using Volume Control knob only. DO NOT TUNE STATION OFF PEAK TO ADJUST VOLUME!

Science's latest development to aid you to tune perfectly is SIGNALITE TUNING EYE. Refer to section below for proper use of SIGNALITE if your Air Castle is equipped

ADJUSTING THE VOLUME. Locate the knob marked "VOLUME". On all Air Castles this is incorporated with the On-Off switch. To increase the volume, turn this knob to the right; to decrease volume turn knob to left. This is the only proper way to regulate volume — do not tune station off PEAK in an effort to adjust the volume.

TONE CONTROL. If your set is equipped with a "Tone CONT. CONTROL. If your set is equipped win a lone Control" knob you may wish to adjust the tone to that pitch most pleasing to you. By turning this knob to the right you bring out the treble or high notes more clearly; by turning this knob to the left the bass or low notes predominate.

STANDARD BROADCAST BAND TUNING

USING THE LOG

DIAL LOCATION. All standard Broadcast stations are
located by using the standard Broadcast dial band, marked
540 to 1720 kilocycles (shortened for convenience to 54 to
172) or 540 to 1600 (shortened to 54 to 160). Standard
Broadcast stations are found up to 1550 (or 155); several
police call broadcasts occupy the balance of this band.

GEOGRAPHICAL LISTING

On pages 12 and 13 you will find all standard Broadcast stations in North America grouped geographically. This log shows at a glance which stations you are most likely log shows at a glance which stations you are most likely to receive in your community, and the most powerful stations in each geographic group are set in large type. For example, if you live in Minnesota, which is in the Middle Western group, and you set the needle on your dial at 57, you will most likely get station WNAX rather than stations with the same kilocycle reading in more distant localities.

VARIATION FROM LOG

In many localities stations do not come in at the exact kilocycle reading this log indicates. This is no fault of your radio, but is due to ungovernable influences. However, all stations will vary from their respective log readings to the same degree, and once you have located one station, and noted its kilocycle variation, all other stations station, and noted its kilocycle variation, all other stations will vary from their log readings the same number of kilocycles. For this reason, there is a column down the center of the page of your log on which we suggest that you put down the exact location of every station, as you locate it, for later reference. Stations marked T, U, V, W and Z can generally be heard from coast to coast at night, frequently in preference to stations much nearer you but with less power. Lower powered stations of the same kilocytle readings sign off in favor of these higher powered stations at local sunset.

Set the Tuning knob to that figure on the dial that corresponds to the kilocycle reading of the station you are looking for, and turn it slowly until the desired station is tuned in on PEAK, or where reception is best. Remember, unless you are exactly on PEAK your radio may pick up noise interference.

SIGNALITE TUNING EYE

SIGNALITE TUNING LYE
If your Air Castle is equipped with a Signalite Tuning Eye,
locate PEAK in this way: rotate the tuning knob after
station has been picked up until the shadow in the Signalite Tuning Eye is as narrow as it will get. When this
shadow is narrowest, your radio is tuned on PEAK; as the
shadow broadens you are tuning off peak with greater
distortion as a result.

The shadow becomes even narrower if you are using a good outside aerial and if the station is powerful. The success of the operation of Signalite depends on the power of the station, not on the power of your Air Castle.

It is not necessary to have the volume tuned up high to work Signalite. We recommend that the volume be kept low while Signalite is being used and until the station is tuned on peak, then turn up the volume to the desired strength.

When you are not operating your radio, be sure to turn the

Operate



SHORT WAVE BAND TUNING

USING THE LOG

For successful Short Wave band tuning you must have not only great patience but a precise knowledge of exactly WHEN and WHERE to tune! The log on pages 18 and 19 was prepared to give you exactly this information!

With your pencil cross out the four rows of hour figures that do not apply to your community, leaving only YOUR time zone. Now it is easy to see between just which hours the prominent stations are broadcasting.

Follow the column for the hour you are tuning and note stations that are broadcasting at that hour; be sure to check whether it is A.M. or P.M. and the days of the week on which that particular station broadcasts.

TUNING

Set your radio to the Short Wave Band. Disregard all other bands on your dial. Turn the Volume Control knob as far to the RIGHT as possible to avoid passing any stations. Turn Tone Control knob as far to the LEFT as possible to remove harshness and interfering noises. Now set your Tuning knob to the megacycle reading that set your Tuning knob to the megacycle reading that corresponds to the megacycle reading in the log of the station you are trying to locate.

TUNE SLOWLY -- CAREFULLY

With slow, careful tuning, faint signals can frequently be developed to great strength. After the station is properly tuned in, turn the Tone Control to the right to bring in speaking voices more clearly, and adjust the Velume Control to suit yourself.

Notice how closely together many of the stations are located; you must tune very SLOWLY not to skip over them. Simply because a station is broadcasting at a given time, do not blame your radio if you are unable to locate it. REMEMBER, THERE ARE MANY FORCES

OVER WHICH MAN HAS NO CONTROL WHICH PREVENT YOU FROM GETTING RECEPTION AT CERTAIN TIMES — SKIP DISTANCES, STORMS, DIRECTIONAL ANTENNAE AND OTHER FORCES.

As soon as you locate a station, mark it in your log book, and mark down the exact location and time, for your later reference.

SHORT WAVE FACTS

Stations in the 15 megacycle band come in best during the summer months, during daylight hours. Stations on Stations in the 15 megacycle band come in best during the summer months, during daylight hours. Stations on the 11 megacycle band come in best in early and late summer during the afternoon and early evening. Those on the 9 megacycle band come in best during spring and early fall in the late afternoon and early evening; and the stations on the 6 megacycle band are heard best in the fall and winter late in the afternoon and evening.

Because it is often necessary to listen for some time to a Short Wave station to determine definitely whether it is local or foreign, we have listed below the call signals of some of the leading foreign stations:

> British stations transmit the striking of Big Ben, London

> German stations play a repeated score, using bells

> Paris, France plays the Marseillaise "Hello, hello, ici Paris"

Portugal-CTI AA-Cuckoo caile

Australia-VK2ME-Kookaburra bird calls Russia RV59 play the Internationale "Hello, hello, here is Moscow"

Italy HVJ "Pronto, pronto, Radio Vaticano" 2RO—"Radio Roma-Napoli" Netherlands-PHI-"This is Huizen"

INTERMEDIATE WAVE BAND TUNING

USING THE LOG

The Intermediate band includes over 200 police calls, It extends either from 1.7 to 5.2 or 1.6 to 4.5 megacycles—depending on the model Air Castle you have.

You will notice that all police call stations are located closely together. Patience and fine tuning are required to locate any single station. As many as 15 different stations broadcast their police calls over the same frequency. This simply means that you will only get that station which is nearest you, to the exclusion of the others at that reading.

TUNING

Set your radio to the Intermediate Wave Band. Disregará all other bands on your dial; turn the Volume Control knob, far to the right; turn the Tone Control knob well to the left. Turn the Tuning knob SLOWLY around the number on the dial corresponding to the megacycle reading of the station in the log; adjust it carefully until you reach the PEAK. Turn the Tone Control knob to the right to bring in speaking voices more clearly.

Before your Air Castle was shipped to you it was tested in our Radio Laboratories and its reception and tone qualities were found to be 100% satisfactory. If you have any difficulties, they are probably caused by some local condition in your community or as a result of damage in transit.

In case of any service difficulty, fill out questionnaire attached and await your reply from our RADIO ENGINEERING DEPARTMENT.

IN ALL CASES CONSULT SPIEGEL'S BEFORE YOU RETURN YOUR RADIO!

on-off switch to the left until it clicks. This turns off the power.



Robert Armbruster

Introducing Your Favorite Radio Stars



Portland Hoffa



Jean Dickenson



Tommy Dorsey



Patricia Dunlap 'Janet Dexter'



Mary Eastman



Ruth Lyon (Words & Music)



John MacBryde 'Old Ranger'



Dorothy Lowell 'Sunday'



Mercedes McCambridge



Fred Allen



Don Ameche



Curtis Arnall 'Pepper Young'



Gene Arnold (Minstrels)



Enjoy Them All With an



MBC

Rudy Vallee

Robert Young



Art Van Harvey 'Vic'



Benay Venuta



'Wallace' (Thin To Music)



Peggy Wall 'Peggy'



Frank Munn



Pat Murphy (Girl Alone)



Betty Clsen (Escorts & 'Betty')



Ehel Owen 'Jill'



Opal Craven 'Lullaby Lady'



Donna Damerel 'Marge'



Elizabeth Day, Actress



Cecil B. de Mille

Page nine



PIBC CONTRACTOR OF THE PARTY OF

Dorothy McGuire 'Sue Evans'

Don McNeill (Breakfast Club)

Sensational!

Air Castle's PUSH-

Check your tubes and batteries from time to time! Remember one worn-out tube or battery can spoil the tone and ruin the reception of the entire set! For greatest value and best tone, replace with AIR CASTLE proven radio equipment.



Rachel Carlay



Frances Carlon 'Kitty Keene'



Beth Chandler, Blues



Sybil Chism, Organist



Gabriel Heatter



Harvey Hays (Words & Music)



Gus Haenschen



Sharon Grainger 'Olga'



Ford Bond, Announcer



Fanny Brice 'Baby Snooks'



Carleton Brickert 'David Post'



Joe E. Brown

Breath-Taking!

BUTTON TUNING

With your convenient Shopping Terms at Spiegel's you need not delay ordering! Lowest prices—highest quality, and your order filled in 24 hours. You have months to pay and at Spiegel's there is No Charge for Credit.



Abe Lyman

Charles Lyon, Announcer



Joe Emerson



Jimmie Fidler



Laurette Fillbrandt, Actress



Bernardine Flynn 'Sade'



Jack Benny



Spencer Bentley 'Bob'



Chester Lauck 'Lum' Norr



Norris Goff 'Abner'



Alice Hill ('Betty' & Bob)



Henry Hunter, Actor



Billy Idelson 'Rush'



"Aunt Jenny"

Page eleven

Locate Your Favorite Stations

If the numbers along the center of the chart are not the same as those on your dial, mark your own dial numbers in the proper spaces. Use a pencil of different color for your LOCAL Stations.

| 100 250 300 500 75 H K L M N | | S CODE | WER 10000 15000 25000 50000 T U V W | 100,000 250,000 500,000 X Y Z |
|--|---|--------------|--|---|
| | *Columbia; †NBC Red; | | INBC Red & Blue; Mutua | |
| WESTERN | MIDDLE WESTERN | KILO DISIN | CENTRAL III., Mich., Ohio, Tenn., Etc. | EASTERN Mass., N. Y., Pa., N. C., Etc. |
| CIRM Moose Jaw. Sask | Minn., Ia., Neb., Mo., Tex., Etc. | 40 A | III., M Ch., (Mo, 1 enh., Etc. | |
| CJRM Moose Jaw, Sask | | 0 | *WKRC Cincinnati, Ohio0 | CFNB Fredericton, N.B. N. WGR Buffalo, N. Y |
| KFYR Bismarck, N. D | *KTSA San Antonio, Tex | 550 <u> </u> | WSVA Staunton, Va M | WDEV Waterbury Vt N |
| KLZ Denver, Colo, | | § 560 | * WIND Chicago-Gary 0 ! WIS Columbia, 8 C 0 | • WQAM Miami, Fla |
| KVI Tacoma, Wash | *WNAX Yankton, S. D | 570 | • WKBN Youngstown, Ohio. M | * WWNC Asheville, N. C |
| KMTR Los Angeles, Cal C CKUA Edmonton, Alta N | KGKO Ft. Worth. Tex. | | WOSU Columbus, OhloO WILL Urbana, IllO | WMCA New York (WSYR) WTAG Worcester, Mass |
| KMJ Fresno, Cal | | | •WCHS Charleston W. Va. M | *WDBO Orlando, Fla |
| KHQ Spokane, Wash | twow Omaha, Neb | 590 | WKZO Kalamazoo, MichK | • WEEI Boston, Mass CMCY Marianao. Cuba |
| CJOR Vancouver.B C N | | 600 | CFCF Montreal, Que M | *WICC Bridgeport. Conn |
| KFSD San Diego, Cal N KFAR Fairbanks, Alaska | | | *WCLE Cleveland, OhioM | WIP Philadelphia, Pa |
| KFRC San Francisco, Cal | WEAF Kansas City, Mo | o 610 | tWTMJ Milwaukee, WisO | *WIOD Miami. Fla |
| KGW Portland, Ore KTAR Phoenix, Ariz | | 620 | WFLA-: WSUN Florida 0 | WHJB Greensburg Pa |
| KGFX Pierre, S.D. | KFRU Columbia, Mo | 630 | : WGBF Evansville, Ind M WMAL Washington, D. C. K | *WPRO Providence R. L. |
| KFI Los Angeles, Cal V | | s 64o | *WHKC Columbus, Ohio M | *WGAN Portland Me |
| Zano langerta, Car III. | | 650 | 1-WSM Nashville, Tenn W | |
| | KOWN Omaha, Nebr | M 660 | XEAL Mexico City, Mex 0 | TWEAF New York City |
| | | 670 | †WMAQ Chicago, Ill W | WIAW Lawrence Mass |
| KPO San Francisco, Cal V | KFEQ St. Joseph, Mo | | | t WPTF Raleigh, N. C |
| CJCJ Calgary, Alta | XET Monterey, Mex | s 690 | NAA Arlington, Va O | *CFRB Toronto, Ont |
| | | 70o | *‡WLW Cincinnati, Ohio. W | |
| | | 710 | | *WOR Newark, N. J |
| KMPC Beverly Hills, Cal M | | 720 | *WGN Chicago, Ill, W | |
| CJCA Edmonton, Alta | XEPN Pedras Negras, Mex. | | CMCL Havana, (CMK) . T | *CKAC Montreal, Que |
| KTRB Modesto, Cal | | | †WSB Atlanta, Ga W | WHEB Portsmouth, N. H. |
| KGU Honolulu, Hawail | | 750 | *WJR Detroit, Mich W | |
| | WLB Minneapolis (WCAL). K WEW St. Louis, Mo. | | | IWJZ New York (WBAL) |
| XEOK Tia Juana, Mex | *KFAB Lincoln, Nebr | 770 | *WBBM Chicago, Ill W | |
| KWLK Longview, Wash | | 780 | WPIC Sharon, Pa K | WEAN Providence, R.I |
| | | 70 | t WMC Memphis, TennS CMQ Havana, Cuba. V | †WGY Schenectady, N. Y. |
| KGO San Francisco, Cal | | | | WTBO Cumberland, Md |
| | #WECO NO. (#WBAP). | | HIX Santo Domingo, RD 0 | WNYC New York City |
| | *WCCO Minneapolis, Min | - 010 | CMCF Guanabacoa, Cuba 5 | WATE New Tolk City |
| XEBG Tia Juana, Mex | | 820 | *WHAS Louisville, Ky W | WHDH Boston, Mass |
| | †KOA Denver, Colo | M 830 | WRUF Gainesville, FlaS | + WEEU Reading, Pa |
| CFQC Saskatoon, Sask | XERA Villa Acuna, Mex | 840 | | CBL Toronto, Ont |
| KIEV Glendale, Cal | *WWL New Orleans, La | M 850 | WKAR E. Lansing, Mich 0 | |
| XEMO Tiajuana Mex | S WHB Kansas City, Mo | º 860 —— | | *WABC New York |
| KVAN Vancouver, Wash, K | | 870 | +WENR-WLS Chicago,, W | WRNL Richmond, Va |
| KLX Oakland, Cal | | 880 | * WCOC Meridian, Miss | * WGBI- WQAN Scranton, Pa CMX Havana, Cuba |
| KFPY Spokane, WashO KTKC Viscalia, Cal. | KUSD Vermillion. S.D f | 9 89o | WBAA Lafayette, Ind M | †WJAR Providence, R. I |
| KARK Little Rock, Ark | XEW Mexico City | X | *WMMN Fairmont, W. Va 0 | • WGST Atlanta, Ga |
| KGBU Ketchikan, AlaskaO KSEI Pocatello, Idaho | | 8 900 | WLBL Stevens Pt., Wis S ; WJAX Jacksonville, Fla O | WBEN Buffalo, N. Y WELI New Haven. Conn. |
| CJAT Trall, B.C | XENT Nueve Laredo, Mex | | CKY Winnipeg, ManU | 1005 |
| KOMO Seattle, Wash | *KFEL Denver, Colo | o | tww Detroit, Mich | WORL Boston, Mass |
| | n . | 920 | WAAF Chicago, Ill 0 WBRC Birmingham, Ala 0 | |
| KROW Oakland, Cal | O + KMA Shenandoan, Ia | 930 | • WDBJ Roanoke, Va 0 | tWCSH Portland, Maine |
| | XEFO Mexico City, Mex | 940 | *WAVE Louisville, Ky | WAAT Jersey City, N. J |
| KFWB Hollywood, Cal | • KMBC Kansas City, Mo | 950 | WTRY Troy, N.Y 0 | CBV Quebec Que |
| CFRN Edmonton, Alta | XEAW Reynosa, Tams | × 960 | CBY Toronto, Ont H | CHNC New Carlisle, Que |
| KJR Seattle, Wash | | 970 | t WCFL Chicago, Ill | CMCK Havar). Cuba |
| | | 980 | | KDKA Pittsburgh, Pa |
| | XEAF Nogales, Mexico | N 990 | | WBZ-WBZA Boston |
| KFVD Los Angeles, Cal. | WHO Des Moines, Iowa. | | | * |
| CKCK Regina, Sask | O *KGGF Coffeyville, Kas | 0 1000 | Tanana Wasanina Wasan | WHA New York City |
| KQW San Jose, Cal | | <u> </u> | • WNOX Knoxville, Tenn 0 | |
| OFON Colors and | | º 1020 | WDZ Tuscola Ill0 | †KYW Philadelphia, Pa., |
| KWJJ Portland, Ore | *KEI D Deller The | <u> 1030</u> | *CKLW Windsor-Detroit S | INVESTIGATION OF |
| KYOS Merced Cal. | K TRILL Danas, 1ex | T 1040 | | †WTIC Hartford, Conn |
| KNX Los Angeles, Cal V | WEAU Eau Claire, Wis | § 1050 | WIBC Indianapolis, Ind 0 | CBA Sackville, N B |

by Using this Handy Log Chart

In most cases, there is more than one station to be heard on one number or "wave band". If more than one station is broadcasting, you will only hear the nearest or most powerful.

| 100 250 300 500 750 | hear the nea | 00 WATTS POV | ER 10000 15000 25000 5000 | 0 100,000 250,000 500,000 |
|---|---|--|---|---|
| H K L M N | O P Q R | S CODE | T U V W | X Y Z |
| WJAG Norfolk, Nebr 0 | TKTHS Hot Springs, Ark T | 105 | January and an analysis of the state of the | +*WBAL Baltimore, MdT |
| KJBS San Francisco, Cal M | WCAZ Carthage, Ill H | 1080 | TWTAM Cleveland. Obio W | *WPT Charles N. C. |
| | *KMOX St. Louis, Mo W | 100 | WMBI-WCBD Chicago, Ill S | *WBT Charlotte, N. C w |
| CBR Vancouver, B. C S | *KWKH Shreveport, La W | | - | WBIL New York CityS |
| KGDM Stockton, Cal0 | | | THE ROLL IN THE REAL PROPERTY. | *WPG Atlantic City, N.JS |
| | CKX Brandon Man 0 | | **XELO Piedras Negras, Mex. W **WISN Milwaukee, WisK | **WRVA Richmond, Va., W WCOP Boston, MassM |
| KFIO Spok'e, Wash, (KRSC)H KFSG-KRKD Los Angeles M | WTAW College Station, Tex M | 1120 | WJBO Baton Rouge, La. M | t WDEL Wilmington, Del K |
| KSL Salt Lake City, Utah W | KTBC Austin, Tex0 | 1130 | WJJD Chicago, Ill | WOV New York City 0 |
| | ‡KVOO Tulsa, OklaV | 1140 | • WAPI Birmingham, Ala V | *WSPR Springfield, MassM |
| | XEH Monterey, MexK | 150 | Were the War Lad T | +WHAM Rochester, N.Y. W |
| | XED Guadalajara, Mex R | | ↓ WO WO Ft, Wayne, Ind T | *WWVA Wheeling, W. Va, S |
| KEX Portland, OreS | | 1170 | WWWAT Manager Co. O | *WCAU Philadelphia, Pa. W |
| KOB Albuquerque, N. M T | *WDGY Minneapolis, Minn., O | | WMAZ Macon, Ga 0 | WINS New Fork City 0 |
| VELL MOST MANY | TWOAI San Antonio, Tex. W | 1190 | WSAZ Huntington, W. Va. O | *WTHT-WJNO*WRBL WAYX |
| KSUN-KGFJ-KVCV-KVEU KWG-KFXD-KDNC-KOOS | KEIB-KWFB-MIBM KRLW-KCHI-KCEK | 1200 | WBHP-WJRD-WJBC-WJBL | *WABI*WIBX-WMFR-WOLS WBAB-WEST!WKBO-WSAL |
| KVOS: KELO-KFXJ KVNU-KAST | KWNO-KGDE-WIL-KXOX *KADA*WBBZ-WCAT-WDSM | | WWAE-WFAM-WMPC-WHBC WCPO-WHBY-WCLO-WTOL | WAIM-WCAX-WLVA WENY |
| KOVO | #KANS~KFPW*KGLO-,KIUL | - | WINN WJBY-WCRW-WEDC-WSBC | WFOY-WPAX-WJEJ-WBRE |
| KDON-KPPC*KROY*KFXM KPFA-KLAH-KFJI*KGY | *WMFG-WGRM-WGCM KFVS*KFOR-KDLR-KVSO | 1210 | WEBQ-WTAX-WHBU+WJIM WJW: WCQL-WLOK-WALR | WSNJ-WGBBLWJTN WSAY-WFASLAWSOC-WKOF WBAX-WBBLAWHAI-WOCE |
| (HBG-KASA-KWTN-KWJB | KALB-WJMC-KOCA-WIBU | | WSIX-WCOV-WOMT WRAL | WPIV WTMA-WJLS*WCOU |
| KTW Seattle (KWSC) 0 KTMS Sanca Barbara. Cal. M | KPAC Port Arthur, Tex | 1220 | *WDAE Tampa, Fla. 0 | WCAD Canton, NY (WGMY) N WCAE Pitteburgh, Pu 0 |
| CJOC Lethbridge, Alta h | INGBX Springheld, Mo N | | • WFBM Indianapolis, Ind O | t WNAC Boston, Mass C |
| KYA San Francisco, Cal O KGCU Manden No. Dakota K | *KGGM Albuquerque, N.M. d *WHBF Rock Island, Ill | 1230 | WXYZ Detroit, Mich 0 | CJCB Sydney, N.S |
| KIF Yakima, Wash M | AKTAT Ft. Worth, Tex | 1240 | XEKL Leon, Mex. M | *WKAQ San Juan, P. R |
| KFOX Long Beach, Cal 0 | KXOK St. Louis. Mo 0 | 1250 | WEST New Castle Pa. New Orleans, La O | WAIR Winston-Salem, N.C. |
| KGVO Missoula, MontO KVOA Tucson, ArizonaO | **KOIL Omaha, Nebr 0 **KRGV Weslaco, Tex 0 | | •WTOC Savannah. Ga 0 | |
| MISE Chico. Cal K | KWLC-KGCA Decorah, la H | 127- | WOOD-WASH Gr. Rpds. M | t WFBR Baltimore, Md |
| KOL Seattle, Wash 0 KFBB Great Falls, Mont 0 | LI WID A MAGISON, WIS | | WJDX Jackson, Miss O | *WORC Worcester, Mass N |
| KLS Oakland, Cal | *WRR Dallas, Tex M | 1280 | • WDOD Chattanooga, Tenn. O • WJAS Pittsburgh, Pa | WATR Waterbury, Conn |
| KDYL Salt Lake City | *KTRH Houston, "ex n | 1290 | WJEP Jacksonville, Fla. | WNEL San Juan P. R N |
| KALE Portland, Ore O KFAC Los Angeles, Cal O | *KFH Wichita, Kas | 130o | ; WFBC Greenville S.C, 0 | WBBR New York |
| KARM-KCRJ-KSRO-KHUB | KCKN-KVOL-KRMD*KOME | | WSGN-WGAU-WAML-WGTN | WHAT-WTAL*WNBH*WBRH *WLNH WMBO; WEBR; WMFF |
| KGEZ-KRQA-KSUB-KPDN KXRO-KGFW-KBND | KWOC*KRRV-KOCY*KAND | 1310 | WCMI1WFDF-WBEO-WEXL | *WSJS-WFBG-WSAJ |
| KID Idaho Falls, IdahoM | •KRNT Des Moines, Iowa 0 | War and the same of the same o | *WADC Akron, Ohlo | WORK York, Pa |
| KGMB Honolulu 0 | *KGHF Pueblo, Colo M | 1320 | *WTAQ Green Bay, Wis O | CMBQ Havana. Cuba |
| KGB San Diego, Cal O | | 1330 | * WSAI Cincinnati, Ohio O | *WDRC Hartiord, Conn |
| KGIR Butte, Mont M KFRO Longview, Tex O | KGNO Dodge City Kas. | 1340 | WSPD Toledo, Obio | WENC Kinston, N.C |
| KIDO Boise, Idaho | J*KWK St. Louis, Mo 0 | 1350 | TWMBG Richmond, Va M | WBNX New York (WAWZ) |
| KSLM Salem, Ore (KLPM) M KGER Long Beach Cal 0 | *KCRC I.n.d, Okla K WQBC Vicksburg, Miss 0 | 1360 | • WSBT South Bend, Ind M | *WFBL Syracuse, N. Y C : WCSC Charleston, S. C N |
| KTUC: KERN-KRE-KICA | KELD-KONO*KTEM-KFGQ | | WMFO-WAGF-WDWS*WEOA | *WMBR WATL: *WRDO WCBN |
| KGFL-KOBH-KVRS KRKO-KEEN-KUJ-KWYO | *WOC-KVGB-WMIN*WHLB WFOR; *KTOK*KFJZ-KIUN | 1370 | WGL-WGRC-WHDFIWIBM | |
| KOM Pana Nau | *KLUF-KMAC-KTSW | 120 | WHLS-WBTH-WISP-WJAC WSMK Dayton, OhloK | IWNBC New Britain, Conn |
| KRLC Lewiston, Ida., K | *WKBH La Crosse, Wis | 1121 | : WALA Mobile Ala M | KQV Pittsburgh, Pa |
| KOY Phoenix, Ariz | *KURA Little Rock, Ark 0 *KTUL Tulsa Okla | | *WHK Cleveland, Ohio, O | |
| KMED Medford Ore K | KFJM Grand Forks, N.D., M. | 1400 | I WBCM Bay City, Mich M | *WAAB Boston, Mass |
| KGNC Amarillo, Tex O | WROK Rockford, IllM | 1410 | *WSFA Montgomery, Ala., M | WILM-WMFJ-WGPC-WAGN |
| KBPS-KXL-KEUB-KGIW | *KGEE-KARR*KRRC-KNET | 1420 | WMSD-WHFC-WCBS-WLAP WPAD+WELL-WMBC-WJMS | *WMAS-WEED+WLEU-WFM |
| IDW-KWBG-KRLH-KATE KVAK-KWAL-KGLU | KONT: KFAM KRIC-WBNO | | *WAPO*WPAR-WSLI-WHMA | WGNC |
| KINY Juneau, Alaska | KGNF No. Platte, Neb | 1430 | *WBNS Columbus, Ohio C WMPS Memphis, Tenn, N | |
| KELA Centralia Wash 0 | *WMBD Peoria, III 0 | LA ALL | CKIS Timmins, Ont C | + MEAN WCDA Allontown B |
| KDFN Casper, Wyo M CFCT Victoria, B.C M | KCMO Kansas City, Mo 0 | | • WBIG Greensboro, N. C N • WGAR Cleveland, Ohio | WSAR FallRiver, Mass |
| KGCX Wolf Point, Mont C | 1KTBS Shreveport, La | 30 | WAGA Atlanta Gu C | *WJSV Washington, D. C |
| | TAKSTP St, Paul. Minn w | | • WLAC Nashville, Tenn | |
| *KGA Spokane, Wash, | *KOMA Okla, City, Okla | 1480 | WHIP Hammond, Ind. | |
| KFBK Sacran ento, Cal 1 | | 1490 | : WCKY Cincinnati, O 1 | |
| KSAM-KBKR-KROD-KYCA | KOTN-KPAB-KDRO | | WHBB-WKBV-WJBK-WKBZ | *WNLC*WRDW-WKEU-WRG WGKV**WNBF-WCNW*WSP |
| KPQ*KXO*KVOE*KDB KAWM-KOVC*KRNR↓KUTA | KPLC*KDAL-KGKY*KBIX | 150c | WOMI-WOPI-WDAN-WGIL | WWRL*WDNC; WGAL-WWSV |
| KSAL-KWEW-KVWC-KTOP | KYSM KPLT KGKB-KFD | 1510 | CKCR Waterloo Ont | CFRC Kingston, Ont |
| | KITE Kansas City. Mo | The same of the sa | UNUN WAREING OBC | *WBRY Waterbury Conn |
| | | | | |







Edward MacHugh

Mary Margaret McBride

Ken Griffin 'Larry Noble'

Edgar A. Guest









Edward G. Robinson

Julia Sanderson - Frank Crumit Anne Seymour 'Mary Marlin'

Dan Seymour, Announcer









Col. H. Norman Schwartzkopf

Hugh Studebaker 'Dr. Bob'

M. Sayle Taylor 'Experience'



Bill Thompson, Dialectician

Les Tremayne



Claire Trevor



Fred Uttal, Announcer

SHOULD IT EVER BE NECESSARY TO WRITE US CONCERNING YOUR AIR CASTLE RADIO, PLEASE FILL IN THIS FORM COMPLETELY

Please check your radio carefully as you answer each question. If possible, first take your tubes to a local radio dealer or serviceman to be tested. If you have a battery radio, have your battery tested also.

1. Have new tubes been put in since radio 14. Is reception noisy? If so, is it constant

| | was purcha | sed? | | or at certain times of t | he day? | | | | |
|-----|-----------------------|---|--|--|-------------------------------|--|--|--|--|
| 2. | Are all tube | es in the correct sockets as e instruction booklet? | 15. | Is there a competent | radio repairman | | | | |
| 3. | Do the tube | shields fit snugly over the | | in your community? | | | | | |
| | shielded? _ | on those tubes that are | 16. | Are there any neon sig apparatus or other n | ns, power plant | | | | |
| 4. | Is a wire with | th clip firmly attached to all metal tips? | | equipment within two | blocks of your | | | | |
| 5. | Is the wire, | with clip, connected to the | 17. | Give model number of | your radio (see | | | | |
| | correct tube | with metal tip as shown in ion booklet? | | back of chassis) | | | | | |
| 6 | | ad the tubes tested by your | 1F | YOU HAVE AN ELEC | | | | | |
| U. | local radio | dealer or radio repairman? | 18. | What is the voltage as cycles of the current s | supplied in your | | | | |
| 7. | Are you usi | ng an outside aerial? | | locality? (This inform obtained from your lo | nation may be cal power plant | | | | |
| 8. | Have you cl | hecked the aerial completely broken connections? | | or from the electric m | | | | | |
| | is your aeri | nd how high from the ground al? | 19. | Is there power at the clet in which the plug fr | rom the receiver | | | | |
| 10. | | n one radio being used from | | is inserted? (To test: | Plug in lamp or | | | | |
| | | erial? | | other electrical applian | | | | | |
| 11. | How is you | r radio grounded? | | F YOU HAVE A BATT | | | | | |
| 12. | Has your r | adio ever operated satisfac- | 20. | Are the batteries conne shown in the diagram | enclosed with | | | | |
| | - | so, for how long? | | your radio? | | | | | |
| 13. | Have you e | ver had your radio repaired? | 21. | List the voltage of each cannot test the batter tested by a radio dealer | ries, have them | | | | |
| | | | | service station. | | | | | |
| | dif | scribe in detail on the reverse ficulty, provided it has not bee | side of en cove | this sheet the nature of red by the above question | the ons. | | | | |
| | PRINT YOUR NAME | (First Name in Full) | (Second I | Name in Full) (| Last Name) | | | | |
| | AND ADDRESS | (Street, P.O. Box or R.F.D. No.) | | (Post Office) | (State) | | | | |
| | HERE | (If you have moved since | ce you last bought from us, give old address also) | | | | | | |

IMPORTANT

Should any tube in your radio set prove defective, return it to Spiegel Inc. for our inspection, with a letter of explanation. We cannot be responsible for replacement radio tubes purchased locally.



1113C





Jack Baker, Tenor

Kenny Baker

Luise Barclay 'Karen'

Edythe Wright









Jim Jordan 'Fibber McGee'

Bruce Kammen 'Kaltenmeyer'

Kay Kyser

Dorothy Lamour











Durward Kirby, Announcer

Vivian Fridell 'Mary Noble'

Alice Frost 'Ruth Evans'

Barbara Luddy









Marek Weber

Kathleen Wilson 'Claudia'

Meredith Willson

Joan Blaine (Valiant Lady)

Page seventeen

Short wave stations heard most satisfactorily by listeners in North America are listed below. Each symbol represents one-half hour, pointed UP for mornings; DOWN, noon to midnight. If yours is Eastern Standard or Central Daylight Time, rule out the 1st, 3rd, 4th and 5th rows of figures and copy 2nd row of numbers on the other pages. You can quickly see which stations are operating at the time you tune and often identify those heard by chance. Most of the North American Stations operate continuously and are listed at the right without Time reference. Spots for Amateurs, Ships and Aircraft are designated by an "A", "S" or "C" at the left, between megacycle numbers

| Amateu | ırs, Sh | ips and | Aircraft are desi | | n [". | ۸''', | ຸູ''S | 5'' | or | <u>"</u> (| 2" | at | th | е | left | . 1 | petwe | en mega | cycle numbers. |
|--------|-------------------|----------------|-------------------------------------|------------------------|------------|----------|---------------------------|--------|---------------|------------------|-----------------------|-----------------------|------------------|----------|--------------|-----------------|--------------|--------------|---------------------------------------|
| | | M_≜ D | M Both-♦ | E D S T Eastern (CD | 1 12 | 1 | 3 1 1 12 11 1 | 3 | 4 | 6 5 4 3 | 7 6 5 4 3 | 8 7 6 5 4 | 9 8 7 6 | 10 9 | iö | $\frac{12}{11}$ | 12 | | • |
| | | 1111 1 | m-♦ nom-4 | Central Mountain | 11 | 11 | $\frac{1}{12}$ | 2 1 | $\frac{3}{2}$ | 4 3 | 5 4 | 6 5 | 7 6 | 8 | 9 | 10 9 | 11 10 | | NOTES |
| | Meg | Call | Place | Pacific | 9 | 10 | 11 1 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | | -10-20 |
| | | | BBucaramanga, C | Col. ex.Su. | 1 | - | - | | | - | l | ١., | -1 | -1- | + ++ | | -1 | | |
| | | | B Barranquilla, C | | | | - | | | | | , | | | | , _ | | | |
| | | YV5RY | | | | - | | | | - | ** | | | | • | - | - | | |
| | | YV1RV | /- | | - | - | | -₩ | ** | ** | ** | | • •• | y . | v v = | - | - | | |
| | | YVIRU | | | - | - | 1- | | | ** | 77 | 1.7 | • | 111 | • | - | | | |
| | | | B Cucuta, Col. | ex.Sun. | | - | | | - | ** | * * | 71 | 7 | , - | 1 | - | 1 | | |
| | | | D Cali, Col. E Cartagena, Co | ex.Sun. | | | | | | | 77 | 7 | 100 | 7 | | - | 1— | | |
| | | YV5RH | | ex.Sun. | - | | | | | | | Y | 11.0 | 7 ▼ | | |] | | |
| | | | D Bogota, Col. | Daily | ١,, | | | | | ** | | | ' | | | 4 | _ | | |
| | | HJ2BAJ | | | | | | | | | | | | | 1 | <u> </u> | | | |
| | | | P Medellin.Col. | ex.Su. | | - | | _ | | | | 11. | 1. | 11. | , , | . | - | | |
| | | YV1RX | | | | -[| - | | ** | ** | ** | | | | , , | | 1 | | |
| | | | H Bogota, Col. | Daily | - | | - | | | | •• | 77 | | | , 🕶 | - | - | | |
| | | YV5RU | | ex.Sun. | | | | | | -₩ | ** | ٧¥ | | · ▼1 | v = | - | | | |
| | | YV5RS | Caracas, Ven. | ex.Sun. | 1 | - | | _ | | | | ** | 10.0 | 7 | / v- | - | | | |
| | 5.01 | YV5RM YV5RN | Caracas, Ven. | Daily ex.Sun. | | | | _ | _▲ | | ** | | 1. | 7 | 7 ▼ | _ | | | |
| | $C_{5.83}^{0.04}$ | TIGPH | SanJose, C.R. | ex.Su. | | | | | ▲ | •• | ** | ** | | | _ | - | | | |
| | | HRN | Tegucigalpa, Ho | | | | | | | | | ** | | V | 77 | |]— | | |
| | | HIIJ | SanPedro, D.R | | | | | _ | _ | •• | 1 | | ** | V | _ | _ | | | |
| | | TILS | San Iosa C R | AV SII A | | | | | | - | | ** | 1 1 | , | | | | | |
| | 5.94 | TG2X | Guatemala Cit | y MWSa 禾 | - | _ | | | | | <u></u> | | :: | | | | 6 00 | XEBT | Mexico City. |
| | 5.97 | YV5RC | Caracas, Venez. | Daily | | - | | | ** | 77 | •• | ** | | | | - | | CFCX | Montreal, Que. |
| | | HP5K | Colon, Panama | | - | <u> </u> | | - | | - | | | ** | 1. | 11 | | | CJCX | Sydney, N.S. |
| | | | X Bogota, Col. | Daily 🔼 | | - | | | | | ** | ** | ~~ | ** | ** | | | COCO | Havana, Cuba |
| | | DJC | Berlin, Ger. | Daily | | ** | 77 | vv | ▼- | | | | | | | | 6.02 | XEUW | Vera Cruz, Mex. |
| | | HP5B | Panama City | Daily Z | | - | | | - | | | | | ** | | | 6.03 | CFVP | Calgary, Alta. |
| | | | G Barranquilla,C C Pereira, Col. | ex.Su. | ** | ** | 77 | ** | ** | | | | 77 | | ** | | 6.04 | WIXAL | Boston, Mass. |
| | | GSA | London, Eng. | Daily m | | | | | | | ** | ** | ** | VV | ▼- | | 6.06 | W8XAI | Cincinnati |
| | | HH2S | Port-au-Pr.,Ha | iti Daily | - | ** | ** | • | ** | ** | | | | | | | 6.00 | W3XAU | Philadelphia |
| | | DJM | Berlin,Ger. | Daily | | _ | | | | ,, | | | ** | | ** | | 6.07 | CFRX | Toronto, Ont. |
| | | OAX4Z | Lima, Peru | ex.Su. 🚅 | | | _ | | | | | ** | | 1 | ** | | 6.00 | CRCX | Chicago |
| | 6.15 | HJ4DAI | E Medellin, Col. | Daily | | | - | | - | | | | ** | | | | | W9XF | Toronto, Ont. Chicago |
| | | H15N | Moca City R.L | ex.Su. | | | | - | | | ** | | | - | | | 6.10 | W3XAI | Boundbr'k, N.J. |
| | | | Manizales, Col. | | | | | | - | | | | ₩. | ** | ** | | 6.13 | CHNX | Halifax, N.S. |
| | | TG 2 | Guatemala Cit | | | | | -1 | - - | - | ** | ** | ₹₹ | ** | 77 | ▼_ | 6.13 | COCD | Havana, Cuba |
| | | HIIA | Santiago, D.R. | Daily Daily | | | | _ | - | 7 | ** | | | _ | | | | W8XK | Pittsburgh |
| | | CP 5 | LaPaz,Bolivia LaCeiba, Hondur | Daily Z | | | | _ | - | | _▲ | ** | ** | ** | ₹₹ | | | CJRO | Winnipeg, Man. |
| | | HIN | Trujillo, R.D. | ex.Su. | <u> </u> | | | | | | | | | | ** | | 6.17 | XEXA | Mexico City |
| | | GP 12 | LaPaz, Bolivia | Daily | | _ | | | | | | | ** | vv | | A A | 6.17 | W2XAF | Schenectady, N.Y. |
| | | HIG | Trujillo City, R.I | D. ex.Su. | | | | . | • | | | | ** | | | | 6.17 | WOXBE | SanFrancisco,Cal |
| | | HI8J | LaVegas, D.R. | ex.Sun. | | | | _[| | | ** | ** | ** | •• | | | 6.20 6.31 | COCW | Sancti-Spiritis, Cub |
| | | HI9B | Santiago, D.R. | | | | | -1, | •• | - 1 | ** | •• | | | | | 0.34 | COCII | Havana, Cuba |
| | 6.41 | TiPG | San Jose, C.R. | Daily | | | | | ** | | - 1 | | | ** | •• | v - | 6.43 | W4XD | Gainesville,Fla. |
| | | HIIL | Santiago, D.R. | ex.Sun. | | | | - | | | | ** | | | | - | | | vamoovine,r la. |
| | | TGWB | GuatamalaCity | ex.Sun. | | | | | - - | -₩ | | | | | ** | , - | | | |
| | | HC2RL | Guayaquil, Ec. | Su.&Tu. | | | | - - | - | -₩ | •• | v− | | ** | ** | | | | |
| | 15.68 | TIEP | SanJose, C.R. | Daily | | | | • | ₹¥ - | - | ** | ** | ** | ** | ** | | | | |
| | 17.80 So 12 | HAT-4 | Geneva, Switz. Budapest, Hung | Mon. | | | | 7 | - 4 | 7 | | ** | | | | -1 | 7 20 | VEOD | M. I. Oli |
| | 9.12 | HC2CW | | | | | | | | | | ** | | | | | | XECR | Mexico City |
| | | OAX4J | Lima, Peru | Daily | | | | | | | | | ** | | | | | COJK COKG | Camaguey, Cuba Santiago, Cuba |
| | 9.46 | | Ankara, Turkey | | | | , , | ,,, | ,, | | ** | ** | ** | | <u> </u> | | | COBZ | Havana, Cuba |
| | 9.49 | | Madrid, Spain | | | | | - - | | - | , | ,, | | | | | | COCH | Havana, Cuba |
| | | VK3ME | Melbourne, Aus | . ex.Su. 🛪 | | | - | 4 | AA 4 | 14 | AÀ. | _ | - | - | | | | | Mexico City |
| | 9.51 | GSB | London, Eng. | Daily | A A | 44 | _ | - | - | - | X | ,, | _ - | - | ₩₩. | - 1 | | | |
| | | ZBW-3 | HongHong,Chir | | 44 | | | 4 | 14 | 4 | 4 | •• | A A | | | ** | | | |
| | 9.52 | | Skamelback, Der | | | 1 | | | | - | - | | ** | ** | | | | | |
| | | VUC 2 | Calcutta, India | Daily | | - | ** * | - | - - | | | | | | | | 9.53 | XEDQ (| Guadalajara, Mex. |
| | 9.53 9.54 | | Oslo, Norway Berlin, Ger. | Daily Daily | AA | 44 | 44 | | | Ш. | | [| | | A A | [| 9.53 | WZXAF | Schenectady |
| | | OLR3A | Prague, Czech. | | | _[] | | | | * | | - 1 | ** | | | | v.33 | WOXBE | SanFrancisco, Cal |
| | | VUB 2 | Bombay, India | Daily - | | | | A. | | | | | ** | | | | 9-55 | YEFT | VeraCruz,Mex. |
| | | YDB | Sourabaya, Java | | _ | _ | | - 1 | .4 | A | 1 | | 44 | X | X | | J JJ | ALIFI | veraciuz, siex. |
| | 9.56 | | Berlin, Ger. | Daily | AA | 44 | 44 | | 4 | | 1 | | •• | ** | ** - | _! | 9.55 | W2XAD | Schenectady, N.Y. |
| Page e | ightes | n | | | | - 1 | | - 1 | -1 | I, | I, | 1 | - 1 | | | | | _ | · · · · · · · · · · · · · · · · · · · |

| | | KZRM | Manila, P. I. | Daily | | | | | | 77 | | | | ١ | | XX | ** | 0.0. | 17 12212 | Chingacia) |
|---|-------------------|------------------|-----------------------------------|----------------|-----|----|------------|----------|-----|--------------|--------|------------|-------|----------|-----------|------------|----------|---------|-----------|--|
| | | VLR | Melbourne, Aus. | exSu. | | | | | 44 | ** | 44 | 44 | AA | AA | AA | ^^ | | | | Springfield, Mass |
| | | GSC | London, Eng. | Daily | | | | ** | ** | ** | ₹₹ | | | | | ** | ▼~ | | | |
| | | | Eindhoven, Holland | | | | | | | _ | | _ | XX | ** | | | | 0 50 3 | T7037 A T | T TOL 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| | 9.59 | VK6ME | Perth, Australia e | | | | | | | | - | | | | | | _ | 9.59 | WSXAU | Philadelphia |
| | | | Athlone, Ireland e | | | ¯v | TT | | ** | | AA | A A | 44 | 44 | | 44 | | 9.59 | WZXE | New York, N.Y |
| | | VK2ME | Sydney, Aus. | Sun. | | 44 | | A A | | | | | | | •• | AA | AA | 9.09 | WOAAI | Cincinnati,O. |
| | | VUD 2 | Delhi, India | Daily | | | - | | _ | _ | | | | | | V | ** | | | |
| | | RAL | | Daily | | | | _ | | | | | | | | | | | | |
| | | HP5J | Panama City | Daily | | AA | | | | 44 | XX | X | ** | _ | X | X | 44 | | | |
| _ | 9,61 | ZRL | Captown,S.Africa | Daily | _ | | | | | | | | | ı | | | | | | |
| | | HJIABP | Cartagena, Col. | Daily | = | AA | | | | | X | X | ** | | X | X. | 44 | - | | |
| | | | ohannesburg, S.Af. | | | | | | | _ | | | ** | | Ι. | | | | | |
| _ | | I 2RO3 | Bucaramanga,Col | Daily | ~ | | | | | _ | | | ** | | ** | ** | <u> </u> | | | |
| _ | | HH3W | Rome, Italy Port-au-Pr., Haiti | | | | | | | | | _ | ** | | | | | | | |
| _ | | | | T&Sa. | | | VV | | | | | | | | | _ | <u> </u> | 9.65 | W2XE | New York City |
| | | LRX | BuenosAires,Arg. | | | | | | ** | * * | | | | | | 44 | ▲_ | | | |
| _ | | TGWA | Guatemala City | | | | | | _ | | | | | | _ | ١ | | 9.67 | W3XAI | Bound Brk, N. J |
| | | | H Heredia, CR. Tu | | | | ** | | | | | | | | | | | | | |
| _ | | GRX | London, Eng. | Daily | | | × * | _ | | | ** | 44 | ▲.▲ | 44 | ÀÀ | AA | 44 | | | |
| | | | rance, Martinique | | | | | | | | | | ** | | ** | | | | | |
| | | TIPG | San Jose, C.R. | Daily | | | | | | | ** | ** | TV | | ** | ++ | | | | |
| _ | | CSW | Lisbon, Port. | Daily | | | | ١., | ** | 1.1 | ** | ~~ | | | | | - | 9.71 | COCQ | Havana, Cuba |
| _ | | ZRO | Durban, S. Africa | | | 44 | | Ä | ÀÀ | ÀÀ | ÀÀ | ÀÀ | - | | 44 | ** | ** | | | |
| | | IRF | Rome, Italy | Daily | | | | | | | | , , | ** | ₩ | | | - | | ~~~~ | |
| _ | | EAQ | Madrid, Spain | Daily | | | | - | | _ | | ** | ₹. | ▼- | - | | - | 9.84 | COCM | Havana, Cuba |
| | | | Parien, Manchukuo | Daily | Y | | | | - | - | | | ** | | | | - | | | |
| | | | io de Ja neiro,Brazil | | • | | | | - | | - | ** | ₹. | ▼▼ | | | | | aona | ** 0.1 |
| | | ORK | Brussels, Belg. | Daily | | | -, | | | | | | | | | - | | 9.96 | CORC | Havana, Cuba |
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| | | 5 GSD | London, Eng. | Daily | | 1 | ** | ▼▼ | ** | ₹₹ | | | | | | 77 | ٧. | I | | |
| | | 7 DJD | Berlin, Ger. | Daily | | 77 | ₹ ₹ | VV | ** | ₹₹ | ** | ₹₹ | X | XX | ۲v | 77 | | 11 79 | WIYA | L Boston, Mass. |
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| | | 5 DJP | Berlin, Germany | | | | | | | | | _ | ** | 77 | ** | VV | | | | Pittsburgh, Pa. |
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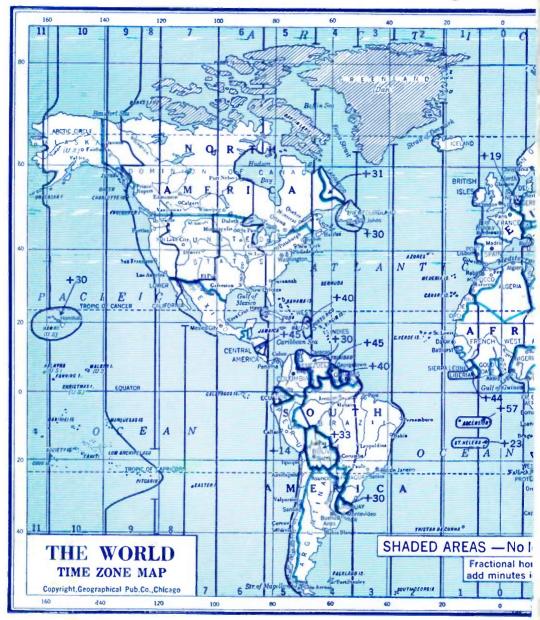
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| WBBM Chicago Ill 770 W WBBR Brooklyn N.Y 1300 O | WFNC Fayetteville N C 1340 K | WKAR E. Lansing. Mich 850 U WKAT Miami Beach, Fla 1500 H | WRDO Augusta Me 1378 H |
| WEER BrooklynN.Y 1300 U | WFOR Hattlesburg, Miss 1370 H WFOY St. Augustine, Tex 1210 H | WKBB E. Dubuque III 1500 H | WRDW AugustaGa 1500 H |
| WBBZ Ponca City, Okla 1200 H WBCM Bay City,Mich 1410 M | WFTC Kinston N.C. 1200 H | WKBH LaCrosse, Wis 1380 O | WRD W AugustaGa 1500 H WREC MemphisTenn 600 O WREN LawrenceKan 1220 O |
| MAREM RAHEROTT IN I 200 O | WFVA Freder'ksb'g, Va. 1260 K | WKBN Youngstown O 570 M WKBO Harrisburg Pa 1200 H | WRGA RomeGa 1500 H |
| WRMP Huntaville Ala 1200 H | WGAL LancasterPa1506 H WGAN PortlandMe. 640 M | WKBV RichmondInd 1500 H WKBW BuffaloN. Y 1480 S | WRGA Rome. Ga 1500 H WRJN Racine. Wis 1370 H |
| WBHP Huntsville. Ala. 1200 H WBIG Greensboro. NC 1440 O WBIL New York N.Y 1100 S | WGAR Cleveland O. 1450 O WGAU Athens Ga 1310 H WGBB Freeport N.Y 1210 H | WKBW Buffalo,N. Y 1480 5 | WROL RichmondVa. 880 0 |
| WBIL New York N.Y 1100 S | WGRU AthensGa 1310 H | WKBZ Muskegon Mich 1500 H WKEU Griffin Ga 1500 H | WROK Rockford, Ill 1410 M WROL Knoxville. Tenn 1310 H |
| WBLK Clarksburg, W.Va1370 H WBNO New OrleansLa 1420 H | | WKOK Sunbury Pa 1210 H WKRC Cincinnati. Ohio 550 O | WRR Dallas, Tex 1280 M WRTD Richmond Va. 1500 H |
| WBNS ColumbusOhio 1430 U | WGBI Scranton Pa 880 M WGBR GoldsboroN.C. 1370 H WGCM Gulfport, Miss. 1210 H | WKRC Cincinnati, Ohio 550 0 WKST New Castle, Pa 1250 K | WRUF GainesvilleFla 830 S |
| WBNX New York, N. Y 1350 O WBNY BuffaloN.Y.1370 H | WGCM Gulfnort Miss 1210 H | WKY Okla City Okl 900 O | WRVA Richmond Va. 1110 W |
| WBOW Terre Hautelpd 1310 H | WGES Chicago Ill 1360 W | WKZO Kalamazoo, Mich 590 K WLAC Nashville Tenn. 1470 S | WSAI Cincinnati, O 1330 U |
| WBOX St Petersb 'g,Fla 1370 H | WGH Newport News, Va 1310 H WGIL GalesburgIll 1500 K | WLAK Lakeland Fla. 1310 H | WSAL SalisburyMd 1200 K |
| WBRE Red BankN.J 1210 H WBRC BirminghamAla 930 O | WGKV Charleston W Vs 1500 H | WLAP Lexington Ky 1420 H | WSAL SallsburyMd 1200 K WSAN AllentownPa 1440 M |
| WBRE Wilken-Barre, Pa 1310 H | WGL Ft. Wayne Ind 1370 H | WLAW Lawrence Mass 680 O | WSAR Fall River, Mass 1450 O WSAU Wassau,, Wis. 1370 H |
| WRKE PILLSHOID MASS TOTAL | WGN Chicago III 720 W WGNC Gastonia N C 1420 H WGNY Newburg N.Y. 1220 K | WLB Minneapolis, Min 760 S WLBC Muncle, Ind 1310 H | WSAV SavannahGa 1310 H |
| WRT Charlotte N.C. 1980 W | WGNY NewburgN.Y. 1220 K | WLBL Stevens Pt Wis 900 S | WSAV SavannahGa 1310 H WSAY Rochester. N.Y. 1210 H WSAZ Huntington, W. Va 1130 O |
| WBT CharlotteNC 1080 W WBTH Williamson, W.Va.13 0 H | | WLBZ Bangor Me 620 M WLEU Erie Pa 1420 H | WSB Atlanta,Ga 740 W |
| | WGR Buffalo N Y 550 0 WGRC New Albany Ind 1370 K WGRM GreenwoodMiss.1210 H | WLLH LowellMass 1370 H | WSBC Chicago |
| WBZ Boston, Mass 390 W WCAD Canton, N. Y 1220 M | WGRM Greenwood., Miss, 1210 H | WLNH LaconiaN.H,1310 H | WSBT South Bend, Ind 1360 M |
| WCAL Northfield, Pa 1220 0 WCAL Northfield, Minn 7685 | WGST Atlanta. Ga 890 O WGTN Wilson. N.C.1310 H WGY Schenectady, N.Y 790 W | WLOK LimsOhio 1210 H | WSFA Montgomery, Al 1410 M WSGN Birmingham, Ala. 1310 H |
| | WGY Schenectady, N.Y 790 W | WLS Chicago Ill 870 W WLTH Brooklyn N. Y 1400 M WLVA Lynchburg Va 1200 H | WSIX Nashville Tenn 1210 H |
| WCAM Camden N. J 1280 M WCAO Baltimore, Md 600 M WCAP Asbury Park, N. J 1280 M WCAT Rapid City. S.D 1200 H | WHA MadisonWis 940 S WHAI Greenfield. Mass 1210 H | WLVA LynchburgVa 1200 H | WSJS Winston-Salem NC1310 H WSKB McComb, Miss 1200 H |
| WCAP Asbury Park, N.J 1280 M | WHAI Greenfield, Mass 1210 H WHAM Rochester N Y.1150 W | WMAL WashingtonD.C 638 K | WSLI JacksonMiss 1420 H |
| | MANAGE Louisville KVX70 W | WMAQ Chicago, 11] 670 W WMAS Springfield, Mass 1420 H | WSM NashvilleTenn 650 W |
| WCAX Burlington Vt 1200 H | WHAT Philadelphia, Pa 1310 H WHAZ Troy, NY. 1300 O WHB Kansas City, Mo. 860 O | WMAS Springfield, Mass 1420 H WMAZ MaconGa 1180 O | WSMB New Orleans, La 1320 O WSMK Dayton O 1380 K |
| WCA7 Carthage III 1070 H | WHAZ Troy, N 1.1300 U | WMBC Detroit Mich 1420 H | WSMK Dayton,O 1380 K WSNJ Bridgeton, N.J. 1210 H WSOC Charlotte N.C. 1210 H |
| WCBA Allentown Pa 1440 M WCBD Chicago Ill, 1080 S | | WMBD Peorla Ill 1440 O WMBG Richmond Va 1350 M | WSPA Spartanburg,S.C 920 0 |
| | WHBC Canton. Ohlo 1200 H WHBF Rock Island. Ill 1240 O WHBI Newark N.J 1250 O WHBL Sheboygan. Wis 1300 K WHBQ Memphis. Tenn 1370 H | I WINDRIGHTON IN STOLEN | WSPA Spartanburg, S.C 920 0 WSPD Toledo O 1340 0 |
| WCB5 Springheid Ill 1420 Pl | WHEI Newark N.J 1250 O | WMBI Chicago III.1080 S WMBO AuburnN. Y 1310 H WMBR Jacksonville. Fla 1370 H | WSPD Toledo O 1340 O WSPR Springfield Mass. 1140 M |
| WCFL Chicago, III 570 S WCHS Charleston, W.V 580 M WCHV Charlottesville Va 1420 H | WHBL Sheboygan Wis 1300 K | WMBO Auburn,, N. Y 1310 H | WSTP SalisburyN C 1500 H WSUI lowa City la 880 M |
| WCHS Charleston, .W.V 580 M | WHBU Anderson,Ind 1210 H | WMBS Uniontown Pa 1420 H | WSUN St Petersburg Fla 620 O |
| WCKY Cincinnati . Ohio 1490 T | WHBY AppletonWis 1200 H WHDF CalumetMich 1370 H | WMC Memphis, Tenn 780 0 | WSVA Harrisonburg Va 550 M WSVS BaffaloN.Y 1370 F |
| WCLE Cleveland Ohio 610 M | WHOF Calumet, Mich 1370 H | WMBS Uniontown. Pa 1420 H WMC Memphis Tenn 780 O WMCA New York N. Y 370 O WMEX Boston, Mass, 1500 H | WSVA Harrisonburg Va 550 M WSVS BaffaloN.Y 1370 P WSYB RutlandVt 1500 H |
| WCLO Janesville,Wis 1200 H | WHDH BostonMass 830 O WHDL OleanN.Y. 1400 K WHEB PortsmouthN.H 740 K | WMFD Wilmington, N.C 1370 H WMFF Plattsburg., N.Y 1310 H WMFG Hibbing Minn 1210 H | WSYR SVERCUSE N.Y 5/H O |
| WCLS Joliet | WHEB Portsmouth. N.H 740 K | WMFF Plattsburg, N.Y 1310 H | WTAD Quincy 111900 O WTAG Worcester, Mass 580 O |
| WCNW Brooklyn, N. Y.1500 H | WHEC Rochester N. X 1430 M | | WTAL Tallahasee Fla 1310 H |
| | WHIO Dayton Ohio 1260 O WHIP Hammond Ind. 1480 S WHIS Bluefield W. V 1410 M | WMFO Decatur Ala 1370 H WMFR High Point, N.C. 1200 H | WTAM Cleveland, O 1070 W |
| WCOL Columbus. Ohio 1210 H | WHIP Hammond, Ind. 1480 S | WMFR High Point, N.C. 1200 H WMIN St. Paul, Minn 1370 H | WTAR NorfolkVa 780 O |
| WCOP Boston, Mass, 1120 M WCOS Columbia S C 1370 H | WHIS BuleneldW. V 1410 M WHJB GreensburgPa 620 K | WMMNFairmont W. Va. 890 O | WTAR Norfolk Va 780 O WTAW College Sta., Tex 1120 M WTAX Springfield Ill 1210 H WTBO Cumberland, Md 800 K |
| WCOU Lewiston Me. 1210 H | | I MARKOD Mobile Ale 1200 H | WTAX Springfield,III 1210 H |
| WCOV Montgomery Ala 1210 H | WHKC Columbus. Ohio 640 M WHLB Virginia Minn. 1370 H WHLS Port Huron, Mich 1370 K | WMPC Lapeer Mich 1200 H WMPS Memphis Tenn 1430 M | WICH Minneadolls, Min 1250 U |
| WCPO CincinnatiO. 1200 H | WHLS Port Huron, Mich 1370 K | TWING Autora | WTFL Philadelphia Pa 1318 H |
| WCRW Chicago, | | WMSD Muscle Shoals Ala 1420 H WMT Cedar Rapids., Ia, 600 O | WTHT Hartford Conn. 1200 H WTIC Hartford Conn 1040 W WTJS Jackson Tenn 1310 H WTMA Charleston S C 1210 H |
| WCSH Portland, Mc940 O | WHO Des Moines. In 1000 W | WNAC Boston Mass 1230 0 | WTJS JacksonTenn 1310 H |
| WDAF Kansas City Mo 610 0 | WHOM Jersey City. N. J. 1450 K | WNAD Norman, Okl 1010 O | WTMC Ocala, Fla.1500 H |
| WCSH Portland. Nic340 WDAE Tamps. Fin 1220 WDAF Kansas City. Mo 610 WDAH El Paso. Tex1310 H WDAN Danville. Ill 1500 WDAY Fargo. N. D 940 WDBJ Roanoke. Va 930 O | WH M Anniston. Als 220 F WHN New York. NY. 1010 S WHO Des Moines, In 1000 W WHOM Jersey City. N. J. 1450 K WHP Harrisburg. Pa 1430 O WIBA Madison. Wis. 1280 O | WMI Cedar Rapida. Ra. 800 0 WMAC Boston . Mass 1230 0 WMAD Norman, Okl 1010 0 WMAX Yankton S. D570 0 WMBC New Britain Conn 1380 K WMBF Binghamton N.Y 1500 H | WTMJ Milwaukee Wis 620 O |
| WDAN DanvilleIII 1500 H | MIRC Indinishons" ind rese o | WNBF Binghamton N.Y 1500 H | WTMJ Milwaukee Wis 620 O WTMV E. St. Louis Ill. 1500 H |
| WDAY Fargo, N. D 940 O | WIRG Glenside Pa 970 H | WNKH New Bentorn, Masialuru | WTNJ Trenton . N.J.1280 M WTOC Savannah Ga 1260 O WTOL Toledo Ohio 1200 H |
| WDBJ RoanokeVa 930 O WDBO OrlandoFla 580 O | WIBM JacksonMich, 1370 H WIBU Poynette,Wis, 1210 H | WNBX SpringfieldVt 1260 O WNBZ SaranacLake, NY 1290 H | WTOL Toledo Ohio 1200 H |
| | WIBW Topeka, Kan. 580 O | WNEL San Juan P.R. 1290 0 | WTRC Elkhart Ind 1310 H |
| WDEV Waterbury Vt. 550 M | WIBW Topeka, Kan. 580 O WIBX Utica N Y. 1200 H | WNEW New York., N. 1, 1250 0 | WVFW Brooklyn. N. Y 1400 M |
| WDGY Minneapolis, Min 1180 0 | WICE Bridgeport. Conn 600 M | WNEL San Juan . P.R. 1290 O WNEW New York . N.Y. 1250 O WNLC NewLondon.Conn1500 H WNOX Knoxville., Tenn 1010 O | WTRC Elkhart. Ind 1310 H WTRY Troy. NY 950 O WVFW Brooklyn. N. Y 1400 M WWAE Hammond, Ind 1200 H WWAI Detroit. Mich 920 O |
| WDOD Chattanooga, Ten 1280 O | WIL St. Louis, Mo 1200 F | WNYC New YorkN.Y 810 0 WOAL San Antonio, Tex 1190 W | WWI New Orleans In sen W |
| WDEV Waterbury. Vt. 550 M WDGY Minneapolis, Min 1180 O WDNC Durham. N.C 1500 H WDOD Chattanooga, Ten 1280 O WDRC Hartford. Conn 1330 O | Marie Me Williamington Dol 1478 H | WOC DavenportIa 1370 H | WWNC Asheville, N.C 578 O |
| WDSW Superior Was 2200 O | WIND Gary Ind. 560 O | WOC Davenport Ia 1370 H WOCB Barnstable Mass 1210 H | WWRL Woodside N.Y 1500 H |
| WDWS Champaign Ill . 1370 H | WIND Gary Ind. 560 0 WINN Lonisville, Ky, 1210 H WINS New York, . N.Y 1180 0 | WOI Ames Ia 648 \$ WOKO Albany N.Y 1430 M | WWAE Hammond, Ind 1200 P WWJ Detroit, Mich 228 O WWL New Orleans, La 850 W WWNC Asheville, N.C 570 O WWRL Woodside, N.Y 1500 H WWSW Pittsburgh, Pa 1500 H WWVA Wheeling, W. Vn 1168 S |
| WDZ Tuscola, III.1020 O | WINS New York, N. Y 1180 O | WOL Washington, D.C 12300 | WXYZ Detroit Mich 1248 0 |
| WDSU NewOrlean, 11.1278 H WDWS Chimpaign, 111.1278 H WDZ Tuscola, 111.1020 O WEAF New York, N.Y.660 W WEAN Providence, R.J. 780 O | | WOLS Florence S.C. 1200 H | |
| 58 100 200 250 300 500 75 | | TS POWER 5000 10000 15000 25000 | 50000 100,000 250,000 500.000 W X Y Z |
| E H J K L M N | | CODE S T U V | ** ** |

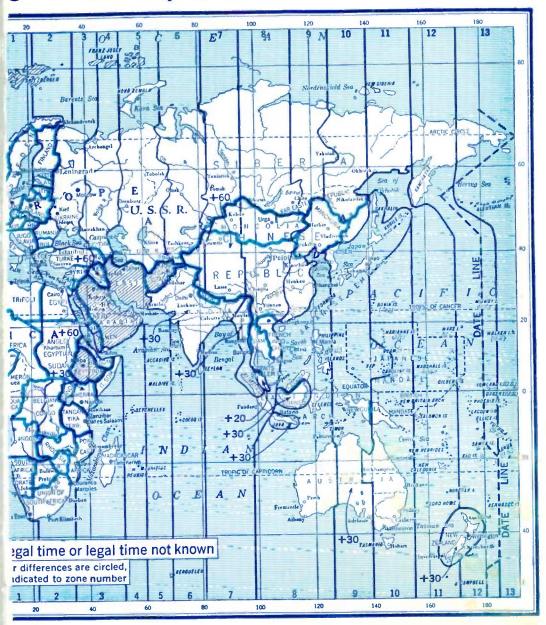
Use This Map to Know the Correct



TIME IS DIFFERENT depending upon LOCATION on the world surface. For instance, the Standard time in New York is one hour later than in Chicago. If you know the correct time where you live, this TIME ZONE map makes it easy for you to determine the correct time anywhere in the world.

Look at the map and notice the TIME ZONES marked off along the top and numbered 1, 2, 3, etc. Mark the place where you live in the United States, and determine in which TIME ZONE you are located. Now, for example, if you wish to know the time in San Francisco, simply count the number of time zones to the west until you arrive at the

Jime at Any Place in the World



San Francisco zone. The number of zones to the west of your location—including the San Francisco zone—will be the number of hours EARLIER it is in San Francisco than your own time. To determine the time at any point EAST of your location, count the zones in the same way, but the time will be that many hours LATER than your own time.

Quite a number of countries are irregular. They are encircled. Small arrows point to these areas and the numbers at the tail end indicate the minutes to be added to the regular zone time. Bolivia, for example, is 4 hours and 33 minutes earlier than London.

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dition, many folks find the WINCHARGER soon pays for itself, by charging six-volt radio and auto batteries for the neighbors.

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