

MID-SUMMER EDITION

RADIO INDEX

The Magazine that Doubles the Pleasure of Radio



25¢

Radio Theory in A-B-C
Is Radio Commission Impotent?
Has Ollie Ross 1309 Verifications?
Cuban and Canadian Experimentals

RADIO THEORY AND MODERN PRACTICE

A New Book in Simple Terms—Profusely Illustrated

Just off the press, here is a book that we believe every person interested at all in Radio, ought to have. While the veriest novice can easily understand its simple explanations, yet it is a book which an experienced radiotrician will find of the greatest value.

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The chapter on *Short Waves* is not only a complete treatise on short-wave theory and practice, but several well-known short wave sets are diagramed and explained. Other chapters which we can mention only as indicative are *Aerials*, *Loud Speakers*, *Radio Instruments*, *Broadcasting Transmitters*, *Radio Troubles*, *Television*, etc.

This book of 224 pages, printed in large type, bound in flexible cloth will be given to our readers

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We have secured a number of these books for those of our readers who will help us in this way to increase the field of RADEX. You can earn a copy in a few minutes by telling your friends about this magazine.

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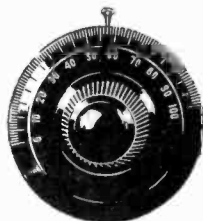
MID-SUMMER EDITION



RADIO IN DEX

REG. U. S. PATENT OFFICE

FRED CLAYTON BUTLER
Editor and Publisher



SEVENTH YEAR

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NUMBER 50

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CONVERTING Vibrations Into SOUND

AS described in the last issue of **RADEX**, radio-frequency waves, which are picked up by the antenna of your receiver, and are amplified by means of vacuum tubes, cannot be converted directly into sound waves for the conveyance of speech and music, because their frequency, or rate of vibration per second, is too great; it must be converted into trains of lower-frequency waves before they can be transformed into mechanical impulses by the loudspeaker and this transformation takes place at the detector. Here the electrical impulses, although much stronger than the original r. f. impulses, are still too weak to be applied to a loudspeaker, but are able to actuate the mechanism of headphones. For loudspeaker operation, still more amplification is necessary, and this accounts for the audio-frequency stages in modern receivers, which strengthen the electrical impulses to such an extent that they can effectively operate a loudspeaker.

The conversion of electrical energy to sound is accomplished primarily by means of one or more electromagnets. An electromagnet is merely a coil of fine wire wound around a soft iron core, and electrical current passing through the coil magnetizes the core, the strength of the magnetism varying in unison with the strength of the electrical impulses passing through the coil. In the case of headphones an iron or steel diaphragm placed near the end of the core is pulled toward the latter when the electromagnet is energized, but returns to its normal position in the absence of the magnetic pull.

Now suppose that there are 256 separate electrical impulses per second traveling through the coil. The core is then magnetized 256 times per second and it attracts the diaphragm at the same rate.

A diaphragm moving forwards and backwards emits a distinct sound, which in this case happens to be the pitch of standard middle C on the piano. To understand that the diaphragm produces actual sound by such rapid move-

Fourth and Last
Article in A-B-C

ment it is only necessary to reflect that it works in exactly the same manner as a drum, which, upon being hit with a drum stick, moves backward and forward, producing sound. The sound waves are somewhat of a mystery but really rather simple. The movement of the drum head of the diaphragm sets the air in contact with it in movement at a corresponding rate. Each particle of air transmits its movement to the next particle and in this way the vibrations are sent out in all directions. But these vibrations do not really become sound until after they strike our eardrums, to which delicate nerves are connected and here is a transformation, which no one has ever explained, namely, how the mechanical vibrations of the eardrum change into nervous vibrations, which are sent to our brains and there leave an impression, which we call sound. Nevertheless, this is exactly what happens.

How Speaker Works

In getting back to loudspeakers, the basic principle on which the various types work is exactly the same, but the mechanical details of construction differ. A cone speaker is one that has its diaphragm connected to a large cone by means of a drive pin, so that the movement of the diaphragm is communicated directly to the cone, which being of much larger size than the diaphragm, sets a larger column of air in motion. As the cone type of speaker has replaced the horn type because of better tone quality, so the dynamic speaker has taken the place of the cone type. The reason is that the dynamic speaker gives better reproduction due to more equal amplification of low and high tones and less distortion than a cone speaker. Besides, a dynamic speaker is capable of delivering much more volume. It differs radically from the other types of speakers in that it has a small, light, movable coil attached to the apex of the cone directly

in front of the core on which an electro-magnet is wound. So there is no mechanical connection such as a drive pin. The small coil, or voice coil, is attracted or repelled by the electromagnet on the core, depending on the amount of current flowing through the voice coil, this current being supplied by the receiver through a choke coil or output transformer. The cone of a dynamic speaker is mounted so that there is maximum space for its movement, without the use of any springs or pins to retard it, which helps to make possible the undistorted low tones.

Purpose of Baffle

The front part of the speaker frame is fastened securely to a board which serves the purpose of a baffle, a circular hole being cut in the board to fit over the cone of the speaker. The reason for this is that rigidity is desired in order to prevent sound waves emitted from both sides of the cone from neutralizing each other and destroying the low frequencies. The baffle can be made of soft wood or soundproof insulating material to eliminate vibration as much as possible. Theoretically, a large baffle is better than a small one, although the latter should be solidly fastened to a frame or to the edge of a cabinet in which the speaker is housed.

Electrostatic speakers convert electricity directly into sound waves without the use of heavy electromagnets, movable drive pins and diaphragms. Essentially, such a speaker is nothing more than a condenser, two flat plates separated by a thin sheet of insulation. In the form in which it is being produced, it consists of an aluminum stamping with the edges turned back about three-quarter inch. The face of the plate is punched or perforated and over the face a sheet of insulation, only one five-hundredth of an inch in thickness, is placed. A thin metallic coating is sprayed over the surface, or a sheet of foil glued on it. A single plate can be used as a complete speaker or any number of plates may be bolted together through holes drilled in the flanges. In operation, one side of the radio-receiver output goes to the metallic plate and the other

to the metal or foil coating, which forms the diaphragm. In addition, a positive bias of 450 volts d. c. must be applied to the aluminum plate.

* * *

Thus ends our story in a-b-c language of the theory of radio.



The Town Clown

Dave Elman revises the character of "The Town Clown" on the programs heard every Wednesday over the CBS from 10:30 to 10:45 p.m. EDST. Elman, who is writing the script for this program, created a following several years ago in the same role.

GREAT RECORD Arouses SKEPTICS

But Ollie Ross
Has Verifications

RADEX has no desire to try to decide the world's championship in DXing nor even to pass upon the merits of those seemingly eligible to the title. If, however, anyone desires to enter the lists, he will have to bring in about every station in the world in order to challenge Ollie Ross, of Vallejo, California. For the grand total of the California expert now amounts to 1309 stations, all in the broadcast band. His verifications are so voluminous and convincing to those who have examined them that they do not hesitate to grant his claims to this astounding total.

Now and then there enters every art and sport some person who takes to it so naturally as to achieve unquestioned leadership. Lindbergh flies as naturally as other people walk. Golf to Bobby Jones is simply second nature. Johnny Weismuller literally swims like a fish. Here in Cleveland we have a young girl, Stella Walsh, who runs so easily and naturally that she is now the fastest girl in the world. But none of these champions rose to the heights without the most infinite preparation and painstaking practice. When Queen Victoria spoke to Paderewski of his genius, he is said to have replied, "Ah madame, it is but drudgery."

There is but little doubt that most of us could become great athletes but the desire to do so is not great enough to lead us to undertake the vigorous and consistent drudgery to that end. Only the one in a million has this desire in such proportions as to sacrifice all other interests to his ambition. And it is this one, naturally, who succeeds. So it is in DXing. The one who succeeds is not the one who works at it now and then. He works at it all the time. He takes pains with the most minute detail. He *knows* that every tube is right, that every joint is perfectly soldered. He tries every possible combination of ground and aerial. He is literally "toiling upward in the night."

From the *Los Angeles Examiner* we quote the following by Thomas Nunan, Radio Editor:

"Ollie Ross, of 337 Virginia Street, Vallejo, may be accepted as the DX champion of the world. Some months ago I told about his remarkable record, after examining his hundreds of verification reports.

"Last week Ross wrote a letter in answer to a question raised by one of the readers of this paper, and incidentally he mentioned that the number of stations tuned in by him had reached 1,309.

"That's coming rather close to the total number of stations in the world.

"The Vallejo champion, in the communication published Thursday morning, mentioned JOKK, a new Japanese station on 427 meters, as coming in well, and he suggested as a severe test that the fans try for ON4ED, Antwerp, Belgium. He said he was sure some of the local DXers could tune in on it. The station is on 206 meters and the announcer speaks English.

* * *

"While writing the foregoing paragraphs, I received a letter from W. H. Daniels, Box 170, Chowchilla, California. Mr. Daniels is skeptical, and no one need wonder at that, about the accuracy of the Ross log. He writes:

Our DX friend at Vallejo reports a log of 1,300 stations. I have just received an up-to-date, revised list of all the stations in the world and there are only 1,213 of them. Where did he get the other 87 stations

If he counted the short wave stations, then there are just about 1,300, so he has evidently had every station on this old world of ours. I would like to find out he gets a 5-watt station in Vermont.

"The Ollie Ross record, Brother Daniels, is 1,309 stations, and Ross tells me that no short-wave broadcasters are included in his list. At first I, too, felt some skepticism about the Vallejo log, as I could not find enough stations to accord with it, but the great mass of verification reports convinced me. There seems to be a good many stations not



listed in the American log-books; but how the Vallejo DXer discovers them remains a mystery.

"Mr. Ross has just forwarded to me another large consignment of astonishing, even bewildering, verification reports. They are in all sorts of foreign languages, though most of the writers of them use some English. One communication is typed on a letter-sheet headed "Trondelag Krinkaster" with the date-line "Nidaros, 23 Oktober, 1930." And here's the main part of the letter:

Ollie Ross, Mr. or Miss, I don't know:

I've got your letter and thank you very much. To get a message from far away in California to a relaystation in Norway is quite curious and I'm cautious to know the situation of your receiver when you heard us.

Any photo from our studio I gladly should have sent you if I had one, but no photo is by hand so you must take only this illustration.

"The 'illustrasjon' was a rather clever caricature of singer and pianist before the microphone, as sketched on the letter by the station program manager—or "programsekretaer," to be exact.

"According to the letter, the station, with no call letters mentioned, broadcasts on 662 kilocycles, 453.1 meters, with power of 1350 watts."

RADEX is in receipt of an interesting letter from Mr. Ross from which we quote:

"Several months ago there appeared in RADEX an article concerning the number of stations that I had logged and also a short description of the ground I used. I have received hundreds of letters from readers of RADEX asking many questions about the ground and aerial. I have experimented with ground and aerials for four years, not only in California, but throughout thirty-six states of the Union.

"Now, after my four years of work with grounds and aerials, I find that regardless of what make set is used, in order to obtain the best possible results, it is absolutely necessary to have a good ground and aerial. I have used various aerial systems both in the air and in the earth but so far have received my best results with an overhead aerial for distance although for reception within a radius of 2000 miles, the underground aerial is excellent.

(Continued on page 23)

RADIO IN PUZZLE FORM

WE received so many correct solutions for the April puzzles that we lost all count of them. And did our readers "rub it in?" "Duck soup," Joseph Stokes, 7318 Woodlawn Ave., Pittsburgh, Pa., calls them. "I solved them in about twenty minutes after a couple of preliminary glances," he says. And Marie Carson, 1622 Second St., Lewistown, Idaho, calls them "walk-aways" but concedes that "even so, they are enjoyable." "Why not take any puzzle that comes along?" asks M. R. Witinok, R. F. D. 4, Rockville, Conn. "The harder you strive to get a tougher puzzle, the easier it is to solve." And "please make them harder," appeals Greer McCrory, 606 S. 2nd St. W., Cedar Rapids, Iowa.

All right, all right, Miss Marie Carson and Messrs. Stokes, Witinok and McCrory. But where are your solutions for the May puzzles? At the time we are writing this, you are all among the missing. Is the shoe on the other foot?

So far we have received just enough correct solutions for the May problems to convince us they can be solved. But several hundred puzzlers must still be hunting for the correct answers. Well, here they are:

No. 1: W was K; T was F; F was I; Y was O; X was W; K was C; M was Y; B was M; O was B; C was X; I was E; E was T.

No. 2: The calls were CMKC-CKMC; WMC-CMW; KEX-XEK.

No. 3: The two sets of calls were KWKC-WSMK-KMOX and KWKC-WHOM-KOAC.

Puzzle No. 1

Fill in the missing letters for the eight calls in such a way that the name of a state will be spelled vertically in one column and the name of its principal city in another.

<input type="checkbox"/>	<input type="checkbox"/>	A	<input type="checkbox"/>
W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	A
<input type="checkbox"/>	T	<input type="checkbox"/>	<input type="checkbox"/>
W	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	S	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	L
<input type="checkbox"/>	O	<input type="checkbox"/>	<input type="checkbox"/>

These Should Hold You

Some readers tried to work JOAK in on us in No. 3. Only North American calls are used in any of our puzzles unless foreign calls are specifically called for. All calls will be found in the three indexes of the previous issue of RADEX.


Puzzlers will have until August 20th to submit solutions for the problems in this issue hence we will try to supply enough to last for three months.

WUYM UBYBGHMB
 CKQB UHMYBKQJB
 CQGB UBZHVIYQM
 CQBF ZVHMZQM
 CYUG ZQJHQQ
 KMVJ JQMGQM
 KMFV ZQVQMZQ

Puzzle No. 2: This is another problem in code. Here are calls for seven stations together with the cities in which they are located. Every letter given stands for some other letter. What are the seven cities and the seven stations?

KWWG

WG 


 CK WX
 WXYZ

Puzzle No. 3: This was submitted by T. J. Johnson, 523 W. Russell Ave., Seminole, Okla. He calls it "A Trip By Air From Brownsville to Detroit." It is composed of thirteen four-letter calls. The last two letters of one call are the first two letters of the next. What are the thirteen calls?

Puzzle No. 4: This was produced by Viggo K. Jensen, Geneva Country Club, Geneva, N. Y. It is based on the knight's move in chess. For the uninitiated, the knight may move one square horizontally or vertically and one diagonally. The

Milton Watson and Helen Gilligan, who have appeared in many musical comedy hits have been teamed together to revive bits from musical comedy productions of yesteryear in the new "Star Reveries" which had its premiere over the CBS network, Sunday, May 3rd. It will appear each week at 10:45 p.m. Sundays, EDST.



W	C	W	C	W
W	K	J	K	C
W	K	K	B	K
W	L	K	N	W
W	W	K	C	W

problem is to so place your knight that in making his jumps he will spell out the call letters for seven stations which Mr. Jensen describes as follows:

1—Last two letters stand for city.

2—1000-watt CBS in the South.

3—5000-watt University.

4—Four stations in same city on this wave.

5—5000-watt CBS.

6—In Missouri.

7—On 1210 keys.

In Mr. Jensen's solution the knight never rests on the same letter twice; that is any one letter may be used but once. He says, "This puzzle is easily solved if the system is discovered but I have used all the K's, W's and C's I possibly could so as to make it hard to find the starting point."

You will want one of the September issues of RADEX so get the answers to these four puzzles to us by August 20th sure.

Monthly FORUM of RADEX Readers

IN the monthly interchange of information and opinion which takes place among our readers there is much of interest to us all. Many are the valuable hints on betterment of reception that are passed back and forth. Here is a little one to give quick access to the vital part of RADEX:

"In using RADEX I clip the upper right-hand corner off of cover and pages up to and including page 36 and by using my thumb, I open up on Index by Frequencies. I consider this an additional aid," advises Louis J. McVey, R. 10, Box 144B, Sparrows Point, Md.

And here is one on an aerial device:

"I have tuned in KFI, Los Angeles, Calif., 56 nights out of 74, only missing 18 nights and this station is 2000 miles away," says Herman Eichorn, 215 S. 4th, St., DeKalb, Ill., and adds, "I use a double coil induction aerial with about 300 feet of wire and use 14 separate grounds on which I have about 600 feet of wire. I can tune in stations all over the United States and Canada, except Pacific coast stations, and bring them in like the Chicago locals. I believe I have one of the finest aerial and ground systems. Most radio owners will not get results until they make a study of the aerial and ground system and this is more important than the radio."

A Coincidence

"The following is a coincidence for which Mr. O. R. Queen, of Phoenix, Ariz., may thank RADEX," remarks M. R. Ayers, 460 E. 40th St., N., Portland, Ore. "When I wrote station JOCK in Japan for verification on March 7th, Mr. Queen also wrote same station. I received my verification one day and on the following received the same verification addressed to Mr. O. R. Queen, but to my address. I, of course, had no way to tell in what part of the U. S. Mr. Queen lived, but as I sat reading the April issue of RADEX, whose name should I run across but Mr. Queen's, giving his experiences with the Japanese stations. I immediately enclosed his verification in a properly addressed

Helpful Hints and Caustic Criticism

envelope and sent it on to him. Some coincidence!"

"I wish to tell you," says Hodge Laughlin, 211 Walnut St., Barnesville, Ohio, "that on Saturday, April 4th, at 5:45 p.m. E.S.T., I received the unlicensed WGM in Jeannette, Pa., on 840 keys. The signals were very plain. I hope this information will help to solve the problem concerning WGM and WOOP."

And J. C. Garber, 812 Ross Ave., Wilkinsburg, Pa., reports that WGM, Jeannette, Pa., is broadcasting regular programs daily on 840 keys.

In this issue our readers will find an article on WGM and other unlicensed stations.

Answers to Inquiries

"As a 'radio nut' of the old school (when one had to bribe a dealer in order to purchase a tube which had just come on the market) I would like to answer the SOS of Donald Sleeper, of Worcester, who asks in the April RADEX for information on the neutralizing of a Bremer-Tully Counterphase Six," advises Earl C. Hitchcock, Hotel Plaza, Glens Falls, N. Y. "This is the orthodox method and one which I have always found to work: Place a piece of paper under one of the filament prongs of the first r. f. tube so that it is in operating position but not lighted. If a strong station has been tuned in and the volume control well advanced signals will still be heard with the tube unlighted. Turn the screw on the top of the micro-mike condenser until this signal disappears. Repeat this operation with the second and third tube and the job is done. If the set is built on the conventional lines of the counterphase the micro-mike will be found directly in front of the tube to be neutralized. On the old type sixes this condenser is black and rectangular and the adjusting screw is in the center.

On the new type or 'power six' the condenser is a glass cylinder with a screw extending through the top and

which raises or lowers a brass cylinder inside the glass, varying the capacity. The so-called 'power six' has fixed resistance in the grid lead of each r. f. tube and with this set signals will be found remarkably constant over the entire broadcast band and if the three tubes have been neutralized as I have described, Mr. Sleeper should have no further trouble."

"I will inform Mr. Booneville," says Fred Rouse, 320 Delaware Ave., Albany, N. Y., "that I procured two Varituners, but cannot recommend them as they did not do what was advertised for them. But I have two friends who claim that they are great and would not be without them."

"I disagree with the person who stated that WJBT, Chicago, is on the air every day from 7 to 8 a.m.," comments Harry Durand, 216 No. Main St., Wheaton, Ill. "From what I have heard, WJBT has been completely deleted. It used to broadcast Evangelistic services conducted by Paul Rader, but due to lack of funds was discontinued."

"For the information of Mr. Harris Schiestel, station G5SW at Chelmsford, England, will verify reception upon receipt of correct log and one International reply coupon," writes James G. Miller, 313 Center Ave., Lake Bluff, Ill. "Letters requesting verification must be postmarked within 24 hours of reception of the program. Their address is British Broadcasting Corp., Savoy Hill, London, W. C. 2."

"In reply to question asked by one of your readers, Robert Buckley, of Kent, Ohio, I would like to say that the station is not CHIC, but CHRC, in Quebec City on 645 keys. and using 100 watts power," advises R. E. Moran, 540 Parkdale Ave., Ottawa, Ont. "I have picked up a new station lately, VE9LP, using 1210 keys. and situated at St. Huberts airport in Montreal. It is on the air most every afternoon and morning with reports on weather and visibility. I also heard a hockey game on Wednesday night."

"I notice in April RADEX that C. R. Simpson, Pomona, Calif., says he had received no verification from CJBC. As far as I know, he never will," remarks

G. A. Gamble, 186 Langley Ave., Toronto, Ont., "as I attend Jarvis Street Baptist Church and although we hold a 'phantom' license we have never used the call letters. We have always used CKGW."

"Please tell Mr. Orval Wyse, of Archbold, Ohio, that on January 22nd, my brother and I both heard what we identified as CMVO, Havana, on 1010 keys.," reports Hodge Laughlin, 211 Walnut St., Barnesville, Ohio.

They Want to Know

"On March 31st at 5:05 a.m. E.S.T. I listened to a program on 760 kcys. The signals were very faint and while the announcements were in perfect English, it was plain that the announcer was a foreigner, because of a certain peculiar enunciation. A mixed chorus sang 'Onward, Christian Soldiers' and 'In the Cross of Christ I Glory.' Something was said about missionary work in the James or Jays Range. Can any reader identify?" asks Robert R. Rawstron, 15 Edgewood St., Claremont, N. H.

(Continued on page 25)



Catherine Field, staff artist of the CBS, all dressed up for the role of "Gretel." Miss Field appears on programs frequently.

Is RADIO COMMISSION Impotent?

Violators Defy Its Orders

THERE are at the present time at least three stations regularly broadcasting in defiance of the authority of the Federal Radio Commission which seems to be powerless to enforce its own rules. Certainly with the broad powers granted to the Commission by the Radio Act, it ought to be possible for that body instantly to stop any station broadcasting without a license. But WGM, at Jeannette, Pa., has been on the air for years and has never had even a construction permit from the Commission.

In a recent issue of RADEX we gave notice of a station giving the call of KMRS or KMRP, at Gretna, Nebr., which was on the air regularly on 1490 keys. They announced themselves openly as owned and operated by the Sun Theatre of Gretna. A letter from the Commission brought the information that they knew nothing of such a station but "would look into it." It seems strange that with all the radio inspectors the Commission has, any station could do regular broadcasting without being noticed.

Now comes a third station with not only regular program but with the effrontery to put on special DX programs for listeners all over the United States, all without even the knowledge, let alone the sanction of the Federal Commission.

"About three weeks ago," writes Paul L. King, of Madison, Wisc., "I wrote you asking for the frequency and power of a station calling itself KTST or KTFT and giving its location as Seymour, Texas. I had picked it up on about 1210 keys, in the early morning hours when it was testing. You informed me that you knew of no new station in Texas and suggested that I had probably heard KTAT in Fort Worth.

"It happens that after I had picked it up for the first time, I told a friend in Brooklyn of my catch. He is a member of the Newark News Radio Club and so

he informed their program director. As a result, last Sunday a.m., I again picked up KTST (or KTFT) broadcasting a special DX program for the above club in which they stated again that they were a new station on the air and requested letters or telegrams."

Now comes a letter from the Radio Commission which says: "There is no station licensed to operate at Seymour, Texas, and this matter will be investigated." It would seem that someone is sound asleep or else that the Commission lacks either the authority or the backbone to proceed instantly and vigorously against outlaw stations. Surely it must realize that with every violation of its rules it is weakening its own power and standing.

RADEX wants to support the Commission in every possible way because it realizes that nothing could be more disastrous than a breaking down of the Commission's authority. For this reason we have removed from our index any station known to be operating without a license. But our readers are entitled to be able to identify stations they hear regularly and we will either have to include these stations again in our listings or publish an additional index solely for the use of outlaw stations.

No station can operate for even a single night without the knowledge of RADEX readers and within a few days RADEX knows of any new station appearing on the air. This information is available to the Commission and we and our readers will gladly cooperate in reporting these unlicensed stations. But if, as in the case of WGM, such stations are still operating one and two years after we report them, such cooperation is so futile as to be a waste of time.

There are other violators of Commission rules besides broadcasters. Some time ago we published a letter from W. W. Winthrop, Jackson, Mich., regarding a station that was blanketing his dials. Mr. Winthrop now writes us: "Since writing you about the mysterious station I heard, I have discovered what

it is. It is a testing transmitter used by a radio factory about six miles from me. Recently its power has been increased and, as I write, it is blanketing the entire section of my dial from WHAS to WJR and interfering with reception generally. I understand these people had trouble with the Radio Commission about two years ago, but apparently they are coming back now to their old tricks. Certainly they should be barred from the air with their repeating phonograph and their playing of one piece over and over all day long."

John L. Vincent, 948 Russell Street, Jackson, Mich., also writes: "I have listened to this station from 9 a.m. to 5 p.m. and then it just leaves the air without announcement. It comes on 800 keys, where WBAP and WFAA should come in. I get them every day for about a month but they never announce."

Aside from the Commission permitting such rank violation of its rules, it seems strange that a responsible radio manufacturer would clutter the air and destroy the pleasure of the potential users of his own sets. Certainly such action would not lead us to buy one of their receivers.



The villainous "Yu 'an Hee See" of the Collier's Radio Hour broadcast each Sunday at 8:15 p.m. EDST. over NBC-WJZ chain.

Protests From Mexico

RECENT articles in this magazine about the chaotic conditions in Mexico and Cuba have made some of our friends in those countries wrathful. While we think RADEX has been entirely fair in its criticisms even recommending an international agreement which would necessarily concede badly needed channels to the exclusive use of our southern neighbors, yet we feel that in fairness broadcasters in Mexico should be given the opportunity to present their side of the case.

From Difusora Portena, Radio Station XES, Tampico, Mexico, come the following letter:

"We have read with interest the article on P. 12 and 13 of the April number, with regard to the Mexican situation.

"We cannot be blamed for Americans in the U. S. who want to broadcast, coming down here and getting on the air, but we doubt that their efforts will meet with success, and sincerely believe that your readers needn't be worried.

"Tell the young fellow who wrote the third paragraph of the article to keep his pants on. He mentions interference by Mexican stations on the wave lengths being used by U. S. and Canadian stations. What does he say about the interference in the U. S. itself?

"I maintain that these stations in Mexico have just as much right to be on the air and to furnish programs that can be heard all over Mexico, as stations in the U. S. and Canada have to furnish music and entertainment to their peoples. Where do you people get that stuff of implying that God made the air only for the Americans and Canadians? You ought to get a baby rattle for the fellow who made that break.

"It seems that the cause for the interference lies in the fact that six or eight cleared channels were left for Canadian stations at the last Conference, and Mexico was not even asked to send a representative! Mexican stations cannot be blamed for the interference, surely.

"As to the wave lengths used by stations down here, the situation is improving constantly. Where we find

that a station is interfering with a U. S. station, a new frequency is sought immediately. This policy means many times quite large expenditures for the station owners, and to date only a few of our stations are commercially successful, so we see that in order to not interfere with the U. S. stations, it is just a matter of money out of pocket for the station owner. It seems that this attitude should be sincerely appreciated by U. S. station owners, and by listeners also. Instead of being criticized.

"With the further idea of improving the situation, the Mexican Government is doing its part. Stations are now required to go under crystal control. Several already have, and by fall every one will be on a standard, dependable frequency. This expense is also being borne by the station owners, and no help is asked from anybody.

"If you will publish this letter among your others that come from readers, perhaps it will help to explain the situation.

XES's time on the air is as follows:

Week days: 9:00-10:30 a.m. 12:30:1:30 p.m. 7-11 p.m.

Sundays: 12:00-2:00 p.m.

"Your publication is very helpful and interesting, and finds a large acceptance among radio fans in Mexico."

And from the Radio Engineering Laboratory of Fort Worth, Texas, who write that they constructed stations XES and XED as well as WBBM, WBAP, WREC and KFFJZ, comes this letter:

"We have been buying your Radio Index regularly ever since you have been publishing it. We buy this book because it is accurate or as near as possible in its listing of stations, but in looking through the last issue we have taken an exception to one of your articles, and that is the one concerning the Mexican stations.

"Station XED, located at Reynosa, happens to be one of the stations that we have constructed. We are not amateurs in the game of radio, since we now have under construction our ninth complete transmitter. You have XED listed at 970 kilocycles, which is incorrect. This station is operating on 960 kilocycles and its variation is not more than 500 cycles, they are making preparations to

change their frequency from 960 to 965 kilocycles.

"Of all of the unfair things that have ever been forced on to neighbors, Mexico has been the goat. Mexico is just as close to the United States as Canada is, an imaginary line separates the two countries in both cases; there is not a single clear channel set aside for Mexico, not one. The United States, of which I am a citizen, has hogged the air and leaves only a very few for Canada, but no consideration has been given Mexico.

"We believe in being fair, and we are fair to all those we deal with. Mexico should be given a half dozen clear channels, at least, if it is allowed. Radio will be the means of preventing misunderstandings, and eventually wars, since if one listens nightly to one's neighbor's music, and listen to lectures in which they express their desire to be friendly to their Northern neighbors, it will be mighty hard to go and take your gun, and start shooting. They have no desire to create trouble, they are peace-loving people, they have had enough wars among themselves, and they are tired; their Government is now well established, they are buying our products, and they are offering nothing in competition to what we have that can hurt our business. Good, clean competition is the life of any business.

"Instead of writing a story in your Radio Index about the Mexican radio situation growing worse, and how their stations are all hay-wire, and that you find them on a different frequency every other night, why not investigate and find out what the real conditions are, and then "intelligently" write a story on the Mexican situation?

"P.S. It might be of interest to you to know that we have the contract for the construction of a 50,000-watt station for Dr. J. R. Brinkley, of Milford, Kans., which will be located immediately across the border, and will be operated in competition, in other words, in the same channel with a powerful American station."

It seems to us that this postscript destroys the whole argument of our correspondent. He seeks to prove in his

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HELPING Readers HELP Themselves

I have a Sparton No. 931 and find the reception good with only a few exceptions. When W KRC, a local station is on the air, the other announcers "gargle," that is those below 600 kilocycles. After they sign off reproduction becomes clear. Reproduction is always good above 1,400 kilocycles. My antenna is approximately 35 feet long about 5 feet above a tin roof and the lead-in is about 25 feet long. What is your opinion of this arrangement I have logged about 225 stations this past winter. Am also having trouble with stations spreading over too much of the dial. I have paid well for service men to remedy this condition but so far to no effect. WLW, a local, spreads over about 70 kilocycles, and WENR, Chicago, over about 50. The community in which I live is residential. A street railway runs past about 500 feet; there are no high-tension power lines but only ordinary service lines in front of the house. The stations that I can log during the day are very few and the noise that accompanies reception is almost unbearable. At night, with all kinds of electrical appliances and signs in operation, the noise seems to abate. I cannot help but feel that the antenna is too short and the metal roof affects reception.

For the results that you have been getting it seems that your antenna is sufficiently long. There is, however, a condenser action between the antenna and the metal roof which makes the antenna act as it would if erected only five feet above the ground, that is if the metal roof is grounded, which it undoubtedly is through the gutters and conductor pipe. It might be a good idea in your case to erect another aerial on the side of or behind the house, as high as possible from the ground. In our May, 1930, issue, No. 39, we published an article on Balancing Tuned Radio Frequency Receivers and in this article you will find complete instructions how to adjust the trimmer condensers, which may be necessary in your particular case. Another suggestion is to have an extra antenna about 10 or 15 feet long, which should help to sharpen the set on locals,

Technical Editor Lends a Hand

and if this does not help a wave trap may be the remedy.

Noisy Ground

On my nine-tube superheterodyne, a Radiola No. 80, I am using a pipe driven into the earth about three feet as a ground. When I turn the set on there is a rumbling noise and by disconnecting the ground the noise disappears entirely. Could you tell me how I may eliminate this noise and what would you advise me as to the best type of ground that I could use?

In your case the interference originates from an outside source, as it can be eliminated by disconnecting the ground. If the noise continues, its source would be in the set itself. It is, of course, possible that there is a loose connection in the aerial and ground system which accounts for this trouble, but most likely the cause lies in some electrically-operated device in the neighborhood, especially if the noise has a certain regularity. If you cannot determine just where the trouble arises after carefully checking over the condition of the aerial and ground, install an underground an-



Here is the miniature railroad you hear on the "Empire Builders" program. Said to be the most costly piece of sound equipment used.

tenna, which, according to claims made, will greatly reduce or entirely eliminate the interference. It seems that for the average condition of soil, your ground is as good as any. But in case the soil is exceptionally dry, bury a copper plate, to which the ground lead is soldered, in a hole about three feet deep, depositing a quantity of rock salt both below and above the plate. The salt attracts moisture and provides a moist ground, which enables you to get the best results in reception.

Oscillator Broad

I have learned how to neutralize my set from your March issue, with good results. I made an oscillator but can hear the noise all over the dials. The coil is three inches in diameter and has 60 turns of No. 26 wire wound over it. The condenser has 12 plates and is marked 500 mmfd. Can you kindly tell me how to eliminate the oscillator from buzzing all over the dial My set is a Green Diamond.

The reason you hear your buzzer all over the dial is because it is located too close to the receiver. The further it is placed away from the receiver, within reasonable limits, of course, the sharper the signals will be. This is just like a broadcasting station in the immediate vicinity, which spreads over the dial, but the same station located 50 or 100 miles away will not usually cause such trouble. The oscillator, which has very little power compared to that of a broadcasting station, would not have to be separated so far. If you can put this in your attic or even in the garage a hundred feet distant, better results will be obtained.

This Set Howls

When we turn up the volume of our set it invariably starts to howl which becomes louder and louder and does not cease until the set is turned off and started over again with the volume control turned down. Will you kindly tell what the trouble is and how it can be remedied?

You are undoubtedly annoyed by a microphonic tube, which can usually be traced to mechanical vibration transmitted to it, most likely the detector. There are several methods of eliminating such trouble. Sometimes an effective remedy is to set the entire radio set on

sponge-rubber feet. Changing the tubes for others of the same type until the defective one has been found has also been found helpful. Of course, it is best to cut off the source of trouble, but this cannot always be done. It has sometimes been found that a loudspeaker incorporated with the set will cause the vibration and in this case the remedy is to mount the speaker in a semi-rigid manner to absorb the vibration. This can be done by suspending it by means of rubber strips. If you are in doubt as to which tube in your set is microphonic, put the set in operation and grasp each tube firmly, holding it for just a moment; if the howl ceases while you are holding one of the tubes, the offending one has been located. Dry-cell operated receivers are especially apt to be microphonic.

No Signal Strength

Our superheterodyne, which uses a loop, seems to have very little pick-up energy. The tubes all light up although they are about a year old. It is time to renew them and what other method can be employed to give the set more energy as we were not satisfied in this respect from the time we first got the set?

The condition of the tubes in your receiver depends entirely on the length of time that they have been in actual operation, although it is also possible that one or more of them could have become defective before its rated length of service expired. Take the tubes to a radio shop and have them tested. A competent and reliable dealer will tell you how many should be renewed if any of them do not show a normal reading under test. Many users of loop-operated receivers take the aerial lead-in and wrap it around the loop a few times in the same direction that the loop wire is wound, and then connect the open end of the lead-in to the ground. In this way there is a energy transfer from the lead-in to the loop by means of induction which greatly increases the range of a receiver but sometimes spoils its selectivity.

Speaker Rattles

I have an excellent cone speaker which has always given satisfactory results, but recently a serious rattle takes place during

reception that is aggravated by turning up the volume control. Will you kindly inform me as to the cause and cure of this condition?

Cone speakers occasionally develop the trouble you are experiencing in yours. Usually the source of the trouble lies in changes in humidity, which cause the cone to contract or expand and thus produce a pull or a pressure on the drive pin. This condition can easily be remedied by merely loosening the setscrew that holds the apex of the cone on the drive pin and then tightening it again, which allows the cone to assume its normal position and relieves the drive pin from strain. Loose connections of the drive pin may also be responsible or foreign particles may have gotten between the cone and the frame to which it is attached.

Transformer Terminals

After removing the audio-frequency transformers from my receiver in an effort to substitute others which I think are of better quality, I find that the new transformers are not marked. Knowing that a wrong hookup is apt to cause very poor reception, I am writing to find out by what means the right terminals can be located.

Practically the only method of determining the correct ends of the transformers is to remove the shell and examine the winding. Of the four ends of the winding, the two that are the furthest away from the core belong to the secondary winding and the other two belong to the primary. The outermost tap should be connected to the grid of the tube following the transformer, while the second outside lead is connected to the biasing resistor, or in case your set is battery-operated, to the A-negative line. The closest tap to the core is connected to the B-positive line and the remaining one to the plate of the tube preceding the transformer. Mark the leads carefully, then replace the shell, marking the terminals to correspond with the leads attached to them, taking care not to ground any of them on the shell as this would make the transformer inoperative in most cases. The rest of the wiring is a simple matter and you should be sure to solder the leads well.

Noise From Wind

During windy weather, even when there is no storm that might be the cause of static crashes, our receiver splutters quite frequently. Our set is an all-electric one and has given entire satisfaction this winter until the recent trouble commenced. We use an outside antenna and both antenna and ground connections are in good order. Can you indicate where the trouble lies?

The fact that the trouble only occurs during windy weather seems to show quite plainly that some grounded object



Sherlock Holmes, himself, in the person of Richard Gordon. Every Monday at 10:00 p.m. over NBC-WEAF network.

is coming in contact with the aerial at intermittent intervals. This is probably a tree branch which normally clears the aerial but brushes against it when moved by the wind. Another cause might be that the aerial or the lead-in wire sways against the edge of a building, while a third cause might be a loose connection between the lead-in and the aerial. Be sure that this made mechanically secure by soldering.

A. C. Sets on D. C.

Recently we have moved to a small town where direct current is employed. Not
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Radio Frequencies OVER Ocean Waves

MANY of us have a good time playing golf even if we do have a hard time breaking a hundred, but nevertheless we like to read about the matches between the fellows who go around in the seventies. So it is in radio. Only a few of us can brag about our foreign reception but just the same we like to read about the fellows who can.

"Have a heart and devote less space to trans-Pacific stations next month. To me it seems just like holding a piece of candy in front of a person having their hands tied. I wonder if anybody in this locality has ever heard Australia." Paul J. Keck, 1013 Maple St., Allentown, Pa., thus objects to so much and at the same time asks for more. So here we are off on another jaunt with our over-the-ocean flyers.

"I now have a model 93 Majestic a year old," says M. R. Ayers, 460 E. 40th St., N., Portland, Ore., "on which I have received 172 stations. These were all logged in the evening between the hours of 9 to 12 p.m. P.S.T., excepting for two mornings that I stayed up for the Japanese stations, of which I have verifications from six: JOAK, JOIK, JOCK, JOBK, JOFK and JOHK. Several of our readers have asked how to receive verifications from foreign stations where no English announcements are made. If you do not understand the language spoken, take the program down by sequence. For instance, on the Japanese stations the following is an example: 3:28 a.m., vocal selection, male voice; 3:34 a.m., announcement or speech; 3:45 a.m., instrumental selection, etc.' These stations keep a log and verification is made possible in this way. However, the Japanese and Mexican stations do announce occasionally in English."

"Anyone knows that the distance from the Pacific coast to Japan is a good 1000 miles farther than England is from the Atlantic coast, yet I never see any letters from one receiving at least one station in Europe, while on the Pacific coast they receive five or six in Asia. It looks to me as though the reception

Tuning in the Trans-Pacific

on the west coast is much greater than on the Atlantic. Perhaps some one can enlighten me on this subject." Douglas Robinson, 63 Hollywood Ave., Albany, N. Y.

"By the way, Japs do *not* come from the west, nor does Europe come in from the east," advises Don R. Catlin, Woodbridge, Calif. "Radio waves travel the shortest distance, and from Woodbridge, at any rate (60 miles from San Francisco) Japs and Europe come over the North Pole. Paris is only 5,000 miles distant, airline, via North Pole and way stations."

"After my letter to you appeared in RADEX I have received numerous requests which boil down to this: 'If you don't speak foreign languages, how do you get verifications?' Here's a simple solution: Note your standard time to the second, if possible. Jot down everything you hear. For instance, '9:32½ P.S.T., woman's voice, singing, accompanied by piano, flute, stringed instrument, or what have you; 9:36, man, high (or low) pitched voice, song, with orchestra, etc.' The Jap stations particularly are extremely courteous," reports Don R. Catlin, Woodbridge, Calif.

"Regarding the Japs," says Charles Royal, R. 1, Box 438, Seattle, Wash., "they do broadcast their call letters in English. The best time to hear the call letters is at 1:00 a.m. P.S.T."

"Thought this information might be of use to RADEX readers," suggests Joe Stokes, 7318 Woodlawn Ave., Swissvale, Pa. "New Japs—JOKK, Okayama, 500 watts, 700 keys.; JOLK, Fukuoha, 500 watts, 680 keys.; JOPK, Shizuoka, 500 watts, 780 keys.; JONK, Nagano, 500 watts, 635 keys.; JOOK, Kyoto, 300 watts, 625 keys. JODK, Keijo (Seoul), is now on 690 keys.; HIX, Santo Domingo, on 630 or 635 keys.; TIC, San Jose, now on 882 keys.; HJN, Bogota, S. A., now on 960 keys.; 8RA, new

station in St. Johns, Newfoundland, on 550 kcys., 25 watts."

"In your March number I read about some of your readers asking about the Japanese stations and the time they are on the air," comments P. Hough, 3425 Manor Road, New Westminster, B. C. "I have received seven of the big stations in Japan and so far have four verifications, the other three have not come in yet. I have tuned them in dozens of times and they do broadcast a chain program at times. English speaking over Japanese stations is at 6:30 p.m. to 7:00 P.M. J.S.T., that is around 1:30 a.m. to 2:00 a.m. P.S.T."

Gets the Announcements

"I have heard six of the big seven Japanese stations announce the call letters of their stations, all between 5:30 and 6:00 a.m. M.S.T. JOHK, JOFK, JOCK and JOBK announced at 5:50 a.m. JOIK and JOAK announced at 5:55 a.m. I have heard JOIK announce several times at exactly 5:55, so they must have a regular time to announce. They all evidently signed off at those times too as I could hear them no more. They announced the call letters only in English. I have heard 2YA, Wellington, New Zealand, sign off several times between 4:00 and 4:15 a.m. They always play 'God Save the King' just before leaving the air." O. R. Queen, 1534 W. Taylor St., Phoenix, Ariz.

"Have heard Japanese stations on 810, 830, 770, 850, 790 and 750 kcys. I have heard as high as five at the same time between 3 a.m. and 5 a.m. M.S.T., which sounded as if they were broadcasting a chain program. I have listened patiently to these stations for hours, without hearing one single word of English. The program consisted of long speeches and monotonous music and singing which sounded something like the Crow Indians giving a big pow-wow," complains Orin M. Stuart, Laurel, Mont.

"I have a verification from JOAK in front of me dated 'Tokyo, March 10, 1931,' and they are apparently broadcasting on 590 kcys., with 10 kilowatts power," advises Stanley Savage, Route 4, Spokane, Wash. "Besides the big 7 in

Japan I also have received an Oriental station on 710 kcys. I sure wish someone could tell who they are. Possibly COMK, Nukden, China? But has anyone ever received a verification from COMK, or has anyone ever heard an announcement they could understand?"

"Now some data on the Japanese stations," informs Leon V. Garland, Box 93, El Segundo, Calif. "The Japanese do announce in English, but not more than twice in a program. The programs are all in Japanese and usually are in this order—first a complete lineup of the program (there is no advertising), then news items, which are followed by a program for the children, then comes music and plays and talks, and last time signal and weather reports."

"On March 31st I tuned in JOIK, Japan," says Miss Marie Carson, 1622 2nd St., Lewiston, Idaho. They gave the call letters in English at 5 a.m. P.S.T. I live 400 miles from the Pacific Ocean. I have no special apparatus. The radio is a Temple non-screengrid Neutrodyne Plus (9 tubes). It may be others are making the same mistake I did, mistaking the Japanese station for a Mexican. The speech did sound a great deal like Spanish, but not quite so quickly spoken."

High Power in Manila

"From a Japanese correspondent, I have learned that KZRM, Manila, P. I., is now on the air with 50,000 watts at 485 meters, and JOAK is now also broadcasting on 508 meters, with 10,000 watts," writes Raymond Corbett, 619 12th St., Sacramento, Calif., and asks, "Could you give me any information about an Oriental station broadcasting on 660 kcys.? I held them between 4 and 5 a.m. P.S.T."

"I picked up 2YA at 4:05 to 4:15 a.m. E.S.T., and at 4:32 I heard JOFK, Japan. It was stormy out, with torrents of rain, yet there was no static, which is very rare so late in the year," states Roy Cattle, R.F.D. No. 2, Paterson, N. J. "Has it been done so late in this part of the country before?"

"I notice that most of the distance reception is done on the Pacific Coast," comments Samuel F. Owens, 233 Rob-

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TUNING Time for DX PROGRAMS

When Chances Are Best

HELPFUL hints on the best time to tune for certain stations, continue to come from our readers. These are proving most popular and each month, a list of DX targets will be found in these columns.

"I am in receipt of a letter from 10AY, Kelowna, B. C., in which they request you to print their schedule, which at present is: Every Thursday at 8:30 p.m. and every other Sunday at 12:30 a.m. P.S.T.," writes Robert R. Rawstron, 15 Edgewood St., Claremont, N. H. "In verifying my report 10AY says that my report is the most remote one yet verified. They use 50 watts on 250 meters. CHGS, also wishes you to print that following the May 3rd and June 7th 1-2 a.m. E.S.T. DX tests, the DX programs will be discontinued till October 6th."

"For DXers I have a suggestion," advises Herbert C. Bent, 19 Westminster Apts., Halifax, N. S. "Station VCX at the Halifax Lightship, just off Halifax Harbor, broadcast daily on 690 kcs. (or thereabouts) at 8 a.m. and 1:30 p.m. A.S.T. They only broadcast weather reports, aids to navigation, etc., for the benefit, largely, of fishermen. To those who hear the program, they will at least find something different in announcers and a new station."

"I have had many requests for schedule of WBIS," informs Robert R. Rawstron, 15 Edgewood St., Claremont, N. H. "I have answered all requests and I feel that many more will want the schedule. Here it is: WNAC, 6:30-7:45 a.m.; WBIS, 7:45-9:00 a.m.; WNAC, 9:00 a.m.-1:00 p.m.; WBIS, 1:00 p.m.-2:00 p.m.; WNAC, 2:00 p.m.-12 m."

"Tell your eastern readers," suggests Thomas C. Rogers, 2515 Jefferson St., Altoona, Pa. "to try for KHG on 590 kcs., some Monday morning about 1:30 or 2. They sure come in strong with very little volume."

"A verification from HJN, Bogota,

Colombia, S. A., states them to be on the air every evening, except Sundays and holidays, from 8 to 11 p.m., local time," writes C. R. Caraven, 1840 Georgia St. E., Vancouver, B. C.

"I have just received a verification from station KFVD, Culver City, Calif., and on the card they say they are on the air daily from 6:00 a.m. to Sunset, and 10 p.m. to 1 a.m. P.S.T." advises Miss Laura Harris, 1301 Bloor St., W., Toronto, Ont., "It's a 250-watt station and they are on 1000 kcs."

"I think that DX fans would be interested to know that regular programs are now broadcast from HJV, the Vatican station inaugurated about two months ago by Pope Pius in Italy," says Miss Laura Harris, 1301 Bloor St. W., Toronto, Ont. "Transmission is made daily, except Sundays and holidays. There are two periods a day, one in the morning, local time, and another in the afternoon. The following is the schedule in Eastern Standard Time: 5-5:30 a.m.; 2:30-3 p.m. The transmission at the earlier period will be on 19.84 meters and that during the later period on 50.26 meters."

"Just received a verification from KVOA, Tucson, Ariz., on 1260 kcs. They broadcast a DX program every second Sunday from 1 to 3 E.S.T. They will be very glad to hear from DXers and give a nice verification," reports Francis M. Martin, 1101 Adrian Ave., Jackson, Mich.

"Has anyone logged station WIBG, Elkins Park, Pa.?" asks Chas. Fowlie, 101 17th St., West New York, N. J., and adds, "Station KFVS, Cape Girardeau, Mo., broadcasts a program every Saturday night until last Sunday morning. Station WAWZ, supposed to be located in New York City, has not been broadcasting since you allocated it at 1350 kcs."

"KPSN, Pasadena, Calif., will not be on the air after Thursday, April 30th," reports Gilbert Van Vranken, Jr., 2230 N. El Molino St., Pasadena, Calif. "KGER, which has been sharing time

with KPSN, will be on the air full time after April 30th."

"I would be very thankful to you if you would care publishing in your well-known RADEX radio log that this station, CMBC, Cuba, which actually broadcasts with a frequency of 965 keys., will broadcast every Sunday morning, beginning at 4 o'clock E.S.T., DX programs," writes D. Fernandez, Owner.

"Anybody trying to get NAL, such as M. Tuchinsky, tell them to try at 8:45 a.m. C.S.T., which is 20:45 G.C.T. (Greenwich Central Time)." Ivan D. Ide, Box 312, Genoa, Ill.

"CFCH, North Bay, is on the air every day from noon till 12 p.m. E.S.T. on 1200 keys.," advises Lorne Chafsut, Kapuskasing, Ont.

THE following information regarding time on the air has been secured from the stations concerned, from newspaper clippings, and from our readers. The times shown can be quickly converted into your own time by use of the following table:

Your Zone	EST	Where Time is Given as CST	MST	PST	Watts
EST		Add 1 hr.	Add 2 hrs.	Add 3 hrs.	
CST	Subt. 1 hr.		Add 1 hr.	Add 2 hrs.	
MST	Subt. 2 hrs.	Subt. 1 hr.		Add 1 hr.	
PST	Subt. 3 hrs.	Subt. 2 hrs.	Subt. 1 hr.		

State	City	Call	Freq.	Watts
Arkansas	Fort Smith	KFPW	1340	50
	Sundays, 12 n.-7 p.m., CST.			
	Weekdays, 7 a.m.-7 p.m.			
	Little Rock	KGHI	1200	100
	Sunday, 11 a.m.-2 p.m.; 6:30 p.m.-9 p.m., CST.			
	Weekdays, 9:30 a.m.-11 a.m.; 12 n.-2 p.m.; 5:30-10 p.m.			
Colorado	Grand Junction	KFXJ	1310	100
	Sundays, 10-12 a.m., 7-9 p.m., MST.			
	Weekdays, 8 a.m.-2 p.m., 5-10 p.m.			
	Saturdays, 8 a.m.-2 p.m., 5-7 p.m., 10 p.m.-1 a.m.			
	Trinidad	KGIW	1420	100
	Sundays, 10 a.m.-10:30 a.m., 3:30 p.m.-5 p.m., 7:30-8:30 p.m., MST.			
	Weekdays, 7 a.m.-3 p.m., 5:30 p.m.-9 p.m.			
Georgia	Rome	WFDV	1370	100
	Sundays, 9:45 a.m.-12 n., 6-10 p.m., CST.			
	Weekdays, 9 a.m.-10:30 a.m., 1:45-1 p.m., 6-10 p.m.			
Iowa	Decorah	KGCA	1270	50
	Sundays, 10:45 a.m.-12:15 p.m., CST.			
	Weekdays, 9-9:45 a.m., 12:30-2 p.m.			
Louisiana	New Orleans	WJBW	1200	100
	Sundays, 8-10 a.m., 1-5 p.m., 9-12 p.m., CST.			
	Weekdays, 8-12 n., 4-8 p.m.			
Mississippi	Jackson	WJDX	1270	1000
	Sundays, 12:15-10:15 p.m., CST.			
	Mon.-Tues., 7-15 a.m.-2:30 p.m., 5:30-10:15 p.m.			
	Wed.-Thu.-Fri., 7:15 a.m.-3:30 p.m., 5:45-10:15 p.m.			
	Saturdays, 7:15 a.m.-10:30 p.m.			
	Vicksburg	WQBC	1360	300
	Daily, 8 a.m.-6 p.m., CST.			
Missouri	Grant City	KGIZ	1500	100
	Daily, 6 a.m.-12 m., CST.			
Montana	Missoula	KGVO	1420	100
	Daily, 10 a.m.-6 p.m., MST.			

New York	New York	WCDA	1350	250
	Sat.-Sun., 9-12 a.m., 9-12 p.m., DST.			
	Monday, 3-6 p.m.			
	Tuesday, 6-9 p.m.			
	Wednesday, 9-4 p.m.			
	Thursday, 5:30-8:30 p.m.			
	Friday, 12-3:30 p.m.			
North Dakota	Devils Lake	KDLR	1210	100
	Sundays, 11 a.m.-1 p.m., 3-8 p.m., CST.			
	Weekdays, 7 a.m.-2 p.m., 6-10 p.m.			
Oklahoma	Oklahoma City	KFXR	1310	100
	Daily, 7 a.m.-10 p.m., CST.			
	Shawnee	KGFF	1420	100
	Sundays, 1-9:30 p.m., CST.			
	Weekdays, 7:30 a.m.-9:30 p.m.			
Pennsylvania	Philadelphia	WELK	1370	100
	Daily, ex. Thu., 9:30 a.m.-10:30 p.m., DST.			
	Thursdays, 9:30 a.m.-12 m.			
Rhode Island	Newport	WMBA	1500	100
	Sundays, 1-7:30 p.m., DST.			
	Weekdays, 12-1 p.m., 4-5 p.m., 6-10 p.m.			
	Saturdays, 12-2 p.m.			
Tennessee	Bristol	WOPI	1500	100
	Daily, ex. Sat., 10:30 a.m.-2 p.m., 5-8:45 p.m., EST.			
	Saturdays, 10:30 a.m.-2 p.m., 5-11:30 p.m.			
	Memphis	WHBQ	1370	100
	Sundays, 1:30-5 p.m., CST.			
	Weekdays, 9-11 a.m., 12-1 p.m., 4-5 p.m., 7-9:30 p.m.			
Texas	Dallas	WRR	1280	500
	Sundays, 8 a.m.-11 p.m., CST.			
	Weekdays, 9:30 a.m.-1 p.m., 5-11 p.m.			

Over Ocean Waves

(Continued from page 17)

erts Ave., Glenside, Pa. "How about giving some of the Easterners a break? I'm giving you what I believe to be an authentic report on when some of the more powerful European stations are on the air—not that I've had any of them, but here they are: LKO from 5:00 a.m. to 5:00 p.m.; ITO from 3:15 a.m. to 6:00 p.m.; IRO from 3:15 a.m. to 6:00 p.m.; IMI from 3:15 a.m. to 6:00 p.m.; PFBI from 2:00 a.m. to 6:00 p.m.; 5GB from 5:15 a.m. to 7:00 p.m.; 2LO from 7:00 a.m. to 7:00 p.m., all E.S.T. Remember, I'm not guaranteeing the authenticity of this report, but I believe it to be correct."

"Why not list a few of the high-powered Australian and Japanese stations in the regular Index by Frequencies of RADEX?" suggests George Lilley, 227 W. Bernard St., West Chester, Pa.

Sorry, but the Index by Frequencies contains too many stations now. We fear it would complicate things were we to attempt to list stations outside of North America therein. Perhaps some day when more of us can turn our dial to Tokyo, we will find it advisable to incorporate Japan and Australia, but not yet.

LETTERS from Our MAIL BOX

WE are publishing below excerpts from letters from two radio stations to our DXers. From John M. Hilgers, President, WISJ DX Radio Club, Madison, Wis., comes the following with the statement that thirty verifications and 25 cents entitles anyone to membership in the club:

"Radio Station WISJ wishes to make a correction in the rating given it by figures in your Index By Frequencies and Dial Numbers columns. The figure, denoting "uninterested," is anything but expressive of the policies of the station management.

"It was not until January 1st that WISJ really systemized itself for its work. Since then the greatest attention has been given incoming DX mail. Now we have organized a DX club which, judging from the responses, will soon be among the greatest. We have been fairly swamped with mail, and for that reason our verifications are not mailed very promptly.

"I should appreciate it very much if you would certify us in said columns as 'DX enthusiasts' and as a regular station issuing stamps and verifications under the usual conditions. Also, would you publish this missive in your 'Letters From Readers' for we do come under that classification. There are many DXers who picked up the station last year who, I believe may not have received verifications. If published, this letter will assure them of our cooperation."

From Radio Station XES, the following change in policy:

"The expense attached to attending to listener-mail from the U. S. and Canada has for months been too much of an item, and we must place some sort of a restriction, in order to not be obliged to verify so many reports.

"We are only too glad to have reports from our listeners, and were it not for the expense, would like to answer each report personally. We acknowledge receipt of every report during the Victor Hour, Mondays, 10-11 C.S.T.

From Stations and Fans

"However, we cannot handle so many verifications, for our folder costs us, with mailing expense, etc., about 15 cents. For the future we will *verify* all reports carrying 25 cents, and will send a printed reply card to all carrying 10 cents. We would appreciate it very much if you could find a place to publish the above."

"Do you know that KMA, Shenandoah, Iowa, which is listed in all the logs I have seen as being allocated to 930 keys., is broadcasting on 710 keys.?" asks G. J. Smith, 2120½ West Broadway, Enid, Okla. "I heard them there for the first time this morning and got all worked up thinking I had WOR, Newark, daytime reception, until I heard the station announcement."

Station KMA, Shenandoah, Iowa, advises as follows: "We have your letter relative to the correct listing of our station. We wish to advise you that for the past two or three weeks we have been operating on a frequency of 710 keys. by authority of the Federal Radio Commission. However, due to the fact that the Commission gave us this wave without a hearing, and a protest was entered by WGN, Chicago, and due to that fact, we are going to Washington to have the hearing which will be held sometime about the middle of this month. Starting today, May 1st, we are on our old frequency of 930 keys. and will remain on that frequency until after the hearing in Washington, which will determine just where we will be on the dial permanently. So for the present, at least, you may consider listing us as 930 keys., as that is correct."

"I have just completed a most successful DX season and have a few real nice verifications, the best of which are from nine stations over 10,000 miles," writes Edmund Walbrecht, Box 124, Dover, N. J. "Verifications in this class are from 2BL, 2FC, 2GB, all of Sydney, Australia; 2YA, 1YA and 3YA, all of New

Zealand, and two of them being 500-watters; 3LO and 3AR, both of Melbourne, Australia, and 4QG, Brisbane. All of these are 100% specific and genuine and are open to any doubter's inspection. Most of these Aussies were received last October, which was by far the best month of the year for transpacific reception in this locality. But still I have no Europeans or Japs. I can't understand this, as Australia is a good deal farther away and the stations are lower-powered. Australian reception has been quite reliable this winter, and few weeks passed that I didn't at least hear 2BL. My total log is now 636, with about 300 verified. 69 of these verifications are from over 2000 miles, and include quite a few 50 and 100-watters on the Pacific Coast. I have every state in the Union and every province of Canada verified. Also have LR3 and LR4 of Argentina, but neither have verified yet, and KGMB, of Honolulu, who just sent me a very nice verification. Had him so loud on the morning of March 29th that he almost shook the windows. All of this has been done on a battery-operated Radiola No. 20, in one of the best locations existing for DX. I am situated on the top of Mine Hill, near Iron mines, and use a very long antenna, 325 feet, to be exact, and is 50 feet high on the average. I use a water pipe ground, which is best, in my opinion."

Heard First Broadcast

"My experience dates back to when Dr. Le DeForest was experimenting with the Radiophone from High Bridge, N. J., long before radio broadcasting was heard of, and I was listening on my wireless set one evening and heard 'The Star Spangled Banner' coming over the air. I called in my nearby neighbors, but as is often the case it was gone before they could hear it, and next day everyone I told about it said I was 'daffy,' but it was verified in the following day's *New York Times* and heard as far west as Chicago," writes I. H. Kattell, 79 Sherwood Ave., Binghamton, N. Y. "My best catch, in my estimation, was on February 18th this year, when at 4 a.m. I heard orchestra music coming through on 855 keys., but could not understand the announcement, except

that I thought I heard the word 'Sydney.' I waited for another announcement with the same result, then consulted my list of world stations in RADEX and found that 2BL, Sydney, was on this channel, shown as having 2500 watts power. I wrote them on February 19th, asking them if they were on the air at this time, which I figured would be about 7 p.m. the evening before, and if they played certain selections with orchestra, and April 21st I received verification card, dated 'Sydney, Australia, March 20th,' saying they were on with their National Broadcasting Orchestra and congratulated me on the reception and hoped to hear further from me."

Patient Tuning Rewarded

"I had a peculiar experience in DXing about a week ago," states Paul L. King, 1523 Madison St., Madison, Wis. "Up to that time I had never been able to pick up a transoceanic station, that is, farther away than Cuba or Porto Rico. On the morning of April 19th at 2:44, I caught 2YA, Wellington, N. Z., and heard their program quite clearly for 58 minutes, during which time I got plenty of material for verification. The very next morning I heard 2BL, Sydney Australia, for about 40 minutes, but due to heavy static and fading I failed to get enough material for verifying. After 2BL faded out, almost to the point of incredibility, I continued to fish and caught JOGK, Kumamoto, Japan. I heard an announcement and parts of two or three musical numbers by a Japanese orchestra. Due to the strangeness of the music and the fact that the announcement was in Japanese, I am unable to request a verification. Although I have heard neither JOGK nor 2BL since the 20th, yet I have heard 2YA every morning, but one, to date. Evidently the weather conditions must be ideal just now for long distance reception from the west. All of the west coast stations seem to be unusually loud the last three weeks or so."

"My biggest thrill came the other evening," states Charles Royal, R. 1, Box 438, Seattle, Wash., "when I heard an airplane talking to the ground station. I could even hear the motors. The

ground station is very clear, but they do not announce. I have heard him talking to someone on the Yukon River, but I could not hear them answer. The ground station said that he could hardly hear the answer himself. I have heard him talking to planes in California and one coming over the pass in the Cascades. The plane in the Cascades was giving the weather report up there and telling about his trip so far, which was very clear and cold. This was coming in on my set above 1500 kcys. about one-quarter inch. So far I have been unable to find out where this ground station is located. Have you any information on this?"

Cape Cod and Germany

"Here's my record, made 'way out on Cape Cod—far east for the United States," writes Theodore Vail Bullard, South Orleans, Mass. "312 stations, including Canada, Cuba and Mexico, with 14 on the west coast, one of only 250 watts—and one in Koenigsberg, Germany. The latter is worth writing about. I received the German signals at fair speaker volume on 1086 kcys. Held them for over an hour off and on, some fading. This was on an ordinary a. c. set (Amrad No. 81) with 125-foot conventional antenna, ground to a driven well 15 feet deep."

"I am writing you about three stations which I have failed to see where any of your readers or DXers mention in your magazine," remarks Wm. Bowers, 440 Vance St., Toledo, Ohio. "The first one is KPG, a 50-watt station in Wenatchee, Wash., on 1500 kcys. This station is seldom on with a DX program. The second one is a 100-watter in Seattle, Wash., KPCB. This one, however, is on the air every morning from 3 to 4 a.m. E.S.T., and comes in on 650 kcys. I noticed in your April issue there are several DXers who have ten or more stations on 1500 kcys., but KPG is not on their list. Here is the third and best one, I think, W9XV, on 1604 kcys., 2 watts power. This station is located at Carterville, Mo., and owned and operated by Lannie W. Stewart. It is on the air every morning from 5 to 6 a.m. E.S.T. He sends a very nice verification and

also his picture and is very prompt in replying."

"I have logged over 400 stations, including 37 signals over 2000 miles away and I do not try to get verifications from stations east of Denver. My best pickup has been KGFJ, Los Angeles, operating on 100 watts, and it has not been unusual to play 15 to 20 west coast stations during a single evening from the east coast. My best record has been to play KNX, Hollywood, four consecutive evenings before 8 o'clock E.S.T., which programs have been verified, and the receiver I used gave ten kilocycles separation with Baltimore or Hartford on one side or Hot Springs or Collas on the other. On the BCL band I have played one Japanese station and one from New Zealand, but have been unable to get KGU, Honolulu, because WFIW, at Hopkinsville, never seems to sign off before I am ready to sign off." James E. Perry, Masonic Temple, Salisbury, Md.

"In the four weeks since I got my radio I have received 150 stations from all over North America. I have verifications from KFRC, San Francisco, CMK, Havana, XED and XEW, in Reynosa and Mexico City, but perhaps my best catch is CKWX in Vancouver, a 100-watter. All these I have received on a ground attached to a .00025 mfd. fixed condenser and then to the aerial post. This, I find, cuts down the volume on locals greatly, but brings in the distance. It also seems to eliminate fading." Francis G. H. Rice, Huntsville, Ont.

New Stations From Kitchen

"Last night I had the most excellent results in DXing without the use of aerial or ground," reports R. E. Moran, 540 Parkdale Ave., Ottawa, Ont. "The room being quite cool where I usually have the radio, I thought I would move it to a warmer room, this being the kitchen. I connected the radio, A Fada 25, 8-tube, to the incoming circuit at exactly 8:30 p.m. and the first station I hit was KOA, Denver, and before going to bed at 12:30 a.m., I pulled in numerous stations from coast to coast and at least one station in 27 different states. Some of these stations I have never got with an aerial attachment.

"I have logged about 265 stations in two years of DXing. I just started to collect verifications this year and have 161 stations verified to date. My best verified catches are CKWX, WRBL (using only 25 watts at the time), KGAR, XEV (south of Mexico City with 100 watts), and KGIQ. The set I use is a Kennedy Model XV, 5-tube battery set. I was the lucky Illinoisan to get a prize from Station KGGM for being the first person from this state to report reception of their station." Robert Thornton, 1450 W. 81st St., Chicago, Ill.

"The Mexican stations," comments A. H. B. Jordan, Everett Pulp and Paper Co., Everett, Wash., "have been acting like one of their jumping beans, and now the Canadian stations have started to do the same thing. CHWK is now on the same wave length as WFAF and WTIC and recently CFCN is broadcasting on about 985 kcys., spoiling reception from WBZ and KDKA. Apparently the agreement between this country and Canada, allotting the latter certain wave lengths, is not being kept by Canada, and our reception from eastern stations is gradually being eliminated."

Mexicans Move at Midnight

"Have just received some interesting information on the Mexican situation," writes Karl Halpern, 1435 Coney Island Ave., Brooklyn, N. Y. "From 8 a.m. till midnight they have to stay on their regular channels; after that time they may move to any frequency they want. The log you have on the Mexicans is right, but at 2 a.m. it won't be worth anything at all."

"I have been much interested in your DX reports. I have been doing a little DXing myself and while I have not made any records I have had lots of fun. I have received 281 stations since last November 1st on my 8-tube Airline special. These include 38 states; 17 stations in 7 Canadian provinces; 16 Mexicans; 3 Cubans; TIC, San Jose, Costa Rica; KGMB, Honolulu; JOHK and JOCK, Japan; 2YA, Wellington, N. Z.; OAK, Lima, Peru; LS1, Buenos Aires, Argentina. I use a 6-foot 1½-inch galvanized pipe, which I keep filled with water, for a ground and three inter-

changeable aerals. I work until midnight and my radioing, except one day a week, is done after midnight." Arlo F. Kelley, 4234 W. 15th St., Amarillo, Texas.

Ollie Ross' Record

(Continued from page 5)

"My method for installing an underground aerial is as follows: Dig a ditch one foot deep and 100 feet long. Take a garden hose the same length and run a copper cable through it the entire length. Seal and tape the far end so that no water will get into the hose. The end of the hose next the set should stick out of the ground about one foot and an insulated wire should be securely soldered to the copper cable."

We are reprinting from the February, 1931, RADEX, the description of Mr. Ross's ground. "The most satisfactory ground I have found is copper tubing about an inch in diameter and three feet ten inches long. This tubing is wrapped spirally with No. 20 copper wire from one end to the other and back again, the laps being an eighth-inch apart. The wire is soldered to the tubing at each end but is uninsulated, although the lead from the ground to the receiver is heavily insulated and as direct as possible. This tubing is buried in rock salt which draws dampness from the ground in dry seasons."

"I would suggest that radio fans try the U. S. Standard Ground (see No. 46 RADEX, page 24)," goes on Mr. Ross in his letter. "Only if rods are used I find that a piece of seven-strand aerial wire soldered the entire length of the rod or pipe, will bring finer results. A well-insulated wire should be soldered to the seven-strand wire on the rod or pipe (or the same wire carried direct to ground post of the set).

"Tubes should be checked over at least twice a year for often efficiency is marred by a gasey or faulty tube and DX reception is very much hampered.

"To date," concludes the world-famous DXer, "I have tuned in and verified 1309 stations on every continent on earth and every country in the world having a broadcasting station. Very

interesting but very hard work. In three months I "played" a radio for a total of 1452 hours—sometimes as much as 22 hours a day.

"As a steady user and reader of RADEX, I think it is unquestionably the most complete and satisfactory method used in logging radio stations. DX and radio fans should indeed appreciate RADEX. In four years I have not found a better or more helpful radio magazine."

Helping Our Readers

(Continued from page 15)

knowing that this would affect the operation of our all-electric receiver which was made for use on alternating current, we plugged it into the line but got no results except a smell of tar which seemed to come from the radio itself. What is necessary to make the set operate

Receivers designed to operate on alternating current will not operate on direct current as the principle employed is radically different. What you have undoubtedly done, if the set was connected very long, is to burn out the primary winding of the transformer, which damage can only be remedied by replacing this transformer. The best thing to do in your case is to check up whether or not the set has actually been damaged, which is an easy matter by plugging it in on an alternating-current line of the proper cycles for which the set was designed. Take the set to a radio dealer who is supplied with this kind of current. If the set does not work you need a new transformer, and then get a motor-generator that can be run on direct current and will deliver the correct alternating current for the operation of the set. Janette converters are made especially for this purpose.

Control Grates

The rheostat of our old Atwater-Kent battery-operated receiver causes a grating sound when it is turned. Is there any method of eliminating this unpleasant sound?

After a rheostat has been in use for some time it oxidizes and the surface of the wire winding becomes coated with oxide which prevents good contact with the slider. The best method of eliminating this is to replace the rheostat with a

new one of the same value. However, in some cases it is possible to remove the coat of oxide by rubbing lightly with a piece of fine emery cloth or garnet paper, so that the slider will make contact with the cleaned surface.

No Current Available

We live on a farm where house-lighting current is not available, making it necessary to use a battery-operated set. Our set is a good one but we have more or less difficulty in charging the battery. This is usually done by putting it in the car and connecting it to the car battery, but we were wondering whether or not there is any easier method which does not necessitate such inconvenience. Can you suggest any?

If you have an old auto generator of the 6-volt type, or can obtain one, it is a comparatively easy matter to mount this on the base of your portable gasoline engine, which you undoubtedly have, and then run the generator at its rated speed by belting it to the engine. Connect the output of the generator to the battery, positive to positive and negative to negative, which will charge the latter in a very short time. If desired, you can place the gasoline engine near the house and run heavy wires to the battery inside, making it unnecessary to take the battery out. However, the leads to the receiver should be disconnected during the charging process. By installing a switch on the line such disconnection is quickly accomplished.

Set Goes Broad

After sending our all-electric receiver out for test and repairs, it has become unaccountably broad in respect to tuning, although it was always quite sharp before. What would you say is the reason for this change?

Most receivers nowadays have trimmer condensers attached to the tuning condensers for the purpose of equalizing the capacity so that all the condensers will work in perfect unison. Proper adjustment of these trimmers is necessary for sharp tuning and mal-adjustment often accounts for broadness of tuning. The proper method of balancing tuned-radio frequency receivers by means of the trimmer condensers was completely described in the May, 1930, issue of RADEX, No. 39.

Changes for June

Frequencies

665	CJRM	Moose Jaw, Sask., from 600.
665	CJRW	Fleming, Sask., from 600.
780	CMGH	Matanzas, Cuba, from 1249.
840	CMC	Havana, Cuba, from 845.
965	CMBC	Havana, Cuba, from 955.
865	CMBD	Havana, Cuba, from 955.
985	CFCN	Calgary, Alta., from 690.
1225	CMCD	Havana, Cuba, from 1345.
1300	XETY	Mexico City, Mexico, from 840.

Power

538	CMW	Havana, Cuba, 700 to 1400.
660	CHWK	Chilliwaek, B. C., 50 to 100.
730	CMK	Havana, Cuba, 3000 to 3150.
860	CMJE	Camaguey, Cuba, 5 to 20.
1210	CFNC	Fredericton, N. B., 100 to 500.
1210	CJOR	Sea Island, B. C., 50 to 500.
1225	CMCD	Havana, Cuba, 15 to 250.
1330	KGB	San Diego, Calif., 250 to 500.
1420	WHDL	Tupper Lake, N. Y., 10 to 100.
1500	CMBR	Havana, Cuba, 35 to 15.

Owners

570	WKBN	Youngstown, Ohio, to WKBN Broadcasting Corp.
1070	CMCB	Havana, Cuba, to Antonio Capablanca
1200	WRAF	LaPorte, Ind., to South Bend Tribune.
1310	WDAH	El Paso, Texas, to Bledsoe & Blackwell.
1330	KGB	San Diego, Calif., to Don Lee, Inc.
1380	KQV	Pittsburgh, Pa., to KQV Brdsg. Co.
1426	WHFC	Cicero, Ill., to WHFC, Inc.
1420	WKBI	Chicago, Ill., to WKBI, Inc.
1500	KPJM	Prescott, Ariz., to A. P. Miller.

Deletions

550	CMCJ	Havana, Cuba.
870	CMHH	Cifuentes, Cuba.
920	CMHD	Caibarien, Cuba.
1010	CMCX	Havana, Cuba.
1090	CMAA	Guanajay, Cuba.
1094	CMGI	Matanzas, Cuba.
1315	CMGC	Matanzas, Cuba.
1332	CMJA	Camaguey, Cuba.
1360	KPSN	Pasadena, Calif.
1429	CMHE	Santa Clara, Cuba.
1500	CMBP	Havana, Cuba.
1500	CMHB	Sagua la Grande, Cuba.

Locations

1410	WAAB	From Squantum, Mass., to Boston, Mass.
1500	KGKB	From Brownwood, Tex., to Tyler, Texas.

New

580	CHMA	Edmonton, Alta.
1375	CMAC	Pinar del Rio, Cuba.

Calls

1050	KFBI	Milford, Kans., from KFKB.
1300	KFAC	Log Angeles, Cal., from KTBI
1370	WRAM	Wilmington, N. C., from WRBT

Chains

560	WNOX	Knoxville, Tenn., new CBS.
1010	WIS	Columbia, C. C., new CBS.
1410	WAAB	Boston, Mass., new CBS.

Protests From Mexico

(Continued from page 12)

letter that conditions in Mexico are fast becoming better and that we have nothing serious of which to complain and then, as an afterthought, he adds that his company is to build a 50,000-watt station to operate on the same channel with a powerful American station! There have been rumors that this is a "spite" station to get even with a big station here which opposed Dr. Brinkley's

operation of KFKB. Be that as it may, why should the Mexican authorities permit a station to be erected to use a frequency only for the purpose of destroying it? For no 50,000-watt station can occupy the same frequency as a "powerful American station" without completely destroying reception on that and perhaps adjacent channels.

The Monthly Forum

(Continued from page 9)

"Yesterday morning at about 4:15 E.S.T. I picked up a station in Calgary, Alta. According to RADEX, there are five stations in Calgary, all on 690 keys., which was the wavelength on which I heard them. This station use the slogan 'The Voice of the Prairie' several times, although I was unable to catch the call letters. If you should happen to know which of the five stations uses this slogan, I should certainly appreciate knowing it," requests Sturges D. Dorrance, Jr., 175 Riverside Drive, New York City.

This afternoon at about 3:30 o'clock I received a station on about 1050 or 1060 keys.," says Edwin Erman, Fessenden, N. D. "They signed off at 4 o'clock C.S.T. Their call letters were WBIH or WCIH, I couldn't quite get which. They said next Sunday they would be on the air for the last time until fall. I would like to receive some information on this."

"We are now going to ask you if you are able to give us some information relative to a station that we heard on Saturday, December 20th, at 1:45 a.m. E.S.T." writes Hedley Simmonds, 23 Clyde St., Hamilton, Ont. "This station gave a call which sounded like WMBA or WNBA and gave their location as Silver Haven. They mentioned the fact that they operated on 1200 keys. by authority of the Federal Radio Commission and then signed off."

"I would like to know if any of your readers have picked up foreign stations, such as Hawaii, Japan, Central or South America, on such a small set as I operate, two tubes," inquires Douglas J. Blackwell, 14 Walnut St., London, Ont.

"I would like to know when stations on 1030 keys. are on the air," inquires

Lorne Chafsut, Kapuskasing, Ont. "I have not been able to bring them in and I have logged every channel excepting five, but 1030 seems to be the most elusive."

"Please tell me when CMK, Havana, on 730 keys. broadcasts?" asks John Bullock, 260 Edgewood Ave., New Haven, Conn. "Also if it is possible for a person living in New Haven to get European and Asiatic stations, and when could I have the best chance to get them, and at what time."

"At 10:15, April 2nd, I tuned in a station broadcasting on a frequency of 920 keys., but on account of interference I could not get any announcement except for the call letters which I am sure were KMJB. Does anyone know where this station is located?" asks Edwin H. Chandler, Ranfurly, Alta.

Here is another inquiry from Mr. Chandler: "This morning from 3 until 4 I heard a foreign station broadcasting on about 753 keys. The program seemed to be a religious one, a man lectured for some time, and following that hymns were sung to an organ accompaniment. I could not get any announcement from this station. Did anyone else hear this? I also heard 2YA, 2BL and 3LO this morning."

Orin M. Stuart, Laurel, Mont., reports a station on 910 keys. in Saskatoon, Sask., giving call letters CJHS being received since the first of the year. A list just received from the Dominion Government gives no data on this station. Can our readers advise us further regarding it?

The Editor Answers

"Are there two WTIC, Hartford, Conn., stations?" asks Alvin D. Strong, Box 171, Bessmer, Ala. "May's RADEX lists one on 660 and one 1060 keys.; also WEHC, Emory, Va., was moved to 1350 from 1200 keys."

And "Could you tell me," inquires Howard Byrne, 907 Sixth St., Bismarck, N. D., "why I received WJZ's call letters in back of KOA? It was during a pause in the NBC for the station call letters."

The synchronizing of stations WTIC and WBAL with WEAJ and WJZ respectively was fully explained in the May issue, page 3. As for the change in WEHC, frequently corrections in data are received at the last minute before going to press and we make the change in the index but are not able to mention it in "This Month's Changes." In regard to WJZ on KOA's wave we can

(Continued on page 62)

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KEY TO CHAIN STATIONS

CFCF 1030 N	KPRC 920 N	WCAU 1170 C	WHAS 820 N	WNAC 1230 C
CFRB 960 C	KRLD 1040 C	WCCO 810 C	WHEC 1440 C	WNAX 570 C
CKAC 730 C	KSCJ 1330 C	WCFL 970 N	WHK 1390 C	WNOX 560 C
CKGW 690 N	KSD 550 N	WCKY 1490 N	WHO 1000 N	WOAI 1190 N
KDKA 980 N	KSL 1130 N	WCSH 940 N	WHP 1430 C	WOC 1000 N
KDYL 1290 C	KSTP 1460 N	WDAE 1220 C	WIBO 560 N	WOKO 1440 C
KECA 1430 N	KTAR 620 N	WDAF 610 N	WIBW 580 C	WORC 1200 C
KFAB 770 N	KTHS 1040 N	WDAY 940 N	WIOD 1300 N	WOW 590 N
KFH 1300 C	KTRH 1120 C	WDBJ 930 C	WIP 610 C	WOWO 1160 C
KFI 640 N	KTSA 1290 C	WDBO 1120 C	WIS 1010 C	WPG 1100 C
KFJF 1480 C	KVI 760 C	WDOD 1280 C	WISN 1120 C	WPTF 680 N
KFKX 1020 N	KVOO 1140 N	WDRC 1330 C	WJAR 890 N	WQAM 560 C
KFPY 1340 C	KWK 1350 N	WDSU 1250 C	WJAS 1290 C	WRC 950 N
KFRC 610 C	KYW 1020 N	WEAF 660 N	WJAX 900 N	WREC 600 C
KFSD 600 N	WAAB 1410 C	WEAN 780 C	WJDX 1270 N	WREN 1220 N
KFYR 550 N	WABC 860 C	WEBC 1290 N	WJDD 1130 C	WRR 1280 C
KGO 790 N	WACO 1240 C	WEEI 590 N	WJR 750 N	WRVA 1110 N
KGW 620 N	WADC 1320 C	WENR 870 N	WJZ 760 N	WSAI 1330 N
KHJ 900 C	WAIU 640 C	WFAA 800 N	WKBN 570 C	WSB 740 N
KHQ 590 N	WAPI 1140 N	WFAN 610 C	WKBW 1480 C	WSM 650 N
KLRA 1390 C	WBAL 760 N	WFBL 1360 C	WKRC 550 C	WSMB 1320 N
KLZ 560 C	WBAP 800 N	WFBM 1230 C	WKY 900 N	WSPD 1340 C
KMBC 950 C	WBBM 770 C	WFI 560 N	WLAC 1470 C	WSUN 620 N
KMOX 1090 C	WBCM 1410 C	WFLA 620 N	WLAP 1200 C	WTAG 580 N
KOA 830 N	WBEN 900 N	WGAR 1450 N	WLWB 1260 C	WTAM 1070 N
KOH 1380 C	WBRC 930 C	WGL 1370 C	WLBZ 620 C	WTAQ 1330 C
KOIL 1260 C	WBT 1080 C	WGN 720 N	WLIT 560 N	WTAR 780 C
KOIN 940 C	WBZ-A 990 N	WGR 550 C	WLS 870 N	WTIC 660 N
KOL 1270 C	WCAE 1220 N	WGST 890 C	WLW 700 N	WTMJ 620 N
KOMO 920 N	WCAH 1430 C	WGY 790 N	WMAL 630 C	WTOC 1260 C
KPO 680 N	WCAO 600 C	WHAM 1150 N	WMAQ 670 C	WWJ 920 N
			WMC 780 N	WWNC 570 C
			WMT 600 C	WXYZ 1240 C

WHAT'S ON THE AIR TONIGHT?

A WEEKLY CALENDAR Leading Features of the Network Program

Time is given by Eastern Daylight Saving. For Eastern Standard time, subtract one hour; for Central Time, two hours for Mountain Time, three hours; and for Pacific Time, four hours.

Programs of the National Broadcasting Company begin with WEAJ and WJZ; those of the Columbia Broadcasting System with WABC.

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

Daily (Except Saturday and Sunday)

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

8:00-8:15 Gene and Glenn — Quaker Early Birds
WEAF WJAR WEEI WTAG WCSH WFI
WRC WGY WCAE WTAM WWJ WSAI
CKGW WRVA WPTF WJAX WIOD WFLA
WSUN

8:15-8:30 Morning Devotions
WEAF WRC WCAE WGY WHAS WOW
WFI WCSH WJAR WWJ WPTF WIOD
WAPI WFLA WSUN WTAG WGN WJAX
WJDX WRVA WBEN WMSB WFI

8:30-9:00 Cheerio
WEAF WEEI WCKY WRC WCSH WWJ
WHO WOC WDAF WAPI KPRC WFI
WSB WSM WJAX WPTF WTAG WOAI
WBEN WRVA CKGW WIOD WHAS WFLA
WSUN WTAM WMC WJDX WJAR WGY
WOW WCAE WIBO

9:00-9:30 Morning Moods
WABC WFBL WKBW WDRS WPG WIP
WFAN WMAL WDIJ WAIU WBT WBCM
WSPD WLAC WDSU WBBM WMT KMOX
KMBC KOIL KFH KFJF WACO CFRB
WAAB

9:15-9:45 Campbell's Orchestra
WEAF WJAR WLIT WTAG WCSH WRC
WDAF WBEN WCAE WHO WTAM WSAI
KSD WOW WOC WWJ CKGW (WLS on
9:30)

9:45 10:00 A. & P. Program
WEAF WJAR WTAG WCSH WRC WGY
WCAE WTAM WWJ WOC KSD WHO
WDAF WTMJ WBCB WRVA WPTF WIOD
WFLA WSUN WHAS WSM WMC WSB
WAPI WSMB WJDX KVOO WBAP KPRC
WOAI WKY WBEN WOW WFI KSTP
WIBO

11:15-11:30 Radio Household Institute
WEAF WJAR WTAG WCSH WLIT WRC
WHAS WSM WSB WCAE WWJ WSAI
KFKX WTAM KSD WTMJ KSTP WBCB
WAPI WSMB WOAI KTHS KVOO KPRC
WKY WEEI WGY WMC WBEN

12:00-12:30 Paul Tremaine and His Orchestra
WABC WHEC WLBZ WHOR WPG WCAU
WHP WJAS WLBW WMAL WCAO WTAR
WDBJ WHK WKRC WAIU WWNC WDOO
WREC WLAC WBRK KSCJ WMT KMBC
WDAY KOIL WBW KFJF KLT

12:30-1:00 Columbia Revue
WABC WLBZ WORC WPG WCAU WHIP
WJAS WLBW WMAL WCAO WTAR WXYZ
WBCM WDOO WREC WLAC WBRK KSCJ
WMT KMBC WDAY WBW KFJF KLT

1:30-2:30 National Farm and Home Hour
WJZ WHAM WJR KSTP WRVA WHAS
WREN WEA WBC WIOD WAPI WOW
WMC WSB WGAR KVOO WKY WOAI
WRC WHO WDAF WJDX WBAL WMSB
KWK KOA WBZ WBZA WOC KTHS
WFLA WSUN WJAX KFAB KPRC KDKA
WLW KFKX WPTF WSM

1:30-2:00 Hotel Orchestra
WABC WHEC WLBZ WEA WPN WFAN
WJAS WLBW WMAL WCAO WTAR WDBJ
WKRC WAIU WWNC WXYZ WBCM WDOO
WLAC WBRK

2:45-3:00 Piano Moods
WJZ WBAL KDKA KWK CKGW WREN
WJR WFLA WSUN WRVA WSB WMC
WHAM WGAR WGN KFAB

3:00-3:15 Columbia Salon Orchestra
WABC WHEC WLBZ WEAN WNAC WORC
WPG WHP WLBW WMAL WCAO WTAR
WDBJ WHK WKRC WAIU WWNC WXYZ
WBCM WSPD WDOO WREC WLAC WBRK
KSCJ WMT KMBC WDAY KOIL WBW
KFJF KRLD KTRH KILZ CFRB

5:00-5:30 The Lady Next Door
WEAF WRC KSD WTAG WSM WHAS
WKY KPRC WTAM

5:30-5:45 Little Orphan Annie
WJZ WBZ WBZA WBAL KDKA WGAR

6:05-6:30 Black and Gold Room Orchestra
WEAF WCAE WCSH WWJ WJAR WBEN

6:45-7:00 Literary Digest Topics
WJZ WBZ WBZA WHAM WBAL KDKA
WRVA WPTF WJAX WIOD WLW WFLA
WSUN

7:00-7:15 Amos 'n' Andy
WJZ WHAM KDKA WBZ WBZA WRC
CKGW WRVA WPTF WJAR WIOD WCKY
WFLA WSUN WLW WJX WGAR WBAL
CFCF

7:30-7:45 Phil Cook — Quaker Man
WJZ WBZ WBZA WHAM KDKA WREN
KWK WTMJ WBEBC KOA KSL KGO
KECA KGW WRC KOMO KHQ KFSD
KTAR WGAR WSMB WSB WPTF WJAX
WIOD WFLA WHAS WSM WMC WJDX
KTHS KPRC WOAI

11:00-11:15 Amos 'n' Andy
WMAQ KWK WREN WDAF WTMJ KECA
KSL WHAS WSM WSB WKY WENR
KSTP WSMB WJDX KTHS KPRC WBEBC
KGO KHQ KOMO KGW KFSD WOAI
WMC KOA KFAB WBAP

11:15-11:30 Arthur Pryor's Cremona Military Band
WADC WKBW WKRC WHK WOWO KMBC
WLBW KOIL WJAS KMOX WFBL WSPD
WGST WBCM WBRK WDOO WRR KIZ
KOIN KOL KFPY WHP KTRH WFBM
KLRA WCOO WISN WREC WCAH WLAC
WDSU KFJF KSCJ K TSA KDYL WBW
WMT KFH WKBW WNAX KOH WTAQ
WLAP WOKO WACO

Sunday

1:00-2:00 National Oratorio Society
WEAF WJAR WCSH WRC WGY WCAE
WTAM WWJ KSD WOW WOC WHO
WDAF CKGW WTMJ KSTP WBEBC WHAS
KPO KOA KGW KFSD KOMO KECA
WBEN KGO CFCF

1:30-2:00 Gypsy Trail
WABC WFHL WHEC WGR WDRS WPG
WHP WJAS WMAL WTAR WDBJ WADC
WAIU WBT WXYZ WBCM WSPD WISN
WTAQ WCOO KSCJ WMT KMBC KOIL
KFJF KLT CFRB WAAB

2:30-3:00 Yeast Foamers
WJZ WKBZ WBZA WBAL WGAR WJR
WLW KDKA KYW KWK WREN KFAB
WTMJ KSTP WBEBC WRVA WPTF WIOD
WFLA WSUN WJAX WHAS WSM WMC
WSB WAPI WJDX WSMB KTHS KVOO

WFAA KPRC WOAI WKY KOA KSL
 KPO KECA KGW KHQ KTAR KFSD

2:30-3:00 NBC Artists Service Program
 WEAF WOW WWJ KSD WGY WRC
 WCAE CFCF

3:00-4:00 National Youth Conference
 WJZ WBAL KDKA KWK WREN KFAB
 WRVA WJAX WIOD KVOO WFAA WOAI
 WFLA WSUN KGW WPTF KGO KOA
 KSTP WEBC WMC WSBM KPRC WKY
 KPO KOMO KHQ WSB WAPI WGAR
 WTMJ KSL

3:00-4:00 Symphonic Hour with Toscha Seidel
 WABC WFBL WHEC WKBW WCAU WHP
 WJAS WMAL WCAO WTAR WDBJ WADC
 WAU WBT WXYZ WBCM WLAC WBRC
 WDSU WISN WTAQ WFBM WGL WMAQ
 WBBM WCCO KSCJ WMT KMBC KOIL
 KFH KFJF WACO KLZ CFRB WAAB

4:00-4:30 Williams Oilomatics
 WJZ WBZ WBZA KDKA WJR WGAR
 WLW KWK WRIN KFAB WBAL

4:00-5:00 Dr. S. Parkes Cadman
 WEAF WEEL WJAR WCHS WTAG KOA
 WOW WKY WOAI WSAI WJAX WHAS
 WJDX KVOO KPRC WEBC WDAF WWJ
 WFLA WSUN KHQ WHO WOC KGO
 KOMO WCAE WFJC WRC KGW WPTF
 WMC WGY WSM KTHS WBAP WSB
 WSBM WAPI WBEN WRVA WIOD

4:00-5:00 Cathedral Hour
 WABC WFBL WHEC WKBW WCAU WHP
 WJAS WLBW WMAL WCAO WTAR WDBJ
 WIKK WAU WBT WXYZ WBCM WSPD
 WLAC WBRC WDSU WISN WTAQ WFBM
 WGL WBBM KSCJ WMT KMOX KMBC
 KOIL KFH KFJF WACO KLZ WAAB

5:00-5:30 Rev. Donald Grey Barnhouse
 WABC WFBL WGR WEAN WDRC WNAC
 WCAU WJAS WMAL WADC WKRC WXYZ
 WSPD WOWO WMAQ KOIL KRLD WRR

5:00-6:00 National Vespers
 WJZ WBAL WHAM KWK WREN WCKY
 KSTP WEBC WIOD WMC KOMO WJDX
 WPTF KVOO KPRC WFLA WSUN KOA
 KTAR KGO KGW KHQ WSM WKY
 WSB WOAI WAPI WSBM WBZ WBZA
 WGAR (KFAB on 5:15) (WIBO on 5:30)

5:00-6:00 Pop Concerts
 WEAF WEEL WJAR WTAG WCHS WFI
 WRC WBEN WTAM WSAI WENR WOC
 WHO WDAF CKGW CFCF WGY

5:30-6:00 Pastorale
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WJAS WCAO WADC WHK WKRC
 WXYZ WSPD WOWO KMBC KOIL

6:00-7:00 Catholic Hour
 WEAF WEEL WJAR WTAG WCHS WRC
 WGY WWJ WEBC WIOD WKY WJDX
 KGO KSTP WSBM KOMO KSD KGW
 WCAE KECA KTAR WFJC WOC WHO
 WDAF WJAX WFLA WSUN WHAS KOA
 WSB WBAP KPRC WOAI WRVA WMC
 KVOO WSAI WSM WFI WIBO WLIT

7:00-7:15 The World's Business
 WABC WFBL WHEC WGR WPG WIP
 WFAN WHP WJAS WLBW WMAL WCAO
 WTAR WDBJ WBT WXYZ WLAC WBRC
 WDSU WTAQ WMAQ WBBM WCCO KSCJ
 WMT KMOX KMBC KOIL KFJF
 WACO KLZ

7:05-7:30 Old Stagers Memories
 WEAF WEEL WJAR WTAG WCHS WLIT
 WGY WWJ WSAI WDAF CFCF WDAY
 KFJR KGO KSD WOW KOMO WTC
 WBEN KGO KECA WRVA WFLA WSUN
 WIOD WSM WAPI WJDX KGW

7:15-7:30 Piano Pals
 WABC WFBL WHEC WGR WIP WFAN
 WHP WJAS WLBW WMAL WCAO WTAR
 WDBJ WADC WBT WXYZ WLAC WBRC
 WDSU WTAQ WCCO KSCJ WMT KMOX
 KMBC KOIL KFH KFJF WACO KLZ

7:30-8:00 The Gauchos
 WABC WFBL WHEC WGR WEAN WDRC
 WNAC WDRB WHP WJAS WLBW WMAL
 WTAR WDBJ WADC WAU WBT WXYZ
 WLAC WBRC WDSU WISN WTAQ WCCO
 KSCJ WMT KMOX KMBC KOIL KFH
 KFJF WACO KLZ

7:30-8:00 RCA Victor Program
 WEAF WJAR WTAG WCHS WWJ KPRC
 WBEN WRC WGY WCAE WTAM WSAI
 KYW WRVA WIOD WFLA WSUN WHAS
 KSD WDAF WTMJ WEBC WMC WSB
 WSBM WJDX KTHS KVOO WOAI WKY
 KOA KSL KGO KFI KTAR KFSD

8:00-8:15 Enna Jettick Melodies
 WJZ WBZ WBZA WHAM KWK KYW
 WKY WJR WREN WFAA KPRC WOAI
 WHAS WSM WTMJ KSTP KDKA WMC
 KOA WENR WIOD KTHS WSBM KOMO
 KFI KGW KSL KHQ WLW WCKY
 WSB WPTF WRVA WFLA WSUN KFAB
 KFSD KTAR WJDX KPO KVOO KHQ

8:00-8:15 "Devils, Drugs and Doctors"
 WABC WFBL WHEC WGR WEAN WDRC
 WNAC WCAU WJAS WMAL WADC WADC
 WHK WKRC WGST WXYZ WSPD WREB
 WLAC WBRC WDSU WISN WOWO WFBM
 WMAQ WCCO KSCJ KMOX KMBC KOIL
 WIBW WRR KTSJ KLZ KDYL KVI
 KOL KFPY KOIN KHJ KPRC

8:00-9:00 Chase and Sanborn Choral Orchestra
 WEAF WJAR WTAG WCHS WRC WGY
 WCAE WWJ WSAI KSD WOW WIOD
 WBO KSTP WHO WOC WHAS WLIT
 WEBC WMC WSB WSBM WKY KTHS
 KPRC WOAI WTMJ WTAM WJDX WIOD
 WFLA WSUN WDAF WTC KVOO WBEN

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

8:45-9:00 Rhythm Chorists—Freddie Rich's Orchestra
 WABC WHEC WGR WEAN WDRC WRC
 WCAU WCAU WHP WJAS WLBW WMAL
 WTAR WDBJ WADC WAU WXYZ WSPD
 WDSU WISN WTAQ WOWO WFBM WBBM
 WCCO KSCJ WMT KMOX KMBC KOIL
 KFI KFJF KLZ CFRB

9:00-9:15 "Our Government," David Lawrence
 WEAF WTAG WCHS WEBC WGY WHAS
 KSD WKY WSAI WFJC WSB WMC
 WSM WFAA WOW WOAI WSBM WJDX
 WJDX WFLA WSUN WOC WHO WRC
 WWJ KVOO WLIT WBEN WJAR

9:00-9:30 Coty Playgirl—Irene Bordoni
 WABC WFBL WGR WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WXYZ WSPD WOWO WBBM KMOX
 KMBC KOIL

9:15-9:45 Atwater Kent Program
 WEAF WEEL WRC WFI WGY WCAE
 WTAM WWJ WSAI KSD WOW WSM
 WFAA KOA WOAI WSBM KFI KGW
 KOMO KPO KHQ KPRC WKY WHAS
 WGN WSB WOC WHO WMC WDAF
 KSL CKGW WAPI WBEN KSTP

9:30-10:00 Graham-Paige Hour
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WBT WGST WTCO WQAM WDBO
 WDAE WXYZ WSPD WREB WDSU WOWO
 WBBM WCCO KMOX KMBC KOIL KFJF
 KRLD KTRH KTSJ KLZ KDYL KOL
 KFPY KOIN KHJ KPRC

9:45-10:15 Iodent Club of the Air
 WEAF WWJ WSAI WENR KSD WOW
 WDAF WTC WCAE WJAR WTAG WCHS
 WFI WRC WTAM WGY WBEN WEEL

9:45-10:15 Westinghouse Salute
 WJZ WBZ WBZA WBAL WHAM KDKA
 WGAR WJR WCKY KYW WREN WTMJ
 KSTP WHAS WMC WSB WSBM WJDX

KVOO KPRC WFAA WOAI WDAY KFYP
 KWK WKY

10:00-10:30 Royal's Poet of the Organ
 WABC WFBL WKBW WEAN WNAC WCAU
 WJAS WLBW WMAL WCAO WADC WHK
 WKRC WGST WXYZ WSPD WLAC WOWO
 WBBM KMOX KMBC KOIL KLZ KDYL
 KOL KFPY KOIN KHJ KFRK

10:15-10:30 World Adventures with Floyd Gibbons
 WJZ WBZ WHZA WBAL KDKA WJR
 WGAR WENR KWK WREN

10:15-10:45 National Dairy Productions
 WEAJ WEEI WJAR WVIC WTAG WCSH
 WFI WRC WGY WBEN WCAE WTAM
 WWJ WSAI WOV WDAF WSB WAPI
 WWSB WJDX WRVA WJAX WIOD WFLA
 WSUN WHAS WSM WMC

10:30-10:45 Fortune Builders
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WGST WXYZ WSPD WDSU WOWO
 WFBM WBBM WCCO KMOX KMBC KLRA
 KRLD KLZ KDYL KOL KFPY KOIN
 KHJ KFRK

10:30-11:00 Kellogg Slumber Music
 WJZ WBZ WHZA WHAM KDKA WJR
 KWK WENR WREN WBAL WLW

10:45-11:00 Star Reviews
 WKBW WPG WJAS WLBW WCAO WTAR
 WDBJ WADC WHK WKRC WCAH WKBN
 WNNC WBT WGST WTOG WQAM WDBO
 WDAE WXYZ WSPD WLAP WDOD WREC
 WLAC WBRC WDSU WISN WTAQ WOWO
 WFBM WBBM WCCO KSCJ WMT KMBC
 KLRA WNAX KOIL KFI KFJF KRLD
 KTRH KTSa KLZ KDYL KOH KYL
 KOL KFPY KOIN KHJ KFRK WSAZ
 WNOX

10:45-11:15 Sunday at Seth Parker's
 WEAJ WEEI WCSH WRC WGY WOW
 WDAF CKGW WTMJ KSTP WCAE WTAM
 WFJC WWJ KYW WOV WHO WEBC
 WJAX WIOD WHAS WSM WJDX KPRC
 WKY KOA KGO KGW WSB KTAR
 KFSD WRVA WBEN WLIT

11:30-12:00 Russian Cathedral Choir
 WEAJ WRC WFJC WWJ WBAP KOA
 WOW WSB WGY WTAM KSTP WEBC
 WIOD WHAS WBEN

11:30-12:00 Around the Samovar
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WMAL WCAO WTAJ WDBJ WBT
 WXYZ WSPD WBRC WDSU WTAQ WFBM
 WBBM WCCO KSCJ WMT KMOX WNAX
 KFJF KFPY KLZ

Monday

3:00-4:00 Woman's Radio Review
 WEAJ WEEI WVIC WJAR WSAI KYW
 KSD WOC WTAG WCSH WFI WRC
 WGY WBEN WCAE WTAM WWJ WHO
 WOW WDAF

3:30-4:00 Chicago Serenade
 WJZ WHAM WJR WLW WLS KDKA
 WFLA WSUN WMC WAPI WJAX WGAR

4:00-4:30 Dance Orchestra
 WJZ WBAL KSTP KTAR KOA KGO
 KWK KFSD WHAM WSM WSB WWSB
 WMC WBZ WBZA WGAR KYW

4:00-4:30 U. S. Army Band
 WABC WLBZ WEAN WNAC WORC WPG
 WCAU WLBW WMAL WCAO WTAR WDBJ
 WAIU WNNC WXYZ WBCM WSPD WDOD
 WREC WLAC WBBM WCCO KSCJ WMT
 KMOX KMBC WDAY KOIL KFJF KRLD
 KTRH KLZ KOL KFRK CFRB

4:30-5:00 Wardman Park Hotel Orchestra
 WABC WLBZ WEAN WNAC WORC WPG
 WFAN WHP WLBW WMAL WCAO WTAR
 WDBJ WKRC WAIU WNNC WXYZ WBCM
 WSPD WDOD WREC WLAC WBRK WCCO
 KSCJ KMOX KMBC WDAY KOIL WIBW

KFJF KRLD KTRH KTSa KLZ KOL
 KPRC CFRB

6:15-6:45 Mormon Tabernacle Choir
 WJZ WBAL WSM KWK KOA KSL
 KGO KOMO KFAB KGW CKGW
 KTAR KPO WHAS WAPI KFRS WRC
 WWSB

7:00-7:15 Current Events—Kaltenborn
 WDBJ WKRC WNNC WXYZ WBCM WDOD
 WBRK KSCJ WMT WDAY KOIL WABC
 WHEC WLBZ WORC WHP WJAS WLBW
 WMAL WCAO WTAR WIBW KFJF
 KTRH KOL KFRK

7:15-7:30 The World Today
 WEAJ WFI WSAI WOW KGO KECA
 KGW KOMO KFSD KTHS WENR WFAA
 KSD KOA

7:15-7:30 Tastyest Jesters
 WJZ WCKY WHAM WBZ WBZA WREN
 KDKA WRC WGAR

8:00-8:15 "How's Business?"
 WEAJ WJAX WJAR WRC KSD WCAE
 WWJ KOMO WSAI WDAF WJDX KGO
 KVOO KECA KHQ WFLA WSUN WHAS
 WEBC WWSB KGW KTAR KFSD KSL

8:15-8:30 Pennzoil Pete
 WEAJ WEEI WVIC WJAR WCSH WLIT
 WRC WBEN WCAE WTAM WSAI KYW
 KSD WOC WHO WHAS WSM WMC
 WSB WDAF WEBC WRVA WPTF WFLA
 WSUN WIOD WWSB WJDX WKY KTHS
 WFAA WOAI CKGW WTMJ WWJ KSTP

8:15-8:30 Barbasol Program
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WXYZ WSPD WISN WFBM WCCO
 KMOX KMBC KOIL

8:30-9:00 A. & P. Gypsies
 WEAJ WEEI WTAG WJAR WVIC WCSH
 WLIT WRC WGY WCAE WWJ WSAI
 WGN KSD WOC WDAF WTAM WOW

8:30-9:00 Gold Medal Express
 WJZ WBZ WBZA KDKA WJAX WIOD
 WFLA WSUN WGAR WJR WLW WOAI
 WKY KYW KWK WREN KOA KSL
 KFAB WRVA WPTF WBAL

9:00-9:30 Maytag Orchestra
 WJZ WBZ WBZA WHAM KDKA WJR
 KWK KYW KSTP WEBC KTHS WKY
 WOAI KOA KSL KGO KECA KGW
 KHQ KOMO KVOO WLW WFAA KPRC
 WGAR

9:00-9:30 The Three Bakers
 WABC WFBL WHEC WKBW WLBZ WEAN
 WDRC WNAC WORC WPG WCAU WHP
 WJAS WLBW WMAL WCAO WTAR WDBJ
 WADC WHK WKRC WNNC WBT WGST
 WTOG WQAM WDBO WDAE WXYZ WBCM
 WSPD WDOD WREC WLAC WBRC WDSU
 WISN WOV WFBM WMAQ WCCO KSCJ
 WMT KMOX KMBC KLRA WDAY WNAX
 KOIL WLBW KFH KFJF WRR KTRH
 KTSa KLZ KDYL KOL KFPY KOIN
 KHJ KFRK

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

9:30-10:00 General Motors Family Party
 WEAJ WEEI WJAR WCSH WTAG WLIT
 WRC WGY WCAE WTAM WWJ WGN
 KSD WOC WOV WSAI WDAF KSTP
 WTMJ WHAS WSM WMC WSB KPRC
 WJAX WFAA WOAI WKY KOA KSL
 KGO KGW KFI KOMO KHQ WVIC
 WHO WBEN WCAE

9:30-10:00 Bourjois
 WABC WFBL WKBW WEAN WNAC WCAU
 WJAS WLBW WMAL WCAO WADC WHK
 WKRC WBT WXYZ WSPD WOWO WBBM
 KMOX KMBC KOIL

10:00-10:30 Robert Burns Panatela Program
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WXYZ WSPD WOWO WFBM WMAQ
 WCCO KMOX KMBC KOIL KFJF KRLD
 KTRH K TSA KLZ KDYL KVI KOL
 KFPY KOIN KHJ KFRC

10:00-10:30 Stromberg-Carlson Program
 WJZ WBZ WBZA WHAM KDKA KYW
 KWK WREN WEBC WRVA WJAX WIOD
 WHAS WSM WMC WSB WSMB WOAI
 KOA KPRC KGO KFI WCKY KGW
 KHQ KOMO WJDX WFLA WSN WJR
 KTAR KFSD WAPI WKY WGAR

10:00-10:30 Adventures of Sherlock Holmes
 WEAJ WJAR WCSH WWJ WTAG WEEI
 WLIT WTAM WSAI WRC WGN WOC
 WHO WBEN WCAE

10:30-11:00 Empire Builders
 WJZ WBZ WBZA WHAM KDKA WJR
 WLW KYW KWK WREN WTMJ WOAI
 KSTP WEBC KOA KSL KGO KECA
 KGW KOMO KHQ KTAR KFSD WKY
 WBAP KPRC WGAR

10:30-11:00 Symphonic Rhythm Makers
 WEAJ WJAR WTAG WRC WCAE WTAM
 WWJ WJDX WGY CFCE WEEI WENR

10:30-11:00 Savino Tone Pictures
 WABC WFBL WEAN WDRC WNAC WORC
 WJAS WLBW WMAL WCAO WTAR WDBJ
 WADC WHK WWNC WBCM WDOD WREC
 WBRC WISN WTAQ KSCJ WMT KMBC
 KLRA WNAX KFJF K TSA KFPY CFBR
 WOKO

11:00-11:15 Paul Tremaine and His Orchestra
 WABC WFBL WKBW WDRC WORC WCAU
 WLBW WMAL WCAO WTAR WDBJ WADC
 WBT WBCM WSPD WLAC WBRC WDSU
 WISN WTAQ WOWO WFBM WCCO KSCJ
 WMT WNAX KOIL KFJF WACO KLZ
 CFRB WAAB

11:00-11:30 Florence Richardson and Orchestra
 WEAJ WCAE WOV (WSAI off 11:35) (WJDX
 WMC WSB KSD WSM on 11:15) CFCE
 WIOD

11:30-12:00 Hal Kemp and His Orchestra
 WEAJ WEEI (WTAM on 11:35) KSD WOC
 WHO WIOD (WOW WDAF WTMJ on 11:45)
 WDAY WAPI WGY KOA KSTP WBEBC

Tuesday

10:15-10:30 Through the Looking Glass
 WJZ WBZ WBZA WHAM WLW WREN
 KFJK KDKA KWK CKGW KFAB WKY
 KVOO WOAI WBAP WGAR

4:00-4:30 Italian Idyll
 WABC WLBZ WEAN WNAC WORC WPG
 WCAU WLBW WMAL WCAO WTAR WDBJ
 WKRC WAIU WWNC WXYZ WSPD WDOD
 WREC WLAC WBRC WBBM WCCO KSCJ
 WMT KMOX KMBC WDAP KOIL KFJF
 KTRH K TSA KLZ KFRC CFBR

5:00-5:30 Ponds - Leo Reisman's Orchestra
 WEAJ WRC KSD WTAG WWJ WBN
 WCSH WEEI WAPI WTIC WJAR WSAI
 WOC WTAM KYW WHO WOW WDAF
 CKGW WSB WCAE WSM WLIT

6:30-6:45 'Who's Behind the Name?'
 WEAJ WFI WRC WCAE KOA KSD
 KECA WBO KGO KOMO WOC WHO
 WSMB KGW KFSD WTAM WJDX KPRC

7:00-7:15 Political Situation in Washington
 WABC WGR WNAC WCAU WJAS WLBW
 WMAL WTAR WWNC WXYZ WSPD WDOD
 WTAQ KFH KRLD WACO KOH KFRC

7:00-7:30 Voter's Service
 WEAJ WJAR WCSH WFI WBN WCAE
 WWJ WOC WHO WOW WOAI KOMO
 KGO WTAG KSTP WBEBC KGW WSAI
 KOA WTIC

7:30-7:45 Winegar's Barn Orchestra
 WDRC WORC WHP WJAS WLBW WDBJ
 WAIU WKBN WWNC WXYZ WDOD WREC

WLAC WBRC WDSU WISN WTAQ WGL
 KSCJ WMT KLRA KPH KDYL KFPY
 KPRC CFBB

7:30-8:00 Soconyland Sketches
 WEAJ WEEI WJAR WTAG WCSH WGY
 WBEN

7:45-8:00 Dr. Scholl's Ramblers
 WJZ WENR KFAB WCKY KWK WEBC
 WRVA WREN WHAM KFSD WSMB WJDX
 KTHS WBAP WOAI KOA KSL KGO
 WPTF WJAX WFLA WSUN WSM WMC
 WSB WDAY KFJR KFI KOMO KHQ
 WHAS KVOO WKY KTAR

8:00-8:30 Paul Whiteman's Paint Men
 WJZ WBZ WBZA WHAM KDKA WTMJ
 WJR WLW KYW KWK WREN WRVA
 WJAX KGW KOMO KHQ KFSD KTAR
 WGAR WGY KOA WIOD WHAS WSM
 WMC WSB WJDX WSMB WOAI KFAB
 KGO KECA WBAL WPTF

8:00-8:30 Blackstone Plantation
 WEAJ WCAE WTAM WWJ WSAI WBO
 KSD WOC WHO WOW WDAF KOA
 WEEI WJAR WTAG WCSH WFI WRC
 WGY WBEN

8:15-8:30 Old Gold Character Readings
 WABC WFBL WHEC WGR WLBZ WEAN
 WDRC WNAC WORC WFG WCAU WHP
 WJAS WLBW WCAO WTAR WDRJ WADC
 WKRC WAIU WKBN WWNC WBT WGST
 WTOC WQAM WDBO WDAE WXYZ WBCM
 WSPD WDOD WREC WLAC WBRC WDSU
 WISN WJDX WCCO KSCJ KOIL KMOX
 KMBC KLRA WDAY WNAX WMT WBW
 KFH KFJF WJR KTRH K TSA KLZ
 KDYL KVI KOL KFPY KOIN KHJ
 KFRC

8:30-9:00 Florsheim Frolic
 WEAJ WTAG WFI WRC WGY WCAE
 WWJ WSAI WGN KSD WDAF WEBC
 WRVA KVOO WJAX WIOD WSN WFLA
 WSM WMC WSB WSMB WJDX KPRC
 WOAI WKY KOA KSL KTHS WJAR
 WHAS WCSH WBAP WBEN KSTP

8:45-9:00 Round Towners with Irene Beasley
 WABC WFBL WHEC WGR WDRS WORC
 WHP WJAS WLBW WCAO WTAR WDBJ
 WLAC WDSU WISN WTAQ WOWO KSCJ
 KMOX KLZ CFBB

9:00-9:30 Household Celebrities Program
 WJZ WBZ WBZA WBAL WHAM KDKA
 WGN KWK WREN WJR

9:00-9:30 McKeason Musical Magazine
 WEAJ WEEI WJAR WTAG WCSH WFI
 WRC WBEN WTAM WSAI KSD WOW
 WTMJ WEBC WRVA WIOD WFLA WSUN
 WSM WMC WSB WSMB WJDX KPRC
 WKY KOA KSL KGO KECA KTAR
 KFSD KGW KOMO KHQ KVOO WOAI
 KYW

9:00-9:30 Henry-George
 WABC WFBL WGR WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WXYZ WSPD WISN WOWO WFBM
 WBBM WCCO KMOX KMBC KOIL KFH

9:30-10:00 The Philco Symphony Concert
 WABC WFBL WHEC WKHW WEAN WDRS
 WNAC WCAU WJAS WMAL WCAO WTAR
 WADC WHK WKRC WGST WXYZ WSPD
 WDOD WREC WLAC WBRC WDSU WISN
 WOWO WFBM WMAQ WCCO WMT KMOX
 KMBC KOIL KFH KFJF KRLD KTRH
 K TSA CFBR

9:30-10:00 Death Valley Days
 WJZ WBAL WCKY KWK WBZ WBZA
 WHAM KDKA WENR

9:30-10:00 Happy Wonder Bakers
 WEAJ WJAR WEEI WTAG WCSH WRC
 WGY WCAE WTAM WWJ WSAI WBO
 KSD WHO WOW WTMJ KSTP WEBC
 KVOO WKY KOA KSL KGO KOMO
 KECA KGW KHQ WBAP WOC WRVA
 WFI WDAF WBEN KPRC

10:00-10:15 Graybar — Mr. and Mrs.
 WADC WCAO WNAC WKRB WBBM WKRC
 WHK WXYZ WQOW KMBC WABC WLBW
 KOIL WCAU WJAS WEAN KMOX WFBL
 WSPD WMAL WJNC WGST WBRG KRLD
 KLZ KTRH WPBM WLRA WCCO WISN
 WREC WTAR WLAC WDSU KFJF WHEC
 WDBJ K TSA KDYL KFH WKBN KHJ
 KOIN KFRC KOL KFPY

10:00-11:00 Lucky Strike Dance Orchestra
 WEA F WEEI WJAR WTAG WCHS WFI
 WRC WCAE WJY WSAI KSD WOC
 WEO WTMJ WEBC WRVA WJAX WIOD
 WFLA WSUN WHAS WJAZ WMC WSB
 WSMB WJDX WQAI WKY KOA KGO
 KECA KWJ KHQ KOMO KTRAR KFSD
 WIBO WDAF WTAM WAPI WBN

10:15-10:30 Blue Ribbon Malt Jester
 WABC WFBL WGR WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WBT WXYZ WSPD WLAC WBRG
 WDSU WQOW WMAQ WCCO KMBC KLRA
 KOIL KFH KRLD K TSA KLZ

10:30-10:45 Clara, Lu and Em
 WJZ WBAL WHAM KDKA WJR WLW
 KWK WREN WGAR WBZ WBZA WGN

10:30-11:00 Paramount Public Playhouse
 WABC WFBL WHEC WKBW WLBZ WEAN
 WDRC WNAC WPG WCAU WHP WJAS
 WMAL WCAO WTAR WDBJ WADC WHK
 WKRC WKBN WJNC WBT WGST WTOG
 WQAM WDBO WDAE WXYZ WBCM WSPD
 WDOD WREC WLAC WBRG WDSU WISN
 WQOW WFBM WBBM WCCO KSCJ WMT
 KMOX KLRA WDAY WNAX KOIL WIBW
 KFH KFJF KRLD KTRH K TSA KLZ
 KDYL KOL KFPY KOIN KHJ KFRC
 KNX CFRB

11:00-11:15 Fletcher Henderson and his Orchestra
 WABC WFBL WHEC WDRC WORC WCAU
 WJAS WLBW WCAO WTAR WDBJ WADC
 WKBN WJNC WXYZ WRHM WDOD WREC
 WLAC WBRG WDSU WISN WTAQ KSCJ
 WMT KMOX KLRA WNAX KFH KRLD
 K TSA KDYL KFPY

11:15-12:00 Cab Calloway and his Orchestra
 WEA F WFI WOC WHO WOW KSD
 WTIC WBN WMC

Wednesday

7:00-7:15 Morton Downey
 WABC WHEC WJAS WEAN WNAC WORC
 WCAU WHP WLBZ WLBW WMAL WCAO
 WTAR WDBJ WKRC WAU WJNC WXYZ
 WBCM WDOD WLAC WBRG KSCJ WDAY
 WIBW KFJF KTRH KOL KFRC

7:05-7:15 Gene Austin, tenor
 WEA F WBN WCAE WOC KGO WWJ
 WENR WBC WSMB WHO WDAY

7:15-7:30 Science Speaks
 WEA F KFI KPO KGO WFI KOMO
 KTRAR KFSD WJAR WENR

7:30-7:45 Evangeline Adams, Astrologer
 WABC WFBL WHEC WGR WEAN WDRC
 WNAC WCAU WCAO WDBJ WTAR WADC
 WHK WKRC WAU WJNC WGST WXYZ
 WSPD WDOD WREC WLAC WBRG WDSU
 WISN WFBM WGL WCCO KMOX KMBC
 KLRA KOIL KFJF WRR KTRH CFRB

7:30-7:45 Boscol Moments with Mme. Alda
 WEA F WLIT WBN WCAE WSAI WRC
 WTAM WWJ WGY

7:45-8:00 "Back in the News in Washington"
 WEA F WRC KOA KECA KGO WGY
 WCAE WJC WBN WRVA WKY KOMO
 KFSD WSAI WIBO KSD WOC WHO
 WOW WDAF WAPI

7:45-8:00 Daddy and Rollo
 WABC WFBL WKBW WEAN WNAC WCAU
 WJAS WLBW WMAL WCAO WADC WKRC
 WXYZ WSPD WREC WISN WFBM WGL
 WMAQ WCCO KMOX KOIL WRHM

8:00-8:15 Listerine Program—Bobby Jones
 WEA F WEEI WTIC WJAR WTAG WCHS
 WLIT WRC WBN WTAM WWJ WSAI
 KSD WOC WHO WOW WPTF WIOD
 WFLA WSUN WHAS WSM WSB WSMB
 WJDX WFAA WQAI KOA

8:15-8:30 Radiotron Varieties
 WEA F WTIC WJAR WTAG WRC WBN
 WTAM WSAI WIBO KSD WOW WIOD
 WSM WSB WSMB WJDX WQAI KOA
 KHQ KOMO KFSD KTRAR KECA KSL
 KGO KOA KVOO

8:30-9:00 Mobil Oil Concert
 WEA F WEEI WJAR WTAG WCHS WLIT
 WRC WSAI KSD WOW WTAM KOA
 KVOO WFAA WQAI WKY KPRC WTIC
 KSL WGY WGN WBC WDAF WCAE
 WHO WOC WWJ WBN

8:30-9:00 The Sunkest Musical Cocktail
 WABC WFBL WGR WEAN WDRC WNAC
 WFAN WCAU WJAS WMAL WCAO WADC
 WHK WKRC WXYZ WSPD WQOW WJJD
 KMOX KMBC KOIL KLZ KDYL KOL
 KFPY KOIN KHJ KFRC

8:30-9:00 Canadian Pacific Musical Crusaders
 WJZ WGAR WBZ WBZA WHAM KDKA
 KYW KWK WKY WREN KFAB CKGW

9:00-9:30 The First Nighter
 WJZ KDKA WLS WHAM WGAR WREN
 WBAL KDKA

9:00-9:30 Gold Medal Fast Freight
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WTAR WDBJ
 WADC WHK WKRC WCAH WXYZ WSPD
 WJAP WREC WLAC WISN WQOW WFBM
 WMAQ WCCO KSCJ KMOX KMBC KOIL
 KFH KFJF KRLD KLZ KDYL KOL
 KFPY KOIN KHJ KFRC KMJ

9:00-9:30 Halsey, Stuart Program
 WEA F WEEI WJAR WTAG WCHS WLIT
 WRC WGY WCAE CKGW WRVA WJAX
 KOA KSL KGO KGW KOMO KHQ
 WSAI KSD WOC WHO WOW WWJ
 WSMB KVOO KPRC WQAI KSTP WTMJ
 KYW WHAS WSM WMC WSB KFI
 WBN WTAM

9:30-10:00 Arabesque — Desert Play
 WABC WFBL WDRC WORC WPG WJAS
 WLBW WMAL WDBJ WJNC WXYZ WBCM
 WDOD WREC WDSU WISN WTAQ WFBM
 WMT KMOX KLRA WNAX KFJF K TSA
 KLZ KDYL KFPY CFRB

9:30-10:30 Palmolive Hour
 WEA F WEEI WTIC WJAR WTAG WCHS
 WLIT WRC WGC WCAE WSAI WGN
 KSD WOC WOW WSMB WTMJ KSTP
 WHAS WSM WMC WDAF WHO WSB
 WJAX WQAI KOA KSL KGO KGW
 KOMO KHQ WFAA KPRC WWJ WTAM
 KFI WBN (KVOO of 10:00)

10:00-10:15 Vitality Personalities
 WABC WADC WJAS WNAC WKBW WBBM
 WKRC WBT WXYZ WQOW KMBC KOIL
 WCAU WGAN KMOX WFBL WSPD WMAL
 WDRC WGST WBRG WRR KTRH WFBM
 KLRA WISN WCAH WLAC WDSU KFJF
 K TSA KDYL KHJ KOIN KFRC KOL

10:15-10:30 Peter Pan Forecasts
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WXYZ WSPD WQOW WBBM KMOX
 KMBC KOIL KRLD CFRB

10:30-10:45 McAleer Polishers
 WABC WFBL WKBW WLBZ WEAN WDRC
 WNAC WORC WPG WCAU WJAS WMAL
 WCAO WTAR WADC WHK WKRC WCAH
 WBT WGST WXYZ WSPD WREC WLAC
 WDSU WISN WQOW WFBM WMAQ WCCO
 KSCJ WMT KMOX KMBC KLRA KOIL
 KFJF WRR KTRH K TSA WACO KLZ
 KDYL CFRB CKAC WOKO

10:30-11:00 Coca Cola Program
 WFAF WEEI WVIC WJAR WTAG WCSH
 WLIT WRC WCAE WSAI WOC WEBC
 WKY KYW KSD WRVA KSTP WJAX
 WIOD WSM KSBM KTHS KPRC WOAI
 KOA KSL KGK KECA KGW KHQ
 KOMO WJDX WGY WDAF WHAS WTAM
 WHO WOV KFSD WMC WSB WWJ
 WAPI WBEN

10:45-11:15 Columbia Concerts Program
 WABC WFBL WEAN WDRC WORC WPG
 WIP-WFAN WCAU WJAS WLBW WMAL
 WCAO WTRW WDBJ WADC WHK WKBN
 WWNC WXYZ WBCM WDOE WREC WLAC
 WBRC WDSU WISN WTAQ WOWO WFBM
 KSCJ WMT KMOX KMBC KLRA WNA3
 KFJ KFJF KRLL K TSA KDYL KFPY
 CFRB

11:00-11:15 "The Voices of Radio Digest"
 WFAF WFLA WSUN KSD WTAM WOC
 WHO WRC WEEI WJAR WCSH WGY
 WIBO WJAX WIOD

11:15-11:30 Vincent Lopez and His Orchestra
 WFAF WRC WCAE KSD WGY WLIT
 WOC WHO (WWJ WFLA WSUN off 11:15)
 (WAPI WDAF on 11:15)

11:30-12:00 Will Osborne and His Orchestra
 WABC WFBL WKRW WDRC WORC WPG
 WLBW WMAL WCAO WTR WDBJ WADC
 WBT WXYZ WBCM WSPD WLAC WBRC
 WDSU WISN WTAQ WFBM WCCO KSCJ
 WMT KMBC WNA3 KFJF KLZ CFRB
 WAAB

Thursday

10:00-10:15 Ceresota Program
 WFAF WJAR WTAG WCSH WFI WRC
 WGY WCAE WWJ WSAI KYW KSTP
 WRVA WTAM WBEN WOC WHO

3:30-4:00 Chicago Serenade
 WJZ KDKA WJR WREN KFAB KOA
 WLW WSM WMC WAPI WFLA WSUN
 CKGW

4:30-5:00 U. S. Army Band
 WJZ WLW KWK WREN KFAB WJAX
 WSM KSTP WSMR

5:00-5:15 "Stories of the Old South"
 WJZ WHAM WLW WENR KWK WREN

5:30-5:45 Rinse Talkie
 WFAF WEEI WVIC WTAG WJAR WLIT
 WRC WGY WBEN WCAE WTAM WWJ
 KSD WOC WHO WSAI KYW

7:00-7:30 Mid-Week Federation Hymn Sing
 WFAF WMC WIBO WWJ WHAS WOC
 WHO KOA WBEN

7:30-7:45 St. Moritz Orchestra
 WEAN WDRC WHP WJAS WLBW WMAL
 WDBJ WKBN WBT WXYZ WREC WBCM
 WLAC WBRC WISN WFBM WGL KSCJ
 KMOX WDAY WNA3 KOIL KFJF KTRH
 KVI KFPY KFRK

7:30-8:00 Niagara-Hudson Program
 WFAF WGY WXYR WBEN WVIC

8:00-8:15 Dixie Spiritual Singers
 WJZ WBZ WBZA KFAB KWK WREN
 WBAL KDKA WGAR WJR WCKY WLS

8:00-9:00 Fleischmann Hour - Rudy Vallee
 WFAF WEEI WTAG WJAX WIOD WJDX
 WJAR WCSH WHP WRC WGY WCAE
 WHO WOV WDAF WWJ WHAS KTR
 WMC WBS WSMB WBC KOA WRVA
 KSL KOMO WOAT WSM WOC WAPI
 KGO KHQ KECA KSD CKGW WTAM
 KGW KSTP WGN KPRC WBEN (WTMJ
 KTHS WSAI WBAP WKY of 8:30)

8:15-8:30 Rin-Tin-Tin Thriller
 WJZ WBZ WBZA WBAL KDKA WGAR
 WJR KWK WREN WLW KYW KFAB

8:30-8:45 Kaltenborn Edits the News
 WABC WFBL WGR WEAN WDRC WNAC
 WORC WCAU WJAS WMAL WCAO WADC
 WHK WKRC WXYZ WSPD WOWO WMAQ
 WCCO KMOX KMBC KOIL

8:30-9:00 Salada Salon Orchestra
 WJZ WBZ WBZA WBAL WHAM KDKA
 WJR WIBO KVK WREN KFAB WGAR

8:45-9:00 The Hamilton Watchman
 WABC WFBL WGR WEAN WNAC WCAU
 WJAS WLBW WMAL WCAO WADC WHK
 WKRC WXYZ WSPD WOWO WJDX KMOX
 KMBC KOIL

9:00-9:15 Premier Salad Dressers
 WABC WHEC WKBW WPG WJAS WLBW
 WMAL WCAO WTR WBN WXYZ WSPD
 WDDO WLAC WDSU WISN WTAQ KMBC
 KFJ KRLL WACO KLZ KOH

9:00-9:30 Blackstone Plantation
 WJZ WBZ WBZA WBAL KDKA WCKY
 WHAM

9:00-9:30 Arco Birthday Party
 WFAF WEEI WJAR WTAG WCSH WFI
 CKGW WRC WGY WSB WSM WIOD
 WJAX WOAI KOA KSL WKY WBAP
 WRVA WSTP WWJ WSAI KSD WDAF
 KYW WCAE WEBC WOW WSMB WJDX
 WOC WFJC WTMJ WMC WHO KGO
 KECA KOMO KHQ KGW WAPI WTAM
 WBEN

9:15-9:30 Old Gold Character Readings
 WABC WFBL WHEC WGR WLBZ WEAN
 WDRC WNAC WORC WPG WCAU WHP
 WJAS WLBW WCAO WTR WDBJ WADC
 WHK WKRC WAIU WKBN WNBC WBT
 WGST WTOC WQAM WDBO WDAE WXYZ
 WBCM WSPD WDOE WREC WLAC WBRC
 WDSU WISN WOWO WFBM WBM WCCO
 KSCJ WMT KMOX KMBC KLRA WDAY
 WNA3 KOIL WBW KFJ KFJF KRLL
 K TSA KLZ KDYL KVI KOL KFPY
 KOIN KHJ KFRK

9:30-10:00 Jack Frost's Melody Moments
 WFAF WJAR WWJ WTAG WCSH WFI
 WRC WCAE WSAI WTAM WIBO WGY
 WREN

9:30-10:00 Detective Story Magazine
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WXYZ WSPD WOWO WBM KMBC
 KMBC KOIL

9:30-10:00 Maxwell House Ensemble
 WJZ WBZ WBZA WBAL WLW KSTP
 WKY WTMJ WEBC WHAS WSM WJAX
 KPRC KOA WRVA WSB WBAP KYW
 KWK WREN WIOD WJR WSMB WOAI
 KECA KGW KOMO KHQ WAPI WMC
 WHAM KDKA KSL KGO

10:00-10:30 The Lutheran Hour
 WABC WFBL WKBW WEAN WDRC WNAC
 WCAU WJAS WMAL WCAO WADC WHK
 WKRC WXYZ WSPD WDSU WOWO WBBM
 WCCO WMT KMOX KMBC WNA3 KOIL
 KRLL KLZ KDYL KOL KFPY KOIN
 KHJ KFRK

10:00-11:00 Lucky Strike Dance Orchestra
 WFAF WEEI WJAR WTAG WCSH WFI
 WRC WGY WCAE WWJ WSAI WBEN
 KSD WOV WKY WOAI KOA KSL
 WTMJ WIOD WHAS WSM WMC WSMB
 KYW KVOO WDAF WJAX KPRC WEBC
 WRVA WFLA WSUN WSB WFAA KFSB
 KTR (KGO KGW KFI KOMO KHQ
 off 10:30) (WOC WHO KTHS on 10:30)

11:30-12:00 Cab Calloway and His Orchestra
 WFAF WWJ WOV WFI KSTP WJDX
 WDAF WTAM WOC WHO WIBO WGY
 WCAE

11:30-12:00 Radio Roundup
 WABC WKBW WEAN WNAC WPG WCAU
 WLBW WMAL WCAO WTR WADC WBN
 WXYZ WSPD WDDO WLAC WDSU WISN
 WTAQ WCCO KMBC KFJ WACO KLZ
 CFRB

12:00-12:30 Ozzie Nelson and His Orchestra
 WABC WFBL WKBW WNAC WPG WCAU
 WCAO WDBJ WADC WBT WXYZ WBCM
 WSPD WLAC WBRC WISN WTAQ WFBM

WCCO KSCJ WMT KMOX KMBC WNAX
KFH KFJF KLZ

Friday

4:00-4:45 U. S. Marine Band Orchestra
WABC WFBL WGR WDRC WORC WPG
WCAU WMAL WCAO WTAR WDBJ WHK
WAU WBT WXYZ WBCM WSPD WLAC
WBRC WDSU WISN WTQG WFBM KSCJ
WMT KMBC KOIL KFJF WACO KLZ
CFRB WAAB

4:15-5:15 Radio Guild
WJZ WBAL WHAM WRC CKGW WPTF
WJAX KGO KFI KOMO KFSD KTRAR
KFAB KSTP WEBC WSM WMC WREN
KSL KOA KYW KWK WJR WGAR
WLW WTMJ WSB WSBM KVOO WOA1
WKY KPRC WRVA WJDX

5:00-5:30 Light Opera Gems
WABC WKBW WGR WDRC WHP WJAS
WLBW WCAO WTAR WAU WKBN WBT
WXYZ WBCM WSPD WREC WLAC WBRG
WISN WGL WCCO KSCJ KMOX WDAY
KOIL KFH KFJF KRLLD KTRH KTSA
KLZ CFRB

5:30-5:45 Benjamin Moore Triangle
WEAF WTAG WJAR WCHS WLIT WRC
WGY WBN WCAE WTAM WWJ WSAI
KSD WDAF KSTP WEBC WRVA WPTF
KFYR WJAX WIOD WFLA WSUN KVOO
KPRC WOA1 WKY WEEI WTC KYW

6:00-6:30 Winegar's Barn Orchestra
WABC WGR WFAN WJAS WLBW WCAO
WTAR WADC WNNC WDOD WLAC WDSU
WISN WTAQ WBBM KFH KRLLD KLZ
KOH KFRC

7:00-8:00 Major Bowes' Family
WEAF WJAR WCHS WLIT WBN WCAE
WWJ WENR WOC WHO KSTP WHAS
WMC WSB WSBM KOA KGO KECA
KGW KOMO KTRAR

7:30-7:45 Red Goose Adventures
WGR WCAU WJAS WLBW WCAO WTAR
WDBJ WADC WKRC WAU WKBN WNNC
WBT WTCO WQAM WDBO WDAE WXYZ
WBCM WDOD WREC WLAC WBRG WDSU
WISN WTAQ WOWO WFBM WBBM WCCO
KSCJ WMT KMOX KMBC KLRA WNAX
KOIL W1W KFH KFJF WRR KTRH
KLZ KDYL KOH WNOX

7:45-8:00 Kate Smith and Her Swanee Music
WABC WHEC WGR WORC WHP WJAS
WLBW WTAR WDBJ WXYZ WBCM WLAC
WBRC WDSU WISN WTAQ WFBM WCCO
KSCJ KMBC KOIL KFJF CFRB WAAB

8:00-8:30 Nestle's Program
WJZ WBZ WBZA WHAM W1W0 KWK
WREN KFAB WJR WLW KDKA WGAR

8:00-9:00 Cities Service Concert Orchestra
WEAF WEEI WTC WLIT WRC WCAE
WJAR WCHS WGY KYW KSD WDAF
KSTP WTMJ WKY WOC KOA WEBC
WOAI KOMO KGO KGW KHQ KSL
WTAG CKGW KECA WHO WSAI WTAM
WBN WWJ (WFAX KPRC off 8:30)

8:30-9:00 The Dutch Masters
WABC WFBL WGR WCAO WDRC WNAC
WCAU WJAS WMAL WCAO WADC WKRC
WXYZ WSPD WBBM WCCO KMOX KMBC
KOIL

9:00-9:30 Cliequot Club Eskimos
WEAF WEEI WTC WJAR WTAG WCHS
WLIT WRC WOV WCAE WSAI W1W0
KSD WWJ WDAF WOC WHO WGY
WREN

9:00-9:30 Interwoven Pair
WJZ WHAM WMC KDKA WJAX WKY
WREN KPRC KWK WJZ KGW
WSMB WIOD WFAA WJR WTMJ KSTP
WHAS KYW WEBC WCKY WSM WRVA
WSB WAPI WOA1 KOA KSL KGO
KECA KGW KOMO KHQ KFSD KTRAR
WJR WGAR

9:00-10:00 True Story Hour

WABC WFBL WKBW WEAN WDRC WNAC
WCAU WJAS WMAL WCAO WADC WHK
WKRC WXYZ WSPD WOWO WMAQ KMOX
KMBC KOIL

9:30-9:45 American Pro-Art String Quartet

WEAF WJAR WTAG WCHS WRC WLIT
WGY WBN WCAE

9:30-10:00 Armour Program

WJZ WBZ WBZA WJR KYW WREN
KSTP WEBC WRVA WMC WSB WGAR
WOAI KOA KSL KGO WKY WHAS
KGW KHQ KOMO KDKA WJAX WJDX
WIOD WTMJ WAPI WHAM WKC
WLW WSBM KFI

9:45-10:00 "Saki Get Rich"

WEAF WJAR WTAG WCHS WRC WLIT
WGY WCAE KSD WBN WENR

10:00-10:30 Armstrong Quakers

WJZ KDKA WBZ WBZA KYW KWK
WHAM KPRC WJR WTMJ WEBC WHAS
WSM WSB WOA1 KOA WSBM KSL
KGW KOMO KHQ WMC KFI WBAP
WCKY KTHS KSTP KVOO WKY

10:00-10:30 Kodak Week-End Program

WEAF WJAR WCHS WCAE WWJ KSD
WSAI WRC WBN WLIT WTAG WGY
WTAM WOV WENR KGO KGW KOMO
KHQ KOA KSL KTRAR KFSD KFI

10:00-10:30 Van Heusen Program

WABC WFBL WKBW WEAN WDRC WNAC
WCAU WJAS WMAL WCAO WADC WHK
WKRC WGST WXYZ WSPD WDSU WMAQ
WCCO KMOX KMBC KOIL

10:30-11:00 The March of Time

WABC WFBL WKBW WEAN WDRC WNAC
WCAU WJAS WMAL WCAO WADC WHK
WKRC WXYZ WSPD WOWO WBBM KMOX
KMBC KOIL

10:30-11:00 RKO Theatre of the Air

WEAF WEEI WJAR WTAG WLIT WGY
WCAE WWJ WSAI W1W0 KSD WDAF
WRVA WJAX WOD WMC WSB WSBM
WOC WJDX KGO KTHS WOA1 WKY
WRC KOA KGW KFI KHQ KOMO
KTRAR KFSD WCHS WHO WOW KSL
WTAM WFLA WSUN WBN

10:45-11:00 The Ragamuffins

WJZ WHAM WGAR WREN KDKA WBAL
WENR CFCF

11:00-11:15 Fletcher Henderson and his Orchestra

WABC WHEC WDRC WORC WCAU WJAS
WLBW WCAO WTAR WDBJ WKBN WNNC
WXYZ WBCM WDOD WLAC WBRG WDSU
WISN WTAQ KSCJ WMT KLRA WNAX
KFH KFJF KRLLD KTSA KLZ KDYL
KPPY

11:30-12:00 Vincent Lopez and His Orchestra

WEAF WGY CKGW WTC WOC WHO
(WRC WWJ off 11:15) (KOA KSTP WDAF
on 11:45) (KSD on 11:30) (WCFL on 11:15-
11:30) (WFJZ WLIT off 11:30)

11:30-12:00 Ben Bernie and his Orchestra

WABC WFBL WHEC WEAN WDRC WNAC
WPG WIP-WFAN WLBW WMAL WCAO
WTAR WDBJ WADC WKBW WNNC WXYZ
WBCM WDOD WREC WLAC WBRG WDSU
WISN WTAQ WMT KSCJ KMOX KMBC
KLRA WNAX KFH KTSA KLZ KDYL

12:00-1:00 Phil Spitalny and His Orchestra

WEAF WRC WGY KYW WMC KPRC

Saturday

1:30-2:00 Savoy Plaza Orchestra

WABC WHEC WLBZ WEAN WCAU WHP
WJAS WMAL WCAO WTAR WDBJ WKRC
WAU WNNC WXYZ WBCM WSPD WDOD
WLAC WBRG W1W0 CFRB

4:30-5:00 Spanish Serenade

WABC WLBZ WEAN WNAC WORC WFAN
WHP WMAL WCAO WTAR WDBJ WKC
WAU WNNC WXYZ WBCM WSPD WDOD
WREC WLAC WBRG WMAQ WBBM WCCO

KSCJ WMT KMOX KMBC WDAY KOIL
WIBW KFJF KRLLD KTRH KTSA KLZ
KOL KFRC

5:00-5:30 Peter van Steeden and His Orchestra
WJZ WHAM WLW WJDX WBZ WBZA
WGAR

6:00-6:30 Ted Husing's Sportsplants
WABC WFBL WFAN WHP WLWB WTAR
WDBJ WADC WHK WAIU WBT WBCM
WREC WLAC WBRC WISN WOWO WBBM
WCCO KSCJ WDAY KOIL WIBW KFH
KFJF KRLLD KTRH KTSA KLZ KVI
KOL KFJF KHJ KFRC CFRB

6:00-6:15 Highroad of Adventure
WEAF WTIC WRC WTAM WIBO KSD
WJDX KOA KGO KGW KECA KOMO
WGY KTAR

6:30-6:45 Smith Ballew and His Orchestra
WJZ WBZ WBZA WRC KFAB KWK

7:00-7:15 Gene Austin, songs
WEAF WFI WCAE WWJ WSB KOA
KGO WCSH WENR WDAY WTIC KFJR

7:00-7:15 Morton Downey with Nat Brasloff
WABC WHEC WDRC WORC WHP WJAS
WLBW WMAL WTAR WDBJ WADC WHK
WAIU WKBN WYWC WBCM WSPD WDOD
WDSU WTAQ WOWO WFBM KSCJ WMT
KLRA KFH KFJF KRLLD KFJF KFRC
CFRB

7:15-7:30 Laws That Safeguard Society
WEAF WJAR WTAG WCSH WFI WGY
WBN WJW WOC WHO WOV WBCB
WOAI KOA KGO KECA KOMO KHQ
KTAR WJDX WEEI

7:15-7:30 Armand Vescey and his Orchestra
WHFC WGR WEAN WNAC WJAS WLWB
WMAL WCAO WTAR WADC WHK WWNC
WSPD WDOD WDSU WTAQ KFH KRLLD
WACO KOH KFRC

7:30-7:45 Rose of the Goldbergs
WJZ WHAM KWK WREN WIBO WSB
WJDX WWSB WAPI WGAR

7:30-8:00 Club Valspar — Ted Lewis
WEAF WTIC WJAR WTAG WCSH WGY
WIC WBN WCAE WAIU WENR WOC
WHO WDAF CFCF CKGW WBCB WJAX
WIOD WLIT WFLA WSUN WSM WMC
WSH WAPI WJDX WSMB KTHS WOAI
WKY WEEI WTAM WTMJ KSTP (WWJ
on 7:30-7:45) (WHAS off 7:45) (WBAP on 7:45)

8:15-8:30 Ben Alley, Tenor, with Ann Leaf
WABC WKBW WGR WDRC WORC WPG
WFAN WHP WJAS WLWB WMAL WCAO
WDHJ WADC WKBN WBT WXYZ WBCM
WSPD WREC WLAC WBRC WISN WOWO
WFBM WMAQ KSCJ KMOX WDAY WNAX
KOIL KFH KFJF KTRH KTSA KVI
KFJF KHJ KFRC

8:15-8:30 Radiotron Varieties
WEAF WEEI WJAR WTAG WCSH WRC
WGY WBN WCAE WTAM WWJ WSAI
WIBO KSD WOC WHO WOW WDAF
WTMJ WRVA WJAX WIOD WFLA WSUN
WSM WMC WSB WWSB WJDX KPRC
WOAI WKY KOA KSL KGO KGW
KOMO KHQ KTAR KFSD

8:30-9:00 The Silver Flute
WEAF WEEI WTAG WCSH WRC WFI
WGY WCAE WWJ WAI KSD WDAF
WIOD

8:30-9:00 Fuller Man
WJZ WBZ WBZA WBAL WHAM KDKA
WJR KWK WREN KOA CKGW WHAS
KPRC KGO KECA KGW KMO KFAB
KHQ WIBO WKY WTMJ WMC WBCB
WSB WAPI WSMB WLW WJDX KSTP

8:45-9:00 Mary Charles — Nat Brasloff's Orchestra
WABC WDRC WORC WCAU WHP WJAS
WLBW WCAO WTAR WDBJ WADC WAIU
WKBN WWNC WXYZ WBCM WSPD WDOD
WREC WLAC WDSU WISN WTAQ WOWO
WFBM KSCJ WMT KMOX KMBC KLRA
WNAX KFH KRLLD KLZ KFJF KFRC
CFRB

9:00-9:30 Atlantic City Entertains
WABC WKBW WDRC WORC WPG WJAS
WLBW WMAL WTAR WDHJ WAIU WBCM
WLAC WBRC WDSU WISN WTAQ WGL
KSCJ WMT KMBC KFH KFJF CFRB
WHP

9:00-10:00 General Electric Hour
WEAF WEEI WJAR WTAG WCSH WFI
WRC WGY WBN WCAE WTAM WWJ
WSAI WBO KSD WOC WOW WDAF
WTMJ WKY KSTP WBCB WRVA WJAX
WHAS WMC WSB WAPI WWSB WBAP
KPRC WOAI KOA KSL KGO KFI
KGW KOMO KHQ KFSD KTAR

9:30-10:00 Columbia Educational Features
WABC WLWB WEAN WNAC WORC WPG
WFAN WHP WJAS WLWB WMAL WTAR
WDBJ WRC WWNC WXYZ WBCM WSPD
WDOD WREC WLAC WBRC WFBM WCCO
KSCJ WMT KMBC WDAY WNAX WCO
WIBW KFH KFJF KTRH KTSA KLZ
KOL KFRC

10:00-10:30 Cuckoo
WJZ WBZ WBZA WBAL KDKA WHAM
WGAR WLW WIBO KWK WREN WJR
CFCF CKGW

10:00-11:00 Lucky Strike Dance Orchestra
WEAF WEEI WJAR WTAG WCSH WFI
WRC WGY WBN WCAE WTAM WWJ
WSAI WGN KSD WHO WOC WOW
WDAF WTMJ KSTP WBCB WRVA WJAX
WIOD WFLA WSUN WHAS WMC WSB
WWSB WJDX KVOO WFAA KPRC WOAI
WKY KOA KSL KGO KFI KGW
KOMO KHQ KTAR KFSD

10:00-10:45 Hank Simmons' Show Boat
WABC WHEC WLWB WEAN WNAC WORC
WPG WFAN WHP WJAS WLWB WMAL
WCAO WTAR WDBJ WRC WWNC WXYZ
WBCM WSPD WDOD WLAC WBRC WFBM
WMAQ WCCO KSCJ WMT KMOX KMBC
WDAY WNAX KOIL WRWB KFH KFJF
KRLLD KTRH KTSA KLZ KOL KFRC
CFRB

10:30-10:45 Clara, Lu and Em
WJZ WBZ WBZA WHAM KDKA WJR
WLW WENR WGAR WBAL KWK WREN

10:45-11:00 Anheuser Busch Program
WABC WKBW WEAN WNAC WCAU WJAS
WMAL WHK WCAH WXYZ WDOD WREC
WDSU WFBM WBBM WMT KMOX KMBC
KLRA KOIL KFJF KRLLD KTRH KLZ
KDYL KVI KOL KFJF KOIN KILJ
KFRC

11:00-11:15 Bert Lown and His Biltmore Orchestra
WABC WFBL WHEC WKBW WDRC WORC
WCAU WHP WLWB WMAL WTAR WDBJ
WADC WHK WBT WXYZ WBCM WSPD
WLAC WBRC WDSU WISN WTAQ WFBM
WGL WCCO KSCJ WMT KMOX WNAX
KOIL KFH KFJF WACO KLZ CFRB
WAAB

11:00-11:15 Troubadour of the Moon
WEAF WFI WCAE WWJ WSAI WOC
WHO WOV

11:15-11:45 Hal Kemp and His Orchestra
WEAF WTIC WFI WRC WWJ WGY
KSD WOC WHO WEEI WCAE WDAY
CFCF WTAM WOW WDAF

11:30-12:00 Will Osborne and His Orchestra
WABC WFBL WHEC WKBW WDRC WORC
WPG WCAU WHP WLWB WMAL WCAO
WTAR WDBJ WADC WHK WBT WXYZ
WBCM WSPD WLAC WBRC EDSU WISN
WTAQ WFBM WGL WCCO KSCJ WMT
KMOX KMBC WNAX KFH KFJF KLZ
CFRB

11:45-12:00 Little Jack Little
WEAF WFI WCAE WTAM KSD WOC
WHO WDAF WFLA WSUN WSB KOA
WGY WIBO WOW KPIC WIOD

12:00-1:00 Jack Albin and His Orchestra
WEAF WTIC WRC WBN WTAM KSD
WMC WSB KPRC KOA WGY WOW

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; † Verification 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 frequency; Y given permit to move to another city. Dn—This daylight station may use evening hours under certain conditions. Dashes (..) have no meaning.

540 kilocycles 555.6 meters

CKX	†	500	---	Brandon, Manitoba
KEY	--	101	547	Merida, Mex.

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Manitoba Telephone System
Partido Socialista Surt

550 kilocycles 545.1 meters

KFDY	†	500	1+	Brookings, S. D.
KFUO	*	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

73	86	85
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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	*	500	---	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.

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

570 kilocycles 526.0 meters

KGKO	*	250	+	Wichita Falls, Texas
KMTR	*	500	---	Los Angeles, Cal.
KXA	*	500	---	Seattle, Wash.
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	C	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.
CHMA	--	250	4S	Edmonton, Alta.
CKCL	*	500	3	Toronto, Ont.
CKNC	*	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.
Christian and Missionary Alliance
The Dominion Battery Co.
Canadian National Carbon Co., Ltd.
University of Alberta
Dana McNeil
State Agricultural College
Topeka Broadcasting Assn., Inc.
WOBW, Inc.
WSAZ, Inc.
Telegram Publishing Co.

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590 kilocycles 508.2 meters

CMW	--	1400	588	Havana, Cuba
KHQ	--	1000	+N	Spokane, Wash.
WCAJ	*	500	1	Lincoln, Nebr.
WEEI	†	1000	N	Boston, Mass.
WKZO	* 1000	DY		Berrien Springs, Mich.
WQW	* 1000	1N		Omaha, Nebr.
XEZ	*	500	588	Mexico City

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

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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

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

620 kilocycles 483.6 meters

KGW	*	1000	+N	Portland, Ore.
KRAR	*	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.

56	65	62
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Oregonian Publishing Co.
KTAR Broadcasting Co.
Chamber of Commerce
Maine Broadcasting Co., Inc.
Chamber of Commerce
Milwaukee Journal

630 kilocycles 475.9 meters

CFCT	*	500	---	Victoria, B. C.
CJGX	--	500	---	Yorkton, Sask.
CNRA	*	500	---	Moncton, N. B.
KFRU	* 500	1		Columbia, Mo.
WGFB	†	500	1	Evansville, Ind.
WMAL	*	250	+C	Washington, D. C.
WOS	*	500	1	Jefferson City, Mo.
XET	†	500	---	Monterrey, Mex.

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

640 kilocycles 468.5 meters

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

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E. Fontaine
Arturo Hernandez
Earle C. Anthony, Inc.
American Insurance Union
State College of Agriculture
Secretaria de Guerra y Marina

650 kilocycles 461.3 meters

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

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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	*	225	N	Havana, Cuba
WAAW	*	500	D	Omaha, Neb.
WEAF	†	50000	N	New York City
WTIC	*	5000	N	Hartford, Conn.

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Chilliwack Brdstg. Co., Ltd.
Jas. Richardson & Sons, Ltd.
Jas. Richardson & Sons, Ltd.
J. L. Stowers
Omaha Grain Exchange
National Broadcasting Co., Inc.
Travelers Broadcasting Service, Inc.

670 kilocycles 447.5 meters

WMAQ	*	5000	C	Chicago, Ill.
XER	--	101	674	Mexico City

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WMAQ, Inc
Armida y Cia.

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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, Mex.
8WMC	--	500	682	St. Johns, N. F.

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Scroggin & Co., Bank
Hale Bros. & The Chronicle
Durham Life Insurance Co.
Manuel Angel Fernandez & Cia.
Wesley United Church

690 kilocycles 434.5 meters

CFAC	--	500	1	Calgary, Alta.
CHCA	--	500	1	Calgary, Alta.
CJ CJ	*	500	1	Calgary, Alta.
CKGW	*	5000	2N	Toronto, Ont.
CNRC	--	500	1	Calgary, Alta.
CPRY	--	5000	2	Toronto, Ont.
NAA	--	1000	--	Arlington, Va.
VAS	†	10000	685	Glance Bay, N. S.

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The Calgary Herald
The Western Farmer
Albertan Publishing Co., Ltd.
Gooderham & Worts, Ltd.
Canadian National Railways
Canadian Pacific Railways
U. S. Navy
Canadian Marconi Co.

700 kilocycles 428.3 meters

WLW	*	50000	N	Cincinnati, Ohio
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Crosley Radio Corp.

710 kilocycles 422.3 meters

KMPC	*	500	Dn	Los Angeles, Cal.
WOR	*	5000	--	Newark, N. J.
XEN	†	1000	711	Mexico City

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

720 kilocycles 416.4 meters

WGN	†	25000	N	Chicago, Ill.
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Chicago Tribune

730 kilocycles 410.7 meters

CHLS	--	50	1	Vancouver, B. C.
CHYC	*	5000	2S	Montreal, Que.
CKAC	*	5000	2C	Montreal, Que.
CKCD	--	50	1	Vancouver, B. C.
CKFC	†	50	1	Vancouver, B. C.
CKMO	--	50	1	Vancouver, B. C.
CKWX	†	100	1	Vancouver, B. C.
CMK	--	3150	--	Havana, Cuba
CNRM	*	5000	2	Montreal, Que.
XEM	†	500	--	Tampico, Mex.

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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.

740 kilocycles 405.2 meters

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

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

750 kilocycles 399.8 meters

TIC	--	50	--	San Jose, Costa Rica
WJR	†	5000	N	Detroit, Mich.

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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

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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.

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KFAB Broadcasting Co.
The Atlas Co., Inc.
The Atlas Co., Inc.

780 kilocycles 384.4 meters

CKY	--	5000	3	Winnipeg, Manitoba
CMGH	--	60	--	Matanzas, Cuba
CNRW	--	5000	3	Winnipeg, Manitoba
KELW	*	500	2	Burbank, Cal.
KTM	*	500	2+	Los Angeles, Cal.
WEAN	*	250	+C	Providence, R. I.

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Manitoba Telephone System
Alberto Alvarez
Canadian National Railways
Union Bank & Trust Co.
Pickwick Broadcasting Corp.
Shepard Broadcasting Service, Inc.

INDEX BY FREQUENCIES AND DIAL NUMBERS

WISJ	*	250	+	Madison, Wis.
WMC	--	500	+N	Memphis, Tenn.
WPOR	--	500	1	Norfolk, Va.
WTAR	--	500	1C	Norfolk, Va.
XEW	†	5000	---	Mexico City

Wisconsin State Journal Bdcsg. Co.
 Memphis Commercial-Appeal, Inc.
 WTAR Radio Corp.
 WTAR Radio Corp.
 Mexico Music Co.

790 kilocycles 379.5 meters

CMBS	--	150	---	Havana, Cuba
CMHC	--	500	---	Tuinucu, Cuba
KGO	†	7500	N	San Francisco, Cal.
WGY	†	50000	N	Schenectady, N. Y.

49	3	32
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E. Artalejo
 Frank H. Jones
 National Broadcasting Co., Inc.
 General Electric Co.

800 kilocycles 374.8 meters

WBAP	†	10000	1XN	Fort Worth, Texas
WFAA	†	50000	1N	Dallas, Texas
XEU	--	101	---	Veracruz, Mex.
XFC	--	350	805	Aguascalientes, Mex.

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

KCYS.
 880
 MTRS.
 340.7
 DIAL

810 kilocycles 370.2 meters

WCCO	*	7500	C	Minneapolis, Minn.
WPCH	*	500	D	New York City

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Northwestern Broadcasting, Inc.
 Eastern Broadcasters, Inc.

820 kilocycles 365.6 meters

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

42	3	33
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Courier-Journal & Times
 Sria. de Ind., Comercio y Trabajo

830 kilocycles 361.2 meters

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

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

840 kilocycles 356.9 meters

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

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Star Publishing & Ptg. Co.
 G. F. Tull & Ardern, 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.
XEJ	*	101	857	Juarez, Mex.

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Hello World Broadcasting Corp.
 Loyola University
 Juan Buttner

860 kilocycles 348.6 meters

CMJE	--	20	856	Camaguey, Cuba
KMO	†	500	+ Dn	Tacoma, Wash.
WABC	*	5000	XC	New York City
WBOQ	--	5000	---	New York City
WHB	*	500	D	Kansas City, Mo.
XFX	--	500	---	Mexico City, Mex.

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

870 kilocycles 344.6 meters

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

41		
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National Broadcasting Co., Inc.
 Agricultural Broadcasting Co.

880 kilocycles 340.7 meters

CHML	*	50	4	Hamilton, Ont.
CJCB	--	50	---	Sydney, N. S.
CKCI	†	22.5	3	Quebec, Que.
CKCV	†	50	3	Quebec, Que.
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

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Maple Leaf Radio Co., Ltd.
 N. Nathanson
 Le "Soleil," Ltd.
 G. A. Vandry
 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

INDEX BY FREQUENCIES AND DIAL NUMBERS

960 kilocycles 312.3 meters

31 18 18

CFCY	*	250	1	Charlottetown, P. E. I.
CFRB	*	5000	2C	Toronto, Ont.
CHCK	--	100	1	Charlottetown, P. E. I.
CHWC	--	500	3	Regina, Sask.
CJBR	--	500	3	Regina, Sask.
CKCK	†	500	3	Regina, Sask.
CMBC	--	150	965	Havana, Cuba
CMBD	--	150	965	Havana, Cuba
CNRR	--	500	3	Regina, Sask.
CNRX	*	5000	2	Toronto, Ont.
XED	*	10000	961	Reynosa, Mex

The Island Radio Co.
Rogers-Majestic Corp., Ltd.
W. E. Burke
R. H. Williams & Sons Ltd.
Cooperative Wheat Producers, Ltd.
Leader Publishing Co., Ltd.
Domingo Fernandez
Luis Perez Garcia
Canadian National Railways
Canadian National Railways
International Broadcasting Co.

970 kilocycles 309.1 meters

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

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

980 kilocycles 305.9 meters

25 16 18

CFCN	--	500	985	Calgary, Alta.
KDKA	--	50000	N	Pittsburgh, Pa.
XEFE	--	101	---	Laredo, Mex.

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

990 kilocycles 302.8 meters

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

Westinghouse Elec. & Mfg. Co.
Arturo Martinez

1000 kilocycles 299.8 meters

25 14 18

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

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

1010 kilocycles 296.8 meters

CFLC	*	50	3	Prescott, Ont.
CKCR	--	50	3	Waterloo, Ont.
CKIC	--	50	---	Wolfville, N. S.
CMBW	--	150	---	Havana, Cuba
CMZB	--	150	---	Havana, Cuba
KGGF	†	500	2	S. Coffeyville, Okla.
KQW	*	500	---	San Jose, Cal.
WHN	*	250	1	New York City
WIS	*	500	+ C	Columbia, S. C.
WNAD	*	500	2	Norman, Okla.
WPAP	*	250	1	New York City
WQAO	--	250	1	New York City
WRNY	--	250	1	New York City
XEQ	--	1000	1015	Juarez, Mex.

Radio Association
John Patterson
Acadia University
M. Alvarez
Manuel y G. Salas
Powell & Platz
Pacific Agricultural Foundation, Ltd.
Marcus Loew Booking Agency
South Carolina Broadcasting Co., Inc.
University of Oklahoma
Palisades Amusement Park
Calvary Baptist Church
Aviation Radio Station, Inc.
Feliciano Lopez Islas

1020 kilocycles 293.9 meters

KFKX	*	10000	1N	Chicago, Ill.
KYW	*	10000	1N	Chicago, Ill.
WRAX	†	250	D	Philadelphia, Pa.

Westinghouse Elec. & Mfg. Co.
Westinghouse Elec. & Mfg. Co.
WRAX Broadcasting Co.

1030 kilocycles 291.1 meters

CFCF	--	1650	N	Montreal, Que.
CMKC	*	150	1034	Santiago de Cuba
CNRV	†	500	---	Vancouver, B. C.
XEB	†	1000	---	Mexico City, Mex.
XEV	--	101	1034	Puebla, Mex.

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.

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

1050 kilocycles 285.5 meters

KFBI	*	5000	Dn	Milford, Kansas
KNX	*	5000	X	Hollywood, Cal.

Farmers & Bankers Life Insurance Co.
Western Broadcast Co.

KCYS.
1050
MTRS.
285.5
DIAL

INDEX BY FREQUENCIES AND DIAL NUMBERS

1060 kilocycles 282.8 meters

KWJJ -- 500 Dn
 WBAL * 10000 1N
 WJAG * 1000 Dn
 WTIC * 50000 1N

Portland, Ore.
 Baltimore, Md.
 Norfolk, Nebr.
 Hartford, Conn.

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KWJJ Broadcast Co., Inc.
 Consolidated Gas Elec. & Pwr. Co.
 Norfolk Daily News
 Travelers Broadcasting Service Corp.

1070 kilocycles 280.2 meters

CMBG -- 150 ---
 CMBT -- 150 ---
 CMCB -- 150 ---
 KJBS * 100 D
 WCAZ * 50 D
 WDZ † 100 D
 WTAM * 50000 N

Havana, Cuba
 Havana, Cuba
 Havana, Cuba
 San Francisco, Cal.
 Carthage, Ill.
 Tuscola, Ill.
 Cleveland, Ohio

18	4	73
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Francisco Garrigo
 E. Perera
 Antonio Capablanca
 Julius Brunton & Sons Co.
 Superior Broadcasting Service
 James L. Bush
 National Broadcasting Co., Inc.

1080 kilocycles 277.6 meters

WBT * 5000 C
 WCBD * 5000 1 Dn
 WMBI * 5000 1 Dn
 XEH -- 5000 ---

Charlotte, N. C.
 Zion, Ill.
 Chicago, Ill.
 Monterrey, Mex.

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Station WBT, Inc.
 Wilbur Glenn Voliva
 Moody Bible Institute
 Tarnava y Cia

1090 kilocycles 275.1 meters

KMOX * 50000 C
 XEL -- 10 1091

St. Louis, Mo.
 Saltillo, Mex.

17	17	72
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Voice of St. Louis, Inc.
 Antonio Garza Castro

1100 kilocycles 272.6 meters

CMKD -- 20 ---
 KGDM * 250 DX
 WLWL * 5000 1
 WPG * 5000 1C

Santiago, Cuba
 Stockton, Cal.
 New York City
 Atlantic City, N. J.

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Jose Caluff
 E. F. Pepper
 Missionary Society of St. Paul
 WPG Broadcasting Corp.

1110 kilocycles 270.1 meters

CMHI -- 15 ---
 KSOO * 2000 Dn
 WRVA * 5000 N

Santa Clara, Cuba
 Sioux Falls, S. D.
 Richmond, Va.

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Laviz y Paz
 Sioux Falls Broadcasting Assn., Inc.
 Larus & Bros. Co., Inc.

1120 kilocycles 267.7 meters

CFJC -- 100 ---
 CHCS -- 10 4
 CHGS * 100 ---
 CJOC † 50 ---
 CKOC * 50 4
 KFIO † 100 D
 KFSG * 500 3
 KMCS * 500 3Y
 KRCS † 50 D
 KTRH * 500 2C
 WDBO * 500 +C
 WDEL † 250 +X
 WHAD † 250 1
 WISN † 250 1C
 WTAW * 500 2

Kamloops, B. C.
 Hamilton, Ont.
 Summerside, P. E. I.
 Lethbridge, Alta.
 Hamilton, Ont.
 Spokane, Wash.
 Los Angeles, Cal.
 Inglewood, Cal.
 Seattle, Wash.
 Houston, Texas
 Orlando, Fla.
 Wilmington, Del.
 Milwaukee, Wis.
 Milwaukee, Wis.
 College Station, Texas

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N. S. Dagleish & Sons
 The Hamilton Spectator
 R. T. Holman, Ltd.
 Harold R. Carson
 Wentworth Radio & Auto Sply. Co., Ltd
 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
 WJJD * 20000 C Dn
 WOV * 1000 D
 XEE * 105 ---

Salt Lake City
 Mooseheart, Ill.
 New York City
 Oaxaca, Mex.

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Radio Service Corp. of Utah
 Loyal Order of Moose
 International Broadcasting Corp.
 Alfonso Zorilla B.

1140 kilocycles 263.0 meters

CMGD -- 5 ---
 KVOO * 5000 1N
 WAPI * 5000 1N
 XETA -- 500 ---

Matanzas, Cuba
 Tulsa, Okla.
 Birmingham, Ala.
 Mexico City

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Rafael Rodriguez
 Southwestern Sales Corp.
 Alabama Polytechnic Institute
 Manuel Espinosa Tagle

1150 kilocycles 260.7 meters

CMCQ -- 600 ---
 CMHA -- 200 1154
 CMQ † 250 ---
 WHAM * 5000 N

Havana, Cuba
 Cienfuegos, Cuba
 Havana, Cuba
 Rochester, N. Y.

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Andres Martinez
 Fox Bros. Co.
 Jose Fernandez
 Stromberg-Carlson Tel. Mfg. Co.

INDEX BY FREQUENCIES AND DIAL NUMBERS

1160 kilocycles 258.5 meters

WOWO * 10000 1C
 WWVA * 5000 1

Ft. Wayne, Ind.
 Wheeling W. Va.

14	7	73
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Main Auto Supply Co.
 West Virginia Broadcasting Corp.

1170 kilocycles 256.3 meters

CMKG -- 30 1176
 KTNT * 5000 Dn
 WCAU * 10000 C

Santiago de Cuba
 Muscatine, Iowa
 Philadelphia, Pa.

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Ricardo Arnaldo
 Norman Baker
 Universal Broadcasting Co.

1180 kilocycles 254.1 meters

CMGB -- 7.5 1185
 KEX * 5000 2
 KOB * 20000 2
 WDGY * 1000 1 Dn
 WGBS † 500
 WHDI * 500 1 Dn

Matanzas, Cuba
 Portland, Ore.
 State College, N. M.
 Minneapolis, Minn.
 New York City
 Minneapolis, Minn.

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Jose Anorga
 Western Broadcasting Co.
 College of Agriculture & Mech. Arts
 Dr. George W. Young
 General Broadcasting System, Inc.
 Wm. Hood Dunwoody Industrial Inst.

1190 kilocycles 252.0 meters

WOAI * 50000 N

San Antonio, Texas

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Southern Equipment Co.

1200 kilocycles 249.9 meters

CFCH -- 50 ---
 CMKB -- 15 ---
 KBTM -- 100 D
 KFJB † 100 +
 KFWF -- 100 5+
 KGCU -- 100 ---
 KGDE * 100 +
 KGDY † 100 ---
 KGEK † 50 9
 KGEW † 100 9
 KGFJ -- 100 ---
 KGHI * 100 ---
 KGY † 10 +
 KMLB -- 50 D
 KSMR -- 100 ---
 KVSQ * 100 ---
 KWG * 100 ---
 WABI † 100 ---
 WABZ * 100 1
 WBBZ * 100 ---
 WCAT † 100 ---
 WCAX * 100 2
 WCLO † 100 ---
 WCOD † 100 3
 WEPS † 100 7
 WFBC * 50 ---
 WFBE -- 100 +
 WHBC † 10 4S
 WHBY † 100 ---
 WIBX * 100 +
 WIL * 100 5+
 WJBC * 100 6
 WJBL † 100 6
 WJBW † 100 1
 WKJC * 100 3
 WLAP † 100 +C
 WLBG * 100 +
 WNBO * 100 4
 WNBW † 10 ---
 WNBX † 10 2
 WORC * 100 7CX
 WRAF * 100 8Y
 WRBL † 50 ---
 WWAE * 100 8
 XEA -- 101 ---
 10-BP * 25 ---

North Bay, Ont.
 Santiago de Cuba
 Paragould, Ark.
 Marshalltown, Iowa
 St. Louis, Mo.
 Mandan, N. D.
 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.
 Rapid City, S. D.
 Burlington, Vt.
 Janesville, Wis.
 Harrisburg, Pa.
 Worcester, Mass.
 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.
 Louisville, Ky.
 Petersburg, Va.
 Washington, Pa.
 Carbondale, Pa.
 Springfield, Vt.
 Worcester, Mass.
 La Porte, Ind.
 Columbus, Ga.
 Hammond, Ind.
 Guadalajara, Mex.
 Wingham, Ont.

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Northern Supplies, Ltd.
 Melchor Agucro
 W. J. Beard's Temple of Music
 Marshall Electric Co., Inc.
 St. Louis Truth Center, Inc.
 Mandan Radio Association
 Jaren Drug Co.
 Voice of South Dakota
 Beehler Elec. Equipment Co.
 City of Fort Morgan
 Ben S. McGlashan
 Berean Bible Class
 St. Martin's College
 G. C. Liner
 Santa Maria Radio
 KVSQ, Inc.
 Portable Wireless Tel. Co., Inc.
 Pine Tree Broadcasting Corp.
 Samuel D. Reeks
 C. L. Carrell
 State School of Mines
 University of Vermont
 WCLO Radio Corp.
 Keystone Broadcasting Corp.
 Alfred Frank Kleindienst
 First Baptist Church
 WFBE, Inc.
 St. John's Catholic Church
 St. Norbert's College
 WIBX, Inc.
 Missouri Broadcasting Corp.
 Kaskaskia Broadcasting Co.
 Commodore Broadcasting, Inc.
 Charles C. Carlson, Jr.
 Kirk, Johnson & Co.
 American Broadcasting Corp. of Ky.
 Robert Allen Gamble
 John Brownlee Spriggs
 Home Cut Glass & China Co.
 First Congregational Church
 Alfred Frank Kleindienst
 South Bend Tribune
 David Parmer
 Hammond-Calumet Broad. Corp.
 Alberto Palos Sauza
 Radio & Electric Shop

KCYS.
 1210
 MTRS.
 247.8
 DIAL

1210 kilocycles 247.8 meters

CFCO -- 100 ---
 CFNB * 500 ---
 CJOR * 500 ---
 CKMC -- 15 ---

Chatham, Ont.
 Fredericton, N. B.
 Sea Island, B. C.
 Cobalt, Ont.

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Western Ontario "Better Radio" Club
 James S. Neill & Sons, Ltd.
 G. C. Chandler
 R. L. MacAdam

INDEX BY FREQUENCIES AND DIAL NUMBERS

CKPC	†	25	+	Preston, Ont.
KDFN	†	100	---	Casper, Wyo.
KDLR	†	100	---	Devils Lake, N. D.
KFOR	*	100	+	Lincoln, Nebr.
KFVS	*	100	6	Cape Girardeau, Mo.
KFXM	†	100	9	San Bernardino, Cal.
KGCR	†	100	---	Watertown, S. D.
KGMP	†	100	---	Elk City, Okla.
KGNO	*	100	---	Dodge City, Kans.
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.
WEBO	†	100	6	Harrisburg, Ill.
WEDC	†	100	4	Chicago, Ill.
WGBB	†	100	3	Freeport, N. Y.
WGCM	*	100	---	Gulfport, 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	*	50	---	Gadsden, Ala.
WJW	*	100	---	Mansfield, Ohio
WLCI	*	50	---	Ithaca, N. Y.
WLSI	*	100	5	Providence, R. I.
WMBG	*	100	7	Richmond, Va.
WMRJ	*	100	3	Jamaica, N. Y.
WOCL	*	50	---	Jamestown, N. Y.
WOMT	*	100	---	Manitowoc, Wis.
WPAW	*	100	5	Pawtucket, 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

Metal Shingle & Siding Co.
 Donald Lewis Hathaway
 KDLR, Inc.
 Howard A. Shuman
 Hirsch Battery & Radio Co.
 J. C. & E. W. Lee
 Greater Kampecka Radio Corp.
 Bryant Radio & Electric Co.
 Dodge City Broadcasting Co.
 James McClatchy Co.
 Pasadena Presbyterian Church
 Hello World Broadcasting Corp.
 Roy. W. Stenger
 John H. Waller, Jr.
 Grace Covenant Pres. Church
 H. L. Dewing & Chas. Messter
 Westchester Broadcasting Corp.
 Clinton R. White
 Dutee W. Flint
 First Trust & Savings Bank
 Emil Denemark, Inc.
 Harry H. Carman
 Great Southern Land Co., Inc.
 Bardsley Specialty Co.
 Citizens Bank
 Wm. C. Forrest
 Monmouth Broadcasting Co.
 Bucknell University
 Gadsden Broadcasting Co., Inc.
 Mansfield Broadcasting Assn.
 Lutheran Assn. of Ithaca
 The Lincoln Studios, Inc.
 Havens & Martin, Inc.
 Peter J. Prinze
 A. E. Newton
 Francis M. Kadow
 Shartenburg & Robinson 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

CMCA	---	150	1225	Havana, Cuba
CMCD	---	250	1225	Havana, Cuba
CMCN	---	250	1225	Havana, Cuba
KFKU	*	500	1	Lawrence, Kans.
KWSC	*	1000	+	Pullman, Wash.
WCAD	*	500	D	Canton, N. Y.
WCAE	*	1000	N	Pittsburgh, Pa.
WDAE	*	1000	C	Tampa, Fla.
WREN	*	1000	1N	Lawrence, Kans.

6 1/2	6	5 1/2
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M. Cruz
 Angel Bertamazy
 Antonio Ginard
 University of Kansas
 State College of Washington
 St. Lawrence University
 Gimbel Bros.
 Tampa Publishing Co.
 Jenny Wren Co.

1230 kilocycles 243.8 meters

KFQD	†	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.
WNSC	*	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
CMKE	---	250	1249	Santiago de Cuba
KTAT	†	1000	1	Ft. Worth, Texas
WACO	†	1000	1C	Waco, Texas
WXYZ	†	1000	C	Detroit, Mich.

11	7	7 1/2
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Francisco Martinez
 Edmundo Recamier
 S. A. T. Broadcast Co.
 Central Texas Broadcasting Co., Inc.
 Kunsky-Trendle Broadcasting Corp.

1250 kilocycles 239.9 meters

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

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Carleton College
 Nichols & Warinner, Inc.
 Boise Broadcasting Station

INDEX BY FREQUENCIES AND DIAL NUMBERS

WAAM * 1000 1+X
 WCAL * 1000 2
 WDSU † 1000 C
 WGCP -- 250 1
 WLB † 1000 2
 WODA -- 1000 1
 WRHM * 1000 2
 XEFA -- 250 ---

Newark, N. J.
 Northfield, Minn.
 New Orleans, La.
 Newark, N. J.
 St. Paul, Minn.
 Paterson, N. J.
 Minneapolis, Minn.
 Mexico City

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

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1260 kilocycles

238.0 meters

KOIL * 1000 C
 KRGV * 500 1
 KVOA * 500 D
 KWWG * 500 1
 WLBW * 500 C+
 WTOC * 500 C

Council Bluffs, Iowa
 Harlingen, Texas
 Tucson, Ariz.
 Brownsville, Texas
 Oil City, Pa.
 Savannah, Ga.

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

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1270 kilocycles

236.1 meters

CMJB -- 20 1276
 KFUM * 1000
 KGCA † 50 2D
 KOL † 1000 3C
 KTW † 1000 3
 KWLC * 100 2D
 WASH * 500 1
 WEAI * 1000 D
 WFRB -- 500 ---
 WJDX * 1000 N
 WOOD † 500 1

Ciego de Avila, Cuba
 Colorado Springs, Colo.
 Decorah, Iowa
 Seattle, Wash.
 Seattle, Wash.
 Decorah, Iowa
 Grand Rapids, Mich.
 Ithaca, N. Y.
 Baltimore, Md.
 Jackson, Miss.
 Grand Rapids, Mich.

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

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1280 kilocycles

234.2 meters

CMBJ -- 15 1285
 CMBM -- 15 1285
 CMCG -- 30 1285
 CMCH -- 15 1285
 CMCR -- 20 1285
 KFBB * 1000 +
 WCAM * 500 1
 WCAP * 500 1
 WDDO * 1000 +C
 WIBA * 500 ---
 WOAX -- 500 1
 WRR † 500 C

Havana, Cuba
 Havana, Cuba
 Havana, Cuba
 Havana, Cuba
 Havana, Cuba
 Great Falls, Mont.
 Camden, N. J.
 Asbury Park, N. J.
 Chattanooga, Tenn.
 Madison, Wis.
 Trenton, N. J.
 Dallas, Texas

Jesus Lopez
 Jose Leiro
 Jose Justo Moran
 Hernani Torralbas
 Aurelio Hernandez
 Buttrey Broadcast, Inc.
 City of Camden
 Radio Industries Broadcast Co.
 WDDO Broadcasting Corp.
 Capital Times Co.
 WOAX, Inc.
 City of Dallas

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1290 kilocycles

232.4 meters

KDYL † 1000 C
 KFUL -- 500 1
 KLCN * 50 D
 K TSA † 1000 1+C
 WEBC * 1000 +N
 WJAS * 1000 C+
 WNBZ -- 50 D

Salt Lake City
 Galveston, Texas
 Blitheville, Ark.
 San Antonio, Texas
 Superior, Wis.
 Pittsburgh, Pa.
 Saranac Lake, N. Y.

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

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1300 kilocycles

230.6 meters

KFAC * 1000 4
 KFH * 1000 2C
 KFJR * 500 3
 KGEF * 1000 4
 KTBR -- 500 3
 WBBR * 1000 1
 WEVD * 500 1
 WHAP * 1000 1
 WHAZ * 500 1
 WIOD * 1000 N
 WOQ * 1000 2
 XETY -- 2000 ---

Los Angeles, Cal.
 Wichita, Kansas
 Portland, Ore.
 Los Angeles, Cal.
 Portland, Ore.
 Brooklyn, N. Y.
 New York City
 New York City
 Troy, N. Y.
 Miami, Fla.
 Kansas City, Mo.
 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.

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1310 kilocycles

228.9 meters

KCRJ † 100 ---
 KFBK † 100 ---
 KFGQ † 100 7
 KFIU * 10 ---
 KFJY * 100 7
 KFPL † 100 ---
 KFPM * 15 ---
 KFUP -- 100 8
 KFXJ † 100 8

Jerome, Ariz.
 Sacramento, Cal.
 Boone, Iowa
 Juneau, Alaska
 Ft. Dodge, Iowa
 Dublin, Texas
 Greenville, Texas
 Denver, Colo.
 Grand Junction, Colo.

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

KCYS.
1310
 MTRS.
228.9
 DIAL

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, Mont.	First State Bank of Vida
KGEZ †	100	---	Kalispell, Mont.	Treloar-Church Brdcastg. Co.
KGFW †	100	---	Ravenna, Neb.	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, Tex.	Houston Broadcasting Co.
KTSL †	100	9	Shreveport, La.	G. A. Houseman
KTSM *	100	2	El Paso, Texas	W. S. Bledsoe & W. T. Blackwell
KWCR †	100	7	Cedar Rapids, Iowa	Harry F. Paar
KXRO †	75	X	Aberdeen, Wash.	KXRO, Inc.
WBEO *	100	CP	Marquette, Mich.	Charles B. McCleod
WBOW *	100	---	Terre Haute, Ind.	Banks of Wabash, Inc.
WBRE *	100	---	Wilkes-Barre, Pa.	Louis G. Baltimore
WCLC *	100	1	Joliet, Ill.	WCLS, Inc.
WDAH †	100	2	El Paso, Texas	Bledsoe & Blackwell
WEBR †	100	+	Buffalo, N. Y.	Howell Broadcasting Co., Inc.
WFXL †	50	---	Royal Oak, Mich.	Royal Oak Broadcasting Co.
WFBG *	100	3X	Altoona, Pa.	Wm. F. Gable Co.
WFDL *	100	---	Flint, Mich.	Frank D. Fallain
WGAL *	100	5	Lancaster, Pa.	WGAL, Inc.
WGH *	100	---	Newport News, Va.	Hampton Roads Broadcasting Corp.
WHAT †	100	4	Philadelphia, Pa.	Independence Broadcasting Co.
WJAC *	100	3	Johnstown, Pa.	Johnstown Automobile Co.
WJAK *	50	6	Marion, Ind.	Marlon Broadcasting Co.
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.
WOBT †	100	+Y	Union City, Tenn.	Tittsworth's Radio & Music Shop
WOL *	100	---	Washington, D. C.	American Broadcasting Co.
WRAW *	100	5X	Reading, Pa.	Reading Broadcasting Co.
WRBI *	100	---	Tifton, Ga.	Oglethorpe University
WROL †	100	---	Knoxville, Tenn.	Stewart Broadcasting Co.
WSAJ *	100	---	Grove City, Pa.	Grove City College
WSTS *	100	---	Winston-Salem, N. C.	Winston-Salem Journal Co.
WTEL *	100	4	Philadelphia, Pa.	Foulkrod Radio Engineering Co.

1320 kilocycles 227.1 meters

CMJC --	15	1321	Camaguey, Cuba
CMKH --	250	1327	Santiago de Cuba
KGHF †	250	+	Pueblo, Colo
KGMB †	500	---	Honolulu, Hawaii
KID †	250	1+	Idaho Falls, Idaho
KTFI --	250	1X	Twin Falls, Idaho
WADC †	1000	C	Akron, Ohio
WSMB *	500	N	New Orleans, La.



Feliciano Isaac
 Alberto Ravelo
 C. P. Ritchie & J. E. Finch
 Honolulu Broadcasting Co., Ltd.
 KID Broadcasting Co.
 Radio Broadcasting Corp.
 Allen T. Simmons
 Saenger Theatre & Maison Blanche Co.

1330 kilocycles 225.4 meters

KGB *	500		San Diego, Cal.
KSCJ *	1000	1+C	Sioux City, Iowa
WDRC *	500	C	Hartford, Conn.
WSAI *	500	N	Cincinnati, Ohio
WTAQ *	1000	1C	Eau Claire, Wis.
XEC --	50	1333	Toluca, Mex.



Don Lee, Inc.
 Perkins Bros. Co.
 WDRC, Inc.
 Crosley Radio Corp., Lessee
 Gillette Rubber Co.
 Jesus R. Benavides

1340 kilocycles 223.7 meters

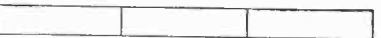
CMBA --	50	1345	Havana, Cuba
CMBF --	7.5	1345	Havana, Cuba
CMCU --	50	1345	Havana, Cuba
CMCY --	15	1345	Havana, Cuba
KFPW †	50	D	Fort Smith, Ark.
KFPY *	1000	C	Spokane, Wash.
WCOA *	500	C	Pensacola, Fla.
WSPD *	500	C+	Toledo, Ohio



Oscar Montenegro
 Jose G. Reigada
 Jorge Garcia Serra
 M. D. Aufran
 Southwestern Hotels Co.
 Symons Broadcasting Co.
 City of Pensacola
 Toledo Broadcasting Co.

1350 kilocycles 222.1 meters

KWK *	1000	N	St. Louis, Mo.
WAWZ *	250	1	Zarephath, N. J.
WBNX --	250	1	New York City
WCDA *	250	1	New York City
WEHC *	100	+D	Emory, Va.
WMSG --	250	1	New York City



Greater St. Louis Broadcasting Corp.
 Pillar of Fire
 Standard Cahill Co., Inc.
 Italian Educ. Broadcasting Co., Inc.
 Emory & Henry College
 Madison Sq. Garden Brdcastg. Corp.

INDEX BY FREQUENCIES AND DIAL NUMBERS

1360 kilocycles 220.4 meters

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CMKF -- 30 1363
 KGER * 1000
 KGIR † 500
 WCSC * 500
 WFBL * 1000 CX
 WGES * 500 1+
 WJKS * 1000 1+
 WQBC † 300 CPD

Holguin, Cuba
 Long Beach, Cal.
 Butte, Mont.
 Charleston, S. C.
 Syracuse, N. Y.
 Chicago, Ill.
 Gary, Ind.
 Vicksburg, Miss.

Manuel J. de Gongora
 C. Merwin Dobyns
 KGIR, Inc.
 Jordan & Burk
 Onondaga Radio Broadcasting Corp.
 Oak Leaves Broadcasting Station, Inc.
 Johnson-Kennedy Radio Corp.
 Delta Broadcasting Co., Inc.

1370 kilocycles 218.7 meters

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CMAC -- 30 1375
 CMGE -- 30 1375
 KCRC † 100 2+
 KFBL * 50 3
 KFJI † 100
 KFJM † 100
 KFJZ * 100
 KFLX * 100
 KGAR * 100 +
 KGDA † 100
 KGFG † 100 2
 KGFL † 50
 KGKL † 100
 KMAC † 100 5
 KONO † 100 5
 KOOS * 100
 KRE † 100 6
 KUJ † 100
 KVL † 100 3
 KWKC -- 100
 KZM -- 100 6
 WBGF † 50
 WBTM † 100 7
 WCBM * 100 +Z
 WELK * 100 +
 WFDV † 100
 WGL † 100 C
 WHBD † 100
 WHBQ † 100
 WHDF † 100 +
 WIBM * 100 1
 WJBK * 50 1
 WLVA † 100 +
 WMBR † 100 7
 WPOE † 100
 WQDM * 100 D
 WRAK * 100
 WRAM * 100
 WRBJ † 10
 WRDO † 100 CP
 WRJN † 100
 WSVS * 50

Pinar del Rio, Cuba
 Cardenas, Cuba
 Enid, Okla.
 Everett, Wash.
 Astoria, Ore.
 Grand Forks, N. D.
 Ft. Worth, Texas
 Galveston, Texas
 Tucson, Ariz.
 Mitchell, S. D.
 Oklahoma City
 Raton, N. M.
 San Angelo, Texas
 San Antonio, Tex.
 San Antonio, Texas
 Marshfield, Ore.
 Berkeley, Cal.
 Walla Walla, Wash.
 Seattle, Wash.
 Kansas City, Mo.
 Hayward, Cal.
 Glens Falls, N. Y.
 Danville, Va.
 Baltimore, Md.
 Philadelphia, Pa.
 Rome, Ga.
 Fort Wayne, Ind.
 Mount Orab, Ohio
 Memphis, Tenn.
 Calumet, Mich.
 Jackson, Mich.
 Detroit, Mich.
 Lexington, Mass.
 Lynchburg, Va.
 Tampa, Fla.
 Patchogue, N. Y.
 St. Albans, Vt.
 Williamsport, Pa.
 Wilmington, N. C.
 Hattiesburg, Miss.
 Augusta, Me.
 Racine, Wis.
 Buffalo, N. Y.

Oscar S. Mechoso
 Genaro Sebater
 Champlin Refining Co.
 Leese Bros.
 KFJI Broadcasters, Inc.
 University of North Dakota
 Estate of H. C. Meachem
 George Roy Clough
 Tucson Motor Service Co.
 Mitchell Broadcasting Corp.
 Oklahoma Broadcasting Co., Inc.
 W. E. Whitmore
 KGKL, Inc., Opr. by Ragsdale Auto
 W. W. McAllister
 Mission Broadcasting Co.
 H. H. Hanseth, Inc.
 First Congregational Church
 Paul R. Heitmeier
 KVL, Inc.
 Wilson Duncan Broadcasting Co.
 Leon P. Tenney
 W. N. Parker and H. H. Metcalfe
 Clarke Electric Co.
 Baltimore Broadcasting Corp.
 WELK Broadcasting Station, Inc.
 Dolles Goings
 Fred C. Zieg
 F. P. Moler
 Broadcasting Station WHBQ, Inc.
 Upper Michigan Broadcasting Co.
 WIBM, Inc.
 James F. Hopkins, Inc.
 Lexington Air Stations
 Lynchburg Broadcasting Corp.
 F. J. Reynolds
 Nassau Broadcasting Corp.
 A. J. St. Antoine
 C. R. Cummins
 Wilmington Radio Association
 Woodruff Furniture Co., Inc.
 Albert S. Woodson
 Racine Broadcasting Corp.
 Seneca Vocational School

1380 kilocycles 217.3 meters

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KOH † 500 C
 KQV † 500 2
 KSO * 500 1
 WKBH * 1000 1
 WSMK * 200 2

Reno, Nevada
 Pittsburgh, Pa.
 Clarinda, Iowa
 La Crosse, Wis.
 Dayton, Ohio

Jav Peters
 KQV Broadcasting Co.
 Berry Seed Co.
 WKBH, Inc.
 Stanley M. Krohn, Jr.

KCY.S.
 1400
 MTRS.

1390 kilocycles 215.7 meters

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KLRA * 1000 1C
 KOY * 500
 KUOA † 1000 1
 WHK † 1000 C

Little Rock, Ark.
 Phoenix, Ariz.
 Fayetteville, Ark.
 Cleveland, Ohio

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

214.2
 DIAL

1400 kilocycles 214.2 meters

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CMBI -- 30 1405
 CMBK -- 15 1405
 CMBN -- 30 1405
 CMBQ -- 50 1405
 CMBX -- 30 1405
 CMBY -- 100 1405
 KLO * 500
 KOCW * 250
 WBAA † 500 1+

Havana, Cuba
 Havana, Cuba
 Havana, Cuba
 Havana, Cuba
 Havana, Cuba
 Havana, Cuba
 Ogden, Utah
 Chickasha, Okla.
 Lafayette, Ind.

Heriberto Meireles
 Jose L. Ferriol
 Armado Rorneu
 Emilio Salas
 Bertin Fernandez
 Lino E. Cosculluela
 Peery Building Co.
 College for Women
 Purdue University

INDEX BY FREQUENCIES AND DIAL NUMBERS

WBBC * 500 2
 WCGU * 500 2
 WCMA † 500 1
 WFOX -- 500 2
 WKBF † 500 1
 WLTH -- 500 2
 XEP -- 2500 ---

Brooklyn, N. Y.
 Brooklyn, N. Y.
 Culver, Ind.
 Brooklyn, N. Y.
 Indianapolis, Ind.
 Brooklyn, N. Y.
 Laredo, Mex.

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 2C
 WBCM * 500 C
 W DAG * 1000 1
 WHBL * 500 4
 WHIS † 250 ---
 WODX * 500 3
 WRBX * 250 ---
 WSSA † 500 3
 WSSH † 500 2

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.
 Boston, Mass.

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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.
 Tremont Temple Baptist Church

1420 kilocycles

KBPS -- 100 4
 KFIZ * 100 ---
 KFQU * 100 5
 KFQW * 100 ---
 KFXD * 100 ---
 KFXY -- 100 ---
 KFYO † 100 +
 KGFF † 100 ---
 KGGC † 100 5
 KGIW † 100 ---
 KGIX † 100 ---
 KGKX † 100 ---
 KGVO † 100 D
 KICK * 100 ---
 KLPM † 100 ---
 KORE † 100 ---
 KTAP † 100 ---
 KXL † 100 4
 KXYZ -- 100 ---
 WEDH -- 100 ---
 WEHS -- 100 ---
 WELL -- 100 2
 WFDW * 50 X
 WHDL * 100 ---
 WHFC -- 100 D
 WIAS -- 100 2
 WIBR * 50 ---
 WILM * 100 ---
 WJBO * 100 ---
 WKBI * 100 2
 WLBF † 100 ---
 WMBC * 100 +
 WMBH -- 100 +
 WPAD -- 100 ---
 WSPA * 100 +
 WTBO * 100 +

211.1 meters

Portland, Ore.
 Fond du Lac, Wis.
 Holy City, Cal.
 Seattle, Wash.
 Nampa, Idaho
 Flagstaff, Ariz.
 Abilene, Texas
 Shawnee, Okla.
 San Francisco, Cal.
 Trinidad, Colo.
 Las Vegas, Nevada
 Sand Point, Idaho
 Missoula, Mont.
 Red Oak, Iowa
 Minot, North Dakota
 Eugene, Ore.
 San Antonio, Texas
 Portland, Ore.
 Houston, Texas
 Erie, Pa.
 Cicero, Ill.
 Battle Creek, Mich.
 Talladega, Ala.
 Tupper Lake, N. Y.
 Cicero, Ill.
 Ottumwa, Iowa
 Steubenville, Ohio
 Wilmington, Del.
 New Orleans, La.
 Chicago, Ill.
 Kansas City, Kas.
 Detroit, Mich.
 Joplin, Mo.
 Paducah, Ky.
 Spartanburg, S. C.
 Cumberland, Md.

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Benson Polytechnic Institute
 Reporter Printing Co.
 W. E. Riker
 KFQW, Inc.
 Service Radio Co.
 Mary M. Costigan
 T. E. Kirksey
 KGFF Broadcasting Co.
 Golden Gate Broadcasting Co.
 Leonard E. Wilson
 Las Vegas, Nevada, Radio Corp.
 C. E. Twiss and F. H. McCann
 Mosby's Incorporate
 Red Oak Radio Corp.
 John B. Cooley
 Eugene Broadcasting Station
 Alamo Broadcasting Co.
 KXL Broadcasters, Inc.
 Harris County Broadcast Co.
 Erie Dispatch-Herald
 WEHS, Inc.
 Enquirer-News Co.
 Raymond G. Hammett
 Tupper Lake Broadcasting Co., Inc.
 WHFC, Inc.
 Iowa Broadcasting Co.
 George W. Robinson
 Delaware Broadcasting Co., Inc.
 Valdemar Jensen
 WKBI, Inc.
 WLBF 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
 WCBG * 500 2S
 WHP * 500 1C+
 WNBR * 500 2

209.7 meters

Los Angeles, Cal.
 North Platte, Neb.
 Harrisburg, Pa.
 Columbus, Ohio
 Memphis, Tenn.
 Harrisburg, Pa.
 Memphis, Tenn.

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Earle C. Anthony, Inc.
 Great Plains Broadcasting Co.
 Penna. State Police
 Commercial Radio Service Co.
 Memphis Broadcasting Co.
 WHP, Inc.
 Memphis Broadcasting Co.

1440 kilocycles

KLS * 250 D
 WBIG * 500 D
 WCBA * 250 ---
 WHEC * 500 2C
 WMBD * 500 3+
 WOKO † 500 2C
 WSAN * 250 1
 WTAD † 500 3

208.2 meters

Oakland, Cal.
 Greensboro, N. C.
 Allentown, Pa.
 Rochester, N. Y.
 Peoria Heights, Ill.
 Albany, N. Y.
 Allentown, Pa.
 Quincy, Ill.

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Warner Bros.
 North Carolina Broadcasting Co.
 B. B. Musselman
 Hickson Electric & Radio Corp.
 Peoria Heights Radio Laboratory
 WOKO, Inc.
 Allentown Call Publishing Co., Inc.
 Ills. Stock Medicine Broadcasting Co.

INDEX BY FREQUENCIES AND DIAL NUMBERS

1450 kilocycles 206.8 meters

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CMKA	--	20	---	Santiago de Cuba
KTBS	*	1000	---	Shreveport, La.
WBMS	*	250	1	Hackensack, N. J.
WGAR	†	500	N	Cleveland, Ohio
WHOM	*	500	1	Jersey City, N. J.
WKBO	*	250	1	Jersey City, N. J.
WNJ	*	250	1	Newark, N. J.
WSAR	*	250	---	Fall River, Mass.
WTFI	--	500	Y	Toccoa, Ga.

Arturio C. de Ribas
 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	St. Paul, Minn.
WJSV	*	10000	---	Alexandria, Va.

National Battery Broadcasting Co.
 Independent Publishing Co.

1470 kilocycles 204.0 meters

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KGA	†	5000	---	Spokane, Wash.
WLAC	*	5000	C	Nashville, Tenn.

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

1480 kilocycles 202.6 meters

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KFJF	*	5000	C	Oklahoma City
WKBW	*	5000	C	Buffalo, N. Y.
XETO	---	101	1485	Mexico City

National Radio Mfg. Co.
 Buffalo Broadcasting Co., Lessees
 Ricardo Gonzalez Montero

1490 kilocycles 201.2 meters

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WCHI	*	5000	1N	Chicago, Ill.
WCKY	*	5000	1N	Covington, Ky.
WJAZ	--	5000	1	Chicago, Ill.

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

1500 kilocycles 199.9 meters

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CMBL	--	15	---	Havana, Cuba
CMBR	--	15	---	Havana, Cuba
CMCM	--	15	---	Havana, Cuba
CMCT	--	5	---	Havana, Cuba
KDB	*	100	---	Santa Barbara, Cal.
KGFI	*	100	+	Corpus Christi, Texas
KGFK	†	50	---	Moorhead, Minn.
KGIZ	†	50	X	Grant City, Mo.
KGKB	--	100	---	Tyler, Texas
KGKY	*	100	---	Scottsbluff, Nebr.
KPJM	*	100	---	Prescott, Ariz.
KPO	†	50	---	Wenatchee, Wash.
KREG	†	100	---	Santa Ana, Cal.
KUT	†	100	---	Austin, Texas
KXO	*	100	---	El Centro, Cal.
WDIX	--	100	---	Tupelo, Miss.
WKBV	--	100	+	Connersville, Ind.
WKBZ	†	50	---	Ludington, Mich.
WLBX	*	100	1	Long Island City, N. Y.
WLOE	*	100	+	Boston, Mass.
WMBA	†	100	---	Newport, R. I.
WMBQ	*	100	1	Brooklyn, N. Y.
WMIL	--	100	1	Brooklyn, N. Y.
WMPC	†	100	---	Lapeer, Mich.
WNBF	*	100	---	Binghamton, N. Y.
WOPJ	*	100	---	Bristol, Tenn.
WPEN	*	100	+	Philadelphia, Pa.
WRDW	*	100	---	Augusta, Ga.
WSYB	†	100	---	Rutland, Vt.
WWRL	*	100	1	Woodside, N. Y.
WWSW	--	100	CP	Pittsburgh, Pa.

Julio C. Hidalgo
 Tomas Basail
 Martinez y Madico
 Alberto Fernandez
 Dwight Faulding
 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.
 Pacific Western Broadcasting
 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 Brdcast. Station, Inc.
 Wm. Penn Broadcasting Co.
 Musicove, Inc.
 Seward & Weiss Music Co.
 Long Island Broadcasting Corp.
 William S. Walker

KCYS.
1500
 MTRS.
199.9
 DIAL

INDEX BY LOCATIONS WITH MAP KEY

State	City/Location	Watts	Keys.	Call Sign	Watts	Keys.		
ALABAMA	Birmingham O-21	500	1140	WAPI	500	1140		
		500	930	WBRC	500	930		
		100	1310	WKBC	100	1310		
	Gadsden O-21	50	1210	WJBY	50	1210		
	Mobile Q-20	500	1410	WODX	500	1410		
	Montgomery P-21	500	1410	WSFA	500	1410		
	Talladega O-21	100	1420	WFDW	100	1420		
	ALASKA	Anchorage	100	1230	KFQD	100	1230	
		Juneau	10	1310	KFIU	10	1310	
		Ketchikan	500	900	KGBU	500	900	
		ARIZONA	Flagstaff M-7	100	1420	KFX Y	100	1420
			Jerome M-6	100	1310	KCRJ	100	1310
	Phoenix N-6		500	1390	KOY	500	1390	
			500	620	KTAR	500	620	
	Prescott M-6		100	1500	KPJM	100	1500	
Tucson O-7	100		1370	KGAR	100	1370		
	500		1260	KVOA	500	1260		
ARKANSAS	Blytheville M-19		50	1290	KLCN	50	1290	
	Fayetteville M-16		1000	1390	KUOA	1000	1390	
	Fort Smith N-16		50	1340	KFPW	50	1340	
	Hot Springs N-17	10000	1040	KTHS	10000	1040		
	Little Rock N-17	100	1200	KGHI	100	1200		
		250	890	KGJF	250	890		
		1000	1390	KLRA	1000	1390		
Paragould M-18	100	1200	KBTM	100	1200			
CALIFORNIA	Berkeley J-2	100	1370	KRE	100	1370		
	Burbank M-3	500	780	KELW	500	780		
	Culver City M-3	250	1000	KFVD	250	1000		
	El Centro N-4	100	1500	KXO	100	1500		
	Fresno K-2	100	1210	KMJ	100	1210		
	Hayward J-1	100	1370	KZM	100	1370		
	Hollywood M-3	1000	950	KFWB	1000	950		
		5000	1050	KNX	5000	1050		
	Holy City K-1	100	1420	KFOU	100	1420		
	Inglewood M-3	500	1120	KMCS	500	1120		
	Long Beach M-3	1000	1250	KFOX	1000	1250		
		1000	1360	KGER	1000	1360		
	Los Angeles M-3	1000	1430	KECA	1000	1430		
		1000	1300	KFAC	1000	1300		
		5000	640	KFI	5000	640		
	500	1120	KFSG	500	1120			
	1000	1300	KGEF	1000	1300			
	100	1200	KGFJ	100	1200			
	1000	900	KHJ	1000	900			
	500	710	KMPC	500	710			
	500	570	KMTR	500	570			
	500	780	KTM	500	780			
Oakland J-1	250	1440	KLS	250	1440			
	500	880	KLX	500	880			
	500	930	KROW	500	930			
Pasadena M-3	50	1210	KPPC	50	1210			
Sacramento J-2	100	1310	KFBK	100	1310			
San Bernardino M-3	100	1210	KFXM	100	1210			
San Diego N-3	500	600	KFS D	500	600			
	500	1330	KGB	500	1330			
San Francisco J-1	1000	610	KFRC	1000	610			
	500	930	KFWI	500	930			
	100	1420	KGGC	100	1420			
	7500	790	KGO	7500	790			
	100	1070	KJBS	100	1070			
	5000	680	KPO	5000	680			
	1000	560	KTAB	1000	560			
	1000	1230	KYA	1000	1230			
San Jose J-1		500	1010	KQW	500	1010		
	Santa Ana M-3	100	1500	KREG	100	1500		
	Santa Barbara M-2	100	1500	KDB	100	1500		
	Santa Maria L-2	100	1200	KSMR	100	1200		
	Stockton J-2	250	1100	KGDM	250	1100		
	100	1200	KWG	100	1200			
COLORADO	Colorado Springs K-11	1000	1270	KFUM	1000	1270		
	Denver K-11	500	920	KFEL	500	920		
		100	1310	KFUP	100	1310		
		500	920	KFXF	500	920		
		1000	560	KLZ	1000	560		
		12500	830	KOA	12500	830		
		500	880	KPOF	500	880		
	Fort Morgan J-11	100	1200	KGEW	100	1200		
	Grand Junction K-9	100	1310	KFXJ	100	1310		
	Greeley J-11	500	880	KFKA	500	880		
	Pueblo L-11	250	1320	KGHF	250	1320		
	Trinidad L-11	100	1420	KGWV	100	1420		
	Yuma J-12	50	1200	KGEK	50	1200		
	CONNECTICUT	Bridgeport H-27	250	600	WICC	250	600	
		Hartford H-27	500	1330	WDRG	500	1330	
		50000	660-1060	WTIC	50000	660-1060		
Storrs H-28		250	600	WCAC	250	600		
DELAWARE		Wilmington J-26	250	1120	WDEL	250	1120	
		100	1420	WILM	100	1420		
	DISTRICT OF COLUMBIA	Washington J-26	250	630	WMAL	250	630	
		500	950	WRC	500	950		
		100	1310	WOL	100	1310		
FLORIDA	Clearwater R-24	1000	620	WFLA	1000	620		
	Gainesville Q-24	5000	830	WRUF	5000	830		
	Jacksonville Q-24	1000	900	WJAX	1000	900		
	Miami T-25	1000	1300	WIOD	1000	1300		
		1000	560	WQAM	1000	560		
	Orlando R-24	500	1120	WDBO	500	1120		
	Pensacola Q-21	500	1340	WCOA	500	1340		
	St. Petersburg S-24	1000	620	WSUN	1000	620		
	Tampa R-24	1000	1220	WDAE	1000	1220		
		100	1370	WMBR	100	1370		
GEORGIA	Atlanta O-22	250	890	WGST	250	890		
		5000	740	WSB	5000	740		
	Augusta O-23	100	1500	WRDW	100	1500		
	Columbus O-22	50	1200	WRBL	50	1200		
	Macon O-23	250	890	WMAZ	250	890		
	Rome N-22	100	1370	WFDV	100	1370		
	Savannah O-24	500	1260	WTOG	500	1260		
	Thomasville Q-22	100	1210	WQDX	100	1210		
	Tifton P-23	100	1310	WRBI	100	1310		
	Toccoa N-23	500	1450	WTFI	500	1450		
	HAWAII	Honolulu	500	1320	KGMB	500	1320	
			1000	940	KGU	1000	940	
		IDAHO	Boise G-5	1000	1250	KIDO	1000	1250
	Idaho Falls G-7		250	1320	KID	250	1320	
	Nampa G-5		50	1420	KFXD	50	1420	
Pocatello H-7	250		900	KSEI	250	900		
Sand Point D-6	100		1420	KGKX	100	1420		
Twin Falls H-6	250		1320	KTFI	250	1320		

INDEX BY LOCATIONS WITH MAP KEY

	Watts		Keys.				
ILLINOIS				Ottumwa J-17	100	WIAS	1420
Carthage J-18	50	WCAZ	1070	Red Oak J-16	100	KICK	1420
Chicago I-20	10000	KFKX	1020	Shenandoah J-16	500	KFNF	890
	10000	KYW	1020		500	KMA	930
	500	WAAF	920	Sioux City I-15	1000	KSCJ	1330
	25000	WBBM	770	Waterloo I-17	500	WMT	600
	1500	WCFL	970	KANSAS			
	5000	WCHI	1490	Dodge City L-13	100	KGNO	1210
	100	WCRW	1210	Kansas City K-16	100	WLBF	1420
	100	WEDC	1210	Lawrence K-16	500	KFKU	1220
	50000	WENR	870		1000	WREN	1220
	500	WGES	1360	Manhattan K-15	500	KSAC	580
	25000	WGN	720	Milford K-14	5000	KFBI	1050
	1000	WIBO	560	Topeka K-16	1000	WIBW	580
	5000	WJAZ	1490	Wichita L-15	1000	KFH	1300
	25000	WJBT	770	KENTUCKY			
	100	WKBI	1420	Covington K-22	5000	WCKY	1490
	50000	WLS	870	Hopkinsville M-20	1000	WFIW	940
	5000	WMAQ	670	Louisville L-21	10000	WHAS	820
	5000	WMBI	1080		100	WLAP	1200
	500	WPCC	560	Paducah M-19	100	WPAD	1420
	100	WSBC	1210	LOUISIANA			
Cicero I-20	100	WEHS	1420	Monroe P-18	50	KMLB	1200
	100	WHFC	1420	New Orleans R-19	100	WABZ	1200
	100	WJBL	1200		1000	WDSU	1250
Decatur K-19	100	WKBS	1310		100	WJBO	1420
Galesburg J-18	100	WEBQ	1210		100	WJBW	1200
Harrisburg L-19	100	WCLS	1310		500	WSMB	1320
Joliet I-19	100	WKBB	1310		5000	WWL	850
	100	WJBC	1200	Shreveport P-17	50	KRMD	1310
La Salle J-19	100	WJJD	1130		1000	KTBS	1450
Mooseheart I-19	20000	WJBD	1440		100	KTSL	1310
Peoria Heights J-19	500	WMBD	1440		100	KWEA	1210
Quincy K-18	500	WTAD	1440		10000	KWKH	850
Rockford I-19	500	KFLV	1410	MAINE			
Rock Island I-18	100	WHBF	1210	Augusta F-28	100	WRDO	1370
Springfield K-19	100	WCBS	1210	Bangor F-29	100	WABI	1200
	100	WTAX	1210		500	WLBZ	620
	100	WDZ	1070	Portland F-28	1000	WCSH	940
Tuscola K-20	250	WILL	890	MARYLAND			
Urbana J-20	5000	WCBD	1080	Baltimore J-26	10000	WBAL	760-1060
Zion I-20					250	WCAO	600
					100	WCBM	1370
					500	WFBR	1270
				Cumberland J-25	100	WTBO	1420
INDIANA				MASSACHUSETTS			
Anderson J-21	100	WHBU	1210	Boston G-28	500	WAAB	1410
Connersville K-21	100	WKBV	1500		1000	WBIS	1230
Culver I-20	500	WCMA	1400		1000	WEEL	590
Evansville L-20	500	WGBF	630		1000	WHDH	830
Fort Wayne J-21	100	WGL	1370		100	WLOE	1500
	10000	WOWO	1160		1000	WNAC	1230
Gary I-20	1000	WJKS	1360		500	WSSH	1410
Hammond I-20	100	WVAE	1200	Fall River H-28	250	WSAR	1450
Indianapolis J-21	1000	WFBM	1230		100	WLEY	1370
	500	WKBF	1400	Needham G-28	500	WBSO	920
Lafayette J-20	500	WBAA	1400	New Bedford H-28	100	WNBH	1310
La Porte I-20	100	WRAF	1200	Springfield H-27	15000	WBZ-A	990
Marion J-21	50	WJAK	1310	Worcester G-28	100	WEPS	1200
Muncie J-21	50	WLBC	1310		100	WORC	1200
South Bend I-20	500	WSBT	1230		250	WTAG	580
Terre Haute K-20	100	WBOW	1310	MICHIGAN			
IOWA				Battle Creek I-21	50	WELL	1420
Ames I-17	5000	WOI	640	Bay City H-22	500	WBCM	1410
Boone I-17	100	KFGQ	1310	Berrien Springs I-20	1000	WKZO	590
Cedar Rapids I-18	100	KWCR	1310	Calumet E-19	100	WHDF	1370
Clarinda J-16	500	KSO	1380				
Council Bluffs J-16	1000	KOIL	1260				
Davenport I-18	5000	WOC	1000				
Decorah H-18	50	KGCA	1270				
	100	KWLC	1270				
Des Moines I-17	5000	WHO	1000				
Fort Dodge I-16	100	KFJY	1310				
Iowa City I-18	500	WSUI	880				
Marshalltown I-17	100	KFJB	1200				
Muscatine J-18	5000	KTNT	1170				

INDEX BY LOCATIONS WITH MAP KEY

Detroit H-22	50	WJBK	1370				
	5000	WJR	750				
	100	WMBC	1420				
	1000	WWJ	920				
	1000	WXYZ	1240				
East Lansing H-21	1000	WKAR	1040				
Flint H-22	100	WFDF	1310				
Grand Rapids H-21	500	WASH	1270				
	500	WOOD	1370				
Jackson I-21	100	WIBM	1500				
Lapeer H-22	100	WMPC	1500				
Ludington H-20	50	WKBZ	1500				
Marquette F-19	100	WBEQ	1310				
Royal Oak H-22	50	WEXL	1310				
MINNESOTA							
Fergus Falls F-15	100	KGDE	1200				
Minneapolis G-17	7500	WCCO	810				
	1000	WDGY	1180				
	500	WHDI	1180				
	1000	WRHM	1250				
Moorhead F-15	50	KGFK	1500				
Northfield G-17	1000	KFMX	1250				
	1000	WCAL	1250				
St. Paul G-17	1000	WLB	1250				
	10000	KSTP	1460				
MISSISSIPPI							
Greenville O-18	100	WRBQ	1210				
Gulfport Q-19	100	WGCM	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	300	WQBC	1360				
MISSOURI							
Cp. Girardeau L-19	100	KFVS	1210				
Columbia K-17	500	KFRU	630				
Grant City J-16	50	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	KGBX	1310				
St. Louis L-18	500	KFUO	550				
	500	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	KGEZ	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	WCAJ	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				
NEVADA							
				Watts		Keys	
Las Vegas L-5				100	KGIX	1420	
Reno I-3				500	KOH	1380	
NEW HAMPSHIRE							
Laconia G-28	100	WKAV	1310				
NEW JERSEY							
Asbury Park I-27	500	WCAP	1280				
Atlantic City J-27	5000	WPG	1100				
Camden I-26	500	WCAM	1280				
Hackensack I-27	250	WBMS	1450				
Jersey City I-27	300	WAAT	940				
	500	WHOM	1450				
	250	WKBO	1450				
Newark I-27	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				
NEW MEXICO							
Albuquerque N-7	250	KGGM	1230				
Raton M-11	50	KGFL	1370				
State College P-9	20000	KOB	1180				
NEW YORK							
Albany H-27	500	WOKO	1440				
Auburn H-25	100	WMBO	1310				
Binghamton H-26	100	WNBF	1500				
Brooklyn I-27	500	WBBC	1400				
	1000	WBRR	1300				
	500	WCCU	1400				
	500	WFO	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	WWSV	1370				
Canton F-26	500	WCAD	1220				
Freeport I-27	100	WGBB	1210				
Glens Falls G-27	50	WGBF	1370				
Ithaca H-25	1000	WEAI	1270				
	50	WLCl	1210				
Jamaica H-27	100	WMRJ	1210				
Jamestown H-24	50	WOCL	1210				
Long Island City I-27	100	WLBX	1500				
New York City I-27	5000	WABC	860				
	250	WBNX	1350				
	5000	WBQ	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	WMSG	1350				
	500	WNYC	570				
	1000	WOV	1130				
	250	WPAP	1010				
	500	WPCH	810				
	250	WQAO	1010				
	250	WRNY	1010				

INDEX BY LOCATIONS WITH MAP KEY

Patchogue I-27	100	WPOE	1370
Rochester G-25	5000	WHAM	1150
	500	WHEC	1440
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	100	WHAZ	1300
Tupper Lake F-26	100	WHDL	1420
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	100	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	KGCU	1200
Minot E-13	100	KLPM	1420

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
	50000	WTAM	1070
Columbus J-22	500	WAIU	640
	500	WCAH	1430
	750	WEAO	570
	100	WSEN	1210
	200	WSMK	1380
Dayton J-22	100	WJW	1210
Mansfield J-22	100	WHBD	1370
Mount Orab K-22	100	WBR	1420
Stuebenville J-23	50	WSPD	1340
Toledo I-22	500	WSPD	1340
Youngstown I-23	500	WKBN	570
Zanesville J-23	100	WALR	1210

OKLAHOMA

Chickasha N-14	250	KOCW	1400
Elk City N-13	100	KGMP	1210
Enid M-14	100	KCRC	1370
Norman N-15	500	WNAD	1010
Oklahoma N-15	5000	KFJF	1480
	100	KFXR	1310
	100	KGFG	1370
	1000	WKY	900
	100	WBBZ	1200
Ponca City M-15	500	KGGF	1010
S. Coffeyville M-15	100	KGFF	1420
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
	100	WFBG	1310
Altoona I-25	10	WNBW	1200
Carbondale H-26	50	WIBG	930
Elkins Park I-26	100	WEDH	1420
Erie H-24	100	WSAJ	1310
Grove City I-24	500	WBAK	1430
Harrisburg I-25	100	WCOD	1200
	500	WHP	1430
Johnstown J-24	100	WJAC	1310
Lancaster I-26	100	WGAL	1310
	100	WKJC	1200
Lewisburg I-26	100	WJBU	1210
Oil City I-24	500	WLBW	1260
Philadelphia I-26	10000	WCAU	1170
	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	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	WRAK	1370

PORTO RICO

San Juan W-34	500	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	WLSI	1210

SOUTH CAROLINA

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

SOUTH DAKOTA

Brookings H-15	500	KFDY	550
Huron H-14	100	KGDY	1200
Mitchell H-14	100	KGDA	1370
Pierre G-13	200	KGFX	580
Rapid City H-12	100	WCAT	1200
Sioux Falls H-15	2000	KSOO	1110

INDEX BY LOCATIONS WITH MAP KEY

Vermillion I-15	500	KUSD	890	Petersburg L-26	100	WLBG	1200
Watertown G-15	100	KGCR	1210	Richmond K-26	100	WBBL	1210
Yankton I-15	1000	WNAX	570		100	WMBG	1210
TENNESSEE				Roanoke L-24	5000	WRVA	1110
Bristol L-23	100	WOPI	1500		250	WDBJ	930
Chattanooga N-21	1000	WDOD	1280		250	WRBX	1410
Knoxville M-22	50	WFBC	1200	WASHINGTON			
	1000	WNOX	560	Aberdeen D-2	75	KXRO	1310
Memphis N-19	100	WROL	1310	Bellingham C-3	100	KVOS	1200
	500	WGBC	1430	Everett C-3	50	KFBL	1370
	100	WHBQ	1370	Lacey D-3	10	KGY	1200
	500	WMC	780	Pullman E-5	1000	KWSC	1220
	500	WNBR	1430	Seattle C-3	100	KFQW	1420
	500	WREC	600		5000	KJR	970
Nashville M-21	5000	WLAC	1470		1000	KOL	1270
	5000	WSM	650		1000	KOMO	920
Springfield M-20	100	WSIX	1210		100	KPCB	650
Union City M-19	100	WOBT	1310		50	KRSC	1120
TEXAS					1000	KTW	1270
Abilene P-13	100	KFYO	1420		100	KVL	1370
Amarillo N-12	1000	KGRS	1410		500	KXA	570
	1000	WDAG	1410	Spokane D-5	100	KFIO	1120
Austin Q-14	100	KUT	1500		1000	KFPY	1340
Beaumont R-17	500	KFDM	560		5000	KGA	1470
Brownsville U-15	500	KWWG	1260	Tacoma D-3	1000	KHQ	590
College Sta. Q-15	500	WTAW	1120		500	KMO	860
Corpus Christi S-14	100	KGFI	1500	Walla Walla E-5	100	KVI	760
Dallas P-15	10000	KRLD	1040	Wenatchee D-4	50	KUJ	1370
	5000	WFAA	800	Yakima D-4	50	KPQ	1500
	500	WRR	1280			KIT	1310
Dublin P-14	100	KFPL	1310	WEST VIRGINIA			
El Paso P-9	100	KTSM	1310	Bluefield L-24	250	WHIS	1410
	100	WDAH	1310	Charleston K-23	250	WOBU	580
Fort Worth P-15	100	KFJZ	1370	Fairmont J-24	250	WMMN	890
	1000	KTAT	1240	Huntington K-23	250	WSAZ	580
	10000	WBAP	800	Wheeling J-24	5000	WWVA	1160
	100	KFLX	1370	WISCONSIN			
Salveston R-16	500	KFUL	1290	Eau Claire G-18	1000	WTAQ	1330
	15	KFPM	1310	Fond du Lac H-19	100	KFIZ	1420
Greenville Q-15	500	KRGV	1260	Green Bay G-19	100	WHBY	1200
Harlingen T-14	1000	KPRC	920	Janesville I-19	100	WCLO	1200
Houston R-16	100	KTLC	1310	La Crosse H-18	1000	WKBH	1380
	500	KTRH	1120	Madison H-19	750	WHA	940
	100	KXYZ	1420		500	WIBA	1280
San Angelo Q-13	100	KGKL	1370		250	WISJ	780
San Antonio R-14	100	KMAC	1370	Manitowoc H-20	100	WOMT	1210
	100	KONO	1370	Milwaukee H-19	250	WHAD	1120
	100	KTAP	1420		250	WISN	1120
	1000	KTSA	1290		1000	WTMJ	620
	50000	WOAI	1190	Poynette H-19	100	WIBU	1210
Tyler P-16	100	KGKB	1500	Racine I-20	100	WRJN	1370
Waco Q-15	1000	WACO	1240	Sheboygan H-20	500	WHBL	1410
Wichita Falls O-14	250	KGKO	570	Stevens Pt. G-19	2000	WLBL	900
				Superior F-17	1000	WIBC	1290
UTAH				WYOMING			
Ogden I-7	500	KLO	1400	Casper H-10	100	KDFN	1210
Salt Lake City I-7	1000	KDYL	1290				
	5000	KSL	1130	CANADA			
VERMONT				ALBERTA			
Burlington F-27	100	WCAX	1200	Calgary B-7	500	CFAC	690
Rutland G-27	100	WSYB	1500		500	CFCN	985
St. Albans F-27	100	WQDM	1370		500	CHCA	690
Springfield G-27	10	WNBX	1200		500	CJCJ	690
					500	CNRC	690
VIRGINIA				Edmonton A-8	250	CHMA	580
Alexandria K-26	10000	WJSV	1460		500	CJCA	930
Arlington J-25	1000	NAA	690		500	CKUA	580
Danville L-25	100	WBTM	1370	Lethbridge C-8	50	CJOC	1120
Emory L-23	500	WEHC	1350	Red Deer A-8	1000	CHCT	840
Lynchport L-25	100	WLVA	1370		1000	CKLC	840
Newport News L-26	100	WGH	1310		1000	CNRD	840
Norfolk L-26	500	WPOR	780				
	500	WTAR	780				

INDEX BY LOCATIONS WITH MAP KEY

BRITISH COLUMBIA		Watts	Kcys.	SASKATCHEWAN			
Chilliwack B-3	100	CHWK	665	Fleming C-13	500	CJRW	665
Kamloops B-5	100	CFJC	1120	Moose Jaw C-11	500	CJRM	665
Sea Island	500	CJOR	1210	Regina C-12	500	CHWC	960
Vancouver B-3	50	CHLS	730		500	CJBR	960
	50	CKCD	730		500	CKCK	960
	50	CKFC	730	Saskatoon B-11	500	CNRR	960
	50	CKMO	730		500	CFQC	910
	100	CKWX	730		500	CNRS	910
	500	CNRV	1030	Yorkton B-13	500	CJGX	630
Victoria C-3	500	CFCT	630				
MANITOBA				HAITI			
Brandon D-14	500	CKX	540	Port au Prince X-30	1000	HHK	920
Winnipeg D-15	5000	CKY	780				
	5000	CNRW	780				
NEW BRUNSWICK				MEXICO			
Fredericton D-29	500	CFNB	1210	Aguascalientes W-10	350	XFC	805
Moncton D-30	500	CNRA	630	Chihuahua, Chih. R-9	250	XFF	915
St. John D-30	500	CFBO	890	Guadalajara, Jal. X-10	101	XEA	1200
				Juarez P-9	101	XEJ	857
NEWFOUNDLAND					1000	XEQ	1015
St. Johns A-35	500	8WMC	682	Laredo, N. L. S-13	101	XEFE	980
					2500	XEP	1400
NOVA SCOTIA				Merida, Yuc. X-19	105	XEY	547
Glace Bay C-32	10000	VAS	685	Mexico City Y-13	1000	XEB	1030
Halifax E-31	500	CHNS	910		250	XEFA	1250
	500	CNRH	910		101	XEK	990
Sydney C-32	50	CJCB	880		1000	XEN	711
Wolfville D-31	50	CKIC	1010		5000	XEO	940
					101	XER	674
ONTARIO					500	XETA	1140
Chatham H-22	100	CFCO	1210		100	XETO	1485
Cobalt E-23	15	CKMC	1210		2000	XETY	1300
Hamilton H-24	10	CHCS	1120		500	XEX	1210
	50	CHML	880		5000	XEW	780
	50	CKOC	1120		500	XEZ	588
Kingston G-25	500	CFRC	930		2000	XFG	638
London H-23	5000	CJGC	910		1000	XFI	818
	500	CNRL	910	Monterrey, N. L. U-13	500	XFX	860
North Bay	50	CFCH	1200		5000	XEH	1080
Ottawa F-25	100	CKCO	890		500	XET	630
	500	CNRO	600	Morelia, Mich. Y-12	101	XEI	1000
Port Arthur E-19	50	CKPR	890	Oaxaca, Oak. AA-14	105	XEE	1132
Prescott F-25	50	CFLC	1010	Puebla Z-13	101	XEV	1034
Preston H-23	25	CKPC	1210	Reynosa, Tams. T-14	10000	XED	961
Toronto G-24	500	CFCA	840	Saltillo, Coah. U-12	10	XEL	1091
	500	CFCL	580	Tampico, Tams. W-14	500	XEM	730
	5000	CFRB	960		500	XES	890
	500	CKLW	580	Toluca. Y-12	50	XEC	1333
	500	CKGW	690	Veracruz, Ver. Z-14	500	XETF	680
	500	CKNC	580		101	XEU	800
	500	CNRT	840				
	5000	CNRX	960	CUBA			
	5000	CPRY	690	Cardenas W-24	30	CMGE	1375
Waterloo G-23	50	CKCR	1010	Camaguey W-26	15	CMJC	1321
Wingham G-23	25	10-BP	1200		20	CMJE	856
				Ciego de Avila W-26	20	CMJB	1276
PRINCE EDWARD ISLAND				Cienfuegos W-25	200	CMHA	1154
Charlottetown C-31	250	CFCY	960		40	CMHJ	645
	100	CHCK	960	Colon W-24	100	CMGA	834
Summerside C-31	100	CHGS	1120	Havana W-23	50	CMBA	1345
					150	CMBC	965
QUEBEC					150	CMBD	965
Montreal E-26	1650	CFCF	1030		7.5	CMBF	1345
	5000	CHYC	730		150	CMBG	1070
	5000	CKAC	730		30	CMBI	1405
	5000	CNRM	730		15	CMBJ	1285
Quebec D-27	100	CHRC	645		15	CMBK	1405
	22	CKCI	880		15	CMBL	1500
	50	CKCV	880		15	CMBM	1285
	50	CNRQ	880		30	CMBN	1405

CFAC 690	CJRM 665	CMBQ 1405	CMKA 1450
Calgary, Alta.	Moose Jaw, Sask.	Havana, Cuba	Santiago, Cuba
CFBO 890	CJRW 665	CMBR 1500	CMKB 1200
St. John, N. B.	Fleming, Sask.	Havana, Cuba	Santiago, Cuba
CFCA 840	CKAC 730	CMBS 790	CMKC 1034
Toronto, Ont.	Montreal, Que.	Havana, Cuba	Santiago, Cuba
CFCF 1030	CKCD 730	CMBT 1070	CMKD 1100
Montreal, Que.	Vancouver, B.C.	Havana, Cuba	Santiago, Cuba
CFCH 1200	CKCI 880	CMBW 1010	CMKE 1249
North Bay, Ont.	Quebec, Que.	Havana, Cuba	Santiago, Cuba
CFCL 580	CKCK 960	CMBX 1405	CMKF 1363
Toronto, Ont.	Regina, Sask.	Havana, Cuba	Holguin, Cuba
CFCN 985	CKCL 580	CMBY 1405	CMKG 1176
Calgary, Alta.	Toronto, Ont.	Havana, Cuba	Santiago, Cuba
CFCO 1210	CKCO 890	CMBZ 1010	CMKH 1327
Chatham, Ont.	Ottawa, Ont.	Havana, Cuba	Santiago, Cuba
CFCT 630	CKCR 1010	CMC 840	CMQ 1150
Victoria, B. C.	Waterloo, Ont.	Havana, Cuba	Havana, Cuba
CFCY 960	CKCV 880	CMCA 1225	CMW 588
Ch'tottet'n, P.E.I.	Quebec, Que.	Havana, Cuba	Havana, Cuba
CFJC 1120	CKFC 730	CMCB 1070	CMX 890
Kamloops, B. C.	Vancouver, B.C.	Havana, Cuba	Havana, Cuba
CFLC 1010	CKGW 690	CMCD 1225	CNRA 630
Prescott, Ont.	Toronto, Ont.	Havana, Cuba	Moncton, N.B.
CFNB 1210	CKIC 1010	CMCF 890	CNRC 690
Fredericton, N.B.	Wolfville, N.S.	Havana, Cuba	Calgary, Alta.
CFQC 910	CKLC 840	CMCG 1285	CNRD 840
Saskatoon, Sask.	Red Deer, Alta.	Havana, Cuba	Red Deer, Alta.
CFRB 960	CKMC 1210	CMCH 1285	CNRH 910
Toronto, Ont.	Cobalt, Ont.	Havana, Cuba	Halifax, N. S.
CFRC 930	CKMO 730	CMCM 1500	CNRL 910
Kingston, Ont.	Vancouver, B.C.	Havana, Cuba	London, Ont.
CFCA 690	CKNC 580	CMCN 1225	CNRM 730
Calgary, Alta.	Toronto, Ont.	Havana, Cuba	Montreal, Que.
CFCK 960	CKOC 1120	CMCO 660	CNRO 600
Ch'tottet'n, P.E.I.	Hamilton, Ont.	Havana, Cuba	Ottawa, Ont.
CFCS 1120	CKPC 1210	CMCQ 1150	CNRQ 880
Hamilton, Ont.	Preston, Ont.	Havana, Cuba	Quebec, Que.
CFCT 840	CKPR 890	CMCR 1285	CNRR 960
Red Deer, Alta.	Port Arthur, Ont.	Havana, Cuba	Regina, Sask.
CFGS 1120	CKUA 580	CMCT 1500	CNRS 910
Sum'rside, P.E.I.	Edmonton, Alta.	Havana, Cuba	Saskatoon, Sask.
CFHS 730	CKWX 730	CMCU 1345	CNRT 840
Vancouver, B.C.	Vancouver, B.C.	Havana, Cuba	Toronto, Ont.
CFMA 580	CKX 540	CMCY 1345	CNRV 1030
Edmonton, Alta.	Brandon, Man.	Havana, Cuba	Vancouver, B.C.
CFML 880	CKY 780	CMGA 834	CNRW 780
Hamilton, Ont.	Winnipeg, Man.	Colon, Cuba	Winnipeg, Man.
CFNS 910	CMAB 1249	CMGB 1185	CNRX 960
Halifax, N.S.	Pinar del Rio, Cu.	Matanzas, Cuba	Toronto, Ont.
CFRC 645	CMAC 1375	CMGD 1140	CPRY 690
Quebec, Que.	Pinar del Rio, Cu.	Matanzas, Cuba	Toronto, Ont.
CFWC 960	CMBA 1345	CMGE 1375	HHK 920
Regina, Sask.	Havana, Cuba	Cardenas, Cuba	Port au Prince, H.
CFWK 665	CMBC 965	CMGF 977	KBPS 1420
Chilliwack, B.C.	Havana, Cuba	Matanzas, Cuba	Portland, Ore.
CFYC 730	CMBD 965	CMGH 780	KBTM 1200
Montreal, Que.	Havana, Cuba	Matanzas, Cuba	Paragould, Ark.
CJBR 960	CMBF 1345	CMHA 1154	KCRC 1370
Regina, Sask.	Havana, Cuba	Cienfuegos, Cuba	Enid, Okla.
CJCA 930	CMBG 1070	CMHC 790	KCRJ 1310
Edmonton, Alta.	Havana, Cuba	Tuinucu, Cuba	Jerome, Ariz.
CJCB 880	CMBI 1405	CMHI 1110	KDB 1500
Sydney, N.S.	Havana, Cuba	Santa Clara, Cu.	S. Barbara, Cal.
CJCI 690	CMBJ 1285	CMHJ 645	KDFN 1210
Calgary, Alta.	Havana, Cuba	Cienfuegos, Cuba	Casper, Wyo.
CJGC 910	CMBK 1405	CMJB 1276	KDKA 980
London, Ont.	Havana, Cuba	Ciego de Avila	Pittsburgh, Pa.
CJGX 630	CMBL 1500	CMJC 1321	KDLR 1210
Yorkton, Sask.	Havana, Cuba	Camaguey, Cuba	Devils Lake, N.D.
CJOC 1120	CMBM 1285	CMJE 856	KDYL 1290
Lethbridge, Alta.	Havana, Cuba	Camaguey, Cuba	Salt Lake City
CJOR 1210	CMBN 1405	CMK 730	KECA 1430
Sea Island, B.C.	Havana, Cuba	Havana, Cuba	Los Angeles, Cal.

KELW 780 Burbank, Cal.	KFQD 1230 Anchorage, Alas.	KGEF 1300 Los Angeles, Cal.	KGY 1200 Lacey, Wash.
KEX 1180 Portland, Ore.	KFQU 1420 Holy City, Cal.	KGEK 1200 Yuma, Colo.	KHJ 900 Los Angeles, Cal.
KFAB 770 Lincoln, Nebr.	KFW 1420 Seattle, Wash.	KGER 1360 Long Beach, Cal.	KHQ 590 Spokane, Wash.
KFAC 1300 Los Angeles, Cal.	KFRC 610 San F'n'cisco, Cal.	KGEW 1200 Ft. Morgan, Colo.	KICK 1420 Red Oak, Iowa.
KFBB 1280 Great Fls., Mont.	KFRU 630 Columbia, Mo.	KGEZ 1310 Kalispell, Mont.	KID 1320 Idaho Falls, Ida.
KFBI 1050 Milford, Kans.	KFSF 600 San Diego, Cal.	KGFF 1420 Shawnee, Okla.	KIDO 1250 Boise, Idaho
KFBK 1310 Sacramento, Cal.	KFSG 1120 Los Angeles, Cal.	KGFG 1370 Oklahoma City	KIT 1310 Yakima, Wash.
KFBL 1370 Everett, Wash.	KFUL 1290 Galveston, Tex.	KGFI 1500 Corpus Ch'sti, Tex	KJBS 1070 San F'n'cisco, Cal.
KFDM 560 Beaumont, Tex.	KFUM 1270 Col. Spgs., Colo.	KGFI 1200 Los Angeles, Cal.	KJR 970 Seattle, Wash.
KFDY 550 Brookings, S.D.	KFUS 550 St. Louis, Mo.	KGFK 1500 Moorhead, Minn.	KLCN 1290 Blytheville, Ark.
KFEL 920 Denver, Colo.	KFUP 1310 Denver, Colo.	KGFL 1370 Raton, N. M.	KLO 1400 Ogden, Utah
KFEQ 680 St. Joseph, Mo.	KFVD 1000 Culver City, Cal.	KGFW 1310 Ravenna, Nebr.	KLPN 1420 Minot, N. Dak.
KFGQ 1310 Boone, Iowa	KFVS 1210 Cape Gir'rd'u, Mo	KGFX 580 Pierre, S. D.	KLRA 1390 Little Rock, Ark.
KFHI 1300 Wichita, Kansas	KFWB 950 Hollywood, Cal.	KGGC 1420 San F'n'cisco, Cal.	KLS 1440 Oakland, Cal.
KFI 640 Los Angeles, Cal.	KFWF 1200 St. Louis, Mo.	KGGF 1010 Coffeyville, Okla.	KLX 880 Oakland, Cal.
KFIO 1120 Spokane, Wash.	KFWI 930 San F'n'cisco, Cal.	KGGM 1230 Alb'gr'que, N.M.	KLZ 560 Denver, Colo.
KFIU 1310 Juneau, Alaska	KFXD 1420 Nampa, Idaho	KGHF 1320 Pueblo, Colo.	KMA 930 Shenandoah, Ia.
KFIZ 1420 Fond du Lac, Wis	KFXF 920 Denver, Colo.	KGHI 1200 Little Rock, Ark.	KMAC 1370 San Antonio, Tex.
KFJB 1200 Marshalltown, Ia.	KFXJ 1310 Grand Junc., Colo.	KGHL 950 Billings, Mont.	KMBC 950 Kan. City, Mo.
KJFF 1480 Oklahoma City	KFXM 1210 San Ber'd'no, Cal.	KGIR 1360 Butte, Mont.	KMCS 1120 Inglewood, Cal.
KFJI 1370 Astoria, Ore.	KFXR 1310 Oklahoma City	KGIW 1420 Trinidad, Colo.	KMED 1310 Medford, Ore.
KFJM 1370 Grd. Forks, N. D.	KFX Y 1420 Flagstaff, Ariz.	KGIX 1420 Las Vegas, Nev.	KMJ 1210 Fresno, Cal.
KFJR 1300 Portland, Ore.	KFYO 1420 Abilene, Texas	KGIZ 1500 Grant City, Mo.	KMLB 1200 Monroe, La.
KFJY 1310 Fort Dodge, Ia.	KFYR 550 Bismarck, N. D.	KGJF 890 Little Rock, Ark.	KMMJ 740 Clay Ctr., Nebr.
KFJZ 1370 Ft. Worth, Tex.	KGA 1470 Spokane, Wash.	KGKB 1500 Tyler, Texas	KMO 860 Tacoma, Wash.
KFKA 880 Greeley, Colo.	KGAR 1370 Tucson, Ariz.	KGKL 1370 San Angelo, Tex.	KMOX 1090 St. Louis, Mo.
KFKU 1220 Lawrence, Kans.	KGB 1330 San Diego, Cal.	KGKO 570 Wichita Fls., Tex	KMPC 710 Los Angeles, Cal.
KFKX 1020 Chicago, Ill.	KGBU 900 Ketchikan, Al'ka.	KGKX 1420 Sand Point, Ida.	KMTR 570 Los Angeles, Cal.
KFLV 1410 Rockford, Ill.	KGBX 1310 St. Joseph, Mo.	KGKY 1500 Scottsbluff, Nebr.	KNX 1050 Los Angeles, Cal.
KFLX 1370 Galveston, Tex.	KGBZ 930 Kebz., Nebr.	KGMB 1320 Honolulu, T. H.	KOA 830 Denver, Colo.
KFMX 1250 N'thfield, Minn.	KGCA 1270 Decorah, Iowa	KGMP 1210 Elk City, Okla.	KOAC 550 Corvallis, Ore.
KFNH 890 Shenandoah, Ia.	KGCR 1210 Watertown, S. D.	KGNF 1430 No. Platte, Neb.	KOB 1180 State Coll., N.M.
KFOR 1210 Lincoln, Nebr.	KGCU 1200 Mandan, N. D.	KGNO 1210 Dodge City, Kans.	KOCW 1400 Chickasha, Okla.
KFOX 1250 Long Beach, Cal.	KGCX 1310 Wolf P't, Mont.	KGO 790 San F'n'cisco, Cal.	KOH 1380 Reno, Nevada
KFPL 1310 Dublin, Texas	KGDA 1370 Mitchell, S. D.	KGRS 1410 Amarillo, Texas	KOIL 1260 Council Bluffs, Ia.
KPFM 1310 Greenville, Tex.	KGDE 1200 Ferg's F'ls, Minn	KGU 940 Honolulu, Hawaii	KOIN 940 Portland, Ore.
KPFW 1340 Ft. Smith, Ark.	KGDM 1100 Stockton, Cal.	KGVO 1420 Missoula, Mont.	KOL 1270 Seattle, Wash.
KPFY 1340 Spokane, Wash.	KGDY 1200 Huron, S. D.	KGW 620 Portland, Ore.	KOMO 920 Seattle, Wash.

KONO 1370 San Antonio, Tex.	KTM 780 Los Angeles, Cal.	WAAF 920 Chicago, Ill.	WBZ-A 990 Springfield, Mass.
KOOS 1370 Marshfield, Ore.	KTNT 1170 Muscatine, Iowa	WAAM 1250 Newark, N. J.	WCAC 600 Storrs, Conn.
KORE 1420 Eugene, Ore.	KTRH 1120 Houston, Texas	WAAT 940 Jersey City, N. J.	WCAD 1220 Canton, N. Y.
KOY 1390 Phoenix, Ariz.	KTSA 1290 San Antonio, Tex.	WAAW 660 Omaha, Nebr.	WCAE 1220 Pittsburgh, Pa.
KPCB 650 Seattle, Wash.	KTSL 1310 Shreveport, La.	WAHC 860 New York City	WCAH 1430 Columbus, Ohio
KPJM 1500 Prescott, Ariz.	KTSM 1310 El Paso, Texas	WABI 1200 Bangor, Maine	WCAJ 590 Lincoln, Nebr.
KPO 680 San F'nisco, Cal.	KTW 1270 Seattle, Wash.	WABZ 1200 New Orleans, La.	WCAL 1250 Northfield, Minn.
KPOF 880 Denver, Colo.	KUJ 1370 Walla Wal., Wash.	WACO 1240 Waco, Texas	WCAM 1280 Camden, N. J.
KPPC 1210 Pasadena, Cal.	KUOA 1390 Fayetteville, Ark.	WADC 1320 Akron, Ohio	WCAO 600 Baltimore, Md.
KPQ 1500 Wenatchee, Wash.	KUSD 890 Vermillion, S. D.	WAIU 640 Columbus, Ohio	WCAP 1280 Asbury Pk., N. J.
KPRC 920 Houston, Texas	KUT 1500 Austin, Texas	WALR 1210 Zanesville, Ohio	WCAT 1200 Rapid City, S. D.
KQV 1380 Pittsburgh, Pa.	KVI 760 Tacoma, Wash.	WAPI 1140 Birmingham, Ala.	WCAU 1170 Philadelphia, Pa.
KQW 1010 San Jose, Cal.	KVL 1370 Seattle, Wash.	WASH 1270 Gr. Rapids, Mich.	WCAX 1200 Burlington, Vt.
KRE 1370 Berkeley, Cal.	KVOA 1260 Tucson, Arizona	WAWZ 1350 Zarephath, N. J.	WCAZ 1070 Carthage, Ill.
KREG 1500 Santa Ana, Cal.	KVOO 1140 Tulsa, Okla	WBAA 1400 Lafayette, Ind.	WCBA 1440 Allentown, Pa.
KRGV 1260 Hartlingen, Texas	KVOS 1200 Bellingh'm, Wash.	WBAK 1430 Harrisburg, Pa.	WCBD 1080 Zion, Ill.
KRLD 1040 Dallas, Texas	KWCR 1310 Cedar Rapids, Ia.	WBAL 760-1060 Baltimore, Md.	WCBM 1370 Baltimore, Md.
KRMD 1310 Shreveport, La.	KWEA 1210 Shreveport, La.	WBAP 800 Fort Worth, Tex.	WCBS 1210 Springfield, Ill.
KROW 930 Oakland, Cal.	KWG 1200 Stockton, Cal.	WBAX 1210 Wilkes-Barre, Pa.	WCCO 810 Minneapolis, Minn.
KRSC 1120 Seattle, Wash.	KWJJ 1060 Portland, Ore.	WBBC 1400 Brooklyn, N. Y.	WCDA 1350 New York City
KSAK 580 Manh'tt'n, Kans.	KWK 1350 St. Louis, Mo.	WBBL 1210 Richmond, Va.	WCFL 970 Chicago, Ill.
KSCJ 1330 Sioux City, Ia.	KWKC 1370 Kar saas City, Mo.	WBBM 770 Chicago, Ill.	WCGU 1400 Brooklyn, N. Y.
KSD 550 St. Louis, Mo.	KWAH 850 Shreveport, La.	WBDR 1300 Brooklyn, N. Y.	WCHI 1490 Chicago, Ill.
KSEI 900 Pocatello, Idaho	KWLC 1270 Decorah, Iowa	WBBZ 1200 Ponca City, Okla.	WCKY 1490 Covington, Ky.
KSL 1130 Salt Lake City	KWSC 1220 Fullman, Wash.	WBCE 1410 Bay City, Mich.	WCLO 1200 Janesville, Wis.
KSMR 1200 Santa Maria, Cal.	KWWG 1260 Brownsville, Tex.	WBEN 900 Buffalo, N. Y.	WCLS 1310 Joliet, Ill.
KSO 1380 Clarinda, Iowa	KXA 570 Seattle, Wash.	WBEO 1310 Marquette, Mich.	WCMA 1400 Culver, Ind.
KSOO 1110 Sioux Falls, S.D.	KXL 1420 Portland, Ore.	WBGF 1370 Glens Falls, N. Y.	WCOA 1340 Pensacola, Fla.
KSTP 1460 St. Paul, Minn.	KXO 1500 El Centro, Cal.	WBG 1440 Greensboro, N.C.	WCOE 880 Meridian, Miss.
KTAB 560 San F'nisco, Cal.	KXKO 1310 Aberdeen, Wash	WBIS 1280 Boston, Mass.	WCOD 1200 Harrisburg, Pa.
KTAF 1420 San Antonio, Tex.	KXYZ 1420 Houston, Texas	WBMS 1450 Hackensack, N.J.	WCOH 1210 Yonkers, N. Y.
KTAR 620 Phoenix, Ariz.	KYA 1230 San F'nisco, Cal.	WBNX 1350 New York City	WCRW 1210 Chicago, Ill.
KTAT 1240 Ft. Worth, Tex.	KYW 1020 Chicago, Ill.	WBOQ 860 New York City	WCSC 1360 Charleston, S. C.
KTBR 1300 Portland, Ore.	KZM 1370 Hayward, Cal.	WBOW 1310 Terre Haute, Ind.	WCSH 940 Portland, Maine
KTBS 1450 Shreveport, La.	NAA 690 Arlington, Va.	WBRC 930 Birmingham, Ala.	WDAE 1220 Tampa, Fla.
KTFI 1320 Twin Falls, Ida.	ATC 750 San Jose, C. R.	WBRE 1310 Wilkes-Barre, Pa.	WDAF 610 Kansas City, Mo.
KTHS 1040 Hot Spgs., Ark.	VAS 685 Glace Bay, N. S.	WBSO 920 Needham, Mass.	WDAR 1410 Amarillo, Texas
KTLC 1310 Houston, Texas	WAAB 1410 Boston, Mass.	WBT 1080 Charlotte, N. C.	WDAH 1310 El Paso, Texas
		WBTM 1370 Danville, Va.	WDAY 940 Fargo, N. D.

WDBJ 930
Roanoke, Va.
WDBO 1120
Orlando, Fla.
WDEL 1120
Wilmington, Del.
WDGY 1180
Minneapolis, Minn.
WDIX 1500
Tupelo, Miss.
WDOO 1280
Chattanooga, Tenn.
WDRG 1330
Hartford, Conn.
WDSU 1250
New Orleans, La.
WDWF 1210
Providence, R. I.
WDZ 1070
Tuscola, Ill.
WEAF 660
New York City
WEAI 1270
Ithaca, N. Y.
WEAN 780
Providence, R. I.
WEAO 570
Columbus, Ohio
WEBC 1290
Superior, Wis.
WEBQ 1210
Harrisburg, Ill.
WEHR 1310
Buffalo, N. Y.
WEDC 1210
Chicago, Ill.
WEDH 1420
Erie, Pa.
WEI 590
Boston, Mass.
WEHC 1350
Emory, Va.
WEHS 1420
Cicero, Ill.
WELK 1370
Philadelphia, Pa.
WELL 1420
Battle Creek, Mich.
WENR 870
Chicago, Ill.
WEPS 1200
Worcester, Mass.
WEVD 1300
New York City
WEW 760
St. Louis, Mo.
WEXL 1310
Royal Oak, Mich.
WFAA 800
Dallas, Texas
WFAN 610
Philadelphia, Pa.
WFCB 1200
Knoxville, Tenn.
WFBE 1200
Cincinnati, Ohio
WFBG 1310
Altoona, Pa.
WFLB 1360
Syracuse, N. Y.
WFBM 1230
Indianapolis, Ind.
WFRB 1270
Baltimore, Md.
WDFD 1310
Flint, Mich.
WFDV 1370
Rome, Ga.

WFDW 1420
Talladega, Ala.
WFI 560
Philadelphia, Pa.
WFIW 940
Hopkinsville, Ky.
WFLA 620
Clearwater, Fla.
WFOX 1400
Brooklyn, N. Y.
WGAL 1310
Lancaster, Pa.
WGAR 1450
Cleveland, Ohio
WGBB 1210
Freeport, N. Y.
WGBC 1430
Memphis, Tenn.
WGBF 630
Evansville, Ind.
WGBI 880
Scranton, Pa.
WGBS 1180
New York City
WGCN 1210
Gulport, Miss.
WGCP 1250
Newark, N. J.
WGES 1360
Chicago, Ill.
WGH 1310
Newsp't News, Va.
WGL 1370
Ft. Wayne, Ind.
WGN 720
Chicago, Ill.
WGR 550
Buffalo, N. Y.
WGST 890
Atlanta, Ga.
WGY 790
Schenecks'd'y, N.Y.
WHA 940
Madison, Wis.
WHAD 1120
Milwaukee, Wis.
WHAM 1150
Rochester, N. Y.
WHAP 1300
New York City
WHAS 820
Louisville, Ky.
WHAT 1310
Philadelphia, Pa.
WHAZ 1300
Troy, N. Y.
WHB 860
Kansas City, Mo.
WHBC 1200
Canton, Ohio
WHBD 1370
Mt. Orab, O.
WHBF 1210
Rock Island, Ill.
WHBL 1410
Sheboygan, Wis.
WHBQ 1370
Memphis, Tenn.
WHBU 1210
Anderson, Ind.
WHBY 1200
Green Bay, Wis.
WHDF 1370
Calumet, Mich.
WHDH 830
Boston, Mass.
WHDI 1180
Minneapolis, Minn.

WHDL 1420
Tupper Lake, N.Y.
WHEC 1440
Rochester, N. Y.
WHFC 1420
Cicero, Ill.
WHIS 1410
Bluefield, W. Va.
WHK 1390
Cleveland, Ohio
WHN 1010
New York City
WHO 1000
Des Moines, Ia.
WHOM 1450
Jersey City, N. J.
WHP 1430
Harrisburg, Pa.
WIAS 1420
Ottumwa, Iowa
WIBA 1280
Madison, Wis.
WIBG 930
Elkins Park, Pa.
WIBM 1370
Jackson, Mich.
WIBO 560
Chicago, Ill.
WIBR 1420
Steubenville, O.
WIBU 1210
Poyndette, Wis.
WIBV 580
Topeka, Kansas
WIBY 1200
Utica, N. Y.
WICC 600
Bridgeport, Conn.
WIL 1200
St. Louis, Mo.
WILL 890
Urbana, Ill.
WILM 1420
Wilmington, Del.
WIOD 1300
Miami, Fla.
WIP 610
Philadelphia, Pa.
WIS 1010
Columbia, S. C.
WISJ 780
Madison, Wis.
WISN 1120
Milwaukee, Wis.
WJAC 1310
Johnstown, Pa.
WJAG 1060
Norfolk, Nebr.
WJBK 1310
Marion, Ind.
WJAR 890
Providence, R. I.
WJAS 1290
Pittsburgh, Pa.
WJAX 900
Jacksonville, Fla.
WJAY 610
Cleveland, Ohio
WJAZ 1490
Chicago, Ill.
WJBC 1200
La Salle, Ill.
WJBI 1210
Red Bank, N. J.
WJBK 1370
Detroit, Mich.
WJBL 1200
Decatur, Ill.

WJBO 1420
New Orleans, La.
WJBT 770
Chicago, Ill.
WJBU 1210
Lewisburg, Pa.
WJBW 1200
New Orleans, La.
WJBY 1210
Gadsden, Ala.
WJDX 1270
Jackson, Miss.
WJDD 1130
Mooseheart, Ill.
WJKS 1360
Gary, Ind.
WJR 750
Detroit, Mich.
WJSV 1460
Alexandria, Va.
WJW 1210
Mansfield, Ohio
WJZ 760
New York City
WKAQ 890
San Juan, P. R.
WKAR 1040
E. Lansing, Mich.
WKAV 1310
Laconia, N. H.
WKBB 1310
Joliet, Ill.
WKBC 1310
Birmingham, Ala.
WKBF 1400
Indianapolis, Ind.
WKBH 1380
La Crosse, Wis.
WKBI 1420
Chicago, Ill.
WKBN 570
Youngstown, O.
WKBO 1450
Jersey City, N. J.
WKBS 1310
Galesburg, Ill.
WKBW 1500
Connersville, Ind.
WKBW 1480
Buffalo, N. Y.
WKBZ 1500
Ludington, Mich.
WKJC 1200
Lancaster, Pa.
WKRC 550
Cincinnati, O.
WKY 900
Oklahoma City
WKZO 590
Be'n Spgs., Mich.
WLAC 1470
Nashville, Tenn.
WLAP 1200
Louisville, Ky.
WLB 1250
St. Paul, Minn.
WLBC 1310
Muncie, Ind.
WLBF 1420
Kansas City, Mo.
WLBG 1200
Etrick, Va.
WLBL 900
Stevens Pt., Wis.
WLBW 1260
Oil City, Pa.
WLXB 1500
L.I. City, N.Y.

WLBZ 620
Bangor, Me.
WLCI 1210
Ithaca, N. Y.
WLEY 1370
Lexington, Mass.
WLIT 560
Philadelphia, Pa.
WLOE 1500
Boston, Mass.
WLS 870
Chicago, Ill.
WLSI 1210
Providence, R. I.
WLTH 1400
Brooklyn, N. Y.
WLVA 1370
Lynchburg, Va.
WLW 700
Cincinnati, Ohio
WLWL 1100
New York City
WMAC 570
Syracuse, N. Y.
WMAK 1040
Buffalo, N. Y.
WMAL 630
Washington, D.C.
WMAQ 670
Chicago, Ill.
WMAZ 890
Macon, Ga.
WMB 1500
Newport, R. I.
WMB 1420
Detroit, Mich.
WMBD 1440
Peoria Hghts., Ill.
WMBG 1210
Richmond, Va.
WMBH 1420
Joplin, Mo.
WMBI 1080
Chicago, Ill.
WMO 1310
Auburn, N. Y.
WMBQ 1500
Brooklyn, N. Y.
WMBR 1370
Tampa, Fla.
WMC 780
Memphis, Tenn.
WMC 570
New York City
WML 1500
Brooklyn, N. Y.
WMMN 890
Fairmont, W. Va.
WMPC 1500
Lapeer, Mich.
WMRJ 1210
Jamaica, N. Y.
WMSG 1350
New York City
WMT 600
Waterloo, Iowa
WNAC 1230
Boston, Mass.
WNAD 1010
Norman, Okla.
WNAX 570
Yankton, S. D.
WNBF 1500
Bingh'm't'n, N. Y.
WNBH 1310
New B'd'd, Mass.

WNBO 1200
Washington, Pa.
WNBR 1430
Memphis, Tenn.
WNBW 1200
Carbondale, Pa.
WNBX 1200
Springfield, Vt.
WNBZ 1290
SaranacL'ke, N. Y.
WNJ 1450
Newark, N. J.
WNOX 560
Knoxville, Tenn.
WNYC 570
New York City
WQAI 1190
San Antonio, Tex.
WQAX 1280
Trenton, N. J.
WQBT 1310
Union City, Tenn.
WQBU 580
Charlest'n, W. Va.
WOC 1000
Davenport, Iowa
WOCL 1210
Jamestown, N. Y.
WODA 1250
Paterson, N. J.
WODX 1410
Mobile, Ala.
WOI 640
Ames, Iowa
WOKO 1440
Albany, N. Y.
WOL 1310
Washington, D.C.
WOMT 1210
Manitowoc, Wis.
WOOD 1270
Gr. Rapids, Mich.
WOPI 1500
Bristol, Tenn.
WOQ 1300
Kansas City, Mo.
WOR 710
Newark, N. J.
WORC 1200
Worcester, Mass.
WOS 630
Jeff's'n City, Mo.
WOV 1130
New York City
WOW 590
Omaha, Nebr.
WOWO 1160
Ft. Wayne, Ind.
WPAD 1420
Paducah, Ky.
WPAP 1010
New York City
WPAW 1210
Pawtucket, R. I.
WPCC 560
Chicago, Ill.
WPCH 810
New York City
WPEN 1500
Philadelphia, Pa.
WPG 1100
Atl'ntic City, N.J.
WPOE 1370
Patchogue, N. Y.
WPOP 780
Norfolk, Va.
WPSC 1230
State College, Pa.

WPTF 680
Raleigh, N. C.
WQAM 560
Miami, Fla.
WQAN 880
Scranton, Pa.
WQAO 1010
New York City
WQBC 1360
Vicksburg, Miss.
WQDM 1370
St. Albans, Vt.
WQDX 1210
Thomasville, Ga.
WRAF 1200
La Porte, Ind.
WRAC 1370
Williamsport, Pa.
WRAM 1370
Wilmington, N. C.
WRAW 1310
Reading, Pa.
WRAX 1020
Philadelphia, Pa.
WRBI 1310
Tifton, Ga.
WRBJ 1370
Hattiesburg, Miss.
WRBL 1200
Columbus, Ga.
WRBG 1210
Greenville, Miss.
WRBX 1410
Roanoke, Va.
WRC 950
Washington, D.C.
WRDO 1370
Augusta, Me.
WRDW 1500
Augusta, Ga.
WREC 600
Memphis, Tenn.
WREN 1220
Lawrence, Kans.
WRHM 1250
Minneapolis, Minn.
WRJN 1370
Racine, Wis.
WRNY 1010
New York City
WROL 1310
Knoxville, Tenn.
WRR 1280
Dallas, Texas
WRUF 830
Gainesville, Fla.
WRVA 1110
Richmond, Va.
WSAI 1330
Cincinnati, Ohio
WSAJ 1310
Grove City, Pa.
WSAN 1440
Allentown, Pa.
WSAR 1450
Fall River, Mass.
WSAZ 580
Hunt'gton, W. Va.
WSB 740
Atlanta, Ga.
WSBC 1210
Chicago, Ill.
WSBT 1230
South Bend, Ind.
WSEN 1210
Columbus, Ohio
WSFA 1410
Montgomery, Ala.

WSIX 1210
Springfield, Tenn.
WSJS 1310
Winst.-Sal., N. C.
WSM 650
Nashville, Tenn.
WSMB 1320
New Orleans, La.
WSMK 1380
Dayton, Ohio
WSOC 1210
Gastonia, N. C.
WSPA 1420
Spartanburg, S.C.
WSPD 1340
Toledo, Ohio
WSSH 1410
Boston, Mass.
WSUI 880
Iowa City, Ia.
WSUN 620
St. Petersbg, Fla.
WSVS 1370
Buffalo, N. Y.
WSYB 1500
Rutland, Vt.
WSYR 570
Syracuse, N. Y.
WTAD 1440
Quincy, Ill.
WTAG 580
Worcester, Mass.
WTAM 1070
Cleveland, Ohio
WTAQ 1330
Eau Claire, Wis.
WTAR 780
Norfolk Va.
WTAW 1120
College Sta., Tex.
WTAX 1210
Springfield, Ill.
WTBO 1420
Cumberland, Md.
WTEL 1310
Philadelphia, Pa.
WTFI 1450
Toccoa, Ga.
WTIC 660-1060
Hartford, Conn.
WTMJ 620
Milwaukee, Wis.
WTOC 1260
Savannah, Ga.
WWE 1200
Hammond, Ind.
WVJ 920
Detroit, Mich.
WVW 850
New Orleans, La.
WWNC 570
Asheville, N. C.
WWRL 1500
Woodside, N. Y.
WWSW 1500
Pittsburgh, Pa.
WVVA 1160
Wheeling, W. Va.
WXYZ 1240
Detroit, Mich.
XEA 1200
Guad'ljara, Mex.
XEB 1030
Mexico City
XEC 1333
Toluca, Mex.
XED 961
Reynosa, Mex.

XEE 1132 Oaxaco, Mex.	XEM 730 Tampico, Mex.	XETA 1140 Mexico City	XEZ 588 Mexico City
XEFA 1250 Mexico City	XEN 711 Mexico City	XETF 680 Veracruz, Mex.	XFC 805 Aguascalientes, M.
XEFE 980 Laredo, Mex.	XEO 940 Mexico City	XETO 1485 Mexico City	XFF 915 Chihuahua, Mex.
XEH 1080 Monterrey, Mex.	XEP 1400 Laredo, Mex.	XETY 1300 Mexico City	XFG 638 Mexico City
XEI 1000 Morelia, Mex.	XEQ 1015 Juarez, Mex.	XEU 800 Veracruz, Mex.	XFI 818 Mexico City
XEJ 857 Juarez, Mex.	XER 674 Mexico City	XEV 1034 Puebla, Mex.	XFX 860 Mexico City
XEK 990 Mexico City	XES 890 Tampico, Mex.	XEW 780 Mexico City	8WMC 682 St. Johns, N.F.
XEL 1091 Saltillo, Mex.	XET 630 Monterrey, Mex.	XEX 1210 Mexico City	10BP 1200 Wingham, Ont.
		XEY 547 Merida, Mex.	

INDEX BY LOCATIONS WITH MAP KEY

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Havana W-23	50 CMBQ 1405		250 CMQ 1150
	15 CMBR 1500		1400 CMW 588
	150 CMBS 790		500 CMX 890
	150 CMBT 1070	Holguin W-27	30 CMKF 1363
	150 CMBW 1010	Matanzas W-24	7.5 CMGB 1185
	30 CMBX 1405		5 CMGD 1140
	100 CMBY 1405		50 CMGF 977
	150 CMBZ 1010		60 CMGH 780
	500 CMC 840	Pinar del Rio W-22	20 CMAB 1249
	150 CMCA 1225		30 CMAC 1375
	150 CMCB 1070	Santa Clara W-25	15 CMHI 1110
	250 CMCD 1225	Santiago X-28	20 CMKA 1450
	250 CMCF 890		15 CMKB 1200
	30 CMCG 1285		150 CMKC 1034
	15 CMCH 1285		20 CMKD 1100
	15 CMCM 1500		250 CMKE 1249
	250 CMCN 1225		30 CMKG 1176
	225 CMCO 660		250 CMKH 1327
	600 CMCQ 1150	Tuinucu	500 CMHC 790
	20 CMCR 1285		
	5 CMCT 1500		
	50 CMCU 1345		
	15 CMCY 1345		
	3150 CMK 730		
		COSTA RICA	
		San Jose FF-23	50 TIC 750

AMATEUR BROADCAST STATIONS IN CANADA

Call	Owner of Station	Location of Station	Kcys.	Meters	Watts
10AK	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
10AE	Bowmanville Radio Club	Sougov St., West, Bowmanville, Ont.	1200	250	10
10BI	Prince Albert Radio Club	331 20th St. West, Prince Albert, Sask.	1200	250	25
10AY	Kelowna Radio Association	Pendozi St., Kelowna, B. C.	1200	250	25
10AB	Moose Jaw Radio Association	338 Main St. North Moose Jaw, Sask.	1200	250	25
10BQ	Telephone City Radio Asso.	12 Terrace Hill, Brantford, Ont.	1200	250	5

CANADIAN STATIONS TELEVISION

Call	Owner	Location	Kcyl.	Meters
VE9AU	Crawford Hopkins	London, Ontario	2004-2100	149.7-142.9
VE9RM	Rogers Majestic Corp., Limited	Toronto, Ontario	2004-2100	149.7-142.9
VE9BZ	Radio Service Engineers	Vancouver, B. C.	2750-2850	109.1-105.3
VE9AR	A. R. MacKenzie	Saskatoon, Sask.	2850-2950	105.3-101.7

CANADIAN HIGH FREQUENCY BROADCASTING

Call	Owner	Location	Kcyl.	Meters
VE9CI	Crawford Hopkins	London, Ont.	2758	108.8
VE9AK	Alberta Pacific Grain Company	Red Deer, Alta.	2830	105.9
VE9CU	Calgary Albertan	Calgary, Alta.	6005	49.96
VE9CF	Borrett for CHNS	Halifax, N. S.	6050	49.59
VE9CS	United Church of Canada	Vancouver, B. C.	6070	49.42
VE9GW	Gooderham & Worts, Limited	Bowmanville, Ontario	6095	49.22
VE9CG	Calgary Herald, Limited	Calgary, Alta.	6110	49.10
VE9DR	Canadian Marconi Co.	Drummondville, Quebec	11780	25.47
VE9CA	Western Broadcasting Co., Ltd.	Calgary, Alta.	11860	25.3
VE9CA	Western Broadcasting Co., Ltd.	Calgary, Alta.	6030	49.75
VE9CL	James Richardson & Sons	Middlechurch, Manitoba	6150	48.8

THE CUBAN EXPERIMENTALS

Call	Owner	Address	Location	Keys.	Meters	Watts
CLR	Enrique Lasanta	Rayo numero 2	Habana	1000	30	150
CM-1BY	Antonio Sarasola	Marti numero 3	Guanajay	7150	41.9	30
CM-1CX	Gerardo R. Suarez	Luz Caballero numero 25	Guanajay	7300	41	15
CM-1FM	Julian Machado	Marti numero 49	Guanajay	14122	21.5	100
CM-1OE	Oswaldo Escobar	Capitan Reyes s-n	San Cristobal	7150	41.9	7.5
CM-2AP	Pedro C. Andux	Neptuno numero 176	Habana	7310	41.5	10
CM-2AR	Alfredo Rosell	Xifres numero 18	Habana	143.50	20.9	7.5
CM-2AY	Cesar Fernandez	Real 101	Marianao	7310	41.5	7.5
CM-2CF	Victor Couillard	Camp. Columbia 30-B	Marianao	7257	41.2	7.5
CM-2FC	Fernando Capestany	Godinez "E" Buena Vista	Marianao	7150	41.9	7.5
CM-2GZ	Jorge L. Gonzalez	Monte numero 49	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	7150	41.9	5
CM-2JT	Jose A. Terry	Avenida de la Playa numero 5	Marianao	14280	21	7.5
CM-2KW	Carlos Alburquerque	Goicuria numero 24	Habana	7310	41.5	5
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-2OC	Lorenzo Capo	Neptuno numero 176, altos	Habana	7300	41	7.5
CM-2PC	Marino Diaz Quinones	Yatch Mariana	Habana	7190	41.7	10
CM-2QY	Alberto Giro	21 entre C y D, Vedado	Habana	7310	41.5	15
CM-2RA	Rigoberto Alvarez	San Jose numero 216	Habana	7152	41.9	7.5
CM-2RC	Radio Club de Cula	Genios numero 23	Habana	7310	41.5	7.5
CM-2RO	Pablo A Rosado	Santa Rosa y Gral. Nunez	Marianao	7300	41	7.5
CM-2RZ	Nestor Rodriguez	Cardenas numero 55	Habana	7152	41.9	7.5
CM-2SC	Jose del Salto	General Suarez numero 126	Habana	14015	21.4	250
CM-2SF	Eusebio Solis	Juana Alonso num. 9, Luyano	Habana	7207	41.6	7.5
CM-2SH	Silvio Hernandez	H numero 184, Vedado	Habana	7170	41.8	7.5
CM-2WA	Ezequiel Santos	Cristina numero 12	Habana	7170	41.8	7.5
CM-2WD	Pedro Madiedo	Santa Rosa A	Marianao	7135	42	10
CM-2WW	Amadeo Saenz d Calahorra	Marina numero 2	Habana	7120	42.1	50
CM-2XA	Alfredo Rosell	Xifres numero 18	Habana	7292	41.1	7.5
CM-2XC	Alexander Strang	M. F. de Castro s-n	Habana	7310	41.5	5
CM-2XD	Juan F. de Castro	3a. Avenida esquina a 4	Marianao	14015	21.4	250
CM-2XK	Raul Karman	Rayo 67	Habana	7150	41.9	7.5
CM-2YB	Francisco Vives	Paseo de Marti numero 105	Habana	7310	41.5	5
CM-4AA	Morris Katzen	Yatch Kallisto	Habana	7150	41.9	7.5
CM-5AZ	Ernesto V. Figueroa	Independencia 130	Matanzas	7257	41.2	7.5
CM-5BY	Leon Gonzalez Velez	San Isidro 5	Matanzas	7257	41.2	7.5
CM-5CX	Jose Alfonso	Diazo 73	Colon	7257	41.2	50
CM-5EN	Escuela Normal	Tello Lamar 41	Matanzas	7257	41.2	7.5
CM-5FC	Felix U. Casas	E. Blanchet 19	Matanzas	7211	41.6	7.5
CM-5FL	Francisco Diaz	Santa Catalina 16	P. 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 24	Jovellanos	7300	41	7.5
CM-5RV	Jose R. Ponte	San Vicente numero 28	Matanzas	7150	41.9	7.5
CM-5RY	Bernabe R. de la Torre	General Betancourt numero 105	Matanzas	14280	21	7.5
CM-6DW	Eduardo Terry	San Carlos 197	Cienfuegos	7300	41	10
CM-6GT	Juan Pablo Ros	Independencia 150	Cienfuegos	1579	41.2	5
CM-6SG	Remberto Sanchez	Candelaria numero 16	Santa Clara	7310	41.5	7.5
CM-6SZ	Homero Sanchez	Independencia numero 9	Santo Domingo	7300	41	15
CM-7CX	Leonard B. Fox	Central Florida	Florida	7310	41.5	15
CM-7DW	M. L. de Quintana	Central Tacajo	Tacajo	7211	41.6	10
CM-7JQ	Leonard B. Fox	Central Florida	Florida	14280	21	7.5
CM-7OL	Arsenio Valdes	Ave. General Machado	Ciego de Avila	7130	42.8	20
CM-7SH	Domingo Caymares	Augusto Arango 31	Nuevitas	7257	41.2	15
CM-8BY	Alberto Ravelo	Ave. entre 1 y 3 V. A.	Santiago de Cuba	7300	41	30
CM-8CW	Edmundo Recamier	Reloj Alta numero 2	Santiago de Cuba	7300	41	20
CM-8CX	Arturo C. de Ribas	1 esquina a 8 V. A.	Santiago de Cuba	7300	41.2	100
CM-8HS	Guillermo Polanco	M. Corona Baja 16	Santiago de Cuba	7130	42.8	200
CM-8MN	Melchor Agüero	Estrada Palma, Alta 1	Santiago de Cuba	7140	42.8	50
CM-8OL	Luis C. Greco	San Bartolome 32	Santiago de Cuba	7300	41	50
CM-8UP	Earle D. Byer	Estacion Naval	Guantanamo	7300	41	50
CM-8YB	B. V. Greer	Estacion Naval	Guantanamo	7300	41	100

The Monthly Forum

(Continued from page 26)

only surmise that the Denver station was broadcasting a program which originated in the studio of WJZ and the announcer of the latter inadvertently spoke before cutting off the chain.

"Will you please explain to me why

it is that Station KQV, Pittsburgh, Pa., only has 500 watts instead of 5000," inquires John W. Delach, Oakmont, Pa. "It's the second oldest radio in Pittsburgh."

Unfortunately, or perhaps fortunately, power is not assigned by seniority. There are many old stations still on low power. Not even merit seems to be recognized

in making power assignments. For instance, WHK, one of the pioneer stations, has been trying for years to get more power than the 1000 watts allotted it, but has been unable to get by the powers that be.

"Why is WWAE listed as Hammond, Ind.?" asks Wm. Lesser, 180 Harman St., Brooklyn, N. Y. "I receive this station nightly and they announce it as Chicago, Ill. I wouldn't believe this only I have had a verification from this station and the Post Office stamp was also Chicago."

Hammond is a suburb of Chicago. More and more stations are moving their transmitters to the suburbs of the cities in which they are located. RADEX always gives as location the studio rather than the antenna towers. In the case of WWAE, however, the reports of the Commission show both transmitter and studio locations as Hammond. We are unable to account for their announcing as from Chicago.

"I would like to know," inquires Chas. H. Kramer, 1906 Hanover Ave., Allentown, Pa., "if there is a 10,000-watt California station on or near 1490 keys."

The Commission reports for years carried KPWF at Westminster, Calif., as having a construction permit for 10,000 watts. Information came to us that no such station was on the air or even in course of construction and letters addressed to it were returned. We therefore deleted it.

"How about a complete airline distance chart?" suggests W. Dyson, 72 Cambridge Ave., Hamilton, Ont.

Any table of distances must necessarily show only a very limited number of cities, the number that can be given at either the top or the side of a sheet. We formerly published such a list but received many complaints because so few cities were shown. A very much better method of measuring distances is with the RADEX Radio Map, for then the distance can be quickly ascertained between any two given points in North America.

"Puzzle No. 3 in March *cannot be solved*," insists James Pinkerton, 47 Jasper St., Paterson, N. J. "I worked hours on it and could not get it. All calls

were supposed to be in North America and CBMT is in Cuba, not North America. I could have easily solved it had I know Cuba could have been used."

Has anyone ever seen a map of North America that did not show Cuba or seen Cuba on any other map but that of North America?

We receive many complaints regarding the character of programs. We ourselves frequently chafe during long harangues regarding the merits of some tooth-paste or washing-machine, but usually we can spin the dial and get something more to our taste.

H. W. Martin, Secretary of the Fort William Radio Club, 330 Dease St., Fort William, Ont., writes in part as follows: "We feel that the broadcasting of programs has taken on an aspect of cheapness during the last year or so. Out of scores of programs each week it is safe to say that not over eight or nine percent belong to the better class, and the trash that is flooding the air now is increasing so rapidly that quite a few people cannot see investment in a radio."

Advertisers are more and more coming to sense the fact that all over the continent people are springing to their feet when advertising begins and tuning out their programs. For instance, Cremo cigars have gone from the extreme of most obnoxious newspaper and billboard advertising to the limiting of advertising talk on their radio programs to twenty-five words.

It is no easy matter to provide all 100% features, but there is really no excuse for some of the patter and chatter put out on some programs. The dialog between some of the comedians (!) of the air is so asinine and puerile it would not be permitted on the stage of even the cheapest burlesque house. And our own pet peeve is the "laughter" interjected in a program by hired laughers. The Blackstone program with Frank Crummit and Julia Sanderson is one of the greatest offenders in this respect.

However, our only comfort is that we don't have to pay money for this sort of thing and by using the dial patiently, sooner or later we can tune in something really enjoyable.

FAVORITE PROGRAMS

Time Station Dials Feature Time Station Dials Feature

DAILY

WEDNESDAY

3:30 CHRY 50

NEWS
- 12:00

12:00
KEY

SUNDAY

THURSDAY

MONDAY

FRIDAY

TUESDAY

SATURDAY

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 WEAF in New York. First we must ascertain the frequency for this station. Look it up under WEAF in the Index by Call Letters or under New York in the Index by States and Cities. In either of these indexes we find that the frequency of WEAF is 660. Now we turn to 660 kilocycles in the Index by Frequencies and Dial Numbers. Here we find that WEAF is one of the two stations which have been assigned the 660 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 your set has one, two or three dials. Use as many of three spaces provided as you need. The set used in the illustration had two dials. In this case we entered the dial readings for 660 kilocycles as 69-67.

Let us now tune in some other station. We repeat the same procedure in tuning and find that we are hearing, let us say, WOS at Jefferson City. Proceed as before in ascertaining the frequency of WOS. This we find to be 630 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

KHO	4000	Spokane, Wash.
WCAJ	500	Lincoln, Neb.
WEEI	500	Boston, Mass.
WQW	500	Wichita, Kan.
WEXC	5000	Barren Springs, Mich.

76 74

Local	Wesmer, Inc.
Northwest	Western University
Radio	City, Hartford, Conn.
Wash.	State, Washington, D. C.
Emmett	Mississippi College

600 kilocycles 499.7 meters

CFCH	200	Brussels Falls, Ont.
KFDU	500	Laramie, Wyo.
KFSB	500	San Diego, Calif.
WCAO	450	Baltimore, Md.
WIDW	350	Rehoboth, Wis.
WJAN	500	Lynchburg, Tenn.
WJBC	300	Memphis, Tenn.
WVIC	350	Hartford, Conn.

75 73

Abilene	Power & Paper Co.
Blanton	N. S. Thomas
Clinton	Radio Dept.
Montgomery	Radio Co., Inc.
Rehoboth	College
Vaughan	National of Music
W.R.L.	Inc.
Traveler	Insurance Co.

610 kilocycles 491.5 meters

KYBC	1475	San Francisco, Calif.
WJAF	1475	Kansas City, Mo.
WJAN	500	Pittsburgh, Pa.
WJIP	500	Wilmington, Pa.
WJOD	1000	Bacon, Okla. Mo.

74 72

Don Lee	Inc.
Kansas City	Star Co.
Keystone	Broadcasting Co., Inc.
Cleveland	Radio, Inc.
United	Church of Christ, Inc.

620 kilocycles 483.6 meters

KPAD	500	Phoenix, Ariz.
KLW	1000	Portland, Ore.
WJLD	1000	Dallas, Tex.
WJLH	1000	Jacksonville, Fla.
WJLJ	1000	Missoula, Mont.

73 71

Electrical	Equipment Co.
Gregg	Publishing Co.
Times	Publishing Co.
Bullfinch	College, Inc.
Phillips	L. University
Missoula	Journal

630 kilocycles 475.9 meters

CFCT	500	Victoria, B. C.
CFJA	500	Toronto, Ont.
WJLW	500	Montreal, P. Q.
CYR	350	Marathon, Ark.
WJBU	500	Buffalo, N. Y.
WJCFP	500	Frankfort, Ind.
WJAL	240	Washington, D. C.
WOS	600	Jefferson City, Mo.

72 70

Victoria	Broadcasting Assoc.
Winthrop	Radio-Printing
Canadian	National Railway
Canadian	Express
Greenwich	College
Frankfort	on the Air, Inc.
St. A. Lee	Co.
Radio	Marketing Bureau

640 kilocycles 468.5 meters

KPI	3000	Los Angeles, Calif.
WALU	3000	Columbus, Ohio

71 69

Earle C. Anthony, Inc.	
American	Insurance Union

650 kilocycles 461.3 meters

WSM	6000	Nashville, Tenn.
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70 68

National	Life & Accident Ins. Co.
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660 kilocycles 454.3 meters

WAAW	500	Omaha, Neb.
WEAF	50000	New York City

69 67

Omaha	Chain Exchange
National	Broadcasting Co., Inc.

670 kilocycles 447.5 meters

WMAO	2000	Chicago, Ill.
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68 66

Chicago	Daily News, Inc.
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680 kilocycles 440.9 meters

KFO	1000	San Francisco, Cal.
WPTF	3000	Raleigh, N. C.

67 65

Metropolitan	A. The Chronicle
Burham	Life Insurance Co.



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

I Thought Radio Was a Plaything

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

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

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

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

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

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

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

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

"You're kidding me," I said.

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

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

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

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

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

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

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

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

Take another tip—No matter what your plans are, no matter how much or how little you know about Radio—clip the coupon below and look their free book over. It is filled with interesting facts, figures, and photos, and the information it will give you is worth a few minutes of anybody's time. You will place yourself under no obligation—the book is free, and is gladly sent to anyone who wants to know about Radio. Just address J. E. Smith, President, National Radio Institute, Dept. 1FO, Washington, D. C.

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

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

Name.....

Address.....

Town.....

State.....