

THE DECEMBER 1929

# RADIO INDEX

The Radio Fan's Own Magazine



That Schoolgirl's Complexion

To \_\_\_\_\_

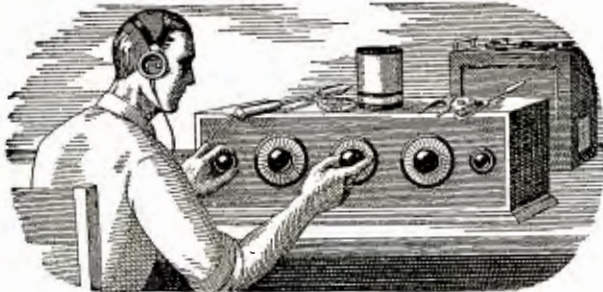
A Very Merry Christmas  
and A Happy New Year

From \_\_\_\_\_

No. 34

With 67 More Station Changes

N. S. E.



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

# I Thought Radio Was a Plaything

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

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

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

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

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

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

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

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

"You're kidding me," I said.

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

He pointed to a page ad in a magazine I'd seen many times but just passed up. This time I read the ad carefully. It told of many big opportunities for trained men to succeed in the great new Radio field. With the advertisement was a coupon. I sent the coupon in, and in a few days received a handsome 64-page book, telling about the opportunities in the Radio field and how a man can prepare quickly and easily at home to take advantage of these opportunities. Well, it was a revelation to me. I read the book carefully, and when I finished it I made my decision.

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

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

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

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

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

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

Take another tip—No matter what your plans are, no matter how much or how little you know about Radio—clip the coupon below and look their free book over. It is filled with interesting facts, figures, and photos, and the information it will give you is worth a few minutes of anybody's time. You will place yourself under no obligation—the book is free, and is gladly sent to anyone who wants to know about Radio. Just address J. E. Smith, President, National Radio Institute, Dept. 9Z91, Washington, D. C.

J. E. SMITH, President,  
National Radio Institute, Dept. 9Z91,  
Washington, D. C.

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

Name.....

Address.....

Town.....

State.....

Please mention RADEX

THE DECEMBER 1929



# RADIO INDEX



REG. U. S. PATENT OFFICE

FRED CLAYTON BUTLER  
Editor and Publisher

SIXTH YEAR

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# Troubles of B-Eliminators

## Simple Remedies for Their Cure

By E. R. HAAN

(Continued from November issue)

IT has been found that motorboating can often be remedied by shunting resistors and condensers across the output terminals of the eliminator. In some cases it will be found helpful to shunt a glow lamp, such as a UX874 or CX374 across the B-negative and the B-90 or intermediate terminals, which supply the radio-frequency tubes. This controls the voltage applied to the radio-frequency tubes and permits them to operate uniformly at all times. Proper control and adjustment of their plate voltage, and that of the detector, is necessary, as excessive plate voltage on these tubes may cause motorboating. The voltages applied by the eliminator should therefore be checked up occasionally, and it is advisable for the fan to provide himself with a high-resistance voltmeter of the type specially used for this purpose, as an ordinary voltmeter will not give correct output readings of eliminator voltages. With the aid of a high-resistance voltmeter, however, the fan can readily adjust the output voltages of his eliminator correctly according to the exact requirements of the various tubes.

An effective remedy for motorboating consists in connecting a radio-frequency choke coil in series with the detector plate and the first resistor in case of a resistance-coupled receiver, and between the detector plate and the P-terminal of the transformer in case of a transformer-coupled receiver. Substituting a 1 or 2-megohm resistor for the usual .1-megohm resistor in the plate circuit of the detector, in case of a resistance coupled receiver, will also help materially to reduce the trouble.

If a UX112 or CX112 power tube is used in the last stage of audio, the resistor in its grid circuit should be of .25-meg. value. In resistance-coupled receivers not having a three-stage amplifier-unit of the Daven or similar type, it will be found that the substitution of a well-

designed transformer or impedance unit will usually be quite effective in preventing the trouble. When making this change, however, care must be taken to wire the transformer or impedance unit up correctly, according to the markings on the terminals.

If the remedies just mentioned are not entirely effective, connect a 30 to 100-microhenry choke coil, which is the size used for radio-frequency purposes, and also a 4 to 8-mfd. condenser across the B-negative and the maximum B-positive terminals of the eliminator.

In case of a super-heterodyne or other large receiver, it will be found advantageous to make use of a separate B-battery to supply detector-plate voltage. Of course, this plan partly defeats the purpose of B-eliminators, but it may nevertheless be the best remedy for motorboating. It must be taken into consideration that one remedy may work better than another, depending on the type of receiver, and the best cure for motorboating in any particular set can best be found by trying out the various methods outlined in this section, one by one, until the trouble disappears.

If no improvement is noticed after trying all the methods already mentioned, then the trouble may be found in the receiver itself, which should be gone over thoroughly. Incorrect grid bias, or voltage on the grids of the various tubes, is a condition in the receiver that is especially conducive to motorboating. Be sure to have the correct C-negative voltage on the grid of the power tube. This voltage is given on the sheet of instructions accompanying the tube when it is purchased, or is printed on the carton in which the tube is sold. In general, it must be borne in mind that radio-frequency and audio-frequency tubes should have a negative bias, while the detector usually has a positive bias. It is a good idea to connect a variable resistor, such

(Continued on page 10)

# Like Mother Used to Make

By CAI CLEMENT

THE turning point in Billy Grant's young life came with the breaking of his best front tooth on a pebble that reposed in a piece of raisen pie he had got at Nonine's Inn. It came to Billy suddenly that for years and years he had been tired of cafes, hotels, hot dogs, chop suey and weak coffee and now, as he gazed at the broken tooth how he yearned for a dear, little home-cooking wife—one who would make a Paradise on earth for him. A Paradise filled with pies, doughnuts, biscuits, roasts and mashed potatoes like mother used to make.

But alas, when Billy checked over the list of girl friends he discovered that the paragon he was looking for was greatly in the minority.

Peg Arnold had too much money and she admitted that she did not know how to boil water. And she was proud of it.

Kitty Blake danced, swam, golfed, climbed peaks and wrote poetry. But she was dumb. She believed in Santa Claus.

Flo Caton had taken up the Secret of Soul Breath with the Great Mahutma and was living on peanuts, prunes and water-cress. No good.

All the rest were crazy about Calories and Vitamines. Raving about pineapple juice, lamb chops, raw tomatoes and Lost Pounds. Billy fancied the slim model, but he shied at meals that an angle worm would have starved on.

Running down the list in the little red book Billy came to the name "Eddie

Williams." There the finger rested.

Eddie was a shy, faun-like creature, a hang-over from the days of the bustle and eighteen-inch waists. Her hair was long, her feet flat and her form inadequate. But she could cook.

Billy had not called on Eddie for six months, but he would do so this very night, propose and they could be married next week.

Alas! When Billy arrived at the Williams', Eddie's mother was having hysterics. She sobbed on Billy's neck that she had just received a wire from Eddie saying that she had eloped with Miska, the Russian dancer, that she had shingled her hair and bought a make-up box.

This bitter blow gave Billy the headache, so next morning he telephoned the office he would not be down.

After breakfast and the "Scribbler," being lone-

some, Billy turned to the radio for solace.

He dialed here and there for a while, listened to a jazz band, a talk on how to reduce and how to get rid of ants. Then he found station H.O.N. A caressing, girlish voice was on the air. Billy drew closer to the cabinet.

"Take the yok of three eggs, a heaping cupful of sugar, a cup of butter and of cream."

Billy's mouth watered.

"Pour this mixture into a baked shell, cover with meringue and brown. Dear listeners, this is my own, tested recipe." The voice was gone.

Billy was thrilled. He had to meet



Meet the end-men of the Dutch Masters Minstrels, Al Bernard and Paul Dumont (left and right respectively). Tuesdays at 9:30 p.m. over the WJZ chain.

that voice. He prayed that there was no husband in the way.

Feverishly he scanned the radio news. There it was. "Cooking classes conducted by Cordelia Crane." Nothing should daunt him. Next Thursday at this hour.

Billy conveniently had the toothache on the Great Day and two o'clock found him in the Scribbler's lecture room, wedged between two fat women and being pounded on the back with a chicken bone in the hands of a friendly baby.

Suddenly Cordelia appeared. Small, pretty and blonde.

Billy heard nothing. He only saw—Cordelia. She smiled, Billy smiled. Cordelia succumbed in a month.

They bought a bungalow, an electric dish-washer, a self-starting vacuum cleaner and a heat control kitchen range.

Honolulu, honeymoon, Aloah, home.

They landed Saturday afternoon, too late to arrange for meals at home over the week-end. The Beverly Hills was nice.

Billy let Cordelia sleep late Monday morning. He crept from the bungalow on all fours and breakfasted at the cafeteria. He telephoned to Cordelia five times during the day about the first dinner at home. Cordelia was busy making "Otsa good fings for nice, big man."

When Billy arrived at six p.m. Cordelia met him at the door with the fervor befitting a bride. She *did* know how to kiss.

Billy sniffed, smelled nothing.

"Dinner is on the table, darling."

When Billy sat down he stared at what should have been the steaming roast. He said "dam" and looked at Cordelia. She shriveled to pint size and burst into sobs. Billy took another look at the cold boiled ham, potato salad and cream puffs.

Hysteric. Billy was cruel, selfish, a brute. Cordelia had tried, oh, so hard. Sob, sob.

I'll—I'll—have—to—have—time—to learn," quavered Cordelia.

"Learn *what*?" Billy asked with some curiosity.

Then the ghastly secret. She had only

read recipes over the radio. She didn't know a rutabaga from a radish. She had *meant* to have roast beef but the meat was so red it frightened her. She was so fond of the little cows. It would have been like eating one's relatives.

The dream was over. Billy sighed and took a slice of ham.

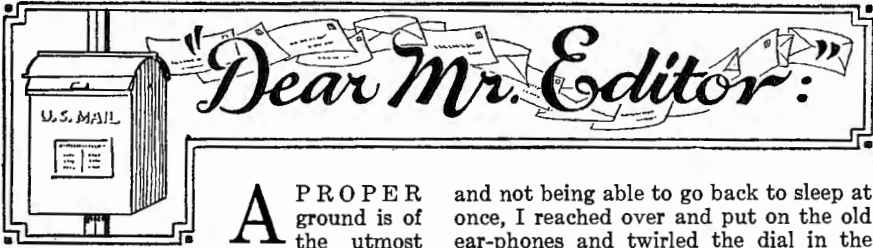
Then Cordelia crept into his arms and cuddled up under his chin. When he felt her warm tears on his throat he forgot the cream puffs. He lifted Cordelia's lips to his own. She *did* know how to kiss.

## Station Changes

In order to lessen interference, the Radio Commission has made a number of changes this month, principally in Florida, California and the Chicago district. A number of shifts in the Florida district were also made in November which were to take effect on November 15th. Some of the stations changed at that time are again changed this month. It is probable that similar shifts will take place from time to time in order to remedy defects that are showing up in the reallocation of November 11th, 1928.

Among the major changes this month we are calling the attention of our readers to the following at the request of several who, like James S. Massey, of Philadelphia, find that the changes fool him and make him think his set is not performing properly.

CJSC, Toronto from 580 to 690.  
WSUI, Iowa City, from 580 to 600.  
WQAG, Kansas City, from 610 to 1300.  
WDAE, Tampa, from 620 to 1240.  
WDBO, Orlando, from 620 to 1120.  
KFVD, Culver City, from 710 to 1000.  
KFEL and KFXF, Denver, from 940 to 630.  
KPSN, Pasadena, from 950 to 1360.  
WCFL, Chicago, from 970 to 1280.  
KPLA, Los Angeles, from 1000 to 1430.  
KEJK, Los Angeles, from 1170 to 710.  
WMT, Waterloo, from 1200 to 600.  
WFLA, Clearwater, from 1240 to 620.  
WSUN, St. Peterburg, from 1240 to 620.  
WJAX, Jacksonville, from 1260 to 900.  
WDAY, Fargo, from 1280 to 940.  
WEBG, Duluth-Superior, from 1280 to 1290.  
WIBW, Topeka, from 1300 to 580.  
WEHS, Evanston, from 1310 to 1500.  
WHFC, Cicero, from 1301 to 1500.  
WKBI, Chicago, from 1310 to 1500.  
KGB, San Diego, from 1360 to 1330.  
KGER, Long Beach, from 1370 to 1380  
WTOG, Savannah, from 1410 to 1250.  
KGfJ, Los Angeles, from 1420 to 1200.  
KXRO, Aberdeen, from 1420 to 1310.



A PROPER ground is of the utmost importance to clear and distant reception. The best possible ground is the cold water pipe, preferably at the point it enters the earth. Where such a ground is not available a substitute must be found. One of our readers has tried an interesting experiment which has proven most successful. We will let him tell the story. "I was reading in RADEX of some one who could not get a good ground," writes W. Gould, of Hudson, Mass., "and I would like to tell about a ground that I made.

"I dug a hole in the earth just outside the house and about four feet deep and I put in about one-third of a bushel of charcoal and a few handfuls of rock salt. Then I got a hundred feet of heavy copper wire and placed on top of the charcoal. I soldered on a lead-in wire carrying it to the set. Then I put on the coiled wire two-thirds of a bushel of charcoal and about a peck of salt and covered the whole thing with dirt, tramping it down hard. I have used that ground for over four years and it is the best ground that I ever had. Perhaps it will do someone some good to know about this."

The logic of Mr. Gould's unique idea is that the salt drew the moisture and the charcoal retained it. The coil of wire acted as a metal mass which drew the signals from the earth. The plan is worth trying where a more convenient ground is not available.

#### *Lower-power DX*

In a recent issue we published a letter from a reader who was having a hard time convincing his friends that he had received a 250-watt station, KFEL of Denver. Several readers have rushed to his defense. "This past Sunday morning," writes J. P. Neill, of San Antonio, Texas, "I was awakened by a heavy rain

and not being able to go back to sleep at once, I reached over and put on the old ear-phones and twirled the dial in the dark. Imagine my surprise when the first station I tuned in was KFEL. Reception was clear without any fading." Mr. Neill asks that we advise him the most economical wet-cell-battery set on the market. We receive many letters asking our advise as to the best set to buy. It is quite impossible for us to recommend any particular set. All of the standard, advertised sets are good. It is much as though we were asked what automobile is the best to buy. That, of course, depends upon just what one wants and what one wishes to pay. Naturally, the more one pays the more one gets.

"This spring I received KFEL almost every morning at about 6 a.m." says Ralph R. Turner, of Connersville, Ind. "On January 20th last, at 3:30 a.m. I brought in CKWX, of Vancouver, B. C., who were using 100 watts. This I verified." Mr. Turner also lists a number of other fifty and one hundred-watt stations he has received. He adds "With the help of RADEX I have logged 205 stations from the east to the west coast and from Winnipeg to Mexico City. May we never be without RADEX!"

#### *More Low-Power Reception*

Elmer E. Wilson, York, Penna., also has received KFEL and verified it. "More unusual yet," he writes, "I tuned in CFCY, Charlottetown, Prince Edward Island, whose power is listed at 100 watts. This reception was confirmed."

And A. D. Rice, of Detroit, writes regarding the reception of a fifty-watt station, WCLO, at that time located at Camp Lake, Wis.

Several readers have written to inquire about the reception of two Cuban stations which are not listed in RADEX

(nor in any other publication so far as we can find). One of these stations comes in on 730kcys. and this has been identified by Cyril P. Engelmeier, of Pittsburgh, Pa., as CMK, Havana, broadcasting from the Hotel Plaza. Mr. Engelmeier adds, "Since February 22, 1928, I have logged 321 stations."

"What is the greatest number of stations received by anyone and who is he?" asks L. J. Lipke, of Syracuse, N. Y. We have had peanut-pushing and flag-pole-sitting, and ice-cream-eating contests, but as yet no one has set forth the claim to being the world's champion DX-er. It would be interesting to know, but obviously it is not a claim that can very well be established. Mr. Lipke states that he has received 383 stations in 41 states and five provinces of Canada and two stations in Cuba. His best record is KGER, of Long Beach, California, a hundred-watter.

#### *Ground vs. Aerial*

Mr. Lipke asks, "Why is it that when I interchange the ground and aerial wires, I get twice as much volume as I do when I have them on right? When I have them transposed I get much more distance and hardly any static." We doubt if there is any understandable explanation of such an incident. Of course, it makes no difference whatever whether ground and antenna are attached as the binding-posts read or *vice versa*. The extremely faint antenna signal current merely flows through the set and into the ground, just as water flows through a pipe and obviously it makes no difference which way water flows into a pipe. The set manufacturer probably marks the binding post the way he believes the best results will be obtained, but if the owner finds upon experimenting that contrariwise brings better effects, then the wires may be transposed.

"I have made the wave-trap which was described in the September issue and it works pretty fair," writes Peter J. Moshinski, of St. Clair, Pa. "Also thanks to J. C. Weller, of Elyria, Ohio, for the idea of two condensers on the house-line. I tried it and it cut off a lot of noise."

#### *Friendly Comment*

"Last spring I was fortunate in purchasing, in Gadsden, Alabama, where I was working, the May issue of RADEX. That was my first and only copy of your publication that I have been able to purchase around here since that time." Thus writes H. A. Carpenter, of Jacksonville, Ala. "I am extremely interested in radio and anything that lends itself to improving radio reception is certainly appreciated and I find RADEX so complete in every detail that it is to be most applauded."

"Your little guide is fine—couldn't do without it. It helps a lot in DX. Stations can be identified much easier. The best part of it, it gets better every issue which makes it, as they say on the stage, 'a wow.' Good wishes for its continued success." This letter is from Martin J. Waskiewicz, of Plainfield, N. J.

When Fred L. Hinkley, of Springfield, Mass., renewed his subscription he added this postscript: "Your RADEX is the best index I have seen and I have had five other publications. Your listing and arrangement of stations has helped to identify 280 stations since November 11, 1928. The fact that you seem to keep pretty hot on the trail of changes in channel locations, transmitting power, etc., makes your monthly edition idea most valuable."

"After six years of DXing, I have found your magazine most helpful in identifying the stations," writes Ralph K. Ziegler, of Philadelphia. "I logged KNX, which is 2400 miles away, entirely through the use of RADEX."

And from Bob Glick, Huntington, W. Va., "The night of October 15th, I stayed up to see how many stations I could log. With the help of RADEX I brought in 90 stations. This exceeded by far any number of stations I had ever logged in one night. The RADEX is a great help for DX fans."

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#### **Boys!**

Don't forget that offer in the November RADEX to send you free a fine Rugby Cowhide Football for only two yearly subscriptions to RADEX.



# Catching Criminals Red-Handed

## Radio's New Task

By RALPH L. PETERS

**T**HIS is Station WCK. Attention Cruiser No. 10. Burglars have just broken into a grocery store near the corner of X and Y Streets."

(Three minutes later.) "Attention WCK. This is Cruiser No. 10. We caught one of the burglars. Two others jumped through the glass window and escaped. Have all cruisers look for two young men probably badly cut."

"Attention all cruisers. Pick up two boys probably cut and bleeding. Bring them in. This is Station WCK, Detroit Police Department."

"Attention WCK. This is Cruiser No. 9. Just arrested two fellows whose faces and hands were badly cut. They could not explain and finally admitted being the pair who escaped from burglary." \* \* \*

Protecting millions of America's citizen's from the preying of criminals is radio's new task—a task the importance of which is receiving nation-wide attention.

Radio has become an efficient, time-tested and proved police weapon—an ally whose silence and swiftness have enabled police work to achieve a pace

heretofore believed impossible. Arrests have become a matter of seconds as one police department after another has added radio to its crime-fighting equipment.

Powerful and speedy police automobiles—equipped with receiving sets and loud speakers—are dispatched to the scenes of actual or reported crimes four to six seconds after the reports of those crimes reach police headquarters.

Scattered about the city on roving patrol duty, they are enabled by radio's warning flash to reach the designated spots within 15 to 90 seconds, in most instances, after receiving their orders from the police radio station.

Their swiftness has enabled their crews to trap burglars in scores of residences and stores; to halt hit-run drivers and return them to where they left hapless victims lying in the streets; to capture or kill bandits; to capture racketeers and gunmen in breath-taking time and to arrest slayers and other law-violators before they could flee from the scene of their crimes.

Evil-doers in Detroit, Chicago, Cleveland, Highland Park, Mich., Berkeley, Cal., and other cities where radio has or is being put into use by the police, never know when a radio-equipped police car is going to roar up to the scene and trap them in such a manner that escape of conviction becomes practically impossible so weighty is the evidence.

Roving police automobiles, termed scout cars, cruisers or squad cars, are not new



"A thief has just snatched a woman's purse—"

in police work. They have been in use for several years in most of the country's large cities. Their use was forced as the criminal began using the automobile as a means of getaway. The automobile enabled the police to speed up their work and to better cope with the criminal. But there were still drawbacks.

The crews of the patrol cars had no way of receiving reports of crimes in their territories until one of their number called into the precinct stations at regular intervals for orders. The car might be within a few blocks of a holdup, burglary or other crime but would have no way of knowing of it unless perchance the patrol car happened along at the spot the crime was being committed or shortly after the crook had fled.

Radio has changed all of this. The efficiency of the patrol cars has become a thing uncanny. One or more of the cars is ordered to the scene of the crime within a few seconds after the crime is reported and all the others receive the flash simultaneously.

Crews of all the cars jot down the license numbers of a car fleeing the scene of a crime, the description of the men involved and other pertinent information. If the fleeing criminals come into the territory of the other radio-equipped cars, they will find the police waiting for them. Precinct boundary lines are forgotten when a chase is involved or when a reported crime is near the boundary line of two or more precincts.

While a patrol car is still heading toward the scene of a crime, the police dispatcher or radio operator may broadcast additional information that will enable the police car to change its route and head off the escaping criminals.

It frequently happens that while one of the cruisers or scout cars is at the scene of one crime, another crime will be reported a few blocks away. The crew of the cruiser or scout car is notified at once. A portion of the crew will be left at the scene of the first crime and the rest race off to the new address.

One evening the No. 10 cruiser was flashed a warning that two men were stripping a parked automobile of accessories and tires. Sixty seconds later the thieves were in custody.

Another time Cruiser No. 9 was told a prowler had forced his way into a house. Just fifty seconds later the home-owner was congratulating the police on the speedy capture of the burglar.

Again a thief snatched a woman shopper's purse. She hurriedly called the police. A cruiser arrived on the scene sixty seconds later, placed the woman in the car and sped down the street in the direction taken by the thief. There was an exclamation from the woman. She pointed to a man hurrying along the sidewalk. He was arrested, confessed and the woman's property recovered.

The Detroit Police Department has been the pioneer in the broadcasting of orders to radio-equipped police cars from a radio station devoted entirely to police work. More than 1,300 arrests have been made by the crews of the 35 cruisers and scout cars of the department. Most of these arrests have been made at an average time of slightly more than 60 seconds and the general average for all of them is approximately 90 seconds, the records of Station WCK, the police radio station, show.

The cruisers are seven-passenger touring cars, manned by a crew of four. The scout cars are light but fast touring cars manned by a crew of two. Each precinct has two or more radio-equipped cars assigned to it.

The aerials of the cars are concealed in the tops of the cars. The receiving sets are enclosed in metal cabinets and locked in position, so that the crews can tune them to no other station. The crew has access only to the volume control. The loud speakers enable the crew to catch the orders clearly with their volume toned down.

All of the sets are built in the work-rooms of Station WCK. Quarter-hour tests insure the crew's knowing whether the sets are working. A "trouble shooting" car is ready at an instant's notice to speed to service or replace a set that has gone dead. The sets are turned on constantly while in the cars.

The police dispatcher, seated before the switchboard at Police Headquarters, plugs in on the radio station, located miles across the city, when he receives

*(Continued on page 23)*

# The Puzzle Page

**T**HE answer to the puzzle in the November issue will not be published until January. We find that many readers are not able to get their solutions in by the time it is necessary for us to go to press with the first succeeding number. In future the correct solutions will be published in the second issue.

There were thirty correct solutions to the October puzzle while a large number failed in one or more instances. Answers in the November cross-calls are still being received. One contestant calls to our attention the fact that No. 1 vertical may be either of two stations. We will therefore consider as correct the use of either of these two station calls.

The December puzzle which follows is much simpler than those in October and November. To each one solving this puzzle correctly we will mail an extra copy of the January RADEX which they may use as a gift to a friend.

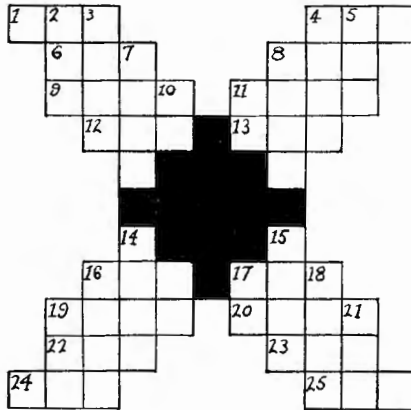
A number of readers have sent in puzzles of their own devising for our use. Most of these were ingenious, but in several cases there were lines which could not be keyed. We are glad to receive original puzzles for each of which we will send one of those beautiful leatherette covers for RADEX. The ideal puzzle will be symmetrical in form and every line will be capable of being keyed, that is practically every letter will be part of two calls, one reading horizontally and one vertically.

The puzzle this month was contributed by Mike Supitilov, of Kenosha, Wis., who writes: "I have been very much interested in your radio magazine

and very much in the cross-calls. So in trying to make your magazine the greatest and best, I designed this puzzle, which I hope will be used. I am but fifteen years old and am a bug on radio. I like to experiment on long and short wave receivers. I find RADEX the most convenient guide for my long-wave reception." Here is the puzzle, the

correct solution of which will appear in February.

Unfortunately one of the stations used in the November puzzle was deleted in that issue. It will be found, however, in previous issues. Several puzzlers relied only on the November edition and hence failed on this station. In working out these puzzles, old copies of RADEX are very valuable.



## HORIZONTAL

1. In central Canada.
4. Located in I-14.
6. Initials of station and owner are the same.
8. Has been on 1160, 1350, 1420 and 1200 keys.
9. At the foot of the Cascades.
11. A hundred-watter in California.
12. In the great North-west.
13. At nearly 100 on most dials.
16. Daytime station on a cleared wave.
17. Formerly WLBV.
19. "The Gateway to Wisconsin."
20. (Reversed) Last three letters of call are first three of city.
22. One of the fifty-thousand watters.
23. Owned by Jay Peters.
24. Home of the barn dance.
25. Its sister station adds the letter A.

## VERTICAL

2. A thousand-watter sharing wave with four two-fifties.
3. (Reversed) On the Columbia chain.
4. On 249.9 meters.
5. Low-power from California.
7. "The Friendly Voice."
8. Johnson-Kennedy Radio Corp.
10. The thrill of radio.
11. Frequency measure.
14. City named for famous horticulturist.
15. Formerly in Kokomo.
16. Lots of people would like to get out of here.
17. Measured in meters.
18. On the banks of the Wabash.
19. Loyola University.
21. "Heart of America."

## Troubles of B-Eliminators

*(Continued from page 2)*

as a Clarostat, in the grid circuits, so that the voltage can be correctly regulated. Too much grid voltage is likely to set up motorboating, and if a variable resistor is inserted in the line such excessive voltage can readily be reduced. Also be sure that the negative terminal of the C-battery connects to the grid terminal of the socket of the power tube.

### *Defective Condensers*

Another cause of motorboating is a defective grid condenser, which slowly dissipates energy through its dielectric or insulation. To find out whether or not the grid condenser is defective, remove it from the set and short-circuit the two terminals together to discharge it. Then charge the condenser by connecting a C-battery to its terminals, being careful not to touch either the condenser terminals or the ends of the leads while doing this. A condenser should be able to hold such a charge for a few minutes. The cord tips of a headset are then touched to its terminals, care again being exercised not to touch the cord tips or the condenser terminals with the fingers, for this will discharge the condenser through the body, and then the test is incorrect. A sharp click in the phones at the moment the condenser terminals are touched shows that it is in good condition as the condenser holds its charge. If no click is heard or the click is very faint, the condenser is defective and should be replaced with a new one. Humidity conditions have considerable effect on open condensers, and in moist places the dielectric may absorb enough moisture to cause it to become leaky. The enclosed type of fixed condenser, such as is enclosed in a bakelite shell, is impervious to moisture. It is a good plan to substitute condensers of this kind for the open type, being sure that the new ones are of the same values as the discarded ones. Too high a value of grid resistance may contribute to the tendency to motorboat, and if this is the case, a resistor of lower value should be substituted.

### *Incorrect Wiring*

Motorboating is sometimes caused by

a reversed condition of the primary winding of an audio-frequency transformer. This reversed condition may be attributed to incorrect internal connections between the winding and the terminals on the transformer shell. All that is necessary, in order to remedy this trouble, is to reverse the transformer connections on the outside, that is, the B-positive line will then connect to the P-terminal of the transformer, and the lead from the P-terminal on the preceding tube socket will connect to the B+ terminal on the transformer.

Motorboating can also be caused by a lack of matched impedance of the magnet winding of the loudspeaker and the plate of the last tube. Many loudspeaker manufacturers are trying to match the impedance of their speakers to that of the generally used power tubes, but power tubes have different characteristics and new ones are constantly coming out on the market, which makes it impossible to obtain perfect matching in this way. Besides, many fans have loudspeakers before they install power tubes in their sets, and it is therefore necessary for them to use other methods of overcoming motorboating caused in this way. There are several types of output transformers and output impedances which can be added to any receiver. In output transformers the plate output of the power tube is passed through the primary winding, and the loudspeaker terminals are connected to the secondary windings of the output device. An output impedance has the advantage of preventing possible coupling between the plate circuit of the last tube and that of the other tubes of the receiver through the medium of the output resistance devices of the eliminator.

### *Total Inoperation of B-Eliminator*

In case no signals can be obtained from a receiver and there is no doubt that the receiver itself is in good condition, the trouble may be found in the eliminator. First see that the leads from the eliminator to the receiver are unbroken and are securely connected.

Examine the rectifier, for this may have become defective; if it is of the electrolytic type, the electrolyte may

*(Continued on page 12)*



# Kentucky Hill-Billies

WITH Kentucky just across the river, there's nothing synthetic about the "hill Billy" music offered to the audience of the Crosley radio station, WLW.

Among the chief protagonists of the native American balladry, who come up from the Kentucky mountains to perform, are the Aladdin Fiddlers, an orchestra composed of harmonica, jew's harp, guitar, banjo, and fiddle, with a supply of mountaineer voices thrown in for good measure.

Leader of the Aladdin Fiddlers is Charles McCormick, better known to the WLW audience as "Harmonica Mac." McCormick claims to possess 40 different harmonicas, one for each key in which he expects to play and an extra supply for spaces

"Harmonicas is pesky things," he says, "You can't always depend on the critters."

Except for the information that "Harmonica Mac" spends most of his days around the race track at Latonia, Ky., and that "Ma" McCormick also likes to follow the horses, little is known about the Aladdin Fiddlers.

With a reticence common to the Kentuckians who come to the WLW studios, the members of the group never open their mouths except in songs.

Each one plays several musical instru-



ments so that they can offer an old-time fiddling contest, a full harmonica orchestra, or can play the "Pathetique Symphony" on combs and saws.

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## Radio Watches

Radio signals which would automatically regulate watches in their owners' pockets are the objective of experiments being conducted here by the Elgin Watch Co.

Development of radio-controlled timepieces is still in the laboratory stage, but shows much promise, says Frank D. Urie, director of research. The Federal Radio Commission has granted a wavelength for experimental work.

The ultimate goal, Urie says, is commercial production of watches and clocks

so devised that they will essentially be radio receivers capable of picking up signals sent by a central transmission station which would adjust them to the precise time.

Another possible method, he explained, would be for time signals to be picked up by a regular receiver with an attachment to which a watch could be connected for correcting purposes.

Intensive study of radio regulation of timepieces is being made in Russia and Germany, it is understood.

## Troubles of B-Eliminators

*(Continued from page 10)*

have evaporated, or it may be too low for the proper operation of the device. The electrodes have perhaps become decomposed, which necessitates renewal. If the eliminator uses a filament-lighted tube rectifier, see whether or not it is lighting properly. It must be remembered that these tubes have a definite life and must be renewed sooner or later. Even the ionized-gas rectifying tubes, such as the Raytheon or the Q.R.S. tubes, which have an exceedingly long life, there being no filament to burn out, become exhausted eventually. Normally, they give off a bluish flash at the edge of the "cup" at the moment that the eliminator is turned on, and this flash can usually be noticed. Sometimes the tube may still be defective, even though it shows signs of life. It is perhaps the best practice for the fan to provide himself with two tubes, so that if he suspects that the one in use is defective, he can substitute the other one.

When purchasing a new rectifier, be sure to get one of the same type as the defective one. If you get one of a higher or lower capacity, the eliminator will not work properly, because the other parts are designed just for the amount of current produced by the original rectifier. For instance, many eliminators, especially the old models, were designed to operate on a type B Raytheon tube, which has an output of 60 milliamperes. When replacing one, some dealers will try to persuade the fan to use a type BH tube of the same make, telling him that it has a greater capacity than the old type and is more durable, etc. The latter type, it is true, has a greater capacity, but if the eliminator is not designed for it, it will not give satisfactory results.

### *Open Circuits*

After the rectifier has been carefully examined, listen for a slight transformer hum. This will tell whether or not the transformer is working. If no hum is noticeable, it is probable that the transformer winding is open-circuited or the transformer is not receiving current from the A.C. circuit. However, open-cir-

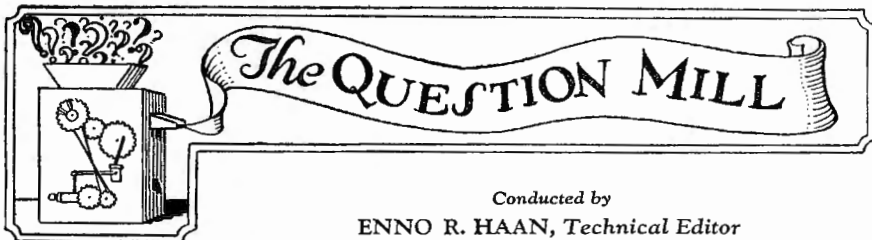
cuit transformers in eliminators are quite rare, as they are usually designed to stand up under heavy loads. To be certain that a transformer is defective or not, make a test for an open circuit. Some types of transformers used in eliminators have a separate winding to provide current for lighting the power tube of the receiver. In case the power tube does not light, and one is certain that the filament is not burned out, and also certain that the transformer is getting current from the lighting circuit, then the winding, which supplies the filament current for the power tube, may be open-circuited.

Lack of A.C. supply may often be the cause of trouble if a slight transformer hum is not noticeable, and no output voltage can be obtained from the eliminator. Test the light socket to determine whether or not the supply is being delivered to this point, for it is possible that a fuse of the lighting circuit has been burned out. If the fuse is in good condition, the light socket itself may be defective, even if it makes good contact with the plug occasionally. Sometimes the spring contact in the light socket does not make a good electrical connection with the end of the plug. In this case, turn off the current and pull the prong out so that it will make a better contact. If light can be obtained from the socket, there is perhaps a break in the cord connected to the eliminator, and such a break can usually be found at the plug end. If the cord is broken, it is an easy matter to repair it. Cut the wire at the break, bare both ends for about 2 inches, and splice them together, after which they are soldered to make them electrically and mechanically secure. Friction tape is then wound over the splice to insulate and protect it.

### *Faulty Choke Coils*

If a transformer hum is noticeable, but there is no output voltage across two or more of the eliminator terminals, which can be determined by the needle deflection of any 0 to 150-reading voltmeter held across the B-negative and the B-detector, B-intermediate and B-amplifier terminals successively, then the trouble

*(Continued on page 16)*



Conducted by

ENNO R. HAAN, Technical Editor

*How far should I be able to receive stations on a five-tube tuned radio-frequency receiver?*

Distance depends on several conditions: the location of the set, the quality and working order of the apparatus, and the skill of the operator. The average five or six-tube t.r.f. receiver should have a range of 2000 miles under good conditions. If you are located in a congested radio district, where several high-power stations may be broadcasting at the same time, it will be a difficult matter to tune in outside stations.

*Would straight-line frequency condensers improve the selectivity of my tuned r.f. receiver?*

Straight-line-frequency condensers will spread the stations out over the dial and will seem to make tuning easier on the lower part of the dial, but each station will cover a greater portion of the dial and will overlap the next station unless your set is of the type that can be made more or less selective by manipulation of a potentiometer controlling feed-back current. I suggest that you do not make the change as the slight advantage gained does not justify the cost.

*Kindly give me information as to what tubes I could use to replace the following in my Sparton No. 69 A. C. receiver: Cardon rectifier tube No. 280, Cardon power tube No. 585 and Cardon A. C. tube No. 484. When a tube burns out I am at a loss to know what to buy to replace it as these numbers are peculiar to the set. I have tried to find the proper substitutes but have been unable to do so and your help would be appreciated.*

Do not attempt to substitute tubes of any other make for the Cardon tubes which are used in the Sparton Equasonne Receiver No. 69. These tubes are especially designed for the set and the sub-

stitution of other tubes is only inviting trouble. It is quite an easy matter to get these tubes from mail-order houses in the larger cities. Undoubtedly you can get the Cardon tubes from them. If you desire you can also write to the manufacturers of your receiver and ask them where their nearest dealer is located, and he will be able to supply you.

*My Majestic all-electric receiver stopped suddenly and upon investigation I found that none of the tubes would light, I have had them tested and found that they are in good condition. The socket where my radio connects should be all right as it lights a floor lamp connected to it. Can you advise me where the trouble could be located?*

You have one of the following faults: defective plug where your radio connects to the electric socket, a loose or broken wire carrying a. c. current to the receiver, or a burned-out primary winding of the power transformer in the set.

*I have an Atwater Kent Model 35 receiver and whenever a turn the rheostat knobs a grating sound is heard. How can I overcome this?*

The trouble in the rheostat is due to natural wear of the resistance wire and can be easily overcome. Take a soft lead pencil and rub the graphite over the wire winding of the rheostat where the slider makes contact with it. This slight application of graphite lubricates the rheostat and in no way affects its electrical characteristics, which would be the case if you used oil or grease.

*I have been experiencing trouble with my King radio receiver, Model 62, and would like to know if you can help me. My set stopped functioning suddenly and I discovered that the 1000-ohm resistor, located under the tube shelf directly behind*

*the shielding cans, was burned out. I obtained a new one and as soon as I started the set, with the new resistor installed, it began to heat up and then burned out. Where is the trouble causing this?*

Your trouble is undoubtedly caused by the breaking down of the by-pass condenser located on the inside of the shielding can on the right of the burned-out resistor. Simply remove the can cover and replace this condenser. The short-circuiting of this by-pass condenser puts a direct short of 90 volts potential on the resistor, which causes the overheating.

*We have had a Zenith 27 electric receiver since 1928 and have had lots of satisfaction from it except for one thing: I simply must replace the UX 199 tubes every few weeks, which is quite expensive upkeep. This set is equipped with five UX 199 tubes fed in series from a power pack using a Raytheon type BH 80-milliampere tube. The B-supply also uses a BH tube. Can I do anything to overcome this trouble?*

In localities where abnormal line voltage exists the life of the tubes in a receiver fed by alternating current is considerably shortened. It is particularly true in cases where the line voltage runs up to 140 volts. In your case the trouble can be overcome by mounting an ordinary porcelain light socket on the inside of your cabinet directly above the a.f. transformers. One of the parallel wires leading from the B-supply to the A-supply, should be cut and the socket connected to the two ends, which puts it in series. Considerable experimenting will be necessary to determine the exact size of lamp to use. Usually a 60-watt lamp will serve the purpose satisfactorily. A lamp of lower wattage will cut down the voltage applied to the tubes still more. The lamp will burn at a dull red glow and will not injure the set or cabinet in any way.

*I have a Sparton Equasonne Model 930 receiver. At times the set has a low whistle that does not die out but continues for hours. Sometimes I don't notice it but at other times it is so bad that it ruins the program. I read somewhere that if the secondary leads of the speaker were reversed, the whistle would stop. I don't have the*

*slightest idea what the secondary leads are or where they are located. If you think that it is advisable to change them, please explain how to go about it. My aerial is about 100 feet long, including the lead-in wire. I have lots of static and plenty of volume for most stations, but can only reach a little over 1500 miles. Is this characteristic of the set? About the static, there is a factory about two blocks away from my location, in which 1300 electric motors are running so I suppose that my static is coming from them. Also my set is calibrated in kilocycles. On the lower end of the range, up to 800 kilocycles, the calibration on the set corresponds exactly to the station frequency, but above that it varies. The frequency of KDKA is 980 kilocycles, but it comes in at a dial reading of 950. Kindly explain this.*

Remove the r.f. tubes while the set is operating to determine whether or not the low whistle still persists. If so, you know that the trouble is caused in the a.f. stages. If the whistle stops when the r.f. tubes are removed, the trouble is evidently due to improperly balanced r.f. stages. Sometimes too high a plate voltage on the r.f. tubes causes such a whistle. Then again the grid-leak value may be incorrect. Your dial readings can be made to correspond more closely to the station frequency over the entire range by properly adjusting the antenna-compensating condenser near the antenna and ground binding posts of the receiver. This adjustment should only be attempted by means of a bakelite screwdriver in order to prevent capacity effects of the tool. The "static" of which you speak is probably caused by the large number of electric motors in the nearby factory. During the winter months you may occasionally reach out farther than 1500 miles, although it should be borne in mind that most modern receivers are designed for good tone quality rather than for long-distant reception.

*Would you please advise me if the new Rogers 45 push-pull tube will operate on a new Victor using ten tubes, including 245 tubes?*

I have no material at hand concerning the Rogers 45 tube, which is of Canadian  
(Continued on page 17)



# Radio Carols

## A Charming Christmas Innovation

**A**N entire neighborhood in a residential section of Pasadena, California, was awakened at dawn on Christmas morning by exquisite music. The old familiar carols were being sung by highly trained voices accompanied by harps, violins and cornets. Strangely, too, the strains seemed to come from all directions. It was as though an angel choir were floating above the city.

People lifted their heads to marvel at the sweetness of the singing, realizing that no band of wandering carollers could achieve such perfect harmony and lovely rendition, much less carry full orchestral

to the broadcasting and half a dozen of them easily covered a block. And such a wondrous improvement over the music that might be furnished by any well-intentioned, but cold and footsore and untrained group of local carollers!

It must be but the beginning of a beautiful custom of our land, a land where there are 28,061,000 homes (according to official figures at the close of 1928) that have radio connection. Next Christmas should make one grand symphony of the angels' song over all America, even to the isles of the sea and the isolated spots.

*How Many of These Famous Artists Do You Know.*

*Seated: Agnes Davis, Kathryn Meisle, Louise Homer, Kathleen Stewart.*

*Second row: Solon Alberti, Hazel Arth, Maria Kurenko, Nina Morgana, A. Atwater Kent, Katharine Homer, Allen McQuhae, Alois Hvilla. At the microphone: Graham McNamee.*

*Third row: Reinald Werrenrath, Harry Spier, and Atwater Kent Quartette.*



equipment. Doors and windows were heard to open up and down the block. All ears were attuned to listen as one after another of the glorious Christmas messages came over the still night air. It was thrilling!

Then, suddenly, the secret was out as the voice of a local radio announcer "signed off." They realized that a number of owners of fine radio sets had quietly arranged among themselves to have their loud speakers placed close to a front window all tuned in on a certain station that had promised an especially fine program of carols for the hour of dawn. Each instrument added its voice

## Dead Spots

Certain spots on the earth's surface are apparently impervious to radio signals and these are called "dead spots." About fifty of these have been charted in North America and they have usually been found accidentally so that it is probable that there are many more. One of the largest of these spots is located a little south of Hudson Bay in Canada; another is over the ocean off Atlantic City; while a third is in the vicinity of Camden, N. J. There are numerous dead spots in Mexico and the southwestern states.

## Troubles of B-Eliminators

*(Continued from page 12)*

may be in a broken-down or open-circuited choke coil, although this is rarely the case. To find out which choke coil is at fault, get a pair of headphones and hook up a 22½-volt B-battery in series with the headphones. Before applying the free ends of the leads to the coils, remove the eliminator plug from the light socket. Disconnect the choke coils if there is any possibility of a shunt circuit around them, for the coils should be tested separately and there should be no path for current over a shunt. After the coil to be tested has been disconnected, it is short-circuited to free it from any residual charge which it may hold. The free ends of the tester are touched to the ends of the coil, and a click should be heard in the phones. The absence of a click indicates an open circuit, and the coil must then be replaced with a new one of exactly the same design.

A punctured condenser may also prevent the eliminator from functioning. Broken-down condensers, which permit an unrestricted path for the current to flow directly through them, frequently cause eliminator troubles. To test a condenser, it is first removed from the eliminator. It is then discharged by holding a wire or a piece of metal across its terminals, for the charge it contains may cause a click in the phones, which will give a false impression that the condenser is short-circuited. If the condenser is in good condition, there will be little or no click the second time that its terminals are touched, but if it is short-circuited, a distinct click will be heard in the headphones each time the condenser terminals are touched, and again when the tips are removed. When making two or more tests on one condenser, be sure to hold the testing tips to the same terminals of the condenser each time. The absence of a click does not always prove that the condenser is in good condition, for there may be a slow leakage of charge through its insulation. To find such a leak remove the B-battery from the headphones and charge the condenser by holding the bared ends of the wires connected to a battery, to the terminals of

the condenser for a few seconds. Be careful not to touch either the condenser terminals or the bare ends of the wires, for this will dissipate the charge. After the condenser has been charged in this way, wait for a few moments and then touch the same tips of the headphones to the terminals of the condenser. If only a faint click is heard, or none at all, one may be reasonably certain that part of the charge has dissipated through the insulation. Faulty condensers should be replaced with new ones of the same capacity and make. If a condenser is entirely short-circuited it may be impossible to get any output voltages across two or more terminals, as there is then a complete path for the positive current emerging from the choke coils to return to the negative line, which is the path of least resistance. If, however, the condenser has a leaky insulation through which the charge gradually dissipates, it has lost its function to supply energy for an instantaneous overload, and in addition to this considerable fuzziness and distortion will often be evident. A short-circuited buffer condenser may cause a noticeable hum. At other times a crackling noise will be evident in the loudspeaker, resulting from the same cause. A new condenser is the remedy.

### *When Resistors Heat*

Faulty resistors, which do not stand up under a heavy current and voltage, may cause crackling noises resembling static, or complete inoperation of the receiver. This is the case when they do not permit enough variation of the voltage. When the detector and radio-frequency resistors, and sometimes even the amplifier resistors, become hot, examine them to see whether part of their winding touches the metal case of the eliminator, or whether the resistor is of the correct capacity, a check which is necessary in case of homemade eliminators. In many eliminators employing a number of fixed resistors, in addition to the variable ones, it is possible that a variable resistor become short-circuited for some reason or other, and then a fixed resistor, in series with it, may be subjected to a greater pressure, with the result that it will become excessively

hot. Burned-out or open-circuited elements of resistors will of course cause total inoperation of the receiver. To determine whether or not a resistor is open-circuited, make a headphone test. Touch one testing tip to the B-negative line and the other to the side of the resistor not connected to the B-positive line. If no click is heard, one can be certain that the winding is open-circuited although, perhaps, if another resistor, either fixed or variable, is connected in series to the one being tested, the trouble may be found in this one, which should be tested in the same way. There is one objection to the use of variable resistors in eliminators, namely, that it is difficult for the average fan to adjust them cor-

tube to indicate its similarity to the UX 245 tube. You can easily determine whether this tube can be used interchangeably with the 245-type tubes, by comparing the data of tube characteristics, which are usually printed on the carton, or on a separate sheet furnished with the tube, and the data on the UX 245 tube, which is as follows: Filament voltage, 2.5; filament current, 1.5 amperes; plate voltage, 180-250 volts; grid-bias voltage, 33-50 volts; plate current, 26-32 milliamperes. If you find that the filament voltage and plate voltage are the same in the case of the Rogers tube, it is quite possible that you can substitute the latter in any audio amplifier, whether push-pull or not.

*The Whitney Trio, who are heard regularly over Station WMAQ.*

*Robert, Pianist  
Noreen, Violinist  
Grace, Cellist*



rectly in order to get the proper plate voltages for the tubes. For this reason some manufacturers are making use of fixed resistors having a number of taps, these being designated as unit strips. A definite voltage can be obtained from each one of the taps.

### The Question Mill

*(Continued from page 14)*

manufacture. However, I find that these tubes are made by the Standard Radio Mfg. Corp. Ltd., of Toronto, and I have written to them for the tube data. Evidently the number 45 is given to the

*Can I substitute a CX 381 rectifier tube for the CX 316B half-wave rectifier in my power supply?*

Yes, you can substitute the CX 381 tube for the CX 316 B as the former will deliver about twice as much current as the latter without overloading. It would be a good idea to make this change if you have provided a power tube in the last audio stage to take the place of a 201A tube, as the power tube requires more cureent. If the set is overloaded, which may result in an a.c. hum, make the above change. However, if your receiver is in good condition and the old

rectifier tube still performs the change would be unnecessary.

*Last year I built an "Infradyne" receiver but it apparently has not the "pep" it should have. When I use B-batteries instead of B-Eliminator, it works much better. Can you suggest what is wrong with the eliminator or does it not produce sufficient current and voltage for the perfect operation of the set?*

Have you correctly deduced where your trouble lies? The Infradyne, equipped with a UX 171 tube provided with 180 volts of plate potential, draws a B-current of 40 to 45 milliamperes. A B-Eliminator used with this set should be capable of furnishing at least 50 milliamperes, but preferably more, as it is advisable to have some reserve energy. Generally, it is best to furnish a B-supply which will provide at least 33 per cent more current than actually required by the receiver. If a UX 112 power tube were substituted for the 171 tube less plate current would be needed. The 112 takes about 30 milliamperes. Another indication of overload is hum. I suggest that you change the power tube, taking care to get the current plate and grid-bias or C-voltage on the new tube, or get an eliminator of greater capacity.

*Is the 3-wire system for a radio antenna better than a single wire?*

The advantage of three wires instead of one is so slight that it is not advisable. If you are located quite some distance from broadcasting stations, erect a single-wire antenna about 100 feet long, using stranded phosphor-bronze wire. Scrape off the enameled insulation, if it has any, and be sure to solder the lead-in wire to the aerial near one end. Use insulators and install with precautions against grounding.

*I have built a small radio set of the non-regenerative type. It has a detector and one stage of a.f. I do not get enough volume to operate a pair of headphones on a station less than 50 miles away. What could be the trouble?*

Assuming that the tubes and batteries are in good condition, which you should carefully check, the trouble may lie in a wrong size or defective grid leak or grid condenser, or an incorrect plate voltage,

especially on the detector tube. For a 201A detector use a 2-megohm grid leak.

*I would like to add two stages of untuned r.f. before the first detector of my superheterodyne. Is this practical?*

Experiments have been carried along these lines with too little success to warrant much popularity. The most common trouble seems to be a broadening of tuning, which makes the receiver extremely difficult to operate, especially in congested districts where several stations are operating simultaneously. This trouble is, however, not so great if the filter circuit is of the ultra-selective type. On the other hand, the addition of tuned r.f. stages ahead of the 1st detector has been found highly satisfactory by some experimenters. Selectivity is gained, distant reception possible, and a loop antenna can be used.

*Kindly tell me how to build an underground antenna. I have heard that an antenna of this type has many advantages over a regular antenna, erected overhead.*

It is claimed that an underground antenna picks up less atmospheric disturbance such as static than a regular aerial erected overhead. The length should be approximately 100 feet, and No. 14 weatherproof wire is used. Insulate one end thoroughly, coil the wire and bury it about one foot underground. The end not insulated is used as a lead-in. Some experimenters shield the lead-in from the point where it leaves the ground to the binding post of the receiver by slipping it into a lead tube, which is grounded. This type of antenna is also claimed to be non-directional.

*Can I use a gas pipe for a ground connection? What size wire should I use for making a ground connection?*

It is not advisable to use a gas pipe for a ground connection but a cold-water pipe is satisfactory. Gas pipes are often insulated at the meter. Besides, this method of grounding will not pass inspection of insurance companies. Use No. 14 rubber-covered wire for the ground lead, and provide a good ground clamp. Scrape all corrosion from the surface of the pipe before attaching the clamp.

*How can I clean the prongs of the*



tubes in my receiver, as this is said to help bring in better reception?

Good electrical contact between the tube tips and the socket prongs is essential. Take a piece of fine sandpaper or a nail file for cleaning off the ends of the tube tips, and a pencil or small wooden stick for getting into the sockets to clean the prongs. If you have sockets that have holes in the top for the insertion of the tube tips, it may be necessary to take the socket apart. When doing this be sure to disconnect the batteries, or the cord, which is connected to a nearby wall plug, in case your set is of the all-electric type.

*I noticed your diagram of a wave trap in the September issue of RADEX and I would like to know if it can be successfully applied to a Stewart-Warner radio receiver No. 950, and what method you use in connecting it?*

A wave trap of the kind described can be successfully used on the Stewart-Warner receivers, these being of the popular radio-frequency type. The best method of determining just where to connect a wave-trap to any particular receiver for best results, is to first cut it in the aerial line, in series with the set so that all the energy must pass through the wave trap before entering the set. The second method is to connect the wave trap across the aerial and ground lines, leaving both connected to the set. A third method is to disconnect the lead from the G or grid terminal of the detector-tube socket, bending the lead back slightly so that it will not make contact. Then run a wire from the G or grid terminal of the coil or r.f. transformer preceding the detector socket, to one terminal of the wave trap, and connect the second terminal of the wave trap to the G-terminal of the detector-tube socket. After trying this method reconnect the loose wire to the G-terminal of the detector, leaving the other connections just made intact. The three methods given above can be tried out to determine which one is most effective in your case.

*Is a C-battery necessary with a resistance-coupled audio amplifier? What C-voltages are required with the B-potential 90 and 135 volts?*

A C-battery is advisable to conserve the current taken from the B-battery, but is not necessary if a B-eliminator is used. For 90 volts, provide a C-bias or  $4\frac{1}{2}$  volts, and for 135 volts, a C-bias of from  $7\frac{1}{2}$  to 9 volt. In the case of power tubes it is always necessary to provide a C-battery supplying the correct potential for the operation of the tube. You will find the amount of C-bias required on the tube carbon or sheet which accompanies it.

*I have a 32-volt farm-lighting unit. Can I get filament current for my radio set from the battery of this unit? If so, kindly tell me how to proceed.*

Yes, it is a good idea to take your radio current from your farm-lighting unit battery. Of course, only three cells are used as the filament voltage required for the receiver is 5 volts. Run the negative filament lead to the negative side of one cell, and connect the positive lead to the positive terminal of the third cell *above* the one to which the negative lead is connected. It is well to use spring clips to make the connections as there will then be no need of loosening and tightening the lugs. By the word "above" in the previous sentence is meant the side toward the positive end of the entire battery, for as you will note, one extreme end is negative and the other is positive. The sixteen cells each give a pressure of approximately two volts, or a total of 32 volts. It is best to provide a double-pole, double-throw, knife switch in the lines to the radio set to permit disconnecting it from the battery while the unit is charging, for during a charge you will undoubtedly experience some interference from the unit. Do not use the same three cells for the A supply all the time, but change around so that the amount of drain will be equally distributed over the entire battery of the lighting unit.

*We have purchased a new all-electric receiver and it works well with the exception that it becomes loud and soft at intervals without any apparent reason. What causes this and how can the trouble be overcome?*

Your trouble is evidently voltage fluctuation of the house-lighting circuit.

Although theoretically the voltage delivered by power companies is 110 volts, with a permissible variation of 5 per cent above and below this figure, actual tests have shown that the voltage in many cases varies between 90 and 130 volts, this being due to variations in load, improper regulation, poorly-designed feeders, etc. The resulting trouble in radio reception is exactly what you have experienced, namely, variation in volume. Besides this, the life of your tubes will be shortened if this condition is permitted to continue. Fortunately, there are on the market automatic voltage regulators, which are especially designed to provide a constant 110-volt current to the receiver regardless of line fluctuations between 90 and 130 volts. Such a regulator is an investment worth while and you will find this a practical solution of your trouble.

## Seven Stations to Censor Advertising

**S**TANDARDS to govern broadcast advertising so that objectionable practices will be eliminated and to the end that radio as an advertising medium "will increasingly enjoy and deserve the confidence of the public," have been adopted by seven broadcasting stations in the Boston area, the Federal Radio Commission was informed October 19. These stations have subscribed to standards of practice and a plan of operation based on cooperation with the Better Business Bureau of Boston.

The stations subscribing to the standards are WBZA, WEEL, WNAC and WSSH, Boston, WHDH, Gloucester, and WLEX, Lexington.

The standards adopted, as transmitted to the Commission, are as follows:

"To the end that radio broadcast advertising will increasingly enjoy and deserve the confidence of the public, the radio stations have subscribed to the following standards:

"1. To prohibit broadcast advertising believed to be or which might be detrimental to the public interest, or injurious to radio broadcasting in general, or to any other accepted form of advertising,

and to reject advertising by concerns whose other forms of advertising and practices may be objectionable or injurious to public interest.

"2. To prohibit broadcast advertising known to be untrue, deceptive, misleading, fraudulent, or grossly exaggerated, or which might, on reasonable investigation be ascertained to be untrue, deceptive, misleading, fraudulent, or grossly exaggerated.

### *Censorship Provided*

"3. To take care to prevent the broadcasting of statements derogatory to other stations, to individuals, or to competing products or services, except where the law specifically provides that the station has no right of censorship.

"4. To make reasonable investigation concerning the financial responsibility and character of broadcast clients, so that no dishonest, fraudulent, or dangerous person, firm, organization or advertising may gain access to the radio public.

"5. To prohibit the advertising of products or services for treatment of disease or illness which are injurious to health.

"6. To cooperate with the Better Business Bureau in all lawful manner in its purpose as outlined in the articles of incorporation, i. e., 'the furthering and promoting of honesty, truthfulness, and dependability in advertising, merchandising, and in all business methods and practices and fair competition in trade and business, thereby increasing public confidence in advertising, salesmanship, and business methods generally.'"

## Lighting Circuit Aerial

A form of inside aerial which has found much favor among radio owners, is a small screw-plug device which, when attached to any light socket, utilizes the wiring of the house as an aerial system. Such a device is merely a condenser, one terminal of which is connected to one side of the line and the other to the radio receiver, there being no connection between the receiver and the lighting circuit which, of course, obviates the possibility of electric shocks. When using one of these devices, try reversing the plug.

# Cause and Cure of "Microphonics"

**A**LMOST every radio owner who uses a "hard" tube for a detector, has, at some time or other, experienced a loud, howling noise, which increases in volume and rises in pitch, making reception an impossibility. This is what is known as a "microphonic," a noise caused by one or more vibrating tubes, the detector usually being the offending one. You can make sure whether the trouble really is a microphonic by grasping the tube securely while the noise is heard; if it stops you have located the trouble. As just stated, the cause of a microphonic is vibration of the tube. There may, of course, be a number of sources of such vibration, and the removal of the source is the most positive remedy. This, however, is not always possible, for the source may be the loud speaker and without this you would have no reception at all. Then again, it may be the traffic passing your home; machinery in the building, or persons walking around.

The vibration is transmitted through the walls, floors, table or stand on which the receiver is placed, or it may even be transmitted through the air. Sometimes there seems to be no external source of vibration at all, and the tube just starts to produce noise seemingly of its own accord. The quality of each tube is slightly different from that of another, and one tube is therefore apt to be much more microphonic than another, a variation of uniformity which can naturally be expected when tubes are manufactured by the thousands in rapid quantity production. Also, it will be found that the small, three-volt, dry-cell tubes have a greater tendency toward being microphonic than the large six-volt tubes.

Sometimes the trouble can be cured by merely "switching" tubes, or by decreasing the plate voltage of the detector. There are also many devices on the market for curing this trouble, and, these are usually heavy shields or weights to be placed on the tube, or some means of holding the tube rigidly in position. But it is better to arrest the

vibration before it enters the set. This can be done in various ways. Get a few pieces of one-inch sponge-rubber and provide cushions of this material under both the receiver cabinet and the loud speaker, the latter being the most common cause of microphonic trouble. The provision of cushion sockets instead of rigid sockets will also be found an



*Elsa Baklor, coloratura soprano, whose voice is often heard over WBAL in solo recitals and special programs. Mrs. Baklor has appeared as soloist with the Baltimore Symphony Orchestra and other important musical organizations.*

effective method of eliminating this trouble. If this is not entirely effective, remove the loud speaker as far as possible from the set, preferable on another stand or table. Also be sure to turn the bell of the loud speaker away from the set, instead of toward it, for it has been found that the air vibration caused by reception, is transmitted to the tubes, and in many cases this alone is enough to cause them to vibrate.

These measures are certain to reduce the trouble considerably and in most cases will eliminate it entirely. But,

*(Continued on page 23)*

# Broadcasting Stations of the World

## A List of the Principal Foreign Stations

*We suggest that you cut this list out and save it as it will not appear regularly*

SOUTH AMERICA				Netherlands		Meters	Watts
Argentina		Meters	Watts	Hilversum	HDO	1060	1000
Buenos Aires	LOJ	270	1000	<b>Spain</b>			
	LOL	236	2000	Barcelona	EAJ1	344.8	1000
	LON	210	5000		EAJ13	462	1000
	LOO	252	1000	Bilboa	EAJ9	434.8	1000
	LOQ	261.8	3000	Cadiz	EAJ3	400	1000
	LOR	344.8	1000	Cartagena	EAJ16	330	1000
	LOS	291.2	5000	Madrid	EAJ7	375	1200
	LOT	400	1000	San Sebastian	EAJ8	297	3000
	LOV	361.5	1000	<b>Sweden</b>			
	LOW	303	1000	Motala	SASG	1380	30000
	LOX	380	1000	Stockholm	SASA	454.5	1000
	LOY	315.2	1000	<b>Switzerland</b>			
	LOZ	330	1000	Zurich	H9XD	500	1500
La Plata	LOP	425	1000	<b>United Kingdom</b>			
<b>Brazil</b>				Aberdeen	2BD	500	1500
Rio de Janeiro	SQAA	400	2000	Belfast	2BE	306.1	1500
Sao Paulo	SQBO	225.4	1000	Birmingham	5IT	326.1	1500
	SQAG	360	1000	Bournemouth	6BM	491.8	1500
<b>Chile</b>				Cardiff	5WA	353	1500
Concepcion	CMAI	345	1500	Daventry	5XX	1600	16000
Santiago	CMAD	320	1000	Glasgow	5SC	405.4	1500
<b>Peru</b>				London	2LO	361.4	3000
Lima	OAX	360	1500	Manchester	2ZY	384.6	1500
<b>Uruguay</b>				Newcastle	5NO	312.5	1500
Montevideo	CWOA	428.4	1000				
<b>Venezuela</b>							
Caracas	AYRE	375	1000	<b>EUROPE-ASIA</b>			
				<b>Russia</b>			
<b>Austria</b>				Artemovsk	RA56	790	1200
Vienna	ORV	517.2	14000	Astrakhan	RA26	700	1000
<b>Belgium</b>				Baku	RA45	750	4000
Brussels	BAV	508.5	1500	Eriyan	RA49	1050	1200
<b>Czechoslovakia</b>				Gomel	RA39	925	1200
Brunn	OKB	441.2	2400	Kharkov	RA43	475	4000
Kosice	OKK	263	2000	Kiev	RA45	775	1200
Prague	OKP	384.9	5000	Koursk	RA34	575	1000
<b>France</b>				Krasnodar	RA38	513	1000
Lyon	YN	480	1000	Leningrad	RA42	1000	10000
	YR	290	5000	Minsk	RA18	860	1200
Paris	FL	500	20000	Moscow	RA1	1450	40000
	FPTT	458	1000	Nizhni-Novgorod	RA13	840	1800
Toulouse	MRD	260	1000	Novorossisk	RA32	1117	4000
<b>Germany</b>				Odessa	RA40	975	1200
Berlin	AFT	2900	8000	Orenburg	RA25	640	1000
<b>Hungary</b>				Petrozavodsk	RA46	765	2000
Budapest	MT1	555.6	2000	Rostov-on-Don	RA14	820	4000
<b>Irish Free State</b>				Samara	RA22	900	1200
Cork	6CK	400	1000	Stalino	RA77	730	1200
Dublin	2RN	319.1	1500	Stavropol	RA20	550	1200
<b>Italy</b>				Tashkent	RA27	715	2000
Milan	IMI	315.8	7000	Tifis	RA11	870	4000
Naples	INA	333.3	1500	Tver	RA44	690	1200
Rome	IRO	449	3000	Vladivostok	RA17	480	1500
<b>Latvia</b>				Vologda	RA41	875	1200
Riga	KCX	526.3	2000	<b>ASIA</b>			
				<b>China</b>			
				Mukden	COMK	425	2000
				<b>Chosen</b>			
				Seoul	JODK	357	1000
				<b>Hong Kong</b>			
				Victoria	GOW	300	1500
				Shanghai	KRC	329	5000

		Meters	Watts
<b>India</b>			
Bombay	7BY	357.1	3000
Cacutta	7CA	370.4	3000
<b>Japan</b>			
Dairen	JQAK	395	1000
Hiroshima	JOFK	353	10000
Keijo	JODK	366	1000
Nagoya	JOCK	370	1000
Osaka	JOBK	400	10000
Sapporo	JOIK	361	10000
Sendai	JOHK	390	10000
Tokio	JOAK	345	10000
<b>Kwangtung</b>			
Dairen	JQAK	395	5000
<b>OCEANIA</b>			
<b>Australia</b>			
Adelaide	5CL	392	1000
Brisbane	4QG	385	1000
Hobart	7ZL	525	3000
Melbourne	3LO	371	1000
Perth	6WF	1250	1000
Sydney	2BL	353	1000
	2FC	442	2000
	2GB	326	1500

## Cause and Cure of "Microphonics"

*(Continued from page 21)*

should you still be annoyed, change the hard detector for a detector tube of the "soft" type. Such a tube is non-microphonic, will give better tone quality and is much more sensitive than a hard tube. With the popular use of consoles nowadays, much trouble from microphonics is experienced by the proximity of the built-in horn to the receiver, and its rigid attachment to the console, which only paves the way for this trouble. In such cases the speaker should be unfastened from the console, and then suspended less rigidly. If this does not help, it may be necessary to remove the speaker from the console entirely.

## Catching Criminals

*(Continued from page 8)*

the flash of a crime. This automatically throws the radio station on the air and he broadcasts direct to the cruisers and scout cars. His orders are repeated by the radio station operator to doubly insure their receipt.

The success attained by the Detroit Police Department has had a far-reaching effect. The Federal Radio Commission has granted permission for the construction of stations to: Chicago; Cleve-

land; Buffalo, N. Y.; Beaumont, Texas; Berkeley, Cal.; Pasadena, Cal.; Highland Park, Mich.; Miami; Cincinnati; Indianapolis; Philadelphia, and Tulare, Cal.

New York, Atlanta and other points are planning to establish police radio systems and police officials predict the time when the entire nation will be linked together in a network of police radio systems.

## Commission Not to Limit Chains

THE proposal of Commissioner E. O. Sykes to regulate the broadcasting of chain programs over high-powered radio stations was rejected November 5 by the Federal Radio Commission. The vote was 3 to 2. Chairman Ira Robinson and Commissioner Sykes voting for the proposal.

The Commission's action followed opposition to the proposal by M. H. Aylesworth, president of the National Broadcasting Company, who recently told the Commission that this regulation would jeopardize the operations of the company's network. The proposed order would have required all stations subscribing to chain programs of 5,000 watts or more to obtain permission to broadcast them. The purpose, Judge Sykes explained, was to eliminate unnecessary duplication of chain programs on the listener's dials.

The proposed chain order rejected by the Commission follows in full text:

"It is hereby ordered that after January 30, 1930, no broadcasting station of 5,000-watt power or more will be permitted to regularly broadcast chain programs unless and until it has been authorized in writing to do so by the Commission.

"It is further ordered that no two stations of the above power located within the same States shall be permitted to broadcast the same chain program simultaneously unless the Commission shall be satisfied that the geographical separation in mileage or the character of transmission of the station or stations is such that there will be no objectionable duplication of programs."



# 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 the Pacific Time, three hours.

Station lists beginning with WEAf and WJZ are the National Broadcasting Co., Inc., while those beginning with WABC are the Columbia Broadcasting System.

#### Daily (Except Saturday and Sunday)

6:45-8:00 Tower Health Exercises  
WEAF WEEI WCAE WFI WRC  
WGY WGR

8:00-8:15 Jolly Bill and Jane  
WEAF WEEI WGY WFI

8:00-8:30 Organ Reveille  
WABC WHK WEAN WREC WDBJ  
WWNC KMBC KOIL WLAC

8:15-8:30 Morning Devotions  
WEAF WCAE WRC WGY WGR

8:30-8:45 Morning Devotions  
WABC WDOD WFBL WMAK WEAN  
WREC WDBJ WWNC KMBC KOIL  
WLAC

8:30-9:00 Cheerio  
WEAF WEEI WCKY WRC WGY  
WGR WHO WJAR WTAG WCSH  
WCAE WWJ WOV WDAF WTMJ  
KSTP WEBC WPTF WBT WAPI  
KVOO KPRC WIBO

8:45-9:00 Something for Everyone  
WABC WHK WDOD WCAU WFBL  
WJAS WMAK WEAN WREC WDBJ  
WWNC KOIL KMOX WLAC

9:00-9:15 Milt Coleman  
WEAF WRC WWJ WOW

9:15-10:00 Morning Melodies  
WEAF WRC WWJ WOW

9:30-10:00 Morning on Broadway  
WABC WHK WDOD WFBL WLBW  
WOW WKBW WMAL WREC WDBJ  
WWNC KDYL KOIL KVI KMOX  
WLAC

10:00-10:30 Ida Bailey Allen  
WABC WGHP WMAL KMBC WCCO  
WFBL WEAN WNAC WBBM WMAK  
WCAU WCAO WJAS WADC WKRC  
KMOX KOIL WSPD WHK WLBW  
WISN WOWO

11:00-11:30 Forecast School of Cookery  
WJZ WBZ WBZA WHAM KDKA  
WLW KWK WREN WJR WGN

11:15-11:30 Radio Household Institute  
WEAF WEEI WJAR WTAG WCSH  
WLIT WRC WGY WGR WCAE  
WTAM WWJ WSAI KSD WFKX  
WTMJ KSTP WHO WPW WDAF

11:30-12:30 Columbia Noon Day Club  
WABC WADC WDOD WFAN WCAO  
WCCO WGHP WBBM WFBL WSPD  
WJAS WLBW WOWO WMAK WNAC  
WEAN WMAL WREC WDBJ WWNC  
KOIL KVI KFPY KLZ WFBM

1:00-1:45 National Farm and Home Hour  
WJZ WBZ WBZA WBAL WHAM  
KDKA WJR WLW KFKX WREN  
KSTP WEBC WRVA WPTF WBT  
WJAX WIOD WHAS WSM WMC  
KVOO WKY KTHS KPRC WOAI  
KOA WRC WHO WOW WDAF

1:30-2:00 Harold Stern Orchestra  
WABC WKRC WADC WISN WDOD  
WFAN WFBM WCAO WGHP WBBM  
WFBL WSPD WJAS WLBW WOWO  
WMAK WMAL WMAQ WREC WDBJ  
WWNC KOIL KVI KLZ WLAC

#### 2:00-3:00 Patterns in Prints

WABC WHK WKRC WADC WDOD  
WFAN WFBM WCAO WGHP WBBM  
WFBL WSPD WJAS WLBW WOWO  
WMAK WNAC WEAN WMAL WMAQ  
WREC WDBJ WWNC KDYL KOIL  
KVI KMOX KFPY KLZ WLAC

#### 3:30-4:00 For Your Information

WABC WKRC WADC WISN WDOD  
WCAU WFBM WFBL WSPD WOWO  
WMAK WMAL WMAQ WREC WDBJ  
WWNC KDYL KOIL KVI KMOX  
KFPY KLZ WLAC WCAO

#### 4:00-4:30 Musical Album

WABC WKRC WADC WISN WDOD  
WCAU WFBM WCAO WCCO WBBM  
WFBL WSPD WOWO WMAK WNAC  
WEAN WMAL WMAQ WREC WDBJ  
WWNC KDYL KOIL KVI KMOX  
KFPY KLZ WLAC

#### 4:00-5:00 Dancing Popularities

WJZ WBAL WJR KWK

#### 4:30-5:00 The Tea Timers

WABC WHK WKRC WADC WISN  
WDOD WFAN WCAO WCCO WGHP  
WBBM WFBL WSPD WOWO WMAK  
WNAC WEAN WMAL WMAQ WREC  
WDBJ WWNC KMBC KOIL KVI  
KMOX KFPY KLZ WLAC

#### 5:30-6:00 The Lady Next Door

WEAF WRC WWJ WAPI

#### 6:00-7:00 Black and Gold Orchestra

WEAF WRC WCAE WLS WWJ

#### 7:00-7:15 Amos 'n' Andy

WJZ WBZ WBZA WHAM KDKA  
WJR KYW KWK WREN WTMJ  
KSTP WEBC KOA KSL WDAF  
WRC WLW WMAQ

#### Sunday

9:00-10:00 Morning Muscafe  
WABC WDOD WCAU WOWO WNAC  
WEAN WREC WDBJ WWNC KMOX  
WLAC

10:00-11:00 Children's Hour  
WABC WDOD WCAU WNAC WEAN  
WREC WDBJ WWNC KMOX WLAC

12:30-1:00 Metropolitan Echoes  
WJZ WBAL KWK WRC

1:00-1:30 National Broadcasting Program  
WEAF WCAE WWJ WHO

1:00-1:30 The Nomads  
WJZ WBAL WJR WRC

1:30-2:00 The Pilgrims  
WJZ WBAL WRC WJR

1:30-2:00 Godfrey Ludlow  
WEAF WWJ WCAE WTAM KSD  
KSTP WAPI WOW WHO

2:00-2:30 Troika Bells  
WEAF WWJ KSL KSD WLS  
WOC

2:00-3:00 Roxy Symphony Concert  
WJZ WBZ WBZA WBAL KDKA  
WLW WTMJ KSTP KYW WJR  
WRC WFAA WEBC KWK KFAB

2:30-3:00 Milady's Musicians  
WEAF WGY WWJ WOW KSL  
WLS KSD

3:00-4:00 **The Jewish Hour**  
 WEAJ WJAR WCSH WRC WGR  
 WCAE WWJ WSAI WCFL

3:00-4:00 **National Youth Conference**  
 WJZ WBAL WRVA WPTF WJAX  
 WMC WSB WOAI KFAB

3:00-4:00 **Symphonic Hour**  
 WABC WHK WKRC WADC WISN  
 WDOJ WCAU WFBM WCAO WCCO  
 WGHF WFBL WSPD WJAS WOWO  
 WKBW WNAC WEAN WMAL WMAQ  
 WAU WREC WDBJ WWNC KDYL  
 KMBC KOIL KVI KMOX KFPY  
 KFH KLZ WLAC

4:00-5:00 **Cathedral Hour**  
 WABC WHK WKRC WADC WISN  
 WDOJ WCAU WFBM WCAO WCCO  
 WGHF WFBL WSPD WJAS WLWB  
 WOWO WKBW WNAC WEAN WMAL  
 WMAC WMAQ WREC WDBJ WWNC  
 KDYL KMBC KOIL KVI KMOX  
 KFPY KLZ WLAC

4:00-5:00 **National Light Opera**  
 WJZ WBAL KSTP WRC KFAB  
 WTMJ

4:00-5:30 **Cathedral Hour**  
 WEAJ WGY WEBE WJAR WTAG  
 WCSH WGR WCAE WOW WRVA  
 WPTF WJAX WSM WMC WSB  
 WKY WOAI KPO KGO KOMO  
 KFI KGW KHQ

5:00-5:30 **Duo Disc Duo**  
 WJZ WBZ WBZA WBAL WLW  
 KYW KWK WREN KFAB WJR

5:00-5:30 **McKesson News Reel**  
 WABC WNAC W AN WFBL WKBW  
 WJAS WADC WKRC WGHF WOWO  
 KMBC KOIL WSPD WHK WLWB  
 WMAL WHEC WDBJ WTRAR WWNC  
 WLAC WDOJ WBRG WREC KLRA  
 KFJF KRLD KFH K TSA WCCO  
 WISN WDSU KLZ KDYL KHJ  
 KFRC KOIN KVI KFPY WCAU  
 WMAQ KMOX

5:30-6:00 **Rev. Donald Grey Barnhouse**  
 WABC WMAL WKBW WEAN WNAC  
 WKRC WJAS WFBL WLWB WCAU  
 WCAO WADC WMAQ WOWO KOIL  
 WFBM

5:30-6:00 **Gilbert Sports Revue**  
 WEAJ WEBE WJAR WTAG WCSH  
 WFI WRC WGY WGR WCAE  
 WFJC KOA WWJ WSAI KYW  
 KSD WHO WOW WDAF WTMJ  
 KSTP WEBC KSL KGO KOMO  
 KGW KHQ KFI WOC

5:30-6:00 **National Religious Service**  
 WJZ WBAL WBZ WBZA WHAM  
 KFAB

6:00-6:15 **Echoes of the Orient**  
 WEAJ WCAE WRC WWJ KSD  
 KOA WGY WOC WOW

6:00-6:30 **Fox Fur Trappers**  
 WABC WCAU WNAC WHK

6:15-6:30 **Countess Olga Medolago Albani**  
 WEAJ WRC WCAE KSD WOC  
 WHO WOW

6:30-7:00 **Old Company's Songalogue**  
 WEAJ WEBE WCSH WTAG WLIT  
 WJAR WRC WGY WGR

6:30-7:00 **1-TpScalers**  
 WABC WJAS WNAC WEAN WHK  
 WSPD WCAU WFBL KOIL KMBC  
 WKBW WADC WKRC WGHF WOWO  
 WLWB WMAL KMOX

6:30-7:00 **Whittail Anglo-Persians**  
 WJZ WBZ WBZA WBAL WHAM  
 KDKA WLW WJR KYW KWK  
 WTMJ KSTP WEBC KOA KSL  
 KGO KOMO KHQ KGW KFI  
 WREN

7:00-7:30 **In the Spotlight**  
 WJZ KWK WEBC KOA KTHS

7:00-7:30 **Heroes of the World**  
 WEAJ WJAR WTAG WCSH WLIT  
 WRC WGY WGR WCAE WTAM  
 WFJC WWJ WSAI WLS WOC  
 WDAF WTMJ WEBC WRVA WPTF  
 WBT WJAX WIOD WHAS WSM  
 WMC WSB WSMB KVOO WKY  
 KPRC WOAI WEBE KSD WHO  
 WAPI KOA

7:30-7:45 **French Trio**  
 WABC WKRC WADC WISN WDOD  
 WFAN WFBM WCAO WFBL WSPD  
 WJAS WLWB WMAL WMAQ WREC  
 WDBJ WWNC KDYL KOIL KVI  
 KFPY KLZ

7:30-8:00 **At the Baldwin**  
 WJZ WBZ WEBA WBAL WHAM  
 WJR WLW WREN KYW KWK  
 WTMJ WEBC KSTP WHAS WSB  
 WSM KOA WMC KSL WSMB

7:45-8:00 **"The World's Business"**  
 WABC WKRC WADC WISN WDOD  
 WFAN WFBM WCAO WCCO WFBL  
 WJAS WLWB WNAC WMAL WMAQ  
 WREC WDBJ WWNC KDYL KMBC  
 KOIL KVI KFPY KLZ

7:30-8:30 **Major Bowes' Family**  
 WEAJ WJAR WRC WGY WCAE  
 WWJ WSAI KSD WOW WFJC  
 WIOD WHAS WMC WSB WKY  
 WTAM KTHS WDAF WHO

8:00-8:15 **Enna Jettick Melodies**  
 WJZ WBZ WBZA WHAM WKY  
 WJR KWK WLW WREN WFAA  
 KPRC WOAI WHAS WSM WBS  
 WTMJ KSTP WMC KOA KDKS  
 KYW WEBC WIOD WBT KVOO  
 KTHS

8:00-8:30 **La Pallina Rhapsodizers**  
 WABC WNAC WCAU WEAN WFBL  
 WCAO WJAS WADC WKRC WFBM  
 KMOX KMBC KOIL WLWB WMAL  
 WISN WMAK WGHF WOWO WSPD  
 WCCO WHK

8:15-9:15 **Collier's Radio Hour**  
 WJZ WBZ WBZA WHAM KDKA  
 WJR WLW KYW KWK WREN  
 KOA KSL KGW KOMO KHQ  
 KFO KFI

8:30-9:00 **Chase & Sanborn Orchestra**  
 WEAJ WTIC WJAR WTAG WCSH  
 WRC WLIT WGY WGR WCAE  
 WFJC WWJ WSAI KSD WOW  
 WLS WDAF WIOD WHAS WEBC  
 WMC WSB WSMB WKY KTHS  
 KPRC WOAI WOC KVOO

8:30-9:00 **Sonatron Program**  
 WABC WCAU WEAN WFBL WCAO  
 WJAS WADC WKRC WOWO KMBC  
 KMBC KOIL WHK WLWB WMAL  
 KLZ KDYL WBBM WNAC WGHF  
 WMAK WSPD WCCO WFBM KFRC  
 KHJ KOIN KVI KFPY

9:00-9:15 **"Our Government," David Lawrence**  
 WEAJ WTIC WJAR WTAG WCSH  
 WRC WGY WCAE KSD WHAS  
 WKY WSAI WFJC WGR WSB  
 WBT WMC WSM WFAA WOW  
 WOAI WHO

9:00-10:00 **Majestic Theatre of the Air**  
 WABC WCAU WNAC WEAN WFBL  
 WMAK WCAO WJAS WADC WKRC  
 WGHF WBBM WOWO KMOX KMBC  
 KOIL WSPD WHK WLWB WLAC  
 WMAL WDBJ WTRAR WWNC WDOD  
 WBRG WREC KLRA KFPY KRLD  
 K TSA WDSU WCCO WISN KLZ  
 KDYL WFBM WIBW CFEB CKAC  
 KFRC KHJ KOIN KVI KFPY  
 WDEL

9:15-9:45 D'Orsay's Parisienne Romance  
WJZ WBZ WEZA WHAM KDKA  
WJR KYW KWK WREN WCKY

9:15-10:15 Atwater Kent Concert  
WEAF WEEI WRC WGY WGR  
WCAE WTAM WWJ WSAI WGN  
KSD WOW KSTP KOA KSL  
KPO KGO KFI KGW KOMO  
KHQ WSM WMC WSB WFAA  
KPRC WOAI WKY WFI WSMB  
WOC

9:45-10:15 The Fuller Man  
WJZ WBZ WEZA WHAM KDKA  
WJR KYW KWK WREN WCKY

10:00-10:30 Arabesque  
WABC WHK WKRC WISN WADC  
WDOD WFBM WCAO WFBL WSPD  
WJAS WLBW WKBW WNAC WEAN  
WMAL WMAQ WREC WDBJ WWNC  
KDYL KMBC KVI KMOX KFPY  
KLZ WLAC

10:15-10:45 Studebaker Champions  
WEAF WTIC WTAG WCSH WFI  
WRC WGY WGR WCAE WTAM  
WWJ WGN KSTP WTMJ WEBC  
KOA KPO KGO KGW KOMO  
KFI KHQ WOW KSL WJAR  
WHO

10:15-11:00 Master Musicians  
WJZ WHAM KOA WRC KWK

10:30-11:00 Jesse Crawford  
WABC WCAU WNAC WEAN WFBL  
WKBW WCAO WJAS WADC WKRC  
WGHP WMAQ WOWO KMOX KMBC  
KOIL WSPD WHK WLBW WMAL  
KLZ KDYL KHJ KFRK KOIN  
KVI KFPY

10:45-11:15 Sunday at Seth Parker's  
WEAF WCAE WHAS WJAX WOW  
WKY WWJ WFJC WIOD WHO

11:00-12:00 Back Home Hour  
WABC WCAO WKRC WISN WDOD  
WCAU WFBM WGHP WFBL WSPD  
WOWO WMAK WNAC WEAN WMAL  
WMAQ WREC WDBJ WWNC KOIL  
KVI KFPY KFH KLZ KDYL

11:15-11:45 South Sea Islanders  
WJZ KDKA WRC KWK

11:15-11:45 Christmas Club Program  
WEAF WEEI WTIC WJAR WTAG  
WCSH WFI WRC WGY WGR  
WCAE WTAM WFJC WWJ KSD  
WHO WOW WTMJ KSTP WEBC  
WBT WJAX WIOD WHAS WSM  
WMC WSB WAPI WKY KTHS  
WBAP KPRC WOAI KOA KGO  
KGW KFI WCKY

11:45-12:00 Sam Herman, Xylophonist  
WEAF WOW KOA WOC WWJ  
WBAP

11:45-12:00 Armchair Quartet  
WJZ KDKA KWK WRC WREN

## Monday

9:30-10:00 Blue Monday Chasers  
WABC WHK WDOD WFBL WLBW  
WOWO WMAK WMAL WREC WDBJ  
WWNC KDYL KOIL KVI KMOX  
WLAC

10:30-11:00 Columbia Mixed Quartet  
WABC WADC WDOD WCAU WGHP  
WBMM WFBL WJAS WLBW WOWO  
WMAL WREC WDBJ WWNC KMBC  
KOIL KFPY KLZ WLAC

11:15-11:30 Elizabeth Fellows' Menu Club  
WABC WDOD WCAU ECAO WBMM  
WFBL WLBW WOWO WMAK WMAL  
WREC WDBJ WWNC KLZ

5:00-5:30 Five o'Clock Sweethearts  
WABC WKRC WISN WDOD WFAN  
WCAO WCCO WGHP WBMM WFBL  
WSPD WOWO WMAK WMAL WMAQ  
WREC WDBJ WWNC KMBC KVI  
KMOX KFPY KFH KLZ

6:00-6:30 Mormon Tabernacle Choir  
WJZ WBAL WSM WLW KWK  
WRC KOA KSL KPO KGO  
KOMO KFAB WAPI

6:30-7:00 H. V. Kaltenborn  
WABC WHK WKRC WISN WDOD  
WFBM WCAO WBMM WJAS WLBW  
WOWO WKBW WMAQ WREC WDBJ  
WWNC KVI KFPY KLZ KFRK

7:00-7:30 Buck and Wing  
WEAF WRC WCAE WOW

7:30-8:00 Roxy and His Gang  
WJZ WBZ WEZA WHAM KDKA  
WJR KWK WRC WSM WSB  
WIOD WCFB WSMB WAPI WPTF  
WREN KFAB

7:45-8:00 Back of the News  
WEAF WKY WOC WEBC WJAR  
WCSH WGR WSAI KVOO KOA

8:00-8:30 Voice of Firestone  
WEAF WEEI WTIC WJAR WTAG  
WCSH WLIT WRC WGY WGR  
WCAE WWJ KYW WSAI KSD  
WOC WOW WDAF WIOD KTHS  
WSMB KSTP WTMJ WEBC WJAX  
WHAS WSM WMC WSB WBT  
WRVA KVOO KPRC WOAI WKY  
WFJC WTAM WFAA

8:30-9:00 Ingram Shavers  
WJZ WBZ WEZA WJAR WLW  
KWK WREN WHAM KDKA KYW  
WIOD WRVA WJAX WTMJ WMC  
WSB WKY KTHS KPRC KFAB  
WBT WOAI WEBC WSM WSMB

8:30-9:00 Ceco Couriers  
WABC WCAU WNAC WEAN WFBL  
WMAK WCAO WJAS WADC WKRC  
WGHP WMAQ KMOX KMBC KOIL  
WHK WLBW WMAL WCCO WSPD  
WFBM

8:30-9:30 A & P Gypsies  
WEAF WEEI WTIC WJAR WTAG  
WCSH WLIT WRC WGY WGR  
WCAE WWJ WSAI WGN KSD  
WOC WDAF WTAM

9:00-9:30 Edison Program  
WJZ WBZ WEZA KDKA WJR  
KYW WREN WEBC KSL KPO  
KGO KOMO KFI KGW KHQ  
KOA KWK WHAM KSTP

9:00-9:30 Physical Culture Magazine Hour  
WABC WCAU WNAC WFBL WMAK  
WCAO WJAS WADC WKRC WGHP  
WMAQ WGL KMOX KMBC KOIL  
WSPD WHK WLBW WMAL WEAN

9:30-10:00 Chesebrough Real Folks  
WJZ WBZ WEZA WHAM KDKA  
KWK KYW WREN WLW WJR

9:30-10:00 General Motors Family Party  
WEAF WEEI WTIC WJAR WCSH  
WTAG WLIT WRC WGY WGR  
WCAE WTAM WWJ WGN KSD  
WOC WOW WDAF KSTP WTMJ  
WHAS WSM WMC WSB WBT  
WJAX WFAA KPRC WOAI WKY  
KOA KSL KPO KGO KFI  
KGW KOMO KHQ

9:30-10:00 "An Evening in Paris"  
WABC WFBL WEAN WISN WNAC  
WKRC WMAL WSPD WHK WADC  
WMAK WMAQ WLBW WOWO WJAS  
WCAU KMOX KMBC KOIL WCAO  
WGHP CFRB

10:00-10:30 Cabin Nights  
WJZ WBZ WEZA WJR KYW  
KWK WREN WHAM KDKA WCKY

10:00-10:30 Panatela Country Club  
WABC WCAU WNAC WEAN WFBL  
WMAK WCAO WJAS WADC WKRC  
WGHP WMAQ WOWO KMOX KMBC  
KOIL WSPD WHK WLBW WMAL  
WFBBM

10:30-11:30 Voice of Columbia  
WABC WHK WLAC WCCO WOWO  
WGHP WCAO WISN WWNC WKBN  
WLBW WNAC WEAN WSPD WADC  
WMAQ WMAL WDOD WFBM WBR  
WJAS WKRC WCAU KFH KOIL  
KLZ KDYL WMAK KMOX KVI  
WREC WDBJ

10:30-11:00 Empire Builders  
WJZ WBZ WBZA WHAM KDKA  
WJR WOV KYW KWK WREN  
WTMJ KSTP WEBC WKY WFAA  
KPRC WOAI KOA KSL KPO  
KGO KFI KOMO KHQ KGW  
WLW

11:00-12:00 New Yorker Hotel Orchestra  
WEAF WTIC WGR WFJC WWJ  
WMC

11:30-12:00 Abe Lyman's Orchestra  
WABC WCCO WOWO WGHP WCAO  
WISN WWNC WKBN WLBW WSPD  
WMAL WDOD WFBM WBRC WKRC  
WCAU KFH KOIL KLZ KDYL  
WKBW KVI WREC WDBJ

## Tuesday

11:00-11:30 Walter Kolomoku's Honoluluans  
WABC WDOD WCAU WGHP WBBM  
WFBL WSPD WLBW WOWO WKBW  
WMAL WREC WDBJ WWNC KVI  
KFPY KLZ WFBM

3:15-4:00 Matinee Gems  
WJZ KWK WRVA WJAX WIOD  
KOA WJR

4:00-4:45 Columbia Symphony Orchestra  
WABC WMAL WNAC WEAN WFBM  
WOWO WADC WGHP WWNC WLAC  
WKRC WIBW WGBW KOIL KFRC  
WBBM WDBJ WREC WBRC WHK  
WHP WISN WCAO WSPD WDOD  
WCCO WCAU KLZ KMBC KDYL  
KFPY KMOX

4:45-5:15 The Rhythm Kings  
WABC WKRC WISN WDOD WFAN  
WCAO WCCO WBN WFBL WSPD  
WOWO WMAL WMAQ WREC WDBJ  
WWNC KMBC KVI KMOX KFPY  
KLZ

6:00-6:30 Show Folks  
WABC WHK WKRC WDOD WISN  
WFBM WCAO WCCO WBBM WLBW  
WOWO WEAN WMAQ WREC WDBJ  
WWNC KVI KFPY KLZ KFRC

7:00-7:15 Roads of the Sky  
WEAF WRC WIOD WSM KOA  
WHO WCSH WFI WTAG WTAM  
WPTF KVOO WOAI KSL WHAS  
WOW

7:00-7:30 Jeddo Highlanders  
WJZ WBZ WBZA WHAM

7:15-7:30 Universal Safety Series  
WEAF WJAR WTAG WCSH WRC  
WSAI WDAF WRVA WPTF WBT  
WHAS WSMB WKY KTHS WOAI  
KOA WFI WCAE WOW WEBC  
WJAX WIOD WSM KVOO KSL  
KGO KOMO KGW WCKY

7:30-7:45 Lew White Organ Recital  
WJZ WBAL WRC WKY WIOD  
WPTF WREN

7:30-8:00 Soconyland Sketches  
WEAF WEEI WJAR WTAG WCSH  
WGY WGR

8:00-8:30 Songs of the Season  
WEAF WTAG WFI WRC WGY  
WGR WWJ WSAI KSD WEEI

8:00-8:30 Blackstone Plantation  
WABC WCAU WNAC WEAN WFBL  
WKBW WCAO WJAS WGHP KMBC  
KOIL WLBW WMAL WHP WHBC  
WCCO

8:00-8:30 Pure Oil Band  
WJZ WBAL WHAM KDKA WJR  
WLW KYW KWK WREN KSTP  
WTMJ WEBC WHAS WMC WBT  
WJAX WRVA WSM WSB

8:30-9:00 Around the World  
WJZ WBZ WBZA WBAL WHAM  
KDKA WJR WLW KWK KYW  
WREN WHAS WSM WMC WSB  
WSMB KOA KSL KPO KGO  
KGW KOMO KHQ

8:30-9:00 Prophylactic Program  
WEAF WEEI WCAE WJAR WTAG  
WCSH WFI WRC WGY WGR  
WSAI KSD WLS WHO WOV

8:30-9:00 True Romances  
WABC WCAU WNAC WEAN WFBL  
WKBW WADC WOWO KMOX KOIL  
WHK WLBW WMAL WBBM KMBC  
WCAO WGHP WSPD WAU WJAS

9:00-9:30 Johnson and Johnson Program  
WJZ WBZ WBZA WHAM KDKA  
KYW KWK WLW WREN WBAL

9:00-10:00 Eveready Hour  
WEAF WEEI WFI WRC WGY  
WGR WCAE WTAM WWJ WGN  
KSD WHO WDAF WSTP WEBC  
WHAS WSM WMC WSB KVOO  
WOAI WJAR

9:00-10:00 Old Cold-Whiteman Hour  
WABC WCAU WNAC WEAN WFBL  
WKBW WCAO WJAS WADC WGHP  
WBBM WOWO KMOX K BC KOIL  
WSPD WHK WLBW WMAL WCCO  
KLZ KDYL KLRA WDBJ WTAR  
WWNC WLAC WDOD WBRC WREC  
KFJF K TSA WISN WDSU WFBM  
KRLD WKRC KFRC KHJ KOIN

9:30-10:00 Dutch Masters Minstrels  
WJZ WBZ WBZA WBAL WHAM  
KDKA KYW KWK WREN WJR

10:00-10:30 Fada Orchestra  
WABC WCAU WNAC WEAN WFBL  
WKBW WCAO WJAS WADC WKRC  
WGHP WBBM WOWO KMOX KMBC  
KOIL WSPD WHK WLBW WMAL  
WFBM KLRA KFJF KRLD K TSA  
WCCO WISN WIBW

10:00-10:30 Club Eskimos  
WEAF WEEI WCSH WJAR WFI  
WRC WGY WGR WCAE WWJ  
WSAI WOV KYW KSD WHO  
WDAF KSTP WHAS WSM WMC  
WSB WOAI KOA KSL WTMJ  
KPRC WRVA WBT WJAX WKY  
KPO KGO KFI KGW KOMO  
KHQ WEBC WBAP WTAG

10:00-10:30 Williams Oilomatics  
WJZ WBZ WBZA WBAL WHAM  
KDKA KWK WREN WGN

10:30-11:00 Freed Orchestradians  
WJZ WBZ WBZA WBAL WHAM  
KDKA WJR KYW KWK WREN  
KSTP KOA KSL KGO KOMO  
KHQ KGW KFI

10:30-11:00 Night Club Romance  
WABC WHK WLAC WOWO WGHP  
WCAO WISN WHP WWNC WLBW  
WNAC WEAN WSPD WADC WMAL  
WDOD WFBM WBRC WJAS WKRC  
WCAU KOIL KLZ KDYL KMBC  
WKBW KFPY KMOX KVI WREC  
WDBJ

10:30-11:30 R-K-O Hour  
WEAF WEEI WJAR WTAG WCSH  
WFI WRC WGY WGR WCAE

WFJC WWJ WSAI KSD WHO  
 WOW WDAF WTMJ KSTP WEBC  
 WRVA WBT WJAX WIOD WHAS  
 WSM WMC WSB WAPI WSMB  
 WFAA KPRC WOAI WKY KTHS  
 KOA KSL KPO KGO KGW  
 KFI KOMO KHQ WIBO  
 11:00-11:30 Around the Samovar  
 WABC WCCO WOVO WGHP WCAO  
 WISN WHP WWNC WLBW WNAC  
 WEAN WSPD WMAL WDOD WBRC  
 WJAS WKRC WCAU KFH KOIL  
 KLZ KDYL KMBC WKBW KFPY  
 KVI WREC WDBJ  
 11:30-12:00 Hotel Paramount Orchestra  
 WABC WCCO WOVO WGHP WCAO  
 WISN WHP WWNC WLBW WSPD  
 WMAL WDOD WFBM WBRC WKRC  
 WFAN KFH KOIL KLZ KDYL  
 KMBC WKBW KFPY KVI WREC  
 WDBJ  
 11:30-12:00 Harbor Lights  
 WEAF WCAE WFI WWJ WRC  
 WGR WFJC WRVA KSD

### Wednesday

9:15-10:00 Parnassus String Trio  
 WJZ WJR WREN KWK  
 10:00-10:45 The Manhattans  
 WJZ KWK WREN WBAL  
 10:30-11:00 Interior Decorating  
 WABC WCAU WNAC WEAN WMAK  
 WCAO WJAS WADC WGHP WOVO  
 KMOX KOIL WSPD WHK WLBW  
 WMAL WFBM WBBM WISN WFBL  
 WKRC  
 10:45-11:00 Mary Hale Martin  
 WJZ WEZ WBZA WMC WBAL  
 WSM WSMB WSB WAPI WJR  
 WHAM KDKA WLW KWK WREN  
 WHAS KFKX WBAL WJR  
 11:00-11:15 The Wisco Program  
 WEAF WCAE WLIT WGY WTAG  
 WCSH  
 11:00-11:30 Milady's Mirror  
 WABC WDOD WCAU WBBM WFBL  
 WLBW WOVO WMAL WREC WDBJ  
 WWNC KFPY KLZ  
 3:30-4:00 Our Little Playhouse  
 WABC WKRC WADC WISN WDOD  
 WCAU WFBM WCAO WCCO WFBL  
 WSPD WOVO WMAK WMAL WMAQ  
 WREC WDBJ WWNC KDYL KOIL  
 KVI KMOX KFPY KLZ WLAC  
 4:30-5:15 Club Plaza Orchestra  
 WABC WHK WCCO WOVO WGHP  
 WCAO WISN WHP WWNC WNAC  
 WSPD WADC WMAL WDOD WBRC  
 WKRC WFAN KOIL KLZ KMBC  
 WMAK KFPY WBBM KMOX KVI  
 WREC WDBJ  
 5:00-5:30 Sky Sketches  
 WEAF WRC WWJ WCSH  
 6:30-7:00 Guy Lombardo's Orchestra  
 WABC WKRC WISN WDOD WFBM  
 WCAO WBBM WJAS WLBW WOVO  
 WMAK WMAQ WREC WDBJ WWNC  
 KVI KFPY KLZ  
 7:00-7:30 Family Goes Abroad  
 WEAF WRC WWJ WSM WMC  
 7:00-7:30 Twilight Melodies  
 WJZ WBZ WBZA KDKA KWK  
 KSTP WEBC WLS WJR WTMJ  
 7:30-8:00 Westinghouse Salute  
 WJZ WBZ WBZA WHAM KDKA  
 KYW WJR KWK WREN WEBC  
 WRVA WPTF WBT WJAX WIOD  
 WHAS WSM WMC WSE WSMB  
 KVOO WKY WOAI KOA KFAB  
 WCKY KSL KGO KGW KOMO  
 KFI KHQ KPRC WFAA KSTP  
 7:30-8:00 Golden Gems  
 WEAF WCSH WTAG WWJ WGR

8:00-8:30 Grand Opera Concert  
 WABC WLAC WCCO WGHP WCAO  
 WISN WHP WWNC WLBW WNAC  
 WEAN WADC WMAQ WMAL WDOD  
 WFBM WJAS WKRC WCAU KOIL  
 KLZ KDYL KFRC WKBW KFPY  
 KMOX KVI WAU WREC WDBJ  
 8:00-8:30 The Yeast Foamers  
 WJZ WBZ WBZA WHAM KDKA  
 WJR KYW KWK WLW WREN  
 WTMJ KSTP WEBC KFAB  
 8:00-8:30 Mobiloil Concert  
 WEAF WEEI WTIC WJAR WTAG  
 WCSH WLIT WRC WGR WCAE  
 WWJ WSAI KSD WOC WOV  
 WDAF WFIC WTAM KOA KVOO  
 WFAA KPRC WOAI WKY  
 8:30-9:00 Forty Fathom Trawlers  
 WABC WADC WCAO WNAC WKBW  
 WMAQ WKRC WHK WGHP WLBW  
 WCAU WJAS WEAN KMOX WFBL  
 WMAL WHP WFBM WHEC  
 8:30-9:00 Happy Wonder Bakers  
 WEAF WEEI WTIC WJAR WTAG  
 WCSH WLIT WRC WGY WGR  
 WWJ WSAI KSD WOC WOV  
 WFJC KSTP WTMJ WMC KVOO  
 WOAI KPRC WKY WLS WFAA  
 8:30-9:00 Sylvania Foresters  
 WJZ WBZ WBZA WHAM KDKA  
 KWK WREN WLW KYW WDBJ  
 KFB  
 9:00-9:30 MacFadden Red Seal Hour  
 WABC WCAU WNAC WEAN WFBL  
 WMAK WCAO WJAS WADC WKRC  
 WGHP WMAQ KMOX KMBC KOIL  
 WSPD WHK WLBW WMAL WGL  
 9:00-9:30 Smith Brothers  
 WJZ WBZ WBZA WHAM KDKA  
 KYW KWK WREN WCKY  
 9:00-9:30 Halsey Stuart Program  
 WEAF WEEI WJAR WTAG WCSH  
 WLIT WRC WGY WCAE WWJ  
 WSAI KSD WOC WOV KSTP  
 WBT WJAX WHAS WMC WSB  
 WSMB KVOO KPRC WOAI KOA  
 KGO KOMO KHQ KGW KFI  
 9:30-10:00 La Palina Smoker  
 WABC WCAU WNAC WEAN WFBL  
 WMAK WCAO WJAS WADC WGHP  
 WMAQ WOVO KMOX KMBC KOIL  
 WSPD WCCO WHK WLBW WMAL  
 WISN WKRC  
 9:30-10:30 Palmolive Hour  
 WEAF WEEI WTIC WJAR WTAG  
 WCSH WLIT WRC WGY WGR  
 WCAE WTAM WWJ WSAI WGN  
 KSD WOC WOV WDAF WSMB  
 KSTP WTMJ WHAS WSM WMC  
 WSB WBT WJAX KVOO KPRC  
 WOAI KOA KSL KPO KGO  
 KFI KGW KOMO KHQ WFAA  
 10:00-10:30 Kolster Radio Hour  
 WABC WCAU WNAC WEAN WFBL  
 WMAK WCAO WJAS WADC WKRC  
 WGHP WMAQ WOVO KMOX KMBC  
 KOIL WSPD WHK WLBW WMAL  
 WCCO KLZ KDYL KFRC KHJ  
 KOIN KVI KFPY CJGC  
 10:00-10:30 Neapolitan Nights  
 WJZ WHAM KDKA WREN WCKY  
 10:30-11:00 Stromberg-Carlson Program  
 WJZ WBZ WBZA KDKA KYW  
 KWK WREN WRVA KSTP WTMJ  
 WEBC WIOD WHAS WSM WMC  
 WSB WBT WJAX KVOO WBAP  
 KPRC WOAI WKY KOA KSL  
 KPO KGO KFI KGW KOMO  
 KHQ WJR WHAM WSMB KTHS  
 WAPT  
 10:30-11:00 In a Russian Village  
 WABC WHK WLAC WCCO WGHP  
 WCAO WISN WWNC WKBW WLBW  
 WNAC WEAN WSPD WADC WMAQ



WMAL	WDOD	WFBM	WBRC	WJAS	8:15-8:30 "The Political Situation"	WABC	WHK	WKRC	WADC	WISN	
WKRC	WCAU	KOIL	KLZ	KDYL	WABC	WDOD	WFAN	WCAO	WCCO	WFBL	
WMAK	KMOX	KVI	WREC	WDBJ	WSPD	WJAS	WLBW	WOWO	WKBW	WKBW	
11:00-12:00 Show Boat	WABC	WHK	WKRC	WISN	WDOD	WNAC	WEAN	WMAL	WMAQ	WREC	
WCAU	WCAO	WCCO	WGHP	WFBL	WDBJ	KFPY	WVNC	KOIL	KVI	KMOX	
WSPD	WJAS	WLBW	WMAK	WNAC	WDBJ	KFH	KLZ	WLAB	WLAB	WFBM	
WEAN	WMAL	WMAQ	WREC	WDBJ	8:30-9:00 Champion Sparkers	WJZ	WBZ	WBZA	WBAL	WHAM	
WVNC	KOIL	KVI	KFPY	KFH	KDKA	WLW	WLS	KWK	WREN	WREN	
11:30-12:00 Phil Spitalny's Music	WEAF	WWJ	KSD	WEBC	WOW	WJR	KFAB				
<b>Thursday</b>											
9 30-10:00 Something Else	WABC	WHK	WDOD	WFBL	WLBW	WABC	WGHP	WCAO	WISN	WVNC	
WOWO	WKBW	WMAL	WREC	WDBJ	WDBJ	WKBN	WLBW	WNAC	WEAN	WSPD	
WNAC	KLZ	KOIL	KVI	KMOX	WLAB	WADC	WDOD	WBRC	WJAS	WKRC	
10:30-11:30 Morning Merrymakers	WABC	WHK	WADC	WDOD	WCAU	KFH	KOIL	KLZ	KDYL	WKBW	
WCAO	WGHP	WBBM	WFBL	WLBW	WOWO	KFPY	KMOX	KVI	WAIU	WREC	
WOWO	WKBW	WMAL	WREC	WDBJ	WNAC	KLZ	WLAB				
WNAC	KMBC	KOIL	KVI	KFPY	11:00-11:15 "Your Child"	WEAF	WTAG	WJAR	WRC	WGY	
KLZ	WLAB				WCAE	KSD	WOC	KSTP	WBT	WCAE	
11:00-11:15 "Your Child"	WEAF	WTAG	WJAR	WRC	WGY	WJAX	WSM	KVOO	KPRC	WKY	
WCAE	KSD	WOC	KSTP	WBT	WCAE	11:30-11:45 Du Barry Beauty Talk	WABC	WCAU	WNAC	WEAN	WFBL
WJAX	WSM	KVOO	KPRC	WKY	WLAB	WABC	WCAU	WNAC	WEAN	WFBL	
11:30-11:45 Du Barry Beauty Talk	WABC	WCAU	WNAC	WEAN	WFBL	WCAO	WJAS	WADC	WGHP	WBBM	
WABC	WCAU	WNAC	WEAN	WFBL	WBBM	WOWO	KOIL	WHK	WLBW	WMAL	
WCAO	WJAS	WADC	WGHP	WBBM	WOWO	WRHM	WISN	WSPD	WAIU	WKBW	
WOWO	KOIL	WHK	WLBW	WMAL	WKRC	5:00-5:15 Ebony Twins	WABC	WKRC	WISN	WDOD	WFAN
WRHM	WISN	WSPD	WAIU	WKBW	WABC	WABC	WKRC	WISN	WDOD	WFAN	
WKRC					WCAO	WCAO	WCCO	WBBM	WFBL	WSPD	
5:00-5:15 Ebony Twins	WABC	WKRC	WISN	WDOD	WFAN	WOWO	WMAL	WMAQ	WREC	WDBJ	
WABC	WKRC	WISN	WDOD	WFAN	WVNC	WNAC	KMBC	KVI	KMOX	KFPY	
WCAO	WCCO	WBBM	WFBL	WSPD	KLZ	5:00-5:30 R-K-O Program	WEAF	WEEI	WTIC	WJAR	WCSH
WOWO	WMAL	WMAQ	WREC	WDBJ	KLZ	WEAF	WEEI	WTIC	WJAR	WCSH	
WVNC	KMBC	KVI	KMOX	KFPY	5:00-5:30 R-K-O Program	WLIT	WRC	WCAE	WFJC	WSAI	
KLZ					WEAF	KSD	WOC	WOW	KYW	WTAG	
5:00-5:30 R-K-O Program	WEAF	WEEI	WTIC	WJAR	WCSH	WGY	WWJ	WDAF	WGR	WRC	
WEAF	WEEI	WTIC	WJAR	WCSH	WCSH	6:30-7:00 Civic Repertory Plays	WABC	WKRC	WISN	WDOD	WFBM
WLIT	WRC	WCAE	WFJC	WSAI	WCSH	WABC	WKRC	WISN	WDOD	WFBM	
KSD	WOC	WOW	KYW	WTAG	WCSH	WCAO	WBBM	WJAS	WLBW	WKBW	
WGY	WWJ	WDAF	WGR	WRC	WCSH	WMAQ	WREC	WDBJ	WVNC	KOIL	
6:30-7:00 Civic Repertory Plays	WABC	WKRC	WISN	WDOD	WFBM	KVI	KFPY	KLZ			
WABC	WKRC	WISN	WDOD	WFBM	WABC	7:00-7:30 Mid-Week Hymn Sing	WEAF	WCSH	WHAS	WRC	KOA
WCAO	WBBM	WJAS	WLBW	WKBW	WMAQ	WABC	WCAU	WNAC	WEAN	WFBL	
WMAQ	WREC	WDBJ	WVNC	KOIL	KVI	WEAF	WCSH	WHAS	WRC	KOA	
KVI	KFPY	KLZ				WMC	WJAR				
7:00-7:30 Mid-Week Hymn Sing	WEAF	WCSH	WHAS	WRC	KOA	7:30-8:00 Coward Comfort Music	WEAF	WEEI	WJAR	WTAG	WCSH
WEAF	WCSH	WHAS	WRC	KOA	WABC	WEAF	WEEI	WJAR	WTAG	WCSH	
7:30-8:00 Coward Comfort Music	WEAF	WEEI	WJAR	WTAG	WCSH	7:30-8:00 The Mediterraneans	WJZ	KWK	WKY	WBZ	WBZA
WEAF	WEEI	WJAR	WTAG	WCSH	WABC	WBAL	KDKA	WJR	WREN	WEBC	
7:30-8:00 The Mediterraneans	WJZ	KWK	WKY	WBZ	WBZA	KPRC	KFAB				
WBAL	KDKA	WJR	WREN	WEBC	WABC	8:00-8:15 Tower-izers	WABC	WFAN	WNAC	WEAN	WFBL
KPRC	KFAB				WKBW	WABC	WFAN	WNAC	WEAN	WFBL	
8:00-8:15 Tower-izers	WABC	WFAN	WNAC	WEAN	WFBL	WKBW	WCAO	WJAS	WADC	WKRC	
WABC	WFAN	WNAC	WEAN	WFBL	WKBW	WGHP	WBBM	WOWO	KMOX	KMBC	
WCAO	WJAS	WADC	WKRC	WKBW	WKBW	KOIL	WHK	WLBW	WMAL	WCCO	
WJAS	WLBW	WMAQ	WREC	WDBJ	WKBW	WISN	WSPD				
8:00-8:30 Lehn and Fink Serenade	WJZ	WBZ	WBZA	WHAM	KDKA	8:00-8:30 Lehn and Fink Serenade	WJZ	WBZ	WBZA	WHAM	KDKA
WJZ	WBZ	WBZA	WHAM	KDKA	KDKA	KYW	KWK	WREN	WBAP	KPRC	
KYW	KWK	WREN	WBAP	KPRC	WABC	WAOI	WKY	WBAL	WLW		
WAOI	WKY	WBAL	WLW		WABC	8:00-9:00 Fleischmann Sunshine Hour	WEAF	WEEI	WTAG	WJAR	WCSH
8:00-9:00 Fleischmann Sunshine Hour	WEAF	WEEI	WTAG	WJAR	WCSH	WEAF	WEEI	WTAG	WJAR	WCSH	
WEAF	WEEI	WTAG	WJAR	WCSH	WABC	WFI	WRC	WGY	WGR	WCAE	
WABC	WFAN	WNAC	WEAN	WFBL	WKBW	KSD	WFJC	WHO	WOW	WDAF	
WFAN	WNAC	WEAN	WFBL	WKBW	WKBW	WWJ	WTMJ	WPTF	WBT	WJAX	
WNAC	WEAN	WFBL	WKBW	WKBW	WKBW	WIOD	WHAS	WMC	WSB	WSMB	
WEAN	WFBL	WKBW	WKBW	WKBW	WKBW	WKY	WSAI	KPRC	KOA	WEBC	
WFBL	WKBW	WKBW	WKBW	WKBW	WKBW	WRVA	KSL	WAOI	WSM	KGO	
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	KGW	KOMO	KHQ	WBAP	WAPI	
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	KTHS	KPO				
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	11:00-11:30 Dream Boat	WABC	WOWO	WGHP	WCAO	WISN
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	WABC	WOWO	WGHP	WCAO	WISN	
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	WHP	WVNC	WLBW	WSPD	WMAL	
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	WDOD	WBRC	WJAS	WKRC	WCAU	
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	KFH	KOIL	KLZ	KDYL	WKBW	
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	KFPY	KVI	WREC	WDBJ		
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	11:00-12:00 National Grand Opera	WEAF	WFI	WRC	WGY	WGR
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	WEAF	WFI	WRC	WGY	WGR	
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	WTAM	WWJ	KSD	WRVA	WHAS	
WKBW	WKBW	WKBW	WKBW	WKBW	WKBW	WMC					

# Friday

10:30-11:00 Walter Kolomoku's Honoluluans  
WABC WHK WLAC WOWO WGHP  
WCAO WHP WWNC WKBN WSPD  
WADC WMAL WDOD WJAS WCAU  
KOIL KLZ KMBC WMAK WBBM  
KVI WREC

11:00-11:15 Neil Vinick  
WABC WNAC WEAN WFBL WMAK  
WCAO WJAS WADC WKRC WGHP  
WOWO KOIL WSPD WLBW WMAL  
WHEC WFEB WCAU WAIU WBBM

11:00-12:00 NBC Music Hour  
WEAF WJZ WEEI WJAR WTAG  
WCSH WLIT WRC WGY WGR  
WCAE WTAM WWJ WGN KSD  
WHO WOW WDAF KSTP WTMJ  
KOA WHAS WSM WMC WSB  
WBT KVOO WFAA KPRC WOAI  
WJAX WRVA WBEBC WBZ WBZA  
WBAL WHAM KDKA WJR WLW  
KYW KWK WREN KFAB WFJC  
KSL WKY WIOD WSMB WAPI  
WPTF KTTHS

11:15-11:45 Columbia Salon Orchestra  
WABC WDOD WCAU WCAO WGHP  
WBBM WFBL WJAS WLBW WOWO  
WMAK WMAL WREC WDBJ WWNC  
KVI KFPY KLZ

11:45-12:15 Radio Beauty School  
WABC WCAU WNAC WEAN WFBL  
WMAK WCAO WJAS WADC WKRC  
WGHP KMBC WBBM WOWO KOIL  
WLBW WMAL WSPD (KMOX 11:45-12)

12:00-1:00 Evening Stars  
WEAF WTAG WRC WWJ KSD  
WHO WOW WJAX KSTP WTMJ  
WSM WRVA WKY KOA KSL  
WCSH WGY WCAE WDAF KPRC  
WAPI WLIT WTAM WBT WBAP  
WBCB WFJC

5:00-5:15 Dr. Thatcher Clark  
WABC WCCO WOWO WCAO WHP  
WWNC WKBN WDOD WKRC WFAN  
KLZ WMAK KFPY KVI WREC

6:30-7:00 Raybestos Twins  
WEAF WJAR WTAG WCSH WRC  
WGY WCAE WTAM WWJ

7:00-7:30 Henry-George  
WABC WADC WMAK WKRC WHK  
KMBC KOIL WJAS KMOX WISN  
WCCO WFBL WMAQ WFBM WGBI

7:30-7:45 Broadway Lights  
WEAF WCSH WLIT WRC WGR  
KSD WWJ

7:30-8:00 Dixies Circus  
WJZ WBZ WBZA KDKA KYW  
WHAS WSM WSB WBT WMC  
WLW

7:30-8:00 Howard Fashion Plates  
WABC WCAU WNAC WEAN WFBL  
WJAS

8:00-8:30 Brown-Bilt Footlights  
WABC WADC WCAO WNAC WMAK  
WKRC WHK WGHP WOWO KMBC  
WLBW KOIL WCAU WJAS WEAN  
KMOX WFBL WMAL WHP WAIU  
WFBM WHEC WCCO WWNC WTAR  
WDBJ WBRC WDOD WREC WLAC  
WDSU KRLD KLRA KFJF KFH  
KLZ KHJ KOIN KDYL KFRC  
KVI KFPY WISN

8:00-8:30 Triadors  
WJZ WBZ WBZA KDKA WREN  
WHAM WJR WLW KWK

8:00-9:00 Citles Service Orchestra  
WEAF WEEI WTIC WLIT WRC  
WGR WCAE WTAM KYW KSD  
WOW WDAF KSTP WTMJ WKY  
WWJ WOC KOA WFAA WSAI  
WJAR

8:30-9:00 Eversharp Penmen  
WABC WFBM WMAQ WFBL WHK  
WMAK WJAS KMBC KOIL WKRC  
WNAC WEAN WADC WLBW WCAU  
WCAO WGHP WODO WMOX WSPD  
WMAL WCCO CKGW

8:45-9:00 Famous Loves  
WJZ WBZ WBZA WHAM KDKA  
WLW KWK WREN WRVA WBT  
WJAX WIOD WCFL KFAB

9:00-9:30 Stars of Melody  
WEAF WJAR WTAG WRC WGY  
WCAE WWJ KSD WOC WOW

9:00-9:30 Interwoven Pair  
WJZ WBZ WBZA WHAM KDKA  
WMC KYW WREN KPRC WOAI  
KOA WHAS WSM WSB WBT  
WJAX KWK WRVA KSL KPO  
KGO KOMO KHQ KGW KFI  
WKY WAPI WSMB WIOD WLW  
WFAA

9:00-10:00 True Story Hour  
WABC WCAU WNAC WEAN WKRC  
WFBL WMAK WCAO WJAS WADC  
WGHP WMAQ WOWO KMOX KMBC  
KOIL WSPD WHK WLBW WMAL  
WHEC WCCO WDBJ WTAR WWNC  
WLAC WDOD WREC KFJF KLRA  
KRLD KTSa WDSU KLZ KDYL  
KHJ KFRC KOIN KVI KFPY  
KFH

9:30-10:00 Schradertown Band  
WEAF WEEI WTIC WJAR WTAG  
WCSH WGY WGR WCAE WWJ  
WSAI KSD WOC WOV WRC  
WLIT WFJC WIBO

9:30-10:00 Philco's Theatre Memories  
WJZ WBZ WBZA WHAM KDKA  
WJR KYW KWK WREN WTMJ  
KSTP WBEBC WRVA WMC WSB  
WSMB KPRC WOAI KOA KSL  
WSM WKY WCKY WBT WHAS  
KPO KGO KFI KGW KOMO  
KHQ

10:00-10:30 Bremer-Tully Time  
WABC WCAU WNAC WEAN WFBL  
WMAK WCAO WJAS WADC WKRC  
WGHP WMAQ KMOX KOIL WSPD  
WHK WLBW WMAL WISN KMBC  
WOWO WCCO

10:00-10:30 Planters Pickers  
WEAF WTIC WJAR WTAG WCSH  
WLIT WRC WGY WGR WCAE  
WFJC WWJ WSAI WLS KSD  
WOW WDAF

10:00-10:30 Armstrong Quakers  
WJZ WBZ WBZA KDKA WBAP  
KYW KWK WREN WHAM WJR  
KSTP WTMJ WBEBC WHAS WSM  
WSB WBT KVOO KPRC WOAI  
WKY WSMB KOA KSL KGO  
KFI KGW KOMO KHQ WMC

10:30-11:00 Armour Program  
WJZ WBZ WBZA WHAM KDKA  
WJR WLW KYW KWK WREN  
WBT WJAX WHAS WSM WMC  
WSB WSMB WRVA WFAA KPRC  
WOAI WKY WTMJ KSL KSTP  
WBEBC KOA KPO KGO KFI  
KGW KOMO KHQ KVOO KTTHS

10:30-11:00 Mystery House  
WEAF WTAG WRC WWJ WOC  
WGR WCAE

10:30-11:00 Curtis Institute of Music  
WABC WLAC WCAO WISN WWNC  
WKBN WLBW WNAC WEAN WSPD  
WADC WMAQ WMAL WDOD WBRC

WJAS WKRC WCAU KOIL KLZ  
 KDYL WMAK KMOX KVI WREC  
 WDBJ  
 11:00-12:00 Hotel St. Regis Orchestra  
 WEAF WTIC WWJ WSAI WFJC  
 WGY WOC

**Saturday**

10:00-10:30 Personality Plus  
 WABC WHK WDOD WCAU WCAO  
 WBBM WFBL WLBW WOWO WKBW  
 WMAL WREC WDBJ WWNC KMBC  
 KOIL KVI KMOX KFPY WLAC

10:30-11:00 Columbia Male Trio  
 WABC WHK WDOD WCAU WCAO  
 WGHP WBBM WFBL WJAS WLBW  
 WOWO WKBW WMAL WREC WDBJ  
 WWNC KMBC KOIL KVI KFPY  
 KLZ WLAC

11:00-11:30 Adventures of Helen and Mary  
 WABC WKRC WDOD WCAU WBBM  
 WFBL WSPD WJAS WLBW WOWO  
 WKBW WMAL WREC WDBJ WWNC  
 KVI KFPY KLZ

11:30-12:00 Saturday Syncopaters  
 WABC WDOD WFAN WCAO WGHP  
 WBBM WFBL WSPD WJAS WLBW  
 WOWO WKBW WMAL WREC WDBJ  
 WWNC KMBC KVI KFPY KLZ  
 KFRC

6:00-6:30 Musical Vespers  
 WABC WHK WKRC WADC WDOD  
 WFAN WFBM WCAO WCCO WBBM  
 WFBL WOWO WKBW WMAQ WREC  
 WDBJ WWNC KVI KFPY KFH  
 KLZ

6:30-7:00 Nit Wit Hour  
 WABC WHK WGHP WCAO WISN  
 WHP WWNC WKBW WLBW WDOD  
 WFBM WJAS WKRC KOIL KLZ  
 KMBC WKBW KFPY KVI WREC  
 WDBJ

7:00-7:30 "New Business World"  
 WEAF WEEI WJAR WTAG WCSH  
 WRC WGY WGR WCAE WWJ  
 WSAI WOW KSTP WBBE WRVA  
 WBT WJAX WHAS WMC WSMB  
 WBAP KOA

7:30-8:00 Phil Spitalny's Music  
 WEAF WEEI WFI WRC WWJ  
 WSAI WHO WSM WGY WPTF  
 KOA WCAE WJAR

8:00-8:15 Guy Lombardo Canadians  
 WABC WHK WLAC WOWO WGHP  
 WCAO WISN WWNC WKBW WLBW  
 WNAC WEAN WSPD WADC WMAL  
 WDOD WFBM WBRW WJAS WKRC  
 WCAU KFH KOIL KLZ KMBC  
 KFRC WKBW KFPY KMOX KVI  
 WREC WDBJ

8:00-8:30 Lyric Famous Challengers  
 WEAF WEEI WJAR WTAG WCSH  
 WFI WRC WGY WGR WCAE  
 WWJ WSAI KYW KSD WHO  
 WOW WDAF KTHS WAPI WFJC  
 WPTF WJAX KSTP WTMJ WBBE  
 WIOD WHAS WSM WMC WSB  
 WBT WSMB WBAP KPRC WOAI  
 WKY KOA KSL KGO KFI  
 KGW KOMO KHQ KPO WRVA

8:15-8:30 Babson Finance Period  
 WABC WFBL WEAN WBBM WNAC  
 WKRC WMAL WCAO WSPD WADC  
 WKBW WLBW WOWO WJAS WCCO  
 WCAU KMBC KOIL WGHP WHK  
 KMOX WJJD

8:30-9:00 Dixie Echoes  
 WABC WLAC WCCO WOWO WGHP  
 WCAO WISN WWNC WLBW WNAC  
 WEAN WSPD WADC WMAL WDOD

WFBM WBRC WJAS WKRC WFAN  
 KFH KOIL KLZ KFRC WKBW  
 KFPY KMOX KVI WREC WDBJ

8:30-9:00 Lauderland Lyrics  
 WEAF WEEI WJAR WTAG WCSH  
 WRC WGY WGR WCAE WWJ  
 WSAI WLS KSD WHO WOW  
 WDAF WTMJ KSTP WBBE WRVA  
 WBT WJAX WIOD WHAS WSM  
 WMC WSB WAPI WSMB WKY  
 KTHS WBAP KPRC WOAI KOA  
 KSL

9:00-9:30 Graybar's Mr. and Mrs.  
 WABC WCAU WNAC WEAN WFBL  
 WKBW WCAO WJAS WADC WKRC  
 WGHP WMAQ WOWO WMOX KMBC  
 KOIL WSPD WHK WOBW WMAL  
 WFBM WDEJ WTR WWNC KFJF  
 WLAC WDOD WBRW WREC KRLD  
 KFH K TSA WCCO WISN WDSU  
 KLRA KLZ KDYL KFRC KHJ  
 KOIN KVI KFPY WKBW

9:00-10:00 General Electric Hour  
 WEAF WEEI WJAR WTAG WCSH  
 WFI WRC WGY WGR WCAE  
 WTAM WWJ WLS KSD WHO  
 WOW WDAF WTMJ WBBE WJAX  
 WHAS WSMB WMC WSB WBT  
 WBAP KPRC WOAI WRVA WSAI  
 KSTP WAPI WKY KOA KPO  
 KGW KOMO KHQ KSL KGO  
 KFI

9:30-10:00 The Gulbransen Hour  
 WABC WGHP WCAO WHK WJAS  
 KOIL WNAC WKRC WEAN WADC  
 WLBW WCAU WFBL WMAK WMAQ  
 WOWO KMOX KMBC WSPD WMAL  
 WISN

9:30-10:00 Gillette Program  
 WJZ WBZ WBZA WBAL WHAM  
 KDKA WJR WLW KWK WREN  
 10:00-11:00 Lucky Strike Orchestra  
 WEAF WEEI WJAR WTAG WCSH  
 WFI WRC WGY WGR WCAE  
 WWJ WGN KSD WHO WOW  
 WDAF WIOD KSTP WTMJ WSMB  
 WJAX WHAS WMC WBT WBT  
 WBAP KPRC WOAI WKY WAPI  
 WSAI WFJC KOA KSL KPO  
 KGO KFI KGW KOMO KHQ

10:00-11:00 Paramount-Publix Hour  
 WABC WCAU WNAC WEAN WFBL  
 WKBW WCAO WJAS WADC WKRC  
 WGHP WOWO KMBC WBBM KOIL  
 WSPD WHK WLBW WMAL WFBM  
 WHEC CFRB WDBJ WTR WWNC  
 WLAC WDOD WBRW WREC KLRA  
 KFJF KRLD K TSA WCCO WISN  
 WDSU KLZ KDYL KHJ KFRC  
 KOIN KVI KFPY KMOX WIBW  
 WHP

10:00-11:00 Chicago Civic Opera  
 WJZ WBZ WBZA WBAL WHAM  
 KDKA WJR KWK WREN WCKY

11:00-11:30 Guy Lombardo Canadians  
 WABC WKRC WISN WDOD WCAU  
 WCAO WGHP WFBL WSPD WJAS  
 WLBW WOWO WKBW WNAC WEAN  
 WMAL WMAQ WREC WDBJ WWNC  
 KDYL KMBC KOIL KVI KFPY  
 KLZ

11:30-12:00 Hotel Paramount Orchestra  
 WABC WOWO WGHP WCAO WISN  
 WHP WWNC WLBW WNAC WEAN  
 WSPD WMAL WDOD WBRW WKRC  
 WCAU KOIL KLZ KDYL WKBW  
 KFPY KVI WREC WDBJ

11:30-12:00 Charles Strickland's Orchestra  
 WEAF WCAE WHO WWJ WDAF  
 WKY WIOD KSD

# AIR-LINE DISTANCES

Atlanta, Ga.	1273	1670	774	1967	838	1577	1126	1348	1417	932	833	1360	228	968	561	803	968	773	1252	1492	717	663	1174	938	1710	900	8													
Baltimore, Md.	-	575	1830	933	980	895	583	368	550	1208	738	595	1293	1112	750	688	901	498	947	286	675	1935	317	335	610	905	17													
Boise, Idaho	-	2055	358	1525	973	603	423	305	1505	913	398	1750	1143	1239	1245	1154	964	808	682	962	2313	498	792	958	948	19	9													
Boston, Mass.	-	2266	1610	1872	1453	1663	1754	1881	398	849	737	550	1076	1159	613	2047	1304	1574	1598	1415	1302	922	2098	1158	663	1623	1506	2368	1140	2										
Brownsville, Tex.	-	1575	1234	1184	1402	1047	1102	1398	688	1445	471	287	1013	650	1543	1025	923	1370	1093	777	1100	1335	17	1100	1335	17	1100	1335	17	1100	1335	17								
Buffalo, N. Y.	-	454	392	175	1368	782	218	1690	923	1281	1289	1019	856	560	880	662	2195	483	802	1184	733	17	1190	356	13	17	1190	356	13	17	1190	356	13							
Chicago, Ill.	-	249	307	91	1890	509	234	1333	818	839	897	742	569	589	628	541	1842	92	410	597	603	15	1190	356	13	17	1190	356	13	17	1190	356	13							
Cincinnati, Ohio	-	218	1090	509	234	1333	818	1223	617	94	1522	838	1046	1116	871	787	518	768	700	2044	309	627	1088	632	14	1088	632	14	1088	632	14	1088	632	14						
Cleveland, Ohio	-	607	1153	554	642	643	925	953	749	970	1468	555	828	1035	878	1732	699	6	640	851	256	488	458	1024	180	1433	477	485	1338	235	10	1338	235	10						
Denver, Colo.	-	545	980	397	642	643	925	953	749	970	1468	555	828	1035	878	1732	699	6	640	851	256	488	458	1024	180	1433	477	485	1338	235	10	1338	235	10						
Des Moines, Iowa	-	1475	745	1018	1111	800	761	427	832	643	1976	315	621	1156	542	15	1156	542	15	1156	542	15	1156	542	15	1156	542	15	1156	542	15	1156	542	15						
Detroit, Mich.	-	1161	543	723	757	802	1432	1481	836	702	1253	978	1662	1156	11	1662	1156	11	1662	1156	11	1662	1156	11	1662	1156	11	1662	1156	11	1662	1156	11	1662	1156	11				
El Paso, Tex.	-	973	1218	440	875	393	1400	548	1426	818	682	1721	219	8	682	1721	219	8	682	1721	219	8	682	1721	219	8	682	1721	219	8	682	1721	219	8						
Fargo, N. Dak.	-	283	544	275	1093	943	460	1212	751	882	1150	870	13	870	13	870	13	870	13	870	13	870	13	870	13	870	13	870	13	870	13	870	13	870	13					
Fort Worth, Tex.	-	808	375	1277	799	677	1423	807	492	941	1087	15	1087	15	1087	15	1087	15	1087	15	1087	15	1087	15	1087	15	1087	15	1087	15	1087	15	1087	15						
Galveston, Tex.	-	513	666	1178	226	1177	693	591	1468	399	8	1468	399	8	1468	399	8	1468	399	8	1468	399	8	1468	399	8	1468	399	8	1468	399	8	1468	399	8					
Hastings, Nebr.	-	901	728	326	1437	480	176	983	728	13	983	728	13	983	728	13	983	728	13	983	728	13	983	728	13	983	728	13	983	728	13	983	728	13	983	728	13			
Hot Springs, Ark.	-	1216	633	1787	636	830	1545	872	13	1545	872	13	1545	872	13	1545	872	13	1545	872	13	1545	872	13	1545	872	13	1545	872	13	1545	872	13	1545	872	13				
Houghton, Mich.	-	952	2155	595	591	328	1192	20	328	1192	20	328	1192	20	328	1192	20	328	1192	20	328	1192	20	328	1192	20	328	1192	20	328	1192	20	328	1192	20	328	1192	20		
Jacksonville, Fla.	-	1352	480	370	1247	413	11	1247	413	11	1247	413	11	1247	413	11	1247	413	11	1247	413	11	1247	413	11	1247	413	11	1247	413	11	1247	413	11	1247	413	11			
Kansas City, Mo.	-	1825	1602	2855	1522	9	2855	1522	9	2855	1522	9	2855	1522	9	2855	1522	9	2855	1522	9	2855	1522	9	2855	1522	9	2855	1522	9	2855	1522	9	2855	1522	9				
Los Angeles, Calif.	-	319	923	605	15	923	605	15	923	605	15	923	605	15	923	605	15	923	605	15	923	605	15	923	605	15	923	605	15	923	605	15	923	605	15	923	605	15		
Louisville, Ky.	-	878	700	104	878	700	104	878	700	104	878	700	104	878	700	104	878	700	104	878	700	104	878	700	104	878	700	104	878	700	104	878	700	104	878	700	104	878	700	104
Memphis, Tenn.	-	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	
Miami, Fla.	-	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104
Minneapolis, Minn.	-	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	1516	21	
Missoula, Mont.	-	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104	678	700	104

## How To Use Your RADEX

ALL stations in America are listed in RADEX in three tables:

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

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

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

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

Let us assume that the station we are hearing is WEAF in New York.

First we must ascertain the frequency for this station. Look it up under WEAF in the Index by Call Letters or under New York in the Index by States and Cities. In either of these indexes we find that the frequency of WEAF is 680. 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 by the Federal Radio Commission. We also find that it has a power of 50,000 watts, that it is located in New York City and is owned by the National Broadcasting Co., Inc.

In the blanks for dial numbers opposite 660 kilocycles (which is the wave length of 454.3 meters) enter the dial readings of your set. It is immaterial 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 Index by Frequencies and enter our dial readings for this band which on the set we are using was 72-70.

We now have found that the dial numbers for 630 kcys. are 72-70 and the dial numbers for 660 kcys. are 69-67. If we now will set our dials for 70-68 it is obvious we will have our set tuned for 650 kcys. We listen carefully and if they are on the air and within range of our set we will tune in WSM of Nashville at this point. We then enter the dial readings for WSM opposite 650 kcys. Now it is clear that if we reset our dials at 71-69 our set will be tuned to 640 kcys. and at that point KFI of Los Angeles will be heard, always assuming of course that it is on the air and within range of our particular set.

Now we tune in some other station, proceeding

### INDEX BY FREQUENCIES AND DIAL NUMBERS

590 kilocycles	508.2 meters	76	74
KFO	1600	Spokane, Wash.	Louis Weaver, Inc.
WEAF	1600	Spokane, Wash.	Spokane Radio Co.
WEGT	1600	Spokane, Wash.	Spokane Radio Co.
WOW	1600	Omaha, Nebr.	Woodmen of the World
WEMC	1600	Berrien Springs, Mich.	Evangelical Missionary College

600 kilocycles	499.7 meters	73	73
CFCH	250	Iroquois Falls, Ont.	AirMail Paper & Paper Co.
EFBU	300	Buffalo, N. Y.	Edison Radio Corp.
EFSD	300	San Diego, Calif.	Monogram Radio Co., Inc.
WCPD	300	Baltimore, Md.	Bahai College
WESW	300	Bellevue, Wia.	Yapheth School of Music
WLAN	300	Lauraville, Tenn.	WRIC, Inc.
WBEZ	300	Memphis, Tenn.	Travelers Insurance Co.
W TIC	300	Hartford, Conn.	

610 kilocycles	491.5 meters	74	72
EFRC	1600	San Francisco, Calif.	Don Lee, Inc.
WFAF	1600	Kansas City, Mo.	Kansas City Star Co.
WFAJ	1600	Philadelphia, Pa.	Raysons Broadcasters Co., Inc.
WFP	1600	Philadelphia, Pa.	Giblett Bros., Inc.
WFO	1600	Kansas City, Mo.	Unity School of Christianity

620 kilocycles	483.6 meters	73	77
EFAD	500	Phoenix, Ariz.	Electrical Equipment Co.
ECW	1000	Portland, Ore.	Oregonian Publishing Co.
WHD	1000	Tampa, Fla.	Times Publishing Co.
WHD	1000	Orlando, Fla.	Rollins College, Inc.
WELZ	1000	Dover, Pa.	Thompson & Greenery
WTMJ	1000	Milwaukee, Wis.	Milwaukee Journal

630 kilocycles	475.9 meters	72	70
CFCT	800	Victoria, B. C.	Victoria Broadcasting Ass'n.
CFY	800	Yonkers, N. Y.	Winfield Grain Exchange
CNRA	500	Moncton, N. B.	Canadian National Railway
CFJA	500	Montreal, Que.	Journal de Montreal
WFLR	500	Columbus, Ga.	Stephens College
WCFP	500	Fort Worth, Tex.	Stephens College
WFO	500	Washington, D. C.	Stephens College
WCS	500	Jefferson City, Mo.	M. A. Lane Co.

640 kilocycles	468.5 meters	70	68
WFL	3000	Los Angeles, Calif.	Karl C. Anthony, Inc.
WALU	3000	Columbia, Ohio	American Insurance Union

650 kilocycles	461.3 meters	69	67
WSM	500	Nashville, Tenn.	National Life & Accident Ins. Co.

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# IN STATUTE MILES

	Shreveport, La.	Spokane, Wash.	Springfield, Mass.	Vermillion, S. Dak.	Washington, D.C.
95 1117 1030	1810 1696	518 718 1748	330 1498 2051 1107 1628	938 483 893 1823 1178	764 1028 1889 742 1648
90 218 427	747 507 759 815 663	1592 520 1025 2172 470	467 1580 2133 840 2180	548 1960 863 917 542	Albuquerque, N. Mex.
47 597 1001	170 167 1173 1026 90	2002 194 464 2367 128	731 1858 2451 278 2341	1064 2110 282 1083 33	Atlanta, Ga.
52 1631 1713	2153 2137 1138 1044 2113	733 1863 2282 349 2060	1389 292 516 2120 405	1038 290 2196 973 2045	Baltimore, Md.
24 941 1359	188 467 1490 1280 268	2295 478 100 2553 471	1036 2099 2696 150 2508	1410 2279 79 1214 392	Boise, Idaho
06 952 536	1695 1465 659 1061 1616	1023 1424 1961 1944 1428	975 1317 1675 1770 2015	510 1858 1805 1161 1493	Boston, Mass.
40 626 1087	291 435 1117 883 278	1904 178 438 2167 375	662 1701 2298 249 2130	1080 1900 325 916 290	Brownsville, Tex.
48 394 831	711 696 689 432 664	1451 411 892 1765 618	259 1260 1855 702 1743	725 1514 774 479 594	Buffalo, N. Y.
78 239 708	568 474 755 620 501	1578 258 802 1987 399	308 1450 2037 605 1978	688 1746 659 694 403	Chicago, Ill.
40 456 922	404 429 946 738 343	1745 115 603 2063 353	490 1567 2163 408 2035	604 1804 478 785 303	Cincinnati, Ohio
70 1018 1079	1628 1562 503 485 1575	585 1320 1803 985 1468	793 372 946 1618 1020	799 827 1692 468 1490	Cleveland, Ohio
74 523 825	1023 983 460 122 972	1154 718 1197 1479 905	270 952 1547 1012 1470	684 1243 1085 187 895	Denver, Colo.
52 468 938	483 522 905 666 444	1665 208 657 1975 445	452 1490 2087 467 1945	891 1715 540 705 397	Des Moines, Iowa
45 1169 986	1802 1755 578 875 1834	947 1592 8126 1286 1695	1033 689 993 1990 1373	752 1238 1990 920 1726	Detroit, Mich.
19 900 1221	1213 1258 786 390 1186	1225 952 1313 1268 1180	658 685 1447 1157 1206	1002 976 1240 294 1141	El Paso, Tex.
12 643 470	1398 1226 188 590 1324	858 1097 1642 1612 1170	568 977 1454 1445 1658	809 1470 1495 689 1210	Fargo, N. Dak.
95 666 288	1415 1195 456 828 1335	1065 1140 1678 1885 1154	697 1849 1693 1487 1398	233 1753 1584 936 1214	Fort Worth, Tex.
91 697 870	1275 1216 357 135 1222	901 967 1454 1271 1142	455 708 1297 1267 1288	615 1061 1340 167 1139	Galveston, Tex.
85 760 358	1125 955 260 490 1051	1094 825 1371 1733 897	325 1116 1640 1175 1759	142 1552 1224 605 936	Hastings, Nebr.
08 370 1187	849 946 826 547 827	1550 630 194 1638 870	591 1242 1833 776 1588	1043 1360 860 510 813	Hot Springs, Ark.
70 502 511	838 548 988 1098 758	1800 703 1113 2442 953	1955 1840 2375 960 2450	733 2239 957 1203 647	Houma, La.
17 472 678	1097 1009 293 165 1037	1045 718 1831 939 937	238 922 1500 1107 1505	796 1286 1173 280 943	Jacksonville, Fla.
10 1777 1675	1468 2952 1182 1312 2388	557 2135 2631 825 2283	1585 577 345 2445 956	1420 939 2515 1291 2295	Kansas City, Mo.
50 155 623	650 528 675 579 580	1512 345 892 1933 457	242 1400 1983 695 1945	598 1720 745 663 473	Los Angeles, Calif.
83 195 358	953 778 482 539 878	1264 640 1205 1852 722	242 1250 1800 1010 1867	879 1652 1055 648 763	Louisville, Ky.
59 821 681	1095 802 1233 1402 1023	1998 1014 1357 2716 831	1067 2098 2603 1229 2740	505 2528 1210 1510 927	Memphis, Tenn.
0 695 1050	1019 1047 692 281 985	1279 745 1145 1435 968	464 988 1585 975 1403	859 1173 1056 338 936	Miami, Fla.
1582 1733	2030 2045 1162 978 1977	932 1754 2133 430 1867	1331 435 762 1978 995	1457 170 2060 887 1940	Minneapolis, Minn.
470	758 662 604 639	1445 472 1103 1970 526	253 1390 1958 820 1973	470 1752 663 704 567	Missoula, Mont.
1173	932 375 645 1090	1318 923 1445 2063 899	599 1433 1923 1259 2090	280 1898 1287 960 968	Nashville, Tenn.
	293 1324 1144 83	2142 313 277 2455 287	873 1972 2568 142 2419	1230 2190 120 1189 204	New York, N. Y.
	1186 1095 20	2207 316 565 2458 79	771 1925 2510 426 2440	1037 2211 411 1156 143	Norfolk, Va.
	405 1256	943 1013 1550 1468 1122	456 862 1386 1354 1523	297 1324 1432 502 1130	Oklahoma, Okla.
	1094	1032 837 1318 1373 1020	352 833 1425 1133 1372	617 1149 1205 115 1012	Omaha, Nebr.
	2079 254 360 2191 205	1829 2345 1009 1960	808 1923 2518 805 2388	1153 2159 801 1143 122	Philadelphia, Pa.
	545 2174 242	545 2174 242	1870 504 652 2152 1112	1067 1020 8220 1043 1980	Phoenix, Ariz.
	2563 565	561 1670 2264 350 2145	561 1670 2264 350 2145	939 1918 400 891 188	Pittsburgh, Pa.
	2381	1094 2127 2725 197 2513	1094 2127 2725 197 2513	1484 2285 159 1345 480	Portland, Me.
		1723 636 536 2405 143	1723 636 536 2405 143	1783 295 2488 1293 2360	Portland, Ore.
		609 1850 2436 406 2382	609 1850 2436 406 2382	985 2133 407 1089 95	Richmond, Va.
		1158 1738 898 1722	1158 1738 898 1722	466 1500 958 450 710	St. Louis, Mo.
		592 1950 697	592 1950 697	1155 548 2027 785 1845	Salt Lake City, Utah
		2548 680	2548 680	1655 730 8625 1383 2437	San Francisco, Calif.
		2363	2363	1290 2139 86 1165 313	Schenectady, N. Y.
		1820 2245 1232 2325	1820 2245 1232 2325	1220 2225 2225 2225 2225	Seattle, Wash.
		1621 1333 726 1035	1621 1333 726 1035	2216 1055 2105	Shreveport, La.
		1242 321	1242 321	1242 321	Spokane, Wash.
		1073	1073	1073	Springfield, Mass.
					Vermillion, S. Dak.

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

Our index now becomes of great value to us  
in identifying programs. Let us say that we hear  
music at 67-65 on our dials. We refer to our  
Index by Frequencies and Dial Numbers and we  
find that we are in tune to 680 kilocycles. On this  
wave there are two stations: KPO at San Fran-  
cisco and WPTF at Raleigh, N. C. Both of these  
stations have 5000 watts in power. But knowing  
which is the closer to our set, we can tell almost  
invariably which station we are hearing. The  
Radio Commission has had to give the same fre-  
quency in most cases to several stations but they  
have distributed them geographically so they  
should not interfere. When two stations in the  
same locality have the same frequency, they are  
required to divide time. In this case of course it  
is not possible to tell which one of the two sta-  
tions is broadcasting at the particular moment  
we hear it but we do know it is one or the other of  
them.

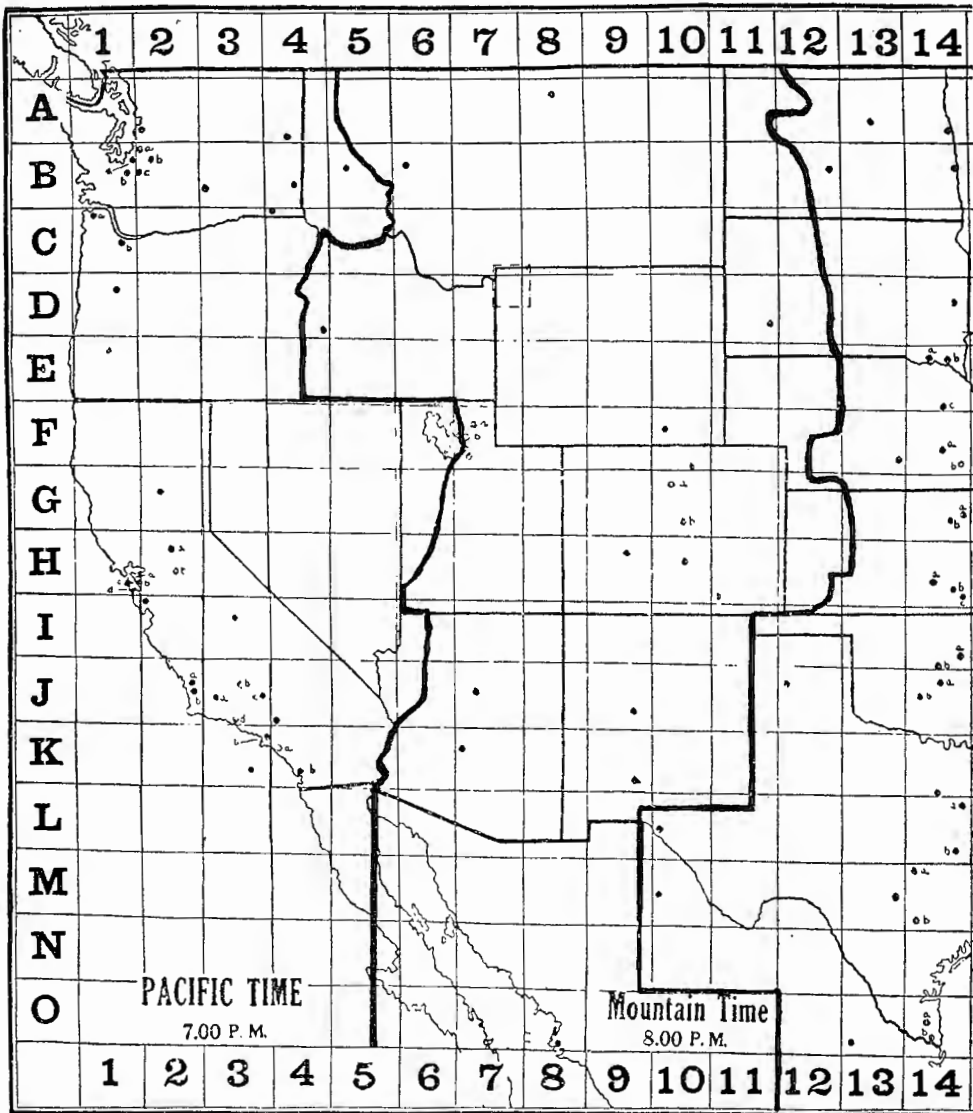
The second column in the index by Frequencies,  
as we have seen, gives the power of the station as  
measured in watts. This power also aids us in

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 pro-  
viding for logging dial numbers but these are  
provided merely for the convenience of those who  
want to be able to turn instantly to some favorite  
station. They may or may not be used as you  
desire. Remember that it is the Index by Fre-  
quencies 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 de-  
sired. Take a pair of shears and cut along the  
dotted line, as shown.





The Radex Press,  
P. O. Box 143, Cleveland, Ohio

Begin With No. 34  
35

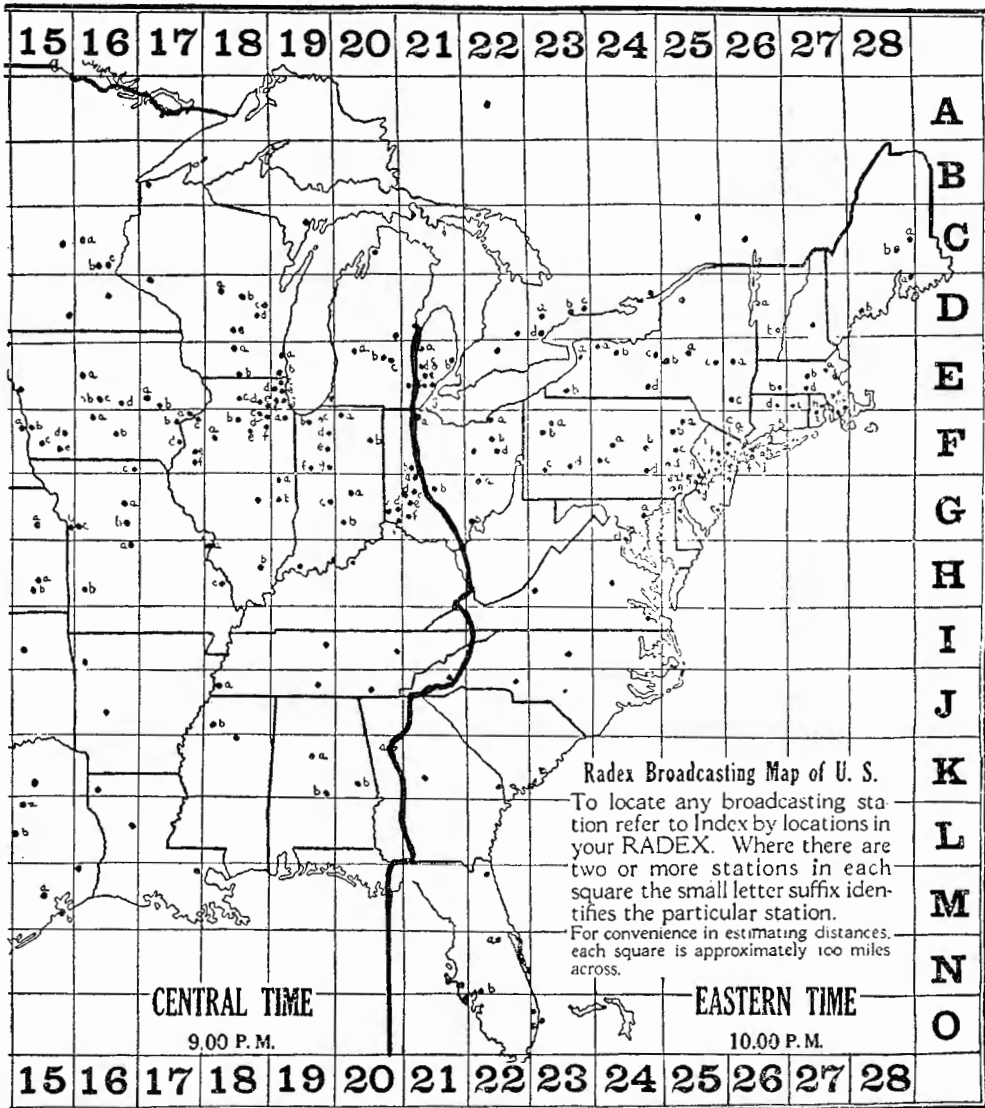
Renewal or  
New Subscription

Please enter my subscription for one year (ten issues) for which I enclose \$1.75.  
Also send me leatherette cover for which I enclose 50c. (Cross out if not wanted.)

Write Name Plainly.....

Street and No.....

City and State.....



RADEX is published monthly throughout the year with the exception of July and August. The price is 25c per copy or \$1.75 for the year of ten issues. If you desire to be up-to-date in radio and to be kept informed of the frequent changes in stations, please fill in the coupon on this page and mail it at once.

In answer to many requests we have had prepared a beautiful leatherette cover stamped in gold. This cover is not only an ornament to even the finest set but it protects your RADEX from wear and gives a solid backing for making entries. The price of this cover is 50c or we will send one free for two yearly subscriptions. Send your own and a friend's subscription and we will send you one of these beautiful covers free.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

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### 540 kilocycles 555.6 meters

CKX	500	Brandon, Manitoba
XFA	50	Mexico City

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Manitoba Telephone System  
Sria. de Agricultura y Fomento

### 550 kilocycles 545.1 meters

KFDY	1000	Brookings, S. D.
KFUO	500	St. Louis, Mo.
KFYR	500	Bismarck, N. D.
KOAC	1000	Corvallis, Ore.
KSD	500	St. Louis, Mo.
WGR	1000	Buffalo, N. Y.
WKRC	500	Cincinnati, Ohio
XEY	105	Merida, Yucatan

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S. D. State College  
Concordia Theological Seminary  
Hoskins-Meyer  
State Agricultural College  
Pulitzer Publishing Co.  
Radio Station WGR Inc.  
J. S. Boyd  
Partido Socialista del Sureste

### 560 kilocycles 535.4 meters

KFDM	500	Beaumont, Texas
KFEQ	2500	St. Joseph, Mo.
KLZ	1000	Dupont, Colo.
KTAB	1000	Oakland, Cal.
WFI	500	Philadelphia, Pa.
WLIT	500	Philadelphia, Pa.
WNOX	1000	Knoxville, Tenn.
WOI	5000	Ames, Iowa
WQAM	1000	Miami, Fla.

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Magnolia Petroleum Co.  
Scroggin & Co. Bank  
Reynolds Radio Co., Inc.  
Associated Broadcasters  
Strawbridge & Clothier  
Lit Brothers  
Sterchi Bros.  
Iowa State College  
Miami Brdcstg. Co.

### 570 kilocycles 526.0 meters

KGKO	250	Wichita Falls, Tex.
KMTR	500	Hollywood, Cal.
KUOM	500	Missoula, Mont.
KXA	500	Seattle, Wash.
WEAO	750	Columbus, Ohio
WIBO	1000	Chicago, Ill.
WKBN	500	Youngstown, Ohio
WMAC	250	Cazenovia, N. Y.
WMCA	500	New York City
WNAX	1000	Yankton, S. D.
WNYC	500	New York City
WPCC	500	Chicago, Ill.
WSYR	250	Syracuse, N. Y.
WWNC	1000	Asheville, N. C.

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Wichita Falls Brdcstg. Co.  
KMTR Radio Corp.  
University of Montana  
American Radio Tel. Co.  
Ohio State University  
Nelson Bros. Bond & Mtg. Co.  
W. P. Williamson, Jr.  
Clive B. Meredith  
Knickerbocker Broadcasting Co., Inc.  
Gurney Seed & Nursery Co.  
Dept. of Plants and Structures  
North Shore Congregational Church  
Clive B. Meredith  
Citizens Brdcstg. Co., Inc.

### 580 kilocycles 516.9 meters

CFCL	500	Toronto, Ont.
CHMA	250	Edmonton, Alta
CJBC	500	Toronto, Ont.
CJCA	500	Edmonton, Alta
CKCL	500	Toronto, Ont.
CKNC	500	Toronto, Ont.
CKUA	500	Edmonton, Alta.
CNRE	500	Edmonton, Alta
KGFX	200	Pierre, S. D.
KSAC	500	Manhattan, Kans
WBW	500	Topeka, Kansas
WOBU	250	Charleston, W. Va.
WSAZ	250	Huntington, W. Va.
WTAG	250	Worcester, Mass.

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Dominion Battery Co.  
Christian and Missionary Alliance  
Jarvis Street Baptist Church  
The Edmonton Journal, Ltd.  
The Dominion Battery Co.  
Canadian National Carbon Co., Ltd.  
University of Alberta  
Canadian National Railways  
Dana McNeil  
State Agricultural College  
Topeka Brdcstg. Assn. Inc.  
Charleston Radio Brdcstg. Co.  
WSAZ Inc.  
Telegram Publishing Co.

INDEX BY FREQUENCIES AND DIAL NUMBERS

590 kilocycles 508.2 meters

KHQ 1000 Spokane, Wash.  
 WCAJ 500 Lincoln, Nebr.  
 WEEI 1000 Boston, Mass.  
 WEMC 1000 Berrien Springs, Mich.  
 WOW 1000 Omaha, Nebr.  
 XFI 1000 Mexico City

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Louis Wasmer, Inc.  
 Nebraska Wesleyan University  
 Edison Elec. Illuminating Co.  
 Emmanuel Missionary College  
 Woodmen of the World  
 Sria. de Industria, Comercio y Trabajo

KCY5.  
**670**  
 MTRS.  
**447.5**  
 DIAL

600 kilocycles 499.7 meters

CFCH 250 Iroquois Falls, Ont.  
 CJRM 500 Moose Jaw, Sask.  
 CJRW 500 Flerning, Sask.  
 CNRO 500 Ottawa, Ont.  
 KFSD 500 San Diego, Cal.  
 WCAC 250 Storrs, Conn.  
 WCAO 250 Baltimore, Md.  
 WEBW 350 Beloit, Wis.  
 WMT 250 Waterloo, Iowa  
 WOAN 500 Lawrenceburg, Tenn.  
 WREC 500 Memphis, Tenn.  
 WSUT 500 Iowa City, Iowa

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Abitibi Power & Paper Co.  
 Jas. Richardson & Sons, Ltd.  
 Jas. Richardson & Sons, Ltd.  
 Canadian National Railways  
 Airfan Radio Corp.  
 Conn. Agricultural College  
 Monumental Radio, Inc.  
 Beloit College  
 Waterloo Broadcasting Co.  
 James D. Vaughan  
 WREC, Inc.  
 University of Iowa

610 kilocycles 491.5 meters

KFRC 1000 San Francisco, Cal.  
 WDAF 1000 Kansas City, Mo.  
 WFAN 500 Philadelphia, Pa.  
 WIP 500 Philadelphia, Pa.

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Don Lee, Inc.  
 Kansas City Star Co.  
 Keystone Broadcasting Co., Inc.  
 Gimbel Bros., Inc.

620 kilocycles 483.6 meters

KFAD 500 Phoenix, Ariz.  
 KGW 1000 Portland, Ore.  
 WFLA 1000 Clearwater, Fla.  
 WJAY 500 Cleveland, Ohio  
 WLBZ 250 Bangor, Me.  
 WSUN 1000 St. Petersburg, Fla.  
 WTMJ 1000 Milwaukee, Wis.

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Electrical Equipment Co.  
 Oregonian Publishing Co.  
 Chamber of Commerce  
 Cleveland Radio Brdcastg. Corp.  
 Maine Brdcastg. Co., Inc.  
 Chamber of Commerce  
 Milwaukee Journal

630 kilocycles 475.9 meters

CFCT 500 Victoria, B. C.  
 CJGX 500 Yorkton, Sask.  
 CNRA 500 Moncton, N. B.  
 KFEL 250 Denver, Colo.  
 KFRU 500 Columbia, Mo.  
 KFXF 250 Denver, Colo.  
 WGBF 500 Evansville, Ind.  
 WMAL 250 Washington, D. C.  
 WOS 500 Jefferson City, Mo.  
 XFC 350 Jalapa, Ver.

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Victoria Broadcasting Association  
 Winnipeg Grain Exchange  
 Canadian National Railways  
 Eugene P. O'Fallon, Inc.  
 Stephens College  
 Pikes Peak Broadcasting Co., Inc.  
 Evansville on the Air, Inc.  
 M. A. Leese  
 State Marketing Bureau  
 Gobierno Estado de Veracruz

640 kilocycles 468.5 meters

KFI 5000 Los Angeles, Cal.  
 WAIU 500 Columbus, Ohio  
 XFG 2000 Mexico City

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Earle C. Anthony, Inc.  
 American Insurance Union  
 Sria. de Guerra y Marina

650 kilocycles 461.3 meters

WSM 5000 Nashville, Tenn.

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National Life & Accident Ins. Co.

660 kilocycles 454.3 meters

WAAW 500 Omaha, Nebr.  
 WEAJ 5000 New York City

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Omaha Grain Exchange  
 National Broadcasting Co., Inc.

670 kilocycles 447.5 meters

WMAQ 5000 Chicago, Ill.  
 XEB 1000 Mexico City

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Chicago Daily News, Inc.  
 El Buen Tono, S. A.

CUT OUT ON DOTTED LINES

INDEX BY FREQUENCIES AND DIAL NUMBERS

680 kilocycles 440.9 meters

KPO 5000 San Francisco, Cal.  
WPTF 1000 Raleigh, N. C.

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Hale Bros. & The Chronicle  
Durham Life Insurance Co.

690 kilocycles 434.5 meters

CFAC 500 Calgary, Alta.  
CFCN 500 Calgary, Alta.  
CHCA 500 Calgary, Alta.  
CJCI 500 Calgary, Alta.  
CJSC 500 Toronto, Ont.  
CKCO 100 Ottawa, Ont.  
CKGW 5000 Toronto, Ont.  
CNRC 500 Calgary, Alta.  
CNXR 5000 Toronto, Ont.  
NAA 1000 Arlington, Va.

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The Calgary Herald  
Western Broadcasting Co.  
The Western Farmer  
Albertan Publishing Co., Ltd.  
The Evening Telegram  
Dr. G. M. Geldert  
Gooderham & Worts, Ltd.  
Canadian National Railways  
Canadian National Railways  
U. S. Navy

700 kilocycles 428.3 meters

WLW 5000 Cincinnati, Ohio

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Crosley Radio Corp.

710 kilocycles 422.3 meters

KEJK 500 Los Angeles, Cal.  
WOR 5000 Newark, N. J.

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R. S. MacMillan  
L. Barnberger & Co.

720 kilocycles 416.4 meters

WGN 25000 Chicago, Ill.

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Chicago Tribune

730 kilocycles 410.7 meters

CHLS 50 Vancouver, B. C.  
CHYC 500 Montreal, Que.  
CKAC 12000 Montreal, Que.  
CKCD 50 Vancouver, B. C.  
CKFC 50 Vancouver, B. C.  
CKMO 50 Vancouver, B. C.  
CKWX 100 Vancouver, B. C.  
CMK 4000 Havana, Cuba  
CNRM 1650 Montreal, Que.  
XEN 1000 Mexico City

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W. G. Hassell  
Northern Electric Co., Ltd.  
La Presse Publishing Co., Ltd.  
Vancouver Daily Province  
United Church of Canada  
Spratt-Shaw Radio Co.  
A. Holstead & Wm. Hanlon  
Hotel Plaza  
Canadian National Railways  
General Electric, S. A.

740 kilocycles 405.2 meters

KMMJ 1000 Clay Center, Neb.  
WSB 1000 Atlanta, Ga.

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The M. M. Johnson Co.  
Atlanta Journal Co.

750 kilocycles 399.8 meters

WJR 5000 Detroit, Mich.

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WJR, The Goodwill Station, Inc.

760 kilocycles 394.5 meters

KVI 1000 Tacoma, Wash.  
WEW 1000 St. Louis, Mo.  
WJZ 30000 New York City

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Puget Sound Brdcstg. Co.  
St. Louis University  
Radio Corp. of America, Inc.

770 kilocycles 389.4 meters

KFAB 5000 Lincoln, Nebr.  
WBBM 25000 Chicago, Ill.  
WJBT 25000 Chicago, Ill.

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Nebraska Buick Automobile Co.  
The Atlass Co., Inc.  
The Atlass Co., Inc.

780 kilocycles 384.4 meters

CKY 5000 Winnipeg, Manitoba  
CNRW 5000 Winnipeg, Manitoba  
KELW 500 Burbank, Cal.  
KTM 500 Los Angeles, Cal.  
WEAN 250 Providence, R. I.  
WMC 500 Memphis, Tenn.  
WPOR 500 Norfolk, Va.  
WTAR 500 Norfolk, Va.

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Manitoba Telephone System  
Canadian National Railways  
Earl L. White  
Pickwick Brdcstg. Corp.  
The Shepard Co.  
Memphis Commercial-Appeal  
WTAR Radio Corp.  
WTAR Radio Corp.



INDEX BY FREQUENCIES AND DIAL NUMBERS

790 kilocycles 379.5 meters

KGO 7500 Oakland, Cal.  
 WGY 50000 Schenectady, N. Y.  
 6KW 1500 Tuinucu, Cuba

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General Electric Co.  
 General Electric Co.  
 Frank H. Jones

800 kilocycles 374.8 meters

WBAP 50000 Fort Worth, Tex.  
 WFAA 500 Dallas, Texas

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Carter Publications, Inc.  
 News & Journal

810 kilocycles 370.2 meters

WCCO 7500 Minneapolis, Minn.  
 WPCH 500 New York City

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Northwestern Broadcasting Inc.  
 Eastern Broadcasters, Inc.

820 kilocycles 365.6 meters

WHAS 10000 Louisville, Ky.

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Courier-Journal & Times

830 kilocycles 361.2 meters

HHK 1000 Port au Prince, Haiti  
 KOA 12500 Denver, Colo.  
 WHDH 1000 Gloucester, Mass.  
 WRUF 5000 Gainesville, Fla.

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Republic of Haiti  
 General Electric Co.  
 Matheson Radio Co., Inc.  
 University of Florida

840 kilocycles 356.9 meters

CFCA 500 Toronto, Ont.  
 CHCT 1000 Red Deer, Alta.  
 CJBC 1000 Toronto, Ont.  
 CKLC 1000 Red Deer, Alta.  
 CKOW 500 Toronto, Ont.  
 CMC 500 Havana, Cuba  
 CNRT 500 Toronto, Ont.  
 XFX 500 Mexico City

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Star Publishing & Ptg. Co.  
 G. F. Tull & Ardern, Ltd.  
 Jarvis Street Baptist Church  
 Alberta Pacific Grain Co., Ltd.  
 Nestle's Food Co.  
 Cuban Telephone Co.  
 Canadian National Railways  
 Sria. de Educacion Publica

850 kilocycles 352.7 meters

KWKH 10000 Shreveport, La.  
 WWL 5000 New Orleans, La.

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W. K. Henderson  
 Loyola University

860 kilocycles 348.6 meters

KFOZ 250 Hollywood, Cal.  
 WABC 5000 New York City  
 WBOQ 5000 New York City  
 2OK 100 Havana, Cuba  
 7SR 500 Elia, Cuba

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Taft Radio & Brdcstg. Co.  
 Atlantic Broadcasting Corp.  
 Atlantic Broadcasting Corp.  
 Merio G. Velez  
 Salvador Rionda

870 kilocycles 344.6 meters

WENR 50000 Chicago, Ill.  
 WLS 50000 Chicago, Ill.

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Great Lakes Brdcstg. Co.  
 Agricultural Brdcstg. Co.

880 kilocycles 340.7 meters

CHCS 10 Hamilton, Ont.  
 CHML 50 Hamilton, Ont.  
 CHRC 25 Quebec, Que.  
 CJCB 50 Sydney, N. S.  
 CKCI 22.5 Quebec, Que.  
 CKCV 50 Quebec, Que.  
 CKOC 50 Hamilton, Ont.  
 CNRQ 50 Quebec, Que.  
 KFKA 500 Greeley, Colo.  
 KLY 500 Oakland, Cal.  
 KPOF 500 Denver, Colo.  
 WCOC 500 Columbus, Miss.  
 WGBI 250 Scranton, Pa.  
 WQAN 250 Scranton, Pa.

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The Hamilton Spectator  
 Maple Leaf Radio Co.  
 E. Fontaine  
 N. Nathanson  
 Le "Soleil," Ltd.  
 G. A. Vandry  
 Wentworth Radio Supply Co.  
 Canadian National Railways  
 State Teachers College  
 Tribune Publishing Co.  
 Pillar of Fire, Inc.  
 Crystal Oil Co.  
 Scranton Broadcasters, Inc.  
 Scranton Times

KCYS  
 880  
 MTRS.  
 340.7  
 DIAL

CUT OUT ON DOTTED LINES

## INDEX BY FREQUENCIES AND DIAL NUMBERS

### 890 kilocycles 336.9 meters

CFBO	50	St. John, N. B.
KFNF	500	Shenandoah, Iowa
KGJF	250	Little Rock, Ark.
KUSD	500	Vermillion, S. D.
WGST	250	Atlanta, Ga.
WILL	250	Urbana, Ill.
WJAR	250	Providence, R. I.
WKAQ	500	San Juan, P. R.
WMAZ	250	Macon, Ga.
WMMN	250	Fairmont, W. Va.

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C. A. Munro, Ltd.  
Henry Field Seed Co.  
Church of the Nazarene  
University of South Dakota  
Georgia School of Technology  
University of Illinois  
The Outlet Co.  
Radio Corp. of Porto Rico  
Junior Chamber of Commerce  
Holt-Rowe Novelty Co.

### 900 kilocycles 333.1 meters

KGBU	500	Ketchikan, Alaska
KHJ	1000	Los Angeles, Cal.
KSEI	250	Pocatello, Idaho
WFBL	750	Syracuse, N. Y.
WJAX	1000	Jacksonville, Fla.
WKY	1000	Oklahoma City
WLBL	2000	Stevens Pt., Wis.
WMAK	750	Buffalo, N. Y.

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Alaska Radio & Service Co.  
Don Lee, Inc.  
KSEI Broadcasting Association  
The Onondaga Co., Inc.  
City of Jacksonville  
WKY Radiophone Co.  
Wisconsin Dept. of Markets  
WMAK Brdcstg. System, Inc.

### 910 kilocycles 329.6 meters

CFQC	500	Saskatoon, Sask.
CJGC	500	London, Ont.
CJHS	250	Saskatoon, Sask.
CNRL	500	London, Ont.
CNRS	500	Saskatoon, Sask.

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The Electric Shop, Ltd.  
Free Press Printing Co., Ltd.  
Radio Service, Ltd.  
Canadian National Railways  
Canadian National Railways

### 920 kilocycles 325.9 meters

KOMO	1000	Seattle, Wash.
KPRC	1000	Houston, Tex.
WAAF	500	Chicago, Ill.
WBOS	250	Wellesley Hills, Mass.
WWJ	1000	Detroit, Mich.
XEX	500	Mexico City
XFF	250	Chihuahua, Chih.

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Fisher's Blend Station, Inc.  
Houston Printing Co.  
Drovers Journal Publishing Co.  
Babson Statistical Organization  
The Detroit News  
Excelsior, Cia. Editorial, S. A.  
Gobierno Estado de Chihuahua

### 930 kilocycles 322.4 meters

CHNS	500	Halifax, N. S.
CKIC	50	Wolfville, N. S.
KFWI	500	San Francisco, Cal.
KFWM	500	Oakland, Cal.
KGBZ	500	York, Nebr.
KMA	500	Shenandoah, Iowa
WBRC	500	Birmingham, Ala.
WDBJ	250	Roanoke, Va.
WIBG	50	Elkins Park, Pa.

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Halifax Herald, Ltd.  
Acadia University  
Radio Entertainments, Inc.  
Oakland Educational Society  
Dr. George R. Miller  
May Seed & Nursery Co.  
Birmingham Broadcasting Co.  
Richardson-Wayland Elec. Corp.  
St. Pauls P. E. Church

### 940 kilocycles 319.0 meters

KGU	1000	Honolulu, Hawaii
KOIN	1000	Portland, Ore.
WCSH	500	Portland, Maine
WDAY	1000	Fargo, N. D.
WFIW	1000	Hopkinsville, Ky.
WHA	750	Madison, Wis.

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Marion A. Mulrony  
KOIN, Inc.  
Congress Square Hotel Co.  
WDAY, Inc.  
The Acme Mills, Inc.  
University of Wisconsin

### 950 kilocycles 315.6 meters

KFWB	1000	Hollywood, Cal.
KGHL	500	Billings, Mont.
KMBC	1000	Independence, Mo.
WHB	500	Kansas City, Mo.
WRC	500	Washington, D. C.
2RK	20	Havana, Cuba

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Warner Bros. Broadcasting Corp.  
Northwestern Auto Supply Co.  
Midland Broadcasting Co., Inc.  
Sweeney Automobile School Co.  
Radio Corp. of America  
Raoul Karman

INDEX BY FREQUENCIES AND DIAL NUMBERS

960 kilocycles 312.3 meters

CFCY 250 Charlottetown, P. E. I.  
 CFRB 4000 Toronto, Ont.  
 CHCK 30 Charlottetown, P. E. I.  
 CHWC 500 Pilot Butte, Sask.  
 CJBC 5000 Toronto, Ont.  
 CJBR 500 Regina, Sask.  
 CKCK 500 Regina, Sask.  
 CNRR 500 Regina, Sask.  
 XEE 101 Pueblo, Pue.

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The Island Radio Co.  
 Rogers-Majestic Corp., Ltd.  
 W. E. Burke  
 R. H. Williams & Sons  
 Jarvis St. Baptist Church  
 Cooperative Wheat Producers  
 Leader Pub. Co., Ltd.  
 Canadian Nat'l. Railways  
 Ramon Huerta G.

970 kilocycles 309.1 meters

KJR 5000 Seattle, Wash.  
 KTHS 10000 Hot Springs, Ark.  
 XEH 101 Monterey, N. L.

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Ralph A. Horr, Receiver  
 Chamber of Commerce  
 Ing. Constantino de Tarnava

980 kilocycles 305.9 meters

KDKA 50000 Pittsburgh, Pa.

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Westinghouse Elec. & Mfg. Co.

990 kilocycles 302.8 meters

WBZ 15000 Springfield, Mass.  
 WBZA 500 Boston, Mass.

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Westinghouse Elec. & Mfg. Co.  
 Westinghouse Elec. & Mfg. Co.

1000 kilocycles 299.8 meters

KFVD 250 Culver City, Cal.  
 WHO 5000 Des Moines, Iowa  
 WOC 5000 Davenport, Iowa  
 XEI 101 Morelia, Mich.

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Los Angeles Brdsg. Co.  
 Bankers Life Co.  
 Palmer School of Chiropractic  
 Carlos Gutierrez M.

1010 kilocycles 296.8 meters

CFLC 50 Prescott, Ont.  
 CKCR 50 Brantford, Ont.  
 CKSH 50 St. Hyacinthe, Que.  
 KGGF 500 Picher, Okla.  
 KQW 500 San Jose, Cal.  
 WHN 250 New York City  
 WNAD 500 Norman, Okla.  
 WPAP 250 New York City  
 WQAO 250 New York City  
 WRNY 250 New York City

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Radio Association  
 John Patterson  
 City of St. Hyacinthe  
 D. L. Connell, M. D.  
 First Baptist Church  
 Marcus Loew Booking Agency  
 University of Oklahoma  
 Calvary Baptist Church  
 Calvary Baptist Church  
 Aviation Radio Station, Inc.

1020 kilocycles 293.9 meters

KFKX 5000 Chicago, Ill.  
 KYW 5000 Chicago, Ill.  
 WRAX 250 Philadelphia, Pa.

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Westinghouse Elec. & Mfg. Co.  
 Westinghouse Elec. & Mfg. Co.  
 Berachah Church, Inc.

1030 kilocycles 291.1 meters

CFCF 1650 Montreal, Que.  
 CJOR 50 Sea Island, B. C.  
 CNRV 500 Vancouver, B. C.

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Canadian Marconi Co.  
 G. C. Chandler  
 Canadian National Railways

1040 kilocycles 288.3 meters

KRLD 10000 Dallas, Texas  
 WKAR 1000 East Lansing, Mich.  
 WKEN 1000 Buffalo, N. Y.

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KRLD, Radio Corp.  
 Michigan Agricultural College  
 Radio Station WKEN, Inc.

1050 kilocycles 285.5 meters

KFKB 5000 Milford, Kansas  
 KNX 25000 Hollywood, Cal.  
 2MG 20 Havana, Cuba

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John R. Brinkley, M. D.  
 Western Broadcast Co.  
 M. y G. Salas

KCYS.  
**1050**  
 MTRS.  
**285.5**  
 DIAL

CUT OUT ON DOTTED LINES

INDEX BY FREQUENCIES AND DIAL NUMBERS

1060 kilocycles 282.8 meters

KWJJ 500 Portland, Ore.  
 WBAL 10000 Baltimore, Md.  
 WJAG 1000 Norfolk, Nebr.  
 WTIC 50000 Hartford, Conn.

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Wilbur Jerman  
 Consolidated Gas, Elec. & Pwr. Co.  
 Norfolk Daily News  
 Travelers Brdgstg. Service Corp.

1070 kilocycles 280.2 meters

KJBS 100 San Francisco, Cal.  
 WAAT 300 Jersey City, N. J.  
 WCAZ 50 Carthage, Ill.  
 WDZ 100 Tuscola, Ill.  
 WEAR 1000 Cleveland, Ohio  
 WTAM 50000 Cleveland, Ohio

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Julius Brunton & Sons Co.  
 Bremer Broadcasting Corp.  
 Carthage College  
 James L. Bush  
 WTAM and WEAR, Inc.  
 WTAM and WEAR, Inc.

1080 kilocycles 277.6 meters

WBT 5000 Charlotte, N. C.  
 WCBF 5000 Zion, Ill.  
 WMBI 5000 Chicago, Ill.

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Station WBT, Inc.  
 Wilbur Glenn Voliva  
 Moody Bible Institute

1090 kilocycles 275.1 meters

KFQA 5000 St. Louis, Mo.  
 KMOX 5000 St. Louis, Mo.  
 2UF 10 Havana, Cuba

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Voice of St. Louis, Inc.  
 Voice of St. Louis, Inc.  
 Benito V. Ferro

1100 kilocycles 272.6 meters

KGDM 50 Stockton, Cal.  
 WLWL 5000 New York City  
 WPG 5000 Atlantic City, N. J.

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E. F. Peffer  
 Missionary Society of St. Paul  
 Municipality of Atlantic City

1110 kilocycles 270.1 meters

KSOO 2000 Sioux Falls, S. D.  
 WRVA 5000 Richmond, Va.  
 2TW 20 Havana, Cuba

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Sioux Falls Broadcast Assn.  
 Larus & Bros. Co., Inc.  
 Roberto E. Ramirez

1120 kilocycles 267.7 meters

CFJC 15 Kamloops, B. C.  
 CFRC 500 Kingston, Ont.  
 EHGS 25 Summerside, P. E. I.  
 CJOC 50 Lethbridge, Alta.  
 CKPR 50 Midland, Ont.  
 KFSG 500 Los Angeles, Cal.  
 KMIC 500 Inglewood, Cal.  
 KRSC 50 Seattle, Wash.  
 KUT 500 Austin, Texas  
 WDBO 1000 Orlando, Fla.  
 WDEL 250 Wilmington, Del.  
 WHAD 250 Milwaukee, Wis.  
 WIOD 500 Miami Beach, Fla.  
 WISN 250 Milwaukee, Wis.  
 WTAW 500 College Station, Texas

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N. S. Dalgleish & Sons  
 Queen's University  
 R. T. Holman, Ltd.  
 Harold R. Carson  
 Midland Brdcastg. Corp.  
 Echo Park Evang. Assn.  
 Dalton's, Inc.  
 Radio Sales Corp.  
 KUT Broadcasting Co.  
 Rollins College, Inc.  
 WDEL, Inc.  
 Marquette University  
 Isle of Dreams Brdcastg. Co.  
 Evening Wisconsin Co.  
 Agricultural & Mec. College

1130 kilocycles 265.3 meters

KSL 5000 Salt Lake City  
 WJJD 20000 Mooseheart, Ill.  
 WOV 1000 New York City  
 XEF 105 Oaxaca, Oax.

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Radio Service Corp. of Utah  
 Loyal Order of Moose  
 International Brdcastg. Corp.  
 Federico Zorrilla

1140 kilocycles 263.0 meters

KVOO 5000 Tulsa, Okla.  
 WAPI 5000 Birmingham, Ala.

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Southwestern Sales Corp.  
 Alabama Polytechnic Institute

1150 kilocycles 260.7 meters

WHAM 5000 Rochester, N. Y.  
 6BY 200 Cienfuegos, Cuba

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Stromberg-Carlson Tel. Mfg. Co.  
 Jose Ganduxé

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1160 kilocycles 258.5 meters

WOWO 1000 Ft. Wayne, Ind.  
WVVA 5000 Wheeling, W. Va.

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Main Auto Supply Co.  
West Virginia Brdcastg. Corp.

1170 kilocycles 256.3 meters

KTNT 5000 Muscatine, Iowa  
WCAU 10000 Philadelphia, Pa.  
2OL 100 Havana, Cuba

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Norman Baker  
Universal Broadcasting Co.  
Oscar C. Orta

1180 kilocycles 254.1 meters

KEX 5000 Portland, Ore.  
KOB 10000 State College, N. M.  
WDGY 1000 Minneapolis, Minn.  
WGBS 500 New York City  
WHDI 500 Minneapolis, Minn.

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Western Broadcasting Co.  
College of Agriculture  
Dr. George W. Young  
General Broadcasting System, Inc.  
Wm. Hood Dunwoody Indus. Inst.

1190 kilocycles 252.0 meters

WICC 500 Bridgeport, Conn.  
WOAI 5000 San Antonio, Texas

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Bridgeport Broadcasting Station, Inc.  
Southern Equipment Co.

1200 kilocycles 249.9 meters

KFHA 100 Gunnison, Colo.  
KFJB 100 Marshalltown, Iowa  
KFKZ 15 Kirksville, Mo.  
KFWF 100 St. Louis, Mo.  
KFXM 100 San Bernardino, Cal.  
KGCU 100 Mandan, N. D.  
KGDE 50 Fergus Falls, Minn.  
KGDY 15 Oldham, S. D.  
KGEK 50 Yuma, Colo.  
KGEW 100 Fort Morgan, Colo.  
KGFJ 100 Los Angeles, Cal.  
KGFK 50 Hallock, Minn.  
KGHI 100 Little Rock, Ark.  
KGY 10 Lacey, Wash.  
KPPC 50 Pasadena, Cal.  
KSMR 100 Santa Maria, Cal.  
KVOS 100 Bellingham, Wash.  
KWG 100 Stockton, Cal.  
KXO 100 El Centro, Cal.  
WABI 100 Bangor, Maine  
WABZ 100 New Orleans, La.  
WBBY 75 Charleston, S. C.  
WBBZ 100 Ponca City, Okla.  
WCAT 100 Rapid City, S. D.  
WCAX 100 Burlington, Vt.  
WCLO 100 Kenosha, Wis.  
WCOD 100 Harrisburg, Pa.  
WEPS 100 Gloucester, Mass.  
WFBC 50 Knoxville, Tenn.  
WHBC 10 Canton, Ohio  
WHBY 100 West De Pere, Wis.  
WIBX 100 Utica, N. Y.  
WIL 100 St. Louis, Mo.  
WJBC 100 La Salle, Ill.  
WJBL 100 Decatur, Ill.  
WJBW 30 New Orleans, La.  
WKJC 100 Lancaster, Pa.  
WLAP 30 Louisville, Ky.  
WLBG 100 Ettrick, Va.  
WMAV 100 St. Louis, Mo.  
WNBO 100 Washington, Pa.  
WNBW 5 Carbondale, Pa.  
WNBX 10 Springfield, Vt.  
WORC 100 Worcester, Mass.  
WRAF 100 La Porte, Ind.  
WRBL 50 Columbus, Ga.  
WWAE 100 Hammond, Ind.  
XEA 101 Guadalajara, Jal.  
XES 250 C. Lerdo, Dgo.  
2BB 15 Havana, Cuba

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Western College of Colorado  
Marshall Electric Co., Inc.  
State Teachers College  
St. Louis Truth Center, Inc.  
J. C. and E. W. Lee  
Mandan Radio Association  
Jaren Drug Co.  
J. Albert Loesch and George W. Wright  
Beehler Elec. Equipment Co.  
City of Fort Morgan  
Ben S. McGlashan  
Lautzenheiser & Mitchell  
Berean Bible Class  
St. Martin's College  
Pasadena Presbyterian Church  
Santa Maria Valley R. R. Co.  
KVOS, Inc.  
Portable Wireless Tel. Co.  
E. R. Irely and F. M. Bowles  
First Universalist Church  
Coliseum Place Baptist Church  
Washington Light Infantry  
C. L. Carrell  
State School of Mines  
University of Vermont  
C. E. Whitmore  
Norman R. Hoffman  
Matheson Radio Co., Inc.  
First Baptist Church  
St. John's Catholic Church  
St. Norbert's College  
WIBX, Inc.  
Missouri Broadcasting Corp.  
Hummer Furniture Co.  
Wm. Gushard Dry Goods Co.  
Charles C. Carlson, Jr.  
Kirk Johnson & Co.  
American Brdcastg. Corp. of Ky.  
Robert Allen Gamble  
Kingshighway Pres. Church  
John Brownlee Spriggs  
Home Cut Glass & China Co.  
First Congregational Church  
K. & B. Electric Co.  
The Radio Club, Inc.  
David Parmer  
Hammond-Calumet Brdcastg. Co.  
Alberto Palos Sauza  
Cerveceria de Durango, S. A.  
Bernardo Barrie

KCY.S.  
1200  
MTRS.  
249.9  
DIAL

CUT OUT ON DOTTED LINES

INDEX BY FREQUENCIES AND DIAL NUMBERS

1210 kilocycles 247.8 meters

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CFCO	50	Chatham, Ont.
CFNB	50	Fredericton, N. B.
CHWK	5	Chilliwack, B. C.
CKMC	15	Cobalt, Ont.
CKPC	50	Preston, Ont.
KDFN	100	Casper, Wyo.
KDLR	100	Devils Lake, N. D.
KFOR	100	Lincoln, Nebr.
KFVS	100	Cape Girardeau, Mo.
KGCR	100	Watertown, S. D.
KMJ	100	Fresno, Cal.
KPCB	100	Seattle, Wash.
KPO	100	Seattle, Wash.
KWEA	100	Shreveport, La.
WBAX	100	Wilkes-Barre, Pa.
WCBS	100	Springfield, Ill.
WCOH	100	Yonkers, N. Y.
WCRW	100	Chicago, Ill.
WDWF	100	Cranston, R. I.
WEBE	100	Cambridge, Ohio
WEBO	100	Harrisburg, Ill.
WEDC	100	Chicago, Ill.
WGBB	100	Freeport, N. Y.
WGCM	100	Gulfport, Miss.
WHBF	100	Rock Island, Ill.
WHBU	100	Anderson, Ind.
WIBA	100	Madison, Wis.
WINR	100	Bay Shore, N. Y.
WJBI	100	Red Bank, N. J.
WJBU	100	Lewisburg, Pa.
WJBY	50	Gadsden, Ala.
WJW	100	Mansfield, Ohio
WLCI	50	Ithaca, N. Y.
WLST	100	Cranston, R. I.
WMAN	50	Columbus, Ohio
WMBG	100	Richmond, Va.
WOCL	25	Jamestown, N. Y.
WOMT	100	Manitowoc, Wis.
WPAW	100	Pawtucket, R. I.
WRBQ	100	Greenville, Miss.
WRBU	100	Gastonia, N. C.
WSBC	100	Chicago, Ill.
WSIX	100	Springfield, Tenn.
WTAX	50	Streator, Ill.

Western Ontario "Better Radio" Club  
 James S. Neill & Sons, Ltd.  
 Chilliwack Brdcastg. Co., Ltd.  
 R. L. MacAdam  
 Wallace Russ  
 Donald Lewis Hathaway  
 Radio Electric Co.  
 Howard A. Shuman  
 Hirsch Battery & Radio Co.  
 Cutler's Radio Brdcastg. Service  
 The Fresno Bee  
 Westcoast Brdcastg Co.  
 Westcoast Brdcastg Co.  
 William E. Antony  
 John H. Stenger, Jr.  
 H. L. Dewing & Chas. Messter  
 Westchester Brdcastg. Corp.  
 Clinton R. White  
 Dutee W. Flint  
 Roy W. Waller  
 First Trust & Savings Bank  
 Emil Denemark, Inc.  
 Harry H. Carman  
 Southern Land Co., Inc.  
 Beardsley Specialty Co.  
 Citizens Bank  
 Capital Times-Strand Theatre  
 Radiotel Mfg. Co., Inc.  
 Robert S. Johnson  
 Bucknell University  
 Charles J. Black  
 Mansfield Broadcasting Assn.  
 Lutheran Assn. of Ithaca  
 The Lincoln Studios, Inc.  
 W. E. Heskett  
 Havens & Martin, Inc.  
 A. E. Newton  
 Francis M. Kadow  
 Shartenburg & Robinson Co.  
 J. Pat Scully  
 A. J. Kirby Music Co.  
 World Battery Co., Inc.  
 638 Tire & Vulcanizing Co.  
 Williams Hardware Co.

1220 kilocycles 245.8 meters

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KFKU	1000	Lawrence, Kans.
WCAD	500	Canton, N. Y.
WCAE	500	Pittsburgh, Pa.
WREN	1000	Lawrence, Kans.

University of Kansas  
 St. Lawrence University  
 Kaufman & Baer Co., Inc.  
 Jenny Wren Co.

1230 kilocycles 243.8 meters

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KFIO	100	Spokane, Wash.
KFQD	100	Anchorage, Alaska
KGGM	250	Albuquerque, N. Mex.
KYA	1000	San Francisco, Cal.
WBIS	1000	Boston, Mass.
WFBM	1000	Indianapolis, Ind.
WNAC	1000	Boston, Mass.
WPSC	500	State College, Pa.
WSBT	500	South Bend, Ind.

Spokane Broadcasting Corp.  
 Anchorage Radio Club  
 New Mexico Broadcasting Co.  
 F. C. Dahlquist, Receiver  
 Shepard-Norwell Co.  
 Indianapolis Power & Light Co.  
 Shepard-Norwell Co.  
 Pennsylvania State College  
 South Bend Tribune

1240 kilocycles 241.8 meters

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KTAT	1000	Ft. Worth, Texas
WDAE	1000	Tampa, Fla.
WGHP	750	Detroit, Mich.
WJAD	1000	Waco, Texas
WRBC	500	Valparaiso, Ind.

Texas Air Transport Brdcast. Co.  
 Tampa Publishing Co.  
 American Brdcastg. Corp.  
 Frank P. Jackson  
 Immanuel Lutheran Church



INDEX BY FREQUENCIES AND DIAL NUMBERS

1250 kilocycles 239.9 meters

KFMX 1000 Northfield, Minn.  
 KFOX 1000 Long Beach, Cal.  
 KIDO 1000 Boise, Idaho  
 KXL 500 Portland, Ore.  
 WAAM 1000 Newark, N. J.  
 WCAL 1000 Northfield, Minn.  
 WDSU 1000 New Orleans, La.  
 WGCP 250 Newark, N. J.  
 WGM 500 Minneapolis, Minn.  
 WLB 500 Minneapolis, Minn.  
 WODA 1000 Paterson, N. J.  
 WRHM 1000 Minneapolis, Minn.  
 WTOC 500 Savannah, Ga.

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Carleton College  
 Nichols & Warinner, Inc.  
 Boise Brdcastg. Station  
 KXL Broadcasters, Inc.  
 WAAM, Inc.  
 St. Olaf College  
 Jos. H. Uhalt  
 May Radio Broadcast Corp.  
 University of Minnesota  
 Washburn-Crosby Co.  
 Richard E. O'Dea  
 Rosedale Hospital Co., Inc.  
 Chamber of Commerce

1260 kilocycles 238.0 meters

KOIL 1000 Council Bluffs, Iowa  
 KRGV 500 Harlingen, Texas  
 KVOA 500 Tucson, Ariz.  
 KWVG 500 Brownsville, Texas  
 WLBW 500 Oil City, Pa.

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Mona Motor Oil Co.  
 Valley Radio-Electric Corp.  
 Robert M. Riculfi  
 Chamber of Commerce  
 Radio-Wired Program Corp.

1270 kilocycles 236.1 meters

KFUM 1000 Colorado Spgs., Colo.  
 KGCA 50 Decorah, Iowa  
 KOL 1000 Seattle, Wash.  
 KTW 1000 Seattle, Wash.  
 KWLC 100 Decorah, Iowa  
 WASH 500 Grand Rapids, Mich.  
 WEAI 500 Ithaca, N. Y.  
 WFBR 250 Baltimore, Md.  
 WJDX 500 Jackson, Miss.  
 WOOD 500 Grand Rapids, Mich.

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W. D. Corley  
 Charles W. Greenley  
 Seattle Brdcastg. Co., Inc.  
 First Presbyterian Church  
 Luther College  
 WASH Broadcasting Corp.  
 Cornell University  
 Baltimore Radio Show, Inc.  
 Lamar Life Insurance Co.  
 Walter B. Stiles, Inc.

1280 kilocycles 234.2 meters

WCAM 500 Camden, N. J.  
 WCAP 500 Asbury Park, N. J.  
 WCFL 1000 Chicago, Ill.  
 WDOD 1000 Chattanooga, Tenn.  
 WOAX 500 Trenton, N. J.  
 WRR 500 Dallas, Texas  
 2LR 50 Havana, Cuba

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City of Camden  
 Radio Industries Broadcast Co.  
 Chicago Federation of Labor  
 Chattanooga Radio Co., Inc.  
 Franklyn J. Wolf  
 City of Dallas  
 Jose Lara

1290 kilocycles 232.4 meters

KDYL 1000 Salt Lake City  
 KFUL 500 Galveston, Texas  
 KLCN 500 Blytheville, Ark.  
 KTSA 1000 San Antonio, Texas  
 WEBC 1000 Duluth, Minn.  
 WJAS 1000 Pittsburgh, Pa.  
 WNBZ 500 Saranac Lake, N. Y.

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Intermountain Brdcastg. Corp.  
 Will H. Ford  
 C. L. Lintzenich  
 Lone Star Broadcast Co.  
 Head of Lake Brdcastg. Co.  
 Pittsburgh Radio Supply House  
 Smith & Mace

1300 kilocycles 230.6 meters

KFH 500 Wichita, Kansas  
 KFJR 500 Portland, Ore.  
 KGEF 1000 Los Angeles, Cal.  
 KTBI 750 Los Angeles, Cal.  
 KTBR 500 Portland, Ore.  
 WBER 1000 Rossville, N. Y.  
 WEVD 500 New York City  
 WHAP 1000 New York City  
 WHAZ 500 Troy, N. Y.  
 WOQ 1000 Kansas City, Mo.

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Radio Station KFH Co.  
 Ashley C. Dixon & Son  
 Trinity Methodist Church  
 Bible Institute of Los Angeles  
 M. E. Brown  
 Peoples Pulpit Association  
 Debs Memorial Radio Fund, Inc.  
 Defenders of Truth Society, Inc.  
 Rensselaer Polytechnic Institute  
 Unity School of Christianity

1310 kilocycles 228.9 meters

KFBK 100 Sacramento, Cal.  
 KFGQ 100 Boone, Iowa  
 KFJY 100 Ft. Dodge, Iowa

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Jas. McClatchy Co.  
 Boone Biblical College  
 C. S. Tunwall

KCYS.  
 1310  
 MTRS.  
 228.9  
 DIAL

CUT OUT ON DOTTED LINES

## INDEX BY FREQUENCIES AND DIAL NUMBERS

KFPL	100	Dublin, Texas
KFPM	15	Greenville, Texas
KFUP	100	Denver, Colo.
KFXJ	50	Edgewater, Colo.
KFXR	100	Oklahoma City
KGCX	100	Wolf Point, Mont.
KGEZ	100	Kalispell, Mont.
KGFV	50	Ravenna, Nebr.
KGHG	50	McGeehee, Ark.
KMED	50	Medford, Ore.
KRMD	50	Shreveport, La.
KTSL	100	Shreveport, La.
KTSM	100	El Paso, Texas
KWCR	100	Cedar Rapids, Iowa.
KXRO	75	Aberdeen, Wash.
WAGM	50	Royal Oak, Mich.
WBOW	100	Terre Haute, Ind.
WBRE	100	Wilkes-Barre, Pa.
WCLS	100	Joliet, Ill.
WDAH	100	El Paso, Texas
WEBR	100	Buffalo, N. Y.
WFBG	100	Altoona, Pa.
WFDF	100	Flint, Mich.
WFKD	50	Philadelphia, Pa.
WGAL	15	Lancaster, Pa.
WGH	100	Newport News, Va.
WIBU	100	Poynette, Wis.
WJAC	100	Johnstown, Pa.
WJAK	50	Marion, Ind.
WJZ	100	Winston-Salem, N. C.
WKAV	100	Laconia, N. H.
WKBB	100	Joliet, Ill.
WKBC	100	Birmingham, Ala.
WKBS	100	Galesburg, Ill.
WLBC	50	Muncie, Ind.
WMBL	100	Lakeland, Fla.
WNAT	100	Philadelphia, Pa.
WNBH	100	New Bedford, Mass.
WNBJ	50	Knoxville, Tenn.
WOBT	15	Union City, Tenn.
WOL	100	Washington, D. C.
WRAW	100	Reading, Pa.
WRBI	20	Tifton, Ga.
WRK	100	Hamilton, Ohio
WSAJ	100	Grove City, Pa.
WSJS	100	Winston-Salem, N. C.

C. C. Baxter  
 The New Furniture Co.  
 Fitzsimmons General Hospital  
 R. G. Howell  
 Exchange Ave. Baptist Church  
 First State Bank of Vida  
 Chamber of Commerce  
 Otto F. Sothman and Roy H. Connell  
 Chas. W. McCollum  
 Mrs. W. J. Virgin  
 Robert M. Dean  
 Houseman Sheet Metal Works, Inc.  
 W. S. Bledsoe & W. T. Blackwell  
 Harry F. Paar  
 KXRO, Inc.  
 Robert L. Miller  
 Banks of Wabash, Inc.  
 Louis G. Baltimore  
 WCLS, Inc.  
 Trinity Methodist Church  
 Howell Broadcasting Co., Inc.  
 Wm. F. Gable Co.  
 Frank D. Fallain  
 Philkrod Radio Engineering Co.  
 Lancaster Electric Supply Co.  
 Virginia Brdctsg. Co., Inc.  
 William C. Forrest  
 Johnstown Automobile Co.  
 Marion Brdctsg. Co.  
 Winston-Salem Journal Co.  
 Laconia Radio Club  
 Sanders Bros.  
 R. B. Broyles Furn. Co.  
 Pernil N. Nelson  
 Donald A. Burton  
 Bedford's Radio Studios  
 Albert A. Walker  
 New Bedford Broadcasting Co.  
 Lonsdale Baptist Church  
 Tittsworth's Radio & Music Shop  
 American Broadcasting Co.  
 Avenue Radio & Electric Shop  
 Kent's Furniture and Music Store  
 S. W. Doron & J. C. Slade  
 Grove City College  
 Winston-Salem Journal Co.

### 1320 kilocycles 227.1 meters

KGHF	250	Pueblo, Colo.
KGIQ	250	Twin Falls, Idaho
KID	250	Idaho Falls, Idaho
WADC	1000	Akron, Ohio
WSMB	500	New Orleans, La.



C. P. Ritchie & J. E. Finch  
 Radio Broadcasting Corp.  
 Jack W. Duckworth, Jr.  
 Allen T. Simmons  
 Saenger Theatre & Maison Blanche

### 1330 kilocycles 225.4 meters

KGB	250	San Diego, Cal.
KSCJ	1000	Sioux City, Iowa
WDRG	500	New Haven, Conn.
WSAI	500	Cincinnati, Ohio
WTAQ	1000	Eau Claire, Wis.



Pickwick Brdctsg. Corp.  
 Perkins Bros. Co.  
 Doolittle Radio Corp.  
 Crosley Radio Corp., Lessee  
 Gillette Rubber Co.

### 1340 kilocycles 223.7 meters

KFPW	50	Carterville, Mo.
KFPY	500	Spokane, Wash.
KMO	500	Tacoma, Wash.
WCOA	500	Pensacola, Fla.
WSPD	1000	Toledo, Ohio



Rev. Lannie W. Stewart  
 Symons Broadcasting Co.  
 KMO, Inc.  
 City of Pensacola  
 Toledo Broadcasting Co.

### 1350 kilocycles 222.1 meters

KWK	1000	St. Louis, Mo.
WBNY	250	New York City
WCDA	250	New York City
WKBQ	250	New York City
WMSG	250	New York City



Greater St. Louis Brdctsg. Corp.  
 Baruchrome Corp.  
 Italian Educ. Brdctsg. Co., Inc.  
 Standard Cahill Co., Inc.  
 Madison Square Garden

INDEX BY FREQUENCIES AND DIAL NUMBERS

1360 kilocycles 220.4 meters

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KFBB 500 Great Falls, Mont.  
 KGER 100 Long Beach, Cal.  
 KGIR 250 Butte, Mont.  
 KPSN 1000 Pasadena, Cal.  
 WGES 500 Chicago, Ill.  
 WJKS 500 Gary, Ind.  
 WLEX 500 Lexington, Mass.  
 WMAF 500 S. Dartmouth, Mass.  
 WQBC 300 Utica, Miss.

Buttery Broadcast, Inc.  
 C. Merwin Dobyns  
 Symons Broadcasting Co.  
 Pasadena Star-News  
 Oak Leaves Brdcastg. Station, Inc.  
 Johnson-Kennedy Radio Corp.  
 Lexington Air Stations  
 Round Hills Radio Corp.  
 Chamber of Commerce

1370 kilocycles 218.7 meters

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KCRC 100 Enid, Okla.  
 KFBL 50 Everett, Wash.  
 KFJI 100 Astoria, Ore.  
 KFJM 500 Grand Forks, N. D.  
 KFJZ 100 Ft. Worth, Texas  
 KFLX 100 Galveston, Texas  
 KGAR 100 Tucson, Ariz.  
 KGBX 100 St. Joseph, Mo.  
 KCCI 100 San Antonio, Texas  
 KGDA 50 Dell Rapids, S. D.  
 KGFG 100 Oklahoma City  
 KGFL 50 Raton, N. M.  
 KGKL 100 San Angelo, Texas  
 KGRC 100 San Antonio, Texas  
 KIT 100 Yakima, Wash.  
 KLO 100 Ogden, Utah  
 KOH 100 Reno, Nevada  
 KOOS 50 Marshfield, Ore.  
 KRE 100 Berkeley, Cal.  
 KVL 100 Seattle, Wash.  
 KWKC 100 Kansas City, Mo.  
 KZM 100 Hayward, Cal.  
 WBBL 100 Richmond, Va.  
 WCBM 100 Baltimore, Md.  
 WELK 100 Philadelphia, Pa.  
 WFBJ 100 Collegeville, Minn.  
 WGL 100 Fort Wayne, Ind.  
 WHBD 100 Bellefontaine, Ohio  
 WHBQ 100 Memphis, Tenn.  
 WHDF 100 Calumet, Mich.  
 WIBM 100 Jackson, Mich.  
 WJBK 50 Ypsilanti, Mich.  
 WJBO 100 New Orleans, La.  
 WJDW 100 Emory, Va.  
 WMBO 100 Auburn, N. Y.  
 WMBR 100 Tampa, Fla.  
 WRAK 50 Erie, Pa.  
 WRBT 100 Wilmington, N. C.  
 WRJN 100 Racine, Wis.  
 WSVS 50 Buffalo, N. Y.

Champlin Refining Co.  
 Leese Bros.  
 KFJI Broadcasters Inc  
 University of North Dakota  
 H. C. Meacham  
 George Roy Clough  
 Tucson Motor Service Co.  
 Foster-Hall Tire Co.  
 Liberto Radio Sales Co.  
 Home Auto Co.  
 Faith Tabernacle Assn.  
 Hubbard & Murphy  
 KGKL Inc., Opr. by Ragsdale Auto  
 Eugene J. Roth  
 Carl E. Haymond  
 Peery Building Co.  
 Jay Peters  
 H. H. Hanseth  
 First Congregational Church  
 Arthur C. Dailey  
 Wilson Duncan Brdcastg. Co.  
 Leon P. Tenney  
 Grace Covenant Presbyterian Church  
 Baltimore Brdcastg. Corp.  
 Howard R. Miller  
 St. John's University  
 Fred C. Zieg  
 F. P. Moler  
 Broadcasting Station WHBQ, Inc.  
 Upper Michigan Brdcastg. Co.  
 C. L. Carrell  
 James F. Hopkins  
 Valdemar Jensen  
 Emory & Henry College  
 Radio Service Laboratories  
 F. J. Reynolds  
 C. R. Cummins  
 Wilmington Radio Association  
 Racine Broadcasting Corp.  
 Seneca Vocational School

1380 kilocycles 217.3 meters

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KQV 500 Pittsburgh, Pa.  
 KSO 500 Clarinda, Iowa  
 WKBH 1000 La Crosse, Wis.  
 WSMK 200 Dayton, Ohio

Doubleday-Hill Electric Co.  
 Berry Seed Co.  
 Joseph Callaway  
 Stanley M. Krohn, Jr.

KCYS.  
**1390**  
 MTRS.  
**215.7**  
 DIAL

1390 kilocycles 215.7 meters

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KLRA 1000 Little Rock, Ark.  
 KOY 500 Phoenix, Ariz.  
 KUOA 1000 Fayetteville, Ark.  
 KWSC 500 Pullman, Wash.  
 WHK 1000 Cleveland, Ohio

Arkansas Broadcasting Co.  
 Nielson Radio Supply Co.  
 University of Arkansas  
 State College of Washington  
 Radio Air Service Corp.

INDEX BY FREQUENCIES AND DIAL NUMBERS

1400 kilocycles 214.2 meters

KOCW	250	Chickasha, Okla.
WBBC	500	Brooklyn, N. Y.
WCGU	500	Coney Island, N. Y.
WCMA	500	Culver, Ind.
WKFB	500	Indianapolis, Ind.
WLTH	500	Brooklyn, N. Y.
WSGH	500	Brooklyn, N. Y.

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College for Women  
 Brooklyn Broadcasting Corp.  
 U. S. Broadcasting Corp.  
 Culver Military Academy  
 Indianapolis Broadcasting, Inc.  
 The Voice of Brooklyn, Inc.  
 Amateur Radio Specialty Co.

1410 kilocycles 212.6 meters

KFLV	500	Rockford, Ill.
KGRS	1000	Amarillo, Texas
WBCM	500	Bay City, Mich.
WDAG	250	Amarillo, Texas
WHBL	500	Sheboygan, Wis.

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Rockford Broadcasters Inc.  
 Gish Radio Service  
 James E. Davidson  
 National Radio & Brdcastg. Corp.  
 Press Pub. Co. & C. L. Carrell

1420 kilocycles 211.1 meters

KFIF	100	Portland, Ore.
KFIZ	100	Fond du Lac, Wis.
KFQU	100	Holy City, Cal.
KFQW	100	Seattle, Wash.
KFXD	50	Jerome, Idaho
KFXV	100	Flagstaff, Ariz.
KFYO	100	Abilene, Texas
KGFF	100	Alva, Okla.
KGCC	50	San Francisco, Cal.
KGIW	100	Trinidad, Colo.
KGIX	100	Las Vegas, Nevada
KGKX	100	Sand Point, Idaho
KICK	100	Red Oak, Iowa
KLPM	100	Minot, N. Dak.
KORE	100	Eugene, Ore.
KTAP	100	San Antonio, Texas
KTUE	5	Houston, Texas
WEDH	30	Erie, Pa.
WHDL	10	Tupper Lake, N. Y.
WHIS	100	Bluefield, W. Va.
WIAS	100	Ottumwa, Iowa
WIBR	50	Steubenville, Ohio
WILM	100	Wilmington, Del.
WKBP	50	Battle Creek, Mich.
WLBF	100	Kansas City, Kas.
WLEY	100	Lexington, Mass.
WMBC	100	Detroit, Mich.
WMBH	100	Joplin, Mo.
WMRJ	10	Jamaica, N. Y.
WPOE	30	Patchogue, N. Y.
WQBZ	60	Weirton, W. Va.
WSSH	100	Boston, Mass.
WTBO	50	Cumberland, Md.

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Benson Polytechnic Institute  
 Reporter Printing Co.  
 W. E. Riker  
 KFQW, Inc.  
 Service Radio Co.  
 Mary M. Costigan  
 T. E. Kirksey  
 KGFF Broadcasting Co.  
 Golden Gate Brdcastg. Co.  
 Trinidad Creamery Co., Inc.  
 Las Vegas, Nevada, Radio Corp.  
 C. E. Twiss and F. H. McCann  
 Red Oak Radio Corp.  
 E. C. Reineke  
 Eugene Broadcasting Station  
 Alamo Brdcastg. Co.  
 Uhalt Electric  
 Erie Dispatch-Herald  
 George Franklin Bissell  
 Daily Telegraph  
 Poling Electric Co.  
 George W. Robinson  
 Delaware Broadcasting Co., Inc.  
 Enquirer-News Co.  
 WLBF Broadcasting Co.  
 Lexington Air Stations  
 Michigan Broadcasting Co., Inc.  
 Edwin Dudley Aber  
 Peter J. Prinz  
 Nassau Broadcasting Corp.  
 J. H. Thompson  
 Tremont Temple Baptist Church  
 Cumberland Broadcasting Co.

1430 kilocycles 209.7 meters

KPLA	1000	Los Angeles, Cal.
WBAK	500	Harrisburg, Pa.
WBRL	500	Manchester, N. H.
WCAH	500	Columbus, Ohio
WGBC	500	Memphis, Tenn.
WHP	500	Harrisburg, Pa.
WNBR	500	Memphis, Tenn.

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Pacific Development Radio Co., Inc.  
 Penna. State Police  
 Booth Radio Laboratories  
 Commercial Radio Service Co.  
 First Baptist Church  
 Pennsylvania Brdcastg. Co.  
 John Ulrich

1440 kilocycles 208.2 meters

KLS	250	Oakland, Cal.
WABO	500	Rochester, N. Y.
WCBA	250	Allentown, Pa.
WHEC	500	Rochester, N. Y.

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Warner Bros.  
 Hickson Electric Co.  
 B. B. Musselman  
 Hickson Electric Co.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

**WMBD** 500 Peoria Heights, Ill.  
**WNRC** 250 Greensboro, N. C.  
**WOKO** 500 Poughkeepsie, N. Y.  
**WSAN** 250 Allentown, Pa.  
**WTAD** 500 Quincy, Ill.

Peoria Heights Radio Laboratory  
 Wayne M. Nelson  
 Hudson Valley Broadcasting Company  
 Allentown Call Publishing Co.  
 Ills. Stock Medicine Brdcastg. Corp.

### 1450 kilocycles 206.8 meters

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**KTBS** 1000 Shreveport, La.  
**WBMS** 250 Fort Lee, N. J.  
**WCOS** 500 Springfield, Ohio  
**WFJC** 500 Akron, Ohio  
**WIBS** 250 Elizabeth, N. J.  
**WKBO** 250 Jersey City, N. J.  
**WNJ** 250 Newark, N. J.  
**WSAR** 250 Fall River, Mass.  
**WTFI** 250 Toccoa, Ga.

Elliott & Steere  
 WBMS Broadcasting Corp.  
 Wittenberg College  
 W. F. Jones Broadcast, Inc.  
 New Jersey Broadcasting Corp.  
 Camith Corp.  
 Radio Investment Co.  
 Doughty & Welch Electric Co.  
 Toccoa Falls Institute

### 1460 kilocycles 205.4 meters

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**KSTP** 10000 St. Paul, Minn.  
**WJSV** 10000 Mt. Vernon Hills, Va.

National Battery Brdcastg. Co.  
 Independent Publishing Co.

### 1470 kilocycles 204.0 meters

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**KFJF** 5000 Oklahoma City  
**KGA** 5000 Spokane, Wash.  
**WKBW** 5000 Buffalo, N. Y.

National Radio Mfg. Co.  
 Ralph A. Horr, Receiver  
 Churchill Evangelistic Assn.

### 1480 kilocycles 202.6 meters

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**WCKY** 5000 Covington, Ky.  
**WIAZ** 5000 Chicago, Ill.  
**WORD** 5000 Chicago, Ill.  
**WSOA** 5000 Forest Park, Ill.

L. B. Wilson, Inc.  
 Zenith Radio Corp.  
 People's Pulpit Association  
 Radiophone Brdcastg. Corp.

### 1490 kilocycles 201.2 meters

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**KPWF** 5000 Westminster, Cal.  
**WFBL** 750 Syracuse, N. Y.  
**WLAC** 5000 Nashville, Tenn.  
**WTNT** 5000 Nashville, Tenn.

Pacific Western Brdcastg. Fed.  
 The Onondaga Co.  
 Life & Casualty Insurance Co.  
 Tennessee Publishing Co.

### 1500 kilocycles 199.9 meters

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**KDB** 100 Santa Barbara, Cal.  
**KGDR** 100 San Antonio, Texas  
**KGFI** 100 Corpus Christi, Texas  
**KGHX** 50 Richmond, Texas  
**KGKB** 100 Brownwood, Texas  
**KPJM** 100 Prescott, Ariz.  
**KREG** 100 Santa Ana, Cal.  
**KUJ** 100 Longview, Wash.  
**KVEP** 15 Portland, Ore.  
**WCLB** 100 Brooklyn, N. Y.  
**WEHS** 100 Evanston, Ill.  
**WHFC** 100 Cicero, Ill.  
**WKBI** 50 Chicago, Ill.  
**WKBV** 100 Brookville, Ind.  
**WKBZ** 50 Ludington, Mich.  
**WLBX** 100 Long Island City, N. Y.  
**WLQE** 100 Boston, Mass.  
**WMBA** 100 Newport, R. I.  
**WMBJ** 100 Pittsburgh, Pa.  
**WMBQ** 100 Brooklyn, N. Y.  
**WMES** 50 Boston, Mass.  
**WMPC** 100 Lapeer, Mich.  
**WNEF** 50 Binghamton, N. Y.  
**WOPI** 100 Bristol, Tenn.  
**WPEN** 100 Philadelphia, Pa.  
**WRBJ** 10 Hattiesburg, Miss.  
**WWRL** 100 Woodside, N. Y.

Santa Barbara Brdcastg. Co.  
 The Milan Radio Company, Inc.  
 Eagle Brdcastg. Co., Inc.  
 Ft. Bend County School Board  
 Eagle Publishing Co.  
 Miller & Klahn  
 Pacific Western Brdcastg Foundation  
 Columbia Brdcastg. Co., Inc.  
 Schaeffer Radio Co.  
 Arthur Faske  
 Victor C. Carlson  
 Triangle Broadcasters  
 Fred L. Schoenwolf  
 Knox Battery & Electric Co.  
 K. L. Ashbacher  
 John N. Brahy  
 Boston Brdcastg. Co.  
 LeRoy Joseph Beebe  
 Rev. John W. Sproul  
 Paul J. Gollhofer  
 Mass. Educational Society  
 First M. E. Church  
 Hewitt-Wood Radio Co.  
 Radiophone Service Co.  
 Wm. Penn Broadcasting Co.  
 Woodruff Furniture Co., Inc.  
 Long Island Brdcastg. Corp.

**KCYS.**  
**1500**  
**MTRS.**  
**199.9**  
**DIAL**

INDEX BY LOCATIONS WITH MAP KEY

<b>ALABAMA</b>				Santa Maria J-2-b 100 KSMR 1200			
Birmingham K-19-a	5000	WAPI	1140	Stockton H-2-b	50	KGDM	1100
	100	WBRC	930		100	KWG	1200
	10	WKBC	1310	Westminster	5000	KPWF	1490
Gadsden K-20-a	50	WJBY	1210	<b>COLORADO</b>			
<b>ALASKA</b>				Colo. Springs H-10	1000	KFUM	1270
Anchorage	100	KFQD	1230	Denver G-10-b	250	KFEL	630
Ketchikan	500	KGBU	900		100	KFUP	1310
<b>ARIZONA</b>					250	KFXF	630
Flagstaff J-7	100	KFX Y	1420		12500	KOA	830
Phoenix K-7	500	KFAD	620	Dupont	500	KPOF	880
	500	KOY	1390	Edgewater G-10	1000	KLZ	560
Prescott J-6	100	KPJM	1500	Fort Morgan G-11	50	KFXJ	1310
Tucson L-7	100	KGAR	1370	Greeley F-10	100	KGEW	1200
	500	KVOA	1260	Gunnison H-9	500	KFKA	880
<b>ARKANSAS</b>				Pueblo H-11	250	KGHH	1320
Blytheville I-18	50	KLCN	1290	Trinidad H-10	100	KGIW	1420
Fayetteville I-16	1000	KUOA	1390	Yuma G-11	50	KGEK	1200
Hot Springs J-16	10000	KTHS	970	<b>CONNECTICUT</b>			
Little Rock J-17	100	KGHI	1200	Bridgeport F-26	500	WICC	1190
	250	KGJF	890	Hartford E-26-d	50000	WITC	1060
	1000	KLRA	1390	Mansfield E-27-I	250	WCAC	600
McGehee K-17	50	KGHG	1310	New Haven F-26-b	500	WDRC	1330
<b>CALIFORNIA</b>				<b>DELAWARE</b>			
Berkeley H-1-a	100	KRE	1370	Wilmington G-25	250	WDEL	1120
Burbank J-4	500	KELW	780		100	WILM	1420
Culver City K-3	250	KFVD	1000	<b>DISTRICT OF COLUMBIA</b>			
El Centro K-5	100	KXO	1200	Washington G-24-c	250	WMAL	630
Fresno I-3	100	KMJ	1210		500	WRC	950
Hayward H-2	100	KZM	1370		100	WOL	1310
Hollywood K-3	250	KFOZ	850	<b>FLORIDA</b>			
	1000	KFWB	950	Clearwater N-21	1000	WFLA	620
	500	KMTR	570	Gainesville M-21	5000	WRUF	830
Holy City I-2	100	KFOU	1420	Jacksonville M-22	1000	WJAX	900
Inglewood K-4	500	KMIC	1120	Lakeland N-22	100	WMBL	1310
Long Beach K-4-a	1000	KFOX	1250	Miami O-23	1000	WQAM	560
	1000	KGER	1360	Miami Beach O-23	1000	WTOB	1120
Los Angeles K-3-b	500	KEJK	710	Orlando N-22	1000	WDBO	1120
	5000	KFI	640	Pensacola L-19	500	WCOA	1340
	500	KFSG	1120	St. Petersburg N-21	1000	WSUN	620
	1000	KGEF	1300	Tampa N-22-b	1000	WDAE	1240
	100	KGFJ	1200		100	WMBR	1370
	1000	KHJ	900	<b>GEORGIA</b>			
	25000	KNX	1050	Atlanta K-20-a	250	WGST	890
	1000	KPLA	1430		1000	WSB	740
	500	KTM	780	Columbus K-20	50	WRBL	1200
	750	KTBI	1300	Macon K-21	250	WMAZ	890
Oakland H-1-b	500	KFWM	930	Savannah	500	WTOC	1250
	7500	KGO	790	Tifton	20	WRBI	1310
	250	KLS	1440	Toccoa J-21	250	WTFI	1450
	500	KLX	880	<b>HAWAII</b>			
	500	KTAB	560	Honolulu	1000	KGU	940
Pasadena J-4	50	KPPC	1200	<b>IDAHO</b>			
	1000	KPSN	1360	Boise D-4	1000	KIDO	1250
Sacramento H-2-a	100	KFBK	1310	Idaho Falls, D-7	250	KID	1320
San Bernardino	100	KFXM	1200	Jerome E-5	50	KFXD	1420
San Diego K-4-b	500	KFSB	600	Pocatello E-7	250	KSEI	900
	250	KGB	1330	Sand Point	100	KGKX	1420
San Francisco H-1-c	1000	KFRC	610	Twin Falls E-5	250	KGIQ	1320
	500	KFWI	930				
	50	KGCC	1420				
	100	KJBS	1070				
	5000	KPO	680				
	1000	KYA	1230				
San Jose I-2	500	KQW	1010				
Santa Ana K-4	1000	KREG	1500				
Santa Barbara J-3	100	KDB	1500				



INDEX BY LOCATIONS WITH MAP KEY

ILLINOIS

Carthage F-17-e	50	WCAZ	1070
Chicago E-19-g	5000	KFKX	1020
	5000	KXW	1020
	500	WAAF	920
	25000	WBBM	770
	1000	WCFL	1280
	100	WCRW	1210
	100	WEDC	1210
	50000	WENR	870
	500	WGES	1360
	25000	WGN	720
	1000	WIBO	570
	5000	WJAZ	1480
	25000	WJBT	780
	50	WKBI	1500
	50000	WLS	870
	5000	WMAQ	670
	5000	WMBI	1080
	5000	WORD	1480
	500	WPCC	570
	100	WSBC	1210
Cicero	100	WHFC	1500
Decatur G-18	100	WJBL	1200
Evanston E-19	100	WEHS	1500
Forest Park	5000	WSOA	1480
Galesburg F-18-a	100	WBBS	1310
Harrisburg H-18-b	100	WEBQ	1210
Joliet E-19-f	100	WCLS	1310
	100	WKBB	1310
La Salle F-18-d	100	WJBC	1200
Mooseheart E-18-e	20000	WJJD	1130
Peoria Heights G-18	500	WMBD	1440
Quincy G-17	500	WTAD	1440
Rockford E-18-c	500	KFLV	1410
Rock Island F-17-c	100	WHBF	1210
Springfield G-18	100	WCBS	1210
Streator F-18-e	50	WTAX	1210
Tuscola G-19-b	100	WDZ	1070
Urbana G-19-a	250	WILL	890
Zion E-19-c	5000	WCBD	1080

INDIANA

Anderson G-20-a	100	WHBU	1210
Brookville G-20	100	WKBV	1500
Culver F-19-d	500	WCMA	1400
Evansville H-19	500	WGBF	630
Fort Wayne F-20-b	100	WGL	1370
	10000	WOWO	1160
Gary F-19	500	WJKS	1360
Hammond F-19	100	WVAE	1200
Indianapolis G-19-c	1000	WFBM	1230
	500	WKBF	1400
La Porte F-19-c	100	WRAF	1200
Marion	50	WJAK	1310
Muncie G-20	50	WLBC	1310
South Bend F-20-a	500	WSBT	1230
Terre Haute G-19	100	WBOW	1310
Valparaiso F-19-b	500	WRBC	1240

IOWA

Ames E-16-c	5000	WOI	560
Boone E-16	100	KFGO	1310
Cedar Rapids E-17-a	100	KWCR	1310
Clarinda E-15-c	500	KSO	1380
Council Bluffs F-15-b	1000	KOIL	1260
Davenport F-17-a	5000	WOC	1000
Decorah D-17	50	KGCA	1270
	100	KWLC	1270
Des Moines F-16-a	5000	WHO	1000
Fort Dodge E-16-a	100	KFJY	1310
Iowa City E-17-b	500	WSUJ	600
Marshalltown E-16-d	100	KFJB	1200
Muscatine F-17-b	5000	KTNT	1170

Ottumwa F-17	100	WIAS	1420
Red Oak F-15	100	KICK	1420
Shenandoah F-15-c	500	KFNF	890
	500	KMA	930
Sioux City E-15	1000	KSCJ	1330
Waterloo F-17	250	WMT	600

KANSAS

Kansas City	100	WLBF	1420
Lawrence G-15-a	1000	KFKU	1220
	1000	WREN	1220
Manhattan G-14-a	500	KSAC	580
Milford G-14	5000	KFKB	1050
Topeka G-14	500	WIBW	580
Wichita H-14-a	500	KFH	1300

KENTUCKY

Covington	5000	WCKY	1480
Hopkinsville I-19	1000	WFIW	940
Louisville H-20	10000	WHAS	820
	30	WLAP	1200

LOUISIANA

New Orleans M-17	100	WABZ	1200
	1000	WDSU	1250
	100	WJBO	1370
	30	WJBW	1200
	500	WSMB	1320
	5000	WWL	850
Shreveport K-16	50	KRMD	1310
	1000	KTBS	1450
	100	KTSL	1310
	100	KWEA	1210
	10000	KWKH	850

MAINE

Bangor C-28-b	100	WABI	1200
	250	WLBS	620
Portland D-28-b	500	WCSH	940

MARYLAND

Baltimore G-24-a	10000	WBAL	1060
	250	WCAO	600
	100	WCBM	1370
	250	WFBR	1270
Cumberland G-23	50	WTBO	1420

MASSACHUSETTS

Boston E-27-c	1000	WBIS	1230
	500	WBZA	990
	1000	WEEI	590
	100	WLOE	1500
	50	WMES	1500
	1000	WNAC	1230
	100	WSSH	1420
Fall River E-27	250	WSAR	1450
Gloucester E-27	100	WEPS	1200
	1000	WHDH	830
Lexington E-27	500	WLEX	1360
	100	WLEY	1420
	100	WNBH	1310
New Bedford E-27-g	500	WMFA	1360
S. Dartmouth E-27	15000	WBZ	990
Springfield E-26-b	250	WBSO	920
Wellesley Hills E-27	100	WORC	1200
Worcester E-27-b	250	WTAG	580

MICHIGAN

Battle Creek E-20	50	WKBP	1420
Bay City D-21	500	WBCM	1410
Berrien Spgs. E-19	1000	WEMC	590
Calumet B-18	100	WHDF	1370

INDEX BY LOCATIONS WITH MAP KEY

Detroit E-21-g	750	WGHP	1240
	5000	WJR	750
	100	WMBC	1420
	1000	WWJ	920
East Lansing E-20-b	1000	WKAR	1040
Flint E-21-a	100	WFDF	1310
Grand Rapids E-20-a	500	WASH	1270
	500	WOOD	1270
Jackson E-20	100	WIBM	1370
Lapeer E-21	100	WMPG	1500
Ludington D-19	50	WKBP	1500
Royal Oak E-21-e	50	WAGM	1310
Ypsilanti E-21-f	50	WJBK	1370

MINNESOTA

Collegeville C-15	100	WFBJ	1370
Duluth B-17	1000	WEBC	1290
Fergus Falls B-15	50	KGDE	1200
Hallock A-14	50	KGFK	1200
Minneapolis C-16-b	7500	WCCO	810
	1000	WDGY	1180
	500	WGMS	1250
	500	WHDI	1180
	500	WLB	1250
	1000	WRHM	1250
Northfield D-16	1000	KFMX	1250
	1000	WCAL	1250
St. Paul C-16-c	10000	KSTP	1460

MISSISSIPPI

Columbus K-18	500	WCOC	880
Greenville K-17	100	WRBQ	1210
Gulfport M-18	100	WGCM	1210
Hattiesburg L-18	10	WRBJ	1500
Jackson	500	WJDX	1270
Utica L-17	300	WQBC	1360

MISSOURI

Carterville	50	KFPW	1340
Cp. Girardeau H-18-c	100	KFVS	1210
Columbia G-16-b	500	KFRU	630
Independence G-16-c	1000	KMBC	950
Jefferson City H-16-a	500	WOS	630
Joplin H-16	100	WMBH	1420
Kansas City G-15-b	100	KWKC	1370
	1000	WDAF	610
	500	WHB	950
	1000	WOQ	1300
Kirksville F-16-c	15	KFKZ	1200
St. Joseph G-15	2500	KFEQ	560
	100	KG BX	1370
St. Louis H-18-a	5000	KFQA	1090
	500	KFUO	550
	100	KFWF	1200
	5000	KMOX	1090
	500	KSD	550
	1000	KWK	1350
	1000	WEW	760
	100	WIL	1200
	100	WMAY	1200

MONTANA

Billings C-8	500	KGHL	950
Butte C-7	250	KGIR	1360
Great Falls A-8	500	KFBE	1360
Kalispell A-5	100	KGZZ	1310
Missoula B-6	500	KUOM	570
Wolf Point	100	KG CX	1310

NEBRASKA

Clay Center G-14	1000	KMMJ	740
Lincoln F-14-b	5000	KFAB	770
	100	KFOR	1210
	500	WCAJ	590
Norfolk E-14-c	1000	WJAG	1060
Omaha F-15-a	500	WAAW	660
	1000	WOW	590
Ravenna F-13	50	KGFV	1310
York F-13	500	KGBZ	930

NEVADA

Las Vegas	100	KGIX	1420
Reno G-3	100	KOH	1370

NEW HAMPSHIRE

Laconia D-27	100	WKAV	1310
Manchester E-27	500	WBRL	1430

NEW JERSEY

Asbury Park G-26	500	WCAP	1280
Atlantic City G-25	5000	WPG	1100
Camden F-25-f	500	WCAM	1280
Elizabeth F-26-h	250	WIBS	1450
Fort Lee F-26	250	WBMS	1450
Jersey City F-26-d	300	WAAT	1070
	250	WKBO	1450
Newark F-25-h	1000	WAAM	1250
	250	WGCP	1250
	250	WNJ	1450
	5000	WOR	710
Paterson F-26-c	1000	WODA	1250
Red Bank G-26	100	WJBI	1210
Trenton F-25	500	WOAX	1280

NEW MEXICO

Albuquerque	250	KGGM	1230
Raton I-11	50	KGFL	1370
State College K-9	10000	KOB	1180

NEW YORK

Auburn E-24	100	WMBO	1370
Bay Shore F-26-h	100	WINR	1210
Binghamton E-25	50	WNBF	1500
Brooklyn F-26-f	500	WBBC	1400
	250	WCDA	1350
	100	WCLB	1500
	500	WLTH	1400
	100	WMBQ	1500
	500	WSGH	1400
Buffalo E-23-a	100	WEBR	1310
	1000	WGR	550
	5000	WKBW	1470
	1000	WKEN	1040
	750	WMAK	900
	50	WSVS	1370
Canton D-25	500	WCAD	1220
Cazenovia E-25-b	250	WMAC	570
Coney Island F-26	500	WCGU	1400
Freeport F-26-1	100	WGBB	1210
Ithaca E-24-d	500	WEAI	1270
	50	WLCI	1210
Jamaica F-26-f	10	WMRJ	1420
Jamestown E-23-b	25	WOCL	1210
Long Island City F-26	100	WL BX	1500

INDEX BY LOCATIONS WITH MAP KEY

New York City F-26	5000	WABC	850	Steubenville F-22	50	WIBR	1420
	250	WBNY	1350	Toledo F-21-a	1000	WSPD	1340
	5000	WBOQ	860	Youngstown F-22	500	WKBN	570
	50000	WEAF	660				
	500	WEVD	1300				
	500	WGBS	1180				
	1000	WHAP	1300				
	250	WHN	1010				
	30000	WJZ	760				
	250	WKBQ	1350				
	5000	WLWL	1100				
	500	WMCA	570				
	250	WMSG	1350				
	500	WNYC	570				
	1000	WOV	1130				
	250	WPAP	1010				
	500	WPCH	810				
	250	WQAO	1010				
	250	WRNY	1010				
	30	WPOE	1420				
Patchogue	500	WOKO	1440				
Poughkeepsie F-26-a	500	WABO	1440				
Rochester E-24-b	5000	WHAM	1150				
	500	WHEC	1440				
Rossville F-26	1000	WBBR	1300				
Saranac Lake D-26	50	WNBZ	1290				
Schenectady E-25-c	50000	WGY	790				
Syracuse E-24-c	750	WFBL	900				
	250	WSYR	570				
Troy E-21-a	500	WHAZ	1300				
Tupper Lake D-25	10	WHDL	1420				
Utica E-25-a	100	WIBX	1200				
Woodside F-26	100	WWRL	1500				
Yonkers E-26	100	WCOH	1210				
<b>NORTH CAROLINA</b>							
Asheville J-21	1000	WWNC	570				
Charlotte J-22	5000	WBT	1080				
Gastonia J-22	100	WRBU	1210				
Greensboro J-22	250	WNRC	1440				
Raleigh I-23	1000	WPTF	680				
Wilmington J-24	50	WRBT	1370				
Winston-Salem	100	WJDZ	1310				
	100	WSJS	1310				
<b>NORTH DAKOTA</b>							
Bismarck B-12	500	KFYR	550				
Devils Lake A-13	100	KDLR	1210				
Fargo B-14	1000	WDAY	940				
Grand Forks A-14	500	KFJM	1370				
Mandan B-12	100	KGCU	1200				
Minot A-12	100	KLPM	420				
<b>OHIO</b>							
Akron F-22-b	1000	WADC	1320				
	500	WFJC	1450				
Bellefontaine G-21-a	100	WHBD	1370				
Cambridge F-22	100	WEBE	1210				
Canton F-22-d	10	WHBC	1200				
Cincinnati G-20-e	500	WKRC	550				
	50000	WLW	700				
	500	WSAI	1330				
Cleveland F-22-a	1000	WEAR	1070				
	1000	WHK	1390				
	500	WJAY	620				
	50000	WTAM	1070				
Columbus G-21-b	500	WAIU	640				
	500	WCAH	1430				
	750	WEAO	570				
	50	WMAN	1210				
Dayton G-21-e	200	WSMK	1380				
Hamilton G-20-d	100	WRK	1310				
Mansfield F-21	100	WJW	1210				
Springfield G-21-c	500	WCSO	1450				
				<b>OKLAHOMA</b>			
				Alva I-13	100	KGFF	1420
				Chickasha J-14-b	250	KOCW	1400
				Enid I-14	100	KCRC	1370
				Norman J-14-a	500	WNAD	1010
				Oklahoma I-14-b	5000	KFJF	1470
					100	KFXR	1310
					100	KGFG	1370
					1000	WKY	900
				Picher I-15	500	KGGF	1010
				Ponca City I-14	100	WBBZ	1200
				Tulsa I-15	5000	KVOO	1140
				<b>OREGON</b>			
				Astoria C-1-a	100	KFJI	1370
				Corvallis D-1	1000	KOAC	550
				Eugene D-1	100	KORE	1420
				Marshfield E-1	50	KOOS	1370
				Medford E-1	50	KMED	1310
				Portland C-1-b	5000	KEX	1180
					100	KFIF	1420
					500	KFJR	1300
					1000	KGW	620
					1000	KOIN	940
					500	KTBR	1300
					15	KVEP	1500
					500	KWJJ	1060
					500	KXL	1250
				<b>PENNSYLVANIA</b>			
				Allentown F-25-c	250	WCBA	1440
					250	WSAN	1440
				Altoona F-24-c	100	WFBG	1310
				Carbondale F-25	5	WNBW	1200
				Elkins Park G-25-c	50	WIBG	930
				Erie E-23	30	WEDH	1420
					50	WRAK	1370
				Grove City F-23-b	100	WSAJ	1310
				Harrisburg F-24-d	500	WBAK	1430
					100	WCOO	1200
					500	WHP	1430
				Johnstown F-23-d	100	WJAC	1310
				Lancaster G-25-a	15	WGAL	1310
					100	WKJC	1200
				Lewisburg F-24-b	100	WJBU	1210
				Oil City F-23-a	500	WLBW	1260
				Philadelphia G-25-d	10000	WCAU	1170
					100	WELK	1370
					500	WFAN	610
					500	WFI	560
					50	WFKD	1310
					500	WIP	610
					500	WLIT	560
					100	WNAT	1310
					100	WPEN	1500
					250	WRAX	1020
				Pittsburgh F-23-c	50000	KDKA	980
					500	KQV	1380
					500	WCAE	1220
					1000	WJAS	1290
					100	WMBJ	1500
				Reading F-25-d	100	WRAW	1310
				Scranton F-25-a	250	WGBI	880
					250	WQAN	880
					500	WPSG	1230
				State College F-24-a	100	WNBO	1200
				Washington F-23	100	WBAX	1210
				Wilkes-Barre F-25-b	100	WBRE	1310

INDEX BY LOCATIONS WITH MAP KEY

<b>PORTO RICO</b>				<b>San Antonio M-14-a</b>			
San Juan	500	WKAQ	890	100	KGCI	1370	
				100	KGDR	1500	
				100	KGRC	1370	
				100	KTAP	1420	
				1000	KTSA	1290	
<b>RHODE ISLAND</b>				5000	WOAI	1190	
Cranston F-27-a	100	WDWF	1210	1000	WJAD	1240	
	100	WLSI	1210	250	KGKO	570	
Newport F-27	100	WMBA	1500	<b>UTAH</b>			
Pawtucket E-27	100	WPAW	1210	Ogden F-7-b	100	KLO	1370
Providence E-27-h	250	WEAN	780	Salt Lake City F-7-c	1000	KDYL	1290
	250	WJAR	890	5000	KSL	1130	
<b>SOUTH CAROLINA</b>				<b>VERMONT</b>			
Charleston K-23	75	WBBY	1200	Burlington D-26-a	100	WCAX	1200
				Springfield D-26-b	10	WNBX	1200
<b>SOUTH DAKOTA</b>				<b>VIRGINIA</b>			
Brookings D-14	1000	KFDY	550	Arlington G-24-d	1000	NAA	690
Dell Rapids D-14	50	KGDA	1370	Emory	100	WJDW	1370
Oldham D-14	15	KGDY	1200	Etrick	100	WLBG	1200
Pierre D-12	200	KGFX	580	Mt. Vernon Hills	1000	WJSV	1460
Rapid City D-11	100	WCAT	1200	Newport News	100	WGH	1310
Sioux Falls D-14	2000	KSOO	1150	Norfolk I-24	500	WPOR	780
Vermillion E-14-b	500	KUSD	890		500	WTAR	780
Watertown	100	KGCR	1210	Richmond H-24	100	WBBL	1370
Yankton E-14-a	1000	WNAX	570		100	WMBG	1210
					5000	WRVA	1110
<b>TENNESSEE</b>				250	WDBJ	930	
Bristol	100	WOPI	1500	<b>WASHINGTON</b>			
Chattanooga J-20	1000	WDOD	1280	Aberdeen B-1	75	KXRO	1310
Knoxville I-20	50	WFBC	1200	Bellingham A-1	100	KVOS	1200
	50	WNBJ	1310	Everett A-2	50	KFBL	1370
	1000	WNOX	560	Lacey B-2-b	10	KGY	1200
Lawrenceburg J-19	500	WOAN	600	Longview B-1	100	KUJ	1500
Memphis J-18-a	500	WGBG	1430	Pullman B-4	500	KWSC	1390
	100	WBHQ	1370	Seattle B-2-a	100	KFWW	1420
	500	WMC	780		5000	KJR	970
	500	WNBR	1430		1000	KOL	1270
	500	WREC	600		1000	KOMO	920
Nashville I-19	5000	WLAC	1490		100	KPCB	1210
	5000	WSM	650		100	KPQ	1210
	5000	WTNT	1490		50	KRSC	1120
Springfield I-19	100	WSIX	1210		1000	KTW	1270
Union City I-18	15	WOBT	1310		100	KVL	1370
					500	KXA	570
<b>TEXAS</b>				Spokane A-4	100	KFTO	1230
Abilene	100	KFYO	1420		500	KFPY	1390
Amarillo J-12	1000	KGRS	1410		5000	KGA	1470
	250	WDAG	1410	Tacoma B-1-a	1000	KHQ	590
Austin L-14-b	500	KUT	1120		500	KMO	1340
Beaumont M-16	500	KFDM	560	Yakima	1000	KVI	760
Brownsville O-14-b	500	KWVG	1260		100	KIT	1370
Brownwood L-13	100	KGKB	1500	<b>WEST VIRGINIA</b>			
College Sta. M-13	500	WTAW	1120	Bluefield	100	WHIS	1420
Corpus Christi	100	KGFI	1500	Charleston H-22	250	WOBV	580
Dallas L-15-a	10000	KRLD	1040	Fairmount G-23	250	WMMN	890
	500	WFAA	800	Huntington G-22	250	WSAZ	580
	500	WRR	1280	Weirton G-22	60	WQBV	1420
Dublin K-14	100	KFPL	1310	Wheeling G-22	5000	WVVA	1160
El Paso L-10	100	KTSM	1310	<b>WISCONSIN</b>			
	100	WDAH	1310	Beloit E-18-b	350	WEBW	600
Fort Worth L-14-a	100	KFJZ	1370	Eau Claire D-17	1000	WTAQ	1330
	1000	KTAT	1240	Fond du Lac D-18-d	100	KFIZ	1420
	50000	WBAP	800	Kenosha E-19	100	WCLB	1200
Galveston M-15-b	100	KFLX	1370	La Crosse E-17	1000	WKBH	1380
	500	KFUL	1290	Madison E-18-2	750	WHA	940
Greenville K-15	15	KFPM	1310		100	WIBA	1210
Harlingen O-14	500	KRGV	1260	Manitowoc D-19	100	WOMT	1210
Houston M-15-a	1000	KPRC	920				
	5	KTUE	1420				
Richmond M-15	50	KGHX	1500				
San Angelo M-12	100	KGKL	1370				

INDEX BY LOCATIONS WITH MAP KEY

Milwaukee E-19-a	250	WHAD	1120
	250	WISN	1120
	1000	WTMJ	620
Poynette D-18-e	100	WIBU	1310
Racine E-19	100	WRJN	1370
Sheboygan C-18	500	WHBL	1410
Stevens Pt. D-18-b	2000	WLBL	900
West De Pere D-19	100	WHBY	1200

WYOMING

Casper	100	KDFN	1210
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CANADA

ALBERTA

Calgary	500	CFAC	690
	500	CFCN	690
	500	CHCA	690
	500	CJCJ	690
	500	CNRC	690
Edmonton	250	CHMA	580
	500	CJCA	580
	500	CKUA	580
	500	CNRE	580
Lethbridge	50	CJOC	1120
Red Deer	1000	CHCT	840
	1000	CKLC	840

BRITISH COLUMBIA

Chilliwack	5	CHWK	1210
Kamloops	15	CFJC	1120
Sea Island	50	CJOR	1030
Vancouver	50	CHLS	730
	50	CKCD	730
	50	CKFC	730
	50	CKMO	730
	100	CKWX	730
	500	CNRV	1030
	500	CFCT	630
Victoria			

MANITOBA

Brandon	500	CKX	540
Winnipeg	5000	CKY	780
	5000	CNRW	780

NEW BRUNSWICK

Fredericton	50	CFNB	1210
Moncton	500	CNRA	630
St. John	50	CFBO	890

NOVA SCOTIA

Halifax	500	CHNS	930
Sydney	50	CJCB	880
Wolfville	50	CKIC	930

ONTARIO

Brantford	50	CKCR	1010
Chatham	50	CFCO	1210
Cobalt	15	CKMC	1210
Hamilton	10	CHCS	880
	50	CHML	880
	50	CKOC	880
	250	CFCH	600
Iroquois Falls	500	CFRC	1120
Kingston	500	CJGC	910
London	500	CNRL	910
	50	CKPR	1120
Midland	100	CKCO	690
Ottawa	500	CNRO	600
	50	CFLC	1010
Prescott	50	CKPC	1210
Preston	500	CFCA	840
Toronto	500	CFCL	580

Toronto	4000	CFRB	960
	500	CJBC	580
	1000	CJBC	840
	5000	CJBC	960
	500	CJSC	690
	500	CKCL	580
	5000	CKGW	690
	500	CKNC	580
	500	CKOW	840
	500	CNRT	840
	5000	CNXR	690

PRINCE EDWARD ISLAND

Charlottetown	250	CFGY	960
	30	CHCK	960
Summerside	25	CHGS	1120

QUEBEC

Montreal	1650	CFCF	1030
	500	CHYC	730
	12000	CKAK	730
	1650	CNRM	730
Quebec	25	CHRC	880
	22	CKCI	880
	50	CKCV	880
	50	CNRQ	880
St. Hyacinthe	50	CKSH	1010

SASKATCHEWAN

Fleming	500	CJRW	600
Moose Jaw	500	CJRM	600
Pilot Butte	500	CHWC	960
Regina	500	CJBR	960
	500	CKCK	960
	500	CNRR	960
Saskatoon	500	CFQC	910
	250	CJHS	910
	500	CNRS	910
Yorkton	500	CJGX	630

HAITI

Port au Prince	1000	HHK	830
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MEXICO

Chihuahua	250	XFF	920
C. Lerdo, Dgo	250	XES	1200
Guadalajara, Jal.	101	XEA	1200
Jalapa, Ver.	350	XFC	630
Merida, Yucatan	105	XEY	550
Mexico City	1000	XEB	670
	1000	XEN	730
	500	XEX	920
	50	XFA	540
	2000	XFG	640
	1000	XFT	590
	500	XFX	840
Monterrey, N. L.	101	XEH	970
Morelia, Mich.	101	XEI	1000
Oaxaca, Oax.	105	XEF	1130
Puebla, Pue.	101	XEE	960

CUBA

Cienfuegos	200	6BY	1150
Elia	500	7SR	860
Havana	500	CMC	840
	4000	CMK	730
	15	2BB	1200
	50	2LR	1280
	20	2MG	1050
	100	2OK	860
	100	2OL	1170
	20	2RK	950
	20	2TW	1110
	10	2UF	1090
Tuinucu	1500	6KW	790

CFAC 690				CJOR 1030				CNRT 840				
Calgary, Alta.				Sea Island, B.C.				Toronto, Ont.				
CFBO 890				CJRM 600				CNRV 1030				
St. John, N. B.				Moose Jaw, Sask.				Vancouver, B.C.				
CFCA 840				CJRW 600				CNRW 780				
Toronto, Ont.				Fleming, Sask.				Winnipeg, Man.				
CFCF 1030				CJSC 690				CNXR 690				
Montreal, Que.				Toronto, Ont.				Toronto, Ont.				
CFCH 600				CKAC 730				HHK 830				
Iroc's Falls, Ont.				Montreal, Que.				Port au Prince, H.				
CFCL 580				CKCD 730				KCRC 1370				
Toronto, Ont.				Vancouver, B.C.				Oklahoma City				
CFCN 690				CKCI 880				KDB 1500				
Calgary, Alta.				Quebec, Que.				S. Barbara, Cal.				
CFCO 1210				CKCK 960				KDFN 1210				
Chatham, Ont.				Regina, Sask.				Casper, Wyo.				
CFCT 630				CKCL 580				KDKA 980				
Victoria, B. C.				Toronto, Ont.				Pittsburgh, Pa.				
CFCY 960				CKCO 690				KDLR 1210				
Ch'lottet'n, P.E.I.				Ottawa, Ont.				Devils Lake, N.D.				
CFJC 1120				CKCR 1010				KDYL 1290				
Kamloops, B.C.				Brantford, Ont.				Salt Lake City				
CFLC 1010				CKCV 880				KEJK 710				
Prescott, Ont.				Quebec, Que.				Los Angeles, Cal.				
CFNB 1210				CKFC 730				KELW 780				
Fredericton, N.B.				Vancouver, B.C.				Burbank, Cal.				
CFQC 910				CKGW 690				KEX 1180				
Saskatoon, Sask.				Toronto, Ont.				KFAB 770				
CFRB 960				CKIC 930				Lincoln, Nebr.				
Toronto, Ont.				Wolfville, N.S.				KFAD 620				
CFRC 1120				CKLC 840				Phoenix, Ariz.				
Kingston, Ont.				Red Deer, Alta.				KFBB 1360				
CHCA 690				CKMC 1210				Great Fls, Mont.				
Calgary, Alta.				Cobalt, Ont.				KFBK 1310				
CHCK 960				CKMO 730				Sacramento, Cal.				
Ch'lottet'n, P.E.I.				Vancouver, B.C.				KFBL 1370				
CHCS 880				CKNC 580				Everett, Wash.				
Hamilton, Ont.				Toronto, Ont.				KFDM 560				
CHCT 840				CKOC 880				Beaumont, Tex.				
Red Deer, Alta.				Hamilton, Ont.				KFDY 550				
CHGS 1120				CKOW 840				Brookings, S.D.				
Sum'rside, P.E.I.				Toronto, Ont.				KFEL 630				
CHLS 730				CKPC 1210				Denver, Colo.				
Vancouver, B.C.				Preston, Ont.				KFEQ 560				
CHMA 580				CKPR 1120				St. Joseph, Mo.				
Edmonton, Alta.				Midland, Ont.				KFGQ 1310				
CHML 880				CKSH 1010				Boone, Iowa				
Hamilton, Ont.				St. H'cinthe, Que.				KFH 1300				
CHNS 930				CKUA 580				Wichita, Kansas				
Halifax, N.S.				Edmonton, Alta.				KFHA 1200				
CHRC 880				CKWX 730				Gunnison, Colo.				
Quebec, Que.				Vancouver, B.C.				KFI 640				
CHWC 960				CKX 540				Los Angeles, Cal.				
Pilot Butte, Sask.				Brandon, Man.				KFIF 1420				
CHWK 1210				CKY 780				Portland, Ore.				
Chilliwack, B.C.				Winnipeg, Man.				KFIO 1230				
CHYC 730				CMC 840				Spokane, Wash.				
Montreal, Que.				Havana, Cuba				KFIZ 1420				
CJBC580-840-960				CMK 730				Fond du Lac, Wis.				
Toronto, Ont.				Havana, Cuba				KFJB 1200				
CJBR 960				CNRA 630				Marshalltown, Ia.				
Regina, Sask.				Moncton, N.B.				KFJF 1470				
CJCA 580				CNRC 690				Oklahoma City				
Edmonton, Alta.				Calgary, Alta.				KFJI 1370				
CJCB 880				CNRE 580				Astoria, Ore.				
Sydney, N.S.				Edmonton, Alta.				KFJM 1370				
CJCC 690				CNRL 910				Grd. Forks, N.D.				
Calgary, Alta.				London, Ont.				KEJR 1300				
CJGC 910				CNRM 730				Portland, Ore.				
London, Ont.				Montreal, Que.				KFJY 1310				
CJGX 630				CNRO 600				Fort Dodge, Ia.				
Yorkton, Sask.				Ottawa, Ont.				KFJZ 1370				
CJHS 910				CNRQ 880				Ft. Worth, Tex.				
Saskatoon, Sask.				Quebec, Que.				KFKA 880				
CJOC 1120				CNRR 960				Greeley, Colo.				
Lethbridge, Alta.				Regina, Sask.				KFKB 1050				
				CNRS 910				Milford, Kansas				
				Saskatoon, Sask.								



KFKU 1220				KFYR 550				KGIQ 1320	
Lawrence, Kans.				Bismarck, N.D.				Twin Falls, Ida.	
KFKX 1020				KGA 1470				KGIR 1360	
Chicago, Ill.				Spokane, Wash.				Butte, Mont.	
KFKZ 1200				KGAR 1370				KGIW 1420	
Kirksville, Mo.				Tucson, Ariz.				Trinidad, Colo.	
KFLV 1410				KGB 1330				KGIX 1420	
Rockford, Ill.				San Diego, Cal.				Las Vegas, Nev.	
KFLX 1370				KGBU 900				KGJF 890	
Galveston, Tex.				Ketchikan, Al'ka				Little Rock, Ark.	
KFMX 1250				KGBX 1370				KGKB 1500	
N'thfield, Minn.				St. Joseph, Mo.				Brownwood, Tex.	
KFNF 890				KGBZ 930				KGKL 1370	
Shenandoah, Ia.				York, Nebr.				San Angelo, Tex.	
KFOR 1210				KGCA 1270				KGKO 570	
Lincoln, Nebr.				Decorah, Iowa				Wichita F'ls, Tex.	
KFOX 1250				KGCI 1370				KGKX 1420	
Long Beach, Cal.				San Ant'nio, Tex.				Sand Point, Ida.	
KFPL 1310				KGCR 1210				KGO 790	
Dublin, Texas				Watertown, S.D.				Oakland, Cal.	
KFPM 1310				KGCU 1200				KGRC 1370	
Greenville, Tex.				Mandan, N.D.				San Antonio, Tex.	
KFPW 1340				KGCV 1310				KGRS 1410	
Cartersville, Mo.				Wolf P't, Mont.				Amarillo, Texas	
KFPY 1340				KGDA 1370				KGU 940	
Spokane, Wash.				Dell Rapids, S.D.				Honolulu, Hawaii	
KFQA 1090				KGDE 1200				KGW 620	
St. Louis, Mo.				Ferg's F'ls, Minn				Portland, Ore.	
KFQD 1230				KGDM 1100				KGY 1200	
Anchorage, Alas.				Stockton, Cal.				Lacey, Wash.	
KFQU 1420				KGDR 1500				KHJ 900	
Holy City, Cal.				San Antonio, Tex.				Los Angeles, Cal.	
KFQW 1420				KGDY 1200				KHQ 590	
Seattle, Wash.				Oldham, S.D.				Spokane, Wash.	
KFQZ 860				KGEF 1300				KICK 1420	
Hollywood, Cal.				Los Angeles, Cal.				Red Oak, Iowa	
KFRC 610				KG EK 1200				KIB 1320	
San F'nscisco, Cal.				Yuma, Colo.				Idaho Falls, Ida.	
KFRU 630				KG ER 1360				KIDO 1250	
Columbia, Mo.				Long Beach, Cal.				Boise, Idaho	
KFSD 600				KG EW 1200				KIT 1370	
San Diego, Cal.				Pt. Morgan, Colo.				Yakima, Wash.	
KFSG 1120				KG EZ 1310				KJBS 1070	
Los Angeles, Cal.				Kalispell, Mont.				San F'nscisco, Cal.	
KFUL 1290				KGFF 1420				KJR 970	
Galveston, Tex.				Alva, Okla.				Seattle, Wash.	
KFUM 1270				KGFG 1370				KLCN 1290	
Col. Spgs., Colo.				Oklahoma City				Blytheville, Ark.	
KFUO 550				KGFI 1500				KLO 1370	
St. Louis, Mo.				C'pus Ch'sti, Tex.				Ogden, Utah	
KFUP 1310				KG FJ 1200				KLPM 1420	
Denver, Colo.				Los Angeles, Cal.				Minot, N. Dak.	
KFVD 1000				KGFK 1200				KLRA 1390	
Cuiver City, Cal.				Hallock, Minn.				Little Rock, Ark.	
KFVS 1210				KGFL 1370				KLS 1440	
Cape Gir'rd'u, Mo				Raton, N. M.				Oakland, Cal.	
KFWB 950				KGFW 1310				KLX 880	
Hollywood, Cal.				Ravenna, Nebr.				Oakland, Cal.	
KFWF 1200				KGFX 580				KLZ 560	
St. Louis, Mo.				Pierre, S.D.				Dupont, Colo.	
KFWI 930				KG GC 1420				KMA 930	
San F'nscisco, Cal.				San F'nscisco, Cal.				Shenandoah, Ia.	
KFWM 930				KG GF 1010				KMBC 950	
Oakland, Cal.				Picher, Okla.				Indep'd'nce, Mo.	
KFXD 1420				KGGM 1230				KMED 1310	
Jerome, Idaho				Alb'g'rque, N.M.				Medford, Ore.	
KFXF 630				KGHF 1320				KMIC 1120	
Denver, Colo.				Pueblo, Colo.				Inglewood, Cal.	
KFKJ 1310				KGHG 1310				KMJ 1210	
Edgewater, Colo.				McGehee, Ark.				Fresno, Cal.	
KFXM 1200				KGHI 1200				KMMJ 740	
San Ber'd'no, Cal.				Little Rock, Ark.				Clay Ctr., Nebr.	
KFXR 1310				KGHL 950				KMO 1340	
Oklahoma City				Billings, Mont.				Tacoma, Wash.	
KFXY 1420				KGHX 1500				KMOX 1090	
Flagstaff, Ariz.				Richmond, Tex.				St. Louis, Mo.	
KFYO 1420									
Abilene, Texas									

KMTR 570  
Hollywood, Cal.  
KNX 1050  
Los Angeles, Cal.  
KOA 830  
Denver, Colo.  
KOAC 550  
Corvallis, Ore.  
KOB 1180  
State Coll., N.M.  
KOCW 1400  
Chickasha, Okla.  
KOH 1370  
Reno, Nevada  
KOIL 1260  
Council Bluffs, Ia.  
KOIN 940  
Portland, Ore.  
KOL 1270  
Seattle, Wash.  
KOMO 920  
Seattle, Wash.  
KOOS 1370  
Marshfield, Ore.  
KORE 1420  
Eugene, Ore.  
KOY 1390  
Phoenix, Ariz.  
KPCB 1210  
Seattle, Wash.  
KPJM 1500  
Prescott, Ariz.  
KPLA 1430  
Los Angeles, Cal.  
KPO 680  
San F'nisco, Cal.  
KPOF 880  
Denver, Colo.  
KPPC 1200  
Pasadena, Cal.  
KPQ 1210  
Seattle, Wash.  
KPRC 920  
Houston, Texas  
KPSN 1360  
Pasadena, Cal.  
KQV 1380  
Pittsburgh, Pa.  
KQW 1010  
San Jose, Cal.  
KPWF 1490  
Westminster, Cal.  
KRE 1370  
Berkeley, Cal.  
KREG 1500  
Santa Ana, Cal.  
KRGV 1260  
Harlingen, Texas  
KRLD 1040  
Dallas, Texas  
KRMD 1310  
Shreveport, La.  
KRSC 1120  
Seattle, Wash.  
KSAC 580  
Manh'tt'n, Kans.  
KSCJ 1330  
Sioux City, Ia.  
KSD 550  
St. Louis, Mo.  
KSEI 900  
Pocatello, Idaho  
KSL 1130  
Salt Lake City  
KSMR 1200  
Santa Maria, Cal.

KSO 1380  
Clarinda, Iowa  
KSOO 1110  
Sioux Falls, S.D.  
KSTP 1460  
St. Paul, Minn.  
KTAB 560  
Oakland, Cal.  
KTAP 1420  
San Antonio, Tex.  
KTAT 1240  
Ft. Worth, Tex.  
KTBI 1300  
Los Angeles, Cal.  
KTBR 1300  
Portland, Ore.  
KTBS 1450  
Shreveport, La.  
KTHS 970  
Hot Spgs., Ark.  
KTM 780  
Los Angeles, Cal.  
KTNT 1170  
Muscatine, Iowa  
KTSA 1290  
San Antonio, Tex.  
KTSL 1310  
Shreveport, La.  
KTSM 1310  
El Paso, Texas  
KTUE 1420  
Houston, Texas  
KTW 1270  
Seattle, Wash.  
KUJ 1500  
Longview, Wash.  
KUOA 1390  
Fayetteville, Ark.  
KUOM 570  
Missoula, Mont.  
KUSD 890  
Vermillion, S. D.  
KUT 1120  
Austin, Texas  
KVEP 1500  
Portland, Ore.  
KVI 760  
Tacoma, Wash.  
KVL 1370  
Seattle, Wash.  
KVOA 1260  
Tucson, Arizona  
KVOO 1140  
Tulsa, Okla.  
KVOS 1200  
Bellingh'm, Wash.  
KWCR 1310  
Cedar Rapids, Ia.  
KWEA 1210  
Shreveport, La.  
KWG 1200  
Stockton, Cal.  
KWJJ 1060  
Portland, Ore.  
KWK 1350  
St. Louis, Mo.  
KWKC 1370  
Kansas City, Mo.  
KWKH 850  
Shreveport, La.  
KWLC 1270  
Decorah, Iowa  
KWSC 1390  
Pullman, Wash.  
KWWG 1260  
Brownsville, Tex.

KXA 570  
Seattle, Wash.  
KKL 1250  
Portland, Ore.  
KXO 1200  
El Centro, Cal.  
KKRO 1310  
Aberdeen, Wash.  
KYA 1230  
San F'nisco, Cal.  
KYW 1020  
Chicago, Ill.  
KZM 1370  
Hayward, Cal.  
NAA 690  
Arlington, Va.  
WAAF 920  
Chicago, Ill.  
WAAM 1250  
Newark, N. J.  
WAAT 1070  
Jersey City, N. J.  
WAAF 660  
Omaha, Nebr.  
WABC 860  
New York City  
WABI 1200  
Bangor, Maine  
WABO 1440  
Rochester, N.Y.  
WABZ 1200  
New Orleans, La.  
WADC 1320  
Akron, Ohio  
WAGM 1310  
Royal Oak, Mich.  
WAIU 640  
Columbus, Ohio  
WAPI 1140  
Birmingham, Ala.  
WASH 1270  
Gr. Rapids, Mich.  
WBAK 1430  
Harrisburg, Pa.  
WBAL 1060  
Baltimore, Md.  
WBAP 800  
Fort Worth, Tex.  
WBAX 1210  
Wilkes-Barre, Pa.  
WBBC 1400  
Brooklyn, N.Y.  
WBBL 1370  
Richmond, Va.  
WBBM 770  
Chicago, Ill.  
WBBR 1300  
Rossville, N. Y.  
WBBY 1200  
Charleston, S.C.  
WBBZ 1200  
Ponca City, Okla.  
WBCM 1410  
Bay City, Mich.  
WBLS 1230  
Boston, Mass.  
WBMS 1450  
Fort Lee, N.J.  
WBNY 1350  
New York City  
WBOQ 860  
New York City  
WBOW 1310  
Terre Haute, Ind.  
WBRC 930  
Birmingham, Ala.

WBRE 1310		WDAE 1240		WFBJ 1370	
Wilkes-Barre, Pa.		Tampa, Fla.		Coll'geville, Minn.	
WBRL 1430		WDAF 610		WFBL 900-1490	
Manchester, N.H.		Kansas City, Mo.		Syracuse, N.Y.	
WBSO 920		WDAG 1410		WFBM 1230	
Well'yH'ls, Mass		Amarillo, Texas		Indianapolis, Ind.	
WBT 1080		WDAH 1310		WFBR 1270	
Charlotte, N.C.		El Paso, Texas		Baltimore, Md.	
WBZ 990		WDAY 940		WFDF 1310	
Springfield, Mass.		Fargo, N. D.		Flint, Mich.	
WBZA 990		WDBJ 930		WFI 560	
Boston, Mass.		Roanoke, Va.		Philadelphia, Pa.	
WCAC 600		WDBO 1120		WFIW 940	
Storrs, Conn.		Orlando, Fla.		Hopkinsville, Ky.	
WCAD 1220		WDEL 1120		WFJC 1450	
Canton, N.Y.		Wilmington, Del.		Akron, Ohio	
WCAE 1220		WDGY 1180		WFKD 1310	
Pittsburgh, Pa.		Minneap., Minn.		Philadelphia, Pa.	
WCAH 1430		WDOD 1280		WFLA 620	
Columbus, Ohio		Chattan'ga, Tenn		Clearwater, Fla.	
WCAJ 590		WDRC 1330		WGAL 1310	
Lincoln, Nebr.		N. Haven, Conn.		Lancaster, Pa.	
WCAL 1250		WDSU 1250		WGBB 1210	
Northfield, Minn.		New Orleans, La.		Freeport, N.Y.	
WCAM 1280		WDWF 1210		WGBC 1430	
Camden, N.J.		Cranston, R.I.		Memphis, Tenn.	
WCAO 600		WDZ 1070		WGBF 630	
Baltimore, Md.		Tuscola, Ill.		WGBI 880	
WCAP 1280		WEAF 660		Scranton, Pa.	
Asbury Pk., N.J.		New York City		WGBS 1180	
WCAT 1200		WEAI 1270		New York City	
Rapid City, S.D.		Ithaca, N.Y.		WGCM 1210	
WCAU 1170		WEAN 780		Gulfport, Miss.	
Philadelphia, Pa.		Providence, R.I.		WGCP 1250	
WCAX 1200		WEAO 570		Newark, N.J.	
Burlington, Vt.		Columbus, Ohio		WGES 1360	
WCAZ 1070		WEAR 1070		Chicago, Ill.	
Carthage, Ill.		Cleveland, Ohio		WGH 1310	
WCBA 1440		WEBC 1290		Newp't News, Va.	
Allentown, Pa.		Duluth, Minn.		WGHP 1240	
WCBD 1080		WEBE 1210		Detroit, Mich.	
Zion, Ill.		Cambridge, Ohio		WGL 1370	
WCBM 1370		Harrisburg, Ill.		Ft. Wayne, Ind.	
Baltimore, Md.		WEBR 1310		WGMS 1250	
WCBS 1210		Buffalo, N.Y.		Minneap., Minn.	
Springfield, Ill.		WEBW 600		WGN 720	
WCCO 810		Beloit, Wis.		Chicago, Ill.	
Minneap., Minn.		WEDC 1210		WGR 550	
WCDA 1350		Chicago, Ill.		Buffalo, N.Y.	
New York City		WEDH 1420		WGST 890	
WCFL 1280		Erie, Pa.		Atlanta, Ga.	
Chicago, Ill.		WEI 590		WGY 790	
WCGU 1400		Boston, Mass.		Schneec'd'y, N.Y.	
Coney Is., N.Y.		WEHS 1500		WHA 940	
WCKY 1480		Evanston, Ill.		Madison, Wis.	
Covington, Ky.		WELK 1370		WHAD 1120	
WCLB 1500		Philadelphia, Pa.		Milwaukee, Wis.	
Brooklyn, N.Y.		WEMC 590		WHAM 1150	
WCLO 1200		Ber'n Spgs., Mich		Rochester, N.Y.	
Kenosha, Wis.		WENR 870		WHAP 1300	
WCLS 1310		Chicago, Ill.		New York City	
Joliet, Ill.		WEPS 1200		WHAS 820	
WCMA 1400		Gloucester, Mass.		Louisville, Ky.	
Culver, Ind.		WEVD 1300		WHAZ 1300	
WCOA 1340		New York City		Troy, N.Y.	
Pensacola, Fla.		WEW 760		WHB 950	
WCOC 880		St. Louis, Mo.		Kansas City, Mo.	
Columbus, Miss.		WFAA 800		WHBC 1200	
WCOD 1200		Dallas, Texas		Canton, Ohio	
Harrisburg, Pa.		WFAN 610		WHBD 1370	
WCOH 1210		Philadelphia, Pa.		Bellefontaine, O.	
Yonkers, N.Y.		WFBC 1200		WHBF 1210	
WCRW 1210		Knoxville, Tenn.		Rock Island, Ill.	
Chicago, Ill.		WFBG 1310		WHBL 1410	
WCSH 940		Altoona, Pa.		Sheboygan, Wis.	
Portland, Maine					
WCSO 1450					
Springfield, Ohio					

WHBQ 1370 Memphis, Tenn.	WJAX 900 Jacksonville, Fla.	WKJC 1200 Lancaster, Pa.
WHBU 1210 Anderson, Ind.	WJAY 620 Cleveland, Ohio	WKRC 550 Cincinnati, O.
WHBY 1200 W. De Pere, Wis.	WJAZ 1480 Chicago, Ill.	WKY 900 Oklahoma City
WHDF 1370 Calumet, Mich.	WJBC 1200 La Salle, Ill.	WLAC 1490 Nashville, Tenn.
WHDH 830 Gloucester, Mass.	WJBI 1210 Red Bank, N.J.	WLAP 1200 Louisville, Ky.
WHDI 1180 Minneap., Minn.	WJBK 1370 Ypsilanti, Mich.	WLB 1250 Minneap., Minn.
WHDL 1420 TupperLake, N.Y.	WJBL 1200 Decatur, Ill.	WLBC 1310 Muncie, Ind.
WHEC 1440 Rochester, N.Y.	WJBO 1370 New Orleans, La.	WLBFB 1420 Kansas City, Ks.
WHFC 1500 Cicero, Ill.	WJBT 770 Chicago, Ill.	WLBG 1200 Ettrick, Va.
WHIS 1420 Bluefield, W.Va.	WJBU 1210 Lewisburg, Pa.	WLBL 900 Stevens Pt., Wis.
WHK 1390 Cleveland, Ohio	WJBW 1200 New Orleans, La.	WLBW 1260 Oil City, Pa.
WHN 1010 New York City	WJBY 1210 Gadsden, Ala.	WLBX 1500 L.I. City, N.Y.
WHO 1000 Des Moines, Ia.	WJDW 1370 Emory, Va.	WLBZ 620 Bangor, Me.
WHP 1430 Harrisburg, Pa.	WJDX 1270 Jackson, Miss.	WLCI 1210 Ithaca, N.Y.
WIAS 1420 Ottumwa, Iowa	WJDZ 1310 Winst.-Sal., N.C.	WLEX 1360 Lexington, Mass.
WIBA 1210 Madison, Wis.	WJJD 1130 Mooseheart, Ill.	WLEY 1420 Lexington, Mass.
WIBG 930 Elkins Park, Pa.	WJKS 1360 Gary, Ind.	WLIT 560 Philadelphia, Pa.
WIBM 1370 Jackson, Mich.	WJR 750 Detroit, Mich.	WLOE 1500 Boston, Mass.
WIBO 570 Chicago, Ill.	WJSV 1460 Mt. Vern. H'is, Va.	WLS 870 Chicago, Ill.
WIBR 1420 Steubenville, O.	WJW 1210 Mansfield, Ohio	WLSI 1210 Cranston, R.I.
WIBS 1450 Elizabeth, N.J.	WJZ 760 New York City	WLTH 1400 Brooklyn, N.Y.
WIBU 1310 Poynette, Wis.	WKAQ 890 San Juan, P.R.	WLW 700 Cincinnati, Ohio
WIBW 580 Topeka, Kansas	WKAR 1040 E. Lansing, Mich.	WLWL 1100 New York City
WIBX 1200 Utica, N.Y.	WKAV 1310 Laconia, N.H.	WMAC 570 Cazenovia, N.Y.
WICC 1190 Bridgeport, Conn.	WKBB 1310 Joliet, Ill.	WMAF 1360 S. D'rtm'th, Mass.
WIL 1200 St. Louis, Mo.	WKBC 1310 Birmingham, Ala.	WMAK 900 Buffalo, N.Y.
WILL 890 Urbana, Ill.	WKBF 1400 Indianapolis, Ind.	WMAL 630 Washington, D.C.
WILM 1420 Wilmington, Del.	WKBH 1360 La Crosse, Wis.	WMAN 1210 Columbus, Ohio
WINR 1210 Bay Shore, N.Y.	WKBI 1500 Chicago, Ill.	WMAQ 670 Chicago, Ill.
WIOD 1120 Miami Beh., Fla.	WKBN 570 Youngstown, O.	WMAY 1200 St. Louis, Mo.
WIP 610 Philadelphia, Pa.	WKBO 1450 Jersey City, N.J.	WMAZ 890 Macon, Ga.
WISN 1120 Milwaukee, Wis.	WKBP 1420 Battle Crk., Mich.	WMBA 1500 Newport, R.I.
WJAC 1310 Johnstown, Pa.	WKBQ 1350 New York City	WMBC 1420 Detroit, Mich.
WJAD 1240 Waco, Texas	WKBS 1310 Galesburg, Ill.	WMBD 1440 Peoria Hgths., Ill.
WJAG 1060 Norfolk, Nebr.	WKBV 1500 Brookville, Ind.	WMBG 1210 Richmond, Va.
WJAK 1310 Marion, Ind.	WKBW 1470 Buffalo, N.Y.	WMBH 1420 Joplin, Mo.
WJAR 890 Providence, R.I.	WKBZ 1500 Ludington, Mich.	WMBI 1080 Chicago, Ill.
WJAS 1290 Pittsburgh, Pa.	WKEN 1040 Grand Isl'd, N.Y.	WMBJ 1500 Pittsburgh, Pa.

WMBL 1310  
Lakeland, Fla.  
WMBO 1370  
Auburn, N.Y.  
WMBQ 1500  
Brooklyn, N.Y.  
WMBR 1370  
Tampa, Fla.  
WMC 780  
Memphis, Tenn.  
WMCA 570  
New York City  
WMES 1500  
Boston, Mass.  
WMMN 890  
Fairmont, W.Va.  
WMPC 1500  
Lapeer, Mich.  
WMRJ 1420  
Jamaica, N.Y.  
WMSG 1350  
New York City  
WMT 600  
Waterloo, Iowa  
WNAC 1230  
Boston, Mass.  
WNAD 1010  
Norman, Okla.  
WNAT 1310  
Philadelphia, Pa.  
WNAX 570  
Yankton, S.D.  
WNBF 1500  
Bingh'm't'n, N.Y.  
WNBH 1310  
New B'd'f'd, Mass.  
WNBK 1310  
Knoxville, Tenn.  
WNBO 1290  
Washington, Pa.  
WNBR 1430  
Memphis, Tenn.  
WNBW 1200  
Carbondale, Pa.  
WNBX 1200  
Springfield, Vt.  
WNBZ 1290  
SaranaL'ke, N.Y.  
WNJ 1450  
Newark, N.J.  
WNOX 560  
Knoxville, Tenn.  
WNRC 1440  
Greensboro, N.C.  
WNYC 570  
New York City  
WOAI 1190  
San Antonio, Tex.  
WOAN 600  
Law'nceb'g, Tenn.  
WOAX 1230  
Trenton, N.J.  
WOBT 1310  
Union City, Tenn.  
WOBW 580  
Charlest'n, W.Va.  
WOC 1000  
Davenport, Iowa  
WOCL 1210  
Jamestown, N.Y.  
WODA 1250  
Paterson, N.J.  
WOI 560  
Ames, Iowa  
WOKO 1440  
P'ghkeepsie, N.Y.

WOL 1310  
Washington, D.C.  
WOMT 1210  
Manitowoc, Wis.  
WOOD 1270  
Gr. Rapids, Mich.  
WOPI 1500  
Bristol, Tenn.  
WOQ 1300  
Kansas City, Mo.  
WOR 710  
Newark, N. J.  
WORC 1200  
Worcester, Mass.  
WORD 1480  
Chicago, Ill.  
WOS 630  
Jeff'n'n City, Mo.  
WOV 1130  
New York City  
WOW 590  
Omaha, Nebr.  
WOWO 1160  
Ft. Wayne, Ind.  
WPAP 1010  
New York City  
WPAW 1210  
Pawtucket, R.I.  
WPCC 570  
Chicago, Ill.  
WPCH 810  
New York City  
WPEN 1500  
Philadelphia, Pa.  
WPG 1100  
Atl'ntic City, N.J.  
WPOE 1420  
Patchogue, N.Y.  
WPOB 780  
Norfolk, Va.  
WPSC 1230  
State College, Pa.  
WPTF 680  
Raleigh, N.C.  
WQAM 560  
Miami, Fla.  
WQAN 880  
Scranton, Pa.  
WQAO 1010  
New York City  
WQBC 1360  
Utica, Miss.  
WQBZ 1420  
Weirton, W. Va.  
WRAF 1200  
La Porte, Ind.  
WRAK 1370  
Erie, Pa.  
WRAW 1310  
Reading, Pa.  
WRAX 1010  
Philadelphia, Pa.  
WRBC 1240  
Valparaiso, Ind.  
WRBI 1310  
Tifton, Ga.  
WRBJ 1500  
Hattiesburg, Miss.  
WRBL 1200  
Columbus, Ga.  
WRBQ 1210  
Greenville, Miss.  
WRBT 1370  
Wilmington, N.C.  
WRBU 1210  
Gastonia, N.C.

WRC 950  
Washington, D.C.  
WREC 600  
Memphis, Tenn.  
WREN 1220  
Lawrence, Kans.  
WRHM 1250  
Minneap., Minn.  
WRJN 1370  
Racine, Wis.  
WRK 1310  
Hamilton, Ohio  
WRNY 1010  
New York City  
WRR 1280  
Dallas, Texas  
WRUF 830  
Gainesville, Fla.  
WRVA 1110  
Richmond, Va.  
WSAI 1330  
Cincinnati, Ohio  
WSAJ 1310  
Grove City, Pa.  
WSAN 1440  
Allentown, Pa.  
WSAR 1450  
Fall River, Mass.  
WSAZ 580  
Hunt'gton, W.Va.  
WSB 740  
Atlanta, Ga.  
WSBC 1210  
Chicago, Ill.  
WSET 1230  
South Bend, Ind.  
WSGH 1400  
Brooklyn, N.Y.  
WSIX 1210  
Springfield, Tenn.  
WSJS 1310  
Winst.-Sat., N. C.  
WSM 650  
Nashville, Tenn.  
WSMB 1320  
New Orleans, La.  
WSMK 1380  
Dayton, Ohio  
WSOA 1480  
Forest Park, Ill.  
WSPD 1340  
Toledo, Ohio  
WSSH 1420  
Boston, Mass.  
WSUI 600  
Iowa City, Ia.  
WSUN 620  
St. Petersb'g, Fla.  
WSVS 1370  
Buffalo, N.Y.  
WSYR 570  
Syracuse, N.Y.  
WTAD 1440  
Quincy, Ill.  
WTAG 580  
Worcester, Mass.  
WTAM 1070  
Cleveland, Ohio  
WTAQ 1330  
Eau Claire, Wis.  
WTAR 780  
Norfolk, Va.  
WTAW 1120  
College Sta., Tex.  
WTAX 1210  
Streator, Ill.

WTBO 1420 Cumberland, Md.		WWRL 1500 Woodside, N.Y.		XEX 920 Mexico City	
WTFI 1450 Toccoa, Ga.		WWVA 1160 Wheeling, W.Va.		XEY 550 Merida, Yucatan	
WTIC 1060 Hartford, Conn.		XEA 1200 Guadalajara, Jal.		XFA 540 Mexico City	
WTMJ 620 Milwaukee, Wis.		XEB 670 Mexico City		XFC 630 Jalapa, Ver.	
WTNT 1490 Nashville, Tenn.		XEE 960 Pueblo, Pue.		XFF 920 Chihuahua, Chih.	
WTOC 1250 Savannah, Ga.		XEF 1130 Oaxaca, Oax.		XFG 640 Mexico City	
WVAE 1370 Hammond, Ind.		XEH 970 Monterey, N.L.		XFI 590 Mexico City	
WWJ 920 Detroit, Mich.		XEI 1000 Morelia, Mich.		XFX 840 Mexico City	
WWL 850 New Orleans, La.		XEN 730 Mexico City			
WWNC 570 Asheville, N. C.		XES 1200 C. Lerdo, Dgo.			

## The Short Wave Stations

Call	Station	Owner	City and State	Meters	Watts
1 XAA	WRAH	Stanley N. Read	Providence, R. I.		7.5
1 XAE	WBZ	Westinghouse Elec. & Mfg. Co.	Springfield, Mass.	70.0	
1 XAF	WEEL	Edison Elec. Illuminating Co.	Boston, Mass.		
1 XAG		Edison Elec. Illuminating Co.	Boston, Mass.		
1 XY	WBRL	Booth Radio Laboratories	Tilton, N. H.	105-109	250
2 XA	WRMU	Yacht, "MU-1" Grebe Co.	New York		
2 XAC	WGY	General Electric Co.	Schenectady, N. Y.		
2 XAD	WGY	General Electric Co.	Schenectady, N. Y.		
2 XAE	WGY	General Electric Co.	Schenectady, N. Y.		
2 XAF	WGY	General Electric Co.	Schenectady, N. Y.	32.7	
2 XAG	WGY	General Electric Co.	Schenectady, N. Y.		
2 XAH	WGY	General Electric Co.	Schenectady, N. Y.		
2 XAK	WGY	General Electric Co.	Schenectady, N. Y.		
2 XAL	WRNY	Aviation Radio Station, Inc.	New York	30.91	500
2 XAO		Atlantic Broadcasting Co.	New York	105.9	100
2 XAO	WOR	L. Bamberger Co.	Newark, N. J.	65.4	50
2 XAW	WGY	General Electric Co.	Schenectady, N. Y.		
2 XBA	WAAM	WAAM, Inc.	Newark, N. J.	65.18	50
2 XBH		Chas. G. Ungar	Coney Island, N. Y.	54.02	150
2 XE	WABC	Atlantic Broadcasting Co.	Richmond Hill, N. Y.	21.1	50
2 XZ		National Broadcasting Co.	Bellmore, L. I.	49.15	50000
3 XK		C. Francis Jenkins Labs.	Washington, D. C.		
3 XL		Radio Corp. of America	Bound Brook, N. J.	59.96	30000
3 XN		Bell Telephone Laboratory	Whippany, N. J.		
4 XE		William Justice Lee	Winter Park, Fla.	200.	250
6 XA	KNX	Los Angeles Express	Los Angeles, Cal.	107.1	100
6 XAF	KNRC	Clarence B. Juneau	Santa Monica, Cal.	108.2	100
6 XAI	KGGM	Los Angeles Radio Club	Los Angeles, Cal.	66.04	50
6 XAK	KFWH	F. W. Morse	Chico, Cal.	108.2	50
6 XAL	KFOZ	L. E. Taft	Hollywood, Cal.	66.04	50
6 XAN	KRLO	Freeman Lang	Los Angeles, Cal.	105.9	250
6 XAR	KJBS	J. Brunton & Sons	San Francisco, Cal.	32.	50
6 XAU	KHJ	Times-Mirror Co.	Los Angeles, Cal.	104.1	50
6 XAZ		Nelson Radio Co.	San Diego, Cal.	106.	50
6 XBA	KPSG	Air-Fan Radio Corp.	Los Angeles, Cal.	108.2	250
6 XBE	KFBC	W. K. Azbill	San Diego, Cal.		
6 XBF	KFQV	W. E. Riker	Holy City, Cal.	31-106	50
6 XBR	KFWB	Warner Bros. Picture Studio	Los Angeles, Cal.	40-105	50
6 XBX	KFVD	McWhinnie Elec. Co.	Venice, Cal.	105.	50
7 XAB	KFPY	Symons Investment Co.	Spokane, Wash.	105.9	
7 XAO	KWJJ	Wilbur Jerman, Inc.	Portland, Ore.	53-54	100
7 XC	KJR	Northwest Radio Service	Seattle, Wash.		
7 XO		Northwest Radio Service	Seattle, Wash.		
8 XAC	WHAM	Stromberg-Carlson Tel. Mfg. Co.	Rochester, N. Y.		
8 XAL	WLW	Crosley Radio Corp.	Cincinnati, Ohio	52.05	500
8 XOA	WJR	WJR, Inc.	Detroit, Mich.	32.	75
8 XF	WHK	Radio Air Service Corp.	Cleveland, Ohio	66.04	500
8 XJ	WEAO	Ohio State University	Columbus, Ohio	54.02	250
8 XK	KDKA	Westinghouse Elec. & Mfg. Co.	Pittsburgh, Pa.	62.5	40000
8 XP	KDKA	Westinghouse Elec. & Mfg. Co.	Pittsburgh, Pa.	10-150	500
9 XAB	WNAL	R. J. Rockwell	Omaha, Nebr.	105.	50
9 XU	KOIL	Mona Motor Oil Co.	Council Bluffs, Iowa	61.06	500



## Radio Gossip

Cecil Underwood spends his working hours announcing at the San Francisco studios but his hobby is aviation and he is out to become a licensed pilot.

\* \* \*

Memory Lane artists are replenishing their wardrobes.

Depicting life in the mid-west 25 years ago, this striking dramalogue inspires many requests from newspapers and magazines for photographs, so every member of the cast must boast the conventional costume of a quarter-century ago.

\* \* \*

Yes, the voices of the KGO "Morning Glories" have been heard often before by the NBC System audience. The new harmony due is Imelda Montagne, who has been singing with the Pepper Maids, and Peggy Chapman, contralto soloist with the Pacific Vagabonds and Musical Muskateers.

\* \* \*

Vaughn de Leath, originator of the "crooning" type of singing now so popular, has returned to New York from her home, "The Hitching Post," in Connecticut. She has moved into an apartment on Fifty-fifth Street, just around the corner from the NBC studios, from which she broadcasts regularly.

\* \* \*

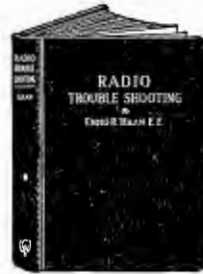
No matter how important the broadcast, the doors to the NBC studios from which it goes on the air can never be locked. This is not a superstition, but a fire regulation. In order to keep "crashers" out of the studios—and radio has its crashers—every door is guarded. Signs also advise passers-by that the studio is "on the air" and not open to visitors.

\* \* \*

Julian Oliver, famous radio tenor, has returned from a summer tour of his native Spain and Italy with a blushing bride. Oliver met his bride in Rome this summer, and they were married in Paris, September 14. As Carmen De Blasco, Mrs. Oliver won first prize in the Atlantic City beauty contest of 1925, which she entered as Miss Mexico City.

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Name..... Address.....

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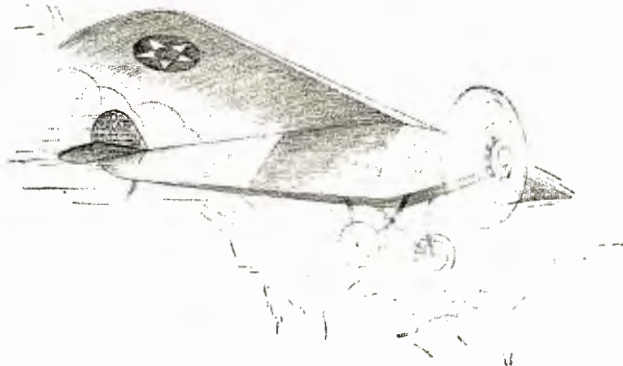
Name..... Address.....

My name and address is: .....

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Combined with 210 Power Amplifier and "B" Supply Unit



Model K-5

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Width.....25½"  
Depth.....19"

### Features:

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3. Supplies "B" voltage, if desired.
4. Can be used with any electric or battery set.
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6. Beautiful pencil-striped walnut cabinet.

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*Such opportunity as herein presented is seldom available. And they won't last long at this low price. We suggest quick action--there's quality here--at a price heretofore unknown.*

THIS finely matched rugged unit comprises a complete heavy duty Electro-Dynamic Reproducer, including a 210 Power Amplifier with "B" supply unit all self-contained on a steel frame. It weighs 45 pounds without the cabinet. The cabinet itself is of pencil-striped walnut, beautifully designed with Cathedral grille. It is equipped with switch for control of house current to reproducer, power unit and amplifier. A pilot light indicates when the Reproducer is in operation.

If desired, the 210 Power Amplifier will also supply 22, 67 and 90 volts "B" current, sufficient for any set using up to 8 tubes. An automatic voltage regular tube, UX-874, maintains the "B" voltage silent and steady. This Electro-Dynamic Reproducer can be used with any battery or A.C. set, replacing the last audio stage or be used with all tubes of the set. Wherever used it will bring out every shading and range of tone; every note is reproduced with utmost faithfulness, pure and undistorted. It will modernize any radio receiver.

The following tubes are required for its operation: 2-UX-281 (for full-wave rectification); 1-UX-210 (for super power amplification); 1-UX-874 (for voltage regulation). For use with phonograph pick-up, one additional audio stage is recommended between the pick-up and this Reproducer.

A 20-ft. cable is included with each instrument. Operates direct from 50-60 cycle, 110-120 volt A.C. current.

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