THE FEBRUARY 1931

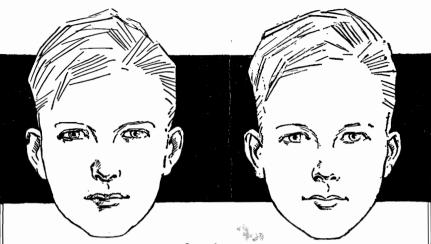
RADEX EX

The Magazine that Doubles the Pleasure of Radio



(25°)

Reducing the Effect of Static
Sick Sets and Their Symptoms
The Cuban-Mexican Situation



One of these Boys Will Fail-IF

DOTH possess equal health and intelligence, both have qualities that make for success, but only one will succeed, for the other one stammers—he will fail. He is dominated by fear. He will dread to meet people, for he will lack the self-confidence so necessary to succeed in all walks of life, but especially in business; and the humiliation of his disability will result in an impairment of his nervous system—a condition often the beginning of ill health.

All stammerers are fully aware of their handicap; they know how it feels to be regarded as "different" from other people—and often laughed at. They know that their affliction sets them apart from all others who are normal. They know that stammering is a handicap which prevents their greatest success in business or their participation in social affairs. But all stammerers do not know that their handicap can be removed.

From childhood Benjamin Bogue was afflicted with a chronic case of stammering. For nearly twenty years he endured the experience common to all stammerers. But after long years of tireless effort, after endless nights of study and days of research he developed the method by which he cured himself.

STAMMERING

ITS CAUSE AND CURE

In the book offered below, Mr. Bogue relates the story of his own experiences, and describes how he restored himself to perfect speech. As stammering is due to a lack of co-ordination between the speech muscles and the brain, he quotes in the book the eminent authorities that for years recognized the well-known fact that stammering cannot be "outgrown."

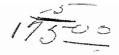
but instead becomes "ingrown," and that in order to restore perfect speech it is necessary to establish proper functioning of the speech musculature.

Beginning on page 72 will be found an explanation of the causes of stammering. The results of stammering are also fully described, giving the basis of the conviction held by leading speech authorities that stammering should be removed before it becomes deeply rooted in the muscular and nervous system. The text beginning on page 196 is devoted to a description of the Bogue Unit Method, which is based on the principle of coordination between the mind and the speech organs. It has restored perfect speech to stammerers everywhere. No drugs or medicine are used, and the method is highly endorsed by physicians.

In this book will be found the reason for the world-wide reputation of the Bogue Unit Method and its international recognition as the standard method for the cure of stammering and stuttering. Hundreds of helpful facts are embodied in this valuable book entitled "Stammering, Its Cause and Cure," a copy of which will be sent on receipt of ten cents mailed with the coupon.

BENJAMIN N. BOGUE, 14053 Bogue Building, 1147 N. Illinois St., Indianapolis, Ind. Enclosed is 10 cents for which please send me the book "Stammering—Its Cause and Cure"—and full information regarding the Bogue Unit Method for
the cure of stammering and stuttering.
Name
Address

THE FEBRUARY 1931







FRED CLAYTON BUTLER Editor and Publisher

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Principal Broadcasting Stations of the World...

Arranged by Frequencies and Dial Numbers

THE RADEX PRESS

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REDUCING the Effect of STATIC

VERY owner of a radio receiver has undoubtedly been troubled with frying and crashing noises, over which he has seemingly little or no control. He has noticed that such noises are very severe during rainy, cloudy weather, and especially during the warmer months of the year. Also, the trouble is worse in tropical or semitropical regions, but it is also present in parts farther north. These noises, which are caused by static, may have perplexed you. One radio owner, thinking that they were caused by his receiver operating poorly, purchased a new set of tubes. but the trouble still persisted, and then he resoldered all the connections, but to no avail. It is evident then that when you hear static noises, your set is not to blame, and therefore a lot of fruitless tinkering with the set can readily be avoided by knowing static noises when you hear them. Static is an electrical condition existing in the atmosphere and for this reason cannot be entirely eliminated, although something can be done to minimize its effects. Besides superimposing noises on the reception of a broadcast program, static sometimes has a blanketing effect on signals, and then it prevents them from even being heard. Such blanketing effect is entirely incurable by any method used at the receiving end. Sometimes static conditions exist over a small territory of only a few square miles, due to local storm conditions, each lightning discharge producing a loud crash or rumble in the loudspeaker, although such discharges may not be visible. On the other hand a territory of several thousand square miles may be affected by static conditions.

Long Aerial Magnifies

The more sensitive your receiver is, the more static you will pick up on occasions when the trouble prevails. The length of your aerial also has considerable influence. A long aerial will pick up more static than a short one, and an indoor aerial or loop will pick up the least. One method of reducing the

The Worst Enemy of Radio

effects of static is to shorten the aerial or use an inside aerial. Most modern receivers are sensitive enough to work satisfactorily on a short inside aerial. Many radio fans have two separate aerials, a long one and a short one, the former being used when the atmosphere is quite free from static disturbances, and the short one when the effects are noticeable. Another method of reducing trouble is to connect a small fixed condenser of about .00025-mfd. capacity in series with the aerial lead. This is done by connecting the aerial lead-in wire to one terminal of the condenser and then connecting the other terminal of the condenser to the aerial binding post of the set. This method has the same effect practically as shortening the length of the aerial. It causes the receiver to tune more sharply but it also decreases the receiving range. The latter effect is rather undesirable, but under the circumstances, it may be preferable to considerable static.

The most effective method of minimizing static noises in the receiver is to connect a small grid condenser and leak across the aerial and ground leads. This method has been used for a number of years in the U. S. navy. Several static discharges are by-passed by this arrangement and the condenser acts as a stabilizer. If, however, none of the methods . already mentioned show any appreciable results, it may be necessary to install an underground antenna, one kind being known as a "Subantenna." This, it is claimed, eliminates considerable static and other atmospheric disturbances of an electrical nature by using the ground instead of the air waves. This kind of aerial consists of a shielded and sheathed wire insulated in a cable, and equipped with specially made pick-up coils at both ends and at the center. It can be procured in 75-foot or 100-foot lenghts, and the method of installing it is given in the directions which accompany it.

SEVEN PUZZLING PROBLEMS

To Test Your Knowledge of Radio

THERE were fifty-two correct solutions of the December puzzle, so - that it is evident that our puzzlers found that form more difficult than the cross-call. As usual a number were received too late to be considered. We are now mailing RADEX to subscribers on the 20th of the preceding month, right hot off the press. Solutions must reach us, therefore, by the 20th of each month to receive consideration. The most common error in December was the call "850 miles south of Minneapolis on the new map." A large number used KTHS instead of KTBS. Any map should show that it is Shreveport and not Hot Springs which is 850 miles due south of "The Flour City."

In publishing the correct solution of the December puzzle last month, a typographical error was made for the call "First on the last." It should have been KDB instead of KDBG. A number want to know the meaning of this definition; translated, it means "The first station on the last frequency," KDB being the first listed on 1500 kcys.

The answers to the January stickers are pouring in and the premiums will be mailed to successful contestants on January 20th. The mistakes that are being made are nearly all due to failure in checking with the key descriptions. A number of different stations could be used for any one of the places but they would not fit the descriptions. Thus a number used WOKO instead of WOWO

but only the latter is a ten k.w. station On the other hand, solvers have found a number of stations which can be used which will not only fit the puzzle but will also meet the descriptions. We are counting these as correct.

Correct solutions of the January puz-

zle are as follows:

TUBE-WFBE-WLBW-GLOW.

PUSH-KUSD-KPSN -WISN -WILL PULL. In place of KUSD, WCSH
may be used and in place of KPSN,
any of the following with WCSH:
WCFL, WMSG, WGST, WBSO,
WCAC, WLSI or WPSC. WISJ
would answer in place of WISN.

RAID-WAIU-KFIU (or WIBU) KFRC (or WABC) WORC-WOMT-

ROUT.

DIAL-WBAL-WBOW-WAAW-WACO-WOWO-KONO-SONG. In place of WBOW, any of the following may be used: WJAC, WMAL, WCAC, WBEN or WBBC. In place of WAAW: WICC-WBSO-WAAF.

For the February puzzle, we are going to try to suit everyone by putting in problems of each type. To conserve our supply of maps and RADEX, we are requiring a correct solution for each of the puzzles. Those sending correct answers to all may have their choice of either a new radio map or the March RADEX. If they request it, subscribers may have a number added to their subscription in place of the March issue.

Puzzle No. 1 is submitted by Victor J. Balt, 226 Sumner Ave., Aurora, Ills. A very similar one was submitted by Mort M. Schlosser, 109 South 10th St., Newark, N. J., so credit for this one goes to both. Fill in the blank spaces so that, from beginning to end, you will have the call letters for the following stations:

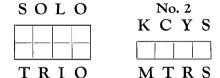
Key

Shares time with agricultural college. In a city named for a great horticulturist. Father Knickerbocker broadcasting.

T H E M A G A Z I N E
\square P \square L \square E \square A \square SU \square R \square E \square \square O \square F \square \square R \square A \square D \square I \square O

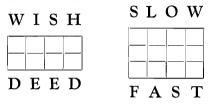
One of five NBC stations on this wave. A hundred-watter in the far south. The call is abbreviation of the state. Is this the Voice of Providence? (Reverse.) A church in Washington. booking agency for the movies. Time only. In Waterloo. (Reverse.) A Columbia voice in Florida. 20 k. w. agricultural. (Reverse.) On 1500. Shares wave with Zion. (Reverse.) In Massachusetts. . Way down South in Dixie. (Reverse.) On the Rice Hotel. Western broadcasting company. NBC outlet in California. In Ogden. (Reverse.) In Ogden. (Reverse.)
A sister-station in California.
In "The Sunshine City."
In the middle of 1310. (Reverse.)
The banks of the Wabash far away. All hundred-watters on this wave but four. Has a night wave to itself. Last stop going east.
Farthest south of the NBC. (Reverse.) In the middle of the dial.

In the next five puzzles we are to change one word into another by filling in station calls. For each of these calls we must bring down two letters from the one above, using two new letters. Thus to change SOLO into TRIO we change



S to W and L to K, bringing down the two O's, giving us WOKO. Now we bring down the W and the last O and change the first O to R and K to D, giving us WRDO. Changing W to T and D to I, gives us TRIO.

Puzzle No. 2. Change KCYS to MTRS with one station.



Puzzle No. 3: Change WISH to DEED with two calls as above.

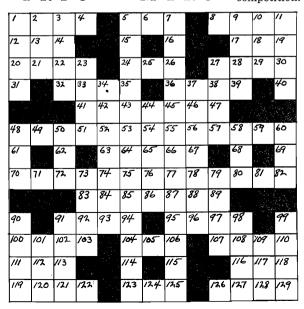
· Puzzle No. 4: Change SLOW to FAST with three calls.

Puzzle No. 5: Change PATH to ROAD with three calls as shown.

Puzzle No. 6: Change LONG to HIGH with five calls.

No keys are given for the above as several different stations will fit each call.

Puzzle No. 7: This is one of a number submitted by our readers in the January competition. Decision as to their relative





merits will be made later. This one is submitted by C. B. Huff. Martinsville.

Horizontal

1- 4 One of three stations on this wave. 5- 7 On the center wave. 8-11 (Reverse) Associated Broadcasting Corp. 12-14 (Reverse) Moved from 980 in January. 15-16 Middle letters of Tennessee station. 17-19 Will this station be a goat? 20-23 On 1420. 24-26 Last three letters of Union Bank & Trust Co. 27-30 228.9 meters. 31-40 Middle letters of College for Women. 32-35 Farthest south in U. S. A. 36-39 (Reverse) On fourth frequency from one end. 41-44 (Reverse) Church of the Nazarene. 44-47 On the Oklahoma-Kansas line. 48-51 (Reverse) Only 100-watt on its wave. 52-55 (Reverse) A sister-station. 55-56 22 stations begin with these letters. 57-60 A Columbia outlet 61-62 Last two letters Pillar of Fire. 63-65 Last three letters of Brooklyn station. 65-67 (Reverse) An NBC outlet. 68-69 Last letters of two Boston stations. 70-73 "Down in Old Kentucky." 73-75 Two stations in the same city. 76-79 (Reverse) The other sister-station. 80-82 Owned by a secret society. 83-85 (Reverse) In a state capital. 86-89 On the Rio Grande. 90-99 First and last of two Boston stations. 91-94 A "Dn" station on a cleared wave. 95-98 Spells same either way. 100-103 (Reverse) In Greeley. 104-106 Four countries on this wave.

Vertical

1- 31 Has permit to move to Albany.

107-109 Has permit to move to another city. 111-113 1000 watts daylight station.

126-129 (Reverse) 33 100-watters on this wave.

114-115 First and last of three Canadian.

114-115 First and last of times Canadian. 116-118 In the capital of another country. 119-122 (Reverse) On the Ohio. 123-125 100 watts in California.

2- 21 G. Gutierrez, Jr.
3- 32 (Reverse) Owned by a woman.
4-122 Last letters of two Georgia stations.

5- 35 In Santa Ana. 6- 25 Last two letters of Utah station.

7- 36 10 kilowatts.

8-126 Last two letters of station in C-3. 9- 39 (Reverse) Another "Dn" station on clear wave.

10- 29 Three stations in three countries on this wave.

11- 40 In another state capital.23- 51 (Reverse) On the Mississippi.

27- 57 A fifty-watter at the end of the dial.

34- 52 Same as 74-76 horizontal.

37- 56 Now owned by NBC. 42- 74 (Reverse) Shares time with Yonkers.

43- 53 Second and last letters of stations in Texas. Kansas and Montana. 44- 65 In Wenatchee.

45- 55. Last two letters of Toronto station. 48- 70 (Reverse) Now synchronized with its sisterstation.

49- 71 Two Denver stations end with these letters. 50- 72 Shares time with another NBC station in same city.

53-85 (Reverse) Owned by Mr. Jensen.

55- 87 Nothing over 100 watts on this wave. 59- 81 Middle letters of station on same wave.

60- 82 (Reverse) A State university. 67- 96 Lone Star Broadcast Co.

73-103 Ohio shares time with Pennsylvania.

74- 93 First three letters of a Tennessee station. 76- 86 Two Buffalo calls end with these letters.

79- 107 This is one of them.

90-119 A new call in January 91-121 Missouri shares with Illinois.

94-123 Low-powered Canadian.

94-123 Low-powered Canadian. 95-125 100 watts in Illinois. 98-127 Knickerbocker Broadcasting. 99-129 (Reverse) Only NBC station on its wave. 101-120 12500 watts. 105-124 Middle letters of Tupper Lake station.

109-128 Instituto Provincial.

All puzzles in this issue are made from calls as published in the January RADEX.

What Makes the Buzz?

Dirty commutators and sparking brushes on electric motors used on washing machines, vacuum cleaners, fans, oilburning furnaces, refrigerators, sewing machines, etc., are a frequent cause of crackling noises, if these devices are used while the radio set is in operation. In some cases where these motors cannot be turned off, as is the case with those used on oil-burning furnaces, the trouble can often be eliminated. Connect two 2-mfd, fixed condensers in series across the power line near the motor which is causing the trouble. A ground connection on a cold-water pipe is then made to a point between the two condensers. Fuses of 15-amp, capacity are also provided between the line and the condensers, to prevent short circuits in case the condensers break down. The operation of high-frequency devices, such as violet-ray and X-ray outfits, ozonators, induction coils, and the like, causes continuous crackling or buzzing sounds. Other sources of interference from powerline devices are: sign flashers, electricallyoperated switchboards used for railway signaling, elevator controllers, automatic cutouts and starting switches for machinery, stop lights on street corners, street arc lamps, motion-picture machine using arc lamps, electric-welding apparatus, smoke or dust precipitators, toy electric motors, toy electric trains, doorbells and buzzers.

SEE FREE RADIO MAP OFFER On Page 25

SICK SETS and their SYMPTOMS

My Radiola No. 16, a desk model, operating on direct current, works well but there is one fault. When I get my station, it suddenly fades away. The only way I can get it back again is to snap the switch back and forth. This happens once from every ten minutes to an hour. I went over the whole set and found no loose connections.

One would almost come to the conclusion that your switch is defective. This is probably the case if the tubes flicker or cease to light when the reception fades away. Of course, it may also be a ballast, loose connection between a tube and socket, or an internal defect in a tube that shows up after the tube has been heated for a short time. However. I would suspect the switch. To be on the safe side as far as the tubes are concerned, it would be a good idea to have them tested. Overloading a tube is another possibility that might be responsible for your trouble, which would necessitate turning the rheostat back. In this case it might be well to reduce the plate voltage on the tube that is overloading, probably the detector.

Station Blankets Dial

I have a Fada "10" seven-tube receiver on which reception is good but the separation of stations is poor. I live on the side of a mountain on which is located a 250watt station with an antenna almost parallel to mine. This station covers from 1200 to 1500 on my dial, or about 25 points. As you know the Fada "10" has a rejector, This controls another local station about one mile away but does not affect the closer station. As I cannot very well move my aerial I am wondering if a wave trap or some similar device would help. Would two or three hundred feet of aerial with a .00025-mfd, fixed condenser connected in series, help to make tuning sharper?

When in such close proximity to a broadcasting station as you are it becomes a very difficult matter to eliminate interference, especially with the aerials running parallel. Your suggestion of using a longer antenna with a fixed con-

More Remedies by the Radio Doctor

denser in series, would not make the matter better, but decidedly worse. A very short antenna, erected at right angles to the one of the broadcasting station, can be tried. The trimmers on your tuning condensers should also be properly adjusted, which has been fully covered in the No. 39 issue of RADEX. If the set does not tune the nearby station out, get a wavetrap.

Tube Shorted

I have a Sparton model No. 79A. The wire belt on the dial broke and I replaced it temporarily with a cord until I obtained another wire belt, which I then installed. Since this change was made reception stops a few minutes after the set has been turned on. I have had a radio-service man test all the parts including the tubes, and everything seems to be in good condition, but the set still stops playing. The service man cannot find the cause of this condition and says that the tubes have been choked. Can you make any suggestions?

Your trouble sounds like a temporary internal short-circuit of the r. f. tubes. When not used for a short time these will perhaps test O. K., and will also function properly in the receiver for a few moments until they are heated up. The internal members then expand causing a short-circuit. By substituting good, new tubes, one at a time, you can find out just which one is defective. It is possible that when you installed the wire belt you accidentally touched certain parts and subjected the tubes to a high voltage not intended for them, which had a paralyzing effect. Tubes so injured are often referred to as "choked." The sudden stopping of reception may, however, also be due to a short-circuited or leaky by-pass condenser. If you desire a diagram of the wiring of this set write to the manufacturer, although wiring diagrams are usually distributed only to authorized dealers. The manufacturer of the Sparton receiver is the Sparks-Withington Co., of Jackson, Mich.

Changing to Short Waves

Can you furnish me with advice telling how to convert a Crosley No. 51 receiver into a short-wave set?

In the January issue of RADEX you will find an article covering the construction of a short-wave receiver. When an old receiver is to be re-wired for short-wave work the filament, plate and grid wiring can usually be left intact, but the coils and condensers must be changed, together with the leads connected to them. The audio end of your receiver will probably be suitable as is. Use the same kind of tubes as the set was origi-

Broad Tuning

My problem is a Silver-Marshall No. 30. This set, as you know, has an untuned stage which causes broad tuning. I have tried a simple tuned circuit ahead of the untuned tube. This increases the sensitivity of the set many times, especially on the higher frequencies, but adds nothing to the selectivity. Do you think that a band-selector tuner, to be tuned by an extra control, would help? A band selector cuts the signal strength but I believe that the added amplification gained by tuning the first stage would compensate for the loss in the tuner.



A Brand New 1931 Model

Arthur W. "Tiny"
Stowe, announcer and
maestro of late-night
programs from KSTP,
Velma Dean Stowe, the
Southern Crooner of
radio and little Velma
Stowe, their four-monthsold daughter

nally intended for, as it is equipped with resistors and rheostats passing just the right amount of current for these tubes.

Preliminary Squeal

I have a Brandes receiver model No. B-15, and it works satisfactorily except when I turn it on. While the tubes are warming up and just before reception comes in there is a terrible squeal. Could you tell me what could be done to eliminate this noise?

Many a. c. sets are apt to squeal when first turned on, especially if the volume control is advanced. Retard the volume control and then turn the set on, which usually eliminates the trouble. Proper adjustment of the plate voltages on the detector and r. f. stages may also be necessary.

Reducing the number of turns of the primary winding of the coil used in your additional tuned r. f. stage, and increasing the distance between this winding and the secondary winding, will help considerably to make your set more selective. A band-pass filter will also help to increase the selectivity but try the method just described first, and if the set is still too broad we will be glad to advise you again. Of course, you are aware of the broadness resulting from too long an aerial, and that by cutting a small fixed condenser in the lead-in, greater selectivity can be gained.

I have a "Larphonic" set made by the Larkin Co. It is an eight-tube set using five 227 tubes, two 245 tubes and one 280.

(Continued on page 20)

MEXICO, CUBA and their Interference

Heterodynes in Spanish

THE frequencies of the broadcasting band have been allotted to American stations without the slightest consideration being given to stations in Mexico and Cuba. One would think that our authorities felt that stations in the latter two countries were in another planet or on the other side of this one. As a matter of fact, some of the Mexican stations are just across a river from the United States and, so far as interference is concerned, might as well be in the center of this country.

United States and Canadian authorities have gotten together and reached an agreement by which certain waves are set aside for exclusive Canadian use and a number of others designated to be used jointly. No such arrangement or treaty exists between the United States and Cuba or Mexico. When one considers that the result is almost to ruin radio reception in the southern part of the United States and even as far north as Canada, one cannot help but wonder why the officials charged with responsibility for radio in the United States do not take the necessary steps for an orderly arrangement of broadcast waves with our southern neighbors. True, any such arrangement would probably require certain channels to be set aside for the exclusive use of Mexican and Cuban stations, but illy as we can spare any channels in the broadcast band, it would be far better to spare a dozen of them, if need be, rather than have recept on ruined on nearly all of them.

"The Mexican stations," declares Mrs. L. R. Ledbetter, Vicksburg, Miss., "are making radio reception in this part of the country anything but a pleasure. We consider ourselves extremely fortunate to be able to tune in a 50 kilowatt station and leave the radio fifteen minutes without the program being drowned by a squealing and howling from 101-watters on the south (please tell me the reason for that extra one

watt). And why do the Mexican stations crowd Canadian waves? That is something the Canadian radio authorities should attempt to alter."

And Mrs. Roy Schank, Eox 1155, El Paso, Texas, writes that XEJ Juarez, Mexico, runs the gamut on her dial from 40 to 50, thus completely depriving her of a number of very desirable U. S. stations. "Although a radio enthusiast, I might as well junk my radio if the Radio Commission cannot bring about some improvement in the situation."

A New Station

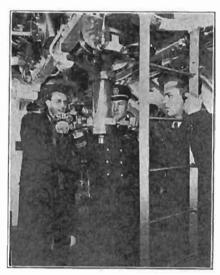
We are in receipt of a telegram informing us that since December 16th XETF has been broadcasting on 680 kcys. as a trial for determining a wave for their 500-watt station. This station is owned by Manuel Angel Fernandez & Cia. Their address is Independencia 24, Veracruz, Mexico, and their slogan "The Voice of Veracruz."

"At 3 a.m. EST, December 23rd, I received a broadcast from a Mexican station coming in at 1160 keys. This broadcast continued until 4 a.m. when they signed off," writes James A. Burke, Box 5, Riverton, Conn. "Announcements were made after every number but they were all in Spanish and I could not understand them. I had the same station again December 25th, at 3 a.m. until 4:07 when they signed off. The letters were XEAAR with a pause between the two A's. The broadcast both times seemed to be from a cafe or dancehall as there was much laughter, talking and noise between each number. There were no announcements in English, and I am quite sure of the five letters unless AR is something in Spanish." We have no record of any Mexican station on or near this wave, but as the Mexican stations seem to be moving around the dial so frequently, it is next to impossible to keep an accurate check on them. We can only hazard the guess that this may have been XEA, Guadalajara, as it is possible that the name of this city in Spanish may sound similar to the letters AR in English. Our last record of XEA was 1200 keys.

A Lesson in Spanish

Charles Enrique Foster, 120 Hall Ave., Colvin Station, Syracuse, N. Y., comes to the assistance of our readers with a short lesson in Spanish.

Mr. Foster, who states that he is



Did You Hear It The first-time-in-history broadcast from a submerged submarine. This program came from forty fathoms below Atlantic waters.

partly of Spanish descent, offers to translate letters or postals in Spanish from Mexican or Cuban stations for our readers. We can only hope he will not be swamped. Here is the Spanish alphabet, as it is pronounced in English, according to Mr. Foster: A, be, ce, che, de, e, ef, ge, h, i, jota (the j being pronounced like the English h), ka, el, elle, em, ene (pronounced enye), o, pe, ku, ere, erre, ese, te, u, ve, x (pronounced ekis), i-griega, zetta. It will be noticed there are "ch," "ll" "enye," "rr," which do not appear in English. XEZ would sound like this, "Ekis, e, zetta."

"Early this morning, about 1:50 a.m., I picked up a new Mexican station between 1400 and 1410 kcys. This was not CMBY at Havana, Cuba, as I distinctly heard the announcer say Mexico two or three times during the program.

The location sounded like 'La Saltillo.' This report is from L. E. Wallace, 110 North Duval St., Tallahassee, Fla.

Joseph Stokes, 7318 Woodlawn Ave., Swissvale, Pa., heard a Mexican station with the call XAAR on 1140 kcys., and another on 690. (The latter may have been the new station XETF on 680.) Mr. Stokes has heard so many Spanish-speaking stations that he calls his set "Senorita."

J. H. Nickels, 1510 Gimber St., Indianapolis, Ind., is also seeking information regarding the Mexican station on 1160. He caught the call as XEKR. A number of other readers have written us about these same stations.

XED, Reynosa, Mexico, came on the air after our new map was completed, and a number of readers have called our attention to the fact that Reynosa is not shown. In order that they may mark their map with this important station they are advised that Peynosa is directly across the river from Hidalgo, Texas, on a straight line between Harlingen, Texas, and Monterrey, Mexico, thus coming in the square T-14.

The Cuban Situation

While our readers are endeavoring to identify Cuban stations they may be interested in the trials people there have in bringing in our locals. "We turn on the radio as soon as we awake in the morning," writes Mrs. A. C. Gray, Central Tanamo, Cayo Mambi, Oriente de Cuba, "That is between 5:30 and 5:45 a.m. EST. The most distant station we have been able to pick up is KEX, Portland, Ore. We get KFKB and WTAM nearly every morning, which remain clear and distinct with much volume until 7 a.m. We have WQAM and WIOD from the time they commence their broadcast until they sign off. Those two stations are like good friends to me as I am rather lonely here. I can get the news flashes and so many other things. I notice you omit from your list of Cuban stations CMKX, Holguin. We get it at 1240 kcys. It provokes us many times because it interferes with WIOD. We receive CMKC, Santiago, between 1040 and 1050 kcys., while you (Continued on page 22)

THINGS Our Readers Want to KNOW

About This and That

Victor J. Balt, 226 Sumner Ave., Aurora, Ill., wants information about KGR on 1500 keys. Roy Knapp, Akron, Ohio, gets KNX every night after KFKB signs off and thinks they surely must have increased their power. Frank Wheeler, 406 Eagle Point Blvd., Erie, Pa., gets KMJ louder than KFI, although the latter is presumed to have 5000 watts and the former but 100. Reg. Firth, 51 Roosevelt Road, Amsterdam, N. Y., wants information about KEEO which he picked up early in the morning of December 29th, hearing two or three orchestra numbers. The location was 1380 or 1390 kevs.

J. Duval, 350 St. Joseph St., Quebec, Canada, heard a station whose call letters were clearly WTAT on 1010 kcys. He was sure this was not WPAP. Melvin DeJager, 106 Llewellyn Ave., Hawthorne, N. J., wants to identify a Spanish-speaking station on 1230 kcys. Frank H. Ludwig, Box 455, Barnsdall, Okla., heard a station giving the call letters KGBZ and calling themselves the Metropolitan Police Department of St. Louis. As this is the call of the station in York, Neb., Mr. Ludwig is puzzled.

In answer to O. C. Arnold who inquired as how best to receive New Hampshire and Vermont stations, John C. Berry, 49 Worcester St., Nashua, N. H., states that he lives about 60 miles from WKAV, the only New Hampshire station, and has never received them yet, although he has been trying for two or three years. C. A. Southworth, 2525 Scioto Trail. Portsmouth. Ohio. wants to know how far 2628 kilometers are. One meter is 39.37 inches and a kilometer is 1000 meters. In answer to Charles Foster of Syracuse concerning a German program heard on 1400 kcys., H. I. Humphrey, 22 Theron St., Johnson City, N. Y., thinks this was WBBC, Brooklyn, as that station broadcasts almost every night programs in either German or Yiddish.

Harmonics

Uriah Bronfenbrenner, Thiells, N. Y., wants to know what an harmonic is and what causes it, and Harold C. Rockey, 50 Trinity St., Stratford, Ont., asks why when tuned to about 1520 kcys., he gets WTAR of Norfolk, which is listed on 780 kcys. We can best explain an harmonic by stating that if one were to strike the lower C string on a piano all of the other C strings would vibrate. These are harmonics. In radio a station has a harmonic at twice its frequency. Thus a station on 500 kcys, would have a harmonic at 1000. WTAR's first harmonic would be 1560 kcys.

Frank Maida, R.F.D. No. 1, Long Branch, N. J., wants to know why the kilocycle readings on his Victor RE 45 are not accurate above 1000 kcys. It is probably not possible to mark dials in kilocycles and have them absolutely accurate, although some manufacturers are able to do this quite closely. To be perfectly accurate, each set should be calibrated by itself and this, of course, is not practical when manufacturing in large quantities.

Stations Testing

J. H. Nickels, Indianapolis, Ind., received a program over a powerful station on 1300 or 1310 keys. at 2:50 a.m. They never announced and signed off without giving their call. He heard a similar station on 820 kcys. after WHAS had signed off at 2 a.m. without announcement. R. R. Rawstron, 31½ Sullivan St., Claremont, N. H., listened for an hour to a station in the early morning with not a single word being spoken. For half an hour they played the same selection over and over again. The secret is that after midnight when other stations on their wave have signed off, a station may do its testing. This is usually done with phonograph records and, as they are not regularly broadcasting, no announcements are necessary.

Herbert Woertz, 1927 No. Summit Ave., Pasadena, Calif., states that the log book which he received with his Majestic set shows the call letters of Cuban stations beginning with figures instead of CM as in RADEX and wants to know why. Cuban stations changed from figures to calls beginning with CM nearly two years ago. This means that the Majestic log book is two years out of date. Why so progressive a manufacturer should furnish users of his set with such obsolete information we do not know.

Edward Hayworth, 55 No. 11th St., San Jose, Calif., complains that we do not show KJBS as a limited time station with the "Dn" symbol. KJBS, he says, signs off at sundown, but returns to the air every night at midnight PST and remains on until sundown. KJBS is a daytime station only, but as stated above, stations may return to the air after midnight when those ordinarily having the channel have signed off.

In answer to inquiries regarding WCLB, Karl Halpern, Brooklyn, N. Y., states that he went up to Long Beach to inquire about this station and found that they haven't been on the air since May, 1930, and may not be again until possibly next summer.

All of the same

All Cleared Waves

A number of readers have written to us to complain of the chaotic conditions on many channels and to suggest that only one station at a time ought to be allowed to broadcast on any one channel. Such an arrangement would, of course, be ideal, but unfortunately is completely out of the question. We now have over 600 stations in this country and only about 90 American channels. It will be readily seen that if all were treated alike, each station would have one evening a week and no broadcasting company would maintain its expensive facilities under such an arrangement.

One of our readers tells us that his Radiola No. 60 was greatly improved by substituting a 245 tube for the 171 formerly used. At first, considerable trouble was encountered owing to hum but this was successfully eliminated. "To overcome the hum," he writes, "remove the lead from lug 8 and put it on lug 10, also remove lead from lug 9 and transfer it to lug 11. Lugs 8 and 9 are left open. Every socket was also carefully checked to see that there was

no more than 2.5 volts current on the filament." We have not tried this experiment and only present this as a remedy suggested by one reader.

We still receive a number of requests for information in regard to attaching headphones to a. c. sets. This was fully covered by an article in April RADEX No. 38.

Richard S. Tefft, 76 Salem St., Greenwich, N. Y., heard the announcer of



"Snoop and Peep"
Master-mind "Deetecatives" of the NBC outSherlocking Holmes.

WBNX state that that call was being used in place of WKBQ. Karl Halpern, Brooklyn, reports that WSGH is changing to WFOX. C. Bach, 56 E. Compton Road, Mt. Healthy, Ohio, advises us that WFBE is increasing power from 100 to 250 watts. Several readers call our attention to the fact that while we changed KMIC to KMCS in January. that station is still using the call KMIC. Evidently this was an error and we are changing back to the old call. A reader sends a newspaper clipping announcing the first broadcast from Grove City's new station WHAJ, which is sponsored by the college. We are now carrying WSAJ at Grove City on 1310 which is (Continued on page 22)

STALKING Elusive STATIONS

With the Midnight Dialers

E receive hundreds of letters from our DX friends and it is utterly impossible to quote all the interesting records and comments. Many which we planned to include this month will have to be carried over until March. We are particularly anxious to receive reports of reception of stations whose announcements do not agree with the call, frequency or location as published in RADEX. Many changes are made long before they are reported by the Radio Commission and it is only through the cooperation of our readers that we are enabled to keep this magazine not only up-to-date but actually in advance of official records.

In regard to WBBZ being heard from points other than Ponca City, Okla., an explanation is given by Thomas Henry Edmiston, 402 East Vilas, Guthrie, Okla. "This station has several studios in Arkansas that broadcast over it by remote control. The station has not moved."

John N. Dannert, 181 Alexander Ave., New York City, answers several inquiries as follows: To Charles Foster: WCGU at Coney Island broadcasts a Jewish program several times during the week. To Joseph Brocius: VAS may be heard at about 3:00 a.m. EST giving weather forecasts to Atlantic fishermen. To L. A. Deuchar: WHAP has taken over WOAX.

Eugene Martin, 5446 McCommas Lane, Dallas, Texas, sends us a letter which he received from a so-called DXer in Harrison, N. J., which asks Mr. Martin to furnish him with information that will enable the Harrison man to write to stations for verifications he has never heard and offers to perform a like service for Mr. Martin. Mr. Martin, however, is not that kind of a sport. We think we will have to arrange a black-list for fans of the Harrison type and hope readers who receive similar requests will forward them to us.

Foreign Reception

Manv readers, like W. E. Cann, Hampton Beach, N. H., do not see how it is possible for other DXers to pull in foreign stations on the broadcast band. Let us say that out on the Pacific Coast it is no great feat to hear Japan, some DXers bringing in as many as six Japanese stations in one evening. If we grant that this is possible then we must assume that fans who have particularly sensitive sets farther inland, or particularly good locations or who are exceptionally skillful in tuning, may also bring in Japan. Thus we see, that these three factors being present, there is absolutely no reason why these Japanese stations may not be heard clear to the Atlantic seaboard. Let those who cannot understand how these foreign stations can be tuned in refer to our list of world stations and they will see that the vast majority of these are in the broadcast band. And remember this—the signals of stations in every country in the world are in the air in everyone's living-room; it is merely a case of whether our particular instruments are capable of converting them into audible waves.

B. L. Ahman, Jr., 412 Hillcrest Drive, Greensboro, N. C., noticed that when his city was under two feet of snow (a rare occurrence) he could get stations from Toronto, and other distant points even in mid-afternoon which he had never received before.

Aerial for Portables

"I travel eleven months of the year through 22 states," writes James Rohe, P. O. Box 215, St, Paul, Minn., "and I carry a radio with me (Table model Lincoln de luxe 31, eleven tube, a. c.). I have tried many aerials but the best is a 100-foot strand of copper wire cut into five lengths. Four of these are braided in pairs then the two pairs are braided together and the single wire is bound on the outside tightly the full length. This gives me 40% more volume."

JOGK, Kumamoto, Japan, advises R. B. Morell, 1654 Wagar Ave., Lake-



Bobby Tees At the Mike

Now the tired business man can take his golf
lesson direct from the world's greatest—The
Bobby Jones. Wednesdays at eight EST. NBC.

wood, Ohio, that he is the first Ohioan to report reception of that station.

Meyer Tuchinsky, 3436 Filbert St., Philadelphia, Pa., reports that KGMB, Honolulu, is on the air until 5:30 a.m. EST each Saturday night (or Sunday morning); that KGIR, Butte, Mont., has a Whoopee party each Saturday night from 2:00 to 5:00 a.m. Sunday morning; that KWWG, Brownsville, Texas, has its famous "Coat Hangers Club" on each Wednesday night from 1:00 a.m. on. EST. This gives all listeners a chance to get a genuine Mexican coat hanger.

Jack W. Duke, 110 N. 31st St., Billings, Mont., gets CMK every night except now and then when WSB breaks in. He also gets XED, XFX, XDN and XEW in Mexico.

Cadet J. W. Townsend, Hargrave Military Academy, Chatham, Va., finds that when he tunes WDBJ in in the day-time he can keep them right on into dark but if he turns his set off, they are gone or almost wiped out by heterodyne. Here's a mystery.

Mrs. Edwin T. Morris, 111 Rochelle Ave., Wissahickon, Philadelphia, logged KGU and held them for nearly half an hour. She received her verification from the Honolulu "Advertiser." She has brought in 99 stations under 100 watts.

KFYO, Abilene, Texas, advises Carroll C. Folts, 303 Central Ave., North Baltimore, Ohio, that they will be on the air with a DX program every Sunday morning from 4 to 6 a.m. CST.

Alan Locklin, Syracuse, N. Y., has an 11-tube Zenith and has brought in KFI and KNX on loud speaker without an aerial of any kind. He has had KMIC at 7:30 a.m., KOB at 2:30 p.m., and gets KOA often at 8 p.m.

An Old-Timer

Michael Vitacco, 825 Cleveland Ave., Racine, Wis., says he has been DXing ever since KDKA was the only station in the list. With his Majestic Model 102 he has brought in 323 stations to date. The night he wrote he received 19 from the Pacific Coast.

L. G. Briscoe, 3743 Hutchson St., Montreal, Que., says CKPC will broadcast a DX program every Friday starting January 2nd at midnight with 100 watts power.

Margaret Lynn Hamilton, Coopersville, Mich., has received 201 stations on her Model 55 Atwater Kent with 25 feet

DX Listeners

Why have your verification questioned?

USE LOVE'S Standard Verification Cards

Designed by a DX fan with the one idea of making it easy to secure lots of iron-clad verifications. Love's Standard Verification Cards are easiest for the DX listener, because—He has only to fill in blank spaces on cards, sign, and mail to broadcast station. Easiest on Broadcaster, because—He has only to check DX report with his own records, sign on back of card, and return to sender. (This means prompt station response.) Completed verification contains, on one card, 3½ x 6% inches, full program log including exact time when heard and is OKed and signed on back by proper authority at broadcast station, making an ideal verification. Cards are arranged to be filed alphabetically by call letters.

Special Introductory Offer

Send one dollar, P. O. money order, check or currency, for 50 (double) cards, mailed postpaid anywhere in the U. S., Canada, or Mexico, or 100 (double) cards, \$2.00 postpaid; 300 (double) cards, \$5.00 postpaid. Special prices in quantities to DX clubs.

Address-

PAUL LOVE

Mission Ranch Phoenix, Arizona

of wire in the room for an aerial and no ground. Among them was a fifty-watter from Arkansas. She finds it next to impossible to bring in Detroit in her own vicinity, but has no trouble getting a number of Mexican stations.

Harold C. Rockey 50 Trinity Street, Stratford, Ont., tells DXers to be on the lookout for 10AK of that city, a 10-watter on 1200 kcs. which is an amateur broadcasting station.

Some Targets

Richard S. Croker, Terminal Island, Calif., advises eastern DXers to listen for KFOX, Long Beach, Calif., which is on the air constantly except between 3 and 5 a.m., PST. He says KGFJ has not signed off for everal years except possibly when a tube burns out, and that KJBS is broadcasting daily from midnight to sunset. Mr. Croker has just received verification from 2BL, Sydney, and has them from 5CL, Adelaide, and 2YA, New Zealand.

"I operate an 8-tube Eveready Electric set," writes Herbert H. Seidler, 155 Hicks Street, Brooklyn, N. Y., "and since January 21, 1930, I have logged 168 stations. My furthest catch is KFI. I am near three subway systems and 'surrounded by large hotels with power plants and not far from the sending station of the Brooklyn navy yard. Such stations as WTAM, WHAS and KMOX, I get with only five feet of wire as antenna. I use no ground as I found it cut down my volume about fifty per cent." Warning: The instruction book that accompanies some sets says: "Never operate this receiver without connecting it to a water-pipe, radiator or other good ground."

Some DX Records

From Don R. Catlin, Locke, Calif.: "My best catch is KFIU, Juneau, Alaska, on ten watts. Am now awaiting verifications from JOIK, JOBK, JOAK, JOHK, JOCK and COMK, Mukden, China. Have verifications from seven Mexicans, thirty-two Canadians, one New Zealand, one South African and one English. Total log of 327 stations since September first. Am sixty airline miles east of KGO on 790 kcys, yet on 780 KTM comes in without a trace of distortion or interference and on 800

WFAA and WBAP roll in like locals."
Mr. Catlin uses a Maiestic.

Frank Maida, R. F. D. 1, Long Branch, N. J., states that with their Victor radio he has so far received 181 stations with only one on the Pacific coast. Frank is 14 years old and does his DX Friday and Saturday nights so it will not interfere with his school work. He wants to know what are the best nights to try for the Pacific coast and Mexico. We doubt if there are any "best nights" other than those on which reception is unusually good.

From Robt. W. Jameson, Rock House, Pulaski, Va. "I am another of those fellows that like to see how many stations they can log in one night and the farther away they are the better pleased I am. This isn't supposed to be a 'believe it or not' but twice last winter I logged station 2BD, Havana, with only five watts power and listened to it for quite a while, getting the call letters several times."

Kenneth J. Hartwick, 1138 Prospect Ave., S. W., Canton, Ohio, in one week and one day received 134 stations from 34 states, Canada, Cuba and Mexico, on his new midget Philco. He would like to receive letters from other DXers, particularly those who are receiving foreign stations.

"Although I am only 14 I am a real fan and an ardent DXer," writes Richard Douglas, 1130 Krug Park Place, St. Joseph, Mo. "We have a Victor electrola 10-tube set and it is really swell. I started DXing in June of this year and I have received 128 U. S. stations and four Mexican."

From Wm. D. Clark, Jr., 1119 Lake St., Evanston, Ill., 14 years old: "I have logged 138 stations since the reallocation two years ago. 38 of these were within 100-mile radius which I term locals, 95 were from other parts of the U. S. and five from Canada."

From Robt. Nicholas, 601 Eastman Row Ave., Kirkwood, Mo.: "I am 14 years of age and enjoy radio very much. We have a new General Motors set. During three summer months I logged 125 stations, I live about two miles from KWK and about five miles from KMOX,

(Continued on page 23)

EXPERIMENTS with Aerial and Ground

Many try the Grounded Aerial

THE story of Dr. Brokaw's experiments with a grounded aerial in the January issue stirs a number of readers to write us regarding their own experiments with aerial and ground.

Following the article in our last issue. a number of our readers have been experimenting with ground waves. Dr. W. F. Brokaw, 2301 Chatfield Drive, Cleveland, Ohio, has been carrying his experiments further. It will be recalled that Dr. Brokaw erected short 10-foot aerials in different directions, merely attaching with wire to low iron posts driven into the ground. There were no insulators between wire and posts. He now writes, "My easterly aerial has been extended to 110 feet, being attached directly to an iron pipe driven three feet into the ground and left just enough above the surface to attach the wire which trails along the ground to the house. The westerly lead has been extended to 60 feet in the same way-the southerly lead being left at ten feet. The terminal of the new easterly lead is about forty feet from the mast of the high aerial so there is little probability of any counterpoise effect. These extensions made a radical difference in signal strength and stations came in readily which I never heard before.

"With clear weather and high barometer, the reception during the daylight hours from my regular, high, 110-foot aerial is considerably stronger than from any of the grounded leads. Between 6 and 7:30 in the evening, this begins to change and thereafter the quality of reception from the grounded leads improves in strength and character and should please the most exacting. The quality of the signal on grounded leads is much more full and rounded out than on the high aerial.

"This is not an argument against aerials of the usual type but does show certain advantages in favor of a low, grounded antenna such as freedom from lightning hazard high-tension wires or unfavorable weather and ease and economy of construction. As I am writing this (11:30 p.m.) KFI is coming in with good volume."

"After reading Dr. Brokaw's article," writes Walter Baldwin, 98 Victoria Ave., North Hamilton, Ont., "I tried a little experiment myself. I took the aerial off altogether and put the ground wire on the aerial post and found I could get KFI, Los Angeles, better than I could with the outside aerial and ground. I have an Atwater Kent Model F."

Other readers have tried this same experiment with varying results. Mrs. N. N., 285 Creighton St., Ottawa, Ont., states that when she uses her ground on the ground post she gets scarcely any reception whatever, but when she moves the ground wire to the aerial post she gets excellent reception.

A. R. Wiggin, 1231 South St., Key West, Fla., has found that by connecting the ground wire to the short antenna post on his Majestic 71, his volume is greatly amplified and selectivity improved. A. L. Robb, Topeka, Kansas, tried Dr. Brokaw's arrangement. He did not have room to run a grounded aerial in different directions, and so substituted an outside ground in place of the regular



Gene and Glenn and Jake and Lena This famous quartette composed of—l. t. r.— Gene Carroll and Glenn Rowell, now graduate from the sticks of Cleveland to the "big time" of NBC.

antenna and used the water pipe for the ground. The volume was cut down on many stations but selectivity was increased. Some stations showed no change and on a few there was an increase in volume. WLW, which fades badly on the regular antenna and is often distorted, comes in loud, clear and steady on the grounded aerial and can be received at almost any time of day as well.

In one experiment, removing the ground and leaving the aerial in place brought the following surprising results. Stations above 1400 kcys. came in with greatly increased volume; stations in the center of the dial were not affected one way or the other, while stations below 1000 kcys, came in with reduced volume. In this case a switch was placed in the ground wire so that the ground can be cut out when it is desired to bring in stations on the higher frequencies.

An Aerial Fence

Theodore B. Hubbell, 330 Lafayette Ave., Lexington, Ky., relates the results of experiments he has been making for the past six or eight months with his eight-tube Model 40 Steinite. He writes: "I erected in my yard a 30-foot piece of ornamental wire fence, two feet high, running in a north-westerly direction. The bottom of the fence is imbedded in the ground for its entire length to a depth of two inches, being held upright by five pieces of half-inch iron pipe driven into the ground 18 inches. The lead-in wire is also underground for a distance of about nine feet thence through the cellar to the set. Connection is made to the short aerial binding post.

"The prime consideration in erecting this grounded aerial was to eliminate static in warm weather. It very effectually carries off much of the interference, permitting reception when my 75-foot high aerial made reception impossible. Recently when endeavoring to tune in CMCQ, Havana, the heterodyne being most annoying, I switched to the grounded aerial. Imagine my surprise when the station came in clearly and with plenty of volume. I then tuned in station CMX and it came in so clearly I could not believe my ears. I held the station until it had announced three

times. I then switched to the 75-foot aerial to compare reception. There was no comparison for I could not get the station at all. But on switching back to the grounded aerial reception was again perfect.

"A peculiarity I found in the use of the grounded aerial was that nearby stations like WHAS and WLW come in with lessened volume, but distant stations with increased volume. I have verifications from KFI, XEW and CMK, all received on the grounded aerial."

Salt Helps Reception

V. H., of Spokane, Wash., buried an old galvanized hot-water tank in a post hole which he dug to fit it. He dropped the tank in the hole with the concave end up, in which he put a six-inch nipple which came just level with the top of the ground. Into the tank he put four pounds of salt and filled it with water. This leaks out through the holes in the bottom of the tank. He used a good aerial and states that he now gets real DX.

Readers have mailed us two newspaper clippings of extraordinary reception records. Each of these emphasizes the necessity for a good ground. According to one clipping, Ollie Ross, Vallejo. Calif., has logged 1308 stations, including a 50-watt station in South America. He has heard clearly stations on all five continents and listened to programs from every state in the Union. He states that the most satisfactory ground he has found is copper tubing about an inch in diameter and 3 feet 10 inches long. The tubing is wrapped spirally with No. 20 copper wire from one end to the other end and back again, the laps being an eighth inch apart. The wire is soldered to the tubing at each end but is uninsulated, although the lead from the ground to the receiver is heavily insulated and as direct as possible. This tubing is buried in rock salt which draws dampness from the ground in dry season. Ross thinks that water pipes make poor grounds because they are used for grounding telephones and, aside from this, he says, have a tendency to collect rather than draw off disturbances.

The other clipping concerns Merle (Continued on page 24)

The "Unexpectuoso" of the Columbia



Virginia Arnold

If a speaker runs out of words, if an artist arrives in the studio a few minutes late, if a musical "station-break" is necessary, in fact, if anything causes a hiatus on the air, there is someone at WABC who can immediately step in and fill the breach with the necessary number of musical bars in the correct pitch. That person is young Virginia Arnold, pianist "unexpectuoso" of the Columbia Broadcasting System.

Here are presented some of the happenings in Virginia's life. She was born in Lawrence, Kans., on August 15, 1906. She started piano lessons at the age of five. She loved to learn, and most of all, when no one was looking, to sit at the piano and play simple pieces by ear.

After three months of instruction she gave her first public performance at a school function. She played the easy pieces she had been taught, but more difficult music she improvised from memory.

Later, at the University of Kansas, she continued her musical studies, toured with the university glee club and was piano soloist and accompanist for the college voice teachers. She played jazz without having seen the sheet music and many of the classics in the same manner.

At college Virginia started radio work.

She participated in a radio program presented by the university glee club in Lawrence. Later she was appointed program director of the station. In 1928 she came on to New York to further her radio work and joined the Columbia artist staff on August 1, 1929.

Her ability to ascertain perfect pitch made her broadcasting work a specialized job. There are few pianists in radio who can pick up the threads of a melody from an orchestra without making apparent a break of any kind, but this Virginia does continually—so perfectly, in fact, that once after an orchestral recital broadcast from the Biltmore Hotel, New York, the engineers in the studios thought that the switch-over had failed because they still heard the same melody in the same tone and tempo.

That is why Virginia Arnold is always quietly slipping in and out of studios, standing unostentatiously in a corner while a speaker, with one eye on the clock and the other on his manuscript, inwardly prays he will be able to fill his allotted time—a prayer which would be unnecessary, if he realized Miss Arnold is waiting like a good Samaritan to save him from eternal embarrassment by finishing his performance with a musical flourish.

Ground Sometimes Vital

Some manufacturers, the Philco for instance, state in the instruction book which accompanies their sets that the receiver must not be operated without a ground, Experimenters should keep this in mind. Most manufacturers take into consideration when designing their sets that the ground may be broken without the owner's knowledge and therefore wire the set so that no serious injury would result if it were used without a ground connection. But as stated above, there are some receivers in which the condensers in the power unit may be blown if operated more than a short time without a ground connection.

RADIO Comes in MANTEL SETS

New Models of 1931

THE Evolution of the Radio Set" might well be the title of this article. Do you remember the prehistoric sets of 1924? They came in square boxes without any attempt at beautification. The panel of plain bakelite was covered with dials and knobs and gadgets. Then some manufacturers gave us a box with a sloping front so we would not have to get down on our knees to read the dial numbers. Another added four legs to the box so we could use the dining-room table for other purposes.

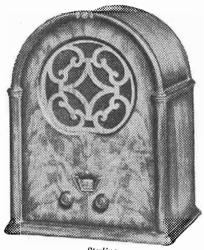
Came then the Henry the 8th period with the sets becoming huge articles of furniture slightly smaller than a four-poster bedstead. After that began to appear sets which were really beautiful, but they still remained rather massive, especially for the small homes and apartments.

The first speakers had long, high horns, a throw-back to the early phonograph. Then the cones appeared and some manufacturers began to build their speakers into the sets. Followed the magnetic and then the dynamic speaker. Now, instead of building the speaker into the set they are putting the set in the speaker. Practically every manufacturer is now building at least one "midget" type of set which is but little larger than the speaker itself. The "inwards" of the set have been tucked away most ingeniously so that one may have a mantel-type set with the full quota of tubes and condensers and things.

In this and subsequent articles we are illustrating and describing some of the sets which will be found at the dealer's today. The claims made for the various sets are those of the manufacturers themselves as this magazine has had no opportunity of testing the sets described.

The "Little Symphony" made by The Sterling Manufacturing Co., 2831 Prospect Avenue, Cleveland, Ohio, is eighteen inches high and fourteen inches wide. It is a five-tube r.f. set employing three

screen-grid tubes with power detection. It is said to compare favorably with the best standard receivers in selectivity, sensitivity and volume. It uses the standard dynamic speaker and power supply is incorporated in the chassis. Cabinet is of walnut, the panel being a beautiful burl. The maker claims that



Sterling

bass notes are clear and distinct even at lowest volume and, when control is turned up, both high frequency and low frequency tones are amplified in perfect balance. The set lists at \$69.50 complete with tubes.

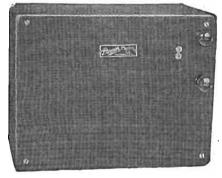
We are showing two sets manufactured by the Premier Electric Co., Grace and Ravenswood Avenues, Chicago, Ill., the "Home-Pal" Midget and the "Auto-Pal" receiver. The "Home-Pal" is of walnut, fifteen by eighteen inches, with a beautiful bronze tuning escutcheon. Tone quality, even at immense volume, is said to be an outstanding feature. Selectivity is remarkably sharp and even stations close together are claimed to be easily separated without over-lapping. "A minimum range of 1000 miles, under favorable weather conditions, is absolutely guaranteed." The set operates without antenna or ground on local



Home-Pal

stations. Two controls are used, one a quick-acting, fully illuminated, hairline tuner and the other a combination switch and volume control. There are six tubes, three of them screen-grid. The set lists at \$69.50 with tubes.

The "Auto-Pal" is designed for perfect automobile radio reception and is said to have been tested a full year in cities and on highways, before it was offered to the public. It fits under the dash and no cutting or disfiguring of the car is necessary. In size the set is only eight by ten inches, six inches deep. An illuminated dial and single-control switch make tuning easy. The drum has micrometer drive and positive lock and "stays put." There are four tubes, three of which are screen-grid. The set is claimed to have the



Auto-Pal

sensitivity and power of an ordinary five or six-tube set with only half the A and B battery consumption. This set lists at \$65.00 complete with aerial, tubes and batteries.

The Gloriton Radio, manufactured by the United States Radio & Television Corp., Marion, Ind., stresses its oval shape top, satin-gloss walnut finish, fully-shielded chassis, triple screen-grid and maximum fidelity of reproduction, great sensitivity and sharp tuning. It weighs 22 pounds and lists at \$49.95 complete with five tubes.



Gloritone

While most manufacturers of midget sets stress the small size of their instruments, the Mozart Radio Co., 109 W. Washington Blvd., Los Angeles, Calif., believes that this may well be carried to an extreme. The Mozart set is somewhat larger than other sets of this type although it still falls within the category of Midget receivers. Says this manufacturer: "American engineers are ingenious. But they are not magicians! They cannot seat a symphony orchestra on a card table—nor can they put all that a radio should have into a cigar box. The radios that are too small are small because they are not complete. They are a compromise. The Mozart is compact—and it is complete."

This set, a picture of which will be found on page 24, has four tuned circuits using seven tubes, four of which are screen grid, with screen grid power detection and push-pull audio amplifica-

(Continued on page 24)

Symptoms of Sick Sets

(Continued from page 7)

This set is very broad in tuning and I am using a 75-foot aerial, with a 25-foot lead-in. Do you think that greater selectivity can be obtained by using a wave trap?

By reducing the length of the aerial on your set to one-half of its present length you will be able to get greater selectivity. The lead-in is really part of the aerial and makes its effective length in your case 100 feet. The insertion of a small fixed condenser of about .00025-mfd. capacity, between the lead-in and the aerial binding post of your receiver will also sharpen the tuning. With these simple changes it may not even be necessary to use a wave trap.

Making a Milliammeter

I have a seven-volt d. c. voltmeter and I would like to change it to a 0 to 100-milliammeter, if this can be done. Please tell me the parts and what capacities to use to make such a change.

Without the use of a Wheatstone bridge for measuring internal resistance of meters, it is not advisable for the average radio fan to attempt changing a voltmeter to a milliammeter, and it is better and cheaper to buy another meter of the kind desired.

Oscillation Troubles

I have a five-tube Hammarlund-Roberts HQ receiver including three 201A's, one 200A and one 112A, which are all new. I am using a new Knight B-eliminator and an Abox A unit. The set frequently breaks into oscillation, which sometimes stops when I reduce or increase the detector plate voltage. I have adjusted the neutralizing condensers but this did not stop the trouble. All the transformers and condensers have been tested and I have cleaned most of the parts. Everything tests O. K. but the trouble still persists. Can you suggest what to do in this case?

Cut down the r. f. and detector plate voltages and see if the noise stops when the detector tube is grasped, which indicates a microphonic. If this is the case, place a "howl arrestor" on the detector. Also test the by-pass condensers for leaks as well as short circuits, which can be determined by their capacity to hold a charge after being

disconnected from the receiver circuit. Also be sure that the trimming and neutralizing condensers are properly adjusted, which has been covered completely in our No. 39 issue of RADEX under the heading "Balancing T. R. F. Receivers." An A-eliminator that does not produce enough current for the tubes is also apt to cause a set to break into oscillation. Substitute a fully-charged storage battery for the Abox A unit, and see whether the set still oscillates. If not, the trouble is due to the A-eliminator.

My set starts oscillating above 900 kc. It is a five-tube Pearson t. r. f. set and current is supplied by an A-eliminator and two 45-volt B-batteries. I am using a 200A tube for a detector, while the rest of the tubes are 201A's. When I turn the a. f. tubes up the others. become dimmer and when I turn the r. f. tubes up the a. f. tubes act the same way. Is this supposed to do so?

Many t. r. f. receivers have a tendency to oscillate when the plate voltate on the detector and r. f. stages is excessive. Reduce this voltage and the oscillation will undoubtedly cease. Another cause of the same trouble might be traced to the A-eliminator, indicated by the fact that some of the tubes become dimmer when others are turned up and vice versa, although this symptom is not always an indication of a deficient Aeliminator. If more current is required than the eliminator will produce, without being overloaded, the voltage drops off, and then the plate and filament voltages are out of proportion in the same way that they are when the plate voltage is too high for a normal filament voltage. For best results no eliminator should be taxed to the limit. Your tubes require 1.5 amperes of current and the Aeliminator should be capable of supplying 2 amperes. Take it to a competent radio man and have the output current checked with an ammeter.

Using Aerial with Loop

I have a Radiola No. 28 in combination with a Victor Electrola, which was put on the market about six years ago. The phonograph uses the amplifying unit of the radio, which has two 281 tubes, replacing 216B tubes. The machine is completely self-

contained, there being only one outside connection, the wire for the current. I was wondering if the inside loop, containing approximately 50 feet of wire, could be replaced with a longer outside aerial, or some additional wire added to the loop, in order to get more distance and more volume.

A loop-operated receiver can be converted to one using an outside aerial, provided a r. f. coil covering the broadcast waveband, and a su table .0005 or .00035-mfd. variable condenser (one to match the coil), is substituted for the present loop. The aerial and ground leads are connected to the ends of the primary winding of the coil, while the ends of the secondary run to the grid terminal on the first tube and to the A-neg, line. The condenser is shunted across the secondary of the coil with the stator connection on the grid side. Of course, such a change requires some alteration in the wiring, which can be done best by a reliable radio service man. In "Radio Trouble Shooting," a book which we can furnish, you will find several pages devoted to the subject of loops and the changes necessary to make them operate on an outside aerial. One of the simplest methods of transfering the energy picked up by an outside aerial is to wind four or five turns of the lead-in around the loop and connect the end to the ground.

Magnetic or Dynamic Speaker

My set is located about two miles from high-power electric lines, about the same distance from the nearest radio set, and about 65 miles from the nearest broadcasting station. The set uses an R. C. A. type 100 magnetic speaker and I wonder if it could be replaced with a dynamic speaker. If so how should it be hooked up? I would like to get enough volume to enable the radio to be used in a small dance hall.

To increase the volume and to be able to use a dynamic speaker for dance-hall purposes, it is necessary to use a power amplifier and a separate power unit to furnish the amplifier and also the dynamic speaker with greater voltage than is now obtainable from your present power unit. Such a power amplifier is hooked up immediately after the detector

stage, and the present audio end of the set is disconnected entirely. In this case it might also be advisable to employ the services of a radio expert. Power amplifiers for the purpose can be obtained from the Samson Electric Co., 3201 South Michigan Avenue, Chicago, Ill.

A Second Speaker

I have a No. 39A Zenith and want to use another speaker in the rear of my house. The speaker that I have is a Western Electric No. 540 AW. Can I put this in series or in parallel with the speaker of receiver, which is a dynamic? Is it necessary to use an output transformer to protect the magnetic speaker? Also, can I use a 250-type tube instead of the present 210 in my set?

You can substitute a 250 tube for the 210 used at the present provided you supply the correct plate and grid voltages. By merely substituting the 250 for the present tube, you cannot expect better results unless the above voltages are also changed. To protect magnetic speakers when used on a set having a high voltage on the power tube, it is advisable to use an output transformer or choke. Speakers can be connected either in series or in parallel. The latter method is best in most cases as each speaker works independently of the other.

And here's one from still another corner of the globe:

"Enclosed please find money order value four shillings, two pence, for which please send me five copies of RADEX. I am a very keen short-wave fan and it gives me very great pleasure listening in to stations such as W2XAF, KDKA, W3XAL, etc.

"A friend of mine who lives at Detroit, Michigan, came over to my radio den to listen in to Schenectady and he was astounded to hear WGY so well. When he returned to the States he sent me a copy of RADEX and I can assure you that it is the real goods. I sincerely trust you will send same in good time as you know it takes about three weeks to get here. Thanking you in anticipation, Yours faithfully, Mike Kruger, Queenstown, Cape Province, South Africa."

Cuba and Mexico

(Continued from page 9)

have it listed at 1360. I can't help feeling that as we are so much nearer Santiago we are probably correct. CMKC is a good station. I have just heard of a new station in Santiago, CMKD on 1100 kcys., but I haven't been able to bring it in yet. I want you to know how much we like the radio map. It is a great idea."

P. J. Soper, 256 Burroughs Terrace, Union, N. J., sends us a letter from F. A. Lavin, owner of CMX, Havana, in which he states that they are switching from 900 to 910 kcys. to reduce interference.

"Shortly after 11 p.m. December 28th I heard a station announcing as CMCA, Havana, Cuba. It was just above WFBM on 1230," writes A. L. Robb, 1338 Mulvain St., Topeka, Kansas. This station will be found listed in this issue on 1225 kcys. Mr. Robb has also heard a Mexican station near 1150 kcys. whose call letters sounded like XEAR.

Our readers have so many complaints to make regarding broadcasting stations that they should be interested in the following criticisms of DXers by a broadcaster. Raoul Karman, of Casa Karman, owner of station CMCF, Havana, writes us as follows:

"We are always anxious to receive reports on reception, but I must say that American reports are very unreliable and not 20% will tell concisely the hour and even less the frequency of the station heard. Most of them give the impression of being merely a stamp collector."

Undoubtedly many DXers who complain that they do not hear from stations promptly are themselves to blame, in that they fail to give the complete data that will enable the station quickly and definitely to verify reception.

Our Readers Want to Know

(Continued from page 11)

owned by Grove City college. Will our readers advise us if WHAJ is a new station or merely a change in call?

The following stations failed to apply for renewal of license within the specified time and were technically disqualified on November 1st: WCOC, Meridian, Miss.; WMAF, So. Dartmouth, Mass., and KZM, Hayward, Calif. Are these stations actually off the air?

Wm. G. Benjamin, No. Muskegon, Mich., states that on January 2nd, between 1 and 2 a.m., he listened for about 20 minutes to a musical program on 1360 kcvs. No call letters were given. but each time the announcer said "the Rivoli Ball Room in Balboa" or at least it was so understood by Mr. Eenjamin. One other reader reports his belief that he had heard NBA, Balboa. Now comes a letter from Geo. Lilley, 227 W. Bernard St., West Chester, Pa., enclosing a letter from the officer in charge of the United States Naval Communication Service, Balboa, Canal Zone, who states that there are no broadcasting stations in the Republic of Panama or the Canal Zone. Who can solve the mystery of NBA?

Police and Airports

We are in receipt of a considerable number of letters regarding both Police and Airport radio stations. Cnce more let us repeat that we do not include such stations in this magazine for the reason that they are neither in the broadcasting band nor are they broadcasting stations in the ordinary sense of that word. These stations all broadcast above 1500 kcys, and neither of them desires an audience except the ones they serve. The police stations invariably broadcast information regarding criminals to policemen cruising the streets in automobiles equipped with short wave receivers. The Airport stations broadcast weather and ground conditions to pilots in the air. Both of these stations are on the air but a few moments at a time, periodically during day and night. The Government publishes no list, so far as we know, indexing them by call letters, frequency or location, and as they are entirely outside of its field, RADEX does not attempt to keep a record of them and we are not in position to furnish information regarding them.

Unintentional Synchronization

John R. Carter, Erie, Pa., asks for information regarding a station at Raleigh, No. Car. which he received on 570 kcys., the frequency assigned to

WWNC at Asheville, N. C. Mr. Carter states that he experienced an example of perfect synchronization on 600 keys. when he heard the Parmount Publix program on the Columbia System from three stations on that frequency at one time. WMT, Waterloo, Iowa, WREC, Memphis, Tenn., and WCAO, Baltimore.

Read Barton, 1718 Ridge Ave., Coraopolis, Pa., asks at what time NAA, Arlington, broadcasts. NAA does no broadcasting, we believe, in the usual sense but sends out its time signals at noon, and again at 10 p.m. These are picked up and rebroadcast by various

stations throughout the country.

In answer to Victor J. Balt's inquiry regarding WEHS, D. E. Cosgrove, Hotel Strand, Chicago, states that WEHS is on the air at 4 p.m. every day for onehalf or one hour with a program of records, and Harold Yehling, 534 W. 60th Place, Chicago, advises us their studios are in the Soko-Slofsky Bldg., Cicero. Mr. Yehling asks why WJAZ comes in on his set very poorly, while WCKY, with the same power, comes in fine. The cause is probably purely one of location.

The same situation is found in almost every city. One location being shielded from a certain broadcasting station by steel buildings. Mr. Cosgrove and others ask where they can secure a copy of the RADEX map in their city. No arrangements have as yet been made to distribute these maps through newsdealers generally. In the meantine, they may be procured only by ordering direct from RADEX.

Stalking Stations

(Continued from page 14)

as the St. Louis stations have their transmitting towers in this vicinity."

From W. F. Byrne, 7316 Hurst St., New Orleans, La.: "I have an Echophone baby radio with three screen-grid tubes, one 245 and one 280. Have had it only about 40 days and have neglected to put up an aerial or ground. Operating on an indoor aerial of about 25 feet and no ground I have logged 92 stations."

From Clarence Fleagle, R. F. D. 1, Abilene, Kansas: "I have never had any

extreme DX with my set, although I have heard WKAQ, Porto Rico, and AQM, San Salvador. On my short wave set I have had the Netherlands, England. Australia, Colombia, S. A., Honduras, and three stations in Canada.

"Using a Hammerlund-Roberts HIQ 30 with screen grid RF and detector, in a poor location, in the past five weeks we have landed 176 stations in 34 states. Mexico and Cuba, Quebec and Nova Scotia," writes George Shombert, Jr., 921 Lilac Street, Pittsburgh, Pa.

"I have succeeded in logging 145 stations in 13 days," writes Charles Fowlie, 101 17th Street, West New York, N. J. "Can you tell me what time of day KOB, New Mexico, changes time with KEX?"

From D. Gadoury, 2215 Hood Street, Montreal, Que.: "In a factory ward right in the heart of Montreal, I have heard 161 stations, four of them in California, two in Mexico and one in Cuba."

"Out of seven stations in Japan using 10,000 watts I have listened to five, all between 2 and 3 a.m., PST.," writes L. C. Cummins, 3463 8th Avenue, Vancouver. B. C. "My model 52 Maiestic is proving even better than I expected."

From Marion L. Watson, R. F. D. 9, Wabash, Ind.: "With my Crosley screengrid 6-tube battery set I logged last night 67 stations on 58 wavelengths. I have now received stations on all frequencies except 910."

From Harry Durand, 216 No. Main



Julia Sanderson and Frank Crumit have added to their stage fame by their year in radio. With the CBS Blackstone program.

Street, Wheaton, Ill.: "Radio is my favorite pastime. In two nights this week I have received eight 100-watt, one 50-watt, one 30-watt, and one Mexican, all of them new to me. I am 16 years old and to date I have logged 253 stations."

From Jimmy Ninoda, 8622 Selkirk Street, Vancouver, B. C.: "I am an ardent radio fan, having received 129 stations, including six from Japan and two from Mexico, on a 9-tube Dictator

set."

"I have an 8-tube all-electric Majestic radio. In nine months I have logged 334 stations, including 19 in Canada, 6 in Cuba and 2 in Mexico," says Floyd Moyer, 124 Brown Street, Reynoldsville, Pa.

"I think I have made a little record in low-power catches myself," states Dolphus Whitten, Jr., Gurdon, Ark. "My best are WEBR, Buffalo, and KGFJ, Los Angeles, both on crowded frequencies and using only 100 watts."

From Walter Wasana, 8256 Marion Street, Detroit, Mich.: "I am using a 3-tube receiver and in five days I have picked up 51 new stations, including

KNX and CMC.

From Ralph Caldwell, R. F. D. 1, Clarksville, Pa.: "I have had a radio for almost four years and in that time I have received 447 stations from coast to coast."

T. J. Johnson, 523 West Russell Ave., Seminole, Okla., reports receiving WHC Emory, Va., and CKWX, Vancouver, B. C., hundred-watters.

"My young lad, a radio fan and quite a DXer, picked up 80 stations in five hours one evening," writes Frank E. Simpson, 77 Pleasant Ave., Montclair, N. J.

Aerial and Ground

(Continued from page 16)

Estes, Spokane, Wash., who tuned in six Japanese stations in one night. Mr. Estes is using an 85-foot aerial and the ground attached to a sheet of copper and a Ford radiator buried four feet deep. In summer he keeps the ground well watered. Here is a good use for old Fords.

The U.S. Standard Ground

We have had a number of requests to repeat the instructions for making what the United States Bureau of Standards calls a good ground. Here they are: Dig a hole in the ground one foot deep and one foot square away from all buried pipes; place in that hole five pounds of rock salt; turn a hose on it until it dissolves; drive an eight-foot rod or half-inch pipe through the center of the hole. In sections where there is little natural moisture in the earth use four of these grounds six feet apart and all connected together.

Radio in Mantel Sets

(Continued from page 19)

tion. The chassis is synchronized with the Magnavox Dynamic Speaker. A tone selector which enables the user to choose



The Mozart

the tone which pleases his ear, is said to reduce static to a minimum. Cabinet is walnut veneer in two tones. Drum tuning dial is illuminated. The set incorporates a phonograph pick-up jack, also a local-distance switch to eliminate "detuning" when using long aerial.

The Mozart lists at \$69.50 complete

with tubes.

Neutralizing the Neutrodyne and Troubles in Aerial and Ground will appear in the March RADEX.

THIS MONTH'S CHANGES

XEU 890—Weracruz, Mex. XET 899—Monterrey, Mex. CMX 910—Havana, Cuba XETA 1100—Mexico City, Mex. Frequencies XETF Veracruz, Mexico XEN Mexico City, Mexico CMX Havana, Cuba XER Mexico City, Mexico XEB Mexico City, Mexico CMKC Santiago, Cuba XEX Mexico City, Mexico	250 to 350 1000 to 2000 101 to 50 500 to 1500 250 to 1000 500 to 1000 1210 to 680 720 to 732 970 to 829 970 to 829 970 to 910 1071 to 984 1091 to 1030 1360 to 1045 1360 to 1190	WGMS 1250 kcys.—St. Paul, Minn. CMCE 1285 kcys.—Havana, Cuba. WMAF 1410 kcys.—S. Dartmouth, Mass. Call TIX 750 kcys.—San Jose, C. R., to TIC KMCS 1120 kcys.—Inglewood, Cal, to KMIC CMHA 1150 kcys.—Cienfuegos, Cuba, to CMHJ WSGH 1400 kcys.—Brooklyn, N. Y., to WFOX Locations WBSO 920 kcys.—Wellesley Hills, to Needham, Mass. CHWC 960 kcys.—Pilot Butte to Regina, Sask. Owners KPCB 650 kcys.—Seattle, Wash., to Queen City Broadcasting Co. WPAP 1010 kcys.—New York City, to Palisades Amusement Park. KGDY 1200 kcys.—Huron, S. D., to Voice of South Dakota. KGFW 1310 kcys.—Ravenna, Nebr., to Central Nebraska Broadcasting Corp. KFPW 1340 kcys.—Fort Smith, Ark., to South- western Hotels Co. WOKO 1440 kcys.—Poughkeepsie, N. Y., to WOKO, Inc. WTNT 1470 kcys.—Poughkeepsie, N. Y., to Casualty Insurance Co. KUT 1500 kcys.—Austin, Texas, to Driskill Hotel. WDIX 1500 kcys.—Tupelo, Miss., to North
CMI 770 kcys.—Havana, Cuba WBBL 1210 kcys.—Richmond, Va		WDIX 1500 keys.—Tupelo, Miss., to North Mississippi Broadcasting Corp.

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BROADCASTING RELAY STATIONS

A List of the Short Wave Transmitters

Location of Transmitter	$Call\ Signal$	Frequency in Kilocycles (Meters in Parenthesis)	Power (Watts in Antenna)	
California Sacramento	W6XAF	2,938 (112.1), 5,870 (51.11)	500	State Dept. of Agri-
Westminster (Near)	W6XAL	6,080 (49.34), 15,250 (19.672), 21,500 (13.953)	15,000	culture (Calif.) Pacific-Western Bdct. Federation
Colorado Denver	W9XA	830 (361)	12,500	General Electric Co.
Illinois Addison Chicago	W9XAQ W9XAA	6,040 (49.67) 6,080 (49.34), 11,840 (25.34), 17,780 (16.873)	1,000 500	Chicago Daily News Chicago Fed. of Labor
Downers Grove	W9XF	6,020 (49.83), 11,800 (25.42), 21,500 (13.953)	5,000	Gt. Lakes Radio Bdct. Co., 72 W.Adams St.,
Iowa Council Bluffs	W9XU	,	500	Chicago, Ill. Mona Motor Oil Co.
Massachusetts East Springfield	W1XAZ	9,570 (31.35), 2,398 (125.1)	10,000	West'g'e Elec&Mfg.Co.
New Jersey Bound Brook Coytesville	W3XAL W2XAL	6,100 (49.18) 6,040 (49.67), 11,800 (25.42),	20,000 500	Nat'l Broadcasting Co Aviation Radio Sta.
Kearny	W2XCX	15,250 (19.672), 21,460 (13.979) 6,080 (49.34)	500	L. Bamberger & Co.
New York Bellmore Cross Hassock Bay New York (Portable) South Schenectady South Schenectady	W2XE W2XBR	11,840 (25.34), 15,280 (19.684) 6.020 (49.83)	20,000 1,000 50	Nat'l Broadcasting Co. Atlantic Bdet. Corp. Baruchrome Corp. Atlantic Bdet. Co. Gen. Electric Co.
South Schenectady South Schenectady	W2XAF W2XAG	9,530 (31.48) 550 (545), 660 (455), 790 (380), 1,150 (260.9), 1,500 (200)	40,000	Gen. Electric Co. Gen. Electric Co.
Ohio Mason	W8XAL	6,060 (49.5)	250	Crosley Radio Corp., 1325 Arlington St.,
Pennsylvania East Pittsburgh	W8XK	6,140 (48.86), 9,570 (31.35), 11,880 (25.25), 15,210 (19.724), 17,780 (16.873), 21,540 (13.928)	40,000	Cincinnati, Ohio Westinghouse Elec. & Mfg. Co.
	W3XAU	6,060 (49.5), 9,590 (31.28)	500	Universal Brdc. Co., 1940 Market St.
Canada Middlechurch, Man	CJRX	11,720 (25.6)	2000	James Richardson & Sons, Ltd.
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THE TELEVISION BAND

The Federal Radio Commission has instituted the new allocations of frequencies for television broadcasters, the outcome of the recommendation of a recent engineering conference called by the Commission. The new reallocations went into effect as follows:

	2,000—2,100 kc.
W3XK	$5.000_{}$ Wheaton, Md.
W2XCR	5,000Jersey City, N. J.
W2XAP	250 Portable
W2XCD	5,000Passiac, N. J.
W9XOA	500 Chicago, Ill.
W2XBU	100Beacon, N. Y.
	2.100-2.200 kc.
W3XAK	5.000 Bound Brook, N. J.
W3XAD	500Camden, N. J.
W2XBS	5,000New York, N. Y.
W2XCW	20,000Schenectady, N. Y.
W8XAV	20,000East Pittsburgh, Pa.

W9XAP W2XR	1,000Chicago, Ill. 500Long Island City, N. Y.
W2XBO W9XAA W9XG	2,750—2,850 kc. 500Long Island City, N. Y. 1,000Chicago, Ill. 1,500West Lafayette, Ind.
W1XAV W2XR W9XR	2,850—2,950 kc. 500Boston, Mass. 500Long Island City, N. Y. 5,000Downers Grove, Ill.

Other proposals of the conference now being considered by the Engineering Division of the Federal Radio Commission, will probably be recommended for approval within a brief period.

This realignment of visual broadcasting stations is expected to aid experiments and to hasten the day when the art will be ready for public entertainment on a commercial scale.

CFRB 960 C	KPO 680 N	WBZ-A 990 N	WFLA 620 N	WMA Q 670 C
CKAC 730 C	KPRC 920 N	WCAE 1220 N	WGAR 1450 N	WMC 780 N
CKGW 690 N	KRLD 1040 C	WCAH 1430 C	WGN 720 N————	WMT 600 C
KDKA. 980 N	KSCJ 1330 C	WCAO 600 C	WGR 550 C	WNAC 1230 C
KDYL	KSD	WCAU	WGST 890 C	WNAX 570 C
1290 C	550 N	1170 C	790 C	1190 N
1430 N KFAP	1130 N————————————————————————————————————	810 C	1150 N	1000 N
770 N———— KFH	1460 N	970 N	WHEC 1440 C	WOW 590 N
. 1300 C———	620 N	1490 N	WHK 1390 C	WOWO 1160 C
KFI 640 N	KTHS 1040 N————	WCSH 940 N————	WHO 1000 N	WPG 1100 C
KFJF 1480 C	1120 C	WDAE 1220 C———	1430 C	680 N
KFKX 1020 N	KTSA 1290 C	WD AF 610 N	WIBW	560 C WRC 950 N
KFPY 1340 C	760 C	WDAY 940 C	580 C	WREC 600 C
KFRC 610 C	KVOO 1140 N	WDBJ 930 C	WISN 1120 C	WREN 1220 N
KFSD 600 N	KWK 1350 N	WDBO 1120 C	WJAR 890 N	WRR 1280 C
KGO 790 N	KYW 1020 N	WDOD 1280 C	1290 C	1110 N
KGW 620 N	WABC 860 C	WDRC 1330 C	900 N	1330 N
KHJ 900 C	WACO 1240 C	WDSU 1250 C————	WJJD 1130 C	WSM 650 N
KHQ 590 N————	WADC 1320 C	WEAF 660 N	WJR 750 N	WSMB 1320 N
KLRA 1390 C	WAIU 640 C	WEAN 780 C	760 N	1340 C
KLZ	WAPI 1140 N	WEBC 1290 N	570 C WKBW 1480 C	620 N
560 C	WBAL	WEEI	WKRC 550 C	WTAM 1070 N
950 C	1060 N	590 N———— WENR	900 N	WTAQ 1330 C
1090 C	800 N	870 N	WLAC 1470 C	780 C
830 N———— KOIL	770 C	800 N	1260 C	1060 N
1260 C————	1410 C	610 C	620 C	620 N
940 C———	900 N	1360 C	WLS 870 N	WWJ 920 N
70 C	930 C	WFBM 1230 C	WLW 700 N	WWNC 570 C
) N	WBT 1080 C	WF1 560 N	630 C—	WXYZ 1240 C

WHAT'S ON THE AIR TONIGHT?

A WEEKLY CALENDAR

Leading Features of the Network Program

Time is given by Eastern Standard: For Central Time, subtract one hour; For Mountain Time two hours; and for Pacific time, three hours.

Programs of the National Broadcasting Company begin with WEAF and WJZ; those of the Columbia Broadcasting System with WABC.

These programs are correct to date but are subject to change daily thereafter

Daily (Except Saturday and Sunday)	2:30-3:00 American School of the Air
8:00-8:15 Gene and Glenn — Quaker Early Birds	WABC WFBL WKBW WEAN WNAC WCAU WJAS WLBW WMAL WCAO WTAR WDBJ
WEAF WJAR WEEI WTAG WCSH WFI	WADC WHK WKRC WWNC WGST WXYZ
WRC WGY WCAE WTAM WWJ WSAI	WSPD WDOD WREC WLAC WBRC WDSU
CKGW WRVA WPTF WJAX WIOD WFLA	WOWO WFBM WMAQ WCCO KMOX KMBC KOIL KFJF KRLD KTSA KLZ KDYL
WSUN 8:15-8:30 Morning Devotions	KOIL KFJF KRLD KTSA KLZ KDYL KVI KOL KFPY KOIN KHJ KFRC
WEAF WRC WCAE WGY WHAS WOW	3:00-3:30 Columbia Salon Orchestra
WFI WCSH WJAR WWJ WPTF WIOD	WABC WHEC WLBZ WEAN WNAC WORC WPG WHP WLBW WMAL WCAO WTAR
WAPI WFLA WSUN WTAG WGN WJAX	WPG WHP WLBW WMAL WCAO WTAR
WJDX WRVA WBEN WSMB WFI	WDBJ WHK WKRC WAIU WWNC WXYZ WBCM WSPD WDOD WREC WLAC WBRC
8:30-9:00 Cheerio WEAF WEEI WCKY WRC WCSH WWJ	KSCJ WMT KMBC WDAY KOIL WIBW
WHO WOC WDAF WAPI KPRC WFI	KFJF KRLD KTRH KLZ CFRB
WSB WSM WJAX WPTF WTAG WOAI	5:00-5:30 The Lady Next Door
WBEN WRVA CKGW WIOD WHAS WFLA WSUN WTAM WMC WJDX WJAR WGY	WEAF WRC KSD WTAG WSM WHAS WKY KPRC WTAM
WOW WCAE WIBO	WKY KPRC WTAM 6:05-6:30 Black and Gold Room Orchestra
9:00-9:15 Something for Everyone	WEAF WCAE WCSH WWJ WJAR WBEN
WABC WHEC WPG WCAU WHP WJAS	6:45-7:00 Uncle Abe and David
WDBJ WWNC WXYZ WBCM WDOD WREC WLAC WBRC KSCJ WMT KMOX KMBC	WEAF WEEI WJAR WCSH WFI WRC WTMJ WSM WEBC WCAE WGY WTAG
KOIL KFH KFJF KTRH CFRB	WTMJ WSM WEBC WCAE WGY WTAG WTAM WWJ WSAI KSD WOC WHO
9:02-9:45 Morning Melodies	WOW WDAF WSB WAPI WSMB WJDX
WEAF WRC WWJ WHAS WTAM WAPI	WENR WHAS
WSM WGN WRVA WBEN KSD WOC WHO WOW WTMJ KSTP WEBC	6:45-7:00 Literary Digest Topics
9:45-10:00 A. & P. Program	WJZ WBZ WBZA WHAM WBAL KDKA WRVA WPTF WJAX WIOD WLW WFLA
WEAF WJAR WTAG WCSH WRC WGY	WSUN
WCAE WTAM WWJ WOC, KSD WHO WDAF WTMJ WEBC WRVA WPTF WIOD	7:00-7:15 Amos 'n' Andy
WDAF WTMJ WEBC WRVA WPTF WIOD WFLA WSUN WHAS WSM WMC WSB	WJZ WHAM KDKA WBZ WBZA WRC
WAPI WSMB WJDX KVOO WBAP KPRC	CKGW WRVA WPTF WJAX WIOD WCKY WFLA WSUN WLW WJR WGAR
WOAI WKY WBEN WOW WFI KSTP	WFLA WSUN WLW WJR WGAR 7:30-7:45 Phil Cook — Quaker Man
WIBO	WJZ WBZ WBZA WHAM KDKA WREN
11:15-11:30 Radio Household Institute WEAF WJAR WTAG WCSH WLIT WRC	KWK WTMJ WEBC KOA KSL KGO
WHAS WSM WSB WCAE WWJ WSAI	KECA KGW WRC KOMO KHQ KFSD
KFKX WTAM KSD WTMJ KSTP WEBC	KTAR WGAR WSMB WSB WPTF WJAX WIOD WFLA WHAS WSM WMC WJDX
WAPI WSMB WOAI KTHS KVOO KPRC WKY WEEI WGY WMC WBEN	KTHS KPRC WOAI
WKY WEEI WGY WMC WBEN 12:00-12:30 Paul Tremaine and His Orchestra	8:00-8:15 Literary Digest Topics
WABC WHEC WLBZ WORC WPG WCAU	WFBL WGR WJAS WADC WHK WGST
WHP WJAS WLBW WMAL WCAO WTAR	WXYZ WSPD WREC WBRC WDSU WFBM WGL WMAQ WCCO WMOX KMBC KOIL
WDBJ WHK WKRC WAIU WWNC WDOD WREC WLAC WBRC KSCJ WMT KMBC	WGL WMAQ WCCO WMOX KMBC KOIL KFJF WRR KTSA
WREC WLAC WBRC KSCJ WMT KMBC WDAY KOIL WIBW KFJF KLZ	11:00-11:15 Amos 'n' Andy
12:30-1:00 Columbia Revue	WMAQ WREN KWK WDAF WTMJ WHAS
WARC WLBZ WORC WPG WCAU WHP	WSM WSB WKY WENR KSTP WSMB
WJAS WLBW WMAL WCAO WTAR WXYZ WBCM WDOD WREC WLAC WBRC KSCJ	WJDX KTHS KPRC WEBC WOAI WMC KOA KFAB WBAP
WBCM WDOD WREC WLAC WBRC KSCJ WMT KMBC WDAY WIBW KFJF KLZ	11:30-11:45 Amos 'n' Andy
12:30-1:30 National Farm and Home Hour	KECA KSL KGO KOMO KHQ KGW
WJZ WHAM WJR KSTP WRVA WHAS	KFSD
WREN WFAA WEBC WIOD WAPI WOW WMC WSB WGAR KVOO WKY WOAI	Sunday
WDG WHO WDAF WIDY WRAL WSMB	•
KWK KOA WBZ WBZA WOC KTHS	1:30-2:00 Conclave of Nations WARC WHEC WPG WHP WMAL WCAO
WFLA WSUN WJAX KFAB KPRC KDKA	WABC WHEC WPG WHP WMAL WCAO WTAR WDBJ WAIU WWNC WXYZ WBCM
WLW KFKX WPTF WSM	WDOD WREC WLAC WBRC WBBM WCCO
1:30-2:00 Ambassador Hotel Orchestra WABC WHEC WLBZ WEAN WPG WFAN	KSCJ WMT KMOX KMBC WDAY KOIL
WIAS WIRW WMAL WCAO WTAR WDBJ	WIBW KFJF KTSA KLZ
WKRC WAIU WWNC WXYZ WBCM WDOD	1:30-2:00 Neapolitan Days WEAF WWJ WDAF WTAM WIBO WCAE
WLAC WBRC	WEAF WWJ WDAF WTAM WIBO WCAE

KSD KGO WEBC	WOC KFSD				KSL WBEN	7:30-8:00 RO WEAF WBEN KYW	CA Victor WJAR	Program WTAG	WCSH	WWJ	KPRC
2:00-3:00 R	xv Symp	hony Con	cert		KYW WPTF WFLA WTMJ	KYW	WRVA	WIOD	WFLA	WSUN	WHAS
WJZ	WBZ	WBZA	WBAL	KDKA	KYW	KSD	WDAF	WTMJ	WEBC	WMC	WSB
W FAA KSTP	WEBU	KWK	WRVA	WHAS	WPTF	KOA	KSL	KGO	KVOO KFI	WOAI KTAR	WKY $KFSD$
WSUN	WLW	WIOD	WSMB	WGAR	WTMJ	KGW	KOMO	KHQ			11100
KV00	(WRC o	n 2:30)	(WREN	on 2:15)		7:30-8:00 W	illiams O	ilomatics	WIT A M	723772	W7 W7
2:00-2:30 Ca WABC	WHEC	MLRZ	WEAN	WNAC	WORC	WREN	KDKA	WGN	WHAM WJR	KWK	WLW
WPG	WCAU	WHP	WMAL	WCAO	WORC WTAR	8:00-8:15 Er	na Jettic	k Melodi	es		
WDBJ WREC	WKRC	WWNC	wxy%	WRCM	WDOD	WJZ WKY WHAS	WBZ	WBZA	WHAM WFAA	KWK	KYW
KSCJ	$\begin{array}{c} WLAC \\ WMT \end{array}$	KMBC	WFBM WDAY	KOIL	WBBM WIBW	WHAS	WSM	AA' T IATO	KSTP	KUKA	WOAI WMC
KFH	KFJF	KRLD	KTRH	KTSA	KLZ	KOA	WENR			TITCIAID	KOMO
CFRB 2:30-3:00 N	DC 1-4:-4	. D				WSB	KGW WPTF	WRVA	WELA	WLW	WCKY KFAB
WEAF	WOW	wwj	KSD	WDAF	KOA	KFSD	KTAR	KSL WRVA WJDX	KPO .	KVOO	KHQ
WGY					KOA	8:00-8:15 Tl	ie World'	s Busines	S	THODG	WOLT
3:00-4:00 N WJZ	ational Yo	uth Confe	erence	WDEN	KFAB WOAI KOA WKY WGAR	WHP	WLBZ	WLBW	WMAL	WTAR.	WDRJ
WRVA	WJAX	KDKA WIOD	KVOO	WEAA	WOAI	WKRC	WAIU	WWNC	WXYZ	WBCM	WDOD
WFLA	WSUN WEBC	KGW	\mathbf{WPTF}	KG0	KOA	WREC	WFBM	WMAQ	KSCJ	WMT	KMOX
KSTP KPO	KOMO	WMC	WSMB WSB	WAPI	WKY	KRLD	KTRH	KLZ	KFRC	WIDW	Krjr
WTMJ	KSL	mid	WDD	WALL	Walle	8:00-8:30 M	ajor Bow	es' Family	y		
3:00-5:00 N	ew York l	Philharmo	nic Orch	estra	WGAR WORC WCAO WXYZ WBRC KMOX KFJF KDKA	WEAF	WMC	WJDX	WKY	WJAR	WCAE
WABC	WHEC	WLBZ	WEAN	WMAC	WORC	WRC	WGY	ww.r	WSAT	KSD	WFJC
WTAR	WDBJ	WKRC	WAIU	WWNC	WXYZ	WHAS	WFLA	WSUN WTAM	WTAG	WLS	WEBC
WBCM	WSPD	WDOD	WREC	WLAC	WBRC	WOW 8:15-9:15 Co	WHU Illiers Rad	WTAM dio Hour			
WFBM	WMAQ	WCCO	WIRW	KEH MWJ.	KMOX	WJZ	WBZ	WBZA	WHAM	KDKA	WJR
KRLD	KTRH	KLZ	KFRC	Krm	Kror	WLW	KYW KOMO	KWK	WREN KGW	KOA	KSL
4:00-4:15 Fl	orsheim's	Sunday !	Feature		KDKA KFAB	KHQ 8:30-9:00 Ch	ase and	Sanhorn (Choral O	KPO chestra	
WJZ WJR	WLW	W BZA KVW	WBAL	WHAM	KEAR	WEAF	WJAR	WTAG WSAI	WCSH	WRC	WGY
WGAR						WIRO	KSTP	WHO	WOC	WHAS	WIOD
4:00-5:00 D WEAF	. S. Park	es Cadma	an Wroger	TTT LO	****	WEBC	WMC	WSB WTMJ	WSMB	WHAS WKY WJDX	KTHS
WEAF	WEEL	WOAI	WSAI	WIAG	KOA WHAS WWJ KGO WPTF WSB	KPRC	WOAI	WTMJ	WTAM	WJDX	WIOD
WIDX	KVOO	KPRC	WEBC	WDAF	WWJ	9:00-9:15 "C	WOUN Dur Gove	W DAF rnment."	David La	KVOO	WBEN
WFLA	WSUN WCAE	KHQ WFJC	WHO	WOC	KGO	WEAF	WTAG	WCSH	WEBC	WGY	WHAS
WMC	WGY	WSM	KTHS	WBAP	WSB	KSD	WKY	WSAI	WFJC	WSB WSMB	WMC
WSMB	WAPI	WBEN	WRVA	WIOD		WIOD	WFLA	WSUN	WOC	WHO	WRC
5:00-5:30 Ro WABC WCAU WSPD	w. Donal	d Grey Ba	wEAN	WDRC	WNAC WXYZ WRR WRC WEONR	WWJ	WFLA KVOO	WLIT	WBEN	WJAR	
WCAU	WJAS	WMAL	WADC	WKRC	WXYZ	WABC	WHEC	WEAN	WNAC	WORC	WPG
WSPD	wowo	WMAQ	KOIL	KRLD	$\mathbf{W}\mathbf{R}\mathbf{R}$	WJAS	WCAO	WTAR	WADC	WKBN	WIG
5:00-6:00 Da WEAF WGY WOC	WILLE	r WTAC	WCSH	WET	WPC	9:15-10:15 A	twater K	ent Hour	WET	WCV	WCAE
WGY	WCAE	WTAM WOW	KSD	WSAI	WENR	WTAM	WWJ	WSAI	KSD	WOW	WSM
WOC	WHO	wow	WDAF	CKGW	WBEN	WFAA	KUA	WUAI	WSMB	KFI	KGW
5:00-6:00 N	tional Ve	spers				WGN	WSB	KHQ WOC	KPRC	WKY	WHAS
WOC WEEI 5:00-6:00 Na WJZ KSTP WPTF	WBAL	WHAM	KWK	WREN	WCKY WJDX KOA WKY WBZA	KSL	CKGW	WAPI	WBEN	KSTP	W DILL
WPTF	KVOO	KABC	WMC WFEA	WSIIN	MIDX	9:30-10:00 C	raham-P WFRI.	aige Hou	MEVN.	WDDC	WNAC
KTAR	KGO	KGW	KHQ	WSM	WKY	WCAU	WJAS	WMAL	WCAO	WADC	WHK
WSB	WOAI	WAPI	KHQ WSMB	WBZ	WBZA	WKRC	WBT	WGST	WŢOC	WQAM	WDBO
30-6:00 Th	(KFAB)	on 5:15) Trio	(MTRO	on 5:3 0)		WRRM	WAIZ	WSPD KMOX KTSA	KMBC	WDSU	WOWO
WLBZ	WEAN	WNAC	WORC	WPG	WFAN .	KRLD	KTRH	KTSA	KLZ	KDYL	KOL
	WJAS WHK	$\begin{array}{c} \mathbf{WLBW} \\ \mathbf{WKRC} \end{array}$	WMAL	WCAO	WTAR	KFPY	KOIN	KHJ	KFRC		
	WDOD	WREC	WLAC	WBRC	WFBM	WABC	WFBL	WKBW	WEAN	WNAC	WCAII
	KSCJ	WMT	KMBC	WDAY	KOIL	WJAS	WLBW	WMAL	WCAO	WNAC WADC	WHK
	TFJF olic Ho	KRLD	KLZ	KFRC	WFAN WTAR WXYZ WFBM KOIL WRC WJDX KGW	WKRC	WGST	KMRC	WSPD KOIT	WLAC	WOWO KDYL
	EEI	WJAR	WTAG	WCSH	WRC	KOL	KFPY	KOIN	KHJ	KLZ KFRC	RDIL
	WJ	WEBC	WIOD	WKY	WRC WJDX KGW WHO	10:15-10:30	Pennzoil	Pete	TZDTZ	MID	777 777
	TP	${f WSMB} \\ {f KTAR}$	WFJC	WOC	WHO	KWK	WREN	W R.VA	W.IAX	WJR WIOD	WLW WAPI
	X	WFLA	WSIIN	WHAS	WMC	WSB	WMC	WHAS	WFLA	WSUN	WSMB
	,b	KPRC	WOAI WFI	WRVA WIBO	KOA	WJDX	WOAI	WKY	WHAM		
	\ \ \	Brother C	lub		MTITI	WSB WJDX 10:15-10:45 S WEAF WGY	WTIC	er Champ WTAG	WFI	WCSH	WRC
	/-	WJAR	WTAG	WCSH		WGY	WCAE			WGN	WJAR
		WSAI WEBC	WLS WTM.I	KSD WREN	WOC	WTMJ WEEI	KOMO	WEBC	KGO WDAF	KGW	WOW WBEN
	,) DOC	11 1 1110	,, בנונים		** 19191	TOMO	77. T	" DUT	Tital	META

10:30-11:00 Kaffee Hag : WJZ WBZ W WLW KWK W	Slumber Mu BZA WHA REN	sic M KDKA	WJR	KGO KVOO KPRC KOA KECA WFLA WSUN WTIC WKY WHAS KHQ WJAX
10:30-11:00 The Gaucho	e			WABC WFBL WKBW WEAN WDRC WNAC
WABC WHEC W	LBZ WNA	C WORC	$_{\rm WDBJ}^{\rm WPG}$	8:15-8:30 Barbasol Program WABC WFBL WKBW WEAN WDRC WNAC WCAU WJAS WMAL WCAO WADC WHK WKRC WXYZ WSPD WISN WFBM WCCO
WJAS WLBW W	MAL WCA			KMOX KMBC KOIL
10:45-11:15 Sunday at S WEAF WEEL W	eth Parker's CSH WRC	WGV	wow	## KMOX KMBC KOIL ### Si30-9:00 Ingram Shavers ### WJZ WBZ WBZA WJR WLW KYW ### WBZ WBZA WJR WLW KYW ### WBZA WJAX WJOD WSM WMC WSB WSMB KTHS ### KPRC WOAI WKY KOA CKGW WFLA ### WSUN WHAS KDKA WJDX KVOO WFAA
WEAF WEEI W WDAF CKGW W WFJC WWJ K WJAX WIOD W	TMJ KST	WCAE	WTAM	WJZ WBZ WBZA WJR WLW KYW
WFJC WWJ K	YW WOV	WHO	WEBC	KWK KFAB WTMJ WEBC WRVA WJAX WIOD WSM WMC WSB WSMB KTHS
WJAX WIOD W	HAS WSM	WJDX	KPRC	WIOD WSM WMC WSB WSMB KTHS
WKY KOA KO KFSD WRVA W	GO KGW	พธธ	KTAR	KPRC WOAI WKY KOA CKGW WFLA WSUN WHAS KDKA WJDX KVOO WFAA
11.00 12.00 DL II	7.7			WGAR
WABC WHEC W	LBZ WPG	WHP	WMAL	0.20 0.00 AL.
WTAR WDBJ W	XYZ WBC	M WSPD	WDOD	WABC WLBZ WEAN WNAC WORC WJAS
WREC WLAC W	FBM WCC	O WMT	WDAY	WLBW WMAL WTAR WDBJ WKRC WWNC
KTSA WIDW K	TH KEJI	KKLD	KIKI	KMOX WDAY WNAX KOIL KFJF KRLD
11:30-12:00 Russian Cat	hedral Choir			WABC WLBZ WEAN WNAC WORC WJAS WLBW WMAL WTAR WDBJ WKRC WWNC WXYZ WBCM WDDD WREC WMAQ WMT KMOX WDAY WNAX KOIL KFJF KRLD KTRH KLZ CFRB S:30-9:00 A. & P. Gypsies WEAF WEEI WTAG WJAR WTIC WCSH WLIT WRC WGY WCAE WWJ WSAI WGN KSD WOC WDAF WTAM WOW
WEAF WRC W	FJC WWJ	WBAP	KOA	8:30-9:00 A. & P. Gypsies
WOW WSB W	GY WTA	M KSTP	WEBC	WEAF WEEL WTAG WJAR WTIC WCSH WLIT WRC WGY WCAE WWJ WSAI
WIOD WHAS W	BEN			WGN KSD WOC WDAF WTAM WOW
1	Ionday			
	,			9:00-9:30 Maytag Orchestra WJZ WBZ WBZA WHAM KDKA WJR
3:00-3:30 Phil Napoleon	and His Bai	ndi T XXTLTAXA	KDKV	WJZ WBZ WBZA WHAM KDKA WJR KWK KYW KSTP WEBC KTHS WKY
WREN WSB K	WK KDK	A CKGW	KDKA WFLA	WOAI KOA KSL KGO KECA KGW
WEIN WRIA W	POW GG	011011		KHQ KOMO KVOO WLW WFAA KPRC
3:30-4:00 Sixteen Singer	s	TTOTA	TECHNO	WJZ
WEAF WRC W WTAM WGY W	OC WHO	KSD	KSTP	WABC WFBL WHEC WKBW WLBZ WEAN
4.00-4.30 Dance Orchest	***			WDRC WNAC WORC WPG WCAU WHP
WJZ WBAL K	STP KTA HAM WSM	R KOA	KGO	WJAS WLBW WMAL WCAO WTAR WDBJ
KWK KFSD W	HAM WSM	WSB	WSMB	WADC WHK WKRU WWNU WBT WGST
WMC WBZ W	BZA WGA	R KYW		WSPD WDOD WREC WLAC WBRC WDSU
4:15-4:30 U.S. Army Bar	nd Ean wata	C WORG	WDC	WISN WOWO WFBM WMAQ WCCO KSCJ
WCAU WLBW W	MAL WCA	O WTAR	WDBJ	WMT KMOX KMBC KLRA WDAY WNAX
WAIU WWNC W	XYZ WBC	M WSPD	WDOD	KUIL WIBW KFH KFJF WKK KTKH
WREC WLAC W	BBM WCC	O KSCJ	WMT	KHJ KFRC
KTRH KLZ K	OL KER	C CFRB	KKLD	9:30-10:00 Chesebrough Real Folks
4:30-5:00 Wardman Parl	Hotel Orch	estra		WTOC WQAM WDBO WDAE WXYZ WBCM WSPD WDDO WREC WLAC WBRC WDSU WISN WOWO WFBM WMAQ WCCO KSCJ WMT KMOX KMBC KLRA WDAY WNAX KOIL WIBW KFH KFJF WRR KTRH KTSA KLZ KDYL KOL KFPY KOIN KHJ KFRC 9:30-10:00 Chesebrough Real Folks WJZ WBZ WBZA WHAM KDKA WLW KWK KYW CKGW WJR
WABC WLBZ W	EAN WNA	C WORC	WPG	KWK KYW CKGW WJR 9:30-10:00 General Motor's Family Party WEAF WEEI WJAR WCSH WTAG WLIT WRC WGY WCAE WTAM WWJ WGN KSD WOC WOW WSAI WDAF KSTP WTMJ WHAS WSM WMC WSB KPRC WJAX WFAA WOAI WKY KOA KSL KGO KGW KFI KOMO KHO WTIC
WFAN WHP W	LBW WMA	L WCAO	WTAR	WEAF WEEL WJAR WCSH WTAG WLIT
WSPD WDOD W	REC WLA	C WBRC	WCCO	WRC WGY WCAE WTAM WWJ WGN
KSCJ KMOX K	MBC WDA	Y KOIL	WIBW	WTMI WHAS WSM WMC WSR KPRC
KFJF KRLD K	TRH KTS.	A KLZ	KOL	WJAX WFAA WOAI WKY KOA KSL
KFRC CFRB				KGO KGW KFI KOMO KHQ WTIC
WABC WPG W	CAU WHE	cnestra WLBW	WMAL	WHO WBEN WCAE
WCAO WTAR W	DBJ WKF	C WWNC	WBCM	WARC WEBL WKBW WEAN WNAC WCAU
WSPD WDOD W	REC WLA	C WBRC	WBBM	WJAS WLBW WMAL WCAO WADC WHK
WCCO KSCJ W	MT WDA	Y KFJF	CERR	WKRC WBT WXYZ WSPD WOWO WBBM
6:15-6:45 Mormon Taher	rnacle Choir	Krito	OFILD	WJAX WFAA WOAI WKY KOA KSL KGO KGW KFI KOMO KHQ WTIC WHO WBEN WCAE 9:30-10:00 Bourjois WABC WFBL WKBW WEAN WNAC WCAU WJAS WLBW WMAL WCAO WADC WHK WKRC WBT WXYZ WSPD WOWO WBBM KMOX KMBC KOIL 10:00-10:30 Robert Burns Panatela Program WABC WFBL WKBW WEAN WDRC WNAC WCAU WJAS WMAL WCAO WADC WHK WKRC WXYZ WSPD WOWO WFBM WMAQ WCCO KMOX KMBC KOIL KFJF KRLD KTRH KTSA KLZ KDYL KVI KOL KFPY KOIN KHJ KFRC 10:00-10:30 Stromberg-Carlson Program WJZ WBZ WBZA WHAM KDK.
WJZ WBAL W	SM KWF	KOA	KSL	WABC WFBL WKBW WEAN WDRC WNAC
KGO KOMO K	FAB KGW	CKGW	KSTP	WCAU WJAS WMAL WCAO WADC WHK
WSMB KPO W	HAS WAP	I KFSD	WRC	WKKU WXYZ WSPD WOWO WFBM WMAQ
7:00-7:15 Current Event	s			KTRH KTSA KLZ KDYL KVI KOL
WDBJ WKRC W	WNC WXX	Z WBCM	WDOD	KFPY KOIN KHJ KFRC
WBRC KSCJ W	MT WDA	Y KOIL	WABC	KIRH KISA KLZ KDYL KVI KFPY KOIN KHJ KFRC 10:00-10:30 Stromberg-Carlson Program WJZ WBZ WBZA WBZA WHAM KDK KWK WREN WEBC WRVA WJA/ WHAS WSM WMC WSB WSA/ WOA WBDC WGO WEI WGS/
WMAI WCAO W	TAR WIR	W KEH	KEIE	WJZ WBZ WBZA WHAM KDK KWK WREN WEBC WRVA WJA/ WHAS WSM WMC WSB WSAJ KOA KPRC KGO KFI WCJ/
KTRH KOL K	FRC	, 11111	11101	WHAS WSM WMC WSB WSM
7:15-7:30 Tastyeast Jest	ers	****		
KTRH KOL K 7:15-7:30 Tastyeast Jest WJZ WCKY W KDKA WRC W 7:30-8:00 Colonial Reaco	HAM WBZ	WBZA	WREN	KHQ KOMO WIDA WILA WSU
7:30-8:00 Colonial Beaco	nlights			10:00-10:30 Adventures of Sherlock Holmes
WEAF WEEL W	JAR WTA	G WCSH	WGY	WEAF WJAR WCSH WWJ W
WBEN				WEAF WJAR WCSH WWJ WCSH WLT WTAM WSAI WCSH WWJ WCSH WWJ WCSH WWJ WCSH WHO WBEN WCAE
WJZ WHAM K	rogram WK WSR	WSM	KFAR	10:30-11:00 Empire Ruilders
CKGW WIBO W	GAR	11 10111		WHO WBEN WCAE 10:30-11:00 Empire Builders WJZ WBZ WBZA WHAM
8-15 2-30 Fifteen Minute	e in Nation'	e Canital		WIW KVW KWK WDEN
WEAF WJAR W	TAG WRC	KSD	WHO	KSTP WEBC KOA KSL KGW KOMO KHQ KTAR
WEAF WJAR W KFSD KOMO W WOW KYW W	DAF WRE	N WJDX	WSMB	KGW KOMO KHO KTAR WBAP KPRC WGAR

10.20 11.00 C	0.00 0.20 DI -1 -1 DI 1 -1
10:30-11:00 Symphonic Rhythm Makers WEAF WEEI WJAR WRC WCAE WTAM WWJ WOW WDAF WMC WSB WJDX	8:00-8:30 Blackstone Plantation WEAF WCAE WTAM WWJ WSAI WIBO
WWJ WOW WDAF WMC WSB WJDX	KSD WOC WHO WOW WDAF KOA
WBEN WOC WHO 10:30-11:00 Don Amaizo	WEEI WJAR WTAG WCSH WFI WRC WGY WBEN
WACII WHP WIAS WIRW WADO WHY	8:30-9:00 Florsheim Frolic
WKRC WCAH WKBN WSPD WISN WBBM WCCO KSCJ WMT WDAY WNAX KOIL KLZ KDYL KOL KFPY KOIN KHJ	WEAF WTAG WFI WRC WGY WCAE
KLZ KDYL KOL KFPY KOIN KHJ	WWJ WSAI WGN KSD WDAF WEBC WRVA KVOO WJAX WIOD WSUN WFLA
KFRC KNX	WSM WMC WSB WSMB WJDX KPRC
11:00-11:15 Musical Aviators Orchestra WABC WLBZ WORC WPG WCAU WLBW	WOAI WKY KOA KSL KTHS WJAR WHAS WCSH WBAP WBEN KSTP
WCAO WTAR WDBJ WWNC WXYZ WBCM	8:45-9:00 Premier Salad Dressers
WSPD WDOD WREC WLAC WBRC WEBM	8:45-9:00 Premier Salad Dressers WABC WFBL WKBW WEAN WDRC WNAC
WNAX KOIL WIBW KFH KFJF KTRH	WCAU WJAS WMAL WCAO WADC WHK WGST WTOC WQAM WDBO WDAE WXYZ
KLZ	
11:00-11:30 Florence Richardson and Orchestra WEAF WGY WCAE WOC WHO WOW	KMBC KOIL KTRH KLZ KDYL KVI KOL KFPY KOIN KHJ KFRC
WEAF WGY WCAE WOC WHO WOW (WSAI off 11:15) (WJDX WMC WSB on 11:15) (KSD WTMJ WSM on 11:15)	
(KSD WTMJ WSM on 11:15)	9:00-9:30 McKesson Musical Magazine WEAF WEEI WJAR WTAG WCSH WFI WRC WBEN WTAM WSAI KSD WOW
11:30-12:00 Horace Heidt and His Orchestra WEAF WWJ WOC WHO KSD WGY	WRC WBEN WTAM WSAI KSD WOW WTMJ WEBC WRVA WIOD WFLA WSUN
(WDAF KSTP WEBC KOA on 11:45) (WOW	WSM WMC WSB WSMB WJDX KPRC
off 11:45) 11:30-12:00 Flatcher Handerson and His Orchestra	WKY KOA KSL KGO KECA KTAR KFSD KGW KOMO KHQ KVOO WOAI
11:30-12:00 Fletcher Henderson and His Orchestra WABC WLBZ WORC WLBW WMAL WCAO WTAR WDBJ WHK WKRC WWNC WXYZ WBCM WDOD WREC WLAC WBRC WFBM	KYW KOMO KHQ KVOO WOAI
WTAR WDBJ WHK WKRC WWNC WXYZ	9:00-9:30 Works of Great Composers
	WJZ WBZ WBZA WBAL WREN KDKA
KOIL WIBW KFH KFJF KTRH CFRB	9:00-9:30 Henry-George WABC WFBL WGR WEAN WDRC WNAC
WEAF WRC WKY WSM KVW (KSD on	WCAU WJAS WMAL WCAO WADC WHK
12:00-1:00 Phil Spitalny and His Orchestra WEAF WRC WKY WSM KYW (KSD on 12:30) (KSTP WGY off 12:30) (WDAF off 12:15	WCAU WJAS WMAL WCAO WADC WHK WKRC WXYZ WSPD WISN WOWO WFBM WBBM WCCO KMOX KMBC KOIL KFH
	9:30-10:00 The Philco Symphony Concert
Tuesday	9:30-10:00 The Philos Symphony Concert WABC WFBL WHEC WKBW WEAN WDRC WNAC WCAU WJAS WMAL WCAO WTAR
10:15-10:30 Through the Looking Glass	WADC WHK WKRC WGST WXYZ WSPD
10:15-10:30 Through the Looking Glass WJZ WBZ WBZA WHAM WLW WREN KFKX KDKA KWK CKGW KFAB WKY	WDOD WREC WLAC WBRC WDSU WISN WOWO WFBM WMAQ WCCO WMT KMOX
KVOO WOAI WBAP WGAR	KMBC KOIL KFH KFJF KRLD KTRH
3:30-4:00 Golden Gems	KTSA CERR
3:30-4:00 Golden Gems WEAF WEEL WTIC WTAG WTAM WFJC KSD WFLA WSUN KSTP WOC WHO	KTSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA
WEAF WEEL WITC WIAG WIAM WEJC KSD WELA WSUN KSTP WOC WHO	KTSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA
WEAF WEEL WITC WIAG WIAM WEJC KSD WELA WSUN KSTP WOC WHO	KTSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA
WEAF WEEL WTIC WTAG WTAM WFJC KSD WFLA WSUN KSTP WOC WHO CKGW 4:00-4:30 Italian Idyll WABC WLBZ WEAN WNAC WORC WPG WCAU WLBW WMAL WCAO WTAR WDBJ	KTSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA
WEAF WEEL WTIC WTAG WTAM WFJC KSD WFLA WSUN KSTP WOC WHO CKGW 4:00-4:30 Italian Idyll WABC WLBZ WEAN WNAC WORC WPG WCAU WLBW WMAL WCAO WTAR WDBJ	KTSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA
WEAF WEEL WTIC WTAG WTAM WFJC KSD WFLA WSUN KSTP WOC WHO CKGWW 4:00-4:30 Italian Idyll WABC WLBZ WEAN WNAC WORC WPG WCAU WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WSPD WDOD WREC WLAC WBRC WBBM WCCO KSCJ WMT KMOX KMBC WDAY KOLL KFJF	KTSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA
WEAF WEEL WTIC WTAG WTAM WFJC KSD WFLA WSUN KSTP WOC WHO CKGW 4:00-4:30 Italian Idyll WABC WLBZ WEAN WNAC WORC WPG WCAU WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WSPD WDOD WREC WLAC WBRC WBBM WCOO KSCJ WMT KMOX KMBC WDAY KOIL KFJF KTSA KJZ KEPC CEPB	KTSA CFRB State CFRB State
WEAF WEEL WTIC WTAG WTAM WFJC KSD WFLA WSUN KSTP WOC WHO CKGW 4:00-4:30 Italian Idyll WABC WLBZ WEAN WNAC WORC WPG WCAU WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WSPD WDOD WREC WLAC WBRC WBBM WCOO KSCJ WMT KMOX KMBC WDAY KOIL KFJF KTSA KJZ KEPC CEPB	KTSA CFRB State CFRB State
WEAF WEEL WTIC WTAG WTAM WFJC	KTSA CFRB State CFRB State
WEAF WEEL WTIC WTAG WTAM WFJC	KTSA CFRB 9:30-10:00 Death Valley Days WJZ
WEAF WEEL WTIC WTAG WTAM WFJC	KTSA CFRB 9:30-10:00 Death Valley Days WJZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WCSH WRC WGY WCAE WTAM WJ WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KYOO WKY KOA' KSL KGO KOMO KECA KGW KHQ WBAP WOC WRVA WFI WDAF WBEN KPRC 10:00-10:15 Graybar — Mr. and Mrs. WADC WCAO WNAC WKBW WBBM WKRC WHK WXYZ WOWO KMBC WABC WLBW KOIL WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WGST WBRC KRLD KIZ KTRH WFBM WLRA WCCO WISN
WEAF WEEL WTIC WTAG WTAM WFJC	KTSA CFRB 9:30-10:00 Death Valley Days WJZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WCSH WRC WGY WCAE WTAM WJ WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KYOO WKY KOA' KSL KGO KOMO KECA KGW KHQ WBAP WOC WRVA WFI WDAF WBEN KPRC 10:00-10:15 Graybar — Mr. and Mrs. WADC WCAO WNAC WKBW WBBM WKRC WHK WXYZ WOWO KMBC WABC WLBW KOIL WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WGST WBRC KRLD KIZ KTRH WFBM WLRA WCCO WISN
WEAF WEEL WTIC WTAG WTAM WFJC	KTSA CFRB 9:30-10:00 Death Valley Days WJZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WGY WCAE WTAM WWJ WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KYOO WKY KOA KSL KGO KOMO KECA KGW KHQ WBAP WOC WRVA WFI WDAF WBEN KPRC 10:00-10:15 Graybar — Mr. and Mrs. WADC WCAO WNAC WKBW WBBM WKRC WHK WXYZ WOWO KMBC WABC WLBW KOIL WCAU WJAS WEAN KMOX WFBL KOIL WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WGST WBRC KRLD KLZ KTRH WFBM WLRA WREC WTAR WLAC WOSU WDBJ KTSA KDYL KFH WWBN KHJ
WEAF WEEL WTIC WTAG WTAM WFJC	KTSA CFRB 9:30-10:00 Death Valley Days WJZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WGY WCAE WTAM WWJ WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KYOO WKY KOA KSL KGO KOMO KECA KGW KHQ WBAP WOC WRVA WFI WDAF WBEN KPRC 10:00-10:15 Graybar — Mr. and Mrs. WADC WCAO WNAC WKBW WBBM WKRC WHK WXYZ WOWO KMBC WABC WLBW KOIL WCAU WJAS WEAN KMOX WFBL KOIL WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WGST WBRC KRLD KLZ KTRH WFBM WLRA WREC WTAR WLAC WOSU WDBJ KTSA KDYL KFH WWBN KHJ
WEAF WEEL WTIC WTAG WTAM WFJC	KTSA CFRB 9:30-10:00 Death Valley Days WJZ WBAL WCKY KWK WBZ WJZ WBAL WCKY KWK WBZ 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WCSH WRC WGAF WJAR WEEI WTAG WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KYOO WKY KOA KSL KGO KOMO KECA KGW KHQ WBAP WOC WRVA WFI WDAF WBEN KPRC 10:00-10:15 Graybar Mr. a Mrs. WADC WCAO WNAC WEBW WBBM WKRC WHK WXYZ WOWO KMBC WABC WLBW KOIL WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WSST WBRC KRLD KLZ KTRH WFBM WLRA WCCO WISN WREC WTAR WLAC WDSU KFJF WHEC WDBJ KTSA KDYL KFH WKBN KHJ KOIN KFRC KOL KFPY 10:00-10:30 Westinghouse Pioneers WJZ WBZA WBAL KDKA KYW
WEAF WEEL WTIC WTAG WTAM WFJC	STR
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB St30-10-00 Death Valley Days WJZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR St30-10-00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WCSH WRC WGY WCAE WTAM WWJ WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KSO WKY KOA KSL KGO KOMO KECA KGW KHQ WBAP WOC WVA WFI WDAF WBEN KPRC WDAF WBEN KPRC W10-10-10-15 Graybar - Mr. and Mrs. WADC WCAO WNAC WKBW WBBM WKRC WHK WXYZ WOWO KMBC WABC WLBW WSPD WMAL WWNC WGST WBRC KRILD KLZ KTRH WFBM WLFA WCCO WISN WREC WTAR WLAC WDSU KFJF WHEC WTAR WJZ WBZ WBZA WBAL KDKA KYW WKW WSMB KGW KOA KSL KGO WTMJ KOMO WFEN WRVA WOAI WO
WEAF WEEL WTIC WTAG WTAM WFJC	STR
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WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB St30-10-00 Death Valley Days WJZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR St30-10-00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WCSH WRC WGY WCAE WTAG WCSH WRC WGY WCAE WTAG WSH WIBO KSD WHO WOW WTMJ KSTP WEBC KYOO WKY KOA KSL KGO KOMO KECA KGW KHQ WBAP WOC WRVA WFI WDAF WBEN KPRC W15 WOAF WBEN KPRC W15 WADF WADF WADF WADF WASH WWC WSH WSH WSTP WASH WWT WSTP WWT WSTP WHAT WSTP WHAT WSTP WHAT WSTP WHAT WSTP WHAT WTAG
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB ST30-10-00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR WEAF WIGH WI
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB St30-10-00 Death Valley Days W1Z WBAL WCKY KWK WBZ WBZA WWBZ WHAM KDKA WENR St30-10-00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WCSH WRC WGY WCAE WTAG WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KYOO WKY KOA/ KSL KGO KOMO KECA KGW KHQ WBAP WOC WRVA WFI WDAF WBEN KPRC WHO WOAV WHAM WAST WBEN KPRC WADC WCAO WNAC WKBW WBBM WKRC WHE WXYZ WOWO KMBC WABC WLBW KOIL WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WGST WBRC KRLD KLZ KTRH WFBM WLRA WEFE WKBC WKBN KHJ KOIN KFRC KOL KFPY WHEC WTAR WLAC WDSU KFJF WHEC WJAS WBAC KNJD KFRC KOL KFPY WBCO WTAR WLAC WSBM KSD WGAR WSM KSD WGAR WSM KSD WBSM WSM WGC WSM WGC WSM WGC WSM WGC WSM WGAR WSM WGM WSM WGM WSM WGM WSM WSM WSM WSM WSM WSM WSM WSM WHAM WCKY WHAM WCKY WGAR WGAR
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WIZ WBAL WCKY KWK WBZ 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WGAF WJAR WEEI WTAG WGAF WJAR WEEI WTAG WGAF WJAR WEEI WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KSD WHO WOW WTMJ KSTP WEBC KSD WHO WOW WTMJ KSTP WEBC KSD WHO WBAP WOC WRVA WFI WDAF WBEN KPRC 10:00-10:15 Graybar - Mr. and Mrs. WADC WCAO WNAC WKBW WBBM WKRC WHAD WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WGST WBRC KRLD WSPD WMAL WWNC WGST WBRC KRLD WREC WTAR WLAC WDSU WFBL KOIN KFRC KOL KFPY 10:00-10:30 Westinghouse Pioneers WJZ WBZ WBZA WBAL KDKA KYW KWK KPRC WEBC WJAX WSM WSM KGO KHQ WTMJ KOMO WREN WRVA WOAI WSB WIOD WCKY WHA WSUN KECA KSTP KTAR KFSD WJR WAPI WGAR WFAA WHAM WCKY 10:00-11:00 Lucky strike Dance Orchestra WEAF WEEI WJAR WTAG WCSH WEAF WEEI WJAR WTAG WSB WHO WTMJ WEBC WRVA WJAX WIOD WFLA WSUN WHAS WSM WMC WSB WSMB WJDX WOAI WYY KOA KGO WSMB WJDX WAYI WYAG WSB WSMB WJDX WAYI WYAG WSB WSMB WJDX WAYI WYAG WGO WSMB WJDX WAYI WYAG WGO WSMB WJDX WAYI WYAG WGO WSMB WJDX WAYI WYAG WSB WSMB WJDX WAYI WYAG WGO WSMB WJDX WAYI WYAG WAYI WATH WWATH WYAG WAYI WAYI WAT
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WIZ WBAL WCKY KWK WBZ 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WGAF WJAR WEEI WTAG WGAF WJAR WEEI WTAG WGAF WJAR WEEI WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KSD WHO WOW WTMJ KSTP WEBC KSD WHO WOW WTMJ KSTP WEBC KSD WHO WBAP WOC WRVA WFI WDAF WBEN KPRC 10:00-10:15 Graybar - Mr. and Mrs. WADC WCAO WNAC WKBW WBBM WKRC WHAD WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WGST WBRC KRLD WSPD WMAL WWNC WGST WBRC KRLD WREC WTAR WLAC WDSU WFBL KOIN KFRC KOL KFPY 10:00-10:30 Westinghouse Pioneers WJZ WBZ WBZA WBAL KDKA KYW KWK KPRC WEBC WJAX WSM WSM KGO KHQ WTMJ KOMO WREN WRVA WOAI WSB WIOD WCKY WHA WSUN KECA KSTP KTAR KFSD WJR WAPI WGAR WFAA WHAM WCKY 10:00-11:00 Lucky strike Dance Orchestra WEAF WEEI WJAR WTAG WCSH WEAF WEEI WJAR WTAG WSB WHO WTMJ WEBC WRVA WJAX WIOD WFLA WSUN WHAS WSM WMC WSB WSMB WJDX WOAI WYY KOA KGO WSMB WJDX WAYI WYAG WSB WSMB WJDX WAYI WYAG WSB WSMB WJDX WAYI WYAG WGO WSMB WJDX WAYI WYAG WGO WSMB WJDX WAYI WYAG WGO WSMB WJDX WAYI WYAG WSB WSMB WJDX WAYI WYAG WGO WSMB WJDX WAYI WYAG WAYI WATH WWATH WYAG WAYI WAYI WAT
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB St30-10-00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR WEAF WIGH WIGH
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WIZ WIZ WEEL WTAG WCSH WRC WEAF WJAR WEEL WTAG WCSH WBC WEAF WJAR WEEL WTAG WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KSD WHO WOW WTMJ KSTP WEBC KSD WHO WOW WFAM WSAI WIBO KECA KGW KHQ WBAP WOC WRVA WEI WDAF WBEN KPRC 10:00-10:15 Graybar - Mfr. and Mrs. WADC WCAO WNAC WKBW WBBM WKRC WHO WCAU WJAS WEAN KMOX WFBL KOIL WCAU WJAS WEAN KMOX WFBL WSD WAMA WWNC WST WBRC KRLD KIZ KTRH WFBM WLRA WCCO WISN WREC WTAR WLAC WDSU KFJF WHEC WDDJ KTSA KDYL KFH WKBN KHJ WHO WTMJ KOMO WREN WVAN WSM WMC WSMB KGW KOA KSL KGO KSTP KTAR KFSD WJR WAPI WGAR WEAF WEEL WJAR WTAG WCSH WHO WTMJ WEBC WRAJ WAPI WGAR WSMB WJDX WOAI WKY KOA KGO KECA KGW KHQ KOMO KTAR KFSD WIDO WDAY WAPI WBEN WIDO WDAY WAPI WBEN WISO WJEN WAPI WBEN WISO WJEN WAPI WBEN WIJO WJEN WREN WBZ WHAM WBZ WJZ WJZ WREN WBZ WHAM
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB St30-10-00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR WEAF WIGH KED WIGH KED WIGH KED WIGH KED WHO WW WIM WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KGO KOMO KECA KGW KHQ WBAP WOC WRVA WIFI WDAF WBEN KPRC WBAP WOC WRVA WHI WDAF WBEN KPRC WBAP WOC WRVA WHI WAT WAT WBEN WBAF
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB 9:30-10:00 Death Valley Days WIZ WBAL WCKY KWK WBZ WIZ WBAL WCKY KWK WBZ 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WSAI WIBO WSAI WEBO WRC WRVA WBED WWRO WTAD WHAD WHAD WWRD WTAD WHAD WSAI WIBO WKBN WHAD WCYO WSAI WSAI WIBO WKBN WHAD WCYO WSAI WEE WJAX WSAI WIBO WSAI WIBO WSAI WIBO WSAI WIBO WKBN WHAD WSAI WIBO WKBN WHAD WSAI WIBO WSAI WIBO WKBN WHAD WEE WATA WHAD WCYO WFAA WHAM WCO WHO WTMJ WEBC WRAI WSAI WSAI WSAI WSAI WSAI WYAI WGAR WHAM WCYO WHO WTMJ WEBC WRAI WSAI WSAI WTAG WCSH WHO WTMJ WEBC WRAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI WSAI
WEAF WEEL WTIC WTAG WTAM WFJC	STSA CFRB St30-10-00 Death Valley Days WIZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR St30-10-00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WCSH WRC WGY WCAE WTAG WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KSD WHO WOW WTMJ KSTP WEBC KSD WHO WBAP WOC WRVA WFL WOAF WBEN KPRC WFL WOAF WBEN KPRC WHE WAYZ WOWO KMBC WABC WLBW WSAI WIBO WKRC WHE WAYZ WOWO KMBC WABC WLBW WSPD WMAL WWAD WGST WGCO WISN WFL WSPD WMAL WWAD WGST WG

WMAL WCAO WTAR WDBJ WADC WHK WKRC WKBN WWNC WBT WGST WTOC WQAM WDBO WDAE WXYZ WBCM WSPD WDOD WREC WLAC WBRC WDSU WISN WOWO WFBM WBBM WCCO KSCJ WMT KMOX KLRA WDAY WNAX KOIL WIBW KFH KFJF KRLD KTRH KTSA KDYL KOL KFPY KOIN KHJ KFRC KNX CFRB	WREC WLAC WBRC WFBM WMAQ WCCO
WKRC WKBN WWNC WBT WGST WTOC	WREC WLAC WBRC WFBM WMAQ WCCO KSCJ KMOX KMBC WDAY KFJF KRLD
WQAM WDBO WDAE WXYZ WBCM WSPD	KTRH KFRC
WDOD WREC WLAC WBRC WDSU WISN	8:00-8:15 Listerine Program—Bobby Jones
WOWO WFBM WBBM WCCO KSCJ WMT	WEAF WEEL WTIC WJAR WTAG WCSH
KMOX KLRA WDAY WNAX KOIL WIBW	WLIT WRC WBEN WTAM WWJ WSAI
KLH KLL KEDA KUIN KHI KEDU	KSD WOC WHO WOW WPTF WIOD
KNA CEBB	WFLA WSUN WHAS WSM WSB WSMB WJDX WFAA WOAI KOA
11:00-11:30 Duka Ellington and His Orchastra	9.00 9.20 The Veest Francis
11:00-11:30 Duke Ellington and His Orchestra WEAF WFI WRC WFJC KSD WWJ WSAI WOC WHO CKGW WEEI WBEN	WJZ WBZ WBZA WHAM KDKA WREN
WSAI WOC WHO CKGW WEEL WBEN	WJR WEBC KFAB KWK KSTP KYW
WDAF	WGAR
11:00-11:30 Paul Tremaine and His Orchestra	WGAR
WABC WHEC WLBZ WEAN WNAC WORC	WEAF WTIC WJAR WTAG WRC WBEN
WCAU WHP WLBW WCAO WTAR WDBJ	WTAM WSAI WIBO KSD WOW WIOD
WWNC WXYZ WSPD WDOD WREC WLAC	WSM WSB WSMB WJDX WOAI KOA
WFBM WCCO WMT KMOX KMBC WDAY	KHQ KOMO KFSD KTAR KECA KSL
WNAX KOIL WIBW KFH KFJF KTRH	KGO KOA KVOO
KLZ KOL CFRB	8:15-8:30 U.S. Marine Band
11:30-12:00 Vincent Lopez and His Orchestra WEAF WFI KOA WRC KSTP WOC WHO WOW WJDX KSD WTAM WDAF WBEN	WABC WLBZ WEAN WNAC WORD WJAS
WEAF WEI KOA WKO KSIP WOO	WLDW WMAL WIAR WDDJ WWNC WAIZ
WHO WOW WIDE RED WIEW WINE	WEDM RECT MMA KWOA KWDC MDYA
WDEN	WNAY KEIE KRID KTSA KOI. KERC
Wednesday	CFRB
11:45-12:00 The Recitalists	### WEAF WEEL WJAR WTAG WCSH WLIT WRC WSAI KSD WOW WTAM KOA KVOO WFAA WOAI WKY KPRC WTIC KSL WGY WGN WEBC WDAF WCAE
WJZ WBAL KFAB WEBC WKY KOA	WRC WSAI KSD WOW WTAM KOA
WGAR	KVOO WFAA WOAI WKY KPRC WTIC
WEAR WEST WIAD WAVE WEST WITH	KSL WGY WGN WEBC WDAF WCAE
WEAF WEEL WAAR WING WOOD WILL WRO WREN WOAF WWI WSAI WDAF	WHO WOC WWJ WBEN
WGAR WGAR 11:45-12:00 Sunny Side Up WEAF WEEI WJAR WTAG WCSH WLIT WRC WBEN WCAE WWJ WSAI WDAF WTAM KFKX 3:00-3:30 Matinee Gems WJZ WBAL KDKA WREN KWK WRVA WJAX WJDX WHAM CKGW 3:30-3:45 Syncopated Silhouettes WABC WHEC WLBZ WORC WPG WCAU	WARC WIDZ WINAC WORC WICK
3:00-3:30 Matinee Gems	WIAS WIRW WMAI WTAR WORL WWNC
WJZ WBAL KDKA WREN KWK WRVA	WXYZ WRCM WSPD WDOD WREC WLAC
WJAX WJDX WHAM CKGW	WMAQ KSCJ WMT KMOX KMBC WDAY
3:30-3:45 Syncopated Silhouettes	WNAX KOIL KFH KFJF KRLD KTRH
WABC WHEC WLBZ WORC WPG WCAU	KTSA KLZ KFRC CFRB
WHP WLBW WMAL WCAO WTAR WDBJ	8:30-9:00 Luden's Novelty Orchestra
WHK WKRC WAIU WWNC WXYZ WBCM	WJZ WBZ WBZA WHAM KDKA KYW
WJZ WBAL KDRA WREN KWK WKVA WJAX WJDX WHAM CKGW 3:30-3:45 Syncopated Silhouettes WABC WHEC WLBZ WORC WPG WCAU WHP WLBW WMAL WCAO WTAR WDBJ WHK WKRC WAIU WWNC WXYZ WBCM WSPD WDOD WREC WLAC WBRC WFM WSPD WDOD WREC WALC WBRC WFM STOR WAT KMBC WDAY WIBW KFJF KTRH KLZ CFRB 3:30-4:00 Evening Stars WEAF WEEI WJAX WIOD WHAS WSM	KWK WREN CKGW KFAB WLW
WIDM KEIE KADH KIA CEDB	WEAR WEEL WIAD WTAC WOSH WILT
3:30-4:00 Evening Stars WEAF WEEI WJAX WIOD WHAS WSM WRC KPRC KYW WMC WAPI WKY WOAI WJDX WSB WSMB WFLA WSUN WTAG KOA KGO WFJC WFI WGY WCAE WSAI KSD WEBC KSTP WRVA WTAM WPDER WWI WAC WHO WEAR	WRC WGY WCAE CKGW WRVA WJAX
3:30-4:00 Evening Stars WEAF WEEI WJAX WIOD WHAS WSM WRC KPRC KYW WMC WAPI WKY WOAI WJDX WSB WSMB WFIA WSUN WTAG KOA KGO WFJC WFI WGY	KOA KSL KGO KGW KOMO KHO
WRC KPRC KYW WMC WAPI WKY	KOA KSL KGO KGW KOMO KHQ WSAI KSD WOC WHO WOW WWJ
WOAI WJDX WSB WSMB WFLA WSUN	WSMB KVOO KPRC WOAI KSTP WTMJ
WTAG KOA KGO WFJC WFI WGY WCAE WSAI KSD WEBC KSTP WRVA	KYW WHAS WSM WMC WSB KFI
WCAE WSAI KSD WEBC KSTP WRVA	WBEN WTAM 9:30-10:30 Palmolive Hour
WCAE WSAI KSD WEBC KSTP WRVA WTAM WPTF WWJ WOC WHO WBAP KPRC WBEN KSL CKGW KTHS	WEAF WEEL WJAR WTAG WCSH WLIT WRC WGY WCAE CKGW WRVA WJAX KOA KSL KGO KGW KOMO KHQ WSAI KSD WOC WHO WOW WWJ WSMB KVOO KPRC WOAI KSTP WTMJ KYW WHAS WSM WMC WSB KFI WBEN WTAM 9:30-10:30 Palmolive Hour WEAF WEEL WILL WJAR WTAG WCSH
5.00 5.30 Ashum Pork Cosing Orchestra	WEAF WEEI WTIC WJAR WTAG WCSH WLIT WRC WGY WCAE WSAI WGN KSD WOC WOW WSMB WTMJ KSTP
WARC WHEC WEAN WHP WIRW WCAO	WLIT WRC WGY WCAE WSAI WGN KSD WOC WOW WSMB WTMJ KSTP
WTAR WAILL WWNC WXYZ WBCM WDOD	WHAS WSM WMC WDAF WHO WSB
5:00-5:30 Asbury Park Casino Orchestra WABC WHEC WFAN WHP WLBW WCAO WTAR WAIU WWNC WXYZ WBCM WDOD WREC WLAC WBRC WCCO KSCJ WMT	WJAX WOAI KOA KSL KGO KGW
WDAY KFH KFJF KRLD KTRH KTSA	KOMO KHO WFAA KPRC WWJ WTAM KFI WBEN (KVOO of 10:00)
KLZ	KEI WREN (KVOO of 10:00)
6:15-6:25 Smith Ballew and His Orchestra WJZ KFAB WSM KOA KGO KTAR KGW WBAL	9:30-10:00 Camel Pleasure Hour WJZ WBZ WBZA WHAM KDKA WREN
WJZ KFAB WSM KOA KGO KTAR	WJZ WBZ WBZA WHAM KDKA WREN WLW KYW WSJS WRVA WJR KWK WIOD WJAX WFLA WSUN
KGW WBAL	WLW KYW WSJS WKVA WJK KWK
WARC WHEC WIRZ WEAN WNAC WORC	9-20 10-00 L. Poline Smalle Dreams
WADO WILEO WEEL WEAR WINAO WORD	WARC WERL WERW WEAN WNAC WCALL
WCAIL WHP WIAS WIRW WMAI WCAO	WINDO WIDE WINDS WEST WINDOW
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIIJ WWNC WXYZ	WIAS WIRW WMAL WCAO WADC WHK
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDOD WLAC WBRC KSCJ WDAY	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WOWO
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDOD WLAC WBRC KSCJ WDAY WJBW KFJF KTRH KOL KFRC	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WOWO WBBM WCCO KMOX KMBC KOIL
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDDD WLAC WBRC KSCJ WDAY WIBW KFJF KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WOWO WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDOD WLAC WBRC KSCJ WDAY WIBW KFJF KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer WABC WFBL WHEC WGR WEAN WDRC	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo WABC WHEC WLBZ WEAN WNAC WORC
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDOD WLAC WBRC KSCJ WDAY WIBW KFJF KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer WABC WFBL WHEC WGR WEAN WDRC WNAC WCAU WCAO WDBJ WTAR WADC	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WOWO WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo WABC WHEC WLBZ WEAN WNAC WORC WPG WCAU WJAS WLBW WMAL WTAR
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDODD WLAC WBRC KSCJ WDAY WIBW KFJF KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer WABC WFBL WHEC WGR WEAN WDRC WNAC WCAU WCAO WDBJ WTAR WADC WHK WKRC WAIU WWNC WGST WXYZ	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WOWO WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo WABC WHEC WLBZ WEAN WNAC WORC WPG WCAU WJAS WLBW WMAL WTAR WDBJ WKRC WWNC WXYZ WBCM WSPD
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDDD WLAC WBRC KSCJ WDAY WIBW KFJF KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer WABC WFBL WHEC WGR WEAN WDRC WNAC WCAU WHEC WAIU WWNC WGST WXYZ WSPD WDOD WREC WLAC WBRC WDBU WISH WGO WLAC WBRC WDBU WISH WGO WLAC WDBU WGO WDBU WGO WDBU WGO WDBU WGO WDBU WYST WYZ WSPD WDOD WREC WLAC WBRC WDBU WISH WGO WLAC WDBU WGO WHOW WGO WARD WGO WARD WAND WGO WAND WGO WARD WAND WGO WARD WAND WGO WARD WARD WARD WARD WARD WARD WARD WARD	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WOWO WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo WABC WHEC WLBZ WEAN WNAC WORC WPG WCAU WJAS WLBW WMAL WTAR WDBJ WKRC WWNC WXYZ WBCM WSPD WDOD WLAC WBRC WFBM WMAQ KSCJ WMYZ WMYZ WMOZ WDAY WJAY WJWW
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDDD WLAC WBRC KSCJ WDAY WIBW KFJF KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer WABC WFBL WHEC WGR WEAN WDRC WNAC WCAU WCAO WDBJ WTAR WADC WHK WKRC WAIU WWNC WGST WXYZ WSPD WDOD WREC WLAC WBRC WDSU WISN WFBM WGL WCCO KMOX KMBC KLRA KOUL KEIF WRB KTRH CEDD	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WOWO WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo WABC WHEC WLBZ WEAN WNAC WORC WPG WCAU WJAS WLBW WMAL WTAR WDBJ WKRC WWNC WXYZ WBCM WSPD WDOD WLAC WBRC WFBM WMAQ KSCJ WMT KMOX KMBC WDAY WNAX WIBW KFIF KTPA KTSA KLZ KOL CFBR
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDDJ WLAC WBRC KSCJ WDAY KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer WABC WFBL WHEC WGR WEAN WDRC WNAC WCAU WCAO WDBJ WTAR WADC WHK WKRC WAIU WWNC WGST WXYZ WSPD WDDD WREC WLAC WBRC WDSU WSPD WDDD WGE WCO KMOX KMBC KLRA KOIL KFJF WRR KTRH CFRB 7:45-8:700 "Back in the News in Washington"	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WOWO WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo WABC WHEC WLBZ WEAN WNAC WORC WPG WCAU WJAS WLBW WMAL WTAR WDBJ WKRC WWNC WXYZ WBCM WSPD WDOD WLAC WBRC WFBM WMAQ KSCJ WMT KMOX KMBC WDAY WNAX WIBW KFJF KTRH KTSA KLZ KOL CFRB 10:30-11:00 Columbic Concerts Programs
WJZ KFAB WSM KOA KGO KTAR KGW WBAL 7:00-7:30 Morton Downey — With Freddie Rich WABC WHEC WLBZ WEAN WNAC WORC WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDDDD WLAC WBRC KSCJ WDSY WIEW KFJF KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer WABC WFBL WHEC WGR WEAN WNAC WCAU WCAO WDBJ WTAR WADC WHK WKRC WAIU WWNC WGST WXYZ WSPD WDOD WREC WLAC WBRC WDSU WISN WFBM WGL WCCO KMOX KMBC KLRA KOIL KFJF WRR KTRH CFRB 7:45-8:00 "Back in the News in Washington" WEAF WRC KOA KECA KGO WGY	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo WABC WHEC WLBZ WEAN WNAC WORC WPG WCAU WJAS WLBW WMAL WTAR WDBJ WKRC WWNC WXYZ WBCM WSPD WDOD WLAC WBRC WFBM WMAQ KSCJ WMT KMOX KMBC WDAY WNAX WIBW KFJF KTRH KTSA KLZ KOL CFRB 10:30-11:00 Columbia Concerts Programs WABC WHEC WLBZ WEAN WNAC WORC
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WDODD WLAC WBRC KSCJ WDAY WIBW KFJF KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer WABC WFBL WHEC WGR WEAN WDRC WNAC WCAU WCAO WDBJ WTAR WADC WHK WKRC WAIU WWNC WGST WXYZ WSPD WDOD WREC WLAC WBRC WDSU WISN WFBM WGL WCCO KMOX KMBC KLRA KOIL KFJF WRR KTRH CFRB 7:45-8:00 "Back in the News in Washington" WEAF WRC KOA KECA KGO WGY WCAE WFJC WBEN WRVA WKY	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo WABC WHEC WLBZ WEAN WNAC WORC WPG WCAU WJAS WJBW WMAL WTAR WDBJ WKRC WWNC WXYZ WBCM WSPD WDOD WLAC WBRC WFBM WMAQ KSCJ WMT KMOX KMBC WDAY WNAX WIBW KFJF KTRH KTSA KLZ KOL CFRB 10:30-11:00 Columbia Concerts Programs WABC WHEC WLBZ WEAN WNAC WORC WPG WJAS WLBW WMAL WCAO WTAR
WCAU WHP WJAS WLBW WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBWCM WDDJ WLAC WBRC KSCJ WDAY KTRH KOL KFRC 7:30-7:45 Evangeline Adams, Astrologer WABC WFBL WHEC WGR WEAN WDRC WNAC WCAU WCAO WDBJ WTAR WADC WHK WKRC WAIU WWNC WGST WXYZ WSPD WDDD WREC WLAC WBRC WDSU WSPD WDDD WREC WLAC WBRC WDSU WSPN WFBM WGL WCOO KMOX KMBC KLRA KOIL KFJF WRR KTRH GFRB 7:45-8:00 "Back in the News in Washington" WEAF WRC KOA KECA KGO WGY WCAE WFJC WBEN WRVA WKY KOMO KFSD WOC WHO	WJAS WLBW WMAL WCAO WADC WHK WKRC WXYZ WSPD WREC WISN WBBM WCCO KMOX KMBC KOIL 10:00-10:30 Crescendo WABC WHEC WLBZ WEAN WNAC WORC WPG WCAU WJAS WLBW WMAL WTAR WDBJ WKRC WWNC WXYZ WBCM WSPD WDOD WLAC WBRC WFBM WMAQ KSCJ WMT KMOX KMBC WDAY WNAX WIBW KFJF KTRH KTSA KLZ KOL CFRB 10:30-11:00 Columbia Concerts Programs WABC WHEC WLBZ WEAN WNAC WORC WPG WJAS WLBW WMAL WCAO WTAR WDBJ WWNC WXYZ WBCM WSPD WDOD
WCAE WFJC WBEN WRVA WKY KOMO KFSD WSAI WIBO KSD WOC WHO WOW WDAF WAPI	WPG WJAS WLBW WMAL WCAO WTAR WDBJ WWNC WXYZ WBCM WSPD WDOD WFBM WMAO WCCO KSCJ WMT KMOX
WCAE WFJC WBEN WRVA WKY KOMO KFSD WSAI WIBO KSD WOC WHO WOW WDAF WAPI	WPG WJAS WLBW WMAL WCAO WTAR WDBJ WWNC WXYZ WBCM WSPD WDOD WFBM WMAO WCCO KSCJ WMT KMOX
WCAE WFJC WBEN WRVA WKY KOMO KFSD WSAI WIBO KSD WOC WHO WOW WDAF WAPI	WPG WJAS WLBW WMAL WCAO WTAR WDBJ WWNC WXYZ WBCM WSPD WDOD WFBM WMAO WCCO KSCJ WMT KMOX
WCAU WHP	WPG WJAS WLBW WMAL WCAO WTAR WDBJ WWNC WXYZ WBCM WSPD WDOD WFBM WMAO WCCO KSCJ WMT KMOX

${f WLIT} \\ {f WKY}$	WRC KYW	WCAE KSD	WRVA	WOC KSTP	WEBC WJAX		WXYZ	WJAS WSPD	WMAL WISN KOIL	WERM	WADC	WCCO
 WIOD 	KYW WSM	WSMB	KTHS	\mathbf{KPRC}	WJAX WOAI		KMOX	KMBC	KOIL		11002	
KOA KOMO	WSM KSL WJDX WOW WBEN	WGY	KECA WDAF	KGW WHAS	KHQ WTĂM	8:3	80-8:45 K WABC	altenbor WFRI	e Edits the WGR	News	WDRC	WNAC
\mathbf{WHO}	WOW	KFSD	WMC	WSB	WWJ		WORC	WCAU	WJAS	WMAL	WCAO	WADC
WAPI 11:00-11:30			4 His Or	shootes			WHK	WKRC	WJAS WXYZ KMBC	WSPD	wowo	WMAQ
					WORC	8:4	15-9:00 T	he Hami	ton Watel	ıman		
WPG	WHEC WCAU WWNC WFBM WDAY KTRH	WLBW	WCAO	WTAR	WDBJ		WABC	WFBL	WGR WMAL WSPD	WEAN	WNAC	WCAU
WREC	WFBM	WCCO	KSCJ	WMT	$f WDOD \\ KMOX$		WKRC	WXYZ	W MAL WSPD	WOWO	WADC	KMOX
KMBC	WDAY	WNAX	KOIL	WIBW	\mathbf{KFH}		KMBC	KOIL				
11:00-11:30	Vincent I	Onez and	His Orc	heetra		9:0	WJZ	nox-Dun WBZ	lap Orche WBZA WREN ne Picture	wbal	WHAM	KDKA
11:00-11:30 WEAF WOW off 11:1	WFLA	WSUN	WRC	WCAE (WWJ WHO	KSD		WIBO	KWK	WREN	WCKY		
WOW off 11-1	WJDX	WGY	WLIT	(WWJ	WTAM WDAF	9:0	0-9:30 Sa WABC	WHEC	ne Picture	worc	WEAN	WHP
on 11:18))				WDAF		WJAS	WLBW	WLBZ WMAL WWNC WBRC WNAX KLZ	WCAO	WTAR	WDBJ
11:30-12:00	Musical A WHEC	Aviators'	Orchestra WEAN	a WNAC	WORC		WHK	WKRC	WRRC	WERM	WCCO	WSPD
WCAII	WLBW	WCAO	WTAR	WDBJ	WKRC		WMT	WDAY	WNAX	KOIL	KFH	KFJF
WWNC	WXYZ	WBCM	WDOD	WREC KMBC	WBRC WDAY	9-0	KRLD ••••••••••••••••••••••••••••••••••••	KTSA rea Birth	KLZ	KOL	KFRC	
WNAX	WXYZ WCCO KOIL	WIBW	KFH	KFJF	KTRH		WEAF	WEEI	WJAR	WTAG	WCSH	WFI
$_{\mathrm{CFRB}}$							CKGW	WRC	day Party WJAR WGY KOA WWJ	$_{ m KSL}^{ m WSB}$	$\frac{\mathbf{W}\mathbf{S}\mathbf{M}}{\mathbf{W}\mathbf{K}\mathbf{Y}}$	$egin{array}{c} ext{WIOD} \ ext{WBAP} \end{array}$
	•	Thur	dor	,			WRVA	WSTP	WWJ	WSAI	$_{ m KSD}$	WDAF
10 00 10 15										WOW	WSMB WHO	$_{ m KGO}^{ m WJDX}$
10:00-10:15 WEAF WGY	WJAR	WTAG	WCSH	WFI	WRC		KECA	WFJC KOMO	KHQ	KGW	WAPI	WTAM
WGY	WCAE WTAM	WWJ	WSAI	KYW	KSTP	0.2	WBEN		t's Melod	Ma		
WRVA 11:30-11:45	Odorono.	WBEN Cutex Po	rogram	WHO		9:3	WEAF	WJAR	WWJ WSAI	WTAG WTAM	WCSH	WFI
11:30-11:45 WJZ WIBO	WHAM	KDKA	KWK	WREN	WLW		WRC WBEN	WCAE	WSAI	WTAM	WIBO	WGY
KV(II)	w.ir.	WHAA	WOAI	WBZ	WBZA	9:3	w дым 0-10:00 I	Detective	Story Ma	gazine		
3:00-4:00 U WABC	S. Navy	Rand	*****	TT71.0	Word		WABC	WFBL	Story Ma WKBW WMAL WSPD	WEAN	WDRC	WNAC
WCAU	WHEC	WLBZ	WEAN WMAL	WCAO	WORC WTAR		WKRC	WXYZ	WSPD	WOWO	WBBM	KMOX
$\mathbf{W}\mathbf{D}\mathbf{B}\mathbf{J}$	$\mathbf{w}\mathbf{H}\mathbf{x}$	WKRC	WAIU	W:WNC	WXYZ		K M BC:	KOII.				
WBCM	WSPD	WDOD	WREC WMT	WBRC	WFBM KMBC	9:3	0-10:00 N WJZ	WBZ	House Ens WBZA	wble WBAL	WLW	KSTP
WDAY	WCCO KOIL	WIBW	KFJF	KRLD	KTRH		WKY	WTMJ	WEBC	WHAS	WSM	WJAX
KLZ 3-30-3-45 C	CFRB	enade					KPRC KWK	KOA WREN	WRVA WIOD	WSB WJR	WBAP WSMB	KYW WOAI
3:30-3:45 CI WJZ	KDKA	WJR	WREN	KFAB	KOA		KECA	KGW	WIOD KOMO	KHQ	WAPI	WMC
$\begin{array}{c} \mathbf{W}\mathbf{L}\mathbf{W} \\ \mathbf{C}\mathbf{K}\mathbf{G}\mathbf{W} \end{array}$	WSM	WMC	WAPI	WFLA	WSUN	10:	00_10.20	KDKA	ann Han	KGO r		
4:30-5:00 U. WJZ	S. Army	Band	-	****	****		WABC	WFBL	WKBW WMAL WSPD KMOX KDYL	WEAN	WDRC	WNAC
WJZ · WSM	WLW KSTP	KWK WSMB	WREN	KFAB	WJAX		WKRC	WXYZ	WSPD	WDSU	WADC	WBBM
5:30-5:45 Ri	neo Talki	e	TTT 1 G	W. I.	TTT TO		WCCO	WMT	KMOX	KMBC	WNAX	KOIL
$egin{array}{c} ext{WEAF} \ ext{WRC} \end{array}$	WEEI WGY	WREN	WTAG WCAE	WTAM	WLIT							KOIN
KSD	WOC	WHO	WSAI	KYW		10:0	00-11:00	Lucky St	WJAR WCAE	e Orches	tra	*****
7:00-7:30 M WEAF WHO	id-Week WMC	Federation WIRO	n Hymn WW.I	WHAS	WOC		WEAF	WEEL	WJAR WCAE	WTAG WW.I	WSAI	WFI WBEN
WHO	KOA	WBEN		***************************************			ron	wow	WAY	WUAI	KUA	KSL
7:30-8:00 Vo	ice of Col	lumbia WEAN	WNAC	WORC	WCAII		WTMJ KYW	KVOO	$_{ m WHAS}$	WSM WJAX	${ m WMC} \\ { m KPRC}$	WSMB WEBC
WJAS	WLBZ WLBW WXYZ	WCAO	WTAR	WDBJ	WKRC		WRVA	WFLA	wsun	WSB	WFAA	KFSD
WWNC	WXYZ WFBM	WBCM	WDOD	WREC WMT	WLAC KMOX		KTAR off 10:30	(KGO	KGW (WOC	KFI WHO	KOMO KTHS o	KHQ n 10:30)
KMBC	WDAY	KFJF	KTRH	KFRC	KMOX	10:	30-11:00	Poet's G	old			
7:45-8:00 Fr WJZ	iendly Fiv	re Footno	tes WREN	ww	KFAB		WABC	WHEC	WLBZ	WEAN WLBW	WNAC	WORC
WHAS	WSM	WMC	WSB	WAPI	WSMB		WTAR.	WDBJ	wwnc	WXYZ	WBCM	WSPD
WJDX	WRVA	WPTF	WJAX	WIOD	WFLA				KSCJ	WMT WIBW	KMOX	KMIDO
WSUN KFSD	WBAL	KECA KDKA	KOMO WIBO	KOA	KTAR KSL		KTRH	KTSA	KLZ			KRLD
WGAR						11:0	00-11:30	Florence	Dichardes	n's Orch	estra	11.15)
8:00-9:00 Flo WEAF	weel	n Hour WTAG	- Kudy Va WJAX	wion	WJDX		WEAF (KSD	WCAE WOW	WFI WSM	(WWJ WSMB o	w SAI of n 11:15)	(WOC
WJAR	WCSH	WFI	WRC	WGY	WCAE		WHO or	11:05-1	1:10)			,
$\mathbf{W}\mathbf{H}\mathbf{O}$ $\mathbf{W}\mathbf{M}\mathbf{C}$	WOW WSB	WDAF WSMB	WERC	WHAS KOA	KTAR WRVA		WARC	Ben Bern WHEC	ie and Hi WLBZ	s′Urchest WEAN	ra WNAC	WORC
\mathbf{KSL}	KOMO	WOAI	WSM	WOC	WAPI		WCAU	WHP	WLBW	WMAL	WCAO	WTAR
\mathbf{KGO}	$_{ m KSTP}$	KECA WGN	$rac{ ext{KSD}}{ ext{KPRC}}$	CKGW WBEN	WTAM (WTM.I		WCAU WDBJ WREC	WWNC	WLBZ WLBW WXYZ WBRC	WECM	WSPD	WDOD WMT
KGW KTHS	WSAT	WBAP	WKY of	8:30)	•		KMUX	KMBC	WDAY	WNAA	KOIL	WIBW
8:15-8:30 Ba WABC	rbasol Pr	ogram	TATE A NO	MDBC.	WNAC		\mathbf{KFH}	KFJF	KTRH	KTSA	KLZ	KOL
WABC	WEBL	WERM	WEAN	WDRU	WNAC		CFRB					

11:30-12:00 Duke Ellington and His Orchestra							
WEAF WWJ off 11:50)			WFI on 11:45)	(KSTP			

Friday

11:00-12:00 NBC Music Appreciation Hour									
	WEAF	WJZ	WEEI	WJAR	WTAG	WCSH			
	WLIT	WRC	WGY	WCAE	WTAM	WWJ			
	WSAI	WGN	KYW	WENR	WIBO	KSD			
	WOC	who	wow	\mathbf{WDAF}	CKGW	WTMJ			
	KSTP	WEBC	WRVA	\mathbf{WPTF}	WJAX	WIOD			
	WFLA	WSUN	WHAS	WSM	WMC	WSB			
	WAPI	WJDX	WSMB	KVOO	WFAA	KPRC			
	WKY	WOAI	KOA	KSL	WBZ	WBZA			
	WBAL	WHAM	KDKA	WJR	wlw	KWK			
	WREN	KFAB	WBEN	WBAP					

7:15-7:30 Howard Lanin's St. Moritz Orchestra
WABC WLBZ WEAN WNAC WORC WCAU
WHP WJAS WLBW WCAO WTAR WDBJ
WWNC WXYZ WBCM WDOD WLAC WBRC
WFBM KSCJ WMT KFJF WIBW KTRH
KFRC

7:45-8:00 Brownbilt Footlites WREN KWK WPTF WJAX WSM WAPI WJZWBZ WBZA KFAB WTMJ WEBC WRVA WFLA WSUN WHAS WIOD WSMB WJDX WOAI WIBO KOA KSLKDKA WLW KSTP WGAR

8:00-8:30 Nestle's Program
WJZ WBZ WBZA WHAM WIBO KWK
WREN KFAB WJR WLW KDKA WGAR

8:00-9:00 Cities Service Concert Orchestra WTIC WLIT WRC WCAE WEAF WEEI WCSH WJAR. WOW KYW KSD WDAF KSTP WTMJ WKY
WOAI KOMO KGO
WTAG CKGW KECA woc KOA WEBC KGW WHO KHQ WSAI KSL WTAM WBEN WWJ (WFAA KPRC off 8:30)

8:15-8:30 Grand Opera Miniatures
WABC WLBZ WORC WPG WHP WJAS
WLBW WMAL WTAR WDBJ WWNC WBCM
WSPD WDOD WREC WLAC WBRC KSCJ
WMT KMOX KMBC WDAY WNAX KOLL
KFJF KTRH KTSA KLZ KOL KFRC

8:30-9:00 Weed Tire Chain Program
WABC WFBL WGR WEAN WDRC WNAC
WCAU WJAS WMAL WCAO WADC WKRC
WXYZ WSPD WOWO WMAQ WCCO KMOX
KMBC KOIL KFJF KRLD KLZ

8:45-9:00 Natural Bridge Revue

WJZ WHAM KDKA KWK WREN WJAX

WIOD WIBO WBZ WBZA WFLA WSUN

WRVA WJR

 9:00-9:30 Clicquot Club Eskimos
 WEAF
 WEAF
 WEAF
 WTIC
 WJAR
 WTAG
 WCSH

 WLIT
 WRC
 WOW
 WCAE
 WSAI
 WIBO

 KSD
 WWJ
 WDAF
 WOC
 WHO
 WGY

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9:00-9:30 Interwoven Pair KDKA WJAX WKY WJZ WHAM WMC WREN KPRC KWK WBZ WBZA KGW WSMB WIOD WFAA WJR WTMJ KSTP WCKY WSM WRVA KYW WAPI WEBC WHAS WSB WOAI KOA KSL KGO KOMO KHQ KECA KGW KFSD KTARWGAR WJR

9:00-10:00 True Story Hour
WABC WFBL WKBW WEAN WDRC WNAC
WCAU WJAS WMAL WCAO WADC WHK
WKRC WXYZ WSPD WOWO WMAQ KMOX
KMBC KOIL.

9:30-10:00 Armour Program WIZ WBZ WBZA WJR KYW WSB WREN KŠŤP WEBC WRVA WMC WGAR. WOAI KOA KSL KGO WKY WHAS KOMO KDKA WJAX KGW KHQ WJDX WTMJ WAPI WSMB KFI WIOD WHAM KWK WSM WLW

10:00-10:30 Crime Prevention Program
WEAF WJAR WCSH WCAE WWJ KSD
WSAI WDAF WRC WBEN

10:00-10:30 Armstrong Quakers

WJZ KDKA WBZ WBZA KYW KWK
WHAM KPRC WJR WTMJ WEBC WHAS

WSM WSB WOAI KOA WSMB KSL

KGW KOMO KHQ WMC KFI WBAP

WCKY KTHS KSTP KVOO WKY

10:00-10:30 Columbia Male Chorus

WABC WHEC WEAN WDRC WNAC WORC
WPG WJAS WCAO WTAR WADC WHK
WKRC WWNC WSPD WDOD WLAC WISN
WOWO WMAQ WCCO KSCJ KMOX KLRA
WDAY WNAX KOIL KFJF KRLD KTSA

10:30-11:00 RKO Theatre of the Air WEEI WJAR WTAG WLIT WEAF WGY WWJ WSAI WJAX WIOI WJDX KGO WDAF WSMB WKY WCAE WRVA WSAI KSD WIBO WIOD WSB WMC WOAI WOC KTHS WŘČ WRC KOA KGW KTAR KFSD WCSH WTAM WFLA WSUN KGW WCSH KFI KHQ KOMO wно KSL WBEN

11:00-12:00 Vincent Lopez and His Orchestra

WEAF WGY CKGW WTIC WOC WHO
(WRC WWJ of 11:15) (KOA KSTP WDAF
on 11:45) (KSD on 11:30) (WFL on 11:1511:30) (WFJC WLIT off 11:30)

Saturday

10:30-11:00 New World Salon Orchestra
WABC WHEC WLBZ WEAN WDRC WNAC
WORC WJAS WMAL WDBJ WAIU WWNC
WXYZ WDOD WBCM WREC WLAC WFBM
KSCJ WMT KMBC WDAY KOIL KFJF
KRLD KTSA CFRB

1:30-2:00 Savoy Plaza Orchestra
WABC WHEC WLBZ WEAN WCAU WHP
WJAS WMAL WCAO WTAR WDBJ WKRC

WAIU WWNC WXYZ WBCM WSPD WDOD WLAC WBRC WIBW CFRB 8:30-9:00 Fuller Man HIEF WAID
WBZ WBZA WBAL WHAM KDKA
KWK WREN KOA CKGW WHAS
KGO' KECA KGW KOMO KFAB
WIBO WKY WTMJ WMC WEBC WJZ WJR 3:30-4:00 Marionettes
WEAF WTAG WRC WCAE WTAM WOC
WHO WOW WTMJ KSTP WSB KPRC KHQWAPI WSMB WLW WJDX KSTP 4:30-5:00 Spanish Serenade -5-300 Spanish Serenade
WABC WLBZ WEAN WNAC WORC WFAN
WHP WMAL WCAO WTAR WDBJ WKRC
WAIU WWNC WXYZ WBCM WSPD WDOD
WREC WLAC WBRC WMAQ WBBM WCCO
KSCJ WMT KMOX KMBC WDAY KOIL
WIBW KFJF KRLD KTRH KTSA KLZ
KOL KFRC 8:30-9:00 Fletcher Henderson and His Orchestra F-9:00 Fletcher Henderson and His Orchestra
WABC WLBZ WEAN WNAC WORC WPG
WCAU WJAS WLBW WMAL WCAO WTAC
WDBJ WKRC WWNC WXYZ WBCM WSPD
WDODD WREC WLAC WBRC KSCJ WMT
KMOX KMBC WDAY WNAX KOIL WIBW
KFH KFJF KRLD KTRH KTSA KLZ KFRC 5:30-5:45 Tea Timers WEAF WEEI WWJ WHO WOW KOA 9:00-9:30 Carborundum Hour WABC WKBW WNAC WCAU WHK WXYZ WMAQ KMOX WRC WBEN WOC KGO KGW KTAR 5:35-6:00 Blue Aces — Dance Band WJZ WHAM KWK WHAS WMC WSB 9:00-10:00 General Electric Hour WJAR WTAG WCSH WFI WBEN WCAE WTAM WWJ KSD WOC WOW WDAF WEAF WEEL WRC WGY 6:00-6:45 Ozzie Nelson's Orchestra
WABC WFAN WHP WIAS
WDBJ WKRC WAIU WWNC WXYZ WBCM
WDOD WREC WLAC WBRC WBBM KSCJ
WMT KMBC WDAY KOIL
WIBW KFH
WIE WIE WIE WIE WIE WER WSAI WIBO WEBC WAPI WRVA WTMJ WKY KSTP WJAX WHAS WMC WOAI WSB WSMB WBAP KPRC WOAI KOA KOMO KHQ KSL KGO KFI KFSD KTAR KGW 9:30-10:00 Columbia Educational Features
WABC WLBZ WEAN WNAC WORC WPG
WFAN WHP
WDBJ WKRC WWNC WXYZ WBCM WSPD
WDOD WREC WLAC WBRC WFBM WCCO
KSCJ WMT KMBC WDAY WNAX KOIL KFJF KRLD KTSA KLZ KFRC CFRR 6:15-6:45 Smith Ballew and His Orchestra WJZ WBZ WBZA WRC KFAB KWK $\begin{array}{c} \textbf{7:00-7:15 Rodeheaver Sing} \\ \text{WEAF WJAR WFI} \\ \text{WTAM} \end{array}$ WIBW KFH KFJF KTRH KTSA KLZ KSTP WOW KOA KOL KFRC 10:00-11:00 Lucky Strike Dance Orchestra WEAF WEEI WJAR WTAG WCSH WFI 7:00-7:15 Freddie Rich and His Orchestra "GENERAL STREET OF THE STREET WRC WGY WSAI WGN KSD WHO WDAF WTMJ KSTP WEBC WIOD WFLA WSUN WHAS WGMR WJDX KYOO KGO WTAM WWJ WOC WOW WOW WRVA WJAX WMC WSB WFAA KPRC WOAL 7:15-7:30 Tastyeast Jesters
WJZ WHAM WCKY WREN KDKA WBZ
WBZA WBAL WRC WLW WGAR WPTF
WJAX WIOD WFLA WSUN KFI KOMO KHQ KTAR KFSD 10:00-11:00 Hank Simmons' Show Boat
WABC WHEC WLBZ
WPG WFAN WHP WJAS
WCAO WTAR WDBJ WKRC
WBCM WSPD WDOD WLAC
WMAQ WCOO KSCJ WMT
WDAY WNAX KOIL
KRLD KTRH KTSA KLZ WEAN WNAC WORC
WJAS WLBW WMAL
WKRC WWNC WXYZ
WLAC WBRC WFBM 7:30-8:00 Necco Candy Party — Henry Burbig WABC WFBL WHEC WGR WLBZ WEAN WNAC WORC 7:45-8:00 "The Highroad of Adventure"
WEAF WTAG WBEN WCAE WTAM WWJ
WSAI WOC WHO KSTP WEBC KGO KMOX KMBC KFH KFJF KOL KFSD KTAR KGW CFRB 10:00-11:00 Chicago Civic Opera WJZ WBZ WBZA WBAL WHAM KDKA WIBO KWK WREN WLW WGAR 7:45-8:00 Pickard Family WHAM KWK WREN WIBO WGAR W.IZ8:00-8:15 Dixies Circus WJZWBAL KDKA KYW WHAM WBZ WOAI KSTP KPRC WKY CKGW $\begin{array}{cccc} \textbf{11:00-11:15 Troubadour of the Moon} \\ \underline{\textbf{WEAF}} & \underline{\textbf{WFI}} & \textbf{WCAE} & \textbf{WWJ} & \textbf{WSAI} & \textbf{WOC} \end{array}$ WBZA wow WGAR WHO 8:15-8:30 "Rin-Tin-Tin Thriller"
WJZ WHAM WBAL KDKA WREN KFAB
KWK WBZ WBZA KYW WGAR 11:00-11:30 Jack Denny and His Orchestra
WABC WHEC WLBZ WEAN WNAC WORC
WPG WCAU WHP WLBW WMAL WCAO WTAR WDBJ WWNC WXYZ WBCM WSPD WDOD WREC WLAC WBRC WFBM KSCJ WMT KMBC WDAY WNAX KOLL WIBW KFJF KRLD KTRH KLZ KOL CFRB 8:15-8:30 Dixie Echoes -8-30 Dixie Echoes

WABC WLBZ WORC WPG WFAN WJAS

WLBW WMAL WCAO WTAR WDBJ WKRC

WWNC WXYZ WBCM WSPD WDOD WREC

WLAC WBRC WFBM WCCO KSCJ WMT

KMOX KMBC WDAY WNAX KOIL KFH

KFJF KTRH KTSA KOL KFRC CFRB 11:15-11:45 Horace Heidt and His Orchestra WEAF WFI KSD WOC WHO WTMJ WSMB off 11:30) (WOW off 11:45) (KSTP KOA on 11:45) (WCAE WJDX 8:15-8:30 Radiotron Varieties WEAF WEEI WJAR WGY WBEN WCAE WTAG WCSH WTAM WWJ WRC 11:30-12:00 Guy Lombardo and His Orchestra WABC WHEC WLBZ WEAN WNAC WORC
WPG WFAN WHP WLBW WMAL WCAO
WPG WFAN WHP WLBW WMAL WCAO
WTAR WDBJ WKRC WNAC WXYZ WBCM
WDODD WREC WLAC WBRC WFBM WCCO
KSCJ WMT KMBC WDAY WNAX KOIL
WIBW KFJF KRLD KTRH KLZ KOL WSAI WIBO KSD WOC WTMJ WRVA WJAX WHO WOW WDAF WIOD WFLA WSUN KPRC WSM WMC WSB WSMB WJDX WOAI WKY KOA KGO KSL KGW KOMO KHQ KTAR KFSD 8:30-9:00 The Silver Flute
WEAF WEEI WTAG WCSH WRC
WGY WCAE WWJ WSAI KSD CFRB 12:00-1:00 Rudy Vallee and His Orchestra
WEAF WRC WSB WJDX (WTAM KSD on
12:30) (WDAF KOA off 12:30) WFIWDAF

NOTICE OF COPYRIGHT

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KEY

Frequency in kilocycles. Wave lengths in meters. Second column symbols: * Verifies receptions 2c; sends station stamp 10c; † Verifies 2c; no stamp; ‡ Does not verify; § Did not reply. Third column shows night power in watts. Fourth column symbols: D, daytime only; S, Sunday only; Stations dividing time have same small figures; X means station has been granted permit to increase power; + means station has greater power during day; CP indicates station has construction permit only; Some Cuban and Mexican stations have odd frequencies; Correct kilocycles shown in small figures; N means NBC chain; C means Columbia chain; Z has been granted permit to change frequency: Y given permit to move to another city. Dn—This daylight station may use evening hours under certain conditions. Dashes (__) have no meaning.

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INDEX BITTE QUENCIES	AND DING NOMBERS	
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CJRM † 500 4 Moose Jaw, Sask. CJRW 500 4 Fleming, Sask. CNRO † 500 3 Ottawa, Ont. KFSD * 500 +N San Diego, Cal. WCAC 250 2+ Storrs, Conn. WCAO * 250 C Baltimore, Md. WGBS † 250 2+ New York City WMT * 500 C Waterloo, Iowa WOAN 500 1 Lawrenceburg, Tenn. WREC * 500 1+C Memphis, Tenn.	Jas. Richardson & Sons, Ltd. Jas. Richardson & Sons, Ltd. Canadian National Railways Airfan Radio Corp. Conn. Agricultural College Monumental Radio, Inc. General Broadcasting System, Inc. Waterloo Broadcasting Co. WREC, Inc. WREC, Inc.	
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620 kilocycles 483.6 meters	145	
KGW * 1000 +N Portland, Ore. KTAR * 500 +N Phoenix, Arizona WHA * 1000 1+N Clearwater, Fla. WLBZ * 500 C Bangor, Maine WSUN * 1000 1+N St. Petersburg, Fla. WTMJ * 1000 +N Milwaukee, Wis.	Oregonian Publishing Co. KTAR Broadcasting Co. Chamber of Commerce Maine Broadcasting Co., Inc. Chamber of Commerce Milwaukee Journal	CUT 0
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740 1 KMMJ WSB 750 1 TIC WJR XEQ 760 1 KVI WEW WJZ 770 1 KFAB WBBM WJBT 780 1	* kilo * kilo * kilo * kilo * * * * * * * * * * * * * * * * * * *	1000 1000	es 4 Dn N es 3 N es 3 CDn N es 3 IN ins es 3	Clay Center, Neb. Atlanta, Ga. Atlanta, Ga. Atlanta, Ga. San Jose, Costa Rica Detroit, Mich. Ciudad Juarez, Mex. G94.5 meters Tacoma, Wash. St. Louis, Mo. New York City Sep. 4 meters Lincoln, Nebr. Chicago, Ill.	The M. M. Johnson Co. Atlanta Journal Co. WJR, The Goodwill Station, Inc. Puget Sound Broadcasting Co., In St. Louis University National Broadcasting Co., Inc. KFAB Broadcasting Co. The Atlas Co., Inc. The Atlas Co., Inc.
740 1 KMMJ WSB 750 1 TIC WJR XEQ 760 1 KVI WEW WJZ 770 1 KFAB WBBM WJBT 780 1	* kilo * kilo * kilo * kilo * * * * * * * * * * * * * * * * * * *	1000 1000	es 4 Dn N es 3 N es 3 CDn n es 3 IN inc is ses 3	Clay Center, Neb. Atlanta, Ga. Atlanta, Ga. Atlanta, Ga. San Jose, Costa Rica Detroit, Mich. Ciudad Juarez, Mex. G94.5 meters Tacoma, Wash. St. Louis, Mo. New York City 89.4 meters Lincoln, Nebr. Chicago, Ill. Chicago, Ill. Chicago, Ill. Sel. 4 meters	The M. M. Johnson Co. Atlanta Journal Co. WJR, The Goodwill Station, Inc. Puget Sound Broadcasting Co., In St. Louis University National Broadcasting Co., Inc. KFAB Broadcasting Co. The Atlas Co., Inc. The Atlas Co., Inc.
740 1 KMMJ WSB 750 1 TIC WJR XEQ 760 1 KVI WEW WJZ 770 1 KFAB WBBM WJBT 780 1 CKYW	t kilo	1000 1000	es 4 Dn N es 3 N es 3 IN inc inc inc inc inc inc inc in	Clay Center, Neb. Atlanta, Ga. 199.8 meters San Jose, Costa Rica Detroit, Mich. Ciudad Juarez, Mex. 194.5 meters Tacoma, Wash. St. Louis, Mo. New York City 189.4 meters Lincoln, Nebr. Chicago, Ill. Chicago, Ill. Chicago, Ill. Chicago, Manitoba Winnipeg, Manitoba Winnipeg, Manitoba Winnipeg, Manitoba Winnipeg, Manitoba Winnipeg, Manitoba	The M. M. Johnson Co. Atlanta Journal Co. WJR, The Goodwill Station, Inc. WJR, The Goodwill Station, Inc. Puget Sound Broadcasting Co., Inc. St. Louis University National Broadcasting Co., Inc. The Atlas Co., Inc. The Atlas Co., Inc. Manitoba Telephone System Canadian National Railways
740 1 KMMJ WSB 750 1 TIC WJR XEQ 760 1 KVI WEW WJZ 770 1 KFAB WBBM WJBT 780 1	* kilo * kilo * kilo * kilo * * * * * * * * * * * * * * * * * * *	1000 1000	es 4 Dn N es 3 N es 3 CDn n es 3 IN inc is ses 3	Clay Center, Neb. Atlanta, Ga. Atlanta, Ga. Atlanta, Ga. San Jose, Costa Rica Detroit, Mich. Ciudad Juarez, Mex. G94.5 meters Tacoma, Wash. St. Louis, Mo. New York City Sep. 4 meters Lincoln, Nebr. Chicago, Ill.	The M. M. Johnson Co. Atlanta Journal Co. WJR, The Goodwill Station, Inc. Puget Sound Broadcasting Co., In St. Louis University National Broadcasting Co., Inc. KFAB Broadcasting Co. The Atlas Co., Inc. The Atlas Co., Inc.

			INI	DEX I	BY FREQUENCIES A	S AND DIAL NUMBERS			
	WISJ WMC WPOR WTAR XEW	 *- †	250 500 500 500 500	+ +N 1 1C	Madison, Wis. Memphis, Tenn. Norfolk, Va. Norfolk, Va. Mexico City	Wisconsin State Journal Bdcsg, Co. Memphis Commercial-Appeal WTAR Radio Corp, WTAR Radio Corp, Mexico Music Co.			
	<i>7</i> 90 1	cilo	cycle	es 3	379.5 meters	93			
١.	CMBS CMHC KGO WGY	 ‡	150 500 7500 50000	791 N N	Havana, Cuba Tuinucu, Cuba San Francisco, Cal. Schenectady, N. Y.	E. Artalejo Frank H. Jones National Broadcasting Co., Inc. General Electric Co.			
	800 1	tilo	cycle	es 3	374.8 meters	9/ K			
,	WBAP WFAA XEU XFC	† 	10000 50000 50 350	1XN 1N 805	Fort Worth, Texas Dallas, Texas Veracruz, Mex. Jalapa, Mex.	Carter Publications, Inc. News & Journal Natalio Ulibarri Gobierno del Estado de Veracruz 34			
	810 k	ilo	cycle	es 3	370.2 meters	89 DI			
<u>,</u> -	WCCO WPCH	*	7500 500	C D	Minneapolis, Minn. L	Northwestern Broadcasting, Inc. Eastern Broadcasters, Inc.			
	820 k	ilo	cycle	es 3	365.6 meters	84			
, '	WHAS XFI	† 	10000 1000	N 818	Louisville, Ky. Mexico City	Courier-Journal & Times Sria. de Ind., Commercio y Trabajo			
	830 k CMGA KOA WHDH WRUF XEG		cycle 300 12500 1000 5000 2000	834 N D Dn 829	Colon, Cuba Denver, Colo. Boston, Mass. Gainesville, Fla. Mexico City, Mex.	Leopoldo V. Figueros National Broadcasting Co., Inc. Matheson Radio Co., Inc. University of Florida G. Gutierrez, Jr.			
	840 k	ilo	cycle	\mathbf{s} 3	356.9 meters	,			
	CFCA CHCT CKLC CMC CNRD CNRT XEM	† † † *	500 1000 1000 500 1000 500 500	1 2 2 1 841	Toronto, Ont. Red Deer, Alta. Red Deer, Alta. Havana, Cuba Red Deer, Alta. Toronto, Ont. Tampico, Mex.	Star Publishing & Ptg. Co. G. F. Tull & Ardern, Ltd. Alberta Pacific Grain Co., Ltd. Cuban Telephone Co. Canadian National Railways Canadian National Railways Herbert A. Denny y Cia.			
	850 k	ilo	cycle	s = 3	352.7 meters [, ,			
,	KWKH NBA WWL		10000 750 5000	1 846 1	Shreveport, La. Balboa, Canal Zone New Orleans, La.	Hello World Broadcasting Corp. United States Navy Loyola University			
	860 k	ilo	cycle	s = 3	48.6 meters				
	KMO WABC WBOQ WHB XEJ XFX XFX	* * * * * * * * * * * * * * * * * * * *	500 5000 5000 500 101 500 500	+ Dr XC D 857 859	Tacoma, Wash. New York City New York City Kansas City, Mo. C. Juarez, Chih. Mexico City, Mex. Mexico City, Mex.	Herbert A. Denny y Cia. Hello World Broadcasting Corp. United States Navy Loyola University KMO, Inc. Atlantic Broadcasting Corp. Atlantic Broadcasting Corp. WHB Broadcasting Corp. WHB Broadcasting Co. Juan G. Buttner Secretaria de Educacion Publica			
	870 k	ilo	cycle	s 3	44.6 meters	77+			
1	WENR WLS		50000 5000	1N 1XN	Chicago, III.	Great Lakes Broadcasting Co. Agricultural Broadcasting Co.			
	880 k	ilo	cycle	s 3	40.7 meters				
	CHCS CHML CHRC CJCB CKCI CKCV CKOC CNRQ KFKA KLX	****	10 50 100 50 22.5 50 50 50 500 500	4 4 3 3 4 3 2+	Hamilton, Ont. Hamilton, Ont. Quebec, Que. Sydney, N. S. Quebec, Que. Quebec, Que. Hamilton, Ont. Quebec, Que. Greeley, Colo. Oakland, Cal.	The Hamilton Spectator Maple Leaf Radio Co., Ltd. E. Fontaine N. Nathanson Le "Soleil," Ltd. G. A. Vandry Wentworth Radio & Auto Sply. Co., Ltd Canadian National Railways Midwestern Radio Corp. Tribune Publishing Co.			

			11.4		of Predomicies A	ND DIAL NUMBERS
	KPOF	*	500	2	Denver, Colo.	Pillar of Fire, Inc.
	WCOC		500	+	Meridian, Miss.	Mississippi Broadcasting Co., Inc.
	WGBI	*	250 250	ľ	Scranton, Pa. Scranton, Pa.	Scranton Broadcasters, Inc. Scranton Times
	WQAN	*	250	1	Scranton, Pa.	Scranton Times
	WSUI	*	500		Iowa City, Iowa	University of lowa
	000					
	890 1	zil0	ocycle	es 3	36.9 meters	
	CFBO	*	50		St John N B	C A Munro I td
	CKCO	‡	50 100		St. John, N. B. Ottawa, Ont. Shenandoah, Iowa	C. A. Munro, Ltd.
	CKCO KFNF		500	2+	Shenandoah Iowa	Dr. G. M. Geldert Henry Field Co.
	KGJF KUSD WGST	*	250		Little Rock, Ark,	Church of the Nazarene
	KUŠD	*	500	2+ 1+C 2+ +N	Little Rock, Ark. Vermillion, S. D.	University of South Dakota
	WGST	*	250 250	1+C	Atlanta, Ga. Urbana, III.	Georgia School of Technology
	WILL.	*	250	2+	Urbana, III.	University of Illinois
	WJAR	*	250	+N	Providence, R. I. San Juan, P. R.	The Outlet Co.
	WJAR WKAQ WMAZ		500	1+	San Juan, P. R.	Radio Corp. of Porto Rico
	WMMN	; ‡	250 250	1+	Macon, Ga.	Junior Chamber of Commerce
	XES	' ÷	500	+	Fairmount, W. Va.	Holt-Rowe Novelty Co. Difusora Portena XES
	XET	4	1500		Monterrey, Mex.	Mexico Music Co.
		'	2000		monte of the second	Mexico Music Co.
	000 1	-:1	.arra1	. 2	22 1	~ ~ ~ · · · · · · · · · · · · · · · · ·
	900 F	CIIC	ocycle	2S J	33.1 meters	No state of the st
	CMCF KGBU	†	250 500		Havana, Cuba	Casa Karman
	ĶĢ BU	Ŧ *	500		Ketchikan, Alaska	Alaska Radio & Service Co.
j,	KHJ	*	1000	Ċ.	Los Angeles, Cal.	Don Lee, Inc.
	KSEI	Ţ	250	57.	Pocatello, Idaho Buffalo, N. Y.	KSEI Broadcasting Association, Inc.
	WILL	*	1000 1000	N	Buffalo, N. Y.	Buffalo Evening News
	KSEI WBEN WJAX WKY	*	1000	ZZZ	Jacksonville, Fla Oklahoma City Stevens Point, Wis.	City of Jacksonville WKY Radiophone Co.
	WLBL	*	2000	Ď	Stevens Point, Wis.	Wisconsin Dept. of Markets
				_	555, 6110 1 51110, 11 151	70+
	010 1	z:16	10xz01	20 2	20 6 motors	3 0 /
	210 1	CIIC	eyele		29.6 meters	
	CFQC CHNS	÷-	500	1	Saskatoon, Sask. Halifax, N. S.	The Electric Shop, Ltd.
	CHINS	*	500	3 2	Halifax, N. S.	Halifax Herald, Ltd.
	CJGC CMX	*	1000 1000		London, Ont. le	Free Press Printing Co., Ltd.
	CNRH		500	3	Havana, Cuba Halifax, N. S.	Francisco Lavin Canadian National Railways
	CNRH CNRL	*	500	2	London, Ont.	Canadian National Railways
	CNRS		500	1	Saskatoon, Sask.	Canadian National Railways Canadian National Railways
	920 1	cilo	cycle	es 3	25.9 meters	68+
	CMHD		250			
,	HHK	*	1000		Caibarien, Cuba	Manuel A. Alverez
é	KFEL		500	i	Port au Prince, Haiti Denver, Colo.	Eugene P. O'Fallon, Inc.
	KFXF	† *	500	ī	Denver, Colo. Denver, Colo. Seattle, Wash. Houston, Texas Chicago, III.	Republic of Haiti Eugene P. O'Fallon, Inc. Colorado Radio Corp.
	KOMO	† *	1000	N	Seattle, Wash.	Fisher's Blend Station Luc.
	KPRC	*	1000	+N D	Houston, Texas bearing	Houston Printing Co.
	WAAF		500	Ď	Chicago, Ill.	Drovers Journal Publishing Co.
	WBSO	Ŧ-	500	Ď	Neednam, Mass.	Houston Printing Co. Drovers Journal Publishing Co. Babson Statistical Organization, Inc.
	WWJ XFF	т	1000 250	N 915	Detroit, Mich.	The Detroit, News
	Ai I		230	919	Chihuahua, Mex.	Gobierno del Estado de Chihuahua
	020 1	.:1.	03701	. 2	22 1	1 99
	930 1	(110	Cycle		22.4 meters	·e /
	CJCA CFRC	*	500	4	Edmonton, Alta. Kingston, Ont. Wolfville, N. S. Midland, Ont.	The Edmonton Journal, Ltd.
	CFRC		500		Kingston, Ont.	Queen's University
	CKIC		50	3	Wolfville, N. S.	Acadia Academy
	CKPR CNRE		50	3	Widiand, Ont.	Midland Broadcasting Corp.
V	KFWI	÷~	500 500	4 1	Edmonton, Alta.	Canadian National Railways
	KGBZ	,	500	2⊥	San Francisco, Cal. York, Nebr.	Radio Entertainments, Inc.
	KMA	*	500	$\tilde{2}^{\perp}$	Shenandoah, Iowa	Dr. George R. Miller May Seed & Nursery Co.
	KROW	*	500	ĩ∔x	Oakland, Cal.	Educational Broadcasting Corp.
	KROW WBRC	*	500	+C	Birmingham, Ala.	Birmingham Broadcasting Co., Inc.
	WDBJ	*	250	+C	Birmingham, Ala. Roanoke, Va.	Richardson-Wayland Elec. Corp.
	WIBĞ	*	50	2+ 2+ 1+X +C +C D	Elkins Park, Pa.	Birmingham Broadcasting Co., Inc. Richardson-Wayland Elec. Corp. St. Pauls P. E. Church
	0404				10.0	
	940 k	tilo	cvcle	es 3	19.0 meters	
1	KGU	+	1000	_	Honolulu Howeii	Marion A Marleony
	KOIN	*	1000	Č.	Portland Ore	Marion A. Mulrony KOIN, Inc.
	KOIN WAAT		300	C D	Jersey City, N. I.	Bremer Broadcasting Corp.
	WCSH	*	1000	Ŋ	Portland, Maine	Congress Square Hotel Co.
	WDAY	*	1000	Ĉ	Honolulu, Hawaii Portland, Ore. Jersey City, N. J. Portland, Maine Fargo, N. D.	WDAY, Inc.
	WFIW	*	1000		riopkinsvine, Ry.	WDAY, Inc. WFIW, Inc.
	WHA	~-	750	Ď	Madison, Wis.	University of Wisconsin

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		cilc	cycle	s	315.6 meters	hi it].
V	CMCQ KFWB KGHL KMBC WRC	*- *- †	1000 1000 1000 1000 500	955 C N	Havana Cuba Hollywood, Cal. Billings, Mont. Kansas City, Mo. Washington, D. C.	Andres Martinez Warner Bros. Bros Northwestern Aut Midland Broadcas National Broadcas	adcasting Corp. to Supply Co., Inc. sting Co., Inc. sting Co., Inc.	
	960 1	cilc	cycle	es a	312.3 meters			}
V	CFCY CFRB CHCK CHWC CJBR CKCK CNRR CNRX XED	* * - + - *	250 4000 30 500 500 500 500 4000 10000	1 2C 1 3 3 3 3 2 961	Charlottetown, P. E. I. Toronto, Ont. Charlottetown, P. E. I. Regina, Sask. Regina, Sask. Regina, Sask. Regina, Sask. Toronto, Ont.	R. H. Williams & Cooperative Whea Leader Publishing Canadian Nations Canadian Nations	Corp., Ltd. Sons. Ltd. at Producers. Ltd.	
	970 1	cilc	cycle	s	309.1 meters			
\p^	KJR WCFL	*	5000 1500	ÑĎı	Seattle, Wash. I n Chicago, III.	Northwest Broads Chicago Federation	casting System, Inc. on of Labor	ксуs. - 1040
	980 1	cilc	cycle	s	305.9 meters	60		MTRS.
į.	KDKA XER		50000 100	N 984	Pittsburgh, Pa. Mexico City, Mex.	Westinghouse Ele F. Armida y Cia.	c. & Mfg. Co.	288.3 DIAL
	990 1	cilc	cycle	s i	302.8 meters			
	CMBD WBZ-A	Ť	150 15000	995 1NY	Havana, Cuba Springfield, Mass. 🎺 📂	Luis Perez Garcia Westinghouse Ele	c. & Mfg. Co.	
	1000	kil	locycl	es	299.8 meters	57+]
,	KFVD WHO WOC XEI XEK	* * *	250 5000 5000 101 101	Dn 1N 1N 999	Culver City, Cal. Des Moines, Iowa Davenport, Iowa Morelia, Mexico Mexico City	Los Angeles Broad Central Broadcast Central Broadcast Carlos Gutierrez Arturo Martinez	ting Co. ting Co.	
	1010	kil	locycl	es	296.8 meters	200]. [
}	CFLC CKCR CMBW CMBZ KGGF KOW WHN WIS WNAD WPAP WQAO WRNY	* * * * * * * * * * * * * * * * * * * *	50 50 150 150 500 500 250 250 250 250 250	3 3 2 1 C+ 2 1 1	Prescott, Ont. Waterloo, Ont. Marianas, Cuba Havana, Cuba S. Coffeyville, Okla. San Jose, Cal. New York City Columbia, S. C. Norman, Okla. New York City New York City New York City New York City	Radio Association John Patterson M. Alvarez Manuel y G. Sala Powell & Platz Pacific Agricultur Marcus Loew Boo South Carolina B University of Okle Palisades Amusen Calvary Baptist C Aviation Radio St	s al Foundation, Ltd. king Agency roadcasting Co., Inc ahoma nent Park hurch	CUT OUT ON DOTTED LINES
		kil	locycl	es	293.9 meters	J - 7 - 7 - 3] []
1/	KFKX KYW WRAX	* †	10000 10000 250	1N 1N D	Chicago, Ill. Chicago, Ill. Philadelphia, Pa.	Westinghouse Ele Westinghouse Ele WRAX Broadcasti	c. & Mfg. Co.	17 E
	1030	kil	ocycl	es	291.1 meters	33		ES
	CFCF CNRV XEB	†	500 500 1000		Montreal, Que. Vancouver, B. C. Mexico City, Mex.	Canadian Marcon Canadian Nations El Buen Tono, S.	al Railways	
		kil	ocycl	es	288.3 meters	524]
	KRLD KTHS WKAR WMAK XEV	* * *	10000 10000 1000 1000 101	1C 1N D Dn 1035	Dallas, Texas Hot Springs, Ark. East Lansing, Mich. Buffalo, N. Y. Puebla, Mex.	KRLD Radio Corp Chamber of Com Michigan State C Buffalo Broadcast	merce ollege	

/	1050	ki	locyc	les	285.5 meters	·
	CMKC	*	150	1045	Santiago de Cuba	M. P. Martinez
	KFKB KNX	*	5000 5000	Dn X	Milford, Kansas Hollywood, Cal.	KFKB Broadcasting Assn., Inc. Western Broadcast Co.
	1060	ki	locyc	les	282.8 meters	3.0
			500	Dn	Portland, Ore.	KWII Broadcast Co., Inc.
	KWJJ WBAL	*	10000	1N	Baltimore, Md. Norfolk, Nebr.	KWJJ Broadcast Co., Inc. Consolidated Gas Elec. & Pwr. Co.
	WJAG WTIC	*	1000 50000	Dn 1N	Hartford, Conn.	Norfolk Daily News Travelers Broadcasting Service Corp.
	1070	ki.	locyc	les	280.2 meters	45.00
			150		Havana, Cuba	E. Perera
	CMBT CMCB	¥-	150		Havana, Cuba Havana, Cuba	M. D. Autran
	KJBS WCAZ	4	100 50	D	San Francisco, Cai.	Julius Brunton & Sons Co. Superior Broadcasting Service
	WDZ	Ŧ-	100	D	Carthage, III. Tuscola, III.	James L. Bush
	WTAM	*	50000	N	Cleveland, Ohio	National Broadcasting Co., Inc.
		ki	locycl	les	277.6 meters	45 -
. ,	WBT	*	5000	C	Charlotte, N. C.	Station WBT, Inc. Wilbur Glenn Voliva
	WCBD WMBI	*	5000 5000	1 Dn 1 Dn	Zion, III. Chicago, III.	Wilbur Glenn Voliva Moody Bible Institute
	1000	1,:1	002701	00		
		KI	locycl		275.1 meters	76-47
1	KMOX XEL		10	1CX 1091	St. Louis, Mo. Saltillo, Coah.	Voice of St. Louis, Inc. Antonio Garza Castro
_	1100	1_21	l = ====1		·	
		K1	locycl	es	272.6 meters	
	CMKD KGDM	*	250	DX	Santiago, Cuba Stockton, Cal	E. F. Peffer
1/	WLWL WPG	*	5000	1	Stockton, Cal. New York City	Missionary Society of St. Paul
1	WPG XETA	*	5000	iC	Atlantic City, N. J. & Mexico City	WPG Broadcasting Corp.
	XETA		1000		Mexico City	111
1	1110	kil	locycl	.es	270.1 meters	p pts.
/	KSOO WRVA	*	2000 5000	Dn N	Sioux Falls, S. D. Richmond, Va.	Sioux Falls Broadcasting Assn., Inc.
		•		•	Ricilliona, va.	Larus & Bros. Co., Inc.
	1120	kil	locycl	es	267.7 meters	43
	CFJC CHGS		15		Kamloops, B. C. Summerside, P. E. I. Lethbridge, Alta. Spokane, Wash. Los Angeles, Cal.	N. S. Dalgleish & Sons R. T. Holman, Ltd.
	CHGS	*	100		Summerside, P. E. I.	R. T. Holman, Ltd.
	CJOC KFIO	†	50 100	Ď.	Spokane, Wash.	Harold R. Carson Spokane Broadcasting Corp.
/	KFSG	*	500	3	Los Angeles, Cal.	Echo Park Evang, Assn.
	KMIC	*	500	3Y		Dalton's, Inc. Radio Sales Corp.
	KRSC KTRH	‡	50 500	D 2C	Seattle, Wash. Houston, Texas Orlando, Fla.	Radio Sales Corp. Rice Hotel
	WDBO	*	500	+C	Orlando, Fla.	Orlando Broadonetina Co. Inc
	WDEL	t	250	+C +X	Wilmington, Del.	WDEL, Inc.
	WHAD	*	250 250	1 1C	Wilmington, Del. Milwaukee, Wis. Milwaukee, Wis.	WDEL, Inc. Marquette University Evening Wisconsin Co. Agricultural & Mech. College
	WISN WTAW	*	250 500	2	Milwaukee, Wis. College Station, Texas	Agricultural & Mech. College
				_		Agricultural & Mech. College
	1130	kil	ocycl	es	265.3 meters	424
/	CMBC	*	150		Havana, Cuba	Domingo Fernandez Cruz
	CMQ KSL	*-	150 5000	Ñ	Havana, Cuba	Jose Fernandez
	ŴĬĴD	*	20000	C Dn	Salt Lake City Mooseheart, Ill.	Radio Service Corp. of Utah Loyal Order of Moose
	WJJD WOV		1000	D	New York City	International Broadcasting Corp.
	XEC XEF	*-	50 105	1133	Toluca, Mex.	Jesus R. Benavides
	XEH		105	1131 1132	Oaxaca, Oax. Monterrey, Mex.	Frederico Zorrila Ing. Constantino de Tarnava
						Ing. Constantino de Tarnava
/	/1140	kil	locycl	es	263.0 meters	221
/	KVOO	*	5000	1N	Tulsa, Okla.	Southwestern Sales Corp.
V	WAPI		5000	1N	Birmingham, Ala. 💆	Alabama Polytechnic Institute

In in man Person

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Guadalajara, Jal.

Wingham, Ont.

Hammond-Calumet Broad, Corp.

Alberto Palos Sauza

Radio & Electric Shop

WWAE

XEA

10-BP

100

101

	1210	kilo	ocyc	les	247.8 meters	34
	CFCO CFNBK CJOR CKMC CKMC CKPC KDFLR KFOR KFSM KFSM KGCR KGMP KGCR WBAX WCBS WCBW WBDC WGBB WHBF WHBU WJBI WJBI WJBI WJBY WJBY WMRJ WMRJ WMRJ WMRJ WMRJ WMDAW WMDAW WMDAW WMDAW WMDAW WMDAW WMRJ WMDAW	*	100 50 100 100 100 100 100 100 1	les	Chatham, Ont. Fredericton, N. B. Chilliwack, B. C. Sea Island, B. C. Sea Island, B. C. Cobalt, Ont. Preston, Ont. Casper, Wyo. Devils Lake, N. D. Lincoln, Nebr. Cape Girardeau, Mo. San Bernardino, Cal. Watertown, S. D. Elk City, Okla. Dodge City, Kans. Fresno, Cal. Pasadena, Cal. Shreveport, La. Zanesville, Ohio Wilkes-Barre, Pa. Springfield, Ill. Yonkers, N. Y. Chicago, Ill. Providence, R. I. Harrisburg, Ill. Chicago, Ill. Freeport, N. Y. Gulfport, Miss Rock Island, Ill. Anderson, Ind. Poynette, Wis. Red Bank, N. J. Lewisburg, Pa. Gadsden, Ala. Mansfield, Ohio Ithaca, N. Y. Providence, R. I. Richmond, Va. Jamestown, N. Y. Manitowoc, Wis. Pawtucket, R. I. Thomasville, Ga. Greenville, Miss.	Western Ontario "Better Radio" Club James S. Neill & Sons, Ltd. Chilliwack Broadcasting Co., Ltd. G. C. Chandler R. L. MacAdam Metal Shingle & Siding Co. Donald Lewis Hathaway KDLR, Inc. Howard A. Shuman Hirsch Battery & Radio Co. J. C. & E. W. Lee Cutler's Radio Brdcstg. Service, Inc. Bryant Radio & Electric Co. Dodge City Broadcasting Co. James McClatchy Co. Pasadena Presbyterian Church Hello World Broadcasting Corp. Roy. W. Waller John H. Stenger, Jr. H. L. Dewing & Chas. Messter Westchester Broadcasting Corp. Clinton R. White Dutee W. Flint First Trust & Savings Bank Emil Denemark, Inc. Harry H. Carman Great Southern Land Co., Inc. Beardsley Specialty Co. Citizens Bank Wm. C. Forrest Monmouth Broadcasting Co. Bucknell University Gadsden Broadcasting Co., Inc. Mansfield Broadcasting Co., Inc. Mansfield Broadcasting Co., Inc. Lutheran Assn. of Ithaca The Lincoln Studios, Inc. Havens & Martin, Inc. Peter J. Prinz A. E. Newton Francis M. Kadow Shartenburg & Robinson Co. Stevens Luke J. Pat. Scully World Battery Co., Inc.
	WSEN WSIX WSOC WTAX	† †	100 100 100 100	2	Columbus, Ohio Springfield, Tenn. Gastonia, N. C. Springfield, III.	Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. A. J. Kirby Music Co. WTAX, Inc.
/	1220 CMCA KFKU KWSC WCAD WCAE WDAE WREN	kilo	100 500 1000 500 1000 1000 1000	les 1225 1 + D N C 1N	Havana, Cuba Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans.	M. Cruz University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co.
p	1230 KFQD KGGM KYA WBIS WFBM WNAC WPSC WSBT	kilo	100 250 1000 1000 1000 1000 500 500	les + 1C 2C D	Anchorage, Alaska Albuquerque, N. Mex. San Francisco, Cal. Mex. Boston, Mass. Indianapolis, Ind. Messon, Mass. State College, Pa. South Bend, Ind.	Anchorage Radio Club New Mexico Broadcasting Co. Pacific Broadcasting Corp. Shepard Broadcasting Service, Inc. Indianapolis Power & Light Co. Shepard Broadcasting Service, Inc. Pennsylvania State College South Bend Tribune
,′	1240 CMKX KTAT WACO WXYZ	kilo ‡	iōōō 1000 1000	les	241.8 meters Holguin, Cuba Ft. Worth, Texas Waco, Texas Detroit, Mich.	S. A. T. Broadcast Co. Central Texas Broadcasting Co., Inc. Kunsky-Trendle Broadcasting Corp.
						•

WK.te.C

INDEX BY FREQUENCIÉS AND DIAL NUMBERS

			INL	CA E	SI FREQUENCIES AN	ID DIAL N	UNIDERS		
	1250	kil	ocycl	es	239.9 meters	30			
	KFMX KFOX KIDO WAAM	**, **	1000 1000 1000 1000	2 1+X	Northfield, Minn. Long Beach, Cal. Boise, Idaho	Boise Broa	Warinner, Inc	on.	
U	WAAM WCAL WDSU	*	1000 1000	2 C	Newark, N. J. Northfield, Minn. New Orleans, La.	WAAM, In St. Olaf Co Jos. H. Uh	ollege alt		
i	WDSU WGCP WLB	†	250 1000	1 2	Newark, N. J. St. Paul, Minn.	May Radio	N Hroadcast (o	rp.	
	WODA WRHM		1000 1000	1 2	Paterson, N. J. Minneapolis, Minn.	Richard E Minnesota	of Minnesota O'Dea Broadcasting	Corp.	
		kil	ocyc1	_	238.0 meters [129			
	KOIL KRGV KVOA	*	1000 500	C 1	Council Bluffs, Iowa Harlingen, Texas	Mona Mot KRGV, In Robert M.	or Oil Co.		
V	KVOA KWWG WLBW	*-	500 500	D I	Tucson, Ariz. Brownsville, Texas	Robert M. Herald Pu	Riculfi b. Co. e Program Co:		
	WTOC	*	500 500	C+	Oil City, Pa. Savannah, Ga.	Radio-Wir Savannah	e Program Cor Broadcasting	rp. Co.	
	1270	kil	ocyc1	es	236.1 meters	28			
	KFUM KGCA KOL	*	1000 50	$\bar{2}\bar{D}$	Colorado Springs, Colo. Decorah, Iowa	Charles W	. Greenlev		
	KOL KTW KWLC	†	1000 1000	3C	Decorah, Iowa Seattle, Wash. Seattle, Wash. Decorah, Iowa Grand Rapids, Mich.	Seattle Rr First Presi	oadcasting Co. oyterian Churc	eh e	
V	WASH	*	100 500	2D 1	Decorah, Iowa Grand Rapids, Mich.	Luther Co WASH Bro	llege oadcasting Cor	p.	
	WEAI WFBR	*	1000 500	D	Baltimore, Md.	Cornell Ur Baltimore	niversity Radio Show, I	inc.	
	WJDX WOOD		1000 500	N 1	Jackson, Miss. For Grand Rapids, Mich.	Lamar Lif	e Insurance Co Stiles, Inc.	.	
	1280	kil	ocyc1	es	234.2 meters [2.7			
	CMCH KFBB		15 1000	1285 +	Havana, Cuba Great Falls, Mont.	Hernani T Buttrey B	orralbas roadcast, Inc.		
1	WCAM	*	500 500	1	Camden, N. J. Asbury Park, N. J.	 Radio Ind 	roadcast, Inc. mden ustries Broadc	ast Co.	
	WDOD WIBA	*	1000 500	+C	Chattanooga, Tenn. Madison, Wis.	WDOD Bro Capital Ti	oadcasting Cor mes Co.	ъ.	
	WOAX WRR		500 500	î C	Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Trenton, N. J. Dallas, Texas	WOAX, In City of Da	ic. Ilas		
		kil	ocyc1	es	232.4 meters [26			ксуs. 1310
٠,٠	KDYL KFUL KLCN	*	1000 500	C 1	Salt Lake City by Galveston, Texas	Intermour Will H. Fo	ntain Broadcas rd	ting Corp.	MTRS.
	KLCN KTSA WEBC	* † *	50 1000	D 1+C	Galveston, Texas Blytheville, Ark. San Antonio, Texas	C. L. Lint:	zenich Broadcast Co.		228.9
	WEBC WJAS	*	1000 1000	C+	Superior, Wis. Pittsburgh, Pa.	Head of La	ake Broadcasti Radio Supply	ng Co. House	DIAL
	WNBZ		50	D	Saranac Lake, N., Y.	Smith & N	Aace		
		kil	ocyc1		230.6 meters	25			
	KFH KFJR KGEF	*	1000 500	2C	Wichita, Kansas Portland, Ore.	Ashley C.	tion KFH Co. Dixon & Son ethodist Churc	_	
سمي ا	KTBI	*	1000 1000	4 4	Los Angeles, Cal. Los Angeles, Cal.	Bible Inst	itute of Los Ar	ch igeles	l q
	KTBR WBBR	*-	500 1000	3 1	Portland, Ore. Brooklyn, N. Y.	M. E. Brov People's P	ulpit Associati	on	2
	WEVD WHAP	*	500 1000	1	New York City New York City	Debs Mem Defenders	orial Radio Fu of Truth Socie	ınd, Inc. etv. Inc.	Ŧ
	WHAZ	*	500 1000	Î N	Troy, N. Y. Miami, Fla.	Rensselaei	Polytechnic I ams Broadcast	nstitute	Ž
	WOQ	*	1000	2	Kansas City, Mo.	Unity Sch	ool of Christia	nity	CUT OUT ON DOTTED LINES
		kil	ocyc1	es	228.9 meters [24			TED
1	KCRJ KFBK	†	100 100		Jerome, Ariz. Sacramento, Cal.	Chas. C. R Jas. McCla	lobinson atchy Co. lical College		E
"م	KFGQ KFIU	†	100 10	7	Boone, Iowa Juneau, Alaska	Boone Bib Alaska Ele	lical College ctric Light & I	Power Co.	NE C
	KFJY	*	100	7	Ft. Dodge, Iowa	C. S. Tuny			1"
					C 4F 1				

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			11/1	JEA I	OI FREQUENCIES AN	D DIAL NUMBERS
	KFPL	ŧ	100		Dublin, Texas	C. C. Baxter
	KFPM	‡	15	8	Dublin, Texas Greenville, Texas	C. C. Baxter The New Furniture Co.
	KFUP		100	8	Denver, Colo.	Fitzsimmons General Hospital
	KFXJ KFXR		50	8X Y	Edgewater, Colo.	Western Slope Broadcasting Co.
	KFXR	*	100	+	Edgewater, Colo. Oklahoma City St. Joseph, Mo. Wolf Point, Mont.	Exchange Ave. Baptist Church KGBX Inc.
	KGBX KGCX	-	100 100	c +	Wolf Point Mont	First State Bank of Vida
	KGEZ	Ŧ-	100	\bar{c}	Kalispell, Mont.	Chamber of Commerce
	KCFW	† † † † *	100		Rayenna Neb	Central Nebraska Broadcasting Corp.
	KIT	÷	50		Ravenna, Neb. Yakima, Wash. Medford, Ore.	Carl E. Haymond
	KMED	÷	50		Medford, Ore.	Carl E. Haymond Mrs. W. J. Virgin Robert M. Dean
	KRMD	Ť	50	9	Shreveport, La.	Robert M. Dean
	KTLC	*	100	\mathbf{x}	Houston, Tex.	Houston Broadcasting Co.
	KTSL KTSM		100	9	Shreveport, La. El Paso, Texas	G. A. Houseman W. S. Bledsoe & W. T. Blackwell
	KTSM	*	100	X 9 2 7	El Paso, Texas	W. S. Bledsoe & W. T. Blackwell
	KWCR	Ι	100 75		Cedar Rapids, Iowa	Harry F. Paar KXRO, Inc.
	KXRO	† †	100		Aberdeen, Wash.	RARO, Inc.
	WBOW WBRE	*	100 100		Terre Haute, Ind. Wilkes-Barre, Pa.	Banks of Wabash, Inc. Louis G. Baltimore WCLS, Inc. Eagle Broadcasting Co.
	WCLS	*	100	ī	Joliet, Ill.	WCLS Inc.
	WDAH		100	2	El Paso. Texas	Eagle Broadcasting Co.
	WEBR	†	100	+	El Paso, Texas Buffalo, N. Y. Royal Oak, Mich.	nowell broadcasting Co., inc.
	WEXL WFBG	+	50		Royal Oak, Mich.	Royal Oak Broadcasting Co.
	WFBG	*	100	3	Altoona, Pa.	Royal Oak Broadcasting Co. Wm. F. Gable Co.
	WFDF	*	100		Altoona, Pa. Flint, Mich.	Frank D. Fallain
	WGAL	*	100	5	Lancaster, Pa.	WGAL, Inc.
	WGH WHAT	*	100	5 C 4X 3	Lancaster, Pa. Newport News, Va. Philadelphia, Pa.	Hampton Roads Broadcasting Corp.
	WHAI	† *	100	4X	Philadelphia, Pa.	Independence Broadcasting Co.
	WJAC WJAK WKAV	*	100 - 50	6	Johnstown, Pa.	Johnstown Automobile Co.
	WKAV	*	100		Marion, Ind. Laconia, N. H.	Marion Broadcasting Co. Laconia Radio Club
	WKRB	*	100	ī	Toliet III	Sanders Bros. Radio Station
	WKBB WKBC WKBS	*	100		Birmingham, Ala. Galesburg, Ill. Muncie, Ind. Auburn, N. Y.	R. B. Broyles Furniture Co.
	WKBS	*	100		Galesburg, Ill.	Permil N. Nelson
	WLBC	t	50	ē	Muncie, Ind.	Donald A Burton
	WMBO	† ‡	100		Auburn, N. Y. New Bedford, Mass. Union City, Tenn.	Radio Service Laboratories New Bedford Broadcasting Co. Tittsworth's Radio & Music Shop
	WNBH		100	`-,	New Bedford, Mass.	New Bedford Broadcasting Co.
	WOBT	† *	100	+	Union City, Tenn.	Tittsworth's Radio & Music Shop
	WOL WRAW	*	100	5XZ	Washington, D. C.	American Broadcasting Co.
	WRBI	*	50 20		Reading, Pa. Tifton, Ga. Knoxville, Tenn.	Reading Broadcasting Co. Kent's Furniture & Music Store
	WROL		100		Knovville Tenn	Stewart Broadcasting Co.
	WSAT	‡	100		Grove City, Pa.	Grove City College
	WROL WSAJ WSJS	_	100		Grove City, Pa. Winston-Salem, N. C.	Stewart Broadcasting Co. Grove City College Winston-Salem Journal Co.
	WTEL	*	50	4X	Philadelphia, Pa.	Foulkrod Radio Engineering Co.
			100	\mathbf{CP}	Marquette, Mich.	C. C. McLeod
						24
	1320	1-11	ocycl	99	227.1 meters	
	1020		ocyci		_	
/	KGHF KGIQ KGMB	Ť	250 250	X+ 1+	Pueblo, Colo	C. P. Ritchie & J. E. Finch
/	KGIQ		250	1+	Twin Falls, Idaho	Radio Broadcasting Corp.
	KGMB	Ť	500	z	Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho	Honolulu Broadcasting Co., Ltd.
	KID	Ι	250	1+	Idaho Falls, Idaho	KID Broadcasting Co.
	WADC WSMB	†	1000 500	C	Akron, Ohio New Orleans, La.	Allen T. Simmons Saenger Theatre & Maison Blanche Co.
	WSIVID	*	300	14	New Orleans, La.	Saenger Theatre & Maison Blanche Co.
			_			<u> </u>
,	1330	kil	ocycl	es	225.4 meters	2.3
		*				v
	KGB KSCJ	*	250 \ 1000	X 1+C	San Diego, Cal.	Pickwick Broadcasting Corp.
	WDRC	*	500	C	Sioux City, Iowa Hartford, Conn.	Perkins Bros. Co.
	WSAI	*	500	Ñ	Cincinnati Ohio	Doolittle Radio Corp. Crosley Radio Corp., Lessee
	WTAO	*	1000	îc	Cincinnati, Ohio Eau Claire, Wis.	Gillette Rubber Co.
	1112		1000	10	Data Claire, Wis.	2 2-
	1240	1 - 1	1		222 7	
	1340	K1I	ocycl	.es	223.7 meters	
1	KFPW		50	D	Fort Smith Ark	Southwestern Hotels Co.
	KFPY	*	1000	č	Fort Smith, Ark. Spokane, Wash.	Symons Broadcasting Co.
	WCOA	*	500		Pensacola, Fla.	City of Pensacola
	WCOA WSPD	*	500	C+	Pensacola, Fla. Toledo, Ohio	Toledo Broadcasting Co.
	,					7./
	1350	ki1	ocycl	es	222.1 meters	7 /
		1/11	Jeyer	-	_	1-1
1	CMJC	z-	7555	::-	Camaguey, Cuba St. Louis, Mo.	
1	KWK	*	1000	N	St. Louis, Mo.	Greater St. Louis Broadcasting Corp.
	KWK WAWZ WCDA	*	250 250	1	New York City New York City New York City New York City	Pillar of Fire
	WUDA		250 250	1	New York City	Italian Educ. Broadcasting Co., Inc.
	WKBQ WMSG		250 250	1	New York City	Standard Canill Co., Inc.
	WINIOG		230	1	new fork city	Madison Sq. Garden Brdcstg. Corp.

			IINI	DEX .	BI-FREQUENCIES A	IND DIAL NUMBERS
	1360	kilo	ocyc	les	220.4 meters	20
t	KGER KGIR KPSN WCSC WFBL WGES WJKS WQBC	* † * * * *	1000 500 1000 500 1000 500 1000 300	4 4 C+2 1+ 1+ CP E	Long Beach, Cal. Butte, Mont. Pasadena, Cal. Charleston, S. C. Syracuse, N. Y. Chicago, Ill. Gary, Ind. Vicksburg, Miss.	C. Merwin Dobyns KGIR, Inc. Pasadena Star-News Jordan & Burk Onondaga Radio Broadcasting Corp. Oak Leaves Broadcasting Station, Inc. Johnson-Kennedy Radio Corp. Delta Broadcasting Co., Inc.
	1370	kilo	ocyc	les	218.7 meters	19
	KCRC KFBI KFJIZ KFLX KFJX KFJX KFJX KFJX KGDA KGGFL KGMC KONO KGGFL KGMC KONO KONO WBJW WHEDO WHEDO WHEDO WHEDO WHEDO WHEDO WHEDO WHEDO WHEDO WHEY WHENO WHEY WHENO WHEN	†* _ †* _* † † † † † * * † † * * _ † _ * _ † * _ † * _ * _ * _ *	100 50 100 100 100 100 100 100 100 100 1	2+ 3 	Enid, Okla. Everett, Wash. Astoria, Ore. Grand Forks, N. D. Ft. Worth, Texas Galveston, Texas Tucson, Ariz. Mitchell, S. D. Oklahoma City Mannell, S. D. Oklahoma City Mass. San Antonio, Texas Marshfield, Ore. Berkeley, Cal. Seattle, Wash. Kansas City, Mo. Hayward, Cal. Glens Falls, N. Y. Danville, Va. Baltimore, Md. Philladelphia, Pa. Rome, Ga. Fort Wayne, Ind. Mount Orab, Ohio Memphis, Tenn. Calumet, Mich. Jackson, Mich. Detroit, Mich. Lexington, Mass. Lynchburg, Va. Tampa, Fla. Patchogue, N. Y. St. Albans, Vt. Williamsport, Pa. Hattiesburg, Miss. Wilmington, N. C. Racine, Wis. Buffalo, N. Y. Augusta, Me.	Champlin Refining Co. Leese Bros. KFJI Broadcasters, Inc. University of North Dakota Estate of H. C. Meachem George Roy Clough Tucson Motor Service Co. Mitchell Broadcasting Corp. Oklahoma Broadcasting Corp. Oklahoma Broadcasting Co., Inc. W. E. Whitmore KGKL, Inc., Opr. by Ragsdale Auto W. W. McAllister Mission Broadcasting Co. H. H. Hanseth, Inc. First Congregational Church KVL, Inc. Wilson Duncan Broadcasting Co. Leon P. Tenney W. N. Parker and H. H. Metcalfe Clarke Electric Co. Baltimore Broadcasting Corp. WELK Broadcasting Station, Inc. Dolies Goings Fred C. Zieg F. P. Moler Broadcasting Station WHBQ, Inc. Upper Michigan Broadcasting Co. WIBM, Inc. James F. Hopkins, Inc. Lexington Air Stations Lynchburg Broadcasting Corp. F. J. Reynolds Nassau Broadcasting Corp. A. J. St. Antoine C. R. Cummins Woodruff Furniture Co., Inc. Wilmington Radio Association Racine Broadcasting Corp. Seneca Vocational School Albert S. Woodson
	1380	12:12	202201	Ios	217.3 meters	, , , , , , , , , , , , , , , , , , ,
	KOH KQV KSO WKBH WSMK	† † * *	500 500 500 1000 200	1 1 1 2	Reno, Nevada Pittsburgh, Pa. Clarinda, Iowa La Crosse, Wis. Dayton, Ohio	Jay Peters Doubleday-Hill Electric Co. Berry Seed Co. WKBH, Inc. Stanley M. Krohn, Jr.
	1390	kilo	ocve ¹	les	215.7 meters	
j	KLRA KOY KUOA WHK	* * †	1000 500 1000 1000	IC IC C	Little Rock, Ark. Phoenix, Ariz. Fayetteville, Ark. Cleveland, Ohio	Arkansas Broadcasting Co. Nielson Radio & Sporting Goods Co. University of Arkansas Radio Air Service Corp.

4.7

1400 kilocycles 214.2 meters

CMBY		200	1405	Havana, Cuba
KLO	*	500	X	Ogden, Utah
KOCW	*	250	+	Chickasha, Okla.
WBAA	Ť	500	1+	Lafayette, Ind.
WBBC	*	500	1+	Brooklyn, N. Y.
WCGU	*	500	2	Brooklyn, N. Y.
WCMA	t	500	1	Culver, Ind.
WFOX		500	2	Brooklyn, N. Y.
WKBF	*	500	1	Indianapolis, Ind.
WLTH	*	500	2	Brooklyn, N. Y.
WSDA		500	2	Brooklyn, N. Y.

Lino E. Cosculluala
Peery Building Co.
College for Women
Purdue University
Brooklyn Broadcasting Corp.
U. S. Broadcasting Corp.
General Broadcasting Corp.
Paramount Broadcasting Co.
Indianapolis Broadcasting, Inc.
The Voice of Brooklyn, Inc.
Paramount Broadcasting Co.

1410 kilocycles 212.6 meters

KFLV	t	500	4	Rockford, Ill.
KGRS	*	1000`	1	Amarillo, Texas
WBCM	*	500	С	Bay City, Mich.
WDAG	*	250	1X	Amarillo, Texas 🐇 🦈
WHBL	*	500	4	Sheboygan, Wis.
WHIS	t	250		Bluefield, W. Va.
WLEX		500	2	Lexington, Mass.
WODX	*	500	3	Mobile, Ala,
WRBX	*	250		Roanoke, Va.
WSFA	+	500	3	Montgomery, Ala.
WSSH	t	500	2	Boston, Mass.

Rockford Broadcasters, Inc.
Gish Radio Service
James E. Davidson
National Radio & Broadcasting Corp.
Press Pub. Co.
Daily Telegraph
Lexington Air Stations
Mobile Broadcasting Corp.
Richmond Development Corp.
Montgomery Broadcasting Co., Inc.
Tremont Temple Baptist Church

1420 kilocycles 211.1 meters

1420	K1J	locyci	les	211.1 meters
KBPS		100	4	Portland, Ore.
KFIZ	*	100		Fond du Lac, Wis.
KFQU	*	100	5X.	Holy City, Cal.
KFQW		100		Seattle, Wash.
KFXD	*	100	Χ̈́Υ	Nampa, Idaho
KFXY		100		Flagstaff, Ariz.
KFYO	Ť	100	+	Flagstaff, Ariz. Abilene, Texas
KGFF		100	Ý	Alvæ-Okla.
KGGC	Ť	100	+ Y 5	San Francisco, Cal.
KGIW		100		Trinidad, Colo.
KGIX	†	100		Las Vegas, Nevada
KGKX		100		Sand Point, Idaho
KGVO		100	CPD	Missoula, Mont. Red Oak, Iowa
KICK	*	100		Red Oak, Iowa
KLPM	†	100		Minot, North Dakota
KORE		100		Eugene, Ore.
KTAP	†	100		San Antonio, Texas
KXL_{-}		100	4	Portland, Ore.
KXYZ		100	\mathbf{X}	Houston, Texas
WEDH	*	100		Erie, Pa.
WEHS		100	2	Cicero, Ill.
WELL	†	50	Ž X	Battle Creek, Mich.
WFDW	*	100		Talladega, Ala.
WHDL	*	10	ĎΧ	Tupper Lake, N. Y.
WHFC		100	2	Cicero, Ill.
WIAS	†	100		Ottumwa, Iowa
WIBR	*	50		Steubenville, Ohio
WILM	*	100		Wilmington, Del.
WJBO	*	100		New Orleans, La.
WKBI	*	100	2	Chicago, Ill.
WLBF		100		Kansas City, Kas.
WMBC	*	100	X+	Detroit, Mich.
\mathbf{WMBH}		100	+	Joplin, Mo.
WPAD	† *	100		Paducah, Ky.
WSPA		100	+	Spartanburg, S. C.
WTBO	*	100		Cumberland, Md.

Benson Polytechnic Institute
Reporter Printing Co.
W. E. Riker
KFQW, Inc.
Service Radio Co.
Mary M. Costigan
T. E. Kirksey
KGFF Broadcasting Co.
Golden Gate Broadcasting Co.
Leonard E. Wilson
Las Vegas, Nevada, Radio Corp.
C. E. Twiss and F. H. McCann
Mosby's Incorporate
Red Oak Radio Corp.
John B. Cooley
Eugene Broadcasting Station
Alamo Broadcasting Station
Alamo Broadcasting Station
Alamo Broadcasting Co.
KXL Broadcasters, Inc.
Harris County Broadcast Co.
Erie Dispatch-Herald
WEHS, Inc.
Enquirer-News Co.
Raymond G. Hammett
Tupper Lake Broadcasting Co., Inc.
Triangle Broadcasters
Iowa Broadcasting Co.
George W. Robinson
Delaware Broadcasting Co., Inc.
Valdemar Jensen
Fred L. Schoenwolf
WLBF Broadcasting Co.
Michigan Broadcasting Co., Inc.
Edwin Dudley Aber
Paducah Broadcasting Co.
Voice of South Carolina
Associated Broadcasting Corp.

1430 kilocycles 209.7 meters

KECA 1000 N Los Angeles, Cal. KGNF 500 D North Platte, Neb WBAK 500 1X+ Harrisburg, Pa.

Pacific Development Radio Co. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Memphis Broadcasting Co. Pennsylvania Broadcasting Co. Memphis Broadcasting Co.

	1440	ki	locyc	les	208.2 meters	·, ·, ·, ·	1
	KLS WBIG WCBA WHEC WMBD WOKO WSAN WTAD	* * * * †	250 500 250 500 500 500 250 500	D 1 2C 3+ 2Y 1 3	Oakland, Cal. Greensboro, N. C. Allentown, Pa. Rochester, N. Y. Peoria Heights, III. Poughkeepsie, N. Y. Allentown, Pa. Quincy, III.	Warner Bros. North Carolina Broadcasting Co. B. B. Musselman Hickson Electric & Radio Corp. Peoria Heights Radio Laboratory WOKO, Inc. Allentown Call Publishing Co., Inc. Ills. Stock Medicine Broadcasting Co.	,
	1450	ki	locyc	1es	206.8 meters		}
	KTBS WBMS WGAR WHOM WKBO WNJ WSAR WTFI	*	1000 250 500 250 250 250 250 250	1 N 1 1 1	Shreveport, La. Hackensack, N. J. Cleveland, Ohio Jersey City, N. J. Jersey City, N. J. Newark, N. J. Fall River, Mass. Toccoa, Ga.	Tri-State Broadcasting System, Inc. WBMS Broadcasting Corp. WGAR Broadcasting Co. New Jersey Broadcasting Corp. Camith Corp. Radio Investment Co. Doughty & Welch Electric Co., Inc. Toccoa Falls Institute	J
	1460	ki	locyc	les	205.4 meters]
/	KSTP WJSV	*	10000 10000	NX 	St. Paul, Minn. Alexandria, Va.	National Battery Broadcasting Co. Independent Publishing Co.	
	1470	ki]	locyc	les	204.0 meters		
/	KGA WLAC WTNT	† * 	5000 5000 5000	ĪĈ	Spokane, Wash. Nashville, Tenn. Nashville, Tenn.	Northwest Broadcasting System, Inc. Life & Casualty Insurance Co. Life & Casualty Insurance Co.	
	1480	kil	locyc	les	202.6 meters		
EEEE O'	KFJF WKBW		5000 5000	C	Oklahoma City Buffalo, N. Y.	National Radio Mfg. Co. Buffalo Broadcasting Co., Lessees	1
	1490	kil	locyc	les	201.2 meters	3	
	WCHI WCKY WJAZ	*	5000 5000 5000	1 1N 1	Chicago, III. Covington, Ky. Chicago, III.	People's Pulpit Association L. B. Wilson, Inc. Zenith Radio Corp.	ı
	1500	kil	locycl	les	199.9 meters	· ·	
	KDB KGFK KGFK KGIZ KCKB KCKB KCKY KPJ KRPQ KREG KUJ KXO WCLB WOLLB WCLB WOLLB WCLB WOLLB WMBQ WMBQ WMBQ WMBQ WMBQ WMBQ WMBQ WMB	** † '- '** † † '- ' '* † * * ' † * † * '* * * †	100 100 50 50 100 100 100 100 100 100 10	+ · · · · · · · · · · · · · · · · · · ·	Santa Barbara, Cal. Corpus Christi, Texas Moorhead, Minn. Grant City, Mo. Brownwood, Texas Scottsbluff, Nebr. Prescott, Ariz. Wenatchee, Wash. Santa Ana, Cal. Longview, Wash. Austin, Texas El Centro, Cal. Long Beach, N. Y. Tupelo, Miss. Connersville, Ind. Ludington, Mich. Long Island City, N. Y. Boston, Mass. Newport, R. I. Pittsburgh, Pa. Brooklyn, N. Y. Lapeer, Mich. Binghamton, N. Y. Bristol, Tenn. Phildelphia, Pa. Augusta, Ga. Woodside, N. Y. Rutland, Vt.	Dwight Faulding Eagle Broadcasting Co., Inc. Red River Broadcasting Co., Inc. Grant City Park Corp. Eagle Publishing Co. Hilliard Co., Inc. Miller & Klahn Wescoast Broadcasting Co. Pacific Western Broadcasting Columbia Broadcasting Co., Inc. Driskill Hotel E. R. Irey and F. M. Bowles Arthur Faske North Mississippi Broadcasting Corp. Knox Battery & Electric Co. K. L. Ashbacker John N. Brahy Boston Broadcasting Co. LeRoy Joseph Beebe Rev. J. W. Sproul Paul J. Gollhofer First M. P. Church Howitt-Wood Radio Co., Inc. Radiophone Brdcstg. Station, Inc. Warnen C. Davenport's Musicove, Inc. Long Island Broadcasting Corp. Seward & Weiss Music Co.	KCYS. 1500 MTRS. 199.9 DIAL
					[49]		אועו

ALABAMA	***	•	,,	San Jose J-1	500	KOW	1010
	Watts		Kcys.	Santa Ana M-3	100	KQW KREG	1500
Birmingham O-21	5000	WAPI	1140	Santa Barbara M-2	100	KDB	1500
	500	WBRC	930	Santa Maria L-2	100	KSMR	1200
C-4-4 0.31	100	WKBC	1310	Stockton J-2	250	KGDM	1100
Gadsden O-21	50	WJBY WODX	1210		100	KWG	1200
Mobile O-20	500	WSFA	1410	CANAL ZONE			
Montgomery P-21	500 100	WFDW	1410				
Talladega O-21	100	WLDW	1420	Balboa FF-26	<i>7</i> 50	NBA	850
ALASKA				COLORADO			
Anchorage	100	KFOD	1230	Colorado Springs K-1	1 1000	KFUM	1270
uneau	10	KFIU	1310	Colorado Springs K-1 Denver K-11	500	KFEL	920
Ketchikan	500	KGBU	900		100	KFUP	1310
				,	500	KFXF	920
ARIZONA					1000	KLZ	560
	400	*******	4400	1	12500	KOA_	830
lagstaff M-7 erome M-6	100	KFXY	1420		500	KPOF	880
erome M-6 Phoenix N-6	100 500	KCR J KOY	1310 1390	Edgewater K-10	50	KFXJ	1310
noenix N-0		KTAR		Fort Morgan J-11	100	KGEW	1200
rescott M-6	500 100	KPJM	620 1500	Greeley J-11 Pueblo L-11	500	KFKA	880
rescott M-0	100	KGAR	1370	Trinidad I 11	250	KGHF	1320
Sucson O-7	500	KVOA	1260	Trinidad L-11 Yuma J-12	100 50	KGIW	1420
ucson 0-7	500	RVOA	1200	Tuma J-12	50	KGEK	1200
ARKANSAS				CONNECTICUT			
Blytheville M-19	50	KLCN	1290	Bridgeport H-27	500	WICC	1190
ayetteville M-16	1000	KUOA	1390	Hartford H-27	500	WDRC	1330
Fort Smith N-16	50	KFPW	1340		50000	WTIC	1060
lot Springs N-17	10000	KTHS	1040	Storrs H-28	250	WCAC	600
ittle Rock N-17	100	KGHI	1200				
	250	KGJF	890	DELAWARE			
	1000	KLŘA	1390	Wilmington J-26	250	WDEL	1120
aragould M-18	100	KBTM	1200	,	100	WILM	1420
CALIFORNIA				DISTRICT OF	COLLI	MRTA	
		***					620
Berkeley J-2 Burbank M-3	100	KRE	1370	Washington J-26	250 500	WMAL	630
Surbank M-3	500	KELW	780		100	WRC WOL	950
Culver City M-3 El Centro N-4	250	KFVD	1000	EL OBIDA	100	WOL	1310
Fresno K-2	100 100	KXO	1500 1210	FLORIDA			
Haymard I_1	100	KMJ KZM	1370	Clearwater R-24	1000	WFLA	620
Hayward J-1 Hollywood M-3	1000	KFWB	950	Gainesville Q-24	5000	WRUF	830
iony wood in-o	5000	KNX	1050	Jacksonville Q-24	1000	WJAX	900
Holy City K-1	100	KFOU	1420	Miami T-25 Miami T-25	1000	WQAM	560
inglewood M-3	500	KMĬČ	1120	Miami 1-25	1000	WIOD	1300
ong Beach M-3	1000	KFOX	1250	Orlando R-24	500	WDBO	1120
_	1000	KGER	1250 1360	Pensacola Q-21	500	WCOA WSUN	1340
Los Angeles M-3	• 1000	KECA	1430	St. Petersburg S-24 Tampa R-24	1000 1000	WDAE	620 1220
_	5000	KFI	640	Tampa K-24	1000	WMBR	1370
	500	KFSG	1120	onener:	100	44 IATDIK	13/0
	1000	KGEF	1300	GEORGIA			
	100	KGFJ	1200	Atlanta O-22	250	WGST	890
	1000	KHJ	900	l	5000	WSB	740
	500	KMPC	710	Augusta O-23	100	WRDW	1500
	500	KMTR	570	Columbus O-22	50	WRBL	1200
•	500	KTM	780	Macon O-23	250	WMAZ	890
Oakland J-1	1000	KTBI	1300	Rome N-22	100	WFDV	1370
Oakland J-1	250 500	KLS	1440	Savannah O-24	500	WTOC	1260
	500 500	KLX KROW	880 930	Thomasville Q-22	50	WQDX	1210
Pasadena M-3	50	KPPC	1210	Tifton P-23	_20	WRBI	1310
and delia Mi-o	1000	KPSN	1360	Toccoa N-23	500	WTFI	1450
Sacramento J-2	100	KFBK	1310	TTA 337 A TT			
San Bernardino M-3	100	KFXM	1210	HAWAII	,		
San Diego N-3	500	KFSD	60.0	Honolulu	500	KGMB	1320
	250	KGB	1330		1000	KGU	940
San Francisco J-1	1000 500	KFRC	610	IDAHO		_	
	100	KFWI KGGC	930		1000	MIDO	1250
	7500	KGO	1420 790	Boise G-5	1000	KIDO	1250
	100	KJBS	1070	Idaho Falls G-7	250	KID KFXD	1320
	_100	KPO	680	Nampa G-5 Pocatello H-7	50 250	KSEI	1420 900
	5000						
	5000 1000						
,	5000 1000 1000	KTAB KYA	560 1230	Sand Point D-6 Twin Falls H-6	100 250	KGKX KGIO	1420 1320

II I INOIS	317		L orro	Ottumwa J-17	100	WIAS	1420
ILLINOIS	Watts	WCAZ	Kcys. 1070	Ottumwa J-17 Red Oak J-16	100	KICK	1420 890
Carthage J-18 Chicago I-20	50 10000	KFKX	1020	Shenandoah J-16	500 500	KFNF KMA	930
Chicago 1-20	10000	KFKX KYW	1020	Sioux City I-15	1000	KSCJ WMT	1330
	500	WAAF WBBM	920 770	Waterloo I-17	500	WMT	600
	25000 1500	WCFL	970				
	5000	WCHI WCRW	1490	KANSAS			1210
	100	WCRW WEDC	1210 1210	Dodge City L-13	100 100	KGNO WLBF	1210 1420
	100 50000	WENR	870	Kansas City K-16 Lawrence K-16	500	KFKU	1220
	500	WGES	1360		1000	WREN	1220
	25000	WGN WIBO	720 560	Manhattan K-15	500 5000	KSAC KFKB	580 1050
	1000 5000	WIAZ	1490	Milford K-14 Topeka K-16	1000	WIBW	580
6	25000	WJAZ WJBT	770	Wichita L-15	1000	KFH	1300
•	100 5000	WKBI WLS	1420 870				
	5000	WMAQ	670	KENTUCKY			
	5000	WMBI	1080	Covington K-22	5000	WCKY	1490
	500	WPCC	560 1210	Hopkinsville M-20	1000	WFIW WHAS	940 820
Cicero I-20	100 100	WSBC WEHS	1420	Louisville L-21	10000 100	WLAP	1200
Decatur K-19	100	WHFC	1420	Paducah M-19	100	WPAD	1420
	100	WJBL	1200				
Galesburg J-18	100 100	WKBS WEBQ	1310 1210	LOUISIANA			
Harrisburg L-19 Joliet I-19	100	WCLS	1310	Monroe P-18	50	KMLB	1200
	100	WKBB	1310	New Orleans R-19	100	WABZ WDSU	1200 1250
La Salle J-19	100 20000	WJBC WJJD WMBD	1200 1130	1	1000 100	WIBO	1420
Mooseheart I-19 Peoria Heights J-19	500	WMBD	1440		100	WJBO WJBW	1200
Ouincy K-18	500	WTAD	1440	l	500	WŠMB	1320
Rockford I-19	500 100	KFLV WHBF	1410 1210	Shreveport P-17	5000 50	WWL KRMD	850 1310
Rock Island I-18 Springfield K-19	100	WCBS	1210	Sineveport 1-17	1000	KRMD KTBS	1450
•	100	WTAX WDZ	1210	l,	100	KTSL	1310
Tuscola K-20	100 250	WILL	1070 890		$\begin{array}{c} 100 \\ 10000 \end{array}$	KWEA KWKH	1210 850
Urbana J-20 Zion I-20	5000	WCBD	1080	MAINE	10000	10111621	000
21011 1-20				Augusta F-28	100	WRDO	1370
				Bangor F-29	100	WABI WLBZ	1200
INDIANA				5 1 1 5 20	500	WLBZ WCSH	620 940
Anderson J-21	100	WHBU	1210	Portland F-28	1000	WCSII	740
Connersville K-21	100	WKBV	1500 1400	MARYLAND			
Culver I-20 Evansville L-20	500 500	WCMA WGBF	630		10000	WBAL	1060
Fort Wayne J-21	100	WGL	1370	Baltimore J-26	250	WCAO	600
	10000	WOWO	1160 1360	1	100	WCAO WCBM	1370
Gary I-20 Hammond I-20	1000 100	WJKS WWAE	1200	C	500 100	WFBR WTBO	1270 1420
Indianapolis J-21	1000	WFBM	1230	Cumberland J-25	100	WIBO	1420
	500 500	WKBF WBAA	1400 1400	MASSACHUSET	TS.		
Lafayette J-20 La Porte I-20	100	WRAF	1200	Boston G-28	1000	WBIS	1230
Marion J-21	50	WJAK WLBC	1310		1000	WEEI	590
Muncie J-21	50	WLBC	1310 1230	1	1000 100	WHDH WLOE	830 1500
South Bend I-20 Terre Haute K-20	500 100	WSBT WBOW	1310	ł	1000	WNAC	1230
terre madte 10-20	100				500	WSSH	1410
				Fall River H-28	250 500	WSAR WLEX	1450 1410
IOWA				Lexington G-28	100	WLEY	1370
Ames I-17	5000	WOI	640	New Bedford H-28	100	WNBH	1310
Boone I-17	100	KFGQ	1310 1310	Springfield H-27	15000	WBZ-A WBSO	990 920
Cedar Rapids I-18	100 500	KWCR KSO	1380	Needham G-28 Worcester G-28	500 100	WEPS	1200
Clarinda J-16 Council Bluffs J-16	1000	KOIL	1260	Wordester G-20	100	WORC	1200
Davenport 1-18	5000	WOC	1000		250	WTAG	5 80
Decorah H-18	50 100	KGCA KWLC	1270 1270	MICHICAN			
Des Moines I-17	5000	WHO	1000	MICHIGAN	F.C.	WEII	1420
Fort Dodge 1-16	100	KFJY WSUI	1310	Battle Creek I-21	50 500	WELL WBCM	1410
Iowa City 1-18	500 100	KEIR	880 1200	Bay City H-22 Berrien Springs. I-20	1000	$\mathbf{w}\mathbf{k}\mathbf{z}\mathbf{o}$	590
Marshalltown 1-17 Muscatine J-18	5000	KFJB KTNT	1170	Calumet E-19	100	WHDF	1370
Macathie J-10							

Detroit H-22	50 5000	WJBK WJR WMBC	1370 750	NEVADA	Watts		Kcys.
	100	WMBC	1420	Las Vegas L-5 Reno I-3	100 500	KGIX KOH	1420 1380
	1000 1000	WWJ WXYZ WKAR	920 1240	100,000	000	11011	2000
East Lansing H-21 Flint H-22	1000 100	WKAR WFDF	1040 1310	NEW HAMPSHI	RE		
,	100	WPDF	1200	Laconia G-28	100	WKAV	1310
Grand Rapids H-21	500 500	WASH WOOD	1270	NEW TEDSEV			
Jackson I-21	100	WIBM	1270 1370	NEW JERSEY Asbury Park I-27	500	WCAP	1280
Lapeer H-22 Ludington H-20	100 50	WMPC WKBZ	1500 1500	Atlantic City J-27	5000	WPG WCAM	1100
Marquette F-19	100		1310	Camden I-26 Hackensack I-27	500 250	WCAM WBMS	1280 1450
Royal Oak H-22	50	WEXL	1310	Jersey City I-27	300	WAAT	940
MINNESOTA					250 250	WHOM WKBO	1450 1450
Fergus Falls F-15	100	KGDE WCCO	1200	Newark I-27	1000	WAAM	1250
Minneapolis G-17	7500 1000	WCCO	810 1180		250 250	WGCP WNJ	1250 1450
	500	WHDI	1180	D	5000	WOR	710
Moorhead F-15	1000 50	WRHM KGFK	1250 1500	Paterson I-27 Red Bank I-27	1000 100	WODA W IBI	1250 1210
Northfield G-17	1000	KFMX WCAL	1250	Trenton I-26	500.	WJBI WOAX	1280
St. Paul G-17	1000 1000	WLB	1250 1250 1250	NEW MEXICO			
	10000	KSTP	1460	NEW MEXICO	250	VCCM	1230
MISSISSIPPI Greenville O-19	100	WRBQ	1210	Albuquerque N-7 Raton M-11	50	KGGM KGFL	1370
Gulfport Q-19	100	WGCM	1210	State College P-9	20000	KOB	1180
Hattiesburg Q-19 Jackson P-19	10 1000	WRBJ WJDX WCOC WDIX	1370 1270	L TOPE			-
Meridian P-20	500	WCOC	880	NEW YORK	400	WD (DO	
Meridian P-20 Tupelo N-20 Vicksburg P-18	100 300	WOBC	1500 1360	Auburn H-25 Binghamton H-26	100 100	WMBO WNBF	1310 1500
MISSOURI		2	2010	Brooklyn I-27	500 1000	WBBC WBBR	1400 1300
Cp. Girardeau L-19	100	KFVS	1210		500	WCGU	1400
Columbia K-17	500	KFRU	630	,	500 500	WFOX WLTH	1400 1400
Grant City J-16	50 500	KGIZ WOS	1500 630		100	WMBQ	1500
Jefferson City L-17 Joplin M-16	100	$\mathbf{W}\mathbf{M}\mathbf{B}\mathbf{H}$	1420	Buffalo H-24	500 1000	WSDA WBEN	1400 900
Kansas City K-16	1000 100	KMBC KWKC	950 1370	Bunato 11-24	100	WEBR	1310
	1000	WDAF	610		1000 5000	WGR WKBW	550 1480
	500 1000	WHB WOQ	860 1300	1	1000	WMAK	1040
St. Joseph K-16	2500	KFEO	680	Canton F-26	50 500	WSVS WCAD	1370 1220
St. Louis L-18	100 500	KGBX KFUO	1310 550	Freeport I-27	100	WGBB	1210
ot. Douls D-10	100	KFWF	1200	Glens Falls G-27	50 1000	WBGF WEAI	1370 1270
1	50000 500	KMOX KSD	1090 550	Ithaca H-25	50	WLCI	1210
	1000	KWK	1350	Jamaica H-27	100	WMRJ WOCL	1210
	1000 100	WEW WIL	760 1200	Jamestown H-24 Long Island City I-27	25 100	WLBX	1210 1500
MONTANA	100	WIL	1200	Long Island City I-27 Long Beach I-27	100	WCLB	1500
Billings F-9	1000	KGHL	950	New York City I-27	5000 250	WABC WAWZ	860 1350
Butte F-7	500	KGIR	1360		5000	WBOQ	860
Great Falls E-8 Kalispell D-7	1000 100	KFBB KGEZ	1280 1310	-	250 50000	WCDA WEAF	1350 660
Missoula E-7	100	KGVO	1420		500	WEVD	1300
Wolf Point E-11	100	KGCX	1310		250 1000	WGBS WHAP	600 1300
NEBRASKA					250	WHN	1010
Clay Center Lincoln J-15	1000 5000	KMMJ KFAB	740 770		30000 250	WJZ WKBQ	760 1350
Directif J-15	100	KFOR	1210		5000	WLWL	1100
Norfolk I-15	500 1000	WCAJ WJAG	590 1060	· · · · · · · · · · · · · · · · · · ·	500 250	WMCA WMSG	570 1350
North Platte J-13	500	KGNF	1430		500	WNYC	570
Omaha J-15	500	WAAW	`660	ì	1000	WOV	1130
Ravenna J-14	1000 100	WOW KGFW	590 1310		250 500	WPAP WPCH	1010 810
Scottsbluff I-11	100 500	KGKY KGBZ	1500	1	250 250	WOAO	1010
York J-15	500	KGB2	930	,	250	WRNY	1010

Databamia 1 27	100	WPOE	1370	Marshfield F-1	100	KOOS	1370
Patchogue I-27 Poughkeepsie H-27	500	WOKO	1440	Medford G-2	50	KMED	1310
Rochester G-25	5000	WHAM	1150	Portland E-3	5000	KEX	1180
	500	WHEC	1440		100	KBPS	1420
Saranac Lake F-26	50	WNBZ	1290	ì	500	KFJR KGW	1300
Schenectady G-27	50000	WGY	790	•	1000 1000	KON	620 940
Syracuse G-25	1000	WFBL	1360		500	KOIN KTBR	1300
	250 250	WMAC	570		500	ĸŴĴĴ	1060
Troy G-27	500	WSYR WHAZ	570 570 1300	l	100	KXL	1420
Tupper Lake F-26	10	WHDL	1420	DENDIONA TAND			
Utica G-26	100	WIBX	1200	PENNSYLVANI			
Woodside I-27	100	WWRL	1500	Allentown I-26	250	WCBA	1440
Yonkers I-27	100	WCOH	1210	l	250	WSAN	1440
				Altoona I-25	100 10	WFBG WNBW	1310 1200
NORTH CARO	LINA			Carbondale H-26 Elkins Park I-26	50	WIBG	930
Asheville M-23	1000	WWNC	570	Erie H-24	30	WEDH	1420
Charlotte M-24	5000	WBT	1080	Grove City I-26	100	WSAJ	1310
Gastonia M-24	100	WSOC	1210	Harrisburg I-25	500	WBAK	1430
Greensboro M-24	500	WBIG	1440		100	WCOD	1200
Raleigh M-25	1000	WPTF	680	T. T T 24	500	WHP	1430 1310
Wilmington N-26	100	WRBT	1370	Johnstown J-24 Lancaster I-25	100 100	WJAC WGAL	1310
Winston-Salem M-24	100	WSJS	1310	Lancaster 1-25	100	WKJC	1200
				Lewisburg I-26	100	WIBU	1210
NORTH DAKO	ГА			Lewisburg I-26 Oil City I-24	500	WJBU WLBW	1260 •
Bismarck F-13	1000	KFYR	550	Philadelphia I-26	10000	WCAU	1170
Devils Lake E-14	100	KDLR	1210	-	100	WELK	1370
Fargo F-15	1000	WDAY	940		500	WFAN WFI	610 560
Grand Forks E-15	100	KFJM KGCU	1370		500 100	WHAT	1310
Mandan F-13	100	KLPM	1200 1420		500	WIP	610
Minot E-13	100	KLPWI	1420	1	500	WLIT	560
01170					100	WPEN	1500
OHIO					250	WRAX	1020
Akron I-23	1000	WADC	1320		50	WTEL	1310
Canton 1-23	10	WHBC	1200	Pittsburgh J-24	50000	KDKA	980
Cincinnati K-22	100	WFBE	1200		500 1000	KQV WCAE	1380 1220
	1000 50000	WKRC WLW	550 700	1	1000	WIAS	1290
	500	WSAI	1330		100	WJAS WMBJ	1500
Cleveland I-23	500	∠WGAR	1450	Reading I-26	50	WRAW	1310
Cievolana 2 20	1000	WHK	1390	Scranton H-26	250	WGBI	880
	500	WJAY WTAM	610		250	WQAN	880
	50000	WTAM	1070	State College I-25	500	WPSC WNBO	1230 1200
Columbus J-22	500 500	WAIU	640 1430	Washington J-24 Wilkes-Barre I-26	100 100	WBAX	1210
	750	WCAH WEAO	570	Wilkes-Barre 1-20	100	WBRE	1310
	100	WSEN	1210	Williamsport 1-25	50	WRAK	1370
Dayton J-22	200	WSMK	1380				
Mansfield J-22	100	WJW WHBD	1210	PORTO RICO			
Mount Orab K-22	100	WHBD	1370	•	500	WKAQ	890
Steubenville J-23	50	WIBR WSPD	1420	San Juan W-34	500	WKAQ	090
Toledo I-22	500 500	WKBN	1340 570				
Youngstown I-23 Zanesville J-23	100	WALR	1210	RHODE ISLAN	ID .		
Zanesvine j-20	100	WILDI	1210	Newport H-28	100	WMBA	1500
OKLAHOMA				Pawtucket H-28	100	WPAW	1210
			4.400	Providence H-28	100	WDWF	1210
Alva M-14	100	KGFF	1420		250	WEAN	780
Chickasha N-14	250	KOCW	1400		250	WJAR WLSI	890
Elk City N-13 Enid M-15	100 100	KGMP KCRC	1210 1370		100	WESI	1210
Norman N-15	500	WNAD	1010	COLUMNIA CARO	T TREA		
Oklahoma N-15	5000	KFJF	1480	SOUTH CARO	LINA		
Oklaholila 11-10	100	KFXR	1310	Charleston O-25	500	WCSC	1360
	100	KGFG	1370	Columbia N-24	500	WIS	1010
	1000	WKY	900	Spartanburg N-23	100	WSPA	1420
Ponca City M-15	100	WBBZ	1200		TD 4		
S. Coffeyville M-16	500	KGGF	1010	SOUTH DAKO			
Tulsa M-16	5000	KVOO	1140	Brookings H-15	500	KFDY	550
OPECON				Huron H-14	100	KGDY	1200
OREGON				Mitchell H-14	100	KGDA	1370
Astoria D-2	100	KFJI	1370	Pierre G-13 Rapid City H-12	200	KGFX WCAT	580 1200
Corvallis E-2	1000	KOAC	550	Sioux Falls 1-15	100 2000	KSOO	1110
Eugene F-2	100	KORE	1420	Sioux Falls 1-15	2000	1000	1110

TENNESSEE Bristol L-23 Chattanooga N-21 Choractanooga N-21 Choractanoo								
Watertown G-15	Vermillion I-15	500	KIIGD	900	Datamahuan I 36	100	WI DC	1200
Yankton 1-15					Richmond K-26			
Bristol L-23	Yankton I-15	1000	WNAX	570	1	5000	WRVA	1110
Bristol L-23	TENNIESSEE				Roanoke L-24	250	WDBJ	930
Chattanooga N-21		100	WODI	1500	WASHINGTON	250	WRBX	1410
Knoxville M-22				1280				
1000 WNOX 1310 1000 WNOX 1310	Knoxville M-22	50		1200			KXRO	1310
Lawrenceburg N-20 500 WOAD 1500 WHE 1370 100 WS 1 1210		1000	WNOX	560				1200
Memphis M-19			WROL	1310	Everett C-3		KFBL	1370
Solid WMC	Lawrenceburg N-20				Longview D-3	100	KIII	1500
Solidary Seattle C-3 Sea	Memphis M-19				Pullman E-5		RWSC	
Nashville M-20			WMC	780	Seattle C-3	100	KFOW	1420
Nashville M-20			WNBR			5000	KJR	970
Springfield M-20		500	WREC	600	l .			1270
Springfield M-20	Nashville M-20		WLAC	1470			KOMO	
Springfield M-20			WSM		1		KRSC	
TEXAS	Springfield M-20	3000	WINI	1210	l .	1000	KTW	1270
TEXAS Abilene P-13		100		1310		100	KVL	1370
Abilene P-13		100	WOD1	1010	l	500	KXA	570
Amarillo N-12					Spokane D-5		KFIO	
Austin Q-14 Beaumont R-17 Book KWUG Beaumont R-17 Book KWUG Brownsville U-15 Brownsv			KFYO				KFPY	1340
Austin Q-14	Amarillo N-12	1000	KGRS	1410		1000	KHO	590
Beaumont R-17 500 KPDM 560 Frownsville U-15 500 KWWC 1260 Frownsville U-15 500 KWWC 1260 Frownsvood P-14 100 KGKB 1500 KGKB 1500 KGFI 1000 KRJ 1200 KGFI 1000 KRJ 1200 KRJ 1200 KRJ 1200 KRJ 1000 KRL 1000 KRL 1000 KRL 1000 KRL 1000 KRJ 1200 KRJ	Austin O-14		WDAG	1410	Tacoma D-3		KMO	860
Brownswille U-15			KEDM	560				760
Brownwood P-14	Brownsville U-15	500	KWWG	1260		50	KPQ	1500
Corpus Christi S-14 100 KGFI 1500 MRC 1040 5000 WFAA 800 5000 WFAA 800 5000 WFAA 800 END 1000 WFAA 1280 END 1000 WFAB 1310 END 1000 WFAB 1310 WDAH 1310 END 1000 WFAB 1310 WDAH 1310 WSFB 1370 WSFB 1370 WSCONSIN Eau Claire G-18 1000 WFAZ 1330 WHECK 1300 KFLX 1370 Green Bay G-19 100 WCLO 1200 MCRCV 1260 Madison H-19 100 WCLO 1200 MCRCV 1260 Madison H-19 100 WCLO 1200 MCRCV 1200	Brownwood P-14		KGKB		Yakima D-4	50	KIT	1310
Corpus Christi S-14 100 KGFI 1500 MRC 1040 5000 WFAA 800 5000 WFAA 800 5000 WFAA 800 END 1000 WFAA 1280 END 1000 WFAB 1310 END 1000 WFAB 1310 WDAH 1310 END 1000 WFAB 1310 WDAH 1310 WSFB 1370 WSFB 1370 WSCONSIN Eau Claire G-18 1000 WFAZ 1330 WHECK 1300 KFLX 1370 Green Bay G-19 100 WCLO 1200 MCRCV 1260 Madison H-19 100 WCLO 1200 MCRCV 1260 Madison H-19 100 WCLO 1200 MCRCV 1200	College Sta. Q-15	500	WTAW	1120	WEST WINGING			
Dublin P-14	Corpus Christi S-14	100	KGFI		WEST VIRGINI	A		
Dublin P-14	Dallas P-15		KKLD					1420
Dublin P-14			WRR	1280				580
El Paso P-9	Dublin P-14	100	KFPL		Fairmont J-24		WIMIMIN	
Fort Worth P-15		100	KTSM	1310	Wheeling I-24		WWWA	
Galveston R-16		100	WDAH	1310	Whitehing J-24	0000	" " TA	1100
Galveston R-16	Fort Worth P-15	100	KFJZ	1370	WISCONSIN			
Galveston R-16			WBAD	1240		1000	WTAO	1220
Creenville O-15	Galveston R-16						KFIZ	
Greenville O-15 Harlingen T-14 500 KRGV 1260 Houston R-16 1000 KPRC 1000 KPRC 1000 KTRH 1120 San Angelo Q-13 100 KKYZ 1420 San Antonio R-14 100 KMAC 1370 100 KTAP 100 WRJN 1370 1000 WRJN 1370 1000 WRJN 1370 1000 WRJN 1370 1000 WTM 1370 1000 KTAP 1000 WRJN 1370 1000 WTM 1210 1000 W		500	KFUL	1290	Green Bay G-19		WHBY	1200
Harlingen T-14	Greenville O-15	15	KFPM	1310	Janesville I-19	100	WCLO	1200
San Angelo Q-13	Harlingen T-14	500	KRGV	1260	La Crosse H-18	1000		
San Angelo Q-13	Houston K-16				Madison H-19			
San Antonio R-14			KTRH			250	WISI	780
San Antonio R-14			KXYZ	1/20	Manitowoc H-20	100	WOMT	1210
San Antonio R-14	San Angelo Q-13	100	KGKL	1370	Milwaukee H-20	250	WHAD	1120
Waco Q-15	San Antonio R-14	100	KMAC	1370	l	250	WISN	1120
Waco Q-15				1370	D 17.10		WTMJ	
Waco Q-15				1420				
Waco Q-15			WOAI			500	WHEL	1410
Wichita Falls O-14 250 KGKO 570 Superior F-17 1000 WEBC 1290 WYOMING Casper H-10 100 KDFN 1210 CANADA	Waco O-15		WACO		Stevens Pt. G-19			900
UTAH Ogden I-7 Salt Lake City I-7 Salt Lake City I-7 Solo KLO Solo KSL Solo KSC Solo KSC Solo CFAC Solo CFCN Sol	Wichita Falls O-14		KCKO		Superior F-17			1290
Ogden I-7 500 KLO (KDYL 1290) 1400 KDYL 1290 KSL 1130 VERMONT Burlington F-27 100 WCAX 1200 KSL 1130 Rutland G-27 100 WSYB 1500 KSL 1370 St. Albans F-27 100 WQDM 1370 Springfield G-27 100 WDM 1370 S00 CFCN 690 CFCN								
VERMONT		=00			WYOMING			
VERMONT Burlington F-27 Rutland G-27 St. Albans F-27 St. Alban	Ogden 1-7				Casper H-10	100	KDFN	1210
VERMONT Burlington F-27	Saft Lake City 1-7		KDIL	1290				
Burlington F-27	VEDMONT	3000	KSL	1130	I CAN	\mathbf{ADA}		
Rutland G-27 100 WSYB 1500 St. Albans F-27 100 WQDM 1370 Springfield G-27 10 WNBX 1200		100	WCAY	1200				
St. Albans F-27 100 WQDM 1370 Springfield G-27 10 WNBX 1200 500 CFAC 699 500 CHCA 699 500 CJCJ 699 500 CHCA 699 500 CJCJ 699 500 CHCA 699 500 CJCJ 699 500 CHCA 699 500 CJCA 933 500 CHMA 580 500 CJCA 933 500 CKUA 580 500 CKUA 580 500 CKUA 580 500 CHCA 500 CHC					ALBERTA			
VIRGINIA	St. Albans F-27		WODM	1370	Calgary B-7		CFAC	690
VIRGINIA Alexandria J-26 10000 WJSV 1460 Arlington J-25 1000 NAA 690 Danville L-25 100 WBTM 1370 Emory L-33 100 WEHC 1200 Lynchburg L-25 100 WLVA 1370 Newport News L-26 100 WGH 1310 Norfolk L-26 500 WPOR 780 CHCA 691 500 CHCA 691 500 CNRC 694 500 CJCA 931 500 CKUA 581 Lethbridge C-8 50 CJOC 1121 Red Deer A-8 1000 CHCT 841 Norfolk L-26 500 WPOR 780	Springfield G-27		WNBX				CFCN	
Alexandria J-26 10000 WJSV 1460 Edmonton A-8 250 CHMA 580 Arlington J-25 1000 NAA 690 Danville L-25 100 WBTM 1370 Emory L-23 100 WEHC 1200 Lynchburg L-25 100 WCH 1370 Newport News L-26 100 WGH 1310 Norfolk L-26 500 WPOR 780 Lethbridge C-8 50 CJOC 1121 Red Deer A-8 1000 CHCT 840 Norfolk L-26 500 WPOR 780					ł		CHCA	
Alexandria J-26 10000 WJSV 1460 Edmonton A-8 250 CHMA 580 Arlington J-25 1000 NAA 690 500 CJCA 93 Danville L-25 100 WEHC 1200 500 CKUA 58 Lornchburg L-25 100 WEHC 1200 Lethbridge C-8 50 CJOC 112 Newport News L-26 100 WGH 1310 Red Deer A-8 1000 CHCT 84 Norfolk L-26 500 WPOR 780 1000 CKLC 844	VIRGINIA				l		CNBC	
Danville L-25		10000	WISV	1460	Edmonton A-8		CHMA	580
Danville L-25	Arlington J-25		NĂĂ	690		500	CJCA	930
Emory L-23 100 WEHC 1200 500 CNRE 930 500 CNRE	Danville L-25		WBTM	1370		500	CKUA	580
Newport News L-26			WEHC	1200		500	CNRE	930
Norfolk L-26 500 WPOR 780 1000 CKLC 840	Lynchburg L-25			1370	Lethbridge C-8	50	CJOC	1120
500 WTAR 780 1000 CKLC 844			WDOD	1310	Red Deer A-8		CHCT	840
700 WIAK 700 1000 CIKD 040	NOTIOIK L-20	500	WTAR	780				
ii ee e		300	" LAK	700		1000	CINIC	040

DDITICUL				Regina C-12	500	CHWC	960
BRITISH	Watts		Kcys.	I regime o 12	500	CJBR	960
COLUMBIA					500	CKCK	960
Chilliwack B-3	5	CHWK	1210		500	CNRR	960
Kamloops B-5	15	CFJC CJOR CHLS	1120	Saskatoon B-11	500	CFQC CNRS	910
Sea Island	50 50	CHIS	1210 730	Yorkton C-13	500 500	CIGX	910 630
Vancouver B-3	50	CKCD	730	Torkton C-13	300	CJGA	030
	50	CKFC	730	HAITI			
	50	CKMO	730 730	Port au Prince X-30	1000	HHK	920
	100	CKWX	730	Tort au Timee X-50	1000		,20
	500	CNRV	1030	MEXICO			
Victoria C-3	500	CFCT	630	Chihuahua, Chih. R-9	250	XFF	915
MANITOBA				Ciudad Juarez P-9	1000	XEO	750
Brandon D-14	500	CKX	540		101	XEQ XEJ	857
Winnipeg D-15	5000	CKY	780	Guadalajara, Jal. X-10	101	XEA	1200
	5000	CNRW	780	Jalapa, Ver. Y-14	350	XFC	805
NEW BRUNSW	ICK			Guadalajara, Jal. X-10 Jalapa, Ver. Y-14 Merida, Yuc. X-19 Mexico City Y-13	105 1000	XEY XEB	547 1030
	50	CFNB	1210	Mexico City 1-13	2000	XEG	829
Fredericton D-29 Moncton D-30	500	CNRA	630		101	XEK	1000
St. John D-30	50	CFBO	890		1000	XEN	732
NEWEOTINE A	NTD.				101	XEO	674
NEWFOUNDLA	500	8WMC	720		101	XER	984
St. Johns A-35	300	9 WIVIC	120		1000	XETA	1100
NOVA SCOTIA					5000 500	XEW XEX	780 1190
Glace Bay C-32	10000	VAS	685	1	500	XEZ	588
Halifax E-31	500	CHNS	910		2000	XFG	638
	500	CNRH	910		1000	XFI	818
Sydney C-32	50 50	CJCB CKIC	880 930		500	XFX	860
Wolfville D-31	30	CKIC	930	N	500	XFZ	859
ONTARIO				Monterrey, N. L. U-13	101 1500	XEH	1132 890
Chatham H-22	100	CFCO	1210	Morelia, Mich. Y-12	101	XET XEI	1000
Cobalt E-23	15 10	CKMC CHCS	1210 880	Oaxaca, Oax. AA-14	105	XEF	1132
Hamilton H-24	50	CHML	880	Oaxaca, Oax. AA-14 Puebla Z-13	101	XEV	1035
	50	CKOC	880	Reynosa, Tams. T-14 Saltillo, Coah. U-12	10000	XED	960
Kingston G-25	500	CFRC	930	Saltillo, Coah. U-12	10	XEL	1091
London H-23	1000	CFRC CJGC CNRL	910	Tampico, Tams. W-14	501 500	XEM	841 890
M. II 1 C 22	500	CNRL	910	Toluco, Mex. Y-12	50	XES XEC	1133
Midland G-23 North Bay	50 50	CKPR CFCH	930 600	Veracruz, Ver. Y-14	500	XETF	680
Ottawa F-25	100	CKCO	890		50	XEU	800
Octawa 1 -20	500	CKCO CNRO	600	Villahermosa, Tab.	350	XFE	632
Prescott F-25	50	CFLC	1010				
Preston G-23	50	CKPC	1210	CUBA			
Toronto G-24	500 500	CFCA CFCL	840 580	Buen Retiro	50	CMCO	660
	4000	CFRB	960	Caibarien W-25	250 50	CMHD CMJC	920 135
	5000	CFRB CJSC CKCL	690	Camaguey	200	CMHI	115
	500	CKCL	580	Cienfuegos W-25 Colon W-24	300	CMHJ CMGA CMBC	83 ∪
	5000	CKGW	690	Havana W-23	150	CMBC	1130
	500	CKNC	580 840		150	CMBD	995
	500 4000	CNRT CNRX	960		150	CMBS	790
	5000	CPRY	690	l	150 200	CMBT CMBY	1070 1405
Waterloo G-23	50	CKCR	1010		150	CMBZ	1010
Wingham G-23	25	10-BP	1200		500	CMC	840
PRINCE EDWA	RD IS	LAND			100	CMCA	1225
Charlottetown C-31	250	CFCY	960	l	150	CMCB	1070
C.10.100000#11 0-01	30	CHCK	960		250	CMCH	900
Summerside C-31	100	CHGS	1120		15 1000	CMCH CMCQ	1285 955
OUEBEC					5000	CMK	730
Montreal E-26	500	CFCF	1030		150	CMO	1130
Middle Cal D-20	5000	CHYC	730		1000	CMW	588
	5000	CKAC CNRM	730 730 730		1000	CMX	910
	5000	CNRM	730	Holguin		CMKX	1240
Quebec D-27	100	CHRC	880	Marianao	150	CMBW	1010
	22 50	CKCI CKCV	880 880	Santiago X-28	150	CMKC CMKD	1045 1100
	50 50	CNRQ	880 880	Tuinucu	500	CMHC	790
SASKATCHEWA		J. 11(Q	300		500	01.1110	, ,,,
Fleming C-13	500	CJRW	600	COSTA RICA			
Moose Jaw C-11	500	CJRM	600	San Jose FF-23	50	TIC	750
				I			

CFAC 690	CJSC 690	CMHD 920	KFAB 770
Calgary, Alta.	Toronto, Ont.	Caibarien, Cuba	Lincoln, Nebr.
CFBO 890	CKAC 730	CMHJ 1154	KFBB 1280
St. John, N. B.	Montreal, Que.		Great Fls., Mont.
CFCA 840	CKCD 730	Cienfuegos, Cuba CMJC 1350	KFBK 1310
Toronto, Ont.	Vancouver, B.C.	Camaguey, Cuba	
CFCF 1030	CKCI 880	CMK 730	Sacramento, Cal KFBL 1370
	Ouches Ouc	Harrana Cuba	
Montreal, Que.	Quebec, Que.	Havana, Cuba	Everett, Wash.
CFCH 1200	CKCK 960	CMKC 1045	KFDM 560
North Bay, Ont.	Regina, Sask.	Santiago, Cuba	Beaumont, Tex.
CFCL 580	CKCL 580	CMKD 1100	KFDY 550
Toronto, Ont.	Toronto, Ont.	Santiago, Cuba	Brookings, S.D.
CFCN 690	CKCO 890	CMKX 1240	KFEL 920
Calgary, Alta.	Ottawa, Ont.	Holguin, Cuba	Denver, Colo.
CFCO 1210	CKCR 1010	CMQ 1130	KFEQ 680
Chatham, Ont.	Waterloo, Ont.	Havana, Cuba	St. Joseph, Mo.
CFCT 630	CKCV 880	CMW 590	KFGQ 1310
Victoria, B. C.	Quebec, Que.	Havana, Cuba	Boone, Iowa
CFCY 960	CKFC 730	CMX 910	
Ch'lottet'n, P.E.I.			
	Vancouver, B.C.	Havana, Cuba	Wichita, Kansas
CFJC 1120	CKGW 690	CNRA 630	KFI 640
Kamloops, B. C.	Toronto, Ont.	Moncton, N.B.	Los Angeles, Cal.
CFLC 1010	CKIC 930	CNRC 690	KFIO 1120
Prescott, Ont.	Wolfville, N.S.	Calgary, Alta.	Spokane, Wash.
CFNB 1210	CKLC 840	CNRD 840	KFIU 1310
Fredericton, N.B.	Red Deer, Alta.	Red Deer, Alta.	Juneau, Alaska
CFQC 910	CKMC 1210	CNRE 930	KFIZ 1420
Saskatoon, Sask.	Cobalt, Ont.	Edmonton, Alta.	Fond du Lac, Wis
CFRB 960	CKMO 730	CNRH 910	KFJB 1200
Toronto, Ont.	Vancouver, B.C.	Halifax, N. S.	Marshalltown, Ia.
CFRC 930	CKNC 580	CNRL 910	KFJF 1480
Kingston Ont	Toronto, Ont.		Oklahama City
Kingston, Ont.	CKOC, Ont.	London, Ont.	Oklahoma City
CHCA 690	CKOC 880	CNRM 730	KFJI 1370
Calgary, Alta.	Hamilton, Ont.	Montreal, Que.	Astoria, Ore.
CHCK 960	CKPC 1210	CNRO 600	KFJM 1370
Ch'lottet'n,P.E.I.	Preston, Ont.	Ottawa, Ont.	Grd. Forks, N.D.
CHCS 880	CKPR 930	CNRQ 880	KFJR 1300
Hamilton, Ont.	Midland, Ont.	Quebec, Que.	Portland, Ore.
CHCT 840	CKUA 580	CNRR 960	KFJY 1310
Red Deer, Alta.	Edmonton, Alta.	Regina, Sask.	Fort Dodge, Ia.
CHGS 1120	CKWX 730	CNRS 910	KFJZ 1370
Sum'rside, P.E.I.	Vancouver, B.C.	Saskatoon, Sask.	KFJZ 1370 Ft. Worth, Tex.
CHLS 730	CKX 540	CNRT 840	KFKA 880
Vancouver, B.C.	Brandon, Man.	Toronto, Ont.	Greeley, Colo.
CHMA 580	CKY 780	CNRV 1030	KFKB 1050
	Winning Mon		KEND 1000
Edmonton, Alta.	Winnipeg, Man. CMBC 1130	Vancouver, B.C.	Milford, Kansas
CHML 880	CMBC 1130	CNRW 780	KFKU 1220
		Winnipeg, Man.	Lawrence, Kans.
Hamilton, Ont.	Havana, Cuba		KFKX 1020
CHNS 910	CMBD 995	CNRX 960	
CHNS 910 Halifax, N.S.	CMBD 995 Havana, Cuba	Toronto, Ont.	Chicago, Ill.
CHNS 910 Halifax, N.S. CHRC 880	CMBD 995 Havana, Cuba CMBS 790	Toronto, Ont. CPRY 690	Chicago, Ill. KFLV 1410
CHNS 910 Halifax, N.S. CHRC 880	CMBD 995 Havana, Cuba CMBS 790 Hayana, Cuba	Toronto, Ont. CPRY 690	Chicago, Ill. KFLV 1410 Rockford, Ill.
CHNS 910 Halifax, N.S. CHRC 880	CMBD 995 Havana, Cuba CMBS 790 Hayana, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont.	Chicago, Ill. KFLV 1410 Rockford, Ill.
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask.	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H.	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex.
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C.	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore.	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfeld, Minn.
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200	Chicago, III. KFLV 1410 Rockford, III. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que.	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark.	Chicago, III. KFLV 1410 Rockford, III. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010	Toronto, Ont. CPRY 650 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC Montreal, Que. CJBR 960 Regina, Sask.	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla.	Chicago, III. KFLV 1410 Rockford, III. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr.
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba CMBZ 1010 Havana, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta.	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba CMC 840 Havana, Cuba	Toronto, Ont. CPRY 650 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz.	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal.
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba CMBZ 840 Havana, Cuba CMC 840 Havana, Cuba CMCA 1225	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal. KFPL 1310
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba CMBZ 840 Havana, Cuba CMC 840 Havana, Cuba CMCA 1225	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal. KFPL 1310
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880 Syndey, N.S.	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba CMBZ 1010 Havana, Cuba CMC 840 Havana, Cuba CMC 840 Havana, Cuba	Toronto, Ont. CPRY CPRY CPRY Toronto, Ont. HHK Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500 S. Barbara, Cal.	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal. KFPL 1310 Dublin, Texas
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CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880 Syndey, N.S. CJCJ 690 Calgary, Alta. CJGC 910 London, Ont. CJGX 630 Yorkton, Sask. CJCC 1120	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba CMC 840 Havana, Cuba CMC 840 Havana, Cuba CMC 900 Havana, Cuba CMCB 1070 Havana, Cuba CMCB 1070 Havana, Cuba CMCF 900 Havana, Cuba CMCF 900 Havana, Cuba CMCF 1285 Havana, Cuba CMCF 660	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500 S. Barbara, Cal. KDFN 1210 Casper, Wyo. KDKA 980 Pittsburgh, Pa. KDLR 1210 Devils Lake, N.D. LOUIS Lake, N.D. KDYL 1290	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal. KFPL 1310 Dublin, Texas KFPM 1310 Greenville, Tex. KFPW 1340 Ft. Smith, Ark. KFPY 1340 Spokane, Wash. KFQD 1230
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880 Syndey, N.S. CJCJ 690 Calgary, Alta. CJGC 910 London, Ont. CJGX 701c CJGX 910 London, Sask. CJOC 1120 Lethbridge, Alta.	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba CMC 840 Havana, Cuba CMC 840 Havana, Cuba CMCA 1225 Havana, Cuba CMCB 1070 Havana, Cuba CMCB 1070 Havana, Cuba CMCB 1080 CMCB 1080 CMCCB 1080 CMCCB 1080 CMCCF 900 Havana, Cuba CMCCF 900 Havana, Cuba CMCCF 900 CMCO 660 CMCO 660 BuenRetiro, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500 S. Barbara, Cal. KDFN 1210 Casper, Wyo. KDKA 980 Pittsburgh, Pa. KDLR 1210 Devils Lake, N.D. KDYL 1290 Salt Lake City	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal. KFPL 1310 Dublin, Texas KFPM 1310 Greenville, Tex. KFPM 1340 Ft. Smith, Ark. KFPY 1340 Spokane, Wash. KFQD 1230 Anchorage, Alas.
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880 Syndey, N.S. CJCJ 690 Calgary, Alta. CJGC 910 London, Ont. CJGX 630 Yorkton, Sask. CJOC 1120 Lethbridge, Alta. CJOR 1210	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba CMBZ 1010 Havana, Cuba CMCA 1225 Havana, Cuba CMCA 1225 Havana, Cuba CMCA 1225 Havana, Cuba CMCB 1070 Havana, Cuba CMCB 1070 Havana, Cuba CMCF 900 Havana, Cuba CMCF 900 Havana, Cuba CMCF 660 BuenRetiro, Cuba CMCO 660 BuenRetiro, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500 S. Barbara, Cal. KDFN 1210 Casper, Wyo. KDKA 980 Pittsburgh, Pa. KDLR 1210 Devils Lake, N.D. KDYL 1290 Salt Lake City KECA 1430	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal. KFPL 1310 Dublin, Texas KFPM 1310 Greenville, Tex. KFPW 1340 Ft. Smith, Ark. KFPY 1340 Spokane, Wash KFQU 1230 Anchorage, Alas. KFQU 1420
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCJA 930 Edmonton, Alta. CJCJ 690 Calgary, Alta. CJGC 910 London, Ont. CJGX 630 Yorkton, Sask. CJOC 1120 Lethbridge, Alta. CJOR 1210 Sea Island, B.C.	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBZ 1010 Havana, Cuba CMBZ 1010 Havana, Cuba CMC 840 Havana, Cuba CMCA 1225 Havana, Cuba CMCB 1070 Havana, Cuba CMCC 900 Havana, Cuba CMCB 1070 Havana, Cuba CMCB 1070 Havana, Cuba CMCB 1070 Havana, Cuba CMCB 900 Havana, Cuba CMCG 660 BuenRetiro, Cuba CMCQ 955 Havana, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500 S. Barbara, Cal. KDFN 1210 Casper, Wyo. KDKA 980 Pittsburgh, Pa. KDLR 1210 Devils Lake, N.D. KDYL 1290 Salt Lake City KECA 1430	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal. KFPL 1310 Dublin, Texas KFPM 1310 Greenville, Tex. KFPW 1340 Ft. Smith, Ark. KFPW 1340 Spokane, Wash. KFQD 1230 Anchorage, Alas. KFQU 1420 Holy City, Cal.
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CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880 Syndey, N.S. CJCJ 690 Calgary, Alta. CJGX 910 London, Ont. CJGX 910 London, Ont. CJGX 910 London, Ont. CJGX 120 Lethbridge, Alta. CJOR 1210 Sea Island, B.C. CJRM 600 Moose Jaw, Sask. CJRW 600	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBZ 1010 Havana, Cuba CMBZ 1010 Havana, Cuba CMC 840 Havana, Cuba CMC 840 Havana, Cuba CMCB 1070 Havana, Cuba CMCC 1285 Havana, Cuba CMCC 900 Havana, Cuba CMCH 1285 Havana, Cuba CMCO 660 BuenRetiro, Cuba CMCQ 955 Havana, Cuba CMCQ 955 Havana, Cuba CMCQ 850 CMGA 830 Colon, Cuba CMGA 830 Colon, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500 S. Barbara, Cal. KDFN 1210 Casper, Wyo. KDKA 980 Pittsburgh, Pa. KDLR 1210 Devils Lake, N.D. KDYL 1290 Salt Lake City KECA 1430 Los Angeles, Cal. KELW 780 Burbank, Cal. KELW 780 Burbank, Cal. KEX 1180	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOX 1250 Long Beach, Cal. KFPL 1310 Dublin, Texas KFPM 1310 Greenville, Tex. KFPM 1340 Ft. Smith, Ark. KFPU 1340 Ft. Smith, Ark. KFPU 1340 Ft. Spokane, Wash. KFQU 1420 Holy City, Cal. KFQW 1420 Seattle, Wash. KFRW 1420 Seattle, Wash. KFRW 1420 Seattle, Wash. KFRC 610
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que. CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880 Syndey, N.S. CJCJ 690 Calgary, Alta. CJGC 910 London, Ont. CJGX 630 Yorkton, Sask. CJOC 1120 Lethbridge, Alta. CJOR 1210 Sea Island, B.C. CJRM 600 Moose Jaw, Sask.	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBY 1405 Havana, Cuba CMBZ 1010 Havana, Cuba CMC 840 Havana, Cuba CMC 840 Havana, Cuba CMCA 1225 Havana, Cuba CMCF 900 Havana, Cuba CMCH 1285 Havana, Cuba CMCH 1285 Havana, Cuba CMCO 660 BuenRetiro, Cuba CMCQ 955 Havana, Cuba CMCQ 955 Havana, Cuba CMGA 830 Colon, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500 S. Barbara, Cal. KDFN 1210 Casper, Wyo. KDKA 980 Pittsburgh, Pa. KDLR 1210 Devils Lake, N.D. KDYL 1290 Salt Lake City KECA 1430 Los Angeles, Cal. KELW 780 Burbank, Cal.	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal. KFPL 1310 Dublin, Texas KFPM 1310 Greenville, Tex. KFPW 1340 Ft. Smith, Ark. KFPY 1340 Spokane, Wash. KFQU 1230 Anchorage, Alas. KFQU 1420 Holy City, Cal. KFQW 1420 Seattle, Wash.
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880 Syndey, N.S. CJCJ 690 Calgary, Alta. CJGX 910 London, Ont. CJGX 910 London, Ont. CJGX 910 London, Ont. CJGX 120 Lethbridge, Alta. CJOR 1210 Sea Island, B.C. CJRM 600 Moose Jaw, Sask. CJRW 600	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBZ 1010 Havana, Cuba CMBZ 1010 Havana, Cuba CMC 840 Havana, Cuba CMC 840 Havana, Cuba CMCB 1070 Havana, Cuba CMCC 1285 Havana, Cuba CMCC 900 Havana, Cuba CMCH 1285 Havana, Cuba CMCO 660 BuenRetiro, Cuba CMCQ 955 Havana, Cuba CMCQ 955 Havana, Cuba CMCQ 850 CMGA 830 Colon, Cuba CMGA 830 Colon, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500 S. Barbara, Cal. KDFN 1210 Casper, Wyo. KDKA 980 Pittsburgh, Pa. KDLR 1210 Devils Lake, N.D. KDYL 1290 Salt Lake City KECA 1430 Los Angeles, Cal. KELW 780 Burbank, Cal. KELW 780 Burbank, Cal. KEX 1180	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOX 1250 Long Beach, Cal. KFPL 1310 Dublin, Texas KFPM 1310 Greenville, Tex. KFPM 1340 Ft. Smith, Ark. KFPU 1340 Ft. Smith, Ark. KFPU 1340 Ft. Spokane, Wash. KFQU 1420 Holy City, Cal. KFQW 1420 Seattle, Wash. KFRW 1420 Seattle, Wash. KFRW 1420 Seattle, Wash. KFRC 610
CHNS 910 Halifax, N.S. CHRC 880 Quebec, Que CHWC 960 Regina, Sask. CHWK 1210 Chilliwack, B.C. CHYC 730 Montreal, Que. CJBR 960 Regina, Sask. CJCA 930 Edmonton, Alta. CJCB 880 Syndey, N.S. CJCJ 690 Calgary, Alta. CJGX 910 London, Ont. CJGX 910 London, Ont. CJGX 910 London, Ont. CJGX 120 Lethbridge, Alta. CJOR 1210 Sea Island, B.C. CJRM 600 Moose Jaw, Sask. CJRW 600	CMBD 995 Havana, Cuba CMBS 790 Havana, Cuba CMBT 1070 Havana, Cuba CMBW 1010 Marianao, Cuba CMBZ 1010 Havana, Cuba CMBZ 1010 Havana, Cuba CMC 840 Havana, Cuba CMC 840 Havana, Cuba CMCB 1070 Havana, Cuba CMCC 1285 Havana, Cuba CMCC 900 Havana, Cuba CMCH 1285 Havana, Cuba CMCO 660 BuenRetiro, Cuba CMCQ 955 Havana, Cuba CMCQ 955 Havana, Cuba CMCQ 850 CMGA 830 Colon, Cuba CMGA 830 Colon, Cuba	Toronto, Ont. CPRY 690 Toronto, Ont. HHK 920 Port au Prince, H. KBPS 1420 Portland, Ore. KBTM 1200 Paragould, Ark. KCRC 1370 Enid, Okla. KCRJ 1310 Jerome, Ariz. KDB 1500 S. Barbara, Cal. KDFN 1210 Casper, Wyo. KDKA 980 Pittsburgh, Pa. KDLR 1210 Devils Lake, N.D. KDYL 1290 Salt Lake City KECA 1430 Los Angeles, Cal. KELW 780 Burbank, Cal. KELW 780 Burbank, Cal. KEX 1180	Chicago, Ill. KFLV 1410 Rockford, Ill. KFLX 1370 Galveston, Tex. KFMX 1250 N'thfield, Minn. KFNF 890 Shenandoah, Ia. KFOX 1250 Long Beach, Cal. KFPL 1310 Dublin, Texas KFPM 1310 Greenville, Tex. KFPM 1340 Ft. Smith, Ark. KFPU 1340 Ft. Smith, Ark. KFPU 1340 Ft. Spokane, Wash. KFQU 1420 Holy City, Cal. KFQW 1420 Seattle, Wash. KFRW 1420 Seattle, Wash. KFRW 1420 Seattle, Wash. KFRC 610

KFRU 630		KGFF 1420	Ĭ	KIDO 1250		KPJM 1500	
Columbia, Mo.		Alva, Okla,		Boise, Idaho		Prescott, Ariz.	
KFSD 600		KGFG 1370		KIT 1310		KPO 680	
San Diego, Cal. KFSG 1120		Oklahoma City		Yakima, Wash.		San F'ncisco, Cal.	
KFSG 1120		KGFI 1500		KJBS 1070 San F'ncisco, Cal.		KPOF 880 Denver, Colo.	l
Los Angeles, Cal. KFUL 1290		Corpus Ch'sti, Tex KGFJ 1200		KJR 970		KPPC 1210	
Galveston Tev	1	Los Angeles, Cal.		Seattle, Wash.		Pasadena, Cal.	l
Galveston, Tex. KFUM 1270		KGFK 1500		I KLUN 1290		KPQ 1500	
Col. Spgs., Colo.		Moorhead, Minn. KGFL 1370		Blytheville, Ark.		Wenatchee, Wash KPRC 920	
KFUO 550 I		KGFL 1370		KLO 1400		KPRC _ 920	
St. Louis, Mo.		Raton, N. M.		Ogden, Utah		Houston, Texas	
KFUP 1310	1	KGFW 1310	l	KLPM 1420		KPSN 1360	
Denver, Colo.		Ravenna, Nebr.		Minot, N. Dak.		Pasadena, Cal. KQV 1380	
KFVD 1000		KGFX 580	l	KLRA 1390 Little Rock, Ark.		Pittsburgh, Pa.	
Culver City, Cal. KFVS 1210		Pierre, S. D. KGGC 1420		KLS 1440		KQW 1010	
Cape Gir'rd'u, Mo		San F'ncisco, Cal.	ll	Oakland, Cal.		San Jose, Cal.	ı
KKWR 950		KGGF 1010		KLX 880		KRE 1370	
Hollywood, Cal.		Coffevville, Kans.	'	Oakland, Cal.		Berkeley, Cal.	
Hollywood, Cal. KFWF 1200		KGGM 1230		KLZ 560		KREG 1500	
St. Louis, Mo.		Alb'q'rque, N.M.		Denver, Colo.		Santa Ana, Cal.	
KFWI 930		1 KGHF 1320	l] KMA 930		KRGV 1260	
San F'ncisco, Cal.		Pueblo, Colo.		Shenandoah, Ia.		Harlingen, Texas	
KFXD 1420		KGH1 1200		KMAC 1370 San Antonio, Tex.		KRLD 1040	
Nampa, Idaho KFXF 920		Little Rock, Ark. KGHL 950		KMBC 950		Dallas, Texas KRMD 1310	
Denver, Colo.		Billings, Mont.		Kan. City, Mo.		Shreveport, La.	
KFXJ 1310		I KG1W 1320		KMED 1310		Shreveport, La. KROW 930	
Edgewater, Colo.		Twin Falls, Ida.		Medford, Ore.		Oakland Cal	
KFXM 1210		KGIR 1360		KMIC 1120		KRSC 1120	
San Ber'd'no, Cal.		Butte, Mont. KGIW 1420		Inglewood, Cal.		Seattle, Wash.	
KFXR 1310		KGIW 1420		KMJ 1210	\ I	KSAC 580	1
Oklahoma City		Trinidad, Colo.		Fresno, Cal. KMLB 1200		Manh'tt'n, Kans. KSCJ 1330	
KFXY 1420		KGIX 1420		Monroe, La.		Sioux City, Ia.	l .
Flagstaff, Ariz. KFYO 1420		Las Vegas, Nev. KGIZ 1500	l——	IKMMI 740		KSD 550	
Abilene, Texas	1	Grant City, Mo.		Clay Ctr., Nebr.		St. Louis, Mo.	1
KFYR 550		1 KGJF 890	-	Clay Ctr., Nebr. KMO _ 860		KSEI 900	
Bismarck, N.D.		Little Rock, Ark.		Tacoma, Wash.		Pocatello, Idaho	
KGA 1470 (KGKB 1500		I KMOX 1090	1	KSL 1130	_
Spokane, Wash.		Brownwood, Tex. KGKL 1370		St. Louis, Mo. KMPC 710		Salt Lake City KSMR 1200	
KGAR 1370 Tucson, Ariz.		San Angelo Tex	\	Los Angeles, Cal.		Santa Maria, Cal.	
KGB 1330		San Angelo, Tex. KGKO 570		KMTR 570		KSO 1380	
San Diego, Cal.		Wichita Flls., Tex KGKX 1420		Los Angeles, Cal.		Clarinda, Iowa	
KGBU 900		KGKX 1420		KNX 1050		I KSOO 1110	
Ketchikan, Al'ka.		I Sand Point, Ida.		Los Angeles, Cal.		Sioux Falls, S.D.	
KGBX 1310	.	KGKY 1500	1 1	KOA 830) [KSTP 1460	1
St. Joseph, Mo.		Scottsbluff, Nebr. KGMB 1320		Denver, Colo.		St. Paul, Minn. KTAB 560	
KGBZ 930 York, Nebr.		Honolulu, T. H.		KOAC 550 Corvallis, Ore.		KTAB 560 San F'ncisco, Cal.	1
KGCA 1270		KGMP 1210		KOB 1180		KTAP 1420	
Decorah, Iowa		Elk City, Okla.		State Coll., N.M.		.San Antonio, Tex.	1
KGCR 1210		KGNF 1430		I KOCW 1400		KTAR 620	
Watertown, S.D.		No. Platte, Neb. KGNO 1210		Chickasha, Okla.		Phoenix, Ariz.	
KGCU 1200		KGNO 1210		KOH 1380		KTAT 1240	1
Mandan, N.D.		Dodge City, Kans. KGO 790		Reno, Nevada KOIL 1260		Ft. Worth, Tex. KTBI 1300	
KGCX 1310	1	KGO 790 San F'ncisco, Cal.		Council Bluffs, Ia.		Los Angeles Cal	
Wolf P't, Mont. KGDA 1370		KGRS 1410		KOIN 940		Los Angeles, Cal. KTBR 1300	l
Mitchell, S. D.		Amarillo, Texas		Portland, Ore.		Portland, Ore.	
KGDE 1200		K.GU 940		KOL 1270		KTBS 1450	
Ferg's F'lls, Minn		Honolulu, Hawaii		Seattle, Wash.		Shreveport, La.	
KGDM 1100		KGVO 1420		KOMO 920		KTHS 1040	
Stockton, Cal.		Missoula, Mont.		Seattle, Wash.		Hot Spgs., Ark.	
KGDY 1200		KGW 620		KONO 1370		KTLC 1310	1
Huron, S. D. KGEF 1300		Portland, Ore. KGY 1200		San Antonio, Tex KOOS 1370		Houston, Texas KTM 780	
KGEF 1300 Los Angeles, Cal.		KGY 1200 Lacey, Wash.		Marshfield, Ore.		Los Angeles, Cal.	1
KGEK 1200		KHJ 900		KORE 1420		KTNT 1170	
Yuma, Colo.		Los Angeles, Cal.		Eugene, Ore.		Muscatine, Iowa	
KGER 1360		KHQ 590		KOY 1390		KTRH 1120	
Long Beach, Cal. KGEW 1200		Spokane, Wash.		Phoenix, Ariz.		Houston, Texas	
KGEW 1200	_	KICK 1420		KPCB 650		KTSA 1290	
Ft.Morgan, Colo.		Red Oak, Iowa.		Seattle, Wash.		San Antonio, Tex.	
KGEZ 1310 Kalispell, Mont.		KID 1320 Idaho Falls, Ida.					
Lauspen, Mont.		rdano rans, ida.				1	

KTSL 1310	WABC 860	WCAJ 590	WDEL 1120
Shreveport, La.	New York City	Lincoln, Nebr.	Wilmington, Del.
KTSM 1310 El Paso, Texas	WABI 1200 Bangor, Maine	WCAL 1250	WDGY 1180
KTW 1270	WABZ 1200	Northfield, Minn. WCAM 1280	Minneap., Minn. WDIX 1500
Seattle, Wash.	New Orleans, La.	Camden, N. J.	Tunelo Miss
KUJ 1500	WACO 1940	WCAO 600	I WDOD 1280)
Longview, Wash.	Waco, Texas WADC 1320	Baltimore, Md.	Chattan'ga, Tenn
KUOA 1390	WADC 1320	WCAP 1280	WDRC 1330
Fayetteville, Ark. KUSD 890	Akron, Ohio WAIU 640	Asbury Pk., N. J. WCAT 1200	Hartford, Conn. WDSU 1250
Vermillion, S. D.	Columbus, Ohio	Rapid City, S. D.	WDSU 1250 New Orleans, La.
KUT 1500	II WALR 1210	WCAU 1170	WDWF 1210
Austin, Texas	Zanesville, Ohio	Philadelphia, Pa.	Providence, R. I.
KVI 760	WAPI 1140	WCAX 1200	WDZ 1070
Tacoma, Wash.	Birmingham, Ala. WASH 1270	Burlington, Vt.	Tuscola, Ill.
KVL 1370 Seattle, Wash.		WCAZ 1070	WEAF 660
KVOA 1260	Gr. Rapids, Mich. WAWZ 1350	Carthage, Ill. WCBA 1440	New York City WEAI 1270
Tucson, Arizona	New York City	Allentown, Pa.	Ithaca, N. Y.
KVOO 1140	WBAA 1400	WCBD 1080	Ithaca, N. Y. WEAN 780
Tulsa, Okla KVOS 1200	Lafayette, Ind.	Zion, Ill.	Providence, R. I.
KVOS 1200	WBAK 1430	WCBM 1370	WEAU 570
Bellingh'm, Wash KWCR 1310	Harrisburg, Pa. WBAL 1060	Baltimore, Md. WCBS 1210	Columbus, Ohio
Cedar Rapids, Ia.	Baltimore, Md.	WCBS 1210 Springfield, Ill.	WEBC 1290
KWEA 1210	WBAP 800	WCCO 810	Superior, Wis. WEBQ 1210
Shreveport, La.	Fort Worth, Tex.	Minneap., Minn.	Harrisburg, Ill.
KWG 1200	WBAX 1210	WCDA 1350	WEBR 1310
Stockton, Cal.	Wilkes-Barre, Pa.	New York City	Buffalo, N. Y.
KWJJ 1060	WBBC 1400	WCFL 970	WEDC 1210
Portland, Ore. KWK 1350	Brooklyn, N. Y. WBBM 770	Chicago, Ill. WCGU 1400	Chicago, Ill. WEDH 1420
St. Louis, Mo.	Chicago, Ill.	Brooklyn, N. Y.	Eria Pa
IZ XX YZ C' 1970	WBBR 1300	WCHI 1490	Erie, Pa. WEEI 590
Kansas City, Mo. KWKH 850	Brooklyn, N. Y.	Chicago, Ill.	Boston, Mass.
KWKH 850	WBBZ 1200		WEHC 1200
Shreveport, La. KWLC 1270	Ponca City, Okla. WBCM 1410	Covington, Ky. WCLB 1500	Emory, Va. WEHS 1420
Decorah, Iowa	Bay City, Mich.	WCLB 1500 Long Beach, N.Y.	Cicero III
KWSC 1220	II WREN 900	WCLO 1200	Cicero, Ill. WELK 1370
Pullman, Wash.	Buffalo, N. Y.	Janesville, Wis.	Philadelphia, Pa.
KWWG 1260	II WBGF 1370	WCLS 1310	WELL 1420
Brownsville, Tex KXA 570	Glens Falls, N. Y. WBIG 1440	Joliet, Ill. WCMA 1400	BattleCreek, Mich
KXA 570 Seattle, Wash.	WBIG 1440 Greensboro, N.C.	WCMA 1400 Culver, Ind.	WENR 870
KXL 1420	WBIS 1230	WCOA 1340	Chicago, Ill. WEPS 1200
Portland, Ore.	Boston, Mass. WBMS 1450	Pensacola, Fia.	Worcester, Mass.
KXO 1500	WBMS 1450	WCOC 880	WEVD 1300
El Centro, Cal.	Hackensack, N.J.	Meridian, Miss.	New York City
KXRO 1310	WBOQ 860 New York City	WCOD 1200	WEW 760
Aberdeen, Wash KXYZ 1420	WBOW 1310	Harrisburg, Pa. WCOH 1210	St. Louis, Mo. WEXL 1310
Houston, Texas	Terre Haute, Ind.	Yonkers, N. Y.	Royal Oak, Mich.
KYA 1230	WBRC 930	WCRW 1210	I WIEAA SOO
San F'ncisco, Cal.	Birmingham, Ala.	Chicago, Ill.	Dallas, Texas
KYW 1020	WBRE 1310	WCSC 1360	WFAN 610
Chicago, Ill. KZM 1370	Wilkes-Barre, Pa. WBSO 920	Charleston, S. C. WCSH 940	Philadelphia, Pa.
Hayward, Cal.	Needham, Mass.	Portland, Maine	WFBC 1200 Knoxville, Tenn.
NAA 690	WBT 1080	WDAE 1220	WFBE 1200
Arlington, Va.	Charlotte, N. C.	Tampa, Fla.	Cincinnati, Ohio
NBA 850	WBTM 1370	WDAF 610	WFBG 1310
Balboa, C. Z.	Danville, Va.	Kansas City, Mo.	Altoona, Pa.
TIC 750	WBZ-A 990	II W I) A (7 14 I 0 I	WFBL 1360
San Jose, C. R. VAS 685	Springfield, Mass WCAC 600	Amarillo, Texas WDAH 1310	Syracuse, N. Y. WFBM 1230
Glace Bay, N. S.	Storrs, Conn.	El Paso, Texas	Indianapolis, Ind.
WAAF 920	WCAD 1220	II WDAY 940 I	WFBR 1270
Chicago III.	WCAD 1220 Canton, N. Y.	Fargo, N. D.	Baltimore, Md.
WAAM 1250	W CAE 1220	WDBJ 930	WFDF 1310
Newark, N. J.	Pittsburgh, Pa.	Roanoke, Va.	Flint, Mich.
WAAT 940	WCAH 1430 Columbus, Ohio	WDBO 1120 Orlando, Fla.	WFDV 1370
Jersey City, N. J. WAAW 660	Columbus, Onio	Oriando, Fia.	Rome, Ga.
Omaha, Nebr.	ll .		
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WID W						
WFDW 1420	^ WHDI 1180		WJBK 1370		WLBG 1200	
Talladega, Ala. WFI 560	Minneap., Minn. WHDL 1420		Detroit, Mich. WJBL 1200		WLBG 1200 Ettrick, Va. WLBL 900 Stevens Pt. Wis.	
Philadelphia, Pa.	TupperLake, N.Y.		Decatur III		Stevens Pt., Wis. WLBW 1260	
Philadelphia, Pa. WFIW 940	WHEC 1440 Rochester, N. Y.		I WJBO 1420		WLBW 1260	
Hopkinsville, Ky. WFLA 620 Clearwater, Fla.	WHFC 1420		New Orleans, La WJBT 770		Oil City, Pa.	
Clearwater, Fla.	Cicero, Ill.		Chicago, Ill.		WLBX 1500 L.I.City, N.Y.	
WFOX 1400 Brooklyn, N. Y. WGAL 1310	WHIS 1410		WJBU 1210		WLBZ 620 Bangor, Me.	
Brooklyn, N. Y.	WHIS 1410 Bluefield, W. Va.		Lewisburg, Pa WJBW 1200		Bangor, Me.	
Lancaster, Pa.	WHK 1390 Cleveland, Ohio WHN 1010		New Orleans, La. _		WLCI 1210 Ithaca, N. Y. WLEX 1410	
WGAR 1450	WHN 1010		WJBY 1210		WLEX 1410	
Cleveland, Ohio	New York City WHO 1000		Gadsden, Ala.		Lexington, Mass. WLEY 1370 Lexington, Mass.	
WGBB 1210 Freeport, N. Y. WGBC 1430	Des Moines, la.]	WJDX 1270 Jackson, Miss.		Lexington, Mass.	
WGBC 1430	WHOM 1450		I M J J I I I I I		WLIT 560 Philadelphia, Pa. WLOE 1500	
Memphis, Tenn.	Jersey City, N. J. WHP 1430		Mooseheart, Ill.		Philadelphia, Pa.	
WGBF 630 Evansville, Ind.	Harrisburg, Pa.		WJKS 1360 Gary Ind		Boston, Mass.	
WGBI 880	WIAS 1420		Gary, Ind. WJR 750 Detroit, Mich.		WLS 870 Chicago, Ill.	
Scranton, Pa.	II Ottumwa, Iowa		Detroit, Mich.		Chicago, Ill.	
WGBS 600 New York City	WIBA 1280 Madison, Wis.				WLSI 1210 Providence, R. I.	
WGCM 1210	WIBG 930		Alexandria, Va. WJW 1210 Mansfield, Ohio		WLTH 1400	
WGCM 1210 Gulfport, Miss. WGCP 1250 Newark, N. J.	WIBG 930 Elkins Park, Pa. WIBM 1370		Mansfield, Ohio		WLTH 1400 Brooklyn, N. Y.	
WGCP 1250	Jackson, Mich.		WJZ 760 New York City		WLVA 1370	
WGES 1360			WKAQ 890		Lynchburg, Va. WLW 700	
Chicago, Ill.	II Chicago, Ill.		WKAQ 890 San Juan, P. R.		Cincinnati, Ohio	
WGH 1310 Newp't News, Va.	WIBR 1420 Steubenville, O.		WKAR 1040 E. Lansing, Mich.	- 1	WLWL 1100 New York City	
WGL 1370	WIRI 1210		WKAV 1310		WMAC 570 Syracuse, N. Y.	
Ft. Wayne, Ind. WGN 720	Povnette, Wis.		WKAV 1310 Laconia, N. H.		Syracuse, N. Y.	
WGN 720	WIBW 580 Topeka, Kansas		WKBB 1310 Joliet, Ill. WKBC 1310		WMAK 1040 Buffalo, N. Y.	
Chicago, Ill.	WIBX 1200		WKBC 1310 -		I WMAL 630	
WGR 550 Buffalo, N. Y.	WIBX 1200 Utica, N. Y. WICC 1190		Birmingham, Ala.		Washington, D.C.	
WGST 890	WICC 1190	i ' I	WKBF 1400		WMAQ 670 Chicago, Ill.	
WGST 890 Atlanta, Ga. WGY 790 Schenec'd'y, N.Y. WHA 940 Medison Win	Bridgeport, Conn. WIL 1200 St. Louis, Mo.		Indianapolis, Ind WKBH 1380		WMAZ 890 Macon, Ga.	
Schenec'd'y, N.Y.	St. Louis, Mo.		La Crosse, Wis. WKBI 1420		Macon, Ga.	
WHA 940 Madison, Wis.	WILL 890 Urbana, Ill.		Chicago III		WMBA 1500 Newport, R. I. WMBC 1420 Detroit, Mich.	
WHAD 1120	WILM 1420		Chicago, Ill. WKBN 570		WMBC 1420	
Milwaukee, Wis. WHAM 1150	Wilmington, Del.		Youngstown, O.		Detroit, Mich.	
Rochester, N.Y.	WIOD 1300 Miami, Fla.		WKBO 1450		WMBD 1440 Peoria Hghts.,Ill.	
WHAP 1300	II MIL OID		Jersey City, N. J. WKBQ 1350		WMBG 1210 Richmond, Va.	
New York City WHAS 820	II Philadelphia, Pa.		New York City		Richmond, Va.	
Louiserillo Vv	WIS 1010 Columbia, S. C.		WKBS 1310		WMBH 1420 Joplin, Mo. WMBI 1080	
WHAT 1310	II W IS 1 780		Galesburg, Ill. WKBV 1500		WMBI 1080	
Philadelphia, Pa.	II Madison, Wis.		Connersville, Ind WKBW 1480		Chicago, Ill.	
Trov N. Y.	WISN 1120 Milwaukee, Wis.		I BIIII AIO. IV. Y.		Chicago, Ill. WMBJ 1500 Pittsburgh, Pa.	
WHAT 1310 Philadelphia, Pa. WHAZ 1300 Troy, N. Y. WHB 860	Milwaukee, Wis. WJAC 1310		WKBZ 1500		WMBO 1310 Auburn, N. Y.	
Kansas City, Mo.	Johnstown, Pa.		Ludington, Mich.		Auburn, N. Y. WMBQ 1500	
Canton, Ohio	WJAG 1060 Norfolk, Nebr.		WKJC 1200 Lancaster, Pa.		Brooklyn, N. Y.	
WHRD 1370	W TAK 1310		WKRC 550			
Mt. Orab, O. $-$	Marion, Ind.		Cincinnati, O.		Tampa, Fla. WMC 780 Memphis, Tenn. WMCA 570 New York City WMMN 890	
WHBF 1210 Rock Island, Ill.	WJAR 890 Providence, R. I.		WKY 900 Oklahoma City		WMC 780	
WHBL 1410			WKZO 590		WMCA 570	
WHBL 1410 Sheboygan, Wis. WHBQ 1370 Memphis, Tenn.	Pittsburgh, Pa. WJAX 900		Be'n Spgs., Mich WLAC 1470		New York City	
WHBQ 1370	WJAX 900 Jacksonville, Fla.		WLAC 1470 Nashville, Tenn.		WMMN 890 Fairmont, W.Va.	
WHBU 1210	WJAY 610		I W LAP 1200		WMPC 1500	
Anderson, ind.	Cleveland, Ohio		Louisville, Ky.		Lapeer, Mich. WMRJ 1210	
WHRY 1200	WJAZ 1490] WLB 1250		WMRJ 1210	
Green Bay, Wis. WHDF 1370	Chicago, Ill. WJBC 1200		St. Paul, Minn WLBC 1310		Jamaica, N. Y. WMSG 1350	
Calumet, Mich.	ll [48 Salle, Ill.		Muncie, Ind.		New York City	
WHDH 830	WJBI 1210 Red Bank, N. J.		I WIRK 1420			
Boston, Mass.	Red Bank, N. J.		Kansas City, Ks.			
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WMT 600	WPCC 11 560	WSAR 1450	WWNC 570
Waterloo, Iowa WNAC 1230	Chicago, Ill. WPCH 810	Fall River, Mass. WSAZ 580	Asheville, N. C. WWRL 1500
Boston, Mass.	New York City	Hunt'gton, W.Va.	Woodside, N. Y.
WNAD 1010	WPEN 1500	WSB 740	W W V A 1160
Norman, Okla. WNAX 570	Philadelphia, Pa. WPG 1100	Atlanta, Ga. WSBC 1210	Wheeling, W. Va. WXYZ 1240
Yankton, S. D.	Atl'ntic City, N.J.	Chicago, Ill.	Detroit, Mich.
WINDE TOUC	WPOE 1370 ·	Chicago, Ill. WSBT 1230	XEA 1200
Bingh'mt'n, N.Y. WNBH 1310	Patchogue, N. Y. WPOR 780	South Bend, Ind. WSDA 1400	Guadalajara, Jal XEB 1030
New B'df'd, Mass.	Norfolk, Va.	Brooklyn, N. Y.	Mexico City
WNBO 1200	WPSC 1230	WSEN 1210	XEC 1133
Washington, Pa.	State College, Pa.	Columbus, Ohio	Toluca, Mex.
WNBR 1430 Memphis Tenn	WPTF 680 Raleigh, N. C.	WSFA 1410 Montgomery, Ala.	XED 961 Reynosa, Tams.
Memphis, Tenn. WNBW 1200	II W CIANI 560	WCIV 1910	XEF 1132
Carbondale, Pa.	Miami, Fla.	Springfield, Tenn.	Oaxaca, Oax.
WNBX 1200 Springfold Vt	WQAN 880 Scranton, Pa.	WSJS 1310 WinstSal., N. C.	XEG 829 Mexico City
Springfield, Vt. WNBZ 1290	WQAO 1010	II WSM 650	XEH 1132
SaranacL'ke, N.Y.	WQAO 1010 New York City	Nashville, Tenn.	Monterrey, N. L. XEI 1000
WNJ 1450	WQBC 1360	WSMB 1320 New Orleans, La.	XEI 1000
Newark, N. J. WNOX 560	Vicksburg, Miss. WQDM 1370	WSMK 1380	Morelia, Mich. XEJ 857
Knoxville, Tenn.	St. Albans, Vt.	Dayton, Ohio	Juarez, Chih.
WNIC 570	WQDX 1210	WSOC 1210	XEK 1000 -
New York City WOAI 1190	Thomasville, Ga. WRAF 1200	Gastonia, N. C. WSPA 1420	Mexico City XEL 1091
San Antonio, Tex. WOAN 600	II La Porte. Ind.	Spartanburg, S.C.	Saltillo, Coah.
	WRAK 1370	WSPD 1340	XEM 841
Law'nceb'g,Tenn. WOAX 1280	Williamsport, Pa. WRAW 1310	Toledo, Ohio WSSH 1410	Tampico, Tams. XEN 732
Trenton, N. J.	Reading, Pa.	Boston, Mass.	Mexico City
	II WKAA 1040		XEO 674
Union City, Tenn. WOBU 580	Philadelphia, Pa. WRBI 1310	Iowa City, Ia. WSUN 620	Mexico City XEQ 750
Charlest'n, W.Va.	Tifton, Ga.	St. Petersb'g, Fla.	Ciudad Juarez
Charlest'n, W.Va. WOC 1000	Tifton, Ga. WRBJ 1370	WSVS 1370	XER 984
Davenport, Iowa WOCL 1210	Hattiesburg, Miss WRBL 1200	Buffalo, N. Y. WSYB 1500	Mexico City XES 890
Jamestown, N. Y.		Rutland Vt	Tampico, Tamp.
WODA 1250	Columbus, Ga. WRBQ 1210	WSYR 570	XET 890
Paterson, N. J. WODX 1410	Greenville, Miss. WRBT 1370	WSYR 570 Syracuse, N. Y. WTAD 1440	Monterrey, N. L. XETA 1100
Mobile, Ala. •	Wilmington, N.C.	Quincy, Ill	Mexico City
WOI 640	WRBX 1410	WTAG 580	XETF 680
Ames, Iowa WOKO 1440	Roanoke, Va. 950	Worcester, Mass. WTAM 1070	Veracruz XEU 800
P'ghkeepsie, N.Y.	Washington, D.C.	Cleveland, Ohio	Veracruz, Ver.
WOL 1310	WRDO 1370	II WTAO 1330	XEV 1035
Washington, D.C.	Augusta, Me	Eau Claire, Wis. WTAR 780	Puebla XEW 780
WOMT 1210 Manitowoc, Wis. WOOD 1270	Augusta, Ga.	Norfolk Va.	XEW 780 Mexico City
WOOD 1270	II WREC 600	WTAW 1120	XEX 1190
Gr. Rapids, Mich.	Memphis, Tenn.	College Sta., Tex.	Mexico City
WOPI 1500 Bristol, Tenn.	WREN 1220 Lawrence, Kans.	WTAX 1210 Springfield, Ill.	XEY 547 Merida, Yuc.
WOO 1300	WRHM 1250	WTBO 1420	XEZ 588
Kansas City, Mo. WOR 710	Minneap., Minn.	Cumberland, Md.	Mexico City
WOR 710	WRJN 1370 Racine, Wis.	WTEL 1310 Philadelphia,Pa.	XFC 805
Newark, N. J. WORC 1200	WRNY 1010	WTFI 1450	Jalapa, Ver. XFE 632
Worcester, Mass.	New York City WROL 1310	Toccoa, Ga.	Villahermosa, Tab
	WROL 1310	WTIC 1060	XFF 915
Jeff's'n City, Mo WOV 1130	Knoxville, Tenn. WRR 1280	Hartford, Conn. WTMJ 620	Chihuahua, Chih XFG 638
New York City	Dallas, Texas	Milwaukee, Wis.	Mexico City
WOW 590	Dallas, Texas WRUF 830	WTNT 1470	XFI 818
Omaha, Nebr. WOWO 1160	Gainesville, Fla. WRVA 1110	Nashville, Tenn. WTOC 1260	Mexico City XFX 860
WOWO 1160 Ft. Wayne, Ind.	Richmond, Va.	Savannah, Ga.	Mexico City
WPAD 1420	Richmond, Va. WSAI 1330	II WWAE 1200	XFZ 859
Paducah, Ky.	Cincinnati, Ohio	Hammond, Ind.	Mexico, City 8WMC 720
WPAP 1010 New York City	WSAJ 1310 Grove City, Pa.	WWJ 920 Detroit, Mich.	8WMC 720 St. Johns, N. F.
WPAW 1210	Grove City, Pa. WSAN 1440	WWL 850	10BP 1200
Pawtucket, R. I.	Allentown, Pa.	New Orleans, La.	Wingham, Ont.
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Principal Broadcasting Stations of the World

Fill in your dial numbers and you will then know where these foreign stations should be received on your set

	Call	Watts	City	Country	Kcys.	Call	Watts	City	Country
19			Berlin	Germany				550	
55	RYK	7000	Kovno	Lithuania					
60	PH9	6200	Huizen	Netherlands Tunisia					
62	TNU	40000	Carthage	Finland	553	SBD	600	Sundsvall	Sweden
66 67	• • • • • • • •	1000	Lahti Norddeisch	Germany	563	SBD	4000	Munich	Germany
74	• • • • • • • •	13500	Paris	France	571	RA30	1000	Dneipropetrovsk	Russia
74	D 1 42			Russia	571	YLZ	10000	Riga	Latvia
76	RA43	4000	Kharkov		580	RA38	1000	Krasnodar	Russia
87	F3737	5000	Angora	Turkey	580		600	Hobart	Australia
93	5XX	25000	Daventry	Un. Kingdom	581	7ZL	15000	Vienna	Austria
02.5	2002000	12000	Warsaw	Poland		ON4RB	3600	Brussels	
07_	RA1	40000	Moscow	Russia	590				Belgium
07.5	FL	15000	Paris	France	599	IMI	7000	Milan	Italy
22	SBG .	30000	Motala	Sweden					
31	AFT	10000	Berlin	Germany				600	
40	TUA	500	Tunis	Tunisia					
50		100	Tallinn	Estonia					
50		6000	Osmanie	Turkey					**
50	SBE	600	Boden	Sweden	600	cwow		Montevideo	Uruguay
60		7500	Kalundborg	Denmark	606	XGZ	500	Nanking	China
69	RA33	4000	Novorossisk	Russia	608	LKO	60000	Oslo	Norway
72	RA57	500	Irkutsk	Russia	616	OKP	5000	Prague	Czecho-
78	RA67	1200	Malchik	Russia					slovakia
79	PCF	1500	Scheveningen	Netherlands	620	3AR	1000	Melbourne	Australia
30	PFBI	7000	Hilversum	Netherlands	625	COTN	500	Tientsin	China
35	RA15	500	Sverdlovak	Russia	625	CMAB	1000	Santiago	Chile
35	RA49	1200	Erivan	Russia	625	RA17	1500	Vladivostok	Russia
Ĭ	RA42	10000	Leningrad	Russia	626	5GB	25000	Daventry	Un. Kingdo
17	RA40	1200	Odessa	Russia	631	RA43	4000	Kharkov	Russia
6	RA12	1200	Voronezh	Russia	633	EAJ8	1000	San Sebastian	Spain
25	RA39	1200	Gomel	Russia	635		8000	Langenburg	Germany
33	RA22	1200	Samara	Russia	644	YN	3000	Lyon	France
13	RA41	1200	Vologda	Russia	648	4YA	500	Dunedin	New Zeala
15	RAI1	4000	Tiffis	Russia	653		630	Zurich	Switzerland
19	RA18	1200	Minsk	Russia	662	IBZ	200	Bolzano	Italy
57	RA13	1800	Nizhni-Novgorod		662		500	Klagenfurt	Austria
66	RA14	4000	Rostov-on-Don	Russia	662	SCT	150	Uppsala	Sweden
75	RA7	180	Ivanovo Vos-	1140014	662	LKP	700	Porsbrund	Norway
	KAI	100	nesensk	Russia	662		700	Aix la Chapelle	Germany
75,	RA9	250	Sevastopol	Russia	662	EAJ22		Salamanca	Spain
75'	10/10	1750	Colombo	Ceylon	664	RUS	500	Salvador	Salvador
80	RA56	1200	Artemovsk	Russia	665	2FC	2500	Sydney	Australia
89	SBF	600	Ostersund	Sweden	666	ZTJ	15000	Johannesburg	South Afric
93	RA46	2000	Petrozovodsk	Russia	667	RA4	300	Moscow	Russia
5		250	Geneva	Switzerland	667	RA2	500	Moscow	Russia
7	RA5	1200	Kiev	Russia	671	FPTT	1000	Paris	France
	RAS	700	Bogorodsk	Russia	671	LKR	1000	Rjukan	Norway
00 00	RA45	4000	Baku	Russia	671	LKA	350	Aalesund	Norway
	RA77	1200	Stalino	Russia	674	COHB	1000	Harbin	China
11			Armavir	Russia	680	IRO	3000	Rome	Italy
7	RA47	200		Russia Russia	685	LT2	1000	LaPlata	Argentina
0	RA27	2000	Tashkent				1000	Stockholm	Argentina Sweden
9	RA26	1000	Astrakhan	Russia	688	SBA	500		Danzig
5	RA44	1200	Tver	Russia	689	PTB	1000	Danzig	
2	200000	600	Lausanne	Switzerland	689	CAB		Canton	China
2	RA16	1200	Vel Ustjuk	Russia	689	SCN	250	Malmberget	Sweden
9	RA25	1000	Orenburg	Russia	690	6WF	1000	Perth	Australia
					695		2500	Belgrade	Yugoslavia
					698	JODK	1000	Keijo	Japan
			500					700	
L					700	CWOA	1000	Montevideo	Uruguay
1	RA34	1000	Kourak	Russia	706	LS1	5000	Buenos Aires	Argentina
2		3000	Lljubljana	Yugos!avia	706			Sorocaba	Brazil
26	LKH	700	Hamar	Norway	706	HJN	550	Bogota	Colombia
7		1500	Freiburg	Germany	707.6	EAJ7	1500	Madrid	Spain
55		700	Augsburg	Germany	708	JOJK	3000	Kanazawa	Japan
5 5	• • • • • • •	750	Augsburg Hanover	Germany	714	RA32	200	Saratov	Russia
	RA20	1200	Stavropol	Russia	714	COMK	2000	Mukden	China
	B A ZII			Massia					
		20000	Dudonost		714				
15 15 45		20000 12000	Budapest Bucharest	Hungary Rumania	714	JODK	1000	Heijo (Seoul)	Chosen (Korea)

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K	cy8.	Call	Watts	City	Country	Kcys	. $Call$	Watts	City	Country
71	7		4000	Berlin	Germany	923		4000	Breslau	Germany
71		2₹A	5000	Wellington	New Zealand	930	4RK	2000	Rockhampton	Australia
72			2500	Rabat .	Morocco	931	SBB	10000	Goteborg	Sweden
72			750	Dresden	Germany	937	PRAB	500	Rio de Janerio	Brazil
73	ň	5CL	2500	Adelaide	Australia	937	COPK	1000	Peking	China
73			10000	Katowice	Poland	940	2RN	1500	Dublin	Irish Free St.
73	Š		2200	Tartu	Estonia	941		250	Basle	Switzerland
74			1000	Berne	Switzerland	942	CT1AA	1000	Lisbon	Portugal
75	ň	LR7	1250	Buenos Aires	Argentina	949	LR3	1000	Buenos Aires	Argentina
750		PRAA	1000	Rio de Janerio	Brazil	950	2GB	600	Sydney	Australia
75		I-KAA	250	Marsan	France	950		500	Marseilles	France
75		7LO	2000	Nairobi	Kenya	950	• • • • • • • • • • • • • • • • • • • •	700	Bremen	Germany
75		JOBK	10000	Osaka	Japan	956	K4	250	Tucuman	Argentina
		EAJ2	750	Madrid		959		1500	Krakow	Poland
750	,		1000		Spain	960	5DN		Adelaide	Australia
752	٤	5SC	1000 5000	Glasgow Dairen	Un. Kingdom		F2BD	100 480		France
759		JQAK			Kwangtung		r2BD		Agen	
760	ע	LT4	500	Mendoza	Argentina	967.8	PRAP	2000	Paris	France Brazil
760		4QG	2500	Brisbane	Australia	967		300		
769	9	JOHK	10000	Sendai	Japan	968	5WA	1000	Cardiff	Un. Kingdom
769			1500	Franfort on Main		973	3 Y A	700 500	Zagreb	Yugoslavia New Zealand
77			500	Rheims	France	980	3YA	500	Christchurch	New Zealand
779		<u></u>	500	Wilna	Poland		PIAA	500	Lisbon	Portugal
779	9	LKF	700	Fredrikstad	Norway	986		1500	Bordeaux	France
779			8000		France	990	LR4	2000	Buenos Aires	Argentina
788		IGE	1200		Italy	995	2BD	1000	Aberdeen	Un. Kingdom
789		ZTD	1000		South Africa			_	000.	
789	•	JOGK	10000	Kumamoto	Japan			1	.000	
789	•	LR1	500	Buenos Aires	Argentina				_	
789	•	PRAJ	200	Juiz de Fora	Brazil					
789	•	OAX	1500	Lima	Peru	1000	RA21	150	Tomsk	Russia
789	•	cwos	500	Montevideo	Uruguay	1000	OPX	1000	LaPaz	Bolivia
797	7	2ZY	1000	Manchester	Un. Kingdom	1004	PFBI	7000	Hilversum	Netherlands
	•				,					
				800		1004	SCC	500 200	Falun	Sweden Finland
г						1009			Jyvaskyla	
						1010	6ML	300	Perth	Australia
200	_	777.0	1000	C T	Sandh Africa	1013		10000	Tallinn	Estonia
800	ע	ZTC		Cape Town	South Africa	1016	CMAO	250 500	Santiago	Chile.
800		3LO	2500	Melbourne	Australia	1022 1023	01777		Limoges	France
804		CMAC	1000	Santiago	Chile	1023	OKK	2500	Kosice	Czecho-
806		1000	4000	Hamburg	Germany	1025	OTTE	ro.	C1	slovakia
810	י	JOCK	10000	Nagoya	Japan		2UE	50	Sydney	Australia
810		VUC	3000	Calcutta	India	1029.	9 I K	500	Lyon Vipuri	France Finland
815					Spain	1030		750		
824		2122	2400	Algiers	Algeria	1030	LR9	2000	Buenos Aires	Argentina
824		LKB	1000		Norway	1031	ITO CMAJ	7000	Turin	Italy
825		F8GC	-1500	Paris	France	1034	CMAJ	100	Valparaiso	Chile
825		8DB	100	Algiers	Algeria	1040	6BM	1000	Bournemouth	Un. Kingdom
828		LR5	2000	Buenos Aires	Argentina	1040	6LV	130	Liverpool	Un. Kingdom Un. Kingdom Un. Kingdom
831		JOIK	10000	Sapporo	Japan	1040	2DE	130	Dundee	Un. Kingdom
833	3		4000	Stuttgart	Germany	1040	2EH	350	Edinburgh	Un. Kingdom
833		PRAE	1000	Sao Paulo	Brazil	1040	6KH	130	Hull	Un. Kingdom
840		G5	250	Venado Tuerto	Argentina	1040	5PY	130	Plymouth Leeds & Bradford Sheffield	Un. Kingdom
840		VUB	3000	Bombay	India	1040	2LS	130	Leeds & Bradford	Un. Kingdom
842		2LO	30000	London	Un. Kingdom	1040	6FL	130	Sheffield _	Un. Kingdom
849		JOFK	10000	Hiroshima	Japan	1040	6ST	130	Stoke on Trent	Un. Kingdom
851	l		7000	Graz	Austria	1040	5SX	130	Swansea	Un. Kingdom
855		2BL	2500		Australia	1049	2ZF	150	Palmerston	New Zealand
857		ZBW	1500	Victoria Peak	Hong Kong	1049		200	Montpellier	France
857	7	PRAD	500	Rio de Janerio	Brazil	1050	D5		Bahia Blanca	Argentina
857	7	CWOR	500	Montevideo	Uruguay	1058		500	Innsbruck	Austria
860		EAJ1	7500	Barcelona	Spain	1059		2000	Berlin	Germany
869				Cairo '	Egypt	1059			Magdeburg	Germany
869		JOAK	10000	Tokyo	Japan	1059		750	Stettin	Germany
870		LR2	3000	Buenos Aires	Argentina	1059	SCU	300	Varberg	Sweden
877		OKB	2500	Brunn	Czecho-	1067		1000	Copenhagen	Denmark
					slovakia	1070	EAR5	500	Las Palmas	Canary Isl'ds
882	2	E4	350	Azul	Argentina	1071	PRAR	500	Sao Paulo	Brazil
887		KRC	250	Shanghai	China	1071	CRC	500	Tientsin	China
887		ON4GT	100	Brussels	Belgium	1075	OKR	12500	Bratislava	Czecho-
895		XGY	250	Hangchow	China					slovakia
896			1500	Poznan	Poland	1076	LS5	1000	Buenos Aires	Argentina
						1080		200	Caen	France
			1	900		1086		4000	Konigsberg	Germany
г						1090	LT3	1500	Rosario	Argentina
						1091		250	Angers	France
900	_	1YA	500	Auckland	New Zealand	-001				
900		JFAK	1000	Taihoku				1	100	
			1000		Japan					
905	-4	INA	1500	Naples	Italy E					
905		I De	500		France	1100		1500	Dannes	France
909		LR6	1000	Buenos Aires	Argentina	1103	• • • • • • • • • • • • • • • • • • • •	1500	Rennes	France
909		••••	1500	Cairo	Egypt	1110	SCE	4000	Kaiserslautern	Germany
914	1.1	• • • • • • • • • • • • • • • • • • • •	1500	Grenoble	France	1110	SCF	150	Hudiksvall	Sweden

Kcys. Call	Watts	City	Country	Kcus.	Call	Watts	City	Country
1110 SCO	250	Norrkoping	Sweden				400	•
1112 LS4 1121 EAJ13	1000 10000	Buenos Aires	Argentina			\neg		
1125 2UW	100	Barcelona Sydney	Spain Australia	1410	D4	100	Man del Dista	A
1129 SCQ	250	Trollhattan	Sweden	1410 1428	D4 LS6	100 1000	Mar del Plata Buenos Aires	Argentina Argentina
1130 1147 2ZM	500 160	Lille Gisborne	France New Zealand	1470	SCD	200	Gavle	Sweden
1148 5NO	1000	Newcastle	New Zealand Un. Kingdom	1471 1481	SCM	1500 250	Ludwigshaven Kristinehamn	Germany Sweden
1149 LR8 1150 2LO	1500 30000	Buenos Aires London	Argentina	1484	SCH	250	Jonkoping	Sweden
1150 2LO 1153 PRAC	500	Rio de Janerio	Un. Kingdom Brazil			_	500	
1155 2MK	50	Bathurst	Australia				.300	
1157 1167 SBH	3000 10000	Gleiwitz Horby	Germany Sweden					
1169 CWON	200	Montevideo	Uruguay	1500	2LS	130	Leeds & Bradford	
1175 MRD	1500	Toulouse	France	1530 1560	SCJ G2SH	250	Karlskrona Akureyri	Sweden Iceland
1180 3DB 1184	100 4000	Melbourne Leipzig	Australia Germany	1635	AFT	10000	Berlin	Germany
1188 1ZO		Auckland	New Zealand	2000 2000	RA51	350 800	Leningrad	Russia
1190 LS2	1000	Buenos Aires	Argentina	2000 2142	RA72	500 500	Smolensk Surabaya	Russia Netherland
1193 EAJ18 1199 3ZC	200 250	Almeria Christchurch	Spain New Zealand				-	East Indies
1199.5	5000	Bordeaux	France	2998	• • • • • • • • • • • • • • • • • • • •	1500	Manaos	Brazil
1199 PRAG	500	Porto Alegre	Brazil	3088 3446		2000 2500	Soro Haiphong	Denmark French Indo
							_	China
	1	1200			H9XD F8AV	• • • • •	Zurich Nogent-sur-Seine	Switzerland
				2998	PK1AA	500	Batabia	Netherland
				40.00	T0.00	1500	ъ.	East Indies
1200	500	Toulon	France	4262.3	F8GC	1500	Paris Doberitz	France Germany
1200 5KA	200	Adelaide	Australia	5169	OK1MPI	5000	Prague	Czecho-
1211 SCI 1219	200 250	Kalmas Juan les Pins	Sweden France	F170	IDD	1000	D 1	slovakia
1219 ON4RW	200	Liege	Belgium	5170	IBR	1000	Bandoeng	Netherland East Indies
1219 ON4RG	400	Ghent	Belgium	5290	AGJ		Nauen	Germany
1219 1219	750	Kassel Abo	Germany Finland	5552 5879	AFT	10000	Berlin	Germany
1219	1500	Bjørenborg (Pori)Finland	5879 5996	AIN PK2AF	500	Casablanca Djokjakarta	Morocco Netherland
1219	750	Jakobstad	Finland				• •	East Indies
1219 SCL 1220 SCB	200 200	Kiruna Eskilstuna	Sweden Sweden	5996 6005	3ZC	250 2300	Christchurch	New Zealand
1220 SCP	400	Saffle	Sweden	6057	HRB	500 500	Tegucigalpa Lyngby	Honduras Denmark
1220	500	Linz	Austria	6662	PH3CH	250	Surabaya	Netherland
1224 CMAQ 1229	100 1 000	Santiago Tr o ndhjem	Chile Norway	6666.7	TD A V		Rome	East Indies Italy
1238 2BE	1000	Belfast	Un. Kingdom	6877		2500	Rabat	Morocco
1245 2NC 1254	2000 1000	Newcastle Nuremburg	Australia Germany	7005	8KR		Constantine	Tunisia ·
1254 1256	500	Nimes	France	7055 7260	VS3AB VS1AB	• • • • • •	Johore Singapore	Brit. Malaya Brit. Malaya
1260.4	5000	Bordeaux	France	7313	PK6KZ	500	Makassar	Netherland
1265 SCV 1270 LS3	200 1000	Orebro Buenos Aires	Sweden Argentina	7917 1		2000	D	East Indies
1287 G4	560	Rafaela	Argentina	7317.1 7462.7	YR	500	Paris Lyon	France France
1292	700	Kiel	Germany	7590	JFAB		Taipeh	Japan
				7963 7995	ЈНВВ	• • • • •	Doberitz Hirasio	Germany Japan
	1	1300		8818	3HDD		Para	Brazil
				8995		500	Reykjavik	Iceland
				9225 9369	2BL ZTJ	1000 15000	Sydney Johannesburg	Australia South Africa
1301 SCB	600	Malmo ,	Sweden	9369	3LO	1000	Melbourne	Australia
1301 SCG	200	Helsingborg	Sweden	9375		1000	Berne	Switzerland
1301 SCS 1304	200	Umea Schaerbeck	Sweden Germany	9375 9375	H9XD FL	15000	Zurich Paris	Switzerland France
1304 1309 SCA	150	Boras	Sweden	9488		500	Lyngby	Denmark
1313	250	Biarritz	France	9640	7LO	1000	Nairobi	Kenya
1319 1 319	1500 4 0 00	Muenster Cologne	Germany	9761 9772	F2BD EAM	480	Agen Madrid	France Spain
1330 PRAO	1000	Cologne Sao Paulo	Germany Brazil	9994	LGN		Bergen	Norway
1330 J2	400	Concordia	Argentina	10520	2FC	1000	Sydney	Australia
1337 6CK 1344 LOAA	1000 10000	Cork	Irish Free St. Luxemburg	10520 11760	2ME SAS	••••	Sydney Karlsborg	Australia Sweden
1344 LOAA 1351 LS7	1000	Luxemburg Buenos Aires	Luxemburg Argentina	12490	SQBE		Bahia	Brazil
1357	10000	Helsingfors	Finland	15300		50 0	Lyngby	Denmark
1363.6	250 1500	St. Etienne Beziers	France France	17430 17640	AGC PLF	• • • • •	Nauen Malabar	Germany Netherland
1373 SCW	200	Ormskoeldsvik	Sweden	11040	LL		maiavai	East Indies
1373	1500	Flensburg	Germany	17778	PHI	40000	Huizen	Netherlands
1375 SCK 1388 ON4CE	250 200	Karlstad Chatelineau	Sweden Belgium	19355 59964	PK4PA	240	Nancy Palembang	France Netherland
1388 ON4CE 1390 SCE	200	Halmstad .	Sweden	35504	ATIA	240	ı areninanğ	East Indies

FAVORITE PROGRAMS

Fime S	tation	Dials		Feat	ure		Tin	ne Stat		Dia		_	eature
DAILY 10 - Coil 1911 m 1, y (21-2 xurs 1111 38+									W	EDN	IESDA	Y	
40	10 – 1·2 %	Co	the s	11 4	7,14.70 38	2 / 						_	
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HOW TO TUNE A SET CORRECTLY

Read This Page Carefully and You Can Set Your Dials Accurately for Any Station in America

INDEX BY FREQUENCIES AND DIAL NUMBERS

A LL stations in America are listed in RADEX in three tables:

1st by Frequencies. 2nd by Call Letters 3rd by States and Cities

The Index by Frequencies is the one to be used, the other two are merely

supplementary. Let us assume you have just bought your first RADEX. Proceed as

Tune in some stationany station that comes in. Tune it sharply, turning down your rheostats (Volume control) until we find the marks on your dials at which it comes in most clearly and with greatest volume.

follows:

Let us assume that the station we are hearing is WEAF in New York. First we must ascertain the frequency for this station. Look it up under WEAF in the Index by Call Letters or under New York in the Index by States and Cities. In either of these indexes we find that the frequency of WEAF is 660. Now we turn to 660 kilocycles in the Index by Frequencies and Dial Numbers. Here we find that WEAF is one of the two stations which have been assigned which have been assigned the 660 keys. frequency by the Federal Radio Commission. We also find that it has a power of 50,000 watts, that it is located in New York City and is owned by the National Broadcasting Co., Inc.

In the blanks for dial numbers opposite 660 kilocycles (which is the wave length of 454.3 meters) enter the dial readings of your set. It is immaterial

enter the dial readings of your set. It is immaterial whether your set has one, two or three dials. Use as many of three spaces provided as you need. The set used in the illustration had two dials. In this case we entered the dial readings for 660 kilocycles

Let us now tune in some other station. We repeat the same procedure in tuning and find that we are hearing, let us say, WOS at Jefferson City. Proceed as before in ascertaining the frequency of WOS. This we find to be 630 keys. We turn to 630 in the Inex by Frequencies and enter our dial readings for this band which on the set we are using

We now have found that the dial numbers for 630 kcys. are 72-70 and the dial numbers for 660 kcys. are 69-67. If we now will set our dials for 70-68 it is obvious we will have our set tuned for 650 kcys. We listen carefully and if they are on the air and within range of our set we will tune in WSM of Nashville at this point. We then enter the dial readings for WSM opposite 650 kcys. Now it is

clear that if we reset our dials at 71-69 our set will be tuned to 640 kcys. and at that point KFI of Los Angeles will be heard, always assuming, of course, that it is on the air and within range of our

•	,
590 kilocycles 508.2 meters	76 74
KHQ 1900 Spokane, Wash, WGAJ 500 Lincoln Nebr. WEEI 500 Boston, Muss, WOW 1900 Omshs, Nebr.	Louis Wasmer, Inc. Nebraska Wesleyan University Edison Elec. Illuminating Co.
WEMC 1000 Omaha, Nebr. WEMC 1000 Berrien Springs, Mich.	Edison Elec. Illuminating Co. Woodmen of the World Emmanuel Missionary College
600 kilocycles 499.7 meters	75 73
CPCH 250 Iroquola Falls, Ont. EFBU 500 Laramie, Wyo EFSD 500 San Diego, Calif. WCAQ 230 Baltimere, Md, WEBW 230 Beloit Wis Elevit Wis	Ablitibl Power & Paper Co. Blehop N. S. Thomas
WCAO 250 Baltimore, Md. WEBW 250 Beloit Wis	Airian Radio Corp Monumental Radio Co., Inc.
	Vaudhan School of Musta
WREC 500 Memphis, Tenn. WTIC 236 Hartford, Conn.	WREC, Inc. Travelers Insurance Co.
610 kilocycles 491.5 meters	74 72
	Don Lee, Inc.
WDAF 500 Kansas City, Mo. WEAN 500 Philadelphia Pa.	
KPRC több San Francisco, Calif. WDAF 8808 Kansas City, Mo. WFAN 500 Philadelphia Pa. WOQ 8000 Rose Philadelphia, Pa. WOQ 8000 Rose Rose City, Mo.	Keystone Broadcasting Co., Inc. Gimbel Bros., Inc. Unity School of Christianity
22011 079: 210.	Chity School of Christianity
620 kilocycles 483.6 meters	73 7/
KFAD 500 Phoents, Arts. KGW 1000 Pertland, Ore.	Electrical Equipment Co.
	Oregonian Publishing Co. Tampa Publishing Co.
WDBO 1000 Ortando, Fis. WLBZ 500 Dover-Foxcroft, Me.	Rollins College, Inc. Thompson L. Guernay
WLBZ 500 Dover-Foxcroft, Me. WTMJ 1000 Milwaukee, Wis.	Milwaukee Journal
630 kilocycles 475.9 meters	. 72 70
CFCT 500 Victoria, B C, CJGX 500 Yorkton, Sask,	Victoria Broadcasting Ass'n
CNRA 500 Moncton, N B. CYR 250 Magatian, Mer.	Winnipeg Grain Exchange Canadian National Railways
KFRU 500 Columbia Mo.	Castulo Llamas Stephens College
WGBF 500 Evensville, Ind.	Evansville on the Air, Inc.
WMAL 250 Washington D. C. WOS 500 Jefferson City, Mo.	M A. Leese Co. State Marketing Bureau
640 kilocycles 468.5 meters	
KPI 5000 Los Angeles, Celif.	Earle C. Anthony, Inc.
WAIU 5000 Columbus, Obto	American Insurance Union
650 kilocycles 461.3 meters	70 68
WSM 5000 Nashville, Tenn.	Hatlonal Life & Accident Inc. Co.
660 kilocycles 454.3 meters	69 67
WAAW 500 Omaha, Nebr. WEAF 50000 New York City	Omaha Grain Exchange National Broadcasting Co., Inc.
670 kilocycles 447.5 meters	T68 66 T
WMAQ 5000 Chicago, III.	Chicago Dally News, Inc.
680 bilamalas 440 0	1915
680 kilocycles 440.9 meters	67 65
KPO 5000 San Francisco, Cal	Hale Bros & The Chronicle

Now we tune in some other station, proceeding as before until after an as before until after an
evening or two, we have
blanks filled on every
page. We are now able to
set our dials for any frequency we desire and consequently any station we may want whether we have ever received it before or not.

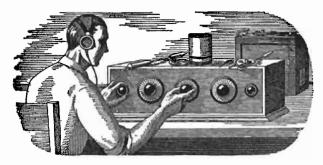
Our index now becomes of great value to us in identifying programs. Let us say that we hear music at 67-65 on our dials. We refer to our Index by Frequencies and Dial Numbers and we find that we are in tune to 680 that we are in tune to book kilocycles. On this wave there are two stations: KPO at San Francisco and WPTF at Raleigh, N. C. Both of these stations have 5000 watts in power. But knowing which is the closer to our set, we can tell almost invariably which station we are hearing. The Radio Commission has had to give the same frequency in most cases to several stations but they have distributed them geographically so they should not interfere. When two stations in the

the first Change of the time. In this case, of course, it is not possible to tell which one of the two stations is broadcasting at the particular moment we hear it, but we do know it is one or the other of them.

The second column in the Index by Frequencies, as we have seen, gives the power of the station as measured in watts. This power also aids us in identifying stations as we will not ordinarily hear those stations with 500 watts or less unless they are close to our home city.

The Index by Call Letters also has spaces providing for logging dial numbers, but these are provided merely for the convenience of those who want to be able to turn instantly to some favorite station. They may or may not be used as you desire. Remember that it is the Index by Frequencies that we must use to get the most value and pleasure out of our radios.

The Index by Frequencies is now printed with marginal tabs. If you will fill in under the word "dial" your reading for this particular frequency, you can then turn instantly to any frequency desired. Take a pair of shears and cut along the dotted line, as shown.



If all the Radio sets I've "fooled" with in my time were piled on top of each other. theu'd reach about half way to The trouble with me was that I thought I knew so much about Radio that I really didn't know the first thing. I thought Radio was a plaything - that was all I could see in it

IThought Radio Was a Plaything

But Now My Eyes are Opened, and I'm Making Over \$100 a Week!

\$50 a week! Man alive, just one year ago a salary that big would have been the height of my ambition.

Twelve months ago I was skimping along on starvation wages, just barely making both ends meet. It was the same old story—a little job, a salary just as small as the job.

the job.

If you'd told me a year ago that in twelve months' time I would be making \$100 and more every week in the Radio business—whew! I know I'd have thought you were crazy. But that's the sort of money I'm pulling down right now—and in the future I expect even more. why, only today—

But I am getting ahead of my story. I was hard up a year ago because I was kidding myself, that's all—not because I had to be.

When broadcasting first became the rage, I first began dabbling with Radio. There's a fascination — something that grabs hold of a fellow — about twirling a little knob and suddenly listening to a voice speaking a thousand miles away!

Up to a year ago, I was just a dabbler — I thought Radio was a plaything. I never realized what an enormous, fast-growing industry Radio had come to be — employing thousands and thousands of trained men. I usually stayed home in the evenings after work, because I didn't

make enough money to go out very much.

And as for the idea that a splendid Radio job might Anu as for the fuea that a spiendid Radio job might be mine, if I made a little effort to prepare for it — such an idea never entered my mind. When a friend suggested it to me one year ago I laughed at him.

"You're kidding me," Asaid.

"I'm not," he replicat. "Take a look at this ad."

"I'm not," he repised: "Take a look at this and. He pointed to a page ad in a magazine I'd seen many times but just passed up. This time I read the ad carefully. It told of many big opportunities for trained men to succeed in the great new Radio field. With the adverted tisement was a coupon. I sent the coupon in, and in a few days received a handsome 64-page book, telling about the opportunities in the Radio field and how a man can prepare quickly and easily at home to take advantage of these opportunities. Well, it was a revelation to me. I read the book carefully, and when I finished it I made my decision.

What's happened in the twelve months since that day, seems almost like a dream to me now. For ten of those twelve months, I've had a Radio business of my own. At first, of course, I started it as a little proposition on the side, under the guidance of the National Radio Institute. It wasn't long before I ting getting so much to do that I quit my measly little clerical job, and devoted my full time to my Radio business.

Since that time I've gone right on up. They would have given me just as much help, too, if I had wanted to follow some other line of Radio besides building my

own retail business - such as broadcasting, manufacturing, experimenting, sea operating, or any one of the score of lines they prepare for you. And to think that until that day I sent for their eye-opening book I'd been wailing "I never had a chance."

Now I'm making, as I told you before, over \$100 a week. And I know the future holds even more, for Radio is one of the most progressive, fastest-growing businesses in the world today. And it's work that I like — work a man can get interested in.

You may not be as bad off as I was. But think it over are you satisfied? Are you making enough money, at work that you like? Would you sign a contract to stay where you are now for the next ten years — making the same poney? If not, you'd better be doing something about it.

This new Radio game is a live-wire field of golden rewards. The work is fascinating, absorbing, well paid. The National Radio Institute—oldest and largest Radio home-study school in the world—will train you inexpen-

home-study school in the world — will train you inexpensively in your own home to know Radio from A to Z.

Take-stather tip — No matter what your plans are, no matter how much or how little you know about Radio—clip the coupon below and look their free book over. It is filled with interesting facts, figures, and photos, and the information it will give you is worth a few minutes of anybody's time. You will place yourself under no obligation—the book is free, and is gladly sent to anyone who wants to know about Radio. Just address J. E. Smith, President, National Radio Institute, Dept. IAO, Washington, D. C.

J. E. SMITH, President, National Radio Institute, Dept. 1AO, Washington, D. C.

Dear Mr. Smith: - Please send me your 64-page free book, giving all information about the opportunities in Radio and how I can learn quickly and easily at home to take advantage of them. I understand this request places me under no obligation, and that no salesman will call on me.

Name	
Address	
Town	
State	