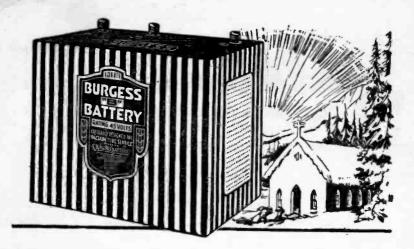
RADIO REGISTER

Illustrated Monthly

APRIL, 1928;



Official Radio Log Revised to Date



Burgess Radio Batteries

Lessen Solitude for Priest in Far North

RADIO—amply powered by sturdy Burgess batteries, lends a touch of enjoyment to the long, drab nights of the North. It is a source of much happiness to Father R. P. Turquetil, who holds the distinction of being one of the farthest north Christian missionaries in the world.

Father Turquetil specifies Burgesses for his radio and other uses because he has always found them dependable and efficient!

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BURGESS RADIO BATTERIES



RADIO REGISTER

Volume I

APRIL, 1928

Number 5

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Entered as second-class matter December 16, 1927, at the post office at Nashville, Tenn., under the Act of March 3, 1879.

KEEP POSTED

The Federal Radio Commission is changing the wave lengths of broadcasting stations so frequently the average listener cannot keep up without an officially corrected call book. A dial setting that is correct today may be wrong tomorrow.

The best way to keep posted on station changes is to subscribe to the

RADIO REGISTER

Each issue contains an official radio log and call book revised to date.

It shows all of the latest station changes that have been made since the previous issue.

It contains a complete directory of all radio broadcasting stations (not just stations of certain power but every station on the air) giving call letters, frequency, wave length, power, location and owner.

It gives the location of all broadcasting stations alphabetically by states and cities with their call letters.

.It has a complete directory of all broadcasting stations arranged by wave channels under kilocycles and wave lengths.

And it also gives a table for converting kilocycles into frequencies and vice versa.

It publishes every month all the latest news of the radio world. Each issue contains sixty-eight pages or more of interesting stories about the most popular broadcasting stations, instructive articles on the construction and operation of receiving sets and accessories, unique photographs of your favorite announcers and entertainers, gossipy items of the studios, illustrated features of general interest and a department for answering technical questions. It is a complete radio magazine published in the interest of the radio listeners.

Every owner of a receiving set should

SUBSCRIBE NOW AND KEEP POSTED

RADIO PUBLISHING CO., 181 Second Avenue, North, Nashville, Tennessee. Enclosed find One Dollar for which send the RADIO REGISTER for one
year to
Name
Street and Number
City State



Mrs. H. Carey Korndoerfer

For the past year Mrs. Korndoerfer has been heard during the early hours of the evening from KMOX, the Voice of St. Louis. Her location on the program and the fact that her songs are mostly familiar melodies has caused her large audiences to affectionately call her "The Lullaby Lady." Mrs. Korndoerfer will continue as a regular feature of KMOX druing the present year.

RADIO BILL PASSES

Act Provides for Equal Allocation of Power and Wave Lengths in the Five Radio Zones

By F. B. WILSON

The new radio bill extending the life of the Federal Radio Commission for one year and providing for a more equitable allocation of wave lengths and power among broadcasting stations in the five radio zones has finally been passed.

This bill, which was sponsored by Senator Dill

of Washington, who was also author of the radio act of 1927 creating the Federal Radio Commission, is practically the same as the previous measure with the exception of an amendment proposed by Representative Davis of Tennessee.

The amendment as adopted by the conference committee provides that all the radio zones shall as nearly as possible have an equal allocation of wave

lengths and power and that each state shall have a fair and equitable allocation according to population.

Under the bill as passed licenses for broadcasting stations are to be issued for three months only.

An objection to the bill stating that its wording was somewhat ambiguous and that the equal allocation clause should be clarified was overruled.

If the act is to be interpreted as offering occasion for the commission to move stations around

promiscuously every month or every three months, it will not meet with the approval of the radio public. Too many inconsequential changes have already been made to meet the demands of various stations. It would seem that it is now time for the commission, when the membership is

OUR COVER

The illustration on the cover of this issue is a night photograph of the towers and power house of KOIL at Council Bluffs, Iowa.

The Mona Motor Oil booklet issued by the station has the following poem, author not given, accompanying the illustration:

When dusk comes down upon the town.

When evening shadows creep,
When flowers fold their petals
And softly fall asleep:
Then lights wink out woon the

Then lights wink out upon the hill,

Like twinkling fairy eyes,
To guide the song of radio,
On its journey through the
skies.

ne for the come membership is finally confirmed, to adopt a

firm policy, assigning each station to definite wave length and keep it there. It is decidedly disappointing to a listener who has been accustomed to hearing his favorite station at a certain dial setting to tune in some night when an especially good program is to bе presented and fail to find the station or to unexpectedly hear some other station in which he is not interested, because

the stations have been moved around.

The Federal Radio Commission. as an active body, ceased to exist on March 15, and it has been functioning since that time under authority of the Secretary of Commerce. Commissioner E. O. Sykes is the only member that has been confirmed by the Senate, and it is reported that many members of that body have stated they would not vote to confirm some of the remaining commissioners.

PAGE SIX

WWNC Celebrates Birthday

Asheville Station Presents Full Week of Features During Second Birthday Celebration

By JOHN D. TOPPING

A flood of letters and telegrams from radio fans, received at the offices of Station WWNC at Asheville. N. C., attest the popularity of the birthday programs broadcast by that station during the week of February 19 to 26. Congratulatory messages were received from the governors of most of the states in the United States and letters from fans in all parts of the country showed the wide range reached by the week of special programs.

Each day of the week was filled with important events from the standpoint of the radio public. On the Sunday programs, the Grove Park Inn organ was a feature, with Arnold Dann as organist.

The organ is one of the largest and finest instruments of its kind in the world. The radio week organ programs were especially selected and received a large amount of applause mail.

One of the outstanding suc-

One of the outstanding successes of the week was the square dance at the Langren Hotel on Monday, February 20. A large crowd attended the event and the old-time square dance music was broadcast by WWNC. The affair was sponsored by the American Legion and the Sons of Confederate Veterans.

Tuesday, February 21, witnessed the birthday program of the station, in which seven orchestras took part. The program also fea-



WWNC Towers at Asheville

tured many artists who had appeared on the programs of the station during the past year. As far as possible the program was made a resume of the year of broadcasting and as many as possible of the artists who had taken part in programs sent out from the station during the year were given time on the air during the birthday broadcast. The February 21 program began at 6 p.m., and continued to 3 a.m.

A radio show at the George Vanderbilt Hotel. sponsored by the Asheville Citizen, was a feature attraction of the week. A model broadcasting room enclosed in plate glass was erected as an exhibit in this show and programs were broadcast for the benefit of those who attended the event. The broadcasting room was installed and operated by Station WWNC.

Over two thousand guests attended the first annual historical costume ball which was held at Kenilworth Inn on February 22. As the date was Washington's Birthday, the historical setting was very appropriate. Seventyfive young ladies chosen for their beauty and social prominence in as many southern cities were present and took part in the grand march of the ball. These debutantes were sponsors for their various cities they represented and were dressed in costumes representing periods in the colorful history of the South. Miss Mary Lamar Birdsey, of Savannah, Ga.. was awarded first prize, her costume representing the "Savan-nah," the first steamship to cross the Atlantic. Miss Annie Ford, of Charleston, S. C., dressed to represent "Old Charleston." and Miss Alice Gibbon, of Charlotte. N. C., represening Queen Char-lotte, were awarded second and third prizes, respectively. The events of the evening, music of the ball and descriptions of the costumes worn by visiting sponsors were broadcast by Station WWNC.

The ball at the Manor was the feature event for Thursday night, February 23. The ball was sponsored by the management of the Manor and was attended by many

people of prominence. The music of this ball was broadcast by Station WWNC. The county fair at the Asheville Women's Club House was an event of Friday. February 24. and the style show and dance in connection with this event furnished a part of the WWNC program for the evening. A dance was held at Kenilworth Inn on Saturday, February 25. and the week of broadcasting was terminated by an organ program from the Grove Park Inn on Sunday, February 26.

One of the principal events of the week was a banquet held at Kenilworth Inn, attended by over three hundred musicians, who had taken part in the programs broadcast from the station during the year. This banquet was held on the birthday night, February 21. George Hay, better known to the radio audience as "The Solem Old Judge" of Station WSM. Nashville, Tenn., was present and took part in the broadcasting.

WWNC now enters upon its second year of service to the radio public. The station is owned and operated by the Asheville Chamber of Commerce and is the Voice of Western North Carolina. The call letters of the Station WWNC represent the phrase "Wonderful Western North Carolina."

Announcers Change

Changes in chief announcers at some of the important broadcasting stations have recently been made. Robert F. Hall, of KOIL, better known as Chief Razzberry, and his wife, Anita Dewitt Hall, station hostess, have resigned and his place has been taken by Nate Caldwell, formerly chief announcer at WBBM, one of the best-known broadcasters in the Middle West.

Ivan Jones, who has been officiating at the microphone of KYW, has been added to the staff of WBBM.

On the Pacific coast, Leslie Adams, who for three years has been chief announcer of KFI, is leaving to become a director of KMTR.

PAGE EIGHT

Directing Chain Programs

Features Broadcast Over Network of Stations Require Very Careful Planning and Attention

By FRANK WRIGHT

When a new program feature appears on the air, if it is well presented, there is nothing to indicate the preliminary work which has been necessary to prepare it for broadcasting. Still, no broadcast feature is a Topsy. None of them "just growed." Back of every one is a record of careful planning and develop-

Probably the simplest means of explaining the process through which a new feature must pass before it is heard on the air is to take a typical case and trace through its development from the beginning of the work until the program is put into the antenna and started on its way over special circuits to other

stations. Program features fall into two main classifications-"sponsored" features put on the air under the auspices of commercial concerns for the purpose of building institutional good will, and "sustaining" features, including broadcasts by the various "stock" companies, educational and religious periods and musical programs of all kinds from hotels, night clubs and prominent motion picture theaters.

The life of a sponsored feature really begins when a contract has been made between the commercial department and a commercial concern for the use of time on the air. Immediately the machinery of the program department of the station involved starts to function.

The contract itself may specify what entertainers are to broadcast during the time allotted to the new feature, and in this case the work of the program department is lessened. Usually, however, the commercial department,

the new client, the station manager and the program department will combine to decide upon the artists, leaving the working out of the details to the program department.

The period of planning may involve almost any amount of work. The elusive idea must be pursued and captured and a definite scheme of entertainment mapped out. In some cases, three or four complete plans Conferences are held between the program department, the commercial department and the sponsor, and the type of entertainment is decided upon.

The time at which the feature will appear on the air must also be decided, a process which involves many considerations. station management must balance the entire program for the evening and make sure every feature attains as much prominence as possible. In other words, a whole evening's program should be varied if it is to be effective. Two periods of the same sort of entertainment should not follow each other, or both of them will lose in effectiveness because of the fact.

When a plan has been approved, work is begun on detailed programs. Artists are engaged, a process which may require auditions attended by representatives of the various departments and by the sponsor. A continuity is prepared for the opening program and an announcer is chosen for the feature. The artists are given the detailed program in order that they may start rehearsing. short, a sample program is prepared for presentation.

In preparing the continuity, care is taken that the program shall merely create good-will rather than describe the sponsor's products. The spoken portion of any sponsored feature should relate to the musical selections, if the entire program is to accomplish its object.

The detailed program is submitted to the department of musical and literary research in order that all copyrights on the various selections may be investigated. In some cases, numbers are changed to comply with copy-

right restrictions.

When the sample program has been prepared, it is essembled as a unit for rehearsal at the studio. This rehearsal is attended by a commercial department representative, a member of the program department and the sponsor. In instances which involve unusual pick-up problems, a member of the operations and engineering department is also present to work out proper microphone placement and insure the best possible pick-up.

In the meantime, three other activities have been begun looking forward to the time when the feature will first be heard on the air. The traffic department has communicated with the various stations through which the sponsor desires his program to be heard and has arranged for telephone facilities to carry the program to these stations.

The clerical force of the program department has prepared program material on the feature and forwarded it to the publicity department, so that proper announcement of the coming fea-

ture may be made.

The rehearsal at the studio is criticized by those who attend it and any desired changes are made in the program. Other rehearsals will take place before the initial broadcast of the series goes on the air, and rough spots in the presentation will be smoothed off.

Shortly after the first rehearsal, however, the various departments which have helped to get the first program ready start to work on the second and

(Continued on page 11.)

Melton Heads Singers

Three new stations have been added to the network of the Seiberling Singers and they are now heard from thirty different transmitters every Tuesday evening. This is the second largest network of stations that are regularly linked together for broadcasting a particular program.

This increase in the Seiberling hook-up is coincident with a change in the character of their programs. Under the supervision of James Melton, who has been



JAMES MELTON

appointed director of programs, they will feature selections which have never before been sung by a quartet, either because they were written as instrumental pieces or bcause they have always been solo parts. Mr. Melton will also continue as the tenor soloist of the organization.

The China Broadcasting Association has been organized in Shanghai for the purpose of providing an efficient broadcasting service. Dues of \$10 are assessed annually and the funds used to broadcast musical and instructional programs over a local transmission plant.

INCREASES FIELD FORCE

Radio Section of Department of Commerce Planning Unprecedented Year of Activity

The radio section of the United States Department of Commerce is planning an unprecedented year of activity.

The appropriation bill contains \$320,000 for the next fiscal year and for current expenditures the radio section is drawing upon a deficiency appropriation of \$140,000.

The \$320,000 appropriation includes funds for employment of about a dozen additional radio inspectors. While this increased field force cannot eliminate the heterodyne squeals in radio receivers, due to a superabundance of broadcasting stations, they can make other investigations useful to broadcast listeners.

For example, in trailing nonradio interferences, such as disturbances caused by leaking. power lines and various faulty electrical equipment, this extrafield force can improve radio reception conditions.

The radio section of the department of commerce likewise plans the use of four additional radio-equipped motor trucks for radio supervisors and their inspectors. These, duplicating the \$4,000 car of Supervisor E. W. Edwards, of Detroit, will consist of complete transmitting and receiving stations, measuring apparatus, wavemeters, and quartz crystal oscillators.

With an increased field force, the department of commerce will undertake a program which has long had the sanction of Secretary Hoover. It is the zoning of the service areas around broadcasting stations. This means that the radio inspector will make accurate measurements over a considerable period to determine just what broadcast listeners may expect in the way of reliable signals day and night, summer and winter.

To carry out this project, Uncle

Sam has ordered new field intensity measurement apparatus from the Bell telephone laboratories.

This new apparatus not only can determine the strength of signals from a broadcasting station, but can consider such obstructing factors as steel structures, bridges and other objects which either absorb or distort radio waves.

Eventually, by virtue of this work, a radio fan can look at a map and by zones determine what broadcasting stations can bring programs to his receiver at different times of the day and night with respect to seasonal changes of the year.

Chain Programs

(Continued from Page 10.)

third appearance of the feature. Detailed programs are made up and given to the artists three weeks in advance so that every detail of each presentation may be carefully worked out.

The final step in the presentation of the first program takes place when it goes on the air. The broadcast is listened to by the station manager or his representatives, for he is really the stage manager of the station.

In every case where contact occurs between various departments, printed forms are used to make sure that information is transmitted accurately. No details are left to memory or to oral agreement.

Once the first program has been broadcast, a regular rehearsal schedule is maintained for further features in the series. Every broadcast must be rehearsed in the studio twice before it goes on the air, necessitating an elaborate schedule.



DR. E. F. W. ALEXANDERSON

Member of the Board of Consulting Engineers of the National Broadcasting Company, and his home radio picture receiver, showing photographic paper on revolving cylinder. In the background is a small box containing the rectifying and amplifying unit, a part of the apparatus, which can be attached to any standard radio receiver in much the same manner as a loud speaker. The first public demonstration of this receiver was recently given when Mayor Walker's picture was transmitted over WEAF and received in a home twenty-five miles from the station..

New KDKA Studio

Radio Station KDKA has acquired new quarters in the Fort Pitt Hotel, where a specially constructed studio is equipped with the very latest transmitting apparatus and an office for the program department under direction

of Mr. G. Dare Fleck.

The studio is practically sound proof. Draperies have been hung on the side walls to improve the studio acoustically. Side lights and ceiling fixtures add materially to the warmth and tone of the room. Two large glass panels have been inserted in the door leading into the studio from the hall so that guests of the hotel may look in upon the artists as the various programs are being broadcast.

A new suite of offices, reception room and studios are now occupied by WIBO, Chicago, on the roof of the new St. Clair Hotel.

Program Cost High

Adelaide Finch, investigating for the National Association of Broadcasters, reports the following figures, from a national analysis, regarding the amounts expended by radio stations for programs, exclusive of operating costs.

500-watt stations average program expenditure, \$11,800. dividual stations vary in expenditures from \$500 to \$36,000.

1000-watt stations average expenditure \$32,000. Individual stations vary from \$10,000 to \$50,-000.

5000-watt stations average expenditure, \$42.000. Individual stations vary from \$18,000 to \$120,000.

Ronnie Tashoff and his orchestra are the latest entertainers to be added to the red network of the National Broadcasting Company.



Questions Regarding Radio Announcers, Artists and Entertainers Will Be Answered, If Possible, in This Department

The "Nutty Club" is sponsored by WBBM, and is on the air after midnight on Sundays. I don't recall just when it started, but it is one of the oldest. I read some time ago that it had over 400,000 members.

The 30-minute men get their name from the fact that they are on the air just one-half hour. They are a regular feature of the Columbia Broadcasting System.

I cannot locate WBOT, New York, or WFAF, Philadelphia. We are inclined to believe you did not get the call letter correctly. Try them again and give us part of their programs and I will attempt to locate them for you.

The Bell Telephone Laboratories recently published a non-technical pamphlet on Television, which was mailed to their stockholders. You can probably obtain a copy by writing their information department at 195 Broadway, New York City.

The Chicago Daily News owns and operates WMAQ and also controls WQJ, the Calumet Baking Powder station, both broadcasting on a frequency of 670 kilocycles. The Columbia system lists WMAQ as their Chicago station, with WQJ carrying the program on Sunday afternoons. WJAZ, which has no connection with either of the other two stations, broadcasts the Sunday night programs. This probably will straighten you out on the Columbia hook-up in Chicago.

A resume of the important events in the history of radio is contained in Radio Service Bulletin No. 129. It gives the high spots in the development of radio broadcasting from 1827 to date. The bulletin is for sale by the Superintendent of Documents, Government Printing Office, Washington, D. C., for 5 cents a copy.

Why Tubes Are Silvered

Many people have wondered why radio tubes are silvered. There are two reasons for this.

It is impossible to obtain a perfect vacuum in a tube, and the remaining air left in it contains impurities which will not only affect results obtained but will also cause the tubes to vary. It is necessary, therefore, that these impurities be removed or their action nullified so that they do not affect the action of the tube. To accomplish this a small amount of magnesium or a similar agent is introduced into the tube. this becomes hot it vaporizes and rapidly combines with the traces of impurities in the air left in the tube. It is this vapor of magnesium that settles on the inside of the tube and gives it its silver color.

The reason for the different colors in the tube is either because a metal other than magnesium was used or is due to the different impurities in the tube at the time it was heated.



Interesting Items of Information Regarding Radio Programs and Newsy Paragraphs From Broadcasting Stations

Sam 'n' Henry, two of radio's best known comedians, have left WGN to become Amos and Andy at WMAQ. They are now on the air each night except Sunday and Wednesday.

Freeman F. Gosden and Charles J. Correll are the creators of Sam 'a' Henry. For the last two years they have broadcast from WGN the adventures of two happy but luckless darkies.

WBAL has named their orchestras. The former Salon orchestra is now known as the "Calvertons," while the dance orchestra is called the "Marylanders," giving the Baltimore broadcasts a decided historic flavor.

Two new stations have been added to the National Broadcasting System hookup. Radio station WOAI, San Antonio, Texas, owned by the Southern Electrical Equipment Co., has joined the red network. This is one of the oldest stations in the Southwest, having been first licensed by the government in October, 1922. The other station is KOA, Denver, Colo., which is one of the several stations owned by the General Electric Company.

The Strolling Players is a new attraction at WBZ-WBZA. This is a group of amateur thespians under the direction of Mrs. Helene M. Bool, presenting a series of one-act plays in regular barnstorming style.

It now only costs \$83 for a three-minute talk to Germany by radio. But if I put in a call it would just be my luck to get the wrong number.

I thought this was pretty good when I wrote it, but O. O. McIntyre goes me one better and says the reply would be "Wrong Country."

The Chicago stations are back on the air, some of them for the first time in five years, with regular programs on Monday nights. Improved receiving sets, together with the recent order clearing many wave channels, have been instrumental in gradually eliminating silent nights. The fear that the Federal Radio Commismight assign their wave sion lengths to others on Monday night was also given as one of the causes for resuming a seven-day schedule in Chicago.

Dr. George W. Young, owner of Station WDGY at Minneapolis. has been sued by Gene Buck, president of the American Society of Composers, Authors and Publishers, for infringement of copyright. It is alleged that the song, "My Blue Heaven," was broadcast without a license from the society by this station last December. This suit is expected to settle the question of the right of broadcasting stations to use songs owned by the society in radio programs without paying a royalty or license.



C. J. MATTHEWS

Recently appointed commercial representative in the mid-west for the National Broadcasting Company, with headquarters in the Chicago studios. Mr. Matthews has lived a greater part of his life in the Mississippi Valley and has had wide experience there in the sales and advertising fields.

QUESTIONS AND ANSWERS

Questions Regarding Operation of Radio Sets Answered Without Charge in This Department

120. The diagram submitted is correct and will make a satisfactory set for reception of nearby stations. It can be built at a very small expense, but do not expect to get DX, as it will not bring in nistant stations.

121. Report your complaint to the power rompany. In most cases they are ready to assist radio listenders and will inspect the line and attempt to locate the trouble.

122. The best way to tune out the offending station is to reduce the length of your antenna. If this does not give satisfactory results install a wave trap, which can easily be made or can be purchased complete for a small sum.

124. A battery that has been used as long as you state is probably worn out. Take it to a battery service station and have an expert examine it.

125. Your set uses storage battery tubes and we recommend you try a type A tube for the detector.

126. An expert can, of course, rewire your set to use A. C. tubes, but we suggest you investigate the device known as an "A. C. Harness." There are several makes now on the market.

127. One or more of your tubes are defective. Have them tested.

128. An indoor antenna is not recommended for use with your set. You can use wires around the molding if you have no other option, but reception will not be satisfactory.

129. We know of no device that will successfully eliminate static, but we have heard very little static complaint with any of the late model receivers.

130. Try a type 300 A tube in your detector socket.

131. Those who have used underground antennae say it satisfactorily eliminates static. As most manufacturers will ship an outfit on trial. you can test it for yourself.

New Tube Announced

Will Provide Much Greater Volume Without Distortion

A still larger and more powerful amplified radiotron is announced by the Radio Corporation of America. It is designated as the UX-250 power amplifier radiotron, and is capable of delivering over three times as much undistorted energy as the UX-210. long the favorite power amplifier tube for maximum volume and tone quality in home reception.

This new tube will provide a far greater loudspeaker volume, without distortion, than has heretofore been possible, especially in conjunction with auditorium loudspeakers and in the operation of a plurality of loudspeakers from a common amplifier, as in hospital and exposition work. It is interesting to note that while the plate voltage has not been materially increased over that of the UX-210, the required plate current is three times as great as for the UX-210. Obviously, while the new tube is capable of enormous volume-far more than can be utilized in the largest of living rooms-it is unnecessary to operate it at full output. Instead, it may be employed at but a fraction of its full capacity, thus securing undistorted output at all times with ample reserve power. It is this service of power which gives that character to reproduction often referred to as "depth" or "timbre."

Log of Broadcasting Stations

Complete Directory of All Radio Broadcasting Stations, Giving Call Letters, Frequency, Power, Location and Owner

KDKA 950kc 315.6m 50.000w East Pittsburgh, Pa. Westing. E. & M. Co.	KFDX 1270kc 236.1m 250w Shreveport, La. First Baptist Church.
KDLR 1300kc 230.6m 15w Devil's Lake, N. D. Radio Electric Co.	KFDY Brookings, S. D. State College.
KDYL 1160kc 258.5m 100w Salt Lake City, Utab. Interm. Bdg. Corp.	KFDZ 1390kc 215.7m 10w Minneapolis, Minn. Harry O. Iverson.
Burbank, Cal. Earl L. White	Portland, Ore. Meier & Frank Co.
Portland, Ore. Western Broadcasting Co.	Los Angeles, Cal. Lang & Scott.
Lincoln, Nebr. Nebraska Buick Auto Co.	Denver, Colo. Eugene P. O Fallon, Inc.
Phoenix, Ariz. Electrical Equipment Co.	St. Joseph, Mo. Scroggins & Co. Bank
Boise, Idaho. 1050kc 285.5m 2,000w Independent School District.	Keliogg, Idaho. Union High School.
Havre, Mont. F. A. Buttrey Co.	Boone, Iowa. Boone Biblical College.
San Diego, Cal. Dr. Arthur W. Yale.	Wichita, Kans. Hotel Lassen.
San Francisco, Cal. Flying Broadcasters, Inc.	KFHA 1200kc 249.9m 59w Gunnison, Colo. Western State College.
Sacramento, Cal. Kimball Upson Co.	Oskaloosa, Iowa. Penn College.
Everett, Wash. Leese Bros.	Los Angeles, Cal. Earl C. Anthony, Inc.
Laramie, Wyo. St. Matthew Cathedral. KFCB	Portland, Ore. 1310kc 228.9m 50w Benson Polytechnic Inst.
Phoenix, Ariz. Nielsen Radio Supply Co.	Spokane, Wash. North Central High School.
Santa Barbara, Cal S. B. Broadcasting Co.	Juneau, Alaska. Light & Power Co.
Beaumont, Tex. Magnolia Petroleum Co.	Fon du Lac, Wis. Daily Commonwealth.

PAGE SEVENTEEN

IZELEN	
KFJB 1210kc 247.8m 100w	KFOX 1160ke 258.5m 100w
Marshailtown, Iowa. Electric Co.	Omaha, Neb. Technical High School.
KFJF 1100kc 272.6m 750w	Dublin, Tex. C. C. Baxter.
Oklahoma City, Okla. Nat. Radio Mfg. Co.	
KFJI 1200kc 249.9m 15w	KFPM 1300kc 230.6m 15w Greenville, Tex. New Furniture Co.
Astoria, Ore. E. E. Marsh	- I tow I didnoted Oo.
KFJM 900kc 838.1m 100w	KFPR
Grand Forks, N. D. State University.	1290kc 232.4m 250w Los Angeles, Cal. County Forestry Dept.
KFJR 1250kc 339.9m 500w	KFPW
Portland, Ore. Ashley C. Dixon & Son.	Carterville, Mo. Lannie W. Stewart.
KFJY 1290kc 232.4m 100w	KFPY
Fort Dodge, Iowa. Tunwall Radio Co.	1220kc 245.8m 250w Spokane, Wash. Symons Investment Co.
KFJZ 1800ha 240.0-	
Fort Worth, Tex. W. E. Branch.	St. Louis, Mo. The Principia.
KFKA 1200kc 249.9m 500w	Fort Worth Tay W B Wishbarn 1,000w
Greeky, Colo. State Teachers College.	Fort Worth, Tex. W. B. Fishburn, Inc.
KFKB 1240ke 241.8m 1,500w Milford, Kans. Dr. J. R. Brinkley.	KFQD 870kc \$44.6m 100w
Milford, Kans. Dr. J. R. Brinkley.	Anchorage, Alaska, Anchorage Radio Club
KFKI]	KFQU 1440kc 208.2m 100w
Lawrence, Kans. State University.	Holy City. Calif. W. E. Riker.
KFKX	KFQW 1380kc 217.3m Seattle, Wash, KFQW, Inc.
Chicago, Ill. Westing. Elec. & Mfg. Co.	Seattle, WashKFQW, Inc.
KFK7	Hollywood, Cal. Taft Radio Co.
1330kc 225.4m 15w Kirksville, Mo. State Teachers College.	KERC
KRLV	San Francisco, Cal. Don Lee, Inc.
Rockford, Ill. Swedish Evang. Church.	KFRII
KRLX	Columbia, Mo. Stephen's College.
Galveston, Tex. George R. Clough.	KESD
KEMD	San Diego, Cal. Air Fan Radio Corp.
Sloux City, Iowa. Morningside College.	KFSG 1190ke 252m 500w
KEMV	Los Angeles, Cal. Echo Park Evan. Assn.
Northfield, Minn. Carleton College.	KFUL 1160kc 258.5m 500w
KENE	Garventon, 1ex. Goggan Music Co.
Shenandoah, Iowa. Henry Field Seed Co.	Calmada Springs, Colo. Corley Mtn. Highway.
KFOA	Coloredo Springs, Colo. Corley Mtn. Highway.
Seattle, Wash. Rhodes Dept. Store.	Aruu 550ke 545.1m 1,000w
KEON	St Lovis, Mo. Concordia Seminary.
Long Beach. Cal. Nichols & Warriner, Inc.	Denver, Colo. Fitzsimmons General Hospital.
KFOR	KEUR
Lincoln, Neb. Howard A. Shuman	Ogden, Utah. Perry Building Co., Inc.
DAGE EVOLUMENT	

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KFUS Oakland, Cal. Dr. L. L. Sherman. 50w	KGAR 1280kc 234.2m 100w
Oakland, Cal. Dr. L. L. Sherman. KFUT 1200kc 249.9m 50w	Tuscon, Ariz. Tucson Citizen. KGBU 1310kc 228.9m 500w
Salt Lake City, Utah. State University.	Ketchikan, Alaska Radio Co.
Venice, Cal. McWhinnie Elec. Co.	NUDA 1040kc 288.3m 100w St. Joseph, Mo. Foster Hall Tire Co., Inc.
KFVG 1330kc 225.4m 50w Independence, Kan. First M. E. Church.	KGBY 1350kc 222.1m 50w Columbus, Neb. Dunning & Taddiken.
KFVI 1260kc 238m 50w Houston, Tex. 56th Cavalry.	KGBZ 1410kc 212.6m 100w York, Neb. Dr. Geo. R. Miller.
KFVS 1340kc Cape Girardeau, Mo. 223.7m Hirsch Radio Co.	KGCA Decorah, Iowa. Charles W. Greenley. 10w
KFWB 850kc 352.7m 500w Warner Bros. Pictures	KGCB 1890kc 215.7m 50w Oklahoma City, Okla. Wallace Radio Inst.
KFWC 1210kc 247.8m 100w Ontario, Cal. L. E. Wall.	KGCH 1020kc 293.9m 256w Wayne, Neb. Wayne Hospital.
KFWF 1400kc 214.2m 250w St. Louis, Mo. St. Louis Truth Center.	KGCI 1360kc 220.4m 100w San Antonio, Tex. Liberty Radio Sales
KFWI 1120kc 267.7m 500w San Francisco, Cal. Radio Enter., Inc.	KGCL 1300kc 230.6m 100w Seattle, Wash. Wasmer & Taft.
KFWM 1270kc 236.1m 500w Oakland, Cal. Oakland Educational Society.	KGCN 1440kc 208.2m 50w Concordia, Kan. Concordia Broadcasting Co.
KFWO 1000kc 299.8m 250w Avalon, Cal. Major Lawrence Mott.	KGCR 1440kc 208.2m 15w Brookings, S. D. Cutler's Radio Service.
Jaroma, Ida. Service Radio Co.	KGCU 1250kc 239.9m 150w Mandan, N. D. Mandan Radio Assn.
Denver, Colo. 1060kc 282.8m 250w Colorado Radio Corp.	KGCX 1230kc 243.8m 10w Vida, Mont. First State Bank.
Ldgewater, Colo. R. G. Howell. 50w	KGDA 1180kc 254.1m 15w Dell Rapids, S. D. Home Auto Co.
Oklahoma City, Okla. Exch. Ave. Bapt. Ch.	KGDE 1460kc 205.4m Sew Barrett, Minn. Jaren Drug Co.
KFXY Flagstaff, Ariz. 1460kc 205.4m 25w M. M. Costigan.	KGDM 1889kc 217.8m 10w
KFYO 1420kc 211.1m 15w Breckenridge, Tex. Kirksey Bros.	KGDP 1840kc 223.7m Pueblo, Cole. Boy Scouts of America.
KFYR 1200kc 249.9m 250w Bismark, N. D. Hoskins-Meyer, Inc.	KGDR 1450kc 206.8m Sen Antonio. Tex. Radio Engineers.
KGA 1150kc 260.7m 2.000w Spokane, Wash. Northwest Radio Service.	KGDW 1020kc 293.9m 100w Humboldt, Neb. Frank J. Rist.
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KGDX Shreveport, La. 1410kc 212.6m W. E. Anthony. 250w	KGFL 1350kc 222.1m Raton, N. Mex. Broadcasting Co.
KGDY Oldham, S. D. J. Albert Loesen.	KGFM 1420kc 211.1m Yuba City, Cal. George W. Johnson.
KGEF 1140kc 263m 1,000w Los Angeles, Cal. Trinity Methodist Church.	
KGEK Yuma, Colo. Beehler Electric Co.	KGFO Terre Haute, Ind. Brant Radio Co. KCFP
KGEN 1380kc 225.4m 15w El Centro, Cal. E. R. Irey & F. M. Bowles.	KGFP Mitchell, S. D. Mitchell Broadcasting Co.
KGEO 1460kc 205.4m 100w Grand Island, Neb. Hotel Yancey.	Ravenna, Neb. Otto F. Sothman. KGFX Pierre, S. D. Dana McNeil
Minneapolis, Minn. Fred W. Herrmann.	KCCF
KGER 1890kc 215.7m 100w Long Beach, Cal. C. Merwin Dobyns.	KCCH
KGES 1470kc 204m 10w Central City, Neb. Central Radio Co.	KGGM 1470kg 204m 100m
AGEU 1320kc 227.1m 50w	Inglewood, Cal. Jay Peters. KGHA 1430kc 209.7m Pueblo, Colo. Sweeney & Walpole.
KGEW 1870kc 218.8m 100w Fort Morgan, Colo. City of Fort Morgan.	KGHB 1320kc 227.1m 250w Honolulu, Hawaii. Radio Sales Co.
KGEZ 1020kc 298.9m 100w Kalispe'l. Mont. Flathead Bdg. Co.	KGHC 1430kc 209.7m 15w Slavton, Minn. Hersted Radio Co
KGFB 1340kc 223.7m 10w Iowa City, Iowa. Albert C. Dunkel. KCFF	KGHF Pueblo, Colo. Lasky & Albert.
KGFF Alva, Okla. Earl E. Hampshire. KGFG 1390kc 215.7m 50w Oklahoma City, Okla. Full Gospel Church.	Hardin, Mont. American Legion.
Oklahoma City, Okla. Full Gospel Church. KGFH 1140kc 263m 250w La Crescanta, Cal. Frederick Roberson	780kc 384.4m 5,000w Oakland, Cal. General Electric Co.
La Crescanta, Cal. Frederick Roberson KGFI 1360kc 220.4m 15w	San Antonio, Tex. Gene Roth & Co.
KGFJ 1410kc 212.6m 100w	Amariño, Tex. Gish Radio Service. KGTT 1360kc 220.4m 50w
KGFK 1340kc 223.7m Hallock, Minn. Kittson County Enterprise.	KGU 1110kc 270.1m 600w
winne Arteson County Enterprise.	Honofulu, Hawaii. Marion A. Mulrony.

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TOTAL	KMMT
Fortland, Ore. The Oregonian.	1050kc 285.5m 250w
KGY 1220kc 245.8m 50w Lacey, Wash. St. Martin's College.	KMO 1180kc 254.1m 500w kMO, Inc.
KHJ 750kc 399.8m 1,000w Los Angeles, Cal. Don Lee, Inc.	St Louis, Mo. Voice of St. Louis, Inc.
KHMC 1270kc 236.1m 100w Hartingen, Tex. Harlingen Music Co.	KMTR 570kc 526m 500w Los Angeles, Cal. KMTR Radio Corp.
KHQ Spokane, Wash. Louis Wasmer, Inc.	KNRC 800kc 374.8m 500w Santa Monica, Cal. Clarence B. Juneau.
Red Oak, Iowa. Atlantic Automobile Co.	KNX 890kc 336.9m 500w Los Angeles, Cal. Los Angeles Express.
KJBS 1360kc 220.4m 100w San Francisco, Cal. J. Brunton & Sons.	KOA Denver. Colo. 920kc 325.9m 5,000w General Electric Co.
KJR 860kc 348.6m 2,500w Seattle, Wash. Northwest Radio Service Co.	KOAC Corvallis, Ore 1110kc 270.1m 500w Oregon Agricultural College.
KKP 1480kc 202.6m 15w Seattle, Wash. City Harbor Department.	KOB 1050kc 285.5m 5,000w State College, N. M. College of Agriculture.
KLCN 1050kc 285.5m 50w Blytheville, Ark. Courier-News.	KOCH Omaha, Neb. Central High School. 250w
KLDS 1110kc 270.1m 1,500w Independence, Mo. Church of Jesus Christ.	KOCW 1190kc 252m 250w Chickasaw, Okla. College for Women.
Fortland, Ore. Louis E. Thompson.	KOIL 940kc 319m 5.000w Courcil Bluffs, lowa. Mona Motor Oil Co.
KLS Oskland, Cal. 1220kc 245.8m 250w Warner Brothers.	Portland, Ore. KOIN, Inc.
KLX 590ks 508.2m 500w Oakland, Cal. The Tribune.	Seattle, Wash. Fishers Blend Station.
KLZ 850kc 352.7m 1.000w Dupont, Colo. Reynolds Radio Co., Inc.	Eugene, Ore. Eugene Broadcasting Station.
KMA 760kc 394.5m 1,000w Shenandoah, Iowa, May Seed & Nursery Co.	Denver, Colo. Olinger Corp. Broadcasting.
KMBC 1110kc 270.1m 1,500w	Seattle, Wash. Pacific Coast Biscuit Co.
Medford, Ore. W. J. Virgin. 50w	Prescott, Ariz. Wilburn Radio Service.
Inclewood, Cal. J. R. Fouch. 250w	Los Angeles, Cal. Bertram O. Heller.
Fresno, Cal. The Fresno Bee. 50w	Muscatine, Iowa. Central Radio Co.
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KPO 710kc 422.8m 1,000w San Francisco, Cal. Chronicle and Hale Bros.	
KPOF Denver, Colo. Pillar of Fire, Inc. 500w	KTAP 1810ks 228.9m 20-
KPPC 950ke 315.6m 50w	San Antonio, Texas. Robert B. Bridge. KTBI 1090kc 275.1m 1,000w
Pasadena, Cal. Presbyterian Church. KPRC 1020kc 293.9m 500w Houston, Texas. The Post-Dispatch.	KTBR 1810kc 228.9m
KPSN 950kc 315.6m 1,000w Pasadena, Cal. The Star-News.	KTHS 780kc 884.4m 1 000
KQV 1110kc 270.1m 500w Pittsburgh, Pa. Doubleday Hill Electric Co.	Hot Springs, Ark. New Arlington Hotel. KTNT 1170kc 256.3m 2,000w
KQW 1010kc 296.9m 500w San Jose, Cal. First Baptist Church.	KTSA 1130ks 285 3m 2000-
KRAC 1860kc 220.4m 50w Shreveport, La. Caddo Radio Club.	San Antonio, Tex. Lone Star Broadcast Co. KTUE 1410kc 212.6m
KRE 1220kc 245.8m 100w Berkeley, Cal. Congregational Church.	KTW 760kc 894.5m 1.000=
KRLD Dallas, Texas. KRLD, Inc. 500w	Seattle, Wash. Presbyterian Church. KUJ 1500kc 199.9m 10w
Seattle, Wash. Radio Sales Corp.	KUOA 1010kc 296.9m 500w Fayetteville, Ark. University of Arkansas.
Manhattan, Kans. Agricultural College.	KUOM 650kc 461.3m 500-
Shreveport. La. W. G. Patterson.	KUSD 620kc 483.6m 250w Vermillion, S. D. University of South Dak.
1230kc 243.8m 500w Sinux City, Iowa. Perkins Bros. Co.	KUT 1290kc 232.4m 500w Austin, Texas. University of Texas.
St. Louis. Mo. Post-Dispatch.	KVI 1060kc 282.8m 250w Tacoma, Wash. Puget Sound Brd. Co.
Pocatello, Idaho. KSEI Broadcasting Assn. KSL 990kc 302.8m 1,000w	KVL 1480kc 202.6m 100w Seattle, Wash. A. C. Dalley.
KSMR 1100kc 272.6m 100w	KVOO 860kc 348.6m 1,000w
KSO 1820kc 227.1m 500w	KVOS 1430kc 209.7m 250w Bellingham, Wash. L. Kessler.
KSOO 1430kc 209.7m 250w	KWBS 1500kc 199.9m 15w
KSTP 1250kc 222.1m 2,000w St. Paul, Minn. Maurice G. Goldberg.	KWCR 1250kc 239.9m 250w, Cedar Rapids, Iowa. H. F. Paar.
PAGE TWENTY-TWO	compress, system al. E. Eddi.

KWG 870kc 344.6m 50w	WAAD 1300kc 230.6m 25w
Stockton, Cal. Portable Wireless Telephone. KWJJ 1200kc 249.9m 50w	WAAF 770kc 389.4m 500w
Portland, Ore. Wilbur Jerman. KWK 1280kc 234.2m 1,000w St. Louis. Mo. Benson Bdg. Co.	WAAM 1120kc 267.7m 250w
KWKC 1350kc 222.1m 100w Kansas City, Mo. Wilson Duncan Studios.	WAAT 25-26 Jersey City, N. J. Bremer Bdg, Corp.
KWKH 760kc 394.5m 1,000w Shreveport, La. W. K. Henderson.	WAAW 680kc 440.9m 500w
KWLC 1210kc 247.8m 50w Decorah, Iowa. Lutheran College.	WABC 970kc 309.1m 2,500w
KWSC 760kc 394.5m 500w Pullman, Wash. State College.	WABF 1460kc, 205.4m 250w
Santa Ana, Cal. John Wesley Hancock.	Pringleboro, Pa. Markle Bdg. Corp. WABI 770kc 389.4m 100w
Le Mars, Iowa. Western Union College.	WABO 1180kc 254.1m 250w
Brownsville, Tex. Lone Star Broadcast Co.	WABW 1210kc 247.8m 50
Seattle, Wash. American Radio Tele. Co.	Wooster, Ohio. College of Wooster. WABY 1210kc 247.8m 50w
Portland, Ore. KXL Broadcasting Corp. KXRO 1340kc 223.7m 50w	Philadelphia, Pa. John Margaldi, Jr. WABZ 1260kc 288m 50w
Aberdeen, Wash. KXRO, Inc. KYA 830kc 361.2m 1,000w	WADC 1260kc 238m 1,000w
San Francisco, Cal. Pacific Bdg. Corp. KYW 570kc 526m 5,000w	WAFD 1280kc 243.8m 100w
Chicago, In. Westinghouse E. & M. Co. KZIB 1200kc 249.9m 20w Manila, P. I. J. Beck, Inc.	Detroit, Mich. Albert B. Parfet Co. WAGM 1380kc 225.4m Royal Oak, Mich. Robert L. Miller.
KZKZ 1110kc 270.1m 100w Manila, P. I. Electrical Supply Co.	WAIT 1400kc 214.2m 10w Taunton, Mass. A. H. Weite & Co.
KZM 1440kc 208.2m 100w Oakland, Cal. Preston D. Allen.	WAIU 1060kc 282.8m 5,000w Columbus, Ohio. American Insurance Union.
KZRQ 750kc 399.8m 500w Manila, P. I. Far Eastern Radio, Inc.	WAIZ 1320kc 227.1m 100w Appleton, Wis. Zuelke Music Studio.
NAA 690kc 434.5m 1,000w Arlington, Va. Naval Radio Station.	WALK 1490kc 201.2m 50w Willow Grove, Pa. Albert A. Walker.
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WADI	TYPE
WAPI 880kc 340.7m 1,000w Auburn, Ala. Polytechnic Institute	WBES 1130kc 265.3m 100w
WADC	Takoma Park, Md. Bliss Electrical School.
Brooklyn, N. Y. Amateur Radio Spec. Co.	WBET 1040kc 288.3m 500w
WASH	Boston, Mass. Boston Transcript.
Grand Rapids, Mich. Baxter Laundries, Inc.	Boston, Mass. Shepard Stores.
WATT	WRKN
Boston, MassEdison Electric Co.	Brooklyn, N. Y. Arthur Faske.
WBAA 1100kc 272.6m 500w	WBMH
West Lafayette, Ind. Purdue University.	Detroit, Mich. Rraun's Music House.
WBAK 1000kc 299.8m 500w	WBMS 1500kc 199.9m 100w
Harrisburg, Pa. Penn. State Police.	New York City. George J. Schowerer,
Baltimore, Md. Gas & Power Co.	WDN I 1270kc 236 lm 500=
WRAO	New York, N. Y. Baruchrome Corp.
Decatur, Ill. James Milliken University.	Richmond Hill, N. Y. Atlantic Bdg. Corp.
WRAP	WRRC
Fort Worth, Texas. Carter Publications,	Birmingham, Ala. Birmingham Bdg. Co.
WBAW 1250kc 239.9m 500w	WRRE
Nashville, Tenn. Waldrum Drug Co	Wilkes-Barre, Pa. Baltimore Radio Ex.
WBAX 1200kc 249.9m 100w	WBRL 1290kc 232.4m 500w
Wilkes-Barre, Pa John H. Stenger, Jr.	Tilton, N. H. Booth Radio Laboratory,
Brooklyn, N. Y. Brooklyn Bdg. Corp.	WBRS 1420kc 211.1m 100w
WRRI.	Brooklyn, N. Y. North American Bdg. Corp.
Richmond, Va. Grace Covenant Church.	Wellesley Hills, Mass. Babson Organization.
WBBM	WRT 20 - 25
Chicago, Ill. Atlas Investment Co.	Charlotte, N. C. C. C. Coddington.
WBBP 1250kc 239.9m 100w	WRZ
Petoskey, Mich. Petoskey High School. WRRR /よー/6	900kc 333.1m 15,000w Springfield, Mass. Westinghouse E. & M. Co.
1170kc 256.3m 1,000w	WBZA 900kc 331.1m 500w
Rossville, N. Y. Peoples Pulpit Assn.	Boston, Mass. Westinghouse E. & M. Co.
WBBW 1270kc 236.1m 100w Norfolk, Va. Ruffner Junior High School.	WCAC 560kc 535.4m 500#
WRRY	WCAD
Charleston, S. C. Wash. Light Infantry.	1280kc 234.2m 250w Canton. N. Y. St. Lawrence University.
WBBZ 1470kc 204m 100w	WCAE 650kc 461.8m 500w
Chicago, Ill. C. L Carroll.	Pittsburgh, Pa. Kaufman & Baer Co.
VIDON 1040kc 288.3m 250w Chicago, Ill. Great Lakes Bdg. Co.	WUAH 1280kc 248.8m 500w Columbus, Ohio. C. A. Entrekin.

WCAJ 790kc 379.5m 500w Lincoln, Neb. Wesleyan University.	WCLS 1390kc 215.7m 150w Joilet, Ill. M. A. Felman Co.
WCAL 1050kc 285.5m 500w Northfield, Minn. St. Olaf College.	WCMA 1150kc 260.7m 500w Culver, Ind. Culver Military Academy.
WCAM 1340kc 223.7m 500w Camden, N. J. City of Camden.	WCOA 1200kc 249.9m Pensacola, Fla. City of Pensacola.
WCAO 1230kc 243.8m 250w Baltimore, Md. Monumental Radio, Inc.	WCOC 1300kc 230.6m 250w Columbus, Miss. Crystal Oil Co.
WCAP 1250kc 239.9m 500w Asbury Park, N. J. Radio Industries Bd. Co.	WCOT · 1330kc 225.4m 100w Providence, R. I. Jacob Conn.
WCAT 1210kc 247.8m 100w Rapid City, S. D. School of Mines.	WCRW 1340kc 223.7m 500w Chicago, Ill. Clinton R. White.
WCAU 20-23 1150kc 250.7m 500w Philadelphia, Pa. Universal Bdg. Co.	WCSH 820kc 365.5m 500w Portland, Maine. Congress Square Hotel.
Burlington, Vt. University of Vermont.	WCSU 1170kc 256.3m 500w Springfield, Ohio. Wittenberg College.
Carthage, Ill. Carthage College.	WCWK 1400kc 214.2m 250w Fort Wayne, Ind Chester W Keen
Allentown, Pa. Chas. W. Heimback.	Danhury, Conn. Conn. Bdg. Co.
WCBD . 870kc 844.6m 5,000w Zion, Ill. W. G. Voliva.	WCX 680kc 440.9m 5,000w Detroit, Mich. Free Press.
New Orleans, La. Uhalt Radio Co.	WDAE 1120kc 267.7m 500w Tampa, Fla. Tampa Times.
WCBN 1380kc 225.4m 100w Baltimore, Md. Hotel Chateau.	WDAF 810kc 370.2m 1,000w Kansas City, Mo. Kansas City Star.
Providence, R. I. C. H. Meester.	WDAG 1140kc 263m 250w Amar'llo, Texas. J. Lawrence Martin.
Springfield, Ill. Dewing and Meester.	WDAH 1280kc 234.2m 100w El Paso, Texas. Trinity Methodist Church.
MplsSt. Paul, Minn. Washburn-Crosby Co.	WDAY 550kc 545.1m 250w Faren, N. D. Radio Equipment Corp.
WCDA 1420kc 211.1m 250w Brooklyn, N. Y. Italian Bdg. Co.	Roangle, Va. Richardson-Wayland E. Co.
Chicago, Ill. Chicago Federation of Labor.	Orlando, Fla. Orlando Bdg. Co., Inc.
Sea Gate. N. Y. Charles G. Unger.	WILL 1010kc 296.9m 100w Wilmington, Del. Elec. Specialty Co.
W LU 1320ke 227.1m 100w ha, W15. C. E. Whitmore.	Minneapolis, Minn. Dr. George W. Young. PAGE TWENTY-FIVE
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WDOD /2 -/8 1230kc 248.8m 500w	WENR 25 - 27
Chattanooga, Tenn. Chattanooga Radio Co.	Chicago, Ill. Great Lakes Bdg. Co.
WDRC 1060kc 282.8m 500w	WEPS 1010kc 296.9m 100w
New Haven, Conn. Doolittle Radio Corp.	Gloucester, Mass. Matheson Radio Co.
WDW r 1210kc 247.8m 250w Cranston, R. I. Dutee W. Flint.	WEVD 1220kc 21-23 245.8m 500w Woodhaven, N. Y. Debs Radio Fund.
WDZ	WEW
Tuscola, Ill. James L. Bush.	St. Louis, Mo. St. Louis University.
WEAF 610kc 491.5m 50,000w	WFAA 550kc 545.1m 500w
New York, N. Y. National Dug. Co.	
WEAM	WFAM 1190kc 252m 10w
North Plainfield, N. J. City of N. Plainfield.	St. Cloud, Minn. Times Publishing Co.
WEAN 1090kc 275.1m 500w	WFAN
Providence, R. I. The Shepard Stores.	Philadelphia, Pa. Keystone Bdg. Co.
WEAO 1060kc 282.8m 750w	WFBC 1280kc 234.2m 50w
Columbus, Ohio. Ohio State University.	Knozvine, lenn. First Daptist Church.
WEAR 750kc 399.8m 1,000w	WFRE 1220kc 245.8m 250w Cincinnati, Ohio Garfield Place Hotel.
Cleveland, Ohio. Willard Battery Co.	
WEBC 1240kc 241.8m 250w	WFBG 1120kc 267.7m 100w
Superior, Wis. Walter C. Bridges.	Altoona, Pa. Wm. F. Gable Co.
WEBE 1210ke 247.8m 10w	WFBJ
Cambridge, Ohio. Ray W. Waller.	1100kc 272.6m 100w Collegeville, Minn. St. John's University.
WEBH 820kc 365.6m 500w	WFBL 1160kc 258.5m 750w
Chicago, Ill. Edgewater Beach Hotel.	Syracuse, N. Y. The Onondaga Hotel.
WEBJ 1170ke 256.8m 500w	WFBM 1090kc 275.1m 1,000w
New York, N. Y. Third Avenue Railway.	Indianapolis, Ind. Heat & Light Co.
WEBQ 1340kc 223.7m 15w	WFBR 1280kc 248.8m 100w Baltimore, Md. Baltimore Radio Shop.
WEBR 1240kc 241.8m 200w	WFBZ 1210ke 247.8m 50w
	Galesburg, Ill. Knox College.
WEBW 1160ke 258.5m 500w	WFCI 1240ke 241.8m 100w
Beloit, Wis. Beloit College.	Pawtucket, R. I. Frank Crook, Inc.
WEDC 1240kc 241.8m 500w Chicago, Ill. Emil Denemark.	WFDF 1100kc 272.6m 100w
Chicago, Ill. Emil Denemark.	Fint. Mich. Frank D. Fallain.
WEEL 590ke 508.2m 500w	WF1 740kc 405.2m 500w
Roston, Mass. Edison Electric Co.	Philadelphia, Pa. Strawbridge & Clothier.
WLHS 1890kc 215.7m 100w	WFIW 1150ke 260.7m 750w
Evanston, Ill. Victor C. Carlson Org., Inc.	Hopkinsville, Ky. Acme Mills.
Berrien Springs, Mich. Emanuel College.	WrJU 1820kc 227.1m 500w Akron, Ohio. W. F. Jones
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WWW	
	00w WGWB 1110kc 270.1m 250w
Chicago, Ill. Francis K. Bridgman.	Milwaukee, Wis. Evening Wisconsin.
WTAD 1210kc 247.8m Philadelphia, Pa. Foulkrod Radio Co.	50w YYUI 790ke 379.5m 50,000w Schenectady, N. Y. General Electric Co.
WFT.A	WHA
Clearwater, Fla. Chamber of Commerce.	Madison, Wis. University of Wisconsin.
	WHAD 1110ke 270.1m 500w
Lancaster, Pa. Lancaster Elec. Supply	WHAM 30-24
Freeport, N. Y. Harry J. Carmen.	1070kc 280.2m 5,000w Rochester, N. Y. Stromberg-Carlson Mfg. Co.
WGBC 1310kc 228.9m	WHAP
Memphis, Tenn. First Baptist Church.	New York, N. Y. Defenders of Truth Soc.
	50w WHAS 930kc 322.4m 500w
Evansville, Ind. Finke Furniture Co.	Louisville, Ky. Courter Journal & Times.
Scranton, Pa. Scranton Broadcasters.	Froy, N. Y. Rensselser Poly. Institute.
WGBS 860kc 848.6m 50	··- WHR
New York City. Gimbel Brothers, Inc.	Kansas City, Mo. Sweeney Auto School.
VY GUIVI 1350kc 222.1m Gulfport, Miss. Gulf Coast Music Co.	WHBA 1150kc 260.7m 10w
WGCP	Oil City, Pa. C. C. Shaffer.
Newark, N. J. May Radio Bd. Corp.	Canton, Ohio. St. Johns Catholic Church.
WULD 1240kc 241.8m 50 Chicago, III. Onk Leaves Bd. Corp.	• WHRD
WGHP	Bellefontaine, Ohio. Chamber of Commerce.
Detroit. Mich. George H. Phelps, Inc.	WIDT 1850kg 222 lm 100-
WGL 1020kc 293.9m 1.00 Secretion N. J. International Bd. Corp.	
i i WGM	Shehoygan, Wis. Press. 250w
Janette Pa. Verne and Elton Spencer.	WHBM _{1490kc} 201.3m 100w
WUND 1220kc 245.8m 50	Chicago, Ill. C. L. Carrell.
WCMII	WHBN 1010kc 269.9m 10w
New York, N. Y. Atlantic Bd. Corp.	Gainesville, Fla. State University. WHRP
WGN 720ke 416.4m 50	1310kc 228.9m 250w Ow Johnstown, Pa. Johnstown Automobile Co.
WGOP	WHBQ 1290kg 222 47
New York City. Frederick B. Zittell.	Memphis, Tenn. WHBQ, Inc.
	0w Anderson, Ind. Citizens Bank.
Buffalo, N. Y. Federal Radio Corp.	WHRW
Atlanta, Ga. Ga. School of Technology	0w 1360kc 220.4m 100w Philadelphia, Pa. D. R. Kiensle.
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WHBY 1200kc 249.9m 50w West De Pere, Wis. St. Norbert's College.	WIBX Utica, N. Y. WIBX, Inc. 150w
WHDI 1220kc 245.8m 500w Minneapolis, Minn. Dunwoody Institute.	WIBZ 1300kc 230.6m Montgomery, Ala. A. D. Trum.
WHEC 1180kc 254.1m 500w Rochester, N. Y. Hickson Elec. Co.	WICC 1130kc 265.3m 500w Bridgeport, Conn. Bridgeport Bdg. Station.
Chicago, Ill. Goodson and Wilson.	St Louis, Mo. Benson Radio Bdg. Co.
WHK 1180kc 265.3m 500w Cleveland, Ohio. Radio Air Service Corp.	WIOD 1210kc 247.8m 1000w Miami, Fla. Carl G. Fisher.
WHN 760kc 394.5m 500w New York, N. Y. Geo. Schubel.	WIP Philadelphia, Pa. Gimbel Bros.
WHO Des Moines, Iowa. Bankers Life Co.	WJAD 900kc 333.1m 500w Waco, Tex. Frank P. Jackson.
New York, N. Y. Bronx Broadcasting Co.	WJAG 1050kc 285.5m 500w Norfolk, Nebr. The Daily News.
WHT 980kc 305.9m 5,000w Chicago, Ill. Radiophone Bdg. Corp.	WJAK 1280kc 234.2m Kokomo, Ind. J. K. Kentz.
WIAD 1040kc 288.3m 100w Philadelphia, Pa. Howard R. Miller.	WJAM 1250kc 239.9m 250w Cedar Rapids, Iowa, D. M. Perham.
WIAS 930kc 322.4m 100w Ottumwa, Iowa. Poling Electric Co.	WJAR 620kc 483.6m 500w Providence, R. I. The Outlet Company.
WIBA Madison, Wis. Capital Times. 100w	WJAS 1110kc 270.1m 500w Pittsburgh, Pa. Radio Supply House.
WIBG Philadelphia, Pa. St. Paul P. E. Church.	WJAX 880kc 340.7m 1,000w Jacksonville, Fla. City of Jacksonville.
WIB) 1490kc 201.2m 100w Chicago, Ill. C. L. Carrell.	WJAY 1320ks 227.1m 500w Cleveland, Ohio. Radio Broadcasting Co.
WIBM 1490kc 201.2m 100w Chicago, Ill. C. L. Carrell.	WJAZ 1140kc 263m Chicago, Ill. Zenith Radio Corp. 5,000w
WIBO 980kc 305.9m 5,000w WIBO, Inc.	WJBA 1210kc 247.8m 50w Joliet. IR. J. H. Lentz, Jr.
WIBR 1200kc 249.9m 50w Steubenville, Ohio. T. A. Owings.	WJBB 870kc 844.6m 250w Amore College.
WIBS 1470kc 204m 250w Elizabeth, N. J. N. J. Broadcasting Corp.	WJBC 1320kc 227.1m 100w La Salle, Ill. Hummer Furniture Co.
WIBU 1880kc 217.3m 20w Provnette. Wis. State Journal.	WJBI 1140kc 263m 250w Red Bank, N. J. Robert S. Johnson.
WIBW 1470kc 204m 100w Chicago, Ill. C. L. Carrell.	WJBK 1360kc 220.4m 15w Ypsilanti, Mich. Ernest F. Goodwin.

WIRL	WKRH
Decatur, Ill. Wm. Gushard Dry Goods Co.	La Crosse, Wis. Calloway Music Co.
WJBO 1140kc 263m 100w	WKBI 1390kc 215.7m 50w
New Orieans, La. Valdemar Jensen.	Chicago, In. Fred E. Schoenwohf.
WJD1 770kc 389.4m 500w Chicago, Ill. John S. Boyd.	WKBL 1460kc 205.4m 15w Monroe, Mich. Monronia Radio Mfg. Co.
WIRI	Monroe, Mich. Monronia Radio Mfg. Co.
Lewisburg, Pa. Bucknell University.	WKBN 1400kc 214.2m 50w Youngstown, Ohio. W P. Williamson, Jr.
WJBW 1260kc 238m 80w	WKBO 1370kc 218.8m 500w
New Orleans, La. C. Carlson, Jr.	Jersey City, N. J. Camith Corp.
Gadsden, Ala. Electric Construction Co.	WKBP 1410kc 212.6m 50w
WIRZ	Eattie Creek, Mich. Inquirer News.
Chicago Heights, Ill. Palmer & Coppotlii.	New York, N. Y. Standard Cahill Co.
WJJD /2- 2 / 1000w	WKBS 1380kc 217.3m 100w
Mooseheart, Ill. Loyal Order of Moose.	Galesburg, Ill. Permil L. Nelson.
Gary, Ind. Kennedy Radio Corp.	WKBT 1190kc 252m 50w
WIPW	New Orleans, La. First Baptist Church.
Ashtabula, Ohie. J. P. Wilson.	Brookville, Ind. Knox Battery & Elec. Co.
WJR 680kc 440.9m 500w	WKBW 1880kc 4 217.8m 500w
Detroit, Mich. Richards-Oakland Co.	Buffalo, N. Y. Churchill Evangelistic Assn.
New York, N. Y. Radio Corp. of America.	WKBZ 1500kc 199.9m 15w Ludington, Mich. Carl L. Ashbacker.
WKAO	WIZDD
San Juan, P. R. Radio Corp. of Porto Rico.	WRDK 1210kc 247.8m 15w Kenosha, Wis. Edward Dato.
WKAK 1080kc 277.6m 500w	WKEN 1470kc 204m 250w
East Lansing, Mich. Michigan State College.	Buffalo, N. Y. Presbyterian Church.
Laconia, N. H. Laconia Radio Club.	WKJC 1190kc 252m Lancester, Pa. Kirk, Johnson & Co.
WKBB 1390kc 215.7m 150w	WKRC
Joliet, Ill. Sanders Bros.	Cincinnati, Ohio. Kodel Radio Corp.
WKBC 1870ke 218.8m 10w	WKY 1040kc 288.3m 150w
Birmingham, Ala. H. E. Ansley.	Oklahoma City, Okla. WKY Radiophone Co.
Webster, Mass. K. & B. Electric Co.	Nashville, Tenn. Life & Casualty Ins. Co.
WKBF 1190kc 252m 250w	WI.AP
Indianapolis, Ind. Noble B. Watson.	1120kc 267.7m 30w Louisville, Ky. Va. Ave. Baptist Church.
WKBG 1490kc 201.8m 100w Chicago, Ill. C. L. Carroll.	WLB 1220kc 245.8m 500w Minneapolis, Minn. University of Minn.

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WLBC 1430kc 209.7m 50w Muncie, Ind. D. A. Burton.	WLIT 740kc 405.2m 500w Philadelphia, Pa. Lit. Bros.
WLBF 1430kc 209.7m 50w Kansas City, Mo. Everett L. Dillard.	WLOE 1420kc 211.1m 100w Chelsea, Mass. W. S. Pote.
WLBG 1400kc 214.2m 100w Petersburg, Va. R. H. Gambel.	WLS 870kc 844.6m \$000w Chicago, Ill. Sears Roebuck & Co.
WLBH 1290kc 282.4m 30w Farmingdale, N. Y. Joseph L. Lombardi.	1210kc 247.8m 250w
WLBI Wenona III. 1260kc 238m 250w Wenona Legion Bds.	WLTH 1170kc 256.3m 256w Brooklyn, N. Y. Voice of Brooklyn.
WLBL 900kc 383.1m 1.000w Stevens Point, Wis. Dept. of Markets.	WLTS 620 kc 483.6m 100w Chicago, Ill. Lane Technical High School
Boston, Mass. Browning-Drake Corp. 50w	WLW 576-56 428.8m \$,000w Cincinnati, Ohio. Crosley Radio Corp.
WLBN 1470kc 204m 50w Chicago, Ill. William E. Hiler.	New York, N. Y. Society of St. Paul.
WLBO Galesburg, Iil. 1380kc 217.3m 100w Frederick A. Treble, Jr.	WMAC 1830ke 225.4m 500w Cazenovia, N. Y. C. B. Meredith.
WLBQ 1870kc 218.8m 25w Atwood, Ill E. Dale Trout.	WMAF 700kc 428.3m 500w Dartmouth, Mass. Round Hill Radio Corp.
Rockford, Ill. Rockford Bdg. Corp.	WMAK Lockport, N. Y. Norton Laboratory, Inc.
WLBT 1210kc 247.8m 50w Crown Point, Ind. Harold Wendell.	WMAL 1°40kc 2'1.8m 500w Washington, D. C. Leese Optical Co.
WIBV 1450kc 206.8m 50w Mansfield. Chio. Mansfield Broad. Assn.	WMAN 1280kc 234.2m 50w Columbus, Ohio. Heskett Radio Co.
Oil City, Pa. Petroleum Telephone Co.	WMAQ 670kc 447.5m 1,000w Chicago, Ill. Chicago Daily News.
WLBX 1470kc 204m 250w Long Island, N. Y. John N. Brahy.	WMAY 1°80kc 234.2m 100w St. Louis, Mo. Kingshighway Presby. Ch.
WLBY 1480kc 209.7m 50w Iron Mountain, Mich. Aimone Electric Co.	WMAZ 1110kc 270.1m 500w Macon, Ga. Mercer University.
Dover, Mame. 1440kc 208.2m 250w Thomas L. Guernsey.	WMBA 1470kc 204m 100w Newport, R. I. Le Roy J. Beebe.
WLCI 1210kc 247.8m 50w 1thaca, N. Y. Lutheran Assn.	WMBB 1190kc 252m 5.000w Chicago, Ill. Am. Bond & Mortgage Co.
WLEX 1390kc 215.7m 50w Lexington, Mass. Lexington Air Station.	WMBC 1230kc 243.8m 100w Detroit, Mich. Michigan Broadcasting Co.
WLIB 720kc 416.4m 15.000w Chicago, In. Liberty Weekly.	WMBD 1460kc 205.4m 250w Peoria Heights, Ill. P. H. Radio Laboratory.
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WMDE	WNAD
WMBE 1440kc 208.2m 10w St. Paul, Minn. Dr. C. S. Stevens.	Norman, Okla. University of Oklahoma.
WMRF	WE/RY A T
Miami Beach, Fla. Fleetwood Hotel.	Omaha, Nebr. R. J. Rockwell.
WMBG 1360 220.4m 15w Richmond, Va. Havens & Martin.	WNAT 1040kc 288.3m 100w
Richmond, Va. Havens & Martin.	Philadelphia, Pa. Lennig Bros.
Joplin, Mo. Edwin D. Aber.	WNAA 1080kc 277.6m 250w Yankston, S. Dak. Gurney Seed & Nurs. Co.
WMBI 1140kc 263m 5,000w	WNBA 1440kc 208.2m 200w
Chicago, Ill. Moody Bible Institute.	Forest Park, Ill. M. T. Rafferty.
WMBJ 1290kc 232.4m 50w Monessen, Pa. William R. McShaffrey.	WNBr 1450kc 206.8m 50w Endicott, N. Y. Hewitt-Wood Radio Co.
WMBL 1810kc 228.9m 100w	WNBH 1150kc 260.7m 250w
Lakeland, Fla. Benford Radio Studios.	New Bedford, Mass. New Bedford Bdg. Co.
WMBM 10w	WNDJ 1450kc 206.8m 50w Knoxville, Tenn. Lonsdale Baptist Church.
Memphis, Tenn. Seventh Day Adventists.	WNDT
Auburn, N. Y. Radio Service Laboratories.	Bloomington, Ill. Harvey R. Storm.
WMBQ 1470kc 204m 100w Brooklyn, N. Y. Paul J. Gollhofer.	WNBO 1420kc 211.1m 15w Washington, Pa. John B. Spriggs.
WMBR 1190kc 252m 100w Tampa, Fla. F. J. Reynolds.	WNBQ 1460kc 205.4m 15w Rochester, N. Y. Gordon P. Brown.
WMDC	
Lemoyne, Pa. Mack Battery Co.	WNBR 1310kc 228.9m 100w Memphis, Tenn. Popular Radio Shop.
WMBW 1400kc 214.2m 50w	WNBW 1500kc 199.9m 5w
Youngstown, Ohio. Youngstown Bdg. Co.	Carbondale, Pa. Home China Co.
WMC 580kc 516.9m 500w Memphia, Tenn. Commercial Appeal.	WNBX 1240kc 241.8m 10w Springfield, Vt. First Congregational Ch.
WMCA	WNRZ
WWW. 810kc 870.2m 500w Hoboken, N. J. Greely Square Hotel.	N 1290kc 232.4m 10w Saranac Lake, N. Y. Smith & Mace.
WMCO 1100kc 272.6m 250w	WNJ 6-6 1120kc 267.7m 250w
Saginaw, Mich. Wolverine Bdg. Co.	Newark, N. J. Herman Lubinsky.
WMES 1420kc 211.1m 50w Boston, Mass. Educational Society.	WNUX 1180kc 265.8m 1,000w Knoxville, Tenn. Peoples Tel. & Tel. Co.
WMPC	WNRC 1340kc 223.7m 250w
1280kc 234.2m 30w Lapeer, Mich. First Methodist Church,	Greensboro, N. C. Wayne M. Nelson.
WMRJ 1450kc 206.8m 10w Jameica, N. Y. P. J. Prinz.	WNYC 570kc 526m 500w New York, N. Y. Municipal Station.
WNAC 650kc 461.3m 500w	WOAI 600kc 499.7m 5,000w
Besten, Mass. Shepard Stores.	San Antonio, Tex. Southern Equipment Co.
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WOAN 1250kc 239.9m 500w Lawrenceburg, Tenn. James D. Vaughan.	WOWO 1810kc 228.9m 2,500w Fort Wayne, Ind. Main Auto Supply Co.
WOAX 1250kc 239.9m 500w	WPAB 1430kc 209.7m Norfolk, Va. Radio Corp. of Va.
WOBR 1470kc 204m 10w	WPAP Cliffside, N. J. Palisade Amusement Park.
WOBT 1460kc 205.4m 15w Union City, Tenn. Tittsworth Radio Co.	WPCC 1340kc 228.7m 500w Chicago, Ill. North Shore Cong. Church.
WOBU 1120kc 267.7m 50w Charleston, W. Va. Radio Bdg. Co.	WPCH 920kc 325.9m 500w Hoboken, N. J. Del., Lack. & West. R. R.
WOC 800kc 374.8m 5,000w	WPEP 1890kc 215.7m 250w
WOCI	Waukegan, Ill. Maurice Mayer. WPG 1100kc 272.6m 5,000w
Jamestown, N. Y. A. E. Newton.	WPRC 1430kc 209.7m 100w
Paterson, N. J. O'Dea Temple of Music.	WPSC. Wilson Ptg. & Radio Co.
WOI 1180kc 265.3m 2,500w Ames, Iowa. Iowa State College.	State College, Pa. Penn. State College.
WOK 1190ke 252m 5.000w Chicago, Ill. Am. Bond & Mortgage Co.	Philadelphia, Pa. School of Wireless Teleg.
WOKO 1890kc 215.7m 250w	Ralei-h, N. C. Durham Insurance Co.
Poekskill, N. Y. Harold E. Smith.	WPUB 1270kc 236.1m 500w New York, N. Y. Madison Square Garden.
Rochester, N. Y. Titus-Ets Corp.	WQAA 1890kc 215.7m 500w Parkersburg, Pa. Horace A. Beale, Jr.
Manitowoc, Wis. Mikado Theater.	WQAM 780kc 384.4m 750w Miami. Fla. Electrical Equipment Co.
860kc 348.6m 500w Philadelphia, Pa. John Wanamaker.	WQAN 1300kc 280.6m 250w
WOOD 1150kc 250.7m 500w Furnwood, Mich. Walter B. Stiles.	Scranton, Pa. The Scranton Times. WQAO 760kc 394.5m 500w
WOQ 880kc 340.7m 500w Kansas City, Mo. Unity School of Christ.	WQBA 1260kc 238m 250w
WOR 710kc 422.8m 5,000w	WQBC 1390kc 215.7m 225w
WORD 1190kc 252m 5,000w	WORT
Batavia, Ill. Peoples Pulpit Assn.	1250kc 239.9m 65w Clarkships, W. Va. John Raikes.
WUD 830kc 361.2m 500w Jefferson City, Mo. State Marketing Bureau.	Weirton, W. Va. J. H. Thompson.
Omaha, Nebr. Woodmen of the World.	W 670kc 447.5m 500w Chicago, IN. Calumet Baking Powder Co.

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WRAF 1440ke 208.2m 100w	WRSC 1420ke 211.1m 100w
WRAH 1500kc 199.9m 250w	WRST 1420kc 211.1m 150w
Providence, R. I. Stanley N. Read.	Bay Shore, N. Y. Radiotel Mfg. Co.
WRAK 1060kc 282.8m 50w Escanaba, Mich. Economy Light Co.	WRVA 1180kc 257.m 1,000w Richmond, Va. Larus & Bros.
WRAM 1210kc 247.8m 50w Galesburg, Ill. Lombard College.	WSAI 880kc 361.2m 5,000w Cincinnati, Ohio. U. S. Playing Card Co.
WRAW 1260kc 238m 100w Reading, Pa. Avenue Radio Shop.	WSA) 1480kc 228.7m 250w Grove City, Pa. Grove City College.
WRAX 1410kc 212.6m 250w Philadelphia, Pa. Berachah Church.	WSAN 1350ke 222.1m 190w Allentown, Pa. Allentown Call.
WRBC 1260kc 238m 250w Valparaiso, Ind. Immanuel Lutheran Ch.	WSAR 1410kc 212.6m 250w Fail River, Mass. Doughty & Welch.
WRC 640kc 468.5m 500w Washington, D. C. Radio Corp. of Amer.	WSAX 1470kc 204m Chicago, Ill. Zenith Radio Corp.
WREC 1200kc 249.9m 100w Memphis. Tenn. Wooten Radio Co.	WSAZ 1200kc 249.9m 100w Huntington, W. Va. W. C. McKellar.
WREN 1180kc 254.1m 750w Lawrence, Kans. Jenny Wren Co.	WSB 630kc 475.9m 1,000w Atlanta, Ga. Atlanta Journal.
WRES 1380kc 217.8m 50w Quincy, Mass. Harry L. Sawyer.	WSBC 1290kc 232.4m 500w Chicago, Ill. World Battery Co.
WRHF 980kc 322.4m 150w Washington, D. C. Radio Hospital Fund.	WSBF 1160kc 258.5m 250w WSBF Broadcasters.
WRHM _{1150kc} 260.7m 1,000 w Minneapolis, Minn. Rosedale Hospital.	WSBT 1260kc 222.1m 500w South Bend, Ind. The Tribune.
WRK 1460kc 205.4m 100w Hamilton, Ohio. Doron and Stade.	WSDA 1320kc 227.1m 500w Brooklyn, N. Y. Amateur Radio Spec. Co.
WRM 1100kc 272.6m 500w Urbana, Ill. University of Illinois.	WSEA 1140kc 263m 250w Norfolk, Va. Virginia Beach Bdg. Co.
WRMU 1490kc 201.2m 100w New York, N. Y. Atlantic Bdg. Corp.	WSIX 1200kc 249.9m 150w Springfield, Tenn. 638 Tire Co.
WRNY 920kc 325.9m 500w New York, N. Y. Experimenter Pub. Co.	WSKC 1100kc 272.6m 250w Bay City, Mich. World's Star Knitting Co.
WRPI 1440kc 208.2m 100w Terre Haute, Ind. Rose Polytechnic Inst.	WSM 890kc 336.9m 5,000w Nashville, Tenn. Nat. Life & Acc. Ins. Co.
WRR 650kc 461.3m 500w Dallas, Tex. City of Dallas.	WSMB 1010kc 269.9m 750w New Orleans, La. Saenger Amusement Co.
WRRS 1210kc 247.8m 50w Racine, Wis. Racine Radio Co.	WSMK 1010kc 269.9m 200w. Dayton, Ohio. S. M. K. Radio Corp.
	DACE THIRTY THREE

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1110kc 270.1m · 250w 488.6m 500w aukee, Wis. School of Engineering. College Station, Tex. Agri. College. 1270kc 236.1m 247.8m 50w Middletown, Ohio. Harry W. Fahrlander. 1360kc 15w 1040kc 288.8m 100w Richmond, , Va. Reynolds & McGuire. Tremont Baptist Church. Williams Hardware Co. 1270kc 500w 1480kc 202.6m 10,000w ffolk, Va. Reliance Electric Co. Washington, D. C. Fellowship .Forum. 630kc 475.9m 500 w 1430kc 250w 209.7m City, Iowa. State University of Iowa. Falls Institute 580kc 516.9m 250w 1110kc 270.1m 200w Petersburg, Fla. Chamber of Com. Ga. Technical High School. 1470kc 204m Buffalo, N. Y. Seneca Vocational School. 560kc 585.4m 500w tford, Conn. Travelers Ins. Co. 1020kc 293.9m 500w cuse, N. Y. C. B. Meredith. 1020ke 1,000w 298.9m aukee, Wis. Journal. 1270kc Quincy, Ill. Illinois Stock Medicine Co. 250w 1450kc 15w 206.8m Park, N. J. Technical Radio Lab. 580kc L_{1320kc} 516.9m 250w 227.1m 500ster, Mass. Telegram Pub. Co. Chicago, Ill. Dr. G. F. Courrier. 1250kc 250w Toledo, Ohio. Toledo Bdg. Co. 850kc 352.7m 1.000w roit, Mich. The Detroit News. 750kc 899.8m 3.500w 1220kc Cleveland, Ohio. Willard Storage Bat. Co. 500w Orleans, La. Loyola University. 1180kc 254.1m 500w U1010kc Claire, Wis. Van Gordon & Son. ville, N. C. Chamber of Commerce. K 1140kc 1500kc 500w 100w 199.9m Norfolk, Va. Reliance Electric Co. N. Y. W. H. Reauman. 1040kc 288.8m 1.500w seling, W. Va. John C. Stroebel, Jr. Chicago, Ill. Illinois Bdg. Corp.

Canadian Station Directory

Giving a complete list of all broadcasting stations, with location, power and frequency

In the May Issue

Stations Listed By Location

Complete Directory of All Radio Broadcasting Stations Alphabetically By States and Cities With Call Letters.

ALABAMA Auburn, WAPI Birmingham, WBRC, WKBC DISTRICT OF COLUMBIA Washington, WMAL, WRC, WRHF, WTFF Clearwater, WFLA Gainesville, WHBN Gadsden, WJBY Montgomery, WIBZ Jacksonville, WJAX **ALASKA** Lakeland, WMBL Miami, WQAM Miami Beach, WIOD, WMBF Anchorage, KFQD Juneau, KFIU Ketchikan, KGBU Orlando, WDBO ARIZONA Pensacola, WCOA Flagstaff, KFXY
Phoenix, KFAD, KFCB
Prescott, KPJM
Tucson, KGAR St. Petersburg, WSUN Tampa, WDAE, WJBB, WMBR, WQBA **GEORGIA** Atlanta, WGST, WSB, WTHS Macon, WMAZ ARKANSAS Blythevlile, KLCN Toccoa, WTFI Fayetteville, KUOA ! Hot Springs, KTHS HAWAII Honolulu, KGBH, KGU CALIFORNIA **IDAHO** Avalon, KFWO Boise, KFAU Berkeley, KRE Burbank, KELW Jerome, KFXD Kellogg, KFEY Pocatello, KSEI El Centro, KGEN
Fresno, KMJ
Holy City, KFQU
Hollywood, KFQZ, KFWB
Inglewood, KGGM, KMIC ILLINOIS Atwood, WLBQ Batavia, WORD, Batavia, WORD, WTAS
Bloomington, WNBL
Carthage, WCAZ
Chicago, KFKX, KYW, WAAF, WBBM,
WBBZ, WBCN, WCFL, WCFW, WEBH,
WBBZ, WBCN, WCFL, WCRW, WEBH,
WHBM, WHFC, WHT, WIBJ, WIBO,
WIBM, WKBG, WJBT, WJAZ, WKBI,
WLBN, WLS, WLIB, WTTS. WMAQ,
WMBB, WMBI, WOK, WPCC, WQJ,
WSAX, WSBC, WWAE.
Chicago Heights, WJBZ
Decatur, WBAO, WJBL
Evanston, WEHS WTAS La Crescenta, KGFH Long Beach, KFON, KGER Los Angeles, KFI, KFPR, KFSG, KGEF, KGFJ, KHJ, KMTR, KNX, KPLA, KEJK, KTBI Oakland, KFUS, KFWM, KGO, KLS, KLX, KTAB, KZM Pasadena, KPPC, KPSN rasadena, KPPU, KPSN
Sacramento, KFBK,
San Diego, KFBC, KFSD
San Francisco, KFRC, KFWI, KGTT,
KFBI, KJBS, KPO, KYA Lecatur, WBAU, WJBL Evanston, WEHS Forest Park, WNBA Galesburg, WFBZ, WKBS, WLBO, WRAM Harrisburg, WEBQ Joliet, WCLS, WJBA, WKBB San Jose, KQW Santa Ana, KWTC Santa Barbara, KFCR La Salle, WJBC Santa Maria, KSMR
Santa Monica, KSMR
Santa Monica, KNRC
Stockton, KGDM, KWG
Venice, KFVD
Yuba City, KGFM Mooseheart, WJJD Peoria Heights, WMBD Quincy, WTAD Rockford, KFLV, WLBR Rock Island, WHBF Springfield, WCBS Springfield, WCB Streator, WTAX Tuscola, WDZ Urbana, WRM COLORADO Colorado Springs, KFUM
Denver, KFEL, KFUP, KFKX, KPOF,
KOA, KOW
Dupont, KLZ Waukegan, WPEP Wenona, WLBI Edgewater, KFXJ Zion, WCBD INDIANA Fort Morgan, KGEW Greeley, KFKA
Gunnison, KFHA
Pueblo, KGDP, KGHA, KGHF
Yuma, KGEK
CONNECTICUT Anderson, WHBU Brookville, WKBV Crown Point, WLBT Culver, WCMA Evansville, WGBF Bridgeport, WICC Dambury, WCWS Hartford, WTIC Mansfield, WCAC Fort Wayne, WCWK, WOWO Gary, WJKS Indianapolis, WFBM, WKBF Kokomo, WJAK La Porte, WRAF Muncie, WLBC New Haven, WDRC DELAWARE Wilmington, WDEL

South Bend, WSBT Terre Haute, KFGO, WRPI Valparaiso, WRBC West Lafayette, WBAA IOWA Ames, WOI Boone, KFGQ Cedar Rapids, KWCR, WJAM Clarinda, KSO Council Bluffs, KOIL Davenport, WOC Decorah, KGCA, KWLC Des Moines, WHO
Fort Dodge, KFJY
Iowa City, KGFB, WSUI
Le Mars, KWUC Marshalltown, KFJB Muscatine, KPNP, KTNT Oskaloosa, KFHL Ottumwa, WIAS Red Oak, KICK Shenandoah, KFNF, KMA Sloux City, KFMR, KSCJ KANSAS Concordia, KGCN Independence, KFVG Lawrence, KFKU, WREN Manhattan, KSAC Milford, KFKB Wichita, KFH KENTUCKY Hopkinsville, WFIW Louisville, WHAS, WLAP LOUISIANA Cedar Grove, KGGH New Orleans, WABZ, WCBE, WJBO, WJBW, WKBT, WSMB, WWL Shreveport, KFDX, KGDX, KRAC KSBA, KWKH MAINE Bangor, WABI Dover-Foxcroft, WLBZ Portland, WCSH MARYLAND Baltimore, WBAL, WCAO, WCBM, WFBR Takoma Park, WBES MASSACHUSETTS Boston, WATT, WBET, WBIS, WBZA, WEEI, WMES, WNAC, WSSH. WLBM Cambridge, Chelsea, WLOE Dartmouth, WMAF Fall River, WSAR Gloucester, WEPS Lexington, WLEX New Bedford, WNBH Quincy, WRES Springfield, WBZ Taunton, WAIT Webster, WKBE Wellesley Hills, WBSO Worcester, WTAG **MICHIGAN** Battle Creek, WKBP Bay City, WSKC Bay City, WSAC Berrien Springs, WEMC Detroit, WAFD, WBMH, WGHP, WMBC, WCX, WJR, WWJ East Lansing, WKAR Escanaba, WRAK Flint, WFDF Furnwood, WOOD Grand Rapids, WASH Iron Mountain, WLBY

Monroe, WKBL Petoskey, WBBP Royal Oak, WAGM Saginaw, WMCO Ypsilanti, WJRK MINNESOTA Barrett, KGDE Collegeville, WFBJ Hallock, KGFK Mpls.-St. Paul, WCCO Minneapolis, KFDZ, KGEQ, WDGY, WHDI, WLB, WGMS, WRHM
Northfield, KFMX, WCAL
St. Cloud, WFAM
St. Paul, KSTP, WMBE
Slayton, KGHC MISSISSIPPI Columbus, WCOC Gulfport, WGCM Utica, WQBC MISSOURI Cape Girardeau, KFVS Carterville, KFPW Columbia, KFRU Inderendence, KLDS, KMBC Jefferson City, WOS
Jorlin, WMBH
Kansas City, KWKC, WDAF, WHB, WLBF, WOQ Kirksville, KFKZ y St. Joseph, KFEQ, KGBX
St. Louis, KFQA, KFUO, KFWF, KMOX,
KSD, KWK, WEW, WIL, WMAY, WSBF MONTANA Hardin, KGHP Havre, KFBB Kalispell, KGEZ Missoula, KUOM Vida, KGCX NEBRASKA Central City, KGES Clay Center, KMMJ Columbus, KGBY Grand Island. KGEO Humboldt, KGDW Lincoln, KFAB, KFOR, WCAJ Norfolk, WJAG Omaha, KFOX, KOCH, WAAW, WNAL, WOW Ravenna, KGFW Wayne, KGCH York, KGBZ **NEW HAMPSHIRE** Laconia, WKAV Tilton, WBRL **NEW JERSEY** Asbury Park, WCAP WIBG Atlantic City, WPG Bound Brook, WJZ Camden, WCAM Cliffside, WPAP, WQAO Elizabeth, WIBS Hoboken, WMCA, WPCH Jersey City, WAAT, WKBO
Kearny, WOR
Midland Park, WTRL
Newark, WAAM, WGCP, WNJ
North Plainfield, WEAM

Paterson, WODA Red Bank, WJBI Secaucus, WGL Trenton, WOAX

Raton, KGFL State College, KOB

Trenton, WO NEW MEXICO

Lapeer, WMPC Ludington, WKBZ PAGE THIRTY-SIX

NEW YORK OREGON Auburn, WMBO Astoria, KFJI Bay Shore, WRST Brooklyn, WARS, WBGC, WBKN, WSDA, WBRS, WLTH, WMBQ Buffalo, WEBR, WGR, WKBW, WKEN. Corvallis, KOAC Eugene, KOOS Medford, KMED Portland, KEX, KFEC, KFIF, KFJB, KGW, KLIT, KOIN, KTBR, KWBS, KWJJ, KXL WSVS Canton, WCAD Cazenovia, WMAC Endicott, WNBF **PENNSYLVANIA** Allentown, WCBA, WSAN Altoona, WFBG Farmingdale, WLBH Freeport, WGBB Ithaca, WLCI Carbondale, WNBW East Pittsburgh, KDKA Jamaica, WMRJ Elkins Park, WIBG Grove City, WSAJ Harrisburg, WBAK, WPRC Jeanette, WGM Jamestown, WOCL Lockport, WMAK Lockport, WMAK
Long Island City, WLBX
New York, WABC, WBMS, WBNY,
WEAF, WEBJ, WGBS, WGOP, WGMU,
WHAP, WHN, WHPP, WKBQ, WLWL,
WPUB, WNYC, WRMU, WRNY
Peekskill, WOKO
Richmond Hill, WBOQ.
Rochester, WABO, WHAM, WHEC,
WNBQ, WOKT
Rossville, WBBR
Saranac Lake, WNBZ
Schenectady, WGY
Sea Gate, WCGU Johnston, WHBP Lancaster, WGAL, WKJC Lemoyne, WMBS Lewisburg, WJBU Monessen, WMBJ Oil City, WHBA, WLBW On City, WHBA, WLBW
Parkeraburg, WQAA
Philadelphia, WABY, WCAU, WFAN, WFI,
WFKD, WHBW, WIAD, WIP,
WNAT, WOO, WPSW, WRAX
Pittsburgh, KQV, WCAE, WJAS Sea Gate, WCGU Syracuse, WFBL, WSYR Pringleboro, WABF Reading, WRAW
Scranton, WGBI, WQAN
State College, WPSC Troy, WHAZ Utica, WIBX Woodhaven, WEVD Woodside, WWRL · Washington, WNBO Wilkes-Barre, WBAX, WBRE Willow Grove, WALK NORTH CAROLINA Asheville, WWNC Charlotte, WBT PHILIPPINE ISLANDS
Manila, KZIB, KZKZ, KZRQ Greensboro, WNRC Raleigh, WPTF NORTH DAKOTA **PORTO RICO** San Juan, WKAQ RHODE ISLAND Aneta, KGFN Cranston, WDWF, WLSI Newport, WMBA Bismarck, KFYR Devil's Lake, KDLR Fargo, WDAY Grand Forks, KFJM Pawtucket, WFCI Providence, WCBR, WCOT, WEAN, WJAR WRAH Mandan, KGCU SOUTH CAROLINA Charleston, WBBY OHIO Akron, WADC, WFJC Ashtabula, WJPW SOUTH DAKOTA Brookings, KFDY, KGCR Dell Rapids, KGDA Bellefontaine, WHBD Cambridge, WEBE Dell Rapids, KGD.
Mitchell, KGFP
Oldham, KGDY
Pierre, KGFX
Rapid City, WCAT
Sioux Falls, KSOO
Vermillion, KUSD
Yankton, WNAX
ENNIESSEE Canton, WHBC Cincinnati, WAAD, WFBE, WKRC, WLW, Cleveland, WEAR, WHK, WJAY, WTAM Columbus, WAIU, WCAH, WEAO, WMAN Dayton, WSMK Hamilton, WRK Mansfield, WLBV TENNESSEE Chattanooga, WDOD Knoxville, WFBC, WNBJ, WNOX Lawrenceburg, WOAN Middletown, WSRO Shelby, WOBR
Springfield, WCSO
Stebenville, WIBR Memphis, WGBC, WHBQ, WMBM, WMG, WNBR, WREC
Nashville, WBAW, WLAC, WSM
Springfield, WSIX
Union City, WOBT Toledo, WTAL Wooster, WABW Youngstown, WKBN, WMBW **OKLAHOMA** Alva, KGFF TEXAS Bristow, KVOO Amarillo, KGRS, WDAG Austin, KUT Chickasha, KOCW Norman, WNAD Beaumont, KFDM Oklahoma City, KFJF, KFXR, KGCB, KGFG, WKY Breckenridge, KFYO Brownsville, KWWG Picher, KGGF College Station, WTAW

Dallas, KRLD, WFAA, WRR Dublin, KFPL El Paso, WDAH Fort Worth, KFJZ, KFQB, WBAP Galveston, KFLX, KFUL Greenville, KFPM Harlingen, KHMC Houston, KFVI, KPRC, KTUE San Angelo, KGFI San Antonio, KGCI, KGDR, KGRC, KTAP, KTSA, WOAI Waco, WJAD UTAH Ogden, KFUR Salt Lake City, KDYL, KFUT, KSL **VERMONT** Burlington, WCAX Springfield, WNBX, VIRGINIA Arlington, NAA Norfolk, WBBW, WPAB, WSEA, WTAR Petersburg, WLBG Richmond, WBBL, WMBG, WRVA, WTAZ Roanoke, WDBJ Suffolk. WSUF WASHINGTON Aberdeen, KXRO Bellingham. KVOS Everett, KFBL Lacey, KGY

Seattle, KFOA, KFQW, KGCL, KJR, KKP, KOMO, KPCB, KRSC, KTW, KUJ, KVL. KXA Spokane, KFIO, KFPY, KGA, KHQ Tacoma, KMO, KVI WEST VIRGINIA Charleston, WOBU Clarksburg, WQBJ Huntington, WSA Wheeling, WWVA Wierton, WQBZ WSAZ WISCONSIN
Appleton, WAIZ
Beleit, WEBW Eau Claire, WTAQ Fond du Lac, KFIZ Kenosha, WCLO, WKDR La Crosse, WKBH Madison, WHA, V Manitowoc, WOMT
Milwaukee, WGWB, WHAD, WSOE, WTMJ Poynette, WIBU Racine, WRRS Sheboygan, WHBL Stevens Point, WLBL Superior, WEBC West De Pere, WHBY WYOMING Laramie, KFBU

Pullman, KWSC

How to Change Kilocycles Into Meters

A Useful Table For Locating Broadcasting Stations When Converting Meters to Kilocycles or Vice Versa

Kilocycles	Meters	Kilocycles	Met	ers	Kiloc	ycles	Meters
500		-					254.1
510							
520				248 6			
530					1200		249.9
540					1210		247.8
560							
560							
570							
580							
590	508.2	930		322.4	260		298.0
600					270		236.1
610					280		
620	483.6	960	'-	312,3	290		
630	475.9	970					
640	468.5	980		305.9	310		
650	461.3						
660							
670							
680							
690							
700							
710							
720							
730							
740							
750							
760							
770							
780							
790							
800							
810							
820							
830	361.2	1170		250.3	1 500		

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Stations and Wave Lengths

Complete Directory of All Radio Broadcasting Stations Arranged Numerically By Kilocycles And Wave Lengths

545.1 METERS, 550 KILOCYCLES.

500 KFDY, Brookings, S. D. 1,000 KFUO, St. Louis, Mo.

500 KFD, St. Louis, Mo. 500 KFD, St. Louis, Mo. 500 WFAA, Dallas, Texas. 500 WPTF, Ralegih, N. C. 750 WMAK, Lockport, N. Y. 250 WDAY, Fargo, N. D.

535.4 METERS, 560 KILOCYCLES.

500 WCAC, Mansfield, Conn. 5,000 WHO, Des Moines, lowa. 500 WTIC, Hartford, Conn.

\$26 METERS, 570 KILOCYCLES. 2,500 KFKX, Chicago, Ill.

500 KMTR, Los Angeles, Cal. 5,000 KYW, Chicago, Ill. 500 WNYC, New York City.

516.9 METERS, 580 KILOCYCLES.

750 WFLA, Clearwater, Fia. 750 WSUN, St. Petersburg, Fla. 500 WMC, Memphis, Tenn. 250 WTAG, Worcester, Mass. 250 WWVA, Wheeling, W. Va.

508.2 METERS, 590 KILOCYCLES. 500 KLX, Oakland, Cal. 500 WEEI, Boston, Mass. 1,000 WOW, Omaha, Neb.

499.7 METERS, 600 KILOCYCLES. 5,000 WBAP, Fort Worth, Texas. 5,000 WOAI, San Antonio, Tex.

491.5 METERS, 610 KILOCYCLES. 1,000 KGW, Portland, Ore. 50,000 WEAF, New York City.

483.6 METERS, 620 KILOCYCLES.
500 KFBU, Laramie, Wyo.
500 KFDM, Beaumont, Texas.
1,000 KFUM, Colo. Springs, Colo.
250 KUSD, Vermillion, S. D.
1,500 WCFL, Chicago, Ill.
1,000 WEMC, Berrien Springs, Mich.
600 WJAR, Providence, R. I,
100 WLTS, Chicago, Ill.
500 WTAW, College Station, Tex.

475.9 METERS, 630 KILOCYCLES. 1,000 WSB, Atlanta, Ga. 500 WSUI, Iowa City, Iowa.

468.5 METERS, 640 KILOCYCLES. 5,000 KFI, Los Angeles, Cal. 500 WRC, Washington, D. C.

461.3 METERS, 650 KILOCYCLES. 1,000 KFNF, Shenandoah, Iowa. 500 KRLD, Dallas, Texas.

500 KUOM, Missoula, Mont. 500 WCAE, Pittsburg, Pa. 500 WRR, Dallas, Texas.

500 WNAC, Boston, Mass. 500 WBIS, Boston, Mass.

454.3 METERS, 660 KILOCYCLES. 1,000 KFRC, San Francisco, Cal. 80,000 WJZ, Bound Brook, N. J.

447.5 METERS, 670 KILOCYCLES. 1,000 KFOA, Seattle, Wash. 1,000 WMAQ, Chicago, Ill. 500 WQJ, Chicago, Ill.

440.9 METERS, 680 KILOCYCLES.

500 KFSD, San Diego, Cal. 500 WAAW, Omaha, Neb. 5,000 WCX, Detroit, Mich. 50 WIBG, Elkins Park, Pa. 5,000 WJR, Detroit, Mich.

434.5 METERS, 690 KILOCYCLES. 1,000 NAA, Arlington, Va.

428.3 METERS, 700 KILOCYCLES. 5,000 WLW, Cincinnati, Ohio. 500 WMAF, Dartmouth, Maine.

422.3 METERS, 710 KILOCYCLES. 1,000 KPO, San Francisco, Cal. 5,000 WOR, Kearney, N. J.

416.4 METERS, 720 KILOCYCLES. 500 WGN, Chicago, Ill. 15,000 WLIB, Chicago, Ill.

405.2 METERS, 740 KILOCYCLES. 5,000 WCCO, Minneapolis, Minn. 500 WFI, Philadelphia, Pa. 500 WLIT, Philadelphia, Pa.

399.8 METERS, 750 KILOCYCLES.
1,000 KHJ, Los Angeles, Cal.
500 KZRQ, Manila, P. I.
1,000 WEAR, Cleveland, Ohio.
3,500 WTAM, Cleveland, Ohio.

394.5 METERS, 760 KILOCYCLES.
1,000 KMA, Shenandoah, Iowa.
1,000 KWKH, Sheveport, La.
500 KWKK, Shreveport, La.
500 KWSC, Pullman, Wash.
500 WHN, New York City.
500 WPAP, Cliffside, N. J.
500 WQAO, Cliffside, N. J.

389.4 METERS, 770 KILOCYCLES. 500 WAAF, Chicago, Ill. 100 WABI, Bangor, Maine.

5,000 WBBM, Chicago, Ill. 500 WJBT, Chicago, Ill.

384.4 METERS, 780 KILOCYCLES.
5,000 KGO, Oakland. Cal.
1,000 KTHS, Hot Springs. Ark.
100 WBSO, Wellesley Hills, Mass.
500 W.MBF, Miami Beach, Fla.
750 WQAM, Miami, Fla.

379.5 METERS, 790 KILOCYCLES. 500 WCAJ, Lincoln, Neb 50,000 WGY, Schenectady, N. Y.

874.8 METERS, 800 KILOCYCLES.
500 KNRC, Santa Monica. Cal.
5,000 WOC, Davenport, Iowa.

370.2 METERS, 810 KILOCYCLES. 1,000 KHQ, Spokane, Wash. 1,000 WDAF, Kansas City. Mo. 1,000 WLWL, New York City. 590 WMCA, Hoboken, N. J.

365.6 METERS, 820 KILOCYCLES.
50 KMJ. Fresno. Cal.
500 WCSH, Portland, Me.
500 WEBH, Chicago, Ill.
1,000 WJJD, Mooseheart, Ill.

361.2 METERS, 830 KILOCYCLES. 1,000 KYA, San Francisco, Cal. 500 WOS, Jefferson City, Mo. 5.000 WSAI, Cincinnati, Ohio.

352.7 METERS, 850 KILOCYCLES.
1,000 KLZ, Duront, Colo.
500 KFWB, Hollywood. Cal.
1,000 WEW, St. Louis, Mo.
1,000 WWJ, Detroit, Mich.

248.6 METERS, 860 KILOCYCLES, 2,500 KJR, Seattle, Wash. 1,000 KYOO, Bristow, Okia.
500 KXA, Seattle, Wash.
500 WGBS, Astoria, N. Y.
500 WOO, Philadelphia, Pa.
500 WIP, Philadelphia, Pa.

344.6 METERS, 870 KILOCYCLES. 108 KFQD Anchorage. Alaska. 58 KWG. Stockton, Cal. 5,000 WCBD, Zion, Ill. 250 WJBB, Tampa, Fla. 5,000 WLS, Chicago, Ill.

340.7 METERS, 880 KILOCYCLES.
250 WOQ. Kansas City, Mo.
1,000 WJAX, Jacksonville, Fla.
500 WHR, Kansas City, Mo.
1,000 WAPI, Auburn, Ala.

336.9 METERS, 890 KILOCYCLES.
500 KNX, Los Angeles, Cal.
5,000 WSM, Nashville, Tenn.

333.1 METERS, 900 KILOCYCLES.

13.1 METERS, 900 KILOCYCLES.
1,000 KFQB. Fort Worth, Texas.
100 KFJM, Grand Forks. N. D.
500 KSAC, Manhattan, Kans.
250 KSEI, Pocatello. Idaho.
15,000 WBZ, Springfield Mass.
500 WBZA, Boston, Mass.
750 WHA. Madison, Wis.
500 WJAD, Waco, Tex.
1,000 WLBL, Stevens Point. Wis.

325.9 METERS, 920 KILOCYCLES.
5,000 KOA. Denver. Colo.
500 WPCH. Hoboken, N. J.
500 WRNY, New York City.

322.4 METERS, 930 KILOCYCLES. 100 KICK, Red Oak, Iowa.

500 WHAS, Louisville, Ky. 100 WHAS, Ottumwa, Iowa. 500 WKAQ, San Juan, P. R. 150 WRHF, Washington, D. C.

319 METERS, 940 KILOCYCLES. 5,080 KFAB, Lincoln. Neb. 5,000 KOIL, Council Bluffs, Iowa. 1,000 KOIN, Portland, Ore. 315.6 METERS, 950 KILOCYCLES. 50,000 KDKA, East Pittsburgh, Pa. 1,000 KPSN. Pasadena, Cal. 50 KPPC, Pasadena, Cal,

309.1 METERS. 970 KILOCYCLES. 1,000 KOMO, Seattle, Wash. 500 KYA, San Francisco, Cal. 2,500 WABC, New York City. 500 WBOQ, New York City.

305.9 METERS, 980 KILOCYCLES. 500 WHAZ, Troy, N. Y. 5,000 WHT, Chicago, Ill. 5,000 WIBO, Chicago, Ill.

302.8 METERS, 990 KILOCYCLES. 1,000 KSL. Salt Lake City, Utah, 750 WGR, Buffalo, N. Y.

299.8 METERS, 1,000 KILOCYCLES. 250 KFWO, Avalon, Cal. 5,000 KMOX, St. Louis, Mo. 500 WBAK, Harrisburg, Pa. 500 WPSC, State College, Pa.

296.9 METERS, 1,010 KILOCYCLES, 10 KGFW, Ravenna, Neb. 500 KQW, San Jose, Cal. 500 KUOA, Fayetteville, Ark. 100 WDEL, Wilmington. Del. 100 WEPS. Gloucester, Mass. 10 WHRN, Gainesville, Fla.
750 WSMB, New Orleans, La.
200 WSMK, Dayton, O. 1.000 WWNG, Asheville, N. C.

293.9 METERS, 1,020 KILOCYCLES,
250 KGCH, Wayne. Neb.
100 KGDW, Humboldt, Neb.
100 KGEZ, Kalispell, Mont.
500 KPRC, Houston, Tex.
1,000 WGL, Secaucus, N. J.
500 WLBW, Oil City, Pa.
1,009 WODA, Paterson, N. J.
500 WSYR, Syracuse, N. Y.
1,000 WTMJ, Milwaukee, Wis.

288.3 METERS, 1,040 KILOCYCLES.

100 KGRX, St. Joseph, Mo.

50 KGHP, Hardin, Mont,

500 KPLA, Los Angeles, Cal.

500 KTRL. Los Angeles, Cal.

250 WRCN, Chicago, Ill.

500 WBET, Boston, Mass.

500 WDBO, Orlando, Fla.

500 WENR, Chicago, Ill.

100 WIAD, Philadelphia, Pa.

150 WKY, Oklahoma City, Okla.

100 WSSH, Boston, Mass.

1,500 WTAS, Chicago, Ill.

285.5 METERS, 1,050 KILOCYCLES, 2,000 KFAU, Boise, Ida, 5,000 KOB, State College, N. Mex. 250 KMMJ, Clay Center. Neb. 5,000 WRAL, Baltimore. Md. 500 WDGY, Minneapolis. Mina. 500 WCAL, Northfield. Minn. 500 WJAG, Norfolk. Neb. 50 KLCN, Blytheville, Ark.

282.8 METERS, 1.060 KILOCYCLES, 250 KFXF, Denver, Colo. 250 KVI, Tacoma, Wash. 250 KVI, Iacoma, Wash. 5,000 WAIU, Columbus, O. 590 WDRC, New Haven, Conn. 750 WEAO, Columbus, O. 50 WRAK, Escanaba, Mich.

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500 KWWG, Brownsville, Texas.
                                   100 WDZ, Tuscola, III.
500 WKAR, East Lansing, Mich.
750 WGHP, Detroit, Mich.
250 WNAX, Yankton, S. D.
                                                                                                                                                                                                                                                                                  260.7 METERS, 1,150 KILOCYCLES.
2,000 KGA. Spokane, Wash.
250 WNAX, Yankton, S. D.

275.1 METERS, 1,090 KILOCYCLES.
50 KFBB, Havre, Mont
1,000 WFBM, Indianapolis, Ind.
15 KFPL, Dublin, Texas
1,000 KTBI. Los Angeles, Cal.
500 WEAN, Providence, R. I.
 258.5 METERS, 1,160 KILOCYCLES.

500 KFAD, Phoenix, Ariz.
750 KFJF, Oklahoma City, Okla.
100 KWTC, Santa Maria, Cal.
100 KWTC, Santa Ana, Cal.
500 WBAA, West Lafayette, Ind,
100 WFBJ, Collegeville, Minn.
100 WFDF, Flint, Mich.
250 WMCO, Saginaw, Mich.
5,000 WPG, Atlantic City, N. J.
500 WRM, Urbana, Ill.
250 WSKC, Bay City, Mich.
256.3 METERS, 1,160 KILOCYCLES.
100 KPOL, Salt Lake City, Utah.
100 KFOX, Omaha, Neb.
250 KOCH, Omaha, Neb.
250 WEBW, Beloit, Wis.
750 WEBW, Beloit, Wis.
750 WFBL, Syracuse, N. Y.
250 WIL St. Louis, Mo.
250 WNAL, Omaha, Neb.
250 WSBF, St. Louis, Mo.
250 WSKF, St. Louis, Mo.
                                                                                                                                                                                                                                                                                            258.5 METERS, 1,160 KILOCYCLES.
  256.3 METERS, 1,170 KILOCYCLES.
270.1 METERS, 1,110 KILOCYCLES.
100 KFLX, Galveston, Texas.
600 KGU, Honolulu, Ifawaii.
1,500 KLDS, Independence, Mo.
1,500 KMED, Medford, Ore.
500 KOAC, Corvallis, Ore.
500 KQV, Pittsburgh, Pa.
100 KZK, Manila, P. I.
500 WGST, Atlanta, Ga.
250 WGWB, Milwaukee, Wis.
500 WHAD, Milwaukee, Wis.
500 WHAD, Milwaukee, Wis.
500 WJAS, Pittsburgh, Pa.
250 WSOE, Milwaukee, Wis.
250 W
                                                                                                                                                                                                                                                                                               256.3 METERS, 1,170 KILOCYCLES.
       267.7 METERS, 1,120 KILOCYCLES.
100 KFIZ, Fon du Lac, Wis.
100 KFLV, Rockford, Ill.
                             100 KFLV, Rockford, III.
500 KFWI, San Francisco, Cal.
1,000 KSBA, Shreveport, La.
250 WAAM, Newark, N. J.
100 WBAO, Decatur, III.
500 WDAE, Tampa, Fla.
100 WFBG, Altoona, Pa.
250 WGCP, Newark, N. J.
30 WLAP, Louisville, Ky.
250 WNJ, Newark, N. J.
50 WOBU, Charleston, W. Va.
53 METERS, 1,130 KILOCYCLES.
2,000 KTSA, San Antonio, Texas.
100 WBES, Takoma Park, Md.
100 WGWS, Daphury, Conn.
     265.3 METERS, 1,130 KILOCYCLES.
2,000 KTSA, San Antonio, Texas.
100 WBES, Takoma Park, Md.
100 WCWS, Danbury, Conn.
500 WIK, Cleveland, Ohio.
500 WOK, Bridgeport, Conn.
1,000 WNOX, Knoxville, Tenn.
2,500 WOI, Ames, Iowa.

263 METERS, 1,140 KILOCYCLES.
50 KFPW, Carterville, Mo.
1,000 KGEF, Los Angeles, Cal.
10 KGEK, Yuma, Colo.
250 KGFH, La Crescenta, Cal.
50 KGHP, Hardin, Mont.
250 WDAG, Amarillo, Texas.
250 WEAM, North Plainfield, N. J
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75 WBBY, Charleston, S. C.
100 WBEE, Wilkes-Barre, Pa.
809 WCAZ, Carthage, III.
810 WHBY, West De Pere, Wis.
810 WBR, Steubenville, Ohio.
810 WGEZ, Wierton, W. Va.
110 WBIX, Memphis, Tenn.
1100 WBX, Memphis, Tenn.
1100 WBX, Memphis, Tenn.
1100 WBX, Shallinown, Iowa.
1100 KFPC, San Diego, Cal.
1100 KFPE, Marshallinown, Iowa.
1100 KFPE, Marshallinown, Iowa.
1100 KFPE, Marshallinown, Iowa.
1100 WGAT, Rapid City, S. D.
1100 WGAT, Rapid City, S. D.
1100 WFBC, Philadelphia, Pa.
1100 WGAT, Rapid City, S. D.
1100 WFBC, Philadelphia, Pa.
1100 WDF, Cranston, R. I.
1100 WFBC, Memphia, Pa.
1100 WDF, Cranston, R. I.
1100 WFBC, Galesburg, III.
1100 WTBX, Streator, III.
1100

100 KGCL, Seattle, Wash,
100 KPCB, Seattle, Wash,
25 WAAD, Cincinnati, Ohio.
100 WAFD, Detroit, Mich.
250 WCOC, Celumbus, Miss.
250 WCBI, Scranten, Pa.
15 WIEZ, Mentgemery, Ala.
50 WLBM, Beston, Mass.
250 WQAN, Seranton, Pa.
100 WHBD, Bellfontaine, Ohio.
100 WHBD, Bellsont, Illiontaine, Ohio.
100 WHBD, Rock Island, Ill.
100 WOMT, Manitowoc, Wis.
100 SAN, Allentown, Pa. 228.9 METERS, 1,310 KILOCYCLES.
500 KELW, Burbank, Cal.
50 KFIR, Pertland, Ore.
15 WGBC, Memphis, Tenn.
500 KGBU, Ketchikan, Alaska.
20 KTAP, San Antonio, Texas.
50 KTBR, Portland, Ore.
250 WHBP, Johnstown, Pa.
100 WMBL, Lakeland, Fla.
100 WMBL, Lakeland, Fla.
2,500 WOWO, Fort Wayne, Ind.

227.1 METERS, 1,320 KILOCYCLES.
250 KFEL, Denver, Colo. 100 WNBR, Memphis, Tenn.
2,500 WOWO, Fort Wayne, Ind.

227.1 METERS, 1,320 KILOCYCLES.
250 KFEL, Denver, Colo.
100 KFUF, Denver, Colo.
50 KGEU, Lower Lake, Cal.
250 KGBH, Honolulu, Hawaii.
500 WAIZ, Appleton, Wis.
500 WARS, Brooklyn, N. Y.
500 WBBC, Brooklyn, N. Y.
500 WBBC, Brooklyn, N. Y.
500 WBC, Cheveland, Ohlo.
100 WJAY, Cleveland, Ohlo.
100 WJAY, Chicago, Ill.
225.4 METERS, 1,330 KILOCYCLES.
100 KFUR, Ogden, Utah.
100 WCGM, Baltimore, Md.
100 WCGM, Baltimore, Md.
100 WCGM, Baltimore, Md.
100 WCGM, Carenovia, N. Y.

223.7 METERS, 1,346 KILOCYCLES.
50 KFBL, Everett, Wash.
500 WKAY, Chashville, Tenn.
500 WMAC, Cazenovia, N. Y.

223.7 METERS, 1,346 KILOCYCLES.
50 KFBL, Dowa City, Iowa.
50 KFYS, Cope Girardeau, Mo,
50 KFYS, Cope Girardeau, Mo,
50 KFYS, Cape Girardeau, Mo,
50 WARA, Philadelphia, Pa.
500 WCAM, Camden, N. J.
500 WCAM, Cameno, N. J.
500 WCAM, Cameno,

10 KFHL, Oskaloosa, Iowa.

100 KGBZ, York, Neb.
250 KGDX, Shreveport, La.
100 KGFP, Mitchell, S. D.
50 KGGH, Cedar Grove, La.
250 WJBL, Decatur, Ill.
50 WKBP, Battle Creek, Mich.
250 WSAR, Philadelphia, Pa.
250 WSAR, Fall River, Mass.

211.1 METERS, 1,420 KILOCYCLES,
100 KFCR. Santa Barbara. Cal. 150 WKBF, Battle Creek, Mich.
250 WSAK, Philadelphia, Pa.
250 WSAK, Fall River, Mass.
211.1 METERS, 1,420 KILOCYCLES,
100 KFCR, Santa Barbara, Cal.
15 KFY9, Breckenridge, Texas.
15 KGFM, Yuba City, Cal.
100 WBMF, Detroit, Mich.
100 WBMS, Brooklyn, N. Y.
250 WODA, Cliffside, N. J.
50 WMES, Boston, Mass.
15 WMSC, Chelsea, Mass.
15 WMSC, Chelsea, Mass.
16 WRSC, Chelsea, Mass.
16 WRSC, Chelsea, Mass.
16 WRSC, Chelsea, Mass.
16 WKSC, Chelsea, Mass.
16 WKSC, Chelsea, Mass.
16 WKSC, Gedgewater, Colo.
50 KGHA, Pueblo, Colo.
15 KGHC, Slayton, Minn.
250 KGHC, Pueblo, Colo.
250 KOOS, Bellingham, Wash.
256 WOSS, Beringfield, Ill.
66 WLBF, Kansas City, Mo.
66 WLBF, Iron Mountain, Mich.
10 WYRK, Harrisburg, Pa.
250 WVIFI, Toccoa, Ga.
208.2 METERS, 1,440 KILOCYCLES.
100 KFUS, Oakland, Cal.
100 KZM, Oakland, Cal.
100 KZM, Oakland, Cal.
100 KYRO, Horrisburg, Pa.
250 WUSZ, Chicago, Heights, Ill.
39 WJPW, Ashtabula, Ohio.
210 WMBZ, Chicago, Heights, Ill.
39 WJPW, Ashtabula, Ohio.
210 WMRA, Forest Park, Ill
100 WRR, Ister Haute, Ind.
200 WRS, Fronkland, Cal.
200 KGF, Pueblo, Colo.
210 KGHS, Springfield, Ill.
220 WIBS, Boringfield, Ill.
230 WIBS, Willocycles, Ill.
230 WIBS, Willocycles, Ill.
240 WJBW, Willocycles, Ill.
250 WORR, Springfield, Ill.
250 WGM, Springfield, Ill.
250 WGR, WGR, Warner, N. Y.
250 WGR, Springfield, Ill.
250 WGR, WGR, Warner, N. Y.
250 WGR, Springfield, Ill.
250 WGR, Springfield, Ill.
250 WGR, Spring

The Beldenamel Aerial Kit

The Designation of the Act and a deciding and ground wire troubles. It includes a Beld-enamel Act al., Belden Lightning Arcester, Belden Lead-in and Ground Wire, Insulators, Serew Eyes, Serews, Leading Strap, Insulated Staples—In fact, everything that is required for a highly efficient aerial that is as good after years of sevelex as when first installed. R. M. A., sendered.





-EMMB-

The Belden Non-Air Gap type Lightning Arrester fur-nishes protection against damage from lightning. Ap-proved by fire underwriters.

Use a Beldenamel Aerial Wire for long distance. It does not deteriorate in service. After years of operation it is just as efficient as when new.

Radio Accessories that Improve Reception



Belden Colorubber Flex-ible Tinned Hookup Wire is ideal for ground wires and for Inter-set wires and for Inter-set wiring. Furnished in an for code wiring

Belden Radio Accessories have been developed through years of service to exacting radio manufacturers. Belden Radio Accessories in the black and orange striped cartons are of the same quality as used in the most expensive radio sets. For uniformly satisfactory results, specify Belden when you buy radio accessories.



The Belden 25-ft. Radio Extension Cord is insulated with Colorubber, which prevents loss of tone volume through leakage. The Bakelite Connector attaches to the loud speaker



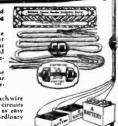
This is a wire that en-Weather does not affect it.



To avoid static and reduce interference, use an indoor aerial. Belden Inside Aerial Wire is easily con-cealed and very effi-

The Belden Fused Redio Battery Cord provides:

- 1. An A. Battery fuse that protects your A battery against short circuits, and resulting fire bazards.
- A B-Battery fuse that protects Your B battery and safe-guards tubes.
- A color code on each wire for identifying circuits which makes it as easy to install as an ordinary battery cord.



BELDEN MANUFACTURING COMPANY 2332. A South Western Avenue Chicago, Illinois

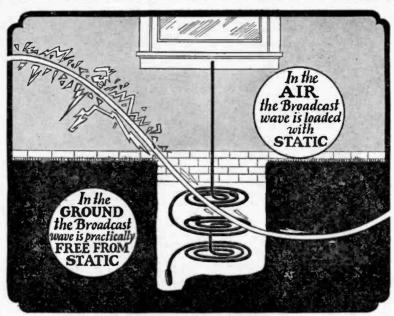
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Please send circular describing Belden Radio Accessories.

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Use STATIC-FREE Ground Waves Get Distance Loud and Clear!



SUBANTENNA abolishes old style aerial—improves Clarity—increases Distance and Volume

Thousands Know the Joy of Radio with this Great New Underground Antenna

"I get plenty of stations with my Subantenna, on the loud speaker, that I have never been able to reach with my outside aerial. It absolutely cuts down interference to the minimum. Cuts static out too—not just partly out—but ALL eut."—H. S. M., North Carolina.

Results—Almost Unbelievable!

"After 4 years of testing aerials I at last found the master in the Subantenna. The first night I used it was a very hot summer night. Static was very bad on my outdoor aerial. I connected my Subantenna and one could hardly believe the results. It was wonderful."—F. L. C., Mass.

CLOVERLEAF MFG. CO. 2713-E Canal St., Chicago, III. PAGE FORTY-SIX

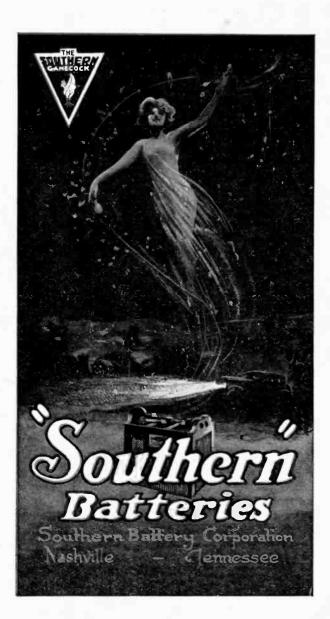
The same radio wave you have always taken out of the air, also travels thru the ground. Only, in the ground, the wave is practically stastic-free! Subantenna intercepts the broadcast wave white it is in the ground, and brnigs it to your set unadulterated as when broadcasted. Think what this means to you! Loud, clear distance summer and winter, regardless of how much static or noise there is in the air. No wonder thousands of fans have taken advantage of our FREE TRIAL OFFER, then permanently changed to Subantenna.

FREE TRIAL

Install Subantenna. Leave your old aerial up. Select a bad night when DX is almost impossible with the ordniary aerial. Make a comparison station for station, connecting first your aerial, then Subantenna. If, from stations that are just a mess of jumbled noise with the old aerial, you don't get reception that rivals local in sweetness and clarity the instant you switch to Subantenna, this test won't cost you even a single penny. Obtain a Subantenna from your dealer or send coupon at once for a sceintific explanation of Subantenna and for particulars of GUARANTEE and FREE TRIAL OFFER. SEND COUPON NOW!

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Tone that thrills to the very toes-volume beyond anything you have heard-selectivity and distance incomparable. See it! Hear it! You'll be convinced.

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