THE DECEMBER 1931

RADIO EX

WHAT'S ON THE AIR TONIGHT?



(25°)

What 1932 Offers in Radio
Changing to Pentode Tubes
Can I Use the Variable-Mu Tube
In My Set?

RADIO THEORY MODERN PRACTICE

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Price, 50 cents, postpaid

THE RADEX PRESS » 5005 Euclid Avenue, Cleveland, Ohio

DECEMBER-1, 1931



RAD IO EX

REG. U. S. PATENT OFFICE

FRED CLAYTON BUTLER Editor and Publisher



Cleveland, Ohio

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What DOES 1932 OFFER in Radio

NTEREST in modern radio receivers is aroused anew each year with the coming of the winter season. Christmas is in the offing, and this is a time when manufacturers present their latest models to the public. While there are many new sets to choose from this fall. it must be said that the recent New York Radio World's Fair exhibited few sets with outstanding features in circuit design. The 1932 trend seems almost generally to be toward functional development and improvement, and practically every radio manufacturer has returned to the incomparable superheterodyne circuit. The new tubes, of course, make their first debut in combination.

Short waves are receiving much attention from set builders. International radio is the demand of the 1932 radio fan. Television is to many the black magic of the hour, and it holds the fascination of impatient thousands. Receivers with built-in short wave sets, and some with television apparatus, have appeared on the market. Short-wave adapters of efficient operation may be bought, and several all-wave sets for broadcast and short-wave reception are being offered.



Atwater Kent model 82. This is a popular midget superheterodyne set using the variable-mu and pentode tubes with tone control and quick vision dial. The a.c. model sells for \$69.80, and the d.c. evolt model with "air-cell" battery sells for \$94.80.

Survey by B. FRANCIS DASHIELL

Midget receivers, and even a number of super-midgets of few tubes, abound. The latter are of the three and four-tube types, and are suitable only for local and short distance reception. They will fill, however, a certain 1932 demand for low-priced and supplementary sets. Even superheterodyne midgets with as few as



Pilot "All Wave." This is another 11 tube superheterodyne receiver for all waves from 11 to 550 meters in length. There are no coils to change or plug in as a small switch throws quickly from wave length to wave length. It is priced at \$99.50 for the table model which resembles somewhat the standard midget set.

five tubes are shown at reasonable prices. The widespread development of the pentode tube has given new impetus to the midget industry. The variable-mu tube is increasing the popularity and selectivity of practically all the new sets of 1932.

D. C. Sets Returning

Recent years seemed definitely to end the reign of the battery set. Rural demand, as well as an oft-expressed desire for quiet "d.x." reception, has brought about the revival of the direct current cabinet sets. This has been made possible by the development of a 1000-hour "aircell" battery, as well as the new two-volt tubes in screen-grid and pentode styles. The family automobile has not been neglected for one may procure automotive sets using the new six-volt d.c. tubes.

The 1932 receivers are encased in cabinets mostly constructed of well-finished walnut. Power units and shield-

ing are improved, while the radio set chassis is more rugged. The —80 type tube is universally used for d.c. rectification. Considerable novelty is shown in small table-like sets that have built-in aerials and grounds and which may be



Zenith de-luxe model with automatic or selftuning device. This is a 14-tube superheterodyne receiver with an automatic arrangement which will turn on selected stations and shut them off as soon as finished. Only the pressing of a button sets this self-tuning device in operation. Sells for \$290.00.

moved easily about. Some sets are combined in a grandfather clock case and require little floor space.

Prices for 1932 are in keeping with the present times. Never before in the history of radio has quality been so high, efficiency so remarkable, and receivers so enduring. Tubes last longer than ever, and, consequently, makers have been overproducing in the mistaken belief that replacements would be made rather frequently. Receivers are often equipped with factory matched sets of tubes. The average cost of a full-size

console cabinet super-heterodyne receiver is less than \$75, while midgets are less than \$40. There are luxurious sets having built-in short-wave converters, self-tuning devices, and combination short-wave and television apparatus, which sell for \$200 and more.

It is obvious that every model offered for 1932 cannot be listed herewith. A selected few of those sets which are likely to have a wide appeal in 1932 are briefly analyzed for the readers of RADEX.

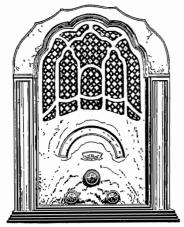
Combined broadcast and short-wave receivers with built-in television apparatus are newly offered. They will receive voice and picture broadcasts simultaneously on two different wave lengths. The Baird model sells for \$300, and the Empire State model is similarly priced. The Jenkins Television Corporation is about to offer a short-wave receiver and television machine combined which will sell for slightly more than \$100. Experimental television kits may be had from \$20 and up.

Automobile radios are offered by several makers. There is the Philco "Transitone" which uses seven tubes, including the pentode, and has a steering wheel control. It sells for \$100. The Crosley "Roamio" model 92 has six tubes and sells for \$92. The Majestic



Crosley model "Litlfella." Another midget superheterodyne using five tubes. Sells complete for \$36.36.

"Motor" set with seven tubes and superheterodyne circuit uses the new —38 6-volt d.c. pentode, and sells complete for \$87.00.



Lyric model S-7. This is a 7-tube superheterodyne midget receiver using two —35 tubes, one —27, two —24s, and one —47 pentode. It has a spot light tuning beam of light that moves with the dial pointer to show quickly the station wanted. Complete with tubes for \$69.50.

Stewart-Warner offers a new portable console receiver with senf-contained aeria and ground. It may be plugged in anywhere about the home.It has a full-size superheterodyne circuit with tone control and television terminals. Combined also with a short-wave receiver for world-wide reception. Easily moved about on its small rubber-tired wheels. Sells complete for \$90.75.

Stewart-Warner has a short-wave converter. It is a complete short-wave unit in an attractive midget style cabinet. The set will adapt practically any a.c. radio set, including superheterodynes, to short-wave reception. It is easily attached to the antenna connection of the radio receiver without removing tubes. There is single dial control, and the converter sells complete for \$23.95.

Silver-Marshall model 726 SW. This is a combination superheterodyne receiver covering a range from 10 to 550 meters. It contains 11 tubes. One is a —27 broadcast-wave oscillator; one a 27 short-wave oscillator; one —24 first detector for short waves, and one for iong waves; three —35s for intermediate radio frequency; one —27 second detector for all waves; two —47 pentodes in pushpull; and one —80 for rectified d.c. voltages. This set sells complete for \$139.50.

RCA-Victor model "Radiolette." This is a supersmall midget using a tuned radio frequency circuit and four tubes in all. The set is best for reception from local and strong nearby stations not over 200 miles distant. It uses the new pentode a.c. tube and sells complete for \$37.50.

Fada model 53. This is a Fada quality 7-tube superheterodyne receiver in a full-size console cabinet. It has the new multi-mu and pentode tubes. Priced complete at \$89.50.

RADIO

THAT No. 1 mathematical puzzle in October attracted much comment. Several readers took us to task for giving them what they termed a "bum start" in our "If A plus B equals C" hint and decided the problem could not be solved from that beginning. We will admit that this was not intended to be the most helpful suggestion possible but nevertheless the problem could have been solved by following that premise to its conclusion. A number of contestants arrived at a sort of a solution by letting 2 equal both F and A. These were incorrect.

In the November contest, No. 1 is described as being not difficult but a lot of work. This would have been a sticker had we not given the frequencies as clues.

The No. 1 puzzle for November was solved in the following manner:

W..G..A.L.
.K.S.M.R.
....C.M.CR.
K..P.PC
WI...B.X.
.X.E.T.Y.
.C.N.R.R.
.W.X.Y.Z
C.M.G..H.
....K.P.CB
W.L...B.G
X.E.F.A.
W.M.P.C.
.KD.B.
.KG.BX.
.W..HB.Q
.W.J.W.Q

The missing letter in No. 2 was F. Inserting 18 F's gives the following calls: KFJF-XFF-KFNF-CFCF-KFH-WFI-KGFF-WFDF-KFWF-KFXF.

In No. 3, the calls Manuel Miller found in the word "kilowatts" were KLS-KOA -KOIL -KOL -KTAT -KLO -KIT-KTSA -KTSL -KTW -KSL -KSO -WIS-WIAS -WIL -WLIT -WLS -WOAI -WOI -WOL-WOS- and WSAI.

December Puzzles

For this month we have a cleverly arranged puzzle designed by Earl R. Roberts, 712 South 9th St., Cambridge, Ohio. If anyone thinks it is easy to

PROBLEMS

invent a puzzle of this kind, let him try to fill these squares with calls of his own. Following are the descriptions of the calls used by Mr. Roberts:

Diagonal

1-14 Shares time with a Wisconsin Station.

2-15 A 100-watter on 1500. 3-16 On 249.9 meters.

4-17 In Illinois. 5-18 Havana, Cuba. 6-19 2,600 miles from 5-18.

7-20 Recently moved to another city. Horizontal

3-13 An NBC outlet. 4-14 Ten watts in the South.

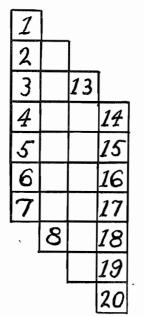
5-15 Deleted last month.

6-16 In Cuba.

7-17 Shares time with another 100-watter in the same town.

8-18 A daytime in California.

Puzzle No. 1



Puzzle No. 2

In the following letter from one of our readers are hidden the calls for a number of stations, reading them either left to right or reversed. Can you find them all?

"I own a Crowley Lowboy, FK-17-A, and we bring in Washington OK. It has a whistle that is most vexing which cannot be tuned out. I cannot explain this. At times it

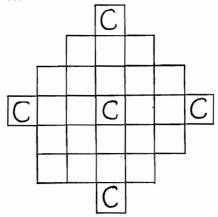
works well. What will remedy our trouble? We want your advice. We have your RADEX and your new map. Please save our set for us."

> Mr. J. C. Korecky, Wilmington, Del.

The calls are all found in the Index by Frequencies. Send a list of those you find.

Puzzle No. 3

T. J. Johnson, Drawer E, Bowlegs, Okla., is the designer of this puzzle of the five C's. He suggested that no help other than the outline be given, but we fear that would be too difficult. No call is to be used twice and neither vertical nor horizontal calls are to be reversed. In order to make this puzzle somewhat easier, we are giving below the frequencies on which the stations used will be found: 920-860-1390-1400-880-990-960 - 1210 - 730 - 1030 - 1180 - 1000 - 890 - 590 -660.



Get the correct answer to these three problems to us by December 20th and receive as a reward either the map of North America or a copy of the January RADEX. Subscriptions of successful contestants will be extended one issue when requested.

A little girl sat on top of a picket fence singing at the top of her young voice to the "Blue Devils of France" marching by, and became "The Songbird of the South." Read the story of Kate Smith in the January RADEX.

DIALS AND DIFFICULTIES

Answers by B. FRANCIS DASHIELL

Troublesome Volume Control

I have a Bremer-Tully No. 6 receiver and the volume control cannot be moved far without losing the station or causing distortion. Where may I obtain a copy of this circuit?

The volume control used on your set is a 500,000 ohms rheostat in series with the "B" 90-volt connection and the plates of the first three —26 r.f. tubes. Perhaps the control needs replacing since it seems not to operate the "B" voltage on the tubes. Write to the Bremer-Tully Company, Technical Service Division, Muskegon, Mich., for a circuit diagram.

Variable-Mu Tube Replacements

Is there any advantage in changing my Philco Baby Grand Model 20 super-hetrodyne receiver over to the new —35 tubes? Where can I get a wiring diagram of this set?

This set now uses three -24 screen grid tubes with a dual acting volume control that governs signal input and the first and second tube grid bias voltages. To change this set over to the -35 variable-mu tubes would be a difficult task and hardly worth the trouble. However, a set of adapters, such as manufactured by the Alden Company, can be placed in the sockets before inserting the new -35 tubes. A volume control is fitted to the cable connecting the adapters and replaces the present control. Such replacement involves wiring changes because of the difference between the two controls. A wiring diagram may be obtained from the makers, Philadelphia Storage Battery Co., Ontario and C Streets, Philadelphia, Pa.

Light-Socket Antenna

My Atwater Kent model 75 receiver has not worked well since my electric light socket antenna plug became shorted. The volume control got very hot. I had the set tested by a service man but it does not work well.

These antenna devices are apt to cause

trouble if they become short-circuited. It is obvious that a heavy flow of current passed through the antenna-ground and volume control circuit of your receiver. Perhaps some wire or soldered connection was loosened, or the heat damaged the control. It is suggested that the



General Motors model 219. Built in an early English occasional table style with self-contained aerial. It can easily be moved to any location that is near a floor plug. This receiver is a superheterodyne employing seven tubes, and features a tone selector. It sells to \$79.50.

service man make a thorough continuity test with his analyzing machine and locate the seat of short circuit or broken connection within the set.

How's My Antenna?

My antenna is 30 feet high at the house end and only 15 feet at the extreme end. The lead-in comes off the high end, and the full length is 60 feet. The ground is a 5-foot length of rod driven in the ground and surrounded by salt. What do you think of these essentials?

There is an old-fashioned belief that an antenna lead-in wire should come off the lower end and not the higher. We doubt whether it makes any difference in your case. We feel, however, that you will lose some sharpness of tuning because of the length of antenna, and it ought to be reduced to not more than 40 feet. You might raise the low end to the same height as the house end.

But, your ground! Why drive a rod down into a bed of salt? If you have an interior water pipe line make the connection to that, by all means, for water pipes run for miles beneath the ground and afford the best possible connection. If pipes are not available, make a ground of three lengths of new three-quarterinch pipe driven down six feet or more into moist earth, each about five feet apart. Connect with bare copper wire, well soldered, or bolted to the top of each pipe. Water may be poured down into the open tops of the pipes to moisten the earth beneath and make a better ground.

-25 Versus -35 Tubes

I wish to change my R.C.A. model 80 set over from -24s to -35s if feasible. Do you think the adapters now offered the public will be satisfactory? Is there some easier way of changing to the new-35 tubes?

It is suggested that you procure one of the new adapters now on the market used to replace the —24 tubes with variable-mu —35s. This adapter outfit has a new volume control which can be used on your set in the place of the old control as it is necessary to obtain a variation of the grid bias which ranges from 3 to 50 volts. Remove the —24 tubes from the sockets — not the detector — and place an adapter in each socket. Then insert the new —35 tubes and the set is ready to use.

Receiver Tunes Broadly

I own a model 50 Steinite receiver that tunes much too broadly. Why is this? Also, how can I change a 5-tube battery set over to screen-orid tubes?

This make of receiver uses a variometer radio-frequency input tuning device which is not always as selective as a set might be. But we feel that your trouble is exceptionally bothersome. Perhaps you have too much antenna, and, if so, we suggest you cut it down to about 30 feet in length, exclusive of lead-in wires. Or you can try a .00025 mfd. fixed condenser in series with the antenna and the receiver terminal—the "S" post, or short terminal. This should increase the selectivity considerably.

You do not say what make of 5-tube battery set you wish to change to screengrid tubes. But if from —01A tubes to —22s, the task is difficult, as the primaries of the radio-frequency coils must be replaced with windings of greater inductance. Also, rewiring of the sockets, together with a new, flexible grid lead for each tube, will be necessary, not to mention fixed condensers, increased "B" battery voltage, and other items. We doubt whether the change will prove worth-while, for screen-grid circuits must be designed for certain specific tubes.

All Waves on -35s.

How can I change my Scott All-Wave receiver from -24 to -35 variable-mu tubes? Are major changes necessary, and if not please tell me what to do in the way of wiring?

Yours is a complicated receiver using a superheterodyne circuit in which the —24 tubes play the part of first detectors and intermediate radio stage amplifiers. These tubes function in different ways and require certain grid bias, plate voltages, etc. For these reasons it seems to us to be rather impracticable to attempt the change; the wiring would be too complicated, and the gain in selectivity would be slight — very slight in



Westinghouse model WR-15. This 9-tube superheterodyne set is in a novel setting. It has an automatic volume control and makes use of the variable-mu and pentode tubes. It is a grand-father's clock which is electrically operated and radio set combined. It sells complete for \$125.00.

this particular set. We are confident that the makers of the set would strongly advise against such a change.

Roaring Sounds

My Atwater Kent model 55 cuts on and off at times and is accompanied with a roaring sound. Sometimes touching the antenna terminal stops the roar. How can I remedy the trouble?

It is likely that one of the two —45 tubes in the push-pull audio amplifier fails properly to operate. Examine to see whether they fit snugly in the sockets. Perhaps some other tube is defective: all should be tested, especially the —27 detector. Filter condensers may be defective, or the —80 rectifier tube may not fit its socket perfectly. There may be a loose connection in the volume control and associated resistor unit. The radio-frequency circuit, and antenna coil, should be closely examined for open or loose connections.

Steinite Wiring Diagram

I have a Steinite set numbered 87286. It will stop and start right in the midst of a program. Service men say they need a diagram. Where can I procure one?

You have given the serial number of your set and not the model number and



This is Hildegarde, a young German singer, who has been touring the nation on the RKO vaudeville circuit. NBC is arranging to present her on several programs in the near future.

we cannot identify the set among the several models manufactured. Your trouble may be due to looseness in connections to the last audio amplifying tubes. Other than that we feel that a loose wire is present in the set. Have all the tubes tested carefully for performance. A wiring diagram may be had from the makers, who should be able to identify the serial number, if you address the Steinite Manufacturing Company, Fort Wayne, Indiana.

Poor Selectivity and Tone

My Zenith model 34P was overhauled but still does not work perfectly. My antenna is 50 feet of 7-strand wire, and the set tunes broadly. Should I change to shielded wire? Will a small condenser cut down the hum of my set? How can I improve the tone of the set, as well as its range?

We think that your aerial should be cut down to about 30 feet in length, and it may be an advantage to use the shielded lead-in cable between the antenna and the set, provided it is well grounded. A small .00025 mfd. fixed condenser can be connected between the antenna wire and the center connection plug socket of the antenna coil in the set which will sharpen the tuning considerably.

Additional condensers in the power supply are not likely to reduce hum for that circuit has been balanced and designed by the makers. A service test of the parts in the power circuit might show some defects that cause an increased hum.

The tone might be improved by using a pentode —47 tube in place of the —10 now in use. All that is necessary is an adapter that can be purchased at any supply place. Nothing can be done to increase the range of a set except to make it more selective and sensitive by providing good tubes and working conditions.

More Pentodes

I have a Radiola model 17 receiver and I think that if I use the —47 pentode in place of the —71A I will get better volume.

The change can not be made unless a new socket is placed in the set or an adapter, such as the Alden, is used. But (Continued on page 29)

BACK OF THE STUDIO SCENES

By "Betty"

ERALDED as the truly different radio act, "Myrt and Marge," the backstage story of two girls of the chorus, made its debut over the Columbia network Monday, November 2nd. This series was conceived and written by Myrtle Vail, who plays the role of "Myrt," the worldly-wise veteran of a thousand curtain calls. The part of "Marge," the unsophisticated one who gets her break in the big-time chorus is played by Donna Damerel. Both Miss Vail and Miss Damerel formerly appeared on the stage, but face the "mike" for the first time on this program, which is sponsored by the William Wrigley Jr. Company. It is said that Miss Vail while listening one evening to a story over the air, decided she could write her experiences and make them more interesting than the story she had just heard. Without much delay she wrote a series of her chorus-girl experiences, but then the problem was to whom could she sell them. Just then her eyes chanced to fall on a stick of gum, and before long she found herself, trembling, but determined, in Mr. Wrigley's office asking for an interview. The result? A contract was signed, it is rumored, which runs into seven figures. The tragi-comic realistic story of "Myrt and Marge" may be heard every evening except Saturday and Sunday, over the eastern network, from 7:00 to 7:15 E.S.T., and over the Pacific coast network from 1045 to 11:00 p.m., E.S.T.

He Helps Kate

Jack Miller, Columbia's latest "find," with the rich baritone, is heard three times weekly, Tuesday, Thursday and Saturday, at 11 p.m., E.S.T. His theme song, "When the Stars Come Peepin' Through," was written by him the day before his first night broadcast. He is Kate Smith's pianist and arranger; has played for all her broadcasts and stage appearances since January, and is prouder of her success than his own mounting popularity. He is 5 feet, seven



Show business provides the setting for "Myrt and Marge" "Myrt" (left) is Myrtle Vail, while "Marge" is Danca Damerel.

inches, and weighs 155 pounds. Was born in Dorchester, Mass., 29 years ago. Never took a piano lesson in his life, nor a singing lesson. Didn't know he could vocalize until six years ago. He was working in a Boston music publishing house when an SOS call came for him to fill in on a local broadcasting station. Believing that a half-hour of piano would be monotonous for listeners, he started to sing. He was an instantaneous hit. Engagements with several prominent orchestras followed. He organized his own orchestra in 1928. Was featured at a fashionable Cape Cod dining rendezvous. He picked up his knowledge of orchestral and vocal arrangements in the music house of Boston. Two years ago he played at the State Theatre, in that city, as soloist, orchestra leaders and master-of-ceremonies. He remained one year by popular demand. Last January, Ted Collins, whom he had met in New York through recording work with his band, introduced him to Kate Smith. He was promptly assigned as her official accompanist. Even when she is accompanied by an orchestra, he is at the piano. Jack is a blond, prefers brown clothes, likes sports, reads detective stories, sleeps nine hours, and says "My ambition is to become a radio artist."

"She Stops the Show"

Bailey, youthful "blues" Mildred singer, was born in Spokane, Wash. At the Edgewater Beach Hotel, where she has been singing with Paul Whiteman's orchestra, Miss Bailey has been a sensation. Petite, dynamic and possessed of a voice of deep power, the western girl has captivated the middle west with her music. When Mildred's school days were over, she landed a job in a Seattle music store. That was much to her liking. Her voice caused people to buy music, many customers came again and again, if not to make purchases, at least to hear Mildred sing the latest tunes of the day in her inimitable manner. Then came a chance to work in Vancouver. She bobbed up at a fashionable club and was soon causing near-riots with her song interpretations. Then to Chicago, where Paul Whiteman heard her deep voice. Unique singing style just matches the rhythm of Whiteman's dance music. There is no better way of describing the effect this new star achieves than by saying "she stops the show." Mildred is five feet, two inches, and weighs 100 pounds; has hazel eyes and black hair; listens to the radio for diversion; owns several chow dogs; sends photographs to her radio admirers and manages to save something out of every pay envelope. She may be heard each Monday and Wednesday over the NBC-WJZ network from 12 midnight to 12:15 a.m., E.S.T.

Mrs. Mills' Four Boys

Have you heard the Mills Brothers? The four young negroes who had been waiting patiently in the reception room of the Columbia Broadcasting System were finally admitted to the office of Ralph Wonders, director of the Artists Bureau. They said they were the Mills Brothers. They said they sang. Wonders, who has his share of unannounced visitors, played a hunch and arranged an immediate audition. The brothers sang

only one number. Wonders rushed them into the private office of Wm. S. Paley, President. "With your permission, Mr. Paley," Wonders said, "I'd like you to hear the Mills Brothers." With that brief introduction he signalled to the somewhat startled boys to sing. They did, and so delighted was the executive with their unique vocal renditions that he sent word to Wonders to have them continued. And for more than an hour the four went from one song to another. Three days later they were scheduled for their first broadcast. There was no advance ballyhoo; not a line of print, other than the bare program listing, heralding their network debut. They went on the air "cold," but as soon as their fifteen-minute broadcast was over. the telephone switchboard was flooded with calls from listeners, "Who are they?" . . . "What kind of instruments do they use?" . . . "How do they make themselves sound like an orchestra? ' ' "When can I hear them again?" Their success was immediate, and the four youths were a bit bewildered. They really are brothers, John, 21; Herbert, 19; Harry, 18; and Donald, 17. All the boys were born and raised in Piqua, Ohio, and began singing together when John was but 13, performing for stray pennies and nickels. Then their father set them up as entertainers in his barber shop, hoping to keep the boys off the street. They finally graduated to the local opera house. Last year they moved to Cincinnati, where they immediately won a place on the schedule of a local radio station. When it was suggested that they make a bid for the "big time" broadcasting in New York, they were a bit dubious as to how they would be received, but they finally agreed to go for a try-out if their mother would accompany them. She consented, and to New York they came, they sang, they conquered. Listen-in any Tuesday, Thursday or Saturday evening from 8:00-8:15 E.S.T.

Are you listening to that delightful series of intimate scenes from the lives of "The Goldbergs?" Their story will be in the February RADEX.

CAN I USE the VARIABLE-MU?

Here's How by MR. DASHIELL

ANY readers have called upon us for information relative to the substitution of new variable-mu (—35) tubes for the older (—24) screengrid tubes. As there is a considerable haze of misinformation surrounding the true qualifications of the new —35 tubes, we feel it should be cleared away as much as possible.

The -24 is simply a screen-grid tube with a cathode heater. The new -35 is the same but it shows improvement over the -24 when used only in new circuits especially designed for it. The -24 tube has done well in its place in receivers offered to the radio public up to now. There is no advantage in replacing it by the variable-mu -35 tube in older circuits. There might be a slight tendency toward a gain of better selectivity - there will be no increase in sensitivity. Changes in tubes call for rather radical changes in wiring in the set. Of course, the -35 may be used in place of a -24 simply by inserting it in the socket, but the results will be decidedly discouraging. Such practice is not recommended.

The new tubes take practically the same plate voltage, plate current, screen voltage, socket connections, etc., as the —24s. The positive screen-grid voltage for the —24 is obtained from a device connected to the "B" supply so as to give a variable supply ranging from 0 to 75 volts. This device, or potentiometer, provides a suitable method of volume control. The -35 tube requires a maximum of 90 volts on the screengrid. And its volume is not controlled by variations in the potential of the screen, as is the case with the -24, but by a change in the control-grid (top cap connection) or "C" bias. This negative current varies from -3 to -50 volts, with signal intensity decreasing steadily as the higher negative bias is reached. In the -24 tube this bias usually remains constant at -1.5 volts.

When the -35 tube is used to replace

a —24 it becomes necessary to make some changes in wiring, essentially that of supplying the proper grid or "C" bias for the easy control of volume over a large range of signal voltages. Thus the local-distance switch or antenna potentiometer in the receiver can be discarded. When it is realized that there are about 22 different kinds of volume controls, it can be seen that the chances of having a set with a circuit suitable for changing to the —35 tubes are very remote.

A device known as a variable-mu or -35 adapter has been developed. It consists of several sockets or adapters that fit the regular UY sockets after the -24 tubes have been removed. The -35s are then inserted. A wire connects all adapters to a new volume control which replaces the old control. A loose wire attached to the new control should be grounded to the frame of the chassis. A RADEX reader reported that this change in his Radiola 80 gave excellent results. But care must be exercised in changing with adapters to make sure the old control wiring is so arranged that the change can be made.



Amiable originators of "Jake and Lena," Gene Carroll (left) and Glenn Rowell have signed a long term contract with Quaker Oats for a continuation of their daily broadcasts over the NBC network.

ACROSS the NATION with a Portable

By RAYMOND M. BELL



URING the past summer the writer made a motor trip from Pennsylvania to California and return; getting into 23 states, as far north as Idaho and as far south as Texas. A six-tube superheterodyne portable receiver (Radiola 26) with loop aerial was taken along and used dailv. A special study was made of daylight reception along the route. Weather and topographical conditions may have played some part, but the results give a fairly reliable cross-section of reception across the country. In all cases, except where stated, reception took place during the daytime.

The start was made from southeastern Pennsylvania where New York, Baltimore and Washington provided the best reception. At night the principal stations east of the Mississippi River could be tuned in. In western Pennsylvania KDKA, WTAM and WLW were heard best, while in north central Ohio WJR replaced KDKA in the above trio. Near Chicago in addition to the many locals WLW and WTMJ were logged. In central Illinois Chicago stations were still the standbys; in addition some other midwest stations were heard with ease.

Farther west, in central Iowa, WMT provided the CBS programs, and a number of other stations in Iowa and surrounding states gave dependable reception. At Omaha besides the locals KFAB, WNAX and WREN were easily tuned in. KFAB, WOW AND KMMJ were mainstays in central Nebraska. There KOA, WENR, WLW and WFAA were loudest at night. In western Nebraska for the first time the number

of daylight stations was limited. Only the two Denver chain stations. KOA and KLZ, could be heard. At night it was different for KFI, WLW and many in between were logged with good volume. KWKH came in from the south. In Cheyenne and central Wyoming, Denver provided reception during the day. Western Wyoming was about the only section across the country where nothing could be logged in daytime on the portable, although as the sun was setting KFI, WFAA and KOA were all heard well with the same NBC program from New York. It is interesting to note that the same programs can be heard the whole way across the country because of the networks.

In central Idaho KTFI was heard best. At night all the Rocky Mountain and Pacific Coast stations were logged, with KFI and KNX loudest. Stations as far east as WLW were heard. Down in Ogden, Utah, KLO and the Salt Lake stations were locals. At night stations were heard north to KHQ, east to KOA, south to KTAR, and west to KFI. KFI became the dependable daylight station in southern Nevada. In Los Angeles only locals were heard, although the networks brought programs from all over the world. Many excellent broadcasts were available.

Heading east, Arizona brought KFI and KTAR in best. In Albuquerque, New Mexico, KGGM, the local, was heard. Near the Texas line only WFAA could be heard during the day. At night stations from KFI to WLW were tuned in, with WFAA, WOAI and KOA loudest. In northern Texas, WFAA was best by far, with KGKO and KGRS

loud also. Near Oklahoma City besides the locals WFAA and KVOO were heard; and in eastern Oklahoma KVOO, WFAA, WDAF and WIBW were dependable.

In the midst of the Ozarks KMOX was the star performer, while a day later in Kentucky, on the banks of the Ohio, WSM and KSD occupied the stage. At the latter place stations from WJZ to WFAA were heard after darkness had fallen. Near Nashville WSM and WLAC were always available. At night Memphis was among the many cities heard well.



Father and Mother are discussing "Raising Junior." In real life they are Mr. and Mrs. Peter Dixon. Daily, except Wednesday, 6:00-6:15 p.m. EST., NBC-WJZ network.

Fifteen miles from WSM an interesting test was made. Although WSM was on 650 kcys., KFI 640 kcys. and WEAF 660 kcys., were tuned in on an August evening with good speaker volume. The portable easily brought in another western station, KOA, although WHAS was only 10 kcys. away. Crossing the Tennessee mountains, near the Virginia-Tennessee line, WLW was loud day and night, with WHAS and KDKA also coming in well at night. Back in Pennsylvania KFI was tuned in on the portable;

The Month's Changes

Power					
630	CKOC	Hamilton, Ont., 500 to 100.			
910	CNRL	London Ont. 500 to 5000			
990	WBZA	Boston, 15,000 to 25,000.			
1120	KFSG	Los Angeles, 500 to 400.			
1210	WOCL	Los Angeles, 500 to 400. Figure 100. Jamestown, N. Y., 25 to 50.			
1310	KIT	Yakima, Wash., 50 to 100.			
1330	WSAI	Cincinnati, Ohio, 500 to 1000.			
1340	CMCY	Havana, Cuba, 15 to 100.			
1010	remor	Locations			
1310	KTSL	Shreveport, La., to Laurel, Miss.			
1450	WTFI	Toccao, Ga., to Athens, Ga.			
080	1777.4.4.0	Owners			
670	WMAQ	Chicago, Ill., to National Broadcasting Co.			
1180	WGBS	New York, N. Y., to American Radio News			
1200	KGHI	Corp. Little Rock, Ark., to O. A. Cook.			
1210	WHBU	Anderson, Ind., to Anderson Brdestg. Corp			
1310	KFJY	Ft. Dodge, Iowa, to Cedar Rapids Broad-			
1010	1101	cast Co.			
1310	WMBO				
1320	WSMB	New Orleans, La., to WSMB, Inc.			
1350	$\mathbf{K}\mathbf{W}\mathbf{K}$	St. Louis, Mo., to Thomas Patrick, Inc.			
1430	\mathbf{WHP}	Harrisburg, Pa., to Harrisburg Telegraph Quincy, Ill., to Illinois Brdestg. Corp.			
1440	WTAD	Quincy, Ill., to Illinois Brdcstg. Corp.			
1500	KUT	Austin, Texas, to KUT Broadcasting Co.			
		Permit to Move			
900	WLBL	Stevens Point, Wis., to Ellis, Wis.			
1180	KOB	State College, N. M., to Albuquerque,			
1000	TZCD ED	N. M.			
1200	KSMR	Santa Maria, Calif., to Bakersfield, Calif.			
	rr m	Chains			
970	KJR	Seattle, Wash., new NBC.			
1180	KEX	Fortiand, Ore., new NBC.			
1380 1470	WKBH KGA	Portland, Ore., new NBC. LaCrosse, Wis., CBS out. Spokane, Wash., new NBC.			
1470	MUA				
KH0	WDOH	Frequencies			
570	WPCH	New York City, from 810.			
630	CHCS	Hamilton, Ont., from 1010.			
690 840	CPRY	Toronto, Ont., from 960. Toronto, Ont., from 690.			
915	CFLC	Prescott, Ont., from 930.			
960	CFCL	Toronto, Ont., from 580.			
960	CKCL	Toronto Ont from 500			
960	CHCK	Charlottetown, PEL., from 1010. Monterrey, N. L., from 1132.			
1110	XEH	Monterrey, N. L., from 1132.			
1120	CNRT	Toronto, Ont., from 840.			
1350	$_{ m KIDO}$	Boise, Idaho, from 1250.			
		Calls			
1180	WGBS	New York, N. Y., to WINS (?)			
1310	KTSL	Laurel, Miss., to WTSL.			
		Deletions			
690	CHCA	Calgary, Alta.			
690	CNRC	Calgary, Alta.			
840	CHCT	Red Deer, Alta.			
1210	WDWF	Providence, R. I.			

Ollie Ross, the famous DXer, whose story appeared in the June issue of this magazine, is now traveling throughout the world. He is testing reception conditions in many countries, particularly of American stations. His first story, written for RADEX, will appear in the January issue.

providing the best long distance reception of the trip.

There are possibilities for interesting conditions of reception with a portable.

(Continued on page 18)

LIFE in THOMPKINS' CORNERS

Oak Park, Illinois.

Dear RADEX:

Last night's Chicago Daily News carried an item of news that interested me, and I am sure must have interested countless fans who visit Thompkins' Corners each Monday night with "Real Folks." It was the announcement that Elsie Mae Gordon, who is "Maybelle" with Hank Simmon's Show Boat, stars as "Sneed" with Real Folks.

What interests me and would probably interest many, many radio listeners is, who is the author of these Chesebrough incidents and who are these men and women who so cleverly take the parts of Mayor and Mrs. Thompkins, Elmer, Sneed (such lovable boy characters), Mrs. Jones, the Judge, Mrs. Watts, the Italian, the Swede, the school-teacher, and all the rest who seem real friends visiting us weekly. Could you not tell us about them in RADE X?

Yours truly, (Miss) C.A.B.

So here is the story of "Real Folks."
Twelve years ago George Frame Brown
came back from the war, a discharged
"Yank" with an identification tag and
no job. He tramped the streets of New
York as a hungry architect seeking work.

Brown since has built an imaginary town, put people into it, and has gained

Matt and Martha

fame and fortune under one of the best known aliases in America. He is known to millions as Mayor Matt Thompkins of Thompkins Corners, U.S.A.

Matt Thompkins and his town comprise the central figure and locale of the popular "Real Folks" sketch heard weekly over a National Broadcasting Company network. More than one million fans have written letters to "Thompkins Corners," its folks have been on the air more than three years and are heard from coast to coast.

Brown, who quit drawing lines to speak them, creates the dramalogue and portrays the main character and other roles. He heads the cast of a half-dozen NBC players who pose as the people and even pets of a whole village.

Their activities, ranging from church socials and lodge meetings to weddings and baseball games, have become the concern of countless listeners across the country. Brown presents Thompkins Corners as a typical community of the U.S.A. and molds the character of Matt as "a genuine American and ideal citizen."

He is supported by Edwin M. Whitney (Bill Perkins, village cut-up and



Left: Scene in WJZ studio any Monday night, 10:30-11:00. Left to right: Elsie Mae Gordon, Tommy Brown, George Frame Brown, Virginia Farmer, Edwin Whitney and Phoebe Mackay.

Right: Mayor Matt Thompkins and Martha, his wife, otherwise George Frame Brown and Virginia Farmer. "Prince," the dog), Virginia Farmer (mayor Matt's wife, Martha, and "Grandma" Overbrook), Tommy Brown (Elmer Thompkins' nephew, age 14), Elsie Mae Gordon (Bessie Stevens, village gossip and Sneed Yager, 15, Elmer's pal), Underhill Macy (Tony the Wop and Fred Tibbets, the barber), Phoebe Mackay (Effie Watts, the cockney boarding house keeper).

Brown has built his sketch on the observation that most American communities are cosmopolitan miniatures of the country's big cities. It has therefore, a

universal appeal.

Brown and his "Real Folks" did not jump into fame over night. His readjustment after the war was not without

struggle.

"After hitting New York on my own, following my return from France, I had to do everything to ward off starvation," Brown recalled, "Any kind of work and welcome. When there wasn't work, I went hungry, I shudder when I see them in the breadlines now. It was only a few years, but — oh well, it's a story common with many.

Through chance I made a Broadway revue as a monologist. I had some success "kidding" radio programs. The revue was broadcast and I learned I had the proper voice. From then on I had all the radio work I could handle."



George Frame Brown at work on "Real Folks" for next Monday night.

Brown was born in Seattle, Wash., thirty-five years ago, the son of southern parents. He grew up fly-fishing and hunting in the mountains, was studying architecture when war broke out, studied at Beaux Arts at the close.

"My father lost his business through extending credit as a wholesale grocer. He is fundamentally a Matt Thompkins, the kindest and most honest man I've known. He kept a real store and it failed. I run an imaginary store and make money. He can't get over that."

The life of Brown typifies the varied

background of his fellow actors. Edwin Whitney adventured through the Spanish-American war after college years. He was a farmer, book agent, laundryman, paperhanger, cowboy and bicycle racer before he toured the Chautauqua circuits with a quartet. He later turned to production and radio where he has had versatile success.

"Real Folks" became an NBC coastto-coast feature this fall with 154th performance.



How Ted Husing Caught the Football Plays

A MECHANICAL device, through the use of which Ted Husing can determine almost without fail the player or players taking part in every play during a football game, has been perfected by Husing and John E. Norton, master control engineer of the Columbia Broadcasting System, and is now being used by the sports announcer in each of his football broadcasts.

The apparatus is in the form of mechanisms contained in two box-like appliances, with top panels on each keyed to the field order of two football teams. One of the boxes has a series of twenty-two buttons for transmitting signals, the other box has twenty-two corresponding light spaces for receiving the signals. By pressing the proper buttons on the one panel an observer communicates to Husing's receiving panel a detailed enumeration by name and position of the particular players on both contending teams participating in the plays.

The whole apparatus is an answer to a long-felt need for some device whereby Husing could determine at a distance, and particularly in the difficult weather that so often obtains for football contests, the details of the swift moves down the field. On a muddy field, particularly,

Interesting Electrical Device Used

it was difficult for Husing to see exactly what intricate plays were being made in swift sequence.

The sending part of the device, with its button for each of the players on the teams, is operated by a well-placed observer whose duty it is to watch through strong field glasses with the one object of determining the participants in the play.

This observer is either within hearing distance of Husing's voice as he talks into his microphone, or else is equipped with earphones connected into the microphone circuit. As he listens to the sports announcer's verbal continuity he is able to supply at once, by illuminating the lights in the proper positions on Husing's receiving panel, the names of the players wanted.

For instance, Husing is observing and reporting the sequence of a certain Harvard play. "Barry Wood received the ball," he might say, "and made a short pass to . . . Schereschewsky." In the almost imperceptible pause the observer would have flashed him the required name on the panel.



If you've wondered how Ted Husing manages to watch football games and report them so accurately, read the story.

The receiving panel is, of course, the more interesting of the two. There are twenty-two oblong pieces of translucent glass set into the panel, and arranged in the field order of two football teams. That is, taking one team for example, there are seven pieces arranged on a line to denote the position of left end, left tackle, left guard, center, right guard, right tackle, and right end. On the second line one piece stands alone for quarterback. Behind and to the right and left of this piece are two pieces denoting right halfback and left halfback. And finally, alone in the rear, a piece for the fullback.

Beneath each piece of glass is an electric bulb, carefully screened so that the bulb when lighted shines only through the one piece of glass immediately above it. Thus when the observer operating the sending instrument, wants to report to Husing that the Harvard quarterback, for instance, received the ball from center and passed it to the right halfback who made a run around the opposing team's right end and was tackled by the opposing team's fullback. he transmits to Husing's panel in the proper order and the lights beneath those positions flash in a corresponding sequence.

The glass pieces on the receiving panel have a ground surface. Husing, at the beginning of the game, writes in pencil on each piece the names of the players. As substitutions are made he merely erases the name on the ground glass, and writes in the new names — a quick and easily done job.

The sets are operated by self-contained dry cell batteries, and are equipped with extra bulbs that can be quickly substituted for any lamps that may burn out beneath the names.

"I want a leatherette cover so I can find my RADEX when I want it," writes one good reader. This is only one of the many advantages of keeping your RADEX in one of the beautiful new slip covers.

Replacing 45's with Pentodes

THE -47 tube may be substituted for -45 power tubes in some few circuits only. Its real ability is shown in circuits especially designed for its use. The pentode may also replace -71 power tubes in battery sets by the use of the new -38. An adapter is available which permits the changes to be made. A twin adapter for use in pushpull combinations is used for both -45s and -38s.

The replacement of -45s by -47s in output stages is not recommended, except in a few cases. The pentode, as explained in the descriptive article about that tube in the October RADEX should be used directly following the detector tube, for it is fed through the output of a single audio-stage working from the plate of the detector. When a receiver has a stage of audio-amplification with a single tube between the detector and push-pull transformer or single output tube, the pentode should not be used. There will be entirely too much input signal voltage, and the results will be poor and frequently dangerous to the output circuit and speaker. Replacements under these conditions are not recommended by manufacturers nor in these columns.

Pentode tubes have their proper place in new circuits. There they operate efficiently and with marked success. But they can seldom be placed in old circuits, for there are very few sets of older make able to feed the output tube (—45) directly from the detector. Not sufficient power can be created in these cases, but the —47 tube is capable of making up the deficiency.

The pentode may be used if the first audio-tube and stage is removed so that the pentode input transformer receives its initial signal voltage directly from the plate of the detector. Otherwise it is a waste of effort and expense to substitute a pentode for other power tubes. Most circuits have been designed for certain power tubes—the output transformers, speaker windings, etc., have all been matched to suit the particular tube characteristics. Any

radical changes may result in serious loss of tone and other desirable qualities.

The Alden Products Company, 715 Center Street, Brockton, Mass., are makers of adapters for —47 and —35 tubes in old sets. They are well-known as the makers of many socket devices, and will advise whether their adapters can be used in your old set, and furnish appropriate instructions.

Commission Swings Axe

T begins to look as though a longsuffering public were to have a little relief. This magazine has received hundreds of protests from readers whose radio enjoyment was being ruined due to scores of stations trying to wedge in on a few points of their dials. In the present congested condition of the ether lanes, it is impossible to build a set so selective that there will not be interference, with its consequent squealing and grumbling, at many points on the dial. The Radio Commission has been altogether too lenient in permitting the existence of stations which ought never to have been born and which have not a single reason to continue their unnecessary lives. The radio law specifically states that stations exist solely for "the public interest, convenience or necessity." Measured with this yard-stick, scores of stations would be found to be about half an inch long.

Last month after lengthy hearings during which the merits of the three stations were fully presented and considered, the Commission ordered stations WIBO and WPCC, both of Chicago, off the air in the interest of station WJKS, Gary, Ind. A little later similar proceedings resulted in an order to discontinue stations WNJ, Newark, and WKBO, Jersey City, in favor of WHOM, Jersey City. Now comes the news that four more stations have been convicted of lack of merit in "public interest, convenience and necessity."

WCHI, Chicago, and WJAZ, Chicago, sharing time with WCKY, Covington, Ky., on 1490 kcys. and all having 5000 watts power, are ordered off the air in favor of the last-named Kentucky station. WIBR, Steubenville, Ohio, and

WMBA, Newport, R. I., are eliminated for violating regulations and alleged failure to serve the public interest.

These decisions of the Commission must now run the gauntlet of the Federal courts, but since its legal victories over Dr. John R. Brinkley, the Commission backbone has been considerably stiffened. Congress undoubtedly intended Commission to have complete powers over the existence of broadcasting stations. True, it would be regrettable if stations were ordered off the air with consequent loss of investment, indiscriminately. but the Commission can set high standards of conduct and then swing the axe unmercifully upon those stations which fail or refuse to live up to the required standard. In this way stations can be eliminated solely because of their own faults and the air will be made safe for the public ear.

Across the Country with Portable (Continued on page 13)

Just a few might be named: camping in an Ohio farm orchard — the landing of Post and Gatty in New York; among the Indiana sand tunes, along Lake Michigan — a band playing in Poznan, Poland; among the Wyoming Rockies — Amos 'n' Andy, the same as ever; in the downtown district of Los Angeles — a broadcast from New York; among the palms of southern California — a musical program from London; on the rim of the Grand Canyon — music from KFI; back in Pennsylvania — a talk by Lindbergh, from Tokyo.

A summary of observations may be interesting. The best reception was provided by KFI, WLW and WFAA, with good speaker volume up to 300 miles in daytime and 1000 miles at night. KOA and most of the other 50 kw. transmitters were dependable within smaller ranges. Although all kinds of country and different weather conditions were encountered, reception was excellent for the most part with very little static. Nearly all of the principal U.S. stations were tuned in. Clear channels and high power were important factors. More of these will do much to improve further radio reception throughout the country.

The Newspaper's Side

On behalf of the harassed newspaper editors, G. R. Johnston, Night Editor of the Jackson Citizen Patriot, Jackson, Mich., writes us as follows:

"Will you please print the newspaper side of the question raised by E. O. Cutler, in the October issue, regarding the omission of the names of the sponsors of radio programs?

"If you could see the thousands of letters and so-called 'news items' which yearly flood newspaper offices with requests and sometimes demands for free publicity, you would not feel so strongly that it is 'small potatoes' for the papers to omit the names of sponsors. If those same sponsors would be fair in their allotment of advertising to the newspapers, there would be a different face on the matter, but most of them feel that they can somehow worm space out of newspapers without a cent of cost, while at the same time their advertising budget provides funds only for radio or magazine advertisements. Newspapers thrive on advertising, just as does the radio and similarly, the magazines. Therefore, when the advertiser takes away the revenue of the paper and awards it to competitors, why should he expect the newspapers to continue to boost his products by giving him free publicity. It's only a measure of selfdefense, as evidenced by the flagrant examples I'm enclosing. Please observe the marked opinion of Marlen Pew, who points out that from 15 to 40 per cent more real news can be given readers by cutting out free publicity.

"If the newspapers continued to publish 'news,' so-called, about the radio sponsors and their products, and the sponsors continued to place their paid advertising elsewhere, there would soon be no newspapers to publish their programs in!

"This newspaper realizes the reader-interest in what is going on in the radio world, and uses the Associated Press condensed compilation, sent us daily. We do not delete sponsors' names if they are inluded, but obviously, we do not feel compelled to put them in. So we often get letters from manufacturers asking why we do not mention 'Rosenblatt's Soap Flake Orchestra,' or 'Solly's Mange Cure Trio,' etc."

This magazine, too, receives hundreds of requests for free publicity from sponsors of radio programs and their advertising agents. These necessarily all go into the waste basket. It was not to such that we referred in our article in the October number. We referred to the use of sponsors' names when the programs were definitely known by such names. We believe that a newspaper's first duty is to its readers and not to its advertisers or its prospective advertisers. To make things inconvenient or confusing for its readers merely to avoid mentioning some concern's name without getting paid for it, is, we think, a "small potatoes" type of journalism.

Many listeners like and look for, the "True Story" programs. To designate them by the names of the players means just nothing at all. They might better be carried in the radio column merely as "Dialogue." But we think that real journalism consists in giving readers the information they want regardless of whom it helps or hurts.

The Filtered Aerial

Although the antenna is one of the most important parts of radio, this is the first improvement we have seen in aerial wires. It is built on the transformer principle of amplifying signals. A straight inner wire is grounded at either or both ends. Around this is an enameled wire, spirally wound, which goes to set or lead-in. The theory is an excellent one.

Tough on His Game

Golfer (to players ahead): "Pardon me, gentlemen, but would you mind if I played through? I have just heard that my wife has been rushed to the hospital for an operation."—Safe Worker.

The RADEX RADIO CLUB

Many Topics of Interest

THE RADEX family is undoubtedly the greatest radio club in existence and many readers write us of their keen enjoyment of the monthly meetings of the club conducted by the Editor in each issue of this magazine. It really is a fine thing, when you stop to think of it, that hundreds of us can sit down together as we do and talk over the matters in which we are so greatly interested. Radio is an ever-changing art. Although it seems to have reached high peaks, we will undoubtedly look back in twenty years to the radio of today and smile at its crudeness. Perhaps from the mind of one of our readers may come an idea that will advance the art. That boy over there tinkering with his set may be the Edison of the future. What a wonderful hobby it is.

We open the meeting this month by talking a little shop.

We have received so many letters asking "Will a phone adapter work on my set?" that we give the following explanation: The phone adapter consists of a cord with a connector at one end and a socket-plug at the other. The metal tips of the phone cords are inserted in the connector. The last tube in the set (the power tube) is removed from its socket and the socket-plug is put in its place. The socket-plug has four prongs and therefore can be used only in place of tubes which have four prongs. such as the 245. If there are two 245s in push-pull both tubes are removed from the sockets and the plug or adapter put in either one. This takes the signal off for the phones before it passes through the last or loud-speaker stage, otherwise the volume would be unbearable. The ordinary phone-adapter cannot be used in screen-grid tube sockets as these tubes have five prongs. If your set uses screengrid tubes in the last stage, it will be necessary to get an extra adapter with five prongs. This extra adapter is used between the phone-plug and the socket. Some owners have trouble deciding which tube is the last or power tube. The last stage is the one from which the cords go to the speaker or the opposite end of the set from the antenna. On most sets this is at the right end looking at the set from the back.

Locals Hog Dials

Daniel C. Looby, 141 West Seymour St., Philadelphia, Pa., certainly has his troubles. "At 1:00 a.m. yesterday," he writes. "WCAU covered from 1120 kcs. to 1300 kcs. on my set. WTEL with only 100 watts, covered twelve channels on their test yesterday morning. WCAU's transmitter is about eight miles away and WTEL's about six. WCAU will soon operate with 50,000 watts and, if I don't do something soon, I guess WCAU will be the only station I'll be able to get." About the only relief we can suggest is a good wave trap. Perhaps some other readers in similar locations can give Mr. Looby the benefit of their experience. He has a Philco eight-tube set with a single wire aerial 100 feet long and a 50-foot lead-in. Cutting down the length of the aerial would help some, but would reduce the strength of all his signals. Mr. Looby also experiences a crackling between 1110 and 1310 kcs. which is undoubtedly caused by some electrical interference near him.

Too Much Aerial

Max Plung, 1425 Coney Island Ave., Brooklyn, N. Y., submits his experience with aerials: "I find that the higher the aerial the better. An aerial 150 feet long and about 50 to 100 feet high is just as good and maybe better than a 300-foot aerial lower down. I now have a 120-foot aerial which drops from a 100-foot apartment house to about 35 feet at the leadin. I find this is the best aerial I have ever used. I also have an aerial copied after the one used by the Naval Station at the Brooklyn Navy Yard. It consists of five separate wires all coming to a point at either end of the aerial. The wires are held apart by passing through holes in two six-foot pieces of wood. I find that this aerial is an ideal one for reception on the crowded bands but it hasn't as much volume as the other aerial. Here is an odd thing: When I use both aerials at once, the volume is decreased which goes to prove that the more wire one uses, doesn't mean more volume."

XER Makes a Mess

The new XER at Villa Acuna continues to interest our readers, many of whom are now receiving it regularly. A. H. Abernethy, Daytona Beach, Fla., sends us a letter he has received from the station from which we glean the following: "We were first licensed to operate on 665 kcs. but 735 is a clear channel and we were fortunate enough to obtain that frequency, which is the one we are now operating on definitely. XER is owned and operated by the Villa Acuna Broadcasting Co., Inc., Villa Acuna, Coahuila, Mexico, with studios located at Villa Acuna, Mexico, and in the Roswell Hotel, Del Rio, Texas." Mr. Abernathy adds: "XER is certainly messing up WSB with us. What will happen when WSB gets its fifty kilowatts?" XER was licensed to use 100,000 watts but as it seems to be using 75,000 we are changing our data accordingly.

Those Modest Announcers

"Why don't you use your persuasive powers on announcers to give just the city only between each selection. If the announcer would only just say 'Baltimore' for instance and I am on 1060 I would know I have WBAL and not WTIC. It would advertise the city to mention its name every few minutes instead of every fifteen as now." This cry of distress comes from Harry Gosman, U. S. Naval Home, Philadelphia, Pa. It is one of the mysteries of an otherwise up-to-date business, why men who own broadcasting stations do not take advantage of their opportunities to advertise that station. It would be such a simple matter to say "Oshkosh" or "Kalamazoo" after each selection, but they just won't do it. They assume either that their station is a neighborhood affair or else that their voices are so well known that everybody in the U. S. must know who they are.

FREE Your Choice of NINE Meters!

To do your radio work properly you need meters. Here is your opportunity to get them at no extra cost. See the list of nine meters below. Heretofore we have offered the choice of any one of these meters free with an 8-weeks subscription for RADIO WORLD, at \$1, the regular price for such subscription. Now we extend this offer. For the first time you are permitted to obtain any one or more or all of these meters free, by sending in \$1 for 8 weeks' subscription, entitling you to one meter; \$2 for 16 weeks, entitling you to two meters; \$3 for 26 weeks, \$6 for 52 weeks, entitling you to six meters. Return coupon with remittance, and check off desired meters in squares opposite.

RADIO WORLD is the first and only national Radio Weekly. In tenth year. The news of the progress of the entertainment, science and business of radio when it is news. 15c a copy; newsdealers everywhere.

RADIO	WORI	D	145	Wes	t 45th	Street
Nev	w York	N.	Y. (Just	East o	f Broadway

Enclosed please find \$_____for___exeks subscription for RADIO WORLD and please send as free premium the meters checked off below.

"Here's a suggestion that should be worth a subscription," offers C. H. Waltner, 120 South Monument Ave., Hamilton, Ohio. "By all means devote one page to classified advertising-For Sale, Exchange, Wanted, etc. It would be appreciated by our subscribers and newsstand purchasers. For instance, I have a Norden-Hauck Super DX-5 short wave set, which with three pairs of coils but no tubes, sells today for \$150. My outfit with six tubes and two additional pairs of coils cost \$193.50. I would like to trade the outfit for either a Silver-Marshall all-wave Super or a Scott." So here is the heading for the suggested column. Send in your items. For the suggestion, we are giving Mr. Waltner this free advertisement.

WANTED, FOR SALE OR EXCHANGE A Barter column for Our Readers Rate. 5c per word

We Forgot the Ghosts

Several readers call our attention to the fact that we failed to move the "ghost" stations in the Ontario district when the actual stations were moved. The information regarding the changes in Canada came to us just as the November issue was going to press and we made the last minute corrections but we forgot altogether about the ghosts. They are being moved in this edition.

Oliver Cromwell, 783 Eighth Street, Oakland, Calif., says KOH, Reno, Nevada, state over the air that they have been for more than a year the only station in the Silver State. What has become of KGIX, Las Vegas? Have they left the air?

Robert Thornton, President of the Prairie State DX Club, 1450 West 81st St., Chicago, says their club was so enthused over the list of slogans appearing in RADEX that they decided to cooperate by sending all the members had gathered. This club would like to communicate with other DX clubs.

That Ollie Ross Ground

Many inquiries have come in relative to the Ollie Ross ground. This was described in a letter from Mr. Ross published in the Midsummer edition, No. 50. This is the only description we have. A few copies of this issue are still available.

S. H. Parsons, Jr., Box 289, University, Ala., reports that WFDV should be 1370 kcs. instead of 1310. According to our records this station moved from

INSURE YOUR RADIO ENJOYMENT

SEND THIS BLANK TODAY The Radex Press, 5005 Euclid Avenue, Cleveland, Ohio Enclosed find \$______for which send me postpaid my choice of your offers as checked below: One radio map of North America 25c ☐ One copy of the next RADEX_____ 25c ☐ Trial subscription, next five issues of RADEX______\$1.00 One year's subscription to RADEX, 10 issues, and Radio Map free_____ ☐ Two subscriptions to RADEX with one leatherette cover and Radio Map, both free__ 3.50 One two-year subscription with leatherette cover and Radio map, both free_____ 3.50 □ Leatherette Cover Write Name Plainly _____ Street and Number 54 City and State....

1370 to 1310 during the summer; are we wrong?

The Half-Moon is Found

The inquiry of Robert E. Moran, Ottawa, Ontario, in the November issue as to the identity of the "Half-Moon Orchestra," is answered by H. B. Huber, 1352 Liberty St., Harrisburg, Pa., as follows: "This is from WCOD, a 100watt station on top of the Governor Hotel, Harrisburg, Pa. They are on the air from 8:00 a.m. until 11:00 a.m., 3:00 until 6:00 p.m. and 8:00 until 11:30 p.m., EST. During the time they are off the air WKJC, Lancaster, Pa., comes on. The 'Half-Moon Orchestra,' Johnny Derrick, leader, broadcasts every night from 11:00 to 11:30. They put this on from the 'Half-Moon Inn,' a roadhouse located in the Susquehanna valley. This station can certainly put the goods on. They should be heard in the middle of Asia. Try and get them on a Sunday afternoon about 3:00 to 4:00 when they have a United Brethren preacher on with a fifty-kilowatt voice.'

Now we have located the 'Half-Moon Orchestra,' perhaps we can find the one that broadcasts from the "Egyptian Ball Room" on about 895 kcs. on October 18th, at 1:00 a.m. It is reported by Jack King, 26 Dunfield Ave., E. Toronto, Ont. One selection was "Now You're In My Arms." Jack wants to exchange hints with other DXers. Just lately he has brought in KECA, CJCA, KTAR and some other good ones.

Some Answers and Questions

"I believe the station C. C. Norton of San Francisco inquires about is KGPL, the Los Angeles police station on 1712 kcs.," suggests Lester R. Reinmund, 1120 South 76th Ave., West Allis, Wis.

"Last Thursday, October 22nd, between 10:05 and 10:15 p.m., PST, I heard a station on 1030 kcs. which I would like to have someone identify," writes Gordon H. Wightman, 1171 32nd Ave., W., Vancouver, B. C. "The announcer was speaking in some foreign language. Every few minutes a cuckoo horn was blown and the announcer would continue to speak. This happened about five times and then the cuckoo horn was

sounded twice." Mr. Wightman adds in a postscript, "Last night I tuned in nine Japanese, five Australian and one New Zealand stations, as well as KZRM."

Roger F. Vore, Box 87, Merriam, Kansas, has made an indoor aerial with wires like the spokes in a wheel, taking off his lead-in at the hub. He reports that it works better than his outside



The "Crooning Colonels" of the CBS 5:45-6:00, Mondays, Jack Brooks, left, and Don Ross are accompanied by Leon Bloom and his orchestra.

antenna. He would like to hear from someone who has had good success with a short-wave converter.

Sam Kiamie, 2857 Sampson Ave., New York City, is anxious to identify a station he heard broadcasting what sounded like stock market quotations, on Sunday morning, October 11th, at 5:20 a.m. EST, on about 1000 kcs. It sounded like a European station does on a rebroadcast. Can anyone help him?

Another S O S: "On Tuesday morning, November 1st, at 2:40 a.m. EST, I heard a station on 1230 kcs.; the orchestra was playing the Yale College song. Can anyone identify it for me?" D. Wharton, 22 Elmwood Ave., Rye, N. Y.

J. Edw. Diehm, Jr., Pottstown, Pa., would like to hear from owners of Model 27 Zenith as to their pick-up and distance.

With the MIDNIGHT MARAUDERS

NCREASE the DX department," is the cry that comes to us from scores of readers. We receive hundreds of letters from DXers every month but it is only from a few that we are able to extract new and interesting ideas. Too many are mere repetitions of what they have done in the way of logging stations. We like to know of our readers' record but we can print but a few each month, not because of lack of space, but because of sameness. Write us about the unusual and different. All over the country DXers are without doubt having thrills and adventures in their midnight meanderings. Tell us about these. They are so much more interesting than mere numbers.

Now the DX Club will please come to order.

Thinks He Got China

"I am somewhat of a DX fan and last night I received a station that has aroused my curiosity," says Virgil Engleman, 1948 E. Jefferson Ave., Detroit, Mich. It may be the same station that several other readers have been asking about. I got it at about 1:30 this morning (Oct. 30th) and held it until they signed off at about 2:00 a.m., E.S.T. It came in between 705 and 710 kcys. A man talked the whole time in some foreign language which I do not think was Spanish. After every few words they rang a bell like he was stressing some point he had brought out. The language sounded kind of gutteral and it may have been a Chinese or Japanese station. I never got one of them so I don't know how they sound when they talk. When they finally signed off they played something that sounded like a train leaving and that was all - no call letters or anything. Mr. Engleman postscripts "I would like to know how much in stamps you have to send in your letter to a foreign station in order for them to acknowledge your reception." Cuba and Mexico and most South American countries are two cents, Canada is three, England is five. In the September RADEX, Richard Douglas, 1125 Krug

The Great DX Hobby

Park Place, St. Louis, Mo., called attention to the International Reply-coupons which can be bought at any postoffice for nine cents each which are good for one full rate letter to any country in the postal union from any other country in the union. They are valid for six months after purchase.

The Canadian Amateurs

10-BP, Wingham, Ont., writes us as follows: "We have always been interested in your great little magazine and since you have taken such a big interest in DX work, we are all the more interested. Last winter you had our DX programs for 10-BP listed and in all we received letters from nearly 600 U.S. listeners who received our tests and, in most cases, these letters referred to RADEX. We, here at 10-BP, feel that the success of our tests was due largely to your fine cooperation. 10-BP has been on the air all summer and now that the fall season is here again, we will give you our schedule of the coming winter so that you may include it in your coming issue. 10-BP operates on 1200 kcys. with a power of 25 watts. Being an amateur broadcast station, it operates without any direct income such as advertising. We are on the air ten hours a week. We will broadcast special DX programs from 1:00 to 2:30 a.m. on the 10th and 25th of December, January and February. These programs will be on 1190 kcys. which is mostly cleared at this period. We will gladly verify reception providing the writer will name at least two selections heard with the time logged. Another important requirement is a three-cent Canadian stamp or cash as U.S. stamps cannot be used here."

Yes. WMIL Verifies

"As a member of the staff of WMIL, allow me to say that every single request for verification is answered personally by Mr. Milton Myrawitz, the operator," asserts Karl J. Halpern, 1435 Coney Island Ave., Brooklyn, N. Y. Mr.

Halpern advises us that the World Radio Reception Club of which he is secretary, has arranged for special DX programs from the following stations Saturday morning, December 26th. WDZ, Tuscola, Ill., 1070 kcys., 2:00-2:30 a.m., E.S.T.; WAAB, Boston, Mass., 1410 kcys., 2:00-3:00 a.m., E.S.T.; WBSO, Needham, Mass., 920 kcys., 3:00-4:00 a.m., E.S.T.; WJAY, Cleveland, Ohio, 610 kcys., 2:00-3:00 a.m., E.S.T. Mr. Halpern would like to see RADEX devoted entirely to DX matters. Too bad, but there are other members of the family.

Finds an Error

C. A. Overhiser, Hotel Clarke, Hastings, Nebr., calls our attention to the error in listing KGCX in the Index by Frequencies as Wolf Point, Minn., instead of Montana. He adds: "I have been getting RADEX ever since it first came out, about eight years ago, and this is the first mistake I have ever found in your magazine." We cannot flatter ourselves that this is the first mistake, we have made, but with thousands of kind friends, like Mr. Overhiser, ready and willing to call our attention to discrepencies (which just will creep in now and then) we hope to keep 99.9 per cent perfect. "In the thirty days I have had my new G.E. S-22," goes on Mr. Overhiser, "I have logged 139 new stations on it. I have just started to collect station stamps and would like to hear from other DXers with more experience."

Wants Lima, Peru

The inquiry of A. F. Buschmann, 1044 Barrett Ave., Louisville, Ky., is being answered by Mr. Dashiell in two articles in this issue. "I am using an R.C.A. 9-tube Superhetrodyne," he writes. "I would like to have the information regarding the change in wiring necessary to install 235's in place of my present 224 tubes. If possible, I would also like information concerning the change from the 245's in push-pull to 247's. My set is a year old," adds Mr. Buschmann, "and I have logged 286 stations, including CKWX, VAS, KFVD, KGCX and KGFK. I wonder if any reader of RADEX, in this vicinity, has ever received Japan, New Zealand, Hawaii or England. My farthest south is XETF, Veracruz. What is the best time to try for OAX at Lima, Peru?"

N.J. Gets KOH in Dogdays

"I have been DXing for 22 months," submits Lloyd Rees, Box 64, Ridgewood, N. J., and have a log of 492 stations out of which 260 are verified. My best verification is from KGMB, Honolulu. Another good one is KOH which I heard in August (not a bad catch for the dogdays). They said in their verification that they were really surprised to be heard in New Jersey during the 'off' season of reception. Could you tell me what Mexican or Cuban station is operating on 1125 kcys.? Heard it plainly last evening (Oct. 30th). Was almost as loud as XEO and XEW so it must be 5000 watts or thereabouts. No announcements were given in English." The nearest guess we can make is XEH on 1132. Some of these Mexican stations wander considerably off their path.

Who is WRVE?

W. H. Bradford, P.O. Box 22, Derry, N. H., reports that with his Crosley 5-tube he has logged so far 120 stations, but they include Cuba, Mexico, Canada, and as far away as San Francisco. "Could you give me any information on a call WRVE which I received on about 1500 kcys.? The call was repeated about every five minutes, but that is all I heard." Anyone know WRVE? It may have been WRBE which is often reported from the East. This is the fireboat John Purroy Mitchell, belonging to the City of New York, which has a frequency of 1596 kcys.

Special DX on CKOC

"Station CKOC will broadcast a special DX program on December 12th, beginning at 2:00 a.m., E.S.T., on their new frequency of 630 kcys.," advises W. Dyson, 72 Cambridge Ave., Hamilton, Ont. Reports are desired and if you cannot get Canadian postage, send three pennies, or a nickle. Mr. Dyson wants time of reception and other information about African stations on the b.c. band. He proffers the following to other inquirers: "H. W. Hulburt, Montclair, N. J., probably heard KSCJ at Sioux City. For Herbert Childs, I have

a verification from WCHI with the address as 201 N. Wells St., Chicago." Mr. Dyson is awaiting a verification from KOH to complete the full roster of all states and provinces.

The Time Signals

"Here is a tip on NAA," contributes Joseph F. Maertz, 3118 W. Scott St., Milwaukee, Wis. "They are on the air every day except Sundays and holidays, at 10:10 a.m., 3:45 p.m., and 10:00 p.m., E.S.T., with weather reports. Time signals at 11:55-12:00 noon and 9:55-10:00 p.m., E.S.T. I have a nice letter from them. One night I picked up XET after NAA signed off. I also picked up a Cuban station (150 watts) on 1070 the morning of October 30th. I am using a 7-tube Grebe t.r.f."

CMCY Wants Listeners

"Have your friends listen in any Sunday morning from 1:30 to 3:00 a.m., E.S.T., "writes M. D. Autran, G Street, No. 215, Havana, Cuba, to Rudolph Kure, 301 Warner Street, Cincinnati, Ohio. "Atmospheric conditions are improving, so are my programs. Give comment on the kind of programs, music, etc., broadcast. Have friends send in reports. Kindly note some reports come with U.S. stamps, which are not usable here. Not so U.S. coins which are legal tender the same as Cuban coin." CMCY is going to 100 watts with a frequency of 1345 kcys.

Low-Powered Best

"To my mind," comments A. S. Burton, Kamloops, B. C., "the best catches are the low-powered distant stations such as WMMN, Fairmont, W. Va., a fifty-watter, which I have heard quite often. One evening I listened to WDAE, Tampa, Fla., on my National 5 Thrill Box, a short-wave set, and in their verification, the station said I heard them on their sixth harmonic. The new XER comes in here with tremendous volume and absolutely ruins reception of Vancouver stations only 250 miles away."

Shelby Harrison, Box 47, Robinson, Ill., who describes himself as "fourteen years old, a DXer and a RADEX fan," has caught 218 stations in about ten months. He considers his best catch

KPCB, Seattle, Wash., with 100 watts power. "They evidently broadcast early Sunday morning because it was 5:00 a.m., C.S.T., when I picked them up," he says. "They came in loud and strong, which seems almost impossible for so low-powered a station."

Porto Rico Without Aerial

Arnold Gee, 1918 E. 66th St., Cleveland, Ohio, reports that he purchased his Imperial Radio last April and since that time has logged 192 stations with WKAQ, Porto Rico, as his best catch. This came in without antenna. Now that he has an aerial he brings in CMK, XER and CMC at 7:00 p.m., E.S.T. Arnold would like to hear from some DX fan who can really get France and England in order to learn the best time to tune for them.

"My hobby is DXing," beings H. G. Taverner, 66 Green St., Augusta, Maine, "and I am using a Dayton Short-Wave adapter in conjunction with an Atwater Kent 44. Results: 33 stations in England, Holland, Mexico, Germany, Italy, Denmark, Spain, France, South America, Java, D. W. I., Cuba, Australia, New Zealand, Indo-China, and many plane and police stations and ships at sea. All with loud speaker volume and on voice. Total number of stations received from both sets is 478, which is a lot of dial twisting."

Harry F. Deibert, R.D. 2, Walnutport, Pa., submits a long list of stations he has heard recently with his dry-cell Radiola Super AR-812, second harmonic, 6 tubes. For an antenna he uses a heavy bare copper wire about 75 feet long buried six inches in the ground, in a moist spot in the form of an "L." He reports this antenna has given the best results of the many he has tried.

Some Good Reports

John Janecko, 83 Easy Street, Uniontown, Pa., wants to correspond with other DXers particularly those living in the mountains. With his 11-tube Philco he has received 300 stations since June, including such good catches as KOY, KTAR, KGCX, KFBB, CMCY and CMBS.

"I like to DX and have a total of 396 stations," writes Walter Dice, 315 Church St., Bridgeville, Pa. "Have had several good catches from the Pacific Coast with two stations of only 100 watts. I now have 45 states, Canada,

Mexico, Cuba and Porto Rico."

"On my Philco I have had 445 stations with 252 verifications," states Melvin de Jagar, 106 Llewellyn Ave., Hawthorne, N. J. On his short wave set, Melvin has received HSG, HKC, HRB, PCJ, G5SW, GBS, GBW, GFWV, the latter being the S.S. Majestic when near the English coast.

Wants DX Programs

A. W. Snyder, 3216 West 38th Place, Chicago, Ill., suggests that all DX Clubs send in their notices of special DX programs to RADEX for publication. We will be happy to print such information if it reaches us before the tenth of each month, the date our copy goes to the typesetters. Mr. Snyder reports that WIBO and WPCC may go off the air in November, giving way to WJKS, Gary, Ind.

DX Clubs that desire to have special programs by the Canadian amateur broadcasting stations can arrange them through W. T. Cruickshank of 10-BP, Wingham, Ont., owner of that station. This service is proffered to RADEX by

Mr. Cruickshank.

Those Expensive Dimes

With 354 stations in less than a year and 162 verified the last five months, Clayton Huff, 309 North Main St., Martinsville, Ind., is getting ready for the new season. He puts in a good word for WBOQ, WKRC and WIBO who returned his dimes and said they did not issue stamps any longer. But he reports, on the other hand, that KFVS, WSMK, WLAC and WNBO kept his dimes and didn't send stamps.

"I get CMK, Havana, Cuba, every night and XER comes in with great volume," reports Alfred Cachia, 2045 Fifth St., Detroit, Mich. "I have a 7-tube Philco which I bought in 1928. I have logged 210 stations from U.S.,

Canada, Mexico and Cuba."

"I began to DX with my first copy of RADEX on January 2, 1931," reports Fred Litwitz, Jr., 2137 Lewis St., Chicago, Ill. Now I have 231 stations." Mr. Litwitz sends a fine list of Mexican and

low-powered U.S. stations. He has not yet brought in Cuba but hopes to soon.

Kenneth Peterson, Pontiac, Mich., has a log of 284 stations. He reports CKOC on 1000 kcys., but we believe this must be because that station has not yet settled down to its new frequency of 1010.

Chris Tom Banakas, 28 N. Claybrook St., Memphis, Tenn., now reports a total of 483 with 23 Mexican and 24 Cubans, as well as Porto Rico, Costa Rica, Honolulu, Peru, and two each from Alaska and Japan.

WDZ, Tuscola, Ill., is having its next DX program on December 20th, from 1:00 to 2:00 a.m., C.S.T., according to a report from Wm. R. Anderson, 852 Manning Ave., Toronto, Ont. Similar information comes to us from Chas. H. Kramer, 1906 Hanover Ave., Allentown, Pa.

Harold S. Johnston, 577 Logan Ave., Toronto, Ont., sends in a long list of stations he has brought in recently. A number of fifty and hundred-watters are included.

NBA Bobs Up Again

"At last I'm able to give you the correct information regarding the station NBA," writes Arthur H. Brackbill, RFD 2, Lancaster, Pa.:

"There is such a station. The studios are located in Panama City and the transmitter is located at Darien. The station which is government owned broadcasts daily from 5:00-6:00 a.m. E.S.T. to ships, etc. Several readers said they received no verification which may be on account of the government not allowing it. The station (NBA) operates on 580 kcys. This information was given me by the Chief Engineer of WKJC, who worked there while in service for the U.S. army. He also showed me a picture of the transmitter as proof. Here's hoping the information is of value to the readers.

"I've been a DXer since the last week in January and have a log of 330 with 176 verified. Have all but six states. My set is an Atwater Kent 42. Would like to hear from other Atwater Kent 42 owners who have exceptional reception. Best catch is KGFJ."

Verifies G5SW

"Verification from G5SW came in after five months of waiting," comments Prof. D. Gadoury, Montreal, Que. "On the broadcast band, I now have 337 logged. On Sunday morning, October 4th, between 1:45 and 2:00 a.m. E.S.T., a station on 705 or 706 keys, was broadcasting music with announcements in English and what was probably Spanish, too. I cannot believe it was XEN as my dials were set for 706 kcys. Regarding this station, Samuel F. Ownes, Glenside, Pa., wrote me: 'You are not the only one who has been hearing this station on 705 kcys. It has been reported from all over the country with no one seeming to know who it is."

The latest Cuban and Mexican lists show no station near 705 than XEN on 711.

"KELW and KTM divide time in this manner," says Fred W. Janssen, 106 S. Santa Cruz St., Ventura, Calif. "KELW, Burbank, Calif., 780 keys, 500 watts; Daily 1:00-6:00 a.m.; 10:00 a.m.-1:00 p.m.; 5:00-9:00 p.m. P.S.T. KTM, Los Angeles, Calif., Daily 6:00-10:00 a.m.; 1:00-5:00 p.m.; 9:00 p.m.-1:00 a.m., P.S.T. KFI, Los Angeles, 640 kcys, 50,000 watts, is on daily from 6:45 a.m. until midnight, P.S.T. KHJ, Los Angeles, 900 keys., 1000 watts, Daily 7:00 a.m. to 1:00 a.m. P.S.T. Sunday 7:00 a.m. to midnight. KMTR, Los Angeles, 570 keys. 500 watts, Daily 7:00 a.m. to 3:00 a.m. P.S.T.

More About Oslo

In the October issue we published a letter from LKO at Oslo, Norway, which stated that "there is not and never was any station in Oslo operating on 608 kcys." This seemed to dispose definitely of the issue, but Karl J. Halpern, Pittsburgh, now sends us the original letter he received from Oslo, dated April 16, 1930, which again throws the status of this station into dispute. Here is the letter:

"Your letter of 28th inst. to hand. We beg to say that it is quite possible that you heard Oslo on March 23rd at about 4:30 p.m. E.S.T. It is,

however, impossible to absolutely verify a "pick-up" of our programs unless we get fuller details as to programs, pauses and time. Our old Oslo transmitter with only 1.2 kw. in the aerial was actually heard by a score of listeners in the state of Illinois. Our present Oslo station is at present the most powerful transmitter in Europe with 75 kw. in the aerial. The wave is 493.4 m., 608 kcys.

"Thanking you for your kind report,

"Sincerely yours,

"Kringkastingselskapet a/s."

The debate regarding the Oslo station. Norway, still continues. Noel B. Eaton, Ballemena, Oakville, Ontario, writes: "I lived in England for nearly five years and I can distinctly remember hearing Oslo on the regular broadcast band near the top. Mr. Eaton sends us a copy of "World-Radio Station Identification Panels" which would be a most useful publication for our European DXers to have. "World-Radio" is published by the British Broadcasting Corporation of which the publishers say: "To the listener to distant stations it offers an unparallelled service in the provision of programmes, in the publication of an authorative table of wave-lengths, and in the facilities it offers to its readers for the identification of unknown foreign stations, enquiries concerning which are answered either by post or free of charge in the columns of the paper. It is indispensable to anyone who is interested in foreign stations. World-Radio is published every Friday, price 2d." The "Station Identification Panels" are evidently published monthly, the price being one shilling. The information in this book concerning Oslo is typical. It gives the frequency and wave-length, the power, the distance from London. the opening call, the interval signal, the opening and closing signal, the time signal, the sex of the announcer, the closing words and the relay stations. The address of the British Broadcasting Corporation is Savoy Hill, London. W.C. 2.

The Airport Stations

The following lists of airport stations is furnished by Karl Halpern, Pittsburgh, Pennsylvania.

Transcontinental Air Transport and Western Air Express:

WAEF Newark, N. J.
WAED Harrisburg, Pa.
WAEB Columbus, Ohio
KGTR St. Louis, Mo.
KWS Mararillo, Texas
KGPL KSI Los Angeles, Calif
WAEE Camden, N. J.
WAEC Pittsburgh, Pa.
WAEA Tulsa, Okla.
KSY Las Vegas, Nev.
KGTJ Las Vegas, Nev.
KGTJ Wichita, Kans.
KST Kansas City, Mo.

The above, Mr. Halpern says, may be heard only at night on 387 meters.

Southern Air Transport:

WQDP Atlanta, Ga.
WSDB Jackson, Miss.
KGUF Dallas, Texas
KGUL Abilene, Texas
WSDE Tuscaloosa, Ala.
KGUK Shreveport, La.
KGUC Ft. Worth, Texas
KGUG Big Spring, Texas
KGUA El Paso, Texas

The above may be heard only at night on 344 meters.

Boeing Air Transport System:

WQDU Aurora, Ill.
KQM Des Moines, Iowa
KRF Lincoln, Neb.
KQE Cheyenne, Wyo.
KQD Salt Lake City, Utah
KJE Reno, Nev.
KRA Boise, Idaho
KQQ Iowa City, Iowa
KMP Omaha, Neb.
KMR North Platte, Neb.
KQC Rock Spring, Wyo.
KKO Elko, Nev.
KFO Oakland, Calif.
KDD Pasco, Wash.

The above may be heard only at night on 376 meters.

Dials and Difficulties

(Continued from page 8)

your set is not designed for the -47 tube, and therefore you cannot receive its greatest benefits. The change is not suggested in the Radiola 17 receiver.

Oscillating Receiver

My model C Fada set persists in breaking into oscillation for a while soon after turning it on. Is the set out of balance and how can I fix it? Can you send me a wiring diagram?

There are many, many causes of regenerative howls and oscillation. This book could not hold all the reasons to be advanced. Incorrect plate voltage on a tube is an outstanding cause, while lack of proper neutralization can make violent noises. The latter can be corrected by adjusting the balancing and trimming devices or midget condensers attached to the large variable condensers. An screen-grid by-pass condenser causes oscillation; poor contacts of shields with the chassis as well as other mechanical connections; open grid circuits in some of the tubes; ungrounded metallic covers of audio-transformers; broken wires in the secondaries of radiofrequency coils or in audio transformers and output push-pull transformers; too high voltage on the screen-grid, etc., are sources of excessive regeneration noises in a receiver.

Write to the F. A. D. Andrea Company, Inc., Long Island City, L. I., N. Y., for a copy of the circuit diagram.

Using the Pentode

I wish to use the new —47 pentode tube in my Brandes B-15 receiver in place of the two —45s in push-pull. Do I have to make many changes in wiring?

It is not practicable to use the —47s in place of the —45s in your Brandes receiver. This is due to the fact that your last stage in which the —45s are used is previously fed by a step-up stage with one —27 audio amplifier which would have to be eliminated if the —47s would be used. Therefore, no gain is to be had and the change, besides being complicated, is not quite worthwhile.

Varibale-Mu and Pentode Tubes

How can I change my General Electric model H-31 receiver over to the new -35s and -47s in place of the tubes now is use?

It is not practicable to replace the —24 from the standpoint of efficiency. The change can be made readily by use of an adapter outfit with a new volume control, for your set is constructed so that the alteration can be made. However, the slight gain in selectivity is hardly worth the trouble and expense.

The change to pentodes in place of the two —45s used in push-pull will be simple provided the special adapter is used. But in both cases the change to tubes that tend to upset the balance of a circuit designed for something else is not sanctioned by all concerned. The wiring of the circuit permits this change, and that is more than can be said of most other sets.

DX Headphones on Philco

I have a Philco model 70 superheterodyne and have tried to attach a pair of headphones with a switch cutting out the loud speaker, but the results are poor. How shall I improve on my scheme shown in the diagram?

You have not gone at the attachment in the right way, and cut into the wrong wires. Start over again. Remove the speaker unit from the cabinet by disconnecting the cable plug. There are three wires — black and white, green, and yellow. Also, connecting the transformer and voice coil on the cone—parts of the fixed unit — are two short wires, one light brown and one yellow. The switch to cut out the speaker must be inserted in either of these two wires, simply by cutting the wire and fastening the two ends to a small switch.

Cut into the insulation of the black and white wire and the green wire of the cable to the plug and attach two leads to each of these two wires. Disregard the yellow wire. Run the two new leads to a single phone jack. The headphones are then plugged into the jack and the switch opened to cut off the speaker as desired.

Automatic Volume Control

My dealer advises against volume control saying that while it has advantages, it has greater disadvantages. He states that when volume is set fairly loud, reception from "mushy" stations would be vastly more disagreeable than fading. I have never tried volume control. What is the truth of its advantages?

We assume that your refer to automatic volume control. It has great advantages, and, as your dealer states, certain disadvantages. Much of this is a matter of opinion held by individuals.

However, we claim that automatic volume control is one of the great improvements in radio design, and its advantages far outweigh any noticeable inconveniences. The automatic control sets the average volume of the incoming signals to a pleasing intensity; it cannot become too loud, and when weakened more current flows keeping the strength up to the normal volume. Mushy stations — that interfere and heterodyne - will be with you. Why tune in on them; no one cares to listen to interferences. And stations that are clear will come in smoothly and steadily, never changing to too high nor too low. Another advantage is that when tuning for stations the set cannot boom forth loudly when the peak of some station is passed over by the dial. But weak stations are intensified, and we have an increase in noise level and interferences which are undesirable.

For Christmas

It's going to be a problem to find gifts this year that will be both useful and inexpensive. Why not make it a RADEX Christmas?

For \$3.50

Two years' subscription to RADEX with a leatherette cover.

For \$1.75

One year's subscription and the radio map.

For \$1.50

The Headphone Adapters or The Filtered Aerial.

For \$1.00

Next five issues of RADEX or the Book on Radio Theory and Practice.

For 50 Cents

The beautiful leatherette cover.

The Chain Programs

HANGING the form of our weekly programs gave us at least the knowledge that to many thousands of people, this is one of the most important features of our magazine. While we received, perhaps, as many favorable comments on the new plan as we did objections, yet we can readily see that a great many of our readers must have the stations if they are to get the greatest good from the programs. This is particularly true of those living in districts where they cannot readily tune in some nearby powerful station of each chain. Their position is summarized by C. K. Charles, Clearwater, Fla., who says: "Our troubles in following the chain programs are that there are so many that are carried only by groups of station in the various networks. For instance, we have found our local NBC station, WFLA-WSUN, running a program not an NBC main feature, while at the same time WSMB, New Orleans, WOAI, San Antonio, and WENR-WLS, Chicago, would be running entirely different programs, though all are listed as NBC programs. The same occurs on the Columbia stations."

A happy compromise is suggested by Dr. F. S. Taylor, Hastings, Neb., who asks: "Would it not be possible to list one powerful station in each zone, carrying the program?" We are acting on this suggestion but going a step farther. We are giving at least one station in each state, otherwise eliminating the small stations of from 100 to 500 watts. This cuts the list of stations in half and enables us to give twice as many programs as we could do otherwise. At the same time we are keeping the parallel column idea which many liked so well.

If each reader will mark in the blanks at the top of each chain, his dial numbers for those stations upon which he relies for each of the networks, he will find that, nine times out of ten, one of these stations will have the feature he wants and save him the trouble of searching through the list of stations. We give on this page an illustration showing these dial numbers thus entered for a Philco set.

So many of our readers have said that it would add so greatly to their convenience if the calls could be arranged in alphabetical order, that we are trying once more to meet their desires. This is a most arduous task, but we want to do everything in our power to make RADEX of the greatest possible convenience to our readers.

The Mexican List

The Newark News publishes a list of the Mexican stations, supposed to be as of October 7th, which was furnished to them by the Mexican Consul at New York. This list appears to us to be a very old one. Readers who have checked this list against the November RADEX are calling our attention to many supposed errors. The list as published by the Newark News is almost exactly the same list published in RADEX in March, 1931, since which time we have received three new lists from the Mexican Government. For instance, the RADEX list of March, 1931, showed thirteen Mexican stations on 1000 keys. Official changes removed twelve of these and for five issues we have shown but one Mexican station on 1000. The Newark News list again shows thirteen stations on 1000. It hardly seems probable that the Mexican authorities have again bunched thirteen stations on a single frequency. Until we receive more authentic information, therefore, we continue to show the Mexican stations in accordance with the last official list received from that Government.



CFCF 1030 N	KPO 680 N	WCCO 810 C	WHK 1390 C	WNAX 570 C
CFRB	KPRC	WCFL	WHO	WNOX
690 C	920 N	970 N	1000 N	560 C
730 C————————————————————————————————————	1040 C	1490 N	1430 C	1190 N———— WOC
840 N	1330 C	940 N	1280 N	1000 N
KDKA 980 N	KSD 550 N	WDAE 1220 C	WIBO 560 N	WOKO 1430 C
KDYL 1290 C	KSL 1130 N	WDAF 610 N	WIBW 580 C	WORC 1200 C
KECA	KSTP	WDAY	WIOD	wow
1430 NKEX	1460 N	940 N	1300 N	590 N
1180 NKFAB	620 N	930 C	610 C———	1160 C
770 N	1040 N	1120 C	1010 N	1100 C
KFH 1300 C	KTRH 1120 C	WDOD 1280 C	WISN 1120 C	WPTF 680 N
KFI 640 N	KTSA 1290 C	WDRC 1330 C	WJAR 890 N	WQAM 560 C
KFJF	KVI	WDSU	WJAS	WRC
1480 CKFKX	760 C	1250 C	1290 C	950 N———— WREC
1020 N	1140 N KVOR	660 N	900 N	600 C
1340 C	1270 C	780 C	1270 N	1220 N
KFRC 610 C	KWK 1350 N	WEBC 1290 N	WJJD 1130 C	WRR 1280 C
KFSD 600 N	KYW 1020 N	WEEI 590 N-	WJR 750 N	WRVA 1110 N
KFYR	WAAB	WENR	WJZ	WSAI
550 N	1410 C	870 N	760 N WKBH	1330 N
1470 N	860 C	800 N	1380 C	740 N
1330 C	1240 C	610 C	570 C	WSM 650 N
KGO 790 N	WADC 1320 C	WFBL 1360 C	WKBW 1480 C	WSMB 1320 N
KGW 620 N	WAIU 640 C	WFBM 1230 C	WKRC 550 C	WSPD 1340 C
KHJ	WAPI	WFBR	WKY	WSUN
900 CKHQ	1140 N	1270 N———— WFI	900 N	620 N
590 N	760 N	560 N	1470 C	580 N
970 N	800 N	940 C	1010 C	1070 N
KLRA 1390 C	WBBM 770 C	WFLA 620 N	WLBW 1260 C	WTAQ 1330 C
KLZ 560 C	WBCM 1410 C	WGAR 1450 N	WLBZ 620 C	WTAR 780 C
KMBC	WBEN	WGL	WLIT	WTIC
950 C	900 N	1370 C	560 N	660 N
1090 C	930 C	720 C	870 N	WTMJ 620 N
KOA 830 N	WBT 1080 C	WGR 550 C	700 N————	WTOC
KOH 1380 C	WBZ-A 990 N	WGST 890 C	WMAL 630 C	1260 C
KOIL 1260 C	WCAE 1220 N	WGY 790 N	WMAQ 670 N———	920 N
KOIN	WCAH	WHAM	WMC	WWNC 570 N
940 C	1430 C	1150 N	780 N———— WMT	WWVA
1270 C	600 C	820 N	600 C	1160 C
KOMO 920 N	WCAU 1170 C	WHEC 1430 C	WNAC 1230 C	WXYZ 1240 C
	<u> </u>	<u></u>		

WHAT'S ON THE AIR TONIGHT?

NATIONAL, Red____WEAF COLUMBIA WABC NATIONAL, Blue____WIZ

For quick reference, fill in below the dial numbers at which you best hear the three chains.

fou can then turn quickly to one that has the feature you want.						

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

Columbia WABC DAILY (Except Sunday)

12:30-1:00 Columbia Revue (Except Saturday) CFRB KFH KFPY KMOX KFRC KGB KHJ KVOR KOH KSCJ KVI WABC WDSU WFBL WJAS WMAL WNAC WPG WQAM

2:30-3:00 American School of Air (Except Saturday) KDYL KFH KFRC KGB KFJF KFPY KLZ KHJкмох кон KSCJ WABC WBT WCAU KVOR WCCO WDSU WFBM WHK WJAS WMAL WNAC WQAM WTAQ WTOC WIBW

WTAQ

WPG

7:00-7:15 Myrt and Marge (Except Saturday)
KMOX WABC WADC WCAU
WJAS WKRC WMAL WNAC WWVA

7:15-7:30 Cremo — Bing Crosby WABC WADC WBT WCAU WKRC WMAL WJAS WNAC WQAM WTAR WTOC

7:30-7:45 Baker, Boswell Sisters
(Except Tues., Thurs., Sat.)
KFH KMBC KMOX KOIL
WADC WCCO WFBL WHK
WJAS WKRC WNAC WWVA

7:45-8:00 Camel - Morton Downey KFH KFJF KMOX KOIL KLRA KMBC KRLD KSCJ WACO WCAU WABC WADC WBRC WBT WCCO WDSU WFBM WHK WIBW WJAS WKRC WLAC WMAL WNAC WNAX WQAM WTAR WTOC

8:00-8:15 Columbians, Freddie Rich (Except Tues., Thurs., Sat.) KFH KFJF KMBC KMOX KOIL KRLD KSCJ WABC WACO WADC WBRC WBT WCAU WCCO WDSU WFBM WKRC WHK WIBW WJAS WNAC WNAX WPG WLAC WTAR

8:00-8:15 The Mills Brothers (Except Mon., Wed. Fri.) KFH KFJF KMOX KMOX KOIL KRLD KSCJ KTSA WABC WACO WADC WCAU WCCO WBRC WBT WDSU WFBL WIBW WJAS WMAL WNAC WFBM WHK WKRC WLAC WNAX WPG WQAM WTAR WTOC

W100 S:15-8:30 Singing Sam, Barbasol (Except Tues, Thurs, Sat.) KMBC KMOX KOIL WABC WADC WCAU WCCO WFBL WFBM WGN WHK WJAS WKBW WKRC WMAL WNA

National, Red___WEAF DAILY (Except Sunday)

8:00-8:15 Gene and Glenn—Quaker WBEN WCAE WCSH WEAF WEEI WEI WCV WEAF WEEL WFI WGY WRC WTAM

8:15-8:30 Morning Devotions
- KFYR WBEN WCAE WCKY WCSH WEAF WFI WFLA WGY WHAS WIBA WIOD WJAX WJDX WOW WPTF WSUN WRC WRVA WWJ 8:30-9:00 Cheerio KFYR KPRC CKGW KSTP WCKY

WCAE WAPI WBEN WDAF WDAY WCSH WEAF WEEI WFI WFLA WGY WHAS WIOD WJAX W.IDX WMAQ WOAL WRVA WSB WOW WRC WSMB WSUN WTAM WWJ

3:00-4:00 vyoung (Except Saturday) WBEN WCAE 3:00-4:00 Woman's Radio Review WCSH WDAF WEAF WFI

WGY WOC WOW WRC WSAI WTAM WWJ 4:30-5:00 Phil Spitalny, Tea

Dansante KSD WBEN WCAE WEAF WOC WTAM WWJ WGY WOC 6:00-6:30 Waldorf-Astoria Orch. CKGW KGO WCAE KSD KSL WAPI WEAF WFI WHAS WKY WIOD WIS WRC WSM 6:45-7:00 Swift -- Stebbins Boys

(Except Saturday) WCAE WCSH WGY WRC KSD WBEN WEAF WFI WGY WSAI WTAM WWJ 7:30-7:45 Prince Albert Alice Joy

KSTP WBEN WCSH WDAF WDAY WEAF WGY WIBA WEBC WFLA WGY WIBA WJAX WLIT WIOD WIS WRC WRVA WSAI WTAM WTMJ WWJ WWNC

WHO 7:45-8:00 The Goldbergs WBEN WCAE WEAF WENR WGY WSAI WTAM WWJ 10:00-11:00 Lucky Strike Dance Hou

(Except Mon. Wed., Fri.) KFI KGO KGW KHQ KOMO KPRC KOA KSD KSTP KSL KTAR WAPI WCAE WCSH ~WDAY WBEN WEAF WEBC WENR WFAA WGY WFI WFLA WIBA WIOD WJAX WJDX WKY WMC WOAI WOC WRC Alice Joy 11:15-11:30 Prince Albert-WAPI KSD KPRC KTHS WBAP WHAS WJDX WKY WMC WOAI WOC WOW WSB WSM WSMB WRVA WSAI WSB WSM WSMB WTAM WTMJ WWJ

National, Blue____WJZ DAILY (Except Sunday)

12:30-1:00 National Farm and Home KDKA KFAB KOA KPRC KTHS KVOO KWK KYW WBZA WDAF WAPI WFLA WGAR WHAM WHAS WIBA WJAX WJR WIOD WIDX WLW W.IZ WMC WOW WPTF WRC WREN WSM WSMB WSB

3:30-3:45 The Three Doctors (Except Friday and Saturday) CKGW KFAB KSTP WAPI WDAY WFLA WHAS WJR WJZ WKY WLW WMC WREN WSM

3:45-4:00 Chicago Serenade (Except Friday and Saturday) CKGW KOA KSTP WFLA WGAR WHAM WHAS WJDX WJR WJZ WKY WREN WSM

5:45-6:00 Little Orphan Annie WFLA WGAR WHAM WIOD WJAX WJZ WLW WPTF WRVA

6:00-6:15 Raising Junior (Except Wednesday) KWK KYW WIBA WJZ WGAR WHAM

6:45-7:00 Literary Digest, Lowell Thomas KDKA WBZA WHAM WJZ WLW

7:00-7:15 Amos 'n' Andy CFCF CKGW KDKA WCKY WFLA WGAR WIOD WJAX WJR WLW WPTF WRC WBZA WHAM WJZ WRVA

7:15-7:30 Tastyeast Jesters
(Except Tues., Wed., Fri.)
RDKA WBZA WCKY WFLA
WGAR WHAM WIOD WJAX
WJZ WPTF WREN WRVA 7:30-7:45 Phil Cook, Quaker Man

(Except Saturday)
KDKA WBZA WENR WGAR
WHAM WJZ WREN 8:45-9:00 Sisters of the Skillet (Except Mon., Wed., Sat.) KDKA KFAB KPRC

KVOO KWK WBAP WBZA WDAY WEBC WHAM WIBA KVOO WBZA WJZWKY WLS WOAI WREN WTMJ

10:30-10:45 Clara, Lu and Em (Except Monday) KDKA KWK WHAM WJR WBZA WGAR WJZ WMAQ

WREN 11:00-11:15 Amos 'n' Andy KFAB KGO KGW KHQ KSTP KOA KOMO KSL KTHS KWK WBAP WDAF WENR WHAS WIBA WEBC WJDX WKY WMAQ WMC

8:30-8:45 Kate Smith - La Palina 6:30-6:43 Nate Smith — La Faina (Except Tuesdays and Fridays) KMBC KMOX KOIL WABC WADC WCAU WCCO WFBM WGN WHK WJAS WKRC WGN WHK WMAL WOWO 10:45-11:00 Myrt and Marge (Except Saturday) KDYL KFPY KFRC KHJ KLZ KMBC KOIN WBBM WCCO HI:00-11:15 Cremo — Bing Crosby
KDYL KFPY KLZ KOH
KOIN KTSA WGN WOWO WTAQ 11:15-11:30 Jack Miller songs

(Except Mon., Wed., Fri.)
KFJF WABC WBT WCAU
WDSU WNAC WPG WQAM WTOC 11:15-11:30 Street Singer | 143-z:15 rop | Except Tues, Thurs, Sat.) | 143-z:15 rop | WABC WBT WCAU WDSU KPRC KSD | WNAC WPG WQAM WTOC WAPI WCA 11:30-11:45 Camel - Morton

Downey KDYL KFPY KLZ KOH KOIN KTSA WGN WOWO 11:45-12:00 Ann Leaf at Organ (Except Mondays and Thursdays) KFJF KFPÝ KOH KVOR KDYL KFH KLZ KVOR WBT WCAU WDSU WKBW WMAL WNAC WABC WET WFBL WQAM WTOC

SUNDAY 12:00-12:30 Voice of St. Louis 12:00-12:30 Voice of St. Louis
CFRB KDYL KFJF KFPY
KLZ KSCJ KVI KVOR
WABC WBBM WBT WCCO
WDSU WFBL WIBW WJAS
WMAL WPG WQAM WTAQ 12:30-12:45 International Broadcast CFRB KDYL KFJF KFPY KSCJ KVI WCAU WDSU WIBW WJAS WQAM WTAQ KOH WABC WBT WFBL WHK WMAL WPG W10C
12:45-1:00 Cafe Budapesth
CFRB KDYL KFJF KFPY
KLZ KOH KSCJ KVI
KVOR WABC WBT WCAU
WCCO WDSU WFBL WIBW
WJAS WMAL WQAM WTAQ 1:00-1:45 Cathedral Hour CFRB KDYL KFJF KLZ KMOX KOH KSCJ KVI WABC WFBL WIBW WJAS WMAL WTAQ WMALL WILLS 2:00-2:30 Sons of Eli Spirituals KMBC KMOX KOIL KRLD WABC WADC WBBM WBRC WBT WCAU WCCO WDSU WFBL WHK WJAS WKRC WLAC WMAL WNAC WOWO

2:30-3:00 Columbia Church of the CFRB KDYL KFH KFPY KFRC KGB KFPY KLZKOH KOL KSCJ KVOR
WABC WBT WCCO WDSU
WFBL WFBM WIBW WJAS
WKBW WMAL WPG WQAM WTAQ 3:00-4:30 N.Y. Philharmonic Orch. CFRB KDYL KFH KFJF KFPY KFRC KGB KHJ WRC WSAI WTAM WWJ 5:30-6:30 General Electric Program KOA KPRC KSD KSTP KLZ KMOX KOH KSCJ

KVOR WABC WBT

Columbia WABC National, Red WEAF

11:45-12:00 Cab Calloway's Orch. (Except Tues., Wed., Sat.) KSD WEAF WGY WOW WWJ

SUNDAY

1:00-1:30 Isa Kremer with Orch.
CFCF CKGW KGO KGW
KOA KOMO KPRC KSL
KSTP WAPI WBEN WCAE
WDAF WDAY WEAF WEBC
WENR WFAA WFI
WHAS WIOD WJDX WRC
WSMB WSMB WTAM WWJ
1:20.1:45 Cargeth WAIL, Talk h Orch.
KGW
KSL
WCAE
WEBC
WFLA
WRC
WWJ
Falk
WDAF WSM WSMB WIAM WWJ 1:30-1:45 Carveth Wells, Talk KSD WBEN WCAE WDAF WEAF WEI WGY WMAQ WOC WTAM WWJ 1:45-2:15 Old Company's Program CPCF CKGW WBEN WCSH WEAF WFI WGY WRC 1:45-2:15 Pop Concert KGO KGW KOA KGO KGW KOA KOMO KPRC KSD KSTP KVOO WAPI WCAE WDAF WDAY WHAS WIBA WKY WOW WSM WSMB WTAM WTMJ WWJ WWJ 2:15-2:30 Bright Spot—Pettis Orch. CFCF CKGW KGW KHQ KOA KPO KSD KSL
KSTP KTAR KVOO KYW
WAPI WBEN WCAE WCSH
WDAF WDAY WEAF WEBC
WFAA WFLA WGY WHAS
WIOD WJAX WJDX WKY
WLIT WMC WOAI WOC
WOW WOFF WRC WRVA
WSAI WSB WSM WSMB WTAM WTMJ WWJ 2:30-3:00 Moonshine and Honeysuckle

KSD WCAE WCSH WDAF
WEAF WGY WLIT WMAQ
WOW WRC WTAM WWJ
3:00-3:30 Wayne King's Orch. WCSH WDAF WEAF WGY
WLIT WOC WOW WRC WSAI WTAM WWJ 3:30-4:00 Dr. S. Parkes Cadman KGO KGW KHC KOMO KPRC KSD KHQ KOA KSL KSTP KVOO KYW WCAE WCSH WDAI WEAF WEBC WFAA KSTP WBEN WDAF WDAY WFAA WFLA WIS WMC WGY WHAS WIOD WIOD WIS WKY WMC WPTF WRC WSB WSM WWI WWNC WJAX WJDX WOAL WCW WSAI WWWJ WSAI WSMB WTAM WWJ WSAI WSAI WWJAY WGY WHAS WGY WAS WJAX WPTF WRC WOW WOC WRVA WSAI WSB WSM WSMB WTAM WWJ WWNC 4:30-5:00 Wonder Program
WBEN WCAE WCSH WDAF
WEAF WENR WGY WOC
WOW WRC WSAI WTAM

National, Blue___. WJZ WOAI WREN WSB WSM WSMB WTMJ 11:15-11:30 Literary Digest, Lowell Thomas KFAB KWK WDAY WEBC WENR WREN 11:30-11:45 Russ Columbo, Songs KFAB KFYR WGAR WJR WJZ WKY WRC WREN WSB 11:45-12:00 Lew White, Organ (Except Tuesday and Friday) KFAB KFYR WENR WJZ WRC WREN WSB 12:00-12:15 Mildred Bailey and

Jesters (Except Tuesday and Friday)
KDKA KFAB WBAP WENR
WGAR WJR WJZ WREN 12:15-1:00 Larry Funk and Orch. WENR WGAR WJR WJZ

SUNDAY 11:30-12:15 Morning Musicale KDKA KEX KFAB KGA KJRKOA **KPO** KPRC KVOO KWK WAPI WDAY WFLA WHAS WJZ WKY WLW WMC WPTF WREN WSM WTMJ 12:15-12:30 American Council Inst. KFAB KGO KOA WDAY WHAM WHAS WJZ WMAQ 1:15-2:15 Walter Damrosch Hour KDKA KFAB KFYR KGO KGW KOA KOMO KPRC KGW KOA KOMO KVOO KWK WAPI WFLA WGAR WHAM WBZA WIOD WIS WJAX WJDZ WKY WMC WOAZ WREN WRVA WSB WJDX WJZ WOAI WSMB WWNC 2:30-3:00 Yeast Foamers KDKA KFAB KGW KOA KPO KPRC KSTP KTAR KTHS KSL KVOO WEBC WFAA WFLA WHAM WHAS WIOD WJDX WJR WJZ WRZA WGAR WJAX WKY WLW WMC WOA WREN WRVA WSB WOAI WPTF WSMB WTMJ 3:00-3:30 National Youth Conf KDKA KFAB KFYR
KGW KHQ KOA
KPRC KTAR KVOO
WAPI WBZA WFLA KGO KOMO KWK WHAM WIBA WIOD WIS WJAX WIBA WIOI WKY WMAQ. WOAI WPTF WREN WMC WMC WOA WRVA WSB WSMB WWNC 4:00-4:30 Melodies de France CFCF CKGW KDKA KFAB KWK KYW WBZA WJZ WLW WREN 4:30-5:00 The Musical Showmen CKGW KDKA KFAB KWK KYW WHAM WJZ 5:00-5:30 National Vespers KDKA KFAB KFI KFYR KOMO KGO KGW KHQ KPRC KSL KVOO KWK KSTP KTHS WDAY WEBC WFAA WFLA WIBA WIOD WIS WJDX WJZ WKY WMAQ WOAI WRVA WSB WWNC WPTF WREN WSM WSMB 5:30-6:00 Simoniz Guardsmen KFAB KWK WBZA WGAR WHAM WJZ WLW WMAQ

í

WMAQ

WBEN WCAE WCSH WDAF WEAF WGY WOC WOW WRC WSAI WTAM WWJ

WWJ

Columbia			
WOOD WISH	Columbia WABC	National, Red WEAF	National, BlueWJZ
## WELL WITH WITH WITH WITH WITH WITH WITH WITH	WCCO WDSU WFBM WHK	KVOO WAPI WBAP WBEN	
\$-90-6-30 Blue Coal Revue \$\text{CPRB}\$ WADE WCA Glicage \$\text{CPRB}\$ WADE WADE WADE WCA GLICAGE \$\text{CPRB}\$ WADE WADE WADE WADE WADE WADE WADE WADE	WQAM WTAQ WTOC	WEAF WEBC WENR WFI	
ROPT KPJF KPP KPRC WFIF WRC WRVA WSAI TOO	6:00-6:30 Blue Coal Revue	WFLA WGY WIBA WIOD	Wavne
Sign St. St.	6:00-6:30 Knight from Chicago	WMC WOAI WOC WOW	
No.	KDYL KFJF KFPY KFRC KGB KHJ KLZ KMOX	WPTF WRC WRVA WSAI	7:00-7:15 Willys-Overland Orch.
Memories KIRA KMBC KOO	KOH KOL KSCJ KVI	WWJ WWNC	KHO KOA KOMO KSL
Memorates	6:30-7:00 Barnsdall Musical	KGO KGW KOA KOMO	KTAR KWK KYW WCKY
WOAL WCST WOAL	Memories KFH KEIF KIRA KMRC	KPRC KSD KSTP KTAR KTHS KVOO WRAP WREN	WJR WJZ WREN WTMJ
WGT	KMOX KOIL KSCJ WCCO	WCAE WCSH WDAF WDAY	7:15-7:30 Jolly Time Revue KDKA KFI KGO KGW
RDYL KFH KOLZ KOH KOL KRIZ KOH KOL KOH		WEAF WEBC WENR WELA WGY WIBA WIOD WJAX	KHO KOA KOMO KSL
WEYN WARD WEYN WEYN WEYN WEYN WEYN WEYN WEYN WEYN	KDYL KFH KFJF KFPY	WJDX WKY WLIT WMC	WDAY WEBC WGAR WHAM
W3MB WBT W7DC W3MB WBJ W1DW	KOH KOL KSCJ KVI	WRVA WSAI WSB WSM	WJZ WKY WLS WLW
WIAL WPG WQAM WTOC W	KVOR WABC WBT WCCO	WSMB WWJ	7:30-8:00 The Three Bakers
7:15-7:30 Charlie and Oscar KMBC KMOX WABC WGAU WCCO WGN WJAS WKRC WACC WGNAC 7:39-8:00 Laden's Novelty Orch. KDYL KLZ KMBC KMOX KOIL KRLD WABC WCCO WDSU WGN WHK WKRC WMAL WNAC WKRC WMAL WNAC WKRC WMAL WNAC KORL KFPY KFRC KHJ KON KSCJ KYOR WCCO WDSU WGN WHK WIS WGRC WGAU WCCO WDSU WGN WHK WGCO WDSU WGN WHX WGCO WGCO WGN WGCO WGCO WGN WGCO WGN WHA WHAC WGCO WGCO WGN WGCO WGCO WGN WGCO WGN WGCO WGN WGCO	WJAS WMAL WPG WQAM	CFCF WCAE WDAF WEAF	KDKA KFI KGO KGW
MADE KMOX WABC WABC WABC WCOO WON WABC WIGH WIGH WIGH WABC WCOO WON WJAS WKRC WABL WA		WELA WGY WIS WEC WEVA WSAI WWNC	KSL KSTP KTAR KVOO
WHAK WHAS WHAW WHAK WHAS WHO WHAK WHAS WHAW WHAK WHAS WHAK WHAS WHO WHAK WHAK WHAS WHAK WHAK WHAS WHAK WHAK WHAK WHAK WHAK WHAK WHAK WHAK	KMBC KMOX WABC WCAU	7:30-8:00 Iodent Club of the Air	KWK KYW WBZA WDAY «
Variable	WNAC WAN WJAS WARC		WHAM WHAS WIBA WIOD
KOLD WABC WCAU 83-09-9-00 Chase and Sanborn WREN WRVA WSM WCOO WDSU WGM WHK CPCF CRGW KFRC KBD 8:00-8:15 Devile, Drugs, Doctors KDYL KFPC KBL KMBC MCAE WCAE WCAE WCAE WCAE WCAE WCAE CRGW KKPAE KWB WCAE WC	7:30-8:00 Luden's Novelty Orch.	WLS WOC WRC WSAI	WLW WMC WOAI WPTF
WREC WMAL WNAC WNAX SSTP KTHS KVOO WBEN WOAL WNAX SOO. STD PORT Strong Notions WOAL WCSH WDAF WEAF WOAL WCSH WABO WABO WOOD WDISU WFBL WGAN WSB WSMB WSMB WSMB WSMB WSMB WSMB WSMB	KOIL KRLD WABC WCAU	8:00-9:00 Chase and Sanborn	WREN WRVA WSB WSM
KDVL KFPY KFRC KHJ KIJZ KMBC KMOX KOIL WHAS WHO WID WJDX WABC WADC WBRC WCAU WKY WLIT WLS WMC WABC WADC WBRC WCAU WWY WLIT WLS WMC WALO WADC WFIL WGN WHK WIBW WJAS WKRC WHAK WIBW WJAS WKRC WHAC WALO WALO WALO WALO WALO WALO WALO WALO WALO WCAU WCCO WGN WHK WJAS WKRC WMAL WNAC WOW WBEN WBT WCAU WCCO WDSU WFIL WHAS WALO WBT WCAU WCCO WDSU WFIL WWJAS WNAC WBT WCAU WCCO WDSU WFIL WWJAS WNAC WBT WCAU WCCO WDSU WFIL WWJAS WKRC WFIL WWJAS WNAC WBT WCAU WCCO WDSU WFIL WWJAS WKRC WGAM WHK WJAS WNAC WBT WCAU WCCO WDSU WFIL WWJAS WKRC WWADA WADO WALO WOADO WALO WADC WOW WBT WCAU WCO WDSU WFIL WFIL WBT WFIL WFIL WFIL WBT WBT WEAL WBT WCAU WCO WDSU WFIL WFIL WBT WCAU WCO WDSU WFIL WFIL WBT WCAU WCO WDSU WFIL WFIL WBT WGAU WDSU WFIL WFIL WBT WGAU WDSU WFIL WFIL WBT WCAU WCO WBT WBT WCAU WCO WBT WBT WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WALO WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WADO WALO WALO WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU WCAU	WCCO WDSU WGN WHK WKRC WMAL WNAC WNAX	KSTP KTHS KVOO WREN	
KLOZ KMBC KMOX KOIL WASC WADC WBRC WCAU WASC WADC WBRC WCAU WCOO WBRU WFBL WGN WHK WIBW WJAS WKRC WLT WLS WKC WSAI WSB WSMB WTAM WTMJ WSB WSMB WSMA WTAM WTMJ WJA WLAC WMAL, WNAC 8:15-8:45 Esther Cad-Kin with Orchestra KDYL KFJF KGB KLZ KOH KSCJ KVOR WBBM WCOO WIBW WNAC 8:45-9:00 Angelo Patri, Your Chid KMBC KMOX KOIL WNAC WASO WHK WJAS WKRC WMAL WNAC WASO WHK WJAS WKRC WMAL WNAC WOWO 9:00-9:30 Rosy Theatre Symphony KDYL KFJF KFPY KFRC KLZ KMOX KSCJ KVOR WBSD WBB WTAM WTMJ WBB WCAU WCOO WBSU WFBL WGAW WOAU WCOO WBW WRC WASI WWNC 9:15-9:45 Album of Familiar Music KFI KGO KGW KHQ KFI KGW KHQ WSB WSMB WSMB WTAM WTMJ WBEN WCAE WCSH WDAY WBEN WCAE WCSH WDAY WEAF WEBN WSMB WTAM WTNJ WSB WYAC WFI W WID WIJS WKY WWJ WWJ WWJ WSH WJAS WKRC WAL WNAC WOWO 9:15-9:45 Album of Familiar Music KFI KGO KGW KHQ WHAW WTMJ WTMJ WSB WAS WKRC WAL WNAC WOWO 0:30-10:90 Romances of the Sea CFRB KDYL KFPY KFRC WAL WGAR WHAM WHAS WBA WTAM WTND 9:00-9:30 Rosy Theatre Symphony KDYL KFJF KFPY KFRC WAL WJAS WKRC WMAL WNAC WOWO 0:30-10:90 Romances of the Sea CFRB KDYL KFPY KFRC WAL WGAR WHAM WHAS WBA WHAW WJAS WKRC WAL WNAC WGAR WHAM WHAS WBA WWAL WWAW WAL WWAW	8:00-8:15 Devils, Drugs, Doctors	WCAE WCSH WDAF WEAF	CFCF CKGW KDKA KFAB
WABC WADC	KLZ KMBC KMOX KOIL		KOMO KPO KPŘC KSL
WEEK	KOIN KSCJ KTSA KVI	WKY WLIT WLS WMC	KSTP KTAR KTHS KVOO
WHK WIBW WIAS WKRC WWJ WLAC WAL WAC 9:00-9:15 Our Government WDJX WJX WJX<	WCCO WDSU WFBL WGN	WSB WSMB WTAM WTMJ	WEBC WFAA WFLA WGAR
Orchestra WCSH WEAF WENR WFA WRVA WSB WSMB KDYL KFJF KGB KLZ WFI WFI WFLA WGY WOW KOH KSCJ KVOR WBBM WIS WJDX WOC WOW 8:45-9:00 Angelo Patri, Your Child WBC WBC KWNC KWNC KWNC KWO KOO KOMO KPC KSD KKOK KOMO KPC KSD KOO KOMO KPC KWR KQO WBC WGAR WWO WTD WTD <t< td=""><td>WHK WIBW WJAS WKRC</td><td>WWJ</td><td>WHAM WHAS WIBA WIOD WJDX WJR WJZ WKY</td></t<>	WHK WIBW WJAS WKRC	WWJ	WHAM WHAS WIBA WIOD WJDX WJR WJZ WKY
KDYL KFJF KGB KLZ	8:15-8:45 Esther Cad-Kin with	KSD KTHS KVOO WBEN	WLW WMC WOAI WREN
KOH KSCJ KVOR WBBM WIS WJDX WOC WOW 8:15-9:15 Collier's Radio Hour WCCO WIBW WNAC WABC WSAI WWNC KGO KGW KHQ KOA KOMO KPRC KCKW KHQ KOA KOMO KPRC KSCJ KWK WYAC WSAI WSAI <td< td=""><td>Workestra KDYL KFJF KGB KLZ</td><td>WESH WEAF WENR WFAA WFI WFLA WGY WIOD</td><td>WTMJ</td></td<>	Workestra KDYL KFJF KGB KLZ	WESH WEAF WENR WFAA WFI WFLA WGY WIOD	WTMJ
8:459:90 Angelo Patri, Your Child KMBC KMOX KOIL WABC KMBC KMOX KOIL WABC WADC WCAU WCCO WGN WADC WCAU WCCO WGN WADC WCAU WCCO WGN WADC WCAE WCSH WDAF WCAE WCSH WDAF WCAU WCCO WGN WADC WCAE WCSH WDAF WCCO WSU WFBL WFBM WKR WAAL WWAC WCCO WSU WFBL WFBM WHK WJAS WKBW WKCC WMAL WOCO WSU WFBL WFBM WHK WJAS WKBW WKCC WALD KTSA WADC WCCO WSU WFBL WFBM WHK WJAS WKBW WKCC WALD KTSA WADC WCCO WSU WFBL WFBM WHK WJAS WKBW WKCC WALD WCCO WSU WFBL WFBM WHK WJAS WKBW WKCC WALD WCCO WSU WFBL WFBM WHK WJAS WKBW WKCC WALD WCCO WSU WFBL WFBM WHK WJAS WKBW WKCC WALD WCCO WSU WFBL WFBM WHK WJAS WKBW WKCC WALD WCCO WSU WFBL WFBM WHK WJAS WKBW WKCC WALD WCCO WSU WFBL WFBM WCAU WCCO WSU WFBL WFBM WHAM WJAS WWSB WCCO WSU WFBL WFBM WSMB WTAM WWJ WSBN WTAM WJZ WREN WSMB WTAM WJZ WREN WSMB WTAM WJZ WREN WSMB WTAM WJZ WREN WSMB WTAM WJZ WKY WACC WALD KTSA WASI WSB WSM WKC WALD KTSA WASI WSB WSM WKBW WKCC WALD KTSA WASI WSB WSM WSMB WTAM WJZ WREN WSB WSM WSMB WTAM WJZ WWCCO WOW WRC WALD WFBL WFBM WSMB WTAM WJZ WKY WACC WALD WCCO WSU WFBL WFBM WSMB WTAM WWJ WAC WCO WOW WRC WSAI, WSB WSM WMAL WAC WPG WOAM WTMJ WWJ WMW WSMB WTAM WWJ WMC WREN WGAR WJR WZZ WLW WCAU WDCO WOW WRC WSAI, WSB WSM WMAC WWAC WAC WSAI WSB WSM WWAL WAC WPG WOAM WTMJ WWJ	KOH KSCJ KVOR WBBM	WIS WJDX WOC WOW	8:15-9:15 Collier's Radio Hour
WADC WOAU WCCO WGA KOA KOMO KPRC KSP WRAK WHAW WJAS WKRC WMAL KSPP KTAR KTHS WAPI WBPI WBPI WBF WEAF WBEN WBEN WBEN WBEN WBEN WBEN WBEN WWEN WBEN WBEN WWEN WWE	8:45-9:00 Angelo Patri, Your Child	9:15-9:45 Album of Familiar Music	KOA KOMO KPO KSL
WHK WJAS WKRC WMAL KSTP KTAR KTHS WAPI WNAC WOW WBEN WCAE WCSH WDAY WBEN WAPI 9:00-9:30 Roxy Theatre Symphony WEAF WEBC WENR WFI WDAY WBAS WWAS WWAS <td>WADC WCAU WCCO WGN</td> <td>KOA KOMO KPRC KSD</td> <td>WHAM WJR WJZ WLW</td>	WADC WCAU WCCO WGN	KOA KOMO KPRC KSD	WHAM WJR WJZ WLW
WBT WCAU WCCO WDSU WBT WSB WSM WSB WSM WHK WJAS WNAC WRVA WSAI WSB WSB WSM W	WHK WJAS WKRC WMAL	KSTP KTAR KTHS WAPI	WREN
WBT WCAU WCCO WDSU WBT WSB WSM WSB WSM WHK WJAS WNAC WRVA WSAI WSB WSB WSM W	9:00-9:30 Roxy Theatre Symphony	WEAF WEBC WENR WFI	KDKA KWK KYW WBZA
WBT WCAU WCCO WDSU WOL WANAC WVA WSAI WSM W	KDYL KFJF KFPY KFRC	WFLA WGY WHAS WIBA	WGAR WJR WJZ WLW WREN
WFBM WHK WJAS WNAC WRVA WSAI WSBJ WSD WCA WCA KOA WBAP WBAP<	WBT WCAU WCCO WDSU	WOAI WOC WOW WRC	9:45-10:15 Kellogg Slumber Music
9:30-10:00 Romances of the Sea CFRB KDYL KFPY KFRC KHI KGO KGW KHQ KHQ KOLL KOIN KOL WARC WARC WARC WARC WARC WARC WARC WARC	WEBM WHE WJAS WNAC	WSMB WTAM WTMJ WWJ	KDKA KWK KYW WBZA WGAR WHAM WJR WJZ
KLZ KMBC KMOX KOA KOMO KPRC KSD	9:30-10:00 Romances of the Sea	9:45-10:15 Buick Program	WLW WREN
KOIL KOIN KOL WABC W	KHJ KLZ KMBC KMOX	KOA KOMO KPRC KSD	KDKA KWK WENR WGAR
WJAS	WADC WCAU WGN WHK	KSL KSTP KTAR KYW WAPI WBAP WBEN WCAE	
10:00-10:30 Hopper Variety Show	WJAS WKRC WMAL WNAC	WCSH WDAF WDAY WEAF	Fear
KDYL KFJF KLZ WIOD WJDX WKY WMC KMBC KMOX KRLD KTSA WOAI WOC WWW WRC WABC WABC WBBM WCAU WRVA WSAI WSB WSM WCC0 WDSU WFBL WFBM WWRVA WSB WSM WWJ WHK VJAS WKBW WKRC 10:15-10:45 Ted Weems Orch. KDKA KFAB KFPR KPRC WMAL WOO KOA KOMO KSTP KTAR KDKA KFAB KFPR KPRC WABC WB-1 KOA KOMO KSTP KTAR KDKA KFAB KFPR KPRC WBAD WB-1	10:00-10:30 Hopper Variety Show	WFLA WGY WHAS WIBA	KDKA WBZA WHAM WJZ
WABC WADC WBBM WCAU WRVA WSB WSM WCCO WDSU WFBL WFBM WSB WSB WSM WSD	KDYL KFH KFJF KLZ	WIOD WJDX WKY WMC	KDKA KFAB WENR WJR
WCCO	WABC WADC WBBM WCAU	WRVA WSAI WSB WSM	WJZ - WREN
10:30-11:00 Ernest Hutcheson, KOA KOMO KSTP KTAR WSB WSB	WCCO WDSU WFBL WFBM	WSMB WTAM WWJ	KDKA KFAB KFYR KPRC
Noming N	WMAL WOWO	KFI KGO KGW KHQ	WJR WJZ WKY WREN
CERB CKAC KDYL KFJF WCSH WDAF WDAY WEAF KFYR KPYR KBE WENK WEBC WFI WGY WHAS KSCJ KVOR WABC WBT WJDX WKY WMC WOAI WCAU WDSU WFBL WFBM WOC WOW WRC WSAL WHK WIBW WJAS WKBW WSB WSM WSM WTAM WMAL WPG WOAM WTMJ WWJ	Pianist	KYW WAPI WBEN WCAE	WSB
WESCJ KVOR WABC WBT WIDX WKY WMC WOAI WGAR WJR WJZ WLW WKKY WHO WOAI WEST WWC WOAI WHO WREN WHAL WHAC WPG WOAM WTMJ WWJ	CFRB CKAC KDYL KFJF	WCSH WDAF WDAY WEAF	KFYR KPRC WEBC WENR
WHK WIBW WJAS WKBW WSB WSM WSMB WTAM WMAL WNAC WPG WOAM WTMJ WWJ WOO WOW WRC WSAI, WHAT WIBW WJAS WKBW WSB WSM WSMB WTAM MONDAY	KSCJ KVOR WABC WBT	WJDX WKY WMC WOAI	WGAR WJR WJZ WLW
WMAL WNAC WPG WQAM WTMJ WWJ	WCAU WDSU WFBL WFBM	WOC WOW WRC WSAI, WSB WSM WSMB WTAM	
			INI ONDA I 2:30-2:45 George Simons, Tenor

MONDAY

2:30-2:45 George Simons, Tenor KDKA KSTP WAPI WDAY WGAR WHAM WJDX WJZ WREN WSM

| 10:45-11:15 Sunday at Seth Parker's | CKGW KGO KGW KHQ KOA KPRC KSD KSL KSTP KTAR KYW WAPI

WTOC

Program KDYL KFH

11:00-11:30 The Gauchos-Spanish

KFJF KFPY

Colun	nbia		WABC
KFRC	KGB	KLZ	KSCJ
KVOR	WABC	WBT	WCAU
WDSU	WFBL	WFBM	WHK
wisw	WMAL	WNAC	\mathbf{WPG}
WQAM	WTOC		
	:00 Ben		
KDYL	\mathbf{KFH}	KFJF	
KGB	KLZ	KSCJ	
WABC		WCAU	
WDSU		WMAL	WNAC
WPG	WQAM	WTOC	
12:00-12	2:30 Eddi	e Duchin	and Orch.
KDYL	KFJF	KFPY	KLZ
KVOR	WABC	WCAU	WCCO
WIBW	WNAC		
12:30-1:	00 Ann L	eaf at Or	gan
KDYL	KFJF	KFPY	KLZ
KMOX	KOH	KVOR	WABC
WCAU	WCCO	WFBL	WIBW

MONDAY

6:45-7:00 Reis and Dunn Comedy KFH KFJF KLZ KOH
KSCJ KVOR WABC WBT
WDSU WFBM WJAS WKBW
WMAL WQAM WTOC • WDSU WMMAL WGAM WIOC

9:00-9:15 Pompeian Make-Up Box

CFRB KMBC KMOX KOIL

WABC WADC WCAU WFBL

WGN WHK WJAS WKBW

WKRC WMAL WNAC WOWO 9:15-9:30 Howard Barlow Orch. KFJF KLZ KFPY KMOX CFRB KFHKGB KHJKSCJ KVOR WABC WDSU WFBL WIBW WKBW WQAM WTAQ KOH WBT WJAS WTOO

9:30-10:00 Bourjois Evening in

Paris KFPY KFRC KMBC KMOX KRLD WABC KFJF KLZ KDYLKHJKOIL KOIN WADC WET WCAU WCCO WGN WHK WFBL WDSII WKBW WKRC WMAL WJAS WNAC WOWO

10:00-10:30 Panatela — Guy Lombardo

KFPY KFRC KMBC KMOX KDYL - KFJF KHJ KLZ WABC WADC WBBM WCAU
WCCO WFBL WFBM WHK
WJAS WKBW WKRC WMAL WNAC WOWO 10:30-10:45 Toscha Seidel, Violinist CFRB KDYL KFJF KFPY CFRB KDYL KFJF KLZ KOH KSCJ KGB KYOR WABC WBT WDSU
WFBL WFBM WIBW WKBW
WMAL WQAM WTAQ WTOC 11:30-12:00 Cuban Biltmore Orch. WABC WBT WCAU WDSU WMAL WQAM WTOC

TUESDAY

7:30-8:00 Kaltenborn Edits News KMBC KMOX KOIL WABC WADC WBBM WCAU WCCO WFBL WFBM WHK WJAS WKRC WNAC 8:15-8:30 Sterling - Abe Lyman's

Band KFJF KMBC KMOX KOIL WABC WADC WCAU WCCO WDSU WFBL WFBM WGN WJAS WKRC WMAL WHK WNAC 8:30-8:45 Red Goose Adventures KDYL KFH \mathbf{KFJF} KFPY KFRC KGB KHJ KLZ

National, Red___WEAF WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFAA

WDAY WFLA WFI WGY WHAS WHO WIBA WIOD WJAX WJDX WKY WMC WOW WRVA WSA1 WRC WSMB WTAM WSB WSM WTMJ WWJ 11:30-12:00 Jesse Crawford at

Organ WDAF WEAF WENR WGY WOW WRC WTAM WOC

MONDAY

8:00-8:30 Soconyland Sketches WBEN WCSH WEAF WGY 8:30-9:00 Voice of Firestone CFCF CKGW KPRC KSD KTHS KVOO WBEN WCAE WCSH WDAF WEAF WFAA WFLA WIS WIOD WGY WHAS WJAX WJDX WKY WLIT WMAQ WMC WOAI WPTF WOC WOW WRC WRVA WSAI WSB WSM WSMB WTAM WJ WWNC
9:00-9:30 A. & P. Gypsies
KSD WBEN WCAE WCSH
WDAF WEAF WGY WLIT
WMAQ WOC WOW WRC WWNC WMAQ WOC WOW WSAI WTAM WWJ 9:30-10:00 Parade of the States KFI KFYR KGO KGW KGO KGW KOMO KPRC KHQ KOAKSD KSL KSTP KTAR WBEN WCAE WCSH WDAF WEAF WFAA WGY WKY WLIT WHAS WLIT WJDX WMAQ. WMC WOAI WOC WOW WRC WSAI WSB WTAM WTMJ WWJ WSM 10:00-10:45 True Story - Mary and

Bob KSD WBEN WCAE WCSH WEAF WENR WGY WLIT WOC WRC WSAI WWJ 11:00-11:30 Coon-Sanders' Orch. KSD WEAF WGY WOW

TUESDAY

WWJ

6:30-6:45 Nick Lucas, Troubadour KFYR KOA KSD KSTP KVOO WCAE WDAF WEAF WENR WJAX WJDX WOW T:00-7:30 Mid-Week Hymn Sing KOA KSTP WBEN WCAE WCSH WEAF WFI WJDX WSAI WSB WSM

8:00-8:30 Blackstone - Sanderson-

Crumit KYW KSD KSTP WBEN WCAE WCSH WDAF WEAF WEBC WFI WGY WOC WRC WSAI WTAM WOW WWJ 8:30-9:00 Sousa and his Band KSD KYW WBEN WCSH WDAF WEAF KPRC KSD WCAE WFI WFLA WGY WHAS WJDX WMC WOW WRC WIOD WJAX WOAI WOC WRVA WSAI WSB WSM WSMB WTAM WWJ 9:00-9:30 McKesson Musical Mag. KFIKGO KHQKOA KOMO KPRC KSD KSL KTAR KYHS KVOO WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFI WFLA

National, Blue..... W JZ 2:45-3:00 Piano Moods CKGW KDKA KPO KSTP WAPI WDA WDAY WHAM WJAX WJDX WKY WREN WJZ WREN WSB WSM 8:30-9:00 Death Valley Days, Drama KDKA KFAB KFI KFYR KDKA KFAB KGO KGW KFYR KOMO KHQ KSL KSTP KTAR KWK WEBC WBZAWGAR WHAM WJZ WIBA WLS WREN WTMJ 9:00-9:30 Maytag Orchestra KDKA KGO KGW KHQ KOA KOMO KPRC KSL KVOO KWK WDAY WBZA WEBC WFAA WGAR WHAM WJR WJZ WIS WKY WMC WOAI WREN WSM WTMJ 9:30-10:00 Musical Dominos Orch. KDKA KWK KYW WGAR WHAM WJR WLW WREN KYW WBZA 10:00-10:30 Gold Medal Express KDKA KFI KGO KGW KOMO KSL KHQ KOA KSTP KSTP KTAR KWK WBAP WBZA WEBO KYW WEBC WFLA WGAR WHAM WIOD WJAX WJR WJZ WKY WOAI WREN WRVA WSB WSM WTMJ 10:30-11:00 Chesebrough Real Folks KDKA KFI KGO KGW KHQ KOA KOMO KPRC KTAR KTHS KWK KYW WBAP WBZA WDAY WEBC WFLA WGAR WHAM WIBA WHAS WIOD WJAX WJDX ŴĴR WJZ WLW WOAI WSM WREN WRVA WSMB WTMJ WSB 11:00-11:30 Slumber Music WIOD WIS WJR WJZ WWNC WRC

TUESDAY

3:00-3:30 Music in the Air

CKGW KDKA KFAB KOA KTHS KVOO KWK WAPI WBAP WBZA WDAY WEBC WFLA WGAR WIBA WIOD WIS WJAX WJDX WJR WJZ WKY WLW WMC WRC WPTF WREN WRVA WSB WSB 5:30-5:45 Old Pappy WAP1 WENR WHAS WMC WSMB WWNC WJDX WJR WREN WSM WMC 7:45-8:00 Back of the News KFYR KGO KOA WCH WEBC WFLA WIOD WIS WCKY WJZWRC WREN 8:00-8:30 Armstrong Quakers KDKA KFAB KWK WBZA WHAM WJR WLW WREN WJZ WLS 8:30-8:45 Heel Hugger Harmonies
KFI KGO KGW KHQ
KOA KOMO KSL KTAR
WHAM WJZ WLS WREN

gram KDKD KWK WBZA WJZ WMAQ WREN 9:30-10:00 Great Personalities KDKA KWK WBZA WENR WGAR WHAM WJR WJZ WLW WREN WRVA

9:00-9:30 Household Finance Pre-

Colur	nbia		WABC
KMBC	KMOA	KOH KTSA WCCO WIBW WNAX	KOIL
KOIN WADC	WBT	WCCO	WDSU
WADC WGN WKRC	KSCJ WBT WHK WMAL WTAR	WIBW	WABC WDSU WJAS WOWO
WQAM	WTAR		
8:45-9:0 KMBC	0 Walter KMOX	Winchel KOIL	I WABC
WADC	WCAU	WFBL WKRC	WHK
WADC WJAS WNAC	WJJD WOWO		WMAL
9:00-9:3	O Ben Be KFH	rnie and	Orchestra KFPY
KFRU	KHJ KTSA	RMBC	KOIL
KOIN WBRC	KTSA WBT_	WABC WCAU	WADC WCCO
WDSU	WFBL WKRC	WGN	WHK
WJAS WOWO		WMAL	WNAC
9:30-10:	KMBC WADC WHK	nces of the	he Sea
WABC	WADC	WCAU	WFBL
WGN WKRC	WHK	WJAS WNAC	WFBL WKBW WOWO
10:00-10	WMAL 0:15 Mod	ern Iviaie	Chorus
CFRB KFPY	KDYL KGB KVOR	KFH KLZ	Chorus KFJF KOH
KSCJ	KVOR	WARC	WBT
WCCO WIBW	WDSU	WFBL WKBW	WFBM WMAL
WQAM	WJAS WTOC		
KDYL):30 Star KFH	Shoemak KFJF	ers KFPY
KFRC	KGB	$_{ m KHJ}$	KLZ
KMBC KOIN	$\frac{\text{KMOX}}{\text{KRLD}}$	KOH KSCJ	$_{ m WABC}$
WADC	WBBM	WBRC	WBT
WCAU WHK	WCCO WIBW	WJAS	WFBM WKBW
WKRC WOWO	WIBW WLAC WQAM	WDSU WJAS WMAL WTAR	WKBW WNAX WTOC
10:30-10 CFRB		esque, D KFJF	esert Play
CFRB	WWOD	KFJF WARC	KGB WRT
KOH WDSU		WABC WFBM WKBW	WBT WHK
WIBW WPG	WFBL WJAS WQAM	WTOC	WMAL
11:00-11 KFH	l:15 Cuba KFJF	n Biltmo KGB	re Orch. KVOR
WABC	wdsu	WFBM	WIBW
WJAS	WKBW	WPG	WTOC
9:00-9:3	WEDN 80 Gold N		
KFH	KMBC	KMOX	KOIL
KSCJ WCCO	$\begin{array}{c} WABC \\ WFBL \end{array}$	WADC WFBM	WCAU WGN WKRC
WHK	WFBL WJAS	WKBW	WKRC
9:30-10:	WNAC 00 Eno C	WOWO	b
CFRB	KMBC	KMOX	KOIL
WABC WHK	WADC WJAS WNAC	WCAU WKBW WOWO	WFBL WKRC WQAM
WMAL 10:00-1	W NAC 15 Vital	WOWO ity Perso	WQAM nalities
KDYL KHJ	KFJF KLZ		KFRC
KOIL	KOIN	KRLD	KMUX
KOIL KVI	WABC	KMBC KRLD WADC WCAU	WBBM WCCO
WBRC WDSU	WFBL	WFBM WKRC	WHK
WJAS WMAL	WFBL WKBW WNAC	WKRC WOWO	WLAC
W MAL	W NAC	A Tire Cl	in

10:15-10:30 Weed Tire Chain Symphony CKAC KDYL KFJF KLZ KMBC KMOX KOIL KRLD WABC WADC WCAU WCCO WFBL WGN WHK WJAS WKBW WKRC WMAL WOWO 10:30-10:45 Columbia Concerts Program

Program CFRB KDYL KFJF KFPY

Natio	nal, Re WIOD WLS	e d	WEAF
WHAS	WIOD	WJAX WMC	WEAF WJDX WOAI
			WRVA
WSAI WTAM	WSB WTMJ :00 The F KGW	WSM ww.i	WSMB
9:30-10:	:00 The F	WWJ uller Ma	n KOA
KOMO	KSD	Kon	KOA KSTP WBEN
KOMO KVOO WCAE	KYW WCSH		WEAR
WEBC	WFI	WGY	WKY
WEBC WOAI WSAI	WOC WSB	WDAF WGY WOW WTAM	WKY WRC WTMJ
wwi			
CFCF	WCAE WIOD	Morse, S WEAF WJAX	ongs WFI
XX/XX/ 1			WTAM
11:30-12 CFCF	2:00 Jack KSD	Denny a KSTP WGY	nd Orch. WBEN
	WLI	WGY	WJAX
WOW 12.00-13	WRC		nd Orch
KFYR	E:30 Rudy KPRC WDAF	KSD	nd Orch. KSTP
WBEN WHAS	WDAF	WEAF WOW	WGY
WSB	WIBA WWJ		
7 7	WEDN	ESDA	Y
CFCF	O Campb WBEN WGY	WCSH	wDAF
WEAF	WGY WSAI 5 Snoop CKGW WGY	WLIT	WOW
8:00-8:1	5 Snoop	and Peep	, Comedy
CFCF WEAF	CKGW	WLIT	WCSH WRC
WTAM	WGY		
KSD	WBEN	WCAE WGY WRC	Piano Duo WCSH WLS
WDAF WOC WTAM	WBEN WEAF WOW	WGY	WLS WSAI
WTAM	wwj	1.6	
8:30-9:0 KOA	KSD	KSTP	KVOO WCSH
KOA KYW WDAF	WBEN	WCAE	WESH
WFAA WKY	WGY	WHO	WEBC WIBA WOW
WRC	WEIT	il Concer KSTP WCAE WEAF WHO WOAI WTAM	WOW WTMJ
WWJ			
9:00-9:3 CKGW	0 Halsey KFI	-Stuart P KGO	rogram KGW
KHO	KOA KSL	KOMO KSTP WCAE	KPRC KVOO
KSD KYW	WBEN	WCAE WHAS	KVOO WCSH
WLIT	$\begin{array}{c} WGY \\ WMC \\ WRC \end{array}$	WOAI WRVA	WJAX WOC WSAI WTAM
WOW	WRC	WRVA WSMB	WSAI WTAM
WEAF WLIT WOW WSB WTMJ	WSM WWJ		
9:30-10: CKGW	WWJ 30 Palmo KFI KOA	live Hou KGO	KGW
KHQ KSD	KOA KSL	KOMO KSTP	KPRC KVOO
			WDAF
WBEN WEAF WIBA	WCAE WFAA WIS	WCSH WGY WLIT	WDAF WHAS WMAQ
WMC	MOAI	WOC	wow
$\frac{WRC}{WSMB}$	WOAI WSAI WTAM	WSB WTMJ	WSM WWJ
DIVIDIO			
10:30-11 CFCF KHQ	l :00 C oca KFI	-Cola Pro KGO	ogram KGW
KHQ	KFI KOA KSL	KGO KOMO KSTP WBAP	KGW KPRC KTAR
KSD KTHS		WBAP	
WERC	WCSH WENR WIOD	WDAF WFLA	WEAF WGY
WCAE WEBC WHAS	WIOD	WDAF WFLA WJAX WOAI	WEAF WGY WKY WOC

National, Blue ____ W JZ
10:45-11:00 Paris Night Life
KDKA KYW WBZA WGAR
WHAM WJZ WREN
11:45-12:15 Dream Pictures
KDKA KFAB WENR WGAR
WJR WJZ WREN
12:15-1:00 Paul Whiteman and
Orchestra
KYW WGAR WJZ WREN

WEDNESDAY

7:45-8:00 Believe It or Not, Ripley KDKA WBZA WHAM WJZ WPTF WRVA 8:00-8:15 College Memories KGW KFIKGO KHQKFI KGO KGW KHQ
KOA KOMO KPRC KSL
KSTP KTAR KVOO KWK
KYW WCKY WDAY WEBC
WFAA WGAR WHAM WHAS
WIBA WJDX WJR
WMC WOAI WREN WSB
WSM WSMB WTMJ
\$15.8.30 CW. Plebtace Britage 8:15-8:30 Guy Robertson, Baritone KFAB KOA KPRC KSL KVOO KWK KSTP KYW WBAP WBZA WCKY WDAY WEBC WFAA WFLA WGAR WFLA WGAR WEBC WFAA WFLA WHAM WHAS WIBA WJAX WJDX WJR WKY WMC WOAI WREN WRVA WSB WIOD WJZWPTF WSMB 8:30-9:00 Jack Frost Melody Moments KDKA WGAR WHAM WJR WJZ WLS WLW 9:00-9:30 Adventures of Sherlock Holmes KDKA KWK WBZA WGAR WHAM WJR WJZ WLS

Holmes
KDKA KWK WBZA WGAR
WHAM WJR WJZ WLS
WLW WREN
9:30-10:00 Dutch Masters Program
KDKA KWK WBZA WENR
WGAR WHAM WJR WJZ
WWEN
10:00-10:30 Rochester Civic Orch.
KDKA WFLA WGAR WHAM
WIOD WIS WJR WJZ
WREN WWNC
10:45-11:00 Hollywood Nights
KDKA KWK WBZA WENR
WGAR WHAM WJR WJZ
WGAR WHAM WJR WJZ

11:00-11:30 Slumber Music
WIOD WJR WJZ WWNC
12:15-12:30 Coon-Sanders Orch.
KFYR KOA KSTP KTHS
WENR WGAR WIBA WJR
WJZ WMC WREN WSB
WTMJ

12:30-1:00 Ernie Holst and Orch. KOA WENR WGAR WJR WJZ WREN WSB WSM

THURSDAY

4:15-4:45 U.S. Navy Band
WAPI WJDX WJR
WREN WSM
5:00-5:30 Coffee Matinee
KDKA KFAB KWK KYW
WBZA WGAR WHAM WJZ
WLW WREN
5:30-5:45 Old Pappy
KVOO WENR WHAS WJDX
WJR WJZ WMC WREN
7:45-8:00 Famous Fallacies of Business

MEBC WFLA WGAR WIS

WOAI

WRC

WSM

WOC

WRVA

WSMB

WMC

WPTF

WTAM WTMJ WWJ

WSB

WLIT

WOW

WSAI

Cotun	ubia		WADC
KFRC	KGB	KLZ	KOH
KSCJ	KVOR	WABC	\mathbf{WBT}
WCCO	wdsu	\mathbf{WFBL}	WFBM
WIBW	WKBW	WMAL	WPG
WQAM	WTAQ	WTOC	
11:00-11	:15 Leon	Belasco'	s Orch.
KDYL	KFH		
KGB	KLZ	KOH	KSCJ
KVOR	WABC	WDSU	WFBM
WIBW	WJAS	WKBW	WPG
WTOC			

Columbia

WARC

THURSDAY

7:30-7:45 Kaltenborn Edits News KMBC KMOX KOIL WABC
WADC WBBM WCAU WCCO
WFBL WFBM WHK WJAS
WKRC WNAC

8:15-8:30 Sterling - Abe Lyman's

Band
KFJF KMBC KOLL WABC
WADC WCAU WCCO WDSU
WFBL WHK WJAS WKRC
WMAL WNAC WQAM
8:45-9:00 Angelo Patri, Your Child
KMBC KMOX KOLL WABC
WADC WCAU WCCO WFBL
WHK WJAS WKRC WMAL
WNAC WOWO WQAM Band

9:00-9:30 Eugene Ormandy Presents KDYL KFH KFJF KFPY KFRC KGB KHJ KOH KSCJ KVOR WABC WFBM WJAS WKBW WMAL WNAC WPG WTAQ WTOC

WFG WIAQ WIOC
9:30-10:00 Love Story.
KMBC KMOX KOLL WABC
WADC WBBM WCAU WFBL
WHK WJAS WKBW WKRC
WMAL WNAC WOWO

10:00-10:30 Schaffner-Marx

Trumpeters
KFJF KLZ KMBC KMOX
KOIL KRLD WABC WADC
WBBM WCAU WCCO WDSU
WFBL WFBM WHK WJAS
WKBW WKRC WMAL WOWO 10:30-10:45 Peter's Parade KFPY KFRC KDYL KFJF WHK WBRC WBT WDSU
WHK WIBW WJAS WKBW
WKRC WLAC WNAX WOWO
WQAM WTOC
11:15-11:30 Jack MillaKVOR WATCH KHJ KLZ KOH

KDYL KFH KLZ KOH KSCJ KVOR WABC WBT WCAU WDSU WFBL WKBW WPG WQAM WTOC

FRIDAY

8:30-9:00 March of Time KDYL KLZ KMBC KMOX KOIL WABC WADC WCAU WCCO WGN WHK WJAS WMAL WNAC WOWO 9:00-9:15 Radio Reproductions
KMBC KMOX WABC WBBM
WCAU WFBL WHK WJAS
WKBW WKRC WMAL WNAC 9:15-9:45 Liberty Magazine KLZ KMBC KMOX KRLD WABC WBRC KLZ KOIL WBT WCAU WCCO WDSU WFBL WGN WHK WJAS WKBW WKRC WLAC WMAL

National, Red___WEAF

11:00-11:15 Voice of Radio Digest KCSH WEAF WEBC WOW WRC WTAM KSD WGY ww.I

11:30-12:00 Vincent Lopez and

Orchestra WAPI WDAF WEAF WENR WIOD WOAI WOC WOW WRC WTAM WWJ 12:30-1:00 Paul Whiteman's Orch. WEAF WOC WRC WTAM WWJ

THURSDAY

6:30-6:45 The World Today
WEAF WFI WIOD WCAE WEAF WFI WIOD
7:00-7:15 Vermont Lumber Jacks
WBEN WCAE WCSH WEAF
WENR WFI WGY WSAI WWJ

T:15-7:30 Campbell Orchestra
CFCF WBEN WCSH WDAF
WEAF WFI WOW WRC WSAI

8:00-9:00 Fleischmann - Rudy

Vallee CFCF CKGW KGO KGW
KHQ KOA KOMO KPRC KSD KSLKSTP KTAR KTHS WAPI WBAP WBAN WCAE WCSH WDAF WEAF WEBC WFI WFLA WGY WBAP WBEN WHAS WHO WJDX WKY WOAI WOW WIOD WJAX WMAQ WMC WRC WRVA WSAI WSB WSM WSMB WTAM WTMJ WWJ 9:00-9:30 Arco Dramatic Musicale CKGW KGO KGW KHQ
KOA KOMO KSD KSL
KTAR KYW WAPI WBAP
WBEN WCAE WCSH WDAF WEAF WEBC WFI WGY WHAS WIOD WJAX WJDX WKY WMC WOW WPTF WOAL WOC WRC WR.VA WSAI WSB WSM WTAM WTMJ WWJ WSMB 9:30-10:00 Adventures of Sherlock

Holmes
CFCF CKGW KSD WBEN
WCSH WDAF WEAF WENR
WFI WGY WOC WOW
WRC WSAI WTAM WWJ

FRIDAY

7:00-7:30 Major Bowes' Family
KFYR KOA WCSH WEAF
WGY WHAS WJAX WOW
WPTF WRC WSAI WSB WPTF WRC WEAL 8:00-9:00 Cities Service Program KOA KOMO KPRC KSD KSL KTHS KYW KSTP WBEN WCAE WCSH WDAF WEAF WEBC WFAA WGY WLIT WOAI WOC WOAI WKY WTAM WOW WRC WSAI WTMJ WWJ W1MJ W W3 9:00-9:30 The Cliquot Club KSD WBEN WCAE WCSH WDAF WEAF WGY WLIT WOW WRC WOC WSAI WWJ WDAF WEAF WENR WGY

National, Blue____WJZ WJAX WJZ WLS WPTF WRC WREN WRVA WWNC 8:00-8:15 Dixie Spiritual Singers KDKA KFAB KWK WBZA
WCKY WENR WHAM WJR
WJZ WLS WREN WRVA WJZ WLS WILES WAR 8:15-8:30 Rin-Tin-Tin Thriller KDKA KFAB KWK WB WGAR WHAM WJR WJZ WLS WLW WREN 8:30-8:45 Pickard Family WBZA WJR WJZ WLW WREN 9:00-9:30 Blackstone, Sanderson-Crumit KDKA WBZA WCKY WHAM WJZ 9:30-10:00 Maxwell House En-Semble
KDKA KGO KGW KING
KOA KOMO KSL KSTP
KTAR KWK KYW WAPI
WBZA WEBC WFLA WHAM
WIJAK WIJOX
WILW WLW WMC WREN WRYA WSB WSM WSMB WTMJ 10:00-10:30 A. & P. Gypsies KDKA KWK KYW WBZA WGAR WHAM WJR WJZ WLW WREN WLW WREN 10:45-11:00 Paris Night Life KDKA KWK WBZA WGAR WHAM WJZ WREN 12:15-12:30 Earl Hines and Orch. KFYR KOA KPRC KTHS WENR WGAR WJR WJZ WREN WSB WSM FRIDAY 11:00-12:00 Walter Damrosch CFCF CKGW KDKA KFAB KOA KPRC KSD KŠTP KVOO KWK WBAP WBEN KTHS KYW WAPI WCAE WCSH WDAF WEBC WENR WBZA WDAY WEAF WFLA WHAM WHAS WGY WIBA WIOD WJAXWJDX WJR WJZ WKY WLIT WMC WOAI WOC WOW WPTF WR.C WREN WRVA WSAI WSMB WTAM WSB WTMJ WWJ 4:15-5:15 Radio Guild CKGW KFAB KOA KPRC

WAPI WDAY KVOO KSI. WEBC WGAR WHAM WHAS WIBA WIS WJAX WJDX WJR WJZWKY WMC WOAI WPTF WRC WRVA WSB WSM WREN WSMB WWNC 5:15-5:30 Fireside Songs KFAB KFYR KYW WJR WJZ WRC WSM WWNC W.IDX WSM 7:45-8:00 Believe It or Not, Ripley KDKA WBZA WJZ WPTF WR.VA 8:00-8:30 Nestle's Program
KDKA KFAB KWK WBZA
WCKY WGAR WHAM WJR WJZ WLS WREN 9:00-9:30 Interwoven Pair KDKA KFI KGW KGO KOMO KPRC

KHQ

KSL'

KYW

WJZ

KOA

WEBC WFAA

WHAS WIOD

KSTP

WAPI

WKY

KTAR KWK

WGAR WHAM

WCKY

WJR.

WOAL

WBZA

WJAX

WMC

10:30-11:00 RKO Theatre of the Air KGO KGW KHQ KOA KOMO KSD KSL KTAR

WOW WRC

WLIT WOC WSAI WTAM

Colum	bia		WABC
	00 Friend	ly Five F	ootnotes KMOX
KOIL	KRLD	WABC WCCO WHK	WBRC WDSU WJAS
WBT WFBL WKBW	WCAU WGN WKRC	WHK WLAC	WJAS WMAL
WNAC 10:00-10	:30 Pillsl KMBC	oury Page	eant
KFJF KRLD WCAU	WABC WCCO	WADC	WRT
WCAU WHK WMAL	WCCO	WFBL WKBW WOWO	WGN WKRC WTAR
10:45-11	WNAC :00 Tito (KFJF	WOWO Guizar, T KGB	enor KOH
KSCJ	KVOR WDSU WKBW	WABC WFBL WMAL	WBT WIBW WQAM
KSCJ WCAU WJAS WTOC	WKBW	WMAL	WQAM
11:00-11 KFH	:15 Leon	Belasco KGB	Orch. KSCJ
KVOR WJAS	:15 Leon KFJF WABC WKBW	WDSU	WIBW
12:00-12 KDVI	:30 Ben KFJF KVOR	Bernie ar	d Orch. KGB
KOH WCCO	KVOR WDSU	WABC WFBL	WCAU WIBW
WKBW	WNAC		,
6:00-6:3		RDAY	
6:00-6:3 CFRB KOH	0 Abrams KFH KSCJ	KFPY KVI	rchestra KGB KVOR
WABC WIBW	WBT WJAS	WDSU WQAM	WFBL WTOC
6:30-6:4 KFH	KRIF	KFPY	d Orch. KGB
№ ВВ М	KSCJ WBT WIBW WQAM		WABC WFBL WKBW
N BB M WEBM WNAX	WQAM	WCAU WJAS WTOC	
7:00-7:1 KDYL KLZ	5 Politica KFH	d Situatio KFJF KSCJ	KGB
KLZ KVOR WDSU WMAL	WABC	WBT WFBM	KVI WCAU WIBW
	WFBL WTOC		WIDW
7:30-7:4 KDYL KMOX	KFH KOH WCCO	nd Dunn KFJF KSCJ WDSU	KFPY KVOR
WBT WJAS	WCCO WNAC	WDSU WQAM	WFBM
8:15-10: CFRB			ymphony KFH
KFJF KLZ	KFPY	$\nabla \mathbf{G} \mathbf{G} \mathbf{X}$	KHJ
KOIL KTSA	KMBC KOIN WABC WCAU	KMOX KRLD WADC WCCO	KOH KSCJ WBRC WDSU
$egin{array}{c} ext{WBT} \ ext{WFBL} \end{array}$	WFRM	WIN	WHK
WIBW	WJAS WMAL WPG	WKBW WNAC WQAM	WKRC WNAX WTAR
WLAC WOWO WTOC			
10:00-11 CFRB	KDYL	KFH	KEJE
KFPY KLZ WABC WDSU	KFRC KOH	KGB KSCJ WCAU	KHJ KVOR WCCO WIBW
WDSU	WADC WFBL WKBW	WHK WMAL	WIBW WPG
WJAS WTAQ 11:30-11			and Orch.
WABC WMAL	WBT WQAM	WCAU	WDSU
12:00-12	-30 Guy	Lombard	n and

12:00-12:30 Guy Lombardo and

KDYL KFJF KFPY KOH KVOR WABC WCAU WCCO WFBL WIBW WKBW WNAC

Orch.

National, Red . . . WEAF WBEN WCAE WCSH WDAY WEAF WENR WFLA WGY WJAX WHAS WIBA WIOD WMC WJDX WKY WLIT WOC WOW WRC WSAJ WSB WSMB WRVA WTAM WTMJ WWJ H 1:00-12:00 Vincent Lopez and Orch.

KSD WBEN WEAF WGY

WIOD WOW WRC WTAM

WWJ WWNC SATURDAY
 5:30-5:45 Dandies of Yesterday

 KSD
 KSTP
 KYW
 WCAE

 WDAY
 WEAF
 WENR
 WGY

 WHAS
 WJDX
 WKY
 WOC

 WWW
 WKY
 WTAM
 WWJ 7:00-7:15 Nick Lucas, Troubadour KFYR KOA WBEN WCAE WCSH WDAY WEAF WENR WFI WJDX WOW WSAI WTAM WSB 7:15-7:30 Laws Safeguard Society
KGO KOA KOMO KTAR
WBEN WCSH WDAY WEAF
WEBC WENR WFI WGY
WJDX WOAI WOC WOW 7:30-7:45 Breen and de Rose WBEN WDAF WENR WGY WOC WOW CFCF WFI WRVA WSM 8:00-8:30 Civic Concerts Service KSD WBEN WCAE WCSH WDAF WEAF WFI WGY WOC WOW WSAI WTAM WWJ 8:30-9:00 Advisory Council on Radio KGW KOA KGO KFI KOMO KPRC KSD KSI. WCSH WDAF WEBC WFI KSTP KTAR WDAY WEAF WHAS WIBA WFLA WGY WIOD WIS WJDX WOW WSAI WSB WOC WTMJ WWJ WWNC WSM WRC WRVA WSAI WSB WSMB WTAM WTMJ WWJ 9:30-10:00 Club Valspar CFCF CKGW KPRC KSD KSTP WAPI WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFI WFLA WGY WHAS WIOD WJAX WJDX WKY WMC WOAI WRC WOC WOW WPTF WRVA WSAI WSB WTAM WTMJ WWJ WSMB 11:00-11:15 Lee Morse, Songs KSD WCAE WEAF WF1 WGY WTAM 11:30-12:00 Coon-Sanders' Orch. CFCF KPRC KSD WDAF WEAF WF1 WCAE WGY WIOD WMC WOC WOW WTAM WWJ WRC WSB 12:00-12:30 Rudy Vallee and Orch. KOA KPRC KSD WDAY WEAF WGY WBEN WIBA WMC WOW WRC WTAMWWJ

National, Blue____WJZ WREN WRVA WSB WSMB WTMJ 9:30-10:00 Armour Program KDKA KFI KGO F KOMO KPRC $_{
m KHQ}$ KOA KSTP KSL WAPI KWK KYW WAPI WBZA WHAM WHAS WEBC WGAR WIOD WJAX WJDX WJR WJZ WKY WLW WMC WOAI WREN WRVA WSM WSMB WSB WTMJ 10:00-10:30 Paul Whiteman's Paint Men KDKA KFI KGO KHQ KOA KOMO KPRC KSL KTAR KVOO KSTP KWK WBAP WBZA WDAY WEBC WENR WFLA WGAR WHAM WHAS WJAX WIOD WJDX WJR WKY WMC WOAI WREN WRVA WSM WSMB WTMJ WSB 10:45-11:00 Waves of Melody
KYW WBZA KDKA KWK KYW WGAR WHAM WJR WREN 11:30-12:00 Jack Denny and Orch. CFCF KFYR KPRC KSTP WEBC WENR WIBA WIS WJR. WJZ WREN SATURDAY 1:30-2:00 Paul Whiteman and Orch. CKGW KOA KYW WBZA WGAR WIOD WJZ WREN WSM 7:45-8:00 Hollywood Nights KDKA KFAB KWK KYW WBZA WCKY WGAR WHAM WJR WJZWREN 8:00-8:30 Danger Fighters, Drama KDKA KFAB KFI KGO KGW KHQ KOA KOMO KPRC KSL KSTP KTAR WAPI KWK WDAY WEBC WHAM WHAS WJZ WLS WIBA WJDX WMC WOAI WREN WSB WSMWSMB WTMJ 8:30-9:00 Dance with Countess D'Orsay
CFCF CKGW KDKA KWK
WBZA WGAR WHAM WJR
WJZ WLS WLW WRED WREN 9:00-9:30 Chicago Civic Opera CFCF CKGW WHAM WJZ 9:30-10:00 The First Nighter KDKA KFI KDKA KFI KGO KGW KHQ KOA KOMO KSL KHQ KOA KOMO KSL KSTP KTAR KWK KYW WBZA WDAY WEBC WGAR WHAM WJR WJZ WLW 10:00-10:30 Cuckoo Burlesque Skit CFCF CKGW KWK WBZA CFCF CKGW KWK WBZ WGAR WHAM WJR WJZ WREN 10:45-11:00 Twenty Fingers of Harmony
CFCF KDKA WHAM WJR
WJZ WREN 11:00-11:30 Slumber Music WHAM WJR WJZ WWNC

12:15-1:00 Paul Whiteman and

Orchestra KYW WGAR WJR

WREN

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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; ¢ Sends stamp but does not verify otherwise; ‡ Does not verify; § Did not reply. § Verification 25c, reply card 10c. 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 frequencies; Y given permit to move to another city. Dn — This daylight station may use evening hours under certain conditions. These stations operate simultaneously. Dashes (._) have no meaning.

540 kilocycles 555.6 meters

CKX † 500 _ Brandon, Manitoba XEY _ 101 547 Merida, Mexico

ici ida, Mcaico

550 kilocycles 545.1 meters

Krdi	- T	อบบ	17	brookings, S. D.
KFUO .	*	500	2+	St. Louis, Mo.
·KFYR 🗸	†	1000	1+N	Bismarck, N. D.
KOAC	Ť	1000		Corvallis, Ore.
`KSD	Ť	500	2N	St. Louis, Mo.
• WGR	*	1000	С	Buffalo, N. Y.
WKRC	1	1000	C	Cincinnati, Ohio

560 kilocycles 535.4 meters

KFDM	*	500	X+ C	Beaumont, Texas
KLZ &	*	1000	C .	Denver, Colo.
KTAB	*	1000		San Francisco, Cal.
WFI	*	500	1N	Philadelphia, Pa.
WIBO 🗸	*	1000	3+N	Chicago, Ill.
WLIT	†	500	1N	Philadelphia, Pa.
WNOX	*	1000	$\mathbf{X} + \mathbf{C}$	Knoxville, Tenn.
WPCC	*	500	38	Chicago, Ill.
WOAM	*	1000	C	Miami Ela

570 kilocycles 526.0 meters

KGKO KMTR KXA TGW WEAO WKBN WMAC WMAC WMAX WNYC WPCH WSYR	† *	250 500 500 50 750 500 250 500 1000 500 250	+ 1 1C 2 3 C 3 D 2	Wichita Falls, Texas Hollywood, Cal. Seattle, Wash. Guatamala Columbus, Ohio Youngstown, Ohio Syracuse, N. Y. New York City Yankton, S. D. New York City New York City Syracuse, N. Y.
WSYR WWNC	*	$\begin{array}{c} 250 \\ 1000 \end{array}$	2 N	Syracuse, N. Y. Asheville, N. C.

580 kilocycles 516.9 meters

		•		
CFCY	*	500		Charlottetown, P. E.
CHMA		250	4S	Edmonton, Alta.
CKUA	†	500	4	Edmonton, Alta.
KGFX		200	D	Pierre, S. D.
KSAC	t	500	2+	Manhattan, Kans.
WIBW >		1000	2+C	Topeka, Kansas
WOBU	*	250	1+	Charleston, W. Va.
WSAZ	*	250	1	Huntington, W. Va.
WTAG	*	250	N	Worcester, Mass.

100

Manitoba Telephone System Partido Socialista Surt Marie Ton

95

S. D. State College Concordia Theological Seminary Meyer Broadcasting Co. State Agricultural College Pulitzer Publishing Co. Buffalo Broadcasting Co. WKRC Incorporated

93

Magnolia Petroleum Co. Reynolds Radio Co., Inc. Associated Broadcasters Strawbridge & Clothier Nelson Bros. Bond & Mortgage Co. Lit Brothers WNOX, Inc. North Shore Congregational Church Miami Broadcasting Co.

4

Wichita Falls Broadcasting Co. KMTR Radio Corp. American Radio Tel. Co.

Ohio State University
WKBN Broadcasting Corp.
Clive B. Meredith
Knickerbocker Broadcasting Co., Inc.
House of Gurney, Inc.
Dept. of Plants and Structures
Eastern Broadcasters, Inc.
Clive B. Meredith
Citizens Broadcasting Co., Inc.

XO

The Island Radio Co. Christian and Missionary Alliance University of Alberta Dana McNeil State Agricultural College Topeka Broadcasting Assn., Inc. WOBU, Inc. WSAZ, Inc. Telegram Publishing Co.

590 kiloo	evcles 8	508.2 meters	88] wow
CMW KHQ * WCAJ * WEEI † WKZO * WOW *	1400 588 1000 +N 500 1 1000 N 1000 D 1000 1N	Havana, Cuba Spokane, Wash. Lincoln, Nebr. Boston, Mass. Kalamazoo, Mich. Omaha, Nebr.	Columbus Commercial & Radio Co. Louis Wasmer, Inc. Nebraska Wesleyan University Edison Elec. Illuminating Co. WKZO, Inc. Woodmen of the World	670 MTRS. 447.5
XEZ *	500 588	Mexico City	Gonzales Zamacona y Cia.	DIAL
600 kilo		199.7 meters	75	J
CNRO † KFSD * WCAC † WCAO * WICC * WMT/ * WREC *	500 +N 500 2+ 250 2+ 250 C 250 2+ 500 C 500 +C	Ottawa, Ont. San Diego, Cal. Storrs, Conn. Baltimore, Md. Bridgeport, Conn. Waterloo, Iowa Memphis, Tenn.	Canadian National Railways Airfan Radio Corp. Conn. Agricultural College Monumental Radio, Inc. Bridgeport Broadcasting Station, Inc Waterloo Broadcasting Co. WREC, Inc.	
610 kiloo	cycles 4	191.5 meters	84	
KFRC * WDAF * WFAN * WIP * WJAY †	1000 C 1000 N 500 2C 500 2C 500 D	San Francisco, Cal. Kansas City, Mo. Philadelphia, Pa. Philadelphia, Pa. Cleveland, Ohio	Don Lee, Inc. Kansas City Star Co. Keystone Broadcasting Co., Inc. Gimbel Bros. Co. Cleveland Radio Broadcasting Corp.	the state of the s
620 kiloo	cycles 4	183.6 meters	82	1)
CMCJ KGW * KTAR * WFLA * WLBZ † WSUN * WTMJ-4 *	250 1000 +N 500 +N 1000 1+N 500 C 1000 1+N 1000 +N	Havana, Cuba Portland, Ore. Phoenix, Arizona Clearwater, Fla. Bangor, Maine St. Petersburg, Fla. Milwaukee, Wis.	Rafael Rodriquez Oregonian Publishing Co. KTAR Broadcasting Co. Chamber of Commerce Maine Broadcasting Co., Inc., Chamber of Commerce Milwaukee Journal	
630 kiloo	cycles 4	175.9 meters	80	1
CFCT * CHCS CHCS CJGX CKOC * CNRA * KFRU * WGBF † WMAL * WOS *	50 2+ 500 2+ 1000 2 500 1 500 1 500 1 250 +C 500 1	Victoria, B. C. Hamilton, Ont. Yorkton, Sask. Hamilton, Ont. Moncton, N. B. Columbia, Mo. Evansville, Ind. Washington, D. C. Jefferson City, Mo.	Victoria Broadcasting Association The Hamilton Spectator Winnipeg Grain Exchange Wentworth Radio Broadcasting Co. Canadian National Railways Stephens College Evansville on the Air, Inc. M. A. Leese State Marketing Bureau	
640 kiloo	cycles 4	168.5 meters	78	
CHRC CKCI ‡ CKCR CMHJ	100 645 100 645 50 645 40 645 60000 N 500 C Dn 5000 D 2000 638	Quebec, Que. Quebec, Que. Waterloo, Ont. Cienfuegos, Cuba Los Angeles, Cal. Columbus, Ohio Ames, Iowa Mexico City	É. Fontaine Le "Soleil," Ltd. John Patterson Arturo Hernandez Earle C. Anthony, Inc. Associated Radiocasting Corp. State College of Agriculture Secretaria de Guerra y Marina	
650 kiloo	4	161.3 meters	76.	7
KPCB *	100 Dn 5000 N	Seattle, Wash. Nashville, Tenn.	Queen City Broadcasting Co. National Life & Accident Ins. Co.	-
660 kiloo		154.3 meters	74	1
CHWK † CJRM † CJRW - CMCO - CMCO RUS WAAW * WEAF † 5	100 665 500 665 500 665 250 500 664 500 D 00000 N 5000 N	Chilliwack, B. C. Moose Jaw, Sask. Fleming, Sask. Havana, Cuba Havana, Cuba Salvador Omaha, Nebr. New York City Hartford, Conn.	Chilliwack Broadcasting Co., Ltd. Jas. Richardson & Sons, Ltd. Jas Richardson & Sons, Ltd. J. L. Stowers Juan Fernandez de Castro Republic of El Salvador Omaha Grain Exchange National Broadcasting Co., Iric. Travelers Broadcasting Service, Inc.	
670 kiloo	cycles 4	147.5 meters	73]
HIX YOWR	100 669 500 675 5000 N	Santo Domingo St. Johns, N. F. Chicago, III.	Dominican Republic Wesley United Church National Broadcasting Co.	A 1

600 1:11 1 440 0 4	42.2
680 kilocycles 440.9 meters	72
KFEQ* * 2500 D St. Joseph, Mo. KPO † 5000 N San Francisco, Cal.	Scroggin & Co., Bank Hale Bros. & The Chronicle Durham Life Insurance Co.
KPO	Durham Life Insurance Co. Manuel Angel Fernandez & Cia
	Manuel Angel Fernandez & Cla
690 kilocycles 434.5 meters	70
CFAC 500 1 Calgary, Alta.	The Calgary Herald
CFRB * 5000 2C Toronto, Ont.	Rogers-Majestic Corp., Ltd. Albertan Publishing Co., Ltd.
CNRX * 5000 2 Toronto, Ont.	Canadian National Railways
VAS † 10000 685 Glace Bay, N. S.	U. S. Navy Canadian Marconi Co.
XET † 500 Monterrey, Mexico	Mexico Music Co., S. A.
700 kilocycles 428.3 meters	69
WLW * 50000 N Cincinnati, Ohio	Crosley Radio Corp.
710 kilocycles 422.3 meters	68
KMPC * 500 Dn Beverly Hills, Cal. WOR * 5000 Newark, N. J.	R. S. MacMillan Bamberger Broadcasting Service, Inc
WOR * 5000 Newark, N. J. XEN + 1000 711 Mexico City	Cia. Civil de Inversiones
720 kilocycles 416.4 meters	69
WGN † 25000 C Chicago, Ill.	Chicago Tribune
730 kilocycles 410.7 meters	65
CHLS 50 1 Vancouver, B. C. CHYC * 5000 2S Montreal, Que.	W. G. Hassell Northern Electric Co., Ltd.
CKAC * 5000 2C Montreal, Que. CKCD 50 1 Vancouver, B. C.	La Presse Publishing Co., Ltd.
CKFC 50 1 Vancouver, B. C.	Vancouver Daily Province United Church of Canada Sprott-Shaw Radio Co.
CKMO - 100 1 Vancouver, B. C. CKWX 7 100 1 Vancouver, B. C.	A. Holstead & Wm. Hanlon
CMK 3150 Havana, Cuba CNRM 5000 2 Montreal, Que. XEM 500 Tampico, Mexico	Cuban Broadcasting Co., Hotel Plaza Canadian National Railways
XEM 500 Tampico, Mexico XER 75000 735 Villa Acuna, Mex.	Herbert H. Denny y Cia. Dr. John R. Brinkley
. 531 11	Dr. John R. Brinkley
740 kilocycles 405.2 meters	64
*KMMJ ** 1000 Dn Clay Center, Nebr.	The M. M. Johnson Co.
WSB 5000 N Atlanta, Ga.	Atlanta Journal Co.
750 kilocycles 399.8 meters	63
WJR † 5000 N Detroit, Mich.	WJR, The Goodwill Station, Inc.
	71,
760 kilocycles 394.5 meters	61
KVI * 1000 C Dn Tacoma, Wash. WBAL * 1000 N□ Baltimore, Md.	Puget Sound Broadcasting Co., Inc. Consolidated Gas, Elec. & Power Co.
WEW * 1000 D St. Louis, Mo.	St. Louis University
WJZ † 30000 N□ New York City	National Broadcasting Co., Inc.
770 kilocycles 389.4 meters	(20
WBBM * 25000 1N Lincoln, Nebr. Chicago, III.	KFAB Broadcasting Co.
WBBM * 25000 1C Chicago, III. WJBT 25000 1S Chicago, III.	WBBM Broadcasting Corp. WBBM Broadcasting Corp.
780 kilocycles 384.4 meters	Land 2-17
780 kilocycles 384.4 meters	Manitohe Telephone System
CNRW 5000 3 Winnipeg, Manitoba	Manitoba Telephone System Canadian National Railways Magnolia Park, Ltd. Pickwick Broadcasting Corp. Shepard Broadcasting Service, Inc. Memphis Commercial Appeal Inc.
KELW * 500 2 Burbank, Cal. KTM * 500 2+ Los Angeles, Cal.	Magnolia Park, Ltd. Pickwick Broadcasting Corp.
WEAN * 250 +C Providence, R. I. WMC - 500 +N Memphis, Tenn.	Shepard Broadcasting Service, Inc.
WPOR - 500 1 Norfolk, Va. WTAR * 500 1C Norfolk Va.	Memphis Commercial-Appeal, Inc. WTAR Radio Corp. WTAR Radio Corp.

ксүs. **880**

MTRS. 340.7 DIAL

790 kilocycles 379.5 meters	57%
•	Enrique Artalejo
CMBS 150 Havana, Cuba CMBT 150 Havana, Cuba	Emilio Perera
CMHC 100 Tuinucu, Cuba KGO , † 7500 N San Francisco, Cal.	Frank H. Jones National Broadcasting Co., Inc.
KGO † 7500 N San Francisco, Cal. WGY 50000 N Schenectady, N. Y.	General Electric Co.
800 kilocycles 374.8 meters	57
WBAP 10000 IXN Fort Worth, Texas	Carter Publications, Inc.
WFAA & 50000 IN Dallas, Texas	News & Journal Fernando Pazos
XEU 101 Veracruz, Mexico XFC 350 805 Aguascalientes, Mexic	o Gobierno del Estado de Aguascalientes
810 kilocycles 370.2 meters	36
WCCO ✓ * 5000 C Minneapolis, Minn.	Northwestern Broadcasting, Inc.
820 kilocycles 365.6 meters	55
	Courier-Journal & Times
WHAS † 10000 N Louisville, Ky. XFI _ 1000 818 Mexico City	Sria. de Ind., Commercio y Trabajo
830 kilocycles 361.2 meters	54
•	
KOA t 12500 N Denver, Colo.	Leopoldo V. Figueroa National Broadcasting Co., Inc.
WEEU 1000 DCP Reading, Pa.	Berks Broadcasting Co.
WHDH 1000 D Boston, Mass. WRUF * 5000 Dn Gainesville, Fla.	Matheson Radio Co., Inc. University of Florida
The state of the s	Only distribution
840 kilocycles 356.9 meters	5 %
	Conded on St. Warter Ltd.
CKGW * 5000 1N Toronto, Ont. CKLC- † 1000 2 Red Deer, Alta.	Gooderham & Worts, Ltd. Alberta Pacific Grain Co., Ltd.
CMC * 500 Havana, Cuba	Cuban Telephone Co.
CNRD † 1000 2 Red Deer, Alta. CPRY / _ 5000 1 Toronto, Ont.	Canadian National Railways Canadian Pacific Railways
CFRT V 5000 T TOPONTO, OHE.	Canadian Facilic Ranways
850 kilocycles 352 7 meters	544)
850 kilocycles 352.7 meters	<i>52</i> 51
850 kilocycles 352.7 meters **KWKH ** 10000 1 Shreveport, La. **WWL ** 5000 1 New Orleans, La.	Hello World Broadcasting Corp.
* KWKH * 10000 1 Shreveport, La. WWL * 5000 1 New Orleans, La.	Hello World Broadcasting Corp. Loyola University
* KWKH * 10000 1 Shreveport, La. New Orleans, La. 860 kilocycles 348.6 meters	Hello World Broadcasting Corp. Loyola University
* KWKH * 10000 1 Shreveport, La. New Orleans, La. 860 kilocycles 348.6 meters	Hello World Broadcasting Corp. Loyola University Manuel Fernandez KMO, Inc.
** KWKH * 10000 1 Shreveport, La. New Orleans, La. **860 kilocycles 348.6 meters **CMJE	Hello World Broadcasting Corp. Loyola University Manuel Fernandez KMO, Inc. Atlantic Broadcasting Corp.
** KWKH * 10000 1 Shreveport, La. New Orleans, La. **860 kilocycles 348.6 meters CMJE 20 856 Camaguey, Cuba Tacoma, Wash. WABC * 5000 C New York City WBOQ 50000 C New York City WHB * 500 D Kansas City, Mo.	Hello World Broadcasting Corp. Loyola University Manuel Fernandez KMO, Inc. Atlantic Broadcasting Corp. Atlantic Broadcasting Corp.
** KWKH * 10000 1 Shreveport, La. New Orleans, La. **860 kilocycles 348.6 meters CMJE 20 856 Camaguey, Cuba Tacoma, Wash. WABC * 5000 C New York City WBOQ 50000 C New York City WHB * 500 D Kansas City, Mo.	Hello World Broadcasting Corp. Loyola University Manuel Fernandez KMO, Inc. Atlantic Broadcasting Corp. Atlantic Broadcasting Corp. WHB Broadcasting Co. Juan Buttner
** KWKH ** 10000 1 Shreveport, La. New Orleans, La. **860 kilocycles 348.6 meters CMJE	Hello World Broadcasting Corp. Loyola University Manuel Fernandez KMO, Inc. Atlantic Broadcasting Corp. Atlantic Broadcasting Corp. WHB Broadcasting Corp. WHB Broadcasting Co.
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Shreveport, La. New Orleans, La.	Hello World Broadcasting Corp. Loyola University Manuel Fernandez KMO, Inc. Atlantic Broadcasting Corp. Atlantic Broadcasting Corp. WHB Broadcasting Co. Juan Buttner Secretaria de Educacion Publica Mational Broadcasting Co., Inc. Agricultural Broadcasting Co. Maple Leaf Radio Co., Ltd.
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Shreveport, La. New Orleans, La.	Hello World Broadcasting Corp. Loyola University Manuel Fernandez KMO, Inc. Atlantic Broadcasting Corp. Atlantic Broadcasting Corp. WHB Broadcasting Co. Juan Buttner Secretaria de Educacion Publica Mational Broadcasting Co., Inc. Agricultural Broadcasting Co. Maple Leaf Radio Co., Ltd. N. Nathanson G. A. Vandry Metal Shingle & Siding Co. Canadian National Railways Midwestern Radio Corp. Tribune Publishing Co. Pillar of Fire, Inc.
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Shreveport, La. New Orleans, La.	Hello World Broadcasting Corp. Loyola University Manuel Fernandez KMO, Inc. Atlantic Broadcasting Corp. Atlantic Broadcasting Corp. WHB Broadcasting Co. Juan Buttner Secretaria de Educacion Publica Mational Broadcasting Co., Inc. Agricultural Broadcasting Co. Maple Leaf Radio Co., Ltd. N. Nathanson G. A. Vandry Metal Shingle & Siding Co. Canadian National Railways Midwestern Radio Corp. Tribune Publishing Co. Pillar of Fire, Inc.

HOER BY TREQUENCIES A	AND BIND WONDERS
890 kilocycles 336.9 meters	47
	C. A. Munro, Ltd.
CFBO * 500 St. John, N. B. CKCO ‡ 100 3 Ottawa, Ont.	Dr. G. M. Geldert
CKPR 50 3 Port Arthur, Ont.	Dougall Motor Car Corp.
CMCF † 250 Havana, Cuba	Raoul Karman
CMX * 500 Hayana, Cuba	Francisco Lavin
KFNF 500 2+ Shenandoah, Iowa	Henry Field Co.
KGJF * 250 Little Rock, Ark.	Church of the Nazarene University of South Dakota Georgia School of Technology
KUSD * 500 2 Vermillion, S. D.	University of South Dakota
WGST * 250 +C Atlanta, Ga. WILL * 250 2+ Urbana, Ill.	Georgia School of Technology
WILL * 250 2+ Urbana, III. WIAP * 250 +N Providence R I	University of Illinois
	The Outlet Co.
WKAQ * 250 San Juan, P.R. WMMN * 250 + Fairmount, W. Va.	Radio Corp. of Porto Rico
WMMN * 250 + Fairmount, W. Va. XES \$ 500 Tampico, Mexico	Holt-Rowe Broadcasting Co. Difusora Portena XES
XES \$ 500 Tampico, Mexico	Difusora Porteria ABS
900 kilocycles 333.1 meters	46
KGBU † 500 Ketchikan, Alaska KHJ * 1000 C Los Angeles, Cal.	Alaska Radio & Service Co.
KHJ * 1000 C Los Angeles, Cal. KSEI * 250 Pocatelli, Idaho	Don Lee, Inc.
KSĒI * 250 Pocatelli, Idaho	Radio Service Corp.
KSEI * 250 Pocatelli, Idaho TIC 50 San Jose, Costa Rica WBEN * 1000 N Buffalo, N. Y.	WREN Inc
WJAX * 1000 N Jacksonville, Fla.	WBEN, Inc. City of Jacksonville
WKY√ * 1000 N Oklahoma City	WKY Radiophone Co.
WLBL * 2000 DY Stevens Point, Wis.	Wisconsin Dept. of Markets
·	
910 kilocycles 329.6 meters	45
CFLC * 50 915 Prescott Ont.	Radio Association
CFQC 500 1 Saskatoon, Sask.	The Electric Shop, Ltd.
CHNS * 500 3Z Halifax N. S.	Halifay Herald Ltd
CJGC * 5000 2 London, Ont.	Free Press Printing Co., Ltd.
CNRH 500 3Z Halifax, N. S.	Free Press Printing Co., Ltd. Canadian National Railways Canadian National Railways
CNRL * 5000 2 London, Ont.	Canadian National Railways
CNRS 500 1 Saskatoon, Sask.	Canadian National Railways
XEW. † 5000 Mexico City	Mexico Music Co.
920 kilocycles 325.9 meters	
LILIU # 1000 Port on Prince Uniti	Republic of Haiti
KFEL † 500 1 Denver, Colo.	Eugene P. O'Fallon, Inc.
KFXF * 500 1 Denver, Colo.	Colorado Radio Corp. Fisher's Blend Station, Inc.
KOMO † 1000 N Seattle, Wash.	Fisher's Blend Station, Inc.
KPRC * 1000 +N Houston, Texas WAAF 500 D Chicago, III.	Houston Printing Co. Drovers' Journal Publishing Co. Babson Statistical Organization, Inc.
WAAF _ 500 D Chicago, Ill. WBSO _ 500 D Needham, Mass.	Robern Statistical Organization Inc.
WBSO 500 D Needham, Mass. WWJ † 1000 N Detroit, Mich.	The Detroit News
WWJ † 1000 N Detroit, Mich. XFF _ 250 915 Chihuahua, Mexico	Gobierno del Estado de Chihuahua
1	
930 kilocycles 322.4 meters	Northern Supplies, Ltd.
CFCH 100 3 North Bay, Ont.	Northern Supplies, Ltd.
CFRC 50 3+ Kingston, Ont.	Queen's University
CJCA * 500 Edmonton, Alta.	The Edmonton Journal, Ltd.
CMCD 250 925 Havana, Cuba	Angel Bertematy
CMCN 250 925 Havana, Cuba	Antonio Ginard
CMTE 50 Company Codes	John L. Stowers
KFWI + 500 1 San Francisco, Cal.	Radio Entertainments, Inc.
KGBZ 500 2+ York, Nebr. KMA * 500 2+ Shenandoah, Iowa KROW * 500 1+X Qakland, Cal.	Dr. George R. Miller May Seed & Nursery Co.
KMA * 500 2+ Shenandoah, Iowa	May Seed & Nursery Co.
KROW * 500 1+X Oakland, Cal.	Educational Broadcasting Corp.
	Birmingham Broadcasting Co., Inc. Times-World Corp.
WDBJ * 250 +C Roanoke, Va. WIBG * 25 S Elkins Park, Pa.	St. Paul's P. E. Church.
	St. Faul S.F. E. CHUICH.
940 kilocycles 319.0 meters	42
KGU † 1000 Honolulu, Hawaii	Marion A. Mulrony
KGU † 1000 Honolulu, Hawaii KOIN * 1000 C Portland, Oregon KZRC 500 937.5 Cebu, P. I. WAAT 300 D Jersey City, N. J. WCSH * 1000 N Portland, Maine WDAY * 1000 N Fargo, N. D. WEIW * 1000 C Hongkingstille Ky	KOIN, Inc.
KZRC _ 500 937.5 Cebu, P. I.	Liozii, Illei
WAAT 300 D Jersey City, N. J.	Bremer Broadcasting Corp.
KZRC - 500 937.5 Cebu, P. I. WAAT - 300 D Jersey City, N. J. WCSH * 1000 N Portland, Maine	Congress Square Hotel Co.
WDAY * 1000 / N Fargo, N. D.	WDAY, Inc.
	WFIW. Inc.
WHA 750 D+ Madison, Wis.	University of Wisconsin National Revoluncionario Party
XEO 5000 Mexico City	National Revoluncionario Party
050 1-111 215 (
UBIL 171100370100	
950 kilocycles 315.6 meters	
CMHD 250 Caibarien, Cuba KFWB * 1000 Hollywood, Cal.	Manuel Alvarez Warner Bros. Broadcasting Corp.

	INDEX BY	FREQUENCIES A	ND DIAL NUMBERS	
KGHL KMBC * T14NRH WRC †	1000 1000 C 75 948 500 N	Billings, Mont. Kansas City, Mo. Heredia, C. R., Washington, D. C.	Northwestern Auto Supply Co., Inc Midland Broadcasting Co., Inc. Armando Cespedes National Broadcasting Co., Inc.	
CFCL	cycles 3 500 28 100 3 500 3 500 3 500 3 500 2 500 2 500 2 500 965 500 3 0000 965	12.3 meters Toronto, Ont. Charlottetown, P. E. I. Regina, Sask. Regina, Sask. Regina, Sask. Toronto, Ont. Toronto, Ont. Havana, Cuba Havana, Cuba Regina, Sask. Regina, Sask. Regnosa, Mexico	Dominion Battery Co. W. E. Burke R. H. Williams & Sons, Ltd. Cooperative Wheat Producers, Ltd. Leader Publishing Co., Ltd. The Dominion Battery Co. Canadian National Carbon Co., Ltd. Domingo Fernandez Luis Perez Garcia Canadian National Railways International Broadcasting Co.	
CMGF KIR **	eycles 3 50 977 5000 N 1500 N Dn	09.1 meters Matanzas, Cuba Seattle, Wash. Chicago, Ill.	Bernabe R. de la Torre Northwest Broadcasting System, I Chicago Federation of Labor	nc.
980 kiloo		05.9 meters Calgary, Alta. Pittsburgh, Pa.	Western Broadcasting Co. Westinghouse Elec. & Mfg. Co.	1040
990 kiloo	$\underset{5000}{\overset{101}{\text{cycles}}} 3$	Laredö, Mexico 02.8 meters Springfield-Boston	Rafael T. Carranza S 7 / 2 Westinghouse Elec. & Mfg. Co.	288.3 DIAL
1000 kilo	250 Dn 5000 1N□	Mexico City 299.8 meters Culver City, Cal. Des Moines, Iowa Davenport, Iowa	Arturo Martinez Los Angeles Broadcasting Co. Central Broadcasting Co.	
xei * 1010 kilo	5000 IND 101 cycles 2	Morelia, Mexico 296.8 meters	Central Broadcasting Co. Carlos Gutierrez M.	The state of the s
CKIC CMBW CMBZ KGGF † KQW * WHN * WIS * WLAP † WNAD * WPAP * WQAO WRNY XEQ	50 150 150 500 2 500 250 1 500 +N 250 C 500 2 250 1 250 1 250 1 1000 1015	Wolfville, N. S. Havana, Cuba B. Coffeyville, Okla. S. Coffeyville, Okla. San Jose, Cal. New York City Columbia, S. C. Louisville, Ky. Norman, Okla. New York City New York City New York City New York City Juarez, Mexico	American Broadcasting Corp. of Ky University of Oklahoma Palisades Amusement Park Calvary Baptist Church Aviation Radio Station, Inc. Feliciano Lopez Islas	1
	cycles 2 15 1017 0000 1N 0000 1N 250 D	293.9 meters Ciego de Avila, Cuba Chicago, III. Chicago, III. Philadelphia, Pa.	Luis Marauri Westinghouse Elec. & Mfg. Co. Westinghouse Elec. & Mfg. Co. WRAX Broadcasting Co.	The second principles of the second principles
	cycles 2 500 N 150 1034 500 1000 101 1034	Montreal, Que. Santiago de Cuba Vancouver, B. C. Mexico City, Mexico Puebla, Mexico	Canadian Marconi Co. M. P. Martinez Canadian National Railways El Buen Tono, S. A. Ciro Molina	
WKAR 1	cycles 2 0000 1C 0000 1N 1000 D 1000 Dn	288.3 meters Dallas, Texas Hot Springs, Ark. East Lansing, Mich. Buffalo, N. Y.	KRLD Radio Corp. Chamber of Commerce Michigan State College Buffalo Broadcasting Corp.	

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1050 kilocy KFBI * 50 KNX * 50	00 Dn 1	B5.5 meters Milford, Kansas Hollywood, Cal.	Farmers & Bankers Life Insurance Co. Western Broadcast Co.
1060 kilocy KWJJ * 5 WBAL * 100 WJAG * 10 WTIC * 500	00 Dn I 00 IN I 00 Dn N	32.8-meters Portland, Ore. Baltimore, Md. Norfolk, Nebr. Hartford, Conn.	KWJJ Broadcast Co., Inc. Consolidated Gas Elec. & Pwr. Co. Norfolk Daily News Travelers Broadcasting Service Corp.
CMCB 1 KJBS * 1 WCAZ * WDZ / 1	50 H 50 H 00 D S 50 D C	B0.2 meters Havana, Cuba Havana, Cuba San Francisco, Cal. Carthage, Ill. Tuscola, Ill. Cleveland, Ohio	Francisco Garrigo Antonio Capablanca Julius Brunton & Sons Co. Superior Broadcasting Service James L. Bush National Broadcasting Co., Inc.
1080 kilocy WBT * 50 WCBD * 50 WMBI * 50	00 C C	77.6 meters Charlotte, N. C. Zion, III. Chicago, III.	Station WBT, Inc. Wilbur Glenn Voliva Moody Bible Institute
1090 kilocy KMOX * 500 XEL 500	00 C S	75.1 meters St. Louis, Mo. Saltillo, Mexico	30 Voice of St. Louis, Inc. Antonio Garza Castro
1100 kilocy KGDM * 2 WLWL * 50 WPG * 50	50 DX 8	72.6 meters Stockton, Cal. New York City Atlantic City, N. J.	E. F. Peffer Missionary Society of St. Paul WPG Broadcasting Corp.
1110 kilocy CMHI KSOO *- 25 WRVA * 50 XEH 50	ycles 27	70.1 meters Santa Clara, Cuba Sioux Falls, S. D. Richmond, Va. Monterrey, Mexico	Laviz y Paz Sioux Falls Broadcasting Assn., Inc. Larus & Bros. Co., Inc. Tarnava y Cia.
CFJC - 1 CHGS * 1 CJOC † 1 CNRT * 5 KFIO † 1 KFSG * 4 KMCS * 5 KRSC † KTRH * 5 WDBO * 5 WDEL † 2 WHAD * 2 WHAD * 2	000 4 7 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Toronto, Ont. Kamloops, B. C. Summerside, P. E. I. Lethbridge, Alta Coronto, Ont. Spokane, Wash. Los Angeles, Cal. Inglewood, Cal. Seattle, Wash. Houston, Texas Orlando, Fla. Wilmington, Del. Milwaukee, Wis. Milwaukee, Wis. College Station, Texas	Star Pub. & Ptg. Co. N. S. Dalgleish & Sons R. T. Holman, Ltd. Harold R. Carson Canadian National Railways Spokane Broadcasting Corp. Echo Park Evang. Assn. Dalton's, Inc. Radio Sales Corp. Rice Hotel Orlando Broadcasting Co., Inc. WDEL, Inc. Marquette University Evening Wisconsin Co. Agricultural & Mech. College
1130 kilocy KSL** * 50 WJJD * 200 WOV 10	00 N S 00 CDn I	55.3 meters Salt Lake City Mooseheart, Ill.	Radio Service Corp. of Utah Loyal Order of Moose
wov - 10 xee * 11 1140 kilocy	00 D 1 05 C	New York City Daxaca, Mexico 53.0 meters	International Broadcasting Corp. Alfonso Zorilla B.
KVOO * * 50 WAPI * 50	00 1N 7 00 1N F	Tulsa, Okla. Birmingham, Ala. Mexico City	Southwestern Sales Corp. Alabama Polytechnic Institute Manuel Espinosa Tagle
	00 I 50 I	meters Havana, Cuba Havana, Cuba Rochester, N. Y.	Andres Martinez Jose Fernandez Stromberg-Carlson Tel. Mfg. Co.

1160 kilocycles 258.5 meters

*WOWO ** 10000 5000 Ft. Wayne, Ind. Wheeling, W. Va. 1C 1C

1170 kilocycles 256.3 meters

Philadelphia, Pa.

1180 kilocycles 254.1 meters

Portland, Ore. KOB WDGY WGBS 20000 State College, N. M. Minneapolis, Minn. Ĩ Dn 1000 500 New York City WMAZ 500 Macon, Ga.

1190 kilocycles 252.0 meters

* WOAI * 50000 San Antonio, Texas

1200 kilocycles 249.9 meters

100 7.5 30 CKOV CMGB Kelowna, B. C. 1205 Matanzas, Cuba CMJA KBTM Camaguey, Cuba Paragould, Ark. __ Ď 100 Ť. Marshalltown, Iowa 100

KFJB KFWF + 5+ 100 St. Louis, Mo. * KGDE 100 + Fergus Falls, Minn. Huron, S. D.
Yuma, Colo.
Fort Morgan, Colo.
Los Angeles, Cal.
Little Rock, Ark.
Lacey, Wash. KGDY 100 ā--KGEK 100 KGEW 100 9 100

KGF J KGHI 100 KGY KMLB t 10 Monroe, La. Santa Maria, Cal. Bellingham, Wash. 100 $\tilde{\mathbf{Y}}$ KSMR 100 KVOS KWG 100 100 WABI 100

Stockton, Cal.
Bangor, Maine
New Orleans, La.
Ponca City, Okla.
Huntsville, Ala. WABZ WBBZ 100 100 WBHS 10CP 50 Rapid City, S. D. Burlington, Vt. WCAT WCAX WCLO 100 ž--Burlington, Vt. Janesville, Wis. Harrisburg, Pa. Worcester, Mass. South Bend, Ind. 100 100 WCOD 100

3 7 8 10 WEPS WFAM 100 100 WFBC Knoxville, Tenn. Cincinnati, Ohio 50 WFBE 100 + 4S Canton, Ohio Green Bay, Wis. Utica, N. Y. WHBC 10 WHBY 100 100

- 5+ WIBX WIL V St. Louis, Mo. La Salle, Ill. Decatur, Ill. 100 100 6 WJBL WJBW WKJC WLBG 100 6 100 13 New Orleans, La.

100 Lancaster, Pa. Petersburg, Va. Washington, Pa. Carbondale, Pa. Springfield, Vt. Worcester, Mass. 100 + WNBO 100 WNBW 10 10

WNBX 100 7CX Columbus, Ga. Hammond, Ind. WRBL 50 8 WWAE 100 XEA 101 Guadalajara, Mexico

1210 kilocycles 247.8 meters

Chatham, Ont. Fredericton, N. B. Vancouver, B. C. CFCO CFNB 100 100 * CJOR CKMC 500 ē--Cobalt, Ont. Casper, Wyo. 100 KDFN 100

Main Auto Supply Co. West Virginia Broadcasting Corp.

Universal Broadcasting Co.

Western Broadcasting Co. College of Agriculture & Mech. Arts Dr. George W. Young American Radio News Corp. Southeastern Broadcasting Co., Inc.

Southern Equipment Co.

J. W. B. Browne Jose Anorga Pedro Nogueras W. J. Beard's Temple of Music Marshall Electric Co., Inc. St. Louis Truth Center, Inc. Jaren Drug Co. Voice of South Dakota

Beehler Elec. Equipment Co. City of Fort Morgan Ben S. McGlashan O. A. Cook St. Marten's College

J. C. Liner Santa Maria Radio

KVOS, Inc. Portable Wireless Tel. Co., Inc.

Pine Tree Broadcasting Corp.
Samuel D. Reeks
C. L. Carrell
The Hutchens Co. State School of Mines Burlington Daily News WCLO Radio Corp.

Keystone Broadcasting Corp. Alfred Frank Kleindienst South Bend Tribune First Baptist Church

Post Publishing Co. St. John's Catholic Church St. Norbert's College

WIBX, Inc. Missouri Broadcasting Corp. Kaskaskia Broadcasting Co. Commodore Broadcasting, Inc. Charles C. Carlson, Jr. Lancaster Brdcstg. Service Inc.

WLBG, Inc. John Brownlee Spriggs Home Cut Glass & China Co.

First Congregational Church Alfred Frank Kleindienst WRBL Radio Station, Inc. Hammond-Calumet, Broad. Corp.

Alberto Palos Sauza

Western Ontario "Better Radio" Club James S. Neill & Sons, Ltd. G. C. Chandler R. L. MacAdam Donald Lewis Hathaway

KCYS. 1210 MTRS. 247.8

DIAL

	INDEX BI	FREQUENCIES AN	D DIAL NUMBERS
KDLR 1 † KFOR * KFVS * KFXM † KGCR † KGCR † KGNO * KMJ * KPPC § KWBA * WBAX * WBAX * WBAX * WBBL † WCOH * WCBQ * WCOH * WCBQ * WCOH * WCBQ * WCOH * WCBU * WCBU * WCBU * WCBU * WCBU * WCBU * WCCM * WCBU * WCCM * W	100	Devil's Lake, N. D. Lincoln, Nebr. Cape Girardeau, Mo. San Bernardino, Cal. Watertown, S. D. Dodge City, Kansas Fresno, Cal. Pasadena, Cal. Shreveport, La. Zanesville, Ohio Wilkes-Barre, Pa. Richmond, Va. Springfield, Ill. Yonkers, N. Y. Chicago, Ill. Harrisburg, Ill. Chicago, Ill. Harrisburg, Ill. Chicago, Ill. Freeport, N. Y. Gulfport, Miss. Rock Island, Ill. Anderson, Ind. Poynette, Wis. Red Bank, N. J. Lewisburg, Pa. Gadsen, Ala. Mansfield, Ohio Ithaca, N. Y. Richmond, Va. Jamaica, N. Y. Jamestown, N. Y. Manitowoc, Wis. Parweyster P. I.	KDLR, Inc. Howard A. Shuman Hirsch Battery & Radio Co. J. C. & E. W. Lee Greater Kampeska Radio Corp. Dodge City Broadcasting Co. James McClatchy Co. Pasadena Presbyterian Church Hello World Broadcasting Corp. Roy W. Waller John H. Stenger, Jr. Grace Covenant Pres. Church H. L. Dewing & Chas. Messter Westchester Broadcasting Corp. Clinton R. White First Trust & Savings Bank Emil Denemark, Inc. Harry H. Carman Great Southern Land Co., Inc. Beardsley Specialty Co. Anderson Broadcasting Corp. Wm. C. Forrest Monmouth Broadcasting Co. Bucknell University Gadsen Broadcasting Co., Inc. Mansfield Broadcasting Assn. Lutheran Assn. of Ithaca Havens & Martin, Inc. Peter J. Prinz A. B. Newton Francis M. Kadow
WEDC WGBB * WGCM * WHBF * WHBU † WIBU * WJBU * WJBY * WJCI * WMCI * WMRJ * WOCL * WOMT * WPAW * WPAW * WPON *	100 4 100 3 100 100 100 3 100 1 100 3 100 5 100 7 100 7	Chicago, Ill. Freeport, N. Y. Gulfport, Miss. Rock Island, Ill. Anderson, Ind. Poynette; Wis. Red Bank, N. J. Lewisburg, Pa. Gadsen, Ala. Mansfield, Ohio Ithaca, N. Y. Richmond, Va. Jamaica, N. Y.	Emil Denemark, Inc. Harry H. Carman Great Southern Land Co., Inc. Beardsley Specialty Co. Anderson Broadcasting Corp. Wm. C. Forrest Monmouth Broadcasting Co. Bucknell University Gadsen Broadcasting Co., Inc. Mansfield Broadcasting Assn. Lutheran Assn. of Ithaca Havens & Martin, Inc. Peter J. Prinz A. E. Newton
WRBQ † WSBC * WSEN † WSIX * WSOC † WTAX † XEX	100 + 100 4 100 100 100 2 500	Greenville, Miss. Chicago, III. Columbus, Ohio Springfield, Tenn. Gastonia, N. C. Springfield, III. Mexico City 245.8 meters	J. Pat. Scully World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WSOC, Inc. WTAX, Inc. Excelsior, Cia Editorial S. A.

CMBY CMCA		350 150	1225 1225	Havana, Cuba Havana, Cuba
KFKU	*	500	1	Lawrence, Kansas
KTW KWSC	*	1000 1000		Seattle, Wash. Pullman, Wash.
WCAD	*	500	$\vec{\mathbf{D}}$	Canton, N. Y.
WCAE	*	1000	N	Pittsburgh, Pa.
WDAE WREN #		1000 1000	C 1N	Tampa, Fla. Lawrence, Kansas

1230 kilocycles 243.8 meters

KFQD		100		Anchorage, Alaska
KGĞM	†	250	+	Albuquerque, N. Mex.
KYA	*	1000		San Francisco, Cal.
WBIS	*	1000	2	Boston, Mass.
WFBM	*	1000	1C	Indianapolis, Ind.
WNAC	*	1000	2C	Boston, Mass.
WPSC	*	500	D	State College, Pa.
WSBT	†	500	1	South Bend, Ind.

1240 kilocycles 241.8 meters

	Minot, N. D. Ft. Worth, Texas C Waco, Texas Detroit, Mich.
--	--

1250 kilocycles 230 0 mate

1200 151	rocy C	163	209.9 11166618
VKFMX / †	1000	2	Northfield, Minn. Long Beach, Cal.
KFOX *	1000		Long Beach, Cal.

Callejas-Cosculluela
Manuel Cruz
University of Kansas
First Presbyterian Church
State College of Washington
St. Lawrence University
WCAB, Inc.
Tampa Publishing Co.
Jenny Wren Co.

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

Francisco Martinez Mandan Radio Assn. John B. Cooley S. A. T. Broadcast Co. Central Texas Broadcasting Co., Inc. Kunsky-Trendle Broadcasting Corp.

Carleton College Nichols & Warinner, Inc.

	INDEX BY	FREQUENCIES AN	ID DIAL NUMBERS
WAAM * WCAL * WDSU † WGCP † WLB †	1000 1+X 1000 2 1000 C 250 1 1000 2 1000 1 1000 2	Newark, N. J. Northfield, Minn. New Orleans, La. Newark, N. J. St. Paul, Minn.	WAAM, Inc. St. Olaf College Jos. H. Uhalt May Radio Broadcast Corp.
WODA WRHM * XBFA	1000 1 1000 2 250	Paterson, N. J. Minneapolis, Minn. Mexico City	University of Minnesota Richard E. O'Dea Minnesota Broadcasting Corp. Luis F. Murguia
1260 kilo	ocycles	238.0 meters	19 5
KOIL * * KRGV * KVOA † KWWG * WLBW * WTOC *	1000 C 500 1 500 D 500 1 500 C+ 500 C	Council Bluffs, Iowa Harlingen, Texas Tucson, Arizona Brownsville, Texas Oil City, Pa. Savannah, Ga.	Mona Motor Oil Co. KRGV, Inc. Robert M. Riculfi Herald Pub. Co. Radio-Wire Program Corp. Savannah Broadcasting Co.
1270 kild	ocycles	236.1 meters	19
KGCA † KOL † KVOR * KWLC * WASH * WEAH * WFBR WJDX * WOOD †	50 2D 1000 C 1000 C 1000 2D 500 1 1000 D 500 N 1000 N 500 1	Decorah, Iowa Seattle, Wash. Colorado Springs, Colo. Decorah, Iowa Grand Rapids, Mich. Ithaca, N. Y. Baltimore, Md. Jackson, Miss. Grand Rapids, Mich.	Charles W. Greenley Seattle Broadcasting Co., Inc. Reynolds Radio Co., Inc. Luther College WASH Broadcasting Corp. Cornell University Baltimore Radio Show, Inc. Lamar Life Insurance Co. Kunsky-Trendle Broadcasting Corp.
1280 kilo	ocycles	234.2 meters	
CMCU CMCW KFBB * WCAM * WCAP * WDOD * WIBA * WOAX WRR ¢	150 1285 150 1285 1000 + 500 1 500 1 1000 +C 500 +N 500 1 500 C	Havana, Cuba Havana, Cuba Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Trenton, N. J. Dallas, Texas	Jorge Garcia Serra Jose Lorenzo Buttrey Broadcast, Inc. City of Camden Radio Industries Broadcast Co. WDOD Broadcasting Corp. Badger Broadcasting Co. WOAX, Inc. City of Dallas
1290 kilo	ocycles :	232.4 meters	17
KDYL † KFUL - KLCN * KTSA † WEBC * WJAS * WNBZ -	1000 C 500 1 50 D 1000 1+C 1000 +N 1000 C+ 50 D	Salt Lake City Galveston, Texas Blytheville, Ark. San Antonio, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y.	Internountain Broadcasting Corp. News Publishing Co. C. L. Lintzenich Lone Star Broadcast Co. Head of Lake Broadcasting Co. Pittsburgh Radio Supply House Smith & Mace
1300 kild	ocycles :	230.6 meters	1.6 /2
KFAC * KFH * KFJR * KGEF * KTBR * WBBR * WBWP * WHAP * WHAZ * WIOD * WOOQ * XETY	1000 4 1000 2C 500 3 1000 4 500 3 1000 1 500 1 1000 1 1000 N 1000 N 1000 2 2000	Los Angeles, Cal. Wichita, Kansas Portland, Ore. Los Angeles, Cal. Portland, Ore. Brooklyn, N. Y. New York City New York City Troy, N. Y. Miami, Fla. Kansas City, Mo. Mexico City	Los Angeles Broadcasting Co. Radio Station KFH Co. Ashley C. Dixon – KFJR, Inc. Trinity Methodist Church M. E. Brown People's Pulpit Association Debs Memorial Radio Fund, Inc. Defenders of Truth Society, Inc. Rensselaer Polytechnic Institute Isle of Dreams Broadcasting Corp. Unity School of Christianity Juan Gutierrez, Jr.

1310 kilocycles 228.9 meters

KCRJ KFBK KFGQ KFJY KFPL KFPM KFUP KFXJ Jerome, Arizona Sacramento, Cal. Boone, Iowa Ft. Dodge, Iowa Dublin, Texas Greenville, Texas Denver, Colo. Grand Junction, Colo. 100 100 100 100 100 15 100 100 D 7 7 † * 8

Chas. C. Robinson
Jas. McClatchy Co.
Boone Biblical College
Cedar Rapids Broadcast Co.
C. C. Baxter
The New Furniture Co.
Fitzsimmons General Hospital
Western Slope Broadcasting Co.

ксуз. 1310

MTRS. 228.9 DIAL

KFXR	† 10 * 10	00 +	Oklahoma City	Exchange Ave. Baptist Church
KGBX KGCX	* 10	00	St. Joseph, Mo. Wolf Point, Mont. Kalispell, Mont.	KGBX, Inc.
KGCX	† 19	00 +	Wolf Point, Mont.	First State Bank of Vida
KGEZ	I 19	00 00 Y	Kalispell, Mont.	Treloar-Church Broadcasting Co.
. KGFW KIT	1 1	00 Y 00	Ravenna, Nebr. Yakima, Wash. Medford, Ore.	Central Nebraska Broadcasting Corp.
KMED	+ î	00 00	Medford, Ore.	Mrs. W. I. Virgin
KRMD	† 10 † 10 † 10 † 10 † 10	50 9	Shreveport, La.	Carl E. Haymond Mrs. W. J. Virgin Robert M. Dean
KTLC		በበ	Houston, Texas El Paso, Texas	Houston Broadcasting Co. W. S. Bledsoe & W. T. Blackwell
KTSM		00 2 00 7	El Paso, Texas	W. S. Bledsoe & W. T. Blackwell
KWCR KXRO	I	00 <i>7</i> 00	Cedar Rapids, Iowa	Cedar Rapids Broadcast Co.
WBEO	16	00 ČP	Cedar Rapids, Iowa Aberdeen, Wash. Marquette, Mich.	KXRO, Inc.
WBOW		00	Terre Haute, Ind.	Lake Superior Broadcasting Co. Banks of Wabash, Inc.
WBRE	16	00	Wilkes-Borre Po	Louis G. Baltimore
WCLS	* 10	00 1	Joliet, III. El Paso, Texas Buffalo, N. Y.	Louis G. Baltimore WCLS, Inc.
WDAH	† 10 * 10	00 Z	El Paso, Texas	Bledsoe & Blackwell
WEBR	1	90 +	Burralo, N. Y.	Howell Broadcasting Co., Inc.
WEXL WFBG	† * 10	50 00 3X	Royal Oak, Mich. Altoona, Pa.	Royal Oak Broadcasting Co.
WFDF	* 10	00	Flint, Mich.	Wm. F. Gable Co. Frank D. Fallain
WFDV	† Î(00 D	Pomo Co	Rome Broadcasting Corp.
WGAL		00 5	Lancaster, Pa. Newport News, Va. Philadelphia, Pa.	WGAL, Inc.
WGH	* 10	00	Newport News, Va.	Hampton Roads Broadcasting Corp
WHAT		00 4 00 3	Philadelphia, Pa.	Independence Broadcasting Co.
WIAK		00 3 50 6Y	Johnstown, Pa. Elkhart, Ind.	Johnstown Automobile Co. Truth Publishing Co., Inc.
WJAC WJAK WKAV		00	Laconia, N. H.	Laconia Radio Club
WKBB	* 10	00 1	Joliet, Ill.	Sanders Bros. Radio Station
WKBC WKBS	* 10	00	Birmingham, Ala.	R. B. Broyles Furniture Co
WKBS		00	Galesburg, III. Muncie, Ind.	Permil N. Nelson
WLBC WMBO		50 6	Muncie, Ind.	Donald A. Burton
WNBH	* 1	00 00	Auburn, N. Y.	WMBO, Inc. New Bedford Broadcasting Co.
WOL		00	New Bedford, Mass. Washington, D. C.	American Broadcasting Co.
WRAW	* 10	00 5X	Reading, Pa.	Reading Broadcasting Co.
WROI.	† 10	00	Reading, Pa. Knoxville, Tenn.	Reading Broadcasting Co. Stewart Broadcasting Co.
WSAJ		00	Grove City, Pa.	Grove City College
WSAJ WSJS WTEL		00 00 4	Winston-Salem, N. C. Philadelphia, Pa.	Grove City College Winston-Salem Journal Co. Foulkrod Radio Engineering Co.
WTIS	† 10		Jackson, Tenn	Sun Publishing Co.
WTJS WTSL	'_ î	00 + 00 9	Jackson, Tenn. Laurel, Miss.	G. A. Houseman
				O. M. Houseman
1320 1	kilocy		227.1 meters	S. A. Houselingh
1320 1		ycles	227.1 meters	
	t 2	ycles	227.1 meters	
KGHF KGMB	t 2	ycles 50 + 50 1+	227.1 meters Pueblo, Colo. Honolulu, Hawaii	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co.
KGHF KGMB KID KTFI	† 2! † 2! † 2!	ycles 50 + 50 1+	227.1 meters Pueblo, Colo. Honolulu, Hawaii	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co.
KGHF KGMB KID KTFI WADC	† 2! † 2! † 2! † 100	ycles 50 + 50 1+ 50 1+ 50 C	227.1 meters Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co.
KGHF KGMB KID KTFI	† 2! † 2! † 2! † 100	ycles 50 + 50 1+	227.1 meters Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd.
KGHF KGMB KID KTFI WADC WSMB	† 25 † 25 † 25 † 100 * 56	ycles 50 + 50 1+ 50 1+ 50 C	227.1 meters Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La.	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co.
KGHF KGMB KID KTFI WADC	† 25 † 25 † 25 † 100 * 56	ycles 50 + 50 1+ 50 1+ 50 C	227.1 meters Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co.
KGHF KGMB KID KTFI WADC WSMB	† 24 † 24 † 20 † 100 * 50	ycles 50 + 50 1+ 50 1+ 00 C 00 N	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc.
KGHF KGMB KID KTFI WADC WSMB	† 24 † 24 † 20 † 100 * 50 * 50 * 10	ycles 50 + 50 1+ 50 1+ 50 C 00 N ycles 00 C	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co.
KGHF KGMB KID KTFI WADC WSMB	† 2! † 2! † 2! † 100 * 56 * 100 * 50	ycles 50 + 50 1+ 50 1+ 50 C 00 N ycles 00 C	227.1 meters Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn.	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc.
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI	† 2! † 2! † 2! † 100 * 50 * 100 * 50 * 100	ycles 50 + 50 1+ 50 1+ 50 N ycles 00 C 000 C 000 C 000 N	227.1 meters Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn.	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI	† 2! † 2! † 100 * 100 * 50 * 100 * 50 * 100 * 100	ycles 50 + 50 1+ 50 1+ 50 N ycles 00 C 000 C 000 C 000 N	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis.	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co.
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI	† 2! † 2! † 100 * 100 * 50 * 100 * 50 * 100 * 100	ycles 50 + 50 1+ 50 1+ 500 N ycles 00 C 000 C 000 C 000 N	227.1 meters Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn.	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGE WSKCJ WDRC WSAI WTAQ XEC	† 2! † 2! † 2! † 100 * 50 * 100 * 100 * 100	ycles 50 + 50 1+ 50 1+ 50 N ycles 000 C 000 C 000 C 000 C 000 C 000 N 000 IC 1333	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co.
KGHF KGMB KID KTFI WADC WSMB 1330 I KGB KSCJ WDRC WSAI WTAQ XEC	† 24 † 29 † 29 † 100 * 50 * 100 * 100 * 100 * 100 * 100 * 100	ycles 50	227.1 meters Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WDRC WTAQ XEC 1340 1 CMCG	† 24 † 22 † 20 † 100 * 100 * 100 * 100 * 100 * 100 * 100	ycles 50 + 50 1+ 50 1+ 50 1+ 50 1+ 50 1+ 50 1+ 50 1+ 50 N ycles 000 C 000 N 000 1C 500 1333 ycles 30 1345	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Hayana, Cuba	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides
KGHF KGMB KID KTFI WADC WSMB 1330 I KGB KSCJ WDRC WSAI WTAQ XEC 1340 I	† 24 22 † 22 † 100 * 100 * 50 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 100	ycles 50	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Hayana, Cuba	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez
KGHF KGMB KID KTFI WADC WSMB 1330 I KGB KSCJ WDRC WSAI WTAQ XEC 1340 I	† 21 † 22 † 22 † 100 * 100 * 50 * 100 * 100 * 100 * 100	ycles 50	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI WTAQ XEC 1340 1 CMCG CMCR CMCY KFPW	† 24 † 22 † 22 † 100 * 100 * 100 * 100 * 100 * 100 * 100	ycles 50	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co.
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI WTAQ XEC 1340 1 CMCG CMCR CMCR CMCY KFPW WCOA	† 21/22/21/21/21/21/21/21/21/21/21/21/21/2	ycles 550 550 1+ 550 1+ 550 1-	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark, Spokane, Wash. Pensacola, Fla.	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co. City of Pensacola
KGHF KGMB KID KTFI WSMB 1330 1 KGB KSCJ WDRC WSMI WTAQ XEC 1340 1 CMCG CMCR CMCY KFPW KFPY	† 22 † 22 † 22 22 21 21 21 21 21 21 21 21	ycles 50	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co.
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI WTAQ XEC 1340 1 CMCG CMCR CMCY KFPW KFPY WCOA WSPD	† 21 † 22 † 22 † 100 * 100	ycles 50	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark, Spokane, Wash. Pensacola, Fla. Toledo, Ohio	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co.
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI WTAQ XEC 1340 1 CMCG CMCR CMCR CMCY KFPY WCOA WSPD	* 50 * 100 * 50 * 100 * 10	ycles 550 + 550 1+ 550 1+ 550 1+ 550 1- 900 C 900 C 100 N 900 C 100 N 900 C 100 N 900 C 100 N 100 N	227.1 meters Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co.
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI WTAQ XEC 1340 1 CMCG CMCR CMCR CMCY KFPY WCOA WSPD	100 21 22 22 22 23 24 24 24 24	ycles 550 + 550 1+ 550 1+ 550 1+ 550 1- 900 C 900 C 100 N 900 C 100 N 900 C 100 N 900 C 100 N 100 N	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co.
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI WTAQ XEC 1340 1 CMCG CMCR CMCR CMCY KFPY WCOA WSPD	* 50 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 100	ycles 50	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Boise Broa leasting Station Thomas Patrick, Inc. Pillar of Fire
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI WTAQ XEC 1340 1 CMCG CMCR CMCR CMCY KFPW KFPY WCOA WSPD 1350 1 KIDO KWK WAWZ WBNX	100 100	ycles 50	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Boise Broa leasting Station Thomas Patrick, Inc. Pillar of Fire
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WTAQ XEC 1340 1 CMCG CMCR CMCR CMCR CMCR CMCP WSPD 1350 1 KIDO KWK WAWZ WBNX WCDA	* 50 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 20 * 100 * 20 * 20 * 20 * 20 * 20 * 20 * 20 *	ycles 550 1+ 550 1+ 550 1- 55	Pueblo, Colo. Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters Boise, Idaho St. Louis, Mo. Zarephath, N. J. New York City New York City New York City New York City	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Boise Broa leasting Station Thomas Patrick, Inc. Pillar of Fire Standard Cabill Co., Inc. Italian Educ. Broadcasting Co., Inc.
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WDRC WSAI WTAQ XEC 1340 1 CMCG CMCR CMCY KFPW WCOA WSPD 1350 1 KIDO KWK WK WK WK WK WK WCDA	100 100	ycles 50	Pueblo, Colo. Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters Boise, Idaho St. Louis, Mo. Zarephath, N. J. New York City New York City New York City New York City	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Boise Broadcasting Co. Fillar of Fire Standard Cahill Co., Inc. Italian Educ. Broadcasting Co., Inc. Emory & Henry College
KGHF KGMB KID KTFI WADC WSMB 1330 1 KGB KSCJ WTAQ XEC 1340 1 CMCG CMCR CMCR CMCR CMCR CMCP WSPD 1350 1 KIDO KWK WAWZ WBNX WCDA	* 50 * 100 * 100 * 100 * 100 * 100 * 100 * 100 * 20 * 100 * 20 * 20 * 20 * 20 * 20 * 20 * 20 *	ycles 50	Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mexico 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters	C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Radio Broadcasting Corp. Allen T. Simmons WSMB, Inc. Don Lee, Inc. Perkins Bros. Co. WDRC, Inc. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides Jose Justo Moran Aurelio Hernandez M. D. Autran Southwestern Hotel Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Boise Broa leasting Station Thomas Patrick, Inc. Pillar of Fire Standard Cabill Co., Inc. Italian Educ. Broadcasting Co., Inc.

1360 kil	ocycle	s :	220.4 meters	13/2
KGER *	1000		Long Beach, Cal.	Consolidated Broadcasting Corp.
KGIR † WCSC *	500 500		Butte, Montana	KGIR, Inc. Lewis Burk
WFBL *	1000	CX	Syracuse, N. Y.	Onondaga Radio Broadcasting Corp.
WGES WJKS * WQBC †	500	CX 1+ 1+	Charleston, S. C. Syracuse, N. Y. Chicago, Ill.	Oak Leaves Broadcasting Station, Inc. Johnson-Kennedy Radio Corp.
WJKS**	1000 I	1+ D	Gary, Ind. Vicksburg, Miss.	Johnson-Kennedy Radio Corp. Delta Broadcasting Co., Inc.
WQBC † XETO	101		Mexico City	Ricardo Gonzales Montero
1370 kil	ocvete	•	218.7 meters	/3
CMAC	30	3 . 1375	Pinar del Rio, Cuba	
CMGE	30	1375 1375	Cardenas, Cuba	Oscar S. Mechoso Genaro Sebater
CMGE	150 .		Matanzas, Cuba	Alberto Alvarez
HRB KCRC †	2300 100	2+	Tegucigalpa, Hond. Enid, Okla.	Enid Radiophone Co.
KFBL *	50	3 '	Everett, Wash.	Leese Bros.
KFJI † KFJZ *	100		Everett, Wash. Astoria, Ore. Grand Forks, N. D.	KFJI Broadcasters, Inc.
KFIZ *			Ft. Worth, Texas	University of North Dakota Estate of H. C. Meachem
KFLX	100 .		Ft. Worth, Texas Galveston, Texas	George Roy Clough
KGAR *		+	Tucson, Arizona	Tucson Motor Service Co.
KGDA † KGFG †	100 100	2	Tucson, Arizona Mitchell, S. D. Oklahoma City	Mitchell Broadcasting Corp. Oklahoma Broadcasting Co., Inc.
KGFL	50 .		Raton, N. M. San Angelo, Texas	KGFL, Inc.
KGKL †	100		San Angelo, Texas	KGKL, Inc. W. W. McAllister
KGDA † KGFG † KGFL † KGKL † KMAC † KONO † KOOS *	100 8 100 5	5	San Antonio, Texas San Antonio, Texas	Mission Broadcasting Co.
	100		Marshfield, Ore.	H. H. Hanseth, Inc.
KRE		6	San Antonio, Texas Marshfield, Ore. Berkeley, Cal. Walla Walla, Wash.	First Congregational Church
KUJ †	100 100	3	Seattle, Wash.	KUJ, Inc. KVL, Inc.
KVĽ KWKC	100 .		Seattle, Wash. Kansas City, Mo. Glens Falls, N. Y.	Wilson Duncan Broadcasting Co.
WBGF †	50	7_	Glens Falls, N. Y.	W. N. Parker and H. H. Metcalfe
WBGF † WBTM † WCBM *	100 7 100 -	/ +Z	Danville, Va. Baltimore, Md.	Clarke Electric Co. Baltimore Broadcasting Corp.
WELK 6	100 -	Ė	Philadelphia, Pa.	WELK Broadcasting Station, Inc. Fred Z. Zieg
			Philadelphia, Pa. Fort Wayne, Ind. Mount Orab, Ohio	Fred Z. Zieg F. P. Moler
WHBD † WHBQ †	. 100 . 100 .		Memphis, Tenn.	Broadcasting Station WHBO, Inc.
WHDF +	100	 - 	Memphis, Tenn. Calumet, Mich. Jackson, Mich. Detroit, Mich. Tifton, Ga.	Upper Michigan Broadcasting Co.
wibm /	100 1 50 1	l I	Jackson, Mich.	WIBM, Inc. James F. Hopkins, Inc.
WJBK _I * WJTL WLEY	100	Y	Tifton, Ga.	Oglethorpe University
WLEY	100 -] 7	Lexington, Mass.	Lexington Air Stations
WLVA † WMBR † WPOE † WODM *	100		Lynchburg, Va. Tampa, Fla.	Lynchburg Broadcasting Corp. F. J. Reynolds
WPOE †	100		Patchogue, N. Y. St. Albans, Vt.	Nassau Broadcasting Corp.
WQDM * WRAK *		Ď	St. Albans, Vt.	A. J. St. Antoine C. R. Cummins
WRAM *	100		Williamsport, Pa. Wilmington, N. C.	Wilmington Radio Association
WRBJ †	10 2	X	Hattiesburg, Miss.	Hattiesburg Broadcasting Co.
WRDO §	100	CP	Augusta, Maine	WRDO, Inc. Racine Broadcasting Corp.
WRJN WSVS *	F0		Augusta, Maine Racine, Wis. Buffalo, N. Y.	Seneca Vocational School
1380 kil	ocvcles	s í	217.3 meters	
CMJC		1382	Camaguey, Cuba	Feliciano Isaac KCY
CMJC KOH † KQV † KSO *	500 C	Ç	Reno, Nevada	The Bee, Inc. KQV Broadcasting Co.
KQV †	500 2 500 1	į I	Pittsburgh, Pa. Clarinda, Iowa	KQV Broadcasting Co. Iowa Broadcasting Co. MTF
WKBH T	1000 1	l	La Crosse, Wis.	WKBH, Inc.
WSMK *	200 2		Dayton, Ohio	Stanley M. Krohn, Jr. 214
1390 kil	ocycles	s 2	215.7 meters	72 DIA
KLRA *		ıc	Little Rock, Ark.	Arkansas Broadcasting Co.
KOY *	500		Phoenix, Arizona	Nielson Radio & Sporting Goods Co.
KUOA † WHK *	1000 I	L C	Fayetteville, Ark. Cleveland, Ohio	University of Arknasas Radio Air Service Corp.
1400 kil			214.2 meters	1/2
CMBI		1405 1405	Havana, Cuba	Francisco Mayorquim Armado Romeu
CMBN		1405	Havana, Cuba Havana, Cuba	Hernani Torralbas
CMCM	15 1	1405	Havana, Cuba Ogden, Utah	Martinez-Madicu
KLO *	500 _		Ogden, Utah	Peery Building Co.

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	INDE	X BY	FREQUENCIES	AND DIAL NUMBERS
KOCW	* 250	+	Chickasha, Okla,	College for Women
KOCW WBAA	* 250 † 500 * 500	1+	Chickasha, Okla. Lafayette, Ind. Brooklyn, N. Y.	Purdue University
WBBC	000	2	Brooklyn, N. Y.	Brooklyn Broadcasting Corp.
WCGU WCMA	* 500 † 500	2	Brooklyn, N. Y. Culver, Ind.	U. S. Broadcasting Corp. General Broadcasting Corp.
WFOX	500	1 2	Brooklyn, N. Y.	Paramount Broadcasting Co.
WKBF /	† 500	1	Indianapolis, Ind. Brooklyn, N. Y.	Indianapolis Broadcasting, Inc. The Voice of Brooklyn, Inc.
WLTH XEP	* 500 2500	2	Brooklyn, N. Y.	The Voice of Brooklyn, Inc.
XEP	2500		Laredo, Mexico	La Voz Latino
1410 k	kilocycl	es í	212.6 meters	
KFLV	J 500	4		Postrford Progdesstore Inc
KGRS 💉	* 1000	î	Rockford, Ill. Amarillo, Texas	Rockford Broadcasters, Inc. Gish Radio Service
KGRS WAAB	* 500	Ċ	Boston, Mass.	Bay State Broadcasting Corp.
WBCM	* 500 * 1000	ç	Bay City, Mich. Amarillo, Texas	James E. Davidson
WDAG WHBL	* 1000 * 500	4	Sheboygan, Wis	National Radio & Broadcasting Corp. Press Pub. Co.
WHIS	† 250	2	Sheboygan, Wis. Bluefield, W. Va.	Daily Telegraph
WODX		3	Mobile, Ala.	Mobile Broadcasting Corp.
WRBX WSFA	* 250 † 500	1 C C 1 4 2 3 2 3	Roanoke, Va. Montgomery, Ala.	Richmond Development Corp. Montgomery Broadcasting Co., Inc.
				Wontgomery Broadcasting Co., Inc.
1420 l	kilocycl	es 2	211.1 meters	
KABC KBPS	† 100		San Antonio, Texas	Alamo Broadcasting Co.
KBPS KFIZ	* 100 100	4	Portland, Ore. Fond du Lac, Wis.	Benson Polytechnic Institute
KFQU	* 100	5	Holy City, Cal.	Reporter Printing Co.
KFÓW KFXD	* 100		Holy City, Cal. Seattle, Wash. Nampa, Idaho	W. E. Riker KFQW, Inc. Frank E. Hurt
KFXD	* 100		Nampa, Idaho	Frank E. Hurt
KFXY KFYO	† 100 † 100	-	Flagstaff, Arizona Abilene, Texas	Albert H. Scherman
KGFF	† 100		Shawnee, Okla.	T. E. Kirksey KGFF Broadcasting Co.
KGGC KGIW	† 100	5	San Francisco, Cal.	Golden Gate Broadcasting Co.
KGIW	† 100 † 100		Trinidad, Colo.	Leonard E. Wilson
KGKX	† 100		Las Vegas, Nevada Sand Point, Idaho	C. E. Twiss and F. H. McCann
KGVO	† 100	D	Missoula, Montana	Leonard E. Wilson Las Vegas, Nevada, Radio Corp. C. E. Twiss and F. H. McCann Mosby's Incorporated Red Oak Radio Corp.
KICK KORE	* 100 * 100		Red Oak, Iowa	red Car Radio Corp.
KXL	* 100	4	Missoula, Montana Red Oak, Iowa Eugene, Ore. Portland, Ore. Houston, Texas	Eugene Broadcasting Station KXL Broadcasters, Inc.
KXYZ	100		Houston, Texas	Harris County Broadcast Co.
WAGM WDEV	100 50	CP D	Presque Isle, Maine Waterbury, Vt.	Aroostook Broadcasting Corp. Harry C. Whitehill Erie Dispatch-Herald
WEDH	* 100		Erie, Pa.	Erie Dispatch-Herald
WEHS	100	2 X	Cicero, Ill. Battle Creek, Mich.	WEHS, Inc.
WELL WFDW	† 50 * 100		Appleton Ala	Enquirer-News Co.
WHFC	100	ž	Anniston, Ala. Cicero, Ill.	Raymond G. Hammett WHFC, Inc.
WIAS	† 100 * 50		Ottumwa, Iowa	Iowa Broadcasting Co.
WIBR WILM	* 50 * 100		Steubenville, Ohio Wilmington, Del.	George W. Robinson
WIBO	* 100 * 100		New Orleans, La.	Delaware Broadcasting Co., Inc. Valdemar Jensen
WJBO WJMS	100	CPD	Ironwood, Mich.	Valdemar Jensen Marius Johnson WKBI, Inc.
WKBI WLBF		2	Cicero, III.	WKBI, Inc.
WMBC	† 100 * 100	+	Kansas City, Kansas Detroit, Mich. Joplin, Mo.	WLBF Broadcasting Co. Michigan Broadcasting Co., Inc.
WMBH	100		T I'm A.	
	100	+	Jopun, Mo.	Edwin Dudley Aber
WPAD	† 100		Paducah, Kv.	Edwin Dudley Aber Paducah Broadcasting Co.
WSPA	† 100 * 100		Paducah, Kv.	Edwin Dudley Aber Paducah Broadcasting Co. Voice of South Carolina
WSPA WTBO	† 100 * 100 * 100		Paducah, Ky. Spartanburg, S. C. Cumberland, Md.	Edwin Dudley Aber Paducah Broadcasting Co.
WSPA WTBO	† 100 * 100 * 100		Spartanburg, S. C. Cumberland, Md.	Edwin Dudley Aber Paducah Broadcasting Co. Voice of South Carolina
WSPA WTBO 1430 1 KECA	* 100 * 100 * 100 xilocycl * 1000	es :	Spartanburg, S. C. Cumberland, Md.	Edwin Dudley Aber Paducah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc.
WSPA WTBO 1430 1 KECA	† 100 * 100 * 100 xilocycl ‡ 1000 500	es :	Spartanburg, S. C. Cumberland, Md.	Edwin Dudley Aber Paducah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co.
WSPA WTBO 1430 1 KECA KGNF WBAK	* 100 * 100 * 100 xilocycl ‡ 1000 † 500 † 500	es :	Spartanburg, S. C. Cumberland, Md.	Edwin Dudley Aber Paducah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police
WSPA WTBO 1430 1 KECA KGNF WBAK WCAH WFEA	* 100 * 100 * 100 * 100 * 1000 * 500 * 500	es nd+ccp	Paducah, Ky. Spartanburg, S. C. Cumberland, Md. 209.7 meters Los Angeles, Cal. North Platte, Nebr. Harrisburg, Pa. Columbus, Ohio	Edwin Dudley Aber Paducah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co.
WSPA WTBO 1430 1 KECA KGNF WBAK WCAH WFEA WGBC	* 100 * 100 * 100 * 100 * 1000 † 500 * 500 * 500 * 500	es zo+cc	Paducah, Ky. Spartanburg, S. C. Cumberland, Md. 209.7 meters Los Angeles, Cal. North Platte, Nebr. Harrisburg, Pa. Columbus, Ohio Manchester, N. H.	Edwin Dudley Aber Pactucah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Rines Hotel Co. Memphis Broadcasting Co.
WSPA WTBO 1430 1 KECA KGNF WBAK WCAH WFEA WFEA WHEC	* 100 * 100 * 100 * 100 * 1000 † 500 * 500 * 500 * 500 * 500 * 500	es zo+cc	Paducah, Ky. Spartanburg, S. C. Cumberland, Md. 209.7 meters Los Angeles, Cal. North Platte, Nebr. Harrisburg, Pa. Columbus, Ohio Manchester, N. H.	Edwin Dudley Aber Paducah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Rines Hotel Co. Memphis Broadcasting Co. Hickson Electric & Radio Corp.
WSPA WTBO 1430 1 KECA KGNF WBAK WCAH WFEA WGBC WHEC WHP WNBR	† 100 * 100 * 100 * 100 * 1000 † 500 † 500 * 500 * 500 * 500 * 500 * 500 * 500	es zo+cc	Paducah, Ky. Spartanburg, S. C. Cumberland, Md. 209.7 meters Los Angeles, Cal. North Platte, Nebr. Harrisburg, Pa. Columbus, Ohio Manchester, N. H.	Edwin Dudley Aber Pachucah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Rines Hotel Co. Memphis Broadcasting Co. Hickson Electric & adio Corp. WHP, The Harrisburg Telegraph
WSPA WTBO 1430 1 KECA KGNF WBAK WCAH WFEA WGBC WHEC WHP	† 100 * 100 100 * 100 * 1000 † 500 † 500 * 500 * 500 * 500 * 500 * 500	es zo+cc	Paducah, Ky. Spartanburg, S. C. Cumberland, Md. 209.7 meters Los Angeles, Cal. North Platte, Nebr. Harrisburg, Pa. Columbus, Ohio Manchester, N. H.	Edwin Dudley Aber Paducah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Rines Hotel Co. Memphis Broadcasting Co. Hickson Electric & Radio Corp.
WSPA WTBO 1 KECA KGNF WBAK WCAH WGBC WHEP WHEP WNBR WOKO	† 100 * 100 * 100 * 100 * 1000 † 1000 † 500 † 500 * 500	es ND 1+ CD CP 2S CD 1C+ D2 CD	Paducah, Ky. Spartanburg, S. C. Cumberland, Md. 209.7 meters Los Angeles, Cal. North Platte, Nebr. Harrisburg, Pa. Columbus, Ohio Manchester, N. H. Memphis, Tenn. Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn. Albany, N. Y.	Edwin Dudley Aber Pachucah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Rines Hotel Co. Memphis Broadcasting Co. Hickson Electric & adio Corp. WHP, The Harrisburg Telegraph Memphis Broadcasting Co. WOKO, Inc.
WSPA WTBO 1430 1 KECA KGNF WBAK WCBC WHEC WHEC WHP WNBR WOKO 1440 1	* 100 * 100 * 100 cilocycl † 1000 † 500 † 500 * 500	es ND 1+ CCP 2S CC 1C+ CCP 2C CC 1CC+ CC 2 CC 1CC+ CC 2 CC 1CC+ CC 2 CC 1CC+ CC 2 CC 1CC+ CC+	Paducah, Ky. Spartanburg, S. C. Cumberland, Md. 209.7 meters Los Angeles, Cal. North Platte, Nebr. Harrisburg, Pa. Columbus, Ohio Manchester, N. H. Memphis, Tenn. Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn. Albany, N. Y. 208.2 meters	Edwin Dudley Aber Pachucah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Rines Hotel Co. Memphis Broadcasting Co. Hickson Electric & adio Corp. WHP, The Harrisburg Telegraph Memphis Broadcasting Co. WOKO, Inc.
WSPA WTBO 1430 1 KECA KGNF WBAK WCAH WGBC WHEC WHEC WHEC WHEC WHEC WHEC WHEC WHE	† 100 * 100 * 100 * 100 * 1000 † 1000 † 500 † 500 * 500	es N D 1+ C C C C C C C C C C C C C C C C C C	Paducah, Ky. Spartanburg, S. C. Cumberland, Md. 209.7 meters Los Angeles, Cal. North Platte, Nebr. Harrisburg, Pa. Columbus, Ohio Manchester, N. H. Memphis, Tenn. Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn. Albany, N. Y. 208.2 meters Oakland, Cal.	Edwin Dudley Aber Pactucah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Barle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Rines Hotel Co. Memphis Broadcasting Co. Hickson Electric & adio Corp. WHP, The Harrisburg Telegraph Memphis Broadcasting Co. WOKO, Inc.
WSPA WTBO 1430 1 KECA KGNF WBAK WCBC WHEC WHEC WHP WNBR WOKO 1440 1	* 100 * 100 * 100 cilocycl † 1000 † 500 † 500 * 500	es ND 1+ CCP 2S CC 1C+ CCP 2C CC 1CC+ CC 2 CC 1CC+ CC 2 CC 1CC+ CC 2 CC 1CC+ CC 2 CC 1CC+ CC+	Paducah, Ky. Spartanburg, S. C. Cumberland, Md. 209.7 meters Los Angeles, Cal. North Platte, Nebr. Harrisburg, Pa. Columbus, Ohio Manchester, N. H. Memphis, Tenn. Rochester, N. Y. Harrisburg, Pa. Memphis, Tenn. Albany, N. Y. 208.2 meters	Edwin Dudley Aber Pachucah Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp. Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Rines Hotel Co. Memphis Broadcasting Co. Hickson Electric & adio Corp. WHP, The Harrisburg Telegraph Memphis Broadcasting Co. WOKO, Inc.

			INIDE	37 D	V PRESIDENCIES A	ATT DIAL AND ADDRO	
		/.			-	ND DIAL NUMBERS	
W	MBD SAN TAD	* †	500 250 500	3+ 1 3	Peoria Heights, III. Allentown, Pa. Quincy, III.	Peoria Broadcasting Co. Allentown Call Publishing Co., Inc. Illinois Broadcasting Corp.	
			_			- 11	
1	450	kil	ocycl	es	206.8 meters	972	
K	TBS BMS	*	1000 250	i	Shreveport, La. Hackensack, N. J.	Tri-State Broadcasting System, Inc. WBMS Broadcasting Corp.	
W	GAR HOM	4	500	N 1	Cleveland, Ohio	WGAR Broadcasting Co.	
w	KBO NJ SAR	*	500 250 250	1	Jersey City, N. J. Jersey City, N. J. Newark, N. J.	New Jersey Broadcasting Corp. Camith Corp.	
W	SAR	*	250		Fall River, Mass.	Radio Investment Co. Doughty & Welch Electric Co., Inc. Toccoa Falls Broadcasting Co.	
w	TFI		500		Athens, Ga.	Toccoa rans broadcasting Co.	
1	460	kil	ocycl	es	205.4 meters	9	
K	STP •	*	10000	N	St. Paul, Minn.	National Battery Broadcasting Co.	
. W	JŞV	*	10000		Alexandria, Va.	Independent Publishing Co.	
_	480				2010		
1	4 70	kil	ocycl	es	204.0 meters	8	
. K	GA LAC #	/ <u>†</u>	5000 5000	N C	Spokane, Wash. Nashville, Tenn.	Northwest Broadcasting System, Inc. Life & Casualty Insurance Co.	
,		`			,		
1	480	kil	ocycl	es	202.6 meters	8	
K	FJF *	*	5000	C	Oklahoma City	National Radio Mfg. Co.	
W	KBW	*	5000	С	Buffalo, N. Y.	Buffalo Broadcasting Co., Lessees	
	A04				201.2	· ·	
			ocycl	es	201.2 meters	7	
W	CKY CHI #	*-	5000 5000	í	Hamilton, Bermuda Chicago, Ill.	People's Pulpit Association	
W	JAZ		5000 5000	1N 1	Covington, Ky. Chicago, III.	L. B. Wilson, Inc. Zenith Radio Corp.	
1	500	kil	ocycle	es	199.9 meters	6	
C	MBL		20		Havana, Cuba	Julio C. Hidalgo Gali-Sardinas	
CI	MBQ MBR	2-	50 15		Havana, Cuba Havana, Cuba	Tomas Basail	
K	DB GFI	۶	100 100	+	Corpus Christi, Texas	Santa Barbara Broadcasters, Ltd. Eagle Broadcasting Co., Inc.	
	GFK / GIZ	į,	50 100		Moorhead, Minn. Grant City, Mo.	Red River Broadcasting Co., Inc. Grant City Park Corp.	
K	GKB GKY I	/*-	100 100		Grant City, Mo. Tyler, Texas Scottsbluff, Nebr.	Eagle Publishing Co. Hilliard Co., Inc.	
K	РЈМ	*	100		Prescott, Arizona	A. P. Miller Wescoast Broadcasting Co.	
K	PQ REG	/	50 100		Wenatchee, Wash. Santa Ana, Cal.	J. S. Edwards	
	UT 🗸 XO	*	100 100		Austin, Texas El Centro, Cal.	KUT Broadcasting Co. E. R. Irey and F. M. Bowles	
W	DIX KBV	 *	100 100	+	Tupelo, Miss. Connersville, Ind.	North Mississippi Broadcasting Corp. Knox Battery & Electric Co.	
W	KBZ	†	50	i	Ludington, Mich.	K. L. Ashbacker	
W	LBX	*	100 100	+	Long Island City, N. Y Boston, Mass.	Boston Broadcasting Co.	
W	MBA MBQ	† *	100 100	i	Newport, R. I. Brooklyn, N. Y.	LeRoy Joseph Beebe Paul J. Gollhofer	8
W	MIL MPC	† † *	100 100	1	Brooklyn, N. Y. Lapeer, Mich.	Arthur Faske First M. P. Church	KCYS.
W	NBF OPI	*	100 100		Binghamton, N. Y. Bristol, Tenn.	First M. P. Church Howitt, Wood Radio Co., Inc. Radiophone Brdcstg, Station, Inc.	1500
W	PEN RDW	*	100 100	+	Philadelphia, Pa.	Wm. Penn Broadcasting Co. Musicove, Inc.	MTRS.
W	\mathbf{SYB}	†	100	ĩ	Augusta, Ga. Rutland, Vt. Woodside, N. Y.	Philip Weiss Music Co. Long Island Broadcasting Corp.	199.9
	WRL WSW	*	100 100		Pittsburgh, Pa.	William S. Walker	DIAL
							DIAL

DIAL

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ALABAMA	Watts		Kcys.	San Jose J-1	500	KQW KREG	1010
Anniston O-22	100	WFDW	1420	Santa Ana M-3 Santa Barbara M-2	100 100	KREG KDB	1500 1500
Birmingham O-21	5000	WAPI	1140	Santa Maria L-2	100	KSMR	1200
	500 100	WBRC WKBC	930 1310	Stockton J-2	250	KGDM	1100
Gadsden O-21	100	WIBY	1210		100	KWG	1200
Huntsville N-21	50	WJBY WBHS	1200	COLORADO			
Mobile Q-20	500	WODX	1410		1000	IZVOD	1270
Montgomery P-21	500	WSFA	1410	Colorado Springs K-11 Denver K-11	1000 500	KVOR KFBL	1270 920
				Denver R-11	100	KFUP	1310
ALASKA					500	KFXF	920
Anchorage	100	KFOD	1230		1000 12500	KLZ KOA	560 830
Ketchikan	500	KGBU	900		500	KPOF	880
		*.,	.	Fort Morgan J-11	100	KGEW	1200
ARIZONA		,		Grand Junction K-9	100	KFXJ	1310
				Greeley J-11 Pueblo L-11	500 250	KFKA KGHF	· 1320
Flagstaff M-7	100 100	KFXY	1420 1310	Trinidad L-11	100	KGIW	1420
Jerome M-6 Phoenix N-6	500	KOY	1390	Yuma J-12	100	KGEK	1200
	500	KCRJ KOY KTAR	620				
Prescott M-6 Tucson O-7	100 100	KPJM KGAR	1500 1370	CONNECTICUT			
	500	KVOA	1260	Bridgeport H-27	250 500	WICC	600 1330
-			- 1	Hartford H-27	50000	WTIC 6	1330 60 -10 60
ARKANSAS				Storrs H-28	250	WCAC	6 0 0
Blytheville M-19	50	KLCN	1290	DELAWARE			
Fayetteville M-16 Fort Smith N-16	1000 50	KUOA KFPW	1390 1340		250	WDEL	1120
Hot Springs N-17	10000	KTHS	1040	Wilmington J-26	100	WILM	1420
Little Rock N-17	100	KGHI	1200				
	250 1000	KGJF KLRA	890 1390	DISTRICT OF O	COLUI	MBIA	
Paragould M-18	100	KBTM	1200	Washington J-26	250	WMAL	630
r aragodio ivi-10	100	101111	1200		500	WRC	950
CALIFORNIA		,			100	WOL	1310
	100	KRE	1370	FLORIDA			
Berkeley J-2 Beverly Hills M-3	500	KMPC	710	Clearwater R-24	1000	WFLA	620
Burbank M-3	500	KELW	780 l	Gainesville Q-24	5000	WRUF	830
Culver City M-3 El Centro N-4	250	KFVD KXO	1000 1500	Jacksonville Q-24	1000	WJAX WIOD	900
Fresno K-2	100 100	KMI	1210	Miami T-25	1000 1000	WQAM	1300 560
Hollywood M-3	1000	KMJ KFWB	950 l	Orlando R-24	500	WDBO	1120
-	500	KMTR	570 1050	Pensacola Q-21	500	WCOA	1340
Halm Citar V 1	5000 100	KNX KFQU	1420	St. Petersburg S-24	1000 1000	WSUN WDAE	620 1220
Holy City K-1 Inglewood M-3	500	KMCS	1120	Tampa R-24	1000	WMBR	1370
Long Beach M-3	1000	KFOX	1250	1	100	*********	10,0
_	1000	KGER	1360 j	GEORGIA			
Los Angeles M-3	1000	KECA KFAC	1430 1300	Athens O-23	500	WTFI	1450
	1000 5 0000	KFI	640	Atlanta O-22	250	WGST	890
	400	KFSG	1120		5000	WSB	740
	1000	KGEF	1300	Augusta O-23 Columbus O-22	100	WRDW WRBL	1500 1200
	100	KGFJ	1200 900	Macon O-23	50 500	WMAZ	1180
	1000 500	KHJ KTM	780	Rome N-22	100	WFDV	1310
Oakland J-1	250	KLS	1440	Savannah O-24	500	WTOC	1260
•	500	KLS KLX	880	Thomasville Q-22	100 100	WQDX WJTL	1210 1370
Danadana M 2	500	KROW KPPC	930	Tifton P-23	100	WILL	13/0
Pasadena M-3 Sacramento J <i>-</i> 2	50 100	KFBK	1210 1310	HAWAII			
San Bernardino M-3	100	KFXM	1210	Honolulu	250	KGMB	1320
San Diego N-3	500	KFSD	600	Lionolala	1000	KGU	940
San Francisco J-1	500 1000	KGB KFRC	1330		_,,_,		2 - 0
Sam Lancisco 1-1	500	KFWI	610 930	IDAHO			
	100	KGGC	1420	Boise G-5	1000	KIDO	1350
		KGO	790 l	Idaho Falls G-7	250	KID	1320
	7500						
	7500 100	KJBS	1070	Nampa G-5	50 250	KFXD	1420
	7500		1070 680 560	Nampa G-5 Pocatello H-7 Sand Point D-6	50 250 100	KFXD KSEI KGKX	900 1420

ILLINOIS	Watts	Kcys.	Shenandoah J-16	500	KFNF	890
Carthage J-18	50 WCAZ	1070	Sioux City I-15	500 1000	KMA KSCJ	930 1330
Chicago I-20	10000 KFKX 10000 KYW 500 WAAF	1020 1020	Waterloo I-17	500	`KSCJ WMT	600
	500 WAAF	920 770	KANSAS			
	25000 WBBM 1500 WCFL	970	Dodge City L-13	100	KGNO	1210
	5000 WCHI 100 WCRW	1490 1210	Kansas City K-16 Lawrence K-16	100	KGNO WLBF	1420
	100 WEDC	1210 870	Lawrence K-16	500 1000	KFKU WREN	1220 1220
	50000 WENR 500 WGES	870 1360	Manhattan K-15	500	KSAC	580
	25000 WGN	720	Milford K-14 Topeka K-16	5000 1000	KFBI WIBW	1050 580
	1000 WIBO 5000 WJAZ	560 1490	Wichita L-15	1000	KFH	1300
	25000 WJBT	770 870	REMITTICELY			
	50000 WLS 5000 WMAQ		KENTUCKY	5000	WCKY	1490
	5000 WMBI	1080	Covington K-22 Hopkinsville M-20	1000	WFIW	940
	500 WPCC 100 WSBC	560 1210	Louisville L-21	10000 250	WHAS WLAP	820 1010
Cicero I-20	100 WEHS	1420	Paducah M-19	100	WPAD	1420
	100 WHFC 100 WKBI	1420 1420				
Decatur K-19	100 WJBL	1200	LOUISIANA			
Galesburg J-18 Harrisburg L-19	100 WKBS 100 WEBQ	1310 1210	Monroe P-18 New Orleans R-19	100 100	KMLB WABZ	1200 1200
Joliet I-19	100 WCLS	1310	New Orleans R-19	1000	WDSU	1250
La Salle J-19	100 WKBB 100 WJBC	1310 1200		100 100	WJBO	1420 1200
Mooseheart 1-19	20000 WJJD	1130	w	500	WJBW WSMB	1320
Peoria Heights J-19 Quincy K-18	500 WMBD 500 WTAD	1440 1440		5000 50	WWL KRMD	850 1310
Rockford I-19	500 KFLV	1410	Shreveport P-17	1000	KTBS KWEA	1450
Rock Island I-18 Springfield K-19	100 WHBF 100 WCBS	1210 1210		100 10000	KWEA KWKH	1210 850
-	100 WTAX	1210		10000	KWKII	000
Tuscola K-20 Urbana J-20	100 WDZ 250 WILL	1070 890	MAINE			
Zion I-20	5000 WCBD	1080	Augusta F-28	100	WRDO	1370
			Bangor F-29	100 500	$egin{array}{c} \mathbf{WABI} \\ \mathbf{WLBZ} \end{array}$	1200 620
INDIANA			Portland F-28	1000 100	WLBZ WCSH WAGM	940 1420
Anderson J-21 Connersville K-21	100 WHBU	1210	Presque Isle D-29	100	WAGINI	1420
Connersville K-21 Culver I-20	100 WKBV 500 WCMA	1500 1400	MARYLAND			
Elkhart I-21	50 WJAK	1310	Baltimore J-26	10000 250	WBAL 7 WCAO	60-1060 600
Evansville L-20 Fort Wayne J-21	500 WGBF 100 WGL	630 1370		100	WCBM	1370
	10000 WOWO	1160	Cumberland J-25	500 100	WFBR WTBO	1270 1420
Gary I-20 Hammond I-20	1000 WJKS 100 WWAE	1360 1200	Cumberiand J-25	100	WIDO	1420
Indianapolis J-21	1000 WFBM	1230 1400	MASSACHUSE	TTS		
Lafayette J-20	500 WKBF 500 WBAA	1400	Boston G-28	500 1000	WAAB WBIS	1410 1230
Muncie J-21	50 WLBC	1310		1000	WEEI	590
South Bend I-20	100 WFAM 500 WSBT	1200 1230		1000	WHDH WLOE	830 1500
Terre Haute K-20	100 WBOW	1310		100 1000	WNAC	1230
			Fall River H-28	250 100	WSAR WLEY	1450 1370
IOWA			Lexington G-28 Needham G-28	500	WBSO	920
Ames I-17	5000 WOI 100 KFGQ	640 1310	New Bedford H-28	100	WNBH	1310
Boone I-17 Cedar Rapids I-18	100 KWCR	1310	Springfield H-27 Worcester G-28	25000 100	WBZ-A WEPS	990 1200
Clarinda J-16 Council Bluffs J-16	500 KSO 1000 KOIL	1380 1260		100	WORC	1200
Davenport I-18	5000 WOC	1000		250	WTAG	580
Decorah H-18	50 KGCA	1270 1270	MICHIGAN			
Des Moines I-17	100 KWLC 5000 WHO	1000	Battle Creek I-21	_50	WELL	1420
Fort Dodge I-16	100 KFJY	1310	Bay City H-22 Calumet E-19	500 100	WBCM WHDF	1410 1370
Iowa City I-18 Marshalltown I-17	100 KFIB	880 1200	Detroit H-22	50	WJBK WJR	1370
Ottumwa J-17	100 WIAS	1420		5000 100	WJR WMBC	750 1420
Red Oak J-16	100 KICK	1420		100		
			The state of the s			

Detroit H-22								
Filint H-22	Detroit H-22		wwj		NEVADA	Watts		Kcvs.
Filint H-22	Fast Lansing H-21		WKAR	1240				
Frontwood F-18	Flint H-22	100	WFDF	1310	Reno I-3	500	KOH	1380
Promoto F-18 100 Wilss 1370 Michael 1370	Grand Rapids H-21	500	WASH	1270	NEW HAMPSHI	BE		
Ralamazoo 1-21 1000 WKZO 590 100	Ironwood F-18		WJMS				WIZAW	1210
NEW JERSEY 120	Jackson I-21		WIBM	1370		500	WFEA	
Ludington H-20	Kalamazoo I-21 Langer H-22		WKZO	1500				
MINNESOTA	Ludington H-20	50	WKBZ	1500				
MINNESOTA	Marquette F-19		WBEO		Asbury Park I-27		WCAP	
MINNESOTA Fergus Fails F-15 100 KGDE 1200 Minneapolis G-17 5000 WCCO 810 1000 WCCO 1100 WCCO 1100 WCCO 1200 WCCO	Royal Oak H-22	50	WEXL	1310	Atlantic City J-27	5000 500	WPG WCAM	1100 1280
Fergus Falls F-15	MINNESOTA			- 1	Hackensack I-27	250		
Moorhead F-15 50 WCGY 1180 Moorhead F-15 50 KGFK 1500 WAM 1250 Moorhead G-17 1000 WCAL 1250 Moorhead G-17 1000 WORA 1250 Moorhead G-17 1000 WORA 1250 Moorhead G-17 1000 WORA 1250 Moorhead G-17 1000 WCGM 1210 Moorhead G-18 Moorhead G-17 1000 WCM 1250 Moorhead G-17 1250 Moorhead G-18 Moorhead G-18			KGDE			300	WAAT	
Moorhead F-15 50 KGFK 1500 Northfield G-17 1000 KFMX 1250 1000 WCAL 1250 1000 WSTP 1460 1250 1000 WSTP 1460 1250 1000 WSTP 1460 1250 1000 WSTP 1460 1250 1000 WGCM 1210 1000 WGCM 1270 1000 WGCM 1270 1000 WGCM 1270 1000 WGCM 1270 1000 WGCM 1260 1000 WGC	Minneapolis G-17	5000	WCCO	810		250	WKBO	
Morthead G-15		1000	WRHM	1250	Newark I-27	1000	WAAM	1250
St. Paul G-17		50	KGFK	1500	i	250	WGCP	1250
St. Paul G-17	Northfield G-17		KFMX	1250	l	5000		
MISSISSIPPI	St. Paul G-17		WLAL	1250	Paterson I-27	1000	WODA	1250
MISSISSIPPI Greenville O-18				1460			WJBI	
Treenville O-18	MICCICCIDDI				Zarephath I-27		WAWZ	
Guifport Q-19		100	WDDO	1210				
State College P-9	Gulfport O-19	100	WKBQ	1210	NEW MEXICO			
State College P-9	Hattiesburg Q-19	10	WRBI	1370	Albuquerque N-7	250	KGGM	
Meridian P-20	Jackson P-19	1000	WJDX	1270	Raton M-11			
Tupelo N-20			WCOC	880	State Conege 1-9	20000	ROD	1100
MISSOURI Cp. Girardeau L-19	Tupelo N-20	100	WDIX	1500	NEW YORK			
MISSOURI	Vicksburg P-18	500	WQBC	1360	Albany H-27		WOKO	
Columbia K-17	MISSOURI			- 1	Auburn H-25	100	WMBO	1310
Columbia K-17		100	KFVS	1210	Brooklyn I-27			1400
South Control of the control of th	Columbia K-17	500	KFRU	630		1000	WBBR	1300
South Control of the control of th	Grant City J-16 Lefferson City L-17		WOS	1500 630	1		WEGU	
100 WWC 1370 1000 WBEN 900 1000 WBEN 900 1000 WGEN 1310 1000 WGEN	Joplin M-16	100	WMBH	1420		500	\mathbf{WLTH}	
St. Joseph K-16	Kansas City K-16		KMBC	950			WMBQ	
St. Joseph K-16		1000	WDAF	610	Buffelo H_24	1000		
St. Joseph K-16		500	WHB	860	Bunalo 11-24	100	WEBR	1310
St. Louis L-18	St. Tossals IV 16	1000	WOO	1300		1000	WGR	550
St. Louis L-18	St. Joseph K-16				l		WKBW	
Secret Falls E-8	St. Louis L-18	500	KFUO	550		50	wsvs	1370
S00 KSD S50 S50 1000 KWK 1350 1000 WEW 760 100 WIL 1200 100 WIL 1210 1000 WIL 1210 12							WCAD	
1000 KWK 1350 1000 WEAT 1270 1000 WEAT 1270 100 WIL 1200				550				
MONTANA 1200 MIL 1200 MONTANA 1210 MONTANA 1210 MONT		1000	KWK	1350				
Billings F-9				760			WLCI	
Billings F-9	NACONITANIA	100	WIL	1200		100 50	WOCL	
State Column Co		1000	исти	050	Long Island City I-27	100	WLBX	
Great Falls E-8 1000 KFBB 1280	Butte F-7		KGIR	1360	New York City I-27		WABC	
Raispell D-7	Great Falls E-8	1000	KFBB	1280	İ	50000		
Wolf Point E-11	Kalispell D-7		KGEZ	1310		250	WCDA	
NEBRASKA	Wolf Point E-11		KGCX	1310			WEAF	
NEBRASKA		200	110011	1010		500 500	WEVD	1300 1180
Lincoln J-15				,	1	1000	WHAP	1300
S00 WCAJ S90 S00 WMCA S70				740			WHN	1010
S00 WCAJ S90 S00 WMCA S70	Lincoln J-15		KFOR	1210			WLWI	
Nortolk I-15		500	WCAI	590		500	WMCA	570
Omaha J-15 500 WAW 660 loo 1000 WOV 1130 loo Ravenna J-14 100 KGFW 1310 loo 500 WPCH 570 loo Scottsbluff I-11 100 KGKY 1500 loo 250 WPAP 1010 loo	Norfolk I-15		WJAĞ	1060			WMSG	
1000 WOW 590 250 WPAP 1010 Ravenna J-14 100 KGFW 1310 500 WPCH 570 Scottsbluff I-11 100 KGKY 1500 250 WOAO 1010	Omaha J-15		WAAW	660			WOV	570 1130
Ravenna J-14 100 KGFW 1310 500 WPCH 570 Scottsbluff I-11 100 KGKY 1500 250 WOAO 1010		1000	wow	590		250	WPAP	1010
York J-15 500 KGBZ 930 250 WRNY 1010							WPCH	570
700				930		250 250	WRNY	
	Fe							1010

Patchogue I-27	1310 1180 1420 940 1300 1060 1060 1420 1440 1310 1420 1310 1430 1430 1310 1200 1310 1210 1310 1210 1310 13
Rochester G-25	1180 1420 940 1300 1060 1060 1420 1440 1310 1200 1430 1430 1310 1200 1430 1310 1200 1310 1210 1210 1210 1210 12
Saranac Lake F-26	1420 1300 620 940 1300 1060 1420 1440 1310 1200 1310 1430 1200 1430 1200 1200 1260 1170 610 610
Syracuse G-25	1440 13100 1420 1440 1310 1200 1310 1430 1430 1310 1200 1310 1200 1310 1200 1310 1200 1310 131
Syracuse G-25	940 1300 1060 1420 1440 1310 1200 1310 1420 1310 1200 1310 1200 1310 1210 1210 12
250	1300 1060 1420 1440 1310 1200 930 1420 1310 1430 1200 1210 1210 1210 1210 1270 1370 610
Troy G-27	1440 1440 1440 1310 1310 1320 1310 1430 1430 1310 1210 1210 1210 1260 1170 1370 610
Troy G-27	1440 1440 1310 1200 1310 1420 1310 1430 1210 1210 1210 1260 1170 1370 610
Utica G-26	1440 1310 1200 930 1420 1310 1200 1430 1310 1200 1210 1260 1170 1370 610 560
NORTH CAROLINA	1440 1310 1200 930 1420 1310 1200 1430 1310 1200 1210 1260 1170 1370 610 560
NORTH CAROLINA Asheville M-23	1440 1310 1200 930 1420 1310 1200 1430 1310 1200 1210 1260 1170 1370 610 560
NORTH CAROLINA	1440 1310 1200 930 1420 1310 1200 1430 1310 1200 1210 1260 1170 1370 610 560
Asheville M-23 1000 WWNC 570 Charlotte M-24 5000 WBT 1080 Gastonia M-24 100 WSOC 1210 Greensboro M-24 500 WBIG 1440 Greensboro M-25 1000 WPTF 680 Wilmington N-26 100 WRAM 1370 Winston-Salem M-24 100 WSJS 1310 NORTH DAKOTA Bismarck F-13 1000 KFYR 550 Devils Lake E-14 100 KDLR 1210 Fargo F-15 1000 WDAY 940 Grand Forks E-15 100 KFJM 1370 Minot E-13 100 KCCU 1240 Minot E-13 100 WCCU 1240 Minot E-13 100 WGCU 1240 OHIO Akron I-23 100 WFBC 1320 Cincinnati K-22 100 WFBE 1200 Cincinnati K-22 100 WFBE 1200 Cileveland 1-23 500 WGAR 1450 Cleveland 1-23 500 WGAR 1450 Asheville M-23 1000 WBT 1080 Carbondale H-26 10 WWBW Elkins Park I-26 125 500 WEBH Harrisburg I-25 500 WBAK 100 WCOD WCOD WCOD WCOD WCOD WCOD WHP Johnstown J-24 100 WJAC Lewisburg I-26 100 WGAL 1000 WKJC Lewisburg I-26 100 WGAL 1000 WCAU Philadelphia I-26 1000 WCAU Philadelphia I-26 100 WFAN 500 WFIN 1000 WEAK 500 WFIN 1000 WCAE	1310 1200 930 1420 1310 1430 1230 1310 1310 1210 1260 1170 610 560
Asheville M-23	1200 930 1420 1310 1430 1430 1310 1310 1200 1210 1260 1170 610 560
Charlotte M24 5000 WBT 1080 Gastonia M-24 100 WSOC 1210 Greensboro M-24 500 WBIG 1440 Grove City I-24 100 WSAJ Harrisburg I-25 500 WBAK 1310 WSAJ Harrisburg I-25 500 WBAK WIlmington N-26 100 WRAM 1370 100 WCOD WSJS 1310 WSJS WSJ	930 1420 1310 1430 1430 1310 1310 1200 1210 1260 1170 1370 610 560
Gastonia M-24	1420 1310 1430 1200 1430 1310 1210 1210 1260 1170 1370 610 560
Greensboro M-24 500 WBIG 1440 Grove City I-24 100 WSAJ Maleigh M-25 1000 WPF 680 Wilmington N-26 100 WRAM 1370 100 WCOD Winston-Salem M-24 100 WSJS 1310 WSJS 1310 WSJS 1310 WIRW 1370	1430 1200 1430 1310 1310 1200 1210 1260 1170 1370 610 560
Wilmington N-26 100 WRAM 1370 Winston-Salem M-24 100 WSJS 1310 NORTH DAKOTA Johnstown J-24 100 WGAL Bismarck F-13 1000 KFYR 550 Lewisburg I-26 100 WBJC Lewisburg I-24 500 WLBW Philadelphia I-26 100 WEAL Fargo F-15 100 KFJM 1370 Holicate Philadelphia I-26 1000 WCAU Grand Forks E-15 100 KGCU 1240 Holicate Philadelphia I-26 1000 WEAN Mandan F-13 100 KCPM 1240 1000 WFAN OHIO Akron I-23 100 WHBC 1200 Canton I-23 100 WFE 1200 Canton I-23 100 WFE 1000 WEA Cincinnati K-22 100 WFE 550 Holicate Philadelphia I-24 5000 KDKA Cieveland I-23 500 WGR 1320 Holicate Philadelphia I-24 5000	1200 1430 1310 1310 1200 1210 1260 1170 1370 610 560
Winston-Salem M-24 100 WSJS 1310 100 WSJS 1310 WSSJS 1310 WSSJ	1430 1310 1310 1200 1210 1260 1170 1370 610 560
NORTH DAKOTA Bismarck F-13	1310 1310 1200 1210 1260 1170 1370 610 560
NORTH DAKOTA Bismarck F-13	1310 1200 1210 1260 1170 1370 610 560
NORTH DAKOTA Bismarck F-13	1200 1210 1260 1170 1370 610 560
Devis Lake B-14 100 WDLR 1210 Philadelphia I-26 1000 WCAU	1260 1170 1370 610 560
Devis Lake B-14 100 WDLR 1210 Philadelphia I-26 1000 WCAU	1170 1370 610 560
Fargo F-15	1370 610 560
Grand Forks E-15	610 560
Minot E-13 100 KLPM 1240 100 WHAT 500 WIP 500 WLIT 100 WPEN 1200 Canton I-23 100 WFBC 1200 Cincinnati K-22 100 WFBC 1200 1000 WKRC 550 50000 WLW 700 1000 WSAI 1330 1000 WJAS 1000 WJAS 1000 WSAI 1330 1000 WJAS 1000 WJAS 1000 WJAS 1000 WJAS 1000 WSAI 1450 1000 WSW	560
Minot E-13 100 KLPM 1240 100 WHAT 500 WIP 500 WLIT 100 WPEN 1200 Canton I-23 100 WFBC 1200 Cincinnati K-22 100 WFBC 1200 1000 WKRC 550 50000 WLW 700 1000 WSAI 1330 1000 WJAS 1000 WJAS 1000 WSAI 1330 1000 WJAS 1000 WJAS 1000 WJAS 1000 WJAS 1000 WSAI 1450 1000 WSW	
OHIO Akron I-23	1310
Canton I-23 1000 WADC 1320 250 WRAX Canton I-23 10 WHBC 1200 1000 WFE 1200 1000 WKC 550 WLW 700 1000 WSAI 1330 1000 WJAS 1000	610
Akron I-23 1000 WADC 1320 250 WRAX Canton I-23 10 WHBC 1200 Cincinnati K-22 100 WFBE 1200 1000 WKRC 550 50000 WLW 700 1000 WSAI 1330 Cleveland I-23 500 WGAR 1450 Pittsburgh J-24 50000 WCAE 1000 WSAI 1330 1000 WJAS	560
Canton I-23 10 WHBC 1200 Cincinnati K-22 100 WFBE 1200 1000 WKRC 550 50000 WLW 700 1000 WSAI 1330 Cleveland I-23 500 WGAR 1450 1000 WSW	1500
Cincinnati K-22 100 WFBE 1200 Pittsburgh J-24 50000 KDKA 1000 WKRC 550 KOV 1000 WLW 700 1000 WSAI 1330 1000 WJAS 100	1020
1000 WKRC 550 500 KQV 50000 WLW 700 1000 WCAE 1000 WSAI 1330 1000 WJAS Cleveland 1-23 500 WGAR 1450 100 WWSW	1310 980
1000 WSAI 1330 1000 WJAS Cleveland 1-23 500 WGAR 1450 100 WWSW	1380
1000 WSAI 1330 1000 WJAS Cleveland 1-23 500 WGAR 1450 100 WWSW	1220
Cleveland I-23 500 WGAR 1450 100 WWSW	1290
	1500
1000 WHK 1390 Reading I-26 1000 WEEU 500 WIAY 610	830
500 WJAY 610 50000 WTAM 1070 Scranton H-26 250 WGBI	1310 880
Columbus J-22 500 WAIU 640 250 WQAN	880
500 WCAH 1430 State College I-25 500 WPSC	1230
750 WEAO 570 Washington J-24 100 WNBO	1200
100 WSEN 1210 Wilkes-Barre I-26 100 WBAX	1210
Dayton J-22 200 WSMK 1380 Williamsport I-25 100 WBRE Mansfield J-22 100 WJW 1210 Williamsport I-25 100 WRAK	1310 1370
Mansfield J-22 100 WJW 1210 Williamsport I-25 100 WRAK Mount Orab K-22 100 WHBD 1370	13/0
Steubenville J-23 50 WIBR 1420	
Toledo I-22 1000 WSPD 1340 PHILIPPINES	
Youngstown I-23 500 WKBN 570 Cebu 500 KZRC	937.5
Zanesville J-23 100 WALR 1210 Central Manila 1000 KZKA	1110
500 KZRM	625
OKLAHOMA	,
II DODTO DICO	
Chickasha N-14 250 KOCW 1400 PORTO RICO Enid M-14 100 KCRC 1370 San Juan W-34 250 WKAQ	890
Norman N-15 500 WNAD 1010 San Juan w-34 250 WRAQ	890
Oklahoma N-15 5000 KFJF 1480	
100 KEYD 1310 II	
100 KGFG 1370 RHODE ISLAND	
1000 WKY 900 Newport H-28 100 WMBA	1500
Ponca City M-15 100 WBBZ 1200 Pawtucket H-28 100 WPAW	1210
S. Coffeyville M-15 500 KGGF 1010 Providence H-28 250 WEAN	780
Shawnee N-15 100 KGFF 1420 250 WJAR Tulsa M-15 5000 KVOO 1140 100 WPRO	890
Tulsa M-15 5000 KVOO 1140 100 WPRO	1210
OREGON	
II COUTH CAROLINA	
Corvallis E-2 1000 KOAC 550 Charleston O-25 500 WCSC Eugene F-2 100 KORE 1420 Columbia N-24 500 WIS	1260
Marshfield F-1 100 KOOS 1370 Spartanburg N-23 100 WSPA	1360 1010
100 110	1360 1010 1420

SOUTH DAKO	TA Watt	s	Kcys.	VIRGINIA	Watts		Kcys
Brookings H-15	500	KFDY	550	Alexandria K-26	10000	WJSV NAA	1460
Huron H-14	100	KGDY	1200	Arlington J-25 Danville L-25	1000	NĂA	690
Mitchell H-14	100	KGDA	1370	Danville L-25	100	WBTM	1370
Pierre G-13 Rapid City H-12 Sioux Falls H-15	200	KGFX WCAT	580	Emory L-23	500	WEHC	1350
Rapid City H-12	100	KSOO	1200	Lynchburg L-25 Newport News L-26	100 100	WLVA WGH	1370 1310
Vermillion I-15	2500 500	KUSD	1110 890	Norfolk L-26	500	WPOR	780
Watertown G-15	100	KGCR	1210	1 1021021 2 20	500	WTAR	780
Yankton I-15	1000	WNAX	570	Petersburg L-26	100	WLBG	1200
				Richmond K-26	100	WBBL	1210
TENNESSEE				l	100	WMBG	1210
	100	WOPI	1500	Roanoke L-24	5000 250	WRVA WDB I	1110 930
Bristol L-23	100 1000	WDOD	1500 1280	Roanoke L-24	250	WRBX	1410
Chattanooga N-21 Jackson N-20	100	WTJS	1310		200	**********	1110
Knoxsville M-22	50	WFBC	1200	WASHINGTON			
	1000	WNOX	560	Aberdeen D-2	100	KXRO KVOS	1310
	100	WROL	1310	Bellingham C-3	100	KVOS	1200
Memphis N-19	500 100	WGBC	1430 1370	Everett C-3	50	KFBL	1370
	500	WHBQ WMC	780	Lacey D-3 Pullman E-5	10 1000	KGY KWSC	1200 1220
	500	WNBR	1430	Seattle C-3	100	KFOW	1420
	500	WREC	600	5545545 6 5	5000	KJŘ	970
Nashville M-21	5000	WLAC	1470 l		1000	KOL	1270
	5000	WSM	650	i	1000	KOMO KPCB	920
Springfield M-20	100	WSIX	1210		100	KPCB	650
					50 1000	KRSC KTW	1120 1220
TEXAS					100	KVĽ	1370
Abilene P-13	100	KFYO KGRS	1420		500	KXA	570
Amarillo N-12	1000	KGRS	1420	Spokane D-5	100	KFIO	1120
	1000	WDAG	1410	-	1000	KFPY	1340
Austin Q-14	100 500	KUT KFDM	1500 560		5000 1000	KGA	1470 590
Beaumont R-17 Brownsville U-15	500	KWWG	1260	Tacoma D-3	500	KHQ KMO	860
College Sta. O-15	500	WTAW	1120	l acoma b-5	1000	KVI	760
College Sta. Q-15 Corpus Christi S-14	100	KGFI	1500	Walla Walla E-5	100	KUJ	1370
Dallas P-15	10000	KRLD	1040	Wenatchee D-4	50	KPO	1500
	50000	WFAA	800	Yakima D-4	100	KIT	1310
Dublin P-14	500 100	WRR KFPL	1280 1310	WEST VIDCINI			
El Paso P-9	100	KTSM	1310	WEST VIRGINI		******	
2114301-7	100	KTSM WDAH	1310 l	Bluefield L-24	250 250	WHIS WOBU	1410 580
Fort Worth P-15	100	KFJZ	1370	Charleston K-23 Fairmount J-24	250	WMMN	890
	1000	KTAT	1240	Huntington K-23	250	WSAZ	580
C-1 D 16	10000	WBAP	800 1370	Wheeling J-24	5000	WWVA	1160
Galveston R-16	100 500	KFLX KFUL	1290				
Greenville O-15	15	KFPM	1310	WISCONSIN			
Greenville O-15 Harlingen T-14	500	KRGV	1260	Eau Claire G-18	1000	WTAQ	1330
Houston R-16	1000	KPRC	920	Fond du Lac H-19	100	KFIZ	1420
	100	KTLC	1310	Green Bay G-19	100	WHBY	1200
	500	KTRH KXYZ	1120 1420	Janesville I-19 La Crosse H-18	100 1000	WCLO WKBH	1200 1380
San Angelo Q-13	100 100	KGKL	1370	Madison H-19	750	WHA	940
San Antonio R-14	100	KABC	1420	1714445511 11 17	500	WIBA	1280
	100	KMAC	1370 l	Manitowoc H-20	100	WOMT	1210
	100	KONO KTSA	1370	Milwaukee H-19	250	WHAD	1120
	1000	KTSA	1290		250	WISN	1120
m. m. t/	50000	WOAL	1190	D 11.10	1000	WTMJ	620
Tyler P-16	100 1000	KGKB WACO	1500 1240	Poynette H-19 Racine I-20	100 100	WIBU WRJN	1210 1370
Waco Q-15 Wichita Falls O-14	250	KGKO	570	Sheboygan H-20	500	WHBL	1410
Wichita Fans O-14	250	RORO	ا ۳۰	Stevens Pt. G-19	2000	WLBL	900
TITALI				Superior F-17	1000	WEBC	1290
UTAH							
Ogden I-7	500	KLO	1400	WYOMING			
Salt Lake City I-7	1000	KDYL	1290	Casper H-10	100	KDFN	1210
	5000	KSL	1130				
VERMONT				CAN	NADA		
Burlington F-27	100	WCAX	1200				
Rutland G-27	100	WSYB	1500	ALBERTA		OT : -	
St. Albans F-27	100	WQDM	1370	Calgary B-7	500	CFAC	690
Springfield G-27	10	WNBX	1200		10000 500	CFCN	985 6 90
Waterbury F-27	50	WDEV	1420		500	CJCJ	690
						., .	

Edmonton A-8	Keys. 1030 730 730 730 645 645 880 880 665 665 960 960 910 630
Color	730 730 730 645 645 880 880 665 665 960 960 960 910
Lethbridge C-8	730 730 645 880 880 665 960 960 960 910
1000 CNRD	645 645 880 880 665 665 960 960 960 910
BRITISH COLUMBIA Chilliwack B-3 Kamloops B-5 Kelowna C-5 Vancouver B-3 50 CKCV 730 Fleming C-13 500 CJRM Moose Jaw C-11 500 CJRM Regina C-12 500 CJRM 600 CKKC 730 100 CKKM 730 100 CKMM 730 100 CKMM 730 100 CKMM 730 100 CKMM 730 100 CKCM 500 CKCK 50 CKCK 500 CJRM 86gina C-12 500 CKCK 500	645 880 880 665 960 960 960 910 910
SASKATCHEWAN SOURCH CKCV 665 665 960 960 960 910 910	
SASKATCHEWAN SASK	665 665 960 960 960 910 910
Vancouver B-3	665 960 960 960 960 910 910
500 CJOR 1210	665 960 960 960 960 910 910
50 CKCD 730 50 CKFC 730 100 CKMO 730 100 CKWX 730 100 CKWX 730 500 CNRV 1030 Victoria C-3 50 CFCT 630 MANITORA 500 CKCK 500 CNRR 500 CRS 700 CNRS 700 CNRS 700 CNRS 700 CNRS 700 CNRS 700 CNRS 700 CNRS 700 CNRS 700 CNRS	960 960 960 910 910
100 CKMO 730 500 CKCK 730 500 CKCK 730 7	960 960 910 910
100 CKWX 730 500 CNRR 1030 Victoria C-3 500 CFCT 630 Vorkton B-13 500 CJGX 1030	910 910
Victoria C-3 50 CFCT 630 Yorkton B-13 500 CNRS 500 CJGX	910
MANITORA Yorkton B-13 500 CJGX	630
MANITORA II	
OF MEDICAL	
Brandon D-14 500 CKX 540 CENTRAL AMERICA	
Winnipeg D-15 5000 CKY 780 COSTA RICA	
Heredia FF-23 75 T14NRH	948
NEW BRUNSWICK San Jose FF-23 50 TIC	900
Fredericton D-29 100 CFNB 1210 GUATAMALA	
Moncton D-30 500 CNRA 630 Guatamala CC-19 50 TGW	570
HONDURAS HONDURAS	
NEWFOUNDLAND Tegucinal CC-21 2300 HRR	1370
St. Johns A-35 500 VOWR 6/5	1070
NOVA SCOTIA Salvador CC-19 Solvador CC-19 Solvador CC-19 Solvador CC-19 Solvador CC-19 Solvador CC-19	
II Salvadoi CC-19 500 ICOS	664
Halifax E-31 500 CHNS 910	
500 CNRH 910 MEXICO Sydney C-32 50 CJCB 880	
Wolfville D-31 50 CKIC 1010 AGUASCALIENTES	
Aguascalientes W-10 350 XFC	805
ONTARIO Charles H 22 100 CECO 1210 CHIHUAHUA	
Chatham H-22 100 CFCO 1210 CHITICATICA Cobalt E-23 100 CKMC 1210 Chihuahua, Chih. R-9 250 XFF	. 915
Hamilton H-24 500 CHCS 630 Juarez P-9 101 XEJ	857
50 CHML 880 1000 XEQ	1015
Kingston G-25 50 CFRC 930 COAHUILA	
London H-23 5000 CJGC 910 Saltillo, Coah. U-12 10 XEL 5000 CNRL 910 Villo Action P. 12 75000 XFD	1091
North Bay E-23 100 CFCH 930 VIII ACUITA K-12 75000 AEK	735
Ottawa F-25 100 CKCO 890 D. F.	
Port Arthur E-19 50 CKPR 890 Mexico City Y-13 1000 XEB	1030
Prescott F-25 50 CFLC 915 250 XEFA	1250
Toronto G-24 500 CFCA 1120 1000 XEN	990 711
500 CFCL 960 5000 XEO	940
5000 CFRB 690 500 XETA 500 CKCL 960 100 XETO	1140 1360
5000 CKGW 840 2000 YETY	1300
500 CKNC 960 5000 XEW 500 CNRT 1120 500 XEX	910
5000 CNRX 690 500 XEZ	1210 588
5000 CPRY 840 2000 XFG Waterloo G-23 50 CKCR 645 1000 XFI	638
500 XFX	818
PRINCE EDWARD ISLAND Toluca. Y-12 50 XEC	860
Charlottestown C-31 500 CFCY 580 JALISCO	860 1333
100 CHCK 960 JALISCO Summerside C-31 100 CHGS 1120 Guadalajara, Jal. X-10 101 XEA	

								101
	CFAC 690		CJRW 665	2711	CMBZ 1010		CNRD 840	_
	Calgary, Alta.		Fleming, Sask.	74	Havana, Cuba		Red Deer, Alta.	
	CFBO 890		CKAC 730 Montreal, Que.	′	CMC 840		CNRH 910	
	St. John, N. B. CFCA 1120		CKCD 730		Havana, Cuba CMCA 1225		Halifax, N. S. CNRL 910	
	Toronto, Ont.		Vancouver, B. C.		Havana, Cuba		London, Ont.	
	CECE 1030		II CKC1 645		CMCB 1070		CNRM 730	
	Montreal, Que. CFCH 930		Quebec, Que. CKCK 960		Havana, Cuba CMCD 925		Montreal, Que.	
			CKCK 960 Regina, Sask.		CMCD 925 Havana, Cuba		CNRO 600 Ottawa, Ont.	
	North Bay, Ont. CFCL 960		H CKCL 960		CMCF 890		CNRQ 880	
	Toronto, Ont.		Toronto, Ont.		Havana, Cuba		Quebec, Que.	
	CFCN 985		II CKCO 890		CMCG 1345		CNRR 960	
	Calgary, Alta. CFCO 1210		Ottawa, Ont. CKCR 645		Havana, Cuba CMCH 1405		Regina, Sask. CNRS 910	
	Chatham, Ont.		Waterloo, Ont.		Havana, Cuba		Saskatoon, Sask.	
	OEOT COA		CKCV 880		I CMC3 620		CNRT 1120	
	Victoria, B. C.		Quebec, Que.		Havana, Cuba		Toronto, Ont.	
,	CrC1 360		CKFC 730		CMCM 1405		CNRV 1030	
	Ch'lottet'n,P.E.I. CFJC 1120		Vancouver, B. C. CKGW 840		Havana, Cuba CMCN 925		Vancouver, B. C. CNRW 780	
	Kamloops, B. C.		Toronto, Ont.		Havana, Cuba	Ï	CNRW 780 Winnipeg, Man.	58
	CFLC 915		I CKIC 1010		CMCO 660		CNDV COO	
	Prescott, Ont.		Wolfville, N. S.		Havana, Cuba		Toronto, Ont.	
,	CFNB 1210		II CKLC 840		I CMCQ 1150		CFALL 040	
	Fredericton, N.B. CFQC 910		Red Deer, Alta. CKMC 1210		Havana, Cuba CMCR 1345		Toronto, Ont. HHK 920	
	Saskatoon, Sask.		Cobalt. Int.		Havana, Cuba		Port au Prince, H.	
_	CFRB 690	70	CKMC 1210 Cobalt, Int. CKMO 730		CMCU 1285		[HIX 669	
	Toronto, Ont.	10	Vancouver, B. C.		Havana, Cuba		Santo Domingo	
	CFRC 930	'	CKNC 960	J	CMCW 1285		HRB 1370	
	Kingston, Ont. CHCK 960		Toronto, Ont. CKOC 630		Havana, Cuba CMCY 1345		Tequeigalpa KABC 1420	
	Ch'lottet'n, P.E.I.		Hamilton, Ont.		Havana, Cuba		San Antonio, Tex.	
	CHCS 630				I CMDC 660		1 17 DDG 1490	
	Hamilton, Ont.		Kelowna, B. C.		Havana, Cuba		Portland, Ore.	
	CHGS 1120 Sum'rside, P.E.I.		CKPC 880 Preston, Ont.		CMGA 834 Colon, Cuba		KBTM 1200 Paragould, Ark.	
	CHLS 730		CKPR 890		CMGB 1205		KCRC 1370	
	Vancouver, B.C.		Port Arthur, Ont.		Matanzas, Cuba		Enid, Okla.	
	CHMA 580	1	CKUA 580		CMGE 1375		KCRJ 1310	
	Edmonton, Alta. CHML 880		Edmonton, Alta. CKWX 730		Cardenas, Cuba CMGF 977		Jerome, Ariz. KDB 1500	
	Hamilton, Ont.		Vancouver, B. C.		Matanzas, Cuba		S. Barbara, Cal.	
				100	Matanzas, Cuba CMGH 1370		KDFN 1210	
	Halifax, N. S.		Brandon, Man.		Matanzas, Cuba		Casper, Wyo.	
	CHRC 645 Quebec, Que.		Winnipeg, Man	58	CMHC 790 Tuinucu, Cuba		KDKA 980 Pittsburgh, Pa.	
	CHWC 960		CMAB 1249	<u> </u>	I CMHD 950		KDLR 1210	
	Regina, Sask.		Pinar del Rio, Cu		Caibarien, Cuba		Devils Lake, N.D. KDYL 1290	
	CHWK 665		CMAC 1375				KDYL 1290	17
	Chilliwack, B. C. CHYC 730		Pinar del Rio, Cu CMBC 965		Santa Clara, Cu CMHJ 645		Salt Lake City	1
	Montreal, Que.		Havana, Cuba		Cienfuegos, Cuba		KECA 1430	(
	CIDD ACA		II CMRO 965		CM JA 1200		Los Angeles, Cal. KELW 780	
	Regina, Sask.		Havana, Cuba		Camaguey, Cuba		Burbank, Cal.	
	UJCA 930		CMBG 1070	1	CMJC 1382		I KEY 1180	
	Edmonton, Alta. CJCB 880		Havana, Cuba CMBI 1405		Camaguey, Cuba CMJE 856		Portland, Ore. KFAB 770	
	Sydney, N. S.		Havana, Cuba		Camaguey, Cuba		Lincoln, Nebr.	
	CJCJ 690		CMBL 1500		I CMJF 930		II KFAC 1300	
	Calgary, Alta.		Havana, Cuba		Camaguey, Cuba CMJH 1017		Los Angeles, Cal. KFBB 1280	
	CJGC 910 London, Ont.		CMBN 1405 Havana, Cuba		Ciego de Avila, C.	1	KFBB 1280 Great Fls., Mont.	
		80	II CMBQ 1500		CMK 730		KFBI 1050	22
•	Yorkton, Sask.	80	Havana, Cuba		Havana, Cuba		Milford, Kans.	22
	CJOC 1120		H CMRR 1500		CM KC 1034		KFBK 1310	
	Lethbridge, Alta.		Havana, Cuba		Santiago, Cuba		Sacramento, Cal.	
	CJOR 1210 Vancouver, B. C.		CMBS 790 Havana, Cuba		CMQ 1150 Havana, Cuba		KFBL 1370	
	CJRM 665		CMBT 790		CMW 588		Everett, Wash. KFDM 560	
	Moose Jaw, Sask.		Havana, Cuba		Havana, Cuba		Beaumont, Tex.	
			CMBW 1010		CMY SOU		KFDY 550	
			Havana, Cuba CMBY 1225		Havana, Cuba CNRA 630		Brookings, S. D.	
			CMBY 1225 Havana, Cuba		Moncton, N. B.			
				<u> </u>				

KFEL 920	1 1	KFVS 1210 Cape Gir'rd'u, Mo		KGFX 580		KLS 1440	
Denver, Colo.		Cape Gir'rd'u, Mo		Pierre, S. D. KGGC 1420		Oakland, Cal.	
KFEQ 680	72	KFWB 950 Hollywood, Cal. KFWF 1200		KGGĆ 1420		KLX 880 Oakland, Cal.	
St. Joseph, Mo.	72	Hollywood, Cal.		San F'ncisco, Cal. KGGF 1010		Oakland, Cal.	
KFGQ 1310 Boone, Iowa		KFWF 1200 St. Louis, Mo.		KGGF 1010		I K L.Z. 560	
Boone, Iowa	1	St. Louis, Mo.		Cofformillo Olelo		Denver, Colo. KMA Shenandoah, Ia. KMAC 1370 San Antonio, Tex. KMBC 950 Kan. City, Mo. KMCS 1120 Inglewood, Cal. KMED 1310 Medford, Ore.	
KFH 1300		St. Louis, Mo. KFW1 930 San F'ncisco, Cal.' KFXD 1420 Nampa, Idaho KFXF 920 Denver, Colo. KFXJ 1310	43	KGGM 1230		KMA 930	.1.1
Wichita Kangas		San F'ncisco, Cal.	42	Albuq'rque, N.M. KGHF 1320 Pueblo, Colo.		Shenandoah, Ia.	44
. KFI 640	-m (7	KFXD 1420	-	KGHF 1320		KMAC 1370	
Los Angeles, Cal.	78	Nampa, Idaho	'			San Antonio, Tex.	
KFIO 1120	1	KEXE 920		KGHI 1200		KMRC 950	
KFI 640 Los Angeles, Cal. KFIO 1120 Spokane, Wash.		Denver, Colo.		Pueblo, Colo. KGHI 1200 Little Rock, Ark. KGHL 950 Billings Mont		Kan City Mo.	
KFIZ 1420		KFXJ 1310 Grand Junc.,Col. KFXM 1210		KGHI. 950		EMCS 1120	
Fond du Lac, Wis.		Grand June Col.		Billings, Mont. KGIR 1360	· ·	Inglewood Cal	
KFJB 1200	lI	KEYM 1210		KGIR 1360		KMED 1310	
Marshalltown, Ia.	1	San Ber'd no, Cal.		Butto Mont		Medford, Ore.	
✓KFJF 1480		KFXR 1310		Butte, Mont. KGIW 1420		KM I 1210	
Oklahoma City	8	Oklahoma City		Trinidad, Colo.		Erespe Col	
KFJI 1370	<u> </u>	KEYV 1420				Fresho, Cal.	
Arteria Ora	l 1	Elements Anim		KGIX 1420		Maria T	
Astoria, Ore.		KFXY 1420 Flagstaff, Ariz. KFYO 1420 Abilene, Texas		Las vegas, Nev.		Monroe, La.	
Cad Forks N.D.	7,3	Abilen Francis]	AGIZ 1500		KMM3 740	la se
Grd. Forks, N.D.	1,00	Abliene, Texas		Grant City, Mo		Clay Ctr., Nebr.	(3-7
KFJM 1370 Grd. Forks, N.D. KFJR 1300 Portland, Ore.	·	Dimension 550	95	Las Vegas, Nev. KGIZ 1500 Grant City, Mo KGJF 890 Little Rock, Ark.		Mediorid, Ore. KMJ 1210 Fresno, Cal. KMLB 1200 Monroe, La. KMMJ 740 Clay Ctr., Nebr. KMO 860	
Portland, Ore. KFJY 1310		bismarck, N. D.	70	Little Rock, Ark.		Tacoma, Wash.	
KFJY 1310		AGA 1470	/	FGFR 1200		PWOX 1080	3.0
Fort Dodge Ia.		KFYR 550 Bismarck, N. D. KGA 1470 Spokane, Wash. KGAR 1370		KGKB 1500 Tyler, Texas KGKL 1370		Tacoma, Wash. VKMOX 1090 St. Louis, Mo.	
KFJZ 1370				KGKL 1370		1 KMPC 710	
Ft. Worth, Tex.		Tucson, Arizona		San Angelo, Tex.		Beverly Hills, Cal KMTR 570	
KFKA 880		l KGB 1330		KGKO 570		KMTR 570	
KFKA 880 Greeley, Colo.		San Diego, Cal.		San Angelo, Tex. KGKO 570 Wichita Flls., Tex.		Hollywood, Cal.	
KFKU 1220		KGBU 900 Ketchikan, Al'ka		KGKX 1420		KMTR 570 Hollywood, Cal. KNX 1050 Los Angeles, Cal. KOA 830 Denver, Colo. KOAC 550 Corvallis, Ore. KOB 1180	22
Lawrence, Kans. KFKX 1020 Chicago, Ill. KFLV 1410 Rockford, Ill.		Ketchikan, Al'ka		Sand Point, Idaho		Los Angeles, Cal.	ユン
KFKX 1020		KGBX 1310		KGKY 1500		KOA 830	125
Chicago, Ill.		St. Joseph, Mo.		Scottsbluff, Nebr.		Denver. Colo.	04
KFLV 1410		KGBX 1310 St. Joseph, Mo. KGBZ 930 York, Nebr. KGCA 1270		KGMB 1320		KOAC 550	
Rockford, Ill.	. I	York, Nebr.		Honolulu, T. H.		Corvallis, Ore.	
		KGCA 1270		KGNF 1430		KOB 1180	
Galveston, Tex.	∣ 1	Decorah, Iowa		No. Platte, Nebr.		State Coll., N.M.	
Galveston, Tex. KFMX 1250 N'thfield, Minn.		KGCR 1210		Sand Point, Idaho KGKY 1500 Scottsbluff, Nebr. KGMB 1320 Honolulu, T. H. KGNF 1430 No. Platte, Nebr. KGNO 1210 Dodge City, Kas. KGO 790 San F'ncisco, Cal. KGRS 1410 Amarillo, Texas KGU 940		KOB 1180 State Coll., N.M. KOCW 1400 Chickasha, Okla.	
N'thfield, Minn.	l I	Watertown, S. D.		Dodge City, Kas.	i	Chickasha Okla.	
KENE 890		Watertown, S. D. KGCU 1240		KGO 790		KOH 1380	
KFNF 890 Shenandoah, Ia.		Mondon N.D.		San Fincisco Cal		KOH 1380 Reno, Nevada	
KFOR 1210 Lincoln, Nebr. KFOX 1250 Long Beach, Cal. KFPL 1310		KGCX 1310 Wolf P't, Mont. KGDA 1370 Mitchell, S. D. KGDE 1200	·	KGRS 1410		KOIL 1260	
Lincoln Nebr.		Wolf P't Mont		Amarillo Teyes		KOIL 1260 Council Bluffs, Ia.	
KFOX 1250		KGDA 1370		KGU 940		KOIN 940	·
Long Reach, Cal.		Mitchell S D		Honolulu, Hawaii		KOIN 940 Portland, Ore.	
KFPL 1310		KCDE 1200		KGVO 1420		I KOL 1970	
Dublin, Texas		Formus Folla Minn	'	Missoula, Mont.		Seattle, Wash. KOMO 920 Seattle, Wash.	
KFPM 1310		Fergus Falls, Minn KGDM 1100		KGW 620		KOMO 920	
Croonville Toyer		Stockton, Cal.		Portland, Ore.		South Work	
Greenville, Texas KFPW 1340		WCDV 1200		Fortiand, Ore.		FONO 1270	
Et Smith Ank	l i	KGDY 1200 Huron, S. D. KGEF 1300	l	KGY 1200 Lacey, Wash.		KONO 1370	
EEDV 1940		KGEF 1300	<u> </u>	KHJ 900		San Antonio, Tex.	
Spokene Week	1	Les Angeles Col		KHJ 900		KOOS 1370 Marshfield, Ore.	
KFPW 1340 Ft. Smith, Ark. KFPY 1340 Spokane, Wash. KFQD 1230		Los Angeles, Cal. KGEK 1200		Los Angeles, Cal.	V. 0.	KORE 1420	
AFQD 1230		Yuma Cala		*KHQ 590 Spokane, Wash.	88	KORE 1420	
Anchorage, Alas.		KCEP 1260		pokane, wash.	W 45	Eugene, Ore. KOY 1390	
Holy City Cal	 	Long Pooch Col		KICK 1420		Dhanis 1390	
Holy City, Cal.		Long Deach, Cal.		Red Oak, Iowa		Phoenix, Arizona	
Anchorage, Alas. KFQU 1420 Holy City, Cal. KFQW 1420 Seattle, Wash.		Et Marges Co		KID 1320 Idaho Falls, 'da. KIDO 1350		KPCB 650	
Seattle, Wash.		Ft.Morgan, Colo.		Idaho Falis, 'da.		Seattle, Wash.	
KFRC 610 San F'ncisco, Cal. KFRU 630		Long Beach, Cal. KGEW 1 70 Ft.Morgan, Colo. KGEZ 1310 Kalispell, Mont.		1350 L350		KPJM 1500	
San Fincisco, Cal.		Kalispell, Mont.		Boise, Idano		Prescott, Ariz.	
KFRU 630				KIT 1310		KPO 680 San F'ncisco, Cal.	
Columbia, Mo.		Shawnee, Okla.		Yakima, Wash.		San F'ncisco, Cal.	
KESD 600 1		KGFG 1370		KJBS 1070 San F'ncisco, Cal. KJR 970		KPOF 880 Denver, Colo.	
San Diego, Cal. KFSG 1120 Los Angeles, Cal.		Oklahoma City		San F'ncisco, Cal.		Denver, Colo.	
KFSG 1120		Oklahoma City KGFI 1500 Corp's Ch'sti,Tex KGFJ 1200 Los Angeles, Cal.		KJR 970		KPPC 1210 Pasadena, Cal.	
Los Angeles, Cal.		Corp's Ch'sti, Tex		Seattle, Wash.		Pasadena, Cal.	
KFUL 1290 Galveston, Texas		KGFJ 1200		I KLCN 1290		KPQ 1500	
Galveston, Texas		Los Angeles, Cal.		Blytheville, Ark.		Wenatchee, Wash KPRC 920	
KFUO 550		KGFK 1500		I KLO 1400		KPRC 920	
St. Louis, Mo.		KGFK 1500 Moorhead, Minn.		Ogden, Utah		Houston, Texas	
KFUP 1310		KGFL 1370		Ogden, Utah KLPM 1240		KOV 1380	
KFUP 1310 Denver, Colo.		KGFL 1370 Raton, N. M.		Minot, N. Dak.		Pittsburgh Pa	
KEVI) 1000 I		KGFW 1310		KLRA 1390		Houston, Texas KQV 1380 Pittsburgh, Pa. KQW 1010	
Culver City, Cal.	I	Ravenna, Nebr.		Little Rock, Ark.	1	San Jose, Cal.	
Julya Oloy, Oal.		TANALEHRA, MEDI.		Anne Lock, Ark.		Dan Jose, Cal.	
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	KRE 1370		I KVOS 1200		WALR 1210		WCAO 600	
	DEE 1970		Dellie aleks Wash		Zonemille Obio		Poltimore Md	
	Berkeley, Cal.		Bellingh'm, Wash.		Zanesville, Ohio		Baltimore, Md. WCAP 1280	
	KREG 1500	!	KWCR 1310	l 1	WAPI 1140	- 1	WCAP 1280	
	Santa Ana, Cal. KRGV 1260	1 I	Cedar Rapids, Ia.		Birmingham, Ala.	ı	Asbury Pk., N. J. WCAT 1200	
	KRGV 1260		KWEA 1210		WASH 1270		WCAT 1200	
	Harlingen Toron	I	Shreveport, La.		Gr. Rapids, Mich.	- 1	Rapid City, S. D.	
	Harlingen, Texas KRLD 1040		Shreveport, La.		Mi teaplus, Mich.		WOLL STORY	
-	KRLD 1040 Dallas, Texas KRMD 1310	34	KWG 1200	i	WAWZ 1350		WCAU 1170	
/	Dallas. Texas	27	Stockton, Cal.		Zarephath, N. J.		Philadelphia, Pa.	
	KRMD 1310		KWII 1060		1 WRAA 1400		WCAX 1200	
	Shrayanart La		Portland, Ore.		Lafayette, Ind.		Burlington Vt	
	Shreveport, La. KROW 930		Fortiand, Ore.		Larayette, Ind.		Burlington, Vt. WCAZ 1070	
	KROW 930	. I	KWK 1350 St. Louis, Mo. KWKC 1370	I	WBAK 1430		WCAZ 1070	
	Oakland, Cal.		St. Louis, Mo.		Harrisburg, Pa. WBAL 760-1060		Carthage, Ill.	
	KRSC 1120		KWKC 1370		WBAL 760-1060		WCBA 1440	
	Seattle, Wash.		KWKC 1370 Kansas City, Mo KWKH 850	!	Baltimore, Md.	- 1	Allentown, Pa.	
	Beattle, Wash.		Italisas City, Mo.		Darumore, Mu.		WCDD 1000	
	KSAC 580		KWKH 850	52	WBAP 800		WCBD 1080	
	Manh'tt'n, Kans.		Shreveport, La.	ノヘ	Fort Worth, Tex.		Zion, Ill. WCBM 1370	
	KSCJ 1330		KWLC 1270		WBAX 1210 Wilkes-Barre, Pa.		WCBM 1370	
	Sioux City, Ia.	l i	Decorah, Iowa		Wilkes Barre Pa	- 1	Baltimore, Md. WCBS 1210	
	ECD City, 1a.		EWGC 1000		WBBC 1400		WCDG 1910	
	KSD 550		KWSC 1220	· I	WBBC 1400	- 1	W CBS 1210	
	St. Louis, Mo.		Pullman, Wash.		Brooklyn, N. Y.		Springfield, Ill.	
	KSEI 900		KWWG 1260		WBBL 1210		F WCCO 810	2-
	Pocatello, Idaho		Brownsville, Tex.		Richmond Va		Minneap., Minn.	49
	EGI 1190		KXA 570		WBBL 1210 Richmond, Va. WBBM 770		Minneap., Minn. WCDA 1350	
	KSL 1130 Salt Lake City		1 S. A.A. 777 - 1		WBBIN 770		WCDA 1350 New York City WCFL 970	
	Sait Lake City		Seattle, Wash.		Chicago, Ill.		New York City	
	KSMR 1900		KXL 1420		WBBR 1300	1	WCFL 970	20
	Santa Maria, Cal. KSO 1380		Portland, Ore.		Brooklyn, N. Y.	1	Chicago, Ill. WCGU 1400	24
	KSO 1390		KXO 1500		WBBZ 1200		WCGI 1400	
	Cl 1 T.		El Contro Col		Den es Cites Olde	- 1	Droot-law N V	
	Clarinda, Iowa	- A	El Centro, Cal.		Ponca City, Okla.		Brooklyn, N. Y.	
2.97	KSOO 1110	(4)	KXRO 1310	I	WBCM 1410	i	WCHI 1490	dang.
2	KSOO 1110 Sioux Falls, S. D. KSTP 1460 St. Paul, Minn.	29	Aberdeen, Wash.		Bay City, Mich.	4	Chicago, Ill.	
7	KSTP 1460	01	KXYZ 1420		WBEN 900 Buffalo, N. Y.		WCKY 1490	
ret.	Ct. Devil Minis	831	Harrison Harran		Duffels N W		Covington V	-/
	St. Paul, Minn.	NS.	Houston, Texas		Bullalo, N. 1.		Covington, Ky.	
			KYA 1230 San F'ncisco, Cal. KYW 1020	I	M DEO 1910	- 1	WCLO 1200	'
	San F'ncisco, Cal.		San F'ncisco, Cal.	I	Marquette, Mich. WBGF 1370		Janesville, Wis.	
	KTAR 620		KYW 1020		WBGF 1370		WCLS 1310	
	KTAR 620 Phoenix, Ariz. KTAT 1240	. I	Chicago, Ill.	I	Glens Falls, N. Y.	- 1	WCLS 1310 Joliet, Ill. WCMA 1400	
	Phoenix, Ariz.		Cincago, III.		WENTE TAILS, IV. I.		DUCATA 1400	
	KTAT 1240	i	KZRC 937.5 Cebu, P. I.	I			WCMA 1400	
	Ft. Worth, Tex. KTBR 1300		Cebu, P. I.		Huntsville, Ala. WBIG 1440		Culver, Ind.	
	KTBR 1300		NAA 690		WBIG 1440		WCOA 1340	
	Portland, Ore.	l i	Arlington, Va.	1 1	Greensboro, N.C.		Pensacola, Fla.	
	Empe 1450		Dill cc.		WBIS 1230		WCOC 880	
	KTBS 1450	l 1	RUS 664		W DIS 1230		WCOC 880	
	Shreveport, La. KTFI 1320		Salvador		Boston, Mass.		Meridian, Miss.	
	KTFI 1320	' '	TGW 570	i 1	WBMS 1450	- 1	I WCOD 1200	
	Twin Falls, Ida. KTHS 1040	I	Guatamala		Hackensack, N.J. WBNX 1350	- 1	Harrisburg, Pa. WCOH 1210	
	KTHS 1040		TIC 900		WRNY 1350		WCOH 1210	
	K1113 1040	l i	110		W DINA 1990	- 1	37 COH 1210	
	Hot Spgs., Ark. KTLC 1310		San Jose, C. R.		New York City		Yonkers, N. Y.	
	KTLC 1310		T14NRH 948		WBOQ 860	- 1	WCRW 1210	
	Houston, Texas		Heredia, C. R.		New York City WBOQ 860 New York City	- 1	Chicago, Ill.	
	KTM 780				I WROW 1310		WCSC 1360	
	Tan America Cal		Glace Bay, N. S.		Terre Haute, Ind. WBRC 930		Charleston S. C.	
	Los Angeles, Cal.		Glace Bay, N. S.		Terre Haute, Ind.		Charleston, S. C. WCSH 940	
	KTRH 1120		1 VUWK 675	(I	WBRC 930	- 1	WCSH 940	
	Houston, Texas		St. Johns, N. F.		Birmingham, Ala.		Portland, Maine	
	KTSA 1290		St. Johns, N. F. WAAB 1410		WRDE 1210		WDAE 1220	
	San Antonio Tor		Boston, Mass.		Wilkes-Parse Pa		Tampa Fis	
	San Antonio, Tex. KTSM 1310		Doston, Mass.		Wilkes-Darre, Pa.		Tampa, Fla. WDAF 610	
	F12M [1310				Wilkes-Barre, Pa. WBSO 920		WDAF 610	XIL
	El Paso, Texas		Chicago, Ill.		Needham, Mass.		Kansas City, Mo.	UM
			WAAM 1250 Newark, N. J.		WBT 1080		WDAG 1410	
	Seattle Wash		Newark N I		Charlotte, N. C.		Amarillo, Texas	
	Seattle, Wash. KUJ 1370		WAAT 940		WBTM 1370		WDAH 1310	
	70.1		WAAJ 340				WDAH 1510	
	Walla Wal., Wash.		Jersey City, N. J.		Danville, Va.		El Paso, Texas	
	Walla Wal., Wash. KUOA 1390		Jersey City, N. J. WAAW 660		WBZ-A 990		WDAY 940	1 4)
	Fayetteville, Ark.		WAAW 660 Omaha, Nebr.		Springfield, Mass.		Fargo, N. D.	42-
	ETICIN OOA		WADC 960		WCAC coo		WDAY 940 Fargo, N. D. WDBJ 930	
	KUSD 890		WABC 860 New York City		WCAC 600		M DD3 390	
	Vermillion, S. D.		New York City		Storrs, Conn.		Roanoke, Va.	
	TETTO 1 PAG		WABI 1200		WCAD 1220		WDBO 1120	
	Austin, Texas		WABI 1200 Bangor, Maine		Canton, N. Y.		Orlando, Fla.	
	KVI 760		WABZ 1200		WCAE 1220		WDEL 1120	
	Z V I 100		WADZ 1200				Wilmington	
	Tacoma, Wash.		New Orleans, La.		Pittsburgh, Pa.		Wilmington, Del.	
	KVL 1370		WACO 1240		WCAH 1430		WDEV 1420	
	Seattle, Wash.		Waco, Texas		Columbus, Ohio	ı	Waterbury, Vt.	
	KVOA 1960		WADC 1320		WCAJ 590		WDGY 1180	
	KVOA 1260	ı i	WACO 1240 Waco, Texas WADC 1320 Akron, Ohio					
	Tucson, Arizona		Akron, Ohio		Lincoln, Nebr.		Minneap., Minn.	
	KVOO 1140 Tulsa, Okia.		WAGM 1420 Presque Isle, Me.		I WCAŁ 1250		WDIX 1500 Tupelo, Miss.	
	Tulsa, Okla		Presque Isla Ma		Northfield, Minn.		Tupelo, Miss.	
	KVOR 1270	1.5%	WAIU 640		WCAM 1200		WDOD 1280	
4	KVOR 1270	7.5%	WAIÛ 640	I	WCAM 1280 Camden, N. J.			
	Col. Sp'gs, Colo.		Columbus, Ohio		Camden, N. J.		Chattan'ga, Tenn	
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WDIC						. ***	
WDRC 1330 Hartford, Conn.		WFIW 940 Hopkinsville, Ky. WFLA 620 Clearwater, Fla. WFOX 1400 Brooklyn, N. Y. WGAL 1310 Lancaster, Pa. WGAR 1450	112	WHIS 1410 Bluefield, W. Va. WHK 1390		WJBW 1200	
Hartford, Conn.		Hopkinsville, Ky.	End for	Bluefield, W. Va.		New Orleans, La.	
		Clearwater, Fla.	200	Cleveland, Ohio		WJBY 1210 Gadsden, Ala.	
WDZ 1070		WFOX 1400		WHK 1390 Cleveland, Ohio WHN 1010		WJDX 1270 Jackson, Miss.	
Tuscola, Ill.		Brooklyn, N. Y.		New York City		Jackson, Miss.	
New York City		Lancaster, Pa.		Des Moines, Ia.		Mooseheart, Ill.	
WEAI 1270		WGAR 1450 Cleveland, Ohio WGBB 1210		WHN 1010 New York City WHO 1000 Des Moines, Ia. WHOM 1450		WJJD 1130 Mooseheart, Ill. WJKS 1360 Gary, Ind. WJMS 1420 Ironwood, Mich.	115
Ithaca, N. Y.		Cleveland, Ohio		Jersey City, N. J. WHP 1430 Harrisburg, Pa.		Gary, Ind.	17
Providence, R. I.		Freeport, N. Y.	i I	Harrisburg, Pa.		Ironwood, Mich.	, `
New Orleans, La. WDZ 1070 Tuscola, Ill. WEAF 660 New York City WEAI 1270 Ithaca, N. Y. WEAN 780 Providence, R. I. WEAO 570 Columbus, Ohio WEBC 1290 Superior, Wis. WEBQ 1210 Harrisburg, Ill. WEBR 1310		I WGBC 1430		WIAS 1420 Ottumwa, Iowa		WJR 750 Detroit, Mich.	63
Columbus, Ohio		Memphis, Tenn.	ļI	WIRA 1280		Detroit, Mich.	<u></u>
Superior, Wis.		Evansville, Ind.	-	WIBA 1280 WIBA 1280 Madison, Wis. WIBG 930 Elkins Park, Pa. WIBM 1370		WJSV 1460 Alexandria, Va. WJTL 1370 Tifton, Ga. WJW 1210	
WEBQ 1210		WGBI 880		WIBG 930		WJTL 1370	
Harrisburg, Ill.		Scranton, Pa.		Elkins Park, Pa.		Tifton, Ga.	
WEBR 1310 Buffalo, N. Y. WEDC 1210 Chicago, Ill. WEDH 1420		New York City				Mansfield, Ohio	
WEDC 1210		WGCM 1210	_	***WIBO 560	93	WJZ 760	61
Chicago, Ill.		Gulfport, Miss.		Chicago, Ill.	70	New York City	(2)
		Newark. N. J.		WIBO 560 Chicago, Ill. WIBR 1420 Steubenville, O.	¥	San Juan, P. R.	
WEEI 590 Boston, Mass.		WGES 1360		WIDO 1210		WKAR 1040	
Boston, Mass. WEEU 830		WCH 1210		WIBU 1210 Poynette, Wis. WIBW 580		WKAV 1310	
Design De		Memphis, Tenn. WGBF 630 Evansville, Ind. WGBI 880 Scranton, Pa. WGBS 1180 New York City WGCM 1210 Gulfport, Miss. WGCP 1250 Newark, N. J. WGES 1360 Chicago, Ill. WGH 1370 Ft. Wayne, Ind.		Poynette, Wis. WIBW 580 Topeka, Kansas WIBX 1200 Utica, N. Y. WICC 600 Bridgeport, Conn WIL 1200 St. Louis, Mo. WILL 890		Mansfield, Ohio WJZ 760 New York City WKAQ 890 San Juan, P. R. WKAR 1040 E. Lansing, Mich. WKAY 1310 Laconia, N. H. WKBB 1310 Joliet, Ill. WKBC 1310 Birmingham, Ala.	
WEHC 1350 Emory, Va. WEHS 1420 Cicero, Ill. WELK 1370 Philadelphia, Pa.		WGL 1370		WIBX 1200		WKBB 1310	
Emory, Va.		Ft. Wayne, Ind.	1 00	WICC 600		WKRC 1310	
Cicero, Ill.			67	Bridgeport, Conn		Birmingham, Ala.	
WELK 1370		WGR 550	- 4	WIL 1200		Birmingham, Ala. WKBF 1400	
Philadelphia, Pa.		WCST 890		WILL 800		Indianapolis, Ind.	
Battle C'k, Mich.		WGR 550 Buffalo, N. Y. WGST 890 Atlanta, Ga.		Tirbono III		La Crosse, Wis.	
WENR 870	110	WGY 790		WILM 1420		WKBI 1420	
Philadelphia, Pa. WELL 1420 Battle C'k, Mich. WENR 870 Chicago, Ill. WEPS 1200 Worcester, Mass. WEVD 1300 New York City WEW 760 St. Louis, Mo. WEXL 1310	49	WGY 790 Schenec'dy, N. Y. WHA 940 Madison, Wis.		WILM 1420 Wilmington, Del. WIOD 1300 Miami, Fla.		WKBH 1380 La Crosse, Wis. WKBI 1420 Cicero, Ill. WKBN 570	
Worcester, Mass.		Madison, Wis.		Miami, Fla.		Youngstown, O.	
WEVD 1300		Madison, Wis. WHAD 1120 Milwaukee, Wis. WHAM 1150 Rochester, N. Y. WHAP 1300 New York City WHAS 820 Louisville, Ky. WHAT 1310 Philadelphia, Pa. WHAZ 1300 Troy, N. Y. WHB Kansas City, Mo. WHBC 1200 Canton, Ohio WHBD 1370 Mt. Orab, Ohio WHBF 1210 Rock Island, Ill. WHBL 1410 Sheboygan, Wis.		WIP 610		Youngstown, O. WKBO 1450 Jersey City, N. J. WKBS 1310 Colorbyrg III	
WEW YORK CITY		WHAM 1150		WIF 610 Philadelphia, Pa. WIS 1010 Columbia, S. C. WISN 1120 Milwaukee, Wis. WJAC 1310		WKBS 1310	
St. Louis, Mo.		Rochester, N. Y.		Columbia, S. C.		Galesburg, Ill. WKBV 1500 Connersville, Ind. WKBW 1480 Buffalo, N. Y. WKBZ 1500 Ludington Mich	
WEXL 1310 Royal Oak, Mich. WFAA 800 Dallas, Texas WFAM 1200 So. Bend, Ind. WFAN 610		WHAP 1300		WISN 1120		WKBV 1500	
WFAA 800	57	WHAS 820	55	WJAC 1310		₩KBW 1480	150
Dallas, Texas	0/	Louisville, Ky.	00	Johnstown, Pa. WJAG 1060 Norfolk, Nebr.		Buffalo, N. Y.	-25-
WFAM 1200 So Rend Ind	'	WHAT 1310		WJAG 1060		WKBZ 1500	
WFAN 610		WHAZ 1300		WJAK 1310 Eikhart, Ind.		Ludington, Mich. WKJC 1200	
Philadelphia, Pa.		Troy, N. Y.		Elkhart, Ind.		I Lancaster Pa	
Knoxville, Tenn		Kansas City Mo				WKRC 550 Cincinnati, Ohio WKY 900	
WFBE 1200		WHBC 1200		WJAS 1290		WKY 900 Oklahoma City	
Cincinnati, Ohio		Canton, Ohio		Providence, R. I. WJAS 1290 Pittsburgh, Pa. WJAX 900		Oklahoma City	
So. Bend, Ind. WFAN 610 Philadelphia, Pa. WFBC 1200 Knoxville, Tenn WFBE 1200 Cincinnati, Ohio WFBG 1310 Altoona, Pa. WFBL 1360		Mt. Orab. Ohio		Jacksonville, Fla.		Kalamazoo, Mich.	
WFBL 1360 Syracuse, N. Y.		WHBF 1210		Jacksonville, Fla. WJAY 610 Cleveland, Ohio WJAZ 1490 Chicago, Ill.		WKZO 590 Kalamazoo, Mich. WLAC 1470 Nashville, Tenn. WLAP 1010 Louisville, Ky. WLB 1250	8
Syracuse, N. Y. WFBM 1230		Rock Island, Ill.		Cleveland, Ohio		Nashville, Tenn.	
Indianapolis, Ind.		Sheboygan, Wis.		Chicago, Ill.		Louisville, Ky.	
Indianapolis, Ind. WFBR 1270		WHBQ 1370		WJBC 1200		WLB 1250 St. Paul, Minn.	
Baltimore, Md.		WHBL 1410 Sheboygan, Wis. WHBQ 1370 Memphis, Tenn. WHBU 1210 Anderson Ind		La Salle, Ill.	1.3.	St. Paul, Minn. WLBC 1310	
Flint, Mich.		Anderson, Ind.		WJBI 1210 Red Bank, N. J. WJBK 1370	75	Muncio Ind	
Baltimore, Md. WFDF 1310 Flint, Mich. WFDV 1310 Rome, Ga.		WHBY 1200 Green Bay, Wis. WHDF 1370 Calumet, Mich.		WJBK 1370 Detroit, Mich.	13	WLBF 1420 Kansas City, Ks. WLBG 1200	
Rome, Ga.		Green Bay, Wis.		Detroit, Mich.	4,5	Kansas City, Ks.	
WFDW 1420 Anniston, Ala. WFEA 1430 Manchester, N.H.		Calumet, Mich.		WJBL 1200 Decatur, Ill. WJBO 1420		WLBG 1200 Ettrick, Va. WLBL 900 Stevens Pt., Wis.	
WFEA 1430		WHDH 830 Boston, Mass WHEC 1430 Rochester, N. Y.		WJBO 1420		WLBL 900	
Manchester, N.H. WFI 560	<u> </u>	Boston, Mass		New Orleans, La. WJBT 770 Chicago, Ill.		Stevens Pt., Wis. WLBW 1260	
WFI 560 Philadelphia, Pa.		Rochester, N. Y.		Chicago. Ill.		II Oil City, Pa.	
,		11 WHIL 1420		WJBU 1210 Lewisburg, Pa.		WIRY 1500	
		Cicero, Ill.		Lewisburg, Pa.		L. I. City, N. Y.	
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	WLDL			1202-			_	AED
	WLBZ 620 Bangor, Maine		WNBR 1430		WPTF 680		WSJS 1310	
	Bangor, Maine		Memphis, Tenn. WNBW 1200		Raleigh, N. C. WQAM 560		Winst Sal N.C.	
	WLCI 1210 Ithaca, N. Y.		(carbondala Pa		Miami, Fla.		WSM 650 Nashville, Tenn. WSMB 1320 New Orleans La	76
			WNBX 1200		Miami, Fla. WQAN 880		WSMB 1320	1
	Lexington, Mass. WLIT 560		WNBX 1200 Springfield, Vt. WNBZ 1290		Scranton, Pa.		WCMW 1290	
	Philadelphia, Pa.		Sar'n'c L'ke.N.Y.		WQAO 1010 New York City WQBC 1360		Dayton, Ohio WSOC 1210 Gastonia, N. C. WSPA 1420	
			WNJ 1450		WQBC 1360		WSOC 1210	
1	Boston, Mass. WLS 870	-16	Newark, N. J. WNOX 560		Vicksburg, Miss. WQDM 1370		Gastonia, N. C.	
,	Chicago, Ill.	49	Knoxville, Tenn.		St. Albans, Vt. WQDX 1210		Spartanburg, S.C. WSPD 1340	
	WLTH 1400	'	WNYC 570 New York City		WQDX 1210		WSPD 1340	
	Brooklyn, N. Y. WLVA 1370			2	Thomasville, Ga. WRAK 1370		Toledo, Ohio	
			San Antonio, Tex. WOAX 1280 Trenton, N. J.	24	Williamsport, Pa.		WSUI 880 Iowa City, Iowa WSUN 620	
¥	Lynchburg, Va. WLW 700 Cincinnati, Ohio WLWL 1100 New York City	69	WOAX 1280		WRAM 1370			
	WLWL 1100	7	WOBU 580		Wilmington, N.C. WRAW 1310		WSVS 1370	
	WLWL 1100 New York City WMAC 570		WOBU 580 Charlest'n, W.Va.		WRAW 1310 Reading, Pa.		St. Petersb'g, Fla. WSVS 1370 Buffalo, N. Y. WSYB 1500 Rutland, Vt.	
	Syracuse, N. Y.		WOC 1000		WRAX 1020 Philadelphia, Pa.		Rutland, Vt.	
	Syracuse, N. Y. WMAK 1040		Davenport, Iowa WOCL 1210		I WRBJ 1370		WSYR 570	
	Buffalo, N. Y. WMAL 630		Jamestown, N. Y.		Hattiesburg, Miss WRBL 1200		Syracuse, N. Y. WTAD 1440	
	WMAL 630 Washington, D.C.		Jamestown, N. Y. WODA 1250 Paterson, N. J.		Columbus, Ga.		WTAD 1440	
	WMAG 670		I W ODA 1410				Quincy, Ill. WTAG 580	
	Chicago, Ill. WMAZ 1180		Mobile, Ala. WOI 640		Greenville, Miss. WRBX 1410		Worcester, Mass.	
	Macon, Ga.		Ames, Iowa		Roanoke, Va.		Worcester, Mass. WTAM 1070 Cleveland, Ohio	31
	WINIBA 1900		Ames, Iowa WOKO 1430 Albany, N. Y.		I WRC 950		Cleveland, Ohio WTAQ 1330 Eau Claire, Wis. WTAR 780	
	Newport, R. I. WMBC 1420		I WOL 1310		Washington, D.C. WRDO 1370		WTAR 780	
	Detroit, Mich.		Washington, D.C. WOMT 1210		Augusta, Maine		WIAK 780 Norfolk, Va. WTAW 1120 College Sta., Tex. WTAX 1210 Springfield, Ill. WTBO 1420	
1	WMBD 1440	10	WOMT 1210		WRDW 1500 Augusta, Ga.		WTAW 1120	
	WMBG 1210	-	Manitowoc, Wis. WOOD 1270		WREC 600		WTAX 1210	
	Richmond, Va.		WOOD 1270 Gr. Rapids, Mich WOPI 1500 Printel Tenn		WREC 600 Memphis, Tenn. WREN 1220	412 1453	Springfield, Ill.	
	Joplin. Mo.				Lawrence, Kans.	27	Cumberland, Md.	
,	Peoria Hghts, Ill. Peoria Hghts, Ill. WMBG 1210 Richmond, Va. WMBH 1420 Joplin, Mo. WMBI 1080 Chicago Ill	30/2	II WOQ 1300		Lawrence, Kans. WRHM 1250		I WTEL 1310	
1	Chicago, Ill. WMBO 1310	-00/z	Kansas City, Mo. WOR 710		Minneap., Minn. WRJN 1370		Philadelphia, Pa. WTFI 1450	
	WMBO 1310 Auburn, N. Y. WMBQ 1500 Brooklyn, N. Y. WMBR 1370		Newark, N. J.		Racine, Wis. WRNY 1010 New York City WROL 1310		Toccoa, Ga. WTIC 660-1060	
	Rrooklyn N V		WORC 1200 Worcester, Mass.		WRNY 1010		WTIC 660-1060 Hartford, Conn.	
	WMBR 1370		WOS 630		WROL 1310		WTJS 1310	
	Tampa, Fla.	<u> </u>	WOS 630 Jeff's'n City, Mo. WOV 1130		Knoxville, Tenn. WRR 1280		Jackson, Tenn.	
d	Memphis, Tenn. WMCA 570 New York City WMIL 1500	59	New York City		Dallas, Texas		WTMJ 620 Milwaukee, Wis.	
	WMCA 570	1	WOW 590		Dallas, Texas WRUF 830		WTOC 1260	
	WMIL 1500		Omaha, Nebr. WOWO 1160		(tamesville, Fla.		Savannah, Ga. WTSL 1310	
	Brooklyn, N. Y.		Ft. Wayne, Ind. WPAD 1420		WRVA 1110 Richmond, Va. WSAI 1330		Laurel, Miss. WWAE 1200	
	WMMN 890		WPAD 1420		WSAI 1330		WWAE 1200	
	Brooklyn, N. Y. WMMN 890 Fairmont, W. Va. WMPC 1500 Lapeer, Mich. WMRJ 1210		Paducah, Ky. WPAP 1010		Cincinnati, Ohio		Hammond, Ind. WWJ 920	
	Lapeer, Mich.		WPAP 1010 New York City WPAW 1210		WSAJ 1310 Grove City, Pa. WSAN 1440		Detroit, Mich.	
	Jamaica, N. Y.		Pawtucket, R. I.		WSAN 1440		WWL 850 New Orleans, La. WWNC 570 Asheville, N. C. WWRL 1500	
	WMSG 1350		I WPCX: 560		Allentown, Pa. WSAR 1450		WWNC 570	
	New York City WMT 600		Chicago, Ill. WPCH 570		Fall River, Mass.		Asheville, N. C.	
	Waterloo, Iowa		WPCH 570 New York City		WSAZ 580 Hunt'gton, W.Va.			
	WNAC 1230		New York City WPEN 1500 Philadelphia, Pa.		WSB 740 Atlanta, Ga.		Woodside, N. Y. WWSW 1500	
	Boston, Mass.		I WPG 1100		Atlanta, Ga. WSBC 1210	——	Pittsburgh, Pa. WWVA 1160	
<	WNAD 1010 Norman, Okla.		Atl'ntic City.N.J.	L.	Chicago, Ill.			
\	WNAX 570 Yankton, S. D. WNBF 1500	91	I WPOE 1370		Chicago, III. WSBT 1230 South Bend, Ind. WSEN 1210 Columbus, Ohio		WXYZ 1240 Detroit, Mich.	
	WNBF 1500	/· —	Patchogue, N. Y. WPOR 780		WSEN 1210		XEA 1200	
	Bingh'mt'n, N.Y.		Norfolk, Va.		Columbus, Ohio WSFA 1410		XEA 1200 Guad'l'jara, Mex. XEB 1030	
	WNBH 1310 New B'df'd, Mass.		WPRO 1210 Providence, R. I.		WSFA 1410		XEB 1030 Mexico City	
	WNBO 1200		WPSC 1230		Montgomery, Ala. WSIX 1210		XEC 1333	
	Washington, Pa.		State College, Pa.		Springfield, Tenn.		Toluca, Mexico	
							XED 965 Reynosa, Mexico	40
								4

XEE	Mexico City	XEY 547 Merida, Mexico XEZ 588 Mexico City XFC 805 Aguascal ntes, M. XFF 915 Chihuahua, Mex. XFG 638 Mexico City XFI 818 Mexico City XFI 818 Mexico City XFX 860 Mexico City
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(Continued from page 59)

MICHOACAN Morelia, Mich. Y-12	Watts 101	XEI	Kcys. 1000	Havana W-23	50 15 150	CMBQ CMBR	1500 1500
NEUVO LEON					150	CMBS CMBT	790 790
Laredo, N. L. S-13	101	XEFE	980		150	CMBW	1010
Laredo, N. L. 5-13	2500	XEP	1400	l	350	CMBY	1225
Monterrey N. L. U-13	5000	XEH	1110		150	CMBZ	1010 840
OAXACA	500	XET	690	1	500 150	CMC CMCA	1225
		*****			150	CMCB	1070
Oaxaca, Oak. AA-14	105	XEE	1132		250	CMCD	925
PUEBLA				1	250	CMCF	890
Puebla Z-13	101	XEV	1034		30	CMCG	1345
i debia 2-15	101	21.D.	1004		15	CMCH CMCJ	1405 620
TAMAULIPAS					250 15	CMCM	1405
Reynosa, Tams. T-14	10000	XED	965		250	CMCN	925
Tampico, Tams. W-14	500	XEM	730	l l	225	CMCO	660
IND A ODIE	500	XES	890		600	CMCQ	1150
VERA CRUZ					150	CMCR	1345
Veracruz, Ver. Z-14	500	XETF	685		150 150	CMCU CMCW	1285 1285
*****	101	XEU	800	1	100	CMCY	1345
YUCATAN					500	CMDC	660
Merida, Yuc. X-19	105	XEY	547		3150	CMK	730
					250	CMQ	1150
WEST	IND	ES.			1400	CMW	588
WEST	## (17)	LLO		Matanzas W-24	500	CMX 5 CMGB	890 1205
BERMUDA				Matanzas w-24	50	CMGF	977
Hamilton M-35	7.	5 T.IW	1490		150	CMGH	1370
				Pinar del Rio W-22	20	CMAB	1249
CUBA					30	CMAC	1375
Caibarien W-25	250	CMHD	950	Santa Clara W-25	15	CMHI	1110
Cardenas W-24	30 30	CMGE CMJA	1375 1200	Santiago X-28	150	CMKC	1034
Camaguey W-26	150	CMJA	1382	Tuinucu	100	CMHC	7 90
	20	CMJE	856				
l Ciego de Avila W-26 Cienfuegos W-25	50 15 40	CMJF CMJH CMHJ	930 1017 645	DOMINICAN RI	EPUB	LIC	
Colon W-24 Havana W-23	100 150	CMGA CMBC	834 965	Santo Domingo X-31	1000	HIX	669
	150 150	CMBD CMBG	965 1070	HAITI			
	30 20	CMBI CMBL	1405 1500	HAITI			
	30	CMBN	1405	Port au Prince X-30	1000	HHK	920

SOME STATION SLOGANS

Your

Zone

CST

EST

Subt. 1 hr.

KELW	White Spot of the San Fernando Valley.
KEX	A Public Service Necessity.
KFAB	Home Sweet Home.
KERDI	nome sweet nome.
\mathbf{KFBL}	Voice of Puget Sound. The Argonaut Station.
KFEL	The Argonaut Station.
KFH	Kansas Finest Hotel.
KEI	National Institution.
KFI KFJB	Manional institution.
KLIB	Marshalltown, the Heart of Iowa.
KFKU	Up at Lawrence on the Kaw. Known for Neighborly Folks.
KFNF	Known for Neighborly Folks.
KFPL	Baxter's Place.
KILL	Daxter's Flace.
KFQW KFRU	Gateway to Alaska and the Orient. Where Friendliness Is Broadcast Daily.
KFRU	Where Friendliness Is Broadcast Daily.
KFSG	The Church of the Air. The City of Perpetual Sunshine. The Gospel Voice. Amorica's Secric Content
TATALL	The City of Democracy Complian
KFUL	The City of Perpetual Sunsmine.
KFUO	The Gospel Voice.
KFXJ KFXM	America's Scenic Center.
KEVM	Voice of the Orenze Empire
KLVIA	Voice of the Orange Empire.
KFYO	Breckenbridge, the Dynamo of West Texas.
KFYO KGAR	Way Out on the Desert.
KGB	Music for the Sick.
KODZ	The Color of Devices Continue
KGBZ	The Swine and Poultry Station.
KGCU	The Voice of the West.
KGEZ	The Beautiful Flathead Valley. Voice of West Texas. In the Land of Sunshine. Keep Growing Wiser.
KOEL	Voice of West Terms
KGFJ	voice of west rexas.
KGU	In the Land of Sunshine.
KGW	Keen Growing Wiser.
KĞŸ	Where the Cedars Meet the Sea.
	where the Cedars Meet the Sea.
KHJ	Kindness, Happiness, Joy.
KJBS	Voice of the Storage Battery.
KJBS KLS	City of Golden Opportunity
TCAA	Trans Millians Adding.
KMA	Where the Cears weet the Sea. Kindness, Happiness, Joy. Voice of the Storage Battery. City of Golden Opportunity. Keep Millions Advised. Radio Sam at San Antonio. See Crater Lake.
KMAC	Radio Sam at San Antonio.
KMED	See Crater Lake.
	Your Friend in Hollywood. Science for Service.
KMTR	Tour Friend in Honywood.
KOAC	Science for Service.
KOIL	The Hilltop Studio.
KQV	The Smoky City Station.
KQW	Science for Service. The Hilltop Studio. The Smoky City Station. For God and Country. Down Where the Blue Bonnets Grow. Kummunity Southeast Idaho. Voice of the Intermountain Empire. The Valley of Corden
TOW	For God and Country.
KŘLD	Down Where the Blue Bonnets Grow.
KSEI	Kummunity Southeast Idaho.
KSL	Voice of the Intermountain Empire
	The Valley of Gardens.
KSMR	The valley of Gardens.
KSO	Keep Serving Others
KTAB KTM	Knowledge, Truth and Beauty.
KTM	The Station with a Smile
KVI	Dunt Count Ctation
	ruget Sound Station.
KWSC	The Voice of the Cougars.
NAA	The Valley of Gardens. Keep Serving Others Knowledge, Truth and Beauty. The Station with a Smile. Puget Sound Station. The Voice of the Cougars. Where the Time Signals Originate. Sunshine Station. The Pine Tree Wave.
WAAM	Sunshine Station
WAAM WABI	The Dine Thee West
WADI	The Pine Tree wave.
WADC	watch Akion Develop Commercially.
WAIU	Voice of American Insurance Union
WBAK	Voice of Pennsylvania.
	TOLE OF TELLISYIVALIA.
WBAL	The Station of Good Music.
WBBL WBBR WBEN	Richmond, the Gateway to North and South. Watch Tower.
WRRR	Watch Tower
WREM	Buffalo Evening News Station.
M DEW	Dunaid Evening News Distion.
WBRC	Biggest Little Station in the World.
\mathbf{WBT}	Queen City of the South. Where Prosperity Begins.
WCAE	Where Prognerity Reging
WOAL	College on the Hill
WCAL	College on the Hill.
WCAO	Gateway of the South.
WCAO WCAU	Gateway of the South. Where Cheer Awaits U. Watch Tower Radio Word.
WCHI	Watch Tower Radio Word
WCMA	Value of Culson
WCMA	Voice of Culver.
WCSH	Voice from Sunrise Land, Voice of Times at Tampa.
WDAE	Voice of Times at Tampa.
WDAE WDAF	Enemies of Sleep. Where Dollars Always Grow. First City of the First State.
WDAG	Whom Dollow Almoria Crow
WDAG	THE DOMAIS ALWAYS CHOW.
WDEL	First City of the First State.
WEAN	We Entertain a Nation.
WEEI	We Entertain a Nation. The Friendly Voice.
	Original Cotomor to the W
WFBG	Original Gateway to the West.
WFBL	When Feeling Blue, Listen.
WFBL WFI	Key City of Industry.
WFLA	Inviting the World to the Springtime City
	Voice of the Committee The "
WGBB	When Feeling Blue, Listen. Key City of Industry. Inviting the World to the Springtime City. Voice of the Sunrise Trail.
WGES	world's Greatest Entertainment Service.
WGST	Southern School with the National Reputation.
WIBR	Where Investments Bring Results.
	., -or o mitonomon pring recours.

WIBW Where Investments Bring Wealth Industrial Capital of Connecticut. WICC WIP-WFAN Watch Its Progress, Philadelphia. WJAC Voice of the Friendly City.
WJAG Home of the Friendly City.
WJAS Wonderful Jacksonville.
WJBU In the Heart of the Keystone State. WKBF We Keep Building Friendship.

Their Time on the Air

HE following information regarding time on the air has been secured from the stations concerned, from newspaper clippings, and from our readers. The times shown can be quickly converted into your own time by use of the following table:

CST

Add 1 hr.

Where Time is Given as

MST

Add 2 hrs.

Add 1 hr.

PST

Add 3 hrs.

Add 2 hrs.

PST S	ubt.2 hrs. Subt.1 ubt.3 hrs. Subt.2	hrs. Subt. 1	hr. Add	11 hr.
				_
State	City	Call	Kcys.	Watts
Arizona Daily, 7	Phoenix :00 a.m11:15 p.n	KTAR n., MST.	620	500
California Sunday	Culver City 8 a.msunset; 9:1		1000 id PST	250
Mon T	ues., Thur., Sat.,	ham -ennee	t 10 n m	_1 a m
	ri., 6 a.msunset;			-1 а.ш
W 601. 11	Inglewood		1120	500
Sunday	12:30 p.m2 p.n			
	. PST.	u., 4.00-0-00	р.ш., т.	. р.ш
	, 9 a.m7 a.m. Tu	100		
	week, 9 a.m7:30		n -7 a m	
Dalance	Los Angeles	KESC	1190	400
Sunday	7-12 a.m.; 2-5 p.:			
	. 7-9 a.m.	ш., О.30-11	р.ш., го	1.
	week, 7-9 a.m.; 7:	-20-11 n m		
Багапсе	San Diego		600	500
Dailer 7			000	900
Dany, I	:30 a.m12 mid.,	FOI.	610	1000
g 1	San Francisc		010	1000
	8 a.m12 mid., P	S1.		
Daily, 1	a.m1 a.m.	TODA.	1100	050
D !! .	Stockton	KGDM	1100	250
Daily, 6	a.msunset, PST			
Colorado	Denver	KFXF	920	500
Sun, Mo	on., Wed., Sat., 8 d., MST.	3:30 a.m6 p	o.m.; 7:30	0 p.m

Tues, Thur.. Fri.. 8:30 a.m.-6 p.m.; 7:30 p.m.-9 p.m. Denver KPOF 880 5 Denver KPOF 880 500 Wed., 7:30-9 a.m.; 2:30-4:30 p.m.; 7:30-Sun, Mon, 9 p.m., MST, 130-9 a.m.; 2:30-4:30 p.m.; 6-8 p.m. Tues., Thur., 7:30-9 a.m.; 2:30-4:30 p.m.; 6-8 p.m. Fri., Sat., 7:30-9 a.m.; 1-2:30 p.m.; 6-8 p.m. Test programs 2 a.m.-3 a.m. MST, last Tuesday in

month, Oct.-April. Shenandoah KMA

Sunday, 8-9:15 a.m.; 11:15 a.m.-1:30 p.m.; 3-4:30 p.m.; Sunday, 8-9:15 a.m.; 11:15 a.m.-1:30 p.m.; 3-4:30 p.m.; 6-7 p.m.; 8:30-11 p.m., CST.

Monday, 6-7:30 a.m.; 9:30-11 a.m.; 12:30-2 p.m.; 3:30-5 p.m.; 6:30-12 mid.

Tues. Fri., 6-7:30 a.m.; 9:30-11 a.m.; 12:30-2 p.m.; 3:30-5 p.m.; 6:30-8:30 p.m.

Wednesday, 9:30-11 a.m.; 12:30 a.m.-2 p.m.; 3:30-5 p.m.; 6:30-8:30 p.m.; 10:11:30 p.m.

Thursday, 9:30-11 a.m.; 12:30-2 p.m.; 3:30-5 p.m.

Saturday, 6-7:30 a.m.; 9:30-11 a.m.; 12:30-2 p.m.; 3:30-5 p.m.

3:30-5 p.m.

State Louisiana Sunday	City New Orleans	$egin{array}{c} Call \ WABZ \end{array}$	Keys. 1200	Watts 100
Monday Friday,	5-9 p.m., CST. , 8 p.m2 a.m. 8 p.m1 a.m.	:		
Dalance	week, 8 p.m12 m New Orleans 10 a.m7:45 p.m., a.m8:30 p.m.	WWL	850	5000
Mississippi	a.m8:30 p.m. Meridian 5-11 p.m., CST. :30 a.m1:30 p.m.	wcoc	880	500
Daily, 7: Late n	:30 a.m1:30 p.m. tight and early mor	ning progra	ms often	
New York	New York	WPCH	570	500
North Dakot	a.m6:30 p.m., ES a Bismarck	KFYR	550	1000
Daily, 6:	.m10:30 p.m. .15 a.m12:30 p.m.	.; 2:00-10:30	p.m.	
Oregon Sunday,	Portland 8 a.m12 mid., PS	KGW	620	1000
Daily, 6:	8 a.m12 mid., PS 30 a.m12 mid.			•
	7, 6:30 a.m1 a.m. Portland	KOIN	940	1000
Sunday, Daily, 6	8 a.m11:30 p.m., a.m1 a.m.	PST.		
Panneylvania	Pittshurgh	wwsw	1500	10 0
Daily, 9	10 a.m10 p.m. E a.m11 p.m. 7, 9 a.m12 mid.			
Saturday	Scranton	WQAN	880	250
Mon., W	Scranton Ved., 9-9:30 a.m.;	12:30-1:30	p.m.; 4:	30-5:30
$12 \mathrm{\ mid}$	ri., 12:30-1:30 p.m			5 p.m
	at., 12:30-1:30 p.m			*00
Texas Sunday,	Beaumont 8:30 a.m10:15 p.s a.m2 p.m.; 4:30-1	KFDM m., CST.	560	500
Washington	Bellingham	KVOS	1200	100
Sunday, Daily, 6:	9:45 a.m9 p.m., l 45 a.m11 p.m.			
Sun., Mo	Seattle on., Tues., 8 a.m1	KJR 2 mid., PST	970 Г.	5000
Balance	week, 6 a.m12 mi Seattle, Daily 6 a.m1	KRSC 5:30 p.m., P	1120 ST.	50
CANADA				
Monday,	Calgary 11 a.m12:30 p.m.; 8-9 a.m.; 11:30 a.	CFAC 2:45-5 p.m. .m1:45 p.n	690 ; 7-9 p.m n.; 3:30-	500 , MST 6 p.m.;
9-10:3 Tues., T	'hur., 8-9 a.m.; 11	:30 a.m1:	45 p.m.;	3:30-6
p.m.; Wednesd	7-12 mma. av. 8-9 a.m.: 11:			
Friday,	3:30-11:30 p.m. 8-9 a.m.; 11:30 a.:	m1:45 p.m	.; 3;30-	3 p.m ;
10-12 mi Saturday	, 8-9 a.m.; 11:30 a	.m1:45 p.1	n.; 3:30-	6 p.m.;
7-8 p.r British Colun	abia Chilliwack	CHWK	665 PST	100
Quebec	cept Sunday), 12 m X each Friday, m Quebec	CHRC	m. Sat. 645	100
Sunday, Daily, 8	12 noon-11 p.m., E a.m2 p.m.; 6 p.m	12 mid. (S	at. off 1	l p.m.)
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STATEMENT OF THE OWNERSHIP, MANAGE-MENT, CIRCULATION, ETC., REQUIRED BY ACT OF CONGRESS OF AUGUST 24, 1912

Of Radio Index. published monthly except July and August, at Cleveland, Ohio. for October 1, 1931.

County of Cuyahoga \ ss.

Before me, a notary public in and for the State and county aforesaid, personally appeared Fred C. Butler, who, having been duly sworn according to law, deposes and say that he is the Editor and Publisher of the Radio Index. and that the following is to the best of his knowledge and belief, a true statement of the ownership, management, etc., of the a true statement of the ownership, management, etc., of the aforeaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor

managing editor, and business managers are:
Publisher, Fred C. Butler, 5005 Euclid Ave., Cleveland, O.
Editor, Fred C. Butler, 5005 Euclid Ave., Cleveland, O.
Managing Editor, Fred C. Butler, 5005 Euclid Ave., Cleveland, O.
Managing Editor, Fred C. Butler, 5005 Euclid Ave.,
Cleveland, O.

Business Manager. Fred C. Butler, 5005 Euclid Ave..

Cleveland, O.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must

be given.)
Fred C. Butler, doing business as The Radex Press.
That the known bondbolders, mortgagees and other security holders owning or holding I per cent or more of total

amount of bonds, mortgages, or other securities are: (If there are none so state.) None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary cases where the stocknotner or security notice appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two para-graphs contain statements embracing affiant's full knowl-edge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a cancity other than that of a hona fide owner. securities in a capacity other than that of a bona fide owner; and this affaint has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is. (This information is required from

daily publications only.)

Fred C. Butler. Sworn to and subscribed before me this 1st day of October, 1931 [Seal] R. E. Schmiedel.

(My commission expires April 5, 1932.)

AMATEUR BROADCAST STATIONS IN CANADA

10 AK Class 10BU Canor 10BP Wing 10BI Princ 10AB Moos	evener of Station c Radio Club a Radio Association am Radio Club Albert Radio Club Jaw Radio Association cone City Radio Asso.	Location of Station 151 Ontario St., Stratford, Ont., Railway Ave., East Canora, Saskatchewan Brunswick Hotel Bldg., Wingham, Ont. 331 20th St. West, Prince Albert, Saskatchewan 338 Main St., North Moose Jaw, Saskatchewan 12 Terrace Hill, Brantford, Ont.	Kcys. 1200 1200 1200 1200 1200 1200 1200	Meters 250 250 250 250 250 250 250 250	Watts 10 15 15 25 25 5
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The World Stations by Frequencies appeared in the November issue. Stations by Countries were published in October. Next month a list of the Short-Wave Broadcasters of North America.

FAVORITE PROGRAMS

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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

LL stations in America are listed in RADEX A 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,

600 kilocycles

610 kilocycles 491.5 meters

620 kilocycles 483.6 meters

630 kilocycles 475.9 meters

640 kilocycles 468.5 meters 5000 Los Angeles, Calif.

650 kilocycles 461.3 meters

660 kilocycles 454.3 meters

670 kilocycles 447.5 meters

680 kilocycles 440.9 meters

5000 San Francisco, Cal

WAAW 500 Omaha, Nebr.

the other two are merely supplementary.

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

Tune in some station any 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.

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 the 660 kcys. frequency the Federal Radio nmission. We also Commission. We also find that it has a power of 50,000 watts, that it is lecated 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 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 kcys. We turn to 630 in the Index by Frequencies and enter our dial readings for this band which on the set we are using was 72-70.

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 afr 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 particular set.

Now we tune in some other station, proceeding as before until after an

INDEX BY FREQUENCIES AND DIAL NUMBERS 590 kilocycles 508.2 meters 499.7 meters

Corp Radio Co., Inc.

ctrical Equipment Co.
egonian Publishing Co.
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ilina College, Inc.
ompson L Guernesy

72 | 70 Broadcasting Ass'n eg Grain Exchange an National Railware io. Ing Buresu

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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 be-

fore 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 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 same locality have the

same frequency, they are required to divide the time. In this case, of course, it is not possible to tell which one of the two stations is broadcasting at the portionic mount of the course, it is not possible to tell which one of the two stations is broadcasting at the portionic mount of the course of the cou 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 Cail Letters also has spaces proriding 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 got the most value and cies 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.





Sometimes I think there ought to be a law to make everyone do a little studying every week. I didn't think that a year ago because it looked like all the cards were stacked against ne. But I am certainly rolling in the money now. Maybe my story will show you the way to larger carnings also.

I Thought Radio Was a Plaything

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

\$50 a week! Man alive, a year ago I thought anyone making that much was just plain lucky.

Twelve months ago I was just barel; getting by. It was the same old story—a little job; a salary as small as the job.

If you had told me that twelve months later I would be making \$100 a week in my own Radio business—I'd thought you were crazy.

But I am getting ahead of they story—let me tell you how it all started. I was hard up a year ago because I had been kidding myself—that's all—not because It had to be. I thought a fellow either had to be lucky or have a string of foollege degrees a half a mile long to make good money.

One-day I picked up r magazine and the headline of an ad attracted me be-ruke it seemed to fit my case. It said, "I will show you how to start a spare time or full time Radio business of your own WITHOUT CAPITAL."

"They're trying to kid somebody," I thought, "but I'll find out what it is all about anywas."

I wrote in and within a few days received a 64-page book telling about the opportunities in Radio, how I could prepare right at home in my spare time, and how they would show me how to start making mone in my neighborhood selling and repairing Radio sets and doing other jobs. It would probably have sounded too good to be true if the promises had not been backed up by 100 letters from fellows who b. ' taken their course and were very enthusiastic about it.

What has happened since seems almost like a dream to me now. I took their course and in about a month I was ready to start making money in my neighborhood—as much as \$20 and \$30 a week. It wasn't long until I had saved enough money to start a little business of my own.

That business has since grown to the point where I am clearing an average of \$100 a week. All this took place under the watchful guidance of my friends at the National Radio Institute. They also offered to train .ne for other lines—in case I wasn't interested in having my own business. Broadcasting stations, Radio Manufacturers, Operating on Board Ship, Servicing sets, Aircraft Radio, Tele-

vision and Talking Movies are other fields their training covers. And to think, until the day I wrote for that book. I'd been wailing, "I have never had a chance—will never have one because I have no pull and have never had the advantage of a good education!"

Friend—you may not be as bad off as I was—but think it over—are you satisfied? Are you making as much money as you need? Would you sign a contract to stay where you are for the next ten years, at the same salary? Those are the things you have to think about—because no one is going to make it his business to push you ahead—you must make it your own business.

Take my tip—write for their book. It won't cost you anything—only a two-cent stamp. It shows you a lot of things which I don't believe you know now—a lot of facts and figures on the opportunities in this new fast-growing field. Where the jobs are, what they pay, how to get ready for one. Beginners as well as experienced men are making as much as \$1,000 to \$2,000 a year more as a result of N. R. I. training. You place yourself under no obligation because the book is free and is gladly sent to anyone who is ambitious and wants to get ahead. Just address J. E. Smith, President, National Radio Institute, Dept. 1NO, Washington, D. C.

J. E. SMITH, President,

ĺ	Dept. 1NO, Washington, D. C.		
	Dear Mr. Smifh: Send me your 64-page free book, which gives mation on the opportunities in Radio—Operati Board Ship, in Broadcasting Stations, Comm Land Stations, Set Servicing, Radio Manufact Aircraft Radio, Television and Talking Movies, I stand this request places me under no obligatio no salesman will call on me.	ng ero uri und	orial ng. er-
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