THE DECEMBER 1930

RADEX

The Magazine that Doubles the Pleasure of Radio



(25°)

To

A Very Merry Christmas and A Mappy New Jear

From_

No. 44

HOW TO ADD A TONE CONTROL

N. S. E.

Give RADEX for Christmas

E can't think of a thing that would give your friends so much pleasure for so little money as any one of the items listed below.

The December RADEX will have a Christmas and New Year greeting right on the front cover—just fill in your own and your friend's names and there is the finest kind of a holiday card and one that will give pleasure for months.



Let RADEX Be Your Santa Claus



For 25 Cents:

The Christmas number of RADEX, or The Radio Map of North America.

For 50 Cents:

A leatherette cover for RADEX or Map.

For 75 Cents:

Leatherette cover with RADEX or Map.

For One Dollar:

Leatherette cover with both RADEX and Map, or The next five issues of RADEX.

For 1.75:

Next five issues of RADEX, Map and Cover, or Next ten issues of RADEX and Map.

For \$3.50:

Two subscriptions of 10 issues (or one subscription of 20 issues) with Cover and two Maps.

Use the subscription blank on Page 18.

In the January issue: How to Add a Short Wave
Adaptor to Your Set

THE DECEMBER 1930



RADIO EX





FRED CLAYTON BUTLER

Editor and Publisher

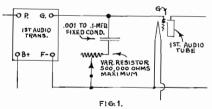
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ADDING Your Own TONE CONTROL

NE of the latest gadgets to put on your radio set, or have installed by a competent service man, is a tone control. Do not confuse this with a volume control, because it isn't such a thing, although it does reduce the volume of the higher tones. A tone control is just what its name implies, that is a control of the tone quality of a receiver. It would, however, be decidedly foolish to imagine that a tone control will improve reception to such marked degree that one can make a good set out of a poor one. No such miracle is suggested. "Well," you ask, "what does a tone control do and is it a worthwhile improvement?" To be sure a tone control is desirable; it improves reception by taking the harsh edge off a raspy tenor, the shrillness from a loud soprano, it softens the blatant effect of a blary, brass band and changes the pitch of a speaker who has a decidedly irritating nasal quality of voice.

How It Works

The tone control consists of a fixed condenser, of from .001 to .1-mfd. capacity, and a variable resistor having a maximum resistance of 500,000 ohms, the latter being installed on the panel of the receiver so that it is always accessible. Usually the connections are as shown in Fig. 1. One side of the fixed condenser is connected to the G-terminal



of the first audio transformer, that is the one following the detector stage. The other side of the condenser goes to the fixed side of the resistor, while the variable side of the resistor is connected to the F-terminal of the same audio transformer. Thus the condenser and resistor are connected in series while the whole arrangement is merely shunted across

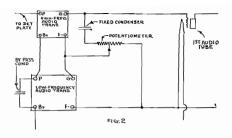
The Why and the How of It

the secondary winding of the first audio transformer. When the resistor is set so that all of its resistance is in the circuit, the reproduction is practically the same as it was before making the above-mentioned change in the wiring. But when the resistance is cut out by moving the resistor arm in the opposite direction, the higher frequencies passing through the secondary winding of the transformer and from there to the grid of the first audio tube, are partly bypassed through the fixed condenser so that a portion of their strength is absorbed.

In reality, a tone control merely suppresses the higher frequencies, these being more easily passed through the condenser than through the first audio tube when the resistance in the tonecontrol circuit is reduced to a point where it is less than that of the grid circuit of the first audio stage, and as you know, an electric current always follows the path of least resistance, as many of us do ourselves. A tone control will not actually deepen the bass notes nor lower the frequency range of the first audio transformer, but when the higher frequencies are suppressed, that is, reduced in volume, while the lower frequencies still retain their original values, the latter will seem comparatively louder than otherwise.

A Clever Arrangement

One radio manufacturer has incorporated a delightfully clever idea that really does permit the user to emphasize either the high or the low notes along any desired graduation. He uses two audio transformers for the first stage, one designed to pass the higher frequencies and the other the lower frequencies. The circuit is shown in Fig. 2. The tone-control unit or resistor, which in this case happens to be a potentiometer, is cut in the circuit in a somewhat similar manner as that already described. The transformers are



hooked up in series, that is, the primary of one is connected in series with the primary of the other, and the same is true of the secondaries. When the resistor arm is set halfway, a normal tone quality is obtained, both transformers being in action. Turning the resistor toward one side cuts down the higher tones and then most of the load is carried by the lower-frequency transformer, resulting in emphasis of the low tones. Turning the resistor in the opposite direction cuts the load off this transformer, transferring it to the one designed for higher frequencies with the result that high tones are emphasized.

It has been questioned whether a tone control is necessary or advisable in case where tone, as actually produced before the microphone, is already of a superior quality. Naturally it would be useless to attempt improvement of something that is already perfect, or nearly so. On such cases, one would immediately discourage the use of a tone control. But there are a few factors that must be taken into consideration, even when dealing with really good tone. In the first place radio engineers claim that in order to have perfect reproduction of tone at the receiving end, the volume should be exactly the same strength as the signal when picked up by the microphone at the studio. However, in the average home this is usually out of the question, Imagine having a 50-piece band playing full strength in a small 9 by 12 living room. For comfort then the volume must be greatly reduced. When this is done the low notes of the musical scale, to which the human ear is least sensitive, are lost, while the higher ones are retained, thereby throwing the tone quality entirely out of balance. This is true whether the music

being broadcast is perfect in respect to tone quality. Obviously, to restore the proper balance at the receiving end the higher tones should be reduced in volume in the same proportion as the low notes, which can be accomplished by the installation of a tone control. The distorted effect due to incorrect location of microphones can also be corrected to a great extent by using a tone control. Another reason why a tone control is a good gadget is that as long as radio broadcasting exists there will be screechy sopranos, squalking tenors and others (Continued on page 16)



Salt and Peanuts of WLW. Frank Salt and "Peanuts" sing old songs, new songs, blue songs, love songs, trick songs, hick songs and all sorts of songs.

WAVE TRAP Increases SELECTIVITY

And Gives Greater Volume

ERE is a simple wave trap, which anyone, who likes to experiment a little, can readily make. necessary parts for its construction are a .0005-mfd. variable condenser, a bakelite or cardboard tube four inches in diameter and three inches long, some No. 18 d. c. c. wire for the primary winding and some No. 22 d. c. c. wire for the secondary winding. A small snap switch and a piece of bakelite, large enough to hold the condenser, will also be found very handy. Wrap from 40 to 45 turns of No. 22 wire on the tube, this winding being the one which is connected at both ends to the variable condenser. On top of this winding, wrap 10 turns of No. 18 wire. The latter winding is connected between the antenna and the antenna post of the receiver. You will find it handy to connect a snap switch across this winding so that the wave trap may be shorted out when not in use. With a long antenna, fewer turns are used on the primary winding. On a 100-foot antenna only five turns of primary are needed. Mount the condenser and the switch on the bakelite panel and fasten the tube holding the coil to the frame of the condenser.

I am using a Crosley Gembox A. C. receiver. My antenna is located in the attic of a 1½-story house. It is about 35 feet in length and runs north and south. with the lead-in taken from the south end. My ground lead is about eight feet long and it is soldered directly to the city water mains. I find that my wave trap increases the signal strength from 75 to 100 per cent. I had often read the advertisements of certain manufacturers who claimed that the use of a wave trap increased signal strength, but this was rather difficult for me to believe. However, you can imagine my surprise, when after fixing up the wave trap described above, not only was interference cut down, but I actually found

that the wave trap increased the volume to a considerable extent.

Another Type

A slightly different wave trap, which I have also found highly satisfactory, makes use of low-loss form to hold the windings. The number of turns of the windings, and also the capacity of the variable condenser differ from the preceding wave trap. Get a bakelite tube four inches in diameter and 21/2 inches in length. With a scriber carefully make a mark entirely around the tube about one-half inch from each end. Then lav off four sections about one-quarter inch wide running across the tube lengthwise. These sections should be equidistant. Then take a drill and make a hole which will enable you to insert a small metalcutting blade of a scroll saw, and cut out the pieces between the sections laid off: The result will be a ring at each end connected by four one-quarter-inch crosspieces. Keep the cutouts as they must be used when winding the coil, or else the wire will stretch directly from one crosspiece to another and the resulting coil will be square, which is, of course, not desired. Get a smaller coil that fits snugly inside of the four-inch coil, even if you have to build the diameter up by several layers of paper. After the smaller coil is put in place the cutout pieces are put back in their original positions and the wire is wound on the Apply a liberal coating of outside. collodion to the wire so that it will be practically self-supporting when dry, at which time the inner tube can be removed and also the cutouts.

In this case the secondary winding consisted of 30 turns of No. 18 d. c. c. wire. The primary winding, consisting of 10 turns of No. 14 d. c. c. wire, is then wound on a 3½-inch tube, and collodion is again applied. When dry, slip the winding off the tube and mount it inside of the secondary winding. Sometimes difficulty is experienced in removing a collidion-treated coil from a tube. One

(Continued on page 25)

MEET FREDDIE RICH



THIS is the story of a career and a personality, productive, gracious and surprising. To introduce so elaborately such an unassuming young man as Freddie Rich is incongruous, but imperative. Behind his smooth-shaven face, kindly eyes and smile is a determination intransigent. The will of a fighter who, not yet thirty, has established himself in this highly competitive world as a director extraordinary, a successful composer of popular music and a picturesque bon vivant.

He comes from the East Side and frankly admits it. His experiences recall those of the boy in "Haunch, Paunch and Jowl." He fraternized with peddlers, policemen and street musicians; felt the raw edges of poverty; battled with gangs. He stole away from school to swim in the East River, but nevertheless found time to practice daily at the piano. But unwillingly—unwillingly, that is, until one day his father, to punish him, stopped his lessons and locked up the instrument.

Then Freddie's need for forbidden music grew so urgent that he became a steadfast disciple and practiced faithfully hour after hour until he was proficient. Soon he was reaching out with the mysterious facility of the true artist into harmony and composition.

At twelve he had a job on Second

Avenue in an old-fashioned "nickelodion." Tired fingers, poor ventilation, strain. Ten hours straight playing a day, with time off only to meet the requirements of the Board of Education, and \$13 a week for his services, \$12.50 going to his family and 50 cents for himself.

A hiatus here. A transitional period, with Freddie finally in the Damrosch Conservatory of Music, happy, and substantially laying the foundation for his future musical life.

The rest is a record of definite achievement. In 1922 at the Hotel Astor he was one of the first dance orchestra directors to conduct a program over the radio. In 1923 he was a recording artist and was composing numbers like "Animal Crackers." He was also gathering in dollars for his brilliant arrangement of the "Parade of the Wooden Soldiers."

Now as one of the principal conductors for the Columbia Broadcasting System, he does as many as sixteen different programs a week.

At rehearsals he is affable, winning, mild and resourceful.

"Come on, boys," he calls, and immediately his musicians respond with the best they have. He does not use a baton, but directs with hands and fingers superlatively plastic. He edits quickly: "Back eight measures as you'd actually play it," he orders. Then he stamps his feet, hard—so hard that they have to put felt on the stand to preserve it for other directors.

"Once more from the beginning," he shouts. "Give me the last eight bars that you are actually going to play.... 'Dum, dum, dum' alla breve...." And finally, when the grueling hours of rehearsal are over, he dismisses his men with—"Thank you very much, boys."

How to Add a Short Wave Adaptor Will be Found in the January RADEX

Collecting RADIO VERIFICATIONS

A NUMBER of inquiries come to us regarding verification cards and asking for information as to securing them. It is necessary only to listen to a program long enough to ascertain the title of the feature and the time at which it was received. Send this in a letter to the station which you heard with a 2-cent stamp and they will advise you whether or not it agrees with their records. Stations as a rule will not give verifications on chain programs, as these are known to every one and do not constitute a proper basis for verification.

Station Stamps

New readers unfamiliar with DX stamps write to ask us what the asterisk means in the Index by Frequencies. This indicates that the station so marked has notified us that upon receipt of 10 cents and the correct report of a program received from their station, they will send as verification an adhesive stamp. Many listeners are making a collection of these stamps, as proof of the stations which they have received. Most of the stations furnish a stamp issued by the Ekko Company, although a few stations have put out an individual stamp of their own.

Recently collectors have begun to gather these radio stamps in the same way that philatelists have been collecting postage stamps for many years. This has given rise to a controversy which has been raging pro and con in the last several issues of this magazine.

Several readers have taken violent objection to the claims of DX reception published in our columns. Karl Halpern, 1435 Coney Island Ave., Brooklyn, N. Y., believes that some of these criticisms are aimed at him and therefore sends to us letters and cards he has received from foreign stations which indicate beyond a doubt that he heard their stations correctly. Two of these verifications were from JOBK, Japan, and EAJ19, Spain. Those of us who have never been able to tune in a single station from across the water do find it difficult to realize that one located in such a large city as

The Hobby of Many Readers

Brooklyn can bring in a number of them. But Mr. Halpern submits evidence

proving that he has done so.

Another correspondent, Leon V. Garland, 216 West Franklin St., El Segundo, Calif., writes that he knows that his was the name referred to as heading the list of members of one of the stamp exchanges, but he says, "Although I have a number of Ekko stamps and have sold a number to parties wanting them, I have yet to find one person who is collecting them as proof of reception." Mr. Garland says that as proof of reception stamps are quite worthless, as he knows a number of stations that will send them just for the asking and 10 cents, and that he has known cases where proof cards from one station were sent to the stamp company with a request for a certain stamp of another station and the request was honored. Under such circumstances, of course, the possession of stamps constitutes in no way a proof of reception.

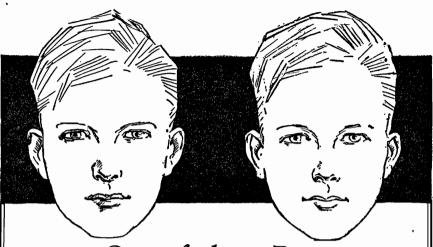
A second letter from Leonard L. Hoffman, 618 No. McBride St., Syracuse, N. Y., and a letter from J. W. Brauner, 17 E. Spring St., Williamsville, N. Y., seem to object more to the publicity given DXers than to their claims. As we have stated before if a person desires to claim unfounded reception he can do so without possessing a stamp. There are throughout the United States DXers who are making remarkable records in bringing in distant stations, including those across both the Atlantic and

Pacific.

More Verifications

And Joseph Baskys, 1610 South Union Ave., Chicago, writes that his total of 978 stations were all verified by letter only and although he too sells stamps to collectors, he bases his count only on those verified by letter. He states further that he has shown all of his letters of foreign verification to Mr. Gilchrist,

(Continued on page 22)



One of these Boys Will Fail-IF

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

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

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

STAMMERING

ITS CAUSE AND CURE

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

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

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

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

***************************************	BENJAMIN N. BOGUE, 14051 Bogue Building, 1147 N. Illinois St., Indianapolis, Ind. Enclosed is 10 cents for which please send me the book "Stammering—Its Cause and Cure"—and full information regarding the Bogue Unit Method for the cure of stammering and stuttering.
	Name
	Address

HERE'S What's Wrong with MY SET

Diagnosis by the Technical Editor

Are you able to give me definite information regarding the following: Is there a short-wave receiver manufactured that can be used by plugging into a Radiola superheterodyne set using UV 199 tubes? If so, please send me the name of the manufacturer or dealer so that I may get

further information.

Short-wave adapters of the usual kind consist of a short-wave tuner. which is connected ahead of the detector tube, the r. f. stages of the receiver being entirely disconnected. Another method of adaption is to substitute short-wave coils for the regular coils used in the r. f. stages, both sets of coils being interchangeable. In the case of a superheterodyne, of which the intermediatestage coils or transformers are not interchangeable, and the oscillator coil is especially designed for the broadcast waveband, the use of an adapter becomes more complicated and is not really satisfactory. About the only method that could be used is a short-wave adapter connected ahead of the second detector, the output of the intermediate stages being disconnected. Such a tuner would, of course, have no r. f. amplification, and consequently the range of the receiver would not be very great. If you are interested in such a tuner write tothe Aero Products Co., Ravenswood and Wilson Avenues, Chicago, Ill., requesting them for their their short-wave catalogue. If you wish good short-wave reception, it is best to build a separate receiver especially designed for shortwave reception.

Reducing Hum

When I bought a Radiola No. 60 superheterodyne about two years ago, I found that it had a very decided hum, I reduced this about ninety per cent by shunting a 2500-mfd., 9-volt filter condenser across the rectifier of my Magnavox dynamic loudspeaker. Recently, while having the set overhauled for necessary minor adjust-

ments of the intermediate transformers, trimmer condensers, and regeneration control, I had the radiotrician change the wiring to permit the use of 245 tube in the audio stage. Since this was done I find the operation of the set very satisfactory in regard to tone, volume, distance and selectivity. However, the former bad hum is back again and the condenser across the rectifier apparently has no effect at all. I am sure it is not the fault of the condenser, because I had it tested and I also tried a new one of the same type. I find that the hum is now in the set instead of in the speaker, which I proved by disconnecting the speaker and using phones. I have called the same man who worked on it before but he does not seem to be able to find the cause of the hum. I would like to ask if you can suggest where to look for the trouble and the method of correcting it.

The power unit of your receiver is not designed to supply power to a 245 tube. which requires from 180 to 250 volts of plate potential. Besides a 2.5-volt filament voltage the C-bias requirements are also different, and the 245 tube passes more plate current than the 171A. When used in conjunction with a power unit not intended for it, there are possibilities of overloading the unit, which invariably results in a. c. hum. According to manufacturer's data, the 245 tube is not interchangeable with the 171A tube or any other power tube, and it can only be used with apparatus especially built for it. The difference in tone quality obtained by using a 245 tube instead of a 171A, is so slight that it does not pay to make the change, and when you have complications, such as the introduction of the a. c. hum. I would certainly change right back again to the use of a 171A tube, which was the original arrangement and operated satisfactorily. Let well enough alone.

Probably Tube Trouble

I have a Kolster 6D battery-operated receiver and have gotten excellent results until recently. At present I am unable to get any stations other than the locals. I think that the fault lies in the tuning condensers, as I had to put a piece of metal next to one of them to get any volume even from locals. Kindly advise me how to remedy this fault.

It is impossible to completely diagnose your trouble merely from the fact that a piece of metal placed next to one of the tuning condensers increases the volume of your receiver. It is, however, evident from this fact that your r. f. tubes are not delivering their normal supply, and the pickup is poor. Get new tubes, inspect your aerial, insure a good ground, be certain that your batteries are up to their normal voltage, and you will have no more trouble.

Fitting Tubes to Set

I have a Franklin Consolette six-tube battery-operated set and would like to know what tubes would work best in it. I have three Rextrons, which have no numbers on them at all. I have a Radiotron UX201A, Cunningham CX301A, and one Airline GX200A, which is a detector tube and works better than any I have had. When I got the set it had a 200A Sonotron detector, but this wasn't good and I got a UX200A Radiotron and burned

it out the first time I put it into the socket. Can you give me any advice?

Use a UX200A tube in the detector stage and 201A tubes in all other stages unless the last audio stage is designed for the use of a power tube and in that case use a power tube in this stage. providing the correct plate voltage and grid-bias voltage. First try a 201A in the power stage and if this is not satisfactory use a 112A tube, increasing the C-bias to nine volts and using 135 volts of plate potential on the last stage only. If the maximum B-voltage on your set is 90, you may be reasonably certain that the last tube should be a 201A. If it is a resistance-coupled set you may have to supply 135 volts of plate potential on the audio tubes and still use the 201A type.

Voltage Control

I have a Silvertone seven-tube screengrid receiver, that is a very good performer with the exception that it fades badly. I have noticed that your advice to readers having this same trouble is to use a voltage control between the source of house-lighting supply and the receiver. Believing that my trouble has been due to fluctuating house current, I have approached several radio

(Continued on page 20)



Norman Brokenshire, one of Radio's most popular masters-of-ceremonies, tunes in to a trio which introduced the new popular song, "Sing Something Simple" from the "Second Little Show." Left to right, Arline Judge, Ruth Tester and Fay Brady

Our Readers WRITE to the EDITOR

About Things They Learn

ANY letters of commendation have been received regarding the new RADEX Radio Map of North America. Our Canadian readers have been especially interested in securing a map showing the location of the U. S. stations as well as those in their own country. "It is indeed a splendid map and a worthy companion to RADEX," says Hedley Simmons, 22 Clyde St., Hamilton, Ont. "Certainly up to the high standard that you maintain for your publication," is the comment of Carroll C. Foltz, 303 Central Ave., No. Baltimore, Ohio. "I am very well pleased with the map. I put a circle around the cities I have heard and in this way I can see at a glance the ones I have and have not received," explains Jack Roberts, 211 Harvard Ave., Collingswood, N. J. "I have mounted the map on heavy cardboard and bound the edges with red tape. I use Moore map pins to mark the cities I have received. A blue-headed pin for those received but not verified and a red pin for those verified," is the method of use described by Thos. Van Buren, 32 Fourth Ave., Gloversville, N. Y.

"A word of praise for the RADEX radio map," says Tom Lovell, P. O. Box 209, Belton, Texas. "Anyone interested and caring to know what distance their radio is reaching out should have this map. For my own convenience, starting with my town as the center, I have made 100-mile circles covering the map. I can thus tell at a glance how far any broadcasting station is from me."

WCHI and KMAC

We still receive conflicting reports in regard to this Chicago station, but it seems to be pretty well agreed that it is now broadcasting over WORD, although D. E. Cosgrave, Hotel Strand, Chicago, believes they resumed broadcasting on Saturday, October 25th. Mr. Cosgrave says Chicago publications show WCHI

at 823 Tower Court, while WORD is at 2150 Lincoln Park West.

LeRoy House, P. O. Box 57, Plant City, Fla., a beginner in DXing, has now 56 stations verified and letters to 14 more outstanding. "WHAS writes me," says Mr. House, "that they have issued a set of five stamps for verification. WTIC, Hartford, uses their own station stamp as well as a nice letter in verifying my reception."

2LO Schedule

"A friend in England writes me," says George Lilley, 227 W. Bernard St., West Chester, Pa., "that 2LO broadcasts between 10 and 10:30 a.m. and 11:00 and 11:30 a.m., that is 5:00 to 5:30 and 6:00 to 6:30 EST. Tell your Eastern readers," adds Mr. Lilley, "to try for KGFJ, 100 watts, Los Angeles. They are on the air 24 hours a day. I received them quite a few times this fall around 5:00 a.m. Also logged KGAR, Tucson, Ariz., 100 watts, November 2nd, at 4:40 a.m., with a two-tube receiver."

"Have logged from one to 36 stations from all the states except Maine and New Hampshire, so far I have never heard them," says O. C. Arnold, RFD 4, North Topeka, Kansas.

"Recently I purchased a Majestic 52, a wonderful little set, and in eight nights I have logged 65 stations on 50 channels, including CMC and CMK, Cuba, and KFI, KGO, and KNX, California," writes Everett N. Daniel, 3235 Hackberry St., Cincinnati, Ohio. "This is fairly good in view of the fact that I am located almost next door to a street car barn and I surely do know it when a car goes past or when they start a motor." Mr. Daniel complains that WKBU, the Cincinnati police station, supposed to be operated on 720 kcys. spoils everything for him around 1370.

"I can't DX like some of the readers of RADEX," admits W. E. Evans, 2 Woodland Road, Sewickley, Pa., "but I get a great kick out of trying. Four weeks ago I bought a Kylectron and in that time I have logged 184 stations on

(Continued on page 12)

"How can I get into Aviation?"

Walter Hinton was pilot of the famous NC-4, first plane to fly the

Atlantic. He also piloted the first plane from North to South America—and was first aerial explorer of the

first aerial explorer of jungle regions of the Upper

Navy. He is ready to train you-right at home-as he is training hundreds of others—for big pay and a big future in Aviation.

This FREE Book, "Wings of Opportunity," is your

can take that step-by clipping the coupon and send-

ing for your FREE copy-

right now.

Amazon. During the he was one of the crack fly-ing instructors of the U. S.



O succeed in Aviation—to make BIG MONEY—it is not necessary to be a pilot. There will have to be thousands of pilots, essary to be a pilot. There will have to be thousands of pilots, of course. But for every plane that flies, there's an immediate need for forty trained men to fill important jobs right on the ground. There have to be construction, motor and instrument experts—managers, service foremen, salesmen—and skilled craftsmen of almost every kind. All of these jobs pay big money—all of them are stepping stones to still bigger money. Aviation offers more opportunity for good starting salaries and rapid advancement than any other field. It's the world's fastest-growing industry. And NOW, while there are plenty of places on the "ground floor"—is the time to get into it. floor"-is the time to get into it.

Get Your "Ground-work" NOW at Home, Hinton Will Train You

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opportunity	<u> </u>	WALTER HINTON, President, Aviation Institute of U. S. A., Inc., 1115 Connecticut Ave., Washington Send at once my FREE copy of your book Opportunity."	377 T , D. C. , "Wings of
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Please mention RADEX

Readers Write the Editor

(Continued from page 10)

every wave except 540, 880, 1030. I haven't enough stations to be classed a real DXer, but in any event I am not a radio liar and don't think that any of your readers who write you of their DX work are either."

"I have noticed some queer reception with Florida stations," says F. E. Wilkes, Ossining, N. Y. "For instance, I have had every Florida station except one, WJAX comes in as early as 6:00 p.m., and when WQAM was on 1240 they came in at 5:30 p.m., which is rather good reception, is it not? My set tunes down through the marine frequencies from 1500 to 1600 kcys., and through the experimental station frequencies down as far as the amateur band." Mr. Wilkes lists a number of the shortwave stations he has heard with his set.

The German Stations

The following interesting letter is from H. Walter Fricke, 560 30th St., No. Bergen, N. J.:

"In my June letter to you I stated that I was going to write to the German short-wave transmitter in Koenigs Wusterhausen requesting them to intersperse announcements in English. The reason for this was that one of your readers, Mr. P. J. Soper, 256 Burroughs Terrace, Union, N. J., had complained in your midsummer edition that the aforementioned German station never announces in English.

"Well, today I received a letter from the 'Program Committee of the German Broadcasting Companies' which, in translation, reads something like this:

"'Your letter, addressed to the main transmitter, Koenigs Wusterhausen, has been referred to us. Your detailed information on broadcasting conditions in your country has had our fullest attention, and we wish to thank you for the interest you are showing in the German shortwave transmitters. We regret that, at this time, we are unable to comply with your wish that the programs of the German short wave transmitter be announced in English, the reason for this being that this transmitter does not

send out its own program but picks up its features only from the regular German broadcasters. We would like to mention, however, that those special features which are sent out only by the shortwave transmitter are announced in English, too. We hope that, in the meantime, you have acquired a short-wave receiver, and that you are having good reception. We would be grateful to you for reports on reception, and hoping to hear from you again, we are —'."

"I noticed in the November RADEX that you have deleted KMAC," writes D. M. Patterson, 1502 No. Robinson St., Cleburne, Texas, "I am sending you a clipping from the Fort Worth paper which indicates that this station is still on the air." The clipping referred to describes the death of the radio technician of Station KMAC atop the Blue Bonnet Hotel during the broadcast of a program.

"KMAC should not have been deleted as they were on the air as late as October 10th, broadcasting from the Blue Bonnet Hotel in San Antonio," writes Donald Hill, Broken Bow, Neb. "I know this is so as I received them for several nights straight. As for WCHI, all the announcements I have heard were as follows: 'WORD broadcasting a program for the WCHI Broadcasting Corporation,' which Ι think explains that controversy. WBOQ has been on the air nearly every night for the past week or two, testing for several hours with WHK, Cleveland, on 860. I notice that you still list WGGF as being at Picher, Okla. They have been at Coffeyville, Kans., for sometime, operated by the Coffevville Journal."

Those Time Schedules

We have given the idea of compiling the hours on the air for all stations much thought, but have not as yet found a plan that would give this information in convenient form without occupying too great a bulk. Raymond N. Flood, 9 Chase St., Brattleboro, Vermont, suggests that we add an eight-page section and make it a part of RADEX. Many have written in to say that they would gladly purchase this information at 10 cents a copy or even 25 or 50 cents. To arrange this information so that reading

downwards the stations on the air at any certain hour of the day or night would be indicated, while reading from left to right would show the hours that any particular station was on the air, would require a total of 126,000 hourly designations. As the most we have been able to figure to a page is 2720 such designations, this would require a book of 46 pages in order to convey this information in the most helpful way. This could, of course, be condensed if we were to make it read only one way, but the question is whether our readers would prefer to know what stations are on the air at any particular hour, or whether they would prefer to know the hours for any particular station. If any of our readers have any suggestion for the arrangement of this data we would be glad to hear from them.

Some Puzzling Stations

"I and others have been hearing a station giving the call letters WRDA on 560 kcys., but they do not give their location. I last heard this station on October 8th at 3 a.m." This is the report of Geo. H. Snyder, Jr., P.O. Box 202, Ridgewood. N. J. The only record we have of WRDA is that this call was given to the Buffalo Evening News and later changed to WBEN.

WNRC recently changed its call letters to WBAM, but several readers report hearing them give the call letters WBIG. Have they changed their call again?

A number of readers object to our deletion of WBOQ and state that they have recently heard this station testing after midnight with WHK, Cleveland. WHK has been carrying on experiments in synchronization with the key station of the Columbia System and evidently WABC has resurrected the old WBOQ call to be used while testing.

Martin Savitsky, 17 Liberty St., Shelton, Conn., asks for information about WRDS which was broadcasting police information; and Nicholas J. Hock, 20 Burnet St., Newark, N. J., wants data on WCF and WRBE. None of these stations is a broadcasting station, and no list is published so far as we know giving commercial calls alphabetically. As there are many thousands of

commercial stations it is out of the question to identify them without knowing their frequencies.

"WDBJ is listed in RADEX at 250 watts," says Jack Bachman, 204 No. 34th St., Philadelphia, Pa., "but the way they come in it hardly seems possible that they broadcast on such low power. I get them as loud and clear as some of the local thousand-watters."

"CNRL-CHNS broadcast on 910 kcys., but you always log them on 930," comments Geo. S. Buckman, Hillside and College Ave., So. Nyack, N. Y. These stations are listed correctly in accordance with data furnished us by the Dominion Government. But they may be testing a different frequency. Perhaps some of our Canadian readers can enlighten us.

"It seems since KMOX got its strong wave we will have trouble out this way," writes Chas. M. Konn, 4310 Seeboldt Ave., Detroit, Mich. "Sharp as my 12-tube set tunes I get a heterodyne from KMOX on WTAM's wave with lots of squealing, for which it seems that KMOX is to blame." We know of locations within a hundred miles of Cleveland in which KMOX now drowns out WTAM entirely. Both of these station are on 50,000 watts experimental. Certainly the situation in this vicinity would be cleared by reducing KMOX to 25,000 watts, and it is possible that WTAM may interfere with KMOX in other sections.

We understand that the Federal Radio Commission has instituted legal proceedings against the so-called outlaw stations WGM and WOOP. Guy B. Welsh, Reynoldsville, Pa., reports hearing WGM nearly every day between noon and six o'clock. They state they are located in Jeanette, so he says, although a letter received from this station sometime ago gave their location as Adamsburg. In view of the fact that the Commission has at last taken action we are deleting these two unlicensed stations in this issue.

"You show WEAF as having 50,000 watts and WJZ 30,000," says an unsigned letter from Fox Chase, Pa., "I get WJZ loud at any time, but WEAF is hard to receive and never comes in clear. It cannot be the set as other people

around here have the same trouble." Reception is no indication of power, as sometimes, due to peculiarity of location, a small-powered station is received with greater clarity and even with more volume than one with much greater power no further away.

"I noticed a paragraph in which you tell of Iowa listeners who get interference between WBBM and KFAB. There is little or no interference between these two stations in the daytime here in Nebraska, but in the past few weeks WBBM has been getting louder and louder until there is a slight growl at almost any time of the day," comments Donald Hill, Broken Bow, Neb.

"Why doesn't the Federal Radio Commission do something about WBBM and KFAB on 770 kcys.?" asks Greer Mc-Crory, 606 So. 2nd St., W., Cedar Rapids, Iowa. "Practically all of the time they are on the air simultaneously and sometimes WJBT comes on and adds to the chaos. Listening to a football game from WBBM I hear music and advertising all jumbled together with the game. Please do see if something can't be done. Cedar Rapids police, like the police in Chicago, have radio-equipped cars, so they can get orders from headquarters and whenever the police station KGOZ broadcasts I can hear it above all other stations any place between 1300 and 1500 keys. Why is this? I have been told that this station broadcasts on 120 meters and I don't see why I can hear it on 200 to 215 meters. It is possible to hear these police orders any time they are broadcast." It is possible that the police broadcasting station is manned by amateurs, or rather beginners, and has not yet developed a technique that permits them to keep on their proper wave. Or you may be hearing a harmonic. In either case, it would seem that a complaint to the police authorities would lead them to correct the situation, for undoubtedly they do not desire to have the public hear their orders to cruising cars.

"I wonder if anyone has a record like this," asks Guy B. Welsh, Reynoldsville, Pa. "At 6:30 p.m. on October 26th I was listening in on the 1370 channel. Between 6:30 and 6:31 I dialed three new sta-

tions, WBGF, Glens Falls, N. Y., WBTM, Danville, Va., and WJBK, Detroit, Mich. In the same minute I heard the announcements of WLVA, Lynchburg, Va., and WCBM, Baltimore, Md. This seems impossible, but I have my family and several friends to prove it. Early Monday morning, I brought in KXO, a 100-watt station in California, and KGMB, a 500-watter in Honolulu." Mr. Welsh adds that his set is not working as well as formerly, but from these records we cannot see how anything serious can be wrong with it.

Improving RADEX

Quite a number of readers have written in to commend us for publishing the month's changes by themselves and we will try to maintain this feature. It will not always be practical, however, for the reason that the body of the magazine goes to press first and the data is held until the last possible moment for the latest corrections. Ralph Caldwell, Route 1, Clarksville, Pa., would like to have us include the requests for more power and different wave lengths. Aside from the fact that there are hundreds of these every month, most of which come to naught, we feel that this information would merely be confusing, as a mere request means nothing.

In the November issue we asked our readers to decide for themselves what the improvement was we were making that month. Only a few discovered that we are now arranging the stations alphabetically under the weekly programs, something that has long been requested by our readers, but something which makes a vast amount of work for the editors.

"Why not insert a few Canadian programs?" asks T. Crawford, 9-205 Alexander Ave., Winnipeg, Man. "And make the best book still better." Lack of space prevents our publishing individual station programs. If there are now any Canadian chains regularly broadcasting over several stations, we would be glad to learn of them.

"Would it be possible to include some of the powerful trans-Pacific stations in the regular index, as you do the Cuban

stations," asks Don Turner, Box 655. Taft, Calif. "We distance-hounds on the Pacific coast pick them up quite regularly. I have had JOFK, JOGK, JOCK, JOBK, JOIK, JOHK, JOAK, 2YA, and 2FC several times." These stations will now be found in the Index of World Stations which is arranged by frequencies with space for dial numbers, which we feel sure will answer the purpose.

Some Inquiries

From Joseph Cabus, R. F. D. 3, Poughkeepsie, N. Y. "I and others up here are troubled at times with fading. and I wondered if the ground you recently mentioned as having been tested by the U.S. Bureau of Standards would aid my reception and help to check the fading." If the fading is due to natural phenomena, we doubt if anything can check it, but sometimes the action of a poor ground, loose connections, faulty power supply, poor tubes, etc., are taken for fading. Certainly every set should have a good ground and we know of no line of experiment which it will better pay to follow than that of various grounds.

"Could you tell me if aerials are made gold-plated and if they are on the market. I understand they are used on ship work. Would they be better than lacquered aerials?" asks M. E. Williams, Box 121, Timmins, Ont. Aside from such aerials being very expensive, we doubt if they would have any greater value than the enameled aerial. An enameled aerial is very much better than a bare wire, as the copper is protected from the action of soot. Some devices must be extremely well protected at sea because of the action of the salt water and salt air, causing corrosion.

"I recently heard the announcer at Springfield, Mass., give the call letters WBZ, WBZA, and a third set which I could not catch." states a reader from Helena, Mont. "I don't know of any other station belonging to Westinghouse on that wave length. Do you know anything about this or was I hearing things?" We do not know what the third station could have been unless it was W1XAZ, the short-wave relay station of the Westinghouse.

Set Servicing, Short Wave,

Television, Sound Projection, Automobile Radio, Airplane Radio, Construction of Test Laboratories, Cause and Cure of Interference, Latest in Radio, Money-Saving Kinks—these and many other subjects are understandably described each month in RADIO-CRAFT. The magazine is edited by men outstanding in the radio profession.

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A question which has puzzled many is presented by Tom Lovell, previously quoted. "The frequencies measured in kilocycles are all the same distance apart, but the difference between meters is not the same. Stations on the higher frequencies from 1400 to 1500 are harder to separate on the dial than is the case in the lower frequencies. Is this because the difference between the meters is less?"

The fault is not with the meters, but with the condensers in the set. In order to accommodate the great number of stations on the air, the broadcasting band has been made wider than engineers have so far been able to devise condensers to cover. The average condenser will separate stations well only for about 75 of 100 points and these are usually in the center. To give perfect reception and separation of all stations with condensers as at present developed we ought to use broadcast frequencies of say 600 to 1400, but these 80 channels would not be sufficient for our American stations.

A New Chain

We have received publicity regarding the formation of a new chain on the Pacific coast, the United Broadcasting Company, whose first program was scheduled for November 1st. Headquarters of the chain are in Los Angeles. The nine stations which will comprise the new network are said to be the following: KXA, Seattle; KVOS, Bellingham; KMED, Medford; KXL, Portland; KORE, Eugene; KTAB, San Francisco, KFWB, Los Angeles; KTM, Los Angeles; KGB, San Diego.

"In the last issue someone reported hearing KMJ on the Columbia chain," says Richard Bogart, 1416 Linden St., Allentown, Pa. "I think I can solve this as KMJ carries KHJ's programs, almost every night, and KHJ is on the Columbia chain." This is verified by Leon V. Garland, El Segundo, Calif., who says, "KMJ is a member of the Don Lee System, and they are on the Columbia. Here are several other hundred-watters that are broadcasting chain programs, KFBK, KZM, KOH."

Station Information

"You will be interested to know that beginning Saturday, November 15th, the NBC programs which have been heard over WGR will be transferred to WBEN," is reported by Valentine Sadowski, 188 Miller Ave., Buffalo, N. Y.," and the Columbia programs will be heard over WKBW and WGR. Radio station WMAK will broadcast local programs."

"If you haven't received notice already," writes Kenneth J. Louden, P. O. Box 533, Orangeville, Ont., "CJGC, of London, Ont., is starting broadcasting this week with a new transmitter of 1000 watts power."

"I have not heard radio station WCLB listed in RADEX on 1500 kcys. for the last ten months," says Gordon C. Hamilton, 142 E. 18th St., New York City, "although I frequently listen to other stations on that wave. Are you sure it has not been deleted?" It has not been deleted, but is it still on the air?

"How many of your readers have noticed that there are only two stations in Manitoba?" asks Richard W. Herzer, 338 Kingsway, Winnipeg, "and they are both owned by the Provincial Government. Manitoba as far as I know is the only place in North America where the broadcasting is entirely in the hands of the Government. How they can do this legally is more than I can see."

"In September, 1930, I received WJAX on 1260 kcys. Their letterhead and RADEX both show them on 900 kcys., but I heard them on 1260," says James L. Cavanagh, Jr., 101 No. Spring Ave., La Grange, Ill.

Adding Your Own Tone Control

(Continued from page 3)

who, unfortunately, cannot adjust their voice to the likes and dislikes of listeners and therefore it becomes a dire necessity for the listeners to either tune them out or use a tone control to sweeten them.

Anyone who can carefully trace the wiring of his receiver, can readily install the condenser and resistor constituting a tone control. These two parts are comparatively cheap and can be obtained at almost any radio shop. A radio service man will also be willing to make the necessary changes at a nominal figure.

A NEW PROBLEM for our PUZZLERS

A NUMBER of solutions to the October puzzle were received after the deadline date set for the 28th and consequently could not be considered Readers should bear in mind that we are now mailing the new RADEX to subscribers on the 25th of each month and therefore they must mail their answers before the 23rd in order to have them count.

In the October puzzle there was one call, 9-33 vertical, which could be filled with either KGIW or KGIX and either of these solutions was considered as correct. "The puzzles surely are interesting to work and a person learns a lot about the different stations while working them," comments Paul W. Douds, R. D. 1, Toronto, Ohio. "I enjoy all the puzzles which do not require recourse to the ancient history of radio for solution," says L. S. Miller, 5909 32nd St., N. W., Washington, D. C. "I think this is the easiest puzzle you have had for some time," comments Billy McQuade, 6617 Leland Way, Hollywood, Calif., but the joke is on Billy for he had 14-40 vertical wrong. On the other hand, Walter Kolojay, 5031 Northcote Ave., East Chicago, Ind., says he found this puzzle very hard but he got it right. "As soon as I get my RADEX," writes Walter, "I turn to the

They Wanted a Hard One

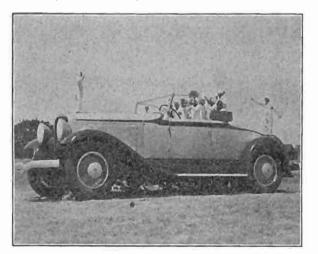
puzzle page, for I find it very interesting I enjoy not only the puzzles but all the articles written about radio. These articles are educational and useful and I would like to see more of them published. The arrangement of the Radio Index is the best I have ever seen."

"I presume the September edition was used in making up the October puzzle for the October issue has no frequency with thirty-one 100-watters," points out George W. Kuehnle, 1469 York Street, Windsor, Ont. Readers should remember in working these puzzles, always to use the previous month's issue, for it is impossible to use the data of the edition in which the puzzle appears.

Those who sent in solutions in November and did not receive a copy of the December issue as a premium will undoubtedly find the reason why in this

correct solution:

CKX WWL KJR
KMED C WGAL
YBMCRKWJKSD
CMW Y WLW
W W OAC W W
WGCMC KFKXO
J S WWG B C
WHB O WOW
KFSDWKYRBTK
WBAK O CMBZ
KGW WHO WOM



Here are Jean Goldkette's "Studebaker Champions" in a brand new President Roadster. But what's wrong with this picture? The car is a "prop" used in filming "Wild Flowers" a talking picture. It's 15½ times bigger than the regular model

R A D E X D I S D T H E
\square W \square E \square B \square S \square T \square E \square R \square S \square
\square U \square N \square A \square B \square R \square I \square D \square G \square E \square D \square
$\square 0 \square F \square \square R \square A \square D \square I \square 0 \square$

"Each issue your puzzles become more and more easy," thinks Clayton Huff, Martinsville, Ind. "I wish that you would get some good hard puzzle." We think it is not so much that the puzzles are getting easier as it is that our puzzlers are getting better! A number have written in to ask, however, for harder puzzles, so we have, through much lucubration (that's a hard one, anyway), brought forth the following. If you find it too hard, don't blame us.

So sure are we that you will find this a hard nut to crack that we are going to send for correct solutions your choice of either the radio map or the January RADEX.

The puzzle is to fill in letters in the squares so that from beginning to end we will have the calls for the following stations:

In the capital of the Confederacy.
The fishermen's station.
A memorial to a great socialist. (Reverse.)
Increased its power in October to 5000 watts.
One of 32 100-watters on this wave.
In U-13 on the new map.
Independence Broadcasting. (Reverse.)
Ought to belong to the BPOE.
Named for a great Quaker
On a canal whose east end is west of the west end.
850 miles south of Minneapolis on the new map.
(Reverse.)
On 1500. (This one is jumbled.)

On 1500. (This one is jumbled.)
Last three letters initials of railroad owner.
(Reverse.)
In a state capital.

Tune at noon.
Purdue. (Reverse.)
Columbia outlet municipally owned.
First on the last.
One of three 250 watters in its state. (Reverse.)
Shares time with 20-kilowatter in another state.
In Thomasville. (Reverse.)
On the Mississippi.
The Queen's University.
On 1210. (Reverse.)
In Ohio. (Jumbled.)
On zero. (Reverse.)

HERE'S A LITTLE SLIP

that will bring pleasure to you or your radio friends

Obey that impulse and sign it now

MONEY-SAVING COMBINATIONS The Radex Press,

1367 East Sixth Street. 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 ☐ Trial subscription, next five issues of RADEX..... \$1.00 One year's subscription to RADEX, 10 issues, and Radio Map free_____ 1.75 ☐ Two subscriptions to RADEX with one leatherette cover and Radio Map, both free_ 3.50 ☐ Leatherette Cover .50 One copy "Radio Trouble Shooting," by E. R. Haan 3.00 Write Name Plainly Street and Number 43

December Changes

Power:

KFYR 550—Bismarck, N. D. 1000 to 500.

VAS 690—Louisburg, N. S. 500 to 10000.

CMK 730—Havana, Cuba. 3000 to 2000.

CJGC 910—London, Ont. 500 to 1000.

CMCQ 950—Havana, Cuba. 500 to

CMBZ 1010—Havana, Cuba, 100 to

WTAX 1210—Springfield, Ill. 50 to 100.

KWSC 1220—Pullman, Wash. 500 to 1000.

Frequencies:

CMW -Havana, Cuba. 600 to 588.

XET -Monterrey, Mex. 620 to 630.

VAS —Louisburg, N. S. 690 to 685.

XEN -Mexico City. 731 to 720.

XED —Reynosa, Mex. 770 to 960. XFX —Mexico City. 840 to 860.

CMBC—Havana, Cuba. 1220 to 1130. CMQ —Havana, Cuba. 1220 to 1130.

Ownership

WJZ 760—New York City. To National Broadcasting Co., Inc.

WRC 950—Washington, D. C. To National Broadcasting Co., Inc. KGGF 1010—Coffeyville, Kans. To

Coffeyville Journal.

WRAX 1020—Philadelphia, Pa. To WRAX Broadcasting Co.

WTAM 1070—Cleveland, Ohio. To National Broadcasting Co., Inc.

WBNY 1350—New York City. To Pillar of Fire.

WIBM 1370—Jackson, Mich. To WIBM, Inc.

Deleted:

WGM 840—Adamsburg, Pa. WOOP 840—Jeannette, Pa.

Locations:

KGGF 1010—Picher, Okla. To Coffeyville, Kansas.

Reinstated:

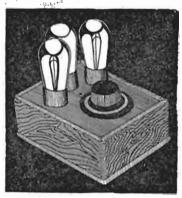
KMAC 1370-San Antonio, Texas.

New.

Rutland, Vt., 100 watts—Seward & Weiss Music Co.

Short Waves

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EXPLORE the fascinating short-wave bands at next to no expense for no end of fun! You can do this with a short-wave converter, which works in conjunction with your broadcast receiver. Parts cost less than \$5 yet this is a three-tube converter, using 227 tubes for AC or battery operation. Only one dial, so stations are not hard to find. You'll be surprised at the tremendous distances you can cover. Even European stations may be received.

Keep Posted!

ADIO WORLD, the first and only national radio weekly, which publishes a great amount of circuits for short-wave as well as broadcast reception, offers you an opportunity to find out all the particulars of the 3-tube converter circuit, with blueprint and list of few parts needed. Send \$1.00 for 8 weeks' subscription, one copy a week for eight weeks, beginning with the November 8th issue, and receive the blueprint free. The November 8th issue and subsequent issues you will receive tell the whole story of this marvelous converter.

RADIO WORLD, 145 W 45th St., New York City	:
Enclosed please find \$1.00 for which send "Radi	0
World" for 8 weeks, beginning with the Novembersth issue, and send converter blueprint free.	r

Name	
Address	
CityS	tate

What's Wrong with My Set?

(Continued from page 9)

dealers in this city asking about voltage controls and they state that they have a device that will keep voltage from passing above 110 volts, but it will not build up the voltage in case the house-lighting current drops below that point. If there is a voltage control on the market that will keep voltage on an even basis as outlined in your section. I will appreciate very much your furnishing me with the trade name together with the manufacturer's name.

The Radial Co., 50 Franklin Street, New York City, claim that their automatic voltage regulator provides a constant 110-volt potential regardless of slight line fluctuations. Write to this concern for particulars. If your fading is very pronounced it may not be due to fluctuating line voltage. Have a local electrician test the house-lighting circuit under a load at night, to see whether or not the voltage falls below par. Severe fading is often caused by one or more defective screen-grid tubes. Check for this condition before purchasing a voltage regulator.

Substituting Tubes

I have a set equipped with 224 r. f. tubes. Could these be replaced with a. c. Pentodes? I noticed that the voltage is very similar in these two tubes.

Never substitute tubes of any other value than those that are supposed to be used in the receiver. The voltage of tubes is not the only factor in comparing them. There are many other factors, such as C-bias, plate voltage, plate current and flament current, etc. Unless tubes agree in all such factors it is decidedly unwise to substitute one kind for another.

Replacing Transformers

I have a Steinite No. 40C receiver, purchased last December and in it there are eight transformers, including those for the push-pull audio-frequency amplifier. There are no transformers of this type available here for use on the Steinite receiver. Will you recommend other transformers that can be substituted?

The most advisable thing to do in your case is to write to the manufacturers of your receiver, explaining the trouble to

them and they will be glad to send you the necessary transformers to replace the defective ones in your set, at the regular rates. The name and address of this concern is The Steinite Labs., Radio Building, Atchison, Kansas.

Burst of Noises

I am the owner of the Federal Model E 45-60 radio receiver, powered by a Raytheon power pack, When I have the set turned on and am receiving a fairly clear program, a burst of line noises and static comes in and cuts the volume down that the station can barely be heard. When it does this I pull the detector tube out of the socket and push it back again, after which the program is all right for some time. I have replaced the volume control. a three-point 50,000-ohm potentiometer. and I have also replaced several detectors and other tubes, all to no avail. Could you possibly tell me where I could locate the trouble?

Noises of the kind you have experienced are often traced to one or more of several causes, namely, (1) internal short circuits of the intermittent kind inside of the tubes. Usually only one tube is the offender. Replace the tubes one by one until the defective one has been found. (2) If you have already done so and the trouble still continues, try a new rectifier in your power pack. (3) A leaky grid condenser may have to be replaced. (4) Look over every socket prong and see that the tube tips make good electrical connection with the socket prongs. Corrosion at these points may be responsible. (5) Also examine the wiring for a poorly soldered or a loose connection. (6) If you are accustomed to turning the volume control over to nearly its maximum volume, your set may be breaking into oscillation. In this case adjust the power pack so that it will deliver slightly less B-voltage. This will permit the volume control to be turned to the extreme right-hand position without causing the set to break into oscillation.

Reception Varies

I have a five-tube Hammerlund-Roberts receiver and it worked all right for me last winter, but ever since I installed eliminators for A and B supply, it has not been satisfactory. Sometimes it will pick up stations all right and other times I can't get anything outside of locals, which always come in when wanted. At one time stations of higher wave lengths come in much better than those of lower wave lengths. The length of my aerial is sixty feet, including the lead-in. I have tried a longer aerial but this does not seem to help. I am using a Knight B-eliminator and an Abox A-eliminator, both of which seem to be in good working condition. Can you kindly advise me where to look for trouble?

Variations in line voltage may be responsible for the varying degrees of efficiency you are experiencing with your receiver. This would be more pronounced in case your tubes are rather old. Therefore, it would be a good idea to have them tested and the old ones replaced. Another cause for your inability to get distant stations regularly is a purely natural one, being due to atmospheric

conditions. It is a well-known fact that weather conditions vary so much that greater distance is possible on one night than on another.

Balancing Condensers

Will you kindly tell me how to balance a Lyric radio receiver?

Balancing the variable condensers of a radio receiver is a task that requires some degree of skill and accuracy. If a radio service man is not available who can do this work for you, get a copy of the May, 1930, issue of RADEX, which gives complete instructions for balancing t. r. f.

Volume Control Trouble

I have a Kolster K-20 receiver which seems to operate satisfactorily on local stations, but when tuning in out-of-town stations it is necessary to turn the volume control as high as possible. I also find that the least reduction of volume cuts the stations out completely, which would seem to indicate that the volume control was



It's a pity but they're all a bit cuckoo as they're from the "Cuckoo Hour" of the NBC. From the well-known "left to right" we have Ambrosia Weems (Virginia Gardiner); Mrs. Pennyfeather (Mrs. Adelina Thomason); Prof. Weems (Ray Knight); Fetlock Soames (Eustace Wyact); Dolly Gray (Gladys Shaw Erskine); and sitting on the foreground, Ivan Firth and Arthur Campbell

completely bypassed. In other words, I have absolutely no volume control on out-of-town stations. New tubes do not remedy the fault. Please advise the probable causes of this trouble and the remedy.

It seems that the power-supply unit does not provide the maximum amount of voltage necessary for the operation of your set. This usually makes it necessary to turn the volume control up entirely as in your case. By increasing the plate voltage a trifle by adjusting the power pack this trouble can be overcome. If this does not help a new volume control of exactly the same resistance as the old one should be installed.

Street Railway Noises

I wonder if you would send me the necessary information how to reduce the interference caused by an electric railway. From the time a car approaches a point one-half mile from our house the trouble commences and it continues until it gets about the same distance beyond. Can you recommend anything to eliminate this noise?

Radio interference from external sources, which is picked up by the aerial of a receiver, cannot be eliminated at the receiver, but must be trapped at its source. Shielding the room containing your receiver will not prevent the aerial, which is outside, from picking up the undesired signals. Shielding the room containing the high-frequency apparatus which causes the trouble, is effective, provided, of course, the shield is grounded. Electric railways cause interference that is really beyond your control. The best method of minimizing your pickup of these interfering signals is to use an underground antenna such as the "Subantenna." Also use lead-sheathed cable for grounding your receiver instead of ordinary bare wire, which is usually used for the purpose. A wave trap could be used for trapping certain signals of a constant wave length, but in your case the signals are of all sorts of wave lengths and come in over the entire dial.

Attaching Phones

I have a Majestic Model No. 71 and it is not possible to use a pair of headphones with it in order to get distant reception. Can a change be made in the wiring to accommodate a phone plug?

The installation of a jack to permit the use of headphones on a receiver not already wired for earphone reception, involves some rewiring and it is best to take the set to a reliable radio dealer or serviceman to have these changes made. The B-positive and plate leads of the second audio tubes are led to the jack, which should automatically cut out the rest of the audio amplifier when the plug is pushed in. There are several methods of making such an installation, but in any case it is best to let your local radio dealer take care of it for you. For fuller information in regard to this problem. see the article in No. 38 RADEX for April, 1930.

Collecting Verifications

(Continued from page 6)

Radio Editor of the Chicago Daily News DX Club. Mr. Baskys uses headphones only in making records and does not try to bring stations in with loudspeaker volume. Then too, he uses a loop and has often been able to tune in three different stations on the same frequency by turning the loop in their direction. He lists a number of foreign stations as having been received recently and offers to send his letters of verification from them. Among these are Auckland and Christchurch, New Zealand, Lima, Peru, and Manila. P. I.

To our controversy, Wm. James, 308 Pacific St., Brooklyn, N. Y., contributes the following: "It is no wonder that some folks have written in questioning various DX catches. Some of the yarns rank with the best fish stories. There must be a limit to what a radio set will do and I honesty believe some of these claims go too far. Don't think this is written by a sorehead who has no DX catches for I have plenty. But my log is nothing like some that have been printed. At the present writing my log is 484 verified catches but not one is off the North American continent. As to daylight reception, about the best I can do is Philadelphia and I have a good set. It may be that I have never been looking for these extraordinary catches at just the right time."

"Here is a little ancient history." goes on Mr. James, "that may throw a little light on this subject. Last year the Newark News Radio Club arranged with CJOC at Lethbridge, Alberta, for that station to put on a late program so that the DXers would have a chance to get this station. Well, the great night came and CJOC got letters telling how good they came in. Verifications were asked for by persons that 'heard' their program and one bozo even went so far as to say he listened to them for a full hour and heard the whole program. Now comes the joke: On the night in question CJOC had broken down and didn't go on the air at all."

Thos. Van Buren, 32 Fourth Ave., Gloversville, N. Y., summarizes the situation by saying "Keep up the DX department in RADEX; don't stop it, rather enlarge it for I agree with you most of these DXers tell the truth and just because a certain reception seems impossible this does not make it so, for, under the same conditions, other things being equal, anybody may receive these stations your DXers state they receive. So keep up the good work, publish all letters received and let the readers decide for themselves the truth thereof."

Some Inquiries

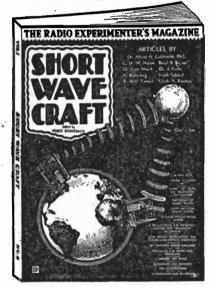
"I would like to know what distance to expect in the daytime," writes Richard W. Herzer, 338 Kingsway, Winnipeg, Man. "Here in Winnipeg the farthest we get with volume enough for programs, is Fargo, N. D., and Bismarck, 200 and 250 miles away, respectively. The farthest I have picked up with headphones is Yankton, S. D., 400 miles away. This distance seems to me to be very poor in comparison with other reports. About what distance is considered normal daytime reception?"

This is a pretty hard question to answer. Mr. Baskys, above quoted, states that two years ago he received KGU, Honolulu, at 4:30 p.m., while Mr. James stated that Brooklyn to Philadelphia was his best daylight reception. Daytime reception is very freaky and occasionally a distant station will be

The Radio Experimenter's MAGAZINE

SHORT WAVE CRAFT, Mr. Hugo Gernsback's latest radio magazine, has been called his greatest achievement in radio magazine publishing. SHORT WAVE CRAFT is the one and only real big magazine on short waves you have wished for so long. HERE IS PROOF!

ON ALL LARGE NEWS STANDS



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Among the contributors to SHORT WAVE CRAFT, we find Lee de Forest, F. H. Schnell, "Bob" Hertzberg, C. W. Palmer, H. W. Secor, Clyde Fitch, R. Wm. Tanner, Dr. Alfred N. Goldsmith, Beryl B. Bryant, C. W. H. Nason and others.

Regular Departments in SHORT WAVE CRAFT Photographic Section—Pictures of latest short wave sets and stations. Transmitters for Short Waves—How to Build Them. Short Wave Receivers—Construction data for all types and kinds. The Short Wave Experimenter. Television on Short Waves, Short Waves for the Broadcast Listener. Ultra Short Waves. How to Build Short Wave Aerials. The Short Wave Beginner. Aircraft Short Wave Sets. Short Wave Question Box.

Published on the 15th of Every Other Month

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As per your special offer I enclose \$1.80, for which please enter my subscription for one year to SHORT WAVE CRAFT and send me also the first and second issues gratis. I understand that SHORT WAVE CRAFT is published on the 15th of every other month. (Regular yearly subscription—\$3.00.)

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Name	
Address	
City	State

brought in in daylight which constant tuning will never bring in thereafter. We believe that consistent daylight reception over 300 miles cannot be expected although we know some of our readers will not agree with this statement.

Miss "Anonymous," of Helena, Mont., who "has a horror of publicity so please don't use my name," writes: "On 1110 kcys. I have been getting a foreign station. We have a 1931 Radiola, nine tubes, and every bit of power has to be used to take that station in. I hear everything, even the station's call letters, but because I want to understand them so badly, I can't! They sound like KPI but, of course, that's not rightthe only thing I feel sure about is the I. Spanish (I guess) is spoken and it sounds like it might be a Cuban station. Can you help me?" CMHI, Santa Clara, Cuba, is on 1110 and CMKD, Santiago, is on 1100, but it hardly seems possible it could be either of these as they are rated to use but 15 and 40 watts respectively. Has anyone else heard this station?

Cuban Stations

"Can you tell me the official wave of CMCH, Havana? Had them near 1200 kcys." writes Jack B. Schneider, Garwood, N. J. We have no record of CMCH; could it have been CMCA, 100 watts on 1225?

Several readers report hearing a station that announces in Spanish on 780 kcys. The nearest station of which we have any record which might be Spanish speaking is CMHC, Tuinucu, Cuba, which is supposed to use 791 kcys.

"I wonder if you know that the Cuban stations have made quite a general change in frequencies this month," asks Carroll C. Foltz, 303 Central Ave., No. Baltimore, Ohio. "About all of the larger stations seem to have increased power and changed waves. There is one on 780 which interferes with WMC and I believe it is CMC, although I am not sure."

Roger D. Causse, P.O. Box 6688, Lester, Pa., Radio Operator on SS. Thermo, from Puerto, Padre, Cuba, and sends us a list of Cuban stations which was furnished to him by Station CMCQ. Karl Halpern, Brooklyn, N. Y., also sends a list of Cuban stations and the Department of Commerce at Washington has just completed a check of the Island stations. From these lists our Cuban data is being corrected in this month's issue.

"On October 26th I heard a station on 1180 kcys. speaking what I am sure was Spanish. I thought perhaps it was Cuba or Mexico, but there is no station listed on or near that frequency," writes O. W. Desmond, 407 E. John St., Maumee, Ohio. "The program was some sort of a convention in a large hall with lots of speaking. They shut down about 11:20 p.m. Can anyone identify this station?"

A very small station, CMGB, Mantanzas, Cuba, with only 7.5 watts is rated as using 1185 kcys. This seems to be the only Cuban possibility. Our latest Mexican data gives no station nearer than 1200 kcys., XEA, Guadalajara, with 100 watts. Mr. Desmond has one of the new nine-tube Graybar Superhets, on which he logged 106 stations in about three weeks.

Mexican Stations

"XET, Monterrey, Mexico, is on 630 kcys. and not 620," says Jack P. Schneider, "XEN, Mexico City, comes in on 720 kcys.," says Miss Anonymous, "interfering greatly with WGN. Occasionally CKWX, at Vancouver, takes the stage and CMK is only a squeal."

"A few corrections on the Mexican stations, XEN, which you have on 730 is on 720. It heterodynes squarely on top of WGN every night. It evidently changed waves to prevent interference with CMK," writes Wm. E. Kessel, 411 No. 8th St., Temple, Texas. "XEM, which you have on 840 is on 765. I receive it practically every night. XFX, which you have on 840 is on 860. I heard its call letters clearly there."

"I logged Station XEW, Mexico City, sometime ago," states D. M. Patterson, 1502 N. Robinson St., Cleburne, Texas, "and wrote them regarding the program. I received a very nice letter in reply. They said they would like to hear from listeners in the U. S. A. and would answer all letters received by them.

"Will you please take notice that our radio station XED, located in Reynosa, Mexico, is to be inaugurated on November 8, 1930," writes A. D. Martinez, Station Manager, "We will operate on a frequency of 960 keys, with a rating of 10,000 watts. We will appreciate your making corrections in your station list." The slogan of the new station is the "Voice of Two Republics," and the invitation to the opening gives as one of the motives of the new station the cementing more firmly the already amicable relations enjoyed between the United States and Mexico. RADEX takes this opportunity on behalf of its many thousands of readers of extending its congratulations to the new station and trusts that it will be heard frequently in many homes throughout the United States.



BUY CHRISTMAS SEALS

and

FIGHT TUBERCULOSIS

Building a Wave Trap

(Continued from page 4)

method of overcoming this trouble is to wrap a layer of thin paper around the tube and then wind the wire over it. The tube can readily be slipped out of the paper wrapping as there is no adhesive holding these two together. Then the paper can carefully be peeled off. In this case the condenser used was originally one of .001-mfd. capacity. but I cut out some of the stator plates in order to broaden the distance between the stations on the lower end of the dial. After these alterations the capacity of the condenser is about .00075-mfd. I find that the above-described coil and condenser covers the entire broadcast range satisfactorily.

I have found it convenient to fasten the wave trap to the underside of the table which holds the radio set. Angle brackets are used for the purpose, being attached to the panel holding the condenser and also to the table.

Daylight Stations

A NUMBER of readers have written us that they have heard during the evening hours some of the stations which we list as daylight stations. There are certain stations which are limited entirely to the daylight hours; there are others which the Radio Commission terms "Limited Time Stations," which are regularly on daylight hours, but which under certain circumstances, as outlined in General Order No. 48 of the Commission, may operate during the evening.

General Order No. 48 reads as follows:

"A limited time broadcasting station is hereby defined as a station which, under its license from this Commission, is permitted to operate during hours allowed daytime broadcasting stations as specified in General Order No. 41, and in addition during certain time temporarily not used by the unrestricted station or stations on the same frequency. An example is the use of late evening hours by a limited time broadcasting station in the West after the

closing of an Eastern station on the same frequency.

"A limited time broadcasting station desiring to operate after sunset shall so notify the Commission, which will ascertain what hours the use of which is not desired by the unrestricted station or stations on the same frequency, and will thereafter authorize the operation of the limited time station accordingly, subject however, to the right of said unrestricted station or stations to reclaim the use of such hours upon reasonable notice to the Commission and to the limited time broadcasting station.

"A limited time broadcasting station

will not be permitted to operate at any time when its operation will cause heterodyne interference with other broadcasting stations assigned to the same frequency."

The Commission lists the following stations as having been granted the "Limited Time" privileges. We are indicating these stations by "Dn." KPCB, 650; WPTF, 680; KMPC, 710; KMMJ, 740; KVI, 760; WRUF, 830; KMO, 860; WCFL, 970; KFVD, 1000; WMAK, 1040; KFKB, 1050; WJAG, 1060; KWJJ, 1060; WCBD, 1080; WMBI, 1080; KSOO, 1110; WJJD, 1130; KTNT, 1170; WDGY, 1180; WHDI, 1180.

BROADCASTING RELAY STATIONS

A List of the Short Wave Transmitters

Location of Transmitter California	$Call\ Signal$	Frequency in Kilocycles (Meters in Parenthesis)	Power (Watts in Antenna)	Licensee and Address
Sacramento	W6XAF	2,938 (112.1), 5,870 (51.11)	500	State Dept. of Agri-
	W6XAL	6,080 (49.34), 15,250 (19.672), 21,500 (13.953)	15,000	culture (Calif.) Pacific-Western Bdct. Federation
Colorado Denver	W9XA	830 (361)	12,500	General Electric Co.
Illinois				
Addison Chicago	W9XAQ W9XAA	6,040 (49.67) 6,080 (49.34), 11,840 (25.34), 17,780 (16.873)	1,000 500	Chicago Daily News Chicago Fed. of Labor
Downers Grove	W9XF	6,020 (49.83), 11,800 (25.42), 21,500 (13.953)	5,000	Gt. Lakes Radio Bdct. Co., 72 W.AdamsSt., Chicago, Ill.
Iowa Council Bluffs	W9XU	6,060 (49.5)	500	Mona Motor Oil Co.
Massachusetts East Springfield	W1XAZ	9,570 (31.35), 2,398 (125.1)	10,000	West'g'e Elec&Mfg.Co.
		6,100 (49.18) 6,040 (49.67), 11,800 (25.42), 15,250 (19.672), 21,460 (13.979)	20,000 500	Nat'l Broadcasting Co. Aviation Radio Sta.
Kearny	W2XCX	6,080 (49.34)	500	L. Bamberger & Co.
New York Bellmore Cross Hassock Bay New York (Portable) South Schenectady South Schenectady South Schenectady Ohio	W2XE W2XBR W2XAD W2XAF	15.340 (19.557)	20,000 1,000 25,000 40,000	Nat'l Broadcasting Co. Atlantic Bdet. Corp. Baruchrome Corp. Gen. Electric Co. Gen. Electric Co. Gen. Electric Co.
Mason	W8XAL	6,060 (49.5)	250	Crosley Radio Corp., 1325 Arlington St., Cincinnati, Ohio
Pennsylvania East Pittsburgh	W8XK	6,140 (48.86), 9,570 (31.35), 11,880 (25.25), 15,210 (19.724), 17,780 (16.873), 21,540 (13.928)	40,000	Westinghouse Elec. & Mfg. Co.
	W3XAU	6,060 (49.5), 9,590 (31.28)	500	Universal Brdc. Co., 1940 Market St.
Canada Middlechurch, Man	CJRX	11,720 (25.6)	2000	James Richardson & Sons, Ltd.

N-National

KEY TO CHAIN STATIONS

C-Columbia

CFRB	KOL	WBEN	WFAA	MJDX	WOW
960 C	1270 C	900 N	800 N		590 N
CKAC	комо	WBRC	WFAN	WJJD 1090 C	WOWO 1160 C
730 C	920 N KPO	930 C	610 C	WJR	WPG
690 N	680 N	1080 C	1360 C	750 N	1100C
KDKA	KPRC	wbz ·	WFBM	WJZ	WPTF
980 N	920 N	990 N	1230 C	760 N	680 N
KDYL	KRLD	WBZA	WFI	WKBN	WQAM
1290 C	1040 C	990 N	560 N	570 C	560 C
KECA	KSCJ	WCAE	WFIW	WKBW	WRC
1430 N	1330 C	1220 N	940 C	1480 C	950 N
KFAB 770 N	KSD 550 N	WCAH 1430 C	WFJC 1450 N	WKRC 550 C	WREC 600 C
KFH KFH	KSL	WCAO	WFLA	WKY	WREN
1300 C	1130 N	600 C	620 N ———	900 N	1220 N
KĖI	KSTP	WCAU	WGN	WLAC	WRR
640 N	1460 N	1170 C	720 N	1470 C	1280 C
KFJF	KTAR	wcco	WGR	WLBW	WRVA
1480 C	620 N	810 C	550 C	1260 C,	1110 N
KFKX	KTHS	WCFL	WGST	WLBZ	WSAI
1020 N	1040 N	970 N	890 C	620 C	1330 N WSB
KFPY 1340 C	KTRH 1120 C	WCKY 1490 N	WGY 790'N	WLIB 720 N	740 N
KFRC	KTSA	WCSH	WHAM	WLIT	WSM
610C	1290 C	940 N	1150 N	560 N	650 N
KFSD	KVI	WDAE	WHAS	WLS	WSMB
600 N	760 C	1220 C	820 N	870 N	1320 N
KGO	KVOO	WDAF	WHEC	WLW	WSPD
790 N	1140 N	610 N	1440 C	700 N	1340 C
KGW	KWK	WDAY	WHK	WMAK	WSUN 620 N
620 N	1350 N	940 C	1390 C	900 C	WTAG
900 C	1020 N	930 C	1000 N ———	630 C	580 N
KHQ	WABC	WDBO	WHP	WMAQ	WTAM
590 N	860 C	1120 C	1430 C	670 C	1070 N
KLRA	WADC	WDOD	WIBO	WMC	WTAR
1390 C	1320 C	1280 C	560 N	780 N	780 C
KLZ	WAIU	WDSU	WIBW	WMT	WTIC
560 C	640 C	1250 C	580 C	600 C	1060 N
KMBC 950 C	WAPI 1140 N	WEAF 660 N	WIOD 1300 N ————	WNAC 1230 C	WTM J 620 N
KMOX	WBAL	WEAN	wisn	WNAX	WTOC
1090 C	1060 N	780 C	1120 C	570 C	1260 C
KOA	WBAP	WEBC	WJAR	WOAI	WWJ
830 N	800 N	1290 N	890 N	1190 N	920 N
KOIL	WBBM	WEEI	WJAS	WOC	WWNC 570 C
1260 C	770 C	590 N	1290 C	1000 N	570 C
KOIN	WBCM	WENR	WJAX	WORC 1200 C	WXYZ
940 C	1410 C	870 N	900 N	1200 C	1240 C

ENTER YOUR DIAL NUMBERS IN THESE SPACES

								_	
510	610	710	810	910	1010	1110	1210	1310	1410
520	620	720	820	920	1020	1120	1220	1320	1420
530	630	730	830	930	1030	1130	1230	1330	1430
540	640	740	840	940	1040	1140	1240	1340	1440
550	650	750	850	950	1050	1150	1250	1350	1450
560	660	760	860	960	1060	1160	1260	1360	1460
570	670	770	870	970	1070	1170	1270	1370	1470
580	680	780	880	980	1080	1180	1280	1380	1480
590	690	790	890	990	1090	1190	1290	1390	1490
600	700	800	900	1000	1100	1200	1300	1400	1500

WHAT'S ON THE AIR TONIGHT?

A WEEKLY CALENDAR

Leading Features of the Network Programs

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

Programs of the National Broadcasting Company begin with WEAF and WJZ; those of the Columbia Broadcasting System with WABC. Other stations are in alphabetical order.

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

These programs are correct to t	tace out are subject to change daily theret	i, ici
Daily (Except Saturday and Su	nday) 2:30-3:00 Columbia Educational Features	KEDO
6:45-8:00 Tower Health Exercises	WABC KDYL KFH KFJF KFPY KLZ KMBC KSCJ KVI WADC	
WEAF CKGW WCAE WEEL WFL	VBEN WBCM WBRC WCAO WCAU WCCO	WDAY
WGY WRC	WDBJ WDOD WEAN WFBM WHK	WHP
8:15-8:30 Morning Devotions WEAF WAPI WCAE WCKY WCSH V	WIBW WISN WJAS WKBN WKRC WFI WLBZ WMAL WMT WNAC WOWO	WLAC
	WIAR WREC WSPD WTAR WWNC WXYZ	
WJAX WJDX WLS WOW WPTF V	VRC 3:00-3:30 Columbia Salon Orchestra	TOT
WRVA WSUN WTAG WWJ 8:30-9:00 Cheerio	WABC KFJF KFPY KLZ KMBC KRLD KSCJ KVI WADC WAIU	WBCM
	WBRC WCAO WCAU WDAY WDBJ	WDOD
	WEAR WIDM WGR WHEC WIL	WIBW
WBEN WGY WHAS WIBO WIOD V		WMAL WSPD
WJAX WJDX WMC WOAI WOW WRC WRVA WSB WSM WSUN W	WTAR WWNC WXYZ	11.62.2
WTAM WW.I	5:00-5:30 The Lady Next Door WEAF KSD WBEN WFAA WHAS	WDC
9:00-9:15 The Quaker Man	WSM WTAG	WRC
KPRC RSD RSII KIRS KVOO	VAPI 6:05-6:45 Black and Gold Room Orchestra	
	WIDX WEAF WCAE WCSH WFAA WGY WOWY WJAR WOC WRC WTAG WWJ	WHO
WSB WSM WSMB WTMJ	6:45-7:00 Uncle Abe and David	
9:00-9:30 Something For Everyone	WEAF KSD WAPI WCAE WCSH	WDAF
WABC KDYL KFH KFJF KMBC		WGY WOC
	VDOD WHAS WHO WJAR WJDX WMC	WSMB
WREC WSPD WWNC WXYZ	WTAG WTAM WTMJ WWJ	
9:00-10:00 Morning Melodies	6:45-7:00 Literary Digest Topics WJZ KDKA WBAL WBZ WBZA	WFLA
WEAF WAPI WGY WBEN WHAS WRC WRVA WSM WTAM WWJ	"" WHAM WIOD WJAX WLW WPTF	WRVA
11:15-11-30 Radio Household Institute	WSUN 7:00-7:15 Amos 'n' Andy	
WEAF KFKX KPRC KSD KSTP	THS WIZ CKGW KDKA WBZ WBZA	WCKY
	VEEL WFLA WHAM WIOD WJAX WJR	wL w
	VLIT WPTF WRC WRVA WSUN VSM 7:30-7:45 Phil Cook, Quaker Man	
WSMB WTAG WTAM WTMJ WWJ	WJZ KDKA KECA KFSD KGO	KGW
12:00-12:30 Manhattan Tower Orchestra		KWK
WABC KDYL KFH KFJF KFPY I KSCJ WADC WAIU WBCM WBRC	MBC WBZ WBZA WEBC WHAM WRC VCAO WTMJ	WREN
	VISN 11:15-11:30 Columbia's Radio Column	
WJAS WKRC WLAC WLBW WLBZ V	WMAL WABC KFH KFJF KFPY KLZ	KMBC
WMT WORC WOWO WPG WREC WITH WXYZ	VSPD KOL KSCJ WBCM WBRC WCAO WCCO WDAY WDBJ WDOD WEAN	WCAU
12:30-1:00 Columbia Revue	WIBW WISN WLBW WLBZ WMAL	
WABC KFJF KFPY KFRC KMBC F	OL WNAC WNAX WORC WPG WREC	WTAR
KSCJ KVI WADC WBRC WCAO V	VCAU WWNC WXYZ VIBW 11:00-11:15 Amos 'n' Andy	
WDAY WDBJ WDOD WHEC WHP WISN WJAS WKBN WLBW WLBZ	VMAL KFAB KOA KPRC KSTP KTHS	KWK
WMT WORC WOWO WPG WREC V	VSPD WBAP WDAF WEBC WHAS WJDX	WMAQ
WTAR WWNC WXYZ WGR 12:30-1:30 National Farm and Home Hour	WMC WOAI WREN WSB WSM WTMJ	WSMB
WJZ KDKA KFAB KFKX KOA	CPRC 11:30-11:45 Amos 'n' Andy	
KSTP KTHS KVOO WAPI WBAL V	VBZ KECA KFSD KGO KGW KHQ	KOMO
WBZA WDAF WEBC WFAA WFLA WHAS WHO WIOD WJAX WJDX W	VHAM KSL	
WKY WLW WMC WOAI WOC	VOW Sunday	
WPTF WRC WREN WRVA WSB V WSMB WSUN	VSM	
1:30-2:00 Harold Stern and Ambassador Orchestra	1:30-145 Echoes of the Orient WJZ CKGW KFAB WBAL WLW	WRC
WABC KFKJ KFPY WADC WAIU V	VBCM WREN	
WBRC WCAO WDBJ WDOD WEAN WGR WHEC WJAS WKRC WLAC		WDAF
WMAL WORC WOWO WSPD WTAR		
WXYZ	WWJ	_

1:30-2:00 Conclave of Nations	7:30-8:00 Williams Oilomatics
WABC KFPY KLZ KMBC KMOX KSCJ KVI WAIU WBCM WBRC WCAO WCAU	WJZ KDKA KOA KSL KWK WBZ
WDAY WDBJ WDOD WGR WHEC WHP	7:35-8:30 Major Bowes' Family
WIBW WISN WKBN WLBZ WMAL WMT WORC WPG WREC WSPD WTAR WWNC	WEAF KSD KSTP WCAE WCSH WDAF WFJC WFLA WGY WHAS WIOD WJAR
WXYZ	WJDX WKY WLS WMC WOAI WRC
2:00-3:00 Roxy Symphony Concert WJZ CKGW KDKA KFAB KSTP KWK	WSAI WSB WSMB WSUN WTAG WW.I "
WJZ ČKĠW KĎKA KFAB KSTP KWK KYW WBAL WBZ WBZA WEBC WFAA	8:00-8:15 The World's Business WABC KDYL KFPY KFRC KHJ KLZ
WFLA WHAM WHAS WIOD WJAX WLW	KMBC KOL KRLD KSCJ WADC WAIU
WPTF WRC WREN WRVA WSB WSUN	WCAO WDAY WDBJ WDOD WEAN WFBM WGR WHEC WHP WIBW WISN WJAS
2:00-3:00 Cathedral Hour WABC KDYL KFH KFPY KLZ KMBC	WKBN WLAC WLBW WLBZ WMAL WMT
KMOX KRLD KSCJ KVI WADC WBCM	WNAC WNAX WORC WREC WTAR WWNC
WBRC WCAO WCAU WCCO WDBJ WDOD WEAN WFBM WHEC WHP WIBW WISN	8:00-8:15 Enna Jettick Melodies
WKBN WKRC WLAC WLBZ WMT WNAC	WJZ KDKA KFAB KFI KFSD KGW KHQ KOA KOMO KPO KPRC KSL
WORC WPG WSPD WTAR WWNC WXYZ	KSTP KTAR KTHS KVOO KWK KYW
2:30-3:00 NBC Artists' Service Program WEAF KSD KSL WDAF WGY WLS	WAPI WBZ WBZA WCKY WEBC WFAA WFLA WHAM WHAS WIOD WJAX WJDX
WOW WTAG WWJ	WJR WKY WMC WOAI WPTF WREN
3-00-4:00 National Youth Conference	WRVA WSB WSM WSMB WSIIN WTM.I
WJZ KDKA KFAB KFSD KGO KGW KOA KSL KTHS KVOO KWK WBAL	* 8:15-9:15 Collier's Radio Hour WJZ KDKA KFI KGW KHQ KOA
WBZ WBZA WFAA WFLA WIOD WJAX	KOMO KPO KSL KWK KYW WBZ
WJDX WJR WLS WLW WOAI WPTF WREN WRVA WSB WSUN	WBZA WHAM WJR WLW WREN 8:30-9:00 Chase & Sanborn Choral Orchestra
3:00-5:00 New York Philharmonic Orchestra	WEAF KPRC KSD KSTP KTHS KVOO
WABC KDYL KFH KFJF KFPY KFRC	WCAE WCSH WDAF WEBC WFJC WFLA WGY WHAS WHO WIBO WIOD WJAR
KHJ KLZ KMBC KMOX KRLD KSCJ KVI WADC WAIU WBCM WBRC WCAO	WJDX WKY WLIT WMC WOAI WOC
WCAU WCCO WDAY WDBJ WDOD WEAN	WOW WRC WSAI WSB WSB WSMB
WFBM WHEC WHP WIBW WISN WJAS WKBN WKRC WLAC WLBW WLBZ WMAQ	WBEN
WMT WNAC WORC WOWO WREC WSPD	9:00-9:15 Our Government, David Lawrence
WTAR WWNC WXYZ WGR	WEAF KSD WCÁE WCSH WEBC WEEI WFAA WFJC WFLA WGY WHAS WHO
4:00-4:15 Florsheim's Sunday Feature WJZ KDKA KFAB KWK KYW WBAL	WIOD WJAR WJDX WKY WLIT WMC
WBZ WBZA WHAM WJR WLW WREN	WOAI WOC WOW WPTF WRC WSAI WSB WSM WSMB WSUN WTAG WTIC
4:00-5:00 Dr. S. Parkes Cadman	WWJ
WEAF KGO KGW KHQ KOA KOMO KPO KPRC KVOO WCAE WCSH WDAF	9:00-9:30 Majestic Theatre of the Air WABC CFRB CKAC KDYL KFH KFJF
WEBC WEEL WFAA WFJC WFLA WBEN	KFPY KFRC KHJ KLRA KLZ KMBC
WHAS WHO WIBO WIOD WJAR WJAX WJDX WKY WMC WOAI WOC WOW	KOIL KOIN KOL KRLD KTSA KVI WADC WBBM WBRC WBT WCAO WCAU
WPTF WRC WRVA WSAI WSB WSUN	WCCO WDBJ WDEL WDOD WDSU WEAN
WTAG WWJ 5:00-5:30 Rev. Donald Grey Barnhouse	WFBL WFBM WHK WIBW WISN WJAS WKBW WKRC WLAC WLBW WLBZ WMAL
WARC KMOX KOIL KRID WADC WCAII	WNAC WOWO WPG WREC WSAZ WSPD WTAR WWNC WXYZ
WFBL WJAS WKBW WKRC WMAL WMAQ WNAC WOWO WXYZ	9:15-10:15 Atwater Kent Hour
5:00-6:00 Davey Hour	WEAF CKGW KFI KGW KHQ KOA
WEAF CKCW KSD WCSH WGY WHO WJAR WOC WOW WRC WSAI WTAG	KOMO KPO KSD KSL KSTP WAPI WCAE WDAF WEEI WFAA WFI WGN
5:00-6:00 National Vespers	WBEN WGY WHAS WHO WKY WMC
WJZ KFAB KGO KGW KHQ KOA KOMO KPRC KSTP KTAR KVOO KWK	WOAI WOC WOW WRC WSAI WSB WSM WSMB WTAM WWJ
WBAL WBZ WBZA WEBC WFLA WHAM	9:30-10:00 Tone Pictures
WIOD WJAX WJDX WLW WMC WOAI	WABC KFJF KFPY KLRA KLZ KMBC KMOX KOIL KOL KRLD KSCJ WADC
5:30-6:00 The French Trio	WBCM WBRC WCAO WCCO WDAY WDBJ
KDYL KFJF KFPY KLZ KMBC KSCJ	WDOD WEAN WFBL WHEC WIBW WISN
KVI WADC WBRC WCCO WDAY WDBJ WDOD WEAN WFBM WHP WIBW WJAS	WJAS WKBW WKRC WLAC WLBW WMAL WMT WNAC WNAX WORC WREC WSPD
WKBN WLBW WLBZ WMAL WMT WNAC	WTAR WWNC WXYZ
WORC WOWO WPG WREC WSPD WTAR WWNC WXYZ WGR	10:00-10:30 Toscha Seidel and Orchestra WABC KFJF KFPY KLRA KLZ KMBC
6:00-7:00 Catholic Hour	KMOX KOIL KSCJ WADC WBCM WBRC
WEAF KECA KGO KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR	WCAO WCAU WDAY WDBJ WDOD WEAN WFBM WHEC WIBW WJAS WKBW WKRC
KVOO KYW WBAP WCAE WCSH WDAF	WLAC WLBW WMAL WMT WNAC WNAX
WEBC WEEL WFJC WFLA WGY WKY	WORC WREC WSPD WTAR WXYZ 10:15-10:45 Studebaker Champions
WLIT WMC WOAI WOC WRC WRVA	WEAF KFI KGO KGW KHQ KOA
WSAI WSB WSM WSMB WSUN WTAG	KOMO KSTP WCAE WCSH WDAF WEBC
WTMJ WWJ 7:06-7:35 Iodent Big Brother Club	WEEI WFI WGN WBEN WGY WJAR WOW WRC WTAG WTAM WTIC WTMJ
WEAF KSD WCAE WCSH WEBC WEEI	WWJ
WFJC WBEN WHO WJAR WLIT WLS WOC WOW WRC WSAI WTAG WTMJ	10:30-11:00 Around the Samovar WARC WADC WCAO WCAU WDBJ WEAN
WWJ	WABC WADC WCAO WCAU WDBJ WEAN WHEC WHK WJAS WKBN WLBW WLBZ

WMAL WNAC WORC WPG WSPD WTAR	WDAF WFJC WFLA WHAS WHO WIOD
WXYZ	WJAR WJAX WJDX WKY WOAI WOC WOW WPTF WRC WSAI WSMB WSUN
10:30-11:00 Lew White, Organist WJZ CKGW KDKA KWK WBZ WBZA WHAM WJAX WJDX WJR WREN WRVA	WTAG WTIC WWJ
WHAM WJAX WJDX WJR WREN WRVA	8:15-8:30 Mardi Gras WABC KDYL KFPY KFRC KMBC KRLD
10:45-11:15 Sunday at Seth Parker's WEAF CKGW KFSD KGO KOA KOMO KPRC KSTP KTAR KYW WCAE WCSH WDAF WEBC WEEI WFI	WABC KDYL KFPY KFRC KMBC KRLD KSCJ WADC WBCM WCCO WDAY WDBJ
WEAF CKGW KFSD KGO KGW KHQ KOA KOMO KPRC KSTP KTAR KYW	WDOD WEAN WGR WIBW WISN WJAS
WCAE WCSH WDAF WEBC WEEI WFI WFJC WBEN WGY WHAS WHO WIOD	WKRC WLAC WLBW WLBZ WMAL WMAQ WNAC WNAX WORC WTAR WWNC WXYZ
WJAX WJDX WKY WMC WOC WOW	8:30-9:00 Ingram Shavers
WRC WSB WSM WTAM WTMJ WWJ	WJZ CKGW KDKA KFAB KOA KPRC KTHS KVOO KWK KYW WBZ WBZA
11:00-11:30 Kaffee Hag Slumber Music WJZ KDKA KWK WBZ WBZA WENR	KTHS KVOO KWK KYW WBZ WBZA WEBC WFAA WFLA WHAS WIOD WJAX
WHAM WJR WLW WREN	WJR WKY WLW WMC WOAI WREN
11:00-12:00 Back Home Hour WABC KFH KFJF KFPY KHJ KMBC	WRVA WSB WSM WSMB WSUN WTMJ 8:30-9:00 Arabesque
KMOX KRID WCCO WDAY WDBJ WDOD	WARC KEJF KEPY KLRA KMOX KOIL
WERM WHEC WIBW WISN WEEN WERC	KRLD WBCM WCCO WDAY WDBJ WDOD
WMAL WMT WNAX WPG WREC WTAR WXYZ	WEAN WFBL WGR WJAS WKRC WLBW WMAL WMAQ WMT WNAC WNAX WORC
11:03-12:00 Russian Cathedral Choir	WREC WWNC WXYZ
WEAF CKGW KOA KSTP WBAP WEBC	8:30-9:30 A & P Gypsies WEAF KSD WCAE WCSH WDAF WEEI
WFJC WBEN WGY WHAS WIOD WOW WRC WSB WTAM WWJ	WGN WBEN WGY WHO WJAR WLIT
W160 W0D W11111 WW0	WOC WOW WRC WSAI WTAG WTAM
Monday	WTIC WWJ
3:00-3:30 Phil Napleon and His Band	9:00-9:30 Maytag Orchestra WJZ KDKA KECA KGO KGW KHQ KOA KOMO KPRC KSL KSTP KTHS
3:00-3:30 Phil Napleon and His Band WJZ KDKA KPRC KWK WBAL WBZ WBZA WHAM WREN WSB WSM	KOA KOMO KPRC KSL KSTP KTHS KVOO KWK KYW WBZ WBZA WCKY
WBZA WHAM WREN WSB WSM 3:30-4:00 Sixteen Singers	WEBC WHAM WJDX WJR WKY WMC
WEAF CKGW KSD KSTP WBEN WFJC	WOAT WREN WSR WSM WSMR
	9:00-9:30 Minneapolis-Honeywell Symphony Hour WABC KMBC KMOX KOLL WADC WBBM WBT WCAO WCAU WCCO WEAN WFBL
WJZ CKGW KGO KOA KOMO KSTP	WBT WCAO WCAU WCCO WEAN WFBL WHK WISN WJAS WKBW WKRC WLBW
KYW WAPI WBAL WFAA WHAM WJAX	WILL WISH WIAS WEDW WERE WIDW
4.00.4.30 Relled Hour	WMAL WNAC WOWO WPG WSPD WXYZ 9:30-10:00 Chesebrough Real Folks
	9:30-10:00 Chesebrough Real Folks WJZ CKGW KDKA KWK KYW WBZ WBZA WHAM WJR WLW WREN
WABC KDYL KFJF KFPY KFRC KHJ KLZ KMBC KMOX KOL KRLD KSCJ KVI WADC WAIU WBCM WBRC WCAO WCAU WCCQ WDAY WDBJ WDOD WEAN	9.30-10:00 Rouriois—Evening in Paris
WCAU WCCO WDAY WDBI WDOD WEAN	WARC KDYL KEJE KEPY KERC KHJ
WGR WHEC WIBW WISN WKRC WLAC	TOTA WARD WERM WET WOAD WOAT
WLBZ WMAL WMT WNAC WORC WPG WREC WSPD WTAR WWNC WXYZ	WCCO WDSU WEAN WFBL WGST WHK
4:30-5:00 Wardman Park Hotel Orchestra	WJAS WKBW WKRC WLBW WMAL WNAC
WABC KDYL KFJF KFPY KFRC KLZ KMBC KMOX KOL KRLD KSCJ KVI	WOWO WPG WSPD WXYZ 9:30-10:00 General Motors Family Party
WADC WAITI WBCM WBRC WGAO WCCO	9:30-10:00 General Motors Family Party WEAF KECA KFI KGO KGW KHQ
WDAY WDBJ WDOD WEAN WFAN WGR WHP WIBW WISN WLAC WLBZ WMAL	KOA KOMO KPRC KSD KSL KSTP WCAE WCSH WDAF WEEI WFAA WGN
WHP WIBW WISN WLAC WLBZ WMAL WMT WNAC WORC WPG WREC WSPD	WBEN WGY WHAS WHO WJAR WJAX
WTAR WWNC WXYZ	WKY WLIT WMC WOAI WOC WOW
6:00-6:30 Mormon Tabernacle Choir WJZ CKGW KDKA KFAB KFSD KGO	WRC WSAI WSB WSM WTAG WTAM WTIC WTMJ WWJ
KGW KOA KOMO KPO KSL KSTP	10:00-10:30 Robert Burns Panatela Program
KTAR KWK WAPI WBAL WHAS WLW	WABC KDYL KFJF KFPY KFRC KHJ KLZ KMBC KMOX KOIL KOIN KOL
WRC WSM 6:00-6:30 WSPD Commodores	KRLD KTRH KTSA KVI WADC WBT
WARC KEJE KEPY KERC KLRA KLZ	WCAO WCAU WCCO WEAN WFBL WFBM
KOL KRLD WAID WBBM WBCM WBRC	WHK WJAS WKBW WKRC WLBW WMAL WMAO WNAC WOWO WPG WSPD WXYZ
WCCO WDAY WDBJ WDOD WFAN WFBL WHP WKBW WLBW WMAL WMT WREC WSPD WTAR WWNC	10:00-10:30 Stromberg-Carlson Program
WSPD WTAR WWNC	WJZ KDKA KFI KFSD KGO KGW KHQ KOA KOMO KPRC KTAR KWK
7:00-7:15 Current Events WABC KFH KFJF KFPY KFRC KLZ	KYW WAPI WRZ WBZA WCKY WEBC
KOL KSCI KVI WRCM WCAII WDAY	WFLA WHAM WHAS WIOD WJAX WJDX
WORI WOOD WERM WHEC WHP WIBW	WJR WKY WMC WOAI WREN WRVA WSB WSM WSMB WSUN
WISN WJAS WLBW WLBZ WMAL WMT WORC WREC WSPD WTAR WWNC WXYZ	10:00-10:30 Adventures of Sherlock Holmes
7:30-8:00 Colonial Beaconlights	10:00-10:30 Adventures of Sherlock Holmes WEAF WCAE WCSH WEEI WGN WJAR
WEAF WBEN WCSH WEEI WGY WJAR	10.20 11.00 France Publisher
WTAG 7:45-8:00 Anheuser-Busch Program	WJZ KDKA KECA KFSD KGO KGW
TRIB TIDA TARC TACOT KOII. KRID	KHQ KOA KOMO KPRC KSL KSTP
KTRH WAIU WDOD WDSU WFBM WHK WMAQ WMT WREC WSPD WXYZ	KTAR KWK KYW WBAP WBZ WBZA WEBC WHAM WJR WKY WLW WOAI
7:45-8:30 Roxy's Gang Program	WREN WTMJ
7:45-8:30 Roxy's Gang Program WJZ CKGW KFAB KGO KGW KWK WBZ WBZA WHAM WIBO WSB WSM	10:30-11:00 American Maize Program KDYL KFPY KFRC KHJ KLZ KNX
8:00-8:30 Half Hour in Nation's Capital	VOIL VOI VSCI WADC WRRM WCAH
8:00-8:30 Half Hour in Nation's Capital WEAF KECA KFSD KGO KGW KOA KOMO KPRC KSD KVOO KYW WCAE	WCAU WDAY WHK WHP WISN WJAS WKBN WKEC WLBW WMT WNAX WSPD
KOMO KPRC KSD KVOO KYW WCAE	WKRN WKRC WLBW WMT WNAA WSPD

10:30-11:00 Symphonic Rhythm Makers WEAF WCAE WCSH WDAF WEEI WJAR WJDX WMC WOW WRC WSB WTAG WTAM WWJ WBEN 11:00-11:15 Will Osborne and His Orchestra WABC KDYL KFH KFJF KFPY WCAO WCCO WDAY WDBJ WDOD WFBM WIBW WISN WLBW WLBZ WMAL WMT WNAX WORC WPG WREC WTAR WWNC WXYZ. 11:00-11:30 Hal Kemp's Orchestra WEAF KSD KSTP WCAE WDAF WEOW WRC	WRVA WSAI WSB WSM WSMB WSUN
WEAF WCAE WCSH WDAF WEEL WJAR WJDX WMC WOW WRC WSB WTAG	8:45-9:00 Premier Salad Dressers
WTAM WWJ WBEN	WABC KDYL KFPY KFRC KHJ KLZ KMBC KMOX KOIL KOIN KOL KTRH
WABC KDYL KFH KFJF KFPY KLZ	KVI WADC WBT WCAO WCAU WCCO
KMBC KOL KSCJ WBCM WBRC WCAO	WDAE WDBO WDSU WEAN WFBL WGST WHK WJAS WKBW WKRC WLAC WLBW
WISN WLBW WLBZ WMAL WMT WNAX	WMAL WMAQ WNAC WOWO WPG WQAM
WORC WPG WREC WTAR WWNC WXYZ	WSPD WTOC WXYZ
WORD WIFE WARE WARE WARE WARE WARE WARE WARE WAR	9:00-9:30 Tek Music WJZ CKGW KDKA KWK KYW WBAL
WENR WGY WJDX WMC WOW WRC	WBZ WBZA WCKY WHAM WREN
11:30-12:00 Bernie Cummins and His Orchestra	9:00-9:30 Henry George WARC KEH KMRC KMOY KOIL WADC
WEAF KSD KSTP WDAF WHO WOC	WBBM WCAO WCAU WCCO WEAN WFBL
WSAI WSB WSMB WTMJ WWJ 11:30-12:00 Bernie Cummins and His Orchestra WEAF KSD KSTP WDAF WHO WOC WOW WRC WWJ 11:30-12:00 Sammy Watkins and His Orchestra WABC KDYL KFH KFJF KFPY KLZ KMBC KOL KSCJ WBCM WBRC WCAO WCCO WDAY WDBJ WDOD WFBM WHK WIBW WISN WKRC WLBZ WMAL WMT WNAX WORC WPG WREC WTAR WWNC WXYZ 12:00-1:00 Phil Spitalny and His Orchestra WEAF KSD KSTP KYW WDAF WFJC WHO WKY WOC WRC WSM WTAM WWJ Tuesday 10:15-10:30 Through the Looking Glass KYOO KWK WBZ WBZA WHAM WJR WKY WLW WOAI WREN 3:30-4:00 Golden Gems	WFBM WHK WHP WISN WJAS WKBW WKRC WIRW WMAI, WNAC WOWO WSDD
WABC KDYL KFH KFJF KFPY KLZ KMRC KOL KSCJ WBCM WBRC WCAO	WXYZ WBEN
WCCO WDAY WDBJ WDOD WFBM WHK	9:00-9:30 Eveready Program
WIBW WISN WERC WEEC WTAR WWNC	WEAF KGO KGW KHQ KOA KOMO KSD KSL WCAE WCSH WEBC WEEI
WXYZ	WFI WFJC WGN WGY WHAS WHO
12:00-1:00 Phil Spitalny and His Orchestra WEAF KSD KSTP KYW WDAF WEJC	WSAI WSB WSM WSMB WTAM WWJ
WHO WKY WOC WRC WSM WTAM	9:30-10:00 Happy Wonder Bakers
WWJ	KOMO KPRC KSD KSL KSTP KVOO
Luesday	WBAP WCAE WCSH WDAF WEBC WEEL
10:15-10:30 Through the Looking Glass WIZ CKGW KDKA KFAB KFKX KPRC	WII WIJC WHEN WGY WHAS WHO WIBO WJAR WJDX WKY WMC WOC
KVOO KWK WBZ WBZA WHAM WJR	WOW WRC WRVA WSAI WSB WSMB
WKY WLW WOAI WREN 3:30-4:00 Golden Gems	WOW WRC WRVA WSAI WSB WSMB WTAG WTAM WTAM WWJ 9:30-10:00 Philes Symphony Concert WABC CFRB KFH KFJF KOIL KRLD KTRH KRSA WADC WBRC WBT WCAO WCAU WCCO WDOD WDSU WEAN WFBL WFBM WGST WHEC WHK WISN WJAS WKBW WKRC WLAC WLBW WMAL WMAQ WMT WNAC WOWO WPG WEAF WSPD WTAR WXYZ 10:00-10:15 Enna Jettick Songbird WEAF KSD WCAE WCSH WDAF WEEI WFI WFJC WBEN WGY WHO WIBO WTAM WWJ 10:00-10:15 Graybar's, Mr, and Mrs. WABC KDYL KFH KFJF KHJ KLRA KLZ KMBC KMOX KOIL
WEAF KSD KSTP WEEL WFJC WFLA	WABC CFRB KFH KFJF KMBC KMOX
4:00-4:30 Italian Idyll	WBT WCAO WCAU WCCO WDOD WDSU
WABC KDYL KFJF KFPY KFRC KLZ	WEAN WFBL WFBM WGST WHEC WHK
WAIU WBCM WBRC WCAO WCAU WCCO	WMAL WMAQ WMT WNAC WOWO WPG
WDBJ WDOD WEAN WHK WIBW WISN	WREC WSPD WTAR WXYZ
WORC WOWO WPG WREC WTAR WWNC	WEAF KSD WCAE WCSH WDAF WEEI
WXYZ WGR	WFI WFJC WBEN WGY WHO WIBO
4:00-5:00 Pacific Vagabonds WJZ KFAB KFSD KGO KOA KSTP	WTAM WWJ
WAPI WHAM WJAX WJR WLW WSM 5:00-5:15 Rhythm Kings	10:00-10:15 Graybar's, Mr. and Mrs. WABC KDYL KFH KFJF KHJ KLRA KLZ KMBC KMOX KOIL KOIN KOL KRLD KTRH KTSA KVI WADC WAIU WBBM WBRC WBT WCAO WCAU WCCO WDBJ WDSU WEAN WFBL WFBM WGST WHEC WHK WISN WJAS WKBN WKBW WKRC WLAC WLBW WMAL WNAC WOWO WPG WREC WSPD WTAR WWNC WXYZ 10:00-10:10 Westinghouse Salute
WARD WITH WARDS WARD WARD WARD WERD WARD WARD WARD WARD WARD WARD WARD WA	KHJ KLRA KLZ KMBC KMOX KOIL
KMOX KRLD KSCJ WAIU WBCM WBRC WCAO WCCO WDOD WFRM WHP WISN	KOIN KOL KRLD KTRH KTSA KVI WADC WAIII WRRM WRRC WRT WCAO
WKBN WLBZ WMAL WMT WREC WTAR	WCAU WCCO WDBJ WDSU WEAN WFBL
WWNC WXYZ WGR 7-15-7-45 Musical Aviators Orchestra	WEBN WEST WHEC WHE WISH WAS WEBN WEBW WERC WLAC WISH WMAL
7:15-7:45 Musical Aviators Orchestra KFH KFJF KFPY KFRC KLRA KLZ KOIL KRLD KSCJ WAIU WBRC WCCO	WNAC WOWO WPG WREC WSPD WTAR
WDAY WDBJ WDOD WFBL WGR WHEC	WWNU WXYZ 10:00-10:30 Westinghouse Salute
WHP WIBW WISN WJAS WKRC WLAC	KOIN KOL KRLD KTRH KTSA KVI WADO WAIU WBBM WBRC WBT WCAO WCAU WCCO WDBJ WDSU WEAN WFBL WFBM WGST WHEC WHK WISN WJAS WKBN WKBW WKRC WLAC WLBW WMAL WNAC WOWO WFF WREC WSPD WTAR WNOC WXYZ 10:00-10:30 Westinghouse Salute WJZ KDKA KECA KFSD KGO KGW KHQ KOMO KPRC KSL KSTP KTAR KWK KYW WAPI WBAL WBZ WBZA WCKY WEBC WFLA WHAM WHAS WIOD WJAX WJR WKY WMC WOAI WREN WJAX WJR WKY WMC WOAI WREN WRVA WSB WSM WSMB WSUN WTMJ 10:15-11:00 Paramount Publix Radio Playhouse WABC CFRB KDYL KFH KFJF KFPY KFRC KHJ KLZ KMX KMOX KOIL KOIN KOL KSCJ KTRH KTSA
WLBW WMT WORC WREC WIAR WWNC WXYZ	KWK KYW WAPI WBAL WBZ WBZA
7:30-8:00 Soconyland Sketches	WCKY WEBC WFLA WHAM WHAS WIOD
WTAG WEEN WOSH WEEL WGI WJAR	WRVA WSB WSM WSMB WSUN WTMJ
8:00-8:15 Troika Bells	10:15-11:00 Paramount Publix Radio Playhouse
WEAF WOAF WEEL WEL WRC WSAL WWJ	WABC CFRB KDYL KFH KFJF KFPY KFRC KHJ KLRA KLZ KMX KMOX KOIL KOIN KOL KSCJ KTRH KTSA
8:00-8:30 Pure Oil Orchestra	KOIL KOIN KOL KSCJ KTRH KTSA WADC WBBM WBCM WNRC WBT WCAO WCAU WCCO WDAE WDAY WDBJ WDBO WDOD WDSU WEAN WFBL WFBM WGST WHEC WHK WHP WIBW WISN WJAS WKRN WKRW WKRC WIAC WIRW WJRZ
8:00-8:30 Pure Oil Orchestra WJZ KDKA KFAB KSTP KWK KYW WBAL WEBC WHAM WHAS WJAX WJDX WLW WMC WPTF WREN WRVA WSB	WCAU WCCO WDAE WDAY WDBJ WDBO
WLW WMC WPTF WREN WRVA WSB	WDOD WDSU WEAN WFBL WFBM WGST
WSM WTMJ 8:00-8:30 Blackstone Program	WCAU WCCO WDAE WDAY WDBJ WDBO WDOD WDSU WEAN WFBL WFBM WGST WHEC WHK WHP WIBW WISN WJAS WKBN WKBW WKRC WLAC WLBW WLBZ WMAL WMT WNAC WNAX WOWO WPG WQAM WREC WRR WSPD WTAR WTOC WWNC WXYZ 10:15-11:00 Lucky Strike Orchestra . WEAF KECA KFSD KGO KGW KHQ KOA KOMO KSD KTAR WCAE WCSH WDAF WEBC WEEI WFI WFJC WFLA WBEN WHAS WHO WIBO WIOD WJAR WJAX WJDX WKY WMC WOOLI WOC
WABC KMBC KMOX KOIL WADC WAIU	WMAL WMT WNAC WNAX WOWO WPG
WFBL WHEC WHK WHP WJAS WKBW	WWNC WXYZ
WLBW WLBZ WMAL WMAQ WMT WNAC	10:15-11:00 Lucky Strike Orchestra
WIND WIND WIND WIND WARD KMBC KMOX KOIL WADC WAIU WBT WCAH WCAO WCAU WCCO WEAN WFBL WHEC WHK WHP WJAS WKBW WLBW WLBZ WMAL WMAQ WMT WNAC WORC WPG WSPD WXYZ 8:30-9:00 Florsheim Frolic WEAF KOA KPRC KSD KSL KSTP	KOA KOMO KSD KTAR WCAE WCSH
WEAF KOA KPRC KSD KSL KSTP KTHS KVOO WBAP WCAE WCSH WDAF	WDAF WEBC WEEI WFI WFIC WFIA WBEN WHAS WHO WIBO WIOD WJAR WJAX WJDX WKY WMC WOAI WOC WRC WRVA WSAI WSB WSUN WTAG WTMJ WWJ
KTHS KVOO WBAP WCAE WCSH WDAF WEBC WFI WFLA WGN WBEN WGY	WJAX WJDX WKY WMC WOAI WOC
WHAS WHO WIOD WJAR WJAX WJDX WKY WMC WOAI WOC WOW WRC	WRC WRVA WSAI WSB WSM WSMB

10:30-11:00	WHK WJAS WKBW WKRC WLAP WMAL WMAQ WNAC
WREN 11:00-11:30 Will Osborne and His Orchestra	7:45-8:00 Fifth Avenue Knights WJZ KDKA KYW WBZ WBZA WHAM
WABC KFH KFJF KFPY KLRA KMBC KOIL WBCM WCAO WDAY WDBJ WDOD	8:00-8:30 East of Cairo WEAF KGO KGW WCAE WDAF WEEI
WFBL WGR WHEC WHP WIBW WISN WLBW WMT WNAX WORC WREC WSPD	WIOD WJAR WJDX WOW WRC WTAG
WTAR WWNC WXYZ	8:00-8:30 Yeast Foamers WIZ KDKA KEAR KSTP KWK KVW
WEAF KOA KSD KSTP WCAE WDAF	WBZ WBZA WEBC WHAM WJR WREN
WOW WSAI WSB WSM WTMJ WWJ	WABC KFH KFJF KFPY KFRC KLRA
11:30-12:00 Vincent Lopez and His Orchestra WEAF CKGW KOA KSTP WFI WHO	KMBC KMOX KRLD KSCJ WADC WBCM WBRC WCCO WDAY WDBJ WDOD WEAN
WJDX WOC WOW WRC	WFBL WGR WIBW WISN WJAS WLAC WMAI, WMT WNAX WORC WREC WSPD
Wednesday	WTAR WWNC WXYZ
11:30-12:00 The Recitalists	WABC KFH KFJF KFPY KFRC KLRA
WSM KFAB KOA KWK WBAL WHAM	WDOD WEAN WFBL WFBM WGR WHEC
12:00-12:15 Elgin Program WEAF CKOW KOA KSD KTHS KVOO	WIBW WISN WJAS WLAC WMAL WMAQ WMT WNAC WNAX WORC WPG WREC
KYW WAPI WCAE WCSH WDAF WEBC	WSPD WTAR WWNC WXYZ
WJAR WJAX WJDX WKY WLW WMC	WJZ CKGW KDKA KWK KYW WBZ
WOAI WOC WPTF WRC WRVA WSAI WSB WSMB WSUN WTAG WWJ	8:30-9:00 Mobiloil Concert
3:00-3:30 Matinee Gems WJZ KDKA KWK WBAL WBZ WBZA	WEAF KOA KPRC KSD KSL KVOO WCAE WCSH WDAF WEBC WEEI WFAA
WHAM WJAX WJDX WREN WRVA	WFJC WGN WBEN WGY WHO WJAR WKY WLIT WOAI WOC WOW WRC
WABC KDL KFJF KFPY KLZ KMBC	WSAI WTAG WTAM WTIC WWJ
WCAO WCAU WCCO WDAY WDBJ WDOD	WEAF CKGW KFI KGO KGW KHQ
WGR WHEC WHK WHP WIBW WISN WKBN WKRC WLAC WLBZ WMAL WMT	KVOO KYW WCAE WCSH WEEL WLIT
WORC WPG WREC WTAR WWNC WXYZ 3:30-4:00 Evening Stars	WGY WHAS WHO WJAR WJAX WRVA WMC WOAI WOC WOW WRC WTMJ
WEAF CKGW KGO KOA KPRC KSD KSI, KSTP KTHS KYW WAPI WRAP	WSAI WSB WSM WSMB WTAG WWJ
WJZ	9:30-10:00 Gold Medal Fast Freight WARC KDYL KFBK KFH KFJF KFPY
WIDA WKY WMC WOAI WOO WPTF	WABC KDYL KFBK KFH KFJF KFPY KFRC KHJ KLZ KMBC KMOX KOIL KOIN KOL KRLD KSCJ WADC WBBM
WSUN WTAG WTAM WWJ	WBT WCAO WCAU WCCO WDBJ WEAN
5:00-5:30 Asbury Park Casino Orchestra WABC KFH KFJF KLRA KLZ KRLD	WFBL WFBM WHK WISN WJAS WKBW WKRC WLAC WLAP WLBW WMAL WNAC WOWO WPG WREC WSPD WTAR WXYZ
KSCJ WAIU WBCM WBRC WCAO WCCO WDAY WDOD WFAN WFBL WGR WHP	9:30-10:30 Camel Pleasure Hour
WISN WLBW WMAL WMT WREC WSPD	WJZ KDKA KWK KYW WBZ WBZA WHAM WJR WLW WREN WRVA WSJS
KSCJ WAIU WBCM WBRC WCAO WCCO WDAY WDOD WFAN WFBL WGR WHP WISN WLBW WMAL WMT WREC WSPD WTAR WWNC WXYZ 6:15-6:25 Bernie Cummins and His Orchestra WJZ KFAB KGO KGW KOA KSTP KTAR WSM 7:00-7:15 Crockett Mountaineers WABC KFJF KFPY KFRC KHJ KLZ KOL KSCJ KVI WAIU WBCM WBRC WCAU WDAY WDBJ WDOD WFBM WHEC WIBW WISN WJAS WKRC WLBW WLBZ WMAL WMT WNAC WORC WREC WSPD WTAR WWNC 7:15-7:30 Rhythm Ramblers	9:30-10:30 Palmolive Hour WEAF KECA KGO KGW KHO KOA
KTAR WSM	KOMO KPRC KSD KSL KSTP KVOO WAPI WCAE WCSH WDAF WEEI WFAA
WABC KFJF KFPY KFRC KHJ KLZ	WGN WBEN WGY WHAS WHO WJAR WJAX WLIT WMC WOAI WOC WOW
KOL KSCJ KVI WAIU WBCM WBRC WCAU WDAY WDBJ WDOD WFBM WHEC	WJAX WLIT WMC WOAI WOC WOW WRC WSAI WSB WSM WSMB WTAG
WIBW WISN WJAS WKRC WLBW WLBZ WMAI, WMT WNAC WORC WREC WSPD	WTIC WTMJ WWJ 10:00-10:30 La Palina Smoker
WTAR WWNC	WABC KMBC KMOX KOIL WADC WBBM WRT WCAO WCAU WCCO WEAN WFBL
KFJF KFPY KFRC KLRA KLZ KSCJ	WHK WISN WJAS WKBW WKRC WLBW
WIBW WISN WJAS WKBW WLBW WMAL	WXYZ
WMT WNAC WORC WTAR WWNC WXYZ 7:30-7:45 Evangeline Adams, Astrologer	WABC KFH KFJF KFPY KLRA KMBC
WABC CFRB KFJF KLRA KMBC KMOX KOIL KTRH WADC WAIII WBRC WBT	KOIL KSCJ WADC WBCM WBRC WCAO WCAU WCCO WDAY WDBJ WDOD WEAN
WCAO WCAU WCCO WDBJ WDOD WDSU	WFBL WFBM WGR WHEC WIBW WISN WIAS WKRW WKRC WLAC WMAL WMAQ
WISN WKBW WKRC WLAC WLBW WMAL	WMT WNAC WNAX WORC WPG WREC
\(\text{WIBW} \text{ WISN } \text{ WJAS } \text{ WKRC } \text{ WLBW } \text{ WLBZ } \text{ WMAL } \text{ WMT } \text{ WNNC } \text{ WORC } \text{ WREC } \text{ WSPD } \text{ WTAR } \text{ WWNC } \text{ WWNC } \text{ WSPD } \text{ WORC } \text{ WREC } \text{ WSPD } \text{ WMAL } \text{ WMAC } \text{ WADC } \text{ WAII } \text{ WBRC } \text{ WBT } \text{ WSPD } \text{ WAL } \text{ WMAL } \text{ WAL } \text{ WOL } \text{ WAL } \text{ WAL } \text{ WOL } \text{ WOL } \text{ WAL } \text{ WOL } \text{ WOL } \text{ WAL } \text{ WOL } \text{ WAL } \text{ WOL } \text{ WAL } \text{ WAL } \text{ WOL } \text{ WAL } \text{ WOL } \text{ WAL } \text{ WOL } \text{ WOL } \text{ WAL } \text{ WOL } \text{ WAL } \text{ WOL } \text{ WAL } \text{ WOL } \text{ WAL } \text{ WOL } \text{ WAL } \text{ WAL } \text{ WOL } \text{ WAL }	10:30-11:00 Coca Cola Program
7:45-8:00 Back of the News in Washington WEAF KECA KFSD KGO KGW KOA	WEAF CKGW KECA KFSD KGO KGW KHQ KOA KOMO KPRC KSD KSL
KOMO KSD KSL WAPI WCAE WDAF WEIC WGY WHO WIRO WKY WOC	KSTP KTHS KVOO KYW WAPI WCAE WCSH WDAF WEBC WEEI WBEN WGY
WOW WRC WRVA WSAI WSM WTAG	WHAS WHO WIOD WJAR WJAX WJDX
WABC CKAC KMBC KMOX KRLD WBRC	WRC WRVA WSAI WSB WSMB WTAG
WBT WCAO WCAU WCCO WGST WHEC	WTAM WTIC WWJ

11:00-11:30 Vincent Lopez and His Orchestra WEAF KOA KSD KSTP WCAE WDAF	WKBW WKRC WLBW WMAL WNAC WOWO WSPD WXYZ
WFJC WFLA WGY WHAS WHO WIOD WJDX WLIT WMC WOC WOW WRC	9:00-9:30 Van Heusen Program
WSAI WSB WSM WSMB WSUN WTAM WWJ	WBBM WBT WCAO WCAU WCCO WDSU
11:30-12:00 California Melodies WABC KFH KFPY KHJ KMBC KSCJ	WEAN WFBL WGST WHEC WHK WHP WJAS WKBW WKRC WLBW WMAL WNAC WOWO WPG WSPD WXYZ
WBCM WBRC WCAO WCCO WDBJ WDOD	9:00-9:30 Arco Birthday Party
WKBN WKRC WLBW WMAL WMT WNAC	WEAF CKGW KECA KGO KGW KHQ KOA KOMO KSD KSL KSTP KYW
WNAX WORC WREC WTAR WWNC WXYZ	WAPI WBAP WCAE WCSH WDAF WEBC WEEI WFI WFJC WBEN WGY WHO
Thursday	WIOD WJAR WJAX WJDX WKY WMC WOAI WOC WOW WPTF WRC WRVA
9:45-10:00 Our Daily Food WEAF CKGW KPRC KSD KVOO WAPI	WSĀĪ WSB WSM WSMB WTĀG WTMJ WWJ
WBAP WBEN WCAE WCSH WDAF WEBC WFLA WGY WHAS WHO WIOD WJAR	9:00-9:30 Knox-Dunlap Orchestra
WJDX WKY WLW WMC WOAI WOC WPTF WRC WRYA WSAI WSB WSM	9:00-9:30 Knox-Dunlap Orchestra WJZ KDKA KWK WBAL WBZ WBZA WCKY WHAM WIBO WREN
WSMB WSUN WTAG WTAM WTMJ WWJ 16:00-10:15 Ceresota Program	9:30-10:00 Jack Frost's Melody Moments WEAF WCAE WCSH WFI WBEN WGY
WEAF KSTP KYW WBEN WCAE WCSH WFI WGY WJAR WRC WRVA WSAI	WIBO WJAR WRC WSAI WTAG WTAM
WTAG WTAM WWJ	9:30-10:00 Maxwell House Ensemble
10:45-11:00 The Manhatters WJZ KDKA KFAB KWK WHAM WIBO	WJZ KDKA KECA KGO KGW KHQ KOA KOMO KPRC KSL KSTP KWK
WLW WREN WSMB 4:30-5:00 Melody Magic	KYW WAPI WBAL WBAP WBZ WBZA WEBC WHAM WHAS WIOD WJAX WJR
WABC KDYL KFJF KFPY KFRC KLZ KMBC KMOX KOL KRLD KSCJ KVI WADC WAIU WBCM WBRC WCAO WCCO	WKY WLW WMC WOAI WPTF WREN WRVA WSB WSM WSMB WTMJ
WADC WAIU WBCM WBRC WCAO WCCO WDAY WDBJ WDOD WEAN WFAN WHP	9:30-10:00 Detective Story Magazine WABC KMBC KMOX KOIL WADC WBBM
WIBW WISN WLAC WMAL WMT WNAC WORC WOWO WPG WREC WTAR WWNC	WCAO WCAU WEAN WFBL WHK WJAS
WXYZ WGR 4:45-5:30 In the Spotlight	WKBW WKRC WLBW WMAL WNAC WOWO WSPD WXYZ
WEAF KFSD KGO KOA KOMO KSD KTAR WCAE WBEN WHAS WHO WJAR	10:00-10:30 Lutheran Laymen League Program WABC KDYL KFPY KFRC KHJ KLZ
WKY WOC WRC WSAI WSM WSMB WTAG WTAM WTIC	KMOX KOIL KOIN KOL KRLD WADC
5:30-5:45 The Toddy Party	WBBM WCAO WCAU WCCO WDSU WEAN WFBL WHK WJAS WKBW WKRC WLBW
WEAF CKGW KSD KYW WCAE WCSH WEEI WFJC WBEN WGY WJAR WLIT	WMAL WMT · WNAC WOWO WSPD WXYZ 10:00-11:00 Victor Herbert Opera Series
WRC WSAI WTAG WTIC WWJ 7:00-7:30 Mid-Week Federation Hymn Sing	WJZ CKGW KDKA KWK WBAL WBZ WBZA WHAM WREN
WEAF KOA WHAS WHO WIBO WJAR WMC WOC WWJ	10:00-11:00 RCA Hour
7:30-8:00 Ward's Tip Top Club WABC KMOX WCAO WCAU WEAN WFBL	WEAF CKGW KFI KGO KGW KHQ KOA KOMO KPRC KSD KSL KSTP
WHK WJAS WKBN WNAC WXYZ 8:00-9:00 Fleischmann Hour—Rudy Vallee	KTHS KYW WAPI WCAE WCSH WDAF WEBC WEEI WFAA WFI WFJC WFLA
WEAF CKGW KECA KGO KGW KHQ	WBEN WGY WHAS WIOD WJAR WJAX WJDX WKY WMC WOAL WOW WRC
KOA KOMO KPRC KSD KSL KSTP KTAR KTHS WAPI WBAP WCAE WCSH WDAF WEBC WEEI WFI WFJC WGN	WRVA WSAI WSB WSM WSMB WSUN WTAG WTAM WTMJ WWJ
WBEN WGY WHAS WHO WIOD WJAR WJAX WJDX WKY WMC WOAI WOC	10:30-11:00 Paul Whiteman and His Orchestra WABC KFPY KLRA KMBC KMOX KOIL
WOW WPTF WRC WRVA WSAI WSB WSM WSMB WTAG WTAM WTMJ WWJ	KSCJ WADC WBCM WBRC WCCO WDAY WDBJ WDOD WEAN WFAN WFBL WGR
8:00-9:00 Lucky Strike Orchestra	WHEC WHP WIBW WISN WJAS WKRC WLAC WLBW WMAL WMT WNAC WNAX
WJZ KDKA KFAB KWK KYW WBAL WHAM WJR WREN	WORC WREC WSPD WTAR WWNC WXYZ
8:15-8:30 Voice of Columbia WABC KFH KFPY KLRA KMBC KMOX	11:00-11:15 Palais d'Or Orchestra KSD KSTP WBEN WCAE WFI WHO
KSCJ WADC WBCM WBRC WCCO WDAY WDBJ WDOD WFBL WFBM WGR WHEC	WJDX WOC WOW WRC WSAI WSM WSMB WWJ
WIBW WISN WJAS WKRC WLAC WLBW WMAL WMT WNAX WORC WPG WREC	11:30-12:00 Ted Fiorito and His Orchestra
WSPD WTAR WWNC WXYZ 8:30-8:45 Kaltenborn Edits the News	WABC KFH KFPY KLRA KMBC KMOX KOIL KOL WBCM WBRC WCAO WCCO
WABC KMBC KMOX KOIL WADC WBT WCAO WCAU WCCO WEAN WFBL WJAS	WDAY WDBJ WDOD WEAN WFBL WFBM WHEC WHP WIBW WISN WKRC WLBW
WKBW WKRC WLBW WMAL WMAQ WNAC WOWO WPG WSPD WXYZ	WMAL WMT WNAC WNAX WORC WPG WREC WSPD WTAR WWNC WXYZ
8:45-9:00 The Hamilton Watchman	
WABC KMBC KMOX KOIL WADC WCAO WCAU WEAN WFBL WHK WJAS WJJD	11:30-11:45Duke Ellington and His Orchestra WEAF CKGW KSD KSTP WDAF WFI WFJC WJDX WOW WRC WWJ

Friday

11:00-12:00 NBC Music Appreciation Hour							
WEAF	WJZ	CKGW	KDKA	\mathbf{KFAB}	KOA		
KPRC	KSD	KSL	KSTP	$\mathbf{k}\mathbf{voo}$	$\mathbf{K}\mathbf{W}\mathbf{K}$		
KYW	WAPI	\mathbf{WBAL}	$\mathbf{w}\mathbf{B}\mathbf{z}$	\mathbf{WBZA}	WCAE		
WCSH	WDAF	WEBC	\mathbf{weei}	WENR	WFAA		
WFLA	WGN	WWJ	WGY	WHAM	WHAS		
WHO	WIBO	WIOD	WJAR	WJAX	WJDX		
WJR	$\mathbf{w}\mathbf{k}\mathbf{y}$	\mathbf{WLIT}	wlw	\mathbf{WMC}	WOAI		
woc	wow	\mathbf{WPTF}	WRC	wren	wrva		
WSAI	WSB	WSM	WSMB	WSUN	WTAG		
WTAM	WTMJ						

1:00-2:00 Palais d'Or Orchestra WEAF KSD KYW WGY WHO WOC WRC WTAM WTMJ

7:15-7:30 Ozzie Nelson and His Orchestra

KFJF KFPY KFRC KLRA KSCJ WBCM
WBCW WCCO WDBJ WDOD WEAN WFBM
WGRC WHP WISN WJAS WLBW WMT
WORC WSPD WTAR WWNC WXYZ

7:45-8:00 Brownbilt Footlites

WJZ KDKA KFAB KOA KSL WHAS
WAPI WBZ WBZA WEBC WFLA WHAS
WIBO WIOD WJAX WJDX WMC WOAI
WPTF WREN WRWA WSB WSM WSMB
WSUN WTMJ

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

 8:00-9:00 Cities Service Concert Orchestra

 WEAF
 CKGW
 KECA
 KGO
 KGW
 KHQ

 KOA
 KOMO
 KPRC
 KSD
 KSL
 KSTP

 KYW
 WCAE
 WCSH
 WDAF
 WEBC
 WEEI

 WFAA
 WBEN
 WHO
 WJAR
 w KY
 WLIT

 WOAI
 WOW
 WRC
 WSAI
 WTAG

8:15-8:30 Grand Opera Miniature

WABC KDYL KFH KFJF KFPY KFRC

KHJ KLZ KMBC KRLD KSCJ KVI

WADC WAILU WBCM WDAY WDBJ WDOD

WHEC WHP WIFW WISN WJAS WKRC

WLAC WLBW WLBW WLBY WMAL WMAQ WMT

WNAX WORC

WXYZ WGR

KFRC

KFPY KFRC

KFRC

KFPY KFRC

KFPY KFRC

KFRC

KFPY KFRC

KFPY KFRC

KFPY KFRC

KFPY KFRC

KFPY KFRC

KFRC

KFPY KFRC

KFRC

KFPY KFRC

KFRC

KFPY KFR

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

8:45-9:00 Natural Bridge Revue
WJZ KDKA KFAB KWK WBZ WBZA
WFLA WHAM WIBO WIOD WJAX WLW
WREN WRVA WSUN

9:00-9:30 Interweven Pair

WJZ CKGW KDKA KECA KFSD KGO

KGW KHQ KOA KOMO KPRC KSL

KSTP KTAR KWK KYW WAPI WBZ

WBZA WCKY WEBC WFAA WHAM WHAS

WIOD WJAX WJR WKY WLW WMC

WOAI WREN WRVA WSB WSM WSMB

WTMJ
9:00-9:30 Cliquot Club Eskimos
WEAF KSD WCAE WCSH WDAF WEEI
WBEN WGY WHO WIBO WJAR WLIT
WOC WOW WRC WSAI WTAG WTIC

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

9:30-10:00 Del Lampe's Eversharp Orchestra
WEAF KSD WCAE WCSH WDAF WEEI
WFJC WGN WBEN WGY WHO WJAR
WLIT WOC WOW WRC WSAI WTAG

9:30-10:00 Armour Program

WJZ KDKA KFI KGO KGW KHQ

KOA KOMO KSL KSTP KWK KYW

WAPI WBZ WBZA WEBC WFAA WHAM

WHAS WIOD WJAX WJDX WJR WKY

WLW WMC WOAI WPTF WREN WRVA

WSMB WSMB WTMJ

10:00-10:30 Crime Prevention Program
WEAF KSD WCAE WCSH WJAR WRC
WTAG

 10:00-10:30
 Armstrong Quakers
 Quakers
 KDKA
 KFI
 KGO
 KGW
 KHQ

 KOA
 KOMO
 KPRC
 KSL
 KSTP
 KWK

 KYW
 WBAP
 WBZ
 WBZA
 WCKY
 WEBC

 WHAM
 WHAS
 WJR
 WKY
 WMC
 WOAI

 WREN
 WSB
 WSMB
 WTMJ
 WTMJ

10:30-10:45 Wrigley Football Program
WABC KMBC KMOX KOIL
WBT WCAO WCAU WEAN
WJAS WKBW WKRC WLBW WMAL WNAC
WOWO WPG WSPD WXYZ

10:30-11:00 RKO Theatre of the Air WEAF KFI KFSD KGO
KOA KOMO KSD KSL
WCAE WCSH WDAF WEEI
WREN WGV WHO WIRO KGW KTAR KTHS WFJC WFLA WIBO WLIT WBEN WGY WIOD WHO WJAR WJDX WKY WJAX WOAI WMC wow WRC WRVA WSMB WSUN WTAG WTAM WWJ

10:45-11:00 Phoenix Hosiery Program
WABC KDYL KFPY KFRC KLZ KMBC
KMOX KMX KOIL KOIN KOL WBBM
WCAO WCCO WDSU WEAN WGST WHK
WJAS WKBW WKRC WLAC WNAC WRR
WXYZ

11:00-11:30 Will Osborne and His Orchestra
WABC KDYL KFH KFJF KFPY KLZ
KMBC KOL WBCM WBRC WCAO WDAY
WDBJ WDOD WIBW WISN WLBW WLBZ
WMAL WMT WNAX WORC WREC WSPD

| 11:00-12:00 | Vincent Lopez and | His Orchestra | WEAF | CKGW | KOA | KSD | KSTP | WCAE | WDAF | WFTC | WGY | WHAS | WHO | WSM | WSM | WTIC | WWJ | WSB | WTIC | WWJ | WSB | WTIC | WWJ | WSB | WTIC | WWJ | WCAE | WSB | WTIC | WWJ | WCAE | WSB | WTIC | WWJ | WCAE | WC

11:30-12:00 Romanelli and His Orchestra
WABC KDYL KFH KFJF KFPY KLZ
KMBC KMOX KOL WBCM WBRC WCAO
WCCO WDAY WDBJ WDOD WEAN WHK
WBW WISN WKRC WLBW WLBZ WMAL
WMT WNAC WNAX WORC WREC WSPD
WTAR WWNC WXYZ

Saturday

1:30-2:00 Savoy Plaza Orchestra
WABC KLRA WADC WBCM WBRC WCAO
WDBJ WDOD WEAN WFBL WGR WHP
WJAS WKRC WLAC WMAL WSPD WTAR
WWNC WYYZ.

4:30-5:00 The Marionettes WEAF KGO KOA WGY WRC	KTAR	WBEN	WCAE	WDSU WJAS WMAL WMAQ WNAC WRE	L
5:00-5:45 Warwick Hotel Orc WABC KFH KFPY KMOX KSCJ WAIU	KLRA WBCM	KLZ WBRC	KMBC WCAO	9:00-9:30 Carborundum Hour WABC KMOX WCAU WHK WKBW WMA WNAC WXYZ	ĮQ
WCCO WDAY WDOD WHP WISN WJAS WPG WREC WSPD	$\mathbf{w}_{\mathbf{L}\mathbf{B}\mathbf{w}}$	$egin{array}{l} \mathbf{WFBL} \\ \mathbf{WMAL} \\ \mathbf{WWNC} \end{array}$	WGR WMT WXYZ	9:00-10:00 General Electric Hour WEAF KFI KFSD KGO KGW KHQ KOA KOMO KPRC KSD KSL KST	P
5:30-6:00 Blue Aces WJZ KWK WHAM WSMB	WHAS	WMC	WSB	KTAR WAPI WBAP WCAE WCSH WDA WEBC WEEI WFI WBEN WHAS WHO WIBO WJAR WJAX WKY WMC WOA WOC WOW WRC WRVA WSAI WSB) .I
6:00-6:15 The Jameses WEAF CKGW KGO KTAR WCAE WFI WMC WOW WRC	KGW WGY WWJ	KOA WHAS	KSD WJAR	WOC WOW WRC WRVA WSAI WSB WSMB WTAG WTAM WTMJ WWJ 9:30-10:00 Dutch Masters Minstels WJZ KDKA KWK KYW WBAL WBZ	
6:00-6:15 Tom, Dick and Har				WBZA WHAM WJR WLW WREN	
WABC KDYL KFH KMOX KRLD KSCJ WBRC WCCO WDAY WHEC WHK WHP	WADC	WAIU WDOD WISN	KLZ WBCM WFAN WKBN WGR	9:30-10:00 Columbia Educational Features WABC KFH KFJF KFPY KHJ KLR. KLZ KMBC KOLL KOL KSCJ WAD WBCM WCAO WCAU WCCO WDBJ WDO WEAN WFBL WFBM WHP WIBW WISY)D
6:15-6:40 Smith Ballew and H WJZ KFAB KWK	is Orchest WBZ	ra WBZA		WJAS WKBW WKRC WLAC WLBW WMA WMAQ WMT WNAC WNAX WORC WSPI WTAR WWNC WXYZ	$^{ m L}$
7:05-7:30 Whyte's Orchestra WEAF KGO KGW WGY WJAR WTIC	KOA WWJ	KSD	WFI	10:00-11:00 Lucky Strike Orchestra WEAF KFI KFSD KGO KGW KHQ	
7:15-7:30 Tastyeast Jesters WJZ KDKA WBAL WHAM WREN		WBZA	WCKY	KOA KOMO KPRC KSD KSL KSTP KTAR KVOO WAPI WCAE WCSH WDA WEBC WEEI WFAA WFI WFJC WFL WGN WBEN WGY WHAS WHO WIOI	A D
7:30-8:00 Necco Surprise Part WABC WEAN WFBL WNAC WORC	WHEC	wkbw	WLBZ	WJAR WJAX WJDX WKY WMC WOAI WOC WOW WRC WRVA WSAI WSB WSMB WSUN WTAG WTMJ WWJ	1
7:30-8:00 Silver Flute	TZOMID 1	WOOT	WTD A E	10:00-11:00 Hank Simmons' Show Boat	
WEAF CKGW KSD WEBC WEEI WFI WOC WOW WRC	WBEN	WCSH WHO WTAG	WJAR WJAR WWJ	WABC KDYL KFH KFJF KFPY KFRO KHJ KLZ KMBC KMOX KOL KSCJ WADC WBCM WCAO WCAU WCCO WDA	Y
7:45-8:00 Pickard Family WJZ CKGW KDKA WBZ WBZA WHAM	WLW	KWK WREN	KYW	WDBJ WDOD WEAN WHK WHP WIBV WISN WJAS WKBN WKRC WLAC WLB' WLBZ WMAL WMAQ WMT WNAC WNA' WORC WOWO WPG WREC WSPD WTA'	W X
8:00-8:15 Dixies Circus WJZ KDKA KPRC WBAL WBZ WBZA WOAI	KSTP !		KYW WLW	WWNC WXYZ 10:00-11:00 Chicago Civic Opera WJZ KDKA WBAL WBZ WBZA WHA	M
8:00-8:30 Salon Singers				11:00-11:15 Troubadour of the Moon	
WEAF KSD WCAE WFI WBEN WGY WJAX WOC WOW WTAG WWJ	WHO V	WIOD	WEEI WJAR WSMB	WEAF KSTP WDAF WFI WHO WIOI WJDX WOC WOW WRC WSAI WTA WWJ	
				11:00-11:30 Jack Denny and His Orchestra WABC KDYL KFJF KFPY KFRC KLZ	
8:15-8:30 Rin-Tin-Tin Thriller WJZ KDKA KFAB WBZ WBZA WHAM	WLW V	KYW WREN	WBAL	WABC KDYL KFJF KFPY KFRC KLZ KMBC KOL KRLD KSCJ WBCM WBR WCAO WDAY WDBJ WDOD WEAN WFAJ WFBM WHEC WHK WHP WIBW WISN	N
8:15-8:30 Dixie Echoes WABC KDYL KFH KMBC KSCJ WADC WDBJ WDOD WFAN	WBCM V	WCAO	KHJ WDAY WISN	WLBW WLBZ WMAL WMT WNAC WNAC WORC WPG WREC WSPD WTAR WWN WXYZ	X
WJAS WKBN WKRC WMAL WMT WNAX WSPD WTAR WWNC	WLAC V	WLBW WOWO WGR	WLBZ	11:15-12:00 Bernie Cummins and His Orchestra WEAF CKGW KOA KSD KSTP WCAI WDAF WFI WFJC WGY WHO WJD	E
8:30-8:45 Dancing Yesterdays WABC' KFH KFJF	*******	znn a		WMC WOC WOW WRC WSB WSMI WTAM WTMJ WWJ	
KMBC KOIL KSCJ	WADC	WBCM	KLRA WCAO		
WCAU WDBJ WDOD	WEAN V	WFBL	WGR WLBW	11:30-12:00 Guy Lombardo and His Orchestra WABC KFJF KFPY KFRC KLZ KMBC	
WMAL WMT WNAC WSPD WTAR WWNC	WNAX V	WORC	WPG	KMOX KOL KRLD KSCJ WBCM WBRG WCAO WCAU WCCO WDAY WDBJ WDOJ	
8:30-9:00 Fuller Man	WAIZ			WERM WHEC WHE WHP WIRW WISH	
WJZ CKGW KDKA	KECA I	KFAB	KGO KWK	WKRC WLBW WLBZ WMAL WMT WNA WNAX WORC WPG WREC WSPD WTAI WWNC WXYZ	
KGW KHQ KOA WBAL WBZ WBZA	WHAM V	VIBO	WJR		
WKY WLW WREN 8:45-9:00 Wallace Silversmiths	3			12:00-1:00 Rudy Vallee and his Orchestra WEAF KOA KSD KSTP WDAF WFJC	,
WABC KMBC KMOX	WBT V	WCAU	wcco	WJDX WRC WSB WWJ	

NOTICE OF COPYRIGHT

The method of logging by wave-lengths or frequencies was devised by The Radex Press in 1924 and has been copyrighted and recopyrighted each year since that time. The arrangement of stations in groups by frequencies or wave-lengths with dial readings in connection therewith is fully covered by our copyright and all infringers will be vigorously prosecuted.

KEY

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

540 kilocycles 555.6 meters 500 Brandon, Manitoba Mexico City Manitoba Telephone System 50 Sria, de Agricultura y Fomento 550 kilocycles 545.1 meters Brookings, S. D. St. Louis, Mo. Bismarck, N. D. Syracuse, Ore. St. Louis, Mo. Buffalo, N. Y. Cincinnati, Ohio Merida, Yucatan KFDY KFUO 500 1+ 2+ 1+ S. D. State College **5**00 Concordia Theological Seminary KFYR § Meyer Broadcasting Co. State Agricultural College 500 KOAC KSD WGR 1000 Pulitzer Publishing Co. Buffalo Broadcasting Co. WKRC Incorporated Partido Socialista del Sureste 2N 500 * 1000 ĉ WKRC 1000 105 560 kilocycles 535.4 meters KFDM 500 X+ Magnolia Petroleum Co. Reynolds Radio Co., Inc. Beaumont, Texas Denver, Colo. San Francisco, Cal. Philadelphia, Pa. KLZ KTAB WFI WIBO * 1000 1000 Associated Broadcasters 1N+ 3+N 1N X+ 3S Strawbridge & Clothier Nelson Bros. Bond & Mortgage Co. 500 Chicago, Ill. Philadelphia, Pa. 1000 WLIT WNOX 500 Lit Brothers --Knoxville, Tenn Chicago, Ill. Miami, Fla. 1000 Sterchi Bros. WPCC North Shore Congregational Church 500 WQAM 1000 Miami Broadcasting Co. 570 kilocycles 526.0 meters Wichita Falls, Texas Los Angeles, Cal. Seattle, Wash. Columbus, Ohio Youngstown, Ohio Syracuse, N. Y. New York City Yankton, S. D. New York City Syracuse, N. Y. Asheville, N. C. KGKO 250 Wichita Falls Broadcasting Co. KMTR KXA WEAO WKBN WMAC KMTR Radio Corp. American Radio Tel. Co. 500 500 Ohio State University W. P. Williamson, Jr. Clive B. Meredith † 750 500 îc 250 2 WMCA WNAX WNYC 3 Knickerbocker Broadcasting Co., Inc. Gurney Seed & Nursery Co. 500 1000 500 250 3 Dept. of Plants and Structures WSYR Clive B. Meredith WWNC 1000 Citizens Broadcasting Co., Inc. 580 kilocycles 516.9 meters

CFCL

CHMA

CKCL CKNC

CKUA KGFX

KSAC WIBW

WOBU WSAZ

WTAG

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2+ 2+C Toronto, Ont

Edmonton, Alta. Toronto, Ont. Toronto, Ont.

Edmonton, Alta. Pierre, S. D.

Manhattan, Kans.

Topeka, Kansas Charleston, W. Va. Huntington, W. Va.

Worcester, Mass.

Dominion Battery Co. Christian and Missionary Alliance

State Agricultural College Topeka Broadcasting Assn., Inc. WOBU, Inc. WSAZ, Inc.

University of Alberta Dana McNeil

Telegram Publishing Co.

The Dominion Battery Co. Canadian National Carbon Co., Ltd.

INDEX BY FREQUENCIES AND DIAL NUMBERS 590 kilocycles 508.2 meters Havana, Cuba Spokane, Wash. CMW 1000 588 Columbus Commercial & Radio Co. KHQ WCAJ WEEI Havana, Cuba Spokane, Wash. Lincoln, Nebr. Boston, Mass. Berrien Springs, Mich. Omaha, Nebr. Mexico City 1000 +N Louis Wasmer, Inc. Nebraska Wesleyan University 500 t 1000 Edison Elec. Illuminating Co. WKZC 1000 Ď WKZO, Inc. * 1000 IN Woodmen of the World 591 CP XFI 1000 Sria. de Industria, Commercio y Trabajo DIAL 500 Lynchburg, Va. Abe Cohen 600 kilocycles 499.7 meters Abitibi Power & Paper Co. Jas. Richardson & Sons, Ltd. Jas. Richardson & Sons, Ltd. CECH 250 Iroquois Falls, Ont. CICH CJRM CJRW CNRO KFSD WCAC WCAO WGBS Moose Jaw, Sask. Fleming, Sask. Ottawa, Ont. 500 500 500 Canadian National Railways San Diego, Cal. Storrs, Conn. +N 2+ C * **5**00 Airfan Radio Corp Conn. Agricultural College 250 250 Baltimore, Md. New York City Monumental Radio, Inc. Ž+ C 250 General Broadcasting System, Inc. * WMT Waterloo, Iowa Lawrenceburg, Tenn. 500 Waterloo Broadcasting Co. WREC, Inc. WREC, Inc. WOAN 500 WREC 500 i+cMemphis, Tenn. 610 kilocycles 491.5 meters San Francisco, Cal. Kansas City, Mo. Philadelphia, Pa. Philadelphia, Pa. KFRC 1000 Don Lee, Inc. Kansas City Star Co. WDAF N 2C 1000 WFAN WIP 500 Keystone Broadcasting Co., Inc. 500 Gimbel Bros. Co. ŴĴAY 500 Cleveland Radio Broadcasting Corp. Cleveland, Ohio 620 kilocycles 483.6 meters KGW 1000 +NPortland, Ore. Phoenix, Arizona Oregonian Publishing Co. KTAR WFLA WLBZ +N 1+N KTAR Broadcasting Co. Chamber of Commerce 500 * 1000 Clearwater, Fla. 500 Bangor, Maine St. Petersburg, Fla. Milwaukee, Wis. Maine Broadcasting Co., Inc. WSUN 1000 Chamber of Commerce WTMJ 1000 Milwaukee Journal 630 kilocycles 475.9 meters CFCT CJGX CNRA KFRU WGBF Victoria Broadcasting Association Winnipeg Grain Exchange Canadian National Railways 500 Victoria, B. C 500 Yorkton, Sask 500 Moncton, N. B. **5**00 Columbia, Mo. Evansville, Ind. Stephens College Ŧ. 500 Evansville on the Air, Inc. WMAI +C M. A. Leese State Marketing Bureau 250 Washington, D. C. Jefferson City, Mo. wos 500 1+ Monterrey, Mexico Jalapa, Ver. 500 350 Mexico Music Co. Gobierno del Estado de Veracruz 631 640 kilocycles 468.5 meters KFI WAIU WOI 5000 Los Angeles, Cal. Columbus, Ohio NX Earle C. Anthony, Inc. 500 American Insurance Union 5000 Ď State College of Agriculture Secretaria de Guerra y Marina Ames, Iowa 638 XFG 2000 Mexico City 650 kilocycles 461.3 meters KPCB 100 Seattle, Wash. Nashville, Tenn. Wescoast Broadcasting Co. Dn N WSM 5000 National Life & Accident Ins. Co. 660 kilocycles 454.3 meters 500 50000 D Omaha, Neb. Omaha Grain Exchange New York City National Broadcasting Co., Inc. 670 kilocycles 447.5 meters

Chicago, Ill.

Mexico City

WMAQ, Inc.

E. Buen Tono, S. A.

WMAQ

XEB

5000

1000

666

600 1 11 1 140 0	
680 kilocycles 440.9 meters	
KFEQ * 2500 D St. Joseph, Mo. KPO † 5000 N San Francisco, Cal. WPTF * 1000 N Dn Raleigh, N. C.	Scroggin & Co., Bank Hale Bros. & The Chronicle Durham Life Insurance Co.
690 kilocycles 434.5 meters	
CFAC - 500 1 Calgary, Alta. CFCN - 500 1 Calgary, Alta. CHCA - 500 1 Calgary, Alta. CJCJ - 500 1 Calgary, Alta. CJCJ - 500 1 Calgary, Alta. CJCJ - 5000 4 Toronto, Ont. CKGW - 5000 2N Toronto, Ont. CNRC - 500 1 Calgary, Alta. CPRY - 5600 2N Toronto, Ont. NAA - 1000 Arlington, Va. VAS - 10000 685 Louisburg, N. S.	The Calgary Herald Western Broadcasting Co. The Western Farmer Albertan Publishing Co., Ltd. The Evening Telegram Gooderham & Worts, Ltd. Canadian National Railways Canadian Pacific Railways U. S. Navy Canadian Marconi Co.
700 kilocycles 428.3 meters	
WLW * 50000 N Cincinnati, Ohio XEZ _ 500 697 Mexico City, Mex.	Crosley Radio Corp. Joaquin Zamacona
710 kilocycles 422.3 meters	- 19 · · · ·
KMPC 500 Dn Los Angeles, Cal. WOR 5000 Newark, N. J.	R. S. MacMillan Bamberger Broadcasting Service, Inc.
720 kilocycles 416.4 meters	
WGN _ 25000 N Chicago, III. XEN † 1000 _ Mexico City 8WMC _ 500 722 St. Johns, N. F.	Chicago Tribune Compania Civil de Inversiones Urbanas Wesley United Church
730 kilocycles 410.7 meters	
CHLS 500 1 Vancouver, B. C. CHYC 5000 2 Montreal, Que. CKAC 5000 2C Montreal, Que. CKCD 50 1 Vancouver, B. C. CKFC 50 1 Vancouver, B. C. CKMO 50 1 Vancouver, B. C. CKWX † 100 1 Vancouver, B. C. CMK 2000 Havana, Cuba CNRM 5000 2 Montreal, Que.	W. G. Hassell Northern Electric Co., Ltd. La Presse Publishing Co., Ltd. Vancouver Daily Province United Church of Canada Sprott-Shaw Radio Co. A. Holstead & Wm. Hanlon Cuban Broadcasting Co., Hotel Plaza Canadian National Railways
740 kilocycles 405.2 meters	
KMMJ 1000 Dn Clay Center, Neb. WSB 5000 N Atlanta, Ga.	The M. M. Johnson Co. Atlanta Journal Co.
750 kilocycles 399.8 meters	
TIX 50 San Jose, Costa Rica WJR † 5000 N Detroit, Mich.	WJR, The Goodwill Station, Inc.
760 kilocycles 394.5 meters	, , ,
KVI	Puget Sound Broadcasting Co., Inc. St. Louis University National Broadcasting Co., Inc. Herbert A. Denny y Cia.
770 kilocycles 389.4 meters	
CMI - 500 775 Havana, Cuba KFAB * 5000 IN Lincoln, Nebr. WBBM * 25000 IC Chicago, III. WJBT - 25000 IS Chicago, III.	Instituto Provincial KFAB Broadcasting Co. The Atlas Co., Inc. The Atlas Co., Inc.
780 kilocycles 384.4 meters	
CKY - 5000 3 Winnipeg, Manitoba CNRW - 5000 3 Winnipeg, Manitoba KELW - 500 2 Burbank, Cal.	Manitoba Telephone System Canadian National Railways Union Bank & Trust Co.

KTM * 500 2+ Los Angeles, Cal. WEAN - 250 +C Providence, R. I. WISJ - 250 + Madison, Wis. WMC - 500 +N Memphis, Tenn. WPOR - 500 1 Norfolk, Va. WTAR * 500 1C Norfolk, Va. XEW - 5000 - Mexico City	Pickwick Broadcasting Corp. Shepard Broadcasting Service, Inc. Wisconsin State Journal Bdcsg. Co. Memphis Commercial-Appeal WTAR Radio Corp. WTAR Radio Corp. Mexico Music Co.
790 kilocycles 379.5 meters	Frank H. Jones National Broadcasting Co., Inc.
CMHC 500 791 Tuinucu, Cuba KGO ‡ 7500 N San Francisco, Cal. WGY † 50000 N Schenectady, N. Y.	General Electric Co. KCYS
800 kilocycles 374.8 meters	880
WBAP * 10000 1XN Fort Worth, Texas WFAA _ 50000 1N Dallas, Texas XEU _ 101 _ Veracruz, Mex.	Carter Publications, Inc. News & Journal Natalio Ulibarri DIAI
810 kilocycles 370.2 meters	
WCCO 7500 C Minneapolis, Minn. WPCH 500 D New York City	Northwestern Broadcasting, Inc. Eastern Broadcasters, Inc.
820 kilocycles 365.6 meters	
WHAS † 10000 N Louisville, Ky.	Courier-Journal & Times
830 kilocycles 361.2 meters	
CMGA 300 834 Colon, Cuba	Leopoldo V. Figueros
KOA † 12500 N Denver, Colo. WHDH 1000 D Boston, Mass. WRUF * 5000 Dn Gainesville, Fla.	National Broadcasting Co., Inc. Matheson Radio Co., Inc. University of Florida
840 kilocycles 356.9 meters	
CFCA † 500 1 Toronto, Ont. CHCT 1000 - Red Deer, Alta. CKLC 1000 2 Red Deer, Alta. CMC 1500 - Havana, Cuba	Star Publishing & Ptg. Co. G. F. Tull & Ardern, Ltd. Alberta Pacific Grain Co., Ltd. Cuban Telephone Co. Canadian National Railways Canadian National Railways
CNRD 1000 2 Red Deer, Alta. CNRT 500 1 Toronto, Ont.	Canadian National Railways
850 kilocycles 352.7 meters	, ŭ
KWKH * 10000 1 Shreveport, La. NBA _ 750 846 Balboa, Canal Zone WWL * 5000 1 New Orleans, La.	Hello World Broadcasting Corp. United States Navy Loyola University
860 kilocycles 348.6 meters	
KMO - 500 + Dn Tacoma, Wash, WABC - 5000 XC New York City WHB * 500 D Kansas City, Mo. XEJ - 101 857 C. Juarez, Chih. XFX - 500 - Mexico City, Mex.	Canadian National Railways Canadian National Railways Canadian National Railways OT Hello World Broadcasting Corp. United States Navy Loyola University KMO, Inc. Atlantic Broadcasting Corp. WHB Broadcasting Co. Juan G. Buttner Secretaria de Educacion Publica
870 kilocycles 344.6 meters	
WENR _ 50000 IN Chicago, III. WLS _ 5000 IXN Chicago, III.	Great Lakes Broadcasting Co. Agricultural Broadcasting Co.
880 kilocycles 340.7 meters	
CHCS	The Hamilton Spectator Maple Leaf Radio Co., Ltd. E. Fontaine N. Nathanson Le "Soleil," Ltd. G. A. Vandry Wentworth Radio & Auto Sply. Co., Ltd Canadian National Railways Midwestern Radio Corp. Tribune Publishing Co.
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	INDEA I	31 PREQUENCIES A	ND DIAL NUMBERS
KPOF	500 2	Denver, Colo.	Pillar of Fire, Inc.
WCOC	500 +	Meridian, Miss.	Mississippi Broadcasting Co., Inc.
WGBI *	250 1	Scranton, Pa.	Scranton Broadcasters, Inc.
WQAN * WSUI *	250 1 500	Scranton, Pa. Iowa City, Iowa	Scranton Times University of Iowa
W301 ·		Iowa City, Iowa	Chiversity of Iowa
200 1-110	ovzo100 ′	336.9 meters	
890 kilo	•		
CFBO *	50	St. John, N. B. Ottawa, Ont.	C. A. Munro, Ltd. Dr. G. M. Geldert
CKCO	100	Ottawa, Ont.	Dr. G. M. Geldert
KFNF	500 2+ 250	Shenandoah, Iowa	Henry Field Co. Church of the Nazarene
KGJF * KUSD *	500 2+ 250 1+C 250 2+ 250 +N	Little Rock, Ark. Vermillion, S. D.	University of South Dakota
	250 1+C	Atlanta, Ga.	University of South Dakota Georgia School of Technology
WILL *	250 2+	Atlanta, Ga. Urbana, Ill.	University of Illinois
WJAR *	250 +N	Providence, R. I.	The Outlet Co.
WKAQ WMAZ †	500 250 1+	San Juan, P. K.	Radio Corp. of Porto Rico
WMAZ † WMMN *	250 1+ 250 +	Macon, Ga. Fairmount, W. Va.	Junior Chamber of Commerce Holt-Rowe Novelty Co.
XES †	500	Tampico, Mexico	Difusora Portena XES
900 kilo	cycles (333.1 meters	
CMY *	250	Havana, Cuba	Francisco Lavin
CMX * KGBU †	500	Ketchikan, Alaska	Alaska Radio & Service Co.
KGBU † KHJ *	1000 C	Los Angeles, Cal.	Don Lee, Inc.
KSĔI *	250	Pocatello, Idaho Buffalo, N. Y.	KSEI Broadcasting Association, Inc.
WBEN	1000 1000 N	Buffalo, N. Y.	Buffalo Evening News
WJAX * WKY *		Jacksonville, Fla Oklahoma City	City of Jacksonville WKY Radiophone Co.
WLBL *	1000 N 2000 D	Stevens Point, Wis.	Wisconsin Dept. of Markets
			Wilder Dept. of Manager
910 kilo	cvcles 3	329.6 meters	
CFOC		Saskatoon, Sask.	The Electric Shop, Ltd.
CFQC CJGC * CNRL *	1000 2	London, Ont.	Free Press Printing Co., Ltd.
CNRL *		London, Ont.	Free Press Printing Co., Ltd. Canadian National Railways
CNRS	500 1	Saskatoon, Sask.	Canadian National Railways
920 kilo	eveles 1	325.9 meters	
920 KHO	cycles (,
CMHD HHK	250 1000	Caibarien, Cuba	Manuel A. Alverez
KFEL †	500 1	Port au Prince, Haiti	Republic of Haiti Eugene P. O'Fallon, Inc.
KFEL † KFXF *	500 i	Denver, Colo. Denver, Colo.	Colorado Radio Corp.
KOMO †	1000 N	Denver, Colo. Seattle, Wash.	Fisher's Blend Station I.c.
KPRC	1000 +N 500 D	Houston, Texas Chicago, Ill.	Houston Printing Co.
WAAF WBSO	500 D 500 D	Wellesley Hills, Mass.	Houston Printing Co. Drovers Journal Publishing Co. Babson Statistical Organization, Inc.
WWJ †	1000 N	Detroit. Mich.	The Detroit, News
WWJ † XEX XFE	500 923	Detroit, Mich. Mexico City, Mex.	Excelsior Cia Editorial S. A.
XFE	250 923	Villa Hermosa, Tab.	Gobierno Del Estado d Tobasco
020 1-:1-	1	222 4	
930 kilo		322.4 meters	
CJCA * CFRC	500 4 500	Edmonton, Alta.	The Edmonton Journal, Ltd.
CHNS *	500	Kingston, Ont. Halifax, N. S.	Queen's University Halifax Herald, Ltd.
CKIC	50	Wolfville, N. S.	Acadia Academy
CKPR	50 3	Midland, Ont.	Midland Broadcasting Corp.
CNRE	500 4	Edmonton, Alta.	Canadian National Railways
CNRH	500 i	Halifax, N. S.	Canadian Nation! Railways
KFWI	500 1	San Francisco, Cal.	Radio Entertainments, Inc.
KGBZ KMA *	500 2+ 500 2+	York, Nebr. Shenandoah, Iowa	Dr. George R. Miller May Seed & Nursery Co.
KROW	500 1±X	Oakland, Cal.	Educational Broadcasting Corn.
WBRC	500 +C	Birmingham, Ala.	Birmingham Broadcasting Co., Inc.
WDBJ *	500 +C 250 +C 50 D	Roanoke, Va.	Birmingham Broadcasting Co., Inc. Richardson-Wayland Elec. Corp. St. Pauls P. E. Church
WIBG	50 Ď	Elkins Park, Pa.	St. Pauls P. E. Church
940 kilo	1 1	319.0 meters	
	CVCIES		
	cycles (Marian A Malan
KOIN *	1000		Marion A. Mulrony
KOIN * WAAT	1000	Honolulu, Hawaii Portland, Ore.	KOIN, Inc.
KOIN * WAAT WCSH *	1000	Honolulu, Hawaii Portland, Ore. Jersey City, N. J. Portland, Maine	KOIN, Inc. Bremer Broadcasting Corp. Congress Square Hotel Co.
KOIN * WAAT WCSH * WDAY *	1000	Honolulu, Hawaii Portland, Ore. Jersey City, N. J. Portland, Maine Fargo, N. D.	KOIN, Inc. Bremer Broadcasting Corp. Congress Square Hotel Co.
KOIN * WAAT WCSH * WDAY *	1000 C 1000 C 300 D 1000 N 1000 C 1000 C	Honolulu, Hawaii Portland, Ore. Jersey City, N. J. Portland, Maine Fargo, N. D. Hopkinsville, Ky.	KOIN, Inc. Bremer Broadcasting Corp. Congress Square Hotel Co. WDAY, Inc. WFIW, Inc.
KOIN * WAAT WCSH * WDAY *	1000	Honolulu, Hawaii Portland, Ore. Jersey City, N. J. Portland, Maine Fargo, N. D.	KOIN, Inc. Bremer Broadcasting Corp. Congress Square Hotel Co.

	INDEX	BY FREQUENCIES AN	ND DIAL NUMBERS	
	950 kilocycles	315.6 meters		
	CMCQ - 1000 955 KFWB 1000 - KGHL 1000 - KMBC 1000 C WRC 500 N	Havana Cuba Hollywood, Cal. Billings, Mont. Kansas City, Mo. Washington, D. C.	Andres Martinez Warner Bros. Broadcasting Corp. Northwestern Auto Supply Co., Inc. Midland Broadcasting Co., Inc. National Broadcasting Co., Inc.	
	960 kilocycles	312.3 meters		
,	CFCY * 250 1 CFRB - 4000 2C CHCK - 300 1 CHWC - 500 3 CJBR - 500 3 CKCK † 500 3 CNRR - 500 3 CNRR - 4000 2 XED - 10000	Charlottetown, P. E. I. Toronto, Ont. Charlottetown, P. E. I. Pilot Butte, Sask. Regina, Sask. Regina, Sask. Regina, Sask. Toronto, Ont. Reynosa, Mexico	The Island Radio Co. Rogers-Majestic Corp., Ltd. W. E. Burke R. H. Williams & Sons. Ltd. Cooperative Wheat Producers, Ltd. Leader Publishing Co., Ltd. Canadian National Railways Canadian National Railways International Boalcasting Co., Inc.	
	970 kilocycles	309.1 meters		
	KJR * 5000 XEH 101 964 WCFL 1500 N D	Seattle, Wash. Monterrey, N. L. Chicago, III.	Northwest Broadcasting System, Inc. Ing. Constantino de Tarnava Chicago Federation of Labor	ксуs. 1040
	980 kilocycles	305.9 meters		MTRS. 288.3
	KDKA - 50000 N XEO - 101 983	Pittsburgh, Pa. Mexico City	Westinghouse Elec. & Mfg. Co. F. Armida y Cia.	DIAL
	990 kilocycles	302.8 meters [:	:
	WBZ * 15000 1NY WBZA * 500 1NY	Springfield, Mass. Boston, Mass.	Westinghouse Elec. & Mfg. Co. Westinghouse Elec. & Mfg. Co.	
	1000 kilocycles	299.8 meters		
	KFVD - 250 Dn WHO - 5000 IN WOC - 5000 IN XEI - 101 999	Culver City, Cal. Des Moines, Iowa Davenport, Iowa Morelia, Mexico	Los Angeles Broadcasting Co. Central Broadcasting Co. Central Broadcasting Co. Carlos Gutierrez M.	
	1010 kilocycles	296.8 meters [ļ
	CFLC 50 3 CKCR 50 3 CMBZ 150 CMCF 250 KGGF 500 2 KGW * 500 WHN 250 C+ WNAD 500 2 WPAP 250 1 WQAO 250 1 WRNY 250 1	Prescott, Ont. Waterloo, Ont. Havana, Cuba Havana, Cuba Coffeyville, Kans. San Jose, Cal. New York City Columbia, S. C. Norman, Okla. New York City New York City New York City New York City	Radio Association John Patterson Manuel y G. Salas Raul Karmen Coffeyville Journal Pacific Agricultural Foundation, Ltd. Marcus Loew Booking Agency George T. Barnes, Inc. University of Oklahoma Calvary Baptist Church Calvary Baptist Church Aviation Radio Station, Inc.	CUT OUT ON DOTTED LINES
	1020 kilocycles	293.9 meters		胃
•	KFKX 10000 1N KYW 10000 1N WRAX 250 D	Chicago, III. Chicago, III. Philadelphia, Pa.	Westinghouse Elec. & Mfg. Co. Westinghouse Elec. & Mfg. Co. WRAX Broadcasting Co.	LINES
	1030 kilocycles	291.1 meters		
	CFCF 500 CNRV 500	Montreal, Que. Vancouver, B. C.	Canadian Marconi Co. Canadian National Railways	
	1040 kilocycles	288.3 meters [
	KRLD * 10000 IC KTHS \$ 10000 IN WKAR - 1000 D WMAK 1000 C·Dn	Dallas, Texas Hot Springs, Ark. East Lansing, Mich. Buffalo, N. Y.	KRLD Radio Corp. Chamber of Commerce Michigan Agricultural College Buffalo Broadcasting Corp.	
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		111	DEA I	ST TREQUENCIES A	ND DIAQ NONDERO
1050	ki	locyc	les	285.5 meters	
KFKB KNX	*-	5000 5000	Dn X	Milford, Kansas Hollywood, Cal.	KFKB Broadcasting Assn., Inc. Western Broadcast Co.
1060	ki	locyc	les	282.8 meters	
KWJJ WBAL WJAG WTIC	* * †	500 10000 1000 50000	Dn 1N Dn 1N	Portland, Ore. Baltimore, Md. Norfolk, Nebr. Hartford, Conn.	KWJJ Broadcast Co., Inc. Consolidated Gas Elec. & Pwr. Co, Norfolk Daily News Travelers Broadcasting Service Corp.
1070	ki	locyc	les	280.2 meters	
KJBS WCAZ WDZ WTAM XER	*	100 50 100 50000 101	D D D N 1071	San Francisco, Cal. Carthage, III. Tuscola, III. Cleveland, Ohio Mexico City	Julius Brunton & Sons Co. Superior Broadcasting Service James L. Bush National Broadcasting Co., Inc. F. Armida y Cia
1080	ki]	locyc	les	277.6 meters	
WBT WCBD WMBI	*	5000 5000 5000	C 1 Dn 1 Dn	Charlotte, N. C. Zion, Ill. Chicago, Ill.	Station WBT, Inc. Wilbur Glenn Voliva Moody Bible Institute
1090	ki!	locyc	les	275.1 meters	
KMOX XEL		50000 10	1CX	St. Louis, Mo. Saltillo, Coah.	Voice of St. Louis, Inc. Antonio Garza Castro
1100	ki!	locyc	les	272.6 meters [
KGDM WLWL WPG		250 5000 5000	DX 1 1C	Stockton, Cal. New York City Atlantic City, N. J.	E. F. Peffer Missionary Society of St. Paul WPG Broadcasting Corp.
1110	kil	locyc	les	270.1 meters	
KSOO WRVA	*	2000 5000	Dn N	Sioux Falls, S. D. Richmond, Va.	Sioux Falls Broadcasting Assn., Inc. Larus & Bros. Co., Inc.
1120	kil	locyc	les	267.7 meters	
CFJC CHGS CJOC KFIO KFSG KMIC KRSC KTRH WDBO WDBL WHAD WISN WISN	* * * * * * * * * * * * * * * * * * * *	15 100 500 500 500 500 500 250 250 250 250 150	D 3 3 3 3 2 4 +C +X 1 1 1 C 2 CPD	Kamloops, B. C. Summerside, P. E. I. Lethbridge, Alta. Spokane, Wash. Los Angeles, Cal. Inglewood, Cal. Seattle, Wash. Houston, Texas Orlando, Fla. Wilmington, Del. Milwaukee, Wis. Milwaukee, Wis. College Station, Texas Rayne, La. Haynesville, La.	N. S. Dalgleish & Sons R. T. Holman, Ltd. Harold R. Carson 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 Ber, Killmer & Bailey C. C. Crawford
1130	kil	locyc	les	265.3 meters [
CMBC CMQ KSL WJJD WOV XEF		150 150 5000 20000 1000 105	N C Dn D 1131	Havana, Cuba Havana, Cuba Salt Lake City Mooseheart, Ill. New York City Oaxaca, Oax.	Domingo Fernandez Cruz Jose Fernandez Radio Service Corp. of Utah Loyal Order of Moose International Broadcasting Corp. Frederico Zorrila
1140	kil	locyc	les	263.0 meters [
KVOO WAPI	*	5000 5000	1N 1N	Tulsa, Okla. Birmingham, Ala.	Southwestern Sales Corp. Alabama Polytechnic Institute
1150	kil	ocyc	les	260.7 meters [
CMHA WHAM	÷-	200 5000	1154 N	Cienfuegos, Cuba Rochester, N. Y.	Jose Ganduxe Stromberg-Carlson Tel. Mfg. Co.

KCYS.

1200

MTRS.

DIAL

249.9

1160 kilocycles 258.5 meters Ft. Wayne, Ind. Wheeling, W. Va.

10000

Main Auto Supply Co. West Virginia Broadcasting Corp.

Universal Broadcasting Co

1170 kilocycles 256.3 meters

5000 10000

Muscatine, Iowa Philadelphia, Pa.

Norman Baker

1180 kilocycles 254.1 meters

KEX KOB WDGY 5000 20000 Dn1000 WHDI 500 1 Dn

Portland, Ore. State College, N. M. Minneapolis, Minn. Minneapolis, Minn.

Western Broadcasting Co. College of Agriculture & Mech. Arts Dr. George W. Young Wm. Hood Dunwoody Industrial Inst.

1190 kilocycles 252.0 meters

WICC 500 WOAI 50000 Bridgeport, Conn. San Antonio, Texas

Bridgeport Broadcasting Station, Inc. Southern Equipment Co.

1200 kilocycles 249.9 meters

Paragould, Ark. Gunnison, Colo. Marshalltown, Iowa KBTM 100 KFHA KFJB KFWF 50 100 ÷ --St. Louis, Mo. Mandan, N. D. Fergus Falls, Minn. 100 KGCU 100 Fergus Falls, Minn. Huron, S. D. Yuma, Colo. Fort Morgan, Colo. Fort Morgan, Colo. Los Angeles, Cal. Little Rock, Ark. Lacey, Wash. Monroe, La. Santa Maria, Cal. Bellingham, Wash. Stockton, Cal. Bangor, Maine New Orleans, La. Ponca City, Okla Rapid City, S. D. Burlington, Vt. Janesville, Wis. KGDE 100 Ŧ KGDY 100 50 100 ŧ-KGEW KGF J KGHI 100 100 KGY KMLB 10 50 + DCP KSMR KVOS KWG WABI WABZ 100 100 100 100 100 --t ī ----WBBZ 100 100 -----WCAT WCAX WCLO ž Burlington, Vt. Janesville, Wis. Harrisburg, Pa. 100 100 WCOD WEHC 100 3 Emory, Va. Worcester, Mass. Knoxville, Tenn. Cincinnati, Ohio 100 100 +XWEPS WFBC 50 WFBE + 4S 100 Canton, Ohio Green Bay, Wis. Utica, N. Y. WHBC 10 WHBY 100 + 5+ WIBX WIL 100 Utica, N. St. Louis, Mo. La Salle, III. Decatur, III. New Orleans, La. 100 WJBC WJBL 100 6 100 6 1 3 New Orleans, Lancaster, Pa. Louisville, Ky. WJBW WKJC WLAP 100 100 100 100 --+ + 5+ Louisville, Ny.
Petersburg, Va.
St. Louis, Mo.
Washington, Pa.
Carbondale, Pa.
Springfield, Vt.
Worcester, Mass.
Flint, Mich.
La Porte, Ind. WLBG WMAY WMBO WMBW WMBX 100 100 † 10 10 ČX WORC 100 WPDF 100 WRAF WRBL WWAE La Porte, Ind. Columbus, Ga. Hammond, Ind. 100 50 ē--100 XEA 101 Guadalajara, Jal. 10-BP Wingham, Ont.

W. J. Beard's Temple of Music The Hawkins-Craig Syndicate Marshall Electric Co., Inc. St. Louis Truth Center, Inc. Mandan Radio Association Jaren Drug Co. J. Albert Loesch and George W. Wright Beehler Elec. Equipment Co. City of Fort Morgan Ben S. McGlashan Berean Bible Class St. Martin's College G. C. Liner Santa Maria Valley R. R. Co. KVOS, Inc. Portable Wireless Tel, Co., Inc. Pine Tree Broadcasting Corp. Coliseum Place Baptist Church C. L. Carrell State School of Mines University of Vermont WCLO Radio Corp. Norman R. Hoffman Emory & Henry College Alfred Frank Kleindienst First Baptist Church WFBE, Inc. St. John's Catholic Church St. Norbert's College WIBX, Inc. Missouri Broadcasting Corp. Kaskaskia Broadcasting Corp. Commodore Broadcasting, Inc. Charles C. Carlson, Jr. Kirk, Johnson & Co. American Broadcasting Corp. of Ky. Robert Allen Gamble Kingshighway Presbyterian Church John Brownlee Spriggs
Home Cut Glass & China Co.
First Congregational Church
Alfred Frank Kleindienst City of Flint Chas. Middleton David Parmer Hammond-Calumet Broad. Corp. Alberto Palos Sauza Radio & Electric Shop

1210 kilocycles	247.8 meters	
CFCO 100	Chatham, Ont.	Western Ontario "Better Radio" Club
CFNB 50	Fredericton, N. B. Chilliwack, B. C. Sea Island, B. C.	James S. Neill & Sons, Ltd.
CHWK † 5	Chilliwack, B. C.	Chilliwack Broadcasting Co., Ltd.
CJOR * 50 CKMC 15	Sea Island, B. C.	G. C. Chandler
CKMC - 15 CKPC † 25	Cobalt, Ont.	R. L. MacAdam
	Preston, Ont. Casper, Wyo. Devils Lake, N. D.	Metal Shingle & Siding Co.
KDLR - 100	Devils Lake, N. D.	Donald Lewis Hathaway KDLR, Inc.
KFOR - 100 + KFVS - 100 6	Lincoln, Nebr.	Howard A. Shuman
KFVS 100 6	Cape Girardeau, Mo.	Hirsch Battery & Radio Co.
KFXM 100 9	San Bernardino, Cal.	Hirsch Battery & Radio Co. J. C. & E. W. Lee
KGCR 100	Watertown, S. D.	Cutler's Radio Brdcstg, Service, Inc.
KGMP § 100	Elk City, Okla. Dodge City, Kans.	Bryant Radio & Electric Co.
KGNO 100 KMI * 100	Dodge City, Kans.	Dodge City Broadcasting Co. James McClatchy Co.
	Fresno, Cal. Pasadena, Cal.	Pasadena Presbyterian Church
KPPC § 50 9 KWEA * 100	Shreveport, La.	Hello World Broadcasting Corn
WALR * 100	Zanesville, Ohio	Roy, W. Waller
WBAX 100 1	Wilkes-Barre, Pa.	John H. Stenger, Jr.
WBBL † 100 7S WCBS \$ 100 2 WCOH * 100 3	Richmond, Va.	Hello World Broadcasting Corp. Roy. W. Waller John H. Stenger, Jr. Grace Covenant Presbyterian Church
WBBL † 100 78 WCBS \$ 100 2 WCOH * 100 3 WCRW * 100 4 WDWF 100 5	Springfield III	n. L. Dewing & Chas. Messter
WCOH * 100 3 WCRW * 100 4	Yonkers, N. Y.	Westchester Broadcasting Corp.
WCRW * 100 4 WDWF 100 5	Yonkers, N. Y. Chicago, Ill. Providence, R. I.	Clinton R. White
WDWF 100 5 WEBQ 100 6	Harrisburg, Ill.	Clinton R. White Dutee W. Flint First Trust & Savings Bank
	Chicago, Ill.	Emil Denemark, Inc.
WEDC - 100 4 WGBB * 100 3	Freeport, N. Y.	Harry H. Carman
WGCM 100	Gulfport, Miss	Great Southern Land Co., Inc.
WHBF - 100	Rock Island, Ill.	Beardsley Specialty Co. Citizens Bank
	Anderson, Ind.	Citizens Bank
	Red Bank, N. J.	Monmouth Broadcasting Co.
WJBU 100 1 WJBY 50	Lewisburg, Pa.	Bucknell University
WJW * 100	Gadsden, Ala. Mansfield, Ohio Ithaca, N. Y.	Gadsden Broadcasting Co., Inc. Mansfield Broadcasting Assn.
WLCI * 50	Ithaca, N. Y.	Lutheran Assn. of Ithaca
WEST 100 5	Providence, R. I. Richmond, Va.	Lutheran Assn. of Ithaca The Lincoln Studios, Inc.
WMBG 100 7	Richmond, Va.	Havens & Martin, Inc.
W/OCT + 25		Peter J. Prinz A. E. Newton
WOMT 100	Jamaica, N. 1. Jamestown, N. Y. Manitowoc, Wis. Pawtucket, R. I. Thomasville, Co.	A. E. Newton Francis M. Kadow
WPAW * 100 5	Pawtucket R. I.	Shartenburg & Robinson Co.
WODY 50		
WQDX 50 WRBO † 100 X+		Stevens Luke
WQDX 50 WRBQ † 100 X+ WRBU - 100		Stevens Luke J. Pat. Scully A. J. Kirby Music Co.
WQDX 50 WRBQ † 100 X+ WRBU 100	Greenville, Miss. Gastonia, N. C. Chicago, Ill.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc.
WQDX - 50 WRBQ † 100 X+ WRBU - 100 WSBC * 100 4	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co.
WQDX - 50 WRBQ † 100 X+ WRBU - 100 WSBC * 100 4	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co.
WQDX 50 WRBQ † 100 X+ WRBU 100	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co.
WQDX - 50 WRBQ † 100 X+ WRBU - 100 WSBC * 100 4	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co.
WQDX - 50 WRBQ + 100 X+ WRBU - 100 4- WSBC * 100 4- WSEN + 100 WSIX - 100 2	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co.
WQDX - 50 WRBQ † 100 X+ WRBU - 100 WSBC * 100 4	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co.
WODX - 50	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc.
WODX - 50	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas
WODX - 50	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc.
WQDX - 50	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros.
WODX - 50	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co.
WQDX - 50	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros.
WODX - 50	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co.
WODX - 50 WRBQ + 100 X+ WRBQ - 100 4 WSEC * 100 4 WSEN † 100 WSIX - 100 WSIX - 100 2 1220 kilocycles KFKU - 1000 1 KWSC - 1000 + WCAD * 500 D WCAE * 1000 N WDAE * 1000 C WREN * 1000 IN	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co.
WODX - 50 WRBQ + 100 X+ WRBQ - 100 4 WSEC * 100 4 WSEN † 100 WSIX - 100 WSIX - 100 2 1220 kilocycles KFKU - 1000 1 KWSC - 1000 + WCAD * 500 D WCAE * 1000 N WDAE * 1000 C WREN * 1000 IN	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co.
WODX - 50	Greenville, Miss. Gastonia, N. C. Chicago, III. Columbus, Ohio Springfield, Tenn. Springfield, III. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co.
WODX - 50 WRBQ + 100 X+ WRBQ - 100 4- WSBC * 100 4- WSEN + 100 WSIX - 100 WSIX - 100 2 1220 kilocycles KFKU - 1000 1 KWSC - 1000 1 KWSC - 1000 N WCAD * 500 D WCAB * 1000 C WREN * 1000 IN 1230 kilocycles KFQD - 100	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co.
WODX - 50 WRBQ + 100 X+ WRBQ - 100 4 WSEC * 100 4 WSEN + 100 WSIX 100 2 1220 kilocycles KFKU 1000 1 KWSC 1000 0 WCAE * 1000 N WC	Greenville, Miss. Gastonia, N. C. Chicago, III. Columbus, Ohio Springfield, Tenn. Springfield, III. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co. Anchorage Radio Club New Mexico Broadcasting Co.
WODX - 50 WRBQ + 100 X+ WRBU - 100 4 WSEC * 100 4 WSEN + 100 WSIX - 100 2 1220 kilocycles KFKU 1000 1 KWSC - 1000 + WCAE * 1000 N WDAE * 1000 C WREN * 1000 IN 1230 kilocycles KFQD 100 KGGM 250 + KYA 1000 2	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co. Anchorage Radio Club New Mexico Broadcasting Co. Pacific Broadcasting Corp.
WODX - 50 WRBQ + 100 X+ WRBU - 100 4 WSEC * 100 4 WSEN + 100 WSIX - 100 2 1220 kilocycles KFKU 1000 1 KWSC - 1000 + WCAE * 1000 N WDAE * 1000 C WREN * 1000 IN 1230 kilocycles KFQD 100 KGGM 250 + KYA 1000 2	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuguerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co. Anchorage Radio Club New Mexico Broadcasting Co. Pacific Broadcasting Corp. Shepard Broadcasting Corp. Shepard Broadcasting Service, Inc. Indianapolis Power & Light Co.
WODX - 50 WRBQ + 100 X+ WRBQ - 100 4 WSEC * 100 4 WSEN + 100 WSIX - 100 WSIX - 100 2 1220 kilocycles KFKU - 1000 1 KWSC - 1000 1 WCAD * 500 D WCAE * 1000 C WREN * 1000 IN 1230 kilocycles KFQD - 100 IN 1240 IN 1250 IN 1250 IN 1260 IN 1270 IN 1270 IN 1280 I	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuguerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co. Anchorage Radio Club New Mexico Broadcasting Co. Pacific Broadcasting Corp. Shepard Broadcasting Corp. Shepard Broadcasting Service, Inc. Indianapolis Power & Light Co.
WODX - 50 WRBQ + 100 X+ WRBU - 100 4 WSBC * 100 4 WSEN + 100 WSIX - 100 2 1220 kilocycles KFKU 1000 1 KWSC - 1000 + WCAE * 1000 N WDAE * 1000 C WREN * 1000 IN 1230 kilocycles KFQD 100 WGGGM - 250 + KYA - 1000 2 WFBM * 1000 1 WBIS - 1000 2 WFBM * 1000 1 WHSC - 500 D WPSC - 500 D	Greenville, Miss. Gastonia, N. C. Chicago, III. Columbus, Ohio Springfield, Tenn. Springfield, III. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuquerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind. Boston, Mass. State College, Pa.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. 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
WODX - 50 WRBQ + 100 X+ WRBQ - 100 4 WSEC * 100 4 WSEN + 100 WSIX - 100 WSIX - 100 2 1220 kilocycles KFKU - 1000 1 KWSC - 1000 1 WCAD * 500 D WCAE * 1000 C WREN * 1000 IN 1230 kilocycles KFQD - 100 IN 1240 IN 1250 IN 1250 IN 1260 IN 1270 IN 1270 IN 1280 I	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuguerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co. Anchorage Radio Club New Mexico Broadcasting Co. Pacific Broadcasting Corp. Shepard Broadcasting Corp. Shepard Broadcasting Service, Inc. Indianapolis Power & Light Co.
WODX - 50 WRBQ + 100 X+ WRBU - 100 4 WSBC * 100 4 WSEN + 100 WSIX - 100 2 1220 kilocycles KFKU 1000 1 KWSC - 1000 + WCAE * 1000 N WDAE * 1000 C WREN * 1000 IN 1230 kilocycles KFQD 100 WGGGM - 250 + KYA - 1000 2 WFBM * 1000 1 WBIS - 1000 2 WFBM * 1000 1 WHSC - 500 D WPSC - 500 D	Greenville, Miss. Gastonia, N. C. Chicago, III. Columbus, Ohio Springfield, Tenn. Springfield, III. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuquerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind. Boston, Mass. State College, Pa.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. 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
WODX - 50 WRBQ + 100 X+ WRBQ - 100 4 WSBC * 100 4 WSEN + 100 WSIX - 100 WTAX - 100 2 1220 kilocycles KFKU - 1000 1 KWSC - 1000 0 WCAE * 1000 N WDAE * 1000 C WREN * 1000 IN 1230 kilocycles KFQD - 100 IN 1230 kilocycles KFQD - 100 C WREN * 1000 IN	Greenville, Miss. Gastonia, N. C. Chicago, III. Columbus, Ohio Springfield, Tenn. Springfield, III. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuquerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind. Boston, Mass. State College, Pa. South Bend, Ind.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. 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
WODX - 50 WRBQ + 100 X+ WRBQ - 100 4 WSBC * 100 4 WSEN + 100 WSIX - 100 WTAX - 100 2 1220 kilocycles KFKU - 1000 1 KWSC - 1000 0 WCAE * 1000 N WDAE * 1000 C WREN * 1000 IN 1230 kilocycles KFQD - 100 IN 1230 kilocycles KFQD - 100 C WREN * 1000 IN	Greenville, Miss. Gastonia, N. C. Chicago, III. Columbus, Ohio Springfield, Tenn. Springfield, III. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuquerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind. Boston, Mass. State College, Pa.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. 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
WODX - 50	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuquerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind. Boston, Mass. State College, Pa. South Bend, Ind.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co. Anchorage Radio Club New Mexico Broadcasting Corp. Shepard Broadcasting Service, Inc. Indianapolis Power & Light Co. Shepard Broadcasting Service, Inc. Pennsylvania State College South Bend Tribune
WODX - 50 WRBQ + 100 X+ WRBQ - 100 X+ WRBU - 100 4 WSEN + 100 WSIX - 100 WSIX - 100 2 1220 kilocycles KFKU - 1000 1 KWSC - 1000 0 WCAB * 1000 N WDAE * 1000 N WDAE * 1000 IN 1230 kilocycles KFQD - 100 KGGM - 250 + KYA - 1000 2 WFBM * 1000 1C WNAC * 1000 2C WFBM * 1000 1C WNAC * 1000 2C WPSC - 500 D WSBT * 500 D 1240 kilocycles KTAT - 1000 1	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuquerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind. Boston, Mass. State College, Pa. South Bend, Ind.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. Tampa Publishing Co. Jenny Wren Co. Anchorage Radio Club New Mexico Broadcasting Corp. Shepard Broadcasting Service, Inc. Indianapolis Power & Light Co. Shepard Broadcasting Service, Inc. Pennsylvania State College South Bend Tribune
WODX - 50 WRBQ + 100 X+ WRBQ - 100 X+ WRBU - 100 4 WSEN + 100 WSIX - 100 WSIX - 100 2 1220 kilocycles KFKU - 1000 1 KWSC - 1000 0 WCAB * 1000 N WDAE * 1000 N WDAE * 1000 IN 1230 kilocycles KFQD - 100 KGGM - 250 + KYA - 1000 2 WFBM * 1000 1C WNAC * 1000 2C WFBM * 1000 1C WNAC * 1000 2C WPSC - 500 D WSBT * 500 D 1240 kilocycles KTAT - 1000 1	Greenville, Miss. Gastonia, N. C. Chicago, Ill. Columbus, Ohio Springfield, Tenn. Springfield, Tenn. Springfield, Ill. 245.8 meters Lawrence, Kans. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kans. 243.8 meters Anchorage, Alaska Albuquerque, N. Mex. San Francisco, Cal. Boston, Mass. Indianapolis, Ind. Boston, Mass. State College, Pa. South Bend, Ind.	Stevens Luke J. Pat. Scully A. J. Kirby Music Co. World Battery Co., Inc. Columbus Broadcasting Co. 638 Tire & Vulcanizing Co. WTAX, Inc. University of Kansas State College of Washington St. Lawrence University Gimbel Bros. 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

239.9 meters

1250 kilocycles

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C. S. Tunwall

Juneau, Alaska

	11.	DD21 1	or red Querteres in	AD DITE HOMBERS
KFPL	100		Dublin, Texas	C. C. Baxter
KFPM * KFUP	15	8	Greenville, Texas	The New Furniture Co.
KFUP	100 50	8XY	Denver, Colo.	Fitzsimmons General Hospital Western Slope Broadcasting Co.
KFXJ KFXR	100	+	Edgewater, Colo. Oklahoma City	Exchange Ave. Baptist Church
KGBX *	100		St. Joseph, Mo.	KGBX Inc.
KGCX KGEZ †	100	ċ.	Wolf Point, Mont. Kalispell, Mont.	First State Bank of Vida Chamber of Commerce
KGFW	100 100		Rayenna Neb	O. F. Sothman and R. H. McConnell
KIT	50		Ravenna, Neb. Yakima, Wash. Medford, Ore.	Carl E. Haymond
KMED	50	<u></u>	Medford, Ore.	Carl E. Haymond Mrs. W. J. Virgin Robert M. Dean
KRMD KTLC	50 100	9	Shreveport, La.	Robert M. Dean Houston Broadcasting Co.
KTSL	100	X 9 2 7	Houston, Tex. Shreveport, La.	G. A. Houseman
KTSL KTSM KWCR	100	ź	El Paso, Texas Cedar Rapids, Iowa	G. A. Houseman W. S. Bledsoe & W. T. Blackwell
KWCR	100	7	Cedar Rapids, Iowa	Harry F. Paar KXRO, Inc.
KXRO † WBOW *	75 100		Aberdeen, Wash. Terre Haute, Ind.	KARO, Inc. Banks of Wabash, Inc.
WIDDE	100		Wilkes-Barre, Pa.	Louis G. Baltimore
WCLS * WDAH	100	1 2	Toliat III	WCLS, Inc.
WDAH WEBR *	100	2	El Paso, Texas Buffalo, N. Y. Royal Oak, Mich.	Eagle Broadcasting Co.
WEBR * WEXL †	100 50	+	Buffalo, N. Y.	Howell Broadcasting Co., Inc. Royal Oak Broadcasting Co.
WFBG	100	3	Altoona, Pa.	Wm. F. Gable Co.
WEDE	100		Flint, Mich.	Frank D. Fallain Foulkrod Radio Engineering Co.
WFKD	50	4X	Philadelphia, Pa.	Foulkrod Radio Engineering Co.
WGAL * WGH *	100 100	5 C	Lancaster, Pa. Newport News, Va.	WGAL, Inc. Hampton Roads Broadcasting Corp.
WHAT	100	4X	Philadelphia, Pa.	Independence Broadcasting Co.
WIRII	100		Poynette, Wis.	William C. Forrest
WJAC	100	3	Johnstown, Pa. Marion, Ind.	Johnstown Automobile Co.
WJAC WJAK * WKAV *	50 100	6	Marion, Ind.	Marion Broadcasting Co.
WKBB	100	i	Laconia, N. H. Joliet, Ill.	Laconia Radio Club Sanders Bros, Radio Station
WKBC	100		Birmingham, Ala.	Sanders Bros. Radio Station R. B. Broyles Furniture Co.
WKBS *	100		Galesburg, Ill. Muncie, Ind. Auburn, N. Y.	Permil N. Nelson
WLBC †	50 100	6	Muncie, Ind.	Donald A. Burton Radio Service Laboratories
WNBH *	100		New Bedford, Mass.	New Bedford Broadcasting Co.
MORI	100	+	New Bedford, Mass. Union City, Tenn.	Tittsworth's Radio & Music Shop
	100	222-	Washington, D. C.	American Broadcasting Co.
WRAW *	50 100	5XZ	Reading, Pa.	Reading Broadcasting Co.
WROL ' WSAI *	100		Knoxville, Tenn.	Reading Broadcasting Co. Stewart Broadcasting Co. Grove City College
WROL '	100 100 100	5X.Z	Reading, Pa. Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C.	Reading Broadcasting Co. Stewart Broadcasting Co. Grove City College Winston-Salem Journal Co.
WROL * *	100 100		Knoxville, Tenn.	Reading Broadcasting Co. Stewart Broadcasting Co. Grove City College Winston-Salem Journal Co.
WROL * WSAJ * WSJS	100 100 100		Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C.	Reading Broadcasting Co. Stewart Broadcasting Co. Grove City College Winston-Salem Journal Co.
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wrot wsaj wsjs 1320 ki	100 100 100 locyc	les	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp.
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WROL WSAJ ** WSJS 1320 ki KGHF KGIQ KGMB † KID WADC † WSMB *	100 100 100 100 100 100 250 250 500 500 1000 500	les X+ 1+ 1+ CN	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters Pueblo, Colo Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal.	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp. Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Allen T. Simmons Saenger Theatre & Majson Blanche Co. Pickwick Broadcasting Corp.
WROL WSAJ ** WSJS 1320 ki KGHF KGMB † KID WADC † WSMB *	100 100 100 100 100 250 250 500 1000 500 1000 10	les X+ 1+ C N	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters Pueblo, Colo Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa New Haven, Conn.	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp. Honolulu Broadcasting Co., Ltd. KID Broadcasting Co., Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp.
WROL WSAJ ** WSJS 1320 ki KGHF KGMB † KID WADC † WSMB *	100 100 100 100 100 100 250 250 500 1000 500 1000 500	les X+ 1+ CN N les X+C	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters Pueblo, Colo Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa New Haven, Conn.	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp. Honolulu Broadcasting Co., Ltd. KID Broadcasting Co., Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee
WROL WSAJ ** 1320 ki KGHF KGIO ** KGHF KGIO ** KGHF ** KGHF ** KGHF ** WSADC ** WSAJ ** WTAQ **	100 100 100 100 100 100 250 250 250 500 500 1000 500 1000 500	les X+ 1+ 1+ C N	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters Pueblo, Colo Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa New Haven, Conn. Cincinnati, Ohio Eau Claire, Wis.	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp. Honolulu Broadcasting Co., Ltd. KID Broadcasting Co., Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co.
WROL WSAJ ** WSJS 1320 ki KGHF KGMB † KID WADC † WSMB *	100 100 100 100 100 100 250 250 500 1000 500 1000 500	les X+ 1+ CN N les X+C	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters Pueblo, Colo Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa New Haven, Conn.	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp. Honolulu Broadcasting Co., Ltd. KID Broadcasting Co., Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee
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WROL WSAJ WSJS 1320 ki KGHF KGIQ KGMB KID WADC WSMB 1330 ki KGB KSCJ WDRC WSAI WTAQ WTAQ XEC 1340 ki KFPW KFPY WCOA	100 100 100 100 100 100 500 1000 500 1000 500 1000 500 1000 500 1000 500 1000 500	les x+1+C N 1 1333 les D C	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters Pueblo, Colo Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa New Haven, Comn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mex. 223.7 meters Fort Smith, Ark. Spokane, Wash. Pensacola, Fla.	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp. Honolulu Broadcasting Co., Ltd. KID Broadcasting Co. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides John Brown Schools Symons Broadcasting Co. City of Pensacola
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WROL WSAJ ** WSAJ ** WSAJ ** WSAJ ** WSAJ ** WSAJ ** WSAG ** WSAD ** WSAG ** WTAQ ** WTAQ ** WTAQ ** WTAQ ** WTAQ ** WTAQ ** WSAJ ** W	100 100 100 100 100 100 250 250 500 1000 500 1000 500 1000 500 1000 500 1000 500 1000 500 1000 500	les x+1+C N 1333 les DC C+ les N 1 1	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters Pueblo, Colo Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa New Haven, Conn. Cincinnati, Ohio Bau Claire, Wis. Toluca, Mex. 223.7 meters Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp. Honolulu Broadcasting Co., Ltd. KID Broadcasting Co., Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides John Brown Schools Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Greater St. Louis Broadcasting Corp. Pillar of Fire Italian Educ, Broadcasting Co., Inc.
WROL	100 100 100 100 250 250 500 1000 500 1000 500 1000 500 1000 500 1000 500 1000 500 1000 500 1000 500	les x+1+C N 1 1333 les DC C+ les N 1 1 1	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters Pueblo, Colo Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa New Haven, Conn. Cincinnati, Ohio Bau Claire, Wis. Toluca, Mex. 223.7 meters Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp. Honolulu Broadcasting Co., Ltd. KID Broadcasting Co., Ltd. KID Broadcasting Co., Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides John Brown Schools Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Greater St. Louis Broadcasting Corp. Pillar of Fire Italian Educ. Broadcasting Co., Inc. Standard Cahill Co., Inc.
WROL WSAJ ** WSAJ ** WSAJ ** WSAJ ** WSAJ ** WSAJ ** WSAG ** WSAD ** WSAG ** WTAQ ** WTAQ ** WTAQ ** WTAQ ** WTAQ ** WTAQ ** WSAJ ** W	100 100 100 100 100 100 250 250 500 1000 500 1000 500 1000 500 1000 500 1000 500 1000 500 1000 500	les x+1+C N 1333 les DC C+ les N 1 1	Knoxville, Tenn. Grove City, Pa. Winston-Salem, N. C. 227.1 meters Pueblo, Colo Twin Falls, Idaho Honolulu, Hawaii Idaho Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters San Diego, Cal. Sioux City, Iowa New Haven, Conn. Cincinnati, Ohio Eau Claire, Wis. Toluca, Mex. 223.7 meters Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters	C. P. Ritchie & J. E. Finch Radio Broadcasting Corp. Honolulu Broadcasting Co., Ltd. KID Broadcasting Co., Ltd. KID Broadcasting Co. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Jesus R. Benavides John Brown Schools Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Greater St. Louis Broadcasting Corp. Pillar of Fire

INDEX	BY FREQUENCIES.	AND DIAL NUMBERS
1360 kilocycles	220.4 meters	
CMKC * 150 1364 KGER * 1000 4 KGIR - 500 KPSN - 1000 4 WCSC - 500 WFBL * 1000 C+ WJKS * 1000 1+ WJKS * 300 CP	Santiago de Cuba Long Beach, Cal. Butte, Mont. Pasadena, Cal. Charleston, S. C. Syracuse, N. Y. Chicago, III. Gary, Ind. Vicksburg, Miss.	M. P. Martinez C. Merwin Dobyns KGIR, Inc. Pasadena Star-News Jordan & Burk Onondaga Radio Broadcasting Corp. Oak Leaves Broadcasting Station, Inc. Johnson-Kennedy Radio Corp. Delta Broadcasting Co., Inc.
1370 kilocycles	218.7 meters	
KCRC † 100 2+ KFBL 50 3 KFJI 100 KFJZ 100 X KFLX 100 KGAR * 100 ++ KGDA † 100 KGFG 100 2 KGFG 50 KGKAC 100 5 KGKL † 100 5 KONO † 100 KOOS 100 6 KVL 100 6 KVL 100 3 KWKC 100 6 WBGF † 50 WBGM 100 6 WBGF † 50 WCBM 100 6 WBGF † 50 WCBM 100 WHBO 100 +2 WFDV 100 WHBO 100 +2 WHBO 100 WHBO 100 +2 WHBO 100 WHBO WHBO	Enid, Okla. Everett, Wash. Astoria, Ore. Grand Forks, N. D. Ft. Worth, Texas Galveston, Texas Tucson, Ariz. Mitchell, S. D. Oklahoma City Raton, N. M. San Angelo, Texas San Antonio, Texas Marshfield, Ore. Berkeley, Cal. Seattle, Wash. Kansas City, Mo. Hayward, Cal. Glens Falls, N. Y. Danville, Va. Baltimore, Md. Philadelphia, Pa. Rome, Ga. Fort Wayne, Ind. Mount Orab, Ohio Memphis, Tenn. Calumet, Mich. Detroit, Mich. Lexington, Mass. Lynchburg, Va. Tampa, Flat. Patchogue, N. Y. St. Albans, Vt. Williamsport, Pa. Hattiesburg, Miss. Wilmington, N. C. Racine, Wis. Buffalo, N. Y. Augusta, Me.	Champlin Refining Co. Leese Bros. KFJI Broadcasters, Inc. University of North Dakota Estate of H. C. Meachem George Roy Clough Tucson Motor Service Co. Mitchell Broadcasting Corp. Oklahoma Broadcasting Corp. Oklahoma Broadcasting Co., Inc. W. E. Whitmore KGKL, Inc., Opr. by Ragsdale Auto W. W. McAllister Mission Broadcasting Co. H. H. Hanseth, Inc. First Congregational Church KVL, Inc. Wilson Duncan Broadcasting Co. Leon P. Tenney W. N. Parker and H. H. Metcalfe Clarke Electric Co. Baltimore Broadcasting Corp. WELK Broadcasting Station, Inc. Dolies Goings Fred C. Zieg F. P. Moler Broadcasting Station WHBQ, Inc. Upper Michigan Broadcasting Co. WIBM, Inc. James F. Hopkins, Inc. Lexington Air Stations Lynchburg Broadcasting Corp. F. J. Reynolds Nassau Broadcasting Corp. A. J. St. Antoine C. R. Cummins Woodruff Furniture Co., Inc. Wilmington Radio Association Racine Broadcasting Corp. Seneca Vocational School Albert S. Woodson
1380 kilocycles	217.3 meters	1390 MTRS
KOH † 500 KOV † 500 2 KSO * 500 1 WKBH * 1000 1 WSMK 200 2	Reno, Nevada Pittsburgh, Pa. Clarinda, Iowa La Crosse, Wis. Dayton, Ohio	Jay Peters Doubleday-Hill Electric Co. Berry Seed Co. WKBH, Inc. Stanley M. Krohn, Jr.
1390 kilocycles	215.7 meters	COT
KLRA - 1000 1C KOY * 500 KUOA - 1000 1 WHK * 1000 C	Little Rock, Ark. Phoenix, Ariz. Fayetteville, Ark. Cleveland, Ohio	Arkansas Broadcasting Co. Nielson Radio & Sporting Goods Co. University of Arkansas Radio Air Service Corp.

1400 kilocycles 214.2 meters

CMBY		200	1405	Havana, Cuba
KLO	*	500	\mathbf{x}	Ogden, Utah
KOCW	*	250	+	Chickasha, Okla.
WBAA		500	1+	Lafayette, Ind.
WBBC		500	2	Brooklyn, N. Y.
WCGU		500	2	Brooklyn, N. Y.
WCM/		500	1	Culver, Ind.
WKBF	*-	500	1	Indianapolis, Ind.
WLTH	*	500	2	Brooklyn, N. Y.
WSDA		500	2	Brooklyn, N. Y.
WSGH		500	2	Brooklyn, N. Y.

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

1410 kilocycles 212.6 meters

KFLV KGRS WBCM WDAG WHBL WLEX WMAF WODX	† *- *- 	500 1000 500 250 500 500 500	4 1 C 1X 4 2 2 3	Rockford, III. Amarillo, Texas Bay City, Mich. Amarillo, Texas Sheboygan, Wis. Lexington, Mass. S. Dartmouth, Mass. Mobile, Ala.
WRBX	*	250		Roanoke, Va.
WSFA	†	500	3	Montgomery, Ala.
WSSH	t	500	2	Boston, Mass.

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

1420 kilocycles 211.1 meters

KBPS		100	4	Portland, Ore.
KFIZ		100		Fond du Lac, Wis.
KFQU	*	100	5X.	Holy City, Cal.
KFQW		100		Seattle, Wash.
KFXD		100	$\overline{\mathbf{x}}\mathbf{y}$	Namna, Idaho
KFXY		100		Flagstaff, Ariz.
KFYO		100	+	Abilene, Texas
KGFF		100		Alva, Okla.
KGGC		100	5	San Francisco, Cal.
KGIW		100		Trinidad, Colo.
KGIX		100		Las Vegas, Nevada
KGKX		100		Sand Point, Idaho
KICK	*	100		Red Oak, Iowa
KLPM	Ť	100		Minot, North Dakota
KORE		100		Eugene, Ore.
KTAP	§ -	100		San Antonio, Texas
KXL		100	4	Portland, Ore.
KXYZ		100	\mathbf{x}	Houston, Texas
WEDH	*	30	X	Erie, Pa.
WEHS		100	2 X	Evanston, III.
WELL		50	x	Battle Creek, Mich.
WFDW	*	100		Talladega, Ala.
WHDL	§	10	D 2	Tupper Lake, N. Y.
WHFC		100	2	Cicero, Ill.
WHIS	Ť	100		Bluefield, W. Va.
WIAS		100		Ottumwa, Iowa
WIBR		50		Steubenville, Ohio
WILM		100		Wilmington, Del.
WJBO	§ *	100		New Orleans, La.
WKBI	*	100	2	Chicago, Ill.
WLBF		100		Kansas City, Kas.
WMBC		100	\mathbf{x} +	Detroit, Mich.
WMBH		100	+	Joplin, Mo.
WPAD	Ť	100		Paducah, Ky.
WSPA	*	100	+	Spartanburg, S. C.
WTBO	*	100		Cumberland, Md.
20				

1430 kilocycles 209.7 meters

KECA KGNF WBAK WCAH WGBC WHP WNBR	‡ † * *	1000 500 500 500 500 500 500	N D 1X+ 1C 2 1CX	Los Angeles, Cal. North Platte, Neb. Harrisburg, Pa. Columbus, Ohio Memphis, Tenn. Harrisburg, Pa. Memphis, Tenn.
WNBR	*	500	2	Memphis, Tenn.

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

Associated Broadcasting Corp.

1440 1-:11	200 24		
1440 kilocycles	208.2 meters		
KLS * 250 D WBAM * 500	Oakland, Cal. Greensboro, N. C.	Warner Bros. North Carolina Broadcasting Co.	
WCBA 250 1	Greensboro, N. C. Allentown, Pa.	B. B. Musselman	
WMBD 500 3+	Rochester, N. Y. Peoria Heights, Ill.	Hickson Electric & Radio Corp. Peoria Heights Radio Laboratory	
WOKO 500 2	Peoria Heights, Ill. Poughkeepsie, N. Y.	Hudson Valley Broadcasting Co. Allentown Call Publishing Co., Inc.	
WSAN 250 1 WTAD 500 3	Allentown, Pa. Quincy, III.	Ills. Stock Medicine Broadcasting Co.	
•			
1450 kilocycles	206.8 meters		
	Shreveport, La.	Tri-State Broadcasting System, Inc.	
KTBS * 1000 WBMS * 250 1 WCSO 500 2Y	Hackensack, N. J. Springfield, Ohio	WBMS Broadcasting Corp. WGAR Broadcasting Co.	
WFJC * 500 2NY	Akron, Ohio	WGAR Broadcasting Co.	
WGAR 500 CP	Cleveland, Ohio	WGAR Broadcasting Co. New Jersey Broadcasting Corp.	
WKBO * 250 1	Jersey City, N. J. Jersey City, N. J. Newark, N. J.	Camith Corp.	
WNJ § 250 1 WSAR 250	Newark, N. J. Fall River, Mass.	Radio Investment Co. Doughty & Welch Electric Co., Inc.	
WTF1 500	Toccoa, Ga.	Toccoa Falls Institute	
1460 kilocycles	205.4 meters		
KSTP * 10000 NX WJSV * 10000	St. Paul, Minn.	National Battery Broadcasting Co.	
WJSV * 10000	Alexandria, Va.	Independent Publishing Co.	
1470 Izilooyolos	204.0 meters		
1470 kilocycles			
KGA † 5000 WLAC 5000 1C	Spokane, Wash. Nashville, Tenn.	Northwest Broadcasting System, Inc. Life & Casualty Insurance Co.	
WTNT 5000 1	Nashville, Tenn. Nashville, Tenn.	Tennessee Publishing Co.	
1490 1:10 0:100	202 6 montano		
1480 kilocycles	202.6 meters		
KFJF - 5000 C WKBW * 5000 C	Oklahoma City Buffalo, N. Y.	National Radio Mfg. Co. Buffalo Broadcasting Co., Lessees	
1490 kilocycles	201.2 meters [
WCKY * 5000 1N WJAZ 5000 1	Covington, Ky.	L. B. Wilson, Inc.	
WJAZ 5000 1 WORD 5000 1	Chicago, III. Chicago, III.	Zenith Radio Corp. People's Pulpit Association	
4,600,111, 1	1000		
1500 kilocycles	199.9 meters		
KDB * 100 KGFI 100 +	Santa Barbara, Cal. Corpus Christi, Texas	Dwight Faulding	
KGFK † 50	Moorhead, Minn.	Eagle Broadcasting Co., Inc. Red River Broadcasting Co., Inc.	
KGIZ 50 KGKB 100	Grant City, Mo. Brownwood, Texas Scottsbluff, Nebr.	Grant City Park Corp. Eagle Publishing Co.	
KGKY 100	Scottsbluff, Nebr.	Hilliard Co., Inc. Miller & Klahn	
KPJM * 100 KPQ † 50	Prescott, Ariz. Wenatchee, Wash.	Miller & Klahn Wescoast Broadcasting Co.	
KREG † 100	Wenatchee, Wash. Santa Ana, Cal. Longview, Wash. Austin, Texas	Pacific Western Broadcasting	
KUJ 100 3Y KUT 100	Longview, Wash. Austin. Texas	Paul R. Heitmeyer Rice Hotel	
KXO 100	El Centro, Cal.	E. R. Irey and F. M. Bowles	
WDTV 100	Long Beach, N. Y. Tupelo, Miss.	Arthur Faske Blair & Anderson	
WKBV 100 +	Connersville, Ind.	Knox Battery & Electric Co.	•
WIRY 100 1	Ludington, Mich. Long Island City, N. Y.	K. L. Ashbacker John N. Brahy	
WLOE * 100 2+	Boston, Mass.	Boston Broadcasting Co.	
WMBA 100 WMBJ † 100	Newport, R. I. Pittsburgh, Pa.	LeRoy Joseph Beebe Rev. J. W. Sproul Paul J. Gollhofer First M. P. Church	
WMBO 100 1	Brooklyn, N. Y. Lapeer, Mich.	Paul J. Gollhofer	KCYS.
WNBF * 100	Binghamton, N. Y.	Hewitt-wood Radio Co., Inc.	1500
	Bristol, Tenn. Phildelphia, Pa.	Radiophone Brdcstg, Station, Inc. Wm. Penn Broadcasting Co.	
WRDW * 100 CP	Augusta, Ga. Woodside, N. Y.	Warren C. Davenport's Musicove, Inc. Long Island Broadcasting Corp.	MTRS.
WWRL 100 1	Woodside. N. Y. Rutland, Vt.	Long Island Broadcasting Corp. Seward & Weiss Music Co.	199.9
100		Design and the state of the sta	DIAL
	T 49 1		

47 47 48 44				Sam Topa T 1	500	KOW	1010
ALABAMA	Watts		Kcys.	San Jose J-1 Santa Ana M-3	100	KQW KREG	1500
Birmingham O-21	5000	WAPI	1140	Santa Ana M-3 Santa Barbara M-2	100	KDB	1500
	500	WBRC	930	Santa Maria L-2	100	KSMR	1200
Cadadan O 21	100 50	WKBC	1310 1210	Stockton J-2	25 0	KGDM	1100
Gadsden O-21 Mobile O-20	500	WJBY WODX	1410		100	KWG	1200
Montgomery P-21	500	WSFA	1410	CANAL ZONE			
Talladega O-21	100	WFDW	1420	Balboa FF-26	750	NBA	850
Tanacoga O 22	100		1120	Daiboa FF-26	750	NDA	000
ALASKA				COLORADO			
Anchorage	100	KEOD	1230			******	4050
Juneau	10	KFQD KFIU	1310	Colorado Springs K-1 Denver K-11	1 1000	KFUM	1270
Ketchikan	500	KGBU	900	Denver K-11	100	KFEL	920
receiman	000	RODO	,,,,		100 500	KFUP KFXF	1310 920
ARIZONA				l .	1000	KLZ	560
	100	KFXY	1420	ľ	12500	KOA	830
Flagstaff M-7 Jerome M-6	100	KCDI	1310	1	500	KPOF	880
Phoenix N-6	500	KCRJ KOY	1390	Edgewater K-10	50	KFXJ	1310
Filoeilix IV-0	500	KTAR	620	Fort Morgan J-11	100	KGEW	1200
Prescott M-6	100	KPIM	1500	Greeley J-11	500	KFKA	880
11000000 111 0	100	KPJM KGAR	1370	Gunnison K-9	50	KFHA	1200
Tucson O-7	500	KVOA	1260	Pueblo L-11	250	KGHF	1320
				Trinidad L-11	100	KGIW	1420
ARKANSAS				Yuma J-12	50	KGEK	1200
	50	TZT ON	1200	COMMECTICAT			
Blytheville M-19	1000	KLCN	1290	CONNECTICUT			
Fayetteville M-16	1000 50	KUOA KFPW	1390 1340	Bridgeport H-27	500	WICC	1190
Fort Smith N-16 Hot Springs N-17	10000	KTHS	1040	Hartford H-27	50000	WTIC	1060
Little Rock N-17	100	KGHI	1200	New Haven H-27	500	WDRC	1330
Bittle Rock 11-17	250	KGIF	890	Storrs H-28	250	WCAC	600
	1000	KGHI KGJF KLRA	1390	DEL ATTADE			
	500		1250	DELAWARE			
Paragould M-18	100	KBTM	1200	Wilmington J-26	250	WDEL	1120
				l.	100	WILM	1420
CALIFORNIA				DISTRICT OF	001 TT	A COTA	
Berkeley I-2	100	KRE	1370	DISTRICT OF	COLU	MBIA	
Berkeley J-2 Burbank M-3	500	KELW	780	Washington J-26	250	WMAL	630
Culver City M-3	250	KFVD	1000		500	WRC	950
Culver City M-3 El Centro N-4	100	KFVD KXO	1500		100	WOL	1310
rresno K-2	100	KMJ KZM	1210	FLORIDA			
Hayward J-1	100		1370	Clearwater R-24	1000	WFLA	.620
Hollywood M-3	1000	KFWB	950	Gainesville Q-24	5000	WRUF	830
Holm City M 2	5000 100	KNX	1050 1420	Jacksonville Q-24	1000	WJAX WQAM	900
Holy City M-3 Inglewood M-3	500	KFQU KMIC	1120	Miami T-25	1000	WQAM	560
Long Beach M-3	1000	KFOX	1250	Miami Beach T-25	1000	WIOD	1300
Doing Death 111-0	1000	KGER	1360	Orlando R-24	500	WDBO	1120
Los Angeles M-3	1000	KECA	1430	Pensacola Q-21 St. Petersburg S-24	500 1000	WCOA WSUN	1340
	5000	KFI	640	St. Petersburg S-24 Tampa R-24	1000	WDAE	620 1220
	500	KFSG	1120	Tampa K-24	100	WMBR	1370
	1000	KGEF	1300	CEORCIA	100		20, 0
	100	KGFJ KHJ	1200	GEORGIA			
	1000	KHJ KMPC	900	Atlanta O-22	250	WGST	890
	500 500	KMTR	710 570		5000	WSB	740
	500	KTM	780	Augusta O-23	100	WRDW	1500
	1000	KTBI	1300	Columbus O-22	250	WRBL	1200
Oakland J-1	250	KLS	1440	Macon O-23	250	WMAZ	890
J-1	500	KLX	880	Rome N-22	100	WFDV	1370
	500	KROW	930	Savannah O-24 Thomasville Q-22	500 50	WTOC WQDX	1260 1210
Pasadena M-3	50	KPPC	1210	Toccoa N-23	500	WTFI	1450
a	1000	KPSN	1360	100000 11-25	500	** 11.1	1400
Sacramento J-2	100	KFBK	1310	HAWAII			
San Bernardino M-3		KFXM	1210				
San Diego N-3	500	KFSD	600	Honolulu	500	KGMB	1320
San Francisco T 1	250	KGB	1330	I	1000	KGU	940
San Francisco J-1	1000 500	KRFC KFWI	610 930	IDAHO			
	100	KGGC	1420		1000	KIDO	1250
v.A.	7500	KGO	790	Boise G-5 Idaho Falls G-7	500	KID	1320
-	100	KIBS	1070	Nampa G-5	50	KFXD	1420
*	5000	KPO	680	Pocatello H-7	250	KSEI	900
	1000	KTAB	560	Sand Point D-6	100	KGKX	1420
	1000	KYA	1230	Twin Falls H-6	250	KGIQ	1320
				1			

ILLINOIS	Watts		Kcys.	Ottumwa J-17	100	WIAS	1420
Carthage J-18	50	WCAZ	1070	Ottumwa J-17 Red Oak J-16 Shenandoah J-16	100 500	KICK KFNF	1420 890
Chicago I-20	10000	KFKX KYW	1020		500	KMA	930
	10000 500	WAAF	1020 920	Sioux City I-15 Waterloo 1-17	1000 500	KSCJ WMT	1330 600
	25000	WBBM	770	Waterioo 1-17	300	** 1 * 1	000
	1000 100	WCFL WCRW	970 1210	KANSAS			
	100	WEDC	1210 870	Coffeyville M-16	500	KGGF	1010
	50000 500	WENR WGES	1360	Dodge City L-13	100	KGGF KGNO	1210
	25000	WGN	720	Kansas City K-16 Lawrence K-16	100 1000	WLBF KFKU	1420 1220
	1000 5000	WIBO	560 1490		1000	WREN	1220
	25000	WJAZ WJBT WKBI	770	Manhattan K-15 Milford K-14	500 5000	KSAC KFKB	580 1050
	100 5000	WKBI WLS	1420 870	Topeka K-16	500	WIBW	580
	5000	WMAQ	670	Wichita L-15	1000	KFH	1300
	5000	WMBI WORD	1080 1490	KENTUCKY			
	5000 500	WPCC	560		5000	WCKY	1490
	100	WSBC	1210	Covington K-22 Hopkinsville M-20	5000 1000	WFIW	940
Cicero I-20 Decatur K-19	100 100	WHFC WJBL	1420 1200	Louisville L-21	10000	WHAS	820
Evanston I-20	100	WEHS	1420	Paducah M-19	100 100	WLAP WPAD	1200 1420
Galesburg J-18 Harrisburg L-19	100 100	WKBS	1310 1210				- 120
Joliet I-19	100	WEBQ WCLS	1310	LOUISIANA			
La Salla I-10	100 100	WKBB	1310 1200	Haynesville P-17	10		1120
La Salle J-19 Mooseheart I-19	20000	WJBC WJJD WMBD	1130	Monroe P-18 New Orleans R-19	50 100	KMLB WABZ	1200 1200
Peoria Heights J-19	500 500	WMBD WTAD	1440 1440	New Orleans N-19	1000	WDSU	1250
Quincy K-18 Rockford I-19	500	KFLV	1410	.	100 100	WJBO WJBW	1420 1200
Rock Island I-18	100	WHBF	1210	1	500	WSMB	1320
Springfield K-19	100 100	WCBS WTAX	1210 1210	B 0 18	5000	WWL	850
Tuscola K-20	100	WDZ	1070	Rayne Q-18 Shreveport P-17	150 50	KRMD	1120 1310
Urbana J-20 Zion I-20	250 5000	WILL WCBD	890 1080		1000	KTBS KTSL	1450
21011 1-20	0000	022	2000		100 100	KWEA	1310 1210
				MADE	10000	KWKH	850
INDIANA				MAINE			4000
Anderson J-21 Connersville K-21	100 100	WHBU WKBV	1210 1500	Augusta F-28 Bangor F-29	100 100	WRDO WARI	1370 1200
Connersville K-21 Culver I-20	500	WCMA	1400		500	WABI WLBZ	620
Evansville L-20	500	WGBF	630	Portland F-28	1000	WCSH	940
Fort Wayne J-21	100 10000	WGL WOWO	1370 1160				
Gary I-20	1000	WJKS WWAE	1360	MARYLAND			
Hammond I-20 Indianapolis J-21	100 1000	WFBM	1200 1230	Baltimore J-26	10000	WBAL	1060 600
•	500	WKBF	1400		250 100	WCAO WCBM	1370
Lafayette J-20 La Porte I-20	500 100	WBAA WRAF	1400 1200	0	250	WFBR	1270
Marion J-21 Muncie J-21	50	WJAK WLBC	1310	Cumberland J-25	100	WTBO	. 1420
Muncie J-21 South Bend I-20	50 500	WLBC WSBT	1310 1230				
Terre Haute K-20	100	WBOW	1310	MASSACHUSET			
				Boston G-28	1000 500	WBIS WBZA	1230 990
TOWA					1000	WEEI	590
IOWA	5000	WOI	(40		1000	WHDH	830
Ames I-17 Boone I-17	5000 100	WOI KFGO	640 1310	ì	100 1000	WLOE WNAC	1500 1230
Cedar Rapids I-18	100	KWCŘ	1310	l	500	WSSH	1410
Clarinda J-16 Council Bluffs J-16	500 1000	KSO KOIL	1380 1260	Fall River H-28 Lexington G-28	250 500	WSAR WLEX	1450 1410
Davenport I-18	5000	woc	1000		100	WLEY	1370
Decorah H-18	50 100	KGCA KWLC	1270 1270	New Bedford H-28 S. Dartmouth H-28	100 500	WNBH WMAF	1310 1410
Des Moines I-17	5000	WHO	1000	Springfield H-27	15000	$\mathbf{w}\mathbf{B}\mathbf{z}$	990
Fort Dodge I-16	100	KFJY WSUI	1310	Wellesley Hills G-28	500	WBSO	920
Iowa City I-18 Marshalltown I-17	500 100	KFJB	880 1200	Worcester G-28	100 100	WEPS WORC	1200 1200
Muscatine J-18	5000	KTNT	1170		250	WTAG	580
				l			

MICHIGAN	Watts		Kcys.	NEBRASKA	Watts		Kcys.
Battle Creek I-21	50	WELL	1420	Clay Center	1000	KMMJ	740
Bay City H-22 Berrien Springs I-20	500 1000	WBCM WKZO	1410 590	Lincoln J-15	5000 100	KFAB KFOR	770
Calumet E-19	100	WHDF	1370		500	WCAJ	1210 590
Detroit H-22	50 5000	WJBK WJR WMBC	1370 750	Norfolk I-15 North Platte J-13	1000 500	WJAĞ KGNF	1060 1430
	100	WMBC	1420	Omaha J-15	500	WAAW	660
	1000 1000	WWJ WXYZ	920 1240	ľ	1000 100	WOW KGFW	590 1310
East Lansing H-21	1000	WKAR	1040	Ravenna J-14 Scottsbluff I-11	100	KGKY	1500
Flint H-22	100 100	WFDF WPDF	1310 1200	York J-15	500	KGBZ	930
Grand Rapids H-21	500	WASH	1270 1270				
Jackson I-21	500 100	WOOD WIBM	1270 1370	NEVADA			
Lapeer H-22	100	WMPC	1500	Las Vegas L-5	100	KGIX	1420
Ludington H-20 Royal Oak H-22	50 50	WKBZ WEXL	1500 1310	Reno I-3	500	кон	1380
Rojur Ouk 11-22	00	11 11 11 11	1010				
MAINTECOMA				NEW HAMPSH	IRE		
MINNESOTA				Laconia G-28	100	WKAV	1310
Fergus Falls F-15 Minneapolis G-17	100 7500	KGDE WCCO	1200 810				
Willineapons G-17	1000	WDGY	1180	NEW JERSEY			
	500 1000	WHDI WRHM	1180 1250		 00	****	
Moorhead F-15	50	KGFK	1500	Asbury Park I-27 Atlantic City J-27	500 5000	WCAP WPG	1280 1100
Northfield G-17	1000 1000	KFMX WCAL	1250 1250	Camden 1-26	500	WCAM	1280
St. Paul G-17	1000	WGMS	1250	Hackensack I-27 Jersey City I-27	250 300	WBMS WAAT	1450 940
	1000 10000	WLB KSTP	1250 1460	"	250	WHOM	1450
	10000	1011	1400	Newark I-27	250 1000	WKBO WAAM	1450 1250
MISSISSIPPI					250 250	WGCP	1250
Greenville O-19	100	WRBQ WGCM	1210		5000	WNJ WOR	1450 710
Gulfport Q-19 Hattiesburg Q-19	100 10	WRBI	1210 1370 1270	Paterson I-27 Red Bank I-27	1000 100	WODA WJBI	1250 1210
Hattiesburg Q-19 Jackson P-19 Meridian P-20	500	WRBJ WJDX WCOC	1270	Trenton I-26	500	WOAX	1280
Tupelo N-20	500 100	WDIX	880 1500				
Vicksburg P-18	300	WQBC	1360	NEW MEXICO			
				Albuquerque N-7	250	KGGM	1230
MISSOURI				Raton M-11	50	KGFL	1370
Cp. Girardeau L-19	100	KFVS	1210	State College P-9	20000	ков	1180
Columbia K-17	500	KFRU	630	,			
Grant City J-16 Jefferson City L-17	50 500	KGIZ WOS	1500 630	NEW YORK			
Joplin M-16	100	WMBH	1420		100	WMBO	. 1310
Kansas City K-16	1000 100	KMBC KWKC	950 1370	Auburn H-25 Binghamton H-26	100	WNBF	1500
	1000	WDAF	610	Brooklyn I-27	500 1000	WBBC WBBR	1400 1300
	500 1000	WHB WOQ	860 1300	i	500	WCGU	1400
St. Joseph K-16	2500	KFEQ	680	ĺ	500 100	WCGU WLTH WMBQ	1400
St. Louis L-18	100 500	KGBX KFUO	1310 550		500	WSDA	1500 1400
ot. Douis D-10	100	KFWF	1200	Buffalo H-24	500	WSGH	1400
	50000 500	KMOX KSD	1090 550	Bunaio n-24	1000 100	WBEN WEBR	900 1310
	1000	KWK	1350		1000	WGR	550
	1000 100	WEW WIL	760 1200		5000 1000	WKBW WMAK	1480 1040
	100	WMAY	1200	Comton B 21	50	wsvs	1370
				Canton F-26 Freeport I-27	500 100	WCAD WGBB	1220 1210
MONTANA				Glens Falls G-27	50	WBGF	1370
Billings F-9	1000	KGHL	950	Ithaca H-25	1000 50	WEAI WLCI	1270 1210
Butte F-7	500	KGIR	1360	Jamaica H-27	100	WMRJ	1210
Great Falls E-8 Kalispell D-7	1000 100	KFBB KGEZ	1280 1310	Jamestown H-24 Long Island City I-27	25 100	WOCL WLBX	1210 1500
Wolf Point E-11	100	KGCX	1310	Long Beach I-27	100	WCLB	1500

New York City I-27							
New Tork City 1-27	5000	WABC	860	OKLAHOMA	Watts		Kcys.
	250	WBNY	1350	Alva M-14	100	KGFF	1420
	250	WCDA	1350	Chickasha N-14	250	KOCW	1400
	50000	WEAF	660 1300	Elk City N-13	100	KOCW KGMP	1210
	500 250	WEVD WGBS	600	Elk City N-13 Enid M-15	100	KCRC	1370
	1000	WHAP	1300	Norman N-15	500	WNAD	1010
	250	WHN	1010	Oklahoma N-15	5000 100	KFJF	1480 1310
	30000	WJZ WKBQ	760	1	100	KFXR KGFG WKY	1370
	250 5000	WKBQ	1350 1100	1	1000	WKY	900
	500	WMCA	570	Ponca City M-15	100	wbz	1200
	250	WMSG	1350	Tulsa M-16	5000	KVOO	1140
	500	WNYC	570				
	1000	WOV	1130	OREGON			
	250	WPAP WPCH	1010 810	Astoria D-2	100	KFJI	1370
	500 250	WQAO	1010	Corvallis E-2	1000	KOAC	550
	250	WRNY	1010	Eugene F-2	100 100	KORE KOOS	1420 1370
Patchogue I-27	100	WPOE	1370	Marshfield F-1	50	KMED	1310
Poughkeepsie H-27	500	WOKO	1440	Medford G-2 Portland E-3	5000	KEX	1180
Rochester G-25	5000	WHAM	1150	Fortiand B-5	100	KBPS	1420
	500	WHEC	1440		500	KFJR KGW	1300
Saranac Lake F-26 Schenectady G-27	50 50000	WNBZ WGY	1290 790	Į.	1000	KGW	620
Syracuse G-25	1000	WFBL	1360		1000	KOIN	940 1300
Syracuse G-25	250	WMAC	570		500 500	KTBR	1060
	250	WSYR	570		100	KWJJ KXL	1420
Troy G-27	500	WHAZ	1300	1	100	KAL	1.120
Tupper Lake F-26	10 100	WHDL WIBX	1420 1200	PENNSYLVAN	IA		
Utica G-26 Woodeide I-27	100	WWRL	1500	Allentown I-26	250	WCBA	1440
Woodside I-27 Yonkers I-27	100	WCOH	1210	Anentown 1-20	250	WSAN	1440
TOTRETS 1-27	200			Altoona 1-25	100	WFBG	1310
NORTH CAROL	TNIA			Carbondale H-26	10	WNBW	1200
				Elkins Park I-26	50	WIBG	930
Asheville M-23	1000	WWNC	570 1080	Erie H-24	30	WEDH WSAJ	1420 1310
Charlotte M-24	5000 100	WBT WRBU	1210	Grove City I-26	100 500	WBAK	1430
Gastonia M-24 Greensboro M-24	500	WBAM	1440	Harrisburg 1-25	100	WCOD	1200
Raleigh M-25	1000	WPTF	680	· ·	500	WHP WJAC WGAL	1430
Wilmington N-26	100	WRBT	1370	Johnstown J-24	100	WJAC	1310
Winston-Salem M-24	100	wsjs	1310	Lancaster I-25	100 100	WGAL WKJC	1310 1200
							1200
				Lowishurg I-26		WIRII	
NORTH DAKO	IA			Lewisburg I-26 Oil City I-24	100	WJBU WLBW	1210 1260
Bismarck F-13	1 A 500	KFYR	550	Lewisburg I-26 Oil City I-24 Philadelphia I-26		WLBW WCAU	1210 1260 1170
Bismarck F-13 Devils Lake E-14	500 100	KFYR KDLR	1210	Lewisburg I-26 Oil City I-24 Philadelphia I-26	100 500 10000 100	WLBW WCAU WELK	1210 1260 1170 1370
Bismarck F-13 Devils Lake E-14	500 100 1000	KDLR WDAY	1210 940	Lewisburg I-26 Oil City I-24 Philadelphia I-26	100 500 10000 100 500	WLBW WCAU WELK WFAN	1210 1260 1170 1370 610
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15	500 100 1000 100	KDLR WDAY KFJM	1210 940 1370	Lewisburg I-26 Oil City I-24 Philadelphia I-26	100 500 10000 100 500 500	WLBW WCAU WELK WFAN WFI	1210 1260 1170 1370 610 560
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13	500 100 1000 100 100	KDLR WDAY KFJM KGCU	1210 940 1370 1200	Lewisburg I-26 Oil City I-24 Philadelphia I-26	100 500 10000 100 500 500 50	WJBU WLBW WCAU WELK WFAN WFI WFKD	1210 1260 1170 1370 610 560 1310
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15	500 100 1000 100	KDLR WDAY KFJM	1210 940 1370	Lewisburg I-26 Oil City I-24 Philadelphia I-26	100 500 10000 100 500 500	WIBU WLBW WELK WFAN WFI WFKD WHAT WIP	1210 1260 1170 1370 610 560
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13	500 100 1000 100 100	KDLR WDAY KFJM KGCU	1210 940 1370 1200	Lewisburg I-26 Oil City I-24 Philadelphia I-26	100 500 10000 100 500 500 100 500	WJBU WLBW WCAU WELK WFAN WFI WFKD WHAT WIP WLIT	1210 1260 1170 1370 610 560 1310 610 , 560
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO	500 100 1000 100 100 100	KDLR WDAY KFJM KGCU KLPM	1210 940 1370 1200 1420	Lewisburg I-26 Oil City I-24 Philadelphia I-26	100 500 10000 100 500 500 50 100 500 500	WIBU WLBW WCAU WELK WFAN WFI WFKD WHAT WIP WLIT WPEN	1210 1260 1170 1370 610 560 1310 1310 610 ,560
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13	500 100 1000 100 100 100 100	KDLR WDAY KFJM KGCU KLPM	1210 940 1370 1200 1420	Philadelphia 1-26	100 500 10000 100 500 500 500 500 500 50	WIBU WCAU WELK WFAN WFI WFKD WHAT WIP WLIT WPEN WRAX	1210 1260 1170 1370 610 560 1310 1310 ,560 1500 1020
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23	500 100 1000 100 100 100 100	KDLR WDAY KFJM KGCU KLPM WADC WFJC	1210 940 1370 1200 1420 1320 1450	Lewisburg I-26 Oil City I-24 Philadelphia I-26 Pittsburgh J-24	100 500 10000 500 500 500 500 500 500 50	WJBU WEAU WELK WFAN WFI WFKD WHAT WIP WLIT WPEN WRAX KDKA	1210 1260 1170 1370 610 560 1310 610 , 560 1500 1500 980
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23	500 100 1000 100 100 100 100 100 500 10	KDLR WDAY KFJM KGCU KLPM	1210 940 1370 1200 1420	Philadelphia 1-26	100 500 10000 100 500 500 100 500 250 50000 250	WJBU WEAU WELK WFAN WFI WFKD WHAT WIP WLIT WPEN WRAX KDKA	1210 1260 1170 1370 610 560 1310 610 , 560 1500 1980 1380
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23	1000 1000 1000 1000 1000 1000 1000 100	WDAY KFJM KGCU KLPM WADC WFJC WHBC WFBE WKRC	1210 940 1370 1200 1420 1320 1450 1200 1200 550	Philadelphia 1-26	100 500 1000 100 500 500 500 100 500 500	WJBU WLBW WCAU WELK WFAN WFI WFKD WHAT WIP WLIT WPEN WRAX KDKA KQV	1210 1260 1170 1370 560 1310 610 ,560 1500 1020 980 1380 1220
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23	500 100 1000 100 100 100 1000 500 10 1000 50000	KDLR WDAN KEJM KGCU KLPM WADC WFJC WHBC WFBE WKRC WLW	1210 940 1370 1200 1420 1320 1450 1200 1200 550 700	Philadelphia 1-26	100 500 10000 500 500 500 500 500 100 250 50000 1000	WJBU WLBW WCAU WELK WFAN WFI WHAT WIP WLIT WPEN WRAX KDKA KQV WCAE WJAS WMBJ	1210 1260 1170 1370 610 560 1310 610 , 560 1020 980 1380 1220 1290
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22	500 1000 1000 100 100 100 1000 5000 1000 50000 5000	WDLR WDLR WFJM KGCU KLPM WADC WFJC WHBC WFBE WKRC WLW WSAI	1210 940 1370 1200 1420 1320 1450 1200 1200 550 700 1330	Philadelphia 1-26	100 500 10000 500 500 500 100 500 500 250 50000 1000 1	WJBU WLBW WCAU WELK WFAN WFI WFKD WHAT WIP WLIT WPEN WRAN KQV WCAE WJAS WMBJ WRAW	1210 1260 1170 1370 560 1310 610 ,560 1500 1020 980 1380 1220
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23	1000 1000 1000 1000 100 1000 5000 100 10	KDLR WDAY KFJM KGCU KLPM WADC WFJC WHBC WHBC WKRC WLW WSAI WGAR	1210 940 1370 1200 1420 1320 1450 1200 550 700 1330 1450	Philadelphia 1-26	100 500 1000 500 500 500 500 500 100 250 50000 1000 1	WJBU WLBW WCAU WELK WFAN WFI WHAT WIP WLIT WPEN WRAX KQV WCAE WMBJ WRAW WGBI	1210 1260 1170 1370 610 560 1310 610 ,560 1020 980 1380 1220 1290 1500 1310 880
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22	500 1000 1000 1000 100 100 5000 100 5000 5000 5000 5000	WADC WFJC WFBE WKRC WFBE WKRC WLW WSAI WGAR WHK	1210 940 1370 1200 1420 1320 1450 1200 1200 1330 1450 1390	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26	100 500 10000 500 500 500 500 500 500 50	WJBU WLBW WCAU WELK WFAN WFI WHAT WIP WLIT WPEN WRAX KQV WCAE WMBJ WRAW WGBI	1210 1260 1170 1370 610 5600 1310 1310 1500 1500 1220 1290 1310 880 880
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22	500 1000 1000 1000 100 100 1000 500 1000 5000 5000 5000 5000 5000 5000 5000 5000	KDLR WDAY KFJM KGCU KLPM WADC WFJC WHBC WFBE WKRC WLW WSAI WGAR WHK WHAY	1210 940 1370 1200 1420 1450 1200 1200 550 700 1330 1450 1390 610	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25	100 500 10000 500 500 500 500 500 100 500 5	WJBU WCAU WCAU WELK WFAN WFI WHAT WHAT WHAT WRAX KDKA KQV WCAE WMBJ WRAW WGBI WQAN WPSC	1210 1260 1170 1370 610 560 1310 1310 ,560 1020 980 1220 1290 1310 880 880 820
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22 Cleveland I-23	500 1000 1000 1000 100 100 1000 5000 50	WDLR WDAY KFJM KGCU KLPM WADC WFJC WFBE WKRC WLW WSAI WGAR WHK WJAY WTAM	1210 940 1370 1200 1420 1420 1320 1200 1200 1330 1450 1390 610 1070	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25 Washington J-24	100 500 10000 10000 500 500 500 100 500 5	WJBU WCAU WEAK WFAN WFI WHAT WHAT WPEN WRAX KDKA KQV WCAE WJAB WRAW WGAN WPSC WNBO	1210 1260 1170 610 560 1310 1310 560 1500 1200 1290 1380 1290 1500 880 880 1230
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22	500 1000 1000 1000 1000 1000 5000 1000 5000 5000 5000 5000 5000 5000 5000 5000	KDLR WDAY KEJM KGPM WADC WFJC WFBE WKRC WLW WSAI WGAR WHK WJAY WTAM WAIU WCAH	1210 940 1370 1200 1420 1320 1450 1200 1200 1330 1450 1390 610 1070 640 1430	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25	100 500 10000 500 500 500 500 500 1000 500 1000 250 5000 1000 250 250 5000 1000 1	WJBU WCAU WELK WFAN WFI WFKD WHAT WIP WLIT WPEN WRAX KOV WCAE WJAS WMBJ WRAW WGBI WPSC WNBO WBAX	1210 1260 1170 1370 610 560 1310 1310 560 1020 980 1220 1290 1310 880 1230 1230 1230
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22 Cleveland I-23	500 1000 1000 1000 1000 1000 5000 1000 50	KDLR WDAY KFJM KGCU KLPM WADC WFJC WFBE WKRC WLW WSAI WGAR WHK WJAY WAIU WCAO WAIU	1210 940 1370 1200 1420 1450 1200 1500 1200 1330 1450 1390 640 1430 1570 640	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25 Washington J-24 Wilkes-Barre I-26	100 500 10000 1000 500 500 500 500 500 100 500 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000	WJBU WCAU WELK WFAN WFI WFKD WHAT WHAT WPEN WRAX KDKA KQV WCAE WJAS WMBJ WRAW WGBI WQAN WPSC WNBO WBAX WBRE	1210 1260 1170 610 560 1310 1310 560 1500 1200 1290 1380 1290 1500 880 880 1230
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22 Cleveland I-23 Columbus J-22	500 1000 1000 1000 1000 1000 5000 1000 5000 5000 5000 5000 5000 5000 750	KDLR WDAY KEJM KGU KLPM WADC WFJC WFBE WKRC WLW WSAI WGAR WHK WJAY WTAM WAIU WCAH WBAN WSAN	1210 940 1370 1200 1420 1320 1450 1200 1200 1330 1450 1330 1450 1390 640 1430 570 1430	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25 Washington J-24	100 500 10000 500 500 500 500 500 1000 500 1000 250 5000 1000 250 250 5000 1000 1	WJBU WCAU WELK WFAN WFI WFKD WHAT WIP WLIT WPEN WRAX KOV WCAE WJAS WMBJ WRAW WGBI WPSC WNBO WBAX	1210 1370 610 560 1310 610 560 1310 610 1020 1020 1380 1290 1500 880 880 1220 1200 1310
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22 Cleveland I-23 Columbus J-22 Dayton J-22	500 1000 1000 1000 1000 1000 5000 5000	KDLR WDAY KEJM KGU KLPM WADC WFJC WFBE WKRC WLW WSAI WGAR WHK WJAY WTAM WAIU WCAH WBAN WSAN	1210 940 1370 1200 1420 1450 1200 1450 1200 570 1330 1450 1190 610 1070 640 1430 570 1210	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25 Washington J-24 Wilkes-Barre I-26 Williamsport I-25	100 500 10000 1000 500 500 500 500 500 100 500 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000	WJBU WCAU WELK WFAN WFI WFKD WHAT WHAT WPEN WRAX KDKA KQV WCAE WJAS WMBJ WRAW WGBI WQAN WPSC WNBO WBAX WBRE	1210 1370 610 560 1310 610 560 1310 610 1020 1020 1380 1290 1500 880 880 1220 1200 1310
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22 Cleveland I-23 Columbus J-22 Dayton J-22 Mansfield I-22	500 1000 1000 1000 1000 5000 1000 5000 5000 5000 5000 5000 5000 5000 5000 5000 10	KDLR WDAY KEJM KGU KLPM WADC WFJC WFBE WKRC WLW WSAI WGAR WHK WJAY WTAM WAIU WCAH WBAN WSAN	1210 940 1370 1200 1420 1450 1200 1200 1200 1330 1450 1330 610 1070 640 1430 550 700 1210 1210	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25 Washington J-24 Wilkes-Barre I-26 Williamsport I-25 PORTO RICO	100 500 10000 500 500 500 500 1000 500 00 500 1000 250 5000 1000 1	WJBU WCAU WCAU WFAN WFIAN WFIAN WHAT WHAT WRAX KDKA KDKA WCAE WJAS WMBJ WRAW WGBI WQAN WPSC WNBO WNBO WBAX WBRE WRAK	1210 1370 1370 610 560 1310 610 550 1310 980 1380 1290 1290 1310 880 880 1230 1230 1310
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22 Cleveland I-23 Columbus J-22 Dayton J-22 Mansfield J-22 Mount Orab K-22	500 1000 1000 1000 1000 1000 1000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 1000 5000 1000 5000 1000 5000 10	KDLR WDAY KFJM KGPM WLPM WADC WFJC WFBE WKRC WLW WSAI WGAR WHK WJAM WAIU WCAH WEAD WSAM WSAM WAIU WCAH WEAD WSAM WJW WHID	1210 940 1370 1200 1420 1320 1450 1200 550 700 1330 1450 1070 640 1370 1380 1210 1380 1210	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25 Washington J-24 Wilkes-Barre I-26 Williamsport I-25	100 500 10000 500 500 500 500 1000 500 00 500 1000 250 5000 1000 1	WJBU WCAU WELK WFAN WFI WFKD WHAT WHAT WPEN WRAX KDKA KQV WCAE WJAS WMBJ WRAW WGBI WQAN WPSC WNBO WBAX WBRE	1210 1370 610 560 1310 610 560 1310 610 1020 1020 1380 1290 1500 880 880 1220 1200 1310
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22 Cleveland I-23 Columbus J-22 Dayton J-22 Mansfield J-22 Mount Orab K-22 Springfield J-22 Springfield J-22	500 1000 1000 1000 1000 5000 1000 50	KDLR WDAY KFJM KGCU KLPM WADC WFJC WFBE WKRC WLW WSAI WGAR WHK WJAY WAIU WCAO WSEN WSEN WJW WHBD WCSO	1210 940 1370 1200 1420 1450 1200 1500 1200 1330 1450 1390 640 1430 1570 1210 1380 1210 1390 1210 1380 1210 1380 1210 1380 1210 1380 1210 1380 1480 1480 1480 1480 1480 1480 1480 14	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25 Washington J-24 Wilkes-Barre I-26 Williamsport I-25 PORTO RICO San Juan W-34	100 500 10000 1000 500 500 500 500 100 500 100 250 50000 1000 1	WJBU WCAU WCAU WFAN WFIAN WFIAN WHAT WHAT WRAX KDKA KDKA WCAE WJAS WMBJ WRAW WGBI WQAN WPSC WNBO WNBO WBAX WBRE WRAK	1210 1370 1370 610 560 1310 610 550 1310 980 1380 1290 1290 1310 880 880 1230 1230 1310
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22 Cleveland I-23 Columbus J-22 Dayton J-22 Mansfield J-22 Mount Orab K-22 Springfield J-23 Steubenville J-23	500 1000 1000 1000 1000 1000 1000 5000 5000 5000 5000 5000 5000 5000 5000 5000 5000 1000 5000 1000 5000 1000 5000 10	KDLR WDAY KFJM KGPM WLPM WADC WFJC WFBE WKRC WLW WSAI WGAR WHK WJAM WAIU WCAH WEAD WSAM WSAM WAIU WCAH WEAD WSAM WJW WHID	1210 940 1370 1200 1420 1450 1200 1450 1200 550 1200 1330 1450 160 1070 1640 1430 1210 1310 1370 1450 1450 1450	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25 Washington J-24 Wilkes-Barre I-26 Williamsport I-25 PORTO RICO San Juan W-34 RHODE ISLAN	100 500 10000 10000 500 500 500 500 500	WJBU WLBW WCAU WEAN WFI WFKD WHAT WPEN WLIT WPEN WCAE WJMBJ WRAW WGBI WRAW WGBI WPSC WBAX WBSC WBAX WBRE WBAX	1210 1210 1170 1170 610 560 1310 610 560 1310 980 1220 1290 1310 880 1230 1210 1310 1310
Bismarck F-13 Devils Lake E-14 Fargo F-15 Grand Forks E-15 Mandan F-13 Minot E-13 OHIO Akron I-23 Canton I-23 Cincinnati K-22 Cleveland I-23 Columbus J-22 Dayton J-22 Mansfield J-22 Mount Orab K-22 Springfield J-22 Springfield J-22	500 1000 1000 1000 1000 1000 1000 50	KDLR WDAY KFJM KGCU KLPM WADC WFJC WFBE WKRC WLW WSAI WGAR WJAY WTAM WAIU WCAH WEAO WSEN WSEN WSEN WHBD WCSO WIBR	1210 940 1370 1200 1420 1320 1450 1200 1200 1330 1450 610 1330 610 1430 570 640 1430 1210 1370 1210 1370 1450	Philadelphia 1-26 Pittsburgh J-24 Reading I-26 Scranton H-26 State College I-25 Washington J-24 Wilkes-Barre I-26 Williamsport I-25 PORTO RICO San Juan W-34	100 500 10000 1000 500 500 500 500 100 500 100 500 1000 1000 1000 1000 1000 1000 50 250 5000 1000 1	WJBU WCAU WCAU WFAN WFIAN WFIAN WFIAN WHAT WHAT WRAX KDKA KQV WCAE WJAS WMBJ WRGBI WQAN WPSC WNBO WBAX WBRE WRAK	1210 1370 1370 610 560 1310 610 550 1310 980 1380 1290 1290 1310 880 880 1230 1230 1310

Providence H-28	100	WDWF	1210	VERMONT	Watts		Vario
11011001100 11 20	250	WEAN WJAR WLSI	780	Burlington F-27	100	WCAX	Kcys. 1200
	250 100	WJAR	890 1210	Rutland G-27	100		1500
		WLSI	1210	St. Albans F-27	5	WQDM	1370
SOUTH CAROL	INA			Springfield G-27	10	WNBX	1200
Charleston O-25	500	WCSC	1360	VIRGINIA			
Columbia N-24 Spartanburg N-23	500 100	WIS WSPA	1010 1420	II .	10000	WICH	1460
÷		******	1120	Alexandria J-26 Arlington J-25	10000 1000	WJSV NAA	1460 690
SOUTH DAKO	FA 500	KEDY	550	Danville L-25	100	WBTM	1370
Brookings H-15 Huron H-14	100	KFDY KGDY		Emory L-23	100	WEHC	1200
Mitchell H-14	`50	KGDA KGFX	1200 1370	Lynchburg L-25	100 500	WLVA	1370 590
Pierre G-13	200	KGFX	580	Newport News L-26	100	WGH	1310
Pierre G-13 Rapid City H-12 Sioux Falls I-15	100 2000	WCAT KSOO	1200 1110	Norfolk L-26	500	WPOR	780
Vermillion I-15	500	KUSD	890	Petersburg L-26	500 100	WTAR WLBG	780 1200
Watertown G-15	100	KGCR	1210	Richmond K-26	100	WBBL	1210
Yankton I-15	1000	WNAX	570	I	100	WMBG	1210
TENNESSEE	400	WORK	1500	Roanoke L-24	5000 250	WRVA WDBJ	1110 930
Bristol L-23	100 1000	WOPI WDOD	1500 1280	Roanoke L-24	250	WRBX	1410
Chattanooga N-21 Knoxville M-22	50	WFBC	1200	WASHINGTON			
	1000	WNOX	560	Aberdeen D-2	75	KXRO	1310
I NI 20	100 500	WROL WOAN	1310 600	Bellingham C-3	100	KXRO KVOS	1200
Lawrenceburg N-20 Memphis M-19	500	WGBC	1430	Everett C-3	50 10	KFBL KGY	1370 1200
mempano m 19	100	WHBO	1370	Lacey D-3 Longview D-3	100	KUI	1500
	500	WMC	780	Pullman E-5	1000	KUJ KWSC	1220
	500 500	WNBR WREC	1430 600	Seattle C-3	100	KFQW KJR KOL	1420 970
Nashville M-20	5000	WLAC WSM	1470 650		5000 1000	KOL	1270
	5000	WSM	650 1470	· ·	1000	KOMO	920
Springfield M-20	5000 100	WTNT WSIX	1210	1	100	KPCB	650
Union City M-19	100	WOBT	1310		50 1000	KRSC KTW	1120 1270
TEXAS				1	100	KVL	1370
Abilene P-13	100	KFYO	1420	Santrana D 5	500 100	KXA KFIO	570 1120
Amarillo N-12	1000 250	KGRS WDAG	1410 1410	Spokane D-5	1000	KFPY	1340
Austin Q-14	100	KUT	1500		5000	KGA	1470
Beaumont R-17	500	KFDM	560	T D 2	1000 500	KHO KMO	596 860
Brownsville U-15	500	KWWG	1260 1500	Tacoma D-3	1000	KVI	700
Brownwood P-14	100 500	KGKB WTAW	1120	Wenatchee D-4	50	KPQ	1500
College Sta. Q-15 Corpus Christi S-14	100	KGFI	. 1500	Yakima D-4	50	KIT	1310
Dallas P-15	10000	KRLD	1040	WEST VIRGIN	IA		
	50000 500	WFAA WRR	800 1280	Bluefield L-24	100	WHIS	1420
Dublin P-14	100	KFPL	1310	Charleston K-23	250 250	WOBU	580
El Paso P-9	100	KTSM	1310	Fairmont J-24	250	WMMN	890
Fort Worth P-15	100 100	WDAH KFJZ	1310 1370	Huntington K-23 Wheeling J-24	250 5000	WSAZ WWVA	580 1160
Fort Worth F-13	1000	KTAT	1240		5000	WWA	1100
	10000	WBAP	800	WISCONSIN			
Galveston R-16	100	KFLX	1370	Eau Claire G-18	1000	WTAQ	1330
Greenville O-15	500 15	KFUL KFPM	1290 1310	Fond du Lac H-19	100	KFIZ	1420
Greenville O-15 Harlingen T-14	500	KRGV	1260	Green Bay G-19 Jänesville I-19	100 100	WHBY WCLO	1200 1200
Houston R-16	1000	KPRC	920	La Crosse H-18	1000	WKBH	1380
	500 100	KTRH KXYZ	1120 1420	Madison H-19	<i>75</i> 0	WHA	940
	100	KTLC	1310	,	500 250	WIBA WISJ	1280 780
San Angelo Q-13	100	KGKL	1370 1370 1370	Manitowoc H-20	100	WOMT	1210
San Antonio R-14	100	KMAC KONO	1370	Milwaukee H-20	250	WHAD	1120
	100 100	KTAP	1420		250	WISN WTMJ	1120
	1000	KTSA	1290	Poynette H-19	1000 100	WIBU	620 1310
Wass 0 15	50000	WOAI	1190	Racine I-20	100	WRIN	1370
Waco Q-15 Wichita Falls O-14	1000 250	WACO KGKO	1240 570	Sheboygan H-20	500	WHBL	1410
	200	RORO	0,0	Stevens Pt. G-19 Superior F-17	2000 1000	WLBL WEBC	900 1290
UTAH Ogden I-7	500	KLO	1400	1	1000	WEBC	1270
Salt Lake City I-7	1000	KLO KDYL	1290	WYOMING			
	5000	KSL	1130	Casper H-10	100	KDFN	1210

CAN	JADA			PRINCE EDWAR	D IS	LAND	
ALBERTA	Watts		Kcys.	Charlottetown C-31	Watts 250	CFCY	Kcys. 960
Calgary B-7	500	CFAC CFCN	690	Summerside C-31	30 100	CHCK	960 1120
	500 500	CHCA	690 690	OUEBEC	100	CIICO	1120
	500 500	CJCJ CNRC	690 690	Montreal E-26	500	CFCF	1030
Edmonton A-8	250	CHMA	580		5000 5000	CHYC	730 730 730
	500 500	CJCA CKUA	930 580		5000	CKAC CNRM	730
L-45-5-4 C 0	500	CNRE	930	Quebec D-27	100 22	CHRC CKCI	880 880
Lethbridge C-8 Red Deer A-8	50 1000	CJOC CHCT	1120 840	l	50 50	CKCV CNRQ	880 880
	1000 1000	CKLC CNRD	840 840	SASKATCHEWA		CINQ	000
			040	Fleming C-13	500	CJRW CJRM	600
BRITISH COLU			1210	Moose Jaw C-11 Pilot Butte	500 500	CJRM CHWC	600 960
Chilliwack B-3 Kamloops B-5	5 15	CHWK CFJC	1210 1120	Regina C-12	500	CJBR	960
Sea Island Vancouver B-3	50 50	CFJC CJOR CHLS CKCD	1210 730		500 500	CKCK CNRR	960 960
vancouver D-3	50	CKCD	730 I	Saskatoon B-11	500 500	CFQC CNRS	910 910
	50 50	CKFC CKMO	730 730	Yorkton C-13	500	CJGX	630
	100	CKWX	730	HAITI			
Victoria C-3	500 500	CNRV	1030 630	Port au Prince X-30	1000	HHK	920
MANITODA				MEXICO	250	TEND	000
MANITOBA Brandon D-14	. 500	CKX	540	Chihuahua, Chih. R-9 Guadalajara, Jal. X-10 Jalapa, Ver. Y-14 Juarez, Chih.	250 101	XFF XEA XFC	920 1200
Winnipeg D-15	5000	CKX CKY	780	Jalapa, Ver. Y-14	350 101	XFC XEJ	630 860
	5000	CNRW	780	Merida, Yuc. X-19 Mexico City Y-13	100	XEY	550
NEW BRUNSW		on in		Mexico City Y-13	1000 1000	XEB XEN	670 720
Fredericton D-29 Moncton D-30	50 500	CFNB CNRA	1210 630		101	XEO	980
St. John D-30	50	CFBO	890	l	101 · 5000	XER XEW	1070 780
NEWFOUNDLA					500 500	XEX	920
St. Johns A-35	500	8WMC	720		50	XEZ XFA	700 540
NOVA SCOTIA					2000 1000	XFG XFI	640 590
Halifax E-31	500 500	CHNS	930	M N. I. II 12	500	XFX	860 960
Louisburg C-32	10000	CNRH VAS	930 690	Monterrey, N. L. U-13	101 500	XEH XET XEI	630
Louisburg C-32 Sydney C-32 Wolfville D-31	50 50	VAS CJCB CKIC	880 930	Morelia, Mich. Y-12 Oaxaca, Oax. AA-14	101 105	XEI XEF	1000 1130
	50	Citic	,,,,	Reynosa, Tams. Saltillo, Coah.	10000	XED	960
ONTARIO	100	OF CO	1210	Saltillo, Coah. Tampico, Tams.	10 501	XEL XEM	1090 765
Chatham H-22 Cobalt E-23	100 15	CFCO CKMC	1210 1210		500	XES XEC	890
Hamilton H-24	10 50	CHCS CHML	880 880	Toluca, Mex. Veracruz, Ver.	50 101	XEU	1330 800
	50	CKOC	880	Villahermosa, Tab.	250	XFE	920
Iroquois Falls F-26 Kingston G-25	250 500	CFCH CFRC	600 930	CUBA	250	CMHD	920
London H-23	1000	CJGC CNRL	910	Caibarien W-25 Cienfuegos W-25	200	CMHA	1150
Midland G-23	500 50	CKPR	910 930	Colon W-24 Havana W-23	300 150	CMGA CMBC	830 1130
Ottawa F-25	100	CKCO	890	navana w-25	200	CMBY	1405
Prescott F-25	500 50	CNRO CFLC	600 1010		150 500	CMBZ	1010 840
Preston G-23 Toronto G-24	25 500	CKPC	1210 840	1	100	CMC CMCE	1280
Totonto G-24	500	CFCA CFCL	580		250 1000	CMCF CMCQ	1010 9 5 0
	4000 5000	CFRB CJSC	960 690		500	CMI	<i>77</i> 0
	500	CKCL	580		2000 150	CMK CMQ	730 1130
	5000 500	CKGW CKNC	690 580		1000	CMQ CMW CMX	588 900
	500	CNRT	840	Santiago X-28	250 150	CMKC	1360
	4000 5000	CNRX CPRY	960 690	Tuinucu	500	CMHC	790
Waterloo G-23 Wingham G-23	50 25	CKCR 10-BP	1010 1200	COSTA RICA San Jose FF-23	50	TIX	750
"Highain G-23	20	IO-DP	1200	Gail Jose 11-23			750

						**	
CFAC 690		CJRW 600		CMKC 1360		KFDM 560	
	1	Fleming, Sask		Santiago, Cuba		Beaumont, Tex.	
Calgary, Alta. CFBO 890		CJSC 690		CMQ 1130		KFDY 550	
CrbC 650	i 1	Toronto, Ont.		Havana, Cuba	- 1	Brookings, S.D.	1
St. John, N. B. CFCA 840		CKAC 730		CMW 590		KFEL 920	
Toronto Ont		Montreal, Que.	,	Havana, Cuba	1	Denver, Colo.	
Toronto, Ont. CFCF 1030		CKCD 730		CMX 900		KFEQ 680	
Montreal, Que.				Havana, Cuba		St. Joseph, Mo.	
CFCH 600		Vancouver, B.C. CKCI 880		CNRA 630		KFGQ 1310	
Track's Falls Ont				Moncton, N.B.	1	KFGQ 1310 Boone, Iowa	
Iroq's Falls, Ont. CFCL 580		Quebec, Que. CKCK 960		CNRC 690		KFH 1300	
CFCL 380		Begins Soals			ł	Wichita, Kansas	
Toronto, Ont. CFCN 690		Regina, Sask. CKCL 580		Calgary, Alta. CNRD 840		KFHA 1200	
CFCN 690		Toronto Ont	1				
Calgary, Alta.		Toronto, Ont.		Red Deer, Alta.		Gunnison, Colo.	
CFCO 1210		CKCO 890		CNRE 930	· ·	KFI 640	
Chatham, Ont.		Ottawa, Ont.		Edmonton, Alta.		Los Angeles, Cal.	
CFCT 630		CKCR 1010		CNRH 930	Į.	KFIO 1120	
Victoria, B. C.		Waterloo, Ont.		Halifax, N. S.		Spokane, Wash.	
CFCY 960		CKCV 880		CNRL 910	J	WLIO 1210	
Ch'lottet'n, P.E.I.		Quebec, Que.		London, Ont.		Juneau, Alaska	
CFJC 1120		CKFC 730		CNRM 730	i	KFIZ 1420	
Kamloops, B. C.		Vancouver, B.C.		Montreal, Que.		Fond du Lac, Wis	
CFLC 1010		CKGW 690		CNRO 600		KFJB 1200	
Prescott, Ont.		Toronto, Ont.		Ottawa, Ont.		Marshalltown, Ia.	
CFNB 1210		I CKIC 930		CNRQ 880		KFJF 1480	
Fredericton, N.B.		Wolfville, N.S.		Quebec, Que.		Oklahoma City	
CFQC 910		CKLC 840		CNRR 960		KFJI 1370	
Saskatoon, Sask.		Red Deer, Alta.		Regina, Sask.		Astoria, Ore.	
CFRB 960		CKMC 1210		CNKS 910		KFJM 1370	
Toronto, Ont.		Cobalt, Ont.		Saskatoon, Sask.		Grd. Forks, N.D.	
CFRC 930		CKMO 730		CNRT 840		KFJR 1300	
Kingston, Ont.		Vancouver, B.C.		Toronto, Ont.		Portland, Ore.	
CHCA 690		CKNC 580		CNRV 1030		KFIV 1310	
Calgary, Alta.		Toronto, Ont.		Vancouver, B.C.		Fort Dodge, Ia.	
CHCK 960		CKOC 880		CNRW 780		KFJZ 1370 Ft. Worth, Tex.	
Ch'lottet'n, P.E.I.		Hamilton, Ont.		Winnipeg, Man.		Ft. Worth, Tex.	
CHCS 880		CKPC 1210		CNRX 960		KKKA 880 I	
Hamilton, Ont.		Preston, Ont.		Toronto, Ont.		Greeley, Colo.	
CHCT 840		CKPR 930		CPRY 690		KFKB 1050	
Red Deer, Alta.		Midland, Ont.		Toronto, Ont.		Milford, Kansas	
CHGS 1120		CKUA 580		I HHK 920		KFKU 1220	
Sum'rside, P.E.I.	1	Edmonton, Alta.	J	Port au Prince, H.		Lawrence, Kans.	
CHLS 730		CKWX 730		KBPS 1420		KFKX 1020	
Vancouver, B.C.		Vancouver, B.C.		Portland, Ore.	- 1	Chicago, Ill.	
CHMA 580		CKX 540		KBTM 1200		KFLV 1410	
Edmonton, Alta.		Brandon, Man.		Paragould, Ark.		Rockford, Ill.	
CHML 880		CKY 780		KCRC 1370		KFLX 1370	
Hamilton, Ont.	(Winnipeg, Man.		Enid, Okla.		Galveston, Tex.	
CHNS 930		CMBC 1130		KCRJ 1310		KFMX 1250	
Halifax, N.S.		Havana, Cuba	! I	Jerome, Ariz.	I	N'thfield, Minn.	
CHRC 880		CMBY 1400		KDB 1500		KFNF 890	
		Havana, Cuba		S. Barbara, Cal.		Shenandoah, Ia.	
Quebec, Que. CHWC 960		CMBZ 1010		I KIDEN 1210		KFOR 1210	
		Havana, Cuba		Casper, Wyo.	l	Lincoln, Nebr.	
Pilot Butte, Sask.		CMC 840		KDKA 980		KFOX 1250	
CHWK 1210		Havena Cuba		Pittsburgh, Pa.	ľ	Long Beach, Cal.	
Chilliwack, B.C. CHYC 730		Havana, Cuba CMCE 1280		KDLR 1210		KFPL 1310	
		Havana, Cuba		Devils Lake, N.D.		Dublin, Texas	
Montreal, Que.		CMCF 1010		KDYL 1290		KFPM 1310	
CJBR 960		CMCF 1010				Greenville, Tex.	
Regina, Sask.		Havana, Cuba		Salt Lake City KECA 1430		KFPW 1340	
CJCA 930		CMCQ 950		Log Angeles Cal			
Edmonton, Alta.		Havana, Cuba		Los Angeles, Cal. KELW 780		Ft. Smith, Ark.	
CJCB 880		CMGA 830		RELW 780		KFPY 1340	
Syndey, N.S.		Colon, Cuba		Burbank, Cal.		Spokane, Wash.	
/CJCJ 690		I CMHA 1150		KEX 1180		KFQD 1230	
Calgary, Alta.		Cienfuegos, Cuba CMHC 790		Portland, Ore.		Anchorage, Alas.	
CIGC 910		CMHC 790		KFAB 770		KFQU 1420	
London, Ont.		Tuinucu, Cuba		Lincoln, Nebr.		Holy City, Cal.	
C.1G-X 630		I CMHD 920		KFBB 1280		Holy City, Cal. KFQW 1420 Seattle, Wash.	
Yorkton, Sask.		Caibarien, Cuba		Great Fls., Mont.		Seattle, Wash.	
CJOC 1120		CMI 770		KFBK 1310		KFRC 610	
Lethbridge, Alta.		Havana, Cuba		Sacramento, Cal.		San F'ncisco, Cal.	
CJOR 1210		CMK 730		KFBL 1370		KFRU 630	
Sea Island, B.C.	'	Havana, Cuba	j 1	Everett, Wash.		Columbia, Mo.	
CJRM 600		, 0					
Moose Jaw, Sask.				1	- 1		
ITTOOR OWN, DASK.		l .		[
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KFSD 600	KGFF 1420	K1DO 1250	KPJM 1500
San Diego, Cal. KFSG 1120	Alva, Okla. KGFG 1370	Boise, Idaho KIT 1310	Prescott, Ariz. KPO 680
KFSG 1120 Los Angeles, Cal.	II Oklahoma City	Yakima, Wash.	San F'neisco, Cal.
KFUL 1290	TECHT 1500	KJBS 1070	KPOF 880
Galveston, Tex. KFUM 1270	Corpus Ch'sti, Tex KGFJ 1200	San F'ncisco, Cal KJR 970	Denver, Colo. KPPC 1210
Col. Spgs., Colo.		Seattle, Wash.	Pasadena, Cal.
KFUO 550	KGFK 1500 Moorhead, Minn.	1 KLCN 1290 1	KPQ 1500
St. Louis, Mo. KFUP 1310	KGFL 1370	Blytheville, Ark. KLO 1400	Wenatchee, Wash KPRC 920
Denver, Colo.	Raton, N. M.	Ogden. Utah	Houston, Texas
KFVD 1000	KGFL 1370 Raton, N. M. KGFW 1310	KLPM 1420	KPSN 1360
Culver City, Cal. KFVS 1210	Kavenna, Nebr.	Minot, N. Dak. KLRA 1390	Pasadena, Cal. KQV 1380
Cape Gir'rd'u, Mo	Pierre, S. D.	Little Rock, Ark.	Pittsburgh, Pa.
KFWB 950	KGGC 1420	KLS 1440	KQW 1010
Hollywood, Cal. KFWF 1200	San F'ncisco, Cal KGGF 1010	Oakland, Cal. KLX 880	San Jose, Cal. KRE 1370
St. Louis, Mo.	Coffeyville, Kans.	Oakland, Cal.	Berkeley, Cal.
KFW1 930	4 KGGM 1230 1	KLZ 560	KREG 1500
San F'ncisco, Cal. KFXD 1420	Alb'q'rque, N.M KGHF 1320	Denver, Colo. KMA 930	Santa Ana, Cal. KRGV 1260
Nampa, Idaho	Pueblo, Colo.	Shenandoah, Ia.	I Harlingen, Texas i
KFXF 920	1 KGH1 1200 1	KMAC 1370	KRLD 1040 Dallas, Texas KRMD 1310
Denver, Colo. KFXJ 1310	Little Rock, Ark. KGHL 950	San Antonio, Tex KMBC 950	KRMD 1310
Edgewater, Colo.	Billings, Mont.	Kan. City, Mo.	Shreveport, La.
KFXM 1210	I K G I G 1 320 1 I	I KMED 1310 I	
San Ber'd'no,Cal. KFXR 1310	Twin Falls, Ida. KGIR 1360	Medford, Ore. KMIC 1120	Oakland, Cal. KRSC 1120
Oklahoma City	Butte, Mont.	Inglewood, Cal.	Seattle, Wash.
KFXY 1420	KGIW 1420	KMJ 1210 Fresno, Cal.	KSAC 580
Flagstaff, Ariz. KFYO 1420	Trinidad, Colo. KGIX 1420	KMLB 1200	Manh'tt'n, Kans. KSCJ 1330
Abilene, Texas	Las Vegas, Nev.	Monroe, La.	Sloux City, Ia.
KFYK 550 I	KGIZ 1500 Grant City, Mo.	KMMJ 740	KSD 550
Bismarck, N.D. KGA 1470	KGJF 890	Clay Ctr., Nebr. KMO 860	St. Louis, Mo. KSEl 900
Spokane, Wash.	Little Rock, Ark.	Tacoma, Wash.	Pocatello, Idaho
KGAR 1370	KGKB 1500	KMOX 1090	KSL 1130 Salt Lake City
Tucson, Ariz. KGB 1330	Brownwood, Tex KGKL 1370	St. Louis, Mo. KMPC 710	I KSMR 1200
San Diego, Cal. KGBU 900	San Angelo, Tex.	Los Angeles, Cal	Santa Maria, Cal.
KGBU 900	KGKO 570	KMTR 570 Los Angeles, Cal.	KSO 1380 Clarinda, Iowa
Ketchikan, Al'ka. KGBX 1310	Wichita Flls., Tex KGKX 1420	I KNX 1050	KSOO 1110
St. Joseph. Mo.		Los Angeles, Cal.	Sioux Falls, S.D.
KGBZ 930 York, Nebr.	Sand Folio, Ida. KGKY 1500 Scottsbluff, Nebr. KGMB 1320 Honolulu, T. H.	KOA 830 Denver, Colo.	KSTP 1460 St. Paul, Minn.
K (3C \ 1270	KGMB 1320	I KOAC 550 I I	KTAB 560
Decorah, Iowa		Corvallis, Ore.	San F'ncisco, Cal.
KGCR 1210 Watertown, S.D.	KGMP 1210 Elk City, Okla.	KOB 1180 State Coll., N.M.	KTAP 1420 San Antonio, Tex.
KGCU 1200		State Coll., N.M. KOCW 1400	KTAR 620
Mandan, N.D.	No. Platte, Neb. KGNO 1210	Chickasha, Okla	Phoenix, Ariz. KTAT 1240
Wolf P't, Mont.	II Dodge City, Kans,	Reno, Nevada	Ft. Worth, Tex.
	KGO 790 San F'ncisco, Cal. KGRS 1410	KOIL 1260	KTBI 1300
Mitchell, S. D.	San F'ncisco, Cal.	Council Bluffs, Ia KOIN 940	Los Angeles, Cal
KGDE 1200 Ferg's F'lls, Minn	Amarillo, Texas	Portland, Ore.	Portland, Ore.
KGDM 1100	'I KGU 940	KOL 1270	l KTBS 1450
Stockton, Cal. KGDY 1200	Honolulu, Hawaii KGW 620	Seattle, Wash. KOMO 920	Shreveport, La. KTHS 1040
Huron, S. D.	Portland, Ore.	Seattle, Wash.	
KGEF 1900	KGY 1200	KONO 1370	Hot Spgs., Ark. KTLC 1310
Los Angeles, Cal	Lacey, Wash.	San Antonio, Tex KOOS 1370	Houston, Texas KTM 780
KGEK 1200 Yuma, Colo.	KHJ 900 Los Angeles, Cal.	Marshfield, Ore.	KTM 780 Los Angeles, Cal.
KGER 1360	KHO 590	KORE 1420	KTNT 1170
Long Beach, Cal	Spokane, Wash.	Eugene, Ore. KOY 1390	Muscatine, Iowa KTRH 1120
KGEW 1200 Ft.Morgan, Colo.	KICK 1420 Red Oak, Iowa.	KOY 1390 Phoenix, Ariz.	Houston, Texas
KGEZ 1310	KID 1320	KPCB 650 Seattle, Wash.	KTSA 1290
Kalispell, Mont.	Idaho Falls, Ida.	Seattle, Wash.	San Antonio, Tex.
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KTSL 1310	WABC 860	WCAH 1430	WDEL 1120
Shreveport, La. KTSM 1310	New York City WABI 1200	Columbus, Ohio WCAJ 590	Wilmington, Del. WDGY 1180
El Paso, Texas	Bangor, Maine	Lincoln, Nebr.	Minneap., Minn.
KTW 1270	WABZ 1200	H WCAL 1250 1	B WDLX 1500
Seattle, Wash. KUJ 1500	WACO 1240	Northfield, Minn. WCAM 1280	Tupelo, Miss.
Longview. Wash.	Waco, Texas WADC 1320	Camden, N. J.	WDOD 1280 Chattan'ga, Tenn
Longview, Wash. KUOA 1390	WADC 1320	WCAO 600	WDRC 1330
Fayetteville, Ark KUSD 890	Akron, Onio	Baltimore, Md.	N. Haven, Conn.
Vermillion, S. D.	WAIÚ 640 Columbus, Ohio	WCAP 1280 Asbury Pk., N. J.	WDSU 1250
KUT 1500	II WALR 1910	II WCAT 1200	New Orleans, La. WDWF 1210
Austin, Texas	Zanesville, Ohio	Rapid City, S. D.	Providence, R. I.
KVI 760	H WAP1 1140 I	J WCAU 1170]	WDZ 1070
Tacoma, Wash. KVL 1370	Birmingham, Ala. WASH 1270	Philadelphia, Pa. WCAX 1200	Tuscola, Ill. WEAF 660
Seattle, Wash.	Gr. Rapids, Mich.	Burlington, Vt.	New York City
KVOA 1260	WBAA 1400	WCAZ 1070	WEAI 1270
Tucson, Arizona	Lafayette, Ind.	Carthage, Ill.	Ithaca, N. Y.
KVOO 1140 Tulsa, Okla	WBAK 1430 Harrisburg, Pa.	WCBA 1440 Allentown, Pa.	WEAN 780 Providence, R. I.
KVOS 1200	WBAL 1060	WCBD 1080	WEAO 570
Bellingh'm,Wash	Baltimore, Md.	Zion, Ill.	Columbus, Ohio
KWCR 1310	WBAM 1440	WCBM 1370	WEBC 1290
Cedar Rapids, Ia. KWEA 1210	Greensboro, N. C. WBAP 800	Baltimore, Md. WCBS 1210	Superior, Wis. WEBQ 1210
Shreveport, La.	Fort Worth, Tex.	Springfield, Ill.	Harrisburg, Ill.
KWG 1200	WBAX 1210	WCCO 810	WEBR 1310
Stockton, Cal.	Wilkes-Barre, Pa. WBBC 1400	Minneap., Minn.	Buffalo, N. Y.
KWJJ 1060 Portland, Ore.	WBBC 1400 Brooklyn, N. Y.	WCDA 1350 New York City	WEDC 1210 Chicago, Ill.
KWK 1350	II WRRE. 1910	WCFL 970	WEDH 1420
St. Louis, Mo.	Richmond, Va.		Erie, Pa.
KWKC 1370 Kansas City, Mo.	II M BBM 770	Chicago, III. WCGU 1400 Brooklyn, N. Y. WCKY 1490 Covington, Ky.	WEEL 590
KWKH 850	Chicago, Ill. WBBR 1300	WCKY 1490	Boston, Mass. WEHC 1200
Shreveport, La.	Brooklyn, N. Y.		Emory, Va.
KWLC 1270		WCLB 1500	
Decorah, Iowa KWSC 1220	Ponca City, Okla. WBCM 1410	Long Beach, N.Y WCLO 1200	Evanston, Ill. WELK 1370
Pullman, Wash.	Bay City, Mich.	Janesville, Wis.	Philadelphia, Pa.
KWWC 1260	Bay City, Mich. WBEN 900	11 WCLS 1310 1	WELL 1420
Brownsville, Tex.	Buffalo, N. Y. WBGF 1370	Joliet, Ill. WCMA 1400	BattleCreek,Mich
Seattle, Wash.	Glens Falls, N. Y.	Culver, Ind.	WENR 870
KXL 1420	WBIS 1230	WCOA 1340	Chicago, Ill. WEPS 1200
Portland, Ore.	Boston, Mass. WBMS 1450	Pensacola, Fla.	Worcester, Mass.
KXO 1500 El Centro, Cal.	Hackengack N.J.	WCOC 880 Meridian, Miss.	New York City
KXRO 1310	WBNY 1350	WCOD 1200	WEW 760
KXRO 1310 Aberdeen, Wash KXYZ 1420	New York City	Harrisburg, Pa.	St. Louis, Mo.
KXYZ 1420	WBOW 1310	WCOH 1210	I WEAL 1310 }
Houston, Texas KYA 1230	Terre Haute, Ind WBRC 930	Yonkers, N. Y. WCRW 1210	Royal Oak, Mich. WFAA 800
San F'ncisco, Cal.	Birmingham, Ala.	II Chicago, Ill.	Dallas, Texas WFAN 610
KYW 1020	WBRE 1310	Chicago, Ill. WCSC 1360	WFAN 610
Chicago, Ill. KZM 1370	Wilkes-Barre, Pa.	Charleston, S. C.	Philadelphia, Pa.
KZM 1370 Hayward, Cal.	WBSO 920 Well'l'yH'ls,Mass	WCSH 940 Portland, Maine	WFBC 1200 Knoxville, Tenn.
NAA 690	H WBT 1080	WCSO 1450	WERE 1200
Arlington, Va.	Charlotte, N. C.	Springfield, Ohio	Cincinnati, Ohio
NRA X50	WBTM 1370	WDAE 1220	WFBG 1310
Balboa, C. Z. TIX 750	Danville, Va. WBZ 990	Tampa, Fla. WDAF 610	Altoona, Pa. WFBL 1360
San Jose, C. R.	Springfield, Mass.	Kansas City, Mo.	Syracuse, N. Y.
VAS 690	WBZA 990	WDAG 1410	WFBM 1230
Louisburg, N. S.	Boston, Mass.	Amerillo, Texas	Indianapolis, Ind.
WAAF 920 Chicago, Ill.	WCAC 600 Storrs, Conn.	WDAH 1310 El Paso, Texas	WFBR 1270
WAAM 1250	WCAD 1990	II WTLAY 940	Baltimore, Md. WFDF 1310
Newark, N. J.	Canton, N. Y.	II Fargo, N. D.	Flint, Mich.
W A A T 940	WCAE 1220	WDB1 1930	WFDV 1370
Jersey City, N. J.	Pittsburgh, Pa.	Roanoke, Va.	Rome, Ga.
WAAW 660 Omaha, Nebr.	ii l	WDBO 1120 Orlando, Fla.	
		Triando, Fra.	
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WI-DW			WIVICA
WFDW 1420	WHBY 1200	WJAZ 1490	WLB 1250
Talladega, Ala.	Green Bay, Wis.	Chicago, Ill.	St. Paul, Minn.
WFI 560 Philadelphia, Pa.	WHDF 1370 Calumet, Mich.	WJBC 1200 La Salle, Ill.	WLBC 1310 Muncie, Ind.
WF1W 940	WHDH 830	WIRI 1910	WT.RF 1490
Hopkinsville, Ky.	Boston, Mass.	Red Bank, N. J.	Kansas City, Ks. WLBG 1200
WFJC 1450 Akron,Ohio	WHDI 1180	WJBK 1370 Detroit, Mich.	WLBG 1200
WFKD 1310	Minneap., Minn. WHDL 1420	WJBL 1200	Ettrick, Va. WLBL 900
Philadelphia, Pa.	TupperLake, N.Y.	Decatur, Ill.	Stevens Pt., Wis.
WFLA 620	H WHEC 1440	II WJBO 1420 I	II WLBW 1260
Clearwater, Fla. WGAL 1310	Rochester, N. Y. WHFC 1420	New Orleans, La. WJBT 770	Oil City, Pa. WLBX 1500
Lancaster, Pa.	Il Cicero, Ill.	II Chicago, Ill.	L.I.City, N.Y.
WGAR 1450	II WHIS 1420	WJBU 1210	WLBZ 620
Cleveland, Ohio	Bluefield, W. Va WHK 1390	Lewisburg, Pa.	Bangor, Me.
WGBB 1210 Freeport, N. Y.	WHK 1390 Cleveland, Ohio	WJBW 1200 New Orleans, La.	WLČI 1210 Ithaca, N. Y.
WGDC 1400	WHN 1010	WJBY 1210	II WLEX 1410
Memphis, Tenn.	New York City	Gadsden, Ala.	Lexington, Mass. WLEY 1370
WGBF 630	WHO 1000	WJDX 1270	
Evansville, Ind. WGBI 880	Des Moines, Ia. WHOM 1450	Jackson, Miss. WJJD 1130	Lexington, Mass WLIT 560
Scranton, Pa.	Jersey City, N. J.	Mooseheart, Ill.	Philadelphia, Pa.
WGBS 600	WHP 1430	WJKS 1360	
New York City WGCM 1210	Harrisburg, Pa. WIAS 1420	— Gary, Ind. 750	Boston, Mass. WLS 870
Gulfport, Miss.	Ottumwa, Iowa	WJR 750 Detroit, Mich.	WLS 870 Chicago, Ill.
WGCP 1250	WIBA 1280	I WJSV 1460	WLSI 1210
Newark, N. J.	Madison, Wis.	Alexandria, Va. WJW 1210	Providence, R. I.
WGES 1360	WIBG 930	WJW 1210	WLTH 1400
Chicago, Ill. WGH 1310	Elkins Park, Pa. WIBM 1370	Mansfield, Ohio WJZ 760	Brooklyn, N. Y. WLVA 1370
Newp't News, Va.	Jackson, Mich.	New York City	Lynchburg, Va.
WGL 1370	WIBO 560	WKAQ 890	WLW 700
Ft. Wayne, Ind.	Chicago, Ill. WIBR 1420	San Juan, P. R WKAR 1040	Cincinnati, Ohio WLWL 1100
Ft. Wayne, Ind. WGMS 1250 St. Paul, Minn.	Steubenville, O.	E. Lansing, Mich.	WLWL 1100 New York City
WGN 720	WIBU 1310	WKAV 1310	New York City WMAC 570
Chicago, Ill.	Poynette, Wis.	Laconia, N. H.	Syracuse, N. Y.
WGR 550 Buffalo, N. Y.	WIBW 580 Topeka, Kansas	WKBB 1310 Joliet, Ill.	WMAF 1410 S. D'rtm'th, Mass.
	WIRY 1200	WKBC 1310	WMAK 1040
Atlanta, Ga.	Utica, N. Y.	Birmingham, Ala.	Buffalo, N. Y.
WGY 790	WICC 1190	WKBF 1400	WMAL 630
Schenec'd'y, N.Y. WHA 940	Bridgeport, Conn. WIL 1200	Indianapolis, Ind. WKBH 1380	Washington, D.C. WMAQ 670
Madison, Wis.	St. Louis, Mo	La Crosse, Wis. WKBI 1420	II Chicago, Ill.
WHAD 1120	WILL 890	WKBI 1420	WMAY 1200
Milwaukee, Wis. WHAM 1150	Urbana, Ill. WILM 1420	Chicago, Ill. WKBN 570	St. Louis, Mo. WMAZ 890
Rochester, N.Y.	Wilmington, Del.	Youngstown, O.	Macon, Ga.
WHAP 1300	4 WIOD 1300	WKRO 1450	H WMBA 1500 1
New York City	Miami Bch., Fla	Jersey City, N. J. WKBQ 1350	Newport, R. I.
WHAS 820 Louisville, Ky.	WIP 610 Philadelphia, Pa.	New York City	WMBC 1420 Detroit, Mich.
WHAT 1310	WIS 1010	WKBS 1310	WMBD 1440
Philadelphia, Pa.	Columbia, S. C.	Galesburg, Ill.	Peoria Hghts.,Ill.
WHAZ 1300	WISJ 780	WKBV 1500	WMBG 1210
Troy, N. Y. WHB 860	Madison, Wis. WISN 1120	Connersville, Ind. WKBW 1480	Richmond, Va. WMBH 1420
Kansas City, Mo.	Milwaukee, Wis.	Buffalo, N. Y.	Joplin, Mo.
WHBC 1200	WJAC 1310	WKBZ 1500	Joplin, Mo. WMBI 1080
Canton, Ohio	Johnstown, Pa.	Ludington, Mich.	Chicago, Ill.
WHBD 1370 Mt. Orab, O.	WJAG 1060 Norfolk, Nebr.	WKJC 1200 Lancaster, Pa.	WMBJ 1500 Pittsburgh, Pa.
WHBF 1210	WJAK 1310	WKRC 550	WMBO 1310
Rock Island, Ill.	Marion, Ind.	Cincinnati, O.	Auburn, N. Y.
WHBL 1410	WJAR 890	WKY 900	
Sheboygan, Wis. WHBQ 1370	Providence, R. I. WJAS 1290	Oklahoma City WKZO 590	Brooklyn, N. Y. WMBR 1370
Memphis, Tenn.	Pittsburgh, Pa.	Be'n Spgs., Mich.	Tampa, Fla.
WHBU 1210	WJAX 900	WLAC 1470	WMC 780
Anderson, Ind.	Jackson ville, Fla.	Nashville, Tenn.	Memphis, Tenn.
	WJAY 610 Cleveland, Ohio	WLAP 1200 Louisville, Ky.	WMĈA 570 New York City
	- Cleveland, Onio	Louisvine, Ky.	New 1 Ork City
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WMMN 890	WOV 1130 New York City		WROL 1310	WTNT 1470
Fairmont, W.Va. WMPC 1500	New York City WOW 590		Knoxville, Tenn. WRR 1280	Nashville, Tenn. WTOC 1260
Lapeer, Mich.	Omaha, Nebr.		Dallas, Texas	Savannah, Ga.
Lapeer, Mich. WMRJ 1210	WOWO 1160		Dallas, Texas WRUF 830	JI WWAE 1200
Jamaica, N. Y. WMSG 1350	Ft. Wayne, Ind. WPAD 1420		Gainesville, Fla. WRVA 1110	Hammond, Ind. WWJ 920
New York City	Paducah, Ky.		WRVA 1110 Richmond, Va.	WWJ 920 Detroit, Mich.
WMT 600	II WPAP 1010		WSAI 1330	WWL 850
Waterloo, Iowa	New York City WPAW 1210		Cincinnati, Ohio	New Orleans, La.
WNAC 1230 Boston, Mass.	Pawtucket, R. I.		WSAJ 1310 Grove City, Pa	WWNC 570 Asheville, N. C.
WNAD 1010	II WPCC 560		Grove City, Pa. WSAN 1440	WWRL 1500
Norman, Okla.	Chicago, Ill.		Allentown, Pa.	Woodside, N. Y.
WNAX 570 Yankton, S. D. WNBF 1500	WPCH 810 New York City	[]	WSAR 1450 Fall River, Mass.	WWVA 1160 Wheeling, W. Va.
WNBF 1500	WPDF 1200		WSAZ 580	WXYZ 1240
Bingh'mt'n, N.Y.	Flint, Mich. WPEN 1500		Hunt'gton, W.Va.	Detroit, Mich.
WNBH 1310 New B'df'd, Mass.	WPEN 1500 Philadelphia, Pa.	1	WSB 740 Atlanta, Ga.	XEA 1200
WNBO 1200	WPG 1100		WSBC 1210	Guadalajara, Jal. XEB 670
Washington, Pa.	Atl'ntic City, N.J.		Chicago, Ill.	Mexico City
WNBR 1430	WPOE 1370		WSBT 1230 South Bend, Ind.	XEC 1330
Memphis, Tenn. WNBW 1200	Patchogue, N. Y. WPOR 780		WSDA 1400	Toluca, Mex. NED 960
Carbondale, Pa.	Norfolk, Va.		Brooklyn, N. Y.	Reynosa, Tams.
WNBX 1200	WPSC 1230 State College, Pa.		WSEN 1210	XEF 1130
Springfield, Vt	11 WPTF 680		Columbus, Ohio	Oaxaca, Oax. XEH 960
SaranacL'ke, N.Y.	Raleigh, N. C.		Montgomery, Ala.	Monterrey, N. L.
WNJ 1450	II W CJANI 560			H XEI 1000
Newark, N. J. WNOX 560	Miami, Fla. WQAN 880		Brooklyn, N. Y. WSIX 1210	Morelia, Mich. XEJ 860
Knoxville, Tenn.	Scranton, Pa.	i I	Springfield, Tenn. WSJS 1310	Juarez, Chih.
WNYC 570			WSJS 1310	XEL 1090
New York City WOAI 1190	New York City WQDM 1370		WinstSal., N. C. WSM 650	Saltillo, Coah. XEM 765
San Antonio, Tex. 🔃	St. Albans, Vt.		Nashville, Tenn.	Tampico, Tams.
WOAN 600	II WQDV 1500		WSMB 1320	XEN 720
Law'nceb'g, Tenn	Tupelo, Miss. WQDX 1210		New Orleans, La. WSMK 1380	Mexico City XEO 980
Trenton, N. J.	Thomasville, Ga.		Dayton, Ohio	Mexico City
WOBT 1310	WRAF 1200		WSPA 1420 Spartanburg, S.C.	XER 1070
Union City, Tenn	La Porte, Ind. WRAK 1370		WSPD 1340	Mexico City XES 890
Charlest'n, W.Va. WOC 1000	Williamsport, Pa.		Toledo, Ohio	Tampico, Tamp.
WOC 1000	WRAW 1310	! !	WSSH 1410	XET 630
Davenport, Iowa WOCL 1210	Reading, Pa. WRAX 1020		Boston, Mass. WSUI 880	Monterrey, N. L
Jamestown, N. Y.	Philadelphia, Pa.		Iowa City, Ia.	Veracruz, Ver.
WODA 1250	WRBJ 1370		WSUN 620 St. Petersb'g, Fla.	XEW 780
Paterson, N. J. WODX 1410	Hattiesburg, Miss WRBL 1200		WSVS 1370	Mexico City XEX 920
Mobile, Ala.	Columbus, Ga.		Buffalo, N. Y.	Mexico City
WOI 640 Ames, Iowa	WRBQ 1210		WSYR 570	XEY 550
WOKO 1440	Greenville, Miss. WRBT 1370		Syracuse, N. Y. WTAD 1440	Merida, Yuc
P'ghkeepsie, N.Y.	Wilmington, N.C.		Quincy, Ill.	Mexico City
WOL 1310	WRBU 1210		WTAG 580	XFA 540
Washington, D.C WOMT 1210	Gastonia, N. C. WRBX 1410		Worcester, Mass. WTAM 1070	Mexico City XFC 630
Manitowoc, Wis. WOOD 1270	Roanoke, Va.		Cleveland, Ohio	Jalapa, Ver.
WOOD 1270	WRC 950		WTAQ 1330	XFE 920
Gr. Rapids, Mich WOPI 1500	Washington, D.C. WRDO 1370		Eau Claire, Wis. WTAR 780	Villahermosa, Tab
Bristol, Tenn.	Augusta, Me.		Norfolk Va.	Chihuahua, Chih.
WOG 1300 I	WRDW 1500		WTAW 1120	II XFG 640
Kansas City, Mo. WOR 710	Augusta, Ga. WREC 600		College Sta., Tex. WTAX 1210	Mexico City XFI 590
Newark, N. J.	Memphis, Tenn.		Springfield, Ill.	Mexico City
WORC 1200	WREN 1220		WTBO 1420	II XFX 860
Worcester, Mass.	Lawrence, Kans.		Cumberland, Md.	Mexico City
WORD 1490 Chicago, Ill.	WRHM 1250 Minneap., Minn.		WTFI 1450 Toccoa, Ga.	8WMC 720 St. Johns, N. F.
WOS 638	II WRJN 1370		WTIC 1060	10BP 1200
Jeff's'n City, Mo.	Racine, Wis.		Hartford, Conn.	Wingham, Ont.
	WRNY 1010 New York City		WTMJ 620 Milwaukee, Wis.	
-	—— New Fork City		winwaukee, wis.	-∥
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Principal Broadcasting Stations of the World

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19 55	RYK	7000	Kovno	Germany Lithuania				550	
60	PH9	6200	Huizen	Netherlands	[-				
62	TNU		Carthage	Tunisia	_				
66		40000	Lahti	Finland	553	SBD	600	Sundsvall	Sweden
67		1000	Norddeisch	Germany	563		4000	Munich	Germany
74		13500	Paris	France	571	RA30	1000	Dneipropetrovsk	Russia
76	RA43	4000	Kharkov	Russia	571	YLZ	10000	Riga	Latvia
187		5000	Angora	Turkey	580	RA38	1000	Krasnodar	Russia
193	5XX	25000	Daventry	Un. Kingdom	580	7ZL	600	Hobart	Australia
202.5		12000	Warsaw	Poland	581	11	15000	Vienna	Austria
207	RA1	40000	Moscow	Russia	590	ON4RB	3600	Brussels	Belgium
207.5	FL	15000	Paris	France	599	IMI	7000	Milan	Italy
222	SBG	30000	Motala	Sweden					
231	AFT	10000	Berlin	Germany				600	
240	TUA	500	Tunis	Tunisia					
250	• • • • • • • •	100	Tallinn	Estonia				1	i
250	CDE.	6000	Osmanie	Turkey	600	CWOW		Montevideo	11
250	SBE	600 7500	Boden	Sweden Denmark	606	CWOW	500	Nanking	Uruguay China
260 269	RA33	4000	Kalundborg Novorossisk	Russia	608	XGZ LKO	60000	Oslo	Norway
272	RA57	500	Irkutsk	Russia	616	OKP	5000	Prague	Czecho-
278		1200	Malchik	Russia	010	OKI	3000	riague	slovakia
278 279	RA67 PCF	1500	Scheveningen	Netherlands	620	3AR	1000	Melbourne	Australia
280	PFBI	7000		Netherlands	625	COTN	500	Tientsin	China
285	RA15	500	Sverdlovak	Russia	625	CMAB	1000	Santiago	Chile
285	RA49	1200	Erivan	Russia	625	RA17	1500	Vladivostok	Russia
300	RA42	10000	Leningrad	Russia	626	5GB	25000	Daventry	Un. Kingdo
307	RA40	1200	Odessa	Russia	631	RA43	4000	Kharkov	Russia
316	RA12	1200	Voronezh	Russia	633	EAJ8	1000	San Sebastian	Spain
325	RA39	1200	Gomel	Russia	635		8000	Langenburg	Germany
333	RA22	1200	Samara	Russia	644	YN	3000	Lyon	France
343	RA41	1200	Vologda	Russia	648	4YA	500	Dunedin	New Zealar
345	RA11	4000	Tiflis	Russia	653		630	Zurich	Switzerland
349	RA18	1200	Minsk	Russia	662	IBZ	200	Bolzano	Italy
357	RA13	1800	Nizhni-Novgorod		662		500	Klagenfurt	Austria
366	RA14	4000	Rostov-on-Don	Russia	662	SCT	150	Uppsala	Sweden
375	RA7	180	Ivanovo Vos-		662	LKP	700	Porsbrund	Norway
	D.10	950	nesensk	Russia	662	F 4 100	700	Aix la Chapelle	Germany
375	RA9	250	Sevastopol	Russia	662 664	EAJ22 RUS	500	Salamanca Salvador	Spain Salvador
375	DAFE	1750 1200	Colombo	Ceylon	665	2FC	2500	Sydney	Australia
380 389	RA56 SBF	600	Artemovsk Ostersund	Russia Sweden	666	ZTJ	15000	Johannesburg	South Africa
193	RA46	2000	Petrozovodsk	Russia	667	RA4	300	Moscow	Russia
195	KA40	250	Geneva	Switzerland	667	RA2	500	Moscow	Russia
197	RA5	1200	Kiev	Russia	671	FPTT	1000	Paris	France
100	RAS	700	Bogorodsk	Russia	671	LKR		Rjukan	Norway
100	RA45	4000	Baku	Russia	671	LKA	350	Aalesund	Norway
111	RA77	1200	Stalino	Russia	674	СОНВ	1000	Harbin	China
117	RA47	200	Armavir	Russia	680	IRO	3000	Rome	Italy
20	RA27	2000	Tashkent	Russia	685	LT2	1000	LaPlata	Argentina
29	RA26	1000	Astrakhan	Russia	688	SBA	1000	Stockholm	Sweden
135	RA44	1200	Tver	Russia	689	PTB	500	Danzig	Danzig
142		600	Lausanne	Switzerland	689	CAB	1000	Canton	China
62	RA16	1200	Vel Ustjuk	Russia	689	SCN	250	Malmberget	Sweden
69	RA25	1000	Orenburg	Russia	690	6WF	1000	Perth	Australia
.00	*******	2000			695		2500	Belgrade	Yugoslavia
					698	JODK	1000	Keijo	Japan
			500					700	
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					700	CWOA	1000	Montevideo	Uruguay
21	RA34	1000	Kourak	Russia	706	LS1	5000	Buenos Aires	Argentina
		3000		Kussia Yugoslavia	706 706	LOI	2000	Sorocaba	Brazil
22	1 7 11		Lljubljana		706 706	LI IN	550		Colombia
26	LKH	700	Hamar	Norway		HJN	1500	Bogota Madrid	Spain
27		1500	Freiburg	Germany	707.6 708	EAJ7	3000	Madrid Kanazawa	
35	• • • • • • • •	700	Augsburg	Germany		JOJK		Kanazawa Saratov	Japan Russia
35	D.400	750	Hanover	Germany	714	RA32	200 2000		Kussia China
45	RA20	1200	Stavropol	Russia	714	COMK		Mukden	China Chosen
45	• • • • • • • •	20000	Budapest	Hungary	714	JODK	1000	Heijo (Seoul)	
545		12000	Bucharest	Rumania					(Korea)

_					-	a 11	177	CO.	Ø
Kcys	. Call	Watts	City	Country		. Call	Watts	City	Country
717		4000	Berlin	Germany	923	4RK	4000	Breslau	Germany
718	2YA	5000	Wellington .	New Zealand	930	4RK	2000	Rockhampton	Australia
724		2500	Rabat	Morocco	931	SBB	10000	Goteborg	Sweden
725		750	Dresden	Germany	937	PRAB COPK	500	Rio de Janerio	Brazil
730	5CL	2500	Adelaide	Australia	937	COPK	1000	Peking	China
734		10000	Katowice	Poland	940	2RN	1500	Dublin	Irish Free St.
735		2200	Tartu	Estonia	941	Citra i i i i	250	Basle	Switzerland
743	22-2	1000	Berne	Switzerland	942	CT1AA	1000	Lisbon	Portugal
750	LR7	1250	Buenos Aires	Argentina	949	LR3	1000	Buenos Aires	Argentina
750	PRAA	1000	Rio de Janerio	Brazil	950	2GB	600 500	Sydney	Australia France
750		250	Marsan	France	950	• • • • • • • •	700	Marseilles Bremen	Germany
750	7LO	2000	Nairobi	Kenya	950	K4	250	Tucuman	
750	JOBK	10000	Osaka	Japan	956	K4			Argentina Poland
750	EAJ2	750	Madrid	Spain	959	5DN	1500	Krakow	Australia
752	5SC	1000	Glasgow	Un. Kingdom	960		100 480	Adelaide	France
759	JQAK	5000	Dairen	Kwangtung	963.1	F2BD	2000	Agen Paris	France
760	LT4	500	Mendoza	Argentina	967.8 967	PRAP	300	Pernambuco	Brazil
760	4QG .	2500	Brisbane	Australia		5WA	1000	Cardiff	Un. Kingdom
769	JOHK	10000	Sendai	Japan	968 973	3 W A	700	Zagreb	Yugoslavia
769	• • • • • • • •	1500 500	Franfort on Main Rheims	France	980	3YA	500	Christchurch	New Zealand
777.2		500 500	Wilna	Poland	983.6	PIAA	500	Lisbon	Portugal
779	LKF	700	Fredrikstad	Norway	986	IIAA	1500	Bordeaux	France
779	LVL	8000	Toulouse	France	990	LR4	2000	Buenos Aires	Argentina
779 788	IGE	1200	Genoa	Italy	995	2BD	1000	Aberdeen	Un. Kingdom
789	ZTD	1000	Durban	South Africa	223	LDD	1000	Aber deen	Om Kimbaam
789	JOGK	10000	Kumamoto	Japan			1	.000	
789	LR1	500	Buenos Aires	Argentina					
789	PRAJ	200	Juiz de Fora	Brazil				1	
789	OAX	1500	Lima	Peru	1000	D 4 21	150	Tomsk	Russia
789	cwos	500	Montevideo	Uruguay	1000	RA21	1000	LaPaz	Bolivia
797	2ZY	1000	Manchester	Un. Kingdom	1004	OPX PFB1	7000	Hilversum	Netherlands
131	221	1000		Om zemgaom	1004	SCC	500	Falun	Sweden
			800		1004	SCC	200	Jyvaskyla	Finland
					1010	6ML	300	Perth	Australia
					1013	OWIL	10000	Tallinn	Estonia
800	77.0	1000	Cone Town	South Africa	1015	CMAO	250	Santiago	Chile
800	ZTC	2500	Cape Town Melbourne	Australia	1022	CMAO	500	Limoges	France
804	3LO CMAC	1000	Santiago	Chile	1022	OKK	2500	Kosice	Czecho-
806	CMAC	4000	Hamburg	Germany	1023	UKK	2300	Kosice	slovakia
810	JOCK	10000	Nagoya	Japan	1025	2UE	50	Sydney	Australia
810	VUC	3000	Calcutta	India	1029.9		500	Lyon	France
815	100	3000	Seville	Snain	1030		750	Vipuri	Finland
824		2400	Algiers	Spain Algeria	1030	LR9	2000	Buenos Aires	Argentina
824	LKB	1000	Bergen	Norway	1031	ITO	7000	Turin	Ital y
825	F8GC	1500	Paris	France	1034	CMAJ	100	Valparaiso	Chike
825.3	8DB	100	Algiers	Algeria	1040	6BM	1000	Bournemouth	Un. Kingdom Un. Kingdom
828	LR5	2000	Buenos Aires	Argentina	1040	6LV	130	Liverpool	Un. Kingdom
831	JOIK	10000	Sapporo	Japan	1040	2DE	130	Dundee	IIn Kingdom
833		4000		Germany	1040	2EH	350	Edinburgh	Un. Kingdom Un. Kingdom Un. Kingdom
833	PRAE	1000	Stuttgart Sao Paulo	Brazil	1040	6KH	130	Hull	Un. Kingdom
840	G5	250	Venado Tuerto	Argentina	1040	5PY	130*	Plymouth ,	Un. Kingdom
840	VUB	3000	Bombay	India	1040	2LS	130	Leeds & Bradford	Un. Kingdom
842	2LO	30000	London	Un. Kingdom	1040	6FL	130	Sheffield	Un. Kingdom
849	JOFK	10000	Hiroshima	Japan	1040	6ST	130	Stoke on Trent	Un. Kingdom
851		7000	Graz	Austria	1040	5SX	130	Swansea	Un. Kingdom Un. Kingdom Un. Kingdom
855	2BL	2500		Australia	1049	2ZF	150	Palmerston	New Zealand
857	ZBW	1500	Victoria Peak	Hong Kong	1049	,	200	Montpellier	France
857	PRAD	500	Rio de Janerio	Brazil	1050	D5		Bahia Blanca	Argentina
857	CWOR	500	Montevideo	Uruguay	1058		500	Innsbruck	Austria
860	EAJ1		Barcelona	Spain	1059		2000	Berlin	Germany
869		7500						Magdeburg	Germany
869			Cairo	Egypt	1059				
870	JOAK	10000	Cairo Tokvo	Japan	1059		750	Stettin	Germany
	JOAK LR2	10000	Cairo Tokyo Buenos Aires	Japan Argentina	1059 1059	SCU	300	Varberg	Sweden
877	JOAK	10000	Cairo Tokvo	Japan Argentina Czecho-	1059 1059 1067	ścu	300 1000	Varberg Copenhagen	Sweden Denmark
	JOAK LR2 OKB	10000 3000 2500	Cairo Tokyo Buenos Aires Brunn	Japan Argentina Czecho- slovakia	1059 1059 1067 1070	SCU EAR5	300 1000 500	Varberg Copenhagen Las Palmas	Sweden Denmark Canary Isl'ds
882	JOAK LR2 OKB	10000 3000 2500	Cairo Tokyo Buenos Aires Brunn Azul	Japan Argentina Czecho- slovakia Argentina	1059 1059 1067 1070 1071	SCU EAR5 PRAR	300 1000 500 500	Varberg Copenhagen Las Palmas Sao Paulo	Sweden Denmark Canary Isl'ds Brazil
882 887	JOAK LR2 OKB E4 KRC	10000 3000 2500 350 250	Cairo Tokyo Buenos Aires Brunn Azul Shanghai	Japan Argentina Czecho- slovakia Argentina China	1059 1059 1067 1070 1071	SCU EAR5 PRAR CRC	300 1000 500 500 500	Varberg Copenhagen Las Palmas Sao Paulo Tientsin	Sweden Denmark Canary Isl'ds Brazil China
882 887 887	JOAK LR2 OKB E4 KRC ON4GT	10000 3000 2500 350 250 100	Cairo Tokyo Buenos Aires Brunn Azul Shanghai Brussels	Japan Argentina Czecho- slovakia Argentina China Belgium	1059 1059 1067 1070 1071	SCU EAR5 PRAR	300 1000 500 500	Varberg Copenhagen Las Palmas Sao Paulo	Sweden Denmark Canary Isl'ds Brazil China Czecho-
882 887 887 895	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250	Cairo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow	Japan Argentina Czecho- slovakia Argentina China Belgium China	1059 1059 1067 1070 1071 1071 1075	EAR5 PRAR CRC OKR	300 1000 500 500 500 12500	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia
882 887 887	JOAK LR2 OKB E4 KRC ON4GT	10000 3000 2500 350 250 100	Cairo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow	Japan Argentina Czecho- slovakia Argentina China Belgium	1059 1059 1067 1070 1071 1071 1075	SCU EAR5 PRAR CRC	300 1000 500 500 500 12500	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina
882 887 887 895	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow Poznan	Japan Argentina Czecho- slovakia Argentina China Belgium China	1059 1059 1067 1070 1071 1071 1075 1076 1080	EAR5 PRAR CRC OKR	300 1000 500 500 500 12500 1000 200	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France
882 887 887 895	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow	Japan Argentina Czecho- slovakia Argentina China Belgium China	1059 1059 1067 1070 1071 1071 1075 1076 1080 1086	EAR5 PRAR CRC OKR	300 1000 500 500 500 12500 1000 200 4000	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen Konigsberg	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France Germany
882 887 887 895	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow Poznan	Japan Argentina Czecho- slovakia Argentina China Belgium China	1059 1059 1067 1070 1071 1071 1075 1076 1080 1086 1090	SCU EAR5 PRAR CRC OKR LS5	300 1000 500 500 500 12500 1000 200 4000 1500	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen Konigsberg Rosario	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France Germany Argentina
882 887 887 895 896	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow Poznan	Japan Argentina Czecho- slovakia Argentina China Belgium China Poland	1059 1059 1067 1070 1071 1071 1075 1076 1080 1086	EAR5 PRAR CRC OKR	300 1000 500 500 500 12500 1000 200 4000 1500	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen Konigsberg	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France Germany
882 887 887 895 896	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow Poznan O Auckland	Japan Argentina Czecho- slovakia Argentina China Belgium China	1059 1059 1067 1070 1071 1071 1075 1076 1080 1086 1090	SCU EAR5 PRAR CRC OKR LS5	300 1000 500 500 500 12500 1000 200 4000 1500 250	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen Konigsberg Rosario Angers	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France Germany Argentina
882 887 887 895 896	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow Poznan 900 Auckland Taihoku	Japan Argentina Czecho- slovakia Argentina China Belgium China Poland	1059 1059 1067 1070 1071 1071 1075 1076 1080 1086 1090	SCU EAR5 PRAR CRC OKR LS5	300 1000 500 500 500 12500 1000 200 4000 1500 250	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen Konigsberg Rosario	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France Germany Argentina
882 887 887 895 896	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Tokyo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow Poznan 900 Auckland Taihoku Naples	Japan Argentina Czecho- słovakia Argentina China Belgium China Poland New Zealand Japan	1059 1059 1067 1070 1071 1071 1075 1076 1080 1086 1090	SCU EAR5 PRAR CRC OKR LS5	300 1000 500 500 500 12500 1000 200 4000 1500 250	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen Konigsberg Rosario Angers	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France Germany Argentina
882 887 887 895 896	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow Poznan 900 Auckland Taihoku Naples Paris	Japan Argentina Czecho- slovakia Argentina China Belgium China Poland New Zealand Japan Italy	1059 1069 1067 1070 1071 1071 1075 1076 1080 1090 1091	SCU EAR5 PRAR CRC OKR LS5	300 1000 500 500 12500 1000 200 4000 1500 250	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen Konigsberg Rosario Angers	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France Germany Argentina France
882 887 895 896 900 905.2 905.2 909.2	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow Poznan 900 Auckland Taihoku Naples Paris Buenos Aires	Japan Argentina Czecho- slovakia Argentina China Belgium China Poland New Zealand Japan Italy France	1059 1059 1067 1070 1071 1071 1075 1076 1080 1086 1090	EAR5 PRAR CRC OKR LS5	300 1000 500 500 12500 12500 1000 200 4000 1500 250	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen Konigsberg Rosario Angers 100	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France Germany Argentina France
882 887 887 895 896	JOAK LR2 OKB E4 KRC ON4GT XGY	10000 3000 2500 350 250 100 250 1500	Cairo Tokyo Buenos Aires Brunn Azul Shanghai Brussels Hangchow Poznan 900 Auckland Taihoku Naples Paris Buenos Aires Cairo	Japan Argentina Czecho- slovakia Argentina China Belgium China Poland New Zealand Japan Italy	1059 1059 1067 1070 1071 1071 1075 1076 1080 1086 1090	EAR5 PRAR CRC OKR LS5	300 1000 500 500 12500 1000 200 4000 1500 250	Varberg Copenhagen Las Palmas Sao Paulo Tientsin Bratislava Buenos Aires Caen Konigsberg Rosario Angers	Sweden Denmark Canary Isl'ds Brazil China Czecho- slovakia Argentina France Germany Argentina France

Kcys. Call	Watts		Country	Kcys.	Call	Watts	City	Country
1110 SCO	250	Norrkoping	Sweden				1400	
1112 LS4 1121 EAJ13	1000 10000	Buenos Aires Barcelona	Argentina Spain					
1125 2UW	100	Sydney	Australia	1410	D4	100	Mar del Plata	Argentina
1129 SCQ 1130	250 500	Trollhattan Lille	Sweden	1428	LS6	1000	Buenos Aires	Argentina
1147 2ZM	160	Gisborne	France New Zealand	1470	SCD	200	Gavle	Sweden
1148 5NO	1000	Newcastle	Un. Kingdom	1471 1481	SCM	1500 250	Ludwigshaven Kristinehamn	Germany Sweden
1149 LR8 1150 2LO	1500 30000	Buenos Aires London	Argentina Un. Kingdom		SCH	250	Jonkoping	Sweden
1153 PRAC	500	Rio de Janerio	Brazil			1	1500	
1155 2MK 1157	50 3000	Bathurst	Australia					
1167 SBH	10000	Gleiwitz Horby	Germany Sweden					
1169 CWON	200	Montevideo	Uruguay		2LS SCJ	130 250	Leeds & Bradfor Karlskrona	d Un. Kingdom
1175 MRD 1180 3DB	1500 100	Toulouse Melbourne	France Australia	1560	G2SH	230	Akureyri	Sweden Iceland
1184	4000	Leipzig	Germany	1635	AFT	10000	Berlin	Germany
1188 1ZQ		Auckland	New Zealand		RA51 RA72	350 800	Leningrad Smolensk	Russia Russia
1190 LS2 1193 EAJ18	1000 200	Buenos Aires Almeria	Argentina Spain	0140	KA12	500	Surabaya	Netherland
1199 3ZC	250	Christchurch	New Zealand	•				East Indies
1199.5	5000	Bordeaux	France		• • • • • • • •	1500 2000	Manaos Soro	Brazil Denmark
1199 PRAG	500	Porto Alegre	Brazil			2500	Haiphong	French Indo
		1200			LIAVE			China
		1200		3529.4 3750	H9 X D F8 A V		Zurich Nogent-sur-Sein	Switzerland e France
					PK1AA	500	Batabia	Netherland
				4262.3	FRCC	1500	Paris	East Indies
1200	500	Toulon	France	4434			Doberitz	France Germany
1200 5KA 1211 SCI	200 200	Adelaide Kalmas	Australia Sweden	5169	OK1MPI	5000	Prague	Czecho-
1219	250	Juan les Pins	France	5170	IBR	1000	Bandoeng	slovakia Netherland
1219 ON4RW	200	Liege	Belgium			1000	Danqueng	East Indies
1219 ON4RG 1219	400 750	Ghent Kassel	Belgium Germany		AGJ	:::::	Nauen	Germany
1219		Abo	Finland	5552 5879	AFT AIN	10000	Berlin Casablanca	Germany Morocco
1219	1500	Bjorenborg (Por	ri)Finland	5996	PK2AF	500	Djokjakarta	Netherland
1219 1219 SCL	750 200	Jakobstad Kiruna	Finland Sweden	Food	077			East Indies
1220 SCB	200	Eskilstuna	Sweden		3ZC HRB	250 2300	Christchurch Tegucigalpa	New Zealand Honduras
1220 SCP 1220	400	Saffle	Sweden	6057		500	Lyngby	Denmark
1224 CMAQ	500 100	Linz Santiago	Austria Chile	6662	РНЗСН	250	Surabaya	Netherland
1229	1000	Trondhjem	Norway	6666.7I	RAX		Rome	East Indies Italy
1238 2BE 1245 2NC	1000 2000	Belfast Newcastle	Un. Kingdom Australia	6877		2500	Rabat	Morocco
1254	1000	Nuremburg	Germany		8KR VS3AB		Constantine Johore	Tunisia Brit. Malaya
1256	500	Nimes	France	7260	VS1AB		Singapore	Brit. Malaya
1260.4 1265 SCV	5000 200	Bordeaux Orebro	France Sweden	7313	PK6KZ	500	Makassar	Netherland
1270 LS3	1000	Buenos Aires	Argentina	7317.1		2000	Paris	East Indies France
1287 G4 1292	560 700	Rafaela Kiel	Argentina	7462.7	YR	500	Lyon	France
1292	700	Viei	Germany		JFAB	••••	Taipeh	Japan
		300			JHBB		Doberitz Hirasio	Germany Japan
		1300		8818			Para	Brazil
				8995 9225	2BL	500 1000	Reykjavik Sydney	Iceland Australia
				9369	ZTJ	15000	Johannesburg	South Africa
1301 SCB	600	Malmo	Sweden	9369	3LO	1000	Melbourne	Australia
1301 SCG 1301 SCS	200 200	Helsingborg Umea	Sweden Sweden	9375 9375	H9XD	1000	Berne Zurich	Switzerland Switzerland
1304		Schaerbeck	Germany	9375	FL	15000	Paris	France
1309 SCA	150	Boras	Sweden	9488		500	Lyngby	Denmark
1313 1319	250 1500	Biarritz Muenster	France Germany		7LO F2BD	1000 480	Nairobi Agen	Kenya France
1319	4000	Cologne	Germany	9772	EAM		Madrid	Spain
1330 PRAO	1000	Sao Paulo	Brazil	9994 1	LGN		Bergen	Norway
1330 J2 1337 6CK	400 1000	Concordia Cork	Argentina Irish Free St.	10520 2 10520 2		1000	Sydney Sydney	Australia Australia
1344 LOAA	10000	Luxemburg	Luxemburg	11760	SAS		Karlsborg	Sweden
1351 LS7	1000	Buenos Aires	Argentina	12490 3			Bahia	Brazil
1357 1363.6	10000 250	Helsingfors St. Etienne	Finland France	15300 . 17430 .	AGC	500	Lyngby Nauen	Denmark Germany
1364.3	1500	Beziers	France	17640 1			Malabar	Netherland
1373 SCW	200	Ormskoeldsvik	Sweden					East Indies
1373 1375 SCK	1500 250	Flensburg Karlstad	Germany Sweden	17778 l 19355 .	rHI	40000	Huizen Nancy	Netherlands France
1388 ON4CE	200	Chatelineau	Belgium	59964 I	PK4PA	240	Palembang	Netherland
1390 SCE	200	Halmstad	Sweden				-	East Indies

FAVORITE PROGRAMS

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		Statio	n 1	Dials	Feature	Tin	ne Sta		Dial		Feature		
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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 American

INDEX BY FREQUENCIES AND DIAL NUMBERS

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

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

3rd by States and Cities.
The Index by Frequencies is the one to be used, the other two are merely

supplementary.

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

Tune in some station nay 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 Federal the l Radio We also Commission. find that it has a power of 50,000 watts, that it is located in New York City

and is owned by the
National Broadcasting Co., Inc.
In the blanks for dial numbers opposite 660 kilocycles (which is the wave length of 454.3 meters)
enter the dial readings of your set. It is immaterial
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
as 69-67.

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 like 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 air and within range of our set we will tune in WSM of Nashville at this point. We then enter the dial readings for WSM opposite 650 kcys. Now it is

clear that if we reset our dials at 71-69 our set will be tuned to 640 keys, 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

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

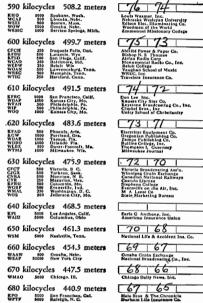
Our index now becomes of great value to us in identifying programs. Let us say that we hear music at 67-65 on our dials. We refer to our Index Dial Frequencies andNumbers and we find that we are in tune to 680 kilocycles. On this wave there are two stations:
KPO at San Francisco
and WPTF at Raleigh,
N. C. Both of these 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 should not interfere. When two stations in the same locality have the same frequency, they are required to divide the

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 particular moment we hear it, but we do know it is one or the other of them.

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

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

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



I Will Train You at Home





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