

THE NOVEMBER 1929

# RADIO IN INDEX

The Radio Fan's Own Magazine



A Countess Broadcasts

**R**ADEX lists every station in America in the order in which they will come in on your dials. Thus you can identify programs the instant received and know where to set dials for any station you want even those never received before. . . .

No. 33

Complete Hour-By-Hour Programs

N. S. E.

# I Will Train You at Home to Fill a Big-Pay Radio Job



If you are earning a penny less than \$50 a week, send for my book of information on the opportunities in Radio. It's FREE. Clip the coupon NOW. A flood of gold is pouring into Radio, creating hundreds of big pay jobs. Why go along at \$25, \$30 or \$45 a week when the good jobs in Radio

pay \$50, \$75 and up to \$250 a week? "Rich Rewards in Radio" gives full information on these big jobs and explains how you can quickly learn Radio through my easy, practical home-study training.

## Salaries of \$50 to \$250 a Week Not Unusual

The amazing growth of Radio has astounded the world. In a few short years three hundred thousand jobs have been created. And the biggest growth is still to come. That's why salaries of \$50 to \$250 a week are not unusual. Radio simply hasn't got nearly the number of thoroughly trained men it needs.

## You Can Learn Quickly and Easily in Spare Time

Hundreds of N. R. I. trained men are today making big money—holding down big jobs—in the Radio field. You, too, should get into Radio. You can stay home, hold your job and learn in your spare time. Lack of high school education or Radio experience are no drawbacks.

## Many Earn \$15, \$20, \$30 Weekly On the Side While Learning

I teach you to begin making money shortly after you enroll. My new practical method makes this possible. I give you SIX BIG OUTFITS of Radio parts and teach you to build practically every type of receiving set known. M. E. Sullivan, 412 73rd St., Brooklyn, N. Y., writes: "I made \$720 while studying." G. W. Page, 1807 21st Ave., S., Nashville, Tenn.: "I picked up \$935 in my spare time while studying."

## Your Money Back if Not Satisfied

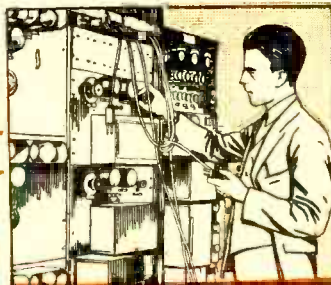
My course fits you for all lines—manufacturing, selling, servicing sets, in business for yourself, operating on board ship or in a broadcasting station—and many others. I back up my training with a signed agreement to refund every penny of your money if, after completion you are not satisfied with the lessons and instructions I give you.

## Act NOW—64-Page Book is FREE

Send for this big book of Radio information. It has put hundreds of fellows on the road to bigger pay and success. Get it. See what Radio offers you, and how my Employment Department helps you get into Radio after you graduate. Clip or tear out the coupon and mail it RIGHT NOW!

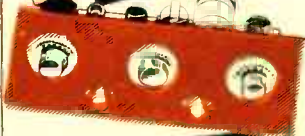
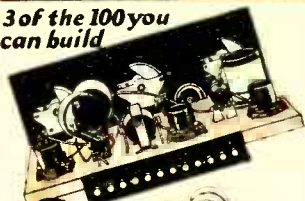
## Radio Needs Trained Men!

J. E. Smith, President, Dept. 9Y91  
National Radio Institute  
Washington, D. C.  
Employment Service to all Graduates  
Originators of Radio Home Study Training



You can build  
100 circuits with  
the six big outfits  
of Radio parts  
I give you

3 of the 100 you  
can build



Find out quick  
about this  
practical way  
to big pay



Mail this Coupon at Once

J. E. SMITH, President,  
Dept. 9Y91, National Radio Institute  
Washington, D. C.

Dear Mr. Smith: Send me your Free book "Rich Rewards in Radio," giving information on the big-money opportunities in Radio and your practical method of teaching with six Radio Outfits. I understand this places me under no obligation.

Name \_\_\_\_\_ Age \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_

Please mention RADEX

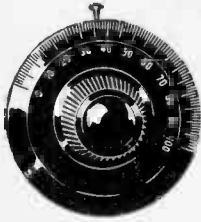
THE NOVEMBER 1929

# RADIO IN DEX

REG. U. S. PATENT OFFICE

FRED CLAYTON BUTLER

Editor and Publisher



SIXTH YEAR

## Contents

NUMBER 33

Frontispiece—Countess Olga Medolago Albani See Story on Page 14	-----	
Troubles of B-Eliminators, by Enno R. Haan Simple Remedies for Their Cure	-----	2
The Puzzle Page Another of Those Cross-Call Teasers	-----	3
What Is Screen Grid? by Colin B. Kennedy Simple Explanation of the New Tube	-----	5
A Modern Television Station, by J. E. Smith Radio Waves Now Carrying Movies	-----	7
Grandma's Radio, by E. Vivian Scott In Which the Old Lady Changes Her Mind	-----	9
The Question Mill, Conducted by E. R. Haan ABC Answers to Some Common Troubles	-----	15
A Program for Business Men	-----	20
What's On the Air Tonight? Hour-by-Hour and Alphabetical Index to Programs	-----	24
Table of Air-Line Distances	-----	32
Broadcasting Map of U. S. A.	-----	34
A Complete Index by Frequencies Cross-Indexed by Dial Numbers and Wave Lengths	-----	36
A Complete Index by States and Cities With Key to Location of Station on Broadcasting Map	-----	50
A Complete Index by Call Letters A Log for 750 Stations	-----	56

Subscription Price, \$1.75 per year (Ten Issues)

Published Monthly excepting July and August.

### THE RADEX PRESS

1367 East 6th Street . . . . . Cleveland, Ohio

Copyright 1929 by F. C. Butler. Printed in U. S. A.

# Troubles of B-Eliminators

## Simple Remedies for Their Cure

By E. R. HAAN

THE most common trouble experienced with eliminators is humming.

This may, of course, be due to poor design in the eliminator, but taking it for granted that the eliminator is a good one, there are several other causes which may give rise to this trouble. Often the hum results from faulty adjustment of the variable controls; in fact, few eliminators will work satisfactorily at once without manifesting a noticeable hum, until they are properly adjusted. On most eliminators the adjustment can be made by first turning the variable controls entirely to the left or "off" position and then gradually turning them up toward the right until a good, clear signal is obtained on the receiver. The de-

rector voltage is the most critical, and it should be kept as low as possible, just above the point where signals become "fuzzy." Another reason for keeping the detector voltage as low as possible is to reduce its tendency to be "microphonic," a condition to which most "hard" tubes are susceptible, and which is aggravated by a high plate voltage. Too much plate voltage on the detector tube will also produce harsh-toned reception. The detector-plate voltage is first adjusted and then the amplifier voltages. It must be remembered, however, that the variable resistances exert a mutual effect on each other, and therefore the detector control must be readjusted after the amplifier control has been set cor-

rectly. After an eliminator has once been correctly adjusted, do not change it or allow anyone to meddle with it. This is often a great temptation for the radio fan; the more variable controls there are to handle, the more he likes to play with them.

It should be borne in mind, however, that constant re-adjustment not only is a waste of time, but the variable controls are not made for constant rotation. This handling may cause them to become defective, and then no marked improvement can be obtained by manipulating them; signals will become fuzzy and distorted, or no reception will be possible at all.

Often the hum can be remedied by merely revers-

ing the plug which connects to the light socket. Grounding the eliminator is also effective, and unless the receiver is especially designed to operate on an eliminator, it will usually be necessary to connect the B-negative terminal of the eliminator to the ground or A-negative terminal of the receiver, provided the A-negative and B-negative lines on the receiver are connected. If the A-positive and B-negative on the receiver are connected, the wiring should be changed so that the A-negative and B-negative are connected. When this precaution is omitted, there is often a pronounced A.C. hum. The metal case in which almost every eliminator is in-

(Continued on page 21)



*Herbert Straub is musical director of the Buffalo Broadcasting Corp. and may be heard with his Civic Symphony Orchestra over WKBW, WGR, WMAK and WKEN*

# The Puzzle Page

**I**N spite of our very best endeavor, it does seem that we must have at least one mistake in our Cross Call puzzles to make a hard job harder. In our last issue we stated that No. 30 vertical was "an Ohio station with a call formerly used in Michigan." This should have been "a Pennsylvania station," WRAK of Erie which was once assigned to Escanaba, Michigan. In spite of this error, a number succeeded in solving the October puzzle. Where they sent a solution correct in every respect but this one, we sent the reward notwithstanding.

The first prize, a copy of Mr. Haan's book "Radio Trouble Shooting" was awarded to Henry Schneider, 10701 Bernard Ave., Cleveland, Ohio. The three subscriptions went to J. A. Miner, Jr., 515 East 3rd Street, Waterloo, Iowa; N. G. McCroden, 717 North Fourth Street, Albuquerque, N. Mex.; and Helen E. Capper, 1402 Montcalm, Indianapolis, Ind.

The leatherette covers have gone to Howard Spang, 3283 West Boulevard, Cleveland, Ohio, Mrs. Jay G. Chase, 533 West South Street, Kalamazoo, Mich., Gust Skoog, 105 E. 15th St., Danville, Ill., Bob Glick, 314 10th Ave., Huntington, W. Va., and John Sargent, 621 Elm St., Huntington, W. Va. Answers will be received until this edition of RADEX is on the news stands and prizes will be awarded to those submitting successful solutions.

The correct solution of the October puzzle will be found on this page. Now

W  
 KWK  
 WTJWK  
 KMA KGW  
 WOMET CFLC  
 KOIN R WBMS  
 WILL A WCRW  
 KHJ INDEK WGN  
 KOWW I KWKH  
 WJAK O KFHA  
 WBOW WOKO  
 WRR KOB  
 EAWAS  
 KHQ  
 P

here is another difficult one for our puzzle fans.

1	2	3	4			6	8	7	8
9	10	11		12	13	14	15	16	17
18	19		20	21	22	23	24		25
27		28	29	30	31	32	33	34	35
	36	37	38	39		40	41	42	43
		44	45	46	47	48	49	50	51
53		54	55	56	57	58	59	60	61
62	63		64	65	66	67	68		69
71	72	73		74	75	76		77	78
80	81	82	83				84	85	86

## Horizontal

- 1- 4. A baby food station.
- 5- 8. A college for women.
- 9-11. In the north-west.
- 12-14. Backward or forward, all the same.
- 15-17. Seeds.
- 18-19. Last two letters of a Toronto station.
- 20-23. Only 15 watts.
- 21-24. A statistical station.
- 25-26. Last two letters of a N.J. station.
- 28-31. In Georgia.
- 31-34. A school of mines (reversed).
- 36-39. A southern mining city.
- 40-43. In the windy city (reversed).
- 44-47. Spells a word.
- 48-51. Main Auto Supply Co.
- 50-52. A fraternal organization.
- 54-57. Voice of the minuteman (reversed).
- 57-60. Doughty & Welch.
- 62-63. Last two letters of a 600 key station.
- 64-66. Time signals.
- 65-68. Southern newspaper station (reversed).
- 69-70. First and last letters of a California station.
- 71-73. Where marriages are untied.
- 74-76. A municipal university.
- 77-79. One of the first.
- 80-83. On the Ohio.
- 84-87. Three vowels in this one.

### Vertical

- 1-27. A Canadian newspaper.
- 2-19. 12,500 watts.
- 3-11. Last two letters of Washington station.
- 6-15. This one is OK.
- 7-25. A telephone company.
- 8-35. A polytechnic institute.
- 12-39. A state college.
- 13-31. Shares time with two religious stations.
- 14-40. Teaches farming by radio.
- 20-46. Most northern station in Texas.
- 24-50. A flour station (reversed).
- 28-54. On 1210.
- 34-60. Uses a sister station.
- 48-75. On 1200.
- 53-80. An evangelistic station (reversed).
- 55-64. Last two letters of Mexican station.
- 59-68. Last two letters of grain station.
- 61-87. In the city of Wolfe and Mont-calm.
- 63-81. See horizontal 50-52.
- 69-86. A congregational church.

To those solving this puzzle correctly leatherette covers will be sent to the first five and copies of the December RADEX to the rest.

The following interesting letter regarding the RADEX cross-call puzzles comes from Laurance Angel, Jr., of Yonkers, N. Y.:

"In submitting what I hope is a correct solution of your October puzzle, I wish to tell its creator up in Maine that he kept me busy the best part of an hour last night. He certainly shows a knowledge of the waves since the real old days and I hope to see some more such stickers.

"Before filling in all the spaces, I had to refer to my old call book files and thanks to the fact that they are fairly intact since 1922, when I entered the radio game, I was able to make fair progress. Incidentally I have an old slogan book which was also a help.

"I personally defy anyone who has not been twisting the dials for at least three years to solve that puzzle. Just one thing bothered me. No. 30 down reads: 'Ohio station, call formerly used in Michigan.' WRAK fits the bill as far

as Michigan goes but those calls are now assigned to a Pennsylvania broadcaster, according to my Radex. Perhaps I have that whole key wrong, however.

"Incidentally these puzzles are very education. I learned that Dallas had the first Municipal station, that Porto Rico grows the best coffee, that KOOS is the best DX a fan can get in this country, and so on. If I can muster the time, I'm going to do my best to submit you a puzzle, and I guarantee, the fans will have to go back to 1923 and 1922 — you remember, when WJZ relied a lot on the Victrola for its programs, and WOC was thrilling us Eastern fans with its Sunday night chimes concerts.

"Hats off to the Maine pioneer and let's hope some of your other readers can do as well. There is nothing like a good radio cross-word puzzle to entertain you while you're fishing for the distant programs."

### A Southern Program

**S**KETCHES of the Old South are to be offered weekly to radio audiences in a new series of programs entitled "Planters' Pickers," which began over the N.B.C. System, Friday night, October 25th, at 10:00 o'clock, E.S.T. The Hallelujah Singers, a Negro quartet, and Billy Artz with his orchestra will be the featured artists.

This ensemble promises a half-hour of variety and novelty. Old Southern melodies painting visions of the romantic scenes below the Mason and Dixon Line will be blended with classical compositions and popular music of today. The selections will be interspersed with the semi-religious Negro spirituals. Skits reflecting the irrepressible humor and happiness of the colored farm worker at his daily toil or evening revelries will add realistic touches.

Billy Artz was formerly director of the Rose Room Orchestra of the Waldorf-Astoria Hotel. Artz has become to dance lovers almost as traditional as the famous hotel itself. He confesses a weakness for the music of the Viennese masters and wants to perpetuate their genius here.

# What is Screen Grid?

By COLIN B. KENNEDY

THE average man who reads the advertisements of the average radio manufacturer, often finds the particular features stressed are merely a collection of words that mean little or nothing to him. Take "screen grid" for instance. Ask the first ten people you meet, radio experts barred, and no two definitions will correspond. Its real meaning is still a mystery to many people.

Compare with "screen grid" some former radio features. Two years ago the magic term "all-electric" sold thousands of radios. The meaning of this term was quickly grasped. It assured the prospective purchaser that there would be no more battery troubles.

Last year the phrase "dynamic speaker" promoted many sales for the radios which could boast of having it. People could hear the difference. They accepted it on the strength of its deep, rich tone. Like "all-electric," it was a tangible feature.

This year "screen grid" is radio's latest feature. But it's not really new. Its possibilities have been known to radio engineers as far back as 1925. This also was the case of the "dynamic speaker," one of the very first loudspeakers to be used for radio, but its development for practical use did not come until much later.

What is "screen grid?" Advertisements feature it! Salesmen rave about it! But it remains a mystery to most people. Some think it is a new kind of radio set — others say it's an attach-

ment to eliminate static — many will tell you, vaguely, that it's half a dozen other things. The name itself, "screen grid," is derived from a cylindrical screen-like part inserted between the outside element or "plate," and the next member inside or "grid" which makes the "screen" surround the "plate."

That's the great secret. First of all it's a tube, and any set using "screen grid" tubes is, technically, a "screen grid" set.

"Screen grid" tubes are the development of the standard three-element tube which have been used in almost all radio sets since the beginning of practical program broadcasting. Experiments with different designs of this tube proved that extending the "screen" on the outside of the "plate" as well as the inside was an

advantage. This gave birth to the term "shielded plate," which is really the correct term to use, and exactly the same thing as "screen grid." The addition of the "screen" around the "plate" actually makes the "screen grid" tube a four-element tube.

It was next discovered by "measurements" that "screen grid" tubes had the ability to amplify a signal many times more than standard tubes, according to formulae used on standard tubes. One radio authority gives the "screen grid" amplification factor as 420 as compared to 8 for a standard tube. So far, however, it has not been possible to get a practical gain with "screen grid" tubes of much more than 30 to 35 per tube. In com-



*Drs. Pratt and Sherman of WMAQ, Chicago. Russell Pratt on the left and Ransom Sherman right.*

parison to this, full amplification of 8 per tube is obtained with standard tubes. The net gain of a "screen grid" tube, therefore, is approximately four times that of a standard tube and is well worth while when greater amplification of signals is desired.

In attempting, however, to work standard tubes at full efficiency, they have a tendency to generate signals of their own and cause "whistles" or "squeals." This tendency had to be overcome by "neutralizing" the set, or by absorbing the surplus energy that might develop the squeals with "resistors."

In using the "screen grid" tube, it was found to be quite stable in its operation and the tendency to squeal, if any, could be overcome by varying the voltage applied to the "screen grid" and by "shielding" the tube and its associate apparatus with metal. This also produced a smooth volume control without changing the "tuning" of the set or requiring the tedious work of "neutralizing."

A popular question right now is whether a set employing "screen grid" tubes is better than one employing a standard tube, assuming, of course, that all other factors are equal.

The answer depends largely upon whether greater amplification of the "screen grid" set is desired, with the proportional increase of noise that accompanies such high amplification, or whether less amplification is desired, such as is obtained with the standard neutrodyne set, which is not as sensitive to weak signals and consequently does not pick up as much noise.

Were I to decide, the location of my home would determine my choice. If on a street car line, near power wires, factories or other possible means of disturbance, the neutrodyne set would probably be the best to use. If away from such sources of electrical interference where the sensitivity of the "screen grid" set could be used to its full advantage in "pulling in" distant stations, then the "screen grid" set would seem to be the logical choice.

## Chains On One Channel

**B**ROADCASTING stations transmitting a particular chain program will be linked on a single radio channel, synchronized by wires between the stations, within the next few years, William D. Terrell, chief of the radio division of the Department of Commerce, predicted.

Wire synchronization of broadcasting stations on a limited scale, said Mr. Terrell, already has been found to be feasible. By controlling the signal emitted from the key station through a parallel land wire, he stated, it is technically possible for a group of stations transmitting the same program to operate on the same channel.

"To me," he continued, "it is just a question of time before the chains begin using only a single frequency for their entire network. It would solve the problem of duplication of chain programs, since all the chain stations broadcasting one program would be on the same channel."

Mr. Terrell, who, before the Federal Radio Commission came into being in 1927, was directly in charge of radio regulation, declared that if the chains adopt the wire synchronization plan, an entirely new allocation of stations will be necessary. At present, he pointed out, stations subscribing to chain programs broadcast on individual frequencies assigned to them, either on a cleared channel or time-sharing basis. These stations, he said, could have two transmitters, one broadcasting the chain program, and the other operating as an "independent" station, offering original programs, and diversifying the program matter now available to listeners.

Engineers of the National Broadcasting Co. and of the Westinghouse Electric & Manufacturing Co. have been experimenting with wire synchronization for some time, said Mr. Terrell. The latter company, he explained, for several years has been maintaining such a system between Stations WBZ at Springfield, Mass., and WBZA at Boston, a distance of 60 miles.

The wires now used by the chains and  
(Continued on page 19)



# A Modern Television Station

By J. E. SMITH

President, National Radio Institute, Washington, D. C.

OCCUPYING a bungalow, the new radio-vision transmitting station of C. Francis Jenkins, Washington, D. C., began broadcasting motion pictures on a daily schedule Monday evening, July 22. Using a 5,000-watt, water-cooled electron tube, this is probably the first powerful station devoted exclusively to the dispersion of visual images by radio. It is located approximately 10 miles from the heart of the National Capital — three miles beyond Silver Spring, Md., on the Brookeville Pike — sufficiently removed from congested areas, it is thought, to obviate interference with local radio reception.

The initial broadcast from the new studio consisted of a silhouette showing a small girl bouncing a ball, a sort of radio-vision signature of the Jenkins Laboratories, inasmuch as this has been the introductory subject of the 50-watt television station when located in the heart of Washington. The title of the long reel in dedicating the 5,000-watt station was "Call It Love." The call letters are W3XX, the same designation being used when broadcasting silhouettes every other night from the Jenkins Laboratories. The assigned frequency is 2,900 kilocycles (a wave-length of 103.4 meters), which is believed not to be so susceptible to the vagaries of fading and skip-distance effect as was the formerly used wave-length of 46.72 meters.

Hard by the roadside of one of Mary-

land's pikes — where one steep hill and dale succeeds another — is located the new television station of C. Francis Jenkins. The 128-foot steel towers, with cage antenna and counterpoise, alone suggest that a bungalow is concealing the physical equipment for

broadcasting visual images. The well-cared for lawn and the inviting appearance of the house fail to identify the corrupted use of this home for a broadcasting plant. Once within the door, however, there is an atmosphere of strangeness — quite foreign to what the exterior suggests. Instead of a family, contented by its own fireside, the rooms are crowded with things electrical, photographic and mechanical. One room, for instance,

contains a motion-picture projector, electric motors, television scanning disk, a light-sensitive cell for converting picture values into electrical values, and a long cabinet containing an 8-tube resistance-coupled radio amplifier.

An adjoining room houses the 5,000-watt radio transmitter — a unit specially designed for broadcasting radio images. This transmitting set does not structurally conform to standard designs found in conventional broadcasting stations and yet as a faithful voice sending set it is assumed to be well adapted to the radiation of visual images. It employs a 5-kilowatt, water-cooled vacuum tube and this is probably the most powerful unit yet used regularly and exclusively



*Felice Iula, orchestral conductor and arranger at WBAL Baltimore, is one of the most popular musical leaders in radio-land. He has composed several popular songs, including "In a Little Garden." Conducts Kirk Silver hour, Cloverdale dinner orchestra and WBAL Wind Ensemble*

for the dispersion of motion pictures by radio. It is contemplated that this unit will have, under favorable sending conditions, a coverage of the entire eastern half of the United States — radiating silhouettes that may be intercepted by amateurs and experimenters equipped with suitable receiving instruments. With the use of only 50 watts, the images broadcast from the former location in the Jenkins Laboratories brought in straggling reception reports from such far distant points as California, Cuba, Colorado, and Texas. The third room in the Jenkins new studio, yet to be equipped, will contain apparatus designed for the possible transmission of scenes of living objects.

The antenna system consists of two 128-foot steel towers, spaced 200 feet apart. Between these masts is suspended a cage aerial and the use of a counterpoise obviates the necessity for the usual ground connection. The antenna towers are capped with red lights, a signal warning of their presence to aviators. This radiating system, from a topographical standpoint, is not particularly advantageous — this site being selected because of its proximity to Washington and yet sufficiently removed to avoid interference with local broadcast listeners. Using as little as 50 watts power had produced disturbance with radio reception when the transmitter was located at 1519 Connecticut Avenue — in the heart of Washington.

The operation of this station will be under the general supervision of Mr. Jenkins, the owner, and in immediate charge of Stuart Jenks. He will be assisted by the following technical staff: Richard P. Battle, formerly with the Radio Laboratory of the Bureau of Standards; Paul H. Thomson, and Harry F. Lowe. The caretaker of the television station in a bungalow is Charles Colvin. For the present, motion pictures specially prepared by the Jenkins Laboratories will be broadcast nightly from 8 to 9 o'clock, Eastern Standard Time. The former schedule was Monday, Wednesday and Friday at the above-mentioned hour. This pretentious effort marks what Mr. Jenkins

characterizes as radio's appeal to the eye, whereas formerly it has been an appeal to only the ear.

## Radio to be Tested Under High Power

Broadcasting Authorized on 200,000 Watts

**T**O determine the advantages of high power in broadcasting, authority to employ 200,000 watts in tests has been granted to the General Electric Co. of Schenectady, N. Y., it was announced by the Federal Radio Commission.

The Commission, it was stated, has renewed the experimental license held by the General Electric Co. for the power tests. The experimental station, with the call letters W2XAG, operates on broadcast as well as continental short-wave channels.

The license authorizes the tests between midnight and morning, subject to conditions which will prevent interference with regular broadcasting and reception.

## A Novel Hotel Radio Installation

**A** NEW system for the transmission of radio programs to rooms in the Hotel Lincoln, New York City, requires no individual wires to the rooms but employs the steel framework of the building. In a room on the top floor are six master receiving sets, each using the same aerial but tuned to a different station. The output from each set is carried by wire to a monitor table at which is seated an operator who controls the volume of reception. From this table are wires which lead to six oscillators completely shielded by copper nettings. The output of each oscillator is modulated by the audio frequency from its associated receiver and then transmitted into the steel frame of the building, each being on a different wavelength.

The re-transmitted programs are picked up in the rooms by receiving sets which respond only to the new wavelengths. These receivers are of the one-piece portable type with built-in loudspeaker.

# Grandma's Radio

By E. VIVIAN SCOTT

**N**OW I don't claim to be extra smart, but I do credit myself with a bright thought once in awhile. And when I do do a thing that benefits my neighbors or the community in general, I always pat myself on the head.

And that's just what I did after I seen what a good deed I'd done for Grandma Mack.

You see, Grandma and me are quite chummy. Perhaps it's because we've both been livin' by ourselves. Anyway, Grandma and me always have been right friendly, 'specially since Ellen run off and married that man from Cooper County. Course that took place some years back, but just the same Grandma didn't forgive Ellen and I hadn't forgotten her. No siree!

Guess it was the fact that I'd come mighty near bein' her son-in-law that made me feel kinda responsible for the old lady. And it worried me right smart too — her livin' alone like that up there on that little farm, and seein' nobody for days at a time maybe.

Once I proposed that she find some good woman to come stay with her, and the answer I got sort of put that idea out of my head. For whoever undertakes to make Grandma change her mind about anything has tackled a real job.

Then I hit upon the idea. Why not give her a radio to keep her company?

Seemed to me like that would give her something new to think about anyway.

It did. What she thought about it she told me in plain words. And she informed me that if I left the thing it would set right there in the corner as far as she was concerned. What with a cow to

milk, chickens to feed, and butter to make she had no time for a contrivance such as that.

I left the set, but I felt as tho' my inspiration was ridin' on a flat tire. I decided not to worry about it. I'd leave it with her for a time and then if she didn't get to usin' it, I could take it myself.

And it went along until I was kinda plannin' where I'd put the set when I brought it down to my place.

Then here one mornin' when Grandma and me met by the mail box, she began tellin' about the pretty music she'd been hearin'.

"Oh, you got it tuned alright, did you?" I asked her.

"Law no! The Pender family was all to see me Sunday and I had the old man play some pieces. One was an old hymn I remember hearin' my mother sing. He showed me how to play the machine and last night I got a man a-talkin'."

I almost smiled.

"Well now, Grandma," I says, "I just knew you was smart enough to do that, and it'll be lots of pleasure to you too."

She shook her head.



*Marigold Cassin, known to thousands of children as "Sunshine." She handles the juvenile features of WOC Davenport, Iowa*

"I don't know about that, James. Y'see I don't understand all of that stuff I hear."

Anyhow, I rested easy after that, knowin' she was gettin' some good of the set.

And then, a few days later, as I was on my way up to her house to buy some corn, I met her a-comin' down the path, all flustered and mad. She had to set down on a stump for awhile and get her breath before she could explode properly.

"That blamed machine! It's a pity they ever invented such things! Why, it liked to scared me to death this mornin'. I went out to the barn early to milk and I heard a man talkin' there in the house. I couldn't think for a bit who it could be. And I was scared to go to the house to find out. But pretty soon I heard a woman sing, and then it came to me what it was! Why, I was so weak in my knees I like to never got back to the house!"

"Was you listenin' to the radio last night, Grandma?" I asks.

She looked pretty sheepish.

"Yes, I remember it was playin' when I went to sleep last night."

Course I had to explain to her about pushin' the switch when she got through listenin' and I made a trip up there to show her everything about it.

She got along with it pretty well after that, and she admitted that she enjoyed it in some ways.

And this might have been the end of my story if she hadn't heard that letter read.

You see, Grandma had broken off family relations with Ellen when she run away and got married. Told her never to let her see her face again. All these long years she hadn't known where Ellen was. As time wore on, I guess her hard feelin' had gradually faded, and p'rhaps she had forgiven and longed for her child many times.

Anyway, she was listenin' to testimonial letters bein' read about some poultry tonic, when she heard Ellen's name.

It didn't take her long to get down to my place and have me write a letter for particulars. She was as excited as if the girl had actually walked in.

And she did walk in a few weeks later. I got up to Grandma's soon after Ellen arrived so's I could see what the girl I almost married was lookin' like after all these years.

There she was, not lookin' a day older than she is, and as sweet as ever. (Leastwise that's my opinion.) And she seemed glad to see me too, and kept callin' me 'Jim' until I felt almost overcome sort of.

And such a prancin' as the old lady was goin' through! It would a-been a deaf, dumb and blind person who couldn't see that she was nigh tickled to death.

Course, it come to me right then that all the credit for this happy reunion was comin' to me, but naturally I said nothin'.

And every now and then Grandma would point to that radio set and say:

"If it hadn't been for that machine, I'd still be settin' here rockin' and rockin' all by myself, and waitin' for bed-time to come!"

Well, after all the celebratin' was over, it seemed kinda natural to go up to Grandma's real often — like I used to do before Ellen run away. It seems she's been a widow for several years, and now she's ready to come home to stay.

The other night we was sittin' there by the fire listenin' to some sweet music, and all of a sudden Ellen leaned over to me and smiled, and says kind soft-like:

"Jim, don't you think of that radio as a wonderful friend?"

What else could I do but kiss her?

So now I've decided to discontinue the habit of batchin' by myself and I'm goin' to move up to Grandma's one day soon. (So Ellen says.) Then I guess I can enjoy the radio a little too!

---

Unusual demands are considered routine at KFI, Los Angeles, and, presumably, at every other radio station in the country. But recently one request was received at KFI which puzzled at first and afterwards caused much amusement.

A piping, treble voice, evidently that of a child, called on the telephone:

"Say, mister, your station is playing too fast. How can I slow it down on my set?"



OUR mail bag this month is filled to overflowing, but the letters are all so interesting that we have found it difficult to leave any of them out. Getting a letter like the one that follows, warms the depths of the editor's heart. It brings a glimpse of the interest and pleasure that scattered thousands are getting from the work of which too often he knows only the troublous side.

This letter is signed by Mr. and Mrs. William Atkinson, of Detroit. "Just a few lines to RADEX, that gets better and better all the time," they write. "We have had our radio since March of 1928. We live very close to a car-line and all around us are wires of all kinds, including high-tension and a power plant. Using RADEX since last January, we have been able to log 178 stations and still getting new ones now and then. And to show you how accurate we think RADEX is, last Sunday at 1 a.m. we set our dials according to RADEX for KNX. We listened a moment and to our surprise we heard music coming in and when they announced it was KNX with splendid volume and very little static. We listened in until around two o'clock.

"We are using fifty feet of crimped copper ribbon wire strung around the moulding with one end taped, which I bought for 25 cents. We don't need a wave-trap now and we can tune in stations within three points each way from WWJ and WJR which we could not do with our outside aerial. WSM, WTMJ and others come in strong and right where they should come on our dials according to our RADEX.

"Oh, Mr. Editor, we are real radio fans. We are getting up in years and every evening finds us at the radio enjoying one programme and then another and so much good to be learned over the

radio. Better tell Mr. Peck to tune more carefully and he will get the stations, too. With very best wishes, we remain sincerely to RADEX, Mr. and Mrs. Wm. Atkinson."

#### *Tuning Under Difficulties*

And here is another interesting letter, this one from Harry R. Elkins, Jr., of Pontiac, Mich. "When the baseball season opened this year I picked up an old five-tube Freed Eisemann, battery-operated receiver with speaker and accessories for approximately fifteen dollars(!) and set it up in my office, which is located in the heart of the business district amid the high-powered trolley wires and just a few blocks from the broadcasting towers of WJR, a 5000-watt station, to receive the scores first hand. With a water pipe for a ground and about fifty feet of uncoiled wire thrown carelessly on the roof, the nearby station came in with ease.

"About a week ago I had to work late and before leaving for home I tuned in KWKH at Shreveport and KOB, New Mexico, together with a few stations in between. With my enthusiasm waxed over the little set, I purchased no less than five radio magazines next day. Last Saturday night, with the help of your RADEX method of logging, the old set brought in KFI at Los Angeles and KNX at Hollywood. Since then I have practically filled the dial blanks in your book. I also find that the 250-watt Denver station KFEL comes in exceptionally loud. I think this is not so bad considering my location and all.

"Most of the credit goes to your wonderful little RADEX. It is the one and only radio log in my estimation. I think a subscription to it should be given by the merchant to each buyer of a new radio.

"Yours for less advertising over the radio, Harry R. Elkins, Jr."

### *The Police Stations*

"Your valuable RADEX lists only four radio stations in Cleveland, viz., WEAR, WHK, WJAY and WTAM. Yet this morning," writes S. W. Clayton, of Reidsville, N. C., "I heard a Cleveland station whose announcer gave its call as WIBX, broadcasting the police bulletin warning officers that they should be on the lookout for cars that left Sandusky going in the direction of Cleveland. Kindly let me know if this is a new station."

Following the lead of the successful use by the Detroit police, a number of cities installed police broadcasting stations, but these are all on the short waves and are not intended for the general public. We cannot list them or their frequencies in RADEX. In their secrecy lies their value to the police authorities. In a forthcoming issue of RADEX, we will have a most interesting story of how the police are using radio to catch criminals red-handed at their crimes.

### *Finding the Power*

"The writer finds much of his radio interest in reception of more or less distant stations," writes J. L. Edmiston, of Riverside, Calif. "In the furtherance of this diversion he regularly buys nearly every radio publication found on the news stands. That RADEX is the one of the entire collection kept constantly within reach at the radio table, may be taken as indicating the relative esteem in which the publication is held in this household. In certain particulars, however, would suggest possible improvements from standpoint of the user who wishes to make RADEX his chief reliance as a reference manual.

"We find that many times we have to make a double reference in order to get a line on a particular distant station. First we have to examine the alphabetical index to find the frequency, then look it up in the index by frequencies to learn the power. It would be an appreciated convenience if power were included with frequency and location in the alphabetical index."

Some time ago at the suggestion of several subscribers we included the power in the index by states and cities. Hap-

pily there was room for it there, but there is no room to include the power in the index by call letters without an additional line, which would add several pages to this index. We suggest therefore that our readers use the index by locations in preference to the index by call letters. There will be very few occasions when one wishes to ascertain the frequency of a certain station when the city in which it is located is not known.

### *Canadian Changes*

R. A. Veitch, of Toronto, kindly calls our attention to a shift in frequencies by three Dominion stations, all of which changes are being made in this number. He comments: "Your RADEX is certainly the best I have ever bought and it is improving with each issue." Mr. Veitch sends us newspaper clippings regarding the recent report of the Royal Commission on Radio Broadcasting which has been investigating radio in Canada. In a long report just issued, this Commission recommends the taking over of all private stations in Canada and giving them into government control and operation as in Great Britain. "This would probably mean," says Mr. Veitch, "that Toronto would have only one very powerful station (or perhaps Ontario). At present we have three operating more or less all day and we have two operating alternately, which means four stations would be done away with."

Another item of news of interest to our Canadian readers comes from Mr. Wm. C. White, Manager of the American News Co., Limited, of Toronto. "Under date of September 17th," writes Mr. White, "I was advised that the Department of Customs at Ottawa had granted RADEX free entry and exemption from sales tax. We should all feel very pleased, indeed, that we have succeeded in persuading the Canadian Government that RADEX is of sufficient value to Canadian citizens interested in radio, to grant it free entry." This means that RADEX will now be found on all news stands in the Dominion at the same price as in the United States, 25 cents the copy.

### *Who Heard This One?*

"Last night (Sept. 26th) from about 10 to 12 p.m. (E.D.S.T.) I tuned in a sta-

tion at either 720 or 730 or 740 keys. and I positively heard the announcer say 'Havana, Cuba,' but owing to interference from WGN and WSB I could not get the call letters, but I think he said CMK." Thus writes Cyril P. Engelmeier, of Pittsburgh. "I know it was not CMC because that station comes in at 840 keys. I would certainly appreciate any enlightenment you may give me." Has any other reader heard this mystery station which comes in on a frequency not allotted to Cuba?

L. E. Barton, of Erie, Pa., also seeks to identify an unknown visitor. "I heard a station announce letters which I took to be W3XZ. Will you please tell me if there is such a station and where. I think the frequency was about 90, but I can't find it in RADEX."



*"Major and Minor," a two-piano team which broadcasts regularly over a three-station hook-up originating in the studios of WHAM Rochester. They take the air Saturday nights at 7:30 o'clock E. S. T. They may also be heard through WGY Schenectady and WFBL Syracuse.*

This was probably an amateur on a short wave. There are several thousand of these in the United States and obviously RADEX cannot list them, but must confine itself to the regularly authorized broadcasting stations. We do not find a W3XZ but this may have been W3SZ which is owned by Henry M. Little, of Norfolk, Va.

#### *Some Suggestions*

We are always glad to receive from our readers any criticism of RADEX or suggestions for its improvement. Whenever these can be put into effect we are

only too glad to do so. From I. A. Latshaw, Jr., of Swissdale, Pa., comes the request that we include in What's on the Air Tonight the programs of the NBC originating in Seattle. We will see if it is possible for us to get these programs sufficiently in advance to enable us to include them.

"I first found RADEX when in a store which carries fifteen radio magazines or magazines with radio departments. RADEX is the best of them all and this I have proven to customers and friends," comments Mr. Latshaw.

A. E. Marr, of Newark, N. J., suggests that the stations in the index by frequencies be marked to indicate those which are a part of the three chains. He believes this would be very helpful in identifying stations. This suggestion is being

considered for inclusion in an early number.

On behalf of the great number of readers who keep their current number of RADEX in one of those blue and gold, leatherette covers, G. A. Mansfield, of East Lynn, Mass., asks that the month of issue be shown on the contents page as well as on the outside cover. We are glad to arrange this.

#### *Success With Short Waves*

"On October 3rd, I purchased a Flewelling Adapter made by the A-C Dayton Co., Dayton, Ohio, which I am

using with my RCA-18 and getting wonderful results. I do not believe you need hesitate in recommending this adapter to anyone asking you. On my second night, I picked up PCJJ, Eindhoven, Holland, and in addition, the short wave programs of KDKA, WABC and others." So Mr. A. M. Mitchell, of Charleston, W. Va., writes. "I have also received the following on short waves which were not listed in RADEX: WTAM, Cleveland; WCGU, Coney Island; WHP, Harrisburg." The last three must have been received on a short wave harmonic of the broadcast wave as we do not have any record of either of these three stations broadcasting outside the broadcast band.

As a concluding number this evening we have a letter from Murray E. Rowe, of Concord, N. H. This is so warmly appreciative that we think we will have to use it as a sales document. We print it here in the hope that others of our readers will be guided by Mr. Rowe's example as explained in the last paragraph. "Ever since I purchased one of your RADEX in a book store last June, I have intended to send in my subscription, but I have neglected to do so until I now find my June issue quite obsolete.

"I think your book is a little wonder. It is just my idea of a log; the size is just right and you have the contents arranged to a queen's taste. I guess I have at different times bought about every log book that is on sale around here, but I will admit your RADEX beats them all to a frazzle.

"I enclose my check for \$1.75 and close for now. Start my subscription with the October number."

### Our Cover Design

COUNTRESS Olga Medolago Albani has been named official entry for the N.B.C., in the Radio World's Fair "Most Beautiful Feminine Radio Artist in America" contest.

The Countess, a native of Barcelona, Spain, has been in radio more than a year, and is now heard regularly in her own program every Sunday night through WEA.F. Her voice is soprano.

Countess Albani came to radio from

the stage, having scored in the Chicago production of New Moon, a Broadway success of last winter. In addition to her vocal accomplishments, she is credited with being a dramatic actress of no mean ability. Negotiations are now under way for her to make a series of all-Spanish talking motion picture shorts. She is "100 per cent Spanish," although most of her life had been lived in the United States.

### Radio Too Realistic

READERS are advised to have their hearts examined before listening to world-series games over the radio, particularly when they are a scoreless tie as in the first game of the recent series. In the Chicago Herald we read that Ralph A. Werthein, master of Hyde Park Masonic Lodge No. 989, sat beside the radio at his home, 5455 Greenwood Avenue, yesterday.

With him were his wife and several friends who had gathered to listen to the world series broadcasting.

Scoreless inning after scoreless inning passed, and Werthein was growing more and more excited about the great hurling duel between Ehmke and Root. He was despondent but still hopeful when the Cubs went into the final inning three runs behind.

"Come on, you Cubs," Werthein was pleading.

As an answer, Stephenson singled, Cuyler scored, Grimm singled. Blair forced Grimm at second. Two out, the tying runs on base.

"Tolson batting for Bush!"

"Hit it—sock it!" Werthein was pleading.

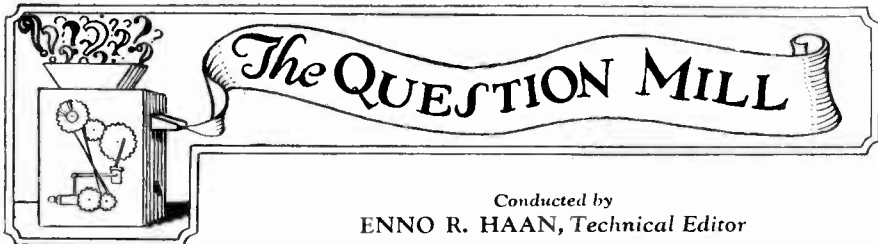
"Strike one. Ball one. Strike two. Ball two. Ball three. Three and two on Tolson—the next pitch will decide it."

Werthein leaned forward tensely—his nerves on edge at the great rally the home team was staging—a rally that might mean victory.

"Tolson struck out—Philadelphia wins!"

Werthein fell forward from his chair to the floor. His heart had not been able to stand the strain. He was dead.





# The QUESTION MILL

Conducted by  
ENNO R. HAAN, Technical Editor

*I have a Radiola No. 16, battery set. I am using one power tube, UX112 and five UX201A tubes, 135 volts of B and 9 volts of C. The wiring diagram calls for 45, 67 and 135 volts B potential. What changes must I make to use 90 volts instead of 67? Several times I placed the wire on 90 volts but I was afraid I might blow out something?*

There will be no danger of injury to your set by connecting the lead (maroon and red), which is intended for 67 volts, to the 90-volt terminal of your B-eliminator or battery. The radio-frequency tubes are supplied with a plate voltage of 67 volts in the case of the Radiola No. 16, but no great difference would be observed if the voltage were changed to 90 volts, except that there would probably be some increase in the volume. A disadvantage of increasing the r.f. plate voltage is that there will be a distinct tendency for the set to break into uncontrollable oscillation, which is very annoying. I suggest that you keep the voltage at 67. If you are not getting the volume that you had at first, have the tubes tested. A few poor tubes will decrease the volume considerably, and this condition cannot always be remedied by increasing the plate voltage.

*Will you kindly tell how to connect a phonograph pickup to a dynamic loud-speaker which has a B-supply and one stage of power amplification incorporated in one unit?*

If it is desired to connect an electric phonograph pick-up to a dynamic speaker of the type mentioned in your inquiry, it is only necessary to run the leads from the pickup device to the input and to the B-positive 90-volt terminals on the speaker unit. This will permit the pickup current to pass through the primary of the amplifying transformer.

However, it should be remembered that only one stage of amplification will give comparatively poor results, and will most likely not even be as loud as an ordinary phonograph horn. It is much better to connect the phonograph pickup to an audio amplifier consisting of two stages of transformer-coupled, or three stages of resistance-coupled amplification, so that the signals will be strengthened sufficiently before being fed into the speaker. If a radio receiver is handy, merely plug in the output of the pickup device into the detector socket, using a 4-prong adaptor in the case of a 200, 200A or a 201A detector, and a 5-prong adaptor in the case of a 227-type detector, which is customary in most all-electric receivers. Then connect the plate output of the receiver to the input terminal of the dynamic speaker. The speaker power pack furnishes a B-supply which can be used for the radio set if desired.

*Is a long aerial good for distance? Mine is about 75 feet in length and has a 30-foot lead-in wire connecting it to the receiver.*

A long aerial is best for distant reception as it picks up more energy than a short one. However, if you are located within the vicinity of broadcasting stations and use a long aerial, you will find that your set will tune broad on these stations to such an extent that it may even be impossible entirely to tune out one or more of them, depending, of course, on their distance from your receiver and the amount of power they use in transmission. Long aerials give louder signals than short aerials but the latter are best for selectivity and are preferable in congested radio districts. Besides, it must be kept in mind that the more signal an aerial picks up, the more extraneous noise, such as static, it will also pick up.

*Does a rain pipe make a satisfactory ground connection for a radio receiver? Is B-battery current running through the receiver when the tubes are not lighted?*

A rain pipe makes a poor ground, generally. Connect the ground lead of the receiver to a cold-water pipe or drive a 6-foot pipe or rod into the earth in order to get a good ground. B-battery current does not flow through the tubes when they are not lighted. However, you may have a short-circuit in the wiring of the receiver which will soon drain the batteries even when the A-battery switch is turned off.

*When tuning in distant stations on my receiver, the signals become louder when I hold my hand within a certain distance from the tuning dial, and when I remove my hand entirely the signals fade. Is there something wrong with the hookup or don't I tune correctly?*

Your trouble is caused by body capacity, and to eliminate it place a brass, copper, aluminum or tinfoil shield between the condenser to which the dial is connected, and the panel. Connect the shield to the A-negative, or ground, terminal of the receiver by means of a suitable length of insulated wire. Take care, however, to keep the shield from touching the condenser shaft, the mounting screws, or any of the other instruments or you may have a short circuit.

*I am planning a portable receiver in a very shallow and compact cabinet. Is there any objection to mounting the tubes horizontally?*

It is very poor practice to mount tubes horizontally as the filament will eventually sag and make contact with the grid making the tube useless. Tubes should always be mounted in a vertical position.

*My B-eliminator is listed as having a capacity of 180 volts, but after a noticeable decrease in volume I had the output voltage checked and discovered that the maximum voltage delivered was only 140 volts. What is the cause of this condition and how can it be remedied?*

Decrease of plate voltage, which is usually accompanied by a decrease of plate current, both of which result in a reduction of volume, may be due to one or more of a number of causes. The

house-lighting circuit may have dropped in potential, but this would not likely be the case over a continued period of time, say several days. A defective rectifier element may cause an excessive voltage drop and the same trouble can also be due to a defective filter or a leaky bypass condenser. I suggest that you take the unit to the dealer from whom it was purchased so that he can repair it or return it to the manufacturer for repairs as is often customary in such cases.

*I have a cone speaker which has always given satisfaction until a few weeks ago when it developed an annoying rattle. How can I remedy the trouble?*

Rattling in loudspeakers is generally due to one of the following causes: 1. Armature incorrectly centered. 2. Loose parts in the driving mechanism. 3. Loose or poorly-adjusted diaphragm. 4. Presence of foreign particles in the mechanism interfering with the movable parts. The first place to look for trouble is the setscrew that holds the cone on the drive pin. Loosen this and then tighten it again. When free from the drive pin the cone will tend to adjust itself automatically if it has been affected by atmospheric conditions, such as humidity, which causes the cone material to expand and contract when the humidity is excessive or deficient respectively. If this does not remedy the trouble examine the mechanism to determine whether it is loose, or whether foreign particles have lodged in it.

*I have a "King" model 80 receiver with two stages of radio-frequency which I would like to change to screen grid. How can this be done?*

The installation of screen-grid tubes in your set is a comparatively easy task. The extra terminal at the top of each tube is connected to the B-positive, 45-volt line as indicated in the diagram which accompanies the tube. In a battery-operated set a 15-ohm potentiometer is placed in the negative filament line of each screen-grid tube, and the slider terminal is connected to the usual negative filament terminal of the preceding coil. The coils should be well shielded and the grid lead from the coil to the tube should be carried in an armored cable especially made for the purpose.

If your set is equipped with A.C. tubes, get UX224 A.C. screen-grid tubes. In this case a variable resistor of 10-ohms resistance is connected in the filament line leading from each coil preceding a screen-grid tube, although this line does not connect directly to the filament circuit as is the case in a battery-operated receiver.

*I have a home-made set which does not give good reproduction of music. The tone is harsh and there is considerable distortion. The audio transformers are of the type manufactured several years ago and I thought that the cause of the trouble might lie here. One is a 10 to 1 and the other a 3 to 1 ratio.*

You are quite right concerning the probability of the audio transformers

high a value may cause the trouble.

*I have just installed a UX250 power tube in my receiver and am supplying it with a plate voltage of 350 volts. Every time I turn on the set, after making this change, I hear such a loud whistle that reception is entirely out of the question. Can you suggest where the trouble lies?*

The trouble is most likely the position of the lead which supplies the plate voltage to the power tube. Troubles exactly similar to your have often been traced to this cause. If the lead just mentioned runs close to the detector grid condenser, your whistle is accounted for, and similarly, if this 350-volt leads runs close and possibly parallel to other grid lines in the receiver, the inductive

*The WSM Rhythm Symphony, under the direction of Francis Craig, may be heard on Sunday evenings over the popular Nashville station.*



causing your trouble. The 10 to 1 transformer is undoubtedly the offender. However, I would remove both transformers and purchase new ones of the latest improved type, which have a wide frequency range. By substituting these you will find that the tone quality will be improved considerably. Another cause for poor tone quality might be in the loudspeaker. Try another one after you have installed the new transformers, and compare it with your old one. Also do not forget to test the tubes and be sure to eliminate the poor ones. Too high a plate voltage on the detector and r.f. tubes may cause harsh-toned reception. Similarly a grid-leak of too

effect resulting from this arrangement would be sufficient to cause the trouble. Rearrange the position of this lead, getting it as far away from all grid lines and I am sure that your trouble will be over.

*I have a Hammarlund-Roberts Junior model A.C. receiver. Until recently it has been functioning properly, but lately it has developed crackling noises during reception. At first I attributed the trouble to static but as the trouble did not vary like static conditions vary, I decided that the cause must be in the set. The tubes are all in good condition. Sometimes the trouble is slightly improved after manipulating the volume control. I would be glad to know where to look for the trouble.*

The fact that you can sometimes reduce the noise by manipulating the volume control seems to indicate that this control may be defective or that the leads attached to it are loose. The slider may not be bearing with sufficient pressure on the surface of the resistance except occasionally when it is moved to a certain position as you state. If tightening the control does not help, but movement of the slider or pressure on the resistor causes a variation of the crackling, it is safe to assume that the unit is defective and that a new one should be substituted. However, be sure that the trouble is not in a loose terminal.

*My receiver suddenly went dead so that reception is entirely out of the question. I have touched the grid of the detector tube while the set is turned on but cannot even hear a click or squeal. I have one stage of transformer-coupled, and two stages of resistance-coupled amplification. Where do you think that the trouble lies?*

The fact that you do not get any response when touching the grid of the detector tube when the set is turned on shows that there is something radically wrong in the audio end of the receiver. If you are sure that all the tubes are in good condition, that the tubes make good electrical contact in the sockets and that there are no breaks in the wiring, the trouble is either in an open-circuited transformer or a defective resistor in the plate circuit of one of the tubes. Breakdown of resistors in such types of sets as you have are frequent. The transformer can be tested by touching the primary and secondary winding terminals with a couple of wires, one of which is connected to a B-battery and the other to a voltmeter while the remaining open terminals on the battery and voltmeter are connected together. A reading on the voltmeter when the B-positive and P terminals of the transformer are touched, indicates that there is a passage of current through the winding and that it is not open-circuited. In the same way touch the G and F-negative terminals of the transformer and see if the same results occur. If there is no deflection of the voltmeter needle, the winding is open and it will be necessary to purchase a new transformer.

*I have a battery-operated receiver and wish to know whether there is any risk of injuring the set if it is left in a cold house for a few days this winter, for I occasionally leave during the winter months and there is no heat in the house during my absence.*

The only part of your receiver which is likely to be damaged by cold is the storage battery, but if it is well charged before you leave the danger of freezing will be practically eliminated. A battery that is well charged will not freeze until a temperature of 98 degrees below zero on the Fahrenheit scale is reached. However, if the storage battery is discharged or partly discharged there will be much more danger of it freezing. If the specific gravity of the electrolyte reads 1.025 on the hydrometer, the electrolyte will freeze at a temperature of 30 degrees above zero. The result of freezing is usually complete ruin to the battery for the active material on the plates will drop away from them.

*We have an electric refrigerator which causes crackling in the radio receiver when the motor is running. How can this trouble be remedied?*

You can purchase devices especially made to attach to motors of refrigerators, oil burners, etc., which will eliminate radio interference caused by the motor. See your local dealer if you wish to purchase one. However, if such a device is not readily available, the following method can be used successfully. Get two 2-mfd. condensers tested for high voltage. Connect one terminal of each condenser together and ground this connection. Then connect the open terminals of the condensers to the A.C. lines supplying the motor, connecting one terminal to each line. Use rubber-covered wire for the purpose and take care not to get a short circuit.

*I would like to obtain a D.C. B-eliminator if they are practical. Can you advise?*

You will be better off by using B-batteries than you would by purchasing a D.C. B-eliminator for the reason that such an eliminator will not deliver a voltage higher than the input voltage. Consequently if your house-lighting circuit delivers 110 volts you cannot expect to supply a power tube with 135 or 180 volts. In fact, the actual potential

obtained from the eliminator will be about 90 volts due to the drop in voltage caused by resistance, etc.

*I have a superhetrodyne receiver which works on a loop. Can I use an outside aerial and what changes must be made?*

Yes, you can use an outside aerial on the loop set by wrapping the line-in wire from the aerial around the loop a few turns, which will impart sufficient energy for the satisfactory operation of the receiver, without the necessity of resorting to changes in the wiring of the set.

*Street cars passing our home cause endless annoyance in radio reception, there being a continued crackling and spluttering for a long period while the car covers the space of four blocks. I have my set grounded to a cold-water pipe which connects to the water main in the street. Could the proximity of the water main to the car line be the cause of the trouble, and what can I do to remedy it?*

The water main in the street in front of your home runs parallel to the street-car track. This situation certainly aggravates the trouble as electromagnetic discharges from the street-car trolley and the tracks induce currents in the water main. These are very slight and are almost immediately dissipated due to the grounded condition of the pipe, but the current pulsations are nevertheless sufficient to cause the crackling noise in your receiver. One method of reducing the trouble is to drive a pipe or rod into the earth vertically, as far away from the street-car track as the location of the receiver will permit. Then disconnect the ground wire from the receiver to the cold-water pipe and connect it to the rod. This will not overcome the trouble but will reduce it to some extent.

*I have a one-dial Mohawk A.C. set. When I get a station and try to turn up the volume it cuts the station out and causes a roaring in the set. I replaced all the tubes in the set. Kindly inform me how to remedy the trouble.*

If your set happens to be the model using a volume control connection on the end of the condenser shaft the trouble may be located at this point, this being

a recognized point of trouble in this receiver. However, antenna length and the post to which the antenna is connected may also cause the set to be unbalanced. There are two antenna posts, one marked "short" and the other "long," and by changing the connection you may be able to eliminate the trouble. It is also possible that the radio-frequency stages of your set have become unbalanced either in capacity or resistance, owing to some defective part.

## Chains On One Channel

*(Continued from page 6)*

leased from the American Telephone & Telegraph Co., according to engineers, Mr. Terrell said, may be employed in the wire synchronization. These land lines now are employed to transmit programs from the key stations to the subscribing stations on the chain. There are two sets of wires of the improved telephone type, adapted for the control of the radio signals which are transmitted by the key station, he said.

"We would have much more variety of programs if the chains confined themselves to a single frequency," continued Mr. Terrell. "The independent stations could broadcast original material, and the listener would not be bothered with picking up the same program at a number of places on his dial."

Mr. Terrell said that cleared channels and high power are necessary to serve remote and rural listeners. But, he declared, when wire synchronization becomes general, these cleared channels should be devoted only to stations broadcasting non-chain programs, except in localities where the chain program is not provided.

A reallocation would be required, Mr. Terrell said, because there would have to be proper separations geographically between stations broadcasting chain programs, and because the proper frequency separation between stations would have to be maintained. For example, he said, a chain station would have to be separated by at least 50 kilocycles from a non-chain or competitive chain station in the same city.

# A Program for Business Men

THE drama of American business with industrial and commercial leaders speaking the principle roles will be portrayed in a new radio program series entitled "The New Business World," which had its premier through the N.B.C. System, Saturday night, October 26th. The programs will begin at 7 o'clock E.S.T.

Merle Thorpe, editor of Nation's Business and an internationally recognized authority on business and economics will conduct the new program and will graphically describe the dramatic developments in commerce and industry.

Business conditions at the present and an outline of what may be expected during the coming year will be discussed by Mr. Thorpe in the opening program, October 26th. He also will give a general idea of the programs planned for the coming winter.

Among the noted authorities who will speak during the new series will be William Butterworth of Moline, Ill., president of the United States Chamber of Commerce; Robert P. Lamont, Secretary of Commerce; James J. Davis of Washington, chairman of the Federal Farm board; Bruce Barton, of New York, president of the Batten, Barton, Durstine and Osborne, Inc.; Carl Gray, of Omaha, president of the Union Pacific System; Julius Rosenwald, of Chicago, merchant and philanthropist; Julius H. Barnes, of New York, president of the Barnes-Ames Company; Kent Cooper, general manager of The Associated Press; Karl Bickel, president of The United Press; Charles F. Kettering, of Detroit, president of the General Motors Research Corporation; Col. Leonard P. Ayres, of Cleveland, vice-president of the Cleveland Trust Company; Matthew Sloan, of New York, president of the New York Edison Company; Harry A. Wheeler, of Chicago, vice-chairman of the First National Bank of Chicago; Lewis E. Pierson, of New York, chairman of the board of the Irving Trust Company.

The dramatic changes that occur overnight in business are of interest to every-

one, according to M. H. Aylesworth, president of the National Broadcasting Company, and for that reason the new series has been arranged, he said.

"These dramatic changes in business are affecting the lives and fortunes of everybody," Mr. Aylesworth said. "No man in America can interpret them better than Mr. Thorpe and he has obtained the cooperation of a group of men that might rightly be members of the board of directors of the entire nation.

"The significance of the giant mergers, and bank consolidations of industries and utilities; the battle between the chain stores and the independent merchants; the trend toward mechanical selling; the problems of labor and the competition of huge industries for new markets — all these are events that effect the lives of every one of us. What is happening on the stage of business today has never been surpassed in its dramatic interest in the history of the civilized world."

Mr. Thorpe, recognized as one of the country's outstanding writers and speakers is said to have the ability to present the story of business in a manner understandable to all. Born in Kansas and a student of Leland-Stanford and Washington State Universities he has studied business conditions at first hand ever since his graduation.

"This Business Revolution," "The Romance of Business," "The American Philosophy," "The Eugenics of Mergers," "The Human Side of Congress," "Women in Business" and "The Big Business of News Gathering" will be among the subjects to be handled by the guest speakers during the new program series.

*Maid at the phone: "Oh, mum, please come home. I have mixed the wires. The radio is all covered with frost and the electric refrigerator is singing Constant-nople!"*

Excerpt from letter received by the NBC: "I claim to be the only man who can neigh like a horse so natural you would not think a human voice could perform such a feat. Can you use me in the Farm and Home Hour?"

## Troubles of B-Eliminators

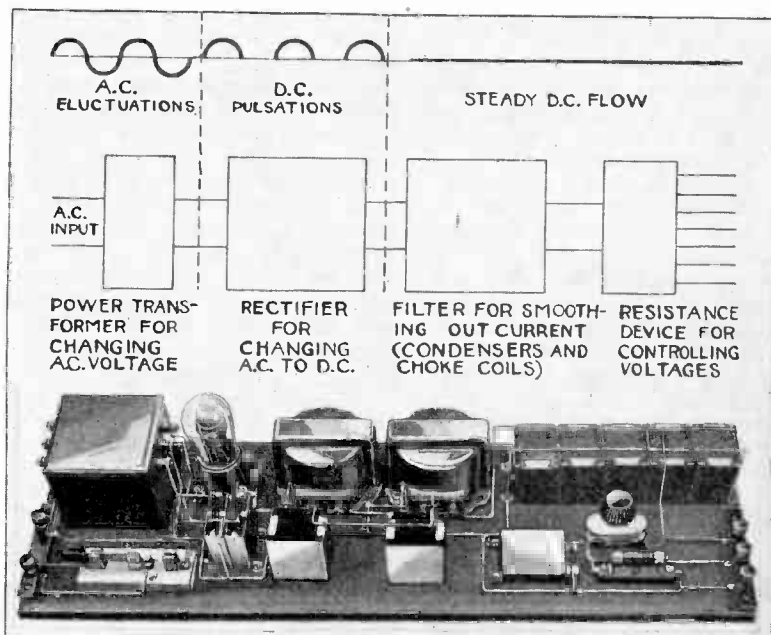
(Continued from page 2)

closed also serves as a shield, and this should be connected to the ground. But the B-negative terminal and the metal case of the eliminator can be grounded by the same wire.

Proximity of the eliminator to the receiver is also a frequent cause of hum, owing to induction, and this is often the case with console installations, where the eliminator occupies the lower compartment directly under the receiver. Of course, the best method of preventing the hum is to install the eliminator away from the receiver, but this is often undesirable. Thus, in such cases, shielding the receiver must be resorted to.

wires. Also be sure to remove from proximity to the receiver all portable lamps and other electrical appliances operating on the house-lighting circuit, for proximity of these devices may cause a hum.

If a hum is caused by poor filtration in the eliminator and is carried to the receiver through the leads, it can sometimes be cured by shunting a number of by-pass condensers around the output terminals of the eliminator. It may be necessary to experiment a little in order to get condensers whose capacities are most effective for reducing the hum. Condensers ranging from 1 to 4 mfd. in capacity can be used for this purpose, the smallest one being connected from the B-negative to the B-detector termin-



Courtesy of Popular Mechanics Magazine and The Goodheart-Willcox Company

### Humming

Sometimes a pronounced A.C. hum is caused by induction from the house-lighting circuit, which can also be reduced considerably by shielding the receiver, although the easiest remedy is to place the receiver in another location farther away from the offending house

als, the second from the B-negative to the B-intermediate terminals, and the third from the B-negative to the B-amplifier terminals. After the correct values have been found, the condensers should be permanently wired to these terminals. In most cases this method will be found quite effective.

### *Faulty Condensers*

A hum, which becomes noticeable only after the eliminator has been used for some time, and which did not exist at first, may be caused by a faulty buffer condenser. This trouble can be cured only by the replacement of the offending condenser. A defective rectifying tube sometimes causes a hum, and should be replaced with a new one.

Eliminators frequently produce more or less annoying mechanical vibration or hum, which cannot be heard in the loud-speaker, but will, nevertheless, interfere with reception to some extent. This is sometimes due to a loose core in the transformer, and if this is of the open type, it can usually be tightened with very little trouble. However, many transformers are of the enclosed type and are set in a metal shell, into which an insulating compound is poured to completely cover the windings. In such cases it may be necessary to send the eliminator back to the manufacturer for repair. If this is not desired, install the eliminator in the basement, and set in a position directly under the receiver so that the leads can be brought through a small hole drilled in the floor near the baseboard. Sometimes the metal case of an eliminator, which is made of sheet metal, is not assembled securely, and the transformer vibration causes the case to vibrate quite audibly. The remedy consists in tightening the case. Often eliminator hum of a mechanical nature can be prevented by setting the device on a sponge-rubber cushion.

### *Crackling Noises*

Crackling noises which are more or less intermittent and give a series of well-defined clicks can often be traced to loose connections or broken leads between the eliminator and the receiver, but may also exist in the eliminator itself. Sometimes the cause of crackling noises is an open or short-circuited buffer condenser, which is shunted across the anodes of an ionized-gas rectifying tube to prevent arcing. This defect may permit arcing inside of the tube with consequent crackling noises in the receiver, which somewhat resemble static disturbances. The remedy is a new condenser.

Arcing between the two anode leads outside of the cup in a gas-filled rectifier tube may also cause this trouble, even though the buffer condensers are still in good conditions. This trouble is caused by a break in the lava insulating tubes, and in this case the substitution of a new tube is the only remedy. Another cause of crackling attributable to the eliminator is arcing between the prongs of the rectifier-tube socket, and, in very rare cases, across the output leads of the secondary winding of the transformer. The prongs on the socket come very close together, and if they are slightly loose, or if there is a path across them such as provided by a daub of soldering paste or the like, which may start arcing, considerable damage may result. Therefore, before using an eliminator, the socket prongs should be carefully examined, and all traces of flux or moisture should be wiped off before inserting the rectifier tube. A fourth cause of crackling noises can be traced to defective resistors. Many resistors are unable to stand up under the high voltages provided by eliminators, and at the same time to pass enough current without overheating. However, more sturdy resistors for this purpose are being put on the market, and within a short time this trouble from resistors will be less frequent than it is at present.

### *"Motorboating"*

"Motorboating" is a peculiar puttering sound noticed in receivers operated on battery eliminators, and sometimes even in receivers operated on batteries. The noise somewhat resembles the steady "putt-putt" of a motorboat engine, and its frequency may be anywhere from 2 to 30 times per second. At higher frequencies than this the noise ceases to be motorboating and becomes a low howl, although in both cases the cause may be the same. Another effect due to the same cause is the complete blocking of the signal. In motor-boating the alternating increase and decrease in the intensity of the plate current, especially that of the last audio tube, may be so great that a flickering of the filament of this tube, in synchronism with the noise, may be observed. Because of the inherent tendency of resistance-coupled

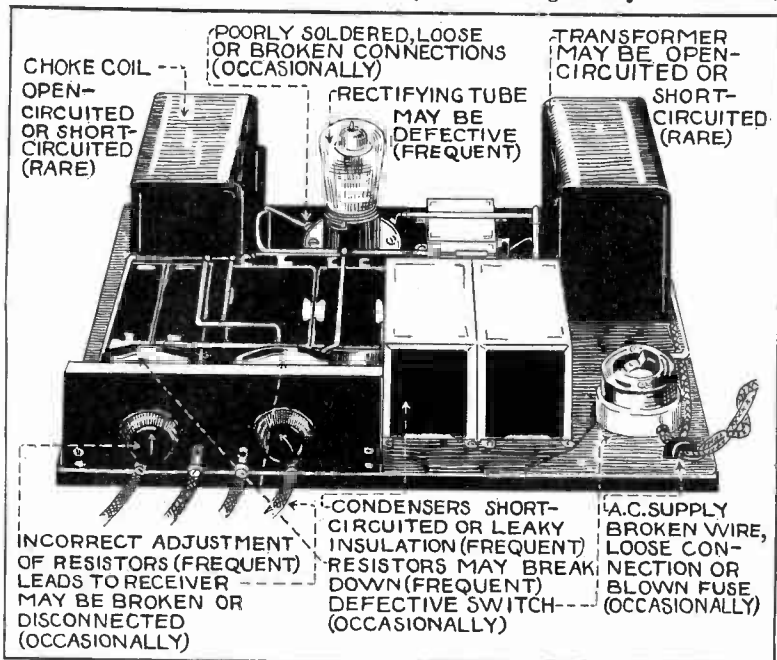


receivers (those having resistors between the audio tubes instead of transformers) to motorboat, it is erroneously held by many that these receivers cannot be operated satisfactorily on battery eliminators. Transformer-coupled receivers are less subject to this trouble but in some cases they will motorboat, even when operated on ordinary batteries, which proves that the trouble is not always and entirely due to eliminators. Impedance-coupled receivers (those that have impedance coils between the audio tubes instead of transformers or resistors) are least of all subject to this trouble.

#### A. C. Hum

Motorboating should not be confused with an A.C. hum which is noticeable in

A.C. hum is usually quite persistent and regular, while motorboating is more or less irregular and periodical, depending on various conditions. Some of the causes of motorboating lie in the eliminator, while others can be found in the receiver. It must be remembered that all receivers will not operate equally well on battery eliminators, and in some cases it is necessary to change the receiver to meet the conditions arising from the use of an eliminator. At other times the eliminator is poorly designed or defective, and may be the sole cause of the trouble. Seldom, however, will a receiver function properly on an eliminator until the latter has been correctly adjusted. It is generally conceded that the



Courtesy of Popular Mechanics Magazine and The Goodheart-Willcox Company

a greater or less degree in nearly every receiver operated from an A.C. power device. The two noises have different causes and can readily be distinguished; the A.C. hum always occurs at a constant frequency in synchronism with the number of cycles of the lighting current, while motorboating may be evident at various frequencies. Besides this, the

most common cause of motorboating is the high internal impedance of the filter section of the eliminator. Faulty resistors and slow-leaking condensers, not able to retain a charge, also cause motorboating. If the trouble has been evident only for a short time, a defective resistor may be discovered, especially

*(Continued on page 63)*

# 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	1:30-2:00 Harold Stern Orchestra WABC WKRC WADC WISN WDOD WFAN WFPM WCAO WGHP WBBM WFBL WSPD WJAS WLEW WOWO WMAK WMAL WMAQ WREC WDBJ WWNC KOIL KVI KLZ WLAC
8:00-8:15 Jolly Bill and Jane WEAF WEEI WGY WFI	1:30-2:00 Harry Tucker Orchestra WABC WHK WKRC WADC WISN WDOD WFAN WFPM WCAO WGHP WBBM WFBL WSPD WJAS WLEW WKBW WMAL WMAQ WREC WDBJ WWNC KOIL KVI KLZ WLAC
8:00-8:30 Organ Revue WABC WHK WEAN WREC WDBJ WWNC KMBC KOIL WLAC	2:00-3:00 Patterns in Prints WABC WHK WKRC WADC WDOD WFAN WFPM WCAO WGHP WBBM WFBL WSPD WJAS WLEW WOWO WMAK WNAC WEAN WMAL WMAQ WREC WDBJ WWNC KDYL KOIL KVI KMOX KFPY KLZ WLAC
8:15-8:30 Morning Devotions WEAF WCAE WRC WGY WGR	3:30-4:00 For Your Information WABC WKRC WADC WISN WDOD WCAU WFPM WFBL WSPD WOWO WMAK WMAL WMAQ WREC WDBJ WWNC KDYL KOIL KVI KMOX KFPY KLZ WLAC WCAO
8:30-8:45 Morning Devotions WABC WDOD WFBL WMAK WEAN WREC WDBJ WWNC KMBC KOIL WLAC	4:00-4:30 Musical Album WABC WKRC WADC WISN WDOD WCAU WFPM WCAO WCCO WBBM WFBL WSPD WOWO WMAK WNAC WEAN WMAL WMAQ WREC WDBJ WWNC KDYL KOIL KVI KMOX KFPY KLZ WLAC
8:30-9:00 Cheerio WEAF WEEI WCKY WRC WGY WGR WHO WJAR WTAG WCSH WCAE WWJ WOW WDAF WTMJ KSTP WEBC WPTF WBT WAPI KVOO KPRC WIBO	4:00-5:00 Dancing Popularities WJZ WBAL WJR KWK
8:45-9:00 Something for Everyone WABC WHK WDOD WCAU WFBL WJAS WMAK WEAN WREC WDBJ WWNC KOIL KMOX WLAC	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
9:00-9:15 Milt Coleman WEAF WRC WWJ WOW	5:30-6:00 The Lady Next Door WEAF WRC WWJ WAPI
9:15-10:00 Morning Melodies WEAF WRC WWJ WOW	6:00-7:00 Black and Gold Orchestra WEAF WRC WCAE WLS WWJ WTAG
9:30-10:00 Morning on Broadway WABC WHK WDOD WFBL WLBW WOWO WKBW WMAL WREC WDBJ WWNC KDYL KOIL KVI KMOX WLAC	11:00-11:15 Amos 'n' Andy WJZ WBZ WBA WHAM KDKA WJR KYW WKW WREN WTMJ KSTP WEBC KOA KSL WDAF WRC WLW WMAQ
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 Radio Household Institute WEAF WEEI WJAR WTAG WCSH WLIT WRC WGY WGR WCAE WTAM WWJ WSAI KSD WFKX WTMJ KSTP WHO WPW WDAF
10:45-11:00 National Home Hour WEAF WTAG WCSH WFI WRC WGY WGR WCAE WTAM WWJ WSAI WHO KFKX KOC W TIC KSD WDAF KYW KVOO KPRC KOAI WKY	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
11:00-11:30 Forecast School of Cookery WJZ WBZ WBA WHAM KDKA WLW KWK WREN WJR WGN	1:00-1:45 National Farm and Home Hour WJZ WBZ WBA 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

#### Sunday

9:00-10:00 Morning Musicales 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 Lady and the Guardsmen 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**  
 WEF WJW WCAE WTAM KSD  
 KSTP WAPI WOW WHO

**2:00-2:30 Troika Bells**  
 WEF WJW 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**  
 WEF WGY WWJ WOW KSL  
 WLS KSD

**3:00-3:30 Neapolitan Nights**  
 WEF WGR WOC WRC KSD  
 WWJ

**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  
 WODD WCAU WFBM WCAO WCCO  
 WGHP WFBL WSPD WJAS WOWO  
 WKBW WNAC WEAN WMAL WMAQ  
 WAIU WREC WDBJ WWNC KDYL  
 KMBC KOIL KVI KMOX KFPY  
 KFJH KLZ WLAC

**3:30-4:00 Songs and Bows**  
 WEF WRC WGR WGY WWJ  
 KSD WHO

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

**4:00-5:30 National Light Opera**  
 WJZ WBAL KSTP WRC KFAB  
 WTMJ

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

**5:00-5:30 McKesson News Reel**  
 WABC WJAS WADC WKRC WGHF WKBW  
 KMBC KOIL WSPD WHK WLWB  
 WMAL WHEC WDBJ WTAR WWNC  
 WLAC WDOD WBRW 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 Tea Time Tunes**  
 WEF WCAE WRC KSTP KVOO  
 WKY KOA WGY WWJ WHO  
 WOV WOC

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

**6:00-6:15 Echoes of the Orient**  
 WEF 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 Medotago Albani**  
 WEF WRC WCAE KSD WOC  
 WHO WOW

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

**6:30-7:00 I-T Scalers**  
 WABC WJAS WNAC WEAN WHK  
 WSPD WCAU WFBL KOIL KMBC  
 WKBW WADC WKRC WGHP WOWO  
 WLWB WMAL KMOX

**6:30-7:00 Whittall 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**  
 WEF 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 WEEI KSD WHO  
 WAPI KOA

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

**7:30-8:00 At the Baldwin**  
 WJZ WBZ WBZA 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 WFPM WCAO WCCO WFBL  
 WJAS WLWB WNAC WMAL WMAQ  
 WREC WDBJ WWNC KDYL KMBC  
 KOIL KVI KFPY KLZ

**7:30-8:30 Major Bowes' Family**  
 WEF WJAR WRC WGY WCAE  
 WWJ WSAI KSD WOB 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 WSB  
 WTMJ KSTP WMC KOA KDKS  
 KYW WEBC WIOD WBT KVOO  
 KTHS

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

**8:00-9:00 Heroes of the Church**  
 WABC WNAC WEAN WREC WDBJ  
 WWNC KMBC KMOX WLAC

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

**8:30-9:00 Chase & Sanborn Orchestra**  
 WEF WTIC WJAR WTAG WCSH  
 WRC WLIT WGY WGR WCAE  
 WFJC WWJ WSAI KSD WOV  
 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 WOV KMBC  
 KMBC KOIL WHK WLWB WMAL  
 KLZ KDYL WBBM WNAC WGHP  
 WMAK WSPD WCCO WFPM KFRC  
 KHJ KOIN KVI KFPY

9:00-9:15 "Our Government," David Lawrence  
 WFAF WTIC WJAR WTAG WCSH  
 WRC WGY WCAE KSD WHAS  
 WKY WSAI WFJC WGR WSB  
 WBT WMC WSM WFAA WOV  
 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 WLBW WLAC  
 WMAL WDBJ WTRW WNNC WDOD  
 WBRC WREC KLRA KFJF KRLD  
 KTSa WDSU WCCO WISN KLZ  
 KDYL WFBM WIBW CFRB CKAC  
 KFRC KHJ KOIN KVI KFPY  
 WDEL

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

9:15-10:15 Atwater Kent Concert  
 WFAF 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 WBZA WHAM KDKA  
 WJR KYW KWK WREN WCKY

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

10:15-10:45 Studebaker Champions  
 WFAF 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 Maestro's Hour  
 WJZ WHAM KOA WRC KWK

10:30-11:00 Around the Samovar  
 WABC WHK WKRC WADC WISN  
 WDOD WCAU WFBM WCAO WCCO  
 WFBL WSPD WJAS WLBW WOWO  
 WKBW WNAC WEAN WMAL WMAQ  
 WREC WDBJ WNNC KDYL KMBC  
 KOIL KVI KFPY KLZ WLAC

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

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

11:15-11:45 Russian Cathedral Choir  
 WFAF WJAX KOA WWJ WOW  
 WBAP WOC

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

11:45-12:00 Sam Herman, Xylophonist  
 WFAF 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  
 WNNC KDYL KOIL KVI KMOX  
 WLAC

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

11:00-11:30 Elizabeth Fellows' Menu Club  
 WABC WDOD WCAU ECAO WBBM  
 WFBL WLBW WOWO WMAK WMAL  
 WREC WDBJ WNNC KLZ

5:00-5:30 Five o'Clock Sweethearts  
 WABC WKRC WISN WDOD WFAN  
 WCAO WCCO WGHF WBBM WFBL  
 WSPD WOWO WMAK WMAL WMAQ  
 WREC WDBJ WNNC 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 WBBM WJAS WLBW  
 WOWO WKBW WMAQ WREC WDBJ  
 WNNC KVI KFPY KLZ KFRC

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

7:30-8:00 Roxy and His Gang  
 WJZ WBZ WBZA WHAM KDKA  
 WJR KWK WRC WSM WSB  
 WIOD WCFL WSMB WAPI WPTF

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

8:00-8:30 Voice of Firestone  
 WFAF 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

8:00-8:30 U.S. Army Band  
 WABC WHK WKRC WADC WDOD  
 WCAU WFBM WCAO WFBL WSPD  
 WJAS WLBW WMAK WNAC WEAN  
 WMAL WMAQ WREC WDBJ WNNC  
 KMBC KOIL KVI KMOX KFPY  
 KFH KLZ WLAC

8:30-9:00 White House Concert  
 WJZ WBZ WBZA WJR WLW  
 KWK WREN WHAM KDKA KYW  
 WBT WIOD WRVA WJAX

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

8:30-9:30 A & P Gypsies  
 WFAF 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 WBZA 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 WGHF  
 WMAQ WGL KMOX KMBC KOIL  
 WSPD WHK WLBW WMAL WEAN

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

9:30-10:00 General Motors Family Party  
 WFAF WEEI WTIC WJAR WCSH  
 WTAG WLIT WRC WGY WGR  
 WCAE WTAM WWJ WGN KSD  
 WOC WOW WDAF KSTP WTMJ

WHAS	WSM	WMC	WSB	WBT	KOA	WFI	WCAE	WOW	WBEC
WJAX	WFAA	KPRC	WOAI	WKY	WJAX	WIOD	WCM	KVOO	KSL
KOA	KSL	KPO	KGO	KFI	KGO	KOMO	KGW	WCKY	
KGW	KOMO	KHQ							
10:00-10:30	Cabin Nights				7:30-7:45	Lew White Organ Recital			
WJZ	WBZ	WBZA	WJR	KYW	WJZ	WBAL	WRC	WKY	WIOD
KWK	WREN	WHAM	KDKA	WCKY	WPTF	WREN			
10:00-10:30	Panatela Country Club				7:30-8:00	United Symphony Orchestra			
WABC	WCAU	WNAC	WEAN	WFBL	WCAO	WHK	WKRC	WADC	WISN
WMAK	WCAO	WJAS	WADC	WKRC	WDOD	WFBL	WJAS	WLBW	WOWO
WGHP	WMAQ	WOWO	KMOX	KMBC	WKBW	WNAC	WEAN	WMAL	WMAQ
KOIL	WSPD	WHK	WLBW	WMAL	WREC	WDBJ	WWNC	KDYL	KMBC
WFBM					KOIL	KVI	KMOX	KFPY	KFH
					KLZ	WLAC			
10:30-11:00	Empire Builders				7:30-8:00	Soconyland Sketches			
WJZ	WBZ	WBZA	WHAM	KDKA	WEAF	WEEI	WJAR	WTAG	WCSH
WJR	WOW	KYW	KWK	WREN	WGY	WGR			
WTMJ	KSTP	WEBC	WKY	WFAA					
KPRC	WOAI	KOA	KSL	KPO					
KGO	KFI	KOMO	KHQ	KGW					
WLW									
10:30-11:00	Floyd Gibbons				8:00-8:30	Michelin Men			
WEAF	WCAE	WRC	WOC	WWJ	WEAF	WEEI	WJAR	WTAG	WCSH
WGN	WHAS	WBT	WTIC	WMC	WFI	WRC	WGY	WGR	WCAE
WTAG	WGY	WJAR			WSAI	KSD	WOW	WDAF	WWJ

## Tuesday

11:00-11:15	Duco Decorators				8:00-8:30	Pure Oil Band			
WEAF	WTIC	WJAR	WTAG	WCSH	WJZ	WBAL	WHAM	KDKA	WJR
WLIT	WRC	WGY	WGR	WCAE	WLW	KYW	KWK	WREN	KSTP
WTAM	KSD	WOC	WDAF	KSTP	WTMJ	WEBC	WHAS	WMC	WBT
WEBC	WRVA	WPTF	WBT	WJAX	WJAX	WRVA	WSM	WSB	
WIOD	WHAS	WSM	WMC	WSB	8:30-9:00	Around the World			
WAPI	WSMB	KVOO	WKY	KPRC	WJZ	WBZ	WBZA	WBAL	WHAM
WOAI	KTHS	WSAI	KFKX	WWJ	KDKA	WJR	WLW	KWK	KYW
					WREN	WHAS	WSM	WMC	WSB
11:00-11:30	Walter Kolomoku's Honoluluans				WWSB	KOA	KSL	KPO	KGO
WABC	WDOD	WCAU	WGHP	WBMM	KGW	KOMO	KHQ		
WFBL	WSPD	WLBW	WOWO	WKBW					
WMAL	WREC	WDBJ	WWNC	KVI					
KFPY	KLZ	WFBM							
12:00-12:30	"Health in Refrigeration"				8:30-9:00	Prophylactic Program			
WEAF	WTIC	WRC	WJAR	WTAG	WEAF	WEEI	WCAE	WJAR	WTAG
WCSH	WLIT	WGY	WGR	WCAE	WCSH	WFI	WRC	WGY	WGR
WTAM	WFJC	WWJ	WSAI	KSD	WSAI	KSD	WLS	WHO	WOW
WOC	KSTP	WEBC	WRVA	WPTF	WDAF	WWJ			
WBT	WJAX	WIOD	WHAS	WSM	8:30-9:00	True Romances			
WMC	WSB	WAPI	WSMB	KVOO	WABC	WCAU	WNAC	WEAN	WFBL
WKY	WBAP	KPRC	WOAI	KOA	WKBW	WADC	WOWO	KMOX	KOIL
KSL	KGO	KFI	KGW	KOMO	WHK	WLBW	WMAL	WBMM	KMBC
KHQ	WOW	WTMJ	WIBO		WCAO	WGHP	WSPD	WAUI	WJAS
3:15-4:00	Matinee Gems				9:00-9:30	Johnson and Johnson Program			
WJZ	KWK	WRVA	WJAX	WIOD	WJZ	WBZ	WBZA	WHAM	KDKA
KOA	WJR				KYW	KWK	WLW	WREN	WBAL
4:00-5:00	U.S. Army Band				9:00-10:00	Eveready Hour			
WABC	WHK	WKRC	WADC	WISN	WEAF	WEEI	WFI	WRC	WGY
WDOD	WCAU	WFBM	WCAO	WCCO	WGR	WCAE	WTAM	WWJ	WGN
WGHP	WBMM	WSPD	WOWO	WKBW	KSD	WHO	WDAF	KSTP	WBEC
WNAC	WEAN	WMAL	WMAQ	WREC	WHAS	WSM	WMC	WSB	KVOO
WDBJ	WWNC	KDYL	KMBC	KOIL	WOAI	WJAR			
KVI	KMOX	KFPY	KLZ	KFRC					
WLAC									
5:00-5:15	The Rhythm Kings				9:00-10:00	Old Gold-Whiteman Hour			
WABC	WKRC	WISN	WDOD	WFAN	WABC	WCAU	WNAC	WEAN	WFBL
WCAO	WCCO	WBMM	WFBL	WSPD	WKBW	WCAO	WJAS	WADC	WGHP
WOWO	WMAL	WMAQ	WREC	WDBJ	WBMM	WOWO	KMOX	KMBC	KOIL
WWNC	KMBC	KVI	KMOX	KFPY	WSPD	WHK	WLBW	WMAL	WCCO
KLZ					KLZ	KDYL	KLRA	WDBJ	WTAR
6:00-6:30	Show Folks				WNNC	WLAC	WDOD	WBRC	WREC
WABC	WHK	WKRC	WDOD	WISN	KFJF	KTSA	WISN	WDSU	WFBM
WFBM	WCAO	WCCO	WBBM	WLBW	KRLD	WKRC	KFRC	KHJ	KOIN
WOWO	WEAN	WMAQ	WREC	WDBJ	KVI	KFPY	KFH		
WWNC	KVI	KFPY	KLZ	KFRC					
7:00-7:15	Roads of the Sky				9:30-10:00	Dutch Masters Minstrels			
WEAF	WRC	WIOD	WSM	KOA	WJZ	WBZ	WBZA	WBAL	WHAM
WHO	WCSH	WFI	WTAG	WTAM	KDKA	KYW	KWK	WREN	WJR
WPTF	KVOO	WOAI	KSL	WHAS	WTMJ				
WOW									
7:00-7:30	Jeddo Highlanders				10:00-10:30	Fada Orchestra			
WJZ	WBZ	WBZA	WHAM		WABC	WCAU	WNAC	WEAN	WFBL
7:15-7:30	Universal Safety Series				WKBW	WCAO	WJAS	WADC	WKRC
WEAF	WJAR	WTAG	WCSH	WRC	WGHP	WBMM	WOWO	KMOX	KMBC
WSAI	WDAF	WRVA	WPTF	WBT	KOIL	WSPD	WHK	WLBW	WMAL
WHAS	WSMB	WKY	KTHS	WOAI	WFBM	KLRA	KFJF	KRLD	KTSA
					WCCO	WISN	WIBW		
					10:00-10:30	Club Eskimos			
					WEAF	WEEI	WCSH	WJAR	WFI
					WRC	WGY	WGR	WCAE	WWJ
					WSAI	WOW	KYW	KSD	WHO
					WDAF	KSTP	WHAS	WSM	WMC
					WSB	WOAI	KOA	KSL	WTMJ

KPRC	WRVA	WBT	WJAX	WKY	WMAK	WMAQ	WREC	WDBJ	WWNC
KPO	KGO	KFI	KGW	KOMO	KVI	KFPY	KLZ		
KHQ	WEBC	WBAP	WTAG		7:00-7:30	Family Goes Abroad		WSM	WMC
10:00-10:30	Williams	Olimatics			WEAF	WRC	WWJ		
WJZ	WBZ	WBZA	WBAL	WHAM	7:00-7:30	Twilight Melodies			
KDKA	KWK	WREN	WGN		WJZ	WBZ	WBZA	KDKA	KWK
10:30-11:00	Freed	Orchestradians			KSTP	WEBC	WLS	WJR	WTMJ
WJZ	WBZ	WBZA	WBAL	WHAM	8:00-8:30	The Yeast Foamers			
KDKA	WJR	KYW	KWK	WREN	WJZ	WBZ	WBZA	WHAM	KDKA
KSTP	KOA	KSL	KGO	KOMO	WJR	KYW	KWK	WLV	WREN
KHQ	KGW	KFI			WTMJ	KSTP	WEBC	KFAB	
10:30-11:30	R-K-O Hour				8:00-8:30	Mobiloil Concert			
WEAF	WEEI	WJAR	WTAG	WCSH	WEAF	WEEI	WTIC	WJAR	WTAG
WFI	WRC	WGY	WGR	WCAE	WCSH	WLIT	WRC	WGR	WCAE
WFJC	WWJ	WSAI	KSD	WHO	WWJ	WSAI	KSD	WOC	WOW
WOW	WDAF	WTMJ	KSTP	WEBC	WDAF	WFJC	WTAM	KOA	KVOO
WRVA	WBT	WJAX	WIOD	WHAS	WFAA	KPRC	WOAI	WKY	
WSM	WMC	WSB	WAPI	WSMB	8:00-9:00	Voice of Columbia			
WFAA	KPRC	WOAI	WKY	KTHS	WABC	WHK	WKRC	WADC	WISN
KOA	KSL	KPO	KGO	KGW	WDOD	WCAU	WFBM	WCAO	WCCO
KFI	KOMO	KHQ	WIBO		WFBM	WSPD	WJAS	WLBW	WKBW
11:00-11:30	Jesse Crawford				WVAC	WNEAN	WMAL	WMAQ	WREC
WABC	WCAO	WKRC	WISN	WDOD	WREC	WDBJ	WWNC	KDYL	KMBC
WCAU	WCCO	WGHP	WBBM	WFBL	KVI	KFPY	KFH		KOIL
WSPD	WJAS	WLBW	WOWO	WKBW	11:30-12:00	Harbor Lights			
WNAC	WEAN	WMAL	WMAQ	WREC	WEAF	WCAE	WFI	WWJ	WRC
WDBJ	WWNC	KDYL	KMBC	KOIL	WGR	WFJC	WRVA	KSD	
KVI	KFPY	KFH	KLZ		11:30-12:00	The Dream Boat			
11:30-12:00	Harbor Lights				WABC	WKRC	WISN	WDOD	WFAN
WEAF	WCAE	WFI	WWJ	WRC	WCCO	WGHP	WFBL	WLBW	WKBW
WGR	WFJC	WRVA	KSD		WEAN	WMAL	WMAQ	WREC	WDBJ
11:30-12:00	The Dream Boat				WWNC	KMBC	KOIL	KVI	KFPY
WABC	WKRC	WISN	WDOD	WFAN	KFH	KLZ	KDYL		
WCCO	WGHP	WFBL	WLBW	WKBW					
WEAN	WMAL	WMAQ	WREC	WDBJ					
WWNC	KMBC	KOIL	KVI	KFPY					
KFH	KLZ	KDYL							

### Wednesday

9:15-10:00	Parnassus String Trio				9:00-9:30	MacFadden Red Seal Hour			
WJZ	WJR	WREN	KWK		WABC	WCAU	WNAC	WEAN	WFBL
10:00-10:45	The Manhattans				WMAK	WCAO	WJAS	WADC	WKRC
WJZ	KWK	WREN	WBAL		WGHP	WMAQ	KMOX	KMBC	KOIL
10:30-11:00	Interior Decorating				WSPD	WHK	WLBW	WMAL	WGL
WMAK	WCAU	WNAC	WEAN	WMAK	9:00-9:30	Smith Brothers			
WCAO	WJAS	WADC	WGHP	WOWO	WJZ	WBZ	WBZA	WHAM	KDKA
KMOX	KOIL	WSPD	WHK	WLBW	KYW	KWK	WREN	WCKY	
WMAL	WFBM	WBBM	WISN	WFBL	9:30-10:00	Forty Fathom Trawlers			
WKRC					WJZ	WBZ	WBZA	WHAM	KDKA
10:45-11:00	Mary Hale Martin				WREN	WJR	KWK	WIBO	WCKY
WJZ	WBZ	WBZA	WMC	WBAL	9:30-10:00	La Palina Smoker			
WSM	WSMB	WSB	WAPI	WJR	WABC	WCAU	WNAC	WEAN	WFBL
WHAM	KDKA	WLW	KWK	WREN	WMAK	WCAO	WJAS	WADC	WGHP
WHAS	KFKX	WBAL	WJR		WMAQ	WOWO	KMOX	KMBC	KOIL
11:00-11:15	The Wissco Program				WSPD	WCCO	WHK	WLBW	WMAL
WEAF	WCAE	WLIT	WGY	WTAG	9:30-10:30	Palmolive Hour			
WCSH					WEAF	WEEI	WTIC	WJAR	WTAG
11:00-11:30	Milady's Mirror				WCSH	WLIT	WRC	WGR	WCAE
WABC	WDOD	WCAU	WBBM	WFBL	WCAE	WTAM	WWJ	WSAI	WGN
WLBW	WOWO	WMAL	WREC	WDBJ	KSD	WOC	WOW	WDAF	WSMB
WWNC	KFPY	KLZ			KSTP	WTMJ	WHAS	WSM	WMC
1:45-2:15	Around the Reznor				WSB	WBT	WJAX	KVOO	KPRC
KDKA	KYW	KWK	WREN	KVOO	WOAI	KOA	KSL	KPO	KGO
KPRC	WOAI	WKY	WFAA	WBAP	KFI	KGW	KOMO	KHQ	WFAA
WCKY					10:00-10:30	Kolster Radio Hour			
3:30-4:00	Our Little Playhouse				WABC	WCAU	WNAC	WEAN	WFBL
WABC	WKRC	WADC	WISN	WDOD	WMAK	WCAO	WJAS	WADC	WKRC
WCAU	WFBM	WCAO	WCCO	WFBL	WGHP	WMAQ	WOWO	KMOX	KMBC
WSPD	WOWO	WMAK	WMAL	WMAQ	KOIL	WSPD	WHK	WLBW	WMAL
WREC	WDBJ	WWNC	KDYL	KOIL	WCCO	KLZ	KDYL	KFRC	KHJ
KVI	KMOX	KFPY	KLZ	WLAC	KOIN	KVI	KFPY	CJCG	
4:00-5:00	Pacific Vagabonds				10:30-11:00	Stromberg-Carlson Program			
WEAF	WRC	WWJ	WOW	KOA	WJZ	WBZ	WBZA	KDKA	KYW
KGO	KOMO	WHO	WCKY		KWK	WREN	WRVA	KSTP	WTMJ
6:00-6:30	Dr. Thatcher Clark				WEBC	WIOD	WHAS	WSM	WMC
WABC	WKRC	WADC	WDOD	WCAO	WSB	WBT	WJAX	KVOO	WBAP
WMAQ	WREC	WDBJ	WWNC	KVI	KPRC	WOAI	WKY	KOA	KSL
KFPY					KPO	KGO	KFI	KGW	KOMO
6:30-7:00	Guy Lombardo's Orchestra				KHQ	WJR	WHAM	WSMB	KTHS
WABC	WKRC	WISN	WDOD	WFBM	WAPI				
WCAO	WBBM	WJAS	WLBW	WOWO					

10:30-11:00 Dixie Echoes	WABC WHK WKRC WADC WISN WKY WSAI KPRC KOA WEBC
WDOD WCAU WFBM WCAO WCCO WRVA KSL WOA1 WSM KGO	
WFBL WSPD WJAS WLWB WMAK KGW KMO KHQ WBAP WAPI	
WNAC WEAN WMAL WMAQ WREC WDBJ WWNC KDYL KOIL KVI	
10:30-12:00 National Grand Opera	WABC WHK WKRC WISN WDOD
WEAF WCAE WJW KSD WSAI WDOD	
WIOD WOA1 WTIC WGR WOC WFBM WFBL WGNP	
11:00-12:00 Show Boat	WABC WHK WKRC WISN WDOD
WCAU WCAO WCCO WGHF WFBM WFBL	
WSPD WJAS WLWB WMAK WNBC WNBC WJAS WMAQ WREC WDBJ	
W AN WMAL WMAQ WREC WDBJ	
WVNC KOIL KVI KFPY KFJ KLZ	
5:15-8:30 "The Political Situation"	WABC WHK WKRC WADC WISN
WDOD WFAN WCAO WCCO WFBM	
WSPD WJAS WLWB WOWO WKBW	
WNAC WEAN WMAL WMAQ WREC	
WDBJ WWNC KOIL KVI KMOX	
KFPY KFJ KLZ WLAB WFBM	
8:30-9:00 Champion Sparkers	WJZ WBZ WBZA WBAL WHAM
KDKA WLW WLS KWK WREN	
WJR KFAB	
8:30-9:00 U.S. Army Band	WABC WHK WKRC WADC WDOD
WFBM WCAO WFBM WSPD WJAS	
WLWB WKBW WNBC WEAN WMAL	
WMAQ WAIU WREC WDBJ WNBC	
KDYL KMBC KOIL KVI KMOX	
KFPY KFJ KLZ	
9:00-9:30 Veedol Program	WJZ WBZ WBZA WHAM WBAL
KDKA WJR WLW WCFM WKW	
WREN WAPI KSTP WTMJ WEBC	
WJAX WHAS WSM WMC WSB	
WBT WRVA WBAP KPRC WOA1	
WKY WPTF WSMB WBO WCKY	
9:00-9:30 True Detective Mysteries	WABC WCAU WNBC WEAN WFBM
WKBW WCAO WJAS KMOX KOIL	
WLWB WMAL WSPD WHK WADC	
WGHF WBBM WOWO WFBM WRC	
WISN WCCO WHEC	
9:00-9:30 Seiberling Singers	WEAF WEEI WJAR WTAG WCSH
WFI WRC WGY WGR WCAE	
WTAM WWJ WSAI KYW KSD	
WHO WOW WDAF WFJC	
9:30-10:00 Jack Frost's Melody Moments	WEAF WJAR WTAG WCSH WFI
WRC WGY WGR WCAE WWJ	
WSAI WLS	
9:30-10:00 Maxwell House Melodies	WJZ WBZ WBZA WBAL WHAM
KDKA WJR WLW KSD WDAF	
KSTP WTMJ WEBC WHAS WBAP	
WSM WMC WBT KPRC KOA	
WHO WOW WJAX WRVA WSB	
KYW	
9:30-10:00 Gold Seal Hour	WABC WCAU WNBC WEAN WFBM
WCAO WJAS WKBW WADC WKRC	
WGHF WBBM WOWO KMOX KMBC	
KOIL WSPD WHK WLWB WMAL	
10:00-10:30 Temple Hour	WABC WNBC WEAN WFBM WJAS
WADC WGHF WBBM KMOX KMBC	
KOIL WSPD WHK WLWB WMAL	
WCCO WKRC WKBW WCAU WCAO	
WOWO	
10:00-10:30 Halsey Stuart Program	WEAF WEEI WJAR WTAG WCSH
WFI WRC WGY WGR WCAE	
WWJ WSAI KYW KSD WOW	
WSMB KSTP WTMJ WJAX WHAS	
WSM WMC WSB WBT WRVA	
WBAP KPRC WOA1 KOA KSL	
KPO KGO KFI KGW KOMO	
KHO KVOO	
10:00-11:00 Arwater Kent Program	WJZ WBZ WBZA WBAL WHAM
WJR KWK WREN KDKA WGN	
WCKY	
10:30-11:00 National Forum	WABC WHK WKRC WADC WISN
WDOD WFAN WCAO WBBM WFBM	
WSPD WJAS WLWB WKBW WNBC	
WEAN WMAL WMAQ WREC WDBJ	
WVNC KDYL KOIL KVI KMOX	
KFPY KLZ WLAB	

### Thursday

9:30-10:00 Something Else	WABC WHK WDOD WFBM WLWB
WOWO WKBW WMAL WREC WDBJ	
WVNC KDYL KOIL KVI KMOX	
WLAC	
10:30-1:30 Morning Merrymakers	WABC WHK WADC WDOD WCAU
WCAO WGHF WBBM WFBM WLWB	
WOWO WKLB WMAL WREC WDBJ	
WW C KMBC KOIL KVI KFPY	
KLZ WLAC	
1:00-11:15 "Your Child"	WEAF WTAG WJAR WRC WGY
WCAE KSD WOC KSTP WBT	
WJAX WSM KVOO KPRC WKY	
11:30-11:45 Du Barry Beauty Talk	WABC WCAU WNBC WEAN WFBM
WCAO WJAS WADC WGHF WBBM	
WOWO KOIL WHK WLWB WMAL	
WRHM WISN WSPD WAIU WKBW	
WKRC	
5:00-5:15 Ebony Twins	WABC WKRC WISN WDOD WFN
WCAO WCCO WBBM WFBM WSPD	
WOWO WMAL WMAQ WREC WDBJ	
WVNC KMBC KVI KMOX KFPY	
KLZ	
5:00-5:30 R-K-O Program	WEAF WEEI WTIC WJAR WCSH
WLIT WRC WCAE WFJC WSAI	
KSD WOC WOW KYW WTAG	
WGY WWJ WDAF WGR	
6:30-7:00 Civic Repertory Plays	WABC WKRC WISN WDOD WFBM
WCAO WBBM WJAS WLWB WKBW	
WMAQ WREC WDBJ WNBC KOIL	
KVI KFPY KLZ	
7:00-7:30 Mid-Week Hymn Sing	WEAF WCSH WHAS WRC KOA
WMC WJAR	
7:30-8:00 United Reproducers Program	WJZ WBZ W3ZA WHAM KDKA
WJR KYW KWK WREN WTMJ	
KSTP WEBC KPRC WOA1 WKY	
WLW WFAA WBAL KFAB	
7:30-8:00 Fires of Men	WABC WCAU WFBM WKBW WHEC
WNAC WEAN WGHF WISN	
8:00-8:15 Tower-izers	WABC WFN WNBC WEAN WFBM
WKBW WCAO WJAS WADC WKRC	
WGHF WBBM WOWO KMOX KMBC	
KOIL WHK WLWB WMAL WCCO	
WISN WSPD	
8:00-8:30 Lehn and Fink Serenade	WJZ WBZ WBZA WHAM KDKA
KYW KWK WREN WBAP KPRC	
WOAI WKY WBAL WLW	
8:00-9:00 Fleischmann Sunshine Hour	WEAF WEEI W FAG WJAR WCSH
WFI WRC WGY WGR WCAE	
KSD WFJC WHO WOW WDAF	
WWJ WTMJ WPTF WBT WJAX	
WIOD WHAS WMC WSB WSMB	

**10:30-11:00 Victor Program**  
 WEAJ WBEI WJAR WTAG WCSH  
 WFI WRC WGY WGR WCAE  
 WFJC WJW WSAI KSD WCAE  
 WBBB WRVA WHO WBT WKY  
 KPRC WOA KOA KSL WBAP  
 WJAX WIOD WHAS WSM WMC  
 WSB WSMB KYW WDAF WQOO  
 KTHS WTMJ

**11:00-11:30 National Concert Bureau Program**  
 WEAJ WFI WRC WGY WGR  
 WCAE WFJC WIOD WMC WRVA

**11:00-11:30 Hotel Paramount Orchestra**  
 WABC WKRC WISN WDOD WCAU  
 WFBM WCAO WBBM WSPD WJAS  
 WLBW WOWO WKBW WNAC WEAN  
 WMAQ WREC WDBJ KDYL KOIL  
 KVI KFPY KFH KLZ WWNC

**11:30-12:00 Guy Lombardo Canadians**  
 WABC WKRC WISN WDOD WFBM  
 WCAO WCCO WBBM WFBL WLBW  
 WOWO WKBW WEAN WMAL WMAQ  
 WREC WDBJ WWNC KDYL KOIL  
 KVI KFPY KFH KLZ

**11:30-12:00 Phil Spitalny's Music**  
 WEAJ WWJ KSD WKY WRVA

## Friday

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

**11:00-12:00 NBC Music Hour**  
 WEAJ 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 WOA  
 WJAX WRVA WBCB WBZ WBZA  
 WBAL WHAM KDKA WJR WLW  
 KYW KWK WREN KFAB WFJC  
 KSL WKY WIOD WSMB WAPI  
 WPTF KTHS

**11:15-12:30 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**  
 WEAJ WTAG WRC WWJ KSD  
 WHO WOW WJAX KSTP WTMJ  
 WSM WRVA WKY KOA KSL  
 WCSH WGY WCAE WDAF KPRC  
 WAPI WLIT WTAM WBT WBAP  
 WBBB WFJC

**5:00-5:15 George Reith**  
 WABC WKRC WDOD WFAN WCAO  
 WFBL WSPD WMAL WMAQ WFBM  
 WDBJ WWNC KMBC KVI KFPY

**6:30-7:00 Raybestos Twins**  
 WEAJ 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**  
 WEAJ 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 In a Russian Village**  
 WABC WHK WKRC WADC WISN  
 WDOD WFBM WCAO WCCO WFBL  
 WJAS WLBW WNAC WEAN WMAL  
 WMAQ WAIU WREC WDBJ WWNC  
 KDYL KMBC KOIL KVI KMOX  
 KFPY KFH KLZ KFRC WLAC

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

**8:00-9:00 Cities Service Orchestra**  
 WEAJ 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 WOWO KMOX  
 WMAL WCCO CKGW

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

**9:00-9:30 Salon Singers**  
 WEAJ WEEI WTIC WJAR WTAG  
 WCSH WLIT WRC WGY WGR  
 WDAF WCAE WFJC WWJ WSAI  
 KSD WOC WOW

**9:00-9:30 Interwoven Pair**  
 WJZ WBZ WBZA WHAM KDKA  
 WMC KYW WREN KPRC WOA  
 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 WTRAR WWNC  
 WLAC WDOD WREC KFJF KLRA  
 KRLD KTS A WDSU KLZ KDYL  
 KHJ KFRC KOIN KVI KFPY  
 KFH

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

**9:30-10:00 Philco's Theatre Memories**  
 WJZ WBZ WBZA WHAM KDKA  
 WJR KYW KWK WREN WTMJ  
 KSTP WBCB WRVA WMC WSB  
 WSMB KPRC WOA 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**  
 WEAJ 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 WBP  
 KYW KWK WREN WHAM WJR  
 KSTP WTMJ WBCB WHAS WSM  
 WSB WBT KVOO KPRC WOA  
 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 WRN  
 WBT WJAX WHAS WSM WMC  
 WSB WSMB WRVA WFAA KPRC  
 WOAI WKY WTMJ KSL KSTP  
 WBCB KOA KPO KGO KFI  
 KGW KOMO KHQ KVOO KTHS

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

10:30-11:00 **Jesse Crawford**  
 WABC WHK WKRC WISN WDOD  
 WCAU WCAO WCCO WGHP WSPD  
 WJAS WLWB WMAK WNAC WEAN  
 WMAL WMAQ WREC WDBJ WWNC  
 KDYL KOIL KVI KMOX KLZ  
 WLAC

11:00-12:00 **Hotel St. Regis Orchestra**  
 WFAF WTIC WWJ WSAI WFJC  
 WGY WOC

## Saturday

10:00-10:30 **Personality Plus**  
 WABC WHK WDOD WCAU WCAO  
 WBBM WFBL WLWB WOWO KKBW  
 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 WLWB  
 WOWO KKBW 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 WLWB WOWO  
 WKBW WMAL WREC WDBJ WWNC  
 KVI KFPY KLZ

11:30-12:00 **Saturday Syncopaters**  
 WABC WDOD WFAW WCAO WGHP  
 WBBM WFBL WSPD WJAS WLWB  
 WOWO KKBW WMAL WREC WDBJ  
 WWNC KMBC KVI KFPY KLZ

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

6:30-7:00 **Harold Stern Orchestra**  
 WABC WKRC WDOD WFBM WCAO  
 WCCO WGHP WBBM WFBL WJAS  
 WLWB WOWO KKBW WEAN WMAQ  
 WREC WDBJ WWNC KOIL KVI  
 KFPY KLZ

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

7:30-8:00 **The Skellodians**  
 WHO WOW KOA KSD WDAF  
 KVOO WLS KSTP

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

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

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

8:30-9:00 **Marvin Musicians**  
 WJZ WBZ WBZA WBAL WHAM  
 KDKA WJR WLW KYW KWK  
 WREN

9:00-9:30 **Graybar's, Mr. and Mrs.**  
 WABC WCAU WNAC WEAN WFBL  
 WKBW WCAO WJAS WADC WKRC  
 WGHP WMAQ WOWO KMOX KMBC  
 KOIL WSPD WHK WOBV WMAL  
 WFBM WDBJ WTAR WWNC KFJF  
 WLAC WDOD WBRW WREC KRLL  
 KFH KTSW WCCO WISN WDSU  
 KLRA KLZ KDYL KFRC KHJ  
 KOIN KVI KFPY WKBN

9:00-10:00 **General Electric Hour**  
 WFAF WEEI WJAR WTAG WCSH  
 WFI WRC WGY WGR WCAE  
 WTAM WWJ WLS KSD WHO  
 WOW WDAF WTMJ WBCB 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  
 WLWB WCAU WFBL WMAQ 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**  
 WFAF WEEI WJAR WTAG WCSH  
 WRC WGY WGR WCAE WWJ  
 WWJ WGN KSD WHO WOW  
 WDAF WIOD KSTP WTMJ WSMB  
 WJAX WHAS WMC WSB WBT  
 WBAP KPRC WOAI WKY WAPI  
 WSAI WFJC KOA KSL KPO  
 KGO KFI KGW KOMO  
 KEBC

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

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

11:00-11:30 **Lew White Organ Recital**  
 WFAF WCAE WOW WFI WWJ  
 WHO WIOD WMC WKY WDAF  
 KSD

11:30-12:00 **Pancho's Orchestra**  
 WABC WKRC WISN WDOD WCAU  
 WCAO WFBL WLWB WOWO KKBW  
 WNAC WEAN WMAL WMAQ WREC  
 WDBJ WWNC KDYL WMAQ WREC  
 KFPY KLZ

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

Atlanta, Ga.	1273	1670	774	1267	530	1577	1126	1248	1417	332	833	1360	228	968	561	603	598	773	1258	1492	717	663	1174	936	1710	980	8	
Baltimore, Md.	-	575	1630	933	960	695	583	368	550	1208	738	595	1293	1112	750	688	901	498	947	286	675	1935	317	335	610	905	171	
Boise, Idaho	-	2055	358	1525	273	603	423	305	1505	813	398	1750	1143	1239	1245	1154	964	808	682	962	8213	498	792	958	948	190	21	
Boston, Mass.	-	2266	1670	1872	1453	1663	1754	1754	637	1155	1671	969	975	1263	1538	94	1384	367	2098	1158	663	1623	1502	638	1440	24	2	
Brownsville, Tex.	-	1891	398	849	737	550	1766	1159	613	2087	1304	1574	1598	1415	1302	922	1015	1250	2590	823	1133	1258	1125	211				
Buffalo, N. Y.	-	1575	1234	1184	1402	1047	1102	1398	688	1445	471	287	1013	650	1543	1025	923	1370	1093	777	1100	1335	171					
Chicago, Ill.	-	454	392	175	1368	762	218	1690	923	1821	1289	1019	956	560	880	862	2195	483	802	1184	733	177						
Cincinnati, Ohio	-	249	307	118	310	236	1249	571	620	954	566	585	387	861	413	1741	268	481	1190	356	139							
Cleveland, Ohio	-	218	1090	509	234	1333	818	839	897	742	569	589	628	541	1842	92	410	957	603	153								
Denver, Colo.	-	1223	617	94	1521	838	1046	1116	871	787	518	768	700	2044	309	627	1088	632	164									
Des Moines, Iowa	-	607	1153	554	642	643	925	353	749	970	1468	555	828	1035	878	1732	699	67										
Detroit, Mich.	-	545	980	397	640	851	256	488	458	1024	180	1433	477	485	1338	235	10											
El Paso, Tex.	-	1475	745	1018	1111	800	761	427	832	643	1976	315	621	1156	542	151												
Fargo, N. Dak.	-	1161	973	1218	440	875	993	1400	548	1426	818	882	1781	219	8													
Fort Worth, Tex.	-	283	544	273	1093	943	680	1212	751	446	1150	870	13															
Galveston, Tex.	-	808	375	1277	799	677	1423	807	492	941	1087	15																
Hastings, Nebr.	-	513	666	1178	628	1177	693	591	1468	399	8																	
Hot Springs, Ark.	-	901	728	326	1437	860	176	983	722	15																		
Houghton, Mich.	-	1216	633	1787	636	830	1545	272	12																			
Jacksonville, Fla.	-	952	2153	595	591	328	1192	20																				
Kansas City, Mo.	-	1352	480	370	1247	413	11																					
Los Angeles, Calif.	-	1825	1602	2355	1522	9																						
Louisville, Ky.	-	319	923	605	15																							
Memphis, Tenn.	-	876	700	15																								
Miami, Fla.	-	1516	23																									
Minneapolis, Minn.	-	10																										
Missoula, Mont.	-																											

# 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 660. Now we turn to 660 kilocycles in the Index by Frequencies and Dial Numbers. Here we find that WEAF is one of the two stations which have been assigned the 660 kcys. frequency 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

EHO	1699	Spokane, Wash.	Louis Warner, Inc.
WEAJ	500	Lincoln, Neb.	Nebraska Wesleyan University
WEEI	588	Boston, Mass.	Edison Elec. Illuminating Co.
WOW	1890	Danville, Neb.	Woodmen of the World
WJMC	3600	Berwyn Springs, Mich.	Emmanuel Missionary College

600 kilocycles 499.7 meters

CFCH	256	Troisrivières, Pate, Ont.	Ashtab Power & Paper Co.
WJBI	560	Laramie, Wyo.	Harbor Dr. S. Thomas
WJBI	560	San Diego, Calif.	Marion Radio Corp.
WCAD	316	Baltimore, Md.	Monmouth Radio Co., Inc.
WJW	250	Wichita, Kan.	John G. Galt
WJAN	560	Lafayetteburg, Tenn.	Yeaughan School of Music
WJEC	560	Memphis, Tenn.	W. J. Galt
WTIC	252	Hartford, Conn.	Travelers Insurance Co.

610 kilocycles 491.5 meters

EEEC	1698	San Francisco, Calif.	Don Lee, Inc.
WDAF	1698	Kansas City, Mo.	Kansas City Star Co.
WFXN	568	Philadelphia, Pa.	Scraper Broadcasting Co., Inc.
WIP	560	Philadelphia, Pa.	Cipriani Bros., Inc.
WOU	1698	Minneapolis, Minn.	City School of Christianity

620 kilocycles 483.6 meters

EPAD	560	Phoenix, Ariz.	Electrical Equipments Co.
WJUN	1890	Portland, Ore.	Oregonian Publishing Co.
WJAE	1890	Tampa, Fla.	Tampa Publishing Co.
WJSD	1000	Ozarks, Mo.	Bullitts Garage, Inc.
WJEE	580	Denver-Toronto, Mo.	Thompson L. Guernsey
WTLF	1890	Minneapolis, Minn.	Witaker Journal

630 kilocycles 475.9 meters

EEEC	560	Victoria, B. C.	Victoria Broadcasting Ass'n.
CFBC	840	Victoria, B. C.	Winning Grain Exchange
CHNA	840	Noronha, N. S.	Canadian National Railway
CYS	250	Wageningen, Ont.	Carroll Linens
LEBU	250	Columbia, Mo.	Geophers Clothing
WJSP	560	Evansville, Ind.	Evansville on the Air, Inc.
WJL	218	Washington, D. C.	St. A. Lester Co.
WOS	560	Jefferson City, Mo.	State Marketing Bureau

640 kilocycles 468.5 meters

EPI	500	Los Angeles, Calif.	Eric C. Anthony, Inc.
WAIU	3600	Columbus, Ohio	American Insurance Union

650 kilocycles 461.3 meters

WSM	3600	Nashville, Tenn.	National Life & Accident Ins. Co.
-----	------	------------------	-----------------------------------

660 kilocycles 454.3 meters

WAAW	560	Omaha, Nebr.	Omaha Grain Exchange
WEAF	2600	New York City	National Broadcasting Co., Inc.

670 kilocycles 447.5 meters

WMAQ	2000	Chicago, Ill.	Chicago Daily News, Inc.
------	------	---------------	--------------------------

680 kilocycles 440.9 meters

EDP	300	San Francisco, Cal.	Hart Book & The Chronicle
WTFP	900	Raleigh, N. C.	Durham Life Insurance Co.



COME-ON

No. 7 or 8 Million

# FRESH AIR TAXICAB COMPANY

INCORPORATED UNDER THE LA

UNAUTHORIZED CAPITAL S  
PAR VALUE M

This is to Certify that  
is the owner of One Thousand  
doubtful par value, of the Capital Stock of

FRESH AIR TAXICAB COMPANY

transferable upon the books of The Great Home Bar  
authorized mannanicurist, upon surrender of this ce

Witness the seal of the Corpotation and the

Dated *February 31, 1930.*

Here they are:

\* AMOS JONES (Is I Blue?)

SECRETARY.

**STOCK**

1000 Shares

**OF AMERICA, INCORPOLATED**

OF THE STATE OF INSANITY

**OCK 1,000,000 HEADACHES  
ORE OR LESS**

*un-paid and non-sensical shares, of*

**OF AMERICA, INCORPOLATED**

*k (when, as, and if found) in person or by any duly  
tificate of propolition.*

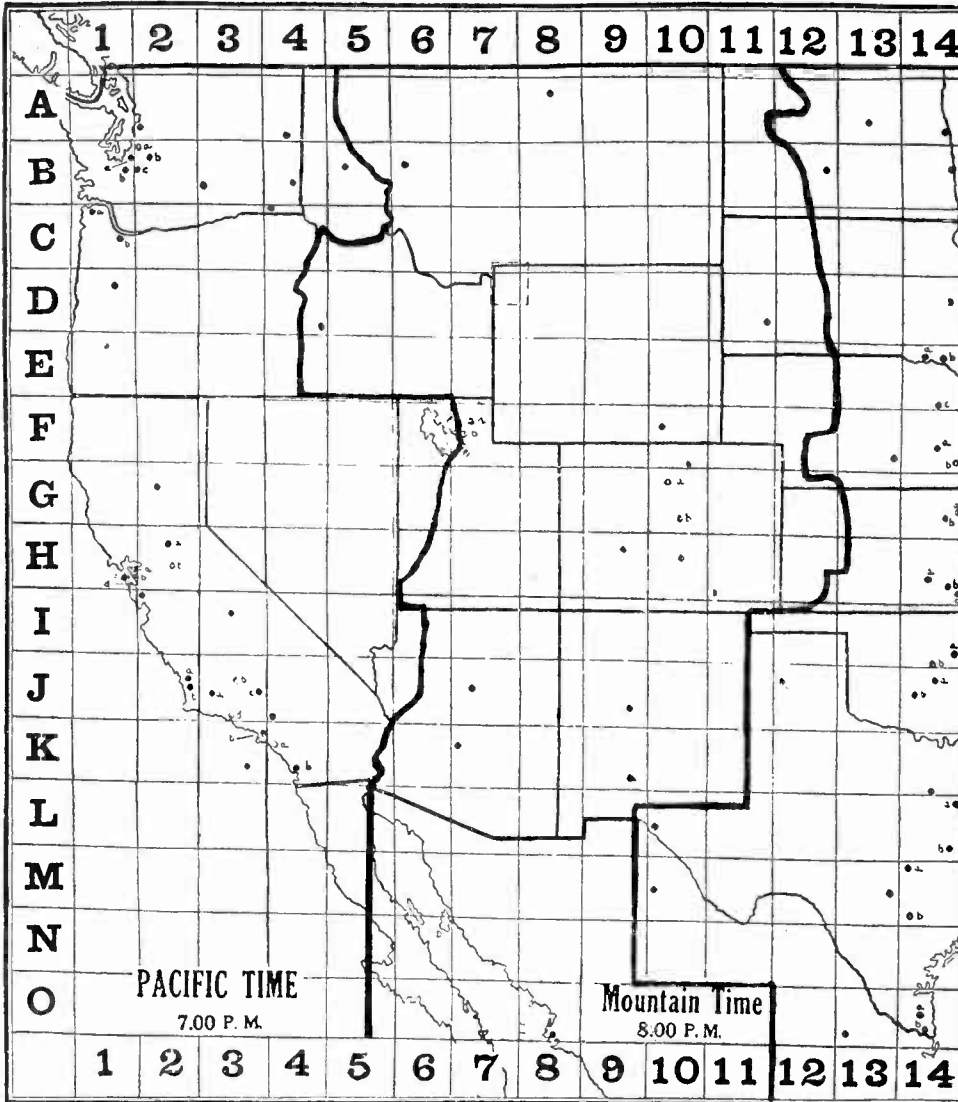
*signatures (or marks) of its duly incompetent officers.*

**ANDY BROWN (I'se Regusted)**

**PRESIDENT**







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

Begin With No. 33  
34

Renewal or  
New Subscription

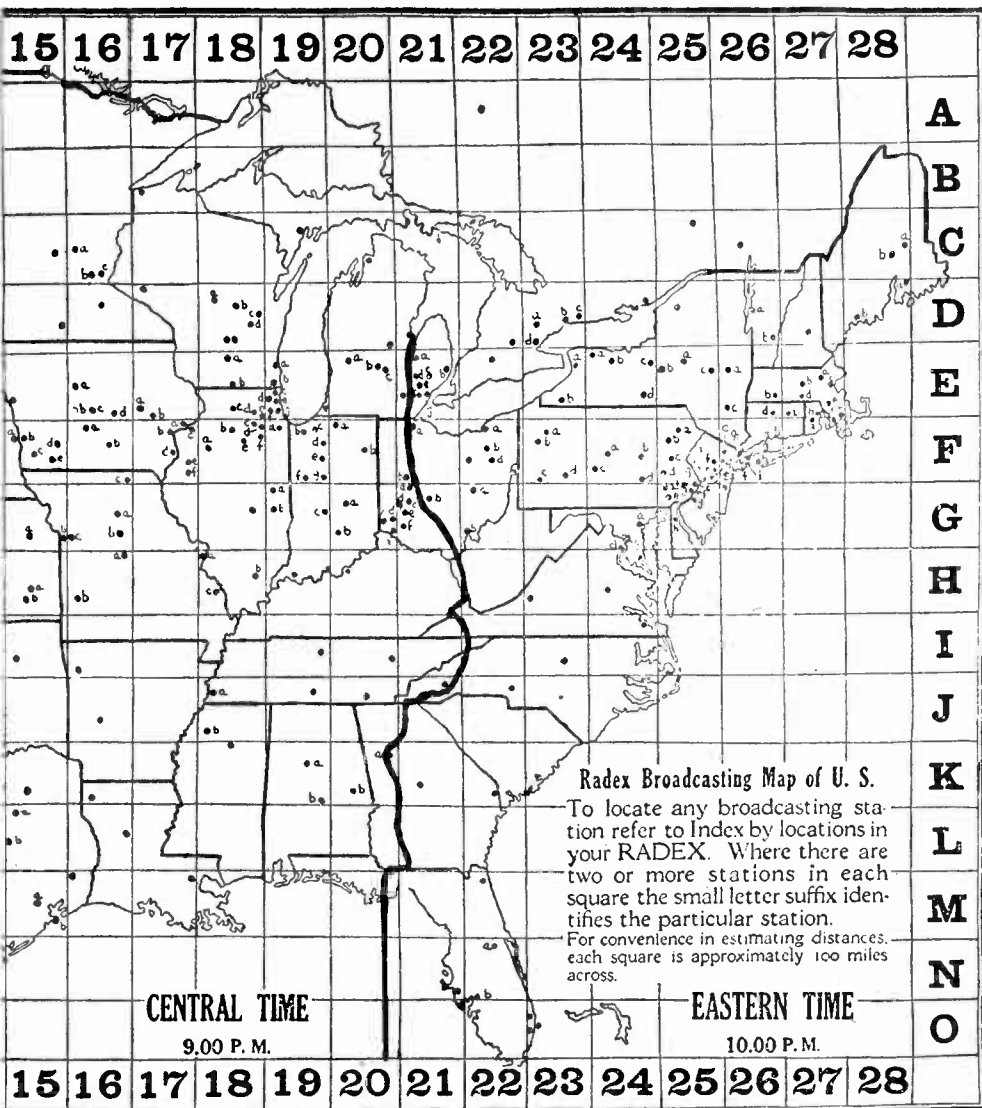
Please enter my subscription for one year (ten issues) for which I enclose \$1.75.  
Also send me leatherette cover for which I enclose 50c. (Cross out if not wanted.)

Write Name Plainly .....

Street and No. ....

City and State .....





**Radex Broadcasting Map of U. S.**  
 To locate any broadcasting station refer to Index by locations in your RADEX. Where there are two or more stations in each square the small letter suffix identifies the particular station.  
 For convenience in estimating distances, each square is approximately 100 miles across.

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

### NOTICE OF COPYRIGHT

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

### 540 kilocycles 555.6 meters

CKX	500	Brandon, Manitoba
XFA	50	Mexico City

--	--	--

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

--	--	--

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.

--	--	--

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

--	--	--

Wichita Falls Brdctsg. 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 Brdctsg. Co., Inc.

### 580 kilocycles 516.9 meters

CFCL	500	Toronto, Ont.
CHMA	250	Edmonton, Alta
CJBC	500	Toronto, Ont.
CJCA	500	Edmonton, Alta
CJSC	500	Toronto, Ont.
CKCL	500	Toronto, Ont.
CKNC	500	Toronto, Ont.
CKUA	500	Edmonton, Alta.
CNRE	500	Edmonton, Alta
KGFX	200	Pierre, S. D.
KSAC	509	Manhattan, Kans
WOBU	250	Charleston, W. Va.
WSAZ	250	Huntington, W. Va.
WSUI	500	Iowa City, Iowa
WTAG	250	Worcester, Mass.

--	--	--

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

--	--	--

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

KCY.S.  
**670**  
MTRS.  
**447.5**  
DIAL

### 600 kilocycles 499.7 meters

CFCH	250	Iroquois Falls, Ont.
CJRM	500	Moose Jaw, Sask.
CJRW	500	Fleming, Sask.
CNRO	500	Ottawa, Ont.
KFSD	500	San Diego, Cal.
WCAC	250	Storrs, Conn.
WCAO	250	Baltimore, Md.
WEBW	350	Beloit, Wis.
WOAN	500	Lawrenceburg, Tenn.
WREC	500	Memphis, Tenn.
WTIC	250	Hartford, Conn.

--	--	--

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  
James D. Vaughan  
WREC, Inc.  
Travelers Brdctg. Service Corp.

### 610 kilocycles 491.5 meters

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

--	--	--

Don Lee, Inc.  
Kansas City Star Co.  
Keystone Broadcasting Co., Inc.  
Gimbel Bros., Inc.  
Unity School of Christianity

### 620 kilocycles 483.6 meters

KFAD	500	Phoenix, Ariz.
KGW	1000	Portland, Ore.
WDAE	1000	Tampa, Fla.
WDBO	1000	Orlando, Fla.
WJAY	500	Cleveland, Ohio
WLBZ	250	Bangor, Me.
WTMJ	1000	Milwaukee, Wis.

--	--	--

Electrical Equipment Co.  
Oregonian Publishing Co.  
Tampa Publishing Co.  
Rollins College, Inc.  
Cleveland Radio Brdctg. Corp.  
Maine Brdctg. Co., Inc.  
Milwaukee Journal

### 630 kilocycles 475.9 meters

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

--	--	--

Victoria Broadcasting Association  
Winnipeg Grain Exchange  
Canadian National Railways  
Stephens College  
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

--	--	--

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

### 650 kilocycles 461.3 meters

WSM	5000	Nashville, Tenn.
-----	------	------------------

--	--	--

National Life & Accident Ins. Co.

### 660 kilocycles 454.3 meters

WAAW	500	Omaha, Nebr.
WEAF	50000	New York City

--	--	--

Omaha Grain Exchange  
National Broadcasting Co., Inc.

### 670 kilocycles 447.5 meters

WMAQ	5000	Chicago, Ill.
XEB	1000	Mexico City

	J 7	
--	-----	--

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.

--	--	--

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.  
CJ CJ 500 Calgary, Alta.  
CKCO 100 Ottawa, Ont.  
CKGW 5000 Toronto, Ont.  
CNRC 500 Calgary, Alta.  
NAA 1000 Arlington, Va.

--	--	--

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

### 700 kilocycles 428.3 meters

WLW 5000 Cincinnati, Ohio

66	62	
----	----	--

Crosley Radio Corp.

### 710 kilocycles 422.3 meters

KFVD 250 Culver City, Cal.  
WOR 5000 Newark, N. J.

66	60	
----	----	--

Los Angeles Brdcastg. Co.  
L. Bamberger & Co.

### 720 kilocycles 416.4 meters

WGN 25000 Chicago, Ill.

	57	
--	----	--

Chicago Tribune

### 730 kilocycles 410.7 meters

CHLS 50 Vancouver, B. C.  
CHYC 5000 Montreal, Que.  
CKAC 5000 Montreal, Que.  
CKCD 50 Vancouver, B. C.  
CKFC 50 Vancouver, B. C.  
CKMO 50 Vancouver, B. C.  
CKWX 100 Vancouver, B. C.  
CNRM 1650 Montreal, Que.  
XEN 1000 Mexico City

	56	
--	----	--

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

### 740 kilocycles 405.2 meters

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

	54	
--	----	--

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

### 750 kilocycles 399.8 meters

WJR 5000 Detroit, Mich.

	53	
--	----	--

WJR, The Goodwill Station, Inc.

### 760 kilocycles 394.5 meters

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

	52	
--	----	--

Puget Sound Brdcastg. 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.

	50	
--	----	--

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

	49	
--	----	--

Manitoba Telephone System  
Canadian National Railways  
Earl L. White  
Pickwick Brdcastg. 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

	48	
--	----	--

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

### 800 kilocycles 374.8 meters

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

	47	
--	----	--

Carter Publications, Inc.  
 News & Journal

### 810 kilocycles 370.2 meters

WCCO 7500 Minneapolis, Minn.  
 WPCB 500 New York City

50	45	
----	----	--

Northwestern Broadcasting Inc.  
 Eastern Broadcasters, Inc.

### 820 kilocycles 365.6 meters

WHAS 10000 Louisville, Ky.

	44	
--	----	--

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.

	43	
--	----	--

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

	42	
--	----	--

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.

	41	
--	----	--

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

	40	
--	----	--

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.

	40	
--	----	--

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.  
 KCKV 50 Quebec, Que.  
 CKOC 50 Hamilton, Ont.  
 CNRQ 50 Quebec, Que.  
 KFKA 500 Greeley, Colo.  
 KXL 500 Oakland, Cal.  
 KPOF 500 Denver, Colo.  
 WCOB 500 Columbus, Miss.  
 WGBI 250 Scranton, Pa.  
 WQAN 250 Scranton, Pa.

	37	
--	----	--

The Hamilton Spectator  
 Maple Leaf Radio Co.  
 E. Fontaine  
 N. Nathaine  
 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.
WKAO	500	San Juan, P. R.
WMAZ	250	Macon, Ga.
WMMN	250	Fairmont, W. Va.

	36	
--	----	--

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.
WKY	1000	Oklahoma City
WLBL	2000	Stevens Pt., Wis.
WMAK	750	Buffalo, N. Y.

41	35	
----	----	--

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

### 910 kilocycles 329.6 meters

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

--	--	--

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

### 920 kilocycles 325.9 meters

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

--	--	--

Fisher's Blend Station, Inc.  
Houston Printing Co.  
Drivers 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.
KBZ	500	York, Nebr.
KMA	500	Shenandoah, Iowa
WBRC	500	Birmingham, Ala.
WDBJ	250	Roanoke, Va.
WIBG	50	Elkins Park, Pa.

--	--	--

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

KFEL	250	Denver, Colo.
KFXF	250	Denver, Colo.
KGU	1000	Honolulu, Hawaii
KOIN	1000	Portland, Ore.
WCSH	500	Portland, Maine
WFIW	1000	Hopkinsville, Ky.
WHA	750	Madison, Wis.

	35	
--	----	--

Eugene P. O'Fallon, Inc.  
Pikes Peak Broadcasting Co., Inc.  
Marion A. Mulrony  
KOIN, Inc.  
Congress Square Hotel Co.  
The Acme Mills, Inc.  
University of Wisconsin

### 950 kilocycles 315.6 meters

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

--	--	--

Warner Bros. Broadcasting Corp.  
Northwestern Auto Supply Co.  
Midland Broadcasting Co., Inc.  
Pasadena Star-News  
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.

	33	
--	----	--

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.
WCFL	1500	Chicago, Ill.
XEH	101	Monterey, N. L.

	32	
--	----	--

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

980 kilocycles 305.9 meters

KDKA	5000	Pittsburgh, Pa.
------	------	-----------------

--	--	--

Westinghouse Elec. & Mfg. Co.

990 kilocycles 302.8 meters

WBZ	1500	Springfield, Mass.
WBZA	500	Boston, Mass.

	30	
--	----	--

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

1000 kilocycles 299.8 meters

KPLA	1000	Los Angeles, Cal.
WHO	5000	Des Moines, Iowa
WOC	5000	Davenport, Iowa
XEI	101	Morelia, Mich.

--	--	--

Pacific Development Radio Co., Inc.  
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.
KOW	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

--	--	--

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.

--	--	--

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.
CNVR	500	Vancouver, B. C.

--	--	--

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.

	28	22	
--	----	----	--

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

1050 kilocycles 285.5 meters

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

--	--	--

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

KCY5.  
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.

30	22	
----	----	--

Wilbur Jerman  
 Consolidated Gas, Elec. & Pwr. Co.  
 Norfolk Daily News  
 Travelers Brdcastg. 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 3500 Cleveland, Ohio

--	--	--

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.  
 WCBD 5000 Zion, Ill.  
 WMBI 5000 Chicago, Ill.

--	--	--

Station WBT, Inc.  
 Wilbur Glenn Voliva  
 Moody Bible Institute

1090 kilocycles 275.1 meters

KFQA 5000 St. Louis, Mo.  
 KMXX 5000 St. Louis, Mo.  
 ZUF 10 Havana, Cuba

21	13	
----	----	--

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.

20	12	
----	----	--

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

--	--	--

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.  
 CHGS 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  
 WDEL 250 Wilmington, Del.  
 WHAD 250 Milwaukee, Wis.  
 WIOD 500 Miami Beach, Fla.  
 WISN 250 Milwaukee, Wis.  
 WTAW 500 College Station, Texas

--	--	--

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.  
 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.

--	--	--

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.

--	--	--

Southwestern Sales Corp.  
 Alabama Polytechnic Institute

1150 kilocycles 260.7 meters

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

--	--	--

Stromberg-Carlson Tel. Mfg. Co.  
 Jose Ganduxa



## INDEX BY FREQUENCIES AND DIAL NUMBERS

### 1160 kilocycles 258.5 meters

WOWO 10000 Ft. Wayne, Ind.  
 WVVA 5000 Wheeling, W. Va.

--	--	--

Main Auto Supply Co.  
 West Virginia Brdcstg. Corp.

### 1170 kilocycles 256.3 meters

KEJK 500 Los Angeles, Cal.  
 KTNT 5000 Muscatine, Iowa  
 WCAU 10000 Philadelphia, Pa.  
 ZOL 100 Havana, Cuba

--	--	--

R. S. MacMillan  
 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.

--	--	--

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

--	--	--

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.  
 KGWE 100 Fort Morgan, Colo.  
 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.  
 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.  
 WMA Y 100 St. Louis, Mo.  
 WMT 100 Waterloo, Iowa  
 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.  
 WVAE 100 Hammond, Ind.  
 XEA 101 Guadalajara, Jal.  
 XES 250 C. Lerdo, Dgo.  
 ZBB 15 Havana, Cuba

--	--	--

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  
 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. Irey and F. M. Bowles  
 First Universalist Church  
 Coliseum Place Baptist Church  
 Washington Light Infantry  
 C. L. Carrell  
 State School of Mines  
 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 Brdcstg. Corp. of Ky.  
 Robert Allen Gamble  
 Kingshighway Pres. Church  
 Waterloo Broadcasting Co.  
 John Brownlee Spriggs  
 Home Cut Glass & China Co.  
 First Congregational Church  
 K. & B. Electric Co.  
 The Radio Club, Inc.  
 David Parmer  
 Hammond-Calumet Brdcstg. Co.  
 Alberto Palos Sauza  
 Cervceria de Durango, S. A.  
 Bernardo Barrie

KCYS.  
**1200**  
 MTRS.  
**249.9**  
 DIAL

OUT OUT ON DOTTED LINES

## INDEX BY FREQUENCIES AND DIAL NUMBERS

### 1210 kilocycles 247.8 meters

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	50	Seattle, Wash.
KPO	100	Seattle, Wash.
KWEA	100	Shreveport, La.
WBAX	100	Wilkes-Barre, Pa.
WBXS	100	Springfield, Ill.
WCOH	100	Yonkers, N. Y.
WCRW	100	Chicago, Ill.
WDWF	100	Cranston, R. I.
WEBE	100	Cambridge, Ohio
WEBQ	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
WL CI	50	Ithaca, N. Y.
WLSI	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
Pacific Coast Biscuit Co.
Taft & Wasmer, Inc.
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
Ernil Denemark, Inc.
Harry H. Carman
Gulf Coast Music 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

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

KFIO	100	Spokane, Wash.
KGGM	500	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.
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

KTAT	1000	Ft. Worth, Texas
WFLA	1000	Clearwater, Fla.
WGHP	750	Detroit, Mich.
WJAD	1000	Waco, Texas
WRBC	500	Valparaiso, Ind.
WSUN	1000	St. Petersburg, Fla.

Texas Air Transport Brdcast. Co.
Chamber of Commerce
American Brdcastg. Corp.
Frank P. Jackson
Immanuel Lutheran Church
Chamber of Commerce

## 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.
WGMS	500	Minneapolis, Minn.
WLB	500	Minneapolis, Minn.
WODA	1000	Paterson, N. J.
WRHM	1000	Minneapolis, Minn.

--	--	--

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.

### 1260 kilocycles 238.0 meters

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

--	--	--

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

### 1270 kilocycles 236.1 meters

KFUM	1000	Colorado Spgs., Colo.
KGCA	50	Decorah, Iowa
KOL	1000	Seattle, Wash.
KTWL	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.

--	--	--

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.
WDAY	1000	Fargo, N. D.
WDOD	1000	Chattanooga, Tenn.
WBBC	1000	Duluth, Minn.
WOAX	500	Trenton, N. J.
WRR	500	Dallas, Texas
2LR	50	Havana, Cuba

--	--	--

City of Camden  
Radio Industries Broadcast Co.  
WDAY, Inc.  
Chattanooga Radio Co., Inc.  
Head of Lake Brdcastg. Co.  
Franklyn J. Wolff  
City of Dallas  
Jose Lara

### 1290 kilocycles 232.4 meters

KDYL	1000	Salt Lake City
KFUL	1000	Galveston, Texas
KLCN	50	Blytheville, Ark.
KTSA	1000	San Antonio, Texas
WJAS	1000	Pittsburgh, Pa.
WNBZ	50	Saranac Lake, N. Y.

--	--	--

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

### 1300 kilocycles 230.6 meters

KFH	500	Wichita, Kansas
KFJR	500	Portland, Ore.
KGFE	1000	Los Angeles, Cal.
KTFB	750	Los Angeles, Cal.
KTBR	500	Portland, Ore.
WBBR	1000	Rossville, N. Y.
WEVD	500	New York City
WHAP	1000	New York City
WHAZ	500	Troy, N. Y.
WIBW	1000	Topeka, Kansas

--	--	--

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  
Topeka Brdcastg. Assn. Inc.

### 1310 kilocycles 228.9 meters

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

--	--	--

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	McGehee, Ark.
KMED	50	Medford, Ore.
KRMD	50	Shreveport, La.
KTSL	100	Shreveport, La.
KTSM	100	El Paso, Texas
KWCR	100	Cedar Rapids, Iowa.
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.
WEHS	100	Evanston, Ill.
WFBG	100	Altoona, Pa.
WDFD	100	Flint, Mich.
WFKD	50	Philadelphia, Pa.
WGAL	15	Lancaster, Pa.
WGH	100	Newport News, Va.
WHFC	100	Cicero, Ill.
WIBU	100	Poynette, Wis.
WJAC	100	Johnstown, Pa.
WJAK	50	Marion, Ind.
WJZD	100	Winston-Salem, N. C.
WKAV	100	Laconia, N. H.
WKBB	100	Joliet, Ill.
WKBC	100	Birmingham, Ala.
WKBI	50	Chicago, Ill.
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.

### 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.

### 1330 kilocycles 225.4 meters

KSCJ	1000	Sioux City, Iowa
WDRG	500	New Haven, Conn.
WSAI	500	Cincinnati, Ohio
WTAQ	1000	Eau Claire, Wis.

### 1340 kilocycles 223.7 meters

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

### 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
WMSC	250	New York City

C. C. Barter  
 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  
 Robert L. Miller  
 Banks of Wabash, Inc.  
 Louis G. Baltimore  
 WCLS, Inc.  
 Trinity Methodist Church  
 Howell Broadcasting Co., Inc.  
 Victor C. Carlson  
 Wm. F. Gable Co.  
 Frank D. Fallain  
 Foulkrod Radio Engineering Co.  
 Lancaster Electric Supply Co.  
 Virginia Brdcastg. Co., Inc.  
 Triangle Broadcasters  
 William C. Forrest  
 Johnstown Automobile Co.  
 Marion Brdcastg. Co.  
 Winston-Salem Journal Co.  
 Laconia Radio Club  
 Sanders Bros.  
 R. B. Broyles Furn. Co.  
 Fred L. Schoenwolf  
 Pernil N. Nelson  
 Donald A. Burton  
 Benford'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.



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



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



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



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

INDEX BY FREQUENCIES AND DIAL NUMBERS

1360 kilocycles 220.4 meters

--	--	--

KFBB	500	Great Falls, Mont.
KGB	250	San Diego, Cal.
KGIR	250	Butte, Mont.
WGES	500	Chicago, Ill.
WJKS	500	Gary, Ind.
WLEX	500	Lexington, Mass.
WMAF	500	S. Dartmouth, Mass.
WQBC	300	Utica, Miss.

Buttery Broadcast, Inc.  
 Pickwick Brcdstg. Corp.  
 Symons Broadcasting Co.  
 Oak Leaves Brcdstg. Station, Inc.  
 Johnson-Kennedy Radio Corp.  
 Lexington Air Stations  
 Round Hills Radio Corp.  
 Chamber of Commerce

1370 kilocycles 218.7 meters

--	--	--

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.
KGCI	100	San Antonio, Texas
KGDA	50	Dell Rapids, S. D.
KGER	100	Long Beach, Cal.
KGFG	100	Oklahoma City
KGFL	50	Raton, N. M.
KGKL	100	San Angelo, Texas
KGRC	100	San Antonio, Texas
KIT	50	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.
WRAC	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.  
 C. Merwin Dobyms  
 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 Brcdstg. Co.  
 Leon P. Tenney  
 Grace Covenant Presbyterian Church  
 Baltimore Brcdstg. Corp.  
 Howard R. Miller  
 St. John's University  
 Fred C. Zieg  
 F. P. Moler  
 Broadcasting Station WHBQ, Inc.  
 Upper Michigan Brcdstg. 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

--	--	--

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.

KCY.S.  
 1390  
 MTRS.  
 215.7  
 DIAL

1390 kilocycles 215.7 meters

--	--	--

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.

CUT OUT ON  
 DOTTED LINES

## 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.
WKBF	500	Indianapolis, Ind.
WLTH	500	Brooklyn, N. Y.
WSDA	500	Brooklyn, N. Y.
WSGH	500	Brooklyn, N. Y.

--	--	--

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.  
 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.
WTOC	500	Savannah, Ga.

--	--	--

Rockford Broadcasters Inc.  
 Gish Radio Service  
 James E. Davidson  
 National Radio & Brdcstg. Corp.  
 Press Pub. Co. & C. L. Carrell  
 Chamber of Commerce

### 1420 kilocycles 211.1 meters

KFIF	100	Portland, Ore.
KFIZ	100	Fond du Lac, Wis.
KFOU	100	Holy City, Cal.
KFQW	100	Seattle, Wash.
KFXD	50	Jerome, Idaho
KFX Y	100	Flagstaff, Ariz.
KFY O	100	Abilene, Texas
KGFF	100	Alva, Okla.
KG FJ	100	Los Angeles, Cal.
KGGC	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
KXRO	75	Aberdeen, Wash.
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.
WMR J	10	Jamaica, N. Y.
WPOE	30	Patchogue, N. Y.
WQBZ	60	Weirton, W. Va.
WSSH	100	Boston, Mass.
WTBO	50	Cumberland, Md.

--	--	--

Benson Polytechnic Institute  
 Reporter Printing Co.  
 W. E. Riker  
 KFQW, Inc.  
 Service Radio Co.  
 Mary M. Costigan  
 T. E. Kirksey  
 KGFF Broadcasting Co.  
 Ben S. McGlashan  
 Golden Gate Brdcstg. 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 Brdcstg. Co.  
 Unalt Electric  
 KXRO, Inc.  
 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

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.

--	--	--

Penna. State Police  
 Booth Radio Laboratories  
 Commercial Radio Service Co.  
 First Baptist Church  
 Pennsylvania Brdcstg. 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.

--	--	--

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

**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

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

National Battery Brdcastg. Co.  
 Independent Publishing Co.

### 1470 kilocycles 204.0 meters

**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

**WCKY** 5000 Covington, Ky.  
**WJAZ** 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

**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

**KDB** 100 Santa Barbara, Cal.  
**KGDR** 100 San Antonio, Texas  
**KGFI** 100 Corpus Christi, Texas  
**KGHX** 50 Richmond, Texas  
**KGKB** 100 Brownwood, Texas  
**KPIJ** 100 Prescott, Ariz.  
**KREG** 100 Santa Ana, Cal.  
**KUJ** 100 Longview, Wash.  
**KVEP** 15 Portland, Ore.  
**WCLB** 100 Brooklyn, N. Y.  
**WKBV** 100 Brookville, Ind.  
**WKBZ** 50 Ludington, Mich.  
**WLBX** 100 Long Island City, N. Y.  
**WLOE** 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.  
**WNBF** 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  
 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		100	KWG	1200
		10	WKBC	Westminster	5000	KPWF	1490
Gadsden K-20-a	50	WJBY	1210	<b>COLORADO</b>			
<b>ALASKA</b>				Colo. Springs H-10	1000	KFUM	1270
Ketchikan	500	KGBU	900	Denver G-10-b	250	KFEL	940
<b>ARIZONA</b>					100	KFUP	1310
Flagstaff J-7	100	KFXV	1420		250	KAFX	940
Phoenix K-7	500	KFAD	620		1250	KOA	830
	500	KOY	1390	Dupont	500	KPOF	880
Prescott J-6	100	KPJM	1500	Edgewater G-10	1000	KLZ	560
Tucson L-7	100	KGAR	1370	Fort Morgan G-11	50	KFXJ	1310
	500	KVOA	1260	Gunnison H-9	100	KGWJ	1200
				Pueblo H-11	500	KFKA	880
				Trinidad H-10	250	KFHA	1200
				Yuma G-11	100	KGHF	1320
					50	KGIW	1420
						KGEK	1200
<b>ARKANSAS</b>				<b>CONNECTICUT</b>			
Blytheville I-18	50	KLCN	1290	Bridgeport F-26	500	WICC	1190
Fayetteville I-16	1000	KUOA	1390	Hartford E-26-d	50000	WTIC	1060
Hot Springs J-16	10000	KTHS	970	Mansfield E-27-1	250	WCAC	600
Little Rock J-17	100	KGHI	1200	New Haven F-26-b	500	WDRS	1330
	250	KGJF	890	<b>DELAWARE</b>			
	1000	KLRA	1390	Wilmington G-25	250	WDEL	1120
McGehee K-17	50	KGHG	1310		100	WILM	1420
<b>CALIFORNIA</b>				<b>DISTRICT OF COLUMBIA</b>			
Berkeley H-1-a	100	KRE	1370	Washington G-24-c	250	WMAL	630
Burbank J-4	500	KELW	780		500	WRC	950
Culver City K-3	250	KFVD	710		100	WOL	1310
El Centro K-5	100	KXO	1200	<b>FLORIDA</b>			
Fresno I-3	100	KMJ	1210	Clearwater N-21	1000	WFLA	1240
Hayward H-2	100	KZM	1370	Gainesville M-21	5000	WRUF	830
Hollywood K-3	250	KF OZ	850	Jacksonville M-22	1000	WJAX	1260
	1000	KFVB	950	Lakeland N-22	100	WMBL	1310
	500	KMTR	570	Miami O-23	1000	WQAM	560
Holy City I-2	100	KFOU	1420	Miami Beach O-23	1000	WIOD	1120
Inglewood K-4	500	KMIC	1120	Orlando N-22	1000	WDBO	620
Long Beach K-4-a	1000	KFOX	1250	Pensacola L-19	500	WCOA	1340
	100	KGER	1370	St. Petersburg N-21	1000	WSUN	1240
Los Angeles K-3-b	500	KEJK	1170	Tampa N-22-b	1000	WDAE	620
	5000	KFI	640		100	WMBR	1370
	500	KFSG	1120	<b>GEORGIA</b>			
	1000	KGFE	1300	Atlanta K-20-a	250	WGST	890
	100	KGFE	1420		1000	WSB	740
	1000	KHJ	900	Columbus K-20	50	WRBL	1200
	25000	KNX	1050	Macon K-21	250	WMAZ	890
	1000	KPLA	1000	Savannah	500	WTQC	1410
	500	KTM	780	Tifton	20	WRBI	1310
	750	KTBI	1300	Toccoa J-21	250	WTFI	1450
Oakland H-1-b	500	KFWM	930	<b>HAWAII</b>			
	7500	KGO	790	Honolulu	1000	KGU	940
	250	KLS	1440	<b>IDAHO</b>			
	500	KLX	880	Boise D-4	1000	KIDO	1250
	500	KTAB	560	Idaho Falls, D-7	250	KID	1320
Pasadena J-4	50	KPPC	1200	Jerome E-5	50	KFXD	1420
	1000	KPSN	950	Pocatello E-7	250	KSEI	900
Sacramento H-2-a	100	KFBK	1310	Sand Point	100	KGKX	1420
San Bernardino	100	KFXM	1200	Twin Falls E-5	250	KGIQ	1320
San Diego K-4-b	500	KFSB	600				
	250	KGB	1360				
San Francisco H-1-c	1000	KFRS	610				
	500	KFWI	930				
	50	KGCC	1420				
	100	KJBS	1070				
	5000	KPO	680				
San Jose I-2	1000	KYA	1230				
Santa Ana K-4	500	KQW	1010				
Santa Barbara J-3	1000	KREG	1500				
	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	KYW	1020
	500	WAAF	920
	25000	WBBM	770
	1500	WCFL	970
	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	1310
	50000	WLS	870
	5000	WMAQ	670
	5000	WMBI	1080
	5000	WORD	1480
	500	WPCC	570
	100	WSEC	1210
	100	WHFC	1310
Cicero	100	WJBL	1200
Decatur G-18	100	WEHS	1310
Evanston E-19	100	WEHS	1310
Forest Park	5000	WSOA	1480
Galesburg F-18-a	100	WKBS	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	WFEM	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
Decorah D-17	5000	WOC	1000
	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	WSUI	580
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	100	WMT	1200

### 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	1000	WIBW	1300
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	WJWB	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	WLBZ	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	WEET	590
	100	WL0E	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
New Bedford E-27-g	100	WNBH	1310
S. Dartmouth E-27	500	WMAF	1360
Springfield E-26-b	15000	WBZ	990
Wellesley Hills E-27	250	WBOS	920
Worcester E-27-b	100	WORC	1200
	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	WDFD	1310
Grand Rapids E-20-a	500	WASH	1270
	500	WOOD	1270
Jackson E-20	100	WIBM	1370
Lapeer E-21	100	WMPC	1500
Ludington D-19	50	WKBZ	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	1280
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	WRBG	1210
Gulfport M-18	100	WGCM	1210
Hattiesburg L-18	10	WRBJ	1500
Jackson	500	WJDX	1270
Utica L-17	300	WQBC	1360

### MISSOURI

Cartersville	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	WQO	610
Kirksville F-16-c	15	KFKZ	1200
St. Joseph G-15	2500	KFEQ	560
	100	KCBX	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	WMA Y	1200

### MONTANA

Billings C-8	500	KGHL	950
Butte C-7	250	KGIR	1360
Great Falls A-8	500	KFBZ	1360
Kalispell A-5	100	KGEZ	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	KGFW	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	WKA V	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	WAT	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	WCAX	1280

### NEW MEXICO

Albuquerque	500	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	WBNF	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	WMA C	570
Coney Island F-26	500	WCGU	1400
Freeport F-26-1	100	WGBB	1210
Ithaca E-24-d	500	WEAI	1270
	50	WLCT	1210
Jamaica F-26-f	10	WMRJ	1420
Jamestown E-23-b	25	WOCL	1210
Long Island City F-26	100	WLBX	1500

## INDEX BY LOCATIONS WITH MAP KEY

New York City F-26	5000	WABC	850
	250	WBNY	1350
	5000	WBOQ	860
	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	WBRR	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

### NORTH CAROLINA

Asheville J-21	1000	WWNC	570
Charlotte J-22	5000	WBT	1080
Gastonia J-22	100	WRBU	1210
Greensboro I-22	250	WNRC	1440
Raleigh I-23	1000	WPTF	680
Wilmington J-24	50	WRBT	1370
Winston-Salem	100	WJDZ	1310
	100	WSJS	1310

### NORTH DAKOTA

Bismarck B-12	500	KFYR	550
Devils Lake A-13	100	KDLR	1210
Fargo B-14	1000	WDAY	1280
Grand Forks A-14	500	KFJM	1370
Mandan B-12	100	KGCU	1200
Minot A-12	100	KLPM	420

### OHIO

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	100	WHBC	1200
Cincinnati G-20-e	5000	WKRC	550
	500	WLW	700
	500	WSAI	1330
Cleveland F-22-a	1000	WEAR	1070
	1000	WHK	1390
	500	WJAY	620
	3500	WTAM	1070
Columbus G-21-b	500	WAIU	640
	500	WCAH	1430
	750	WEOA	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	WCOS	1450

Steubenville F-22	50	WIBR	1420
Toledo F-21-a	500	WSPD	1340
Youngstown F-22	500	WKBN	570

### OKLAHOMA

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

### OREGON

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

### PENNSYLVANIA

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	WCOD	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	WLWB	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	KOV	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
State College F-24-a	500	WPSG	1230
Washington F-23	100	WNBO	1200
Wilkes-Barre F-25-b	100	WBAX	1210
	100	WBRE	1310

INDEX BY LOCATIONS WITH MAP KEY

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

## 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
--------	-----	------	------

## CANADA

### ALBERTA

Calgary	500	CFAC	690
	500	CFCN	690
	500	CHCA	690
	500	CJGJ	690
	500	CNRC	690
Edmonton	250	CFMA	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
Victoria	500	CFCT	630

### 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
Iroquois Falls	250	CFCH	600
Kingston	500	CFRC	1120
London	500	CJGC	910
	500	CNRL	910
Midland	50	CKPR	1120
Ottawa	100	CKCO	690
	500	CNRO	600
Prescott	50	CFLC	1010
Preston	50	CKPC	1210
Toronto	500	CFCA	840
	500	CFCL	580

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

### PRINCE EDWARD ISLAND

Charlottetown	250	CFCY	960
	30	CHCK	960
Summerside	25	CHGS	1120

### QUEBEC

Montreal	1650	CFCF	1030
	500	CHYC	730
	5000	CKAC	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
----------------	------	-----	-----

### 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	XFI	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
	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 580	HHK 830
Montreal, Que.	Toronto, Ont.	Port au Prince, H.
CFCH 600	CKAC 730	KCRC 1370
Iroq's Falls, Ont.	Montreal, Que.	Oklahoma City
CFCL 580	CKCD 730	KDB 1500
Toronto, Ont.	Vancouver, B.C.	S. Barbara, Cal.
CFCN 690	CKCI 880	KDFN 1210
Calgary, Alta.	Quebec, Que.	Casper, Wyc.
CFCO 1210	CKCK 960	KDKA 980
Chatham, Ont.	Regina, Sask.	Pittsburgh, Pa.
CFCT 630	CKCL 580	KDLR 1210
Victoria, B. C.	Toronto, Ont.	Devils Lake, N.D.
CFCY 960	CKCO 690	KDYL 1290
Ch'lottet'n, P.E.I.	Ottawa, Ont.	Salt Lake City
CFJC 1120	CKCR 1010	KEJK 1170
Kamloops, B.C.	Brantford, Ont.	Los Angeles, Cal.
CFLC 1010	CKCV 880	KELW 780
Prescott, Ont.	Quebec, Que.	Burbank, Cal.
CFNB 1210	CKFC 730	KEX 1180
Fredericton, N.B.	Vancouver, B.C.	Portland, Ore.
CFQC 910	CKGW 690	KFAB 770
Saskatoon, Sask.	Toronto, Ont.	Lincoln, Nebr.
CFRB 960	CKIC 930	KFAD 620
Toronto, Ont.	Wolfville, N.S.	Phoenix, Ariz.
CFRC 1120	CKKL 840	KFBB 1360
Kingston, Ont.	Red Deer, Alta.	Great Fls, Mont.
CHCA 690	CKMC 1210	KFBK 1310
Calgary, Alta.	Cobalt, Ont.	Sacramento, Cal.
CHCK 960	CKMO 730	KFBL 1370
Ch'lottet'n, P.E.I.	Vancouver, B.C.	Everett, Wash.
CHCS 880	CKNC 580	KFDM 560
Hamilton, Ont.	Toronto, Ont.	Beaumont, Tex.
CHCT 840	CKOC 880	KFDY 550
Red Deer, Alta.	Hamilton, Ont.	Brookings, S.D.
CHGS 1120	CKOW 840	KFEL 940
Sum'side, P.E.I.	Toronto, Ont.	Denver, Colo.
CHLS 730	CKPC 1210	KFEQ 560
Vancouver, B.C.	Preston, Ont.	St. Joseph, Mo.
CHMA 580	CKPR 1120	KFGQ 1310
Edmonton, Alta.	Midland, Ont.	Boone, Iowa
CHML 880	CKSH 1010	KFH 1300
Hamilton, Ont.	St. H'cinthe, Que.	Wichita, Kansas
CHNS 930	CKUA 580	KFHA 1200
Halifax, N.S.	Edmonton, Alta.	Gunnison, Colo.
CHRC 880	CKWX 730	KFI 640
Quebec, Que.	Vancouver, B.C.	Los Angeles, Cal.
CHWC 960	CKX 540	KFIF 1420
Pilot Butte, Sask.	Brandon, Man.	Portland, Ore.
CHWK 1210	CKY 780	KFIO 1230
Chilliwack, B.C.	Winnipeg, Man.	Spokane, Wash.
CHYC 730	CMC 840	KFIZ 1420
Montreal, Que.	Havana, Cuba	Fond du Lac, Wis.
CJBC580-840-960	CNRA 630	KFJB 1200
Toronto, Ont.	Moncton, N.B.	Marshalltown, Ia.
CJBR 960	CNRC 690	KJFJ 1470
Regina, Sask.	Calgary, Alta.	Oklahoma City
CJCA 580	CNRE 580	KFJI 1370
Edmonton, Alta.	Edmonton, Alta.	Astoria, Ore.
CJCB 880	CNRL 910	KFJM 1370
Sydney, N.S.	London, Ont.	Grd. Forks, N.D.
CJCI 690	CNRM 730	KFJR 1300
Calgary, Alta.	Montreal, Que.	Portland, Ore.
CJGC 910	CNRO 600	KFJY 1310
London, Ont.	Ottawa, Ont.	Fort Dodge, Ia.
CJGX 630	CNRQ 880	KFJZ 1370
Yorkton, Sask.	Quebec, Que.	Ft. Worth, Tex.
CJHS 910	CNRR 960	KFKA 880
Saskatoon, Sask.	Regina, Sask.	Greeley, Colo.
CJOC 1120	CNRS 910	KFKB 1050
Lethbridge, Alta.	Saskatoon, Sask.	Milford, Kansas

**KFKU** 1220  
 Lawrence, Kans.  
**KFKX** 1020  
 Chicago, Ill.  
**KFKZ** 1200  
 Kirksville, Mo.  
**KFLV** 1410  
 Rockford, Ill.  
**KFLX** 1370  
 Galveston, Tex.  
**KFMX** 1250  
 N'thfield, Minn.  
**KNFN** 890  
 Shenandoah, Ia.  
**KFOR** 1210  
 Lincoln, Nebr.  
**KFOX** 1250  
 Long Beach, Cal.  
**KFPL** 1310  
 Dublin, Texas  
**KFPM** 1310  
 Greenville, Tex.  
**KFPW** 1340  
 Cartersville, Mo.  
**KFPY** 1340  
 Spokane, Wash.  
**KFQA** 1090  
 St. Louis, Mo.  
**KFQU** 1420  
 Holy City, Cal.  
**KFQW** 1420  
 Seattle, Wash.  
**KFQZ** 860  
 Hollywood, Cal.  
**KFRC** 610  
 San F'nscisco, Cal.  
**KFRU** 630  
 Columbia, Mo.  
**KFSD** 600  
 San Diego, Cal.  
**KFSG** 1120  
 Los Angeles, Cal.  
**KFUL** 1290  
 Galveston, Tex.  
**KFUM** 1270  
 Col. Spgs., Colo.  
**KFUO** 550  
 St. Louis, Mo.  
**KFUP** 1310  
 Denver, Colo.  
**KFVD** 710  
 Culver City, Cal.  
**KFVS** 1210  
 Cape Gir'rd'u, Mo  
**KFWB** 950  
 Hollywood, Cal.  
**KFWF** 1200  
 St. Louis, Mo.  
**KFWI** 930  
 San F'nscisco, Cal.  
**KFWM** 930  
 Oakland, Cal.  
**KFXD** 1420  
 Jerome, Idaho  
**KFXF** 940  
 Denver, Colo.  
**KFXJ** 1310  
 Edgewater, Colo.  
**KFXM** 1200  
 San Ber'd'no, Cal.  
**KFXR** 1310  
 Oklahoma City  
**KFXY** 1420  
 Flagstaff, Ariz.  
**KFYO** 1420  
 Abilene, Texas

**KFYR** 550  
 Bismarck, N.D.  
**KGA** 1470  
 Spokane, Wash.  
**KGAR** 1370  
 Tucson, Ariz.  
**KGB** 1360  
 San Diego, Cal.  
**KGBU** 900  
 Ketchikan, Al'ka  
**KGBX** 1370  
 St. Joseph, Mo.  
**KGBZ** 930  
 York, Nebr.  
**KGCA** 1270  
 Decorah, Iowa  
**KGCI** 1370  
 San Ant'nio, Tex.  
**KGCR** 1210  
 Watertown, S.D.  
**KGCU** 1200  
 Mandan, N.D.  
**KGCX** 1310  
 Wolf P't, Mont.  
**KGDA** 1370  
 Dell Rapids, S.D.  
**KGDE** 1200  
 Ferg's F'lls, Minn  
**KGDM** 1100  
 Stockton, Cal.  
**KGDR** 1500  
 San Antonio, Tex.  
**KGDY** 1200  
 Oldham, S.D.  
**KGEF** 1300  
 Los Angeles, Cal.  
**KGEK** 1200  
 Yuma, Colo.  
**KGER** 1370  
 Long Beach, Cal.  
**KGEW** 1200  
 Ft. Morgan, Colo.  
**KGEZ** 1310  
 Kalispell, Mont.  
**KGFF** 1420  
 Alva, Okla.  
**KGFG** 1370  
 Oklahoma City  
**KGFI** 1500  
 C'pus Ch'sti, Tex.  
**KGFI** 1420  
 Los Angeles, Cal.  
**KGFK** 1200  
 Hallock, Minn.  
**KGFL** 1370  
 Raton, N. M.  
**KGFW** 1310  
 Ravenna, Nebr.  
**KGFX** 580  
 Pierre, S.D.  
**KGGC** 1420  
 San F'nscisco, Cal.  
**KGGF** 1010  
 Picher, Okla.  
**KGGM** 1230  
 Alb'q'rque, N.M.  
**KGHF** 1320  
 Pueblo, Colo.  
**KGHG** 1310  
 McGehee, Ark.  
**KGHI** 1200  
 Little Rock, Ark.  
**KGHL** 950  
 Billings, Mont.  
**KGHX** 1500  
 Richmond, Tex.

**KGIQ** 1320  
 Twin Falls, Ida.  
**KGIR** 1360  
 Butte, Mont.  
**KGIW** 1420  
 Trinidad, Colo.  
**KGIX** 1420  
 Las Vegas, Nev.  
**KGJF** 890  
 Little Rock, Ark.  
**KGKB** 1500  
 Brownwood, Tex.  
**KGKL** 1370  
 San Angelo, Tex.  
**KGKO** 570  
 Wichita Fils, Tex.  
**KGKX** 1420  
 Sand Point, Ida.  
**KGO** 790  
 Oakland, Cal.  
**KGRC** 1370  
 San Antonio, Tex.  
**KGRS** 1410  
 Amarillo, Texas  
**KGU** 940  
 Honolulu, Hawaii  
**KGW** 620  
 Portland, Ore.  
**KGY** 1200  
 Lacey, Wash.  
**KHJ** 900  
 Los Angeles, Cal.  
**KHQ** 590  
 Spokane, Wash.  
**KICK** 1420  
 Red Oak, Iowa  
**KIB** 1320  
 Idaho Falls, Ida.  
**KIDO** 1250  
 Boise, Idaho  
**KIT** 1370  
 Yakima, Wash.  
**KJBS** 1070  
 San F'nscisco, Cal.  
**KJR** 970  
 Seattle, Wash.  
**KLCN** 1290  
 Blytheville, Ark.  
**KLO** 1370  
 Ogden, Utah  
**KLPM** 1420  
 Minot, N. Dak.  
**KLRA** 1390  
 Little Rock, Ark.  
**KLS** 1440  
 Oakland, Cal.  
**KLX** 880  
 Oakland, Cal.  
**KLZ** 560  
 Dupont, Colo.  
**KMA** 930  
 Shenandoah, Ia.  
**KMBC** 950  
 Indep'd'nce, Mo.  
**KMED** 1310  
 Medford, Ore.  
**KMIC** 1120  
 Inglewood, Cal.  
**KMJ** 1210  
 Fresno, Cal.  
**KMMJ** 740  
 Clay Ctr., Nebr.  
**KMO** 1340  
 Tacoma, Wash.  
**KMOX** 1090  
 St. Louis, Mo.

KMTR 570 Hollywood, Cal.	KSO 1380 Clarinda, Iowa	KXA 570 Seattle, Wash.
KNX 1050 Los Angeles, Cal.	KSOO 1110 Sioux Falls, S.D.	KXL 1250 Portland, Ore.
KOA 830 Denver, Colo.	KSTP 1460 St. Paul, Minn.	KXO 1200 El Centro, Cal.
KOAC 550 Corvallis, Ore.	KTAB 560 Oakland, Cal.	KXRO 1420 Aberdeen, Wash.
KOB 1180 State Coll., N.M.	KTAP 1420 San Antonio, Tex.	KYA 1230 San F'nsciso, Cal.
KOCW 1400 Chickasha, Okla.	KTAT 1240 Ft. Worth, Tex.	KYW 1020 Chicago, Ill.
KOH 1370 Reno, Nevada	KTBI 1300 Los Angeles, Cal.	KZM 1370 Hayward, Cal.
KOIL 1260 Council Bluffs, Ia.	KTBR 1300 Portland, Ore.	NAA 690 Arlington, Va.
KOIN 940 Portland, Ore.	KTBS 1450 Shreveport, La.	WAAF 920 Chicago, Ill.
KOL 1270 Seattle, Wash.	KTHS 970 Hot Spgs., Ark.	WAAM 1250 Newark, N. J.
KOMO 920 Seattle, Wash.	KTM 780 Los Angeles, Cal.	WAAT 1070 Jersey City, N.J.
KOOS 1370 Marshfield, Ore.	KTNT 1170 Muscatine, Iowa	WAAW 660 Omaha, Nebr.
KORE 1420 Eugene, Ore.	KTSA 1290 San Antonio, Tex.	WABC 860 New York City
KOY 1390 Phoenix, Ariz.	KTSL 1310 Shreveport, La.	WABI 1200 Bangor, Maine
KPCB 1210 Seattle, Wash.	KTSM 1310 El Paso, Texas	WABO 1440 Rochester, N.Y.
KPJM 1500 Prescott, Ariz.	KTUE 1420 Houston, Texas	WABZ 1200 New Orleans, La.
KPLA 1000 Los Angeles, Cal.	KTW 1270 Seattle, Wash.	WADC 1320 Akron, Ohio
KPO 680 San F'nsciso, Cal.	KUJ 1500 Longview, Wash.	WAGM 1310 Royal Oak, Mich.
KPOF 880 Denver, Colo.	KUOA 1390 Fayetteville, Ark.	WAIU 640 Columbus, Ohio
KPPC 1200 Pasadena, Cal.	KUOM 570 Missoula, Mont.	WAPI 1140 Hirmingham, Ala.
KPQ 1210 Seattle, Wash.	KUSD 890 Vermillion, S. D.	WASH 1270 Gr. Rapids, Mich.
KPRC 920 Houston, Texas	KUT 1120 Austin, Texas	WBAK 1430 Harrisburg, Pa.
KPSN 950 Pasadena, Cal.	KVEP 1500 Portland, Ore.	WBAL 1060 Baltimore, Md.
KQV 1380 Pittsburgh, Pa.	KVI 760 Tacoma, Wash.	WBAP 800 Fort Worth, Tex.
KQW 1010 San Jose, Cal.	KVL 1370 Seattle, Wash.	WBAX 1210 Wilkes-Barre, Pa.
KPWF 1490 Westminster, Cal.	KVOA 1260 Tucson, Arizona	WBBC 1400 Brooklyn, N.Y.
KRE 1370 Berkeley, Cal.	KVOO 1140 Tulsa, Okla.	WBBL 1370 Richmond, Va.
KREG 1500 Santa Ana, Cal.	KVOS 1200 Bellingh'm, Wash.	WBBM 770 Chicago, Ill.
KRGV 1260 Harlingen, Texas	KWCR 1310 Cedar Rapids, Ia.	WBBR 1300 Rossville, N. Y.
KRLD 1040 Dallas, Texas	KWEA 1210 Shreveport, La.	WBBY 1200 Charleston, S.C.
KRMD 1310 Shreveport, La.	KWG 1200 Stockton, Cal.	WBHZ 1200 Ponca City, Okla.
KRSC 1120 Seattle, Wash.	KWJJ 1060 Portland, Ore.	WBCM 1410 Bay City, Mich.
KSAC 580 Manh'tt'n, Kans.	KWK 1350 St. Louis, Mo.	WBIS 1230 Boston, Mass.
KSCJ 1330 Sioux City, Ia.	KWKC 1370 Kansas City, Mo.	WBMS 1450 Fort Lee, N.J.
KSD 550 St. Louis, Mo.	KWKH 850 Shreveport, La.	WBNY 1350 New York City
KSEI 900 Pocatello, Idaho	KWLC 1270 Decorah, Iowa	WBOQ 860 New York City
KSL 1130 Salt Lake City	KWSC 1390 Pullman, Wash.	WBOW 1310 Terre Haute, Ind.
KSMR 1200 Santa Maria, Cal.	KWWG 1260 Brownsville, Tex.	WBRC 930 Birmingham, Ala.



**WBRE** 1310  
 Wilkes-Barre, Pa.  
**WBRL** 1430  
 Manchester, N.H.  
**WBSO** 920  
 Well'ty'H'ls, Mass  
**WBT** 1080  
 Charlotte, N.C.  
**WBZ** 990  
 Springfield, Mass.  
**WBZA** 990  
 Boston, Mass.  
**WCAC** 600  
 Storrs, Conn.  
**WCAD** 1220  
 Canton, N.Y.  
**WCAE** 1220  
 Pittsburgh, Pa.  
**WCAH** 1430  
 Columbus, Ohio  
**WCAJ** 590  
 Lincoln, Nebr.  
**WCAL** 1250  
 Northfield, Minn.  
**WCAM** 1280  
 Camden, N.J.  
**WCAO** 600  
 Baltimore, Md.  
**WCAP** 1280  
 Asbury Pk., N.J.  
**WCAT** 1200  
 Rapid City, S.D.  
**WCAU** 1170  
 Philadelphia, Pa.  
**WCAZ** 1070  
 Carthage, Ill.  
**WCBA** 1440  
 Allentown, Pa.  
**WCBD** 1080  
 Zion, Ill.  
**WCBM** 1370  
 Baltimore, Md.  
**WCBS** 1210  
 Springfield, Ill.  
**WCCO** 810  
 Minneap., Minn.  
**WCDA** 1350  
 New York City  
**WCFL** 970  
 Chicago, Ill.  
**WCGU** 1400  
 Coney Is., N.Y.  
**WCKY** 1480  
 Covington, Ky.  
**WCLB** 1500  
 Brooklyn, N.Y.  
**WCLO** 1200  
 Kenosha, Wis.  
**WCLS** 1310  
 Joliet, Ill.  
**WCMA** 1400  
 Culver, Ind.  
**WCOA** 1340  
 Pensacola, Fla.  
**WCOC** 880  
 Columbus, Miss.  
**WCOD** 1200  
 Harrisburg, Pa.  
**WCOH** 1210  
 Yonkers, N.Y.  
**WCRW** 1210  
 Chicago, Ill.  
**WCSH** 940  
 Portland, Maine  
**WCSS** 1450  
 Springfield, Ohio

**WDAE** 620  
 Tampa, Fla.  
**WDAF** 610  
 Kansas City, Mo.  
**WDAG** 1410  
 Amarillo, Texas  
**WDAH** 1310  
 El Paso, Texas  
**WDAY** 1280  
 Fargo, N. D.  
**WDBJ** 930  
 Roanoke, Va.  
**WDBO** 620  
 Orlando, Fla.  
**WDEL** 1120  
 Wilmington, Del.  
**WDGY** 1180  
 Minneap., Minn.  
**WDOD** 1280  
 Chattan'ga, Tenn  
**WDRC** 1330  
 N. Haven, Conn.  
**WDSU** 1250  
 New Orleans, La.  
**WDWF** 1210  
 Cranston, R.I.  
**WDZ** 1070  
 Tuscola, Ill.  
**WEAF** 660  
 New York City  
**WEAI** 1270  
 Ithaca, N.Y.  
**WEAN** 780  
 Providence, R.I.  
**WEAO** 570  
 Columbus, Ohio  
**WEAR** 1070  
 Cleveland, Ohio  
**WEBC** 1280  
 Duluth, Minn.  
**WEBS** 1210  
 Cambridge, Ohio  
**WEBQ** 1210  
 Harrisburg, Ill.  
**WEBR** 1310  
 Buffalo, N.Y.  
**WEBW** 600  
 Beloit, Wis.  
**WEDC** 1210  
 Chicago, Ill.  
**WEDH** 1420  
 Erie, Pa.  
**WEI** 590  
 Boston, Mass.  
**WEHS** 1310  
 Evanston, Ill.  
**WEIK** 1370  
 Philadelphia, Pa.  
**WEMC** 590  
 Bar'n Spgs., Mich  
**WENR** 870  
 Chicago, Ill.  
**WEPS** 1200  
 Gloucester, Mass.  
**WEVD** 1300  
 New York City  
**WEW** 760  
 St. Louis, Mo.  
**WFAA** 800  
 Dallas, Texas  
**WFAN** 610  
 Philadelphia, Pa.  
**WFBC** 1200  
 Knoxville, Tenn.  
**WFBG** 1310  
 Altoona, Pa.

**WFBJ** 1370  
 Coll'geville, Minn.  
**WFBL** 900-1490  
 Syracuse, N. Y.  
**WFBM** 1230  
 Indianapolis, Ind.  
**WFBR** 1270  
 Baltimore, Md.  
**WFDF** 1310  
 Flint, Mich.  
**WFI** 560  
 Philadelphia, Pa.  
**WFIW** 940  
 Hopkinsville, Ky.  
**WFJC** 1450  
 Akron, Ohio  
**WFKD** 1310  
 Philadelphia, Pa.  
**WFLA** 1240  
 Clearwater, Fla.  
**WGAL** 1310  
 Lancaster, Pa.  
**WGBB** 1210  
 Freeport, N.Y.  
**WGBC** 1430  
 Memphis, Tenn.  
**WGBF** 630  
 Evansville, Ind.  
**WGBI** 880  
 Scranton, Pa.  
**WGBS** 1180  
 New York City  
**WGCM** 1210  
 Gulfport, Miss.  
**WGCP** 1250  
 Newark, N.J.  
**WGES** 1360  
 Chicago, Ill.  
**WGH** 1310  
 Newp't News, Va.  
**WGHP** 1240  
 Detroit, Mich.  
**WGL** 1370  
 Ft. Wayne, Ind.  
**WGMS** 1250  
 Minneap., Minn.  
**WGN** 720  
 Chicago, Ill.  
**WGR** 550  
 Buffalo, N.Y.  
**WGST** 890  
 Atlanta, Ga.  
**WGY** 790  
 Schneck'd'y, N. Y.  
**WHA** 940  
 Madison, Wis.  
**WHAD** 1120  
 Milwaukee, Wis.  
**WHAM** 1150  
 Rochester, N.Y.  
**WHAP** 1300  
 New York City  
**WHAS** 820  
 Louisville, Ky.  
**WHAZ** 1300  
 Troy, N.Y.  
**WHB** 950  
 Kansas City, Mo.  
**WHBC** 1200  
 Canton, Ohio  
**WHBD** 1370  
 Bellefontaine, O.  
**WHBF** 1210  
 Rock Island, Ill.  
**WHBL** 1410  
 Sheboygan, Wis.

WHBQ 1370  
 Memphis, Tenn.  
 WHBU 1210  
 Anderson, Ind.  
 WHBY 1200  
 W. De Pere, Wis.  
 WHDF 1370  
 Calumet, Mich.  
 WHDH 830  
 Gloucester, Mass.  
 WHDI 1180  
 Minneap., Minn.  
 WHDL 1420  
 TupperLake, N.Y.  
 WHEC 1440  
 Rochester, N.Y.  
 WHFC 1310  
 Cicero, Ill.  
 WHIS 1420  
 Bluefield, W.Va.  
 WHK 1390  
 Cleveland, Ohio  
 WHN 1010  
 New York City  
 WHO 1000  
 Des Moines, Ia.  
 WHP 1430  
 Harrisburg, Pa.  
 WIAS 1420  
 Ottumwa, Iowa  
 WIBA 1210  
 Madison, Wis.  
 WIBG 930  
 Elkins Park, Pa.  
 WIBM 1370  
 Jackson, Mich.  
 WIBO 570  
 Chicago, Ill.  
 WIBR 1420  
 Steubenville, O.  
 WIBS 1450  
 Elizabeth, N.J.  
 WIBU 1310  
 Poynette, Wis.  
 WIBW 1300  
 Topeka, Kansas  
 WIBX 1200  
 Utica, N.Y.  
 WICC 1190  
 Bridgeport, Conn.  
 WIL 1200  
 St. Louis, Mo.  
 WILL 890  
 Urbana, Ill.  
 WILM 1420  
 Wilmington, Del.  
 WINR 1210  
 Bay Shore, N.Y.  
 WIOD 1120  
 Miami Beh., Fla.  
 WIP 610  
 Philadelphia, Pa.  
 WISN 1120  
 Milwaukee, Wis.  
 WJAC 1310  
 Johnstown, Pa.  
 WJAD 1240  
 Waco, Texas  
 WJAG 1060  
 Norfolk, Nebr.  
 WJAK 1310  
 Marion, Ind.  
 WJAR 890  
 Providence, R.I.  
 WJAS 1290  
 Pittsburgh, Pa.

WJAX 1260  
 Jacksonville, Fla.  
 WJAY 620  
 Cleveland, Ohio  
 WJAZ 1480  
 Chicago, Ill.  
 WJBC 1200  
 La Salle, Ill.  
 WJBI 1210  
 Red Bank, N.J.  
 WJBK 1370  
 Ypsilanti, Mich.  
 WJBL 1200  
 Decatur, Ill.  
 WJBO 1370  
 New Orleans, La.  
 WJBT 770  
 Chicago, Ill.  
 WJBU 1210  
 Lewisburg, Pa.  
 WJBW 1200  
 New Orleans, La.  
 WJBY 1210  
 Gadsden, Ala.  
 WJDW 1370  
 Emory, Va.  
 WJDX 1270  
 Jackson, Miss.  
 WJDZ 1310  
 Winst.-Sal., N.C.  
 WJJD 1130  
 Mooseheart, Ill.  
 WJKS 1360  
 Gary, Ind.  
 WJR 750  
 Detroit, Mich.  
 WJSV 1460  
 Mt. Vern. H'ls, Va.  
 WJW 1210  
 Mansfield, Ohio  
 WJZ 760  
 New York City  
 WKAQ 890  
 San Juan, P.R.  
 WKAR 1040  
 E. Lansing, Mich.  
 WKAV 1310  
 Laconia, N.H.  
 WKBB 1310  
 Joliet, Ill.  
 WKBC 1310  
 Birmingham, Ala.  
 WKBF 1400  
 Indianapolis, Ind.  
 WKBH 1380  
 La Crosse, Wis.  
 WKBI 1310  
 Chicago, Ill.  
 WKBN 570  
 Youngstown, O.  
 WKBO 1450  
 Jersey City, N.J.  
 WKBP 1420  
 Battle Crk., Mich.  
 WKBQ 1350  
 New York City  
 WKBS 1310  
 Galesburg, Ill.  
 WKBV 1500  
 Brookville, Ind.  
 WKBW 1470  
 Buffalo, N.Y.  
 WKBZ 1500  
 Ludington, Mich.  
 WKEN 1040  
 Grand Isl'd, N.Y.

WKJC 1200  
 Lancaster, Pa.  
 WKRC 550  
 Cincinnati, O.  
 WKY 900  
 Oklahoma City  
 WLAC 1490  
 Nashville, Tenn.  
 WLAP 1200  
 Louisville, Ky.  
 WLB 1250  
 Minneap., Minn.  
 WLCB 1310  
 Muncie, Ind.  
 WLB 1420  
 Kansas City, Ks.  
 WLBG 1200  
 Ettrick, Va.  
 WLBL 900  
 Stevens Pt., Wis.  
 WLBW 1250  
 Oil City, Pa.  
 WLBX 1500  
 L.I. City, N.Y.  
 WLBZ 620  
 Bangor, Me.  
 WLGI 1210  
 Ithaca, N.Y.  
 WLEX 1360  
 Lexington, Mass.  
 WLEY 1420  
 Lexington, Mass.  
 WLIT 560  
 Philadelphia, Pa.  
 WLOE 1500  
 Boston, Mass.  
 WLS 870  
 Chicago, Ill.  
 WLSI 1210  
 Cranston, R.I.  
 WLTH 1400  
 Brooklyn, N.Y.  
 WLW 700  
 Cincinnati, Ohio  
 WLWL 1100  
 New York City  
 WMAC 570  
 Cazenovia, N.Y.  
 WMAF 1360  
 S. D'rtm'th, Mass.  
 WMAK 900  
 Buffalo, N.Y.  
 WMAL 630  
 Washington, D.C.  
 WMAN 1210  
 Columbus, Ohio  
 WMAQ 670  
 Chicago, Ill.  
 WMAY 1200  
 St. Louis, Mo.  
 WMAZ 890  
 Macon, Ga.  
 WMBA 1500  
 Newport, R.I.  
 WMBC 1420  
 Detroit, Mich.  
 WMBD 1440  
 Peoria Hgts., Ill.  
 WMBG 1210  
 Richmond, Va.  
 WMBH 1420  
 Joplin, Mo.  
 WMBI 1080  
 Chicago, Ill.  
 WMBJ 1500  
 Pittsburgh, Pa.

WMBL 1310 Lakeland, Fla.	WOL 1310 Washington, D.C.	WRC 950 Washington, D.C.
WMBO 1370 Auburn, N.Y.	WOMT 1210 Manitowoc, Wis.	WREC 600 Memphis, Tenn.
WMBQ 1500 Brooklyn, N.Y.	WOOD 1270 Gr. Rapids, Mich.	WREN 1220 Lawrence, Kans.
WMBR 1370 Tampa, Fla.	WOPI 1500 Bristol, Tenn.	WRHM 1250 Minneap., Minn.
WMC 780 Memphis, Tenn.	WOQ 610 Kansas City, Mo.	WRJN 1370 Racine, Wis.
WMCA 570 New York City	WOR 710 Newark, N. J.	WRK 1310 Hamilton, Ohio
WMES 1500 Boston, Mass.	WORC 1200 Worcester, Mass.	WRNY 1010 New York City
WMMN 890 Fairmont, W.Va.	WORD 1480 Chicago, Ill.	WRR 1280 Dallas, Texas
WMPC 1500 Lapeer, Mich.	WOS 630 Jeff's'n City, Mo.	WRUF 830 Gainesville, Fla.
WMRJ 1420 Jamaica, N.Y.	WOV 1130 New York City	WRVA 1110 Richmond, Va.
WMSG 1350 New York City	WOW 590 Omaha, Nebr.	WSAI 1330 Cincinnati, Ohio
WMT 1200 Waterloo, Iowa	WOWO 1160 Ft. Wayne, Ind.	WSAJ 1310 Grove City, Pa.
WNAC 1230 Boston, Mass.	WPAP 1010 New York City	WSAN 1440 Allentown, Pa.
WNAD 1010 Norman, Okla.	WPAW 1210 Pawtucket, R.I.	WSAR 1450 Fall River, Mass.
WNAT 1310 Philadelphia, Pa.	WPCC 570 Chicago, Ill.	WSAZ 580 Hunt'gton, W.Va.
WNAX 570 Yankton, S.D.	WPCH 810 New York City	WSB 740 Atlanta, Ga.
WNBF 1500 Bingh'mt'n, N.Y.	WPEN 1500 Philadelphia, Pa.	WSBC 1210 Chicago, Ill.
WNBH 1310 New B'ld'd, Mass.	WPG 1100 Atl'ntic City, N.J.	WSBT 1230 South Bend, Ind.
WNBK 1310 Knoxville, Tenn.	WPOE 1420 Patchogue, N.Y.	WSDA 1400 Brooklyn, N.Y.
WNBO 1200 Washington, Pa.	WFOR 780 Norfolk, Va.	WSGH 1400 Brooklyn, N.Y.
WNBR 1430 Memphis, Tenn.	WPSC 1230 State College, Pa.	WSIX 1210 Springfield, Tenn.
WNBW 1200 Carbondale, Pa.	WPTF 680 Raleigh, N.C.	WSJS 1310 Winst.-Sal., N.C.
WNBX 1200 Springfield, Vt.	WQAM 560 Miami, Fla.	WSM 650 Nashville, Tenn.
WNBZ 1290 SaranacL'ke, N.Y.	WQAN 880 Scranton, Pa.	WSMB 1320 New Orleans, La.
WNJ 1450 Newark, N.J.	WQAO 1010 New York City	WSMK 1380 Dayton, Ohio
WNOX 560 Knoxville, Tenn.	WQBC 1360 Utica, Miss.	WSOA 1480 Forest Park, Ill.
WNRC 1440 Greensboro, N.C.	WQBZ 1420 Weirton, W. Va.	WSPD 1340 Toledo, Ohio
WNYC 570 New York City	WRAF 1200 La Porte, Ind.	WSSH 1420 Boston, Mass.
WOAI 1190 San Antonio, Tex.	WRAK 1370 Erie, Pa.	WSUI 580 Iowa City, Ia.
WOAN 600 Law'nceb'g, Tenn.	WRAW 1310 Reading, Pa.	WSUN 1240 St. Petersb'g, Fla.
WOAX 1280 Trenton, N.J.	WRAX 1010 Philadelphia, Pa.	WSVS 1370 Buffalo, N.Y.
WOBT 1310 Union City, Tenn.	WRBC 1240 Valparaiso, Ind.	WSYR 570 Syracuse, N.Y.
WOBU 580 Charlest'n, W. Va.	WRBI 1310 Tifton, Ga.	WTAD 1440 Quincy, Ill.
WOC 1000 Davenport, Iowa	WRBJ 1500 Hattiesburg, Miss.	WTAG 580 Worcester, Mass.
WOCL 1210 Jamestown, N.Y.	WRBL 1200 Columbus, Ga.	WTAM 1070 Cleveland, Ohio
WODA 1250 Paterson, N.J.	WRBQ 1210 Greenville, Miss.	WTAQ 1330 Eau Claire, Wis.
WOI 560 Ames, Iowa	WRBT 1370 Wilmington, N.C.	WTAR 780 Norfolk, Va.
WOKO 1440 P'ghkeepsie, N.Y.	WRBU 1210 Gastonia, N.C.	WTAW 1120 College Sta., Tex.

WTAX 1210 Streator, Ill.	WWNC 570 Asheville, N. C.	XES 1200 C. Lerdo, Dgo.
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 1410 Savannah, Ga.	XEF 1130 Oaxaca, Oax.	XFG 640 Mexico City
WWAE 1370 Hammond, Ind.	XEH 970 Monterey, N. L.	XFI 590 Mexico City
WWJ 920 Detroit, Mich.	XEI 1000 Morelia, Mich.	XFJ 840 Mexico City
WWL 850 New Orleans, La.	XEN 730 Mexico City	

## 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	WEEI	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 KE		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	KFSG	Air-Fan Radio Corp.	Los Angeles, Cal.	108.2	250
6 XBE	KFBC	W. K. Azbill	San Diego, Cal.		
6 XBH	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 XJ	WHK	Radio Air Service Corp.	Cleveland, Ohio	66.04	500
8 XJ	WEO	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.	500
9 XU	KOIL	Mona Motor Oil Co.	Council Bluffs, Iowa	61.06	500

## Troubles of B-Eliminators

(Continued from page 23)

if it has been handled considerably. Variation in the potential of the house-lighting current, which is especially prone to occur on small distribution systems, causes a corresponding fluctuation of the voltage in the eliminator, and such a surge may set up motorboating. Sometimes the failure of the rectifying device to operate properly, or the lack of stability of the rectifying device will cause the trouble.

### *The Shunting Remedy*

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.

## Changing Batteries to A. C.

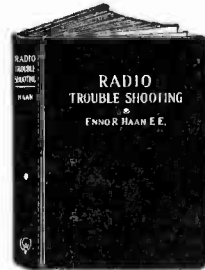
FROM W. A. Rankin, of Evanston, Ills., comes the following letter: "I have an old Viking battery radio set and would like to alter it into an A.C. set using 326 and 327 tubes, but as the set has only four-prong sockets, how could I fix detector socket for the five-prong A.C. tube?"

As there are probably thousands of our readers who have old battery sets who would like to modernize them to eliminate the troublesome batteries and take advantage of the new A.C. tubes, we have asked Mr. E. R. Haan to prepare an article for the December RADEX explaining in simple, non-technical language just how this feat may be accomplished. Do not miss this article in the next RADEX.

Mr. Rankin adds to his letter: "I have only got my first RADEX and it won't be my last one. I have been looking for a book like it for a long time. A friend let me see one; that settled it."

## Would You Like a Real Understanding of Radio

Enno R. Haan, E. E., has written what we believe to be the clearest book on Radio that has yet been published. Written in simple words, as free as possible from technicalities, copiously illustrated, we recommend it to our readers who would like to have an intelligent understanding of the principles of radio.



## Radio Trouble Shooting

has 360 pages, is bound in flexible leather cover and contains more than 300 pictures and diagrams.

Following are a few of the divisions:

- Uncontrollable Troubles
- Interference
- Batteries and Chargers
- Aerial Troubles
- Eliminators
- Tubes, Troubles and Remedies
- Internal Troubles
- Speakers and Their Troubles
- All-Electric Receivers
- Television
- New Developments

Price Only \$3.00

Postpaid

(No C. O. D. Orders)

## THE RADEX PRESS

1367 East Sixth Street  
Cleveland, Ohio

Please mention RADEX

# BOYS GET A FOOTBALL FREE

For Just a Little Work Showing  
RADEX to Your Neighbors

*We Will Send You FREE*

## A Fine Rugby Cowhide Football



Official size, two-piece hand-made bladder with rawhide lace and needle complete. This ball is made from selected leather.

One of these fine footballs will be given free for 14 points.

Each subscription for one year at \$1.75 counts seven points. Each single copy sold at 25 cents counts one point.

Take your copy of RADEX and show your neighbors and friends how complete it is and how it helps to bring in more stations. Get their subscriptions and orders, send us a money order for \$3.50 and we will ship the football to you at once.

### THE RADEX PRESS

1367 East Sixth Street

Cleveland, Ohio

Please mention RADEX

[ 64 ]

# Electric CHELSEA RADIO

A low-priced, console-type receiver, incorporating the latest developments in science of radio, and possessing features to be found only in the more expensive receivers. Also available as a table model.

USES NEW 245 POWER TUBE  
AUTOMATIC PICK-UP JACK  
INDUCTIVE DYNAMIC

BUILT-IN SOCKET ANTENNA  
ILLUMINATED DRUM DIAL  
PRESSED STEEL CHASSIS

**CABINET** Made of selected woods with genuine Maple Eurl panels, overlaid on four-way matched veneer. Hand-rubbed in dark brown Mahogany with glass-like lacquer finish. Massive and extremely beautiful, a true product of the cabinet maker's art.

FULL DESCRIPTIVE CIRCULAR ON REQUEST

AGENTS,  
DEALERS  
WANTED

**THERE'S NO TIME TO WASTE**

Order your sample today at standard 40% discount  
\$10.00 with order-balance C.O.D.

*Cash In On Christmas Rush*



USES SEVEN TUBES  
40" x 24<sup>3</sup>/<sub>4</sub>" x 12<sup>3</sup>/<sub>4</sub>"

Console Model

**\$89<sup>50</sup>**  
less tubes

Table Model - \$65.00

Screen Grid Model  
Power Detector  
\$5.00 Extra

**BARTY RADIO  
COMPANY**

11-42 31st Avenue

L. I. C., N. Y., U. S. A.

Cable Address: "Bartyrad"

*Established 1920*

QUANTITY MANUFACTURERS  
of Private Brand Radio

Please mention RADEX

**DON'T MISS THIS BUY!**

# K O L S T E R

## Electro-Dynamic Reproducer

Combined with 210 Power Amplifier and "B" Supply Unit



Model K-5

Height.....42"  
Width.....25 1/2"  
Depth.....19"

### Features:

1. Electro-Dynamic Reproducer (10 1/4-in. dia.)
2. 210 Power Amplifier. Fine tone quality.
3. Supplies "B" voltage, if desired.
4. Can be used with any electric or battery set.
5. Complete A. C. Electric operation.
6. Beautiful pencil-striped walnut cabinet.

List Price \$175.00  
(without tubes)

Never \$49.50  
Before

Terms: 25% cash with order, balance C. O. D. F. O. B. New York

American Sales Co., 19-21 Warren Street, New York City

THESE Dynamic Reproducers are Kolster built, packed in the original Kolster cases and cartons, shipped direct to us from the Kolster factory from whom we have purchased all these Dynamic Reproducers. Every Dynamic Reproducer is brand new, each bears the Kolster guarantee tag and the original serial number.

*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. Licenses under patents of RCA and Lektophone Corp.

Please mention RADEX