

THE NOVEMBER 1931

RADIO INDEX

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Does Radio Offer Life Career?

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NOVEMBER 1, 1931



RADIO INDEX

REG. U. S. PATENT OFFICE

FRED CLAYTON BUTLER

Editor and Publisher



EIGHTH YEAR

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NUMBER 53

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Is TELEVISION READY for the HOME?

MUCH publicity and discussion during the past year has left the radio public wondering what may be expected of television. Some radio experts believe tha television, like prosperity, is "just around the corner," and that it will come into its own before long. Still others maintain that its present status is comparable to the radio receiver age of a decade ago. While the basic principles of television have been known for a long time, the modern application of them to provide practicable reception must be achieved before radio listeners can be entertained also by visual reception at home.

The father of television, Dr. C. Francis Jenkins, of Washington, has long been optimistic about home reception. His namesake, the Jenkins Television Corporation, now affiliated with the De Forest Radio Company, really began the boom in television through the manufacture of sets and sponsoring of the first broadcasts of moving shadow pictures. But Dr. Jenkins, when invited to tell the readers of RADEX his ideas of the status of television, was forced to decline because no disclosures are now being made public. It is certain that his organization will make public some important development before very long in the world of television.

Industry in a Boom

When the Jenkins Company started the television ball rolling it caught some other experimenters unexpectedly. The Radio Corporation of America, The Bell Laboratories, and others, were hard at work trying to perfect their own methods. But, as Jenkins patents were outstanding, that concern naturally came quickly to the front. And other concerns have seemed reluctant for some time to enter the field of radio-television receiver manufacture. The events of the past months, however, have caused a speculative boom in set building and selling. Heretofore the use of television apparatus has been left entirely to a few experimenters who have had but one or two special broadcasting services avail-

Survey by
B. FRANCIS DASHIELL

able. That situation found practically every radio fan excluded from the opportunities of television. In spite of this it has been estimated that more than 25,000 self-assembled television sets are in use.

New Set for \$100

A few high-priced radio television sets are now being manufactured and sold. Perhaps we are witnessing the development of a new industry that may quickly rise to astonishing heights as did radio not many years ago. At the September, 1931, radio world's fair in New York, a new television receiver that can be focused for any size screen up to 8 by 10 inches was shown. It was a Jenkins Corporation receiver and covers a short wave band from 80 to 200 meters. The scanning disc is set with 60 perfect lenses, each seven-sixteenths of an inch in diameter, and the light of a neon crater lamp is focused on a ground glass screen. This remarkable set is new and not yet commercially available, and will sell for more than \$100.

The Baird Shortwave and Television Corporation, British pioneers in television, has devised a home double-duty receiver which combines both sight and sound. The Western Television Corporation is manufacturing a two-set receiver similar to the Baird apparatus which will sell for about \$300. Television kits may be purchased for experimental purposes as low as twenty dollars. Radio television still has far to go; the industry may meet with radical changes at any time; hundreds of scientists are constantly devising new methods; a few stations can broadcast visual signals; and no one should invest in high-priced apparatus with the expectation of obtaining sensational results.

The most remarkable radio television demonstration in the New York show was given by U. A. Sanabria, a youthful Chicago inventor. Essentially his device

consisted of normal apparatus equipped with a powerful magnifier for projecting images on a great screen about four feet square. But, as most of these demonstrations reproduce local scenes that are carried over a few feet of wire and not through the air by radio for hundreds of miles, they are not real radio tests. The latter is the real criterion, for, with fading, interference, static, and electric noises to contend with, reception is another thing. Every sound other than those produced by the flickering spot of light will show up as unwanted flashes

forth from an experimental station in New York. Permanent television broadcasts are to be considered by the Commission in view of the number of applications received just as soon as it is known that television sets have been sold in sufficient number to justify an arrangement of fixed broadcasting channels.

The problem of television is that of breaking up a picture into about 72,000 light and electric impulses a second which must be transmitted and then reassembled in harmony to reproduce the original picture. Let us suppose a



Morton Downey, Kate Smith and Bing Crosby, all singers, all stars, and all posed, just for the fun of it, before a single microphone. Downey's tenor, Kate's soprano, and Crosby's baritone are now heard six nights a week in programs featuring each, over the Columbia network. How would you like to hear them as a trio?

on the image shown on the receiving screen.

The Federal Radio Commission considers television purely experimental, and stations broadcasting pictures are licensed accordingly. Few stations are permitted to transmit radio vision programs and available wave bands are hard to obtain. The visual channels are all short waves ranging in places from 4 to 150 meters. It will be necessary to have two receivers, one to pick up the sound broadcast, and one to bring in the visual signals. A new frequency channel has been assigned for the sound broadcasts accompanying television transmissions. The Columbia network began, in July, to broadcast sound over its system, but the accompanying sight impulses went

picture to be painted on a piece of cloth. Then the thread is unraveled, but it still bears variations in the painted color along its entire length. At some distant point this thread must be rewoven accurately to combine again to create a picture. This is the work to be done by the receiver in the home. A revolving scanning disc is perforated around its edge with 60 small holes equally spaced along a spiral path making a complete circle. As each hole passes across the screen, which is about one inch square, as the disc turns it leaves a shadowy line of light drawn just below the preceding one. Thus a complete revolution of the disc covers the receiving screen completely with 60 concentric and slightly

(Continued on page 30)

MORE HELP in Time of TROUBLE

By Our RADIO DOCTOR

Radio Enemy No. 2

Is there a cure for fading? My local station is the only one I don't have to stay by my volume control to bring it in. I have tried different aerials and grounds.

There is no cure for true fading; it is caused by some mysterious condition in the atmosphere which varies the energy of the radio waves being transmitted. Some spots are constantly bothered with fading, and certain stations are noted for their fading peculiarities. Occasionally fading is due to variations in the line voltage supplying the receiver. A volt meter connected across the line where the radio set is plugged in will register voltage drops when fading occurs if this should be the cause. One or more tubes may have some defect that can be determined by testing. But if fading is noticed also by others in your neighborhood we are afraid nothing can be done about it.

Can I Use Pentodes?

I wish to use pentode tubes in my eight-tube Atwater Kent superheterodyne set by installing adapters for this purpose that I have seen advertised. Would this be feasible?

An adapter has been devised to fit in the sockets of radio sets using -45 tubes so that the new pentode -47 tubes can be inserted. We can not recommend this change in the case of your set, for it was designed to use the tubes now in operation. Since the pentode eliminates the need of additional intermediate audio amplification it would likely give too much amplification and power for your speaker and power pack. Considerable changes in the wiring will be necessary to install the pentode tube just after the detector—where it belongs. Likewise an adapter has been perfected so that the new variable- μ screen grid tubes can be used in place of the older types of tubes in the radio frequency circuits of radio receivers.

Range of Midget

I have a new R. C. A. Victor Radiolette. Reception is not good and I only get nearby stations in the daytime. What is the trouble? Also, I receive station WPEN at 88 on the dial and another station at 95 which is not listed.

This receiver will not bring in stations like a seven or eight-tube super-heterodyne for it has but three tubes—a radio-frequency, a detector, and a pentode power tube. Its range is, therefore, rather limited, but the set serves excellently as a small receiver to bring in local and other nearby stations. Station WPEN operates on the highest frequency given broadcasting stations—1500 kilocycles or about 200 meters. Evidently your set tunes below that since you get WPEN at 88 on the dial, and the station picked up at 95 has a much lower wave length. It may be a police station nearby.

Shielding Aerial and Ground

Must I ground the shield of shielded ground and lead-in wire? R. C. A. engineers say it should not be grounded, yet the Stromberg Carlson people advise to ground well.

There is no advantage in using shielded wire on a ground connection. The wire is already grounded so the shield is quite unnecessary. However, when shielded wire is used as an aerial lead-in it is supposed to prevent any electrical interferences taking place between the aerial and the radio set from affecting the lead-in wire. By encasing it with a metallic cover that is well grounded at its lower and upper ends the lead-in is effectively protected from stray currents which are carried off to the earth through the shield. But the enclosing shield is not satisfactory for it takes much from the weak currents passing down from the aerial. Its use is not recommended unless local interference is bad. Remember, the shielded wire cannot prevent static interferences that arise beyond the aerial.

Set Lacks Sensitivity

I have a model 35 Atwater Kent receiver which is not very sensitive. I get a

50,000-watt station 25 miles away, but fail on other stations. I think the tubes, batteries and aerial and ground are in perfect condition. What can I do to make the set more sensitive?

Test your speaker as it may be weak or burned out. Compare it with one that is known to be working satisfactorily. Then examine the windings on the primary coils of the transformers or impedance coils. They, too, may be burned out. Are you sure the tubes make good contact with the sockets? Is the grid leak or condenser in place and in good shape? Is the "C" battery properly connected in the circuit? Carefully test the batteries to make sure they are good. The tubes should also be tested by a dealer for weaknesses. There can be no constructional change that will make the set more sensitive.

The Ball Antenna

There are many aerials around me and my Majestic receiver does not tune sharply nor work very well. Can I use a Ball antenna in place of my present 60-foot aerial with 15-foot lead-in and 30-foot ground? Will this reduce static and make sharper tuning?

Changing to a Ball antenna is substantially the same thing as reducing the effective length of your present aerial. It is entirely too long at the present time. Try cutting off about 30 feet. This should make your tuning somewhat sharper and reduce the local station interference. The number of surrounding aerials will make no difference for there are practically no reradiating sets in use now. Of course, the Ball antenna might cut down the static to a greater extent, and you might be justified in its use. You do not indicate what else affects your receiver, but it might be well to have the tubes tested and replace them if necessary.

The Phone Adapter

An adapter was described in the September issue of RADEX that will enable one to use headphones instead of the loud speaker. Can I use this on a new model super-heterodyne?

The telephone adapter is designed to fit in the socket of the first audio tube

in any receiver. It is also used in the last stage of the power amplifier for distant signals that are very weak. But if the socket has five openings for five-prong tubes the adapter cannot be used. This would apply to sets using the new pentode tube and -27 detector. It may be used in sets having the -45 detector in the power stage or -71-A in intermediate stages. It is likely the makers have issued new adapters with five prongs by now, although we have not been advised.



Diminutive Ethel Norris, player of ingenue roles in such musical comedies as "Great Day," and "Rain or Shine," and featured artist in several broadcasts, was heard on "Vitality" "Personalities" over CBS October 7th.

I have a 1928 Radiotrope receiver and the volume control gave trouble. I removed it and tried to get another. I bought a 500,000 control and connected a 50,000 ohm resistor across the outside terminals. The result was disappointing. Does it make any difference how the three wires are connected, for I do not remember how they were originally? Please tell me what I should do. One expert said I needed a potentiometer and another said resistor. What do you think?

No one should remove a part of a radio circuit without first marking the wires as they are disconnected. It is best
(Continued on page 31)

BETWEEN The ACTS

By "BETTY"

RUSS COLUMBO, born in San Francisco in 1908, is tall, dark, handsome—and unmarried. He is one of radio's best-dressed men. Russ started life as a violinist, the dark-haired lad being no more than a child when he first tucked a violin under his chin for a gruff Teutonic teacher. By the time he was 14 he was playing solos in the Imperial Theatre in San Francisco, and when the family moved to Los Angeles he was made the first violinist in the Belmont High School orchestra. His parents were confident that he was started on a successful career as a violinist. But already Russ' mellow baritone was beginning to attract attention. And then came the great day when George Eckhardt, Jr., heard him sing and engaged him for \$75 a week to sing at the newly opened Mayfair Hotel in Los Angeles. Russ later sang and played in the Roosevelt Hotel and the Cocomanut Grove at the Ambassador Hotel. He also had a try at talking pictures, and finally opened his own club, the Club Pyramid in Los Angeles. The young singer then went east and the rest is radio history. Columbo's unique style of singing has captured the country. His personal interest is in opera and he has a private collection of every operatic work ever recorded. He was formerly billed by NBC's program department as "The Pacific Coast Sensation" and now listed as "The Vocal Valentino." Over the air he is announced as "The Lochinvar of the air." (Photo page 15.)

By the Name of Welcome

Do you know how Welcome Lewis got her unusual name? It seems Mrs. Lewis had eight children already, and when another was born she was so glad to have one more girl that she called her "Welcome." Now her family call her "Babe," and her friends "Half-Pint," for the reason that this miniature person stands just five feet in her very highest heels. When she steps on the scale, the hand barely points to 90 pounds. Wel-

come's chance to sing over the radio came unexpectedly. The musical director of a broadcasting company heard one of her recordings at a party given in honor of a well-known radio artist at the latter's home. He wrote her, she was given an audition and passed with flying colors. Miss Lewis lives in Yonkers and drives her own car to the studios. She has no chauffeur, driving is her hobby. She's loads of fun and popular with her fellow artists. Dark hair, brown eyes, and flashing white teeth. Welcome Lewis, the Coty Melody girl, can be heard every Thursday at 9:15 p.m. EST. (Photo page 25.)

The Voice of an Angel

Deliberately did Jessica Dragonette forsake a stage career that promised to be as bright as any, to seek her future before the radio microphone. The NBC was casting about for a young soprano for a light opera and musical comedy company it was assembling. A Broadway expert recommended Jessica, who was then appearing in "The Student Prince," known as the most promising of the young musical comedy voices, but entirely unknown to radio. She was invited to sing in audition. She accepted, more out of curiosity than anything else, she confessed later, and was scared to death. The silence and lack of applause after her first performance appalled her. But her first impression didn't last. She soon became fascinated by the microphone, by the thought that as she sang in the quiet studio, thousands and thousands of people in all parts of the country were listening to her every note. Miss Dragonette was born in Calcutta, India, and was educated in Georgian Court convent in Lakewood, N. J. Tune in the Cities Service program at 8:00 p.m. EST any Friday night and be thrilled by this "Voice of an angel," as Chaliapin termed it. (Photo page 19.)

Freddie Rich

Freddie Rich, orchestra leader, veteran of more than a thousand radio programs, is a product of New York's East Side, where he first played the piano in a

nickelodeon for \$11 a week. His debut as a broadcaster dates back to eight years ago when his orchestra provided the music at Hotel Astor, New York. He has been associated with many of the most important artists in theatre and radio, and at present conducts such programs as Radio Roundup, Vitality Personalities, Manhattan Seranaders, and the Columbians. Freddie is now completing work on a symphonic jazz composition entitled "Penthouse 34." It will depict penthouse life with the sounds emerging from the street distinguishable to its occupants, and presenting a 24-hour panorama of the city below.

"This is Kate Smith"

Kate Smith's professional career covers only six years, dating back to 1925 when she sang at a benefit vaudeville performance in Washington, her home town. At that time she was studying nursing at Georgetown University, but a theatrical producer was in the audience that night, and he lost no time in persuading her to follow a stage career. For two years she played in "Honeymoon Lane" without missing a performance, and after several vaudeville tours, she was seen and heard in "Flying High." Here her singing, clowning and dancing made her a favorite with New York audiences. It was at this time that the rotund Kate first dabbled in radio, but it was not until the termination of the show's New York run that she identified herself with microphone work. Finally, through arrangements with the Columbia System, she was signed as an exclusive artist and given her own fifteen-minute programs. She is now broadcasting four nights a week, Monday, Wednesday, Thursday and Saturday, at 8:30 EST, over 28 stations, under the sponsorship of La Palina, retaining her popular theme song, "When the Moon Comes Over the Mountain," which is said to be one of the most popular tunes in the country today. See her picture, with that of Morton Downey and Bing Crosby, two other outstanding CBS crooners, on page 3.

Our Cover Girl

Harriet Lee, tall, statuesque and blonde,



Jesse Crawford, "poet of the organ," who made his debut in September as an artist for the NBC. The famous organist will be heard every night, except Friday at 11:15 to 11:30 p.m. E.S.T. Sundays at 11:30 to midnight.

is the first "Miss Radio" to be heard regularly on network programs. She is blue-eyed and nordic, born in Chicago, was named Harriet, although the family had wanted a Harry, and nicknamed "Bill." Harriet can't remember when there were not music and vocal lessons to be done. Her first job was in a music shop, where she worked all day and attended the Chicago College of Music in the evenings. Quite by accident she entered the radio profession. Practicing one morning there came a knock on her apartment door. It was a violinist who suggested an audition at a broadcasting studio. Harriet appeared at the studio but found she couldn't utter a note. They gave her no less than three chances before she got over her "Microphobia." After a number of radio appearances, Wendell Hall heard her deep contralto voice and brought her to New York where she was immediately signed for a long contract with Columbia. In clothes

(Continued on page 32)

PUZZLES in RADIO

Three Tantalizing Teasers

"A VERY interesting puzzle," comments Lloyd Rees, Ridgewood, N. J., of October's No. 1; "Let's have more like it." We did think that this puzzle was a good one and would hold our puzzlers for a while, but already the correct solutions are coming in. For those who were unable to solve it the following explanation will be interesting. The translation of the letters given into figures can be reasoned out by simple logic. When the sum of two figures contains one more figure than either of the numbers added, the first figure must always be 1. W is therefore 1 and C must be 2. As G plus B equals B, G must be 0. No matter what F is, G plus F cannot be more than 9, therefore K must be 9 and E must be 8. D must be 4. The values of the remaining letters can now be quickly ascertained by similar calculations.

The seven letters in No. 2 were as follows:

C A
KM C
W B

and the seven calls were CMAC-CMBC-KMAC-KMBC-WMAC-WMBC and KMA. Some used CMC and WMC, thus skipping the third column; these could not be considered.

In No. 3 the code is translated thus:

WCAM
WCMA
WMAC
WMCA

Mr. McAfee's puzzle, No. 4, contained the following calls: HHK-KWK-KGW-WEW-WOC-CMK-KLX-XEW-WLW-WGN-NAA. Lower line: TIC-CKX-XFX-XEC-CMC-CMK-KEX-XFC-CMW-WOV-VAS.

The first puzzle for this month is of a new type and is illustrated in this small sample:

KWMRCS
CPOYRC
WWKHAY

It is required to form five station calls from the above table by dropping the vertical columns down leaving one call in each line, thus:

K M CS
WOR C
CP RY
W KY
W HA

With this explanation form seventeen calls from the following table. As an aid the frequencies of the calls are given: 1310-1200-890-1210-1200-1300-960-1240-1370-650-1200-1250-1500-1500-1310-1370-1210.

Puzzle No. 1

WKKGSCMARLF
WIXNEPBMXCC
CCWMXRTRYPZ
WXMLPGFYBHB
WKDEBKCPACG
KWGWJBXHBWQ

The form of this puzzle was suggested by J. F. Kelley, Jr., Troy, N. Y.

Puzzle No. 2

KJX KNC CKH WIK GWD KWKX

One certain letter is missing from the above line. When this letter is inserted in eighteen places, ten station calls will appear. What are they?

Manuel Miller, 2456 N. Patton Street, Philadelphia, finds twenty-two station calls in the word Kilowatts. How many can you find, using any letter but once in each call with the exception of T, of which there are two? This is puzzle No. 3.

Get your answers to these three problems to us before November 20th and receive a copy of the December RADEX or one of those radio maps of North America without cost. Subscriptions may be extended one issue if request is made.

If you could see one of those new leatherette covers for your RADEX, you wouldn't rest until one was on your radio.

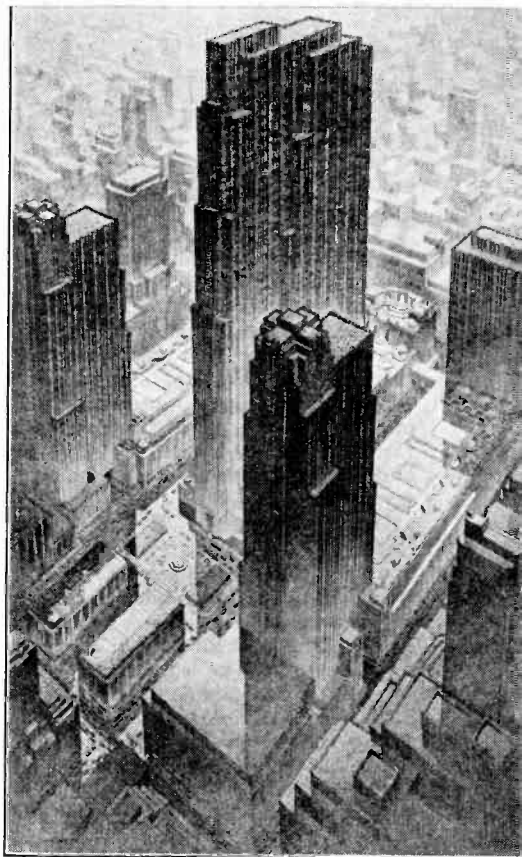
New City of Radio

NEW YORK'S amazing "Radio City" is under way. Excavation work has been in progress for several weeks. Actual construction will start some time in the autumn. The theatres will be completed by October 1, 1932, and the office building by May 1, 1933. The capital required in this, the largest building project in the world's history, is \$250,000,000. Of this amount \$17,500,000 will be spent for land which will be used only for beautification for the benefit of the public and without revenue to the owners of the development. In addition, between a quarter million and a half million dollars will be spent on landscaping.

The accompanying illustration shows an air view of the general development taken from the east side of Fifth Avenue, north of 51st Street. In the left foreground are the two six-story office buildings. Immediately back of them is the Sunken Plaza. Back of that is the 66-story office building with its 16-story wing. This latter structure will have a floor space of 2,500,000 square feet.

A second unit is the International Music Hall, world's largest theatre, to be located on the west half of the block between 50th and 51st Streets. Seven acres of intensive landscaping will be devoted to waterfalls, fountains, reflecting pools, trees, shrubbery, formal flower beds, multi-colored tile walks, grass plots and statuary. The outer walls of the buildings will be covered with a heavy network of living ivy, giving the structures an immediate appearance of dignified age. Even the roofs will be landscaped, becoming gardens of beauty accessible through doors of the adjacent higher buildings. Even trees will be planted on these roofs, securely anchored in three feet of earth.

If you are interested in DX work, you can't imagine how much that new map of North America would add to your pleasure.



Stations Decreasing

There are now exactly 612 radio broadcasting stations in the United States, a substantial decrease from the 733 peak point attained just before the Federal Radio Commission took over the regulatory reins in February, 1927. Though it is following a general policy of licensing no more new stations, except in the few remote areas not now receiving good radio service, the Commission has authorized 11 new stations since the first of this year.

On the other hand, 20 stations have gone off the air since last January 1, six representing consolidations with other stations. Applications for new broadcasting stations, nevertheless, continue to pour into headquarters of the Commission at the rate of about one per day.

Does RADIO Offer LIFE WORK?

An Article for
TIM ADAMS

WHEN we received the following letter from Tim Adams, 97 Mt. Vernon Ave., Pittsburgh, Pa., it occurred to us that Mr. Adams must be representative of many hundreds of other young men who are wondering if radio perhaps does not offer them an opportunity for an interesting and profitable life work. We therefore asked Mr. Dashiell, our Technical Editor, and himself a radio engineer, what he would say to Mr. Adams.

Here is the letter: "I have been a reader of RADEX for three years and I now want to ask you a personal question. What do you think of the possibility of my becoming a radio service man? I know nothing about the work and I would have it all to learn. What is best for me to do—take a mail course at home or go to a resident school? I have a family and would like to better myself if possible, but do not know what is best for me to do. I work at nights and do not get home until 2:30 a.m. Please be frank with me."

In answer to Mr. Adams' question and to those who may be considering similar steps, Mr. Dashiell presents the following article:

Radio As a Life Career

Many ambitious young men see the prospects of a worth-while profession in the field of radio. But because of the limitations of their radio education they naturally wonder whether radio can be made a life work. Radio will provide an interesting career for any man, and it is quite feasible for energetic persons to prepare themselves at home for one or more of the several branches of service where trained men are needed. Radio offers unlimited opportunities not only in servicing and repairing, but in manufacturing, selling, broadcasting, commercial land, ship and aircraft station operation, television, and sound picture and public address engineering.

Naturally there is competition in

radio just as in any other line of occupation; only the trained man can expect to climb toward the top of the ladder. This opportunity is denied no man if he wishes to become proficient in radio. There are many men busy at other lines of work or schooling who desire thoroughly to learn the science of radio. However, the lack of time prevents them from attending local schools if they are present, and the would-be student is compelled to seek radio training by home study methods. Radio schools teaching by correspondence have gone far to assist those who are willing to work diligently to gain knowledge of the many perplexing problems met in the world of radio. Undoubtedly radio correspondence institutes meet a certain condition which is widespread in America, and are the best sources of training for average persons. It is clearly obvious that few men can attend practical schools far from their homes and occupations, and such schools as are available may be counted on the fingers of one hand.

Tomorrow's Experts

The older men who have grown up in the heretofore mysterious realm of radio are the leaders of today. But who shall be the experts of tomorrow? The science of radio must soon be passed along to the keeping of still unknown strangers who are preparing today for the duties of tomorrow. But how do these newcomers find the radio training in so short a time that older heads gathered only in a score of years? And the call of a new and still greater radio future beckons just beyond the horizon! Are you one of the army that will be needed? If so, you must be well trained in your new vocation.

Radio is a relatively new science. Few schools and colleges teach it except in a general way. If one wishes to go to the very roots of the science he immediately is confronted by a great problem—where and how may such education be found? The average man, especially when he is employed, cannot enter a distant university simply to obtain the brushing-over

of radio that accompanies other engineering courses. Of course, the college trained man will perhaps go farther in radio from the very first moment of his business association. And one or two colleges go deeply into radio. The average young man, however, must turn to a school that gives its lessons in radio by correspondence through the mail.

Are You Fitted?

Having decided upon the advantages of a thorough study of radio, the prospective student should now stop and take complete inventory of himself and his abilities. Has he unlimited perseverance? Is he adept as well as mechanically and electrically inclined? Has he previously experimented with radio apparatus and read good books and magazines on the subject? Then, too, he should decide which branch of radio holds the most outstanding appeal, for it is useless to waste time on studies that can be of little use in practical radio work. Radio servicing has the stronger appeal to many young men. Repairing and manufacturing come naturally to ingenious persons when they are properly trained. Perhaps actual broadcasting, commercial land and ship duty fires one to a greater enthusiasm. And aviation, with airport and aircraft radio is becoming an important and specialized field. Then there is television, the making of sound pictures in the movies, and public address systems. The two latter subjects involve much of radio and audio sound principles.

The first puzzle confronting the new candidate for radio training is the problem of how to select the source of his very necessary education. Obviously this is an important task, for the successful completion of the studies is a vital matter if one is to be well versed in radio as a science. And what may he expect to procure for his money investment and time consumed? The answer seems, therefore, to lie in efficient home-study methods given through correspondence with a progressive and recognized school. But no one should expect to make progress unless he is fully determined to work hard and keep everlastingly at it until all the mysteries of radio are laid bare.

Then, and then only, shall he receive the rewards of diligent application—the coveted diploma, for the leading schools do not pass out these certificates like so many coupons. Remember, only about 20 percent of all enrolled students actually graduate from recognized radio institutions, and this figure seems to balance with that of even our greatest institutions of learning.

The selection of a school can be made only after some study and investigation. It will pay to use care and judgment, for there are very few to decide upon. A study of a modern radio school reveals that it is a remarkable institution. The organization has perhaps over one hundred trained men on its staff, some of whom are world-famous experts. The institution handles hundreds of thousands of lessons a year; it furnishes and

(Continued on page 30)



"Here 'tis." Little Jack Little, the NBC's pianist and crooning songster, using the new "whispering mike" on which their engineers have been working for a long time.

Walter Damrosch



ALTHOUGH Walter Damrosch, for more than forty years conductor of the New York Symphony Orchestra and now Musical Counsel for the NBC, holds honorary degrees as Doctor of Music from three great American colleges he never attended one. His education was obtained from the masters of music, private tutors and the public schools of New York.

Damrosch was born in Breslau, Germany, coming to America in 1870 when he was nine years old. Already he had studied Latin and Greek. Here he was faced with the task of learning English. Pupils in public schools knew him for several years. Later he attended the Cooper Union high school, specializing in painting.

Meanwhile his musical education was progressing under the masters of his time—his father Leopold Damrosch, Rischbieter and Draeseke. His pianoforte teachers were von Inten, Beokelman and Pinner. He studied conducting under his father and Von Bulow. Damrosch was only 23 when his father died and he took over the latter's work of conducting the New York Symphony.

Damrosch is known to the radio audience for his work in directing the RCA

Educational Hour, a weekly feature nine months of the year through a coast-to-coast network of NBC stations. In these programs, always heard during the morning hours and designed for students he explains and demonstrates the works of the music masters for the purpose of inspiring a good foundation in musical taste.

Other highlights of Damrosch's musical career include the inauguration of the Sunday Symphony Concerts, the development of the Young People's Symphony Concerts and the writing of two operas, "The Scarlet Letter," and "Cyrano de Bergerac." The latter was produced at the Metropolitan Opera House.

Damrosch's honorary degrees were given him by Columbia University, the University of Pennsylvania and Princeton. The first came from Columbia in 1914 and the final was conferred by Princeton in 1929. He also is an officer of the French Legion of Honor, Chevalier of the Crown of Belgium and Officer of the Crown of Italy.

The new series of Music Appreciation Hour, conducted by Mr. Damrosch, was initiated on October 9th. It will be heard each Friday from 11:00 a.m. to 12:00 noon, EST, over coast-to-coast network of the NBC.

The Month's Changes

New:

620	CMCJ	Havana, Cuba
660	CMDC	Havana, Cuba
735	XER	Villa Acuna, Mex.
930	CMJF	Camaguey, Cuba
950	CMHD	Caibarien, Cuba
1020	CMJH	Ciego de Avila, Cuba
1200	CMJA	Camaguey, Cuba
1200	CKOV	Kelowna, B. C.
1285	CMCV	Havana, Cuba

Locations

570	KMTR	Los Angeles, Calif., to Hollywood
710	KMPC	Los Angeles, Calif., to Beverly Hills

Chains

570	WWNC	CBS to NBC
670	WMAQ	CBS to NBC
720	WGN	NBC to CBS
1010	WIS	CBS to NBC
1350	WKBH	New CBS

Permit to Move

1310	KGFW	Ravenna, Nebr., to Kearney
1310	KTSL	Shreveport, La., to New Orleans
1310	WJAK	Marion, Ind., to Elkhart, Ind.

Reinstated

1420	KFWW	Seattle, Wash.
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What Dou You Think Of It?

WE are changing the form of "What's On the Air Tonight?" this month, and we hope the new arrangement will meet with the approval of our readers. We have been giving nine pages of each issue to this feature, with nine-tenths of that space devoted to a repetition of the stations carrying the program. There are now 166 stations on the three chains and to list all of those carrying each feature is requiring more and more space. We doubt if the majority of our readers have a choice of more than four Columbia stations, for instance, over which they consistently receive CBS programs while a very great many always tune in one particular station. To the great mass of our readers, therefore, the repetition of stations is waste space.

In the new form, we are able to list all of the programs on a single page which will be a marked convenience. We are now able to list over 300 programs weekly in place of only 200 heretofore. At the top of each column, our readers will find four blanks. We suggest that they place in each blank the dial numbers for the four stations through which they best receive that particular chain. If the first of these does not happen to have the feature desired, the next one can be turned to instantly.

As a convenience in tuning, we are continuing on page 33 the list of chain stations arranged alphabetically and on page 35 we are giving the same stations arranged by networks and by frequencies. It is not possible to list the Red and Blue National stations separately as many of them carry both networks.

We urge our readers to try the new form for a few nights and then write us frankly their opinions regarding it. We want to serve them in the manner that will please them best. We do feel, however, that we can use the five pages we are saving to greater advantage than by printing the list of stations over and over again scores of times.

Frequencies

630	CKOG	Hamilton, Ont., from 1010
690	CFRB	Toronto, Ont. from 960
790	CMBT	Havana, Cuba, from 1070
840	CKGW	Toronto, Ont. from 690
880	CAPC	Preston, Ont. from 1210.
925	CMCD	Havana, Cuba, from 1220
925	CMCN	Havana, Cuba, from 1220
960	CKNC	Toronto, Ont. from 580
1120	CFCA	Toronto, Ont. from 840
1205	CMGB	Matanzas, Cuba, from 1180
1225	CMBY	Havana, Cuba, from 1405
1285	CMCU	Havana, Cuba, from 1345
1345	CMCG	Havana, Cuba, from 1285
1345	CMCR	Havana, Cuba, from 1285
1370	CMGH	Matanzas, Cuba, from 780
1382	CMJC	Camaguey, Cuba, from 1321
1405	CMCH	Havana, Cuba, from 1285
1405	CMCM	Havana, Cuba, from 1500
1430	WHEC	Rochester, N. Y., from 1440
1430	WOKO	Albany, N. Y. from 1440
1500	CMBQ	Havana, Cuba, from 1405

Power:

580	CFCY	Charlottetown, P. E. I., 250 to 500
660	CMCO	Havana, Cuba, 225 to 250
730	CKMO	Vancouver, B. C., 50 to 100
790	CMHC	Tui ucu, Cuba, 500 to 100
860	WABC	New York, N. Y., 5000 to 50000
860	WBOQ	New York, N. Y., 5000 to 50000
930	CFCB	North Bay, Ont., 50 to 100
1030	CFCF	Montreal, Que., 1650 to 500
1210	CFNB	Fredericton, N. B., 500 to 100
1225	CMBY	Havana, Cuba, 100 to 350
1285	CMCU	Havana, Cuba, 100 to 150
1345	CMCR	Havana, Cuba, 20 to 150
1370	CMGH	Matanzas, Cuba, 60 to 150
1382	CMJC	Camaguey, Cuba, 15 to 150
1500	CMBL	Havana, Cuba, 15 to 20

Owners:

640	WAIU	Columbus, Ohio, to Associated Radio-casting Corp.
900	KSEI	Pocatello, Idaho, to Radio Service Corp.
1180	WMAZ	Macon, Ga., to Southeastern Broadcasting Co., Inc.
1200	WKJC	Lancaster, Pa., to Lancaster Broadcasting Service, Inc.
1310	KWCR	Cedar Rapids, Iowa, to Cedar Rapids Broadcast Co.
1310	WFDV	Rome, Ga., to Rome Broadcasting Corp.
1310	WJAK	Marion, Ind., to Truth Publishing Co.
1370	KGFL	Raton, New Mexico, to KGFL, Inc.
1400	CMBI	Havana, Cuba, to Francisco Mayorquin
1410	WTAD	Quincy, Ill., to Illincis Broadcasting Corp.
1500	KREG	Santa Ana, Calif., to J. S. Edwards

Deletions:

674	XER	Mexico City, Mex.
1100	CMKD	Santiago, Cuba
1140	CMGD	Matanzas, Cuba
1150	CMHA	Cienfuegos, Cuba
1170	CMKG	Santiago, Cuba
1180	WBDI	Minneapolis, Minn.
1200	CMKB	Santiago, Cuba
1210	KGMP	Elk City, Okla.
1249	CMKE	Santiago, Cuba
1276	CMJB	Ciego de Avila, Cuba
1285	CMBJ	Havana, Cuba
1285	CMBM	Havana, Cuba
1320	CMKH	Santiago, Cuba
1345	CMB A	Havana, Cuba
1345	CMBF	Havana, Cuba
1360	CMKF	Holguin, Cuba
1405	CMBK	Havana, Cuba
1405	CMBX	Havana, Cuba
1420	WBHL	Tupper Lake, N. Y.
1450	CMKA	Santiago, Cuba
1500	CMCT	Havana, Cuba

Monthly Meeting of RADEX FAMILY

THE new radio season is off in earnest. Sponsors of advertising are searching high and low for new and interesting features for their programs. Daylight saving time is gone for a few months and things are fast settling into smooth-running order. Everything is set for our winter's enjoyment.

Of course we have complaints. The fact that we have to have advertising of any sort is resented by many listeners. So far as we are concerned we have no objection to advertising as such but we confess we are terribly bored by those advertisers who repeat the same story over and over each night. They are in the same class as the small-town merchant who has run the same ad in the weekly paper for the last seventeen years. Surely if these advertisers really have a story to tell, they can find someone with ingenuity enough to put it in a new dress for each appearance.

Among our other pet peeves are the set manufacturers who number their dials backwards as compared to the channels, the monologists who tell jokes so old even grandpa won't laugh at them any more, the hired laughers who ha-ha at the leader's wise-cracks, the stations that stay on all night with phonograph records and back-country talent, and so on ad nauseum. But the greatest pest of all is the set manufacturer who puts the tube sockets in the bottom of a tin can that cannot be removed. Fitting five prongs into five holes in the bottom of a dark can is a puzzle greater than any that ever appeared in the puzzle pages of RADEX.

But all this notwithstanding, it is still a great old world and probably the best one we will ever inhabit. So warm up the tubes and let's see what's on this evening.

Our Readers Say

A hint for broadcasters who want to make an improvement is offered by L. U. Maltby, Jr., 101 West 55th St., New York City. "It is very annoying when one tunes in a station, to have to get up and turn up the volume for a

News from the Family Dials

talk and turn it down again for music. I should think the station would put on more power when people talk and have less when there is music. Dance music is the loudest type. One may want to keep the same station all the evening. The listeners-in have much trouble keeping the volume adjusted suitably. Is there an automatic machine that would save us the trouble of adjusting the volume of the receiving set?" There are, of course, automatic volume controls which are intended to keep the volume at a predetermined degree but nothing which will answer the needs of this listener. The answer lies in the hands of the control engineer at the broadcasting station. If he could be made to realize that people have their sets turned down for the musical numbers, he could very easily give additional volume to speakers.

Our Experimenters

Interesting experiments in aerials have brought Oliver W. Todd, 1619 Conestoga St., Philadelphia, what he thinks is the "best of all." Using two five-foot cross arms on a pole 25 feet high, he wound his aerial back and forth vertically between the two cross arms, which are fifteen feet apart, giving him 75 feet aerial length without lead-in. Now he gets the Pacific Coast almost at will and can go through locals and get stations at 15 to 20 kcs. separation, a difficult feat in his neighborhood.

R. W. Brumbaugh, 715 North Atlanta Ave., Tulsa, Okla., sends us his method of attaching headphones. He writes: "I have been reading RADEX for many months and have always been much interested in the suggestions of readers, especially in regard to aerial systems and installing phones in a. c. sets. I have not yet seen any dope on installing phones on a set which has only a single output tube instead of push-pull. I have a Jesse French Midget, Model G., consisting of three screen-grid tubes, a 245

and a 280. I installed phones on this set as follows: I drilled two holes in the chassis for binding posts. One post fastens on the chassis itself, being grounded thereto, there being no connection to it otherwise. The other post is insulated from the chassis, being wired to the plate terminal of the 245 socket with an .02 mfd. condenser in series. This method was first submitted to the manufacturers of the set for their approval and the fixed condenser was used on their recommendation."

Mrs. A. L. Dixon, 1690 Avenue D, Beaumont, Texas, writes to commend new features of RADEX. "'Gossip From Behind the Mike' is very good. We all like to read little intimate sketches of our favorites and you have such good stories about Phil Cook and Ted Husing. Being a member of the 'fair sex' I know little about the inside of a radio, but I surely do know something about the artists and all articles and stories about them certainly appeal to me. Please give us more of this sort of thing."



Edwin W. Scheuing (right) of the NBC Artists' Service, is trying up Paul Whiteman (left) and Russ Columbo for the exclusive use of the NBC.

William R. Anderson, 852 Manning Ave., Toronto, Ont., sends the following items of news gleaned from the air and Canadian newspapers:

WPDU is owned by the City of Philadelphia and is operated under the jurisdiction of the Police Department; it uses a frequency of 1712 kcs. and has been on the air in official service since May 11, 1931.

XEW operates a short-wave station on a frequency of 50 meters or 26,000 kcs.

CKPC, Preston, Ont., is going to share time with CKOC of Hamilton on 1010 kcs. in the near future.

New Toronto wave-lengths unofficially announced which it is rumored will be used very shortly are as follows: CKGW 840, CKNC 960, CFRB 690, CKCL 580, CFCA 1120.

M. M. Bailey, Hood River, Oregon, doesn't agree with Mr. Dashiell that static is radio's greatest pest. Mr. Bailey would give the medal to fading, with station interference running a close second. He thinks at least 75 stations ought to be weeded out, especially the smaller stations whose talent consists of phonograph records. So far as static or summer noise is concerned, Mr. Bailey states he got rid of 75 per cent of it by removing his ground from the water pipes and using a pipe wrapped with number eight copper wire. When bothered with any noise he soaks the ground thoroughly and in five or ten minutes, he reports, the noise is gone.

Almost every day we receive information regarding some new club which we are asked to publish. These new organ-

izations are becoming so numerous that we can no longer give the space unless they are backed by some reputable newspaper or organization. In this connection Harold L. Ball, 514 31st Street, South Bend, Ind., asks, "What is going to happen when all these clubs get to writing to the same station for special DX programs? It looks to me as though no one will then get any satisfaction. Personally I am going to stick to RADEX, the best DX club of them all."

A Hot Program

When WBEO, Marquette, Mich., was signing off for the night recently, clanging fire bells heralded a blaze at a nearby department store. The station manager grabbed a portable microphone and ran to the scene. Engineers strung lines to the transmitter and WBEO went on the air with a blaze-by-blaze description of the fire. The business manager of the station saw the owner of the store in the crowd and in a few seconds sold him the idea of sponsoring the program with extra trimmings in the way of announcements of the inevitable fire sale to follow. It's a hot program when a department store broadcasts a description of the burning of its own building.

Commission Makes Changes

Due to an order of the District of Columbia Court of Appeals, the Federal Radio Commission has made changes affecting WHP, WCAH, WOKO and WHEC. WHP is authorized to change hours of operation to sharing with WBAK only and to operate simultaneously with WCAH, WOKO and WHEC. WOKO changes frequency from 1440 to 1430 with unlimited time, operating simultaneously with WHP, WCAH and WHEC. WHEC also changes from 1440 to 1430.

The Commission has revoked the license of KGMP, Elk City, Okla., as licensee has sold all of his interests to D. R. Wallace, who has operated the station since March 28th without the consent of the Commission.

WCFL Chicago, has been granted authority to operate full time on 970 kcs. as an experiment. This is a cleared channel allocated to KJR Seattle, which agreed to the tests.

The Radio Commission has granted authority to KSO, Clarinda, Iowa, to discontinue operation until November 1st, pending completion of construction of new equipment.

The license of WHDL, Tupper Lake, N. Y., has been revoked by the Radio Commission "because of violations of the Commission's rules and regulations."

Some Questions

We frequently receive letters from readers asking the meaning of the various symbols in the Index by Frequencies. These are all explained in the text at the top of page 40. This month we are adding a new symbol to indicate stations using a frequency simultaneously.

Several correspondents point out that Newfoundland is not a part of the Dominion of Canada. We happen to be aware of this fact but list the former country among the provinces as a mere matter of convenience.

A number of readers have written asking about a short-wave station on 980 kcs. What they have heard is merely the announcement. Several broadcasting stations operate short-wave stations. Among them are WGY, KDKA, WLW, WENR, WCFL, WABC, WEAJ and WJZ. Some of these announce for both stations thus: "This is KDKA and W8XX, Pittsburgh." Naturally the listener tuned to 980 kcs. hears this announcement but it is coming to him over the broadcast band and not over the short waves.

Chas. E. Summers, Sr., 28 Gallatin Ave., Buffalo, N. Y., wants information regarding a station whose call he made out as DE9CB and the location as Toronto, Ont. The VE (not DE) Canadian stations were listed in the June RADEX, but no 9CB appears in this list and no station is listed from Toronto except in television. Mr. Summers also picked up a station near 570 kcs. on September 2nd which was playing records and soliciting members for a club. He gave his phone call as 1341 and was evidently making direct sales of some sort over the radio. He signed off at 1:00 a.m. PST. The call began with KM. Can any reader identify this station?

Guy B. Welsh, has also heard VE9CB

Toronto and hopes some Canadian reader can supply information regarding it. He has also received a 9CY in Ottawa.

"I understand the new 'Radio City' here in New York is to be wired for d. c.," states L. U. Maltby, Jr., and asks why direct current should be preferred to alternating. We have no information on this point; perhaps some of our readers can enlighten us.

"Can the original French Pathe receiver be purchased in the U. S.?" asks W. J. Bullock, Box 213, Red Deer, Alta. Mr. Bullock has studied the wiring diagram and believes it must be a wonderful receiver.

"The other night I got a station on 1500 kcs. giving police calls; the call letters were KGBL. Do you know where KGBL is?" asks Charles C. Norton, 2545 Polk Street, San Francisco.

Some Answers

"In the October RADEX, Sam Kiamie wants to know why you list Mexican and Cuban stations of less than fifty watts," points out Charles Maier, Jr., 92 Zab-riskie St., Jersey City, N. J. "Let him know that stations of even five and ten watts can be heard thousands of miles away with a good set and some patience. I have a verification from XEL, Saltillo, Mexico (10 watts), also a Cuban 30-watt, CMGB, and I use just a loop antenna. Also please tell Charles H. Kramer," adds Mr. Maier, "that XETY verified my report promptly." Our Jersey City correspondent has now received 425 stations on his Magnaformer.

In answer to the query of Le Briton Faber, the following information is proffered by Ivan D. Ide, Box 312, Genoa, Ill.: KUX, Cagayan (Misamis) P. I., 5165 kcs. 58.09 meters, with hours from 7 a.m. to 7 p.m. Sundays and holidays, is owned by the Philippine Insular Government. KGWE, Los Angeles, Calif., on 4945 and 5525 kcs. is owned by Press Wireless, Inc. WGN has, of course, a harmonic on 5760 kcs. and that may explain how Mr. Faber got them near 6000. "I get them on 11500 kcs., which would be their next harmonic," says Mr. Ide, "but, of course, I am nearer to them than Mr. Faber." WLAP, Louisville, Ky., is now putting out

verifications and is on the air between 6:00 and 11:00 p.m. CST.

"Has anyone ever picked up KDA, the Chicago municipal airport station?" asks A. W. Snyder, of 3216 West 38th Place, of that city. "They come in at about 1050 kcs. Is that their channel or a harmonic?" KDA is licensed to use a number of frequencies: 855, 1400, and several on short waves. If received on 1050, it must be a harmonic. "Tell Fred W. Janssen," goes on Mr. Snyder, "that if he will send an unquestionable verification from any station not issuing Ekko stamps, to the Ekko Stamp Co., Daily News Plaza, Chicago, Ill., they will send a stamp for that station and return the verification, for ten cents for each station."

Several readers answer Victor J. Balt's inquiry regarding WMP to the effect that it is the station of the Massachusetts state police located in their barracks at Framingham, between Boston and Worcester.

C. T. Main, Stillwater, Oklahoma, is sure the station G. D. Iliffe heard was WBBZ, of Arkansas City, as that station has its studio in the Monroe Hotel.



Here's the "old maestro" himself, Ben Bernie, whose orchestra is one of the favorites heard regularly over the Columbia system.

WCAH—The Pioneer Broadcasting Station of Columbus.
 WCCO—Washburn-Crosby Company.
 WCFL—The Voice of Labor.
 WCOD—Wonderful City of Distribution.
 WDAF—Home of the Night Hawks.
 WDEV—The Voice of the Green Mountains.
 WEHC—In the Hills of Old Virginia.
 WENR—The Voice of Service.
 WFBM—The Crossroads of America.
 WFDL—One of the Pioneers.
 WFIW—Whitest Flour in the World.
 WGBF—Cross Roads of the Air.
 WGH—World's Greatest Harbor.
 WHBU—Only Bank-Owned Station in Indiana.
 WHDL—The Voice in the Clouds.
 WHP—The Radio Voice of Central Pennsylvania.
 WIL—The Friendly Station.
 WIS—Wonderful Iodine State.
 WJBC—The Voice of the Illinois Valley.
 WJBI—Monmouth County's First Broadcasting Station.
 WJKS—Where Joy Kills Sorrow.
 WJR—The Good-Will Station.
 WKAV—The Gateway to the White Mountains.
 WKBF—The Voice of the Capitol.
 WKBI—We Kill Blues Instantly.
 WKBS—The Voice of Galesburg.
 WKRC—The Home of the Gruen Watch.
 WLBW—Northwestern Pennsylvania's Broadcasting Station.
 WLTH—The Voice of Brooklyn.
 WLVA—In the Heart of Old Virginia, Where the Blue Ridge Begins.
 WMBO—The Voice of the Finger Lakes.
 WMRJ—In the Heart of Appalachia.
 WOPJ—The Voice of the Appalachians.
 WOR—One of America's Great Stores.
 WOW—Woodmen of the World.
 WPCC—We Preach Christ Crucified.
 WRAM—The Playground of the South.
 WRDW—The Call of Augusta, Ga.
 WREN—The Jenny Wren Station.
 WSB—Covers Dixie Like the Dew.
 WSPA—The Voice of South Carolina.
 WSUN—Why Stay Up North.
 WTBO—The Voice of Cumberland.
 WTOC—Welcome to Our City.
 XED—The Voice of Two Republics.
 XEJ—Voice of the Continent.
 XEN—The Voice of Mexico.
 XEW—The Voice of Latin America.

KYW	Chicago	French Sunday, 4:00 p.m.
WCFL	Chicago	Irish Sunday, 8:00-9:00 p.m.
WHFC	Cicero	Bohemian Daily except Sunday, 9:30-10:15 a.m.
WGES	Chicago	Daily except Sunday 9:30-10:00 a.m.
WIBO	Chicago	Norwegian Sunday 3:00 p.m.
WCFL	Chicago	Lithuanian Sunday 7:00 p.m.
WSBC	Chicago	Italian Sunday 9:00 p.m.
WJJD	Chicago	Greek Sunday 7:00 p.m.



Jessica Dragonette of the charming personality and the angel's voice. Read her story on page 6.

Foreign Language Programs

"INQUIRY was made in the October issue of RADEX," writes George Raba, Stevensville, Mich., for Czecho-Slovakian programs. I cannot supply this, but following are a number of regular weekly programs in other foreign languages:

	Polish	
WTMJ	Milwaukee	Saturday, 8:00-9:00 p.m.
WSBC	Chicago	Sunday, 3:30 p.m.
WLS	Chicago	Sunday, 1:30 p.m.
WCFL	Chicago	Sunday, 3:00 p.m.
WBBM	Chicago	Saturday, 9:00 p.m.

	German	
WTMJ	Milwaukee	Sunday, 1:00-1:30 p.m.
WCFL	Chicago	Saturday, 7:00-3:00 p.m.

All of the times given are Eastern Standard. Many French programs are given by various Canadian stations, particularly those in the Province of Quebec. The CBS carries the WBBM Polish and the NBC the KYW French programs. WJAY Cleveland has programs in various foreign languages Sundays from 1:15 to 5:00 p.m. An Hawaiian program is carried by WAAF Chicago daily at 10:00 to 10:15 a.m. and Sundays 10:00 to 10:30 a.m. The NBC carries an Italian program Sundays 11:00 to 11:30 a.m.

Station CKX, Brandon, Man., which many DXers need for the 540 frequency, will broadcast a special DX program at 1:00 a.m. CST., November 1st.

COLUMBIA wants "BOOSTER" Station

Asks Second Outlet
in Capital

VITAL changes in the network broadcasting map of the United States are in the offing. Not only by the acquisition of financial interest in more stations, but by the introduction of new engineering technique, the major national chains this week revealed their purpose to widen their scope and influence in the broadcast structure.

Probably the most important of the chain projects now awaiting the sanction of the Federal rulers of radio is the proposal of the Columbia Broadcasting System to erect a 250-watt "booster" station here in Washington to be synchronized with WABC, its New York key station, in order to furnish the nation's capital with Columbia service on a full-time basis.

Not merely because of its local aspects, but because it again foreshadows the day when nation-wide chain broadcasting may be accomplished on a single wave length, this radical engineering departure is significant in the extreme. Columbia intends to sever its connections with WMAI, the independently owned outlet here which it has unsuccessfully sought to purchase, and through the "booster" give Washington the identical programs being broadcast by WABC over New York through all the waking hours of the day.

WMAQ will go off the Columbia network and henceforth subscribe only to NBC programs, one of which — Amos 'n' Andy — it has originated for the NBC, since the blackface pair went on the network, Columbia must now cast about for a new outlet or outlets to supplement WBBM, Chicago, which it owns but which is licensed only to broadcast four-sevenths time on the clear channel it shares with KFAB, Lincoln, Neb.

The apparent sparring between the two chains for supremacy in the matter of station outlets also broke out in

another way in Washington this week. Reports which the parties concerned would neither verify nor deny were current that NBC would shortly add Station WJSV, the Washington station owned by Ku Klux Klan publishing interests, as a regular outlet for its Blue network programs. Station WJSV is a 10,000 watt operating on 1460 kilocycles, which channel it uses simultaneously with KSTP, St. Paul, also a 10,000 watt. At present the NBC owns and operates WRC, which provides Washington with programs from both its Red and Blue networks.

The possibility was that, if WJSV goes on the network, it would match crystals with KSTP in order to eliminate the interference which KSTP claims it has been suffering from WJSV. This engineering method already being tried by a group of Pennsylvania and New York stations on the Columbia net, may also furnish further proof of the efficacy of simultaneous operation on a single channel.

Speculation was rife as to what the proposed Columbia "booster" development in Washington and the other developments would mean to clear channel broadcasting. Should Columbia secure a "booster" station in Washington, the wave of WABC, which has been rebuilt to 50,000 watts power, will no longer be a clear channel. By the same token, however, the channels of WEAJ, which now synchronizes half time with WTIC, Hartford, and of WJZ, which synchronizes half time with WBAL, Baltimore, are no longer clear channels.

The latter synchronizing experiments, which have been conducted by NBC since early last spring, are not unlike the one proposed by Columbia, except that the powers of the Hartford and Baltimore stations involved are much greater than the 250-watts proposed for Washington. The Commission only last week authorized a continuance of the WEAJ-WTIC and WJZ-WBAL synchronization, although the field reports thus far have indicated that rural and

distant reception from each of these stations — the prime reason for clear channels — has been rendered practically negligible, albeit local reception in Hartford and Baltimore is good.

Columbia, while standing to improve itself in Washington by having a full-time outlet, faces real trouble in Chicago with the withdrawal of WMAQ. It still has WBBM and serves WJJD, but it is precluded from serving WGN, KYW, WENR, WLS, WCFL, and now WMAQ, all also in the Chicago territory, because they have NBC tieups. However, reports have been current lately that KYW a Westinghouse station under lease to the Hearst newspaper interests, may soon end its Hearst and possibly its chain affiliation, and there have also been reports that WGN may withdraw from the NBC network.

New Cable Better Signals

PROBABLY unnoticed by the average radio listener has been the distinct improvement in the tonal quality of the radio programs that are being transmitted by various broadcasting stations on those portions of the basic networks of the National Broadcasting Company and Columbia Broadcasting System lying between New York and Chicago.

It is possible that the trained ears of some engineers and musicians have discerned the difference, but the average radio fan, unversed in the technical nuances of the mysterious art, must rest on the assurances of the American Telephone & Telegraph Company that its telephone line connections between those chain stations have been vastly improved by the recent installation of a new type of connecting cable.

Known as the new high-grade covered cable, its chief characteristic is that it widens the frequency — and thus the tone — range of music to make it possible to transmit and reproduce the studio performance more faithfully. Thus, if the receiving set is capable of tuning in the whole range of frequencies being transmitted by stations capable of radiating the full range of frequencies

carried into the stations via the telephone cable from the networks' key studios, vocal and orchestra renditions should be considerably more natural.

Ordinary telephone lines, specially engineered, hitherto have connected stations of the chains. Their frequency range is around 150-5000 cycles, which leaves out many of the lower and higher notes. The new cable widens this range to 30-8000 cycles, thus embracing many more low and high notes. Thus the piano's low C, at 32 cycles, should be heard as well as squeaks and chirps above 5,000 cycles, hitherto outside the hearing range of radio.

The harmonies of notes determine the fidelity, color and distinguishability of musical instruments, which occupy a considerably wider range of frequencies than the human voice, for which the telephone company provides only a 250-2750 cycle channel.

Most radio stations now on the air cannot transmit on as wide a range as the new 30-8000 cycle cable, and very few receivers and loud speakers are designed so that they can tune in high notes beyond 4000-5000 cycles. The trend, however, is to widen the range of transmission as fast as technique permits. The Federal Radio Commission allows 10,000 cycle bands to each station; the telephone company's new cable installation is thus keeping apace with, if not ahead of, the radio art.

It is the telephone company's plan to make the widened frequency range available to all network stations as rapidly as possible. At the present time it is installing spurs of the new cable between New York, Boston and Washington. Circuits will also be extended from Chicago to the west coast, using high grade open wires, however, rather than the covered cable.

WGN on Columbia

Just as we go to press, word comes that the Columbia Broadcasting System has completed arrangements with WGN, Chicago, to replace WMAQ, lost to the National.

In THE WORLD of DX

AN interesting report of the activities of the Buffalo Evening News DX Club is sent in by J. W. H. Johnston, 117 79th St., Niagara Falls, N. Y. "Our club had another successful DX contest from January 1st to April 30th which was won by L. J. Foster, 172 Tremaine St., Kenmore, N. Y., who was presented with a beautiful electric clock. Mr. Foster dialed 407 stations between the above dates, receiving 325 bonafide verifications back before the contest closed. Another contest ended September 30th, to see what member could log the most distant station with the lowest power. October will start our winter programs which will be broadcast over WBEN, Buffalo. Last winter we gave away four free membership cards every month to the most distant listeners to our programs and one went as far west as Merced, Calif., to Mr. Constantino Stefani. The same offer will apply to our broadcasts this winter."

East Coast vs. West Coast

In answer to the query of DXers on the Atlantic Seaboard as to why the West Coasters should seem to receive distant stations so much better, Eugene Martin, 704 S. Green St., Wichita, Kans., submits the following conjecture: "Radio waves just naturally travel much better from west to east than they do east to west. Proof? Well, here's a bit: Occasionally in winter we pick up KMPC, 500 watts, around 8:00 p.m. On the same wave is WOR with 5,000 watts and almost exactly the same distance away. WOR with ten times the power, does not come in as loud as KMPC. When WEF shared a wave with KFRC, 50,000 watts against 1000, we could get KFRC when both were on. KNX with 5000 watts is much better than WTIC with 50,000. Every ten kilowatt station in Japan comes in better than WBZ. 2BL, 4QG and 2YA are received better and oftener than WEEI."

"Has any Pacific-Coaster ever heard a station from the Atlantic Coast," Herbert V. Haussler, Box 15, Pratt Sta., Brooklyn, N. Y., wants to know. "These

What Globe Girdlers are Doing

'Pacifics' are forever bragging about their foreign Japanese catches." Mr. Haussler agrees with Eugene Martin that signals are easier to receive from the west than from the east.

Clement Van Velsor, 1033 Sanford Ave., Irvington, N. J., writes: "Today I2RO, FYA and G5SW are coming in with wonderful volume. I listened to the rebroadcast from G5SW over the NBC and when they ended, I listened to the rest of the program direct. I find the volume louder than it has been for weeks. Yesterday VK2ME came in rather well and quite steadily. Absence of fading was remarkable as this station usually fades badly. This station broadcast the cry of the cuckoo bird from a record." Mr. Van Velsor has installed a new ground, using a copper strip sixteen feet long in a trench eight feet long and one foot deep. He put one-half the copper strip in, covered it with dirt and turned the other half back. Rock salt was used generously around the copper. With the ground thoroughly soaked, Mr. Van Velsor reports reception on short waves greatly improved.

When to Count 'Em

"I do not agree with Mr. Holley that DXers should log every change of call letters as a new station," states A. E. Armstrong, P. O. Box 700, Glendale, Calif. "When a station changes its call I change the letters in my log and count it still as just one station. If, however, a station changes its location from one town to another, that's different. I believe, though, that it is quite proper to log separately such stations as WABC and WBOQ when each is received on a different occasion." Mr. Armstrong has logged 318 stations on his Westinghouse WR-6-42 states, 19 Canadians, 13 Mexicans, three Cubans, 9 Japanese and one each in Formosa, Manchuria, Hawaii, Philippines, New Zealand and Australia.

"By the way," comments Roy Cattle, R. F. D. 2, Paterson, N. J., "I've been tuning mornings from 2 to 5 EST this summer and have been rewarded with about 30 new ones—California, Oregon and Washington were fairly consistent, KFOX being heard after daylight nearly every morning." Roy now has a total of 537 with 400 verified. Over the water he haz New Zealand, Japan, Germany and Spain. He doesn't agree with the experts who say tubes should be replaced every one thousand hours. "For proof," he says, "I logged and verified KDB, KPQ, CKMO, CKWX, KGFJ, KJBZ, 2XA, EAJ1, JOFK with tubes at least 4000 hours old in conjunction with an old 71 Majestic Neutrodyne with a 50-foot antenna only 20 feet high."

Unusual Interference

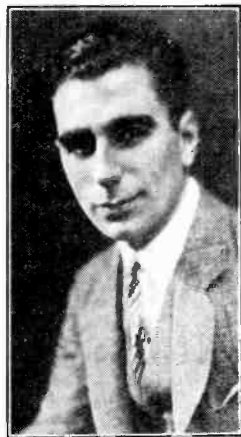
Reginald Ogan, Star Pine Road, Carpinteria, Calif., has brought in many distant and low-powered stations on his Clarion eight-tube without an aerial. Among them are: XEJ, XEB, XEN, XEW, XET, XED, XEM and XES in Mexico, and CFCN, CFAC, CNRD, CFCT, CNRW, CKWX in Canada, and 8WMC in Newfoundland, CMK and CMX in Cuba and JOIK in Japan. His reception is almost ruined from 6:00 to 10 p.m. by KWG, Stockton, on 620, and KGB, San Diego, on 1330. He cannot understand how they can do this with only 100 and 500 watts respectively when he is much nearer more powerful stations. It is undoubtedly a peculiarity of location. A wave trap might help.

"A million dollars" is the value Clarence Burnham, 147 East Main Street, Gloucester, Mass., puts upon his R-DEX. He "sure gets a kick out of the DX department." With his Radiola he has 260 stations added up. He gets most of a thrill out of the low-watters and is proud of CHGS, WFDW, WHDL, WMRJ, WRAK, WEDH, WMPC, WMBC, WILM, WMBG, WLBG and others. WOL came in at 3:00 o'clock in the afternoon and was verified. Some of these stations have increased their power since he received them.

Sam Kiamie, 2857 Sampson Ave., New York City, reports the new DX season opening with a bang. Early in

September he wrote that he had logged many low-watt stations among them WDEV, 50 watts in Vermont, WLBC Muncie and WJAK Marion, Indiana. He couldn't identify W8XAR, KDKA's testing call, on 980 and he wants some one to identify a station heard on 660 which he thinks was CHWK, Chilliwack, B. C. They were broadcasting phonograph records of which one was "One More Time," at 4:00 a.m. Sunday morning, September 6th.

"Can anyone help me on a station heard on September 5th at 2:15 a.m. FDST giving the call KSTJ, Kansas City, Iowa," inquires H. W. Hurlburt, 327 Orange Road, Montclair, N. J. "They were on 1340 playing 'Hallelujah, I'm a Bum.' This station tests nearly



Nick Lucas, the strumming guitarist and singer, who is a favorite artist on many programs of the NBC.

every night, giving the same call and location although our postmaster says no such city is listed in Iowa in the postal guide."

"One morning last March," writes the Rev. Edwin A. Batchelder, Ne-gaunee, Mich., "I picked up what sounded like a Philippine weather report on a frequency about half-way between 1500 kcs, and the Chicago police frequency. Is such a thing possible? Static was very bad as the station signed off and I was unable to get his call."

Herbert Childs, Jr., 99 Bruce St., London, Ontario, quotes the following from a letter received from CKWX:

"We broadcast two programs weekly solely for DX purposes—Wednesday and Saturday nights from 11:30 on, PST." Herbert wants the correct address of WCHI as his letters to that station have all been returned. Will some of our Chicago readers let us know?

Robert E. Moran, 31 Rochester St., Ottawa, Ontario, is anxious to identify a station he heard on 1200 kcs. broadcasting the "Half-Moon Orchestra from the Half-Moon Inn." Who knows?

"It may please you to know," advises William E. May, 14 Maple Place, Nutley, N. J., "that at the September meeting of the Newark News DX Club, the RADEX map was adopted as the standard by the committee which issues the DX certificates. The RADEX map will be officially used in determining the distance of stations and deciding competitions."

Good Summer Reception

Since July 17th (to September 3rd) Edward C. Houlgate, 351 Adelaide St., London, Ontario, has logged 205 stations including KFI, KNX, KPO, KGO, KOH, KJR, KGA, XEO, XEW, KHQ, etc. "Some reception for summer," he comments, "but the set is an 11-tube Philco Super." He reports that 10AX, at Stratford, has been rebroadcasting Amos 'n Andy all summer.

Meyer Tuchinsky, 3436 Filbert St., Philadelphia, opens the new DX season with 620 stations entered in his log. New ones are scarce now, he admits, and when he gets a new one a night, he is lucky and when he gets two he celebrates.

Earl R. Roberts, 712 South 9th St., Cambridge, Ohio, reports that his DX reception is improving with the weather. His total is 573 with 45 on the West Coast, eleven each in Cuba and Mexico, with his prize verification KFPM, 15 watts. He has an eight-tube superhet with an inside loop aerial.

Paul V. Trice, 379 Grant St., Sharon, Pa., reports that in a little more than four months he logged 218 stations on his one-tuber—44 states, Cuba, Canada and Mexico. He brought in KFPM, Greenville, Texas, with 15 watts. Mr. Trice points out that NRH in Costa

Rica should be T14NRH, as the N calls belong in the United States.

"I have received stations in 41 states of the union, four provinces in Canada, Cuba and Mexico," reports Geo. B. Holland, Jr., 1340 Baker Ave., Schenectady, N. Y. "In Mexico I have Tamulipas and Mexico City and in Canada, Ontario, Quebec, Nova Scotia and Saskatchewan."

Some Good Records

Russell E. Myers, San Luis Obispo, Calif., has logged a nice list on his new General Electric S22X and thinks it is the best set of the ten he has had. He is getting more each night and hopes to have a very respectable hamper by spring. He begs us to do something to get stations to give their call letters between programs. Would that we had the power.

"Radio has been both a business and a hobby to me ever since its advent," states Harlan W. Newell, 1629 Centre St., Newton Highlands, Mass. "Although but 18 years old, I feel as if I were a veteran in the DX game." Harlan has received many Mexican, Cuban, Porto Rican and West Coast stations.

"This morning (September 6th) I received nine stations of Japanese vintage," is the statement of James Hultquist, 146 E. San Carlos St., San Jose, Calif. "KZRM Manila came in for good measure. The JO's were NK, LK, JK, BK, AK, HK, CK, IK and JQAK."

With an old Radiola 20 and a short indoor aerial, Richard H. Moore, Deep River, Conn., has received more than 100 stations, all logged before 9:30 p.m. Richard wants to join a DX club in his vicinity.

Japan in New Hampshire

Robert R. Rawstron, 15 Edgewood St., Claremont, N. H., opens the new season with 609 stations to his credit. He has 39 West Coasters to his credit and 2BL, LR4 JOAK, JOJK, RUS, from over the briny.

Frank A. Kunkel, Box 47, Stanhope, N. J., has logged every state except Nevada. He has a total of 554 stations including CKX, CKMO, CKWX, KGAR, KJBS, KXO and other distant and low-powered stations.

KWLC states that it is their intention to reply to all letters received. While rebuilding their transmitter some letters were unanswered, but as a rule all are given attention. This in answer to the complaint of one reader that he had sent them several letters without reply.

Oliver Todd, 1619 Conestoga St., Philadelphia, reports that WFDV, 1310 kcs., Rome, Ga., has a special DX program every Sunday starting at midnight EST. He reports WHBL, Sheboygan, Wis., on the air every Monday, Tuesday and Wednesday from 10 p.m. to midnight CST.

"WCHI, Chicago, has a new schedule," comments Daniel C. Looby, 141 West Seymour St., Philadelphia. "It is as follows: Daily, 12 to 2:45 p.m. and from 9:00 p.m. to 12:00 midnight."

Frederick L. Rushton, Worcester, Mass., submits the time on the air for WTAG, 580 kcs. Daily: 8:00 a.m. to 11:15 p.m. Sundays: 10:30 a.m. to 11:15 p.m.

The New XER

There seems to be some uncertainty regarding the new station of Dr. Brinkley's across the Rio Grande. Its call has been given out as XER although there is already an XER in Mexico City which probably should be deleted. In the October issue of this magazine, a statement from Dr. Brinkley gave the frequency of his new station as 665 kcs. T. J. Johnson, Drawer E, Bowlegs, Okla., however has the following to say regarding the reception of the new station:

"I happened to tune in Dr. Brinkley's new station, XER, tonight. They were on 735 kcs. and using 25,000 watts. Their transmitter is at Villa Acuna (R-12 on the radio map) with studios at Del Rio, Texas. They said they would be on tomorrow (October 4th) with 35,000 watts. They are coming in with great volume and should be picked up easily. In fact they came in with the volume control turned down so low that I could bring in no other station on the dial with the same volume, not even WFAA, less than 200 miles away."

Regarding the same station, James L. Goldwater, Adams Hall, Madison, Wis.,

writes: "Last Saturday evening, October 3rd, I logged XER testing with 25,000 watts, between 8:00 and 9:30 CST. It was broadcasting from the State of Coahuila on 730 kcs.

From the above reports it would seem that the new XER has given up its intention of using 665 between WFAF and WMAQ and is using either 730 or a split frequency of 735, thus taking the Canadian wave with possible heterodyne from WSB, one of the stations slated to be given greater power. The new station is outside the control of the United States Radio Commission as only its studio is located in this country.

"You can inform the DXers to be on the lookout for KQV every Saturday



"She's loads of fun." Read the story of Welcome Lewis, on page 6.

night as they will broadcast a 'DX Revue' that will continue until 3:00 a.m. or later, EST," is the advice given by Joseph Stokes, 7318 Woodlawn Ave., Pittsburgh, Pa., who also states that KELW is on each morning from 4:00 a.m. to 7:00 a.m. EST, and that OAX is planning a special DX program for some time in December. Mr. Stokes would like to hear from those DXers who have not less than 25 stations, 2,000 miles distant, verified.

James L. Goldwater, Madison, Wis., writes: "I have been active in the DX

game for four or five years and am just coming back to the thrill of it after a lay-off of a year or two. My log now includes 550 stations scattered through 47 states of the Union, Canada, Mexico and Cuba. I hopefully anticipate landing some of the foreigners the coming winter. Although the seasonal static is still very bad here, ten or fifteen of the Pacific Coast stations have been booming through on a single night. As for the Mexicans, they come straight up the Mississippi Valley with no intervening mountains and five or six of them crash through with tremendous volume. Sometimes in a single evening and frequently as early as 7:00 p.m. I have had XEW, XED, XEN and XEO. XES is more wary and apparently rarely announces in English. XET and XEB are occasional catches."

Fortune Tellers Barred

The Commission has called the following stations "on the carpet" and they may lose their licenses: KTAB, The Associated Broadcasters, Inc., San Francisco, Calif., "because information being broadcast not in the public interest; talks of one 'Zoro' during September not in public interest; licensee of station permitted use of station to others for their own personal benefit; 'Zoro' used station to deliver personal messages to private individuals." WCBA, B. Bryan Musselman, Allentown, Pa., "set for hearing on complaint of certain individuals who charge station is being operated for personal interest of private individuals; licensee has permitted broadcasting by astrologer with questions and answers not in the public interest; licensee permitted false and misleading 'ads' to be broadcast, etc."

"A verification from WRAW gives the information that the new WEEU, Reading, Pa., will open round November 25th," is the information that comes from Earl R. Roberts, 712 S. 9th St., Cambridge, Ohio. "One from WMIL states they are on Sundays and Thursdays from 1:00 a.m. to 4:00 a.m. EST with a DX program. CMCB failed to answer both my reports. A Cuban correspondent writes me that the Cuban stations will hardly ever bother to verify

our reports as they receive too many claims of reception at times they were not on the air. My loop aerial has now brought in 579 stations but no foreign ones. Will remedy that with the installation of an outside aerial and an Ollie Ross ground to work with my loop by inductance."

"As my chief hobby is experimenting and testing," says G. A. Doerflinger, 419 Wyomissing Blvd., Berkshire Heights, Pa., "let me tell you of the results I have had with the Filtered Aerial wire you sent me. This aerial is revolutionary in the results it will produce. It has three times the sensitivity of the old style aerial measured in distance and volume. The sensitivity is so great that many distant stations are practically localized. It greatly helps in selectivity. It was most interesting to note that while playing my local station, WOR, KMPC on the same wave could be heard quite plainly in the background with no interference or noise. The Ollie Ross ground which I am using is a very great help." The results achieved by Mr. Doerflinger are almost unbelievable, but the Filtered Aerial and the Ross ground ought to make a great team.

War Between the Chains

NOT a little concerned is the radio world at large over certain movements now going on behind the scenes in broadcasting. The actual and proposed acquisition of more stations by the chains, the sparring between the rival networks for commanding positions and the efforts of more newspapers to get into radio are among the important current developments.

Having acquired four stations on the West Coast recently at a more or less forced sale — namely: KJR, Seattle; KGA, Spokane; KEX, Portland, and KYA, San Francisco — the National Broadcasting Company shortly thereafter purchased one-half interest in — including the management of — Station WMAQ, of the Chicago Daily News. The chain takes over the station on November 1, at a price reputed to exceed \$500,000.

Now Station WMAQ is a primary outlet of the Columbia Broadcasting System in Chicago, and that network, having lost WMAQ to its rival, finds itself left with only one other Chicago outlet — Station WBBM, which it owns but which has only four-sevenths time on its clear channel. The remaining time is allocated KFAB, Lincoln, Neb., and all efforts on Columbia's part to purchase that station in order to increase WBBM's hours of operation have come to naught.

On the heels of the WMAQ deal, word went out that Station WGN, of the Chicago Tribune, may shortly sever its chain connection with the NBC. Thereupon various rumors were rife that Columbia might lease certain hours on WGN or make some other connection with that station. These reports none of the parties concerned will verify, but certain it is that Columbia must find some additional outlet or outlets in Chicago.

Columbia must solve its problem by November 1, and its solution may be announced shortly. One flat denial did come from Columbia, and that was that it intended to purchase WIBO, Chicago. There are also rumors afloat that Columbia has its eyes on WLW, Cincinnati, which the NBC about a year ago tried and failed to buy.

Meanwhile, NBC officials have been in heavy conferences for several weeks on other of their own expansion plans. Having taken over the management of all the General Electric stations, including recently WGY, Schenectady, the NBC very likely will shortly take over the three Westinghouse broadcasting units, namely, WBZ-WBZA, Boston; KDKA, Pittsburgh, and KYW, Chicago. If this is consummated, the NBC will own or control about a dozen outlets, most of them on clear channels.

One significant aftermath of the NBC's acquisition of KJR, Seattle, was the decision of the Federal Radio Commission this week granting full time operation to WCFL, of the Chicago Federation of Labor, which hitherto has operated only limited time on the KJR clear channel. The net effect is to make that wave a shared or regional channel. This was done with the consent

of the NBC, it is understood. Station WCFL's power of 1,500 watts was not, however, increased.

The labor station, incidentally, has long been a thorn in the side of the so-called "radio trust," demanding a clear channel and having gone so far as to secure passage of a bill in one house of the last Congress which, if enacted, would require the Commission to allocate a clear channel to labor. That channel could only be obtained by taking it away from some other fourth zone station or stations, and the presumption has been that WMAQ and WGN, each on a clear channel, would be forced to divide time on one of them in order to clear a channel for WCFL.

Having six affiliated stations in the Chicago territory, three of them directly controlled, it is not improbable that NBC may meet some political difficulties when the next Congress convenes. Political pressure obtained for WCFL its new full-time assignment, and Columbia, left high and dry with only a four-sevenths time outlet in Chicago, may possibly secure political relief, especially if the cry of monopoly is raised. What other hopes it has for holding its own in the Chicago territory, aside from the possibility of a tieup with WGN, no one can or will say.

On the newspaper side, there is a fairly well authenticated report that Hearst will enter the New York broadcasting field by the purchase of WGBS there. Then too the Boston Herald-Traveler has applied to the Commission for authority to erect a 100-watt station there on a practically unused frequency. In Iowa, the Des Moines Register and Tribune has bought or secured options on four small stations, hoping thereby to procure permission to consolidate them into one new station to serve Des Moines; a chain connection has been assured if this is consummated. In Indiana the Elkhart Truth is seeking authority to move a small station to that city from Marion, and in Rock Island, Ill., the Rock Island Argus is expected to purchase the local station there, if it has not already done so.

Enter, The ALL-WAVE RADIO FAN

ENTER, the all-wave radio fan. The barrier that for years separated long and short waves from the broadcast listeners is rapidly disappearing. The fan who once was confined to the dials of a receiving set designed to tune in only the intermediate channels between 550 and 1500 kilocycles (545 and 200 meters) is now breaking the bounds and crossing over into both the short and long waves. And on the short waves especially he is finding thrills aplenty.

All-wave receiving sets are available by the simple expedient of plug-in coils, which already have widened the listening range down through the high frequency spectrum that once was the sole domain of the amateurs. It is possible also to procure coils that will tune in the long waves that so many high-powered European stations are using.

Several groups of fans are gaining distinction as all-wave DXers. Many make their own sets, or at least the special coils. A few receivers are now on the market, and engineers and technical experts in contact with manufacturers, promise that many more allwave sets will be produced in time to be displayed at the annual radio shows.

Interest in all waves is following logically upon the work the networks have done in international broadcasts. The general radio public first became aware of the remarkable distances and volume possible on short waves with the programs which the National Broadcasting Company and the Columbia Broadcasting System rebroadcast from across the seas. We have heard King George of England, the Prince of Wales, concerts from London, the Pope from Vatican City, the Bayreuth festival, the Mozart festival at Salzburg, Poland's honoring of Woodrow Wilson, a ship launching at Genoa, Mayo Jimmy Walker of New York speaking from Berlin, the Colonial Exposition in Paris, a concert from Budapest, the Simon Bolivar celebration from Venezuela and concerts and talks from Japan. These were announced as having

By Charles J. Gilcrest, Secretary,
the Chicago Daily News DX Club

come to the United States by short waves and then having been rebroadcast by the networks. At the same time a few scattered fans were hearing the same things direct on their own short wave receivers. And so the general radio public, already well acquainted with the intermediate waves to which most sets normally tune, became aware of what was happening on short waves. Hence the evolution of the all-wave radio fan.

DX or long distance radio clubs throughout the world are rapidly combining the short and intermediate waves, now that listeners are able to secure sets which get them both. The Chicago Daily News DX Club and other long distance clubs are becoming all-wave organizations. The club in Chicago plans to open the new DX season in October on an all-wave basis. During the summer the fans who have already added short waves to their hobby of searching the air for far distant stations have had many ether adventures. They hear regularly VK2ME and VK3ME, in Australia; G5SW, Chelmsford, England; Pontoise, France; I2RO, Rome, Italy; XEW, Mexico City; Zeesen, Germany, and Bogota, Colombia. In addition listeners have run into stations in Iceland, Japan, Africa, Russia, Argentine, Costa Rica, and many other far away spots.

At the same time that foreign countries are putting out short wave broadcasts with remarkable results, many of the leading United States stations have started relaying their broadcasts on short waves simultaneously with the long waves. These include WGY, Schenectady; KDKA, Pittsburgh; WLW, Cincinnati; WENR and WCFL, Chicago, and the net work key stations in New York, WABC, WAAF and WJZ. There are also several high power short wave stations which have nothing to do with the long wave transmitters. Some

are located in Bolinas, Calif.; Bound Brook, N. J.; and Rocky Point, N. Y. The radio fan who wanders about the short waves will also run into many other items of interest. The police stations are often found, as well as the experimental radiotelephone stations and those used to dispatch planes flying the airways. The amateurs in both code and voice are in constant touch with one another in widely distant spots and also with the world's leading expeditions. In Chicago one amateur regularly works with Commander Donald B. MacMillan's schooner, the Bowdoin, with headquarters at Nain in Labrador, while another found Col. Lindbergh when the world was wondering what had happened to the noted flyer who was crossing the wastes of Canada en route to Alaska on the way to Japan.

In taking up short waves the radio public is not deserting the broadcast channels. The fans are simply combining both in one set and as one game, or hobby. Long wave DXing has been exceptionally good this year, due to favorable sun spots, the scientists say. Fans listen to stations on the other side of both the Atlantic and Pacific oceans during the early morning hours between the time when the American stations sign off and daylight. At that time the

opening morning programs in Europe manage to reach fans in this country, since almost the entire distance is in darkness and the programs from the west come through well despite the fact it is daytime in Australia and Japan.

The logical next step will probably be to include not only short waves and the broadcast channels in one set but also the waves above 550 meters. Already many of the European sets can reach as high as 2,000 meters and many of the stations over there actually broadcast on wave lengths that long and longer.

Editor's Note — A letter to the Editor from Mr. Gilchrest regarding the above article reads as follows:

"The set which gave me the idea for the all-wave story is the Scott. A folder concerning the set is enclosed.

"There are other companies making such sets, notably the Lincoln Radio Corporation in Chicago. I fully believe that the time is not far distant when the average radio fan will be an all-wave fan, using a set which covers both long and short waves. These sets are not only as good-looking furniture as any other long wave receiver, but give you perfect satisfaction all the way from 15 to 550 meters. I have heard many stations across the oceans with the Scott on short waves. Stations I hear almost

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Write Name Plainly

Street and Number

City and State

at will when they are on include VK3ME and VK2ME in Australia; G5SW, Chelmsford, England; and I2RO, in Rome. It seems that short waves cover enormous distances without and difficulty at all. The important thing is to know their correct wave length and the correct time of broadcast.

"I agree with you perfectly when you say that adaptors are not effective. Only the set built for short waves will really do well on low bands. But if you can combine a good short-wave and a good long-wave set into a single receiver, then you have something extremely worth while."

Grants High Power

The Radio Commission has made tentative grants of increased power to the following radio stations. The increase is to 25,000 watts with an additional 25,000 experimentally. Formal action will not be taken by the Commission until later. The favored stations are WOR, Newark; WCAU, Philadelphia; WSM, Nashville; WSB, Atlanta; WCCO, Minneapolis, WHO-WOC, Des Moines, KOA, Denver; KSL, Salt Lake City; KPO, San Francisco, WHAM, Rochester; WHAS, Louisville; WBT, Charlotte; WAPI, Birmingham; KVOO, Tulsa; KFAB, Lincoln.

Television's Status

(Continued from page 3)

curved lines. Since twenty complete pictures must be laid down every second we can see that 1200 half-tone lines are brushed across the screen a second. And each line is made up of about 60 different shadows of light. It is, therefore, extremely difficult to sweep these spots of light across the screen at such a rapid rate and still keep them synchronized absolutely with the speed of the transmitting television disc which is 1200 revolutions per minute. A loss or gain of one revolution per second will throw the alignment of the picture lines awry and result in a meaningless blot of light. This is the greatest problem of television. Static and other interference will remain always and be even more diffi-

cult to overcome. Standardization of parts, machines and broadcasts, is a matter which must be coordinated if all machines are to be able to tune in on any or all visual broadcasts.

The present status of television is not satisfactory to the average radio fan; it seems slowly developed and crude. Anything that is purely experimental appears chaotic because inventors are working independently and not in harmony. Commercial television may arrive within a year or two, or before—none can say with certainty. But, in New York City, occupying three square blocks in the heart of a region of fabulous values, a group of buildings to compose the \$250,000,000 Radio City is now under construction. Here will be a 60-story skyscraper with 27 great broadcasting studios, large theatres, and many other buildings. This city within a city will be dedicated to radio entertainment and every device for sound and visual broadcasting will be incorporated in the unlimited facilities available. The foresight of the men behind this remarkable development has seriously considered radio television, for ample provision for this form of entertainment has been made. Certainly television as a fixed and practicable form of radio broadcasting and reception is fully expected by the sponsors of this huge organization which will be completed in 1933.

Radio as a Career

(Continued from page 11)

conducts thousands of comprehensive experiments in radio, for the school does not believe entirely in the teaching of theory only; it solicits and replies to thousands of complex questions which arise in the minds of its students and graduates; it finds positions for its worthy graduates, and takes pride in their future successes and achievements. One popular school recently held a convention of its graduates, the first correspondence school alumni meeting ever to be held in America.

An average course in radio requires little or no previous background in engineering, electricity nor mathematics.

But, as stated before, the educated man is of greater value where theories and designing of radio apparatus are required. This man, however, works in a field vastly different than that of serviceman or station operator. The beginner will be started at the very first of radio and electricity. Many lessons will be furnished, one at a time, and the student led progressively into the complications of radio, electricity and sound, almost before he knows it. A number of interesting and practicable outfits are furnished, each with a very comprehensive set of directions and explanations, so that certain experiments may be carried on in the home along with the theory of the lessons. Thus the student finds the lessons can be more easily grasped. Experiments range from elementary telephone and sound waves to actual broadcasting and reception, and with tests of tubes, electric currents, resistance, amplification, conductance, neutralization, and all other phases met in the field of radio.

The student will have a number of special courses to select from. That embracing radio servicing, repairing and manufacturing is the most popular. Then broadcasting, and commercial and governmental ship and shore station operation has taken many men. Sound pictures, public address or speaker systems, aviation radio, television theory and practice, and code courses for mere telegraph operation, offer wide fields to be conquered.

The cost of a straight radio course at one of the leading correspondence schools is approximately one hundred dollars, which may be paid either in cash or by installments. Studies are grouped so that a student may take up any branch of radio, depending upon the kind of work he wishes to follow later on. After graduation he is given the benefit of an employment organization conducted by the school. Employers prefer trained radio men recommended by the school. The salaries paid such men are very good and compare well with other positions of influence and prestige. A mechanic in a radio shop receives good pay and desirable work when fully trained.

Shakespeare and Radio

Some people go so far as to deny that the Bard of Avon knew anything about radio but how do they account for the following quotations from his writings? "Ah, stand by," Anthony and Cleopatra. "Take up some other station," Coriolanus. "His lecture will be done ere you have tuned," Taming of the Shrew. "And my dial goes not true," All's Well That Ends Well. "Tis no matter how it be in tune so it makes noise enough," As You Like It. "And those musicians that shall play to you hang in the air a thousand leagues from hence," Henry IV.

In Time of Trouble

(Continued from page 5)

to make a little sketch showing the entire connection. From the fact that you have three loose wires it is indicated that the volume control that was removed was a potentiometer. Its resistance was probably 25,000 ohms. When you connected a 50,000 resistor across your new 500,000 ohm potentiometer you short circuited it and rendered it useless. Procure a good 25,000 ohm volume control. Then you must trace the three wires. One is attached to the central or rotary connection of the control, and will be found to connect in the set to the grid of some tube, most likely the first audio tube, either direct or through a transformer or impedance coil. The other two wires connect each to the remaining two terminals of the control. These connections are probable because your set uses -26 and -71-A tubes and has no screen grid tubes. We believe that if you trace out your wires and locate the central arm or grid control connection you will solve the problem.

Takes All the Current

I have a Super-Zenith receiver with A and B eliminators. It is necessary to turn up the filament current dial full way to make it work. This was a good set, but is five years old. Should it be fitted anew with modern tubes?

Your letter indicates that the tubes are very old. If this is the case have them replaced by new tubes at once. Also, it

is likely that the tube in the B-eliminator and the rectifying unit of the A-eliminator are long past their usefulness. We suggest that all the tubes be tested by your local dealer. We then believe it will operate as well as it ever did.

Simple But Wrong

Why is it necessary to go to so much trouble to connect head telephones to a receiver? I simply attach mine by pulling out the lead from the speaker of my Zenith 35 receiver and insert the leads from the phones to the output terminals. This works well, but the phones get hot after an hour or so.

You have hit upon the ideal solution but it is far from being a practicable method of attaching headphones to a radio set. It is good as long as the telephones last, and the fact that yours get hot shows what a powerful overloading they are subjected to. Telephones are connected to the output of the detector tube simply because they cannot stand the heavy current that flows in the audio-amplification circuit of the final tube, which is a -50 in your case. Any station that can be amplified sufficiently to operate a loud speaker can be heard with headphones attached to the detector-plate output circuit. And if the signal cannot be heard by the earphones it cannot be amplified clearly without an overwhelming background of static and external noises, which render it unintelligible at the speaker.

Set Crackles

My five-tube battery set has developed a crackling noise that persists after the antenna and ground are disconnected. I have tested tubes and set and can find no trouble or loose wiring. Earphones and not speaker have been used for several months. What do you suggest as a source of trouble?

It seems rather definite that the noises you complain of come from the B battery due to failure of one or more of the individual cells in the battery. This can be determined by placing a B-battery voltmeter across the terminals for a short time. If there is a defective cell its presence will be shown by a sudden jerking of the hand of the testing instrument. The battery should be dis-

carded, or if new, the bad cell may be located and removed after the battery has been opened up. Bad tubes and socket connections are the causes of many internal noises. Check up these potential sources, and examine the connections to the wiring at the terminals of the radio-frequency secondary coils. Another troublesome source is between the plates of the variable condensers where particles of dirt and dust collect and cause a partial short-circuiting of the plates as the condenser is rotated. Clean the spaces carefully with pipe cleaners, first removing the B-battery connections from the set.

Between the Acts

(Continued from page 7)

she is partial to black, which so successfully contrasts her golden hair. Shoes and hats are almost an obsession with her. She loves a serious game of bridge, and her favorite pastime is driving in an open roadster with the speedometer registering around 78. She never before participated in any kind of a contest in her entire life, and is still very much in a fog over winning the title of Miss Radio of 1931. Photograph on front cover.

A Drummer Director

Abe Lyman, whose fame as a drummer and orchestra leader is familiar to audiences of two continents, is a native of Chicago, where he first played the traps in a movie house, long before the sound era. Lyman later migrated to California. At Santa Monica he worked in his brother's supper club, but wanted to lead his own orchestra. His brother told him it was impossible for a drummer to direct a group of musicians, so Abe decided to show him that it could be done. After a series of highly successful engagements in many of the west coast's most popular rendezvous, Lyman and his orchestra toured the country in musical comedy and vaudeville. They also became identified with recordings and motion picture work. Lyman, who, incidentally, has composed such popular tunes as "Mary Lou" and "What Can I Say Dear," directs his singing orchestra over Columbia every Tuesday, Thursday and Saturday, at 8:15 p.m. EST.

WHAT'S ON THE AIR TONIGHT?

COLUMBIA WABC NATIONAL, Red WEAFF NATIONAL, Blue WJZ

For quick reference, fill in below the dial numbers at which you best hear the three chains. You can then turn quickly to one that has the feature you want.

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

DAILY
 12:30- 1:00 Columbia Revue (ex. Sat. and Sun.)
 3:00- 3:30 Columbia Salon Orchestra (ex. Sat. and Sun.)
 7:00- 7:15 Bing Crosby — Youns's Orchestra (ex. Sun.)
 7:45- 8:00 Camel Quarter-Hour, Morton Downey, (ex. Sun.)
 8:00- 8:15 Pryor's Crema Band (ex. Sun.)
 11:15-11:30 Pryor's Crema Band (ex. Sun.)
 11:30-11:45 Camel Quarter-Hour, Morton Downey (ex. Sun.)

12:30- 1:00 Ann Leaf at the Organ
SUNDAY
 11:30-12:30 Voice of St. Louis
 12:30-12:45 International Broadcast
 12:45- 1:00 Cafe Budapest
 1:00- 2:00 Cathedral Hour
 2:00- 2:30 Sons of Elv. Spirituals, etc.
 2:30- 3:00 Columbia Church of the Air
 3:00- 3:15 Fray and Braggiotti, piano team
 3:15- 5:00 New York Philharmonic Symphony
 5:00- 5:30 Rev. Donald Gray Barnhouse
 5:30- 6:00 Blue Coal Radio Revue
 6:00- 6:30 Chicago Knights
 6:30- 7:00 Howard Dandies
 7:00- 7:15 The World's Business
 7:15- 7:30 Charlie and Oscar
 7:30- 8:00 Luden's Novelty Orchestra
 8:00- 8:15 Devils, Drugs and Doctors
 8:15- 8:30 Music Along the Wires
 8:45- 9:15 Angelo Patri, "Your Child"
 9:00- 9:30 Dutch Masters
 9:30-10:00 Romances of the Sea
 10:00-10:30 Ernest Hutcheson, pianist
 10:30-11:00 The Gauchos, with Tito Guizar
 11:00-11:30 Continental String Quartette
 12:00-12:30 Central Park Casino Orchestra

MONDAY
 7:15- 7:30 Linit Orchestra
 7:30- 7:45 Boswell Sisters, Baker Chocolate
 8:15- 8:30 Singing Sam, Barbasol Man
 8:30- 8:45 La Palina, Kate Smith
 8:45- 9:00 Tastyeast Gloom Chasers
 9:00- 9:15 Pompeian Makeup Box
 9:30-10:00 Bourjois, Evening in Paris
 10:00-10:30 Robert Burns Panatella, Guy Lombardo
 10:30-11:00 Savino Tone Pictures
 11:00-11:15 Street Singer
 11:45-12:00 Boswell Sisters, Baker Chocolate

TUESDAY
 7:15- 7:30 Icyeast Program, Reis and Dunn
 7:30- 7:45 Kaltenborn Edits the News
 8:15- 8:30 Sterling Products, Abe Lyman's Band
 8:30- 8:45 Red Goose Adventures
 8:45- 9:00 Walter Winchell, Gerardine Program
 9:00- 9:15 Ben Bernie and Blue Ribbon Orchestra
 9:15- 9:30 Columbians, Freddie Rich
 9:30-10:00 Romances of the Sea
 10:15-10:30 Star Brand Shoemakers
 10:30-11:00 Arabesque, Desert Play
 11:00-11:15 Jack Miller
 11:45-12:00 Asbury Park Casino Orchestra

WEDNESDAY
 7:15- 7:30 Linit Orchestra
 7:30- 7:45 Boswell Sisters, Baker Chocolate
 8:15- 8:30 Singing Sam, Barbasol Man
 8:30- 8:45 La Palina, Kate Smith
 8:45- 9:00 Tastyeast Gloom Chasers
 9:00- 9:30 Gold Medal Fast Freight
 9:30-10:00 Eno Crime Club
 10:00-10:15 Vitality Personalities
 10:15-11:00 Columbia Concerts Program
 11:00-11:15 Street Singer
 11:45-12:00 Boswell Sisters, Baker Chocolate

THURSDAY
 7:30- 7:45 Kaltenborn Edits the News
 8:15- 8:30 Sterling Products, Abe Lyman's Band
 8:30- 8:45 La Palina, Kate Smith
 9:00- 9:30 Toscha Seidel, violinist
 9:30-10:00 Love Story Drama
 10:00-10:30 Hart-Schaffner Trumpeters
 10:30-10:45 Tito Guizar, Spanish tenor
 10:45-11:00 Peter's Parade, Irene Beasley
 11:00-11:15 Jack Miller
 11:45-12:00 Radio Roundup
 12:00-12:30 Guy Lombardo and Orchestra

FRIDAY
 7:15- 7:30 Linit Orchestra
 7:30- 7:45 Boswell Sisters, Baker Chocolate
 8:15- 8:30 Singing Sam, Barbasol Man
 8:30- 9:00 March of Time
 9:00- 9:15 Regal Radio Reproductions
 9:15- 9:45 Liberty Magazine Program
 9:45-10:00 Friendly Five Footnotes
 10:00-10:30 Pillsbury Pageant
 10:30-10:45 Talk by Football Coach
 10:45-11:00 Mills Bros.
 11:00-11:15 Street Singer
 11:45-12:00 Boswell Sisters, Baker Chocolate

SATURDAY
 7:15- 7:30 Political Situation in Washington
 7:30- 7:45 Reis and Dunn
 8:15- 8:30 Sterling Products, Abe Lyman's Band
 8:30- 8:45 La Palina, Kate Smith
 8:45- 9:00 Tastyeast Gloom Chasers
 9:00- 9:30 Chicago Variety Program
 9:30-10:00 National Radio Forum
 10:00-11:00 Hank Simmons' Show Boat
 11:00-11:15 Jack Miller
 11:45-12:00 St. Moritz Orchestra
 12:00-12:30 Guy Lombardo and Orchestra

DAILY
 8:00- 8:15 Gene and Glenn — Quaker Early Birds (ex. Sun.)
 8:15- 8:30 Morning Devotions (ex. Sun.)
 8:30- 9:00 Cheerio (ex. Sun.)
 9:45-10:00 A. & P. Program (ex. Sun.)
 3:00- 4:00 Woman's Radio Review (ex. Sat. and Sun.)
 6:45- 7:00 Swift Program, Stebbins Boys (ex. Sat. and Sun.)
 7:45- 8:00 The Goldbergs — Pepsodent (ex. Sun.)
 11:15-11:30 Swift Program, Stebbins Boys (ex. Sat. and Sun.)
 11:15-11:30 Jesse Crawford, organist (ex. Sun. and Fri.)

SUNDAY
 1:00- 1:30 NBC Artists' Service Program
 1:30- 1:45 Carveth Wells, talk
 1:45- 2:15 Old Company's Anthracite Program
 2:15- 2:30 Sunday Bright Spot
 2:30- 3:00 Moonshine and Honeysuckle
 3:00- 3:30 Wayne King's Orchestra
 4:00- 4:30 Dr. S. Parkes Cadman
 4:30- 5:00 The Wonder Program
 5:00- 5:30 Gilbert and Sullivan Gems
 5:30- 6:00 General Electric Twilight Hour
 6:00- 7:00 Catholic Hour
 7:00- 7:30 In the Gloaming
 7:30- 8:00 Iodent Club of the Air
 8:00- 9:00 Chase & Sanborn, Rubinfon's Orchestra
 9:00- 9:15 Our Government, David Lawrence
 9:15-10:15 Atwater Kent Program
 10:15-10:45 Ted Weem's Orchestra
 10:45-11:15 Sunday at Seth Parker's
 11:30-12:00 Jesse Crawford, organist
 12:00-12:30 Henry Tobias and Orchestra

MONDAY
 8:00- 8:30 Soconyland Sketches
 8:30- 9:00 Voice of Firestone
 9:00- 9:30 A. & P. Gypsies
 9:30-10:00 General Motors Program
 10:00-10:45 True Story, Mary and Bob
 10:45-11:00 Simoniz Guardsmen
 11:00-11:15 Lee Morse
 11:30-12:00 Cab Calloway's Orchestra
 12:00-12:30 Paul Whiteman and Orchestra
 12:15-12:45 Adventures of Sherlock Holmes
 12:30- 1:00 Tweet Hogan and Orchestra

TUESDAY
 6:30- 6:45 Vaughn de Leath, contralto
 7:00- 7:30 Mid-Week Federation Hymn Sing
 8:00- 8:30 Blackstone Plantation, Sanderson and Crumit
 8:30- 9:00 Thrillers
 9:00- 9:30 McKesson Musical Magazine
 9:30-10:00 The Fuller Man
 10:00-11:00 Lucky Strike Dance Orchestra
 11:30-12:00 Jack Denny and Orchestra
 12:00-12:30 Rudy Vallee and Orchestra
 12:30- 1:00 Coon-Sanders and Orchestra

WEDNESDAY
 4:30- 5:00 Phil Spitalny — Tea Dansante
 6:30- 6:45 Ray Perkins, the Old Topper
 7:00- 7:15 Snoop and Peep
 8:00- 8:30 Silver Flute
 8:30- 9:00 Mobiloil Concert
 9:00- 9:30 Halsey-Stuart Program
 9:30-10:30 Palmolive Hour
 10:30-11:00 Coca-Cola Program
 11:00-11:15 Voice of Radio Digest
 11:30-12:00 Vincent Lopez and Orchestra
 12:00-12:30 Cab Calloway's Orchestra

THURSDAY
 7:00- 7:15 Vermont Lumber Jacks, male quartet
 8:00- 9:00 Fleischmann Hour, Rudy Vallee's Orchestra
 9:00- 9:30 Arco Dramatic Musicale
 9:30-10:00 Adventures of Sherlock Holmes
 10:00-11:00 Lucky Strike Dance Orchestra
 11:30-12:00 Sherlock's Continentals
 12:00-12:30 Florence Richardson and Melody Boys
 12:30- 1:00 Coon-Sanders and Orchestra

FRIDAY
 5:30- 5:45 Dolly Connelly, songs
 6:30- 6:45 Ray Perkins, the Old Topper
 7:00- 7:45 Major Bowes' Family
 8:00- 9:00 Cities Service Orchestra, Jessica Dragonette
 9:00- 9:30 The Cluquet Club
 9:30-10:00 Pond's Dance Program, Leo Reisman's Orch.
 10:00-10:30 Florsheim Frolic, Ferdie Grofe's Orchestra
 10:30-11:00 RKO Theatre of the Air
 11:00-12:00 Vincent Lopez and Orchestra
 12:00-12:30 Tweet Hogan and Orchestra
 12:30- 1:00 Henry Tobias and Orchestra

SATURDAY
 1:45- 4:15 Football Game
 4:30- 5:00 Phil Spitalny, Tea Dansante
 5:00- 5:30 Lady Next Door, Children's program
 5:30- 5:45 Dandies of Yesterday, male quartet
 5:45- 6:00 Rex Cole M untimeers
 6:00- 6:30 Waldorf-Astoria Orchestra
 6:30- 7:00 Mr. Bones and Company
 7:00- 7:15 Lee Morse, song recital
 7:15- 7:30 Laws That Safeguard Society
 7:30- 7:45 Breen and deRose
 8:00- 8:30 Civic Concerts Service Program
 8:30- 9:00 National Advisory Council on Radio
 9:00- 9:30 National Orchestra, Erno Rapee
 9:30-10:00 Club Valspar
 10:00-11:00 Lucky Strike Dance Orchestra
 11:30-12:00 Coon-Sanders and Orchestra
 12:00-12:30 Rudy Vallee and Orchestra
 12:30- 1:00 Vincent Lopez and Orchestra

DAILY
 12:30- 1:30 National Farm and Home Hour (ex. Sun.)
 5:45- 6:00 Little Orphan Annie (ex. Sun.)
 6:45- 7:00 Literary Digest Topics, Lowell Thomas (ex. Sun.)
 7:00- 7: 5 Amos 'n' Andy, Pepsodent (ex. Sun.)
 7:30- 7:45 Phil Cook, Quaker Man (ex. Sat. and Sun.)
 10:30-10:45 Clara, Lu and Em (ex. Sun. and Mon.)
 11:00-11:15 Amos 'n' Andy, Pepsodent (ex. Sun.)
 11:15-11:30 Literary Digest Topics, Lowell Thomas (ex. Sun.)
 11:30-11:45 Russ Columbo, songs

SUNDAY
 11:30-12:15 Morning Musicale
 12:30- 1:00 Lew White, organ recital
 1:30- 1:45 Sentinels of the Republic
 1:45- 2:15 Melodie Interlude
 2:15- 2:30 Portrait Gallery of Famous Britons
 2:30- 3:00 Yeast Foamers
 3:00- 4:00 National Youth Conference
 4:00- 4:30 Melodie de France
 4:30- 5:00 Musical Showman
 5:00- 6:00 National Vespers
 6:00- 6:15 Raising Junior
 6:15- 6:30 Veronica Wiggins, contralto
 6:45- 7:00 Adventures of Barbara Wayne, drama
 7:00- 7:15 Willys Overland Orchestra
 7:15- 7:30 Jolly Time Revue
 7:30- 8:00 Three Bakers, Artz' Orchestra
 8:00- 8:15 Enna Jettick Melodies
 8:15- 9:15 Collier's Radio Hour
 9:15- 9:45 Bayuk Stag Party
 9:45-10:15 Kellogg Slumber Music
 10:15-10:30 Land of Wonder and Fear
 10:30-11:00 "Ten, Twent', Thirt'", melodrama
 11:00-11:30 Balkan Mountain Men
 11:45-12:00 South Sea Islanders
 12:00- 1:00 Henry Theis and Orchestra

MONDAY
 6:15- 6:45 Peter Van Stueden and Orchestra
 7:15- 7:30 Tastyeast Jesters
 7:45- 8:00 Waves of Melody
 8:30- 9:00 Death Valley Tays, drama
 9:00- 9:30 Mavtar Orchestra
 9:30-10:00 Musical Dominos
 10:00-10:30 Gold Medal Express
 10:30-11:00 Chesborough Real Folks
 11:00-11:30 Shumber Music
 11:45-12:00 Lew White Organ Recital
 12:00-12:15 Jane Froman and Orchestra

TUESDAY
 7:15- 7:30 Garteves Orchestra, Odette Myrtil
 7:45- 8:00 Back of the News in Washington
 8:00- 8:30 Armstrong Quakers, Voorhes' Orchestra
 8:30- 8:45 Hoel Huggers Harmonies, male quartet
 8:45- 9:00 Sisters of the Skillet
 9:00- 9:30 Household Finance Program, Dumont's Orch.
 9:30-10:00 Great Personalities, Frazier Hunt
 10:00-10:30 Old Stager's Memories
 10:45-11:00 Paris Night Life
 11:45-12:15 Dream Pictures, Arher Gibson, organ
 12:15- 1:00 Paul Whiteman and Orchestra

WEDNESDAY
 7:45- 8:00 Easo Program, "Believe It or Not" Ripley
 8:00- 8:15 College Memories, male quartet
 8:15- 8:30 Guy Robertson, baritone, Joy's Orchestra
 8:30- 9:00 Jack Frost's Melody Moments
 9:00- 9:30 Adventures of Sherlock Holmes
 9:30-10:00 Dutch Masters Program
 10:00-10:30 Rochester Civic Orchestra
 10:45-11:00 Radio's Greatest Lover, Carlo LeMar
 11:00-11:30 Shumber Music
 11:45-12:00 Lew White Organ Recital
 12:00-12:15 Jane Froman and Orchestra
 12:15-12:30 Coon-Sanders Orchestra

THURSDAY
 5:30- 5:45 Al and Pete, songs and dialogue
 7:15- 7:30 Tastyeast Jesters
 7:45- 8:00 Famous Palaces of Business
 8:00- 8:15 Dixie Spiritual Singers
 8:15- 8:30 Rin-Tin-Tin Thriller
 8:30- 8:45 Pickard Family, Hill-Billy songs
 8:45- 9:00 Sisters of the Skillet
 9:00- 9:30 Blackstone Plantation, Sanderson and Crumit
 9:30-10:00 Maxwell House Ensemble
 10:00-10:30 A. & P. Gypsies
 10:45-11:00 Paris Night Life
 12:00-12:15 Silver Tone Quartet

FRIDAY
 5:30- 5:45 Al and Pete, songs and dialogue
 7:45- 8:00 Easo Program, "Believe It or Not" Ripley
 8:00- 8:30 Nestle's Program, Brusloff's Orchestra
 8:30- 8:45 Smith Bros., Trade and Mark
 8:45- 9:00 Sisters of the skillet
 9:00- 9:30 Interwoven Pair, Jones and Hare
 9:30-10:00 Armour Program, Koestner's Orchestra
 10:00-10:30 Paul Whiteman's Paint Men
 10:45-11:00 Waves of Melody, Arden's Orchestra
 11:30-12:00 Jack Denny and Orchestra
 12:15-12:30 Cab Calloway and Orchestra

SATURDAY
 7:15- 7:30 Tastyeast Jesters
 7:30- 7:45 Sonata Recital
 7:45- 8:00 Radio's Greatest Lover, Carlo LeMar
 8:00- 8:30 Danger Fighters, dramatic sketch
 8:30- 9:00 Dance with Countess D'Orsay
 9:00- 9:30 Careless Love, Negro dramatic sketch
 9:30-10:00 The First Nighter
 10:00-10:30 Cuckoo
 10:45-11:00 Bensus Program, Katzman's Orchestra
 11:45-12:00 Lew White Organ Recital
 12:15- 1:00 Paul Whiteman and Orchestra

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CHAIN STATIONS by FREQUENCIES

COLUMBIA

WGR, Buffalo, N. Y.	550	1160	1160
WKRC, Cincinnati, Ohio	560	1170	1170
KLZ, Denver, Colo.	560	1200	1200
WNOX, Knoxville, Tenn.	560	1220	1220
WQAN, Miami, Fla.	570	1220	1220
WQMN, Youngstown, Ohio	570	1230	1230
WNAX, Yankton, S. D.	580	1230	1230
WIBW, Topeka, Kans.	600	1240	1240
WCAO, Baltimore, Md.	600	1250	1250
WMT, Waterloo, Iowa	600	1250	1250
WREC, Memphis, Tenn.	610	1250	1250
KPRC, San Francisco, Cal.	610	1250	1250
WFAN, Philadelphia, Pa.	610	1250	1250
WJP, Philadelphia, Pa.	620	1250	1250
WLBZ, Bangor, Maine	630	1270	1270
WMAL, Washington, D. C.	640	1280	1280
WAU, Columbia, Ohio	640	1280	1280
CFRB, Toronto, Ont.	650	1280	1280
WGN, Chicago, Ill.	650	1280	1280
CKAC, Montreal, Que.	650	1280	1280
KVI, Tacoma, Wash.	650	1280	1280
WBBM, Chicago, Ill.	650	1280	1280
WEAN, Providence, R. I.	650	1280	1280
WTAL, Norfolk, Va.	650	1280	1280
WCCO, Minneapolis, Minn.	650	1280	1280
WABC, New York, N. Y.	650	1280	1280
WGST, Atlantic, Ga.	650	1280	1280
KEL, Los Angeles, Cal.	650	1280	1280
WBHC, Birmingham, Ala.	650	1280	1280
WDBJ, Roanoke, Va.	650	1280	1280
KOIN, Portland, Ore.	650	1280	1280
WFIW, Hopkinsville, Ky.	650	1280	1280
KMBC, Kansas City, Mo.	650	1280	1280
WLAP, Louisville, Ky.	650	1280	1280
KLUD, Dallas, Texas	650	1280	1280
WBT, Charlotte, N. C.	650	1280	1280
KMOX, St. Louis, Mo.	650	1280	1280
WPG, Houston, Texas	650	1280	1280
KTRH, Houston, Texas	650	1280	1280
WDBO, Orlando, Fla.	650	1280	1280
WISN, Milwaukee, Wis.	650	1280	1280
WJJD, Moosheart, Ill.	650	1280	1280

NATIONAL

WFYR, Bismarck, N. D.	500	900	900
KSD, St. Louis, Mo.	560	920	920
WFI, Philadelphia, Pa.	920	920	920
WRO, Chicago, Ill.	920	920	920
WLTJ, Philadelphia, Pa.	920	920	920
WWNC, Asheville, N. C.	940	940	940
WTAG, Worcester, Mass.	950	950	950
KHQ, Spokane, Wash.	980	980	980
WEEH, Boston, Mass.	980	980	980
WOW, Omaha, Neb.	980	980	980
KFSD, San Diego, Cal.	990	990	990
WDAF, Kansas City, Mo.	1000	1000	1000
KGW, Portland, Ore.	1010	1010	1010
KTAR, Phoenix, Ariz.	1010	1010	1010
WFLA, Clearwater, Fla.	1010	1010	1010
WUSN, St. Petersburg, Fla.	1010	1010	1010
WTMJ, Milwaukee, Wis.	1020	1020	1020
KFI, Los Angeles, Cal.	1030	1030	1030
WSM, Nashville, Tenn.	1030	1030	1030
WEAF, New York, N. Y.	1040	1040	1040
WTIC, Hartford, Conn.	1040	1040	1040
WMAQ, Chicago, Ill.	1040	1040	1040
KPO, San Francisco, Cal.	1040	1040	1040
WPYF, Raleigh, N. C.	1040	1040	1040
WLW, Cincinnati, Ohio	1040	1040	1040
WSB, Atlanta, Ga.	1040	1040	1040
WJR, Detroit, Mich.	1040	1040	1040
WBAL, Baltimore, Md.	1040	1040	1040
WJZ, New York, N. Y.	1040	1040	1040
KFAB, Lincoln, Neb.	1040	1040	1040
WMC, Memphis, Tenn.	1040	1040	1040
KGO, San Francisco, Cal.	1040	1040	1040
WGY, Schenectady, N. Y.	1040	1040	1040
WAAB, Dallas, Texas	1040	1040	1040
WBCB, Bay City, Mich.	1040	1040	1040
WCAH, Columbus, Ohio	1040	1040	1040
WHIP, Rochester, N. Y.	1040	1040	1040
WOKO, Albany, N. Y.	1040	1040	1040
WLAC, Nashville, Tenn.	1040	1040	1040
KFJF, Oklahoma City, Okla.	1040	1040	1040
WKBW, Buffalo, N. Y.	1040	1040	1040

KEY TO CHAIN STATIONS

N — National

C — Columbia

CFCF, 1030 N	KPRC, 920 N	WOCO, 810 C	WHK, 1390 C	WNAX, 570 C
CFRB, 690 C	KRLD, 1040 C	WCFL, 970 N	WHO, 1000 N	WNOX, 560 C
CKAC, 730 C	KSCJ, 1330 C	WCKY, 1490 N	WHP, 1430 C	WOAI, 1190 N
CKGW, 840 N	KSD, 550 N	WCSH, 940 N	WIBA, 1280 N	WOC, 1000 N
KDKA, 980 N	KSL, 1130 N	WDAE, 1220 C	WBO, 560 N	WOKO, 1430 C
KDYL, 1290 C	KSTP, 1460 N	WDAF, 610 N	WIBW, 580 C	WORC, 1200 C
KECA, 1430 N	KTAR, 620 N	WDAY, 940 N	WIOD, 1300 N	WOW, 590 N
KFAB, 770 N	KTHS, 1040 N	WDBJ, 930 C	WTP, 610 C	WOWO, 1160 C
KPFH, 1300 C	KTRH, 1120 C	WDRO, 1120 C	WIS, 1010 N	WPG, 1100 C
KFI, 640 N	KTSA, 1290 C	WDOD, 1280 C	WISN, 1120 C	WPTF, 680 N
KFJF, 1480 C	KVI, 760 C	WDRS, 1330 C	WJAR, 890 N	WQAM, 560 C
KFKX, 1020 N	KVOO, 1140 N	WDSU, 1250 C	WJAS, 1230 C	WRC, 950 N
KFPY, 1340 C	KVOR, 1270 C	WEAF, 660 N	WJAX, 900 N	WREC, 600 C
KFRC, 610 C	KWK, 1350 N	WEAN, 780 C	WJDX, 1270 N	WREN, 1220 N
KFSD, 600 N	KYW, 1020 N	WEBC, 1290 N	WJID, 1130 C	WRR, 1280 C
KFJR, 550 N	WAAB, 1410 C	WEEI, 590 N	WJR, 750 N	WRVA, 1110 N
KGB, 1330 C	WABC, 860 C	WENR, 760 N	WJZ, 1330 N	WSAI, 1330 N
KGO, 790 N	WACO, 1240 C	WFAA, 800 N	WPKH, 1380 C	WSB, 740 N
KGW, 620 N	WADC, 1320 C	WFAN, 570 C	WRBN, 1320 N	WSM, 650 N
KHJ, 900 C	WAIU, 1360 C	WFBL, 1480 C	WKBW, 1320 N	WSMB, 1320 N
KHQ, 590 N	WAPI, 1140 N	WFUM, 550 C	WKRC, 1340 C	WSPD, 1340 C
KLRA, 1390 C	WBAL, 760 N	WFRB, 1270 N	WKY, 900 N	WSUN, 620 N
KLZ, 560 C	WBAP, 800 N	WFI, 1470 C	WLAC, 580 N	WTAG, 580 N
KMBC, 950 C	WBPM, 770 C	WFLW, 940 C	WTAM, 1070 N	WTAM, 1070 N
KMOX, 1090 C	WBCB, 1410 C	WFLA, 620 N	WTBQ, 1330 C	WTBQ, 1330 C
KOA, 330 N	WBEN, 900 N	WGAR, 1450 N	WTAR, 780 C	WTAR, 780 C
KOH, 1380 C	WBRC, 930 C	WGL, 1370 C	WLTJ, 560 N	WTHC, 660 N
KOIL, 1260 C	WFT, 720 C	WGN, 870 N	WLS, 620 N	WTMJ, 620 N
KOIN, 940 C	WBZ-A, 990 N	WGR, 700 N	WTOC, 1260 C	WTOC, 1260 C
KOL, 1270 C	WCAE, 1220 N	WGY, 890 C	WMAQ, 630 C	WMAQ, 630 C
KOMO, 920 N	WCAH, 1430 C	WHAH, 1150 N	WMC, 780 N	WMC, 780 N
KPO, 680 N	WCAO, 600 C	WHAS, 820 N	WMT, 600 C	WMT, 600 C
	WCAU, 1170 C	WHEC, 1430 C	WNAC, 1230 C	WNAC, 1230 C

CHAIN STATIONS by FREQUENCIES

COLUMBIA

NATIONAL

550 WGR, Buffalo, N. Y. WKRC, Cincinnati, Ohio	1160 WOWO, Ft. Wayne, Ind. WWVA, Wheeling, W. Va.	550 KFYR, Bismarck, N. D. KSD, St. Louis, Mo.	900 WBEN, Buffalo, N. Y. WJAX, Jacksonville, Fla. WKY, Oklahoma City, Okla.
560 KLZ, Denver, Colo. WNOX, Knoxville, Tenn. WQAM, Miami, Fla.	1170 WCAU, Philadelphia, Pa.	560 WFI Philadelphia, Pa. WIBO, Chicago, Ill. WLIT, Philadelphia, Pa.	920 KOMO, Seattle, Wash. KPRC, Houston, Texas WWJ, Detroit, Mich.
570 WKBN, Youngstown, Ohio WNAX, Yankton, S. D.	1200 WORC, Worcester, Mass.	570 WWNC, Asheville, N. C.	940 WCSH, Portland, Maine WDAY, Fargo, N. D.
580 WIBW, Topeka, Kans.	1220 WDAE, Tampa, Fla.	580 WTAG, Worcester, Mass.	950 WRC, Washington, D. C.
600 WCAO, Baltimore, Md. WMT, Waterloo, Iowa WREC, Memphis, Tenn.	1230 WFBM, Indianapolis, Ind. WNAC, Boston, Mass.	590 KHQ, Spokane, Wash. WEEL, Boston, Mass. WOW, Omaha, Neb.	970 WCFL, Chicago, Ill.
610 KFRC, San Francisco, Cal. WFAN, Philadelphia, Pa. WIP, Philadelphia, Pa.	1240 WACO, Waco, Texas WXYZ, Detroit, Mich.	600 KFSO, San Diego, Cal.	980 KDKA, Pittsburgh, Pa.
620 WLBZ, Bangor, Maine	1250 WDSU, New Orleans, La.	610 WDAF, Kansas City, Mo.	990 WBZA, Boston-Springfield
630 WMAL, Washington, D. C.	1260 KOLH, Council Bluffs, Iowa WLBW, Oil City, Pa. WTOC, Savannah, Ga.	620 KGW, Portland, Ore. KTAR, Phoenix, Ariz. WFLA, Clearwater, Fla. WSUN, St. Petersburg, Fla. WTMJ, Milwaukee, Wis.	1000 WHO, Des Moines, Iowa WOC, Davenport, Iowa
640 WAIU, Columbus, Ohio	1270 KOL, Seattle, Wash. KVOH, Colorado Springs, Colo.	640 KFI, Los Angeles, Cal.	1010 WIS, Columbia, S. C.
690 CFRB, Toronto, Ont.	1300 WDDO, Chatanooga, Tenn. WRR, Dallas, Texas	650 WSM, Nashville, Tenn.	1020 KFKX, Chicago, Ill. KYW, Chicago, Ill.
720 WGN, Chicago, Ill.	1290 KDYL, Salt Lake City, Utah KTTA, San Antonio, Texas WJAS, Pittsburgh, Pa.	660 WEAF, New York, N. Y. WTIC, Hartford, Conn.	1030 CFCP, Montreal, Que.
730 CKAC, Montreal, Que.	1300 KFH, Wichita, Kans.	670 WMAQ, Chicago, Ill.	1040 KTHS, Hot Springs, Ark.
760 KVI, Tacoma, Wash.	1320 WADC, Akron, Ohio	680 KPO, San Francisco, Cal. WPTF, Raleigh, N. C.	1070 WTAM, Cleveland, Ohio
770 WBBM, Chicago, Ill.	1330 KGB, San Diego, Cal. KSCJ, Sioux City, Iowa WDRG, Hartford, Conn. WTAQ, Eau Claire, Wis.	700 WLW, Cincinnati, Ohio	1110 WRVA, Richmond, Va.
780 WEAN, Providence, R. I. WTAR, Norfolk, Va.	1340 KFPY, Spokane, Wash. WSPD, Toledo, Ohio	740 WSB, Atlanta, Ga.	1130 KSL, Salt Lake City, Utah
810 WCCO, Minneapolis, Minn.	1360 WFBL, Syracuse, N. Y.	750 WJR, Detroit, Mich.	1140 KVOO, Tulsa, Okla. WAPI, Birmingham, Ala.
860 WABC, New York, N. Y.	1370 WGL, Ft. Wayne, Ind.	760 WBAL, Baltimore, Md. WJZ, New York, N. Y.	1150 WHAM, Rochester, N. Y.
890 WGST, Atlanta, Ga.	1380 KOH, Reno, Nev. WKBH, LaCrosse, Wis.	770 KFAB, Lincoln, Neb.	1190 WOAI, San Antonio, Tex.
900 KHJ, Los Angeles, Cal.	1390 KLRA, Little Rock, Ark. WHK, Cleveland, Ohio	780 WMC, Memphis, Tenn.	1220 WCAE, Pittsburgh, Pa. WREN, Lawrence, Kans.
930 WBRC, Birmingham, Ala. WDBJ, Roanoke, Va.	1410 WAAB, Boston, Mass. WBOM, Bay City, Mich.	790 KGO, San Francisco, Cal. WGY, Schenectady, N. Y.	1270 WFBR, Baltimore, Md. WJDX, Jackson, Miss.
940 KGIN, Portland, Ore. WFIW, Hopkinsville, Ky.	1430 WCAH, Columbus, Ohio WHEC, Rochester, N. Y. WHP, Harrisburg, Pa. WOKO, Albany, N. Y.	800 WBA, Fort Worth, Texas WFAA, Dallas, Texas	1280 WIBA, Madison, Wis.
950 KMBC, Kansas City, Mo.	1470 WLAC, Nashville, Tenn.	820 WHAS, Louisville, Ky.	1290 WEBC, Superior, Wis.
1010 WLAP, Louisville, Ky.	1480 KFJF, Oklahoma City, Okla. WKBW, Buffalo, N. Y.	830 KOA, Denver, Colo.	1300 WIOD, Miami, Fla.
1040 KRLD, Dallas, Texas		840 CKGW, Toronto, Ont.	1320 WSMB, New Orleans, La.
1080 WBT, Charlotte, N. C.		870 WENR, Chicago, Ill.	1330 WSAI, Cincinnati, Ohio
1090 KMOX, St. Louis, Mo.		870 WLS, Chicago, Ill.	1350 KWK, St. Louis, Mo.
1100 WPG, Atlantic City, N. J.		890 WJAR, Providence, R. I.	1430 KECA, Los Angeles, Cal.
1120 KTRH, Houston, Texas WDBO, Orlando, Fla. WISN, Milwaukee, Wis.			1450 WGAR, Cleveland, Ohio
1130 WJJD, Mooseheart, Ill.			1460 KSTP, St. Paul, Minn.
			1490 WKYK, Covington, Ky.

7:45- 8:00 Back of the News in Washington
 8:00- 8:30 Armstrong Quakers, Voortreks' Orchestra
 8:30- 8:45 Hot Hungers Harmonies, male quartet
 8:45- 9:00 Sisters of the Skillet
 9:00- 9:30 Honsold Finance Program, Dumont's Orch.
 9:30-10:00 Great Personalities, Frazier Hunt
 10:00-10:30 Old Stager's Memories
 10:45-11:00 Paris Night Life
 11:45-12:15 Dream Pictures, Archer Gibson, organ
 12:15- 1:00 Paul Whiteman and Orchestra

WEDNESDAY

7:45- 8:00 Esso Program "Believe It or Not" Ripley
 8:00- 8:15 College Memories, male quartet
 8:15- 8:30 Cav Robertson, baritone, Joy's Orchestra
 8:30- 9:00 Jack Frost's Melody Moments
 9:00- 9:30 Adventures of Sherlock Holmes
 9:30-10:00 Dutch Masters Program
 10:00-10:30 Rochester Civic Orchestra
 10:45-11:00 Radio's Greatest Lover, Carlo LeMar
 11:00-11:30 Shambler Music
 11:45-12:00 Lew White Organ Recital
 12:00-12:15 Late Program and Orchestra
 12:15-12:30 Coon-Sanders Orchestra

THURSDAY

5:30- 5:45 Al and Pete, songs and dialogue
 7:15- 7:30 Toastyest Jesters
 7:45- 8:00 Famous Collectors of Business
 8:00- 8:15 Dixie Spiritual Singers
 8:15- 8:30 Top-Ten Thriller
 8:30- 8:45 Bekard Family, Hill-Billy songs
 8:45- 9:00 Sisters of the Skillet
 9:00- 9:30 Backstage Plantation, Sanderson and Crumit
 9:30-10:00 Max Baer's House Ensemble
 10:00-10:30 A. & P. Cypriotes
 10:45-11:00 Paris Night
 12:00-12:15 Silver Tone Quartet

FRIDAY

5:30- 5:45 Al and Pete, songs and dialogue
 7:15- 7:30 Toastyest Jesters
 7:45- 8:00 Esso Program "Believe It or Not" Ripley
 8:00- 8:30 Nestlé's Program, Brusler's Orchestra
 8:30- 8:45 Smith Bros., Trade and Mark
 8:45- 9:00 Sisters of the Skillet
 9:00- 9:30 Interwoven Fair, Jones and Hare
 9:30-10:00 Amount Program, Koester's Orchestra
 10:00-10:30 Paul Whiteman's Paint Men
 10:45-11:00 Waves of Melody, Arden's Orchestra
 11:30-12:00 Jack Denny and Orchestra
 12:15-12:30 Cab Calloway and Orchestra

SATURDAY

7:15- 7:30 Toastyest Jesters
 7:30- 7:45 Sonata Recital
 7:45- 8:00 Radio's Greatest Lover, Carlo LeMar
 8:00- 8:30 Dancer Fighters, dramatic sketch
 8:30- 9:00 Dance with Countess D'Orsay
 9:00- 9:30 Careless Love, Negro dramatic sketch
 9:30-10:00 The First Nighter
 10:00-10:30 Cuckoo
 10:45-11:00 Benrus Program, Katzman's Orchestra
 11:45-12:00 Lew White Organ Recital
 12:15- 1:00 Paul Whiteman and Orchestra

9:00- 9:30 Mckesson Musical Magazine
 9:30-10:00 The Fuller Man
 10:00-11:00 Lucky Strike Dance Orchestra
 11:30-12:00 Jack Denny and Orchestra
 12:00-12:30 Rudy Vallee and Orchestra
 12:30- 1:00 Coon-Sanders and Orchestra

WEDNESDAY

4:30- 5:00 Phil Spitalny - Ten Dantsante
 6:30- 6:45 Ray Perkins, the Old Topper
 7:00- 7:15 Snoop and Peep
 8:00- 8:30 Silver Flute
 8:30- 9:00 Mobilite Concert
 9:00- 9:30 Halsey-Stuart Program
 9:30-10:30 Palmolive Hour
 10:30-11:00 Coca-Cola Program
 11:00-11:15 Voice of Radio Digest
 11:30-12:00 Vincent Lopez and Orchestra
 12:00-12:30 Cab Calloway's Orchestra

THURSDAY

7:00- 7:15 Vermont Lumberjacks, male quartet
 8:00- 9:00 Fleischman Hour, Rudy Vallee's Orchestra
 9:00- 9:30 Arco Dramatic Musical
 9:30-10:00 Adventures of Sherlock Holmes
 10:00-11:00 Lucky Strike Dance Orchestra
 11:30-12:00 Sierra's Continentals
 12:00-12:30 Florence Richardson and Melody Boys
 12:30- 1:00 Coon-Sanders and Orchestra

FRIDAY

5:30- 5:45 Dolly Connelly, songs
 6:30- 6:45 Fay Perkins, the Old Topper
 7:00- 7:45 Major Bowes Family
 8:00- 9:00 Citrus Service Orchestra, Jessica Dragonette
 9:00- 9:30 The Cluquet Club
 9:30-10:00 Bond's Dance Program, Leo Reisman's Orch.
 10:00-10:30 Horseshoe Frolic, Ferdie Grofé's Orchestra
 10:30-11:00 RKO Theatre of the Air
 11:00-12:00 Vincent Lopez and Orchestra
 12:00-12:30 Tweed Hogan and Orchestra
 12:30- 1:00 Henry Tobias and Orchestra

SATURDAY

1:45- 4:15 Football Game
 5:00- 5:00 Phil Spitalny, Ten Dantsante
 5:00- 5:30 Lady Next Door, Children's program
 5:30- 5:45 Parades of yesterday, male quartet
 5:45- 6:00 Rex, Cole M. unites
 6:00- 6:30 Waldorf-Astoria Orchestra
 6:30- 7:00 Mr. Bones and Company
 7:00- 7:15 Lee Morse, song recital
 7:15- 7:30 Laws That Safeguard Society
 7:30- 7:45 Breen and deRose
 8:00- 8:30 Civic Concerts Service Program
 8:30- 9:00 National Advisory Council on Radio
 9:00- 9:30 National Orchestra, Erno Rapce
 9:30-10:00 Club Valsur
 10:00-11:00 Lucky Strike Dance Orchestra
 11:30-12:00 Coon-Sanders and Orchestra
 12:00-12:30 Rudy Vallee and Orchestra
 12:30- 1:00 Vincent Lopez and Orchestra

8:15- 8:30 Sterling Products, Abe Lyman's Band
 8:30- 8:45 Red Goose Adventures
 8:45- 9:00 Walter Winchell, Geradine Program
 9:00- 9:15 Ben Bernie and Blue Ribbon Orchestra
 9:15- 9:30 Columbias, Freddie Rich
 9:30-10:00 Romances of the Sea
 10:15-10:30 Star Brand Showcases
 10:30-11:00 Arabesque, Desert Players
 11:00-11:15 Jack Miller
 11:45-12:00 Asbury Park Casino Orchestra

WEDNESDAY

7:15- 7:30 Limit Orchestra
 7:30- 7:45 Boswell Sisters, Baker Chocolate
 8:15- 8:30 Singing Sam, Barbasol Man
 8:30- 8:45 La Palina, Kate Smith
 8:45- 9:00 Toastyest Gloom Chasers
 9:00- 9:30 Gold Medal Fast Freight
 9:30-10:00 Eno Crime Club
 10:00-10:15 Vitality Personalities
 10:15-11:00 Columbias, Concerts a Program
 11:00-11:15 Street Singer
 11:45-12:00 Boswell Sisters, Baker Chocolate

THURSDAY

7:30- 7:45 Kaitlenborn Edits the News
 8:15- 8:30 Sterling Products, Abe Lyman's Band
 8:30- 8:45 La Palina, Kate Smith
 9:00- 9:30 Toscha Seidel, violinist
 9:30-10:00 Love Story Drama
 10:00-10:30 Hart-Schaffner Trumpeters
 10:30-10:45 Tito Guizar, Spanish tenor
 10:45-11:00 Peter's Parade, Irene Beasley
 11:00-11:15 Jack Miller
 11:45-12:00 Radio Roundup
 12:00-12:30 Guy Lombardo and Orchestra

FRIDAY

7:15- 7:30 Limit Orchestra
 7:30- 7:45 Boswell Sisters, Baker Chocolate
 8:15- 8:30 Singing Sam, Barbasol Man
 8:30- 9:00 March of Time
 9:00- 9:15 Regal Radio Reproductions
 9:15- 9:45 Liberty Magazine Program
 9:45-10:00 Friendly Five Footnotes
 10:00-10:30 Pillsbury Pageant
 10:30-10:45 Talk by Football Coach
 10:45-11:00 Mills Bros.
 11:00-11:15 Street Singer
 11:45-12:00 Boswell Sisters, Baker Chocolate

SATURDAY

7:15- 7:30 Political Situation in Washington
 7:30- 7:45 Reis and Dunn
 8:15- 8:30 Stelling Products, Abe Lyman's Band
 8:30- 8:45 La Palina, Kate Smith
 8:45- 9:00 Toastyest Gloom Chasers
 9:00- 9:30 Chicago Variety Program
 9:30-10:00 National Radio Forum
 10:00-10:00 Haskel Simmons' Show Boat
 11:00-11:05 Jack Miller
 11:45-12:00 St. Moritz Orchestra
 12:00-12:30 Guy Lombardo and Orchestra

KEY TO CHAIN STATIONS

CFCF 1030 N	KPRC 920 N	WCCO 810 C	WHK 1390 C	WNAX 570 C
CFRB 690 C	KRLD 1040 C	WCFL 970 N	WHO 1000 N	WNOX 560 C
CKAC 730 C	KSCJ 1330 C	WCKY 1490 N	WHP 1430 C	WOAI 1190 N
CKGW 840 N	KSD 550 N	WCSH 940 N	WIBA 1280 N	WOC 1000 N
KDKA 980 N	KSL 1130 N	WDAE 1220 C	WIBO 560 N	WOKO 1430 C
KDYL 1290 C	KSTP 1460 N	WDAF 610 N	WIBW 580 C	WORC 1200 C
KECA 1430 N	KTAR 620 N	WDAY 940 N	WIOD 1300 N	WOW 590 N
KFAB 770 N	KTHS 1040 N	WDBJ 930 C	WIP 610 C	WOWO 1160 C
KFH 1300 C	KTRH 1120 C	WDBO 1120 C	WIS 1010 N	WPG 1100 C
KFI 640 N	KTSA 1290 C	WDOD 1280 C	WISN 1120 C	WPTF 680 N
KFJF 1480 C	KVI 760 C	WDRG 1330 C	WJAR 890 N	WQAM 560 C
KFKX 1020 N	KVOO 1140 N	WDSU 1250 C	WJAS 1290 C	WRC 950 N
KFPY 1340 C	KVOR 1270 C	WEAF 660 N	WJAX 900 N	WREC 600 C
KFRC 610 C	KWK 1350 N	WEAN 780 C	WJDX 1270 N	WREN 1220 N
KFSD 600 N	KYW 1020 N	WEBC 1290 N	WJDD 1130 C	WRR 1280 C
KFYR 550 N	WAAB 1410 C	WEEI 590 N	WJR 750 N	WRVA 1110 N
KGB 1330 C	WABC 860 C	WENR 870 N	WJZ 760 N	WSAI 1330 N
KGO 790 N	WACO 1240 C	WFAA 800 N	WKBH 1380 C	WSB 740 N
KGW 620 N	WADC 1320 C	WFAN 610 C	WKBN 570 C	WSM 650 N
KHJ 900 C	WAIU 640 C	WFBL 1360 C	WKBW 1480 C	WSMB 1320 N
KHQ 590 N	WAPI 1140 N	WFBM 1230 C	WKRC 550 C	WSPD 1340 C
KLRA 1390 C	WBAL 760 N	WFBR 1270 N	WKY 900 N	WSUN 620 N
KLZ 560 C	WBAP 800 N	WFI 560 N	WLC 1470 C	WTAG 580 N
KMBC 950 C	WBBM 770 C	WFIW 940 C	WLAP 1010 C	WTAM 1070 N
KMOX 1090 C	WBCM 1410 C	WFLA 620 N	WLBW 1620 C	WTAQ 1330 C
KOA 830 N	WBEN 900 N	WGAR 1450 N	WLBZ 620 C	WTAR 780 C
KOH 1380 C	WBRC 930 C	WGL 1370 C	WLIT 560 N	WTIC 660 N
KOIL 1260 C	WBT 1080 C	WGN 720 C	WLS 870 N	WTMJ 620 N
KOIN 940 C	WBZ-A 990 N	WGR 550 C	WLW 700 N	WTOC 1260 C
KOL 1270 C	WCAE 1220 N	WGST 890 C	WMAL 630 C	WWJ 920 N
KOMO 920 N	WCAH 1430 C	WGY 790 N	WMAQ 670 N	WWNC 570 N
KPO 680 N	WCAO 600 C	WHAM 1150 N	WMC 780 N	WWVA 1160 C
	WCAU 1170 C	WHAS 820 N	WMT 600 C	WXYZ 1240 C
		WHEC 1430 C	WNAC 1230 C	

Principal Broadcasting Stations of the World

Fill in your dial numbers and you will then know where these foreign stations should be received on your set

Kcys.	Meters	Call	City	Country	Kcys.	Meters	Call	City	Country
150	2000	RYK	Kaunas	Lithuania	580	517	7ZL	Hobart	Australia
160	1875	.....	Huizen	Holland	581	516.3	.....	Wien-Rosenhugel	Austria
174	1724	.....	Paris	France	587.1	511	RW50	Armarvir	Russia
183.5	1635	.....	Konigs West- hausen	Germany	590	508.5	ON4RB	Brussels	Belgium
187.5	1600	RW14	Irkoutsik	Russia	599	500.8	1M1	Milano	Italy
193	1554	TAE	Angora	Turkey	600				
193	1554	5XX	Daventry	Great Britain	600	500	2ZG	Wanganui	New Zealand
202.6	1481	RW1	Moskva Noginsk	Russia	600	500	2ZK	Wanganui	New Zealand
207.5	1444	.....	Paris	France	600	500	2ZR	Wanganui	New Zealand
222.5	1348	SBG	Motala	Sweden	603.6	497	RW31	Ivanovo-Voz- sensensk	Russia
230.1	1304	RW49	Moskva Stchel- kovo	Russia	608	493.4	LK O	Oslo	Norway
235.2	1275	.....	Tunis-Kasbah	Tunis	608	493.4	RW32	Stavropol	Russia
238	1260.5	RW8	Bakou	Russia	617	487	.....	Praha	Czecho- slovakia
238	1260.5	RW43	Bakou	Russia	618.5	484	KZRM	Manilla	Philippine Is.
238.1	1260	RW6	Novosibirsk	Russia	620	484	3AR	Melbourne	Australia
250	1200	SBE	Boden	Sweden	621.1	483	RW40	Gomel	Russia
250	1200	TAL	Istanbul	Turkey	625	480	KZRM	Manilla	Philippine Is.
256.4	1170	RW11	Tachkent	Russia	626	479	5GB	Daventry	Great Britain
260	1153.8	.....	Kalundborg	Denmark	630	476.1	1ZH	Hamilton	New Zealand
260	1153.8	.....	Soro	Denmark	630.2	476	RW52	Simferopol	Russia
260	1153.8	OXO	Skamlebak	Denmark	635	472	.....	Langenberg	Germany
270	1111.1	SP1	Warsaw	Poland	635	472	JONK	Nagano	Japan
272.7	1100	RW58	Moskva Imeni Hilversum	Russia	635.6	472	RW28	Vladivostok	Russia
280	1071	.....	Scheveningen	Holland	640	468.8	RW56	Penza	Russia
280	1071	PCF	Tiflis	Russia	644	465.8	OO	Lyon	France
284.9	1053	RW7	Basel	Switzerland	645.2	465	RW48	Tomsk	Russia
297	1010	.....	Leningrad	Russia	650	461.5	CX6	Montevideo	Uruguay
300	1000	RW3	Leningrad	Russia	650	461.5	RW33	Krasnodar	Russia
300	1000	RW53	Leningrad	Russia	650	461.5	4YA	Dunedin	New Zealand
310	967.7	RW60	Alma-Ata	Russia	653	459	.....	Zurich	Switzerland
320	937.5	RW4	Kharkov	Russia	662	453	.....	Klagenfurt	Austria
333.7	899.1	RW19	Achkhabad	Russia	662	453	.....	Danzig	Germany
342.8	875	RW18	Samarkand	Russia	662	453	LKD	Bodo Kringkaster	Norway
343	874.6	RW21	Erivan	Russia	662	453	LKM	Tromso	Norway
353.5	848.7	RW12	Rostov-sur-le- Don	Russia	662	453	LKP	Porgrund	Norway
363.6	825	RW5	Sverdlovsk	Russia	662	453	LKT	Trondelag	Norway
368.1	815	RW9	Kiev	Russia	662	453	SCT	Uppsala	Sweden
385.6	778	RW25	Voronej Goubern- skii	Russia	662	453	1BZ	Bolzano	Italy
389	770	SBF	Ostersund	Sweden	665	451	2FC	Sydney	Australia
394	761.4	RW42	Nijni-Novgorod	Russia	666.7	450	RW13	Odessa	Russia
395	760	.....	Geneva	Switzerland	666.7	450	ZTJ	Johannesburg	South Africa
414	724.6	.....	Rabat	Morocco	670	448	LP4	Buenos Aires	Argentina
416.7	720	RW2	Moskva Opytnaia	Russia	671	447	.....	Eoule Superieure	France
421.3	712	RW47	Tachkent	Russia	671	447	LKA	Alesund	Norway
423.6	700	RW10	Minsk	Russia	671	447	LKN	Nottodden	Norway
434.8	690	RW35	Astrakhan	Russia	671	447	LKR	Rjukan	Norway
441	680	.....	Lausanne	Switzerland	673	445.9	1BO	Bolzano	Italy
444.4	675	RW22	Oufa	Russia	675	444	VOWR	St. Johns	Newfound'ld
461.5	650	RW45	Orenbourg	Russia	676	443.8	RW23	Groznyi	Russia
463.7	640	RW29	Petrozavodsk	Russia	680	441	JOLK	Fukuoka	Japan
471.7	636	RW44	Omsk	Russia	680	441	1RO	Rome	Italy
500					684.9	437	HJN	Bogota	Colombia
[]					686.5	437	RW46	Petropavlovsk	Russia
511	587.1	RW30	Dnepropetrovsk	Russia	689	435	SBA	Stockholm	Sweden
521.7	575	RW16	Samara	Russia	689	435	SCN	Malmberget	Sweden
527	569	.....	Freiburg Breis- gau	Germany	690	434.7	JODK	Keiji	Japan
527	569	LKH	Hamar	Norway	690	434.7	SP5	Wilno	Poland
530	566	SP3	Krakow	Poland	690	434.7	6WF	Perth	Australia
531	565	RW24	Smolensk	Russia	700				
536	560	.....	Augsburg	Germany	700	428.5	JOKK	Okayama	Japan
536	560	.....	Hanover	Germany	700	428.5	VPE	Colombo	Ceylon
550	545	HAL	Lakihegy	Hungary	704.2	426	RW20	Kharkov	Russia
550.5	545	RW17	Kazan	Russia	710	423	JOKJ	Kanazawa	Japan
554	542	SBD	Sundsvall	Sweden	710	423	LS1	Buenos Aires	Argentina
560	535.7	RW41	Meliki Oustug	Russia					
563	533	.....	Munchen	Germany					
572	524.6	YLZ	Riga	Latvia					

Kcys.	Meters	Call	City	Country	Kcys.	Meters	Call	City	Country
710	423	SP4	Katowice	Poland					
716	419		Berlin	Germany					
720	416.7	2YA	Wellington	New Zealand					
720	416.7	5AD	Adelaide	Australia					
729.9	411	RW55	Pokrovsk	Russia	900	333.3	1YA	Auckland	New Zealand
730	411	CX10	Montevideo	Uruguay	905	331.4	1NA	Napoli	Italy
730	411	5CL	Adelaide	Australia	910	330	LR6	Buenos Aires	Argentina
738	406.5	ZTD	Durban	South Africa	914	328.2		Grenoble	France
743	403		Berne	Switzerland	919	326		Petit Parisien	France
747.5	401		Tallinn	Estonia	920	326	PRAD	Pelotas	Brazil
748.1	401	RW51	Naltchek	Russia	923	325		Breslau	Germany
750	400		Mont de Marsan	France	930	322.6	CX20	Montevideo	Uruguay
750	400	JOBK	Osaka	Japan	930	322.6	3UZ	Melbourne	Australia
750	400	LR7	Buenos Aires	Argentina	932	322	SBB	Goteborg	Sweden
750	400	PRAA	Rio de Janeiro	Brazil	932	322	SCC	Falun	Sweden
750	400	PRAL	Sao Paulo	Brazil	934.3	320	PRAB	Rio de Janeiro	Brazil
750	400	PRAP	Recife	Brazil	934.3	320	PRAO	Sao Paulo	Brazil
750	400	6CK	Cork	Ireland	937.5	320	HSP3	Saladeng Bang-	
752	399	5SC	Glasgow	Great Britain				kok	Siam
760	395	JQAK	Dairen	Japan	937.5	320	KZRC	Cebu	Philippine Is.
760	395	4QAG	Brisbane	Australia	937.5	320	XGAC	Shanghai	China
761	394.2		Bucuresti	Roumania	940	319	KGU	Honolulu	Hawaii
769	390	VUM	Madras	British India	940	319	2RN	Dublin	Ireland
770	390		Frankfurt, Main	Germany	941	319		Dresden	Germany
770	390	CX12	Montevideo	Uruguay	950	315.8		Marseilles	France
770	390	JOHK	Sendai	Japan	950	315.8		Bremen	Germany
770	390	RW36	Arkhauhgelsk	Russia	950	315.8	LR3	Buenos Aires	Argentina
778	386	JOPK	Shizuoka	Japan	950	315.8	VONA	St. Johns	Newfound'd
779	385.1	SP6	Lwow	Poland	950	315.8	2GB	Sydney	Australia
779	385.1	1GE	Genoa	Italy	952	315	NKS	Shanghai	China
788	380.7		Toulouse	France	960	312.5	SDN	Adelaide	Australia
790	380	JOGK	Kumamoto	Japan	963	311.5		Agen	France
790	380	LR1	Buenos Aires	Argentina	968	310	5WA	Cardiff	Great Britain
790	380	OAX	Lima	Peru	970	309.3	CX22	Montevideo	Uruguay
792	378.5	RW37	Moskva Mosp	Russia	971	309		Vitus	France
792.5	378.5	RW39	Moskva	Russia	980	306.1	3YA	Christchurch	New Zealand
795.8	377	RW27	Makhatch Kala	Russia	986	304.3		Bordeaux	France
797	377	2ZY	Manchester	Great Britain	990	303	LR4	Buenos Aires	Argentina
					995	301	2BD	Aberdeen	Great Britain

800

1000

Kcys.	Meters	Call	City	Country	Kcys.	Meters	Call	City	Country
800	375	ZTC	Capetown	South Africa					
800	375	3LO	Melbourne	Australia	1000	300	GEC	Tientsin	China
806	372		Hamburg	Germany	1000	300	PRAS	Santos	Brazil
809.9	370.4	VUC	Calcutta	British India	1000	300	PRAY	Mogy das Cruzes	Brazil
810	370	CX14	Montevideo	Uruguay	1004	298.8		Hilversum	Holland
810	370	JOCK	Nagoya	Japan	1010	297	6ML	Perth	Australia
810.8	370	RW26	Stalino	Russia	1016.9	295	PRAR	Sao Paulo	Australia
815	368.1	LKF	Fredrikstad	Norway	1020	294	4GR	Toowoomba	Australia
820	366	2ZP	Wairoa	New Zealand	1022	293		Koosice	Czechoslovakia
824	364.1	LKB	Bergen	Norway				Limoges	France
825	363.7		Alger	France	1022	293		Sydney	Australia
830	361	JOJK	Sapporo	Japan	1025	292.6	2UE	Buenos Aires	Argentina
830	361	LR5	Buenos Aires	Argentina	1030	291.3	LR9	Buenos Aires	Argentina
833	360		Stuttgart	Germany	1035	290	EB4BQ	Keups Marchienne-	
833.3	360	PRAC	Rio de Janeiro	Brazil				Docherie	Belgium
838	358	RW57	Tiraspol	Russia	1040	288.5	2DE	Dundee	Great Britain
840	357.1	VUB	Bombay	British India	1040	288.5	2EH	Edinburgh	Great Britain
842	356	2LO	London	Great Britain	1040	288.5	2LS	Bradford	Great Britain
850	353	CX16	Montevideo	Uruguay	1040	288.5	5PY	Plymouth	Great Britain
850	353	JOPK	Hiroshima	Japan	1040	288.5	5SX	Swansea	Great Britain
851	352.5		Graz	Austria	1040	288.5	6BM	Bournemouth	Great Britain
855	350.8	2BL	Sydney	Australia	1040	288.5	6FL	Sheffield	Great Britain
857	350	ZBW	Hongkong	China	1040	288.5	6KH	Hull	Great Britain
857.1	350	HSP1	Bangkok	Siam	1040	288.5	6LV	Liverpool	Great Britain
857.1	350	PRAE	Sao Paulo	Brazil	1040	288.5	6ST	Stoke on Trent	Great Britain
857.1	350	PRAH	Bahia	Brazil	1049	286		Montpelier	France
857.1	350	PRAJ	Juiz de Fora	Brazil	1050	285.7		Tartu	Estonia
864.5	347	RW24	Piatigorsk	Russia	1050	285.7	CX26	Montevideo	Uruguay
869	345.2		Strasbourg	France	1050	285.7	2ZF	Palmerston	New Zealand
869.5	345		Shanghai	China	1051	285.8		Lyon	France
870	345	JOAK	Tokio	Japan	1052.6	285	RW54	Khabarovsk	Russia
870	345	LR2	Buenos Aires	Argentina	1058	284		Innsbruck	Austria
875	342.9	SP2	Poznan	Poland	1058	284		Berlin	Germany
878	342		Brno	Czechoslovakia	1058	284		Magdeburg	Germany
					1058	284		Stettin	Germany
882	340	PRAN	Curityba	Brazil	1058	284	SCR	Uddevalla	Sweden
882	340	VUL	Lahore	British India	1058	284	SCU	Varberg	Sweden
890	337	CX18	Montevideo	Uruguay	1067	281.2		Kobenhavn	Denmark
890	337	VOGT	Bell Island	Newfound'd	1070	280	EB4RW	Liege	Belgium
890	337	7HO	Hobart	Australia	1070	280	LS5	Buenos Aires	Argentina

Kcys.	Meters	Call	City	Country	Kcys.	Meters	Call	City	Country
1070	280	2KY	Sydney	Australia	1229	233.8	SP7	Lodz	Poland
1071	280	XGX	Shanghai	China	1230	243.9	LS8	Buenos Aires	Argentina
1076	279	.....	Bratislava	Czecho-slovakia	1230	243.9	2YB	New Plymouth	New Zealand
1080	277.8	4ZB	Dunedin	New Zealand	1238	242	2BE	Belfast	Great Britain
1080	277.8	.ZM	Dunedin	New Zealand	1245	241	2NC	Newcastle	Australia
1080	277.8	4ZO	Dunedin	New Zealand	1247	240	.....	Nimes	France
1080	277.8	7LA	Launceston	Australia	1247	240	LKS	Stavanger	Norway
1083	277	KSMS	Shanghai	China	1250	240	CX36	Montevideo	Uruguay
1090	275	EB4RG	Gand	Belgium	1256	239	.....	Nurnberg	Germany
1090	275	PRAQ	Bello Horizonte	Brazil	1260	238.1	CW36	Salto	Uruguay
1090	275	1ZB	Auckland	New Zealand	1260	238.1	2ZH	Napier	New Zealand
1090.9	275	PRAG	Porto Alegre	Brazil	1260	238.1	3WR	Wangaratta	Australia
1094	273.2	1TO	Torino	Italy	1264	237.2	.....	Sud Ouest	France
					1265	237	SCV	Orebro	Sweden
					1270	236.2	LS3	Buenos Aires	Argentina
					1274	235.5	LKK	Kristiansand	Norway
					1276.5	235	.....	Shanghai	China
					1290	232.6	CX38	Montevideo	Uruguay
					1290	232.6	4BK	Brisbane	Australia
					1292	232	.....	Kiel	Germany

1100

1100	272.7	7LA	Launceston	Australia
1103	272	.....	Rennes	France
1110	270.3	KZKA	Manila	Philippine Is.
1111	270	PRAZ	France	Brazil
1112	270	.....	Kaiserslautern	Germany
1112	270	SCF	Hudiksvall	Sweden
1112	270	SCO	Norrkoping	Sweden
1112	270	SCQ	Trollhattan	Sweden
1125	266.6	2UW	Sydney	Australia
1130	265.5	.....	Lille	France
1130	265.5	CX30	Montevideo	Uruguay
1139	263	.....	Moravska Ostrava	Czecho-slovakia
1140	263.2	CW30	Tacuarembu	Uruguay
1145	262	4BC	Brisbane	Australia
1148	261	5NO	Newcastle-on-Tyne	Great Britain
1150	260	EB4GT	Brussels	Belgium
1150	260.9	LR8	Buenos Aires	Argentina
1153	260	2ZM	Gisborne	New Zealand
1153.8	260	KZIB	Manila	Philippine Is.
1153.8	260	PRAI	Ribeirao Preto	Brazil
1153.8	260	PRAK	Rio de Janeiro	Brazil
1155	260	2MK	Bathurst	Australia
1157	259	.....	Leipzig	Germany
1160	258	4ZI	Invercargill	New Zealand
1160	258	4ZP	Invercargill	New Zealand
1160	258	7HO	Hobart	Australia
1166	257	SBH	Horby	Sweden
1170	256	CX32	Montevideo	Uruguay
1175	255.3	.....	Toulouse	France
1180	254.2	CW32	Salto	Uruguay
1180	254.2	2ZD	Masterton	New Zealand
1180	254.2	2ZQ	Masterton	New Zealand
1180	254.2	3DB	Melbourne	Australia
1180	254.2	6ML	Perth	Australia
1184	253	.....	Gleiwitz	Germany
1190	252.1	LS2	Buenos Aires	Argentina
1190	252.1	1ZQ	Auckland	New Zealand
1195	250.1	.....	Montpelier	France

1200

1200	250	EB4ED	DeCaluwe	Belgium
1200	250	3ZC	Christchurch	New Zealand
1200	250	5KA	Adelaide	Australia
1206	248	.....	Juan les Pins	France
1210	247.9	CX34	Montevideo	Uruguay
1210	247.9	1ZM	Manurewa	New Zealand
1210	247.9	2ZE	Eketahuna	New Zealand
1211	247.7	1TR	Trieste	Italy
1220	246	.....	Linz Donau	Austria
1220	246	.....	Kassel	Germany
1220	246	.....	Bloemendaal	Holland
1220	246	CW34	Salto	Uruguay
1220	246	SCB	Eskestuna	Sweden
1220	246	SCI	Kalmar	Sweden
1220	246	SCL	Kiruna	Sweden
1220	246	SCP	Saffle	Sweden
1220	246	2MV	Moss Vale	Australia
1220	246	4ZL	Dunedin	New Zealand

1300

1300	230.8	CW38	Salto	Uruguay
1300	230.8	KZRC	Cebu	Philippine Is.
1300	230.8	3BA	Ballarat	Australia
1301	231	SCA	Boras	Sweden
1301	231	SBC	Malmö	Sweden
1301	231	SCG	Halsingborg	Sweden
1301	231	SCS	Umea	Sweden
1304	230	PRAM	Sao Paulo	Brazil
1305	230	EB4FO	Schaerbeek Brussels	Belgium
1310	229	SAD	Adelaide	Australia
1319	227	.....	Aachen	Germany
1319	227	.....	Köln	Germany
1319	227	.....	Münster	Germany
1320	227.3	KGMB	Honolulu	Hawaii
1320	227.3	2AY	Albury	Australia
1330	225.6	CX40	Montevideo	Uruguay
1330	225.6	2ZI	Hastings	New Zealand
1330	225.6	2ZL	Hastings	New Zealand
1335	225	EB4EX	Houben Ottemont	Belgium
1340	223.9	CW40	Paysandu	Uruguay
1340	223.9	2XN	Lismore	Australia
1350	222.2	LS6	Buenos Aires	Argentina
1350	222.2	3KZ	Melbourne	Australia
1363.6	220	PRAF	Belem Para	Brazil
1364	220	PRAX	Rio de Janeiro	Brazil
1365	220	EB4CE	Lucas Chatelineau	Belgium
1373	218	.....	Flensburg	Germany
1373	218	SCK	Karlstad	Sweden
1373	218	SCW	Ornskoldsvik	Sweden
1382	217	.....	Königsberg	Germany
1390	215.8	LS9	Buenos Aires	Argentina
1391	216	SCE	Halimstad	Sweden
1395	215	EB4CF	Masson Verviers	Belgium
1395	215	EB4RC	Schaerbeek Brussels	Belgium

1400

1400	214	SP8	Warsaw	Poland
1400	214	VOX	St. Johns	Newfound'ld
1400	214	3GL	Geelong Victoria	Australia
1408	213.5	.....	Normandie	France
1410	212.8	CX44	Montevideo	Uruguay
1410	212.8	1PA	Palermo	Italy
1413	212	.....	Beziere	France
1415	212	2HD	Newcastle	Australia
1420	211.3	CW44	Paysandu	Uruguay
1430	210	EB4FG	Andre Dampremy	Belgium
1450	206.9	CX46	Montevideo	Uruguay
1460	205.4	2MV	Moss Vale	Australia
1470	204.1	SCD	Gavle	Sweden

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INDEX BY FREQUENCIES AND DIAL NUMBERS

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KEY

Frequency in kilocycles. Wave lengths in meters. Second column symbols: * Verifies receptions 2c; sends station stamp 10c; † Verifies 2c; no stamp; ‡ Sends stamp but does not verify otherwise; † Does not verify; § Did not reply. § Verification 25c, reply card 10c. Third column shows night power in watts. Fourth column symbols: D, daytime only; S, Sunday only; Stations dividing time have same small figures; X means station has been granted permit to increase power; † means station has greater power during day; CP indicates station has construction permit only; Some Cuban and Mexican stations have odd frequencies; Correct kilocycles shown in small figures; N means NBC chain; C means Columbia chain; Z has been granted permit to change frequencies; Y given permit to move to another city. Dn This daylight station may use evening hours under certain conditions. □ These stations operate simultaneously. Dashes (..) have no meaning.

540 kilocycles 555.6 meters

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

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Manitoba Telephone System
Partido Socialista Surt

550 kilocycles 545.1 meters

KFDY	†	500	1+	Brookings, S. D.
KFOU	*	500	2+	St. Louis, Mo.
KFYR	†	1000	1+N	Bismarck, N. D.
KOAC	†	1000	--	Corvallis, Ore.
KSD	†	500	2N	St. Louis, Mo.
WGR	†	1000	C	Buffalo, N. Y.
WKRC	†	1000	C	Cincinnati, Ohio

96		
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S. D. State College
Concordia Theological Seminary
Meyer Broadcasting Co.
State Agricultural College
Pulitzer Publishing Co.
Buffalo Broadcasting Co.
WKRC Incorporated

560 kilocycles 535.4 meters

KFDM	*	500	X+	Beaumont, Texas
KLZ	*	1000	C	Denver, Colo.
KTAB	*	1000	--	San Francisco, Cal.
WFI	*	500	1N	Philadelphia, Pa.
WIBO	*	1000	3+N	Chicago, Ill.
WLIT	†	500	1N	Philadelphia, Pa.
WNOX	*	1000	X+C	Knoxville, Tenn.
WPCC	*	500	3S	Chicago, Ill.
WQAM	*	1000	C	Miami, Fla.

912		
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Magnolia Petroleum Co.
Reynolds Radio Co., Inc.
Associated Broadcasters
Strawbridge & Clothier
Nelson Bros. Bond & Mortgage Co.
Lit Brothers
WNOX, Inc.
North Shore Congregational Church
Miami Broadcasting Co.

570 kilocycles 526.0 meters

KGKO	*	250	+	Wichita Falls, Texas
KMTR	*	500	--	Hollywood, Cal.
KXA	*	500	--	Seattle, Wash.
TGW	--	50	--	Guatemala
WEAO	†	750	1	Columbus, Ohio
WKBN	*	500	1C	Youngstown, Ohio
WMAC	--	250	2	Syracuse, N. Y.
WMCA	*	500	3	New York City
WNAX	*	1000	C	Yankton, S. D.
WNYC	†	500	3	New York City
WSYR	--	250	2	Syracuse, N. Y.
WWNC	*	1000	N	Asheville, N. C.

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

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

580 kilocycles 516.9 meters

CFCL	--	500	3S	Toronto, Ont.
CFCY	*	500	--	Charlottetown, P. E. I.
CHMA	--	250	4S	Edmonton, Alta.
CKCL	*	500	3	Toronto, Ont.
CKUA	†	500	4	Edmonton, Alta.
KGFX	--	200	D	Pierre, S. D.
KSAC	†	500	2+	Manhattan, Kans.
WIBW	*	1000	2+C	Topeka, Kansas
WOBW	*	250	1+	Charleston, W. Va.
WSAZ	*	250	1	Huntington, W. Va.
WTAG	*	250	N	Worcester, Mass.

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

INDEX BY FREQUENCIES AND DIAL NUMBERS

590 kilocycles 508.2 meters

CMW	--	1400	588	Havana, Cuba
KHQ	--	1000	+N	Spokane, Wash.
WCAJ	*	500	I	Lincoln, Nebr.
WEEI	†	1000	N	Boston, Mass.
WKZO	*	1000	D	Kalamazoo, Mich.
WOW	*	1000	1N	Omaha, Nebr.
XEZ	*	500	588	Mexico City

71			
Columbus Commercial & Radio Co. Louis Wasmer, Inc. Nebraska Wesleyan University Edison Elec. Illuminating Co. WKZO, Inc. Woodmen of the World Gonzales Zamacona y Cia.			

KCYS.
670
MTRS.
447.5
DIAL

600 kilocycles 499.7 meters

CNRO	†	500	---	Ottawa, Ont.
KFSD	*	500	+N	San Diego, Cal.
WCAC	†	250	2+	Storrs, Conn.
WCAO	*	250	C	Baltimore, Md.
WICC	*	250	2+	Bridgeport, Conn.
WMT	*	500	C	Waterloo, Iowa
WREC	*	500	+C	Memphis, Tenn.

Canadian National Railways Airfan Radio Corp. Conn. Agricultural College Monumental Radio, Inc. Bridgeport Broadcasting Station, Inc. Waterloo Broadcasting Co. WREC, Inc.			

610 kilocycles 491.5 meters

KFRC	*	1000	C	San Francisco, Cal.
WDAF	*	1000	N	Kansas City, Mo.
WFAN	*	500	2C	Philadelphia, Pa.
WIP	*	500	2C	Philadelphia, Pa.
WJAY	†	500	D	Cleveland, Ohio

73			
Don Lee, Inc. Kansas City Star Co. Keystone Broadcasting Co., Inc. Gimbel Bros. Co. Cleveland Radio Broadcasting Corp.			

620 kilocycles 483.6 meters

CMCJ	--	250	---	Havana, Cuba
KGW	*	1000	+N	Portland, Ore.
KTAR	*	500	+N	Phoenix, Arizona
WFLA	*	1000	1+N	Clearwater, Fla.
WLBZ	†	500	C	Bangor, Maine
WSUN	*	1000	1+N	St. Petersburg, Fla.
WTMJ	*	1000	+N	Milwaukee, Wis.

72			
Rafael Rodriguez Oregonian Publishing Co. KTAR Broadcasting Co. Chamber of Commerce Maine Broadcasting Co., Inc. Chamber of Commerce Milwaukee Journal			

630 kilocycles 475.9 meters

CFCT	*	50	---	Victoria, B. C.
CJGX	--	500	---	Yorkton, Sask.
CKOC	--	500	---	Hamilton, Ont.
CNRA	--	500	---	Moncton, N. B.
KFRU	*	500	I	Columbia, Mo.
WGBF	†	500	I	Evansville, Ind.
WMAL	*	250	+C	Washington, D. C.
WOS	*	500	I	Jefferson City, Mo.

70			
Victoria Broadcasting Association Winnipeg Grain Exchange Wentworth Radio Broadcasting Co. Canadian National Railways Stephens College Evansville on the Air, Inc. M. A. Leese State Marketing Bureau			

640 kilocycles 468.5 meters

CHRC	--	100	645	Quebec, Que.
CKCI	--	100	645	Quebec, Que.
CKCR	--	50	645	Waterloo, Ont.
CMHJ	--	40	645	Cienfuegos, Cuba
KFI	*	50000	N	Los Angeles, Cal.
WAIU	*	500	C Dn	Columbus, Ohio
WOI	*	5000	D	Ames, Iowa
XFG	--	2000	638	Mexico City

67			
E. Fontaine Le "Soleil," Ltd. John Patterson Arturo Hernandez Earle C. Anthony, Inc. Associated Radiocasting Corp. State College of Agriculture Secretaria de Guerra y Marina			

650 kilocycles 461.3 meters

KPCB	*	100	Dn	Seattle, Wash.
WSM	*	5000	N	Nashville, Tenn.

65			
Queen City Broadcasting Co. National Life & Accident Ins. Co.			

660 kilocycles 454.3 meters

CHWK	†	100	---	Chilliwack, B. C.
CJRM	†	500	665	Moose Jaw, Sask.
CJRW	†	500	665	Fleming, Sask.
CMCO	--	250	---	Havana, Cuba
CMDC	--	500	---	Havana, Cuba
RUS	--	500	664	Salvador
WAWA	--	500	D	Omaha, Nebr.
WEAF	†	50000	N□	New York City
WTIC	†	5000	N□	Hartford, Conn.

63			
Chilliwack Broadcasting Co., Ltd. Jas. Richardson & Sons, Ltd. Jas. Richardson & Sons, Ltd. J. L. Stowers Juan Fernandez de Castro Republic of El Salvador Omaha Grain Exchange National Broadcasting Co., Inc. Travelers Broadcasting Service, Inc.			

670 kilocycles 447.5 meters

HIX	--	100	669	Santo Domingo
VOVR	--	500	675	St. Johns, N. F.
WMAQ	*	5000	C	Chicago, Ill.

61			
Dominican Republic Wesley United Church WMAQ, Inc.			

INDEX BY FREQUENCIES AND DIAL NUMBERS

680 kilocycles 440.9 meters

KFEQ	*	2500	D	St. Joseph, Mo.
KPO	†	5000	N	San Francisco, Cal.
WPTF	*	1000	N Dn	Raleigh, N. C.
XETF	--	500	---	Veracruz, Mexico

293

Seroggin & Co., Bank
Hale Bros. & The Chronicle
Durham Life Insurance Co.
Manuel Angel Fernandez & Cia

690 kilocycles 434.5 meters

CFAC	--	500	1	Calgary, Alta.
CFRB	*	5000	2C	Toronto, Ont.
CHCA	*	500	1	Calgary, Alta.
CJ CJ	*	500	1	Calgary, Alta.
CNRC	--	500	1	Calgary, Alta.
CPRY	--	5000	2	Toronto, Ont.
NAA	--	1000	---	Arlington, Va.
VAS	†	10000	685	Glace Bay, N. S.
XET	†	500	---	Monterrey, Mexico

373

The Calgary Herald
Rogers-Majestic Corp., Ltd.
The Western Farmer
Albertan Publishing Co., Ltd.
Canadian National Railways
Canadian Pacific Railways
U. S. Navy
Canadian Marconi Co.
Mexico Music Co., S. A.

700 kilocycles 428.3 meters

WLW	*	50000	N	Cincinnati, Ohio
-----	---	-------	---	------------------

55

Crosley Radio Corp.

710 kilocycles 422.3 meters

KMPC	*	500	Dn	Beverly Hills, Cal.
WOR	*	5000	N	Newark, N. J.
XEN	†	1000	711	Mexico City

53

R. S. MacMillan
Bamberger Broadcasting Service, Inc
Cia. Civil de Inversiones

720 kilocycles 416.4 meters

WGN	†	25000	C	Chicago, Ill.
-----	---	-------	---	---------------

57

Chicago Tribune

730 kilocycles 410.7 meters

CHLS	--	50	1	Vancouver, B. C.
CHYC	--	5000	2S	Montreal, Que.
CKAC	*	5000	2C	Montreal, Que.
CKGD	--	50	1	Vancouver, B. C.
CKFC	†	50	1	Vancouver, B. C.
CKMO	--	100	1	Vancouver, B. C.
CKWX	†	100	1	Vancouver, B. C.
CMK	--	3150	---	Havana, Cuba
CNRM	*	5000	2--	Montreal, Que.
XEM	†	500	---	Tampico, Mexico
XER	--	100000	735	Villa Acuna, Mex.

50

W. G. Hassell
Northern Electric Co., Ltd.
La Presse Publishing Co., Ltd.
Vancouver Daily Province
United Church of Canada
Sprout-Shaw Radio Co.
A. Holstead & Wm. Hanlon
Cuban Broadcasting Co. Hotel Plaza
Canadian National Railways
Herbert H. Denny y Cia.
Dr. John R. Brinkley

740 kilocycles 405.2 meters

KMMJ	*	1000	Dn	Clay Center, Nebr.
WSB	--	5000	N	Atlanta, Ga.

49

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

750 kilocycles 399.8 meters

WJR	†	5000	N	Detroit, Mich.
-----	---	------	---	----------------

47

WJR, The Goodwill Station, Inc.

760 kilocycles 394.5 meters

KVI	*	1000	C Dn	Tacoma, Wash.
WBAL	*	1000	N □	Baltimore, Md.
WEW	*	1000	D	St. Louis, Mo.
WJZ	†	30000	N □	New York City

45

Puget Sound Broadcasting Co., Inc.
Consolidated Gas, Elec. & Power Co.
St. Louis University
National Broadcasting Co., Inc.

770 kilocycles 389.4 meters

KFAB	*	5000	1N	Lincoln, Nebr.
WBBM	*	25000	1C	Chicago, Ill.
WJBT	--	25000	1S	Chicago, Ill.

44

KFAB Broadcasting Co.
WBBM Broadcasting Corp.
WBBM Broadcasting Corp.

780 kilocycles 384.4 meters

CKY	--	5000	3	Winnipeg, Manitoba
CNRW	--	5000	3	Winnipeg, Manitoba
CKELW	*	500	2	Burbank, Cal.
KTM	*	500	2+	Los Angeles, Cal.
WEAN	*	250	+C	Providence, R. I.
WMC	--	500	+N	Memphis, Tenn.
WPOR	--	500	1	Norfolk, Va.
WTAR	*	500	1C	Norfolk Va.

43

Manitoba Telephone System
Canadian National Railways
Magnolia Park, Ltd.
Pickwick Broadcasting Corp.
Shepard Broadcasting Service, Inc.
Memphis Commercial-Appeal, Inc.
WTAR Radio Corp.
WTAR Radio Corp.

INDEX BY FREQUENCIES AND DIAL NUMBERS

790 kilocycles 379.5 meters

CMBS	--	150	---	Havana, Cuba
CMBT	--	150	---	Havana, Cuba
CMHC	--	100	---	Tuinucu, Cuba
KGO	†	7500	N	San Francisco, Cal.
WGY	†	50000	N	Schenectady, N. Y.

47		
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Enrique Artalejo
Emilio Perera
Frank H. Jones
National Broadcasting Co., Inc.
General Electric Co.

800 kilocycles 374.8 meters

WBAP	†	10000	IXN	Fort Worth, Texas
WFAA	†	50000	IN	Dallas, Texas
XEU	--	101	---	Veracruz, Mexico
XFC	--	350	805	Aguascalientes, Mexico

--	--	--

Carter Publications, Inc.
News & Journal
Fernando Pazos
Gobierno del Estado de Aguascalientes

KCYS.
880

810 kilocycles 370.2 meters

WCCO	*	5000	C	Minneapolis, Minn.
WPCB	*	500	D	New York City

--	--	--

Northwestern Broadcasting, Inc.
Eastern Broadcasters, Inc.

MTRS.
340.7

820 kilocycles 365.6 meters

WHAS	†	10000	N	Louisville, Ky.
XFI	--	1000	818	Mexico City

372		
-----	--	--

Courier-Journal & Times
Sria. de Ind., Comercio y Trabajo

DIAL

830 kilocycles 361.2 meters

CMGA	--	100	834	Colon, Cuba
KOA	†	12500	N	Denver, Colo.
WEU	--	1000	DCP	Reading, Pa.
WHDH	--	1000	D	Boston, Mass.
WRUF	*	5000	Dn	Gainesville, Fla.

36		
----	--	--

Leopoldo V. Figueroa
National Broadcasting Co., Inc.
Berks Broadcasting Co.
Matheson Radio Co., Inc.
University of Florida

840 kilocycles 356.9 meters

CHCT	--	1000	2	Red Deer, Alta.
CKGW	*	5000	1N	Toronto, Ont.
CKLC	†	1000	2	Red Deer, Alta.
CMC	†	500	---	Havana, Cuba
CNRD	†	1000	2	Red Deer, Alta.
CNRT	*	500	1	Toronto, Ont.

355		
-----	--	--

G. F. Tull & Ardern, Ltd.
Gooderham & Worts, Ltd.
Alberta Pacific Grain Co., Ltd.
Cuban Telephone Co.
Canadian National Railways
Canadian National Railways

850 kilocycles 352.7 meters

KWKH	*	10000	1	Shreveport, La.
WWL	*	5000	1	New Orleans, La.

342		
-----	--	--

Hello World Broadcasting Corp.
Loyola University

860 kilocycles 348.6 meters

CMJE	--	20	856	Camaguey, Cuba
KMO	†	500	+ Dn	Tacoma, Wash.
WABC	*	50000	C	New York City
WBOQ	--	50000	---	New York City
WHB	*	500	D	Kansas City, Mo.
XEJ	*	101	857	Juarez, Mexico
XFX	--	500	---	Mexico City, Mexico

336		
-----	--	--

Manuel Fernandez
KMO, Inc.
Atlantic Broadcasting Corp.
Atlantic Broadcasting Corp.
WHB Broadcasting Co.
Juan Butner
Secretaria de Educacion Publica

870 kilocycles 344.6 meters

WENR	†	50000	1N	Chicago, Ill.
WLS	†	50000	1N	Chicago, Ill.

322		
-----	--	--

National Broadcasting Co., Inc.
Agricultural Broadcasting Co.

880 kilocycles 340.7 meters

CHML	*	50	4	Hamilton, Ont.
CJCB	*	50	---	Sydney, N. S.
CKCV	†	50	3	Quebec, Que.
CKPC	†	50	4	Preston, Ont.
CNRQ	†	50	3	Quebec, Que.
KFKA	†	500	2+	Greeley, Colo.
KLX	*	500	---	Oakland, Cal.
KPOF	*	500	2	Denver, Colo.
WCOC	*	500	+	Meridian, Miss.
WGBI	*	250	1	Scranton, Pa.
WQAN	*	250	1	Scranton, Pa.
WSUI	*	500	---	Iowa City, Iowa

312		
-----	--	--

Maple Leaf Radio Co., Ltd.
N. Nathanson
G. A. Vandy
Metal Shingle & Siding Co.
Canadian National Railways
Midwestern Radio Corp.
Tribune Publishing Co.
Pillar of Fire, Inc.
Mississippi Broadcasting Co., Inc.
Scranton Broadcasters, Inc.
Scranton Times
University of Iowa

39

INDEX BY FREQUENCIES AND DIAL NUMBERS

890 kilocycles 336.9 meters

CFBO	*	500		St. John, N. B.
CKCO	†	100	3--	Ottawa, Ont.
CKPR		50	3	Port Arthur, Ont.
CMCF	†	250	---	Havana, Cuba
CMX	*	500	---	Havana, Cuba
KFNF		500	2+	Shenandoah, Iowa
KGJF	*	250	---	Little Rock, Ark.
KUSD	*	500	2--	Vermillion, S. D.
WGST	*	250	+C	Atlanta, Ga.
WILL	*	250	2+	Urbana, Ill.
WJAR	*	250	+N	Providence, R. I.
WKAQ	*	250	---	San Juan, P. R.
WMMN	*	250	+	Fairmount, W. Va.
XES	\$	500	---	Tampico, Mexico

3			
C. A. Munro, Ltd. Dr. G. M. Geldert Dougall Motor Car Corp. Raoul Karman Francisco Lavin Henry Field Co. Church of the Nazarene University of South Dakota Georgia School of Technology University of Illinois The Outlet Co. Radio Corp. of Porto Rico Holt-Rowe Broadcasting Co. Difusora Portena XES			

900 kilocycles 333.1 meters

KGBU	†	500	---	Ketchikan, Alaska
KHJ	*	1000	C	Los Angeles, Cal.
KSEI	*	250	---	Pocatelli, Idaho
TIC		50	---	San Jose, Costa Rica
WBEN	*	1000	N	Buffalo, N. Y.
WJAX	*	1000	N	Jacksonville, Fla.
WKY	*	1000	N	Oklahoma City
WLBL	*	2000	D	Stevens Point, Wis.

30			
Alaska Radio & Service Co. Don Lee, Inc. Radio Service Corp. Buffalo Evening News City of Jacksonville WKY Radiophone Co. Wisconsin Dept. of Markets			

910 kilocycles 329.6 meters

CFQC	--	500	1	Saskatoon, Sask.
CHNS	*	500	3Z	Halifax, N. S.
CJGC	*	5000	2	London, Ont.
CNRH	--	500	3Z	Halifax, N. S.
CNRL	--	500	2	London, Ont.
CNRS	--	500	1	Saskatoon, Sask.
XEW	†	5000	---	Mexico City

29			
The Electric Shop, Ltd. Halifax Herald, Ltd. Free Press Printing Co., Ltd. Canadian National Railways Canadian National Railways Canadian National Railways Mexico Music Co.			

920 kilocycles 325.9 meters

HHK	*	1000	---	Port au Prince, Haiti
KFEL	†	500	1	Denver, Colo.
KFXF	*	500	1	Denver, Colo.
KOMO	†	1000	N	Seattle, Wash.
KPRC	*	1000	+N	Houston, Texas
WAAF	--	500	D	Chicago, Ill.
WBOS	--	500	D	Needham, Mass.
WWJ	†	1000	N	Detroit, Mich.
XFF	†	250	915	Chihuahua, Mexico

Republic of Haiti Eugene P. O'Fallon, Inc. Colorado Radio Corp. Fisher's Blend Station, Inc. Houston Printing Co. Drivers' Journal Publishing Co. Babson Statistical Organization, Inc. The Detroit News Gobierno del Estado de Chihuahua			

930 kilocycles 322.4 meters

CFCH	--	100	3	North Bay, Ont.
CFCL	--	50	3	Prescott, Ont.
CFRC	--	50	3+	Kingston, Ont.
CJCA	--	500	---	Edmonton, Alta.
CMCD	--	250	925	Havana, Cuba
CMCN	--	250	925	Havana, Cuba
CMJF	--	50	---	Camaguey, Cuba
KFWI	†	500	1	San Francisco, Cal.
KGBZ	*	500	2+	York, Nebr.
KMA	*	500	2+	Shenandoah, Iowa
KROW	*	500	1+X	Oakland, Cal.
WBRC	*	500	+C	Birmingham, Ala.
WDBJ	*	250	+C	Roanoke, Va.
WIBG	*	25	S	Elkins Park, Pa.

27			
Northern Supplies, Ltd. Radio Association Queen's University The Edmonton Journal, Ltd. Angel Bertematy Antonio Ginard John L. Stowers Radio Entertainments, Inc. Dr. George R. Miller May Seed & Nursery Co. Educational Broadcasting Corp. Birmingham Broadcasting Co., Inc. Times-World Corp. St. Paul's P. E. Church.			

940 kilocycles 319.0 meters

KGU	†	1000	---	Honolulu, Hawaii
KOIN	*	1000	C	Portland, Oregon
WAAT	--	300	D	Jersey City, N. J.
WCSH	*	1000	N	Portland, Maine
WDAY	*	1000	N	Fargo, N. D.
WFIW	*	1000	C	Hopkinsville, Ky.
WHA	--	750	D+	Madison, Wis.
XEO	--	5000	---	Mexico City

26			
Marion A. Mulroney KOIN, Inc. Bremer Broadcasting Corp. Congress Square Hotel Co. WDAY, Inc. WFIW, Inc. University of Wisconsin National Revolucionario Party			

950 kilocycles 315.6 meters

CMHD	--	250	---	Caibarien, Cuba
KFWB	--	1000	---	Hollywood, Cal.
KGHL	--	1000	---	Billings, Mont.

26			
Manuel Alvarez Warner Bros. Broadcasting Corp. Northwestern Auto Supply Co., Inc.			

INDEX BY FREQUENCIES AND DIAL NUMBERS

KMBC * 1000 C Kansas City, Mo.
 T14NRH -- 75 948 N Heredia, C. R.
 WRC † 500 N Washington, D. C.

Midland Broadcasting Co., Inc.
 Armando Cespedes
 National Broadcasting Co., Inc.

960 kilocycles 312.3 meters

CHWC * 500 3 Regina, Sask.
 CJBR -- 500 3 Regina, Sask.
 CKCK † 500 3 Regina, Sask.
 CKNC * 500 2 Toronto, Ont.
 CMBC -- 150 965 Havana, Cuba
 CMBD -- 150 965 Havana, Cuba
 CNRR -- 500 3 Regina, Sask.
 CNRX * 5000 2 Toronto, Ont.
 XED * 10000 965 Reynosa, Mexico

33
 R. H. Williams & Sons, Ltd.
 Cooperative Wheat Producers, Ltd.
 Leader Publishing Co., Ltd.
 Canadian National Carbon Co., Ltd.
 Domingo Fernandez
 Luis Perez Garcia
 Canadian National Railways
 Canadian National Railways
 International Broadcasting Co.

970 kilocycles 309.1 meters

KMGF -- 50 977 Matanzas, Cuba
 KJR * 5000 N Seattle, Wash.
 WCFL -- 1500 N Dn Chicago, Ill.

243
 Bernabe R. de la Torre
 Northwest Broadcasting System, Inc.
 Chicago Federation of Labor

980 kilocycles 305.9 meters

CFCN -- 10000 985 Calgary, Alta.
 KDKA -- 50000 N Pittsburgh, Pa.
 XEFE -- 101 --- Laredo, Mexico

233
 Western Broadcasting Co.
 Westinghouse Elec. & Mfg. Co.
 Rafael T. Carranza

KCYS.
 1040

990 kilocycles 302.8 meters

WBZ-A † 15000 1N Springfield-Boston
 XEK -- 101 --- Mexico City

23
 Westinghouse Elec. & Mfg. Co.
 Arturo Martinez

MTRS.
 288.3

1000 kilocycles 299.8 meters

KFVD * 250 Dn Culver City, Cal.
 WHO * 5000 1N□ Des Moines, Iowa
 WOC * 5000 1N□ Davenport, Iowa
 XEI * 101 --- Morelia, Mexico

Los Angeles Broadcasting Co.
 Central Broadcasting Co.
 Central Broadcasting Co.
 Carlos Gutierrez M.

DIAL

1010 kilocycles 296.8 meters

CHCK -- 100 --- Charlottetown, P. E. I.
 CHCS -- 500 3+ Hamilton, Ont.
 CKIC -- 50 --- Wolfville, N. S.
 CKOC * 500 3+ Hamilton, Ont.
 CMBW -- 150 --- Havana, Cuba
 CMBZ -- 150 --- Havana, Cuba
 KGGF † 500 2 S. Coffeyville, Okla.
 KOW * 500 --- San Jose, Cal.
 WHN * 500 1 New York City
 WIS * 500 +N Columbia, S. C.
 WLAP † 250 C Louisville, Ky.
 WNAD * 500 2 Norman, Okla.
 WPAP * 250 1 New York City
 WOAO -- 250 1 New York City
 WRNY -- 250 1 New York City
 XEQ -- 1000 1015 Juarez, Mexico

22
 W. E. Burke
 The Hamilton Spectator
 Acadia University
 Wentworth Radio Broadcasting Co.
 Modesto Alvarez
 Manual y G. Salas
 Powell & Platz
 Pacific Agricultural Foundation, Ltd.
 Marcus Loew Booking Agency
 South Carolina Broadcasting Co., Inc.
 American Broadcasting Corp. of Ky.
 University of Oklahoma
 Palisades Amusement Park
 Calvary Baptist Church
 Aviation Radio Station, Inc.
 Feliciano Lopez Islas

1020 kilocycles 293.9 meters

CMJH -- 15 1017 Ciego de Avila, Cuba
 KFKX * 10000 1N Chicago, Ill.
 KYW * 10000 1N Chicago, Ill.
 WRAX † 250 D Philadelphia, Pa.

22
 Luis Marauri
 Westinghouse Elec. & Mfg. Co.
 Westinghouse Elec. & Mfg. Co.
 WRAX Broadcasting Co.

1030 kilocycles 291.1 meters

CFCF -- 500 N Montreal, Que.
 CMKC * 150 1034 Santiago de Cuba
 CNRV † 500 --- Vancouver, B. C.
 XEB † 1000 --- Mexico City, Mexico
 XEV -- 101 1034 Puebla, Mexico

Canadian Marconi Co.
 M. P. Martinez
 Canadian National Railways
 El Buen Tono, S. A.
 Ciro Molina

1040 kilocycles 288.3 meters

KRLD * 10000 1C Dallas, Texas
 KTHS † 10000 1N Hot Springs, Ark.
 WKAR * 1000 D East Lansing, Mich.
 WMAK * 1000 Dn Buffalo, N. Y.

203
 KRLD Radio Corp.
 Chamber of Commerce
 Michigan State College
 Buffalo Broadcasting Corp.

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INDEX BY FREQUENCIES AND DIAL NUMBERS

1050 kilocycles	285.5 meters	
KFBI * 5000 Dn	Milford, Kansas	195
KNX * 5000 ---	Hollywood, Cal.	
Farmers & Bankers Life Insurance Co. Western Broadcast Co.		
1060 kilocycles	282.8 meters	
KWJJ * 500 Dn	Portland, Ore.	19
WBAL * 10000 1N	Baltimore, Md.	
WJAG * 1000 Dn	Norfolk, Nebr.	
WTIC * 50000 1N	Hartford, Conn.	
KWJJ Broadcast Co., Inc. Consolidated Gas Elec. & Pwr. Co. Norfolk Daily News Travelers Broadcasting Service Corp.		
1070 kilocycles	280.2 meters	
CMBG -- 150 ---	Havana, Cuba	182
CMCB -- 150 ---	Havana, Cuba	
KJBS * 100 D	San Francisco, Cal.	
WCAZ * 50 D	Carthage, Ill.	
WDZ † 100 D	Tuscola, Ill.	
WTAM * 50000 N	Cleveland, Ohio	
Francisco Garrigo Antonio Capablanca Julius Brunton & Sons Co. Superior Broadcasting Service James L. Bush National Broadcasting Co., Inc.		
1080 kilocycles	277.6 meters	
WBT * 5000 C	Charlotte, N. C.	
WCBD * 5000 1 Dn	Zion, Ill.	
WBMI * 5000 1 Dn	Chicago, Ill.	
Station WBT, Inc. Wilbur Glenn Voliva Moody Bible Institute		
1090 kilocycles	275.1 meters	
KMOX * 50000 C	St. Louis, Mo.	175
XEL -- 10 1091	Saltillo, Mexico	
Voice of St. Louis, Inc. Antonio Garza Castro		
1100 kilocycles	272.6 meters	
KGDM * 250 DX	Stockton, Cal.	17
WLWL * 5000 1	New York City	
WPG * 5000 1C	Atlantic City, N. J.	
E. F. Peffer Missionary Society of St. Paul WPG Broadcasting Corp.		
1110 kilocycles	270.1 meters	
CMHI -- 15 ---	Santa Clara, Cuba	162
KS00 * 2500 Dn	Sioux Falls, S. D.	
WRVA * 5000 N	Richmond, Va.	
Laviz y Paz Sioux Falls Broadcasting Assn., Inc. Larus & Bros. Co., Inc.		
1120 kilocycles	267.7 meters	
CFCA † 500 ---	Toronto, Ont.	16
CFJC † 100 ---	Kamloops, B. C.	
CHGS * 100 ---	Summerside, P. E. I.	
CJOC † 100 ---	Lethbridge, Alta	
KFIO † 100 D	Spokane, Wash.	
KFSG * 500 3	Los Angeles, Cal.	
KMCS * 500 3Y	Inglewood, Cal.	
KRSC † 50 D	Seattle, Wash.	
KTRH * 500 2C	Houston, Texas	
WDBO * 500 +C	Orlando, Fla.	
WDEL † 250 +X	Wilmington, Del.	
WHAD † 250 1	Milwaukee, Wis.	
WISN † 250 1C	Milwaukee, Wis.	
WTAW † 500 2	College Station, Texas	
Star Pub. & Ptg. Co. N. S. Dalgleish & Sons R. T. Holman, Ltd. Harold R. Carson Spokane Broadcasting Corp. Echo Park Evang. Assn. Dalton's, Inc. Radio Sales Corp. Rice Hotel Orlando Broadcasting Co., Inc. WDEL, Inc. Marquette University Evening Wisconsin Co. Agricultural & Mech. College		
1130 kilocycles	265.3 meters	
KSL * 5000 N	Salt Lake City	15
WJJD * 20000 C Dn	Mooseheart, Ill.	
W0V * 1000 D	New York City	
XEE * 105 ---	Oaxaca, Mexico	
XEH -- 5000 1132	Monterrey, Mexico	
Radio Service Corp. of Utah Loyal Order of Moose International Broadcasting Corp. Alfonso Zorilla B. Tarnava y Cia.		
1140 kilocycles	263.0 meters	
KVOO * 5000 1N	Tulsa, Okla.	
WAPI * 5000 1N	Birmingham, Ala.	
XETA -- 500 ---	Mexico City	
Southwestern Sales Corp. Alabama Polytechnic Institute Manuel Espinosa Tagle		
1150 kilocycles	260.7 meters	
CMCQ -- 600 ---	Havana, Cuba	15
CMQ † 250 ---	Havana, Cuba	
WHAM * 5000 N	Rochester, N. Y.	
Andres Martinez Jose Fernandez Stromberg-Carlson Tel. Mfg. Co.		

INDEX BY FREQUENCIES AND DIAL NUMBERS

1160 kilocycles 258.5 meters

WOWO * 10000 1C
 WWVA * 5000 1C

Ft. Wayne, Ind.
 Wheeling, W. Va.

15

Main Auto Supply Co.
 West Virginia Broadcasting Corp.

1170 kilocycles 256.3 meters

WCAU * 10000 C

Philadelphia, Pa.

14

Universal Broadcasting Co.

1180 kilocycles 254.1 meters

KEX * 5000 2
 KOB * 20000 2
 WDGY * 1000 1 Dn
 WGBS † 500 ---
 WMAZ † 500 ---

Portland, Ore.
 State College, N. M.
 Minneapolis, Minn.
 New York City
 Macon, Ga.

13

Western Broadcasting Co.
 College of Agriculture & Mech. Arts
 Dr. George W. Young
 General Broadcasting System, Inc.
 Southeastern Broadcasting Co., Inc.

1190 kilocycles 252.0 meters

WOAI * 50000 N

San Antonio, Texas

13

Southern Equipment Co.

1200 kilocycles 249.9 meters

CKOV -- 100 ---
 CMGB -- 7.5 1205
 CMJA -- 30 ---
 KBFM -- 100 D
 KFJB † 100 +
 KFVF -- 100 5+
 KGDE * 100 +
 KGDY -- 100 ---
 KGEK † 100 9
 KGEW † 100 9
 KGFF † 100 ---
 KGGH * 100 ---
 KGY † 10 +
 KMLB -- 100 D
 KSMR -- 100 ---
 KVOS * 100 ---
 KWG * 100 ---
 WABI † 100 ---
 WABZ * 100 1
 WBBZ * 100 ---
 WBHS -- 50 10CP
 WCAT † 100 ---
 WCAX * 100 2
 WCLO † 100 ---
 WCOD † 100 3
 WEPS † 100 7
 WFAM * 100 8
 WFBC * 50 10
 WFBE -- 100 +
 WHBC † 10 4S
 WHBY † 100 ---
 WIBX * 100 +
 WIL * 100 5+
 WJBC * 100 6
 WJBL † 100 6
 WJBW † 100 1
 WKJC * 100 3
 WLBG * 100 +
 WNBO * 100 4
 WNBW † 10 ---
 WNBX † 10 2
 WORC * 100 7CX
 WRBL † 50 ---
 WWAE * 100 8
 XEA -- 101 ---

Kelowna, B. C.
 Matanzas, Cuba
 Camaguey, Cuba
 Paragould, Ark.
 Marshalltown, Iowa
 St. Louis, Mo.
 Fergus Falls, Minn.
 Huron, S. D.
 Yuma, Colo.
 Fort Morgan, Colo.
 Los Angeles, Cal.
 Little Rock, Ark.
 Lacey, Wash.
 Monroe, La.
 Santa Maria, Cal.
 Bellingham, Wash.
 Stockton, Cal.
 Bangor, Maine
 New Orleans, La.
 Ponca City, Okla.
 Huntsville, Ala.
 Rapid City, S. D.
 Burlington, Vt.
 Janesville, Wis.
 Harrisburg, Pa.
 Worcester, Mass.
 South Bend, Ind.
 Knoxville, Tenn.
 Cincinnati, Ohio
 Canton, Ohio
 Green Bay, Wis.
 Utica, N. Y.
 St. Louis, Mo.
 La Salle, Ill.
 Decatur, Ill.
 New Orleans, La.
 Lancaster, Pa.
 Petersburg, Va.
 Washington, Pa.
 Carbondale, Pa.
 Springfield, Vt.
 Worcester, Mass.
 Columbus, Ga.
 Hammond, Ind.
 Guadajara, Mexico

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J. W. B. Browne
 Jose Anorga
 Pedro Noguera
 W. J. Beard's Temple of Music
 Marshall Electric Co., Inc.
 St. Louis Truth Center, Inc.
 Jaren Drug Co.
 Voice of South Dakota
 Beehler Elec. Equipment Co.
 City of Fort Morgan
 Ben S. McGlashan
 Berean Bible Class
 St. Marten's College
 J. C. Liner
 Santa Maria Radio
 KVOS, Inc.
 Portable Wireless Tel. Co., Inc.
 Pine Tree Broadcasting Corp.
 Samuel D. Reeks
 C. L. Carroll
 The Hutchens Co.
 State School of Mines
 Burlington Daily News
 WCLO Radio Corp.
 Keystone Broadcasting Corp.
 Alfred Frank Kleindienst
 South Bend Tribune
 First Baptist Church
 Post Publishing Co.
 St. John's Catholic Church
 St. Norbert's College
 WIBX, Inc.
 Missouri Broadcasting Corp.
 Kaskaskia Broadcasting Co.
 Commodore Broadcasting, Inc.
 Charles C. Carlson, Jr.
 Lancaster Brdcstg. Service Inc.
 WLBG, Inc.
 John Brownlee Spriggs
 Home Cut Glass & China Co.
 First Congregational Church
 Alfred Frank Kleindienst
 WRBL Radio Station, Inc.
 Hammond-Calumet, Broad. Corp.
 Alberto Palos Sauza

KCYS.
 1210

MTRS.
 247.8

DIAL

1210 kilocycles 247.8 meters

CFCO -- 100 8
 CFNB -- 100 ---
 CJOR * 500 ---
 CKMC -- 100 8
 CKPC † 50 8+
 KDFN † 100 ---

Chatham, Ont.
 Fredericton, N. B.
 Sea Island, B. C.
 Cobalt, Ont.
 Preston, Ont.
 Casper, Wyo.

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

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INDEX BY FREQUENCIES AND DIAL NUMBERS

KDLR	†	100	---	Devil's Lake, N. D.
KFOR	*	100	+	Lincoln, Nebr.
KFVS	*	100	6	Cape Girardeau, Mo.
KFXM	†	100	9	San Bernardino, Cal.
KGCR	†	100	---	Watertown, S. D.
KGNO	*	100	---	Dodge City, Kansas
KMJ	*	100	---	Fresno, Cal.
KPPC	§	50	9	Pasadena, Cal.
KWEA	*	100	---	Shreveport, La.
WALR	*	100	---	Zanesville, Ohio
WBAX	*	100	1	Wilkes-Barre, Pa.
WBBL	†	100	7S	Richmond, Va.
WCBS	*	100	2	Springfield, Ill.
WCOH	*	100	3	Yonkers, N. Y.
WCRW	*	100	4	Chicago, Ill.
WDWF	---	100	5	Providence, R. I.
WEOB	*	100	6	Harrisburg, Ill.
WEDC	---	100	4	Chicago, Ill.
WGBB	*	100	3	Freeport, N. Y.
WGCM	*	100	---	Jaffport, Miss.
WHBF	*	100	---	Rock Island, Ill.
WHBU	†	100	---	Anderson, Ind.
WIBU	---	100	---	Poynette, Wis.
WJBI	---	100	3	Red Bank, N. J.
WJBU	*	100	1	Lewisburg, Pa.
WJBY	*	100	3	Gadsden, Ala.
WJW	*	100	---	Mansfield, Ohio
WLCI	*	50	---	Ithaca, N. Y.
WMBJ	*	100	7	Richmond, Va.
WNRJ	*	100	3	Jamaica, N. Y.
WOCL	*	25	---	Jamestown, N. Y.
WOMT	*	100	---	Manitowoc, Wis.
WPAW	*	100	5	Pawtucket, R. I.
WPRO	*	100	5	Providence, R. I.
WQDX	*	100	---	Thomasville, Ga.
WRBQ	†	100	+	Greenville, Miss.
WSBC	*	100	4	Chicago, Ill.
WSEN	†	100	---	Columbus, Ohio
WSIX	*	100	---	Springfield, Tenn.
WSOC	†	100	---	Gastonia, N. C.
WTAX	---	100	2	Springfield, Ill.
XEX	---	500	---	Mexico City

KDLR, Inc.
 Howard A. Shuman
 Hirsch Battery & Radio Co.
 J. C. & E. W. Lee
 Greater Kampeska Radio Corp.
 Dodge City Broadcasting Co.
 James McClatchy Co.
 Pasadena Presbyterian Church
 Hello World Broadcasting Corp.
 Roy W. Waller
 John H. Stenger, Jr.
 Grace Covenant Pres. Church
 H. L. Dewing & Chas. Messter
 Westchester Broadcasting Corp.
 Clinton R. White
 Cherry & Webb Broadcasting Co.
 First Trust & Savings Bank
 Emil Denemark, Inc.
 Harry H. Carman
 Great Southern Land Co., Inc.
 Beardsley Specialty Co.
 Citizens Bank
 Wm. C. Forrest
 Monmouth Broadcasting Co.
 Bucknell University
 Gadsen Broadcasting Co., Inc.
 Mansfield Broadcasting Assn.
 Lutheran Assn. of Ithaca
 Havens & Martin, Inc.
 Peter J. Prinz
 A. E. Newton
 Francis M. Kadow
 Shartenburg & Robinson Co.
 Cherry & Webb Broadcasting Co.
 Stevens Luke
 J. Pat. Scully
 World Battery Co., Inc.
 Columbus Broadcasting Co.
 638 Tire & Vulcanizing Co.
 WSOC, Inc.
 WTAX, Inc.
 Excelsior, Cia Editorial S. A.

1220 kilocycles 245.8 meters

CMBY	---	350	1225	Havana, Cuba
CMCA	---	150	1225	Havana, Cuba
KFKU	*	500	1	Lawrence, Kansas
KTW	---	1000	---	Seattle, Wash.
KWSC	---	1000	+	Pullman, Wash.
WCAD	*	500	D	Canton, N. Y.
WCAE	*	1000	N	Pittsburgh, Pa.
WDAE	*	1000	C	Tampa, Fla.
WREN	*	1000	1N	Lawrence, Kansas

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

1230 kilocycles 243.8 meters

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

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Anchorage Radio Club
 New Mexico Broadcasting Co.
 Pacific Broadcasting Corp.
 Shepard Broadcasting Service, Inc.
 Indianapolis Power & Light Co.
 Shepard Broadcasting Service, Inc.
 Pennsylvania State College
 South Bend Tribune

1240 kilocycles 241.8 meters

CMAB	---	20	1249	Pinar del Rio, Cuba
KGCU	---	250	3	Mandan, N. D.
KLPM	†	250	3	Minot, N. D.
KTAT	†	1000	1	Ft. Worth, Texas
WACO	†	1000	1C	Waco, Texas
WXYZ	†	1000	C	Detroit, Mich.

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

1250 kilocycles 239.9 meters

KFMX	†	1000	2	Northfield, Minn.
KFOX	*	1000	---	Long Beach, Cal.

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Carleton College
 Nichols & Warinner, Inc.

INDEX BY FREQUENCIES AND DIAL NUMBERS

KIDO	†	1000	---	Boise, Idaho
WAAM	*	1000	1+X	Newark, N. J.
WCAL	*	1000	2	Northfield, Minn.
WDSU	†	1000	C	New Orleans, La.
WGCP	--	250	1	Newark, N. J.
WLB	†	1000	2	St. Paul, Minn.
WODA	--	1000	1	Paterson, N. J.
WRHM	*	1000	2	Minneapolis, Minn.
XEFA	--	250	---	Mexico City

Boise Broadcasting Station
WAAM, Inc.
St. Olaf College
Jos. H. Uhalt
May Radio Broadcast Corp.
University of Minnesota
Richard E. O'Dea
Minnesota Broadcasting Corp.
Luis F. Murguia

1260 kilocycles 238.0 meters

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KOIL	*	1000	C	Council Bluffs, Iowa
KRGV	*	500	1	Harlingen, Texas
KVOA	†	500	D	Tucson, Arizona
KWWG	*	500	1	Brownsville, Texas
WLBW	*	500	C+	Oil City, Pa.
WTOC	*	500	C	Savannah, Ga.

Mona Motor Oil Co.
KRGV, Inc.
Robert M. Riculfi
Herald Pub. Co.
Radio-Wire Program Corp.
Savannah Broadcasting Co.

1270 kilocycles 236.1 meters

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KGCA	†	50	2D	Decorah, Iowa
KOL	†	1000	C	Seattle, Wash.
KVOR	*	1000	C	Colorado Springs, Colo.
KWLC	*	100	2D	Decorah, Iowa
WASH	*	500	1	Grand Rapids, Mich.
WEAI	*	1000	D	Ithaca, N. Y.
WFBR	--	500	N	Baltimore, Md.
WJDX	*	1000	N	Jackson, Miss.
WOOD	†	500	1	Grand Rapids, Mich.

Charles W. Greenley
Seattle Broadcasting Co., Inc.
Reynolds Radio Co., Inc.
Luther College
WASH Broadcasting Corp.
Cornell University
Baltimore Radio Show, Inc.
Lamar Life Insurance Co.
Kunsky-Trendle Broadcasting Corp.

1280 kilocycles 234.2 meters

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CMCU	--	150	1285	Havana, Cuba
CMCW	--	150	1285	Havana, Cuba
KFBB	*	1000	+	Great Falls, Mont.
WCAM	*	500	1	Camden, N. J.
WCAP	*	500	1	Asbury Park, N. J.
WDOD	*	1000	+C	Chattanooga, Tenn.
WIBA	*	500	+N	Madison, Wis.
WOAX	--	500	1	Trenton, N. J.
WRR	†	500	C	Dallas, Texas

Jorge Garcia Serra
Jose Lorenzo
Buttrey Broadcast, Inc.
City of Camden
Radio Industries Broadcast Co.
WDOD Broadcasting Corp.
Badger Broadcasting Co.
WOAX, Inc.
City of Dallas

1290 kilocycles 232.4 meters

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KDYL	†	1000	C	Salt Lake City
KFUL	--	500	1	Galveston, Texas
KLCN	*	50	D	Blytheville, Ark.
KTSA	†	1000	1+C	San Antonio, Texas
WEBC	*	1000	+N	Superior, Wis.
WJAS	*	1000	C+	Pittsburgh, Pa.
WNBZ	--	50	D	Saranac Lake, N. Y.

Intermountain Broadcasting Corp.
News Publishing Co.
C. L. Lintzenich
Lone Star Broadcast Co.
Head of Lake Broadcasting Co.
Pittsburgh Radio Supply House
Smith & Mace

KCY5.
1310
MTRS.
228.9
DIAL

1300 kilocycles 230.6 meters

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KFAC	*	1000	4	Los Angeles, Cal.
KFHI	*	1000	2C	Wichita, Kansas
KFJR	*	500	3	Portland, Ore.
KGEF	*	1000	4	Los Angeles, Cal.
KTBR	*	500	3	Portland, Ore.
WBRR	*	1000	1	Brooklyn, N. Y.
WEVD	*	500	1	New York City
WHAP	*	1000	1	New York City
WHAZ	*	500	1	Troy, N. Y.
WIOD	*	1000	N	Miami, Fla.
WQQ	*	1000	2	Kansas City, Mo.
XETY	--	2000	---	Mexico City

Los Angeles Broadcasting Co.
Radio Station KFH Co.
Ashley C. Dixon & Son
Trinity Methodist Church
M. E. Brown
People's Pulpit Association
Debs Memorial Radio Fund, Inc.
Defenders of Truth Society, Inc.
Rensselaer Polytechnic Institute
Isle of Dreams Broadcasting Corp.
Unity School of Christianity
Juan Gutierrez, Jr.

1310 kilocycles 228.9 meters

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

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

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INDEX BY FREQUENCIES AND DIAL NUMBERS

KFXR	†	100	+	Oklahoma City	Exchange Ave. Baptist Church
KGBX	*	100	---	St. Joseph, Mo.	KGBX, Inc.
KGCX	†	100	+	Wolf Point, Minn.	First State Bank of Vida
KGEZ	†	100	---	KalisPELL Mont.	Treloar-Church Broadcasting Co.
KGFW	†	100	Y	Ravenna, Nebr.	Central Nebraska Broadcasting Corp.
KIT	†	50	---	Yakima, Wash.	Carl E. Haymond
KMED	†	100	---	Medford, Ore.	Mrs. W. J. Virgin
KRMD	†	50	9	Shreveport, La.	Robert M. Dean
KTLC	*	100	---	Houston, Texas	Houston Broadcasting Co.
KTSL	---	100	9Y	Shreveport, La.	G. A. Houseman
KTSM	†	100	2	El Paso, Texas	W. S. Bledsoe & W. T. Blackwell
KWCR	†	100	7	Cedar Rapids, Iowa	Cedar Rapids Broadcast Co.
KXRO	†	100	---	Aberdeen, Wash.	KXRO, Inc.
WBEO	---	100	CP	Marquette, Mich.	Lake Superior Broadcasting Co.
WBOW	*	100	---	Terre Haute, Ind.	Banks of Wabash, Inc.
WBRE	---	100	---	Wilkes-Barre, Pa.	Louis G. Baltimore
WCLS	*	100	1	Joliet, Ill.	WCLS, Inc.
WDAH	†	100	2	El Paso, Texas	Bledsoe & Blackwell
WEBR	*	100	+	Buffalo, N. Y.	Howell Broadcasting Co., Inc.
WEXL	†	50	---	Royal Oak, Mich.	Royal Oak Broadcasting Co.
WFBG	*	100	3X	Altoona, Pa.	Wm. F. Gable Co.
WFDG	*	100	---	Flint, Mich.	Frank D. Fallain
WFDV	†	100	D	Rome, Ga.	Rome Broadcasting Corp.
WGAL	*	100	5	Lancaster, Pa.	WGAL, Inc.
WGH	*	100	---	Newport News, Va.	Hampton Roads Broadcasting Corp.
WHAT	†	100	4	Philadelphia, Pa.	Independence Broadc-asting Co.
WJAC	*	100	3	Johnstown, Pa.	Johnstown Automobile Co.
WJAK	*	50	6Y	Marion, Ind.	Truth Publishing Co., Inc.
WKAV	*	100	---	Laconia, N. H.	Laconia Radio Club
WKBB	*	100	1	Joliet, Ill.	Sanders Bros. Radio Station
WKBC	*	100	---	Birmingham, Ala.	R. B. Broyles Furniture Co
WKBS	*	100	---	Galesburg, Ill.	Permil N. Nelson
WLBC	†	50	6	Muncie, Ind.	Donald A. Burton
WMBO	---	100	---	Auburn, N. Y.	Radio Service Laboratories
WNBH	*	100	---	New Bedford, Mass.	New Bedford Broadcasting Co.
WOL	*	100	---	Washington, D. C.	American Broadcasting Co.
WRAP	*	100	5X	Reading, Pa.	Reading Broadcasting Co.
WROL	†	100	---	Knoxville, Tenn.	Stewart Broadcasting Co.
WSAJ	*	100	---	Grove City, Pa.	Grove City College
WSJS	*	100	---	Winston-Salem, N. C.	Winston-Salem Journal Co.
WTCL	*	100	4	Philadelphia, Pa.	Foulkrod Radio Engineering Co.
WTJS	†	100	+	Jackson, Tenn.	Sun Publishing Co.

1320 kilocycles 227.1 meters

KGHF	†	250	+	Pueblo, Colo.	
KGMB	†	250	---	Honolulu, Hawaii	C. P. Ritchie & J. E. Finch
KID	†	250	1+	Idaho Falls, Idaho	Honolulu Broadcasting Co., Ltd.
KTFI	†	250	1+	Twin Falls, Idaho	KID Broadcasting Co.
WADC	†	1000	C	Akron, Ohio	Radio Broadcasting Corp.
WSMB	*	500	N	New Orleans, La.	Allen T. Simmons
					Saenger Theatre & Maison Blanche Co.

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1330 kilocycles 225.4 meters

KGB	*	500	C	San Diego, Cal.	
KSCJ	*	1000	1+C	Sioux City, Iowa	Don Lee, Inc.
WDRG	*	500	C	Hartford, Conn.	Perkins Bros. Co.
WSAI	*	500	N	Cincinnati, Ohio	WDRG, Inc.
WTAQ	*	1000	1C	Eau Claire, Wis.	Crosley Radio Corp., Lessee
XEC	--	50	1333	Toluca, Mexico	Gillette Rubber Co.
					Jesus R. Benavides

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1340 kilocycles 223.7 meters

CMCG	--	30	1345	Havana, Cuba	
CMCR	---	150	1345	Havana, Cuba	Jose Justo Moran
CMCY	---	15	1345	Havana, Cuba	Aurelio Hernandez
KFPW	†	50	D	Fort Smith, Ark.	M. D. Aufran
KFPY	*	1000	C	Spokane, Wash.	Southwestern Hotels Co.
WCOA	*	500	---	Pensacola, Fla.	Symons Broadcasting Co.
WSPD	*	1000	C	Toledo, Ohio	City of Pensacola
					Toledo Broadcasting Co.

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1350 kilocycles 222.1 meters

KWK	*	1000	N	St. Louis, Mo.	Greater St. Louis Broadcasting Corp.
WAWZ	*	250	1	Zarephath, N. J.	Pillar of Fire
WBNX	--	250	1	New York City	Standard Cahill Co., Inc.
WCDA	*	250	I	New York City	Italian Educ. Broadcasting Co., Inc.
WEHC	*	500	D	Emory, Va.	Emory & Henry College
WMSG	--	250	1	New York City	Madison Sq. Garden Brdctg. Corp.

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INDEX BY FREQUENCIES AND DIAL NUMBERS

1360 kilocycles 220.4 meters

KGER	*	1000	---	Long Beach, Cal.
KGIR	†	500	---	Butte, Montana
WCSC	*	500	---	Charleston, S. C.
WFBL	*	1000	CX	Syracuse, N. Y.
WCES	*	500	1+	Chicago, Ill.
WJKS	*	1000	1+	Gary, Ind.
XQBC	†	500	D	Vicksburg, Miss.
XETO	--	101	---	Mexico City

8			
Consolidated Broadcasting Corp.			
KGIR, Inc.			
Lewis Burk			
Onondaga Radio Broadcasting Corp.			
Oak Leaves Broadcasting Station, Inc.			
Johnson-Kennedy Radio Corp.			
Delta Broadcasting Co., Inc.			
Ricardo Gonzales Montero			

1370 kilocycles 218.7 meters

CMAC	--	30	1375	Pinar del Rio, Cuba
CMGE	--	30	1375	Cardenas, Cuba
CMGH	--	150	---	Matanzas, Cuba
HRB	--	2300	---	Tegucigalpa, Hond.
KCRC	†	100	2+	Enid, Okla.
KFBL	*	50	3	Everett, Wash.
KFJI	†	100	---	Astoria, Ore.
KFJM	†	100	---	Grand Forks, N. D.
KFJZ	*	100	---	Ft. Worth, Texas
KFLX	--	100	---	Galveston, Texas
KGAR	*	100	+	Tucson, Arizona
KGDA	†	100	---	Mitchell, S. D.
KGFG	†	100	2	Oklahoma City
KGFL	†	50	---	Raton, N. M.
KGKL	†	100	---	San Angelo, Texas
KMAC	†	100	5	San Antonio, Texas
KONO	†	100	5	San Antonio, Texas
KOOS	*	100	---	Marshfield, Ore.
KRE	--	100	6	Berkeley, Cal.
KUJ	†	100	---	Walla Walla, Wash.
KVL	--	100	3	Seattle, Wash.
KWKC	--	100	---	Kansas City, Mo.
WBGF	†	50	---	Glens Falls, N. Y.
WBTM	†	100	7	Danville, Va.
WCBM	*	100	+Z	Baltimore, Md.
WELK	†	100	+	Philadelphia, Pa.
WGL	*	100	C	Fort Wayne, Ind.
WHBD	†	100	---	Mount Orab, Ohio
WHBQ	†	100	---	Memphis, Tenn.
WHDF	†	100	+	Calumet, Mich.
WIBM	†	100	1	Jackson, Mich.
WJBK	*	50	1	Detroit, Mich.
WJTL	--	100	Y	Tifton, Ga.
WLEY	†	100	+	Lexington, Mass.
WLVA	†	100	7	Lynchburg, Va.
WMBR	†	100	---	Tampa, Fla.
WPOE	†	100	---	Patchogue, N. Y.
WQDM	*	100	D	St. Albans, Vt.
WRAK	*	100	---	Williamsport, Pa.
WRAM	*	100	---	Wilmington, N. C.
WRBJ	†	10	X	Hattiesburg, Miss.
WRDO	†	100	CP	Augusta, Maine
WRJN	†	100	---	Racine, Wis.
WVSJ	*	50	---	Buffalo, N. Y.

8			
Oscar S. Mechoso			
Genaro Sebater			
Alberto Alvarez			
Enid Radiophone Co.			
Leese Bros.			
KFJI Broadcasters, Inc.			
University of North Dakota			
Estate of H. C. Meachem			
George Roy Clough			
Tucson Motor Service Co.			
Mitchell Broadcasting Corp.			
Oklahoma Broadcasting Co., Inc.			
KGFL, Inc.			
KGKL, Inc.			
W. W. McAllister			
Mission Broadcasting Co.			
H. H. Hanseth, Inc.			
First Congregational Church			
KUJ, Inc.			
KVL, Inc.			
Wilson Duncan Broadcasting Co.			
W. N. Parker and H. H. Metcalf			
Clarke Electric Co.			
Baltimore Broadcasting Corp.			
WELK Broadcasting Station, Inc.			
Fred Z. Zieg			
F. P. Moler			
Broadcasting Station WHBQ, Inc.			
Upper Michigan Broadcasting Co.			
WIBM, Inc.			
James F. Hopkins, Inc.			
Oglethorpe University			
Lexington Air Stations			
Lynchburg Broadcasting Corp.			
F. J. Reynolds			
Nassau Broadcasting Corp.			
A. J. St. Antoine			
C. R. Cummins			
Wilmington Radio Association			
Hattiesburg Broadcasting Co.			
WRDO, Inc.			
Racine Broadcasting Corp.			
Seneca Vocational School			

1380 kilocycles 217.3 meters

CMJC	--	150	1382	Camaguey, Cuba
KOH	†	500	C	Reno, Nevada
KQV	†	500	2	Pittsburgh, Pa.
KSO	*	500	1	Clarinda, Iowa
WKBH	*	1000	1C	La Crosse, Wis.
WSMK	*	200	2	Dayton, Ohio

1380			
Feliciano Isaac			
The Bee, Inc.			
KQV Broadcasting Co.			
Iowa Broadcasting Co.			
WKBH, Inc.			
Stanley M. Krohn, Jr.			

KCY.S.
1400
MTRS.
214.2

DIAL

1390 kilocycles 215.7 meters

KLRA	*	1000	1C	Little Rock, Ark.
KOY	*	500	---	Phoenix, Arizona
KUOA	†	1000	1	Fayetteville, Ark.
WHK	*	1000	C	Cleveland, Ohio

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Arkansas Broadcasting Co.			
Nielsen Radio & Sporting Goods Co.			
University of Arkansas			
Radio Air Service Corp.			

1400 kilocycles 214.2 meters

CMBI	--	30	1405	Havana, Cuba
CMBN	--	30	1405	Havana, Cuba
CMCH	--	15	1405	Havana, Cuba
CMCM	--	15	1405	Havana, Cuba
KLO	*	500	---	Ogden, Utah

Francisco Mayorquim			
Armando Romeu			
Hernani Torralbas			
Martinez-Madico			
Peery Building Co.			

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KOCW	*	250	+
WBAA	*	500	1+
WBBC	*	500	2
WCGU	*	500	2
WCMA	†	500	1
WFOY	†	500	2
WKBF	†	500	1
WLTH	*	500	2
XEP	--	2500	---

Chickasha, Okla.
Lafayette, Ind.
Brooklyn, N. Y.
Brooklyn, N. Y.
Culver, Ind.
Brooklyn, N. Y.
Indianapolis, Ind.
Brooklyn, N. Y.
Laredo, Mexico

College for Women
Purdue University
Brooklyn Broadcasting Corp.
U. S. Broadcasting Corp.
General Broadcasting Corp.
Paramount Broadcasting Co.
Indianapolis Broadcasting, Inc.
The Voice of Brooklyn, Inc.
La Voz Latino

1410 kilocycles

KFLV	†	500	4
KGRS	*	1000	1
WAAB	*	500	C
WBCM	*	500	C
WDAG	*	1000	1
WHBL	*	500	4
WHIS	†	250	2
WODX	*	500	3
WRBX	*	250	2
WSFA	†	500	3

212.6 meters

Rockford, Ill.
Amarillo, Texas
Boston, Mass.
Bay City, Mich.
Amarillo, Texas
Sheboygan, Wis.
Bluefield, W. Va.
Mobile, Ala.
Roanoke, Va.
Montgomery, Ala.

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Rockford Broadcasters, Inc.
Gish Radio Service
Bay State Broadcasting Corp.
James E. Davidson
National Radio & Broadcasting Corp.
Press Pub. Co.
Daily Telegraph
Mobile Broadcasting Corp.
Richmond Development Corp.
Montgomery Broadcasting Co., Inc.

1420 kilocycles

KABC	†	100	---
KBPS	--	100	4
KFIZ	--	100	---
KFOU	*	100	5
KFQW	*	100	---
KFXD	*	100	---
KFXV	*	100	---
KFYO	†	100	+
KGFF	†	100	---
KGGC	†	100	5
KGIW	†	100	---
KGIX	†	100	---
KGKX	†	100	---
KGVO	†	100	D
KICK	*	100	---
KORE	*	100	---
KXL	*	100	4
KXYZ	--	100	---
WAGM	--	100	CP
WDEV	--	50	D
WEDH	*	100	---
WEHS	†	100	2
WELL	†	50	X
WFDW	*	100	---
WFHC	--	100	2
WIAS	†	100	---
WIBR	*	50	---
WILM	*	100	---
WJBO	*	100	---
WJMS	--	100	CPD
WKBI	*	100	2
WLBV	†	100	---
WMBC	†	100	---
WMBH	†	100	+
WPAD	†	100	---
WSPA	*	100	---
WTBO	*	100	+

211.1 meters

San Antonio, Texas
Portland, Ore.
Fond du Lac, Wis.
Holy City, Cal.
Seattle, Wash.
Nampa, Idaho
Flagstaff, Arizona
Abilene, Texas
Shawnee, Okla.
San Francisco, Cal.
Trinidad, Colo.
Las Vegas, Nevada
Sand Point, Idaho
Missoula, Montana
Red Oak, Iowa
Eugene, Ore.
Portland, Ore.
Houston, Texas
Presque Isle, Maine
Waterbury, Vt.
Erie, Pa.
Cicero, Ill.
Battle Creek, Mich.
Anniston, Ala.
Cicero, Ill.
Ottumwa, Iowa
Steubenville, Ohio
Wilmington, Del.
New Orleans, La.
Ironwood, Mich.
Cicero, Ill.
Kansas City, Kansas
Detroit, Mich.
Joplin, Mo.
Paducah, Ky.
Spartanburg, S. C.
Cumberland, Md.

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Alamo Broadcasting Co.
Benson Polytechnic Institute
Reporter Printing Co.
W. E. Riker
KFQW, Inc.
Frank E. Hurt
Albert H. Scherman
T. E. Kirksey
KGFF Broadcasting Co.
Golden Gate Broadcasting Co.
Leonard E. Wilson
Las Vegas, Nevada, Radio Corp.
C. E. Twiss and F. H. McCann
Mosby's Incorporated
Red Oak Radio Corp.
Eugene Broadcasting Station
KXL Broadcasters, Inc.
Harris County Broadcast Co.
Aroostook Broadcasting Corp.
Harry C. Whitehill
Erie Dispatch-Herald
WEHS, Inc.
Enquirer-News Co.
Raymond G. Hammett
WHFC, Inc.
Iowa Broadcasting Co.
George W. Robinson
Delaware Broadcasting Co., Inc.
Valdemar Jensen
Marius Johnson
WKBI, Inc.
WLBV Broadcasting Co.
Michigan Broadcasting Co., Inc.
Edwin Dudley Aber
Paducah Broadcasting Co.
Voice of South Carolina
Associated Broadcasting Corp.

1430 kilocycles

KECA	†	1000	N
KGNF	†	500	D
WBAK	†	500	1+
WCAH	†	500	C
WFEA	--	500	C
WGBC	--	500	2S
WHCC	*	500	C
WHIP	*	500	1C+
WNBR	*	500	2
WOKO	†	500	C

209.7 meters

Los Angeles, Cal.
North Platte, Nebr.
Harrisburg, Pa.
Columbus, Ohio
Manchester, N. H.
Memphis, Tenn.
Rochester, N. Y.
Harrisburg, Pa.
Memphis, Tenn.
Albany, N. Y.

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Earle C. Anthony, Inc.
Great Plains Broadcasting Co.
Penna. State Police
Commercial Radio Service Co.
Rines Hotel Co.
Memphis Broadcasting Co.
Hickson Electric & Radio Co.
WHP, Inc.
Memphis Broadcasting Co.
WOKO, Inc.

1440 kilocycles

KLS	*	250	D
WBIG	*	500	---
WCBA	*	250	1

208.2 meters

Oakland, Cal.
Greensboro, N. C.
Allentown, Pa.

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Warner Bros.
North Carolina Broadcasting Co.
B. B. Musselman

INDEX BY FREQUENCIES AND DIAL NUMBERS

WMBD * 500 3+
 WSAN * 250 1
 WTAD † 500 3

Peoria Heights, Ill.
 Allentown, Pa.
 Quincy, Ill.

Peoria Broadcasting Co.
 Allentown Call Publishing Co., Inc.
 Illinois Medicine Broadcasting Corp.

1450 kilocycles 206.8 meters

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KTBS * 1000 ---
 WBMS * 250 1
 WGAR † 500 N
 WHOM * 500 1
 WKBO * 250 1
 WNJ * 250 1
 W SAR * 250 ---
 WTFI -- 500 Y

Shreveport, La.
 Hackensack, N. J.
 Cleveland, Ohio
 Jersey City, N. J.
 Jersey City, N. J.
 Newark, N. J.
 Fall River, Mass.
 Toccoa, Ga.

Tri-State Broadcasting System, Inc.
 WBMS Broadcasting Corp.
 WGAR Broadcasting Co.
 New Jersey Broadcasting Corp.
 Camith Corp.
 Radio Investment Co.
 Doughty & Welch Electric Co., Inc.
 Toccoa Falls Broadcasting Co.

1460 kilocycles 205.4 meters

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KSTP * 10000 N
 WJSV * 10000 ---

St. Paul, Minn.
 Alexandria, Va.

National Battery Broadcasting Co.
 Independent Publishing Co.

1470 kilocycles 204.0 meters

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KGA † 5000 ---
 WLAC * 5000 C

Spokane, Wash.
 Nashville, Tenn.

Northwest Broadcasting System, Inc.
 Life & Casualty Insurance Co.

1480 kilocycles 202.6 meters

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KFJF * 5000 C
 WKBW * 5000 C

Oklahoma City
 Buffalo, N. Y.

National Radio Mfg. Co.
 Buffalo Broadcasting Co., Lessees

1490 kilocycles 201.2 meters

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TJW -- 7.5 ---
 WCHI * 5000 1
 WKY * 5000 1N
 WJAZ -- 5000 1

Hamilton, Bermuda
 Chicago, Ill.
 Covington, Ky.
 Chicago, Ill.

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

1500 kilocycles 199.9 meters

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CMBL -- 20 ---
 CMBQ -- 50 ---
 CMBR -- 15 ---
 KDB * 100 ---
 KGFI * 100 +
 KGFK † 50 ---
 KGIZ † 100 ---
 KGKB * 100 ---
 KGKY * 100 ---
 KPJM * 100 ---
 KPQ † 50 ---
 KREG † 100 ---
 KUT † 100 ---
 KXO * 100 ---
 WDX † 100 ---
 WKBV * 100 +
 WKBZ † 50 ---
 WLBX * 100 1
 WLOE * 100 +
 WMBA † 100 ---
 WMBQ * 100 1
 WMIL † 100 1
 WMPC † 100 ---
 WNBf * 100 ---
 WOPI * 100 ---
 WPEN * 100 +
 WRDW * 100 ---
 WSYB † 100 ---
 WRL * 100 1
 WWSW -- 100 ---

Havana, Cuba
 Havana, Cuba
 Havana, Cuba
 Santa Barbara, Cal.
 Corpus Christi, Texas
 Moorhead, Minn.
 Grant City, Mo.
 Tyler, Texas
 Scottsbluff, Nebr.
 Prescott, Arizona
 Wenatchee, Wash.
 Santa Ana, Cal.
 Austin, Texas
 El Centro, Cal.
 Tupelo, Miss.
 Connersville, Ind.
 Ludington, Mich.
 Long Island City, N. Y.
 Boston, Mass.
 Newport, R. I.
 Brooklyn, N. Y.
 Brooklyn, N. Y.
 Lapeer, Mich.
 Binghamton, N. Y.
 Bristol, Tenn.
 Philadelphia, Pa.
 Augusta, Ga.
 Rutland, Vt.
 Woodside, N. Y.
 Pittsburgh, Pa.

Julio C. Hidalgo
 Gali-Sardinas
 Tomas Basail
 Santa Barbara Broadcasters, Ltd.
 Eagle Broadcasting Co., Inc.
 Red River Broadcasting Co., Inc.
 Grant City Park Corp.
 Eagle Publishing Co.
 Hilliard Co., Inc.
 A. P. Miller
 Westcoast Broadcasting Co.
 J. S. Edwards
 Driskill Hotel
 E. R. Irely and F. M. Bowles
 North Mississippi Broadcasting Corp.
 Knox Battery & Electric Co.
 K. L. Ashbacher
 John N. Brahy
 Boston Broadcasting Co.
 LeRoy Joseph Beebe
 Paul J. Gollhofer
 Arthur Faske
 First M. P. Church
 Howitt, Wood Radio Co., Inc.
 Radiophone Brdcastg. Station, Inc.
 Wm. Penn Broadcasting Co.
 Musicove, Inc.
 Philip Weiss Music Co.
 Long Island Broadcasting Corp.
 William S. Walker

KCYS.
1500
 MTRS.
199.9
 DIAL

INDEX BY LOCATIONS WITH MAP KEY

ALABAMA		Watts	Kcys.				
Anniston O-22	100	WFDW	1420	San Jose J-1	500	KQW	1010
Birmingham O-21	5000	WAPI	1140	Santa Ana M-3	100	KREG	1500
	500	WBRC	930	Santa Barbara M-2	100	KDB	1500
	100	WKBC	1310	Santa Maria L-2	100	KSMR	1200
Gadsden O-21	100	WJBY	1210	Stockton J-2	250	KGDM	11.0
Huntsville N-21	50	WBHS	1200		100	KWG	1200
Mobile Q-20	500	WODX	1410	COLORADO			
Montgomery P-21	500	WSFA	1410	Colorado Springs K-11	1000	KVOR	1270
				Denver K-11	500	KFEL	920
					100	KFUP	1310
					500	KFXF.	920
					1000	KLZ	560
					12500	KOA	830
					500	KPOF	880
				Fort Morgan J-11	100	KGEW	1200
				Grand Junction K-9	100	KFXJ	1310
				Greeley J-11	500	KFKA	880
				Pueblo L-11	250	KGHF	1320
				Trinidad L-11	100	KGIW	1420
				Yuma J-12	100	KGEK	1200
				CONNECTICUT			
				Bridgeport H-27	250	WICC	600
				Hartford H-27	500	WDRC	1330
					50000	WTIC	660-1060
				Storrs H-28	250	WCAC	600
				DELAWARE			
				Wilmington J-26	250	WDEL	1120
					100	WILM	1420
				DISTRICT OF COLUMBIA			
				Washington J-26	250	WMAL	630
					500	WRC	950
					100	WOL	1310
				FLORIDA			
				Clearwater R-24	1000	WFLA	620
				Gainesville Q-24	5000	WRUF	830
				Jacksonville Q-24	1000	WJAX	900
				Miami T-25	1000	WTOB	1300
					1000	WQAM	560
				Orlando R-24	500	WDBO	1120
				Pensacola Q-21	500	WCOA	1340
				St. Petersburg S-24	1000	WSUN	620
				Tampa R-24	1000	WDAE	1220
					100	WMBR	1370
				GEORGIA			
				Atlanta O-22	250	WGST	890
					5000	WSB	740
				Augusta O-23	100	WRDW	1500
				Columbus O-22	50	WRBL	1200
				Macon O-23	500	WMAZ	1180
				Rome N-22	100	WFVJ	1310
				Savannah O-24	500	WTQC	1260
				Thomasville Q-22	100	WODX	1210
				Tifton P-23	100	WJTL	1370
				Toccoa N-23	500	WTFI	1450
				HAWAII			
				Honolulu	250	KGMB	1320
					1000	KGU	940
				IDAHO			
				Boise G-5	1000	KIDO	1250
				Idaho Falls G-7	250	KID	1320
				Nampa G-5	50	KFXD	1420
				Pocatello H-7	250	KSEI	900
				Sand Point D-6	100	KGKX	1420
				Twin Falls H-6	250	KTFI	1320

INDEX BY LOCATIONS WITH MAP KEY

ILLINOIS		Watts	WCAZ	Kcys.			Shenandoah J-16		500	KFNF	890
Carthage J-18		50	WCAZ	1070				500	KMA	930	
Chicago I-20		10000	KFKX	1020				1000	KSCJ	1330	
		10000	KYW	1020				500	WMT	600	
		500	WAAF	920	KANSAS						
		25000	WBBM	770							
		1500	WCFL	970	Dodge City L-13		100	KGNO	1210		
		5000	WCHI	1490	Kansas City K-16		100	WLBF	1420		
		100	WCRW	1210	Lawrence K-16		500	KFKU	1220		
		100	WEDC	1210			1000	WREN	1220		
		50000	WENR	870	Manhattan K-15		500	KSAC	580		
		500	WGES	1360	Milford K-14		5000	KFBI	1050		
		25000	WGN	720	Topeka K-16		1000	WIBW	580		
		1000	WIBO	560	Wichita L-15		1000	KFH	1300		
		5000	WJAZ	1490	KENTUCKY						
		25000	WJBT	770							
		50000	WLS	870	Covington K-22		5000	WCKY	1490		
		5000	WMAQ	670	Hopkinsville M-20		1000	WFIW	940		
		5000	WMBI	1080	Louisville L-21		10000	WHAS	820		
		500	WPCC	560			250	WLPAP	1010		
		100	WSSC	1210	Paducah M-19		100	WPAD	1420		
		100	WEHS	1420	LOUISIANA						
		100	WHFC	1420							
		100	WKBI	1420	Monroe P-18		100	KMLB	1200		
		100	WJBL	1200	New Orleans R-19		100	WABZ	1200		
		100	WKBS	1310			1000	WDSU	1250		
		100	WEBQ	1210			100	WJBO	1420		
		100	WCLS	1310			100	WJBW	1200		
		100	WKBB	1310			500	WSMB	1320		
		100	WJBC	1200			5000	WWL	850		
		20000	WJJD	1130	Shreveport P-17		50	KRMD	1310		
		500	WMBD	1440			1000	KTBS	1450		
		500	WTAD	1440			100	KTSL	1310		
		500	KFLV	1410			100	KWEA	1210		
		100	WHBF	1210			10000	KWKH	850		
		100	WCBS	1210	MAINE						
		100	WTAX	1210							
		100	WDZ	1070	Augusta F-28		100	WRDO	1370		
		250	WILL	890	Bangor F-29		100	WABI	1200		
		5000	WCBD	1080			500	WLBZ	620		
INDIANA					Portland F-28		1000	WCSSH	940		
		100	WHBU	1210	Presque Isle D-29		100	WAGM	1420		
		100	WKBV	1500	MARYLAND						
		500	WCMA	1400							
		500	WGBF	630	Baltimore J-26		10000	WBAL	760-1060		
		100	WGL	1370			250	WCAO	600		
		10000	WOWO	1160			100	WCBM	1370		
		1000	WJKS	1360			500	WFBF	1270		
		100	WVAE	1200	Cumberland J-25		100	WTBO	1420		
		1000	WFBM	1230	MASSACHUSETTS						
		500	WKBV	1400							
		500	WBAA	1400	Boston G-28		500	WAAB	1410		
		50	WJAK	1310			1000	WBIS	1230		
		50	WLBC	1310			1000	WEEI	590		
		100	WFAM	1200			1000	WHDH	830		
		500	WSBT	1230			100	WLOE	1500		
		100	WBOW	1310			1000	WNAAC	1230		
IOWA					Fall River H-28		250	WSAR	1450		
		5000	WOI	640	Lexington G-28		100	WLEY	1370		
		100	KFGQ	1310	Needham G-28		500	WBSO	920		
		100	KWCR	1310	New Bedford H-28		100	WNBH	1310		
		500	KSO	1380	Springfield H-27		15000	WBZ-A	990		
		1000	KOIL	1260	Worcester G-28		100	WEPS	1200		
		5000	WOC	1000			100	WORC	1200		
		50	KGCA	1270	MICHIGAN						
		100	KWLC	1270							
		5000	WHO	1000	Battle Creek I-21		50	WELL	1420		
		100	KFJY	1310	Bay City H-22		500	WBCM	1410		
		500	WSUI	880	Calumet E-19		100	WHDF	1370		
		100	KFJB	1200			50	WJBK	1370		
		100	WIAS	1420	Detroit H-22		5000	WJR	750		
		100	KICK	1420			100	WMBG	1420		

INDEX BY LOCATIONS WITH MAP KEY

Detroit H-22	1000	WWJ	920	NEVADA	Watts	Keys.
	1000	WXYZ	1240	Las Vegas L-5	100	KGIX 1420
East Lansing H-21	1000	WKAR	1040	Reno I-3	500	KOH 1380
Flint H-22	100	WFDF	1310	NEW HAMPSHIRE		
Grand Rapids H-21	500	WASH	1270	Laconia G-28	100	WKAV 1310
	500	WOOD	1270	Manchester G-28	500	WFEA 1430
Ironwood F-18	100	WJMS	1420	NEW JERSEY		
Jackson I-21	100	WIBM	1370	Asbury Park I-27	500	WCAP 1280
Kalamazoo I-21	1000	WKZO	590	Atlantic City J-27	5000	WPG 1100
Lapeer H-22	100	WMPC	1500	Camden I-26	500	WCAM 1280
Ludington H-20	50	WKBZ	1500	Hackensack I-27	250	WBMS 1450
Marquette F-19	100	WBEO	1310	Jersey City I-27	300	WAAT 940
Royal Oak H-22	50	WEXL	1310		500	WHOM 1450
				Newark I-27	250	WKBO 1450
					1000	WAAM 1250
					250	WGCP 1250
					250	WNJ 1450
					5000	WOR 710
				Paterson I-27	1000	WODA 1250
				Red Bank I-27	100	WJBI 1210
				Trenton I-26	500	WOAX 1280
				Zarephath I-27	250	WAWZ 1350
MINNESOTA				NEW MEXICO		
Fergus Falls F-15	100	KGDE	1200	Albuquerque N-7	250	KGGM 1230
Minneapolis G-17	5000	WCCO	810	Raton M-11	50	KGFL 1370
	1000	WDGY	1180	State College P-9	20000	KOB 1180
	1000	WRHM	1250			
Moorhead F-15	50	KGFK	1500	NEW YORK		
Northfield G-17	1000	KFMX	1250	Albany H-27	500	WOKO 1430
	1000	WCAL	1250	Auburn H-25	100	WMBO 1310
St. Paul G-17	1000	WB	1250	Binghamton H-26	100	WNBF 1500
	10000	KSTP	1460	Brooklyn I-27	500	WBBC 1400
					1000	WBRR 1300
					500	WCGU 1400
					500	WFOV 1400
					500	WLTH 1400
					100	WMBQ 1500
					100	WMIL 1500
				Buffalo H-24	1000	WBEN 900
					100	WEBR 1310
					1000	WGR 550
					5000	WKBW 1480
					1000	WMAK 1040
					50	WSVS 1370
				Canton F-26	500	WCAD 1220
				Freeport I-27	100	WGBB 1210
				Glens Falls G-27	50	WBGF 1370
				Ithaca H-25	1000	WEAI 1270
					50	WLCI 1210
					100	WMRJ 1210
				Jamaica H-27	25	WOCL 1210
				Jamestown H-24	100	WLBX 1500
				Long Island City I-27	50000	WABC 860
				New York City I-27	250	WBNX 1350
					50000	WBOQ 860
					250	WCDA 1350
					50000	WEAF 660
					500	WEVD 1300
					500	WGBS 1180
					1000	WHAP 1300
					250	WHN 1010
					30000	WJZ 760
					5000	WLWL 1100
					500	WMCA 570
					250	WMSC 1350
					500	WNYC 570
					1000	WQV 1130
					250	WPAP 1010
					500	WPCH 810
					250	WQAO 1010
					250	WRNY 1010
MISSISSIPPI						
Greenville O-18	100	WRBQ	1210			
Gulfport Q-19	100	WGCN	1210			
Hattiesburg Q-19	10	WRBJ	1370			
Jackson P-19	1000	WJDX	1270			
Meridian P-20	500	WCOC	880			
Tupelo N-20	100	WDIX	1500			
Vicksburg P-18	500	WQBC	1360			
MISSOURI						
Cp. Girardeau L-19	100	KFVS	1210			
Columbia K-17	500	KFRU	630			
Grant City J-16	100	KGIZ	1500			
Jefferson City L-17	500	WOS	630			
Joplin M-16	100	WMBH	1420			
Kansas City K-16	1000	KMBC	950			
	100	KWKC	1370			
	1000	WDAF	610			
	500	WHB	860			
	1000	WOQ	1300			
St. Joseph K-16	2500	KFEQ	680			
	100	KG BX	1310			
St. Louis L-18	500	KFUO	550			
	1000	KFWF	1200			
	50000	KMOX	1090			
	500	KSD	550			
	1000	KWK	1350			
	1000	WEW	760			
	100	WIL	1200			
MONTANA						
Billings F-9	1000	KGHL	950			
Butte F-7	500	KGIR	1360			
Great Falls E-8	1000	KFBB	1280			
Kalispell D-7	100	KG EZ	1310			
Missoula E-7	100	KGVO	1420			
Wolf Point E-11	100	KGCX	1310			
NEBRASKA						
Clay Center J-14	1000	KMMJ	740			
Lincoln J-15	5000	KFAB	770			
	100	KFOR	1210			
	500	WC AJ	590			
Norfolk I-15	1000	WJAG	1060			
North Platte J-13	500	KGNF	1430			
Omaha J-15	500	WAAW	660			
	1000	WOW	590			
Ravenna J-14	100	KGFW	1310			
Scottsbluff I-11	100	KGKY	1500			
York J-15	500	KGBZ	930			

INDEX BY LOCATIONS WITH MAP KEY

Patchogue I-27	100	WPOE	1370
Rochester G-25	5000	WHAM	1150
	500	WHEC	1430
Saranac Lake F-26	50	WNBZ	1290
Schenectady G-27	50000	WGY	790
Syracuse G-25	1000	WFBL	1360
	250	WMAC	570
	250	WSYR	570
Troy G-27	500	WHAZ	1300
Utica G-26	100	WIBX	1200
Woodside I-27	100	WWRL	1500
Yonkers I-27	100	WCOH	1210

NORTH CAROLINA

Asheville M-23	1000	WWNC	570
Charlotte M-24	5000	WBT	1080
Gastonia M-24	100	WSOC	1210
Greensboro M-24	500	WBIG	1440
Raleigh M-25	1000	WPTF	680
Wilmington N-26	103	WRAM	1370
Winston-Salem M-24	100	WSJS	1310

NORTH DAKOTA

Bismarck F-13	1000	KFYR	550
Devils Lake E-14	100	KDLR	1210
Fargo F-15	1000	WDAY	940
Grand Forks E-15	100	KFJM	1370
Mandan F-13	100	KGGU	1240
Minot E-13	100	KLPM	1240

OHIO

Akron I-23	1000	WADC	1320
Canton I-23	10	WHBC	1200
Cincinnati K-22	100	WFBE	1200
	1000	WKRC	550
	50000	WLW	700
	500	WSAI	1330
Cleveland I-23	500	WGAR	1450
	1000	WHK	1390
	500	WJAY	610
Columbus J-22	50000	WTAM	1070
	500	WUW	640
	500	WCAH	1430
	750	WEAO	570
	100	WSEN	1210
Dayton J-22	200	WSMK	1380
Mansfield J-22	100	WJW	1210
Mount Orab K-22	100	WHBD	1370
Steubenville J-23	50	WIBR	1420
Toledo I-22	1000	WSPD	1340
Youngstown I-23	500	WKBN	570
Zanesville J-23	100	WALR	1210

OKLAHOMA

Chickasha N-14	250	KOCW	1400
Enid M-14	100	KCRC	1370
Norman N-15	500	WNAD	1010
Oklahoma N-15	5000	KEJF	1480
	100	KFXR	1310
	100	KGFG	1370
	1000	WKY	900
Ponca City M-15	100	WBBJ	1200
S. Coffeyville M-15	500	KGGF	1010
Shawnee N-15	100	KGFF	1420
Tulsa M-15	5000	KVOO	1140

OREGON

Astoria D-2	100	KFJI	1370
Corvallis E-2	1000	KOAC	550
Eugene F-2	100	KORE	1420
Marshfield F-1	100	KOOS	1370

Medford G-2	100	KMED	1310
Portland E-3	5000	KEX	1180
	100	KBPS	1420
	500	KFJR	1300
	1000	KGW	620
	1000	KOIN	940
	500	KTBR	1300
	500	KWJJ	1060
	100	KXL	1420

PENNSYLVANIA

Allentown I-26	250	WCBA	1440
	250	WSAN	1440
Altoona I-25	100	WFBC	1310
Carbondale H-26	10	WNBW	1200
Elkins Park I-26	25	WIBG	930
Erie H-24	100	WEDH	1420
Grove City I-24	100	WSAJ	1310
Harrisburg I-25	500	WBAX	1430
	100	WCOD	1200
	500	WHP	1430
Johnstown J-24	100	WJAC	1310
Lancaster I-26	100	WGAL	1310
	100	WKJC	1200
	100	WJBU	1210
Lewisburg I-26	500	WLBW	1260
Oil City I-24	1000	WCAU	1170
Philadelphia I-26	100	WELK	1370
	500	WFAN	610
	500	WFI	560
	100	WHAT	1310
	500	WIP	610
	500	WLIT	560
	100	WPEN	1500
	250	WRAX	1020
	100	WTEL	1310
Pittsburgh J-24	50000	KDKA	980
	500	KQV	1380
	1000	WCAE	1220
	1000	WJAS	1290
	100	WWSW	1500
Reading I-26	1000	WEEU	830
	100	WRAW	1310
Scranton H-26	250	WGBI	880
	250	WQAN	880
State College I-25	500	WPSC	1230
Washington J-24	100	WNBO	1200
Wilkes-Barre I-26	100	WBAX	1210
	100	WBRE	1310
Williamsport I-25	100	WRAC	1370

PHILIPPINES

Cebu	500	KZRC	1300
Manila	1000	KZKA	1110
	500	KZRM	625

PORTO RICO

San Juan W-34	250	WKAQ	890
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RHODE ISLAND

Newport H-28	100	WMBA	1500
Pawtucket H-28	100	WPAW	1210
Providence H-28	100	WDWF	1210
	250	WEAN	780
	250	WJAR	890
	100	WPRO	1210

SOUTH CAROLINA

Charleston O-25	500	WCSC	1360
Columbia N-24	500	WIS	1010
Spartanburg N-23	100	WSPA	1420

INDEX BY LOCATIONS WITH MAP KEY

Edmonton A-8	250	CHM/	580
	500	CJCA	930
	500	CKUA	580
Lethbridge C-8	100	CJOC	1120
Red Deer A-8	1000	CHCT	840
	1000	CKLC	840
	1000	CNRD	840

BRITISH COLUMBIA

Chilliwack B-3	100	CHWK	665
Kamloops B-5	100	CFJC	1120
Kelowna C-5	100	CKOV	1200
Sea Island	500	CJOR	1210
Vancouver B-3	50	CHLS	730
	50	CKCD	730
	50	CKFC	730
	100	CKMO	730
	100	CKWX	730
	500	CNRV	1030
Victoria C-3	50	CFCT	630

MANITOBA

Brandon D-14	500	CKX	540
Winnipeg D-15	5000	CKY	780
	5000	CNRW	780

NEW BRUNSWICK

Fredericton D-29	100	CFNB	1210
Moncton D-30	500	CNRA	630
St. John D-30	500	CFBO	890

NEWFOUNDLAND

St. Johns A-35	500	VOWR	675
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NOVA SCOTIA

Glace Bay C-32	10000	VAS	685
Halifax E-31	500	CHNS	910
	500	CNRH	910
Sydney C-32	50	CJCB	880
Wolfville D-31	50	CKIC	1010

ONTARIO

Chatham H-22	100	CFCO	1210
Cobalt E-23	100	CKMC	1210
Hamilton H-24	500	CHCS	1010
	50	CHML	880
	500	CKOC	630
Kingston G-25	50	CFRC	930
London H-23	5000	CJGC	910
	500	CNRL	910
North Bay E-23	100	CFCH	930
Ottawa F-25	100	CKCO	890
	500	CNRO	600
Port Arthur E-19	50	CKPR	890
Prescott F-25	50	CFLC	930
Preston H-23	50	CKPC	880
Toronto G-24]]	500	CFCA	1120
	500	CFCL	580
	5000	CFRB	690
	500	CKCL	580
	5000	CKGW	840
	500	CKNC	960
	500	CNRT	840
	5000	CNRX	960
	5000	CPRY	690
Waterloo G-23	50	CKCR	645

PRINCE EDWARD ISLAND

Charlottetown C-31	500	CFCY	580
	100	CHCK	1010
Summerside C-31	100	CHGS	1120

QUEBEC	Watt	Keys.
Montreal E-26	500	CFCF
	5000	CHYC
	5000	CKAC
	5000	CNRM
Quebec D-27	100	CHRC
	100	CKCI
	50	CKCV
	50	CNRQ

SASKATCHEWAN

Fleming C-13	500	CJRW	665
Moose Jaw C-11	500	CJRM	665
Regina C-12	500	CHWC	960
	500	CJBR	960
	500	CKCK	960
	500	CNRR	960
Saskatoon B-11	500	CFQC	910
	500	CNRS	910
Yorkton B-13	500	CJGX	630

CENTRAL AMERICA

COSTA RICA

Heredia FF-23	75	T14NRH	948
San Jose FF-23	50	TIC	900

GUATAMALA

Guatemala CC-19	50	TGW	570
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HONDURAS

Tegucigalpa CC-21	2300	HRB	1370
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SALVADOR

Salvador CC-19	500	RUS	664
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MEXICO

AGUASCALIENTES

Aguascalientes W-10	350	XFC	805
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CHIHUAHUA

Chihuahua, Chih. R-9	250	XFF	915
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COAHUILA

Juarez P-9	101	XEJ	857
	1000	XEQ	1015
Salttillo, Coah. U-12	10	XEL	1091
Villa Acuna R-12	100000	XER	735

D. F.

Mexico City Y-13	1000	XEB	1030
	250	XEFA	1250
	101	XEK	990
	1000	XEN	711
	5000	XEO	940
	500	XETA	1140
	100	XETO	1360
	2000	XETY	1300
	500	XEX	1210
	5000	XEW	910
	500	XEZ	588
	2000	XFG	638
	1000	XFI	818
	500	XFX	860
Toluca. Y-12	50	XEC	1333

JALISCO

Guadalajara, Jal. X-10	101	XEA	1200
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CFAC 690	CJRW 665	CMBZ 1010	CNRC 690
Calgary, Alta.	Fleming, Sask.	Havana, Cuba	Calgary, Alta.
CFBO 890	CKAC 730	CMC 840	CNRD 840
St. John, N. B.	Montreal, Que.	Havana, Cuba	Red Deer, Alta.
CFCA 1120	CKCD 730	CMCA 1225	CNRH 910
Toronto, Ont.	Vancouver, B. C.	Havana, Cuba	Halifax, N. S.
CFCF 1030	CKCI 645	CMCB 1070	CNRL 910
Montreal, Que.	Quebec, Que.	Havana, Cuba	London, Ont.
CFCH 930	CKCK 960	CMCD 925	CNRM 730
North Bay, Ont.	Regina, Sask.	Havana, Cuba	Montreal, Que.
CFCL 580	CKCL 580	CMCF 890	CNRO 600
Toronto, Ont.	Toronto, Ont.	Havana, Cuba	Ottawa, Ont.
CFCN 985	CKCO 890	CMCG 1345	CNRQ 880
Calgary, Alta.	Ottawa, Ont.	Havana, Cuba	Quebec, Que.
CFCO 1210	CKCR 645	CMCH 1405	CNRR 960
Chatham, Ont.	Waterloo, Ont.	Havana, Cuba	Regina, Sask.
CFCT 630	CKCV 880	CMCI 620	CNRS 910
Victoria, B. C.	Quebec, Que.	Havana, Cuba	Saskatoon, Sask.
CFY 580	CKFC 730	CMCM 1405	CNRT 840
Ch'lottet'n, P.E.I.	Vancouver, B. C.	Havana, Cuba	Toronto, Ont.
CFJG 1120	CKGW 840	CMCN 925	CNRV 1030
Kamloops, B. C.	Toronto, Ont.	Havana, Cuba	Vancouver, B. C.
CFLC 930	CKIC 1010	CMCO 660	Winnipeg, Man.
Prescott, Ont.	Wolfville, N. S.	CMCQ 1150	CNRX 960
CFNB 1210	CKLC 840	Havana, Cuba	Toronto, Ont.
Fredericton, N.B.	Red Deer, Alta.	CMCR 1345	CPRY 690
CFQC 910	CKMC 1210	Havana, Cuba	Toronto, Ont.
Saskatoon, Sask.	Cobalt, Int.	CMCU 1285	HHK 920
CFRB 690	CKMO 730	Havana, Cuba	Port au Prince, H.
Toronto, Ont.	Vancouver, B. C.	CMCW 1285	HIX 669
CFRC 930	CKNC 960	Havana, Cuba	Santo Domingo
Kingston, Ont.	Toronto, Ont.	CMCY 1345	HRB 1370
CHCA 690	CKOC 630	Havana, Cuba	Tequeigalpa
Calgary, Alta.	Hamilton, Ont.	CMDC 660	KABC 1420
CHCK 1010	CKOV 1200	Havana, Cuba	San Antonio, Tex.
Ch'lottet'n, P.E.I.	Kelowna, B. C.	CMGA 834	KB'S 1420
CHCS 1010	CKPC 880	Colon, Cuba	Portland, Ore.
Hamilton, Ont.	Preston, Ont.	CMGB 1205	KBTM 1200
CHCT 840	CKPR 890	Matanzas, Cuba	Paragould, Ark.
Red Deer, Alta.	Port Arthur, Ont.	CMGE 1375	KCRC 1370
CHGS 1120	CKUA 580	Cardenas, Cuba	Enid, Okla.
Sum'rside, P.E.I.	Edmonton, Alta.	CMGF 977	KCRJ 1310
CHLS 730	CKWX 730	Matanzas, Cuba	Jerome, Ariz.
Vancouver, B. C.	Vancouver, B. C.	CMGH 1370	KDB 1500
CHMA 580	CKX 540	Matanzas, Cuba	S. Barbara, Cal.
Edmonton, Alta.	Brandon, Man.	CMHC 790	KDFN 1210
CHML 880	CKY 780	Tuinucu, Cuba	Casper, Wyo.
Hamilton, Ont.	Winnipeg, Man.	CMHD 950	KDKA 980
CHNS 910	CMAB 1249	Caibarien, Cuba	Pittsburgh, Pa.
Halifax, N. S.	Pinar del Rio, Cu	CMHI 1110	KDLR 1210
CHRC 645	CMAC 1375	Santa Clara, Cu	Devils Lake, N.D.
Quebec, Que.	Pinar del Rio, Cu	CMHJ 645	KDYL 1290
CHWC 960	CMBC 965	Cienfuegos, Cuba	Salt Lake City
Regina, Sask.	Havana, Cuba	CMJA 1200	KECA 1430
CHWK 665	CMBD 965	Camaguey, Cuba	Los Angeles, Cal.
Chilliwack, B. C.	Havana, Cuba	CMJC 1382	KELW 780
CHYC 730	CMBG 1070	Camaguey, Cuba	Burbank, Cal.
Montreal, Que.	Havana, Cuba	CMJE 856	KEX 1180
CJBR 960	CMBI 1405	Camaguey, Cuba	Portland, Ore.
Regina, Sask.	Havana, Cuba	CMJF 930	KFAB 770
CJCA 930	CMBL 1500	Camaguey, Cuba	Lincoln, Nebr.
Edmonton, Alta.	Havana, Cuba	CMJH 1017	KFAC 1300
CJCB 880	CMBN 1405	Ciego de Avila, C.	Los Angeles, Cal.
Sydney, N. S.	Havana, Cuba	CMK 730	KFBB 1280
CJGJ 690	CMBQ 1500	Havana, Cuba	Great Fls., Mont.
Calgary, Alta.	Havana, Cuba	CMKC 1034	KFBI 1050
CJGC 910	CMBR 1500	Santiago, Cuba	Milford, Kans.
London, Ont.	Havana, Cuba	CMQ 1150	KFBK 1310
CJGX 630	CMBS 790	Havana, Cuba	Sacramento, Cal.
Yorkton, Sask.	Havana, Cuba	CMW 588	KFBL 1370
CJOC 1120	CMBT 790	Havana, Cuba	Everett, Wash.
Lethbridge, Alta.	Havana, Cuba	CMX 890	KFDM 560
CJOR 1210	CMBW 1010	Havana, Cuba	Beaumont, Tex.
Sea Island, B. C.	Havana, Cuba	CNRA 630	KFDY 550
CJRM 665	CMBY 1225	Moncton, N. B.	Brookings, S. D.
Moose Jaw, Sask.	Havana, Cuba		

KFEL 920
 Denver, Colo.
 KFEQ 680
 St. Joseph, Mo.
 KFGQ 1310
 Boone, Iowa
 KFH 1300
 Wichita, Kansas
 KFI 640
 Los Angeles, Cal.
 KFIO 1120
 Spokane, Wash.
 KFIZ 1420
 Fond du Lac, Wis.
 KFJB 1200
 Marshalltown, Ia.
 KFJF 1480
 Oklahoma City
 KFJJ 1370
 Astoria, Ore.
 KFJM 1370
 Grd. Forks, N. D.
 KFJR 1300
 Portland, Ore.
 KFJY 1310
 Fort Dodge Ia.
 KFJZ 1370
 Ft. Worth, Tex.
 KFKA 880
 Greeley, Colo.
 KFKU 1220
 Lawrence, Kans.
 KFKX 1020
 Chicago, Ill.
 KFLV 1410
 Rockford, Ill.
 KFLX 1370
 Galveston, Tex.
 KFMX 1250
 N'thfield, Minn.
 KFNF 890
 Shendoah, Ia.
 KFOR 1210
 Lincoln, Nebr.
 KFOX 1250
 Long Beach, Cal.
 KFPL 1310
 Dublin, Texas
 KPPM 1310
 Greenville, Texas
 KFPW 1340
 Ft. Smith, Ark.
 KFPY 1340
 Spokane, Wash.
 KFQD 1230
 Anchorage, Alas.
 KFQU 1420
 Holy City, Cal.
 KFQW 1420
 Seattle, Wash.
 KFRC 610
 San F'nisco, Cal.
 KFRU 630
 Columbia, Mo.
 KFSD 600
 San Diego, Cal.
 KFSG 1120
 Los Angeles, Cal.
 KFUL 1290
 Galveston, Texas
 KFUO 550
 St. Louis, Mo.
 KFUP 1310
 Denver, Colo.
 KFVD 1000
 Culver City, Cal.

KFVS 1210
 Cape Gir'rd'u, Mo
 KFWB 950
 Hollywood, Cal.
 KFWF 1200
 St. Louis, Mo.
 KFWI 930
 San F'nisco, Cal.
 KFXD 1420
 Nampa, Idaho
 KFXF 920
 Denver, Colo.
 KFXJ 1310
 Grand Junc., Col.
 KFXM 1210
 San Ber'd no, Cal.
 KFXR 1310
 Oklahoma City
 KFXY 1420
 Flagstaff, Ariz.
 KFYO 1420
 Abilene, Texas
 KFYR 550
 Bismarck, N. D.
 KGA 1470
 Spokane, Wash.
 KGAR 1370
 Tucson, Arizona
 KGB 1330
 San Diego, Cal.
 KGBU 900
 Ketchikan, Al'ka
 KGBX 1310
 St. Joseph, Mo.
 KGBZ 930
 York, Nebr.
 KGCA 1270
 Decorah, Iowa
 KGCR 1210
 Watertown, S. D.
 KGCU 1240
 Mandan, N. D.
 KGCX 1310
 Wolf P't, Mont.
 KGDA 1370
 Mitchell, S. D.
 KGDE 1200
 Fergus Falls, Minn
 KGDM 1100
 Stockton, Cal.
 KGDY 1200
 Huron, S. D.
 KGEF 1300
 Los Angeles, Cal.
 KGEK 1200
 Yuma, Colo.
 KGER 1360
 Long Beach, Cal.
 KGEW 1200
 Ft. Morgan, Colo.
 KGEZ 1310
 Kalispell, Mont.
 KGFF 1420
 Shawnee, Okla.
 KGFG 1370
 Oklahoma City
 KGFI 1500
 Corp's Ch'sti, Tex
 KGFI 1200
 Los Angeles, Cal.
 KGFK 1500
 Moorhead, Minn.
 KGFL 1370
 Raton, N. M.
 KGFW 1310
 Ravenna, Nebr.

KGFX 580
 Pierre, S. D.
 KGGC 1420
 San F'nisco, Cal.
 KGGF 1010
 Coffeyville, Okla.
 KGGM 1230
 Albu'rique, N. M.
 KGHF 1320
 Pueblo, Colo.
 KGGH 1200
 Little Rock, Ark.
 KGHL 950
 Billings, Mont.
 KGIR 1360
 Butte, Mont.
 KGIW 1420
 Trinidad, Colo.
 KGIX 1420
 Las Vegas, Nev.
 KGIZ 1500
 Grant City, Mo.
 KGJF 890
 Little Rock, Ark.
 KGKB 1500
 Tyler, Texas
 KGKL 1370
 San Angelo, Tex.
 KGKO 570
 Wichita Flls., Tex.
 KGKX 1420
 Sand Point, Idaho
 KGKY 1500
 Scottsbluff, Nebr.
 KGMB 1320
 Honolulu, T. H.
 KGNF 1430
 No. Platte, Nebr.
 KGNO 1210
 Dodge City, Kas.
 KGO 790
 San F'nisco, Cal.
 KGRS 1410
 Amarillo, Texas
 KGU 940
 Honolulu, Hawaii
 KGVO 1420
 Missoula, Mont.
 KGW 620
 Portland, Ore.
 KGY 1200
 Lacey, Wash.
 KHJ 900
 Los Angeles, Cal.
 KHQ 590
 Spokane, Wash.
 KICK 1420
 Red Oak, Iowa
 KID 1320
 Idaho Falls, Ida.
 KIDO 1250
 Boise, Idaho
 KIT 1310
 Yakima, Wash.
 KJBS 1070
 San F'nisco, Cal.
 KJR 970
 Seattle, Wash.
 KLCN 1290
 Blytheville, Ark.
 KLO 1400
 Ogden, Utah
 KLPM 1240
 Minot, N. Dak.
 KLRA 1390
 Little Rock, Ark.

KLS 1440
 Oakland, Cal.
 KLLX 880
 Oakland, Cal.
 KLZ 560
 Denver, Colo.
 KMA 930
 Shendoah, Ia.
 KMAC 1370
 San Antonio, Tex.
 KMBC 950
 Kan. City, Mo.
 KMCS 1120
 Inglewood, Cal.
 KMED 1310
 Medford, Ore.
 KMJ 1210
 Fresno, Cal.
 KMLB 1200
 Monroe, La.
 KMMJ 740
 Clay Ctr., Nebr.
 KMO 860
 Tacoma, Wash.
 KMOX 1090
 St. Louis, Mo.
 KMPC 710
 Beverly Hills, Cal
 KMTR 570
 Hollywood, Cal.
 KNX 1050
 Los Angeles, Cal.
 KOA 830
 Denver, Colo.
 KOAC 550
 Corvallis, Ore.
 KOB 1180
 State Coll., N. M.
 KOCW 1400
 Chickasha, Okla.
 KOH 1380
 Reno, Nevada
 KOIL 1260
 Council Bluffs, Ia.
 KOIN 940
 Portland, Ore.
 KOL 1270
 Seattle, Wash.
 KOMO 920
 Seattle, Wash.
 KONO 1370
 San Antonio, Tex.
 KOOS 1370
 Marshfield, Ore.
 KORE 1420
 Eugene, Ore.
 KOY 1390
 Phoenix, Arizona
 KPCB 650
 Seattle, Wash.
 KPJM 1500
 Prescott, Ariz.
 KPO 680
 San F'nisco, Cal.
 KPOF 880
 Denver, Colo.
 KPCC 1210
 Pasadena, Cal.
 KPQ 1500
 Wenatchee, Wash
 KPRC 920
 Houston, Texas
 KQV 1380
 Pittsburgh, Pa.
 KQW 1010
 San Jose, Cal.

KRE 1370 Berkeley, Cal.	KVOR 1270 Col. Sp'gs, Colo.	WALR 1210 Zanesville, Ohio	WCAO 600 Baltimore, Md.
KREG 1500 Santa Ana, Cal.	KWOS 1200 Bellingh'm, Wash.	WAPI 1140 Birmingham, Ala.	WCAP 1280 Asbury Pk., N. J.
KRGV 1260 Harlingen, Texas	KWCR 1310 Cedar Rapids, Ia.	WASH 1270 Gr. Rapids, Mich.	WCAT 1200 Rapid City, S. D.
KRLD 1040 Dallas, Texas	KWEA 1210 Shreveport, La.	WAWZ 1350 Zarephath, N. J.	WCAU 1170 Philadelphia, Pa.
KRMD 1310 Shreveport, La.	KWKG 1200 Stockton, Cal.	WBA 1400 Lafayette, Ind.	WCAX 1200 Burlington, Vt.
KROW 930 Oakland, Cal.	KWJJ 1060 Portland, Ore.	WBAK 1430 Harrisburg, Pa.	WCAZ 1070 Carthage, Ill.
KRSC 1120 Seattle, Wash.	KWK 1350 St. Louis, Mo.	WBAL 760-1060 Baltimore, Md.	WCB 1440 Allentown, Pa.
KSAC 580 Manh'tt'n, Kans.	KWKC 1370 Kansas City, Mo.	WBAP 800 Fort Worth, Tex.	WCBD 1080 Zion, Ill.
KSCJ 1330 Sioux City, Ia.	KWKH 850 Shreveport, La.	WBAX 1210 Wilkes-Barre, Pa.	WCBM 1370 Baltimore, Md.
KSD 550 St. Louis, Mo.	KWLC 1270 Decorah, Iowa	WBBC 1400 Brooklyn, N. Y.	WCBS 1210 Springfield, Ill.
KSEI 900 Pocatello, Idaho	KWSC 1220 Pullman, Wash.	WBHL 1210 Richmond, Va.	WCCO 810 Minneapolis, Minn.
KSL 1130 Salt Lake City	KWWG 1260 Brownsville, Tex.	WBBM 770 Chicago, Ill.	WCDA 1350 New York City
KSMR 1200 Santa Maria, Cal.	KXA 570 Seattle, Wash.	WBBR 1300 Brooklyn, N. Y.	WCFL 970 Chicago, Ill.
KSO 1380 Clarinda, Iowa	KXL 1420 Portland, Ore.	WBBZ 1200 Ponca City, Okla.	WCGU 1400 Brooklyn, N. Y.
KSOO 1110 Sioux Falls, S. D.	KXO 1500 El Centro, Cal.	WBCM 1410 Bay City, Mich.	WCHI 1490 Chicago, Ill.
KSTP 1460 St. Paul, Minn.	KXRO 1310 Aberdeen, Wash.	WBEN 900 Buffalo, N. Y.	WCKY 1490 Covington, Ky.
KTAB 560 San Francisco, Cal.	KXYZ 1420 Houston, Texas	WBEO 1310 Marquette, Mich.	WCLO 1200 Janesville, Wis.
KTAR 620 Phoenix, Ariz.	KYA 1230 San Francisco, Cal.	WBGF 1370 Glens Falls, N. Y.	WCLS 1310 Joliet, Ill.
KTAT 1240 Ft. Worth, Tex.	KYW 1020 Chicago, Ill.	WBHS 1200 Huntsville, Ala.	WCMA 1400 Culver, Ind.
KTBR 1300 Portland, Ore.	NAA 690 Arlington, Va.	WBIG 1440 Greensboro, N.C.	WCOA 1340 Pensacola, Fla.
KTBS 1450 Shreveport, La.	RUS 664 Salvador	WBIS 1230 Boston, Mass.	WCOC 880 Meridian, Miss.
KTFI 1320 Twin Falls, Ida.	TG-W 570 Guatemala	WBMS 1450 Hackensack, N.J.	WCOD 1200 Harrisburg, Pa.
KTHS 1040 Hot Spgs., Ark.	TIC 900 San Jose, C. R.	WBNX 1350 New York City	WCOH 1210 Yonkers, N. Y.
KTLC 1310 Houston, Texas	TI4NRH 948 Heredia, C. R.	WBOQ 860 New York City	WCRW 1210 Chicago, Ill.
KTM 780 Los Angeles, Cal.	VAS 585 Glace Bay, N. S.	WBOW 1310 Terre Haute, Ind.	WCSC 1360 Charleston, S. C.
KTRH 1120 Houston, Texas	VOWR 675 St. Johns, N. F.	WBRC 930 Birmingham, Ala.	WCSE 940 Portland, Maine
KTSA 1290 San Antonio, Tex.	WAAB 1410 Boston, Mass.	WBRE 1310 Wilkes-Barre, Pa.	WDAE 1220 Tampa, Fla.
KTSL 1310 Shreveport, La.	WAAF 920 Chicago, Ill.	WBSO 920 Newdham, Mass.	WDAF 610 Kansas City, Mo.
KTSM 1310 El Paso, Texas	WAAM 1250 Newark, N. J.	WBT 1080 Charlotte, N. C.	WDAG 1410 Amarillo, Texas
KTW 1220 Seattle, Wash.	WAAT 940 Jersey City, N. J.	WBTM 1370 Danville, Va.	WDAH 1310 El Paso, Texas
KUJ 1370 Walla Wall, Wash.	WAAW 660 Omaha, Nebr.	WBZ-A 990 Springfield, Mass.	WDAY 940 Fargo, N. D.
KUOA 1390 Fayetteville, Ark.	WABC 860 New York City	WCAC 600 Storrs, Conn.	WDBJ 930 Roanoke, Va.
KUSD 890 Vermillion, S. D.	WABI 1200 Bangor, Maine	WCAD 1220 Canton, N. Y.	WDBO 1120 Orlando, Fla.
KUT 1500 Austin, Texas	WABZ 1200 New Orleans, La.	WCAE 1220 Pittsburgh, Pa.	WDEL 1120 Wilmington, Del.
KVI 760 Tacoma, Wash.	WACO 1240 Waco, Texas	WCAH 1430 Columbus, Ohio	WDEY 1420 Waterbury, Vt.
KVL 1370 Seattle, Wash.	WADC 1320 Akron, Ohio	WCAJ 590 Lincoln, Nebr.	WDGY 1180 Minneapolis, Minn.
KVOA 1260 Tucson, Arizona	WAGM 1420 Presque Isle, Me.	WCAL 1250 Northfield, Minn.	WDIX 1500 Tupelo, Miss.
KVOO 1140 Tulsa, Okla.	WAIU 640 Columbus, Ohio	WCAM 1280 Camden, N. J.	WDOD 1280 Chattanooga, Tenn.

WDRC 1330	WFII 940	WHIS 1410	WJBW 1200
Hartford, Conn.	Hopkinsville, Ky.	Bluefield, W. Va.	New Orleans, La.
WDSU 1250	WFLA 620	WHK 1390	WJBY 1210
New Orleans, La.	Clearwater, Fla.	Cleveland, Ohio	Gadsden, Ala.
WDWF 1210	WFOX 1400	WHN 1010	WJDX 1270
Providence, R. I.	Brooklyn, N. Y.	New York City	Jackson, Miss.
WDZ 1070	WGAL 1310	WHO 1000	WJDD 1130
Tuscola, Ill.	Lancaster, Pa.	Des Moines, Ia.	Mooseheart, Ill.
WEAF 660	WGAR 1450	WHOM 1450	WJKS 1360
New York City	Cleveland, Ohio	Jersey City, N. J.	Gary, Ind.
WEAI 1270	WGBB 1210	WHP 1430	WJMS 1420
Ithaca, N. Y.	Freeport, N. Y.	Harrisburg, Pa.	Ironwood, Mich.
WEAN 780	WGCB 1430	WIAS 1420	WJR 750
Providence, R. I.	Memphis, Tenn.	Ottumwa, Iowa	WJTV 1460
WEAO 570	WGFB 630	WIBA 1280	Alexandria, Va.
Columbus, Ohio	Evansville, Ind.	Madison, Wis.	WJTL 1370
WEBC 1290	WGBI 880	WIBG 930	Tifton, Ga.
Superior, Wis.	Scranton, Pa.	Elkins Park, Pa.	WJW 1210
WEBQ 1210	WGBS 1180	WIBM 1370	Mansfield, Ohio
Harrisburg, Ill.	New York City	Jackson, Mich.	WJZ 760
WEBR 1310	WGCM 1210	WIBO 560	New York City
Buffalo, N. Y.	Gulfport, Miss.	Chicago, Ill.	WKAQ 890
WEDC 1210	WGCP 1250	WIBR 1420	San Juan, P. R.
Chicago, Ill.	Newark, N. J.	Stuebenville, O.	WKAR 1040
WEDH 1420	WGES 1360	WIBU 1210	E. Lansing, Mich.
Erle, Pa.	Chicago, Ill.	Poynette, Wis.	WKAV 1310
WEEL 590	WGH 1310	WIBW 580	Laconia, N. H.
Boston, Mass.	Newsp't News, Va.	WIBX 1200	WKBW 1310
WEUU 830	WGL 1370	Utica, N. Y.	Joliet, Ill.
Reading, Pa.	Ft. Wayne, Ind.	WICC 600	WKBK 1310
WEHC 1350	WGN 720	Bridgeport, Conn	Birmingham, Ala.
Emory, Va.	Chicago, Ill.	WIL 1200	WKBK 1400
WEHS 1420	WGR 550	St. Louis, Mo.	Indianapolis, Ind.
Cicero, Ill.	Buffalo, N. Y.	WILL 890	WKBH 1380
WELK 1370	WGST 890	Urbana, Ill.	La Crosse, Wis.
Philadelphia, Pa.	Atlanta, Ga.	WILM 1420	WKBI 1420
WELL 1420	WGY 790	Wilmington, Del.	Cicero, Ill.
Battle C'k, Mich.	Schenec'dy, N. Y.	WIOD 1300	WKBN 570
WENR 870	WHA 940	Miami, Fla.	Youngstown, O.
Chicago, Ill.	Madison, Wis.	WIP 610	WKBQ 1450
WEPS 1200	WHAD 1120	Philadelphia, Pa.	WKBK 1310
Worcester, Mass.	Milwaukee, Wis.	WIS 1010	Galesburg, Ill.
WEVD 1300	WHAM 1150	Columbia, S. C.	WKBV 1500
New York City	Rochester, N. Y.	WISN 1120	Connerville, Ind.
WEW 760	WHAP 1300	Milwaukee, Wis.	WKBW 1480
St. Louis, Mo.	New York City	WJAC 1310	Buffalo, N. Y.
WEXL 1310	WHAS 820	Johnstown, Pa.	WKBZ 1500
Royal Oak, Mich.	Louisville, Ky.	WJAG 1060	Ludington, Mich.
WFAA 800	WHAT 1310	Norfolk, Nebr.	WKJC 1200
Dallas, Texas	Philadelphia, Pa.	WJAK 1310	Lancaster, Pa.
WFAM 1200	WHAZ 1300	Marion, Ind.	WKRC 550
So. Bend, Ind.	Troy, N. Y.	WJAR 890	Cincinnati, Ohio
WFAN 610	WHB 860	Providence, R. I.	WKY 900
Philadelphia, Pa.	Kansas City, Mo.	WJAS 1290	Oklahoma City
WFBC 1200	WHBC 1200	Pittsburgh, Pa.	WKZO 590
Knoxville, Tenn	Canton, Ohio	WJAX 900	Kalamazoo, Mich.
WFBE 1200	WHBD 1370	Jacksonville, Fla.	WLAC 1470
Cincinnati, Ohio	Mt. Orab, Ohio	WJAY 610	Nashville, Tenn.
WFBG 1310	WHBF 1210	Cleveland, Ohio	WLAP 1010
Altoona, Pa.	Rock Island, Ill.	WJAZ 1490	Louisville, Ky.
WFBL 1360	WHBL 1410	Chicago, Ill.	WLB 1250
Syracuse, N. Y.	Sheboygan, Wis.	WJBC 1200	St. Paul, Minn.
WFBM 1230	WHBY 1370	La Salle, Ill.	WLBC 1310
Indianapolis, Ind.	Memphis, Tenn.	WJBI 1210	Muncie, Ind.
WFBR 1270	WHBU 1210	Red Bank, N. J.	WLBK 1420
Baltimore, Md.	Anderson, Ind.	WJBT 1370	Kansas City, Kas.
WFDF 1310	WHBY 1200	Detroit, Mich.	WLBG 1200
Flint, Mich.	Green Bay, Wis.	WJBL 1200	Ettrick, Va.
WFDV 1310	WHDF 1370	Decatur, Ill.	WLBL 900
Rome, Ga.	Calumet, Mich.	WJBO 1420	Stevens Pt., Wis.
WFDW 1420	WHDH 830	New Orleans, La.	WLBW 1260
Anniston, Ala.	Boston, Mass	WJBT 770	Oil City, Pa.
WFEA 1430	WHEC 1430	Chicago, Ill.	WLBX 1500
Manchester, N. H.	Rochester, N. Y.	WJBU 1210	L. I. City, N. Y.
WFI 560	WHFC 1420	Lewisburg, Pa.	
Philadelphia, Pa.	Cicero, Ill.		

WLBZ 620
Bangor, Maine
WLCI 1210
Ithaca, N. Y.
WLEY 1370
Lexington, Mass.
WLIT 560
Philadelphia, Pa.
WLOE 1500
Boston, Mass.
WLS 870
Chicago, Ill.
WLTH 1400
Brooklyn, N. Y.
WLVA 1370
Lynchburg, Va.
WLW 700
Cincinnati, Ohio
LWLW 1100
New York City
WMAC 570
Syracuse, N. Y.
WMAK 1040
Buffalo, N. Y.
WMAL 630
Washington, D.C.
WMAQ 670
Chicago, Ill.
WMAZ 1180
Macon, Ga.
WMB A 1500
Newport, R. I.
WMB C 1420
Detroit, Mich.
WMB D 1440
Peoria Hghts., Ill.
WMB G 1210
Richmond, Va.
WMB H 1420
Joplin, Mo.
WMB I 1080
Chicago, Ill.
WMB O 1310
Auburn, N. Y.
WMB Q 1500
Brooklyn, N. Y.
WMB R 1370
Tampa, Fla.
WMB C 780
Memphis, Tenn.
WMB CA 570
New York City
WMB L 1500
Brooklyn, N. Y.
WMB M 890
Fairmont, W. Va.
WMB P 1500
Lapeer, Mich.
WMB R J 1210
Jamaica, N. Y.
WMB S G 1350
New York City
WMB T 600
Waterloo, Iowa
WMB AC 1230
Boston, Mass.
WMB AD 1010
Norman, Okla.
WMB AX 570
Yankton, S. D.
WMB BF 1500
Bingh'm't'n, N. Y.
WMB BH 1310
New B'd'f'd, Mass.
WMB BO 1200
Washington, Pa.

WMBR 1430
Memphis, Tenn.
WMB W 1200
Carbondale, Pa.
WMB X 1200
Springfield, Vt.
WMB Z 1290
Sar'n'e L'ke, N. Y.
WNB J 1450
Newark, N. J.
WNB X 560
Knoxville, Tenn.
WNB Y 570
New York City
WNB I 1190
San Antonio, Tex.
WNB X 1280
Trenton, N. J.
WNB O 580
Charlest'n, W. Va.
WNB C 1000
Davenport, Iowa
WNB L 1210
Jamestown, N. Y.
WNB D A 1250
Paterson, N. J.
WNB D X 1410
Mobile, Ala.
WNB I 640
Ames, Iowa
WNB O K 1430
Albany, N. Y.
WNB L 1310
Washington, D.C.
WNB T 1210
Montowoc, Wis.
WNB O D 1270
Gr. Rapids, Mich.
WNB O P I 1500
Bristol, Tenn.
WNB O Q 1300
Kansas City, Mo.
WNB O R 710
Newark, N. J.
WNB O RC 1200
Worcester, Mass.
WNB O S 630
Jeff's'n City, Mo.
WNB O V 1130
New York City
WNB O W 590
Omaha, Neb.
WNB O W O 1160
Ft. Wayne, Ind.
WNB O F AD 1420
Paducah, Ky.
WNB O F AP 1010
New York City
WNB O F AP W 1210
Pawtucket, R. I.
WNB O F PC 560
Chicago, Ill.
WNB O F CH 810
New York City
WNB O F PEN 1500
Philadelphia, Pa.
WNB O F PG 1100
Atl'ntic City, N.J.
WNB O F POE 1370
Patchogue, N. Y.
WNB O F POR 780
Norfolk, Va.
WNB O F PRO 1210
Providence, R. I.
WNB O F PSC 1230
State College, Pa.

WNB T F 680
Raleigh, N. C.
WNB O F QM A 560
Miami, Fla.
WNB O F QN A 880
Scranton, Pa.
WNB O F QW A 1010
New York City
WNB O F QBC 1360
Vicksburg, Miss.
WNB O F QD M 1370
St. Albans, Vt.
WNB O F QDX 1210
Thomasville, Ga.
WNB O F WR A 1370
Williamsport, Pa.
WNB O F WR AM 1370
Wilmington, N.C.
WNB O F WR AW 1310
Reading, Pa.
WNB O F WR AX 1020
Philadelphia, Pa.
WNB O F WR B J 1370
Hattiesburg, Miss.
WNB O F WR BL 1200
Columbus, Ga.
WNB O F WR B Q 1210
Greenville, Miss.
WNB O F WR B X 1410
Roanoke, Va.
WNB O F WR C 950
Washington, D.C.
WNB O F WR DO 1370
Augusta, Maine
WNB O F WR DW 1500
Augusta, Ga.
WNB O F WR EC 600
Memphis, Tenn.
WNB O F WR EN 1220
Lawrence, Kans.
WNB O F WR HM 1250
Minneapolis, Minn.
WNB O F WR JN 1370
Racine, Wis.
WNB O F WR NY 1010
New York City
WNB O F WR OL 1310
Knoxville, Tenn.
WNB O F WR R 1280
Dallas, Texas
WNB O F WR UF 830
Gainesville, Fla.
WNB O F WR VA 1110
Richmond, Va.
WNB O F WSA I 1330
Cincinnati, Ohio
WNB O F WSA J 1310
Grove City, Pa.
WNB O F WSA N 1440
Allentown, Pa.
WNB O F WSA R 1450
Fall River, Mass.
WNB O F WSA Z 580
Hunt'gton, W. Va.
WNB O F WSB 740
Atlanta, Ga.
WNB O F WSB C 1210
Chicago, Ill.
WNB O F WSB T 1230
South Bend, Ind.
WNB O F WSE N 1210
Columbus, Ohio
WNB O F WSA F A 1410
Montgomery, Ala.
WNB O F WSA X 1210
Springfield, Tenn.

WNB O F WSJS 1310
Winst.-Sal., N. C.
WNB O F WSM 650
Nashville, Tenn.
WNB O F WSMB 1320
New Orleans, La.
WNB O F WSMK 1380
Dayton, Ohio
WNB O F WSOC 1210
Gastonia, N. C.
WNB O F WSPA 1420
Spartanburg, S.C.
WNB O F WSPD 1340
Toledo, Ohio
WNB O F WSUI 880
Iowa City, Iowa
WNB O F WSUN 620
St. Petersbg., Fla.
WNB O F WSVS 1370
Buffalo, N. Y.
WNB O F WSYB 1500
Rutland, Vt.
WNB O F WSYR 570
Syracuse, N. Y.
WNB O F WTAD 1440
Quincy, Ill.
WNB O F WTAG 580
Worcester, Mass.
WNB O F WTAM 1070
Cleveland, Ohio
WNB O F WTAQ 1330
Eau Claire, Wis.
WNB O F WTAR 780
Norfolk, Va.
WNB O F WTA W 1120
College Sta., Tex.
WNB O F WTA X 1210
Springfield, Ill.
WNB O F WTBO 1420
Cumberland, Md.
WNB O F WTBL 1310
Philadelphia, Pa.
WNB O F WTFI 1450
Toccoa, Ga.
WNB O F WTIC 660-1060
Hartford, Conn.
WNB O F WTJS 1310
Jackson, Tenn.
WNB O F WTM J 620
Milwaukee, Wis.
WNB O F WTO C 1260
Savannah, Ga.
WNB O F WWA E 1260
Hammond, Ind.
WNB O F WWJ 920
Detroit, Mich.
WNB O F WWL 850
New Orleans, La.
WNB O F WWC N 570
Asheville, N. C.
WNB O F WWRL 1500
Woodside, N. Y.
WNB O F WWSW 1500
Pittsburgh, Pa.
WNB O F WWVA 1160
Wheeling, W. Va.
WNB O F WXX Z 1240
Detroit, Mich.
WNB O F XEA 1200
Guad'ljara, Mex.
WNB O F XEB 1030
Mexico City
WNB O F XEC 1333
Toluca, Mexico
WNB O F XED 965
Reynosa, Mexico

XEE 1132	XEM 730	XETA 1140	XEY 547
Oaxaco, Mexico	Tampico, Mexico	Mexico City	Merida, Mexico
XEFA 1250	XEN 711	XETF 680	XEZ 588
Mexico City	Mexico City	Veracruz, Mex.	Mexico City
XEFE 980	XEO 940	XETO 1360	XFC 805
Laredo, Mexico	Mexico City	Mexico City	Aguascalntes, M.
XEH 1132	XEP 1400	XETY 1300	XFD 915
Monterrey, Mex.	Laredo, Mexico	Mexico City	XFE 915
XEI 1000	XEQ 1015	XEU 800	Chihuahua, Mex.
Morelia, Mexico	Juarez, Mexico	Veracruz, Mex.	XFG 638
XEJ 857	XER 735	XEV 1034	Mexico City
Juarez, Mexico	Villa Acuna, Mex.	Puebla, Mexico	XFI 818
XEK 990	XES 890	XEW 910	Mexico City
Mexico City	Tampico, Mexico	Mexico City	XFX 860
XEL 1091	XET 690	XEX 1210	Mexico City
Saltillo, Mexico	Monterrey, Mex.	Mexico City	

INDEX BY LOCATIONS WITH MAP KEY

(Continued from page 59)

Location	Watts	Call Letters	Keys.	Location	Watts	Call Letters	Keys.
MICHOACAN				Havana W-23	50	CMBQ	1500
Morelia, Mich. Y-12	101	XEI	1000		15	CMBR	1500
					150	CMBT	790
NEUVO LEON					150	CMBW	1010
Laredo, N. L. S-13	101	XEFE	980		350	CMBY	1225
	2500	XEP	1400		150	CMBZ	1010
Monterrey N. L. U-13	5000	XEH	1132		500	CMC	840
	500	XET	690		150	CMCA	1225
OAXACA					150	CMCB	1070
Oaxaca, Oak. AA-14	105	XEE	1132		250	CMCD	925
					250	CMCF	890
PUEBLA					30	CMCG	1345
Puebla Z-13	101	XEV	1034		15	CMCH	1405
					250	CMCJ	620
TAMAULIPAS					15	CMCM	1405
Reynosa, Tams. T-14	10000	XED	965		250	CMCN	925
Tampico, Tams. W-14	500	XEM	730		225	CMCO	660
	500	XES	890		600	CMCQ	1150
VERA CRUZ					150	CMCR	1345
Veracruz, Ver. Z-14	500	XETF	680		150	CMCU	1285
	101	XEU	800		150	CMCW	1285
YUCATAN					15	CMCY	1345
Merida, Yuc. X-19	105	XEY	547		500	CMDC	660
					3150	CMK	730
					250	CMQ	1150
					1400	CMW	588
					500	CMX	890
WEST INDIES				Matanzas W-24	7.5	CMGB	1205
BERMUDA					50	CMGF	977
Hamilton M-35	7.5	TJW	1490		150	CMGH	1370
				Pinar del Rio W-22	20	CMAB	1249
CUBA					30	CMAC	1375
Caibarien W-25	250	CMHD	950	Santa Clara W-25	15	CMHI	1110
Cardenas W-24	30	CMGE	1375	Santiago X-28	150	CMKC	1034
Carnaguey W-26	30	CMJA	1200	Tuinucu	100	CMHC	790
	150	CMJC	1382				
	20	CMJE	856				
	50	CMJF	930				
Ciego de Avila W-26	15	CMJH	1017				
Cienfuegos W-25	40	CMJJ	645				
Colon W-24	100	CMGA	834				
Havana W-23	150	CMBC	965				
	150	CMBD	965				
	150	CMBG	1070				
	30	CMBI	1405				
	20	CMBL	1500				
	30	CMBN	1405				
				DOMINICAN REPUBLIC			
				Santo Domingo X-31	1000	HIX	669
				HAITI			
				Port au Prince X-30	1000	HHK	920

THE CUBAN EXPERIMENTALS

Call	Owner	Address	Location	Kcys.	Meters	Watts
CM-1FM	Julian Machado	Aranburu numero 5	Gua ajay	13950	21.5	100
CM-2AR	Alfredo Rosell	Campanario numero 145	Habana	14347	20.9	7.5
CM-2AY	Cesar Fernandez	Real 101	Marianao	7220	41.5	7.5
CM-2CF	Victor Coullard	Camp, Columbia 30-13	Marianao	7257	41.2	7.5
CM-2FC	Fernando Capestany	Godinez "E" Buena Vista	Marianao	7152	41.9	7.5
CM-2GR	Gustavo Rodriguez	19 numero 494, Vedado	Habana	7220	41.5	7.5
CM-2GU	Luis Guyon	Santa Emilia 112, Santos Suarez	Habana	7135	42	20
CM-2GZ	Jorge L. Gonzalez	Maximo Gomez 49, altos	Habana	7300	41	7.5
CM-2IQ	Jose Fernandez	Real 89	Marianao	7257	41.2	7.5
CM-2JM	Justo Mahia	Sitios numero 65	Habana	7152	41.9	7.5
CM-2JT	Jose A. Terry	B entre 18 y Fuentes	Marianao	14277	21	75
CM-2KR	Carlos Alburquerque	Goicuria numero 24, Vibora	Habana	7152	41.9	7.5
CM-2LA	Enrique Lasanta (C.L.R.)	8 entre 21 y 23, Vedado	Habana	7000	42.8	250
CM-2MD	Marino Diaz Quinones	Padre Varela numero 120	Habana	7300	41	20
CM-2MK	R. V. Watters	Avenida de Italia 29	Habana	7170	41.8	100
CM-2MM	Antonio Sarasola	Emilio Sola 5, Pogolotti	Marianao	7135	42	30
CM-2QY	Alberto Giro	3a entre 14 y 16	Marianao	7220	41.5	15
CM-2RA	Rigoberto Alvarez	San Jose numero 216	Habana	14277	21	7.5
CM-2RC	Radio Club de Cuba	Genios 23 altos	Habana	7220	41.5	15
CM-2RZ	Nestor Rodriguez	Cardenas numero 55	Habana	7152	41.9	7.5
CM-2SC	Jose del Salto	General Suarez numero 126	Habana	13950	21.5	250
CM-2SF	Eusebio Solis	Artes 93, Casa Blanca	Habana	7207	41.6	7.5
CM-2SH	Silvio Hernandez	H numero 184, Vedado	Habana	7170	41.8	7.5
CM-2SV	Sergio Valdes Rodriguez	Aguir numero 10-A	Habana	7135	42	10
CM-2VM	Elicier Valdes Mayo	Factoria numero 27, altos	Habana	7220	41.5	7.5
CM-2WA	Ezequiel Santos	Cristina numero 12	Habana	14140	21.2	7.5
CM-2WD	Pedro Madiedo	Santa Rosa A	Marianao	7135	42	10
CM-2WV	Amadeo Saenz de Calahorra	Marina numero 2	Habana	7120	42.1	50
CM-2XA	Alfredo Rosell	Campanario numero 145	Habana	7292	41.1	150
CM-2XC	Alexander Strang	M. F. de Castro s-n	Habana	7220	41.5	5
CM-2XK	Raul Karman	Rayo 67	Habana	7135	42	15
CM-5AZ	Ernesto V. Figueroa	Independencia 130	Matanzas	7257	41.2	7.5
CM-5CX	Jose Alfonso	Diago numero 73	Colon	14277	21	50
CM-5EA	Elcazar A. Togores	Domingo Mu ica numero 61	Matanzas	7220	41.5	7.5
CM-5EN	Escuela Normal	Tello Lamar 41	Matanzas	7257	41.2	7.5
CM-5FC	Felix U. Casas	Emilio Blanchet numero 19	Matanzas	7207	41.6	7.5
CM-5FL	Francisco Diaz Agramonte	Santa Catalina 16	Pedro Betancourt	7170	41.8	7.5
CM-5IM	Felix U. Casas	Tello Lamar 60	Matanzas	7257	41.2	7.5
CM-5NI	Julio C. Oyarzabal	Marti numero 52	Pedro Betancourt	7300	41	15
CM-5PM	Pastor Morejon	Maceo numero 101	Matanzas	7135	42	10
CM-5HY	Bernabe R. de la Torre	General Betancourt numero 105	Matanzas	14277	21	7.5
CM-6HX	Luis D. Elizondo	Houuruitiner numero 23	Cienfuegos	7292	41.1	10
CM-6CP	Carlos M. Carbonell	Gaeel numero 41	Cienfuegos	7135	42	20
CM-6DW	Eduardo Terry	San Carlos 197	Cienfuegos	7300	41	10
CM-6SG	Remberto Sanchez	Candelaria numero 16	Santa Clara	7220	41.5	7.5
CM-7CX	Leonard B. Fox	Central Florida	Florida	7220	41.5	15
CM-7DW	M. L. de Quintana	Central Tacajo	Tacajo	7207	41.6	10
CM-7JQ	Leonard B. Fox	Central Florida	Florida	14277	21	5
CM-7SH	Domingo Caymares	Augusto Arango 31	Nuevitas	7257	41.2	15
CM-8AZ	James Connor Blume	Estacion Naval	Guantanamo	7135	42	150
CM-8BY	Alberto Ravelo	Ave. Manduley ent. 1 y 3	Santiago de Cuba	7300	41	30
CM-8HS	Guillermo Polanco	M. Corona, Baja 16	Santiago de Cuba	7000	42.8	100
CM-8MN	Melchor Agüero	General Escario numero 111	Santiago de Cuba	7135	42	50
CM-8OL	Luis C. Greco	San Bartolome 32	Santiago de Cuba	7300	41	50
CM-8UF	Earle D. Byer	Estacion Naval	Guantanamo	14277	21	300
CM-8YB	B. V. Greer	Estacion Naval	Guantanamo	7300	41	100

CANADIAN HIGH FREQUENCY BROADCASTING

Call	Owner	Location	Kcyl.	Meters
VE9AK	Alberta Pacific Grain Company	Red Deer, Alta.	2830	105.9
VE9BA	Canadian National Railways	Montreal, Que.	6130-1705	48.9-25.6
VE9BJ	C. A. Munro, Ltd.	St. John, N. B.	6090	49.23
VE9CA	Western Broadcasting Co., Ltd.	Calgary, Alta.	6030-11860	49.75-25.3
VE9CF	Borrett for CHNS	Halifax, N. S.	6050	49.50
VE9CG	Calgary Herald, Limited	Calgary, Alta.	6110	49.10
VE9CL	James Richardson & Sons	Middlechureh, Manitoba	6150	48.8
VE9CS	United Church of Canada	Vancouver, B. C.	6070	49.42
VE9DN	Canadian Marconi Co.	Montreal, Que.	6005-9580	49.9-31.3
VE9DR	Canadian Marconi Co.	Drummondville, Quebec	11780	25.47
VE9GW	Gooderham & Worts, Limited	Bowmanville, Ontario	6095	49.22

CANADIAN STATIONS TELEVISION

Call	Owner	Location	Kcyl.	Meters
VE9AF	Jas. A. Ogilby's, Ltd.	Montreal, Que.	2850-2950	105.3-101.7
VE9AR	A. R. Mackenzie	Saskatoon, Sask.	2850-2950	105.3-101.7
VE9BZ	Radio Service Engineers	Vancouver, B. C.	2750- 850	109.1-105.3
VE9DS	Can. Press Marconi Co.	Montreal, Que.	2100-2200	142.9-136.3
VE9EC	LaPresse Publishing Co., Ltd.	Montreal, Que.	2000-2100	149.7-142.9
VE9ED	Dr. Jos. L. P. Landry	Mont Joli, Que.	2850-2950	105.3-101.7
VE9RM	Rogers/Majestic Corp., Limited	Toronto, Ont.	2094-2100	149.7-142.9

AMATEUR BROADCAST STATIONS IN CANADA

Call	Owner of Station	Location of Station	Kcys.	Meters	Watts
10 AK	Classic Radio Club	151 Ontario St., Stratford, Ont.	1200	250	10
10BU	Canora Radio Association	Railway Ave., East Canora, Saskatchewan	1200	250	15
10BP	Wingham Radio Club	Brunswick Hotel Bldg., Wingham, Ont.	1200	250	15
10BI	Prince Albert Radio Club	331 20th St. West, Prince Albert, Saskatchewan	1200	250	25
10AB	Moose Jaw Radio Association	338 Main St., North Moose Jaw, Saskatchewan	1200	250	25
10BQ	Telephone City Radio Asso.	12 Terrace Hill, Brantford, Ont.	1200	250	5

THE POLICE BROADCASTERS

Call	Location	Kcys.	Meters	Call	Location	Kcys.	Meters
KGJX	Pasadena, Calif.	1712	175.1	WNDA	Miami, Florida	2440	122.9
KGOY	San Antonio, Texas	1712	175.1	WPDA	Tulare, Calif.	2416	124.1
KGOZ	Charlotte, N. C.	2470	121.4	WPDB	Chicago, Ill.	1712	175.1
KGPA	Seattle, Wash.	1596-2452	187.9-122.2	WPDC	Chicago, Ill.	1712	175.1
KGPR	Minneapolis, Minn.	2416	124.1	WPDD	Chicago, Ill.	1712	175.1
KGPC	St. Louis, Mo.	1712	175.1	WPDE	Louisville, Ky.	2440	122.9
KGPD	San Francisco, Calif.	1596-2410	187.9-124.4	WPDF	Flint, Mich.	2440	122.9
KGPE	Kansas City, Mo.	2422	123.8	WPDG	Youngstown, Ohio	2458	122.0
KGPG	Vallejo, Calif.	2410	124.4	WPDH	Richmond, Va.	2416	124.1
KGPH	Oklahoma City, Okla.	2452	122.2	WPDJ	Passaic, N. J.	2416	124.1
KGPI	Omaha, Neb.	2470	121.4	WPDK	Milwaukee, Wis.	2452	122.2
KGPI	Berkeley, Calif.	2410	124.4	WPDL	Lansing, Mich.	2440	122.9
KGPK	Sioux City, Iowa	2470	121.4	WPDM	St. Petersburg, Florida	2440	122.9
KGPI	San Angeles, Calif.	1712	175.1	WPDN	Beaumont, Texas	1712	174.9
KGPM	San Jose, Calif.	2410	124.4	WPDO	Auburn, N. Y.	1712	174.9
KGPN	Davenport, Iowa	2470	121.4	WPDP	Philadelphia, Pa.	2440	122.9
KGPO	Tulsa, Okla.	2452	122.2	WPDR	Rochester, N. Y.	1712	175.1
KGPP	Portland, Ore.	2452	122.2	WPDS	St. Paul, Minn.	2416	124.1
KKPF	El Paso, Texas	2416	124.1	WPDT	Kokomo, Ind.	2470	121.4
KSW	Buffalo, N. Y.	2422	123.8	WPDU	Pittsburgh, Pa.	1712	175.1
KVP	Dallas, Texas	1712	175.1	WPDV	Akron, Ohio	2458	122.0
WBA	Harrisburg, Pa.	257	1167.0	WPDX	Detroit, Mich.	2410	124.4
WBR	Cedar Rapids, Iowa	2458	122.0	WPDY	Fort Wayne, Ind.	2470	121.9
WCK	Detroit, Mich.	2410	124.4	WPFA	Syracuse, N. Y.	1712	175.1
WDX	Wyoming, Pa.	257	1167.0	WPEC	Memphis, Tenn.	2470	121.4
WFEB	Grand Rapids, Mich.	2440	122.9	WPGW	Washington, D. C.	2410	124.4
WJL	Greensburg, Pa.	257	1167.0	WPY	New York, N. Y.	138-500	684.5-509.6
WKDT	Detroit, Mich.	1596	187.9	WRBH	Cleveland, Ohio	2452	122.2
WKDU	Cincinnati, Ohio	1712	175.1	WRDQ	Toledo, Ohio	2470	121.4
WMDZ	Indianapolis, Ind.	2470	124.4	WRDR	Grosse Pt. Village, Mich.	2410	124.4
WMJ	Highland Park, Mich.	2410	124.4	WRDS	Ingham, Mich.	1662	121.4

WCF 1596
 Newark

Principal World Stations

(Continued from page 39)

Kcys.	Meters	Call	City	Country
1480	202.7	SCM	Kristinehamn	Sweden
1480	202.7	2AY	Albury	Australia
1490	201.3	CX48	Montevideo	Uruguay
1490	201.3	SCH	Jonkoping	Sweden

1500

1500	200	2LS	Leeds	Great Britain
1530	196	SCJ	Karlskrona	Sweden
4273.5	70.2	RW15	Khabarovsk	Russia
5000	60	XCTE	Shanghai	China
5514.7	54.4	RW38	Moskva Mosps	Russia
6000	50	RW59	Moskva Stchel-kovo	Russia
6072	49.41	UOR2	Wien	Austria
6250	48	HKC	Bogota	Colombia
7300	41	HSP2	Bangkok	Siam
9520	31.51		Lyngby	Denmark
9520	31.51	OKZ	Skamlebak	Denmark
9590	31.28	PCJ	Hilversum	Holland
11750	25.5	SSW	Chelmsford	Great Britain
14991	19.84	HVJ	Rome	Italy
17775	16.88	PHI	Huizen	Holland
51724	5.8	RW61	Moskva Vei	Russia

An Observation Test

If you think you are observant, read the following sentence over and count the number of "f's" as you go along:

"Federal filters are the result of years of scientific study combined with the experience of years."

Did you find three "f's" in the first reading? If so, you have the average observation powers. If you found four or more, you are above the average. Actually there are six "f's" in the sentence. Try this on your friends.

Writes Charles J. LaVoie, 1813 Ninth St., Port Huron, Mich.: "I now have 315 verifications from U.S. stations, 32 from Canada, three from Cuba, two from Mexico. My best are SRB, Brussels, Belgium; 6LV, Liverpool, England; 5NO, New Castle, Wales; 2LO, London, England, and 2BD, Aberdeen, Scotland.

In the December Issue:

What is New in Radio Sets as Demonstrated at the Chicago and New York Shows

HOW TO TUNE A SET CORRECTLY

Read This Page Carefully and You Can Set Your Dials Accurately for Any Station in America

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

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

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

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

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

Let us assume that the station we are hearing is WFAF in New York. First we must ascertain the frequency for this station. Look it up under WFAF in the Index by Call Letters or under New York in the Index by States and Cities. In either of these indexes we find that the frequency of WFAF is 660. Now we turn to 660 kilocycles in the Index by Frequencies and Dial Numbers. Here we find that WFAF is one of the two stations which have been assigned the 660 keys, frequency by the Federal Radio Commission. We also find that it has a power of 50,000 watts, that it is located in New York City and is owned by the National Broadcasting Co., Inc.

In the blanks for dial numbers opposite 660 kilocycles (which is the wave length of 454.3 meters) enter the dial readings of your set. It is immaterial whether you set has one, two or three dials. Use as many of three spaces provided as you need. The set used in the illustration had two dials. In this case we entered the dial readings for 660 kilocycles as 69-67.

Let us now tune in some other station. We repeat the same procedure in tuning and find that we are hearing, let us say, WOS at Jefferson City. Proceed as before in ascertaining the frequency of WOS. This we find to be 630 keys. We turn to 630 in the Index by Frequencies and enter our dial readings for this band which on the set we are using was 72-70.

We now have found that the dial numbers for 630 keys are 72-70 and the dial numbers for 660 keys are 69-67. If we now will set our dials for 70-68 it is obvious we will have our set tuned for 650 keys. We listen carefully and if they are on the air and within range of our set we will tune in WSM of Nashville at this point. We then enter the dial readings for WSM opposite 650 keys. Now it is

clear that if we reset our dials at 71-69 our set will be tuned to 640 keys, and at that point KFI of Los Angeles will be heard, always assuming, of course, that it is on the air and within range of our particular set.

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

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

time. In this case, of course, it is not possible to tell which one of the two stations is broadcasting at the particular moment we hear it, but we do know it is one or the other of them.

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

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

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

INDEX BY FREQUENCIES AND DIAL NUMBERS

590 kilocycles 508.2 meters

KHJ	1000	Spokane, Wash.
WCAJ	500	Lincoln, Neb.
WFI	1000	St. Louis, Mo.
WJLF	1000	Omaha, Neb.
WLMC	1000	Berrien Springs, Mich.

600 kilocycles 499.7 meters

CFCH	250	Froquita Falls, Ont.
KFBU	1000	San Francisco, Calif.
KFBO	500	San Diego, Calif.
WCAO	300	Baltimore, Md.
WBSW	270	Belleville, Mo.
WOS	1000	Lafayette, Tenn.
WPCF	520	Memphis, Tenn.
WTFD	320	Harford, Conn.

610 kilocycles 491.5 meters

FRC	1000	San Francisco, Calif.
WJAX	1000	San Jose, Calif.
WJAN	1000	Philadelphia, Pa.
WJF	1000	Chickadee, Pa.
WJO	1000	Kansas City, Mo.

620 kilocycles 483.6 meters

FAD	500	Phoenix, Ariz.
KJW	1000	Dartmouth, Ont.
WJIS	1000	Tampa, Fla.
WJLZ	500	Orlando, Fla.
WJWJ	1000	Jefferson City, Mo.
WJWJ	1000	Millsboro, Wis.

630 kilocycles 475.9 meters

CJCT	1-8	Victoria, B. C.
CJCT	500	Stockton, N. B.
CKR	100	Monterey, N. B.
CKR	270	Marion, N. B.
CKR	500	Columbia, Mo.
WJHL	1000	Wilmington, Del.
WJHL	200	Washington, D. C.
WJHL	500	Wilmington, N. C.

640 kilocycles 468.5 meters

EST	1000	St. Louis, Mo.
WJAU	1000	Columbus, Ohio

650 kilocycles 461.3 meters

WSM	500	Nashville, Tenn.
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660 kilocycles 454.3 meters

WJAW	1000	Omaha, Neb.
WJAW	1000	New York City

670 kilocycles 447.5 meters

WJAD	500	Chicago, Ill.
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680 kilocycles 440.9 meters

KFO	500	San Francisco, Calif.
WPTF	5000	Raleigh, N. C.

76 74

Louis Warner, Inc.
Delaware Western University
Edison Elec. Illuminating Co.
Headquarters of the World
Emmanuel Missionary College

75 73

Arthur Power & Paper Co.
Blissup & Thomas
Airfax Radio Corp.
Munich Radio Co., Inc.
Radio Collaps
Fountain Head of Music
Lawrence & Co.
W.R.K.G., Inc.
Travelers Insurance Co.

74 72

Don Lee, Inc.
Radio City Star Co.
Rayburn Broadcasting Co., Inc.
Cliff House, Inc.
Unity School of Christianity

73 71

Electrical Equipment Co.
Oregonian Publishing Co.
Tampa Publishing Co.
Bullfinch College, Inc.
Thompson & Gurnsey
Millwaukee Journal

72 70

Victoria Broadcasting Assn.
Wilmington Exchange
Canadian National Railway
Gordon Thomas
Stephen College
Kearney on the Air, Inc.
M. A. Laver Co.
State Marketing Bureau

71 69

Marie C. Anthony, Inc.
American Insurance Union

70 68

National Life & Accident Ins. Co.

69 67

Omaha Citizen Printing
National Broadcasting Co., Inc.
Chicago Daily News, Inc.
Bala Bros. & The Chronicle
Northam Life Insurance Co.

Trained Radio Man Reports Earnings of \$5,000 Last Year

Former School Teacher Learned Radio at Home And More Than Doubled His Income

Read This Letter

"I am now engaged in sound picture work—have 25 theatres in Cincinnati to take care of and it is very fascinating. When I made application for my present position, I had to pass a technical examination which included many questions on vacuum tubes and Radio circuits. I was able to do this successfully chiefly because I had just completed the course with the National Radio Institute. I know I would never have obtained the job had it not been for your course—I give your Institute credit for training me in the amplification work involved in our systems. Within the past year I have made approximately \$5,000. Since my salary in my old position as a teacher was only \$2,000, I credit \$3,000 of my present income to N. R. I. training and am much happier in my work than I have ever been. So you see why I am an enthusiastic booster for N. R. I."



PAUL V. WOOLLEY
948 Sunset Avenue
Cincinnati, Ohio

Free Book is Showing Many How to Get Into Radio-Television-Talking Movies

Mr. J. E. Smith, President of the National Radio Institute, will be glad to send his 64-page book, "Rich Rewards in Radio," to any interested man or young man. It tells about the many opportunities for trained men to make as much as \$50 to \$100 a week in the various fields of Radio. It also explains how this easily mastered home study training fits you to begin making extra money on the side almost at once. Many students earn \$200 to \$1,000 in spare time while learning.

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5. Advanced Radio Servicing and Merchandising.

J. E. SMITH, President,
National Radio Institute,
Dept. 1MO, Washington, D. C.

Please send your free book, giving information about the opportunities in Radio. I understand this request places me under no obligation and that no salesman will call.

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City State