THE APRIL 1931

RADEX

The Magazine that Doubles the Pleasure of Radio



(25°)

23 Dx Targets and When to Tune for Them
Fighting Radio's Worst Enemy
Tuning for Trans-Pacific Stations
Warning Against Faults of Superheterodyne

RADIO

By EDGAR A. GUEST

A thing of tubes and wires, and lo The miracle of radio!
The simple dial turning round
Searches the atmosphere for sound
And captures from the silent air
Song, music, eloquence and prayer.

How strange this mystery of things
Which to mankind such pleasure brings
And day and night with cheer illumes
The dreariest and loneliest rooms!
I never turn the dials round
But what I feel a thrill profound.

Fed by the magic microphones
The air takes up its freight of tones
And carries safely every word
Till nation-wide the voice is heard.
A singer in New York appears
And distant California hears.

Oh happier world, where all may know The miracle of radio!
These things of tubes and wires now grace The mansion and the cottage place And rich and poor alike may share The golden harvest of the air.

(Copyright 1929 by Edgar A. Guest)

Written for Grigsby-Grunow Company, manufacturers Majestic Radio, and Voice of the Air

THE APRIL 1931



RADIO IN DEX



FRED CLAYTON BUTLER

Editor and Publisher



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FIGHTING Radio's Worst ENEMY

Last month we published an article on the a-b-c of radio theory for the benefit of those new readers of this magazine who are entirely unfamiliar with the rudiments of radio. We now continue with a discussion of some of the troubles the novice meets.

As we have seen the antenna system of the radio set picks up electrical impulses or vibrations from the air or ground and these are carried to the speaker, and the program with which we are in tune is reproduced just as a record is on a phonograph. With a phonograph extraneous or unwanted noises are introduced into the program by the scratch of the needle or by a crack in the record. Radio, too, has its extraneous noises. These are of two kinds, nature-made and man-made.

The natural noises are called static. These are caused by electrical charges in the air due to certain meterological or weather conditions. During a flash of lightning, there will be a crashing in the speaker due to the rush of this release of electrical energy to the ground. In hot weather there is a similar crashing which at times is so bad as to make reception impossible from anything but local stations. The reason for this is that the noise of static is increased when the volume control is turned up. Local stations come in with the volume control down to a point where the noises are minimized.

Home-Made Static

Man-made noises are distinguished by their regularity as compared to static which is always irregular in character. Such noises invariably come from electrical wiring or devices and may be divided into two parts. First are those from within one's own house which are therefore under the control of the setowner. The second group comes from outside the house and these are usually beyond the owner's control. In the first group may be mentioned lightningarresters on the radio, telephone or electric-wire grounds. The new oxide film or "pellett" type arrestors never

Another Article in A-B-C's

cause trouble but the older types were prolific sources of radio noises.

Probably over fifty per cent of interference comes from electrical devices in the home of the set-owner. These are caused by vacuum sweepers. heating pads, violet-ray machines, flatirons, electric ranges, oil burners, refrigerators, etc., etc. Any device that causes a spark makes a noise that will be picked up by the radio set. Even snapping a light off and on will cause a momentary crash. A lamp which has been loosened to extinguish the light can be jarred into a connection sufficient to cause a noise and a dead lamp may also create interference. Door-bells, telephone dials, electric fans and washing machines are common offenders. Cheap sockets and plugs, overloaded circuits. loose joints are other sources of trouble.

Finding the Trouble

To locate the source of our trouble there are two steps we must take. First we must make sure the trouble is not in the radio set itself. To do this unhook the aerial and ground leads and connect the two posts together with a very short wire. If the noise continues it is within the set. If it stops, it is outside the set. The next step is to ascertain whether the interference comes from within the house. To do this the simplest method is to run the power lead to a neighbor's house, disconnecting, of course, your own regular outlet. If the noise stops the cause is within your own house. If it continues it is from the outside.

When the interference is found to come from one's own home, it is a case of running down the offending source. This is done by noting which electrical devices are in use when the noise is present. Many of the causes mentioned can be removed; a few cannot. The interference caused by dialing on a telephone, for instance, cannot be remedied until the telephone company finds some way to prevent it as the company will not permit

devices to be attached to the telephone and, in any event, the ordinary filters used to prevent noise would also prevent the voice from coming in over the telephone wires.

Take out all dead lamps, tighten all others in their sockets. Make sure all connections of wires to outlets are tight. When buying a motor-driven device such as an oil-burning furnace, electric refrigerator or motor washing machine, insist that the motor be protected against radio interference. See that the carbon brushes on all old motors are in good shape so they will not spark. Sandpaper



"Onward Christian Soldiers!" So sings Seth Parker while "Ma" Parker plcys the organ. These lovable characters, played by Phillips Lord and Effie Palmer, appear in the NBC weekly program "Sunday at Seth Parker's."

the armatures and tighten all wire connections. What are known as "filterettes" are on the market which can be attached to various electrical devices to by-pass high-frequency currents and prevent noises. Write to the Filterette Division of the Tobe Deutschmann Corp., Canton, Mass., for a copy of their catalog.

Outside Noises

As has been stated, noises from outside the house are usually beyond the control of the set-owner, but many of them can be eliminated by cooperation with the proper authorities. One of the most common causes is a limb of a tree touching an electric wire. The electric company will be glad to remedy this by trimming the tree because anything

(Continued on page 19)

Is There a Station Masquerading as NBA?

HEN the Prince of Wales visited the Canal Zone, he was so much attracted to a certain young woman living there that her pictures were published in all the papers. This girl was the daughter of the American naval officer in charge of the Balboa radio station and dozens of our readers sent us clippings to prove that this indicated that there was an NBA station. Of course there is an NBA but it is a naval station and not a broadcasting station as we were advised last month by naval authorities.

Undoubtedly the fact that KGER, Long Beach, California, broadcasts frequently from Balboa of that state, is responsible for many readers believing they have heard NBA but now so careful an observer as Joseph Stokes of Swissvale, Penna., reports that NBA is back on the air again. So many of our readers have been writing to the authorities in the Zone that they have heard NBA that now we have those authorities themselves thinking there must be another NBA.

C. S. Wells, Concord, N. H., sends us a copy of a letter he has just received from W. Klaus, Lieut. U.S.N., District Communication Officer, Balboa, Canal Zone, which reads as follows:

"There is not supposed to be a broadcasting station in the Canal Zone. But I have received so many inquiries recently relative to NBA broadcasting that I have come to the conclusion there may be a station using the NBA call letters and operating without permission. Static here is so great on the broadcast band that it is next to impossible to get any reception worthwhile and therefore a transmitter could operate without our knowledge."

Lieut. Klaus asks that he be advised of any further reception from NBA with type of announcements and the time. Readers, however, should be very careful to make sure that the calls is NBA and that it is not the California Balboa they are hearing.

COMBINING Two Interesting HOBBIES

Puzzles in Radio Stations

ELL, those March puzzles must have been pretty good although so far twenty-eight correct solutions have been received. And some of the successful twenty-eight rub it in and ask for something still harder. "None of them was as hard as those in February," decides Paul J. Keck, 1013 Maple Street, Allentown, Pa. But as we are sending out about a hundred and fifty less premiums this month, a few of our readers must have given up in despair.

Puzzle No. 1 could not have been the sticker for none of the solutions submitted indicated any particular trouble with this one. The starting point was in line 6, and the correct list of calls was as follows: KDKA - WCKY - WTAM - KSL - WBAL - WJAS - WRBJ - WADC-KOA - WCBD - WOAI - CFCT - WAPI - KMBC - CNRR - WRC - CMHD-WOAI - WEAO - WEEI - KOOS - WOR - KLRA - CFAC - WOBU - KSAC. The hardest part of this puzzle was in getting started as it became very easy toward the end when only a letter or two was left in each line.

Here is the correct solution for Puzzle No. 2:

KWKH WLW KWKC
WOS W R BOK
WRAK NAA WAAW
G CMKC WFAA X
TAHWTAD
KWCRRNCFACHWK
Y M WSAIW H E
WFIWOWOCFCKWX
CRCKFBK
K KGCA CMGA O
WDSU CIT WEXL
KIT E M WMC
CKPC XEW YKCW

Even those who solved No. 3 correctly paid it the tribute of being a sticker. "Several times I almost gave up but perseverance won out and I finally stumbled across the combination," writes William E. Kessel, 411 N. 8th Street, Temple, Texas. We would have sworn there were but eight calls that would fit

the diagram but our readers found two sets and we are giving them both below:

CKCK	CKCK
KGMP	KOMO
WDBO	WRBI
XETF	XETN

For the benefit of those who gave this one up as a bad job, let us analyze it and see how it could have been solved. As the calls must read both horizontally and vertically without reversing any call. it is obvious that we must find two calls beginning with the same initial letter. each of which contains only CKW or X as those are the only letters with which North American calls begin. We find that CKCK and CKWX are the only two calls in the whole list that answer this requirement. We therefore have our first horizontal and our first vertical. All of the X calls have for a second letter E and the third letter must be either F or T and the fourth letter either AEF or N.

No. 2 vertical we have found begins with a K and ends with an E. There are only two calls that answer: KGDE and KORE. We have already found that either of these can be used, and using either as our second vertical makes it very simple to fill in the remaining four letters.

A Cipher Puzzle

Detectives and military intelligence officers are frequently called upon to translate notes in code or cipher. Our No. 1 puzzle for April is of this form. Each of the figures given below stands for a letter of the alphabet and when these figures are converted into the proper letters you will have fifteen station calls each of which will be found in the Index by Call Letters in the March RADEX. From the figures given you are to fill in the proper letters for these fifteen calls.

8-7-6	6-8-7	1-5-7
1-3-3	2-4-6	2-4-8
2-4-2	8-3-4-1	2-4-2-4
1-5-6	1-5-3	1-5-3-5
6-2-8-7	2-8-1	9-9-8

Puzzle No. 2 for this month is a "humdinger" that was worked out by Earl R. Roberts, 4319 East 30th Street, Indianapolis, Ind. Mr. Roberts deserves all sorts of credit for the infinite patience it must have required to compose this problem. It is similar to No. 1 of March except that, instead of miscellaneous letters in each line, Mr. Roberts has succeeded in using station calls. "Heretheyare"

u. C.	
Down	Up
1 KGFL	CKCK 24
2 WGBI	WTOC 23
3 KFXY	WTFI 22
4 WKRC	WLEX 21
5 CMGE	WOW 20
6 KGB	KFPW 19
7 WCAU	KTAP 18
8 WPAW	WBEO 17
9 WCAJ	WEXL 16
10 WRAF	WOMT 15
11 KWCR	CMBD 14
12 KWLC	WFBC 13

Mr. Roberts suggests that we give only the keys for the above calls but we fear that would be next to impossible to solve. The puzzle appears to us to be hard enough as it is. The problem is to take one letter from each line in the order they are numbered and continue around and around until you have twenty-five other station calls as described below. The hard part is to find the starting point. No letter may be used twice.

In Georgia. In Washington State. 3 On 900 kevs. In Indiana. On 1410 kcys 500 watts in Mexico. On 560 kcys. On 1420 (no stamp). In Santiago de Cuba. Shares times on 1210 kcys. On 890 kcys. On 1430 kcys. 10 11 12 1000 watts in Missouri. 13 On Long Island. A "K" station on 1500. 15 An Illinois daytime. In British Columbia,

50,000 watts.

19 5,000 watts P.S.T.

20 A Governor's station in Mexico.

21 100 watts in Missouri.

22 On 1280 keys. 23 Shares time with No. 14.

24 On 600 keys.

25 (Reverse) On 1370 kcys.

In Puzzle No. 3 the squares are to be filled with calls in a certain state in such a way that the name of one of its cities will be spelled in a vertical column.

		П

The January Competition

Almost one hundred cross calls were submitted and it has been an enormous job to analyze them and decide which ones best merited the prizes offered. The first prize of one year's subscription has been awarded to Ivan D. Ide, Box 312, Genoa, Ill. Second prize of a half-year's subscription goes to C. B. Huff, Martinsville, Ind., and third prize of map and cover to Mrs. Eugene Carmichael, 513 Mullin Building, Cedar Rapids, Iowa. We are not publishing any more of the puzzles submitted as, using the same form, many of the parts of the puzzle are repetitive of those that have gone before.

We have just issued a second edition of the Radio Map bringing it up to date and those sending in successful solutions for all three puzzles in this issue before April 20th may have either a copy of this map or a copy of the May RADEX.

All puzzles must be solved in order to win a premium. Last month a number of readers sent in solutions for only one or two of the puzzles instead of all three and these could not be considered.

Tuning TRANS-PACIFIC STATIONS

OW here is the moon getting the blame, or rather praise, for DX results. Some readers lay it to the temperature and others to the weather and last month one correspondent thought it was proximity to water. But Richard Bogert, 1416 Linden Street, Allentown, Pa., discovers that the moon is the god of radio and does his DXing by the calendar.

"The moon has more to do with DX reception than does the weather. The ordinary DXer can count by the date on the calendar the best time to DX. The best DX reception in the month of April will be between April 4th and 18th. Full moon is on April 2nd. Several days before or after full moon DX is pretty good, the only drawback being that there is usually pretty much static at this time. Look on your calendar to see on what date full moon falls. Wait about four days before you start fishing for DX. Then from this time you can DX to your heart's content for about two weeks and know that DX is as good as it will get. I have read articles of where the coldest weather is best for DX. This does not hold true for me as I have had just as good DX in the warm weather as in the colder climate. Of course, there is more static in warm weather."

It would certainly be interesting to check up on Mr. Bogert's theory particularly with reference to reception of foreign stations. Our west-coast friends are still tuning in Japan night after night and one or two out there report LKO of Norway. We can understand their advantage with the Japanese but are LKO's signals taking a western route? Says Boyd Erlbeck, 110 N. Cordier Street, Lodi, Calif.:

"Have read with quite a little interest your arguments about foreign broadcast. While I haven't had many of these I would like to say that it is entirely possible and in fact living on the Pacific coast easily possible. Any night that I want between 1:30 a.m. and 5:30 Pacific time, I can get several Japanese stations and KGU. The funny part is I have not

Does a Full Moon Help?

been able to get any stations in Australia, although I have eight in Japan and one in China. They nearly all come in very loud and clear and with hardly any effort. I wish you would suggest a way so that one can verify foreign reception. such as Japanese, because I cannot understand either the signing or talking although hearing them plainly. The same was true of LKO, Oslo, Norway, I listened to them one morning from 2:15 until 4:30, but all they did was talk. Therefore I can't figure out a method whereby I could convince the station broadcasting that I heard their program. speech being unintelligible."

If someone can figure out a means of identifying these stations as Mr. Erlbeck requests, we would be obliged to them. One reader suggested that they be provided with special phonograph records as a means of identification but we can't quite see how that can be worked out. Perhaps a variometer in the aerial lead would help as Mr. E. L. Merten, 315 E. Fountain Street, Colorado Springs, suggests:

That Lifetime Thrill

"There is something thrilling in those distant call letters that gets one. I find this kind of fishing just as thrilling as angling for members of the finny tribe. I have had my radio for about 14 months and in that time I have been able to log an even 400 stations. My set is a Stewart-Warner electric set, with four 226, one 227 and one 280 and one 171-A tubes. It has a magnetic speaker and I have gotten all of these stations on the loud speaker. However, I must admit that at times the speaker is not so loud. I have been getting Japanese stations every morning at about 3 o'clock MST. My aerial is about 100 feet long (a little too long, I think). However, I have taken a variometer and placed it in the aerial and by turning this I have been able to cut out WHO and WOC and get WBZ-A. As is to be ex-

pected with too long an aerial I get better reception with the ground on the longer waves, and without the ground on the shorter waves."

Victor Hall, W-1117 Grace Avenue, Spokane, Wash., evidently doesn't need any special devices for he says:

"It is just like picking grapes for me to tune in all seven of the 10,000 watt Japanese stations since I put in my new ground. I logged them as I received them and I got them logged in this order. JOFK, JOCK, JOIK, JOBK, JOAK, JOHK, JOGK, and all came in good but JOGK. I use a 5-tube battery set."

But, on the other hand, O. R. Queen, 1534 West Taylor Street, Phoenix, Ariz., has his troubles for he says:

"I am quite a fan and get a lot of pleasure DXing for foreign stations. So far I have tuned in seven Japanese stations and one New Zealand. Also picked up what sounded like a Japanese station on 710 keys. This possibly could have been COMK, Mukden, China. I wonder if someone could give me some information concerning this. I have heard 2YA, Wellington, New Zealand, several times, about 4 a.m. Heard them announce the call letters once. Gave the time as 10 p.m. there when it was 4 a.m. here. Have only heard one Japanese station announce the call letters, which was JOIK on 830 keys. Would like to hear from someone who has heard them announce in English. I have had a 9-tube Philco receiver since October 1st, last year, and so far have logged 157 stations."

Japs Do Talk English

"Yes," says G. St. James of 1015 Joan Crescent, Victoria, B. C., "they frequently give at least their call letters in English. I hear at least seven of them on the air the same morning from 1:00 to 4:00 a.m. PST." Mr. St. James (we hope we have that name right, but that's the best we can do with it) also reports COMK Mukden, China, 2YA New Zealand, 4QG Australia, LKO Oslo, Norway, and 5GB Daventry during the last two months. These came in on his Majestic, Model 90-92, with an outside aerial and a "Preston" ground. (We'd like to learn about that ground.) Mr. St. James, too, thinks the Japs have a chain

of their own and so does Wm. E. Kessel. 411 N. 8th Street, Temple, Texas, who writes:

"In my last letter I told you of having received JOAK, JOBK and JOCK, Since then I have logged two more: JOIK and JOHK. I have heard the other two major stations, but due to very bad reception, could not get enough for verification. On an even fairly decent morning they come in here with more volume than is needed. As one reader in the March RADEX said, they do have chain programs.



Mary Charles, CBS Songstress, teaches her prize-winning Persian cat, "Nazir" proper technique of microphone.

Between 5 and 6 a.m. I have heard all five of these stations having exactly the same program. I imagine the other two are also in the chain."

Mr. Kessel goes on to say:

"I have had my present set about a year and in that time have logged 304 stations, which may not seem so good to some of the northerners, but which isn't so bad considering the extremely bad weather conditions here. During spring, summer and fall I can't DX at all and I don't have over seven really good nights during the winter. I have had two good nights so far this winter and on those I logged JOAK, JOBK, JOCK and what was evidently JOHK. I got JOAK on 875 kcys. and I got a Japanese station on (Continued on page 24)

SIMPLE REMEDIES for Complex Troubles

In your opinion, which is the best type of radio receiver, a neutrodyne or a superheterodyne? How do they compare in

respect to tone and range?

Both of the receivers referred to give good results, if well made according to the latest manufacturing designs. For range I would say that a superheterodyne is superior to most neutrodyne receivers, but for tone quality, both are about on the same par. Improvements in superheterodyne receivers have eliminated the troubles previously encountered in respect to tone quality.

A Frying Noise

I have an Atwater Kent receiver, Model No. 55, which has a peculiarity that no one has as yet been able to remedy. With no volume control turned on, but only the current required to light the tubes, a frying sound is produced. I have disconnected the aerial and around from the set but the sound still continues. Tubes have been tested and replaced. One radio service man claims that it is outside interference but I don't see how this is possible without the aerial connected and no power turned on. Sometimes the noise is so bad that it interferes seriously with programs coming in. I have had the set only a year, logging over 400 stations before this trouble commenced. Can you kindly suggest where the trouble may lie?

There are so many causes for your particular trouble that it is almost impossible to lay the finger on the vulnerable spot. Presumably the trouble lies in the volume control, which may be defective, in poor contact between the tubes and the tube sockets, or it may be caused in the power pack by a brokendown or leaky condenser. The proper thing to do in this case is to take the set to a reputable radio service man who can test these parts, one by one.

Insufficient Range

Our Atwater Kent is a 1925 model. The set works well on all the stations we receive but due to some unknown reason I have triple tuning. Another difficulty is the fact that I cannot get WFBR and WCBM although I am located within

First Aid for the Radio Set

10 miles of these stations. On the other hand station WCAO, which has only half the power of WFBR, comes in exceptionally well. I would greatly appreciate it if you would explain where to find the trouble and what to do to cure it.

The stations that you do not get are on the lower end of the dial while the one you get exceptionally well is at the other end. This indicates that the radio-frequency coils are wound to get the stations on the upper end, which in most r.f. receivers come in with less volume than those on the lower end. The remedy for this trouble is to reduce the number of turns on the secondary windings of the r.f. coils. Taking off too much, however, would cause the set to work inefficiently at the points where you are now getting good results.

Police Break In

My radio receiver is a Tyrman eighttube superheterodyne. The police radio stations of Milwaukee and Chicago break right into my programs. Can you explain

this or suggest a remedy?

The trouble you are experiencing with undesired signals coming in and interfering with your reception, is undoubtedly caused in the oscillator stage. If the trouble has developed just recently, try a new oscillator tube. In case this does not help, a wavetrap may be found effective as a cure, provided the set is operated on an aerial. The construction of an efficient wave trap has been fully covered in the September, 1929, issue of Radex, No. 31.

Resistance Values

Will you kindly tell me the proper center-tap resistance to use across the secondary of a power transformer in my current-supply outfit for a 6-volt secondary and also for the 160-volt secondary?

Use a 20-ohm potentiometer across the 6-volt taps and a 60-ohm potentiometer across the 160-volt output of your power supply in order to get the electrical center point between the terminals.

Headphone Resistors

In hooking up the circuit concerning the use of headphones on modern receivers, recently explained in Radex, I asked the radio dealer for a 500,000-ohm variable resistor as suggested, but he told me that a 50,000-ohm resistor would be sufficient for my set as I am using a 171A power tube in the last stage of an RCA superheterodyne. Is this correct?

Your radio man is quite correct in suggesting the use of a 50,000-ohm resistor for your purpose as you will be able to get a better control with this value with a 171A tube.

Overloaded Eliminator

I am using a Sears-Roebuck 25-cycle A-eliminator which has a 212-amp, output, on my H.F.L. 9-tube superheterodyne. using four 222 tubes, three 201A, one 112A and a 171A tube. The eliminator worked satisfactorily for about seven months and then began to fail in volume. I then replaced the rectifier unit, which corrected the trouble for a while, but after some time the trouble started again. Now I must get a new rectifier every 40 or 45 days. The eliminator uses the type 12 BL rectifiers. I have checked the radio set for a short circuit but cannot find anu. There is no hum in the set but at times it becomes very noisy. Can you kindly tell me what the trouble is?

In the first place your receiver draws more current than the A-eliminator can handle without being seriously overloaded, and this causes the rectifier to give out at frequent intervals. What you need is an eliminator having a greater output so that the rectifying tubes will not wear out so quickly. Then there is also the possibility that there is a short-circuited condenser in the receiver that passes some of the current.

Dead Spot on Dial

I have a Crosley "Showbox" which works fine except from 590 to 550 kilocycles. Between these frequencies stations do not come in and static is not even received. Until recently stations could be tuned in at any point on the dial but this trouble seems to blanket some of them.

In cases where a signal cannot be obtained at a particular point on the dial, as in your case, but were previously tuned

in at such a point, the trouble is undoubtedly caused by a short circuit between the stator and rotor plates of the variable tuning condensers. This is plainly indicated by the fact that all signals are cut off as soon as the dial is rotated to this point. As your set worked satisfactorily until recently, it seems that one of the plates must be bent so that it touches an adjacent one on the other side. Carefully examine the plates, one by one, while turning the



Andy escaped jail for breach of promise but we fear he has other troubles ahead. (Moral: Use Pensodent.)

condenser back and forth around the point where the signals do not come in, until the short is found.

Pilot Flickers

I have a new 11-tube Philco and would like to know what makes the pilot or panel light flicker so that it becomes dim and bright at various times. I tightened the bulb and examined the wire and the connections thoroughly. This light flickers only at intervals, which causes the receiver to pop and splutter so much that I cannot enjoy distant reception.

Considerable trouble has been experienced with defective pilot lamps, which cause a variation in brilliancy ac(Continued on page 22)

SEEKING Will-o'-the-Wisp STATIONS

Tuning for the Tantalizers

POLLOWING the discussions of the last several months in regard to aerials and grounds, a number of our readers have been carrying on interesting experiments in order to improve their reception. The following letter is from Paul J. Keck, 1013 Maple Street, Allentown, Pa.:

"Following your directions in the February RADEX for the U.S. Standard ground I sank a pipe in the back yard about 25 feet from the house and now am using that as one of my aerials. I have this aerial and the one on the roof connected to a pole switch under the set and so can easily switch from one aerial to the other. I find that on the average any station from WJZ down (540) came in louder on the ground aerial. WEAF comes in much better. Stations above WJZ, with the possible exception of WABC, came in stronger on the roof aerial. I checked this both day and night with the same results. I got Laconia, N. H., Sunday a week ago. I know of three persons in this town who had them at the same time. They come in very loud. Anyone in this locality can easily get them if they know when they are on."

We have had a number of reports from the middle west of the reception of WKAV, Laconia, N. H., while it will be recalled that readers in New Hampshire report that they have never received it. This illustrates the uncertainty of radio. Here is a report of a peculiar station from W. W. Winthrop, Jackson, Mich.:

"Every day now for the past two months I have heard a station on approximately 800 kcys. broadcasting from early morning until sunset. This station never gives its call letters and it broadcasts the same piece of music hour after hour. I do not think it could be any of the three distant stations listed on 800, because the signal is constant and does not fade. This would indicate that it is fairly near Michigan, although if so, it

is of low power. Other listeners here have reported hearing the station. Since October, with my 5-tube Midget, I have listed 291 stations covering all but three frequencies, including four Cuban stations, two of them 150 watts, five Mexican, nine Canadian and 29 on the west coast. VAS is about my best catch."

M. Tuchinsky, 3436 Filbert Street, Philadelphia, Pa., answers some questions and asks some. Both are respectfully referred to our readers:

WLY, KTU and NAL

"For the information of your puzzled readers who inquired about the following: WLY in Fort Monmouth, N. J. (Long Branch), is a fixed point-to-point station of the U.S. Army, is used for government business only, and therefore has no set hours of operation nor any set frequency. KTU, Redding, Calif., is a Municipal Airport station, for point-to-point and aeronautical communication, owned by Boeing Air Transport, Inc. It operates on 278, 3,172 and 5,660 keys. or 1080, 94.57 and 53 meters respectively. Do you have any information on NAL, the Washington, D. C., Navy Yard? They are listed for 690 kcys. The call book says they give the weather at 2045 GCT., type A3 (voice) transmission. What is GCT 2045?"

A number of DXers have reported their inability to bring in KOB in spite of the 20,000 watts it is supposed to use and consequently New Mexico is still vacant on their logs. Don Townsend, 1421 Arch Street, Berkeley, Calif., supplies the following information:

"You ask if KZM is still on the air. It is. KOB broadcasts daily except Sunday from 11:55 a.m. to 1:00 p.m. and daily from 7:00 a.m. to 9:00 p.m. MST. KMTR is on all night every night. I have logged 172 stations since last March. I have 70 verified and 40 others are out. I have received six different countries without the use of short wave or earphones. I have received 16 Canadian, five verified; two Mexican, verified; four Cubans, two verified; two Japanese, one JQAK, Kwantung, and the rest in

the U.S. I have received nine from New York, one 100-watter. I get my best distant reception in the early morning about 5 a.m. I use an Atwater Kent 6-tube battery set, Model 30,"

F. E. Holley, 6540 S. Lincoln Street, Chicago, Ill., says that the station A. Murphy heard advertising blankets and silverware was undoubtedly KMMJ, Clay Center, Neb., in 740 kcys., and adds:

"TGW of Guatemala is given in U.S. Department of Commerce list as having 50 watts on 571 kcys. TJW, of Hamilton, Bermuda, using 12 watts on 1480 kcys. recently gave a test program for the Chicago Daily News DX Club. Also I wonder how many of your readers know that the Daily News DX Club has a program over WMAQ every Monday night from 10:45 p.m. to 11:00 p.m. CST., in which a lot of good information on changes, test programs, etc., is given."

Tuning by Tens While we know there are sets that will do it, mostly those in the superheterodyne class, yet with the average receiver a person who is located fairly close to two powerful stations on adjoining frequencies can hardly expect to separate them entirely. While the Government has separated stations by at least 10 keys, yet authorities admit that this is hardly enough. The following complaint and question is from H. R. Thompson, 338 Madrona Phoenix, Ariz.

"I have a Melrose Neutrodyne 8-tube electric set. This set used five 227, two 245, and one 280 tubes. The set is a wonderful distance getter and is satisfactory in every way, save that it is not selective enough to separate stations in adjoining channels. For example, KRLD on 1040 keys., a 10,000-watt station about 900 miles east and KNX on 1050 keys., about 450 miles west, are impossible of separation on my set, while more modern sets owned by friends completely separate these stations with no cross interference whatever. Can you advise me of some manner by which the set could be made more selective?"

There are some 18,000 amateur stations in the United States and we know of no publication that gives their fre-

quencies. We are glad to help identify these amateurs for readers whenever possible. Recently a number of readers from all over the country have reported hearing W9CJH, which is listed as belonging to Francis W. Brashears, R.F.D. No. 3, New London, Mo., with 150 watts. Regarding this station Mrs. P. G. Hauss, 221 S. Butler Avenue, Indianapolis, Ind., writes:

"Can you give me any information regarding station W9CJH, New London.



Gertrude Berg, author of "The Rise of the Goldbergs." (NBC Saturdays at 7:30.) Miss Berg plays the mother, Molly Goldberg. These skits are to be published in book form with an introduction by Eddie Cantor.

Mo.? I heard them on the morning of January 26th and wrote to them for a verification, but they never answered. They said that they were using 30 watts and used the slogan, 'Where the long-eared jackasses grow, and we're proud of it.' They came in on as high a frequency above 1500 kcys. as my dial will reach, probably about 1600 kcys. I would sincerely appreciate any information you can give me regarding them. I have just recently received a verification from JOGK, Kumamoto, Japan."

We understand that W9JCH has de-(Continued on page 20)

MEXICAN Situation Grows WORSE

Four-Country Treaty Badly Needed

R. JOHN R. BRINKLEY'S avowed plan to establish a powerful broadcasting station in Mexico, now that he has been forced to relinquish his station in Kansas to new hands because of the court ruling sustaining the Federal Radio Commission's decision that his medical advice broadcasts were contrary to public interests, has focused attention anew on the radio situation in Mexico.

Not only the Kansas "goat gland specialist," who threatens to build a 50,000 watter just across the Rio Grande to operate on the wave length of the radio station owned by his arch enemy, WDAF of the Kansas City Star, but other American interests have gone into Mexico or propose to go there to erect radio stations for the plain purpose of reaching the American audience.

The Mexican situation is already aggravated by the growing number of radio stations there, some built and backed by American capital. Interference is constantly being reported on the wave lengths being used by American and Canadian stations. The interference problem will undoubtedly force the American and Canadian governments to parley with Mexico soon, for the Mexican government is placing no real restrictions upon its broadcasters.

From a scant handful of stations a few years ago, Mexico now has 40, ranging in power from 10 to 10,000 watts. Eight have powers of 1,000 watts or more, the highest powered being XED at Reynosa, on the Rio Grande, with 10,000 watts, and the next highest being XEW and XEO, in Mexico City, with 5,000 watts.

The Mexican Government exacts an annual station license fee of approximately \$1 per watt. This, according to observers, is practically the only restraint upon increasing powers, for radio advertising is not yet profitable enough there to warrant many really powerful

stations. Most of the stations are clustered in and around Mexico City and the other larger centers of population, although the number of stations near the American border is growing.

Many of the Mexican stations are regularly heard in the Southwestern states and some still farther, despite the fact that the same or approximately the same channels are being used by stations in the United States and Canada. Among those frequently heard on this side of the border are XET, Monterey, on 630 kilocycles; XFG, Mexico City, on 638; XEN, Mexico City, recently shifted off 719; XEQ, Juarez, 750; XEW, Mexico City, 780; XEG, Mexico City, 910; XEO, Mexico City, 940, and XED, Reynosa, 961.

The station at Juarez, just opposite El Paso, Texas, frequently broadcasts liquor advertising, exhorting American listeners to cross the border and slake their thirsts in a land of non-denial. Some of the stations are being put to political uses, one being used by the former publisher of the famous Mexican newspaper El Universal, for purposes of "oral journalism." Phonograph records furnish a large part of the program material, and there is some resentment because the highly popular American jazz music is "driving out native music."



Joe Weber and Lew Fields who have brought laughs to theatre-goers for nearly fifty years. Webster program, NBC, Saturdays at eight.

THE Mexican stations seem to change places like a kaleidoscope and it is quite impossible to keep them listed correctly. No sooner do we publish one official list than we begin to hear from our readers that they are already receiving those stations on altogether different frequencies. Last month we received an official list and changed our records accordingly. Now we receive a list direct from the official of the Mexican government in charge of radio and do not know whether to again change all of our records or not as many of the frequencies shown are those in use before the former list was received. The new list, for instance, shows XEH on 1132 whereas a letter from the owners of that station advises us that their proper frequency is 1080. When the radio station and the government authorities disagree what can a poor editor do?

Hoping that the discrepencies can be cleared up this month, we are not making wholesale changes in our index but are giving below the stations on which the authorities disagree and our readers will have to take their choice. The frequency in the first column is that shown by RADEX based upon the former official list. In the second column is shown the frequency given by the new list and in the third column are frequencies reported by our readers.

XEA	1000	1200	
XEB	1030	1030	1120
XEC	1000	1333	
XED	977	960	930
XEE*	1000	1132	
XEF*	1000		
XEG**	840	910	
XEH	1080	1132	1100
XEJ	1000	857	
XEK	1000	990	
XEL	1000	1091	
XEM	730	841	750
XEN	719	719	702
XEP	1430	1500	730
XER	650	674	1160
XETA	1140	1140	1160
XEFE	1000	980	
XEU	1000	800	
XEV	1000	1034	
XEX	1210	1190	
XEY	1000	547	

*The first list shows XEE at Linares and XEF at Oaxaca, both on 1000. The new list does not show XEF but gives XEE at Oaxaca on 1132.

**So many readers have reported XEG announcing with new call letters of XETY and giving their frequency as 840 that we are making the change accordingly although we lack official confirmation.

Stations beginning with XF seem to be government stations exclusively and probably will not verify.

The New Dixie Network

OLUMBIA Broadcasting System, now boasting a nation-wide network of 80 stations, is forming its Southern outlets into a new unit to be known as the Dixie Network. With WBT, Charlotte, as the key station, the Dixie net will begin operating as such on March 23, comprising the following 11 stations: WWNC, Asheville; WGST, Atlanta; WBRC, Birmingham; WBT, Charlotte; WDOD, Chattanooga; KLRA, Little Rock; WREC, Memphis; WLAC, Nashville; WTOC, Savannah; WDSU, New Orleans, and WNOX, Knoxville.

Columbia entered the new year with unusually high prospects, adding 22 new sponsored and 13 sustaining programs since January 1. Among the new time contracts signed were one with Old Gold for \$600,000 worth of time and another with Cremo Cigars for \$1,611,000 worth of time, the latter one of the largest accounts in radio history. The CBS recently linked KOH, Reno, Nev., as its 79th link, and added service to WLAP, Louisville, though the latter is not listed as a regular network outlet.

Courts Put Brakes On Radio Commission

NOTHER setback to its exercise of arbitrary authority was suffered by the Federal Radio Commission this week when the Court of Appeals of the District of Columbia ruled that Station WTMJ, of the Milwaukee Journal, is entitled to relief from the interference resulting when the Commission, without a hearing, placed WFLA-WSUN, Clearwater, Fla., on the regional channel of 620 kilocycles used by WTMJ. The Commission was directed to take steps to enable WTMJ to operate free from interference, the court citing its previous decision in the case of WHAS. Louisville, to show that it does not look with favor on actions taken by the Commission without a hearing which may have the effect of damaging other stations.

LETTERS From Thirty=Five READERS

Chat From the Ether

OR the information of Mr. Bronfenbrenner, Thiells, N. Y., my Radiola 62 (superhet) brings in 1500 kcys at a setting of 7½. I therefore have considerable room to work below the broadcast band.

"Very frequently I get the WTAR harmonic (780 x 2 is 1560 kcys.) at a setting of 6. Also often get W2XCD, 1406 kcys., at Passaic, N. J., at 334, straight reception, not a harmonic.

"Now, the second harmonic of 630 and the first harmonic of 950 figure out 1890 and 1900 kcys.—close enough to come in together at any and all times the stations are working. These stations are two of my locals, WMAL and WRC, and I get this strange result of listening to both locals at the same time with a setting of 5, which should, it seems from the foregoing, be about 1530 or 1540 kcys. instead of 1890 or 1900.

"Within the broadcast band the set works normally; have logged from actual announcements 264 stations in eleven months, 125 of them last summer during the five month drought with an underground aerial. Static here this winter very bad and DX work difficult, so cannot report any unusual reception."

Thus writes C. E. Currier, 3012 Park Place, N. W., Washington, D. C.

And from B. F. DeVries, 2149 Court Place, Denver, Colo.:

"I have received 120 distant stations in the U. S. this winter, CMK Cuba and XED Mexico and three Canadians. Never can fish later than 9 p.m., as I go to work too early in the morning. I use a Freshman Masterpiece that I modernized, in fact the only things I haven't changed are the coils and condensers. My aerial is the umbrella type. I took a piece of copper about a foot square and ran a wire from it in each direction soldering them to the copper and one lead going direct to the Antenna post of the set. I have another copper plate buried about three feet deep for a ground. I built the

wave trap described in the December RADEX and it works fine. I would like to get some advice on a good booster unit using a 201A tube for a tuned r.f. set."

"I would like to get in touch with other Eveready owners," writes R. R. Rawstron, 15 Edgewood Street, Claremont, N. H. "I have 437 stations since January 21, 1930; 107 are 100 watts or less. I have 18 from the Pacific Coast verified or in process. My 100-watt daylight catches are KFYO, WDIX, KFJZ and KFDN. I have a station from every state but Nevada."

"I have a daytime log of 61 stations outside the local area which includes New York, Atlantic City and Philadelphia," says P. J. Soper, 256 Burroughs Terrace, Union, N. J. "I consider my best daytime catch WMAQ Chicago. WTAM is a regular visitor here during the daylight hours. Other daytime reception takes in CNRO, CKAC, CFCF, CFRB, CJGC, WLS, WOWO, WPTF, WJAC, WCBA, WHAS and WGR. Daytime reception depends, of course, upon atmospheric conditions."

Grounded Aerial Adds Five

"This morning between the hours of 1:30 and 2:30, I added five more to my list, using the ground aerial described by Dr. Brokaw of Cleveland," states Ivan D. Ide, Box 312, Genoa, Ill. "Have never had any great distance such as Japan, but have 249 stations in a little over a year. For an added thrill I have a Submariner Adapter and go down into the short waves. Have heard a plane phoning to the ground from Wyoming and once I picked up the S.S. Dutchess of York, one day out of Quebec."

S. R. Lewis, Route 3, Box 688a, Toledo, Ohio, has now received a total of 493 stations of which 133 have been verified. He is proud of pulling in Alaska, Hawaii and Porto Rico. He has verifications from Newfoundland, Nova Scotia and New Brunswick and one due from Haiti. Mr. Lewis won a prize from KGGM Albuquerque, N. M., for being the first from Ohio to report that station.

He has 47 verifications from the west coast.

Here is a letter from an old-timer, F. W. Edel, 709 W. Nevada Street, Urbana, Ill.

"Was a DX fan way back in the early days of radio, from 1922 to 1925, and then was out of the game from 1925 until this last fall, when I purchased a baby Philco and have had excellent results. Since last September I have received over 487 stations. I have heard WKAQ, San Juan, Porto Rico, several times. Have picked up 15 Cuban stations, including several 100 and 150-watters. Among the Mexicans, of which I have received 20 in all, I consider my best catch to be XEL at Saltillo. The Australian stations which I have heard, 2YA, 4QG and 2BL, come on about 3:00 a.m. CST. I have never heard the European continent on my set, but I have on those of friends. The best time for them is from about 4:30 a.m. on. Have been having the very dickens of a time keeping with the Mexicans this last fall and winter. They make new additions and change waves almost every week. It's quite a job."

Surely it will be only a time until the Mexican authorities are forced to take a stronger hold of the broadcasting situation in that country. Cuba is already taking steps to improve the situation there as our readers will be glad to learn from the following interesting letter from our Havana correspondent:

Cuban Conditions to Improve

"So far there seems not to be any more to alter for the April issue. In the course of next month, however, we will see some more changes, as some of the smaller stations will be closed, due to the new tax law.

"If it interests you, there is a new tax in Cuba on receiving sets, levied on all receivers with nine or more tubes. This tax is \$3.00 for sets having nine tubes and 40 cents for each additional tube, payable yearly in June.

"Transmitting stations also have to pay tax, according to power, ranging from \$50 for those under 150 watts to \$500 for those over 2000 watts.

"There is a bill to be passed very soon calling off the stations under 150 watts,

so the air will be at least cleaner and channels distributed somewhat more evenly than they are now. Also a conference will be had with representatives of the U. S. to assign the frequencies with a view to avoiding interference with your stations, also to let Cuban listeners hear your programs without heterodyning from our locals. This bill is only in project but you may advance this as it is absolutely positive from an official source."

In spite of the difficulties with Cuban and Mexican stations, a number of our readers continue to pile up interesting records there. Witness the letter from Richard Caddell, 609 Ridge Avenue, Pittsburgh, Pa.

Shifting Aerial Builds Log

"I have had my present receiver, an RCA 60 super-heterodyne, just three months and have logged and verified 387 stations in that length of time. I've got 11 from Mexico, 10 from Cuba, 17 from Canada, one from San Juan, Porto Rico, and out of the 387, I've had eightythree 100-watt, eighteen 50-watt, one 30-watt, and one 25-watt. I change the position of my three 200 foot aerials every week and find that by moving them just a few feet in one direction or another will bring in many new stations. I use an ordinary gas pipe for a ground and some nights, according to weather conditions, I don't use it at all, or sometimes I connect it to the aerial wire that runs from my set, and disconnect the aerial, using the ground for an aerial, and get good results that way. I received KWAQ, Porto Rico, using the ground for an aerial. I would like to hear from some of the DX fans, especially in Vancouver. B. C., where I was born."

And this one from Al Palmer, RFD 3, Station A, East Liverpool, Ohio:

"I bought my first RADEX in September, 1930, and on October 1st I started to log all stations received. In the five months since then I have received 409 stations all in U.S., except 23 in Canada, eight in Cuba, six in Mexico, one in Porto Rico. I have received from one to 18 stations on all channels except 1030 kcys., and from one to 31 stations

(Continued on page 26)

WARNS Against Super-Het FAULTS

Editor Advises Care in Buying

A NOTE of warning against indiscriminate buying of the superhetrodyne type of broadcast receiver has been sounded by Kenneth B. Warner, editor of the magazine QST, in a statement which calls attention to the trouble that may result from the purchase of a "superhet" in which certain necessary design features may be missing.

"Purchasers of new broadcast receivers should realize that the mere fact that a receiver is a superheterodyne is no guarantee of even reasonable satisfaction," points out Mr. Warner. "Even if it is quite excellent as a superheterodyne, it may turn out to be the world's worst broadcast receiver if certain fundamental precautions are neglected. It is an unfortunate fact that with some two dozen American manufacturers rushing production on superhetrodynes, these precautions are either partially or entirely neglected in some of the models now offered the public.

"The design defects referred to relate to the input selectivity and to shielding. Always the weaknesses of the 'super,' these factors are the more aggravated with modern tubes with their greater sensitivity in reception and their greater power as oscillators.

"Good design required the presence of a high degree of selectivity between the antenna and the first detector and oscillator, and thorough shielding, particularly of the oscillator and first detector coils, condensers, tubes and wiring. If these steps are not taken, the first thing that happens is that the receiver radiates, 'blooping' all over the broadcast band and spoiling reception over a wide radius. But any such receiver is also open to a much more formidable source of trouble - the unwanted reception of short-wave signals which get into the first detector or oscillator and there beat against a harmonic of the oscillator to form a signal which is amplified in exactly the same manner as the desired broadcast program. And this through no fault of the short-wave station, which may be many miles away and operating in perfect conformance with government regulations.

"A properly designed and properly constructed superheterodyne is probably the finest possible receiver for broadcast reception. False economies in engineering and production costs, and in some cases inadequate design skill, threaten to create much grief for manufacturers, dealers and buyers, however. It is possible to construct thoroughly satisfactory superhetrodynes; many of the existing models are quite satisfactory. But a good super will never be a cheap set.

"One can't legislate against offering defective receivers for sale. The remedy lies in education. Manufacturers will save themselves much trouble and money if they perfect their models in the respects named. Dealers would be extremely well advised to make sure that the models they stock are free of these defects. And the buying public should be cautious, look over the models first, and make the dealer guarantee the purchased set against the undesirable features referred to."

WEE is Biggest Catch

If you DXers want to pull in something you can really brag about, set your dials for 900 kilocycles and try for Station WEE of Philadelphia. If you log this one it is worth more than a whole string of JO's. WEE is the smallest radio broadcasting station in the world. It is owned and operated by the Tiny Broadcasting Company and has a power of four-hundredths of one watt (.04). The sending range is 200 feet.

WEE is a complete broadcasting station in every detail and is located in the lounge room of the Mastbaum Theatre. It required ten months to design and build, being entirely hand-made. The little transmitting towers intermittently flash a red beacon light in accordance with Department of Commerce regula-

tions as a warning to aviators! The entire equipment, including the towers, stands about two feet in height, is about 52 inches long and 19 inches wide.

Tubes used in the tiny transmitter are of the 199 type supplied by batteries. The transmitter was designed and built by the "Mystery Announcer" of WPEN and John R. Boyle, a radio engineer. Although the signals may be picked up on the broadcast band only within the room in which it is located, yet the inventor claims that with short waves and a large aerial, it would be possible for the program to be heard in Europe even with its .04 watt power, which is less than is used for even the smallest light bulb in a home.

APRIL CHANGES

New Calls		D
wwsw	1500	Pittsburgh, Pa., 100 watts.
Locations WOKO	1440	Poughkeepsie to Albany, N. Y.
Call Letters XEG	840	Mexico City, to XETY
Permit to N	fove	
WKZO	590	Berrien Springs to Kalamazoo
WLEX	1410	Lexington to Medford, Mass.
KFXJ	1310	Edgewater to Grand Junction
Deletions		
CHMA	580	Edmonton, Alta.
WOAN	600	Lawrenceburg, Tenn.
CJSC CNRE	6 90 930	Toronto, Ont. Edmonton, Alta.
		•
Network C KFAP	nanges 770	NRC Discontinued
WDAY	940	NBC Discontinued. CBS Discontinued.
KOH	1380	CBS Added.
WOKO	1440	CBS Added.
Frequency		
WGBS	600	New York City, to 1180
CMCF	900	Havana, Cuba, to 890
XEH	1000	Monterrey, Mex., to 1080
WICC KUJ	$\frac{1190}{1500}$	Bridgeport, Conn., to 600 Walla Walla, Wash., to 1370
	1900	Walla Walla, Wash., to 1010
Power CJGC	910	London, Ont., 500 to 5000
XEH	1000	Monterrey, Mex., 100 to 5000
WJBW	1200	New Orleans, La., 100 to 30
WQDX	1210	Thomasville, Ga., 50 to 100
WRAW	1310	Reading, Pa., 50 to 100 Philadelphia, Pa., 50 to 100
\mathbf{WTEL}	1310	Philadelphia, Pa., 50 to 100
WRAK	1370	Williamsport, Pa., 50 to 100
CMBR	1500	Havana, Cuba, 15 to 35
Owners	0.70	Chicago, Ill., to National Broad-
WENR	870	casting Co. Inc.
WMMN	890	casting Co., Inc. Fairmont, W. Va., to Holt-
** 141 141 14	000	Rowe Broadcasting Co.
KFKB	1050	Milford, Kans., to Farmers &
		Bankers Life Ins. Co.
WABZ	1200	New Orleans, La., to Samuel D.
TZ TZT CN/I	1270	Reeka. Colorado Springs, Colo., to Rey-
KFUM	1210	nolds Radio Co., Inc.
WRBI	1310	Tifton, Ga., to Oglethorpe Uni-
		versity.
KECA	1430	Los Angeles, Calif., to Earle C.
		Anthony, Inc.

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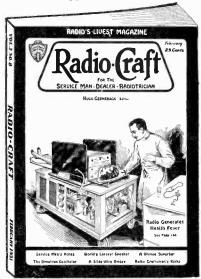
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Chosen For High Power

XCEPTIONS to Chief Examiner Yost's high power report, selecting eight of the applicant broadcasters seeking power increases to 50,000 watts and recommending 11 others for increases to 25,000 watts, were being filed this week by counsel for all but one or two of the unsuccessful applicants. Friday of this week was the limit for filing exceptions to the Yost report, after which the Commission is to take up his recommendations along with the exceptions and render its decision.

Since only eight clear channels are available for boosts to 50,000 watts under the Commission's order limiting to 20 the number of channels on which that power may be used, it is expected the Commission will adopt the Yost report. There is a possibility, however, that it will not affirm all eight Yost selections and a probability that it will reject Yost's proposal that 11 go to 25,000 watts.

Whatever the Commission's decisions. it is practically a certainty that the unsuccessful stations will appeal to the courts and thus hold up all or most of the power grants for perhaps a year. Yost chose the following for 50,000 watts; WJZ, New York; WCAU, Philadelphia; WSB, Atlanta; WSM, Nashville; WGN, Chicago; WCCO, Minneapolis; KOA, Denver, and KPO, San Francisco. He selected the following for increases to 25,000, nearly all of whom were expected to file exceptions: WBZ, Boston; WHAM, Rochester; WOR, Newark; WHAS, Louisville; WAPI, Birmingham; KVOO, Tulsa; WBT, Charlotte; WHO-WOC, Des Moines-Davenport; WMAQ, Chicago; KSL. Salt Lake City, and KGO, Oakland, Cal.

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The Short Wave Experimenter. Television on Short
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Name	
Address	
City	State

Their Time on the Air

THE following information regarding time on the air of certain much-desired stations is secured from various sources—from readers, from newspapers and from the stations themselves. We believe the time given to be authentic.

	State or Province	City	Call	Freq.	Watts
	Manitoba	Brandon	CKX	540	500
	Mon 7:30-8	:30 p.m., CST.	OILA	040	000
	Wed -Fri 8-	10 p.m., CST.			
	Sun., 7-9 p.n	a ČST.			
	British Columbia	Vancouver	CKWX	730	100
	WedSat., 1	1:30 p.m.,-1 a.m	., PST.		
			CKMO	730	50
		.m3 a.m., CST			
	Mexico	Mexico City	XETY	840	2000
	Daily, 11-12	p.m., CST. Los Angeles	KMTR	570	500
	California All night.	Los Angeles	KMIK	370	300
	All light.		KGFJ	1200	100
	All day and	night.	11010	11100	
	m day and	Pasadena	KPSN	1360	1000
	Weekdays, 7	:30-8:30 a.m., 12	:30-2:30 p	.m., 6-7:30	0 p.m.,
	PST.				
	Illinois	Zion	WCBD	1080	5000~
	Wed., 11-12	p.m., CST.	TETETTA	1070	1000
	Colorado	Colorado Spgs.	Krum	1270	1000-
	Sot 11:45 p	-2 a.m., MST. .m12:30 a.m.,	MST		
	Nevada	Reno	КОН	1380	500
	Weekdays, 8	a.m.,-8 p.m P	ST.	1000	
	Sundays, 9 a	.m9 p.m., PST	' .		
	Rhode Island	Providence	WJAR	890	250
	Weekdays, 8	3 a.m11:30 p.m	., EST.		0.50
	777-1-1-1-1-1	. 00	WEAN	780	250
		':30 a.m1 a.m., Rutland	WSYB	1500	100
	Vermont	0-4 p.m., EST.	11011)	1000	100
	Weekdays, 1.0	0-11 a.m., 12-1	n.m., 6-9 r	m. EST	·.
	Wyoming	Casper	KDFN	1210	100
	Sun., 9:45 a.	m1:45 p.m., 5-	9:30 p.m.,	MST.	
	Weekdays, 9	a.m1:30 p.m.,	4:30-9 p.:	m., MST.	
-	-West Virginia	Fairmont	WMMN	890	250-
	Fri., p.m., a	nd Sat., a.m., E South Bend	ST. WSBT	1000	F00
	-Indiana	nd Sat., a.m., Cl	T GG #	1 2 30	500 -
	Oregon	Portland	KEX	1180	5000
	Weekdays f	1.45 n.m5 n.m.	8 n.m3	a.m PST	
	New Mexico	State College	КОВ	1180	20000
	Weckdays, 1	l 2-1 p.m., 5-9 p.:	m., MST.		
	Vermont	Burlington	WCAX	1200	100
	Fri., 7:30-8:	30 p.m., EST.	TYCLI	F.0.0	E00
	Nebraska	Lincoln	WCAJ	590	500
	Michigan	2 p.m., CST. Berrien Spgs.	WKZO	590	1000
	Wookdove f	6:15 a.m., CST.	WILLO	030	1000
	Dominican Rep.	Santo Doming	o HTX	1370	1000
	Sundays, 8:	30-9:45 p.m., ES	T.		
	Weekdays, 7	7-12 p.m., EST.			
	Honduras	Tegucigalpa	HRB	1370	2300
	Sunday, 8:3	0-9:45 p.m., ES	ľ.		
	Weekdays,	7-12 p.m., EST.			

In Next Month's Issue:

How to Build a Short Wave Adaptor for A. C. Sets.

Radio's Worst Enemy

(Continued from page 3)

that causes a noise in this way does so by wasting power. Transformers on nearby poles are often blamed but it is said that these are seldom at fault. Cracked insulators are frequent offenders and may cause noises which will give trouble for many miles around. X-ray machines, storage battery chargers, annunciator systems, stock tickers, ignition systems, electric elevators, electric welders, are other common trouble-makers.

To remedy neighborhood noises can be done only by cooperation. If the setowners in a neighborhood will go at the thing seriously they can rid their vicinity of these terrible noises that make radio a nightmare instead of a pleasure. Form a club or secure the cooperation of a newspaper or of the city council and get one of the instruments which when carried around the neighborhood will quickly point out the source of the trouble. There are meters which are as accurate as a steam-gage. All that is necessary is for the operator to carry the instrument up and down streets and alleys, in and out of buildings, watching the hand on the meter swing backward and forward. These instruments are so simple that anyone can learn to operate one in a few minutes

Another method is to secure a good receiving set which operates from a loop and take it in an automobile up and down the streets of the neighborhood. Tune in the noise to it loudest by turning the loop and mark the location on a map together with the direction of the loop. Take at least three readings and the center of the lines will show the approximate location of the cause of the interference.

When the sources have been traced to their lair, secure the cooperation of the owners of the offending devices to install the proper filterette that will eliminate the noise. Many cities are passing ordinances making such elimination obligatory. Ask your council to do likewise.

Whole communities frequently suffer from radio noises only because someone does not take the initiative to remedy the situation.

Will-o'-Wisp Stations

(Continued from page 11)

vised an entirely new scheme of modulation. If this is the case it must be a dandy, as very few amateurs are received in such distant sections of the country. Such stations as this are on a frequency just above the limit of most dials, although a number of sets do not stop at 1500 kcys., but, as in the case of Harold Rowe, Medaryville, Ind., will reach as far up as 1800. Mr. Rowe writes:

"C. E. Roach, Loudonville, Ohio, stated that he picks up short-wave stations as high as 1604. I have a Silver-Marshall super-heterodyne and receive stations nearly to 1800 kcys. W2XR television station at Long Island City, N. Y., comes in at 1604 kcys., and has been announced by that station as 1604 kcys. In the March RADEX, Albert E. Cotes, Jr., reports a station WIBS. This station is the Michigan State Police at Lansing, Mich. They are on a frequency of between 1600 and 1700 kcys. I hear them about every day."

In addition to the amateur stations there are a large number of airport and police stations throughout the country. We do not have a list of these arranged for quick reference but we cannot understand any of them being permitted to transmit in the broadcast band. However, Guy B. Welsh, 114 Brown Street, Reynoldsville, Pa., takes exception to our statement:

"In the February RADEX you said that Airport stations were above 1500 kcys. You must have been mistaken because I have heard about 30 between 1500 and 550 kcys. Does anyone know where it may be possible to get a list of such stations? You can tell RADEX readers to try to get WCAJ on Friday nights after midnight to 2:00 a.m. EST. KGKY broadcast every Friday from 2 to 4 a.m. (early Saturday morning). If any reader wants a list of the broadcasting periods of all CNR stations in Canada, all they need to do is request one from any of the stations carrying CNR programs. I have logged 475 stations in every state but Wyoming."

The call letters beginning with "CH"

are assigned to Canada and therefore this call heard by Robert H. Buckley, 624 Stowe Street, Kent, Ohio, must be a Dominion station as yet unlisted:

"I heard a station on 640 kcys. signing off at 10:10 p.m. giving the call letters as CHIC. They announced in a foreign language then in English. Can you tell me who this station is and where located? Can you explain the peculiarity of the low wave stations coming in on my Bosch? I have no short wave set and therefore would appreciate if you can explain why short wave stations come in."

As already explained, some condensers will reach beyond 1500 kcys. into the short wave band.

Failure to Verify

Many readers report difficulties securing verifications, as in the case of Herbert V. Haussler, Box 15, Pratt Station, Brooklyn, N. Y. He says:

"Two stations of which I'd like to complain are WLEX and WODA. I sent 10 cents and program to WLEX on January 21, 1930, and a following reminder on April 11, 1930. To WODA I sent a program and 10 cents on October 4, 1930, and a follow-up on November 30, 1930. Receiving no reply to either, I sent another letter with return postcard enclosed on January 9, 1931. All these were ignored."

Neither of the stations which failed Mr. Haussler is indicated in RADEX as verifying reception either by letter or stamp. Those stations which are not marked in the index as verifying are blank only because they did not take enough interest in the matter to fill out our prepaid reply card. Therefore they are very poor risks for verifications.

Last month some reader reported hearing a station in Gretna, Neb., with the call letters KMRS. The Federal Radio Commission advises us that no such station has been authorized.

Paul Robinson, 2267 86th Avenue, Oakland, Calif., is interested in loop aerials and readers who have had experience with this type of antenna are asked to send us the result of their experience. Mr. Robinson writes:

"Could you inform me of the type of

loop aerial that Mr. Baskys of Chicago and Mr. Roberts of Brooklyn use? I have tried a Kolster made loop (no power of reception) and two I made myself, but no directional selectivity. If you could collect any information on loops would it be possible to print it in your magazine?"

As stated above, some sets will go outside the broadcast band and bring in stations above 1500 kcys., but on the other hand a great many sets will not even go to 1500. One reader not long ago complained that below 600 and above 1400 on his set the announcer "gargles." This is quite a fair description of a great many sets, such as the one of which Mr. M. J. Tuggles, 2312 E. 59th Street, Cleveland, Ohio, complains:

"Graveyard" Stations

"I have a Sparton receiver, No. 931. I am writing to ask you what shall I do in this particular case. I cannot get any station below WGAR, 1450 kcys., Cleveland. Also at the very top of the dial on 550 kcys. stations come in very weak. What can be done to right it?"

Following are some brief comments, inquiries and replies which will be of general interest to our readers:

Anyone having hook-up for headphones for a Zenith Automatic Model 52 please communicate with J. A. Bachman, 204 N. 34th Street, Philadelphia,

"Station WIBU has moved from Poynette, Wis., to Portage, Wis. Also you have been listing station WJBT of Chicago as a Sunday station only. This station is also on the air every weekday from 7 to 8 a.m. with a program of phonograph records." John Slightam, Route 2, Richmond, Ill.

"One night last week I picked up WBZ, Boston, where, as your February RADEX shows, only WBZ-A at Springfield, Mass., is. Please explain in your next issue." F. G. Parker, 107 West 14th Street, Topeka, Kans. WBZ and WBZA are now synchronized as one station. We therefore show the combined station as WBZ-A.

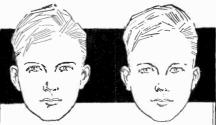
"I receive WLW and other eastern stations regularly after 5 p.m. I use a triangular aerial with sides about 85, 80 and 55 feet long. It is better than the same wire in one straight line." Shearon Bonner, Jr., Woodacre, Calif.

"In the morning of February 12th at about 4:15 EST. I picked up a radio station that announced it was 9XA testing. Do any of the readers know where that station is located?" Harold C. Schmidt, 1219 Page Street, Toledo,

"Could some of your readers give me some information on KGU, Honolulu, time on the air, etc.?" R. E. Moran, 540 Parkdale Avenue, Ottawa, Ont.

"I think that Frank H. Ludwig, Barnsdall, Okla., heard KGPC, St. Louis Police, not KGBZ." R. R. Rawstron, 15 Edgewood Street, Claremont, N. H.

"Has anyone ever heard CMV on or about 1030 keys., or of CMHX on or about 785 keys.? It wasn't CMHC either. Both located in Havana." Orval Wyse, Archbold, Ohio.



One of these Boys Will Fail ~ IF

Both possess equal health and intelligence, both have qualities for success—but one stammers. Where the one will succeed the stammerer will fail. He will dread to meet people, he will lack the self-confidence so necessary in business. The humiliation of his disability will impair his nervous system—a condition often the beginning of ill health. This handleap can be removed. As hundreds of other stammerers have been cured permanently at Bogue Institute, so he can be cured. The Institute was founded in 1901 by Benjamin N. Bogue, who cured himself after stammering twenty years.

Instruction is based on the principle of co-ordination between the mind and speech organs. No drugs or medicines. Endorsed by physicians. The history of the Bogue Institute and description of its methods embodied in Mr. Bogue's book, "Stammering—Its Cause and Its Cure," furnished on request.

Boque Institute for

1147 North Illinois St. 14055 Bogue Bldg. Indianapolis, Ind.

Simple Remedies

(Continued from page 9)

companied by noises in the receiver. The first thing to do is to change the pilot lamp. Another possible cause for the trouble is a fluctuating line current, which can be overcome by using a voltage regulator.

Trouble on Two Sets

I have a Starck "Classique" five-tube battery operated receiver and cannot get any volume. I can barely hear the signal the loudspeaker. The center dial can be turned any way and the response is the same. Can you tell me what the reason for this is. I also have a Radiola superheterodyne which has given considerable trouble. The repair man told me that the catacomb has given out. He melted the pitch from the catacomb and found that it was full of very fine wire and told us it could not be repaired.

On the Starck receiver there must be an open circuit in either the primary or secondary winding of the center radiofrequency coil, or in the leads connected to this coil, as indicated by the inoperation of the center tuning dial. The catacomb on the Radiola superheterodyne is undoubtedly defective and should be replaced with a new one. This can be done by a Radiola dealer or the coil will be replaced by the manufacturer, but there will, of course, be charges for this renewal.

Aerial and Power Lines

Our store room, in which we wish to install a radio set, is located near some power lines running at right angles to each other. We were wondering if it would be best to run the antenna diagonally between the two so that it will not be parallel to either one. Or would you think that there would still be interference from the lines?

If you are going to erect an aerial on the roof, your suggested arrangement is the best under the circumstances. However. I think that a better method of eliminating interference from the power lines, would be the use of an underground antenna. If your store room is wired for lighting current, you might also try the use of a socket antenna, as this will probably give you satisfactory results, and is much cheaper than an underground antenna.

Substituting Screen Grids

Although I have been getting excellent results with my "Collegian" midget receiver, I was wondering whether results could still be improved by the substitution of a screen-grid tube for the present 227 tube. Would this increase the power and pickup?

A screen-grid tube cannot merely be substituted for another tube in a radio receiver without a corresponding change

25c

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☐ One year's subscription to RADEX, 10 issues, and Radio Map free ______ 1.75 ☐ Two subscriptions to RADEX with one leatherette cover and Radio Map, both free__ One two-year subscription with leatherette cover and Radio map, both free

□ Leatherette Cover _ _ _ One copy "Radio Trouble Shooting," by E. R. Haan

Write Name Plainly Street and Number

No extra charge outside the United States

48

in the wiring. A special circuit is necessary for the screen-grid type and if a set is not already designed for its use, it is highly inadvisable to make the change.

Too Much Local

I have a six-tube battery-operated set and use a B-eliminator. How can I prevent harmonics from local stations. These are high-powered stations situated about three blocks from my location and they come in all over the dial. I have tried the aerial in every direction and also in various lengths, besides using a non-directional aerial and three separate wave traps. The use of the wave traps seems to help but prevents getting distance. Some days the trouble is worse than other days.

In your case I cannot help but say that your predicament is just too bad. Trouble such as this has stimulated the design of modern shielded receivers. Your set is of the old type and the radio-frequency current is picked up by the coils in the set so that you can easily get the signals from the neighboring stations without having the aerial connected at all. The only way out is to get a receiver of the latest design which is thoroughly shielded throughout. With such a set you will be able to get other stations while the local ones are broadcasting, but you will perhaps also notice that the local ones are broad and come in a little beyond the point where they are tuned in properly.

This Leak Leaks

In one of your recent articles on the control and reduction of static you advised the use of a small fixed condenser and grid leak connected between the aerial and ground of a receiver, stating that this would reduce the severe static crashes. I have tried this but as soon as the condenser and 500-ohm leak are connected, the signals stop and do not come in at all. Is this a peculiarity of my set or is the information incorrect?

The method of reducing the effects of static you are referring to is not new but has been in general use by radio fans for some time. Where it works satisfactorily on a receiver having a high r.f. gain, it should work on any receiver, provided the condenser is not short-circuited and it is correctly hooked between the aerial

and ground. One side of the condenser is connected to the aerial while the other side runs to the ground. Your use of a 500-ohm leak is, to all appearances, the cause of your trouble. Such a low value is practically a short circuit to a radio-frequency current. Use a 2 or 3-megohm leak and you will find the hook-up helpful.

245 Tube in Radiola

In the February issue of Radex, on page 11, one reader writes in telling how he improved his Radiola 60 by substituting a 245 tube for the 171A previously used. He does not state whether the improvement was made in selectivity, sensitivity, tone or volume and I would be pleased to have you give me more detailed information in this respect. Also in changing the leads on the lugs he mentions numbers 8, 9, 10 and 11. From which end of the lug support must I start counting if I make this change?

The 245 tube has an output approximately equal to that of a 210. Thus its amplification and consequently volume of the set is increased. However, the most important feature of the 245 tube is that it greatly improves the tone quality of the set. On the Radiola No. 60 the lug connected to the plate of the last tube is No. 1, while 2 is next, etc.

Blurred Reception

I recently purchased a five-tube radio frequency receiver called the Continent Master, which is battery operated. The two transformers and one of the condensers were missing when I got it, and I have substituted two 31/2 to 1 ratio transformers and a .00035-mfd. variable condenser. This set, since it has been overhauled, has much volume and I can get distant stations, but the reception is blurred and scratchy. Having no diagram of the wiring, it may be possible that a 5 to 1ratio transformer should be used in one stage, or it is possible that a 23-plate condenser would be better suited than the 17-plate condenser which I installed, putting one stage out of balance with the other stages. The .00035-mfd. condenser tunes the aerial. Can you give me any information that will help me to find the cause of the trouble?

Neither the transformers nor the 21-

plate condenser that you have installed in your receiver, are the cause of the trouble. It may be that one of the bypass condensers is defective, which can only be determined by testing them. Also, if you are using a magnetic loudspeaker, the fault may lie here. Try your speaker on another radio if possible, and see if the reproduction is any better. A third possibility is that one or more of the tubes are defective, and finally that the C-bias of the last stage is incorrect, which can be tested. A 200A detector may also be found better than one of the 201A type. It is not advisable to substitute a 5 to 1-ratio audio transformer as this would increase the distortion.

Trans-Pacific Stations (Continued from page 7)

775, which was evidently JOHK. I am awaiting verifications from these stations. I also received a foreigner on 765 which was playing Hawaiian music and seemed to be talking English. Can anyone give me any information on this? It was received between 4 and 5 a.m. CST. on Sunday morning."

Can anyone help Mr. Kessel identify his Hawaiian music? Walter A. Hicks, 1395 E. 16th Street, Portland, Ore., also wants a little help:

"In the last month or so I've heard a station, which I think is the same one, at two different places. First at 610 kcys., but lately from 590 kcys. It is Japanese. They sign off regularly at 4:30 a.m., but I cannot get the complete call letters clearly. At 610 it sounded like JOAG, the first three letters being almost unmistakable. At 590 it sounds like JOAK or JOJK. Can anyone give me any information on this?"

And Berma Colbert, 804 N. 6th Street, Temple, Texas, asks for some information. Perhaps Mr. Kessel, who lives in the same city, can supply it.

"I wonder if some of the RADEX readers could help me on the Japan stations. I have heard JOFK, JOGK, JOCK, JOBK, JOIK, JOHK and JOAK, but there is one on 710 kcys. I would appreciate any information. They were on the air February 23rd between 4 and 5:30

o'clock. I have also logged WKAQ, 2BL and have heard 4QG. My log is now 332. I am very weak on Mexicans, Cubans and Canadians.

Perhaps this information also from Boyd Erlbeck will answer Mr. Hick's question:

"There is a new 10,000-watt station in Japan on 590 keys. with call letters JOKK. Ollie Ross, champion DXer from Vallejo, reports that they are Yokohama. I have picked them up two or three times recently. You might tell Mr. Wheeler, of Erie, Pa., that KMJ, Fresno, is still 100 watts and that he must have some set to get them louder than KFI, as I live only 65 miles from KMJ and can't do that."

Now for those of us whose sets aren't good for trans-Pacific flights, Charles M. Royal, Routel, Box 438, Seattle, Wash., sets up a target nearer home.

"Tell Mr. John W. Christie, Montreal, that the station he hears on 660 kcys. through WEAF's signals is probably CJRW, Fleming, Sask. They broadcast on 600 kcys. but several times a month they change to 660 kcys. and broadcast in conjunction with a S.W. station in Winnipeg. I can hear WEAF very good out here, but when CJRW tries 660 kcys., that is all I get. Tell your DXers to try 10AY, Kelowna, B. C. They broadcast every other Sunday from 12:30 a.m. to 2:30 a.m. (Sunday) on 1200 kcys. If KWSC is on the air they use 1250 kcys., 50 watts.

Perhaps Mr. Royal supplies the information about a station in Kelowna, B. C., requested by Stanley Savage, Route 4, Spokane, Wash., who writes:

"On January 25th, Sunday, at 1:30 a.m., I listened for one-half hour to a program coming from a station in Kelowna, B. C. I couldn't get the call letters as it was coming in very faintly. However, I heard them say twice that they were in Kelowna in the center of the Okanagan valley. They were coming in on 1252 kcys. Kelowna is only 200 miles from here so it must have been about a 15-watt station. CJOC in Lethbridge, Alta., is supposed to be on 1120 kcys., but they come in sharp at 1100 kcys. on exactly the same figure as WPG in Atlantic City, which I've received

several times. I received five Japanese stations the day before yesterday morning between 1:50 a.m. and 4:30 a.m., JOAK, JOCK, JOIK, JOHK and JOGK."

But getting back to foreign reception, here's a record: "On February 22nd, I heard programs and station announcements in six countries in less than ten minutes," writes R. R. Rawstron, 15 Edgewood Street, Claremont, N. H. Edgewood Street, Claremont, N. H. (They were: U. S., Canada, Mexico, Cuba, Porto Rico and Bermuda. The last-named was TJW in Hamilton on 1490 kcys. with only 12 watts." "Now, ain't dat sumpin?" Mr. Rawstron reports an unlisted station on 900 kcys., announcing as KFPP St. Paul. Can some of our Minnesota readers tell us about it?

And who has heard a station with the slogan "The Voice of South America?" George C. Shoemaker, 1415 Longfellow Street, Washington, D. C., heard it on 1220 kcys. Mr. Shoemaker wants to know what foreign stations are the easiest to get. So far as our set is concerned, one is just as easy as the other! But perhaps there is some one Japanese station which comes in better than the rest. If so, which one is it?

W. R. Barnes, 11 Burlington Crescent, Toronto, Ont., gives the short wavers a target — VE8GW at Bowmanville, Ont., with 27.5 watts on 6095 kcys. Weekday schedule 6:45-8 a.m. and 3 p.m.- midnight EST.

Jimmie Manners, 23 Heil Avenue, Trenton, N. J., heard a program with music so weird that he thought sure it must be Japanese. Who knows?

"I have received, in the three months that I have had my set, 391 stations, 32 from the west coast. I am using an 8-tube four screen-grid Baldwin set. I use an aerial 124 feet long. On most distant stations I had been bothered with very much static, so while looking over last month's issue I saw the piece about Ollie Ross so I constructed a ground similar to his and I find that it clears up reception over 50 per cent. For several nights last week, about 2 a.m., I heard a station on 1150 kcys. The music was monotonous and weird, boy, it sure

started the shivers racing up and down my backbone. It sounded like tomtoms and some kind of very high, shrill instruments. It used all my volume. I was wondering if it might be a foreign station, as on the west coast station I only have to use half of my volume."

And here's a letter from the other side of the world telling us what time to tune in our own stations in order to get them best. The writer, George Inglis, of New Zealand, tunes in our North American stations every night and, as we recall his former letter, all he has is an old Browning-Drake battery set which he built himself. Yet we receive letters every day asking what is the best set for distance! Says Mr. Inglis:

"By the way, your map is great and I know where all my stations are now. I have received quite a lot of verifications lately and the following said they hadn't been heard in New Zealand before: KUL, WSB, KGIR, KFYO. I also had a card from CKMO a few weeks ago. KOY is on every Saturday night till 1:30 a.m. MST. KTBS said they are planning to present a regular Saturday program from 11:30 p.m. lasting about two hours. On Saturday, January 3rd, I heard KFXF from 1:30 a.m. to after 2 a.m. MST., so they might run a regular late program. KCRC is on from midnight Saturday till 6 a.m. CST., and KWJJ is on every night till 1:30 a.m. PST."

With George Inglis out on a sheepranch 12,000 miles away — almost exactly through the earth from us — giving us word for word reports of our own station announcements, where does this leave the fellow who insists "there ain't no such animal" as foreign reception?

Radio in ABC

The article in March brought the signals to the antenna and this month we describe the unwanted noises the set picks up.

Next month we will present a third article in this series in which will be described in very simple terms, just what happens inside the set.

Letters From Readers

(Continued from page 15)

in all states in the Union except four. I have had WFAA, Dallas, at noon and WRUF, Gainsville, at 11 a.m., while at the same time I could hardly receive WHAS, Louisville, although in the same direction as Dallas. The outlaw station WGM broadcasts nearly all day now and announces as WGM, Jeanette, Pa., and when CFCA comes on the air it is only a squeal. WBBM, Chicago, has a howl or squeal all through the day, which I presume is caused from KFAB, Lincoln."

We haven't much right to complain of heterodynes from Cuba and Mexico as long as our own Radio Commission continues to turn loose upon a suffering public two such powerful stations as WBBM and KFAB simultaneously on the same wave. Yet we read every once in a while the statement of some one of the commissioners that everything is now lovely.

Our DXers continue to pull in the trans-Pacific stations, particularly those who reside on the west coast. Writes Clair Calavan, Jefferson, Ore.:

"I am quite a DX hound myself, although I do not have such a great number of stations to my credit. In the last two years have logged 278 stations from New York and Havana to Australia and China. I have heard 18 stations across the Pacific, nine of them in Japan, seven in Australia, and one each in China and New Zealand, JOIK, Sapporo, JOBK, Osaka, and JOAK, Tokyo, and probably the best Japanese stations, but Chicago interferes with JOAK. The Mexican and Cuban stations have been causing a good many heterodynes lately, especially on 730, 750, 780 and 860 kcys. I have logged eight Mexican and two Cuban stations."

Our readers are using almost as many kinds of aerials and grounds as sets. Here is one that was popular several years ago — a metal plate under the telephone in which the felt on the bottom of the phone acts as a condenser. It has the unique advantage of automatically cutting off the radio when one picks up the phone to answer a call.

"Have used many types of aerials, but I find that the west coast and Mexico come in better on a metal plate under the telephone. I've received six Mexican stations, four Cuban and 39 on the west coast, including CKWX and CNRY in Vancouver, B. C. The other evening I added WDEL, Wilmington, and KTAR Phoenix, to my list, two states I had never been able to get before. Still lack four states, Maine, Rhode Island, New Hampshire, and Nevada." Paul Kinzle, 2439 Davenport Avenue, Davenport, Iowa.

We will now give some brief excerpts from letters from our friends quoting something of their records. We are sorry it is impossible to use every letter we receive and those whose records do not appear should write us later.

"I have one of the Scott Transformer Company's 1931 supers. This is a remarkable set and if conditions are at all favorable I can pull in KNX on 1050 kcys. as soon in the evening as KFKB on the same wave length signs off. WBAL on 1060, KTHS and KRLD on 1040, which come in exceptionally strong here in the east, are only 10 kcys. from KNX on either side, yet the Scott receiver cuts them completely out." C. R. Brown, Box 112, Tazewell, Va.

"In the past two years I have tuned in 273 broadcasting stations. I have verifications from all states in the Union except Vermont, South Carolina. Arizona, Wyoming, Idaho, Nevada and Washington. My set is an old battery operated Bremer Tulley Counterphase Six constructed by my father. It has served me faithfully considering that I have never had it permanently neutralized and cannot touch stations below 1450 keys. I would appreciate hearing from any fan who could inform me how to neutralize my set to cover the entire range with maximum selectivity and power." Donald Sleeper, 6 Young Street, Worcester, Mass.

"Have logged 525 stations, including 10 Mexican and eight Cuban on my 8-tube superheterodyne. The four states I have not heard from are New Hampshire, Vermont, Wyoming, and Nevada. Last Monday night I heard a station on

(Continued on page 62)

	11	II.	II .	
CFCF	KPRC	WCAU	WHAS	WNAC
1030 N 20 2	920 N	1170 C	820 N	1230 C
CFRB	KRLD	WCCO	WHEC	WNAX
960 C	1040 C	810 C	1440 C	570 C
CKAC 5 0	KSCJ	WCFL	WHK	WOAI
	1330 C-	970 N	1390 C	1190 N
CKGW 5 7	KSD 550 N-	WCKY 1490 N	WHO 1000 N	WOC 1000 N
KDKA 24	KSL	WCSH	WHP	WOKO
	1130 N	940 N	1430 C	1440 C
KDYL	KSTP	WDAE	WIBO 560 N	WORC
1290 C	1460 N	1220 C		1200 C
KECA 1430 N	KTAR 72 5	WDAF 610 N	WIBW 580 C	WOW 590 N
KFAB 4/4/	KTHS	WDBJ	WIOD	WOWO
	1040 N	930 C	1300 N————	1160 C
KFH	KTRH	WDBO	WISN	WPG
1300 C	1120 C	1120 C	1120 C	1100 C
KFI 640 N	KTSA	WDOD	WJAR	WPTF
	1290 C	1280 C	890 N-	680 N
KFJF	KVI	WDRC	WJAS	WQAM 9/2
1480 C	760 C	1330 C	1290 C	
KFKX	KVOO	WDSU	WJAX	WRC
1020 N	1140 N	1250 C	900 N	950 N
KFPY	KWK	WEAF	WJDX	WREC 600 C
1340 C	1350 N	660 N	1270 N	
KFRC 610 C	KYW	WEAN	WJJD	WREN
	1020 N	780 C	1130 C	1220 N
KFSD	WABC 335	WEBC	WJR	WRR
600 N		1290 N	750 N————	1280 C
KGO 790 N	WACO 1240 C	WEEI / / 590 N	W J Z 760 N	WRVA 1110 N
KGW 72 3	WADC	WENR	WKBN	WSAI
	1320 C	870 N	570 C	1330 N
кнј 36	WAIU	WFAA	WKBW	WSB
	640 C	800 N	1480 C	740 N————————————————————————————————————
KHQ 590 N	WAPI 1140 N	WFAN 550 C	WKRC 550 C	650 N————
KLRA	WBAL	WFBL	WKY	1320 N
1390 C	1060 N	1360 C	900 N	
KLZ 9 =	WBAP 800 N	WFBM 1230 C	WLAC 1470 C	1340 C WSUN 620 N
KMBC 950 C	WBBM 770 C	WFI 560 N	WLBW 1260 C	WTAG 580 N
KMOX	WBCM	WFLA 620 N	WLBZ	WTAM
1090 C	1410 C		620 C	1070 N
KOA	WBEN 30	WGAR	WLIT	WTA Q
830 N 365		1450 N	560 N	1330 C
KOH	WBRC	WGL	WLS	WTAR 780 C WTIC
1380 C	930 C	1370 C	870 N	
KOIL 1260 C	WBT 1080 C	WGN 720 N	WLW 700 N	1060 N
KOIN 940 C	WBZ-A 990 N	WGR 550 C	WMAL 630 C	WTOC
KOL	WCAE	WGST	WMAQ	1260 C
1270 C	1220 N	890 C	670 C	
KOMO	WCAH	WGY	WMC	WWNC 88
920 N	1430 C	790 N	780 N	
KPO 5 7	WCAO 600 C	WHAM 1150 N	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 Standard: For Central Time, subtract one hour; For Mountain Time two hours; and for Pacific time, three hours.

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

These programs	are correct to	o date but	t are subject to change daily thereafter
Daily (Except Sa	turday and	Sunday)	WKRC WAIU WWNC WXYZ WBCM WDOD WLAC WBRC
6:45-8:00 Tower Health Ex	ercises		2:30-3:00 American School of the Air
WEAF WEEL WFI WBEN CKGW	WGY WCAR	WRC	WABC WFBL WKBW WEAN WNAC WCAU WJAS WLBW WMAL WCAO WTAR WDBJ
8:00-8:15 Gene and Glenn WEAF WJAR WEB	— Quaker Early Bir		WADC WHK WKRC WWNC WGST WXYZ
WRC WGY WCA	E WTAM WWJ	WSAI	WOWO WFBM WMAQ WCCO KMOX KMBC
CKGW WRVA WPT WSUN	F WJAX WIOD	WFLA	KOIL KFJF KRLD KTSA KLZ KDYL KVI KOL KFPY KOIN KHJ KFRC
8:15-8:30 Morning Devotion WEAF WRC WCA	E WGY WHAS	wow	3:00-3:30 Columbia Salon Orchestra
WFI WCSH WJA	R WWJ WPTF	WIOD	WABC WHEC WLBZ WEAN WNAC WORC WPG WHP WLBW WMAL WCAO WTAR
WAPI WFLA WSU WJDX WRVA WBE	N WTAG WGN	WJAX	WDBJ WHK WKRC WAIU WWNC WXYZ WBCM WSPD WDOD WREC WLAC WBRC
8:30-9:00 Cheerio		31731/3	KSCJ WMT KMBC WDAY KOIL WIBW
WHO WOC WDA	F WAPI KPRC		KFJF KRLD KTRH KLZ CFRB 5:00-5:30 The Lady Next Door
WSB WSM WJA WBEN WRVA CKG	X WPTF WTAG W WIOD WHAS		WEAF WRC KSD WTAG WSM WHAS WKY KPRC WTAM
WSUN WTAM WMO	C WJDX WJAR		6:05-6:30 Black and Gold Room Orchestra
WOW WCAE WIBS	J eryone		WEAF WCAE WCSH WWJ WJAR WBEN 6:45-7:00 Uncle Abe and David
9:00-9:15 Something for Ev WABC WHEC WPG WDBJ WWNC WXY	WCAU WHP	WJAS	WEAF WEEI WJAR WCSH WFI WRC WTMJ WSM WEBC WCAE WGY WTAG
WLAC WBRC KSC.	WMT KMOX	KMBC	WTAM WWJ WSAI KSD WOC WHO
KOIL KFH KFJI 9:15-9:45 Campbell's Orche			WOW WDAF WSB WAPI WSMB WJDX WENR WHAS
WEAF WJAR WLI' WDAF WBEN WCA		WRC I WSAI	6:45-7:00 Literary Digest Topics
KSD WOW WOC		(WLS on	WRVA WPTF WJAX WIOD WLW WFLA
9:30) 9:45-10:00 A. & P. Program			WSUN 7:00-7:15 Amos 'n' Andy
WEAF WJAR WTA WCAE WTAM WWJ	G WCSH WRC WOC KSD	WGY WHO	WJZ WHAM KDKA WBZ WBZA WRC
WDAF WTMJ WEB	C WRVA WPTF	WIOD	WFLA WSUN WLW WJR WGAR CFCF
WFLA WSUN WHA WAPI WSMB WJD	S WSM WMC X KVOO WBAP	WSB KPRC	7:30-7:45 Phil Cook — Quaker Man WJZ WBZ WBZA WHAM KDKA WREN
WOAI WKY WBE WIBO	N WOW WFI	KSTP	KWK WTMJ WEBC KOA KSL KGO
11:15-11:30 Radio Househol	d Institute	Win a	KECA KGW WRC KOMO KHQ KFSD KTAR WGAR WSMB WSB WPTF WJAX
WEAF WJAR WTA WHAS WSM WSB	WCAE WWJ	WRC WSAI	WIOD WFLA WHAS WSM WMC WJDX KTHS KPRC WOAI
KFKX WTAM KSD WAPI WSMB WOA	WTMJ KSTP KTHS KVOO	WEBC KPRC	8:00-8:15 Literary Digest Topics
WKY WEEI WGY	WMC WBEN	Kito	WFBL WGR WJAS WADC WHK WGST WXYZ WSPD WREC WBRC WDSU WFBM WGL WMAQ WCCO WMOX KMBC KOIL
12:00-12:30 Paul Tremaine : WABC WHEC WLB	and His Orchestra Z WORC WPG	WCAU	WAYZ WSPD WREC WBRC WDSU WFBM WGL WMAQ WCCO WMOX KMBC KOIL KFJF WRR KTSA
WHP WJAS WLB WDBJ WHK WKR	W WMAL WCAO C WAIU WWNO	WTAR WDOD	11:00-11:15 Amos 'n' Andy
WREC WLAC WBR	C KSCJ WMT	KMBC	WMAQ WREN KWK WDAF WTMJ WHAS WSM WSB WKY WENR KSTP WSMB
12-30-1-00 Columbia Revue	V KFJF KLZ		WJDX KTHS KPRC WEBC WOAI WMC KOA KFAB WBAP
WABC WLBZ WOR WJAS WLBW WMA WBCM WDOD WRE	C WPG WCAU	WHP WXYZ	11-15-11-30 Arthur Pryor's Cremo Military Band
WBCM WDOD WRE	C WLAC WBRC	KSCJ	WLRW KOIL WIAS KMOX WFBL WSPD
WMT KMBC WDA 12:30-1:30 National Farm ar	Y WIBW KFJF	KLZ	WGST WBCM WBRC WDOD WRR KLZ KOIN KOL KFPY WHP KTRH WFBM
WJZ WHAM WJR WREN WFAA WEB	KSTP WRVA	WHAS WOW	KLRA WCCO WISN WREC WCAH WLAC
WMC WSB WGA	R KVOO WKY	WOAI	WDSU KFJF KSCJ KTSA KDYL WIBW WMT KFH WKBN WNAX KOH WTAQ
WRC WHO WDA KWK KOA WBZ	F WJDX WBAL WBZA WOC	WSMB KTHS	WLAP WOKO WACO
KWK KOA WBZ WFLA WSUN WJAX WLW KFKX WPTI	KFAB KPRC	KDKA	Sunday
1:30-2:00 Hotel Orchestra		******	1:00-2:00 National Oratorio Society
WABC WHEC WLBZ WJAS WLBW WMA	L WEAN WPG L WCAO WTAR	WFAN WDBJ	WEAF WJAR WCSH WRC WGY WCAE WTAM WWJ KSD WOW WOC WHO

KPO WBEN	CKGW KOA KGO	KGW CFCF	KSTP KFSD		WHAS KECA	7:0	WEAR	odent Big WEEI WWJ	WJAR WSAI	WTAG WLS	WCSH KSD	WRC WOC
1:30-2:00 B WABC	WHEC WWNC	WGR	WPG	WFAN	WMAL	7:00	WHO 0-7:30 V	WOW Vestingho	use Salu	C WTMJ ite		WLIT
MIDIA	WIAQ	WXYZ WCCO	W DOD KMOX	W LAC	WDSU KLZ		WJZ WGAR	WBZ WJR	WBZA	WBAL Y KYW	KWK	4 KDKA WREN
KOH 2:00-3:00 C	CFRB athedral 1	Hour					WIDY	MIOD	WHAN	WMC	WSM	WSMB
WABC WPG	WHEC WCAU	WHP	WMAL	WCAO	WORC WTAR	7:30	0-8:00 R WEAF	CA Victo	r Progra	m WCSH	WWJ	KPRC
W DBJ W REC	WKRC WLAC	WWNC	WXYZ	WRCM	WDOD WBBM		WBEN KYW	WRU WRVA	WIOD	WELA	WTAM WSUN	WSAI
KSCJ KFH	WMT KFJF	KMBC KRLD	WFBM WDAY KTRH	KOIL	WIBW KLZ		KSD	WDAF WJDX	WTM,	WEBC	WMC WOAI	W8B WKY
CFRB 2:30-3:00 Y							KOA KGW	KSL	KGO KHQ	KFI	KTAR	KFSD
WJZ WLW	WBZ KDKA	WBZA	WBAL	WGAR WREN	WJR	8:00	-8:15 E	nna Jetti WBZ		lies		******
	KSTP	WEBC	WRVA	WPTF	WIOD		WKY	WJR	WREN	I WFAA	KPRC	KYW WOAI
WSB	WAPI	WJAX WJDX WOAI	WHAS WSMB WKY	WSM	WMC KVOO		WHAS KOA	WENR	WTMJ WIOD	KTHS	KDKA WSMB	KOMO
KPO	KECA	KGW	KHQ	KTAR	KSL KFSD		KFI WSB	KGW WPTF	KSL WRVA WJDX	KHQ WFLA	WLW WSUN	WCKY KFAB
2:30-3:00 N WEAF	BC Artist: WOW	s Service WWJ	Program KSD	WGY	WRC	8:00	KFSD -8:15 "	KTAR Devils, D	WJDX rugs and	. KPO l Doctors'	, KVOO	KHQ
WCAE 3:00-4:00 N	CFCF						WNAC	WCAU	WJAS	WMAL	WCAO	WDRC WADC
WJZ WRVA		KDKA WIOD	KWK	WREN	KFAB WOAI		WHK WLAC	WKRC	WGST WDSU	WXYZ	WSPD	WREC
WFLA KSTP	WSUN	KGW	WPTF	WFAA KGO	KOA		WMAQ WIBW	WBRC WCCO WRR	KSCJ KTSA	KMOX KLZ	KMBC KDYL	KOIL KVI
KPO WTMJ	WEBC KOMO	KHQ	WSMB WSB	KPRC WAPI	WKY WGAR		KOI.	KYPV	KOIN			
3:15-5:00 No WABC		Philharmo	nic Orch	estra			WEAF WCAE	WJAR WWJ	WTAG WSAI	Choral O WCSH KSD	WRC	WGY WIOD
WCAU	WHP	WJAS	WLBW	₩MAL	WORC WCAO		WEBC	WMC	WHO	WOC	WHAS	WLIT KTHS
WRCM	WSPD	WERC	WAIU	WWNC	WXYZ WBRC		KPRC WFLA	WOAI	WIDAR	W8MB WTAM WTIC	WJDX	WIOD WBEN
WFBM KMBC	WMAQ WDAY	WCCO	KSCJ WIBW	WMT KFH	KMOX KFJF	8:15	-8:30 R	hythm Ch WHEC	oristers WEAN	— Freddi	e Rich	WJAS
KRLD 4:00-4:30 W	KTRH	KLZ	KFRC				W M A L	WCAO	WTAR	WADC	WHK WTAQ	WWNC
WJZ WLW	WBZ	WBZA WREN	KDKA	WJR WBAL	WGAR	8:15	KMBC	WDOD KRLD lliers Ra	KLZ dio Hone	KOH	WING	17000
4:00-5:00 Dr	. S. Parke	es Cadma	n D				WJZ WLW	WBZ KYW	WBZA KWK	WHAM WREN	KDKA	WJR KSL
WOW	WEEI WKY	WOAL	WSAI	WTAG WJAX	KOA WHAS WWJ		KHQ	KOMO ano Pals	KFI	KGW	KPO	KOL
WJDX WFLA	WSUN	KHQ	WHO	WDAF WOC	WWJ KGO	0.10	WABC	WHEC	WEAN	WNAC WHK	WJAS WWNC	WLBW
WMC	WCAE WGY	WSM	KTHS	KGW WBAP	KGO WPTF WSB							KMOX
WSMB 5:00-5:30 Re	WAPI v. Donald	WBEN Grev Ra	WRVA	WIOD		9:00-	9:15 "C	our Gove	nment,"	David La WEBC WFJC	wrence	WILLO
WABC WCAU	WFBL WJAS	WGR WMAI	WEAN	WDRC WKRC	WNAC	į	KSD WSM	WKY WFAA	WSAI	WFJC WOAI	WSB	WHAS WMC
WSPD 5:00-6:00 Da	WOWO	WMAQ	KOIL		WRR	1	WIOD WWJ	WFLA KVOO	WSAI WOW WSUN	WOC WBEN	WSMB WHO	WRC
WEAF WGY	WJAR WCAE	WTAG	WCSH	WFI WSAI	WRC WENR	9:00-	9:30 Co	ty Playgi	rl — Iren	e Bordoni	WDDG	WMAG
WOC	WHO WWJ	WOW	WDAF	CKGW	WBEN	7	VCAU	WJAS	WMAL	WEAN WEAN WCAO WOWO	WADC	WHK
5:00-6:00 Na	tional Vea	pers WHAM	www.	WREN '	WCKY	0.15	MBC	KOIL	WSPD	wowo	WBBM	KMOX
KSTP W PT F	WBAL WEBC KVOO	WIOD KPRC		KOMO 1	WJDX	١	VEAR	water Ko WEEI	WRC	WFI		WCAE
KTAR	KGO :	KGW :	KHQ '	WSM 1	KOA WKY	j	VTAM VFAA KOMO	KOA	WSAI WOAI	WSMB	KFI	WSM KGW
WGAR	(KEAR o	n 5·15) /	WSMB 1 (WIBO or	5.201	WBZA	V	VGN	WSB	KHQ WOC	WHO	WMC	WHAS WDAF
WABC	WFBL	WKBW	r WEAN Y	WDRC Y	WNAC	9:30-9	(SL):45 Wo	CKGW rld Adve	WAPI ntures wi	WBEN th Floyd	KSTP Gibbons	
5:30-6:00 Swa WABC WFAN WXYZ	WSPD	WOWO	WMAL V WBBM I	WADC I	w K K C KOIL	T.	VJZ	WBZ	WBZA	WHAM	KDKA '	WJR
WEAR	MEEL V	IF WJAR V	WTAG V	WCSH V	WRC	9:30-1 V	10:00 Gi VABC	aham-Pa WFBL	ige Hour WKBW	WEAN WCAO	WDRC '	WNAC
WGY KGO	KSTP V	WSMB I	комо в	KSD I	VJDX XGW	Y.	MAL	WDI	WGDI	WCAO WTOC	WADC Y WQAM	WHK WDBO
WCAE WDAF	KECA I WJAX V	KTAR V	VSUN V	VHAS V	VHO VMC	V	DAE BBM	WXYZ WCCO	WSPD KMOX	WREC KMBC	WQAM W WDSU KOIL	WOWO KFJF
WSB	WBAP I	KPRC V	WOAI V	VRVA P VIBO V	COA VLIT	K	RLD	KTRH	KTSA	KLZ KFRC	KĎÝL	KOL
							_					

10 00 10 20 B V D . f.:				7 45	0 20 0	, .				
10:00-10:30 Royal's Poet of t WABC WFBL WKBW WJAS WLBW WMAI WKRC WGST WXYZ WBBM KMOX KMBC KOL KFPY KOIN	V WEAN V	WNAC	WCAU	1:45	WJZ	xy's Gan WHAM	KWK	n WSB	WSM	KFAB
WJAS WLBW WMAI	WCAO V	VADC VLAC	WHK WOWO		CKGW	WIBO low's Bu	WGAR			
WBBM KMOX KMBC	KOIL K	KLZ	KDYL		WEAF	WJAX	WJAR	WRC	KSD	WCAE
KOL KFPY KOIN	KHJ E	KFRC			WWJ	KOMO	WSAI	WDAF	WJDX	KGO
10:15-10:30 Boswell Sisters WJZ WHAM WGAR		(WK	WREN		KVOO WEBC	KECA WSMB	KHQ	W FLA KTAR	WSUN KFSD	WHAS KSL
WTMI WOAI WRZ	WRZA	- 11 - 12	., 11221		WMC				11102	Hob
10:15-10:45 National Dairy P WEAF WEEI WJAR WFI WRC WGY WWJ WSAI WOW	roductions WTIC W	VTAG	WCSH	8:15	-8:30 Pe WEAF	nnzoil Pe WEEI	wTIC	WJAR	WCSH	WLIT
WFI WRC WGY	WBEN W	VCAE	WTAM WAPI	,	WRC	WBEN	WCAE	WTAM	WSAI	KYW WMC
WWJ- WSAI WOW WSMB WJDX WRVA	WDAF W	VSB VIOD	WAPI WFLA		KSD WSB	WOC WDAF	WHO WEBC	WHAS WRVA	WSM	WMC WFLA
WSUN WHAS WSM	WMC			,	WSUN	WIOD	WSMB	WJDX	WPTF WKY	KTHS
10:30-11:00 Kaffee Hag Slum WJZ WBZ WBZA	ber Music	ZDIZA	WID	0 15	WFAA	WOAI	CKGW	WTMJ	WWJ	KSTP
WLW KWK WREN		LDKA	WJK	8:15	-8:30 Ba WABC	rbasol Pr WFBL	ogram WKBW	WEAN	WDRC	WNAC
10:45-11:15 Sunday at Seth F WEAF WEEI WCSH WDAF CKGW WTMJ	arker's	uov.			WCAŪ	WJAS WXYZ KMBC	WMAL	WCAO	WADC	WHK
WEAF WEEL WOSH	KSTP W	VGY VCAE	WOW WTAM		WKRC KMOX	KMRC	KOIL	WISN	WFBM	WCCO
WFJC WWJ KYW	wow w	vно	WEBC	8:30-	·9:00 A.	& P. Gyr	sies			
WJAX WIOD WHAS WKY KOA KGO	WSM W	VJDX VSB	KPRC KTAR	,	WEAF WLIT	WEEL	WTAG WGY	WJAR WCAE	WTIC WWJ	WCSH WSAI
KFSD WRVA WBEN	WLIT	V DD	KIAK	,	WGN	WRC KSD	woc	WDAF	WTAM	
11:00-12:00 Back Home Hour WABC WHEC WLBZ	WPG W	VHP	WMAL	,	WHO	WBEN	1. 0			
WTAR WDBJ WXYZ		VSPD	WDOD		-9:00 Lu WJZ	den's No WBZ	WBZA	mestra WJR	KDKA	WLW
WREC WLAC WFBM	i wcco v	VMT	WDAY		KYW	KWK	WREN	KFAB	CKGW	–
WNAX WIBW KFH KTSA	KFJF K	KRLD	KTRH	8:30-	·9:00 Th WABC	e Simmo	ns Hour WGR	WEAN	WDRC	WNAC
11:30-12:00 Russian Cathedra	l Choir				WORC	WFBL WPG	WCAU	WJAS	WLBW	WMAL
WEAF WRC WFJC WOW WSB WGY		VBAP	KOA	,	WCYO	WTAR WWNC	WDBJ	WADC WGST	WIIK WXYZ	WKRC
WOW WSB WGY WIOD WHAS WBEN	WTAM K	7911	WEBC		WCAO WAIU WSPD	WREC	WLAC	WBRC	WDSU	WBCM WTAQ
	_				wowo	WFBM KMOX	WMAQ	WJJD	WCCO	KSCJ
Mor	iday				KEJF	WRR	KTRH	KULL	WIBW KDYL	KFH KOL
3:30-4:00 Sixteen Singers WEAF WRC WOC	WHO K	SD	KSTP		KFPY	KOIN	KHJ	KFRC	CFRB	
WTAM WGY WWJ				9:00-	-9:30 Ma WJZ	ytag Orc WBZ	hestra WBZA	WHAM	KDKA	W.IR
3:30-4:00 Chicago Serenade WJZ WHAM WJR	WLW W	VLS	KDKA		KWK WOAI	KYW	KSTP	WEBC	KTHS	WKY
WFLA WSUN WMC		VJAX	WGAR	1	WOAI KHQ	KOA KOMO	KSL	KGO WLW		KGW KPRC
4:00-4:30 Dance Orchestra WJZ WBAL KSTP	KTAR K	2O4	KGO		WGĂR	HOMO	IX VOO	11 111	WIAA	III IIO
KWK KFSD WHAN	WSM W	KOA VSB	WSMB	9:00-	9:30 Th	e Three l	Bakers	munm	WID#	WEAN
WMC WBZ WBZA 4:15-4:30 U.S. Army Band	WGAR K	(YW			WABC WDRC	WFBL WNAC	WHEC	WKBW WPG	WCAU	WHP
WARC WIRZ WEAR	WNAC W	VORC	WPG	1	WJAS	WLBW	WMAL	WCAO	WTAR	WDBJ
WCAU WLBW WMAI WAIU WWNC WXYZ	WCAO W	VTAR	WDBJ	,	WADC	WHK	WKRC	WWNC	WXYZ	WGST WBCM
WAIU WWNC WXYZ WREC WLAC WBBM	WCCO K	SCJ	WDOD WMT	١	WTOC WSPD	WQAM WDOD	WREC	WLAC	WBRC	WDSU
WREC WLAC WBBM KMOX KMBC WDAY KTRH KLZ KOL	WCCO K	FJF	KRLD	,	WISN	wowo	WFBM	WMAQ	WCCO	KSCJ
KTRH KLZ KOL 4:30-5:00 Wardman Park Hot	KFRC C	FRB		1	WMT KOIL	WIBW	KMBC KFH	KFJF	WDAY WRR	WNAX KTRH
WABC WLBZ WEAN WFAN WHP WLBW	WNAC W	VORC	WPG]	KOIL KTSA	KLZ	KDYL	KOL	KFPY	KOIN
WFAN WHP WLBW WDBJ WKRC WAIU	WMAL W WWNC W	VCAO	WTAR WBCM	9:30-	KHJ :10:00 Cl	KFRC hesebrou	h Real F	olks		
WSPD WDOD WREC	WLAC W	VBRC	WCCO	1	WJZ	WBZ	WBZA	WHAM WJR	KDKA	WLW
KSCJ KMOX KMBC	WDAY K	COIL CLZ	WIBW KOL	0.30	KWK	KYW	CKGW	WJK nile Parts	WGAR	
KFJF KRLD KTRH KFRC CFRB	K 15A K	LLZ	KOL	3.30-	WEAF	WEEI	WJAR	nily Pa rty WCSH	WTAG	WLIT
6:00-6:30 Gordon Kibbler's U	rchestra	777D	WI DW		WRC KSD	WEEI WGY WOC	WCAE WOW	WTAM WSAI	WWJ WDAF	WGN KSTP
WABC WFBL WDRC		VHP VADC	WLBW WKBN		WTMJ	WHAS	WSM	WMC WKY	WSB	KPRC
WBT WXYZ WBCM	I WREC W	VLAC	WBRC	,	WJAX	WFAA	WOAI	WKY	KOA	KSL
WISN WFBM WGL KLRA WDAY KFJF	WBBM W	TRH	KSCJ KLZ		KGO WHO	WBEN	KFI WCAE	KOMO	VHQ	WTIC
KVI KOL KFPY	KHJ K	FRC	CFRB	9:30-	10:00 B	ourjois				
6:15-6:45 Mormon Tabernack WJZ WBAL WSM	e Choir KWK K	704	KSL		WABC WJAS	WFBL	WKBW	WEAN	WADC	WCAU
KGO KOMO KFAB	KGW C		KSTP	1	WKRC	WLBW WBT KMBC	WXYZ	WSPD	wowo	WBBM
KTAR KPO WHAS	WAPI K	FSD	WRC	10.00	KMUX	KMBU	KOIL			
WSMB 7:00-7:15 Current Events K	altenbern			10:00	J-10:30 I WABC	VODERT BU	iriis Pana WKBW	tela Prog WEAN	WDRC	WNAC
WDBJ WKRC WWNG	Z WXYZ W	VBCM	WDOD	,	WCAU	WJAS WXYZ KMOX	WMAL	WCAO WOWO	WADC	WHK
WBRC KSCJ WMT WHEC WLBZ WORC	WDAY K	COIL VJAS	WABC WLBW	1	WKRC WCCO	KMOX	KMRC	KOII.	WFBM KFJF	W M AQ KRLD
WMAL WCAO WTAR	WIBW K	(FH	KFJF		KTRH	KTSA	KLZ	KDYL	KVI	KOL
KTRH KOL KFRC							KHJ	KFRC		
7:15-7:30 Tastyeast Jesters WJZ WCKY WHAN	WBZ W	VBZA	WREN	,	WJZ	WBZ	WBZA	Program WHAM	KDKA	KYW
KDKA WRC WGAR					KWK	WREN	WEBC	WRVA	WJAX	WIOD

Maria 2 1112 1112 1112 1112 1112 1112 1112	
WHAS WSM WMC WSB WSMB WOAI KOA KPRC KGO KFI WCKY KGW	8:00-8:30 Paul Whiteman's Paint Men WJZ WBZ WBZA WHAM KDKA WTMJ
KHQ KOMO WJDX WFLA WSUN WJR.	WJR WLW KYW KWK WREN WRVA
KTAR KFSD WAPI WKY WGAR	WJAX KGW KOMO KHQ KFSD KTAR
10:00-10:30 Adventures of Sherlock Holmes WEAF WJAR WCSH WWJ WTAG WEEI WLIT WTAM WSAI WRC WGN WOC WHO WBEN WCAE	WGAR WGY KOA WIOD WHAS WSM WMC WSB WJDX WSMB WOAI KFAB
WLIT WTAM WSAI WRC WGN WOC	KGO KECA WBAL WPTF
WHO WBEN WCAE 10:30-11:00 Empire Builders	8:00-8:30 Blackstone Plantation
WJZ WBZ WBZA WHAM KDKA WJR	WEAF WCAE WTAM WWJ WSAI WIBO KSD WOC WHO WOW WDAF KOA
WLW KYW KWK WREN WTMJ WOAI KSTP WEBC KOA KSL KGO KECA	WEEL WJAR WTAG WCSH WFL WRC
KGW KOMO KHQ KTAR KFSD WKY	WGY WBEN
WBAP KPRC WGAR	8:15-8:30 Old Gold Character Readings WABC WFBL WHEC WGR WLBZ WEAN
10:30-11:00 Don Amaizo WCAU WHP WJAS WLBW WADC WHK	WDRC WNAC WORC WPG WCAIL WHP
WKRC WCAH WKBN WSPD WISN WBBM	WJAS WLBW WCAO WTAR WDBJ WADC WKRC WAIU WKBN WWNC WBT WGST
WCCO KSCJ WMT WDAY WNAX KOIL KLZ KDYL KOL KFPY KOIN KHJ	WERC WAID WEEN WWNC WET WGST WTOC WQAM WDBO WDAE WXYZ WBCM
KFRC KNX	WSPD WDOD WREC WLAC WBRC WDSU
10:30-11:00 Symphonic Rhythm Makers	WISN WJJD WCCO KSCJ WMT KMOX KMBC KLRA WDAY WNAX KOIL WIBW
WEAF WJAR WTAG WRC WCAE WTAM WWJ WJDX WGY CFCF WEEI WENR	KFH KFJF WRR KTRH KTSA KLZ
11:00-11:15 Morton Downey — Leon Belasco's Orchestra WABC WKBW WGR WEAN WDRC WNAC	KDYL KVI KOL KFPY KOIN KHJ KFRC
WABC WKBW WGR WEAN WDRC WNAC WORC WPG WCAU WLBW WCAO WTAR	8:30-9:00 Florsheim Frolic
WDRI WHK WKRN WRT WXYZ WRCM	WEAR WIAL WEL WELL WOV WOAR
WSPD WREC WLAC WERC WISN WERM	WWJ WSAI WGN KSD WDAF WEBC WRVA KVOO WJAX WIOD WSUN WFLA
WCCO KSCJ KMOX KLRA WDAY KOIL WIBW KFH KFJF KTRH KLZ KOL	WSM WMC WSB WSMB WIDX KPRC
KFPY CFRB	WOAI WKY KOA KSL KTHS WJAR WHAS WCSH WBAP WBEN KSTP
11:00-11:30 Florence Richardson and Orchestra WEAF WCAE WOW (WSAI off 11:15) (WJDX	8:45-9:00 Lee Morse — Nat Brusiloff's Orchestra
WEAF WCAE WOW (WSAI off 11:15) (WJDX WMC WSB KSD WSM on 11:15) CFCF	WABC WEBL WKBW WEAN WDRC WNAC
WIOD	WCAU WJAS WMAL WCAO WADC WHK
11:30-12:00 Henry Busse and his Orchestra WEAF WWJ KSD WOC WHO WOW	WKRC WGST WTOC WQAM WDBO WDAE WXYZ WSPD WLAC WDSU WOWO WMAQ
WDAR KSTP WERC KOA WTAM	WCCO KMOX KMBC KOIL KTRH KLZ
I2:00-1:00 Phil Spitalny and His Orchestra	KDYL KVI KOL KFPY KOIN KHJ KFRC
12:00-1:00 Phil Spitalny and His Orchestra WEAF WRC WKY WSM KYW (KSD on 12:30) (KSTP WGY off 12:30) WDAF off 12:15	9:00-9:30 Household Celebrities Program WJZ WBZ WBZA WBAL WHAM KDKA WGN KWK WREN WJR
Tuesday	WJZ WBZ WBZA WBAL WHAM KDKA
	WGN KWK WREN WIR
10:15-10:30 Through the Looking Glass	9:00-9:30 McKesson Musical Magazine
10:15-10:30 Through the Looking Glass WJZ WBZ WBZA WHAM WLW WREN	9:00-9:30 McKesson Musical Magazine
10:15-10:30 Through the Looking Glass WJZ WBZ WBZA WHAM WLW WREN KFKX KDKA KWK CKGW KFAB WKY KVOO WOAI WBAP WGAR	9:00-9:30 McKesson Musical Magazine WEAF WEEI WJAR WTAG WCSH WFI WRC WBEN WTAM WSAI KSD WOW WTMJ WEBC WRVA WIOD WFLA WSIIN
10:15-10:30 Through the Looking Glass WBZ WBZ WBZA WHAM WLW WREN KFKX KDKA KWK CKGW KFAB WKY KVOO WOAI WBAP WGAR 3:30-4:00 Golden Gems	9:00-9:30 McKesson Musical Magazine WEAF WEEI WJAR WTAG WCSH WFI WRC WBEN WTAM WSAI KSD WOW WTMJ WEBC WRVA WIOD WFLA WSUN WSM WMC WSB WSMB WJDY KPRC
10:15-10:30 Through the Looking Glass WBZA WBZA WHAM WLW WREN KFKX KDKA KWK CKGW KFAB WKY KVOO WOAI WBAP WGAR 3:30-4:00 Golden Gems WEAF WEEI WTIC WTAG WTAM WFJC KSD WFLA WSUN KSTP WOC WHO	9:00-9:30 McKesson Musical Magazine WEAF 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
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10:15-10:30 Through the Looking Glass WEZ WBZ WBZA WHAM WLW WREN KFKX KDKA KWK CKGW KFAB WKY KVOO WOAI WBAP WGAR 3:30-4:00 Golden Gems WEAF WEEI WTIC WTAG WTAM WFJC KSD WFLA WSUN KSTP WOC WHO CKGW 4:00-4:30 Italian Idyll WABC WLBZ WEAN WNAC WORC WPG	9:00-9:30 McKesson Musical Magazine WEAF 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 KFSID KGW KOMO KHQ KVOO WOAI KYW 9:00-9:30 Henry-George WARC WEEI WCR WEAN BUDDO WMAG
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10:15-10:30 Through the Looking Glass	9:00-9:30 McKesson Musical Magazine WEAF 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 KOLL KFH 9:30-10:00 The Philo Symphony Concert WABC WFBL WHEC WKBW WEAN WDRC WNAC WCAU WJAS WMAL WCAO WTAR WABC WFBL WHEC WKBW WEAN WDRC WNAC WCAU WJAS WMAL WCAO WTAR WADC WHK WKRC WGST WXYZ WSPD WDOD WREC WJAC WBRC WDSU WJSN
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10:15-10:30 Through the Looking Glass	9:00-9:30 McKesson Musical Magazine WEAF WEEI WJAR WTAG WCSH WFI WRC WBEN WTAM WSAI KSD WOW WTMJ WEBC WRVA WIOD WFLA 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 WCAU WJAS WMAL WCAO WADC WHK WKRC WXYZ WSPD WISN WOWO WFBM WBBM WCCO KMOX KMBC KOIL WFBM WBBM WCCO KMOX KMBC KOIL WFBM WBBM WCCO KMOX KMBC WAN WBBM WCCO WMOX KMBC WAN WBBM WCCO WMOX WMAL WCAO WTAR WADC WHK WKRC WGST WXYZ WSPD 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 KTSA CFRB 9:30-10:00 Death Valley Days WJZ WBAL WCKY KWK WBZ WBZA WHAM KDKA WENR 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WGY WCAE WTAM WWJ WSAI WIBO KNOO WKY KOA KSL KGO KOMO KECA KGW KHQ WBAP WOC WRVA WHOO-10:15 Graybar — Mr. and Mrs. WADC WCAO WNAC WKWW WBBM WKRC
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10:15-10:30 Through the Looking Glass	9:00-9:30 McKesson Musical Magazine WEAF 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 WHK 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 WKBW WEAN WDRC WNAC WCAU WJAS WMAL WCAO WTAR WADC WKK WKRC WSYZ WSPD WDOD WREC WLAC WST WXYZ WSPD WOOD WREC WLAC WBRC WDSU WOWO WFBM WAQ WCCO WMT KMOX KMBC KOIL KFH KFJF KRLD KTRH KTSA CFRB 9:30-10:00 Poeath Valley Days WJZ WBAL WCKYY KWK WBZ WJZ WBAL WCKYY KWK WBZ 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WCSH WRC WGY WCAE WTAM WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KYOO WKY KOA KSL KGO KOMO KFOO WKY KOA KSL KGO KOMO KECA KGW KHQ WBAP WCC WKY WAAC WHAW WJ WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC KYOO WKY KOA KSL KGO KOMO KECA KGW KHQ WBAP WCC WKY KOA WAC WKBW WBBM WKRC WHK WXYZ WOWO KMBC WABC WLBW KOIL WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WGST WBRC KRLD WKSPD WMAL WWNC WGST WBRC KRLD KKLZ KTRH WFIM WLRA WCCO WINN
10:15-10:30 Through the Looking Glass	9:00-9:30 McKesson Musical Magazine WEAF WEEI WJAR WTAG WCSH WFI WRC WBEN WTAM WSAI KSD WOW WRW WBEN WTAM WSAI KSD WOW 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 WKY KOY WSPD WISN WOWO WFBM WBBM WCCO KMOX KMBC KOIL KFH 9:30-10:00 The Philos Symphony Concert WABC WFBL WHEC WKBW WEAN WDRC WNAC WAYZ WSPD WABC WFBL WHEC WKBW WEAN WDRC WNAC WAYZ WSPD WABC WFBL WHEC WKBW WEAN WDRC WNAC WGAU WJAS WMAL WCAO WTAR WADC WKW WKRC WST WXYZ WSPD WOOD WREC WLAC WBRC WDSU WISN WOWO WFBM WMAQ WCCO WMT KMOX KMBC KOIL KFH KFJF KRLD KTRH KTSA CFRB 9:30-10:00 Peath Valley Days WJZ WBAL WCKY KWK WBZ WBAL WCKY WHAM KDKA WENR 9:30-10:00 Happy Wonder Bakers WEAF WJAR WEEI WTAG WCSH WRC WGY WCAE WTAM WWJ WSAI WIBO KSD WHO WOW WTMJ KSTP WEBC WGY WCAE WTAM WWJ WSAI WIBO 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 WCAU WJAS WEAN KMOX WFBL WSPD WMAL WWNC WST WBBC KELD

| 10:00-11:00 Lucky Strike Dance Orchestra | WEAF | WEEI | WJAR | WTAG | WCSH | WFI | WRC | WCAE | WWJ | WSAI | KSD | WOC | WHO | WTMJ | WEBC | WRVA | WJAX | WIOD | WFIA | WSUN | WHAS | WSM | WMC | WSB | WSM | 7:45-8:00 Smith Brether's Orchestra WJZ WGAR KDKA WJR WREN KFAB WLW WIBO KWK WIOD 7:45-8:00 "Back in the News in Washington WEAF WRC KOA KECA KGO WCAE WFJC WBEN WRVA WKY KFSD WSAI WIBO KSD WOC WOW WDAF WAPI WEAF WGY WSMB WJDX WOAI WKY KOA KGO KOMO KGW KHQ KOMO KTAR KFSD WDAF WTAM WAPI WBEN KECA KGW WHO WIBO 10:15-10:30 Blue Ribbon Malt Jester 7:45-8:00 Daddy and Rello WFBL WGR WEAN WDRC WNAC WABC WFBL WKBW WEAN WNAC WCAU
WJAS WLBW WMAL WCAO WADC WKRC
WXYZ WSPD WREC WISN
WMAQ WCCO KMOX KOIL WRHM WCAU WISS WMAL WCAO WADC WHK
WKRC WBT WXYZ WSPD WLAC WBRC
WDSU WOWO WMAQ WCCO KMBC KLRA
KOIL KFH KRLD KTSA KLZ 8:00-8:15 Listerine Program—Bebby Joses
WEAF WEEI WTIC WJAR WTAG WCSH
WLIT WRC WBEN WTAM WWJ WSAI
KSD WOC WHO WOW WPTF WIOD
WFLA WSUN WHAS WSM WSB WSMB
WJDX WFAA WOAI KOA 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 Publix Playhouse
WABC WFBL WHEC WKBW WLBZ WEAN
WDRC WNAC WPG WCAU WHP WJAS WABC WFBL WHEC WDRC WNAC WPG WMAL WROAD WTAR WDBJ WADO WHK WKRC WKBN WWNC WBT WGST WTOC WQAM WDBO WDAE WXZZ WBCM WSPD WDOD WREC WLAC WBRC WDSU WISN WMT 8:15-8:30 Radietron Varieties WEAF WTIC WTAM WSAI WJAR WTAG WRC WBEN WIBO KSD WOW WIOD WSMB WJDX WOAI KOA WSM WSB KHQ KOMO KFSD KTAR KECA WOWO WFBM WBBM WCCO KSCJ KMOX KLRA WDAY WNAX KOIL KFH KFJF KRLD KTRH KTSA WMT KGŐ KVOO KOA WIBW 8:30-9:00 Mobiloil Concert KLZWEEI WJAR WSAI KSD WTAG WCSH WLIT KFPY KOIN KFRC WEAF KDYL KOL KHJ WOW WKY WTAM KOA KPRC WTIC WRC CFRB KNX KVOO WFAA WOAI 11:00-11:15 Paul Tremaine and His Orchestra WEBC WDAF WCAE WGN WWJ WABC WHEC WLBZ WEAN WNAC WORC WCAU WHP WLBW WCAO WTAR WDBJ KSL WGY Woc WHO WBEN WWNC WXYZ WSPD WDOD WREC WLAC WFBM WCCO WMT KMOX KMBC WDAY 8:30-9:00 The Sunkist Musical Cocktail WABC WFBL WGR WEAN WDRC WNAC
WFAN WCAU WJAS WMAL WCAO WADC
WHK WKRC WXYZ WSPD WOWO WJJD
KMOX KMOK KMBC KOIL, KLZ
KFPY KOIN KHJ KFRC WIBW KFH KTRH WNAX KOIL KEJE KOL CFRB KLZ11:15-12:00 Vincent Lopez and His Orchestra WEAF WFI KOA WRC KST KSTP WOC KOA WRC WTAM WDAF 8:30-9:00 Canadian Pacific Musical Crusaders WOW WHO WJZ WGAR WBZ WBZA WHAM KDKA KYW KWK WCKY WREN KFAB CKGW 9:00-9:30 Cold Medal Fast Freight
WABC WFBL WKBW WEAN WDRC WNAC
WCAU WJAS WMAL WCAO WTAR WDBJ
WADC WHK WKRC WCAH WXYZ WSPD Wednesday 2:45-3:00 Sisters of the Skillet HARD SISTERS OF THE SKIDET
WIZ WBAL WHAM KDKA KWK WGAR
WREN KFAB CKGW KSTP WFLA WSUN
WMC WSB KOA KGO KECA WJR
WGN CFCF WRVA WPTF WJAX WIOD WLAP WREC WLAC WMAQ WCCO KSCJ WISN WOWO WFBM KMOX KMBC KOIL WSB KOA KGO CFCF WRVA WPTF WPAI WJDX KPRC KFH KFJF KRLI KFPY KOIN KHJ KRID KLZ KDYL KOL KFRC KMJ WSM WPA1 WODA
3:00-3:15 Edna Wallace Hopper
WJZ WBZA WBZA WBAL WHAM KDKA
WGAR WLW WGN KWK WREN WTMJ
WSM WPA1 WODA
WHAM KDKA
WTM WTMJ
WSM WPA1 WODA 9:00-9:30 Halsey, Stuart Program WEAF WEEL WJAR WTAG WCSH WLIT WRVA WJAX WRC WGY WCAE CKGW KOMO KHQ WOW WWJ KOA KSL KGO KGW WSAI KSD WOC WHO WSMB KVOO KPRC WOAI WIOD WFLA WSUN WHAS WSM WSB WSMB KSL KGO KECA WJAX KSTP WTMJ WMC WHAS WSM WSB KFI WAPI KFSD WMC KFAB KYW KOMO KHQ KGW WBEN WTAM 3:30-4:00 Evening Stars WJZ WHAM WGAR KWK WREN WJAX KSTP WPTF 9:30-10:30 Palmolive Hour WEAF WEEI WTIC WJAR WTAG WCSH WLIT WRC WGY WCAE WSAI WGN WIBO CKGW WEBC KSTP WFLA WSUN WSM WMC WSB WIOD KPRC WOAI WKY KOA KSL KSD WOC WOW WSMB WTMJ KSTP WBAP WJDX WSMB WHAS WBAL WHAS WSM WMC KTHS WMC WDAF WHO WSB WBZA WJR KGW WRVA WBZ KYW KDKA KSL KGO KOMO KHQ WFAA KPRC WWJ KFI WBEN (KVOO of 10:00) WTAM WJAX 4:00-5:00 U.S. Navy Band -3:00 C.3. NAYY BANG
WABC WGR WEAN WNAC WPG WCAU
WLBW WMAL WCAO WTAR WADC WWNC
WXYZ WSPD WDOD WLAC WDSU WISN 9:30-10:00 Camel Pleasure Hour WJZ WBZ WBZA WHAM KDKA WREN WLW KYW WSJS WRVA WJR KWK WIOD WJAX WFLA WSUN 9:30-10:00 Savino Tone Pictures WABC WKBW WNAC WPG WFAN WJAS
WLBW WMAL WTAR WWNC WXYZ WDOD
WLAC WDSU WISN WTAQ WCCO KMOX
KMBC KFH WACO KLZ KFRC CFRB 10:00-10:15 Vitality Personalities
WABC WADC WJAS WNAC WKBW WBBN
WKRC WBT WXYZ WOWO KMBC KOIL
WCAU WEAN KMOX WFBL WSPD WMAI WNAC WKBW WBBM 7:30-7:45 Evangeline Adams, Astrologer
WABC WFBL WHEC WGR WEAN WDRC
WNAC WCAU WCAO WDBJ WTAR WADC WWNC WGST WXYZ WLAC WBRC WDSU WCCO KMOX KMBC WDRC WGST WBRC WRR KTRH WFBM KLRA WISN WCAH WLAC WDSU KFJF WKRC WAIU WHK WDOD WREC WLAC WFBM WGL WCCO WSPD

KTRH CFRB

WISN

KLRA

KOIL

KFJF

WRR

KTSA

KFPY

KDYL KHJ

KOIN KFRC KOL

10:15-10:30 Gypsy Trail
WABC WKBW WGR WEAN WNAC WPG
WCAU WJAS WLBW WMAL WTAR WADC
WWNC WXYZ WSPD WDOD WLAC WDSU
WISN WTAQ KMOX KRLD KLZ CFRB

WISN WTAQ KMOX KRD KLZ CFRB
10:30-11:00 Columbia Concerts Programs
WABC WHEC WLBZ WEAN WNAC WORC
WPG WJAS WLBW WMAL WCAO WTAR
WDBJ WWNC WXYZ WBCM WSPD WDOD
WFBM WMAQ WCCO KSCJ WMT KMOX
KMBC WDAY WNAX WIBW KFJF KTRH KLZ KOL

10:30-11:00 Coca Cola Program WEAF WREI WTIC WJAR WTAG WCSH WEAF WCAE WSAI WOC KSD WRVA KSTP WOC WEBC WLIT WRC WJAX KŸW WSMB KTHS WSM KPRC WOAI KOA KSL KGO KOMO WJDX WGY KECA WDAF KOW KHQ WHAS WTAM WOW KFSD WMC WSB WHO WBEN

11:00-11:15 Guy Lombardo and His Orchestra 11:00-11:15 Guy Lombardo and His Orchestra
WABC WHEC WLBZ WEAN WNAC WORC
WPG WCAU WLBW WCAO WTAR WDBJ
WHK WWNC WXYZ WBCM WSPD
WREC WFBM WCCO KSCJ WMT KMOX
KKBC WDAY WNAX KOIL WIBW KFH
KFJF KTRH KLZ KOL CFRB
11:15-12:00 Vincent Lopez and bis Orchestra
WEAF WRC WCAE KSD WGY WLIT
WOC WHO (WWJ WFLA WSUN off 11:15)

(WAPI WDAF on 11:15)

KMBC KFH

Thursday

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

11:30-11:45 Odorono-Cutex Program WJZ WHAM KDKA KWK WREN WLW WOAI WBZ WBZA WIBO KPRC WKY WJR WFAA KVOO WJR

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

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

5:30-5:45 Rinso Talkie WEEI WTIC WTAG WJAR WLIT WGY WBEN WCAE WTAM WWJ WOC WHO WSAI KYW WEAF WRC KSD

7:00-7:30 Mid-Week Federation Hymn Sing WEAF 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 WNAX KOIL KFJF KTRH KFPY KFRC

7:45-8:00 Friendly Five Footnotes WJZ WBZ WBZA W WBZA WREN KWK KFAB WJDX WRVA WPTF WJAX WIOD WSUN KGO KECA KOMO EHQ KFSD WBAL KDKA WIBO KOA WSMB WFLA KTAR KSL

WGAK 8:00-8:30 The First Nighter WJZ WBZ WBZA WBAL WCKY KDKA WGAR WJR WIBO WREN KWK KFAB WHAM

8:00-9:00 Fleischmann Hour -- Rudy Vallee -9:00 Fleischmann Hour -- Rudy Vallee WEAF WEEI WTAG WJAX WIOD WJDX WJAR WCSH WFI WRC WGY WCAE WHO WOW WDAF WWJ WHAS KTAR WSMB WEBC KOA WRVA WSB WMC

KOMO WOAI WSM WOC WAPI KHQ KECA KSD CKGW WTAM KSTP WGN KPRC WBEN (WTMJ KSL KGO KGW KTHS WSAI WBAP WKY of 8:30)

8:30-8:45 Kaltenborn Edits the News 8:30-8:45 Kaltenborn Edits the News
WABC WFBL WGR WEAN WDRC WNAC
WORC WCAU WJAS WMAL WCAO WADC
WKK WKRC WXYZ WSPD
WCCO KMOX KMBC KOIL
8:300-9:00 Salada Salon Orchestra
WJZ WBZ WBZA WBAL WHAM KDKA
WJR WIBO KWK WREN KFAB WGAR

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

9:00-9:15 Premier Salad Dressers WABC WHEC WKBW WPG WJAS WLBW
WMAL WCAO WTAR WWNC WXYZ WSPD
WDOD WLAC WDSU WISN WTAQ KMBC
KFH KRLD WACO KLZ KOH

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

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

9:15-9:30 Old Gold Character Readings WABC WFBL WHEC WGR WDRC WNAC WORC WPG WJAS WLBW WCAO WTAR WLBZ WEAWCAU WHP WTAR WDBJ WADC WAIU WKBN WWNC WBT
WQAM WDBO WDAE WXYZ
WDOD WREC WLAC WBRC
WOWO WFBM WBBM WCCO
KMOX KMBC KLRA WDAY WHK WKRC WTOC WGST WBCM WSPD WDSU WISN KSCJ WMT WNAX KOIL KTSA KLZ KOIN KHJ WIBW KFH KFJF KRLD KDYL KVI KFRC

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

9:30-10:00 Detective Story Magazine
WABC WFBL WKBW WEAN WDRC WNAC
WKAU WJAS WKBW WSPD WOWO WBBM KMOX
KMBC WXYZ WSPD WOWO WBBM KMOX

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

10:00-10:30 The Lutheran Hour WABC WHEL WKBW WEAN WDRC WNAC
WCAU WJAS WMAL WCAO WADC WK
WKRC WXZ WSPD WDSU WOWO WBBM
WCCO WMI KMOX KMBC WNAX KOIL KDYL KOL KRLD KLZ KFRC KHJ

10:00-11:00 Lucky Strike Dance Orchestra
WEAF WEEI WJAR WTAG WCSH WFI
WRC WGY WCAE WWJ WSAI WBI WSAI WBEN wow WOAI KOA KSL WKY KSD WHAS WSM WDAF WJAX WMC WSMB WTMJ WIOD KPRC WEBC KYW KVOO WRVA WFLA KTAR (KGO WSUN WSB WFAA KFSI KOMO KHQ KFSD

WORC WFAN WHP WJAS WLBW WMAG WCAO WTAR WDBJ WADC WHK WKBN WBT WXYZ WBCM WSPD WLAC WBRC

KLZ CFRB	KFJF KRLI		WNAX KTSA	WHAS KYW WEBC WCKY WSM WRVA WSB WAPI WOAI KOA KSL KGO KECA KGW KOMO KHQ KFSD KTAR
11:00-11:15 Ben Berni WABC WHEC	e and His Orch	estra	W.O. O	WJR WGAR
WCAU WHP	WLBZ WEAT WLBW WMA	N WNAU L WCAO	WTAR	9:00-10:00 True Story Hour
WDBJ WWNC WREC WLAC KMOX KMBC	WXYZ WBC	M WSPD	WDOD	WABC WEBL WKRW WEAN WORD WNAC
WREC WLAC	WBRC WEBA	4 WCCO	WMT	WCAU WJAS WMAL WCAO WADC WHK WKRC WXYZ WSPD WOWO WMAQ KMOX
KMOX KMBC	WDAY WNA	KKOIL	WIBW	KMBC KOIL
CERR	KTRH KTSA		KOL	9:30-9:45 Enna Jettick Songbird
11:15-12:00 Cab Callov WEAF WWJ WDAF WTAM	vav and his Orc	hestra		WEAF WEEL WJAR WTAG WCSH WRC
WEAF WWJ	WOW WFI	KSTP	WJDX	WILL WIT WHEN WEAR WWI WRAT
WDAF WTAM	WOC WHO	WIBO	WGY	WENR KSD WOC WHO WOW WDAF CKGW WTAM CFCF
WCAE 11:30-12:00 Radio Rou				CKGW WTAM CFCF
WABC WKBW	WEAN WNAC	WPG	WCAU	9:30-10:00 Armour Program
WLBW WMAL	WCAO WTAF	WADC	WWNC	WJZ WBZ WBZA WJR KYW WREN KSTP WEBC WRVA WMC WSB WGAR
WXYZ WSPD	WCAO WTAF WDOD WLAC	WDSU	WISN	WOAI KOA KSL KGO WKY WHAS
WTAQ WCCO	KMBC KFH	WACO	KLZ	KGW KHO KOMO KDKA WIAY WIDY
CFRB				WIOD WTMJ WAPI WHAM KWK WSM
	Friday			WLW WSMB KFI
4:00-5:00 Dansing Mal	dia			9:45-10:00 Two Troupers
4:00-5:00 Dancing Mel WEAF WTAG V	WCAE WEIC	WTAM	WWI	WEAF WEEI WJAR WTAG WCSH WRC WLIT WGY WBEN WSAI KSD WOC
		WBEN	** ****	WHO WDAF WCAE WTAM WWJ WOW
4:45-5:00 Rhythm Ram				10:00-10:30 Armstrong Quakers
WABC WGR WMAL WTAR WDOD WLAC	WEAN WNAC	WPG	WLBW	WJZ KDKA WBZ WBZA KYW KWK
WDOD WLAC A	VIDSII WINN	WAYZ	WSPD	WHAM KPRC WJR WTMJ WEBC WHAS
KMOX KMBC I	KRLD WACC	KLZ	КОН	WOM WOB WUAI KUA WSMR KSL
KERC CERB			71011	KGW KOMO KHQ WMC KFI WBAP WCKY KTHS KSTP KVOO WKY
5:00-5:45 Light Opera	Gems			WCKY KTHS KSTP KVOO WKY 10:00-10:30 Eastman Program
WABC WKBW WLBW WCAO WXYZ WBCM W	WGR WDRO WTAR WAIU	WHP WKBN	WJAS	WEAF WJAR WCSH WCAE WWJ KSD
WXYZ WBCM V	WSPD WREC	WLAC	WRRC	WSAI WRC WREN WLIT WTAG WGV
WISN WGL V	NCCO KSCJ	WLAC KMOX	WDAY	WIAM WOW WENR KGO KGW KOMO
KOIL KFH I	XFJF KRLD	KTRH	KTSA	KHO KOA KSL KTAR KESD KEI
KLZ CFRB 6:00-6:45 Winegar's Ba	01			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
WARC WGR V	VEAN WIAS	WIRW	WOAO	WABC WFBL WKBW WEAN WDRC WNAC
WTAR WADC V	WWNC WDOL	WLAC	WDSU	WCAU WJAS WMAL WCAO WADC WHK WKRC WGST WXYZ WSPD WDSU WMAQ
WABC WGR V WTAR WADC V WISN WTAQ V	VBBM KFH	KRLD	KLZ	WCCO KMOX KMBC KOIL
				10:30-11:00 The March of Time
7:00-8:00 Major Bowes WEAF WJAR WWJ WENR W	VCSH WLIT	WREN	WCAR	WABC WFBL WKBW WEAN WDRC WNAC WCAU WJAS WMAL WCAO WADC WHK WKRC WXYZ WSPD WOWO WBBM KMOX
WWJ WENR V	VOC WHO	WBEN KSTP	WHAS	WCAU WJAS WMAL WCAO WADC WHK
WIND WEB V	VSMB KUA	KGO	KECA	KMBC KOIL
KGW KOMO F				
7:45-8:00 Brownbilt Foo WJZ WBZ V	VBZA WREN	KWK	KFAB	10:30-11:00 RKO Theatre of the Air WEAF WEEI WJAR WTAG WLIT WGY
	VRVA WPTF	WJAX	WIOD	WCAE WWJ WSAI WIBO KSD WDAF
WELA WEIDI U	UTFAC MICA	WAPI	WSMB	WRVA WJAX WIOD WMC WSB WSMB
WJDX WOAI V	VIBO KOA	KSL	KDKA	WOO WIDE RED KTHS WOAT WKY
WSB WLW F 8:00-8:30 Nestle's Prog	ISTP WGAR			WRC KOA KGW KFI KHQ KOMO KTAR KFSD WCSH WHO WOW KSL
WJZ WBZ V	VBZA WHAN	I WIBO	KWK	WTAM WFLA WSUN WBEN
WREN KFAB V	VJR WLW	KDKA	WGAR	11 00 11 20 N 11 C' 1 1 1 1 1 1 0 1
8:00-9:00 Cities Service	Concert Orche	stra		WABC WKBW WEAN WDRC WNAC WORC WCAU WLBW WCAO WTAR WDBJ WHK WKBN WBT WXYZ WBCM WSPD WREC WLAC WBRC WISN WOWO WCCO MAOY
WEAF WEEL W WJAR WCSH W	VTIC WLIT	WRC	WCAE	WCAU WLBW WCAO WTAR WDBJ WHK
KSTP WTMJ V	VKY WOC	KSD KOA	WDAF WEBC	WYRN MRI. MYXZ MRCW MSDD MKEC
WOAI KOMO K	GO KGW	KHQ	KSL	WLAC WBRC WISN WOWO WCCO KMOX WDAY WNAX KOIL WIBW KFH KFJF
WTAG CKGW K	CECA WHO	WSAI	WTAM	WKBN WBT WXYZ WBCM WSPD WREC WLAC WBRC WISN WOWO WCCO KMOX WDAY WNAX KOIL WIBW KFH KFJF KTRH KLZ KFPY CFRB
WBEN WWJ (WFAA KPRC	off 8:30)		11:00-12:00 Vincent Lopez and His Orchestra
8:30-9:00 The Dutch M	asters VCD WEAK	WDDC	WNAG	WEAF WGY CKGW WTIC WOC WHO
WCAU WIAS V	VMAL WCAO	WADC	WKRC	(WRC WWJ off 11:15) (KOA KSTP WDAF
WABC WFBL W WCAU WJAS W WXYZ WSPD W	VBBM WCCO	KMOX	KMBČ	on 11:45) (KSD on 11:30) (WCFL on 11:15- 11:30) (WFJC WLIT off 11:30)
KOIL				11.20 12.00 D
8:45-9:00 Natural Bridg	e Revue	TITLE TO AT		WARC WHEC WIRZ WORC WIRW WMAI
WJZ WHAM K WIOD WIBO W	DKA KWK VBZ WBZA	WREN WFLA	WJAA	WCAO WTAR WDBJ WKRC WWNC WXYZ
WRVA WJR		HILLA	HOUN	WBCM WDOD WREC WLAC WBRC WCCO
9:00-9:30 Clicaunt Club	Eskimos			WASC WHEC WLBZ WORC WLBW WMAL WCAO WTAR WDBJ WKRC WWNC WXYZ WBCM WDOD WREC WLAC WBRC WCCO WMT KMBC WDAY WNAX KOIL WIBW KFH KFJF KTRH KLZ CFRB
WEAF WEEL W	TIC WJAR OW WCAE	WTAG	WCSH	WITH WEST KIMH KIM OLKB
WLIT WRC W KSD WWJ W	OW WCAE	WSAI WHO	WIBO WGY	Saturday
WBEN		11 110	ii G I	1:30-2:00 Savoy Plaza Orcho-t-
9:00-9:30 Interwoven Pa	air			1:30-2:00 Savoy Plaza Orchestra WABC WHEC WLBZ WEAN WCAU WHP WJAS WMAL WCAO WTAR WDBJ WKRC WAIU WWNC WXYZ WBCM WSPD WDOD WLAC WBRC WIBW CFRB
WJZ WHAM W WREN KPRC K		WJAX	WKY	WJAS WMAL WCAO WTAR WDBJ WKRC
WREN KPRC K WSMB WIOD W		WBZA WTMJ	KGW	WAIU WWNC WXYZ WBCM WSPD WDOD
HOME HIOD W	TAN HJR	11 1 1/17	TOIL	MING MRKC MIRM CLKR

5:30-5:45 Peter van Steeden and Orchestra WJZ KWK WHAM KDKA WMC WSB WSMB

WSMB
6:00-6:30 Ted Husing's Sportslants
WABC WFBL WFAN WHP
WDBJ WADC WHK WAIU
WREC WLAC WBRC WISN
WCCO KSCJ WDAY KOIL
KFJF KRLD KTRH KTSA KLZ
KOL KFPY KHJ KFRC CFRB

6:15-6:45 Smith Ballew and His Orchestra WJZ WBZ WBZA WRC KFAB KWK

7:00-7:15 Freddie Rich and His Orchestra
WABC WHEC WLBZ WORC WHP WJAS
WLBW WCAO WTAR WDBJ WHK WKRC
WWNC WXYZ WBCM WDDJ WBRC WFBM
KSCJ WMT WDAY KOIL WIBW KFH
KFJF KOL KFRC CFRB

T:15-7:30 Laws That Safeguard Society
WEAF WJAR WTAG WCSH WFI WGY
WBEN WJ WOC WHO WOW WEBC
WOAI KOA KGO KEOA KOMO KHQ
KTAR WJDX WEEL

7:15-7:30 Armand Vecsey and his Orchestra
WHEC WGR WEAN WNAC WJAS
WMAL WCAO WTAR WADC WHK
WSPD WDDD WDSU WTAQ KFH
WACO KOH KFRC

7:30-7:45 Snoop and Peep

WEAF WIAR WTAG WBEN WSAI WOC

WHO WOW WTMJ KSTP WEBC WIOD

WFLA WSUN KGO CFCF

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

7:45-8:00 "The Highroad of Adventure"
WEAF WTAG WBEN WCAE WTAM WWJ
WSAI WOC WHO KSTP WEBC KGO
KGW KFSD KTAR

7:45-8:00 Pickard Family WJZ WHAM KWK WREN WIBO WGAR

8:00-8:15 Dixies Circus WJZ WBAL KDKA KYW WHAM WBZ WBZA WOAI KSTP KPRC WKY CKGW WGAR

8:00-8:15 Webster Program — Weber and Fields
WEAF WEEI WJAR WTAG WCSH WFI
WRC WGY WBEN WCAE WTAM WWJ
WSAI WIBO KSD WOC WHO WOW
WDAF WTMJ KSTP KOA KSL WEBC

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

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

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

8:30-9:00 The Silver Flute

WEAF WEEI WTAG WCSH WRC WFI

WGY WCAE WWJ WSAI KSD WDAF
WIOD

| S:30-9:00 Fuller Man | WIZ | WBZA |

8:45-9:00 The Early Bookworm

WABC WKBW WEAN WDRC WNAC WORC

WPG WCAU WHP WJAS WLBW WMAL

WCAO WDBJ WADC WKBN WBT WXYZ

WBCM WSPD WLAC WBRC WISN WOWO

WMAQ KSCJ KMOX WDAY WNAX KOIL

KFH KFJF KRLD KTRH KTSA

KVI KFPY KHJ KFRC CFRB

9:00-9:30 Around the Samovar

WABC WKBW WEAN WNAC WJAS WLBW
WTAR WWNC WXYZ WSPD WDOD WLAC
WDSU WISN WTAQ WMAQ KMOX KMBC
KFH KLZ CFRB

KFH KLZ 9:00-10:00 General Electric Hour WEAF WEEL WJAR WTAG WCSH WFI WRC WGY WBEN WCAE WTAM WWJ WOC WOW WDAH WEBC WRVA WJAX WAPI WSMB WBAF WDAF WIBO KSD WSAI KŠŤP WTMJ WKY WHAS WMC WSB KPRC WOAI KOA KSL KGO KFI KFSD KGW KOMO KHQ KTAR

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

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

11:30-12:00 Guy Lombardo and His Orchestra
WABC WHEC WLBZ WEAN WNAC WORC
WPG WFAN WHP WLBW WMAL WCAO
WTAR WDBJ WKRC WWNC WXYZ WBCM
WDOD WREC WLAC WBRC WFM WCOO
KSCJ WMT KMBC WDAY WNAX KOIL
WIBW KFJF KRLD KTRH KLZ KOL

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

12:00-1:00 Smith Ballew and His Orchestra WEAF WRC KSTP KPRC WSB WBEN KOA (WTAM KSD on 12:30)

NOTICE OF COPYRIGHT

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KEY

Frequency in kilocycles. Wave lengths in meters. Second column symbols: * Verifies receptions 2c; sends station stamp 10c; † Verifies 2c; no stamp; ‡ Does not verify; § Did not reply. 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

Manitoba Telephone System

550 kilocycles 545.1 meters

CMCJ KFDY	Ť	250 500	ī	Havana, Cuba Brookings, S. D.
KFUO	*	500	2+	St. Louis, Mo.
KFYR	†	1000	1+	Bismarck, N. D.
KOAC		1000		Corvallis, Ore.
KSD	†	500	2N	St. Louis, Mo.
WGR	*	1000	С	Buffalo, N. Y.
-WKRC	t	1000	Č	Cincinnati Ohio

96

Rafael Rodriguez
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	\mathbf{X} +	Beaumont, Texas
KLZ	*	1000	Ĉ'	Denver, Colo.
KTAB	*	1000		San Francisco, Cal.
WFI	*	500	1N	Philadelphia, Pa.
WIBO		1000	3+N	Chicago, Ill.
WLIT		500	1N	Philadelphia, Pa.
WNOX	*	1000	\mathbf{x} +	Knoxville, Tenn
WPCC	*	500	38	Chicago, Ill.
WOAM	*	1000	C_	Miami Fla

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, Texa
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	С	Yankton, S. D.
WNYC	t	500	3	New York City
WSYR		250	2	Syracuse, N. Y.
-WWNC	*	1000	C	Asheville, N. C.

Wichita Falls Broadcasting Co.
KMTR Radio Corp.
American Radio Tel. Co.
Ohio State University
W. P. Williamson, Jr.
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	38	Toronto, Ont.
⊸CKCL	*	500	3	Toronto, Ont.
-CKNC		500	3	Toronto, Ont.
CKUA	t	500	4	Edmonton, Alta.
KGFX		200	D	Pierre, S. D.
KSAC		500	$^{2}+$	Manhattan, Kans.
-WIBW	*	1000	2+C	Topeka, Kansas
WOBU	*	250	1	Charleston, W. Va.
WSAZ	*	250	1	Huntington, W. Va.
WTAG	•	250	N	Worcester, Mass.

Dominion Battery Co.
The Dominion Battery Co.
Canadian National Carbon Co., Ltd.
University of Alberta
Dana McNeil
State Agricultural College
Topeka Broadcasting Assn., Inc.
WOBU, Inc.
WSAZ, Inc.
Telegram Publishing Co.

500.1	-:11-	5	08.2 maters			
			08.2 meters	Columbus Commer	cial & Radio Co.	KCYS
−CMW KHO	700 1000	588 +N	Havana, Cuba Spokane, Wash.	Louis Wasmer, Inc.		670
KHQ WCAJ	* 500	1	Lincoln, Nebr.	Nebraska Wesleyan Edison Elec, Illumi	University nating Co.	MTRS
-WEEĬ WKZO	† 1000 * 1000	N DY	Boston, Mass. Berrien Springs, Mich.	WKZO Inc.	_	447
-wow	* 1000	IN	Omaha, Nebr.	Woodmen of the Woodmen of the Woodmen	orid av Cia.	DIAL
XEZ	* 500	588	Mexico City			
600 1	kilocycle	es 4	99.7 meters	7.8		-
CJRM	† 500	4	Moose Jaw, Sask. Fleming, Sask. Ottawa, Ont.	Jas. Richardson & Jas. Richardson &	Sons, Ltd. Sons, Ltd.	
CJRM CJRW CNRO	500 500	3	Ottawa, Ont.	Canadian National	Railways	i
KFSD	* 500 250	+N	San Diego, Cal. Storrs, Conn.	Airfan Radio Corp. Conn. Agricultural	College	
WCAC WCAO	* 250	2+ C	Baltimore, Md.	Monumental Radio	o. Inc.	
WICC -WMT	* 500 * 500	2D C	Bridgeport, Conn. Waterloo, lowa Memphis, Tenn.	Bridgeport Broadca Waterloo Broadcast	ting Co.	i
WREC	* 500	+c	Memphis, Tenn.	WREC, Inc.		
610 1	kilocycle	es 4	91.5 meters	75		
KFRC	* 1000	C	San Francisco, Cal.	Don Lee, Inc.		
WDAF	* 1000	N	Kansas City, Mo.	Kansas City Star C Keystone Broadcas	o. ting Co., Inc.	
WFAN WIP	* 500 * 500	2C 2	Philadelphia, Pa. Philadelphia, Pa.	Gimbel Bros. Co.		
-WJAY	† 500	D	Cleveland, Ohio	Cleveland Radio Br	oadcasting Corp.	
620 1	kilocycl	es 4	83.6 meters	725		1
KGW	* 1000	+N	Portland, Ore.	Oregonian Publishi	ing Co.	
KTAR	* 500	+N	Phoenix, Arizona	KTAR Broadcastin Chamber of Comm	g Co.	
KTAR WFLA WLBZ	* 1000 * 500	I+N C	Clearwater, Fla. Bangor, Maine	Maine Broadcastin	g Co., Inc.	
-wsun	* 1000	1+N	St. Petersburg, Fla.	Chamber of Comm Milwaukee Journal		
-WTMJ	* 1000	+N	Milwaukee, Wis.	Milwaukee Journal		
630 1	kilocycle	es 4	75.9 meters	70		
CECT	* 500		Victoria, B. C. Yorkton, Sask.	Victoria Broadcasti Winnipeg Grain Ex		
CJGX CNRA	∓ 500 ∓ 500		Moncton, N. B.	Canadian National	Railways	
KFKU	* 500	1 1	Columbia, Mo. Evansville, Ind.	Stephens College Evansville on the A	ir, Inc.	
-WGBF -WMAL	* 250	$+\mathbf{C}$	Washington, D. C.	M. A. Leese State Marketing Bı		
WOS XET	* 500 † 500	1	Jefferson City, Mo. Monterrey, Mex.	Mexico Music Co.,	S. A.	
	•				1	
640 1	kilocycle	es 4	68.5 meters	178 -		
CHRC	100	645	Quebec, Que.	E. Fontaine Arturo Hernandez		
CMHJ -KFI	40 5000	645 NX	Cienfuegos, Cuba Los Angeles, Cal.	Earle C. Anthony, 1	Inc.	
WAIU	* 500	C Dn D	Columbus, Ohio Ames, Iowa	American Insuranc State College of Ag	riculture	
WOI XFG	* 5000 2000	638	Mexico City	Secretaria de Gueri	ra y Marina	
650 1	kilocycl	os 4	61.3 meters	45		
	KHOCYCIC	Dn		Queen City Broadc	asting Co.	
KPCB WSM	* 5000	N	Seattle, Wash. Nashville, Tenn.	National Life & Acc	cident Ins. Co.	
XER	101	10	Mexico City	Armida y Cia.		
660 1	kilocycl	es 4	154.3 meters	63		
CHWK	† 5		Chilliwack, B. C.	Chilliwack Brdcstg.	. Co., Ltd.	
ČMCO	225		Havana, Cuba Omaha, Neb.	J. L. Stowers Omaha Grain Exch		
WAAW WEAF	* 500 † 50000	D N	Omaha, Neb. New York City	National Broadcast	ing Co., Inc.	
T. DAK	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					
670 1	kilocycle	es 4	47.5 meters	61		
- WMAQ		C	Chicago, Ill.	WMAQ, Inc		ĺ
- WMAQ	* 5000	C	Cnicago, III.	W.11174 Q., A.114		

680 kilocycles 440.9 meters	5-7
	27
KFEQ * 2500 D St. Joseph, Mo. KPO † 5000 N San Francisco, Cal.	Scroggin & Co., Bank Hale Bros. & The Chronicle
WPTF * 1000 N Dn Raleigh, N. C.	Durham Life Insurance Co.
XETF 500 Veracruz, Mex.	Manuel Angel Fernandez & Cia. Wesley United Church
50. Johns, 14. 1.	Wesley United Church
690 kilocycles 434.5 meters	57
CFAC - 500 1 Calgary, Alta. CFCN - 500 1 Calgary, Alta.	The Calgary Herald
CHCA * 500 1 Colored Ata	Western Broadcasting Co.
CJCJ * 500 1 Calgary, Alta.	The Western Farmer Albertan Publishing Co., Ltd
-CKGW * 5000 2N Toronto, Ont. CNRC - 500 1 Calgary, Alta.	Albertan Publishing Co., Ltd. Gooderham & Worts, Ltd. Connelion National Bully
-CPRY 5000 2 Toronto Ont	Canadian National Ranways
Arlington, Va.	Canadian Pacific Railways U. S. Navy
diaco Day, 11, 6,	Canadian Marconi Co.
700 kilocycles 428.3 meters	55
WLW * 50000 N Cincinnati, Ohio	Crosley Radio Corp.
710 kilocycles 422.3 meters	535
KMPC 500 Dn Los Angeles, Cal.	R. S. MacMillan
WOR 5000 Newark, N. J.	Bamberger Broadcasting Service, Inc.
720 kilocycles 416.4 meters	3 2
WGN † 25000 N Chicago, Ill. XEN † 1000 719 Mexico City	Chicago Tribune
	Cia. Civil de Inversiones
730 kiłocycles 410.7 meters	50
CHLS 500 1 Vancouver, B. C. CHYC 5000 28 Montreal, Que.	W. G. Hassell
CHYC * 5000 2S Montreal, Que. CKAC * 5000 2C Montreal, Que.	Northern Electric Co., Ltd.
CKCD - 50 1 Vancouver R C	La Presse Publishing Co. Led
CKFC † 50 1 Vancouver, B. C. CKMO - 50 1 Vancouver B. C.	Vancouver Daily Province United Church of Canada
CKFC † 50 1 Vancouver, B. C. CKMO - 50 1 Vancouver, B. C. CKWX † 100 1 Vancouver, B. C.	Sprott-Shaw Radio Co.
- 3000 - Ilavana, Cuba	A. Holstead & Wm. Hanlon Cuban Broadcasting Co., Hotel Plaza
CNRM * 5000 2 Montreal, Que. XEM † 500 Tampico, Mex.	Cuban Broadcasting Co., Hotel Plaza Canadian National Railways
	Herbert H. Denny y Cia.
740 kilocycles 405.2 meters	485
KMMJ 1000 Dn Clay Center, Neb.	The M. M. Johnson Co.
	Atlanta Journal Co.
750 kilocycles 399.8 meters	47
TIC - 50 - San Jose, Costa Rica WJR † 5000 N Detroit, Mich. XEQ - 1000 - Juarez, Mex.	WJR, The Goodwill Station, Inc.
	Feliciano Lopez Islas
760 kilocycles 394.5 meters	77 6
KVI * 1000 C Dn Tacoma, Wash.	Puget Sound Broadcasting Co., Inc.
WEW * 1000 D St. Louis, MoWJZ † 30000 N New York City	St. Louis University
	National Broadcasting Co., Inc.
770 kilocycles 389.4 meters	4 4
-KFAB	KFAB Broadcasting Co.
WRBM * 25000 1C Chicago, III. -WJBT 25000 1S Chicago, III.	The Atlas Co., Inc. The Atlas Co., Inc.
780 kilocycles 384.4 meters	4/2
CKY 5000 3 Winnipeg, Manitoba	Manitoha Talanha S
CNRW 5000 3 Winnipeg, Manitoba	Manitoba Telephone System Canadian National Railways
RELW 500 2 Burbank, Cal.	Tt
KTM # 500 2 # 1 == 4 === 1 == C :	Union Bank & Trust Co.
KTM • 500 2+ Los Angeles, Cal. WEAN • 250 +C Providence, R. I.	Union Bank & Trust Co. Pickwick Broadcasting Corp. Shepard Broadcasting Service, Inc.

WIS	INDEX BI FREQUENCIES A	IND DIAL NOMBERS
CMBS	WPOR 500 1 Norfolk, Va. WTAR 500 1C Norfolk, Va.	Dillard & Brown, Receivers WTAR Radio Corp. WTAR Radio Corp.
Tulnucu, Cube KGO 75000 N San Francisco, Cal. WCV † 50000 N San Francisco, Cal. Schenectady, N. Y. 800 kilocycles 374.8 meters WRAP † 10000 1XN Entworth, Texas Dallas, Texas Gobierno del Estado de Aguascalientes MTR. 810 kilocycles 370.2 meters WCCO * 7500 C Minneapolis, Minn. New York City WPCH * 5000 D Min Louisville, Ky. XFI 10000 N Louisville, Ky. XFI 10000 N Louisville, Ky. XFI 10000 N D Galnesville, Fla. 820 kilocycles 361.2 meters CMGA 100 834 Colon, Cuba Denver, Mass. WRIF * 5000 D Galnesville, Fla. WRUF * 5000 D Galnesville, Fla. WRUF * 5000 D Mexico City Mexico City No. Ci	790 kilocycles 379.5 meters	4/7=4
WBAP † 10000 1XN Fort Worth, Texas Dallas, Texas Dallas, Texas Dallas, Texas Dallas, Texas Surperson Dallas, Texas Surperson Dallas, Texas Dallas, Texas Dallas, Texas Dallas, Texas Dallas, Texas Surperson Dallas, Texas Surperson Dallas, Texas Dallas, Texas Dallas, Texas Dallas, Texas Surperson Dallas, Texas Surperson Dallas, Texas Dallas, Texas Surperson Dallas, Texas Dallas, Texas Dallas, Texas Surperson Dallas, Texas Dallas, Texas Dallas, Texas Surperson Dallas, Texas Dal	CMBS - 150 Havana, Cuba CMHC - 500 Tuinucu, Cuba KGO † 7500 N San Francisco, Cal.	Frank H. Jones National Broadcasting Co., Inc. General Electric Co.
WRAP † 10000 1N N Solar Personal Process of the Pro	800 kilocycles 374.8 meters	
WCCC + 7500 C Mineapolis, Minn. New York City WPCH • 500 D Mex York City 820 kilocycles 365.6 meters WHAS † 10000 N Mexico City S30 kilocycles 361.2 meters CMGA 1 100 814 Colon. Cuba ENHOH † 12500 D Mexico City WHDH + 5000 D Mexico City WHOH † 1000 D Mexico City S40 kilocycles 356.9 meters CFCA † 500 1 Toronto, Ont. CitCT 1000 Red Deer, Alta. Commercity Trabajo CKIC † 1000 T Red Deer, Alta. Chem. Colon. Colon	WBAP † 10000 1XN Fort Worth, Texas WFAA - 50000 1N Dallas, Texas	Carter Publications, Inc. News & Journal MTRS.
WCCO * 7500 C Minneapolls, Minn. Northwestern Broadcasting, Inc. Bastern Br	810 kilocycles 370.2 meters	DIAL
***XFI	"WCCO * 7500 C Minneapolis, Minn.	
***XFI	820 kilocycles 365.6 meters	372
CMGA 1 12508 N Denver, Colo. WHDH 1000 D Boston, Mass. WRUF * 5000 Dn Gainesville, Fla. 840 kilocycles 356.9 meters CFCA † 500 1 Toronto, Ont. CHCT 1000 2 Red Deer, Alta. CMC * 500 845 Havana, Cuba CNRD † 1000 1 Toronto, Ont. XETY 2 2000 — Mexico City 850 kilocycles 352.7 meters KWKH * 10000 1 Shreveport, La. WWL * 5000 1 New York City WBOQ 5000 N Ew York City WBOQ 5000 N Ew York City WBOQ 5000 N Ew York City WHB * 5000 D Kansas City, Mo. WFR 5000 IN Chicago, Ill. 870 kilocycles 344.6 meters CMHH 10000 IN Chicago, Ill. 870 kilocycles 344.6 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 880 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 880 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chic	-WHAS † 10000 N Louisville, Ky.	
CMGA 1 12508 N Denver, Colo. WHDH 1000 D Boston, Mass. WRUF * 5000 Dn Gainesville, Fla. 840 kilocycles 356.9 meters CFCA † 500 1 Toronto, Ont. CHCT 1000 2 Red Deer, Alta. CMC * 500 845 Havana, Cuba CNRD † 1000 1 Toronto, Ont. XETY 2 2000 — Mexico City 850 kilocycles 352.7 meters KWKH * 10000 1 Shreveport, La. WWL * 5000 1 New York City WBOQ 5000 N Ew York City WBOQ 5000 N Ew York City WBOQ 5000 N Ew York City WHB * 5000 D Kansas City, Mo. WFR 5000 IN Chicago, Ill. 870 kilocycles 344.6 meters CMHH 10000 IN Chicago, Ill. 870 kilocycles 344.6 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 880 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 880 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMHH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chicago, Ill. 870 kilocycles 340.7 meters CMH 5000 IN Chic	830 kilocycles 361.2 meters	365
CFCA † 500 1 Toronto, Ont. CHCT 1000 2 Red Deer, Alta. CKLC † 1000 2 Red Deer, Alta. CMC * 500 845 Havana, Cuba CNRD † 1000 2 Red Deer, Alta. CNRT * 500 1 Toronto, Ont. XETY 2000 - Mexico City WKH * 10000 1 Shreveport, La. WWL * 5000 1 New Orleans, La. 850 kilocycles 348.6 meters CMJE 5 856 Camaguey, Cuba KMO 5000 XC New York City WHB * 5000 D Kansas City, Mo. XFX 500 D Kansas City, Mo. XFX 5000 IN Chicago, Ill. WWS † 5000 IN Chicago, Ill. WENR 50000 IN Chicago, Ill. WENR	CMGA - 100 834 Colon, Cuba -KOA † 12500 N Denver, Colo. -WHDH - 1000 D Boston, Mass.	National Broadcasting Co., Inc.
CKLC + 1000 2 Red Deer, Alta. CMC * 500 845 Havana, Cuba CNRD + 1000 2 Red Deer, Alta. CNRT + 500 1 Toronto, Ont. XETY - 2000	840 kilocycles 356.9 meters	35 \$
-KWKH * 10000 1 Shreveport, La. New Orleans, La. 860 kilocycles 348.6 meters CMJE	CFCA † 500 1 Toronto, Ont. CHCT - 1000 - Red Deer, Alta. CKLC † 1000 2 Red Deer, Alta. CMC * 500 845 Havana, Cuba CNRD † 1000 2 Red Deer, Alta. CNRT * 500 1 Toronto Ont.	Alberta Pacific Grain Co., Ltd. Cuban Telephone Co. Canadian National Railways Canadian National Railways
-KWKH * 10000 1 Shreveport, La. New Orleans, La. 860 kilocycles 348.6 meters CMJE	850 kilocycles 352.7 meters	343
CMJE - 5 856 Camaguey, Cuba KMO - 500 + Dn Tacoma, Wash. WABC * 5000 XC New York City WBOQ - 5000		
WABC 5000 XC New York City WABC 5000 XC New York City WHB 5000 D Kansas City, Mo. XFX 5000 D Kansas City, Mo. XFX 500 D Kansas City XFX 500 D		335
CMHH - 10	-WABC * 5000 XC New York City -WBOQ 5000 New York City WHB * 500 D Kansas City, Mo.	KMO, Inc. Atlantic Broadcasting Corp. Atlantic Broadcasting Corp. WHB Broadcasting Co.
WENR - 50000 IN Chicago, Ill. 880 kilocycles 340.7 meters -CHML * 50 4 Hamilton, Ont. CICE * 500 - Sydney, N. S. CKCI	870 kilocycles 344.6 meters	325
-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. CANADAM COMPANY COMPANY CHARACTER OF THE COLOR	CMHH - 10 - Cifuentes, Cuba -WENR - 50000 IN Chicago, III. -WLS † 5000 IXN Chicago, III.	National Broadcasting Co., Inc.
CHML * 50 4 Hamilton, Ont. Maple Leaf Radio Co., Ltd. CJCB * 50 Sydney, N. S. N. Nathanson CKCI † 22.5 3 Quebec, Que. Le "Soleil," Ltd. CNRQ † 50 3 Quebec, Que. G. A. Vandry CNRQ † 50 2+ Greeley, Colo. Midwestern Radio Corp. KFKA † 500 2- Oakland, Cal. Tribune Publishing Co. KPOF * 500 2 Denver, Colo. Pillar of Fire, Inc. WCOC - 500 + Meridian, Miss. Mississippi Broadcasting Co., Inc. WGBI * 250 1 Scranton Broadcasters, Inc.	880 kilocycles 340.7 meters	
	-CHML * 50 4 Hamilton, Ont. CJCB * 50	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

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000 1 11	1	-	26.0	
890 K110		es s	36.9 meters	3/
CFBO * CKCO ‡	500		St. John, N. B.	C. A. Munro, Ltd.
CKCO ‡ CKPR	100 50	***	Ottawa, Ont. Port Arthur, Ont.	Dr. G. M. Geldert
CMCF †	250		Havana, Cuba	Dougall Motor Car Corp. Casa Karman
CMX *	500		Havana, Cuba	Francisco Lavin
-KFNF	500 250	2+	Shenandoah, Iowa	Henry Field Co
KGJF * KUSD *	500	$\hat{2}$	Little Rock, Ark. Vermillion, S. D.	Church of the Nazarene University of South Dakota Georgia School of Technology
WGST •	250	2+ 1+C 2+	Atlanta, Ga. Urbana, Ill.	Georgia School of Technology
WILL *	250 250	2+	Urbana, Ill.	University of Illinois
WJAR * WKAQ * WMAZ †	500	+N	Providence, R. I. San Juan, P. R.	The Outlet Co. Radio Corp. of Porto Rico
WMAZ †	250	1+	Macon, Ga.	Junior Chamber of Commerce
WMMN * XES †	250 500	+	Fairmount, W. Va.	Holt-Rowe Broadcasting Co.
			Tampico, Mexico	Difusora Portena XES
900 kilo	cvcle	~ 3	33.1 meters	3 1
KGBU †	500		Ketchikan, Alaska	Alacka Padia 9: C + C
KHJ * KSEI *	1000	C	Los Angeles, Cal.	Alaska Radio & Service Co. Don Lee, Inc.
KSEI *	250	Ñ.	Pocatello, Idaho Buffalo, N. Y.	KSEI Broadcasting Association In-
-WBEN *	1000 1000	N N	Buffalo, N. Y. Jacksonville, Fla	Buffalo Evening News
WJAX * WKY *	1000	Ñ	Oklahoma City	Buffalo Evening News City of Jacksonville WKY Radiophone Co.
WLBL *	2000	D	Oklahoma City Stevens Point, Wis.	Wisconsin Dept. of Markets
910 kilo	ovole	20 2	20 6 motors	
OFOC KIIC	Cycle		29.6 meters	29
CFQC CHNS •	500 500	1 3	Saskatoon, Sask. Halifax, N. S.	The Electric Shop, Ltd.
" CJGC ∗	5000	3 2	London, Ont.	Halifax Herald, Ltd. Free Press Printing Co., Ltd.
*CJGC * CNRH *CNRL *	500	3 2	London, Ont. Halifax, N. S.	Canadian National Railways
CNRS -	500 500	1	London, Ont.	Canadian National Railways
			Saskatoon, Sask.	Canadian National Railways
920 kilo	cycle	es 3	25.9 meters	28
CMHD	250		Caibarien, Cuba	Manuel A. Alverez
HHK *	1000	2	Port au Prince, Haiti	Republic of Haiti
KFEL †	500 500	1	Denver, Colo.	Republic of Haiti Eugene P. O'Fallon, Inc. Colorado Radio Corp. Fisher's Plate 10 Corp.
KOMO +	1000	N	Denver, Colo. Seattle, Wash.	
KPRC *	1000	+N D	Houston, Texas Chicago, Ill.	Fisher's Blend Station, Inc.
WAAF WBSO	500 500	D	Chicago, Ill.	Drovers Journal Publishing Co.
-wwj †	1000	N	Needham, Mass. Detroit, Mich.	Houston Printing Co. Drovers Journal Publishing Co. Babson Statistical Organization, Inc. The Detroit, News
XFF	250	915	Chihuahua, Mex.	Gobierno del Estado de Chihuahua
020 1::10	.02201		22.44	
930 kilo	500		22.4 meters	27
CJCA * CFRC	500 500	4	Edmonton, Alta.	The Edmonton Journal, Ltd.
KFWI †	500	1	Kingston, Ont. San Francisco, Cal.	Redio Entertainment
KGBZ KMA *	500	2+	York, Nebr.	Dr. George R. Miller
KROW *	500 500	1 + X	Shenandoah, Iowa Oakland, Cal.	May Seed & Nursery Co.
WRDC *	500	2+ 2+ 1+X +C	Birmingham, Ala.	Dr. George R. Miller May Seed & Nursery Co. Educational Broadcasting Corp. Birminghem Broadcastety Co.
WDBJ * WIBG *	250 50	+0	Roanoke, Va.	Richardson-Wayland Elec. Corn
		S	Elkins Park, Pa.	Birmingham Broadcasting Corp. Birmingham Broadcasting Co., Inc. Richardson-Wayland Elec. Corp. St. Pauls P. E. Church
940 kilo	cycle	es 3	19.0 meters	36
KGU †	1000			Marion A. Mulrony
KOIN *	1000 300	C D	Honolulu, Hawaii Portland, Ore.	KOIN, Inc.
WAAT WCSH * WDAY *	1000	N	Jersey City, N. J. Portland, Maine	Bremer Broadcasting Corp.
WDAY *	1000		rargo, N. D.	Congress Square Hotel Co.
→WFIW * WHA	1000 750	D	Hopkinsville, Ky.	WDAY, Inc. WFIW, Inc.
XEO	5000	17	Madison, Wis. Mexico City	University of Wisconsin
950 1/10	ovol.	20 2		National Revoluncionario Party
950 kilo	150	28 J 955	15.6 meters	252
CMBD	150	955 955	Havana, Cuba Havana, Cuba	Domingo Fernandez
KFWB *	1000		FIGUVWOOD, Cal.	Luis Perez Garcia Warner Bros. Broadcasting Corp.
KGHL KMBC	1000 1000	Ĉ.	Billings, Mont.	NOTEDWestern Auto Supply Co. Inc.
-WRC †	500	Ň	Kansas City, Mo. Washington, D. C.	Midiand Broadcasting Co. Inc.
			geom, D. C.	National Broadcasting Co., Inc.

960 1	cilo	cycle	s 3	312.3 meters	23			
-CFCY -CFRB CHCK CHWC		250 5000 100 500	1 2C 1	Charlottetown, P. E. I. Toronto, Ont. Charlottetown, P. E. I. Regina, Sask. Regina, Sask.	The Island Radio Rogers-Majestic W. E. Burke R. H. Williams &	Corp., L Sons. L	td.	
CJBR CKCK CNRR CNRX	Ť	500 500 500 5000	3 3 3 2	Regina, Sask. Regina, Sask. Regina, Sask. Toronto, Ont.	Cooperative Whe Leader Publishir Canadian Natior Canadian Natior	ng Co., L nal Railw	td. ays	
	cilo	cycle		09.1 meters	245			
CMGF KJR WCFL XED	*	50 5000 1500 10000	977 N Dn 977	Matanzas, Cuba Seattle, Wash. Chicago, Ill. Reynosa, Mex	Bernabe R. de la Northwest Broad Chicago Federat International Br	icasting S ion of La	bor	
980 1	kilo	cycle	s 3	805.9 meters	24			
-KDKA	15	50000	N	Pittsburgh, Pa.	Westinghouse El	lec. & Mf	g. Co.	
990 1	kilo	cycle	s 3	302.8 meters	13			
-WBZ-A		15000	1N	Springfield-Boston	Westinghouse El	lec. & Mf	g. Co.	ксуs. 1040
1000	kil	ocycl	es	299.8 meters	2 ÷			MTRS.
KFVD WHO WOC XEA	*	250 5000 5000 101 50	Dn 1N 1N	Culver City, Cal. Des Moines, Iowa Davenport, Iowa Guadalajara, Mex. Toluca, Mex.	Los Angeles Broa Central Broadca Central Broadca Alberto Palos Sa Jesus R. Benavio	sting Co. sting Co. uza les		288.3 DIAL
XEC XEE XEF XEFE XEI	*	10 105 101 101 101		Linares, Mex. Oaxaca, Mex. Laredo, Mex. Morelia, Mex. Juarez, Mex. Mexico City	Lic. Mariano Ber Alfonso Zorilla E Rafael T. Carran Carlos Gutierrez Juan G. Buttner	rlanga 3. 1za : M.		
XEJ XEK XEL XEU XEV XEY	:: ::	101 10 101 101 101 105		Mexico City Saltillo, Mex. Veracruz, Mex. Puebla, Mex. Merida, Mex.	Arturo Martinez Antonio Garza C Fernando Pazos Ciro Molina Socialist Party d	: Castro	ste	
	kil	ocycl	es	296.8 meters	213			
CFLC CKCR CKIC CMBW CMBZ CMCX KGGF KQW WHN WIS	*	50 50 50 150 150 250 500 500 250	3 3 2 1	Prescott, Ont. Waterloo, Ont. Wolfville, N. S. Havana, Cuba Havana, Cuba Havana, Cuba S. Coffeyville, Okla. San Jose, Cal. New York City Columbia, S. C.	Radio Associatio John Patterson Acadia Academy M. Alvarez Manuel y G. Sal "El Mundo" Powell & Platz Pacific Agricultu Marcus Loew Bo South Carolina l	as iral Foun ooking Ag Broadcas	gency	
WNAD -WPAP WQAO	•	5 00 250 250	2 1 1	Norman, Ökla. New York City New York City New York City	University of Ok Palisades Amuse Calvary Baptist	lahoma ment Pa: Church	rk	B B B
WRNY	1-11	250	1		Aviation Radio S	reaction, 1	nc.	
-KFKX -KYW WRAX	* †	ocycl 10000 10000 250	IN IN IN D	293.9 meters Chicago, Ill. Chicago, Ill. Philadelphia, Pa.	Westinghouse El Westinghouse El WRAX Broadcas	lec. & Mf	g. Co. g. Co.	# 1 4 2 1 1
1030	kil	ocycl	es	291.1 meters	20 t.			
-CFCF CMKC CNRV XEB	** †	1650 150 500 1000	N 1034	Montreal, Que. Santiago de Cuba Vancouver, B. C. Mexico City, Mex.	Canadian Marco M. P. Martinez Canadian Natior El Buen Tono, S.	nal Railw	ays	A. marine
1040	kil	ocycl	es	288.3 meters [26			
FKRLD KTHS WKAR WMAK	*	10000 10000 1000 1000	1C 1N D Dn	Dallas, Texas Hot Springs, Ark. East Lansing, Mich. Buffalo, N. Y.	KRLD Radio Con Chamber of Com Michigan State (Buffalo Broadcas	omerce College	p.	

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Second Process Seco		•	
KRX * 5000 Dn Hollywood, Cal. 1000 kilocycles 282.8 meters RWJJ * 5000 Dn Portland, Ore. 1000 Dn Baltimore, Md. WJAG * 5000 Dn Hollywood, Cal. 282.8 meters RWJJ * 5000 Dn Baltimore, Md. WJAG * 5000 Dn Hollywood, Cal. 280.2 meters CMBG * 150	1050 kilocycles 28	5.5 meters	
RWJJ - 5000 Dn Norfolk, Nebr. Williamore, Md. WJAG 1000 Dn Norfolk, Nebr. Hartord, Conn. 1070 kilocycles 280.2 meters CMBG 150 Havana, Cuba Havana, Cuba KBS 100 D San Francisco, Cal. WCBS 100 D Cartage, Ill. WJAG 1000 N Corestand, Ohio Corestand, Ohio Corestand, Ohio Somo I Dn Cartage, Ill. WMB 1 5000 I Cartage, Ill. WMB 1 5000 I Dn Cartage, Ill. WMB 1 5000 I Cartage, Ill. WMB 2 500 I Cart	KFKB * 5000 Dn Mi KNX * 5000 X Ho	ilford, Kansas Farmers 8	Bankers Life Insurance Co.
RWJJ - 5000 Dn Norfolk, Nebr. Williamore, Md. WJAG 1000 Dn Norfolk, Nebr. Hartord, Conn. 1070 kilocycles 280.2 meters CMBG 150 Havana, Cuba Havana, Cuba KBS 100 D San Francisco, Cal. WCBS 100 D Cartage, Ill. WJAG 1000 N Corestand, Ohio Corestand, Ohio Corestand, Ohio Somo I Dn Cartage, Ill. WMB 1 5000 I Cartage, Ill. WMB 1 5000 I Dn Cartage, Ill. WMB 1 5000 I Cartage, Ill. WMB 2 500 I Cart	1060 kilocycles 28	2.8 meters	
1070 kilocycles CMBT	KWJJ - 500 Dn Po WBAL * 10000 1N Ba WJAG * 1000 Dn No WTIC * 50000 1N He	ortland, Ore. altimore, Md. orfolk, Nebr. KWJJ Bre Consolida Norfolk D	ted Gas Elec. & Pwr. Co. ailv News
CMBC	1070 kilocycles 28	0.2 meters	
Note	CMBG - 150 - He CMBT - 150 - He CMCB - 150 - He KJBS * 100 D Sa WCAZ - 50 D Ca WDZ † 100 D Tu -WTAM * 50000 N Cle	avana, Cuba avana, Cuba avana, Cuba avana, Cuba avana, Cuba In Francisco, Cal. arthage, III. James L. James L. James L.	ran unton & Sons Co. Broadcasting Service Bush
WBT * 5000 C Charlotte, N. C. WCBD * 5000 1 Dn WMBI * 500	1080 kilocycles 27		
CMAA 30 1094 Matanzas, Cuba Matanzas, Cuba Matanzas, Cuba St. Louis, Mo. 1100 kilocycles 272.6 meters CMKD 20 Santiago, Cuba St. Louis, Mo. 1110 kilocycles 250 DX Steckten, Cal. New York City N. J. 1110 kilocycles 270.1 meters CMHI 15 Santa Clara, Cuba Sioux Falls, S. D. WYG Stoux Falls, S. D. Laviz y Paz Sioux Falls Broadcasting Assn., Inc. Larus & Bros. Co., Inc. 1120 kilocycles 267.7 meters CFIC 100 Kamloops, B. C. Hamilton, Ont. Summerside, P. E. I. Lethbridge, Alta. Hamilton, Ont. Spokane, Wash. Los Angeles, Cal. Hamilton, Cont. KFIG \$100 D Spokane, Wash. Los Angeles, Cal. WDBL \$100 D Spokane Broadcasting Corp. Eche Park Evang. Assn. Dalten's, Inc. N. S. Dalgleish & Sons The Hamilton Spectator R. T. Holman, Ltd. Harold R. Carson Wentworth Radio & Auto Sply. Co., Ltd Spokane Broadcasting Corp. Eche Park Evang. Assn. Dalten's, Inc. N. S. Dalgleish & Sons The Hamilton Spectator R. T. Holman, Ltd. Harold R. Carson Wentworth Radio & Auto Sply. Co., Ltd Spokane Broadcasting Corp. Eche Park Evang. Assn. Dalten's, Inc. N. S. Dalgleish & Sons The Hamilton Spectator R. T. Holman, Ltd. Harold R. Carson Wentworth Radio & Auto Sply. Co., Ltd Spokane Broadcasting Corp. Eche Park Evang. Assn. Dalten's, Inc. N. S. Dalgleish & Sons The Hamilton Spectator R. T. Holman, Ltd. Harold R. Carson Wentworth Radio & Auto Sply. Co., Ltd Spokane Broadcasting Corp. Eche Park Evang. Assn. Dalten's, Inc. N. S. Dalgleish & Sons The Hamilton Spectator R. T. Holman, Ltd. Harold R. Carson Wentworth Radio & Auto Sply. Co., Ltd Spokane Broadcasting Corp. Eche Park Evang. Assn. Dalten's, Inc. N. S. Dalgleish & Sons The Hamilton Spectator R. T. Holman, Ltd. Harold R. Carson Wentworth Radio & Auto Sply. Co., Ltd Spokane Broadcasting Corp. Eche Park Evang. Assn. Dalten's Mentworth Radio & Auto Sply. Co., Ltd Spokane Broadcastin	WBT * 5000 C Ch WCBD • 5000 1 Dn Zic WMBI • 5000 1 Dn Ch XEH - 5000 - Mc	narlotte, N. C. Station W on, Ill. Wilbur Gl nicago, Ill. Moody Bil	enn Voliva ole Institute
CMGI - 30 1094 Matanzas, Cuba St. Louis, Mo. 1100 kilocycles 272.6 meters CMKD - 20	1090 kilocycles 27	5.1 meters	
CMKD * 250 DX Steckten, Cal. New York City Atlantic City, N. J. 1110 kilocycles 270.1 meters CMHI	CMAA 30 Gu CMGI 30 1094 Ma KMOX * 50000 1CX St.	atanzas, Cuba Armando . Louis, Mo. Voice of S	Lizama
KGDM * 2500 DX Steckten, Cal. New York City WPG * 5000 1 C New York City WPG * 5000 1 C New York City WPG Broadcasting Corp. 1110 kilocycles 270.1 meters CMHI	1100 kilocycles 27	2.6 meters	
CMHI	KGDM * 250 DX Ste -WLWL * 5000 1 Ne -WPG * 5000 1C Ati	ex York City E. F. Peffe Missionar	y Society of St. Paul
CMHI	1110 kilocycles 270	0.1 meters	
1120 kilocycles 267.7 meters CFJC 100 Kamloops, B. C. CHGS 100 Kamloops, B. C. CHGMI 100 D Kamloops, B. C. CHGMI 100 Mash. CHGMI 100 Kamloops, B. C. CHGMI 100 Mash. CHGMI 100 Mash. Chamloops, B. C. CHGMI 100 Mash. Chamloops, Alta. Chamloops, Alta. Chamloops, Alta. Chamloops, Alta. Chamloops, Alta. Chamloops, B. C. CHGMI 100 Mash. Chamloops, B. C. CHGMI 100 Mash. Chamloops, B. C. Chempin 100 Mash. Chamloops, B. C. Chempin 100 Mash. Chamloops, B. C. Chempin 100 Mash. Chamloops, Alta. Chempin, Lamilton Spectator Chamloops, Alta. Chamloops, Alta. Chaml	CMHI - 15 - Sai KSOO * 2000 Dn Sid WRVA * 5000 N Rid	nta Clara, Cuba Dux Falls, S. D. chmond, Va. Laviz y Pa Sioux Fall Larus & B	z s Broadcasting Assn., Inc. ros. Co., Inc.
CFJC - 100	1120 kilocycles 262		
1130 kilocycles 265.3 meters KSL * 5000 N Salt Lake City Mooseheart, III. New York City 1140 kilocycles 263.0 meters CMGD * 5000 IN Tulsa, Okla. Birmingham, Ala. Mexico City WAPI - 5000 IN Birmingham, Ala. Mexico City 1150 kilocycles 260.7 meters CMCQ - 600 Meters Mexico City Mexic	CFJC - 100 - Ka CHCS - 10 4 Ha CHCS * 100 - Su CJOC † 50 - Let CHCOC * 50 4 Ha KFIO † 100 D Sp KFSG * 500 3 Le KFIO † 500 3 Le KFIO † 500 2C Ho WDBO * 500 + C Orl WDBL † 250 + X Wi WHAD * 250 1 Mi WTAW * 500 2 Co	mileops, B. C. milton, Ont. mmerside, P. E. I. thbridge, Alta. milten, Ont. okane, Wash. s Angeles, Cal. glewood, Cal. attle, Wash. suston, Texas lando, Fla. limingten, Del. lilwaukee, Wis. limileops, B. C. N. S. Dalg The Hami Harold R. Wentwert Okane, Ventwort Harold R. Wentwert Okane, Oplane Beche Park Radio Sale Rice Hotel WDEL, In Marquette Liwaukee, Wis. Liwaukee, Wis.	Iton Spectator nan, Ltd. Carson n Radio & Auto Sply. Co., Ltd readcasting Corp. Evang. Assn. Inc. s Corp. roadcasting Co., Inc. c. University isconsin Co.
KSL * 5000 N Moseheart, III. Moseheart, III. Loyal Order of Moose International Broadcasting Corp. 1140 kilocycles 263.0 meters CMGD * 5000 IN Birmingham, Ala. Mexico City WAPI - 5000 IN Birmingham, Ala. Mexico City 1150 kilocycles 260.7 meters CMCQ - 600 Mexico City CMCQ - 600 Mexico City CMCQ - 600 Mexico City Havana, Cuba Cienfuegos, Cuba Cienfuegos, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Cienfuegos, Cuba Havana, Cuba Cienfuegos, Cuba Havana, Cuba Cienfuegos, Cuba Havana, Cuba Cienfuegos, Cuba C	1130 kilocycles 265		
1140 kilocycles 263.0 meters CMGD * 5000 IN Tulsa, Okla. WAPI - 5000 IN Birmingham, Ala. XETA - 500 - Mexico City 1150 kilocycles 260.7 meters CMCQ - 600 - Havana, Cuba Cienfuegos, Cuba Cienfuegos, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Southwestern Sales Corp. Alabama Polytechnic Institute Manuel Espinosa Tagle Andres Martinez Fox Bross Co. Jose Fernandez	KSL * 5000 N Sal WJJD * 20000 C Dn Mo WOV - 1000 D Ne	ooseheart, Ill. Loval Orde	er of Moose
CMGD		3.0 meters	
CMCQ - 600 - Havana, Cuba Andres Martinez CMHA - 200 1154 Cienfuegos, Cuba Fox Bross Co. CMQ † 250 - Havana, Cuba Jose Fernandez	**************************************	rmingham, Ala. Alabama I	ern Sales Corp. Polytechnic Institute
CMCQ - 600 - Havana, Cuba Andres Martinez CMHA - 200 1154 Cienfuegos, Cuba Fox Bross Co. CMQ † 250 - Havana, Cuba Jose Fernandez	1150 kilocycles 260		
	CMCQ 600 Ha CMHA 200 1154 Cie CMQ † 250 Ha	enfuegos, Cuba Fox Bross vana, Cuba Jose Ferna	Co. ndez

				_	AND DIAL NUMBERS	
1160	kil	locycl	les	258.5 meters		
-WOWO -WWVA		10000 5000	1C 1	Ft. Wayne, Ind. Wheeling W. Va.	Main Auto Supply Co. West Virginia Broadcasting Corp.	
1170	kil	ocycl	es	256.3 meters		
CMKG		30	1176	Santiago de Cuba	Ricardo Arnoldo	
-KTNT -WCAU	*	5000 10000	Dn C	Muscatine, Iowa Philadelphia, Pa.	Norman Baker Universal Broadcasting Co.	
	kil	locycl		254.1 meters		
CMGB KEX	ž-	7.5 5000	1185 2	Matanzas, Cuba Portland, Ore.	Jose Anorga Western Broadcasting Co. College of Agriculture & Mech. Arts Dr. George W. Young General Broadcasting System Inc.	
KOB	*	20000	2	State College, N. M.	College of Agriculture & Mech. Arts	
WDGY	*	1000	1 Dn	Minneapolis, Minn.	Dr. George W. Young	
WGBS WHDI	‡	250 500	† Dn	New York City Minneapolis, Minn.	General Broadcasting System, Inc. Wm. Hood Dunwoody Industrial Inst.	
1190	kil	locycl	es	252.0 meters		
-WOA1	*	50000	N	San Antonio, Texas	Southern Equipment Co.	
1200	l-i1	locycl	06	249.9 meters	Southern Equipment Co.	
CECH	KI.	50				
CFCH CMKB KBTM		15		North Bay, Ont. Santiago de Cuba	Northern Supplies, Ltd. Melchor Aguero	
KBTM		100	D	Paragould, Ark.	W. I. Reard's Temple of Music	
KFJB KFWF	Ť	100 100	+	Marshalltown, Iowa St. Louis, Mo. Mandan, N. D.	Marshall Electric Co., Inc. St. Louis Truth Center, Inc. Mandan Radio Association	
KGCU KGDE		100		Mandan, N. D.	Mandan Radio Association	
KGDE	*	100	+	Fermis Falls Minn	Jaren Drug Co.	
KGDY KGEK	+	100 50	9	Huron, S. D. Yuma, Colo. Fort Morgan, Colo.	Voice of South Dakota	
KGEK KGEW	†	100	ý.	Fort Morgan, Colo.	Beehler Elec. Equipment Co. City of Fort Morgan	KCYS.
KGFJ		100		Los Angeles, Cal.	Ben S. McGlashan	1210
KGHI KGY	†	100 10	+	Little Reck, Ark.	Berean Bible Class	
KMLB		10 50	D	Los Angeles, Cal. Little Reck, Ark. Lacey, Wash. Monroe, La. Santa Maria, Cal. Bellingham, Wash. Stocken, Cal.	St. Martin's College G. C. Liner	MTRS.
KSMR	*	100		Santa Maria, Cal.	Santa Maria Radio	247.8
KVOS KWG WABI	*	100 100		Stockton Cal	KVOS, Inc. Portable Wireless Tel. Co., Inc.	
WABI	† *	100		Stockton, Cal. Bangor, Maine New Orleans, La. Ponca City, Okla	Pine Tree Broadcasting Corp.	DIAL
WABZ	*	100	ĭ	New Orleans, La.	Samuel D. Reeka	
WBBZ		100 100		Rapid City, Ukla	C. L. Carrell State School of Mines	1
WCAT WCAX	†	100	2	Rapid City, S. D. Burlington, Vt. Janesville, Wis.	University of Vermont	i
WCLO	†	100		Janesville, Wis.	University of Vermont WCLO Radio Corp.	
-WCOD	† † *	100 100	3 +	Harrisburg, Pa. Emory, Va.	Keystone Broadcasting Corp.	
WEHC WEPS	‡	100		Worcester, Mass.	Emory & Henry College Alfred Frank Kleindienst	
WFBC	*	50		Worcester, Mass. Knoxville, Tenn.	First Baptist Church	1
WFBE WHBC	Ť	100 10	+ 4S	Cincinnati, Ohio	WFBE, Inc.	1
WHBY	Ť	100		Canton, Ohio Green Bay, Wis. Utica, N. Y.	St. John's Catholic Church St. Norbert's College	1
WIBX WIL		100 100	+ 5+ 6	Utica, N. Y.	WIBX, Inc.	
WIBC	*	100	5+ 6	St. Louis, Mo. La Salle, Ill.	Missouri Broadcasting Corp. Kaskaskia Broadcasting Co.	
WJBC WJBL WJBW	†	100	6	Decatul, III.	Commodore Broadcasting, Inc.	
WIBW	*-	100 100	6 1 3	New Orleans, La.	Charles C. Carlson, Jr.	j
WKJC WLAP	Ť	100	+	Lancaster, Pa. Louisville, Ky.	Kirk, Johnson & Co. American Broadcasting Corp. of Ky.	
WLBG	*	100	<u>+</u>	Petersburg, Va.	Robert Allen Comble	
⊸WNBO WNBW	Ť	100 10	4	Washington, Pa.	John Brownlee Spriggs Home Cut Glass & China Co. First Congregational Church	1
WNBX	÷	10	2	Carbondale, Pa. Springfield, Vt.	First Congregational Church	
WORC	*	100	$\mathbf{C}\mathbf{X}$	Worcester, Mass. La Porte, Ind.	Aured Frank Kleindienst	
WRAF WRBL	*	100 5 0	8	La Porte, Ind.	Chas. Middleton	
-WWAE	+	100	8	Columbus, Ga. Hammond, Ind.	David Parmer Hammond-Calumet Broad, Corp.	
10-BP	*	25		Wingham, Ont.	Radio & Electric Shop	
	kil	locycl	les	247.8 meters		
CFCO CFNB	ž-	100 100		Chatham, Ont.	Western Ontario "Better Radio" Club	
CJOR	*	50		Fredericton, N. B. Sea Island, B. C.	James S. Neill & Sons, Ltd. G. C. Chandler	1
CJOR CKMC		15		Cobalt, Ont.	R. L. MacAdam	
						-1.

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				DI IIW QUENCIEU M	IND DIAL NOMBERS
CKPC	t	25	+	Preston, Ont.	Metal Shingle & Siding Co.
KDFN	†	100		Casper, Wyo.	Donald Lewis Hathaway
KDLR		100		Devils Lake, N. D.	VDI D. L.
KFOR	*	100	Ŧ-		KDLR, Inc.
KFVS	*			Lincoln, Nebr.	Howard A. Shuman
		100	6	Cape Girardeau, Mo.	Hirsch Battery & Radio Co.
KFXM	Ţ	100	9	San Bernardino, Cal.	J. C. & E. W. Lee
KGCR	† § *	100		Watertown, S. D.	Cutler's Radio Brdcstg. Service, Inc.
KGMP	Ş	100		Elk City, Okla.	Bryant Radio & Electric Co.
KGNO		100	400	Dodge Čity, Kans.	Dodge City Broadcasting Co.
KMJ	*	100		Fresno, Cal.	James McClatchy Co.
KPPC	§	50	<u>9</u>	Pasadena, Cal.	Pasadena Presbyterian Church
KWEA	*	100		Shreveport, La.	Hello World Broadcasting Corp.
-WALR	*	100		Zanesville, Ohio	Roy. W. Waller
WBAX	*	100	ī	Wilkes-Barre, Pa.	John H. Stenger, Jr.
WBBL	t	100	7S	Richmond, Va.	Grace Covenant Pres. Church
WCBS	÷	100		Springfield, III.	U. I. Danier & Class March
WCOH		100	2 3		H. L. Dewing & Chas. Messter
WCRW	*	100	4	Yonkers, N. Y.	Westchester Broadcasting Corp.
WDWF		100	5	Chicago, Ill.	Clinton R. White
WEBQ	*	100	6	Providence, R. 1.	Dutee W. Flint
WEDC	-			Harrisburg, Ill.	First Trust & Savings Bank
WEDU	*	100	4	Chicago, Ill.	Emil Denemark, Inc.
WGBB		100	3	Freeport, N. Y.	Harry H. Carman
WGCM		100		Gulfport, Miss	Great Southern Land Co., Inc.
WHBF	*	100		Rock Island, Ill.	Beardsley Specialty Co.
WHBU	*	100		Anderson, Ind.	Citizens Bank
WIBU	*	100	2	Poynette, Wis.	Wm. C. Forrest
WJBI	*	100	3	Red Bank, N. J.	Monmouth Broadcasting Co.
WJBU		100	1	Lewisburg, Pa.	Bucknell University
WJBY	*	50		Gadsden, Ala.	Gadsden Broadcasting Co., Inc.
wjw	*	100		Mansfield, Ohio	Mansfield Broadcasting Assn.
WĽCI	*	50		Ithaca, N. Y.	Lutheran Assn. of Ithaca
–WLSI		100	5	Providence, R. I.	The Lincoln Studios, Inc.
WMBG	*	100		Richmond, Va.	Havens & Martin, Inc.
WMRJ	*	100	3	Jamaica, N. Y.	Peter J. Prinz
-WOCL	*	50		Jamestown, N. Y.	A. E. Newton
WOMT	*	100	~ ~ ~	Manitowoc, Wis.	Francis M. Kadow
WPAW	*	100	5	Pawtucket, R. I.	Shartenburg & Robinson Co.
WODX	*	100	2	Thomasville, Ga.	Stevens Luke
WRBQ	+	100	+	Greenville, Miss.	J. Pat. Scully
WSBC	†	100	4	Chicago, Ill.	World Pottony Co. Inc.
WSEN	t	100		Columbus, Ohio	World Battery Co., Inc.
WSEN WSIX		100		Coldinates, Onto	Columbus Broadcasting Co.
WSOC		100		Springfield, Tenn.	638 Tire & Vulcanizing Co.
WTAX	Ť	100	2	Gastonia, N. C.	WSOC, Inc.
XEX	1	500		Springfield, III.	WTAX, Inc.
ALA		500		Mexico City	Excelsior, Cia Editorial S. A.
1220	kil	ocyc	les	245.8 meters	

1220 kilocycles 245.8 meters

CIVICA		190	1220	navana, Cuba
CMCN		250	1225	Havana, Cuba
KFKU	*	500	1	Lawrence, Kans.
KWSC	*	1000	+	Pullman, Wash.
WCAD	*	500	Ď	Canton, N. Y.
-WCAE		1000	N	Pittsburgh, Pa.
WDAE		1000	C	Tampa, Fla.
WREN		1000	ĬN	Lawrence, Kans.
				Daniel Italio

1230 kilocycles 243.8 meters

KFQD KGGM KYA WBIS WFBM WNAC WPSC	* * *	100 250 1000 1000 1000 1000 500	+ 1C 2C D	Anchorage, Alaska Albuquerque, N. Mex San Francisco, Cal. Boston, Mass. Indianapolis, Ind. Boston, Mass. State College, Pa.
WSBT	Ť	500	ĩ	South Bend, Ind.
1240	1. • 1		1	241.0

1240 kilocycles 241.8 meters

1050	4 .4		4	
WXYZ	t	1000	C	Detroit, Mich.
WACO	+	1000	1C	Waco, Texas
KTAT	†	1000	1	Ft. Worth, Texas
CMKE	- +	250	1249	Santiago de Cuba
CMGH		60	1249	Matanzas, Cuba
CMAB	- 41	20	1249	Pinar del Rio, Cuba

1250 kilocycles 239.9 meters

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

M. Cruz
Antonio Ginard
University of Kansas
State College of Washington
St. Lawrence University
Gimbel Bros.
Tampa Publishing Co.
Jenny Wren Co.

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

Francisco Martinez Alberto Alvarez Edmundo Recamier S. A. T. Broadeast Co. Central Texas Broadcasting Co., Inc. Kunsky-Trendle Broadcasting Corp.

Carleton College Nichols & Warinner, Inc. Boise Broadcasting Station

	IN	DEX E	BY FREQUENCIES AN	ND DIAL NUMBERS	
WAAM *WCAL *WDSU WGCP WLB †-WODA WRHM *XEFA	250 1000 1000 1000 250	1+ 2 C 1 2	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	1
1260 k	ilocyc	les	238.0 meters		
KOIL * KRGV * KVOA KWWG * WLBW * WTOC *	1000 500 500 500 500 500 500	C 1 D 1 C+ 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.	
1270 k	ilocyc	les	236.1 meters	103,	
CMJB KFUM KGCA KOL KTW KWLC WASH WBAI WFBR WJDX WOOD	20 1000 50 1000 1000 1000 500 1000 500 1000 500	1276 2D 3C 3 2D 1 D	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 Rroadcasting Co., Inc. First Presbyterian Church Luther College WASH Broadcasting Corp. Cornell University Baltimore Radio Show, Inc. Lamar Life Insurance Co. Walter B. Stiles, Inc.	
1280 k	ilocyc	les	234.2 meters	103	
CMBJ CMBM CMCG CMCH CMCR KFBB -WCAM WCAP -WDOD WIBA WOAX WRR	15 15 30 15 20 1000 500 500 1000	1285 1285 1285 1285 1285 1285 + 1 1 + C	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. WDOD Broadcasting Corp. Capital Times Co. WOAX, Inc. City of Dallas	
1290 k	ilocyc		232.4 meters	7.0]
KDYL KFUL KLCN KTSA WEBC WJAS WNBZ	1000 500 50 1000 1000 1000 50	C 1 D 1+C +N C+ D	Salt Lake City Galveston, Texas Blytheville, 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	1310 MTRS. 228.9
1300 k	ilocyc	les	230.6 meters	10	DIAL
KFH KFJR KGEF KTBI KTBR WBBR WEVD WHAP WHAZ WIOD WOQ	1000 500 1000 1000 500 1000 500 1000	2C 3 4 4 3 1 1 1 1 N 2	Wichita, Kansas Portland, Ore. Los Angeles, Cal. Los Angeles, Cal. Portland, Ore. Brooklyn, N. Y. New York City New York City Troy, N. Y. Miami, Fla. Kansas City, Mo.	Radio Station KFH Co. Ashley C. Dixon & Son Trinity Methodist Church Bible Institute of Los Angeles 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	
1310 k	ilocyc	eles	228.9 meters	934	
CMGC KCRJ KFBK KFGQ KFIU KFJY KFPL KFPM KFUP	30 100 100 100 100 100 100 100 15	1315 7 7	Matanzas, Cuba Jerome, Ariz. Sacramento, Cal. Boone, Iowa Juneau, Alaska Ft. Dodge, Iowa Dublin, Texas Greenville, Texas Denver, Colo.	Oscar Mechoso 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	
KFXJ	100	8	Grand Junction, Colo.	Western Slope Broadcasting Co.	

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KFXR	2.2	100	+	Oklahoma City	Exchange Ave. Baptist Church
KFXR KGBX		100		St. Joseph, Mo.	KGBX Inc.
KGCX		100	+	Wolf Point, Mont.	First State Bank of Vida
KGEZ	ţ	100		Kalispell, Mont.	Treloar-Church Brdcstg. Co.
KGFW	†	100		Ravenna, Neb. Yakima, Wash.	Central Nebraska Broadcasting Corp.
KIT KM E D	I	50 50		Medford, Ore.	Carl E. Haymond Mrs. W. J. Virgin Robert M. Dean
KRMD	‡	50 50	9	Shreveport, La.	Robert M. Dean
KTIC	† •	100	v.	Houston, Tex.	Houston Broadcasting Co.
KTSL	1.0	100	X 9	Shreveport, La.	G. A. Houseman
KTLC KTSL KTSM	*	100	7	Shreveport, La. El Paso, Texas	W. S. Bledsoe & W. T. Blackwell
KWCR	t	100	7	Cedar Rapids, Iowa	Harry F. Paar KXRO, Inc.
KXRO	†	75		Aberdeen, Wash.	KXRO, Inc.
WBEO	*	100	CP	Marquette, Mich.	Charles B. McCleod Banks of Wabash, Inc.
WBOW	*	100		Terre Haute, Ind.	Banks of Wabash, Inc.
WBRE WCLS	¥-	100 100	1	Wilkes-Barre, Pa.	Louis G. Baltimore WCLS, Inc.
WDAH		100	2	Joliet, Ill.	Eagle Broadcasting Co.
WEBR	‡	100	+	El Paso, Texas Buffalo, N. Y. Royal Oak, Mich.	Howell Broadcasting Co., Inc.
-WEBR WEXL	‡	50		Royal Oak, Mich.	Royal Oak Broadcasting Co.
WFRG		100	3+	Altoona, Pa.	Wm. F. Gable Co.
WFDF	*	100		Flint, Mich.	Frank D. Fallain
WGAL WGH	*	100	5	Lancaster, Pa. Newport News, Va.	WGAL, Inc.
WGH	*	100	777-	Newport News, Va.	Hampton Roads Broadcasting Corp.
WHAT	†	100	4X	Philadelphia, Pa.	Independence Broadcasting Co.
WJAC WJAK		100 50	3 6	Johnstown, Pa.	Johnstown Automobile Co. Marl o n Broadcasting Co.
WKAV	*	100	U	Marion, Ind.	Laconia Radio Club
WKAV WKBB		100	ī	Laconia, N. H. Joliet, Ill.	Sanders Bros. Radio Station
WKBC		100		Birmingham, Ala.	R. B. Broyles Furniture Co.
WKBS	*	100		Galesburg, Ill.	Permil N. Nelson
WLBC	t	50	6	Muncie, Ind. Auburn, N. Y. New Bedford, Mass.	Donald A. Burton
WMBO	†	100		Auburn, N. Y.	Radio Service Laboratories
WNBH	*	100	-,	New Bedford, Mass.	New Bedford Broadcasting Co.
-WOBT	†	100	+	Union City, Tenn.	Tittsworth's Radio & Music Shop
WOL WRAW	*	100 100	52	Washington, D. C.	American Broadcasting Co. Reading Broadcasting Co.
WRBI	•	100		Reading, Pa.	Oglethorne University
WROI	+	100		Tifton, Ga. Knoxville, Tenn.	Oglethorpe University Stewart Broadcasting Co.
WROL WSAJ	*	100		Grove City, Pa.	Grove City College
WSJŠ		100		Winston-Salem, N. C.	Grove City College Winston-Salem Journal Co.
	•				
WTEL	•	100	4	Philadelphia, Pa.	Foulkrod Radio Engineering Co.
	1 11		_		Foulkrod Radio Engineering Co.
	kilo		_	227.1 meters	Foulkrod Radio Engineering Co.
1320	kilo	eye1	es	227.1 meters	Foulkrod Radio Engineering Co.
1320 CMJC CMKH		eyel	es	227.1 meters [Feliciano Isaac Alberto Ravelo
1320 CMJC CMKH KGHF		ocycl	es 1321 1327	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch
1320 CMJC CMKH KGHF KGMB	†	15 250 250 500	es 1321 1327 X+	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd.
1320 CMJC CMKH KGHF KGMB KID		15 250 250 250 500 250	es 1321 1327 X+ 1+	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co.
1320 CMJC CMKH KGHF KGMB KID KTFI	†	15 250 250 500 250 250 250	es 1321 1327 X+ 1+ 1+	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co.
1320 CMJC CMKH KGHF KGMB KID KTFI -WADC	†	15 250 250 500 250 250 250 1000	es 1321 1327 X+ 1+ 1+ C	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co.
1320 CMJC CMKH KGHF KGMB KID KTFI	†	15 250 250 500 250 250 250	es 1321 1327 X+ 1+ 1+	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd.
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB	† † † *	15 250 250 500 250 250 250 250 250	1321 1327 X+ 1+ 1+ C	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La.	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Co.
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB	† † † *	15 250 250 500 250 250 250 1000 500	es 1321 1327 X+ 1+ 1+ C N	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters	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.
1320 CMJC CMKH KGHF KGMB KID WADC WSMB 1330 CMJA	† † kilo	15 250 250 500 250 250 1000 500 0cycl	es 1321 1327 X+ 1+ 1+ C N es 1332	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Radio Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB	† † kilo	15 250 250 500 250 250 1000 500 ecycl	es 1321 1327 X+ 1+ 1+ C N es 1332 X	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal.	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. Pedro Nogueras Pickwick Broadcasting Corp.
1320 CMKH KGHF KGMB KID KTFI -WADC WSMB 1330 CMJA KGB	† † kilo	15 250 250 250 250 250 250 1000 500 0Cycl	es 1321 1327 X+ 1+ 1+ C N es 1332 X 1+C	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal.	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co.
1320 CMC CMKH KGHF KGMB KID WADC WSMB 1330 CMJA KGB KSCJ WDRC	kilo	15 250 250 250 250 250 250 250 250 250 1000 250 1000 100	es 1321 1327 X+ 1+ C N es 1332 X 1+C	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn,	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. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp.
1320 CMJC CMKH KGHF KGMB KID KTFI -WADC WSMB 1330 CMJA KGS KSCJ WDRC WSAI	kilo	15 250 250 250 250 250 250 250 1000 500 250 1000 500	es 1321 1327 X+ 1+ C N es 1332 X 1+C C N	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn,	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB KSCJ WDRC WSAI WTAQ	kilo	15 250 250 250 250 250 1000 500 0cycl 10 250 1000 500 500 1000	es 1321 1327 X+ 1+ 1+ C N es 1332 X 1+C N 1332	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis.	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. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp.
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB KSCJ WDRC WSAI WTAQ	kilo	15 250 250 250 250 250 1000 500 0cycl 10 250 1000 500 500 1000	es 1321 1327 X+ 1+ 1+ C N es 1332 X 1+C N 1332	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis.	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB KSCJ WDRC WSAI WTAQ 1340	kilo	15 250 250 500 250 250 1000 500 0cycl 100 500 500 1000 500	es 1321 1327 X+ 1+ 1+ C N es 1332 X 1+C C N 1C es 1345	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Hayana, Cuba	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co.
1320 CMCC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB KSCJ WDRC WSAI WTAQ CMBA	kilo	15 250 250 250 250 250 250 250 250 250 25	es 1321 1327 X+ 1+ CN es 1332 X 1+ CN 1C es 1345 1345	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Hayana, Cuba	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. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada
1320 CMCC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB KSCJ WDRC WSAI WTAQ CMBA	kilo	15 250 250 250 250 250 250 250 1000 0 cycl 1000 500 1000 500 1000 1000 1000 1000	es 1321 1327 X+ 1+ 1+ CN es 1332 X 1+ CCN 1C es 1345 1345 1345	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Hayana, Cuba	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. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB KSCJ WDRC WSAI WTAQ CMBA CMBF CMCD	kilo	15 250 250 250 250 250 250 250 250 250 25	es 1321 1327 X+ 1+ CN es 1332 X 1+ C N 1C es 1345 1345 1345 1345 1345	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGSCJ WDRC WSAI WTAQ 1340 CMBA CMBA CMBA CMCD CMCD	kilo	250 250 250 250 250 250 1000 500 1000 500 1000 500 1000 500 1000 500 1000 500 1000	es 1321 1327 X+ 1+ 1+ CN es 1332 X 1+ C N 1C es 1345 1345 1345 1345 1345 1345	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba	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. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB WDRC WSAI WTAQ CMBA CMBF CMCD CMCY CMCY CMCY	kilo	15 250 250 250 250 250 250 250 250 250 25	es 1321 1327 X + 1+ 1+ 1+ C N es 1332 X + C N 1C es 1345 1345 1345 1345 D	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Fort Smith, Ark.	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co.
1320 CMCH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB KSCJ WDRC WSAI WTAQ CMBA CMBA CMBA CMBA CMCY KFPW	kilo	15 250 250 250 250 250 250 250 250 250 1000 500 0cycl 500 1000 500 500 1000 500 500 1000	es 1321 1327 X+ 1+ 1+ CN es 1332 X 1+ CN 100 100 100 100 100 100 100 10	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash.	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. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co. Symons Broadcasting Co.
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB WDRC WSAI WTAQ CMBA CMBF CMCD CMCY CMCY CMCY	kilo	15 250 250 250 250 250 250 250 250 250 25	es 1321 1327 X+ 1+ 1+ CN es 1332 X 1+ CN 100 100 100 100 100 100 100 10	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Fort Smith, Ark.	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. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co. Symons Broadcasting Co.
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB WDRC WSAI WTAQ CMBA CMBF CMCD CMCY CMCY KFPY WCFPY WCPA WSPD	kilo	0cycl 15 250 250 250 250 250 250 250 250 250 25	es 1321 1327 X + 1+ 1+ 1+ C N es 1332 X + C N 1C es 1345 1345 1345 1345 1345 1345 1345 1345	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensaoola, Fla. Toledo, Ohio	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co.
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB WDRC WSAI WTAQ 1340 CMBA CMBA CMCU CMCU CMCU CMCU KFPW KFPY WSPD 1350	kilo	0cycl 15 250 250 250 250 250 250 250 250 250 25	es 1321 1327 X + 1+ 1+ 1C N es 1332 X + C N 1C es 1345 1345 1345 1345 1345 1345 1345 1345	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co.
1320 CMJC CMKH KGHF KGMB KID WADC WSMB 1330 CMJA KGB KSCJ WDRC WSAI WTAQ CMBA CMBF CMCD CMCY KFPY WCOA 1350 KWK	kilo	0cycl 15 250 250 250 250 250 250 250 250 250 0cycl 1000 500 1000 0cycl 50 17.5 15 50 1000 500 500 500 0cycl 1000 1000	es 1321 1327 X + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1 +	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters St. Louis, Mo.	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Greater St. Louis Broadcasting Corp.
1320 CMJC CMKH KGHIB KID KTFI WADC WSMB 1330 CMJA KGSCJ WDRC WSAI WTAQ 1340 CMBA CMBA CMCD CMCU CMCU CMCU CMCU CMCU CMCU CMCU	kilo	0cycl 15 250 250 250 250 250 250 250 250 250 25	es 1321 1327 X+ 1+ 1+ 1+ 1C N es 1332 X+ C N 1C es 1345 1345 1345 1345 1345 1345 1345 1345	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters St. Louis, Mo.	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. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Greater St. Louis Broadcasting Corp. Pillar of Fire
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB WDRC WSAI WTAQ CMBF CMCD CMCU CMCY KFPY WCOA WSPD 1350 KWK WAWX	kilo	0cycl 15 250 250 250 250 250 250 250 250 250 25	es 1321 1327 X + 1+ 1+ 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Sort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters St. Louis, Mo. New York City New York City New York City	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Greater St. Louis Broadcasting Corp. Pillar of Fire Standard Cabill Co., Inc.
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB KSCJ WTAQ TAQ CMBA CMBA CMBA CMBA CMCD CMCU KFPW WCOA WSPD 1350 KWK WAWZ WBNA	kilo	0cycl 15 250 250 250 250 250 1000 500 0cycl 100 500 1000 0cycl 50 7.5 50 15 50 1000 0cycl 1000 0cycl 250 250 250	es 1321 1327 X+ 1+ 1+ 1C N es 1332 X++ C N 1C es 1345 1345 DC C+ es N 1 1 1	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Sort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters St. Louis, Mo. New York City New York City New York City	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. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Greater St. Louis Broadcasting Corp. Pillar of Fire Standard Cahill Co., Inc. Italian Educ. Broadcasting Co., Inc.
1320 CMJC CMKH KGHF KGMB KID KTFI WADC WSMB 1330 CMJA KGB WDRC WSAI WTAQ CMBF CMCD CMCU CMCY KFPY WCOA WSPD 1350 KWK WAWX	kilo	0cycl 15 250 250 250 250 250 250 250 250 250 25	es 1321 1327 X + 1+ 1+ 1 + 1 + 1 + 1 + 1 + 1 + 1 + 1	227.1 meters Camaguey, Cuba Santiago de Cuba Pueblo, Colo Honolulu, Hawaii Idaho Falls, Idaho Twin Falls, Idaho Twin Falls, Idaho Akron, Ohio New Orleans, La. 225.4 meters Camaguey, Cuba San Diego, Cal. Sioux City, Iowa Hartford, Conn. Cincinnati, Ohio Eau Claire, Wis. 223.7 meters Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Fort Smith, Ark. Spokane, Wash. Pensacola, Fla. Toledo, Ohio 222.1 meters St. Louis, Mo.	Feliciano Isaac Alberto Ravelo C. P. Ritchie & J. E. Finch Honolulu Broadcasting Co., Ltd. KID Broadcasting Corp. Allen T. Simmons Saenger Theatre & Maison Blanche Co. Pedro Nogueras Pickwick Broadcasting Corp. Perkins Bros. Co. Doolittle Radio Corp. Crosley Radio Corp., Lessee Gillette Rubber Co. Oscar Montenegro Jose G. Reigada Angel Bertamaty Jorge Garcia Serra M. D. Autran Southwestern Hotels Co. Symons Broadcasting Co. City of Pensacola Toledo Broadcasting Co. Greater St. Louis Broadcasting Corp. Pillar of Fire Standard Cabill Co., Inc.

1360	kiloo	cycles	220.4 meters	
CMKF		30 1363	Holguin, Cuba	Manuel J. de Gongora
KGER		000 4 500	Long Beach, Cal.	C. Merwin Dobyns
KGIR KPSN	4.	000 4	Butte, Mont. Pasadena, Cal.	KGIR, Inc. Pasadena Star-News
WCSC	*	500	Charleston, S. C.	Jordan & Burk
-WFBL	* 1	000 C+	Charleston, S. C. Syracuse, N. Y. Chicago, Ill.	Onondaga Radio Broadcasting Corp.
-WGES		9UU I+	Chicago, Ill.	Oak Leaves Broadcasting Station, Inc. Johnson-Kennedy Radio Corp.
-WJKS WQBC	3	300 CP E	Gary, Ind. Vicksburg, Miss.	Johnson-Kennedy Radio Corp. Delta Broadcasting Co., Inc.
1370	kiloo	cycles	218.7 meters	
CMGE KCRC		30 1375	Cardenas, Cuba	Genaro Sebater
KFBL	†	$\begin{array}{ccc} 100 & 2+ \\ 50 & 3 \end{array}$	Enid, Okla.	Champlin Refining Co.
KFII		100	Everett, Wash. Astoria, Ore.	Leese Bros. KFJI Broadcasters, Inc.
KFJM KFJZ KFLX		00	Grand Forks, N. D.	University of North Dakota Estate of H. C. Meachem
KFJZ		100 X	Ft. Worth, Texas	Estate of H. C. Meachem
KGAR		100 100 +	Galveston, Texas	George Roy Clough
KGDA		100	Tucson, Ariz. Mitchell, S. D.	Tucson Motor Service Co.
KGFG		00 2	Oklahoma City	Mitchell Broadcasting Corp. Oklahoma Broadcasting Co., Inc.
KGFL	Ť	50	Raton, N. M.	W. E. Whitmore
KGKL	† :	100	San Angelo, Texas	KGKL, Inc., Opr. by Ragsdale Auto W. W. McAllister
KMAC KONO		100 5	San Antonio, Tex. San Antonio, Texas	W. W. McAllister
KONO	T :	100 5 100	San Antonio, Texas	Mission Broadcasting Co.
KRE		100 6	Marshfield, Ore. Berkeley, Cal	H. H. Hanseth, Inc.
KUJ		100	Berkeley, Cal. Walla Walla, Wash.	First Congregational Church Paul R. Heitmeyer
KUJ KVL		100 3	Seattle, Wash.	KVL. Inc.
KWKC		100	Kansas City, Mo. Hayward, Cal.	Wilson Duncan Broadcasting Co. Leon P. Tenney
KZM WBGF		i00 6	Hayward, Cal.	Leon P. Tenney
WBTM	‡ :	50 100 7	Glens Falls, N. Y.	W. N. Parker and H. H. Metcalfe
-WCBM		100 +Z	Danville, Va. Baltimore, Md.	Clarke Electric Co. Baltimore Broadcasting Corp.
WELK		00 +	Philadelphia, Pa.	WELK Broadcasting Station, Inc.
WFDV	:	100	Rome, Ga.	Dolies Goings
WGL		100 C	Fort Wayne, Ind.	Dolies Goings Fred C. Zieg
WHBD WHBQ		100 100	Mount Orab, Ohio	F. P. Moler
WHDF		100 +	Memphis, Tenn. Calumet, Mich. Jackson, Mich.	Broadcasting Station WHBQ, Inc. Upper Michigan Broadcasting Co.
WIBM		100 1	Jackson, Mich.	WIBM Inc.
WJBK WLEY	**	50 1	Detroit, Mich.	WIBM, Inc. James F. Hopkins, Inc.
WLEY		100 + 100 7	Lexington, Mass.	Lexington Air Stations
WLVA WMBR		100	Lynchburg, Va.	Lynchburg Broadcasting Corp.
-WPOE		00	Tampa, Fla. Patchogue, N. Y.	F. J. Reynolds Nassau Broadcasting Corp.
WQDM	*	00 D	St. Albans, Vt.	A. J. St. Antoine
WRAK		.00	Williamsport, Pa.	A. J. St. Antoine C. R. Cummins
WRBJ	‡ ,	10	Hattiesburg, Miss.	Woodruff Furniture Co., Inc.
WRBT	-	00	Wilmington, N. C.	Wilmington Radio Association
WR JN WSVS	*	50	Racine, Wis. Buffalo, N. Y.	Racine Broadcasting Corp. Seneca Vocational School
WRDO	§ 1	50 00 CP	Augusta, Me.	Albert S. Woodson
1380	kiloc	ycles	217.3 meters	
KOH	† 5	00 C	Reno, Nevada	Jay Peters
KQV KSO	† 5	00 2	Pittsburgh, Pa.	Doubleday-Hill Electric Co.
KSO		500 1	Clarinda, Iowa	Berry Seed Co.
WKBH -WSMK		000 1 200 2	La Crosse, Wis. Dayton, Ohio	WKBH, Inc.
				Stanley M. Krohn, Jr.
1390		ycles	215.7 meters	
KLRA KOY		000 1C	Little Rock, Ark.	The state of the s
KUOA		000 1	Phoenix, Ariz. Fayetteville, Ark.	Nielson Radio & Sporting Goods Co.
-WHK		000 C	Cleveland, Ohio	University of Arkansas Radio Air Service Corp.
	kiloc	ycles	214.2 meters	
1400		30 1405	Havana, Cuba	Heriberto Meireles
1400 CMBI			Havana, Cuba	Jose L. Ferriol
CMBI CMBK		15 1405		
CMBI CMBK CMBN		30 1405	Havana, Cuba	Armado Romeu
CMBI CMBK CMBN CMBO		30 1405 50 1405	Havana, Cuba	Emilio Salas
CMBI CMBK CMBN CMBQ CMBX		30 1405 50 1405 30 1405	Havana, Cuba Havana, Cuba Havana, Cuba	Emilio Salas Bertin Fernandez
CMBI CMBK CMBN CMBQ CMBX CMBY KLO	 11 *	30 1405 50 1405 30 1405 100 1405	Havana, Cuba Havana, Cuba Havana, Cuba	Emilio Salas Bertin Fernandez Lino E. Cosculluala
CMBI CMBK CMBN CMBQ CMBX	* 1	30 1405 50 1405 30 1405 100 1405	Havana, Cuba	Emilio Salas Bertin Fernandez

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WBBC WCGU WCMA WFOX WKBF WLTH	† -	500 500 500 500 500 500	2 2 1 2 1 2	Brooklyn, N. Y. Brooklyn, N. Y. Culver, Ind. Brooklyn, N. Y. Indianapolis, Ind. Brooklyn, N. Y.	Brooklyn Broadcasting Corp. U. S. Broadcasting Corp. General Broadcasting Corp. Paramount Broadcasting Co. Indianapolis Broadcasting, Inc. The Voice of Brooklyn, Inc.
1410	kil	осус	les	212.6 meters	
KFLV KGRS —WBCM WDAG WHBL WHIS WLEX WODX —WRBX WSFA WSSH	† * * * † * † † † † † † † † † † † † † †	500 1000 500 250 500 250 500 500 250 500	4 1 C 1X 4 2 <u>Y</u> 3	Rockford, Ill. Amarillo, Texas Bay City, Mich. Amarillo, Texas Sheboygan, Wis. Bluefield, W. Va. Lexington, Mass. Mobile, Ala. Roanoke, Va. Montgomery, Ala. Boston, Mass.	Rockford Broadcasters, Inc. Gish Radio Service James E. Davidson National Radio & Broadcasting Corp. Press Pub. Co. Daily Telegraph Bay State Broadcasting Corp. Mobile Broadcasting Corp. Richmond Development Corp. Montgomery Broadcasting Co., Inc. Tremont Temple Baptist Church
	kil	ocyc	les	211.1 meters	7
CMHE KBPS KFIZ KFQW KFXD KFXD KFXYO KGFF KGGC KGIW KGIX KGKX KGVO KICK KLPM KORE KTAP KXL WEDH WELL WFDW WHDL WHFS WIBR WIBR WIBR WIBR WMBH WMBH WMBH WMBH WMBH WMBH WMBH WMBH	* * * * * * * * * * * * * * * * * * * *	20 100 100 100 100 100 100 100 100 100 1	1429 4 5X. XY + Y 5 CPD 	Santa Clara, Cuba 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.	Juan del Regato Benson Polytechnic Institute Reporter Printing Co. W. E. Riker KFOW, 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 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. Triangle Broadcasters Iowa Broadcasting Co. George W. Robinson Delaware Broadcasting Co., Inc. Valdemar Jensen Fred L. Schoenwolf WLBF Broadcasting Co. Michigan Broadcasting Co. Michigan Broadcasting Co. Michigan Broadcasting Co. Voice of South Carolina Associated Broadcasting Corp.
1430	kil	ocyc]	les	209.7 meters	
KECA KGNF WBAK WCAH WGBC WHP WNBR XEP	† † † * * *	1000 500 500 500 500 500 500 500 500	N D 1X+ 1C 2S 1C+	Los Angeles, Cal. North Platte, Neb. Harrisburg, Pa. Columbus, Ohio Memphis, Tenn. Harrisburg, Pa. Memphis, Tenn. Laredo, Mex.	Earle C. Anthony, Inc. Great Plains Broadcasting Co. Penna. State Police Commercial Radio Service Co. Memphis Broadcasting Co. Pennsylvania Broadcasting Co. Memphis Broadcasting Co. La Voz Latino
1440	kil	ocycl	les	208.2 meters	
KLS WBIG WCBA -WHEC WMBD WOKO WSAN WTAD	* * * * * * †	250 500 250 500 500 500 250 500	D 1 2C 3+ 2C 1 3	Oakland, Cal. Greensboro, N. C. Allentown, Pa. Rochester, N. Y. Peoria Heights, III. Albany, N. Y. Allentown, Pa. Quincy, III.	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.

	1141	DEA I	FREQUENCIES AN	D D11111 1 .	01/12/21/2	
kil	ocyc	les	206.8 meters			
** * * * * *	20 1000 250 500 500 250 250 250 250	1 N 1 1 1	Santiago de Cuba Shreveport, La. Hackensack, N. J. Cleveland, Ohio Jersey City, N. J. Jersey City, N. J. Newark, N. J. Fall River, Mass. Toccoa, Ga.	WBMS Bro WGAR Bro New Jersey Camith Co Radio Inve Doughty 8	padcasting Co padcasting Co padcasting properties estment Co. Welch Elec	orp.), ng Corp.
kil	ocyc	les	205.4 meters			
*	10000 10000	NX	St. Paul, Minn. Alexandria, Va.	National I Independe	Battery Broa ent Publishin	dcasting Co. ag Co.
kil	осус	les	204.0 meters			
‡ 	5000 5000 5000	iĈ l	Spokane, Wash. Nashville, Tenn. Nashville, Tenn.	Life & Cas	ualty Insura	nce Co.
kil	locyc	les	202.6 meters	53		
*	5000 5000	C	Oklahoma City Buffalo, N. Y.	National F Buffalo Br	Radio Mfg. C oadcasting C	o. Co., Lessees
kil	locyc	les	201.2 meters	3-4		
	5000 5000 5000	1 1N 1	Chicago, Ill. Covington, Ky. Chicago, Ill.	L. B. Wilse	on, Inc.	tion
kil	locyc	les	199.9 meters			
********	15 15 35 10 100 100 100 50 50 100 100 100 100 1	TY + 1 + CP 1 CP	Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Havana, Cuba Sagua la Grande, Cuba Sagua la Grande, Cuba Santa Barbara, Cal. Corpus Christi, Texas Moorhead, Minn. Grant City, Mo. Brownwood, Texas Scottsbluff, Nebr. Prescott, Ariz. Wenatchee, Wash. Santa Ana, Cal. Austin, Texas El Centro, Cal. Long Beach, N. Y. Tupelo, Miss. Connersville, Ind. Ludington, Mich. Long Island City, N. Y. Boston, Mass. Newport, R. I. Brooklyn, N. Y. Lapeer, Mich. Binghamton, N. Y. Bristol, Tenn. Phildelphia, Pa. Augusta, Ga. Rutland, Vt. Woodside, N. Y. Pittsburgh, Pa.	Tomas Ba Martinez : Alberto Fe Santiago V Dwight Fe Eagle Broe Red River Grant Cit; Eagle Puli Hilliard C Miller & F Wescoast I Pacific We Driskill He E. R. Irey Arthur Fa North Mis Knox Batt K. L. Ashl John N. B Boston Br LeRoy Jos Paul J. Go First M. G First M. G First M. Penu Warren C Seward & Long Islai	sail y Madico ernandez Ventura ulding adeasting Co Broadcasting y Park Corp. lishing Co. o., Inc. Klahn Broadcasting stern Broadcasting stern Broadcasting and F. M. B ske sissippi Broadcasting ceph Beebe bilhofer . Church ood Radio Co ne Brdcstg. S n Broadcastin . Davenport Welss Music wels Music und Broadcastin od Broadcastin	g Co., Inc. c Co. casting owles deasting Corp. ic Co. co., Inc. co.
	kil *	kilocyc * 1000 * 250 * 5000 * 250 * 10000 kilocyc * 5000 * 5000 kilocyc * 5000 * 5000 kilocyc * 5000 * 5000 kilocyc * 5000 * 10	kilocycles - 20 * 1000 * 250 1 * 5500 N * 5500 1 * 25		1000	kilocycles 20

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KCYS. 1500 MTRS. 199.9

DIAL

ALABAMA	Watts		Kcys.	San Jose J-1	500	KOW	1010
Birmingham O-21	5000	WAPI	1140	Santa Ana M-3	100	KQW KREG	1500
	500		930	Santa Barbara M-2	100		1500
6 1 1 6 21	100	WKBC	1310	Santa Maria L-2 Stockton J-2	100 250	KSMR KGDM	1200 1100
Gadsden O-21 Mobile Q-20	50 500	WJBY WODX	1210 1410		100	KWG	1200
Montgomery P-21	500	WSFA	1410	COLODADO			
Talladega O-21	100	WFDW	1420	COLORADO			
AT ACTZA				Colorado Springs K-1 Denver K-11	1 1000 500	KFUM KFEL	1270 920
ALASKA	400				100	KFUP	1310
Anchorage Juneau	100		1230	11	500	KFXF	920
Ketchikan	10 500	KGBU	1310 900	11	1000 12500	KLZ KOA	560
		11020	,,,,	1	500	KPOF	830 880
ARIZONA				Fort Morgan J-11	100	KGEW	1200
Flagstaff M-7	100	KFXY	1420	Grand Junction K-9	100 500	KFXJ	1310
Jerome M-6	100	KCRJ	1310	Greeley J-11 Pueblo L-11	250	KFKA KGHF	880 1320
Phoenix N-6	500	KOY	1390	Trinidad L-11	100	KĞİŴ	1420
Prescott M-6	500 100	KTAR KPJM	620 1500	Yuma J-12	50	KGEK	1200
Tucson O-7	100	KGAR	1370				
	500	KVOA	1260	CONNECTICUT			
ARKANSAS				Bridgeport H-27 Hartford H-27	500 500	WICC WDRC	600 1330
Blytheville M-19	50	KI CN	1200	l marciola m-27	50000	WTIC	1060
Fayetteville M-16	50 1000	KLCN KUOA	1290 1390	Storrs H-28	250	WCAC	600
Fort Smith N-16	50	KFPW	1340				
Hot Springs N-17	10000	KTHS	1040	DELAWARE			
Little Rock N-17	100 250	KGHI KGJF	1200 890	Wilmington J-26	250	WDEL	1120
	1000	KLKA	1390		100	WILM	1420
Paragould M-18	100	KBTM	1200	D.Lombies -			•
CALIEODAY				DISTRICT OF			
CALIFORNIA				Washington J-26	250	WMAL	630
Berkeley J-2 Burbank M-3	100	KRE	1370		500 100	WRC WOL	950 1310
Culver City M-3	500 250	KELW KFVD	780 1000	FLORIDA	100	OL	1310
Culver City M-3 El Centro N-4	100	KXO	1500	Clearwater R-24	1000	WEL A	
resno K-2	100	KMJ KZM	1210	Gainesville Q-24	1000 5000	WFLA WRUF	620 830
Hayward J-1 Hollywood M-3	100 1000	KZM KFWB	1370 950	Jacksonville O-24	1000	WJAX WIOD	900
	5000	KNX	1050	Miami T-25	1000	WIOD	1300
loly City K-1	100	KFQU	1420	Orlando R-24	1000 500	WQAM WDBO	560
nglewood M-3 Long Beach M-3	500 1000	KMČS KFOX	1120	Pensacola Q-21	500	WCOA	1120 1340
Deacii ivi-3	1000	KGER	1250 1360	St. Petersburg S-24	1000	WSUN	620
os Angeles M-3	1000	KGER KECA	1430	Tampa R-24	1000	WDAE	1220
	5000 500	KFI KFSG	640 1120	OF OR OTHER	100	WMBR	1370
	1000	KGEF	1300	GEORGIA			
	100	KGFI	1200	Atlanta O-22	250	WGST	890
	1000	KHJ KMPC	900	Augusta O-23	5000	WSB WRDW	740
	500 500	KMPC	710 570	Columbus O-23	100 50	WRDW WRBL	1500 1200
	500	KTM	780	Macon O-23	250	WMAZ	890
Oakland I 1	1000	KTBI	1300	Rome N-22	100	WFDV	1370
Dakland J-1	250 500	KLS KLX	1440 880	Savannah O-24 Thomasville Q-22	500 100	WTOC WQDX	1260 1210
	500	KROW	930	Tifton P-23	100	WRBI	1310
asadena M-3	50	KPPC	1210	Toccoa N-23	500	WTFI	1450
acramento J-2	1000 100	KPSN KFBK	1360 1310	TIANVAIT			
an Bernardino M-3	100	KFXM	1210	HAWAII			
an Diego N-3	500	KFSD	600	Honolulu	500	KGMB	1320
an Francisco J-1	250 1000	KGB KFRC	1330 610	Z 10 4110	1000	KGU	940
· y -	500	KFWI	930	IDAHO			
	100	KGGC KGO	1420	Boise G-5	1000	KIDO	1250
		n (vi)	790	Idaho Falls G-7	250	KID	1320
	7500 100	K IRS	1070 H	Names C. F			
	100 5000	KJBS KPO	1070 680	Nampa G-5 Pocatello H-7	50	KFXD	1420
	100	KJBS		Nampa G-5 Pocatello H-7 Sand Point D-6 Twin Falls H-6			

				oi .			
ILLINOIS	Watts		Kcys.	Ottumwa J-17	100 100	WIAS KICK	1420 1420
Carthage J-18	50	WCAZ	1070	Red Oak J-16 Shenandoah J-16	500	KFNF	890
Chicago I-20	10000 10000	KFKX KYW	1020 1020		500	KMA	930
	500	WAAF	920	Sioux City I-15 Waterloo I-17	1000 500	KSCJ WMT	1330 600
	25000	WBBM	770 970	Waterioo 1-17	000	******	500
	1500 5000	WCFL WCHI	1490	KANSAS			
	100	WCRW	1210	Dodge City L-13	100	KGNO	1210
	100 50000	WEDC WENR	1210 870	Kansas City K-16	100 5 00	WLBF KFKU	1420 1220
	500	WGES	1360	Lawrence K-16	1000	WREN	1220
	25000	WGN	720 560	Manhattan K-15	500	KSAC	580
	1000 5000	WIBO WJAZ	1490	Milford K-14 Topeka K-16	5000 1000	KFKB WIBW	1050 580
	25000	WIBT	770	Wichita L-15	1000	KFH	1300
	100 5000	WKBI WLS	1420 870	1			
	5000	WMAQ	670	KENTUCKY			
	5000 500	WMBI WPCC	1080 560	Covington K-22	5000	WCKY	1490
	100	WSBC	1210	Hopkinsville M-20 Louisville L-21	1000 10000	WFIW WHAS	940 820
Cicero I-20	100	WEHS	1420	1	100	WLAP	1200
Decatur K-19	100 100	WHFC WJBL	1420 1200	Paducah M-19	100	WPAD	1420
Galesburg J-18	100	WKBS	1310	LOUISIANA			
Harrisburg L-19 Joliet I-19	100 100	WEBQ WCLS	1210 1310	Monroe P-18	50	KMLB	1200
Jonet 1-19	100	WKBB	1310	New Orleans R-19	100	WABZ	1200
La Salle J-19	100 20000	WJBC WJJD WMBD	1200 1130		1000	WDSU	1250 1420
Mooseheart I-19 Peoria Heights J-19	500	WMBD	1440		100 30	W JBO W JBW	1200
Quincy K-18	500	WTAD	1440		500	WJBW WSMB	1320
Rockford I-19 Rock Island I-18	500 100	KFLV WHBF	1410 1210	Shreveport P-17	5000 50	WWL KRMD	850 1310
Springfield K-19	100	WCBS	1210	Singrepore 1 1	1000	KTBS	1450
Tuscola K-20	100 100	WTAX WDZ	1210 1070		100 100	KTSL KWEA	1310 1210
Urbana J-20	250	WILL	890		10000	KWKH	850
Zion I-20	5000	WCBD	1080	MAINE			
				Augusta F-28	100	WRDO	1370
INDIANA				Bangor F-29	100 500	WABI WLBZ	1200 620
Anderson J-21	100	WHBU	1210	Portland F-28	1000	WCSH	940
Connersville K-21	100	WKBV	1500				
Culver I-20	500 500	WCMA WGBF	1400 630	MARYLAND			
Evansville L-20 Fort Wayne J-21	100	WGL	1370	Baltimore J-26	10000 250	WBAL WCAO	1060 600
	10000 1000	wowo	1160 1360		100	WCBM	1370
Gary I-20 Hammond I-20	100	WJKS WWAE	1200	C	500 100	WFBR WTBO	1270 1420
Indianapolis J-21	1000	WFBM WKBF	1230	Cumberland J-25	100	WIBO	1420
Lafavette I-20	500 500	WBAA	1400 1400	MASSACHUSET	TS		
Lafayette J-20 La Porte I-20	100	WRAF	1200	Boston G-28	1000	WBIS	1230
Marion J-21 Muncie J-21	50 50	WJAK WLBC	1310 1310		1000 1000	WEEI WHDH	590 830
South Bend I-20	500	WSBT	1230		100	WLOE	1500
Terre Haute K-20	100	WBOW	1310		1000 500	WNAC WSSH	1230 1410
				Fall River H-28	250	WSAR	1450
IOWA				Lexington G-28	500	WLEX	1410
Ames I-17	5000	WOI	640	New Bedford H-28	100 100	WLEY WNBH	1370 1310
Boone I-17	100	KFGQ	1310	Springfield H-27	15000	WBZ-A WBSO	990
Cedar Rapids I-18 Clarinda J-16	100 50 0	KWCŘ KSO	1310 1380	Needham G-28	500 100	WEPS	920 1200
Council Bluffs J-16	1000	KOIL	1260	Worcester G-28	100	WORC	1200
Davenport I-18 Decorah H-18	5000 50	WOC KGCA	1000 1270		250	WTAG	58 0
Decorati 11-10	100	KWLC WHO	1270 1270	MICHIGAN			
Des Moines I-17	5000 100	WHO KFJY	1000 1310	Battle Creek I-21	50	WELL	1420
Fort Dodge I-16 Iova City I-18	500	WSUI	880	Bay City H-22	500	WBCM	1410
Marshalltown 1-17	100	KFJB	1200 1170	Berrien Springs I-20 Calumet E-19	1000 100	WKZO WHDF	590 1370
Muscatine J-18	5000	KTNT	11/0	Castillet B-17	100		

Detroit H-22	50	WJBK WJR	1370	NEVADA	Watts		Kcys
	5000 100	WJR WMBC	750 1420	Las Vegas L-5	100	KGIX	1420
	1000 1000	WWJ WXYZ	920	Reno I-3	500	KOH	1380
East Lansing H-21	1000	WKAR	1240 1040	NEW HAMPSHI	RF		
Flint H-22	100 100	WFDF WPDF	1310 1200	Laconia G-28	100	WKAV	1310
Grand Rapids H-21	500	WASH	1270				-010
Jackson I-21	500 100	WOOD WIBM	1270 1370	NEW JERSEY			
Lapeer H-22	100	WMPC	1500	Asbury Park I-27 Atlantic City J-27	500 5000	WCAP	1280 1100
Ludington H-20 Marquette F-19	50 100	WKBZ WBEO	1500 1310	Camden I-26	500	WPG WCAM	1280
Royal Oak H-22	50	WEXL	1310	Hackensack I-27 Jersey City I-27	250 300	WBMS WAAT	1450 940
MINNESOTA				301003 0103 12	500	WHOM	1450
Fergus Falls F-15	100	KGDE	1200	Newark I-27	250 1000	WKBO WAAM	1450 1250
Minneapolis G-17	7500 1000	WCCO WDGY	810 1180		250	WGCP	1250
	500	WHDI	1180		250 5000	WNJ WOR	1450 710
Moorhead F-15	1000 50	WRHM KGFK	1250 1500	Paterson I-27	1000	WODA	1250
Northfield G-17	1000	KFMX	1250	Red Bank I-27 Trenton I-26	100 500	W JBI WOAX	1210 1280
St. Paul G-17	1000 1000	WCAL WLB	1250 1250				
	10000	KSTP	1460	NEW MEXICO			
MISSISSIPPI Greenville 0-18	100	WRBQ	1210	Albuquerque N-7 Raton M-11	250 50	KGGM KGFL	1230 1370
Gulfport Q-19	100	WGCM	1210	State College P-9	20000	KOB	1180
Hattiesburg Q-19 Jackson P-19	10 1000	WRBJ WJDX WCOC	1370 1270				
Meridian P-20	500	wcoc	880	NEW YORK			
Tupelo N-20 Vicksburg P-18	100 300	WDIX WQBC	1500 1360	Albany H-27 Auburn H-25	500 100	WOKO WMBO	1440 1310
MISSOURI			2000	Binghamton H-26	100	WNBF	1500
Cp. Girardeau L-19	100	KFVS	1210	Brooklyn I-27	500 1000	WBBC WBBR	1400 1300
Columbia K-17	500	KFRU	630		500	WCGU	1400
Grant City J-16 Jefferson City L-17	50 500	KGIZ WOS	1500 630		500 500	WFOX WLTH	1400 1400
Joplin M-16	100	WMBH	1420	Buffalo H-24	100 1 0 00	WMBQ	1500
Kansas City K-16	1000 100	KMBC KWKC	950 1370	DUMAIO 11-24	100	WBEN WEBR	900 1310
	1000 500	WDAF	610		1000 5000	WGR WKBW	550 1480
	1000	WHB WOQ	860 1300		1000	WMAK WSVS	1040
St. Joseph K-16	2500 100	KFEÒ KGBX	680 1310	Canton F-26	50 500	WSVS WCAD	1370 1220
St. Louis L-18	500	KFUO	550	Freeport I-27	100	WGBB	1210
	100 50000	KFWF KMOX	1200 1090	Glens Falls G-27 Ithaca H-25	50 1000	WBGF WEAI	1370 1270
	500	KSD KWK	550		50	WLCI	1210
	1000 1000	WEW	1350 760	Jamaica H-27 Jamestown H-24	100 50	WMR J WOCL	1210 1210
MONTANIA	100	WIL	1200	Long Island City I-27 Long Beach I-27 New York City I-27	100 100	WLBX WCLB	1500 1500
MONTANA	1000	W.C.I.II	250	New York City I-27	5000	WABC	860
Billings F-9 Butte F-7	1000 500	KGHL KGIR	950 1360		250 250	WAWZ WBNX	1350 1350
Great Falls E-8 Kalispell D-7	1000 100	KFBB	1280		5000	WBOQ	860
Missoula E-7	100	KGEZ KGVO	1310 1420		250 50000	WCDA WEAF	1350 660
Wolf Point E-11	100	KGCX	1310		500	MEAD	1300
NEBRASKA					250 1000	WGBS WHAP	1180 130)
Clay Center J-14 Lincoln J-15	1000 5000	KMMJ KFAB	740	`	250 30000	WHN	1010
5	100	KFOR	1210		5000	WJZ WLWL	760 1100
Norfolk I-15	500 1000	WCAJ WJAG	590 1060		500 250	WMCA WMSG	570 1350
North Platte J-13	500	KGNF WAAW	1430		500	WNYC	570
Omaha J-15	500 1000	wow	660 590		1000 250	WOV WPAP	1130 1010
Ravenna J-14	100	KGFW KGKY	1310 1500	1	500	WPCH	810
Scottsbluff I-11	100				250	WQAO	1010

Patchogue I-27	100	WPOE	1370	Marshfield F-1	100	KOOS	1370
Rochester G-25	5000	WHAM	1150	Medford G-2	50	KMED	1310 1180
	500	WHEC	1440	Portland E-3	5000 100	KEX KBPS	1420
Saranac Lake F-26	50 50000	WNBZ WGY	1290 790		500	KFJR	1300
Schenectady G-27 Syracuse G-25	1000	WFBL	1360	1	1000	KGW	620
Syracuse G-23	250	WMAC WSYR	570		1000	KOIN	940 1300
	250	WSYR	570		500 500	KTBR	1060
Troy G-27	500	WHAZ	1300	() (100	KWJJ K X Ľ	1420
Tupper Lake F-26	10 100	WHDL WIBX	1420 1200			14.12	
Utica G-26 Woodside I-27	100	WWRL	1500	PENNSYLVANIA	4		
Yonkers I-27	100	WCOH	1210	Allentown I-26	250	WCBA	1440
Torrecto 1 2			Į.	7.	250	WSAN	1440
				Altoona I-25	100	WFBG WNBW	1310 1200
NORTH CAROL	JINA		- 1	Carbondale H-26	10 50	WIBG	930
Asheville M-23	1000	WWNC	570	Elkins Park I-26 Erie H-24	30	WEDH	1420
Charlotte M-24	5000	WBT	1080	Grove City I-24	100	WSAI	1310
Gastonia M-24	100	WSOC	1210 1440	Harrisburg I-25	500	WBAK	1430
Greensboro M-24	500 1000	WBIG WPTF	680	•	100	WCOD	1200
Raleigh M-25 Wilmington N-26	100	WRBT	1370	l	500	WHP	1430 1310
Winston-Salem M-24		WSJS	1310	Johnstown J-24	100 100	W JAC WGAL	1310
Willston-Salem M-2		5 -		Lancaster I-26	100	WKJC	1200
				Lewisburg I-26	100	WIBU	1210
NORTH DAKO	1 A		1	Lewisburg I-26 Oil City I-24	500	WJBU WLBW	1260
Bismarck F-13	1000	KFYR	550	Philadelphia I-26	10000	WCAU	1170
Devils Lake E-14	100	KDLR	1210 940		100	WELK	1370 610
Fargo F-15	1000 100	WDAY KFJM	1370		500 500	WFAN WFI	560
Grand Forks E-15 Mandan F-13	100	KGCÜ	1200		100	WHAT	1310
Minot E-13	100	KLPM	1420		500	WIP	610
Williot E 10					500	WLIT	560
OHIO					100	WPEN	1500 1020
	1000	WADC	1320		250	WRAX WTEL	1310
Akron I-23	1000	WHBC	1200	Disselvendh I 24	100 50000	KDKA	980
Canton I-23 Cincinnati K-22	100	WFBE	1200	Pittsburgh J-24	500	KOV	1380
Ciriciniati N-22	1000	WKRC	550		1000	KDKA KQV WCAE	1220
	50000	WLW	700		1000	WIAS	1290
	500	WSAI	1330 1450		100	WWSW	1500
Cleveland I-23	500 1000	WGAR WHK	1390	Reading I-26	100	WRAW WGBI	1310 880
	500	WIAY	610	Scranton H-26	250 250	WOAN	880
	50000	WJAY WTAM	1070	State College I-25	500	WQAN WPSC	1230
Columbus J-22	500	WAIU	640	Washington J-24	100	WNBO	1200
	500	WCAH	1430	Wilkes-Barre I-26	100	WBAX	1210
	750	WEAO	570 1210		100	WBRE	1310 1370
D. 4 T.22	100 200	WSBN WSMK	1380	Williamsport I-25	100	WRAK	13/0
Dayton J-22 Mansfield J-22	100	WIW	1210	/ m a n m a n z a a			
Mount Orab K-22	100	WJW WHBD	1370 1420	PORTO RICO			
Steubenville J-23	50	WIBR	1420	San Juan W-34	500	WKAQ	890
Toledo I-22	500	WSPD	1340	1			
Youngstown I-23	500 100	WKBN WALR	570 1210	RHODE ISLAN	D		
Zanesville J-23	100	WALK	1210	11		3373 AD A	1500
				Newport H-28 Pawtucket H-28	100 100	WMBA WPAW	1210
OKLAHOMA				Providence H-28	100	WDWF	1210
Chickasha N-14	250	KOCW	1400	1011001100 11-20	250	WEAN	780
Elk City N-13	100	KGMP	1210 1370	II .	250	WJAR WLSI	890
Enid M-14	100		1370	ii .	100	WLSI	1210
Norman N-15	500	WNAD	1010 1480				
Oklahoma N-15	5000 100		1310	SOUTH CARO	LINA		
	100		1370	Charleston O-25	500	WCSC	1360
	1000	WKY	900	II Columbia N-24	500	WIS	1010
Ponca City M-15	100	WBBZ	1200	Spartanburg N-23	100	WSPA	1420
S. Coffeyville M-15	500	KGGF	1010	COUTE DAY	TA		
Shawnee N-15	100		1420	SOUTH DAKO			
Tulsa M-15	5000	KVOO	1140	Brookings H-15	500	KFDY	550
// ODECON				Huron H-14	100		1200 1370
OREGON		***	42770	Mitchell H-14	100 200	KGDA KGFX	580
1	100	KFJI	1370 550	Pierre G-13 Rapid City H-12	100		1200
Astoria D-2	1000						
Astoria D-2 Corvallis E-2 Eugene F-2	1000 100		1420	Sioux Falls H-15	2000		1110

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

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BRITISH	Watts		Kcys.	SASKATCHEWAI	7		
COLUMBIA				Fleming C-13	500	CJRW CJRM	600
Chilliwack B-3	5	CHWK	665	Moose Jaw C-11	500 500	CHWC	600 960
Kamloops B-5	100	CFJC CJOR CHLS	1120 1210	Regina C-12	500	CJBR	960
Sea Island Vancouver B-3	50 50	CHLS	730		500	CKCK	960
	50	CKCD	730 730	Saskatoon B-11	500 500	CNRR	960 910
	50 50	CKFC CKMO	730 730	Saskatoon B-11	500	CFQC CNRS	910
	100	CKWX	730	Yorkton B-13	500	CJGX	630
	500	CNRV	1030				
Victoria C-3	500	CFCT	630	HAITI			
MANITOBA			1	Port au Prince X-30	1000	HHK	920
Brandon D-14	500	CKX	540	ľ			
Winnipeg D-15	5000	CKX CKY	780	MEXICO			
	5000	CNRW	780	Aguascalientes W-10	350	XFC	805
				Chihuahua, Chih. R-9	250	XFC XFF	915
NEW BRUNSW		OFNID	1210	Guadalajara, Jal. X-10	101 101	XEA XEJ	1000 1000
Fredericton D-29 Moncton D-30	500 500	CFNB CNRA	1210 630	Juarez P-9	1000	XEQ	750
St. John D-30	500	CFBO	890	Laredo, N. L. S-13	101	XEFE	1000
					2500 105	XEP XEY	1430 1000
NEWFOUNDLA				Merida, Yuc. X-19 Mexico City Y-13	1000	XEB	1030
St. Johns A-35	500	8WMC	682	I Medico Grey 1 13	250	XEFA XEK	1250
NOVA SCOTIA			ì	V.	101	XEK	1000 719
	10000	VAS	685	Į.	1000 5 000	XEN XEO	940
Glace Bay C-32 Halifax E-31	500	CHNS	910	ł	101	XER	650
	500	CNRH CJCB CKIC	910 880		500	XETA	1140 840
Sydney C-32 Wolfville D-31	50 50	CKIC	1010	r	2000 500	XET Y XEX	1210
~					5000	XEW	780
ONTARIO		OFCO			500 2000	XEZ XFG	588 638
Chatham H-22 Cobalt E-23	100 15	CFCO CKMC	1210 1210		1000	XFI	818
Hamilton H-24	10	CHCS	1120		500	XFX	860
	50	CHML	880	Monterrey, N. L. U-13	5000	XEH	1080 630
Kingston G-25	50 500	CFRC	1120 930	Morelia Mich. Y-12	500 101	XET XEI	1000
London H-23	5000	CIGC	910	Morelia, Mich. Y-12 Oaxaca, Oak. AA-14 Puebla Z-13	105	XEE XEV	1000
	500	CJGC CNRL	910	Puebla Z-13	101	XEV XED	1000 977
North Bay Ottawa F-25	50 100	CFCH CKCO	1200 890	Reynosa, Tams, T-14 Saltillo, Coah. U-12	10000	XEL	1000
Ottawa F-23	500	CNRO	600	Tampico, Tams. W-14	500	XEM	730
Port Arthur E-19	50	CKPR	890	1	500 50	XES	890 1000
Prescott F-25 Preston H-23	50 25	CFLC CKPC	1010 1210	Toluca. Y-12 Veracruz, Ver. Z-14	500	XES XEC XETF	680
Toronto G-24	500	CFCA	840		101	XEU	1000
	500	CFCL	580	CUBA			
	5000 500	CFRB CKCL	960 580	CUBA	350	CMIII	920
	5000	CKGW	690	Caibarien W-25 Cardenas W-24	250 30	CMHD CMGE	1375
	500	CKNC	580	Cardenas W-24 Camaguey W-26	10	CMJA	1332
	500 5000	CNRT	840 960	,	15	CMJC	1321
	5000	CPRY	690	Ciego de Avila W-26	5 20	CMJE CMJB	856 1276
Waterloo G-23	50	CKCR	1010	Cienfuegos W-25	200	CMHA	1154
Wingham G-23	25	10-BP	1200	11	40	CMHI	645 870
PRINCE EDWA	RD IS	SLAND		Cifuentes Colon W-24	10 100	CMHH CMGA	870 834
Charlottetown C-31	250	CFCY	960	II Guanajay W-23	30	CMAA	1090
Commencials C 21	100	CHCK	960	Havana W-23	50	CMBA	1345 955
Summerside C-31	100	CHGS	1120		150 150	CMBC CMBD .5 CMBF	955 955
QUEBEC				I	7	.5 CMBF	1345
Montreal E-26	1650	CFCF	1030	l)	150	CMBG	1070
	5000	CHYC	730 73 0		30 15	CMBI CMBJ	1405 1285
	5000 5000	CKAC CNRM	730 730	li .	15	CMBK	1405
Quebec D-27		CHRC	645	II.	15	CMBL	1500
	100						
	22	CKCI	880	li .	15	CMBM	1285 1405
Zacoc 2-21			880 889 880		30 15	CMBN CMBP	1405 1500

CFAC 690		CKAC 730	1 5 6	II CMBS 790	1	CMHJ 645	ī
Calgary, Alta.		Montreal, Que.	20	Havana, Cuba		Cienfuegos, Cuba	1
CFBO 890		CKCD 730		CMBT 1070		CMJA 1332	
St. John, N. B.		Vancouver, B.C.		Havana, Cuba		Camaguey, Cuba	
CFCA 840 Toronto, Ont.	255	CKCI 880		CMBW 1010		CM JB 1276	i
CFCF 1030	200	Quebec, Que. CKCK 960		Havana, Cuba CMBX 1405		Ciego de Avila CMJC 1321	
Montreal, Que.	20	Regina, Sask.		Havana, Cuba		Camaguey, Cuba	
CFCH 1200		H CKCL 580	0/	II CMBY 1405		CMJE 856	
North Bay, Ont.		Terente, Ont.	85	Havana, Cuba		Camaguey, Cuba	
CFCL 580		CKCO 890		CMBZ 1010		CMK 730	20
Torento, Ont. CFCN 690		Ottawa, Ont. CKCR 1010		Havana, Cuba CMC 845		Havana, Cuba CMKA 1450	20
Calgary, Alta.		Waterloo, Ont.	1	Havana, Cuba	352	Santiago, Cuba	
CFCO 1210		II CKCV 880		CMCA 1225		CMKB 1200	
Chatham, Ont.		Quebec, Que.		Havana, Cuba		Santiago, Cuba	
CFCT 630 Victoria, B. C.		CKFC 730	1 .	CMCB 1070	1 1	CMKC 1034	
CFCY 960	-	Vancouver, B.C. CKGW 690		Havana, Cuba CMCD 1345		Santiago, Cuba CMKD 1100	
Ch'lottet'n, P.E.I.		Toronto, Ont.	15 /	Havana, Cuba		Santiago, Cuba	
CFJC 1120		CKIC 1010	-	CMCF 890		CMKE 1249	
Kamloops, B. C.		Wolfville, N.S.		Havana, Cuba		Santiago, Cuba	
CFLC 1010		CKLC 840		CMCG 1285		CMKF 1363	-
Prescott, Ont. CFNB 1210		Red Deer, Alta. CKMC 1210		Havana, Cuba CMCH 1285		Holguin, Cuba CMKG 1176	
Fredericton, N.B.		Cobalt, Ont.		Havana, Cuba		Santiago, Cuba	
CFQC 910		CKMO 730		CMCJ 550		I CMKH 1327	
Saskatoon, Sask.		Vancouver, B.C.		Havana, Cuba		Santiago, Cuba	
CFRB 960 Toronto, Ont.		CKNC 580	185	CMCM 1500		CMQ 1150	
CFRC 930		Toronto, Ont. CKOC 1120	0	Havana, Cuba CMCN 1225		Havana, Cuba CMW 588	7.5
Kingston, Ont.		Hamilton, Ont.		Havana, Cuba		Havana, Cuba	X ()
CHCA 690		CKPC 1210		CMCO 660		CMX 890	
Calgary, Alta. CHCK 960	1	Preston, Ont. CKPR 890	<u> </u>	Havana, Cuba CMCQ 1150		Havana, Cuba CNRA 630	
Ch'lottet'n, P.E.I.		Port Arthur, Ont.		Havana, Cuba		Moneton, N.B.	
CHCS 1120		CKUA 580		CMCR 1285		CNRC 690	
Hamilton, Ont.		Edmonton, Alta.		Havana, Cuba		Calgary, Alta.	
CHCT 840 Red Deer, Alta.		CKWX 730 Vancouver, B.C.		CMCT 1500 Havana, Cuba		CNRD 840 Red Deer, Alta.	
CHGS 1120		CKX 540		CMCU 1345		CNRH 910	
Sum'rside, P.E.I.		Brandon, Man.	l	Havana, Cuba		Halifax, N. S.	
CHLS 730		CKY 780		CMCX 1010		CNRL 910	
Vancouver, B.C. CHML 880		Winnipeg, Man. CMAA 1090		Havana, Cuba CMCY 1345		London, Ont. CNRM 730	
Hamilton, Ont.		Guanajay, Cuba		Havana, Cuba		Montreal, Que.	
CHNS 910		CMAB 1249		CMGA 834		CNRO 600	
Halifax, N.S. CHRC 645		Pinar del Rio, Cu.		Colon, Cuba		Ottawa, Ont.	
CHRC 645 Quebec, Que.		CMBA 1345 Havana, Cuba		CMGB 1185 Matanzas, Cuba		CNRQ 880 Quebec, Que.	
CHWC 960		CMBC 955		CMGC 1315		CNRR 960	
Regina, Sask.		Havana, Cuba		Matanzas, Cuba		Regina, Sask.	
CHWK 665		[CMBD 955		CMGD 1140		CNRS 910	
Chilliwack, B.C. CHYC 730	-	Havana, Cuba CMBF 1345		Matanzas, Cuba CMGE 1375		Saskatoon, Sask. CNRT 840	
Montreal, Que.		Havana, Cuba		Cardenas, Cuba		Toronto, Ont.	35世
CJBR 960		CMBG 1070		CMGF 977		CNRV 1030	
Regina, Sask. CJCA 930	-	Havana, Cuba CMBI 1405		Matanzas, Cuba CMGH 1249		Vancouver, B.C. CNRW 780	
Edmonton, Alta.		Havana, Cuba		Matanzas, Cuba		Winnipeg, Man.	
CJCB 880		CMBJ 1285		CMGI 1094		LCNRX 960 I	
Syndey, N.S.		Havana, Cuba		Matanzas, Cuba		Toronto, Ont.	
CJCJ 690		CMBK 1405 Havana, Cuba		CMHA 1154		CPRY 690	57
Calgary, Alta. CJGC 910	-	CMBL 1500		Cienfuegos, Cuba CMHB 1500		Toronto, Ont. HHK 920	-
London, Ont.		Havana, Cuba	i	Sagua la Grande		Port au Prince, H.	
CJGX 630		CMBM 1285		CMHC 790		KBPS 1420	
Yorkton, Sask. CJOC 1120		Havana, Cuba CMBN 1405		Tuinucu, Cuba CMHD 920		Portland, Ore.	
Lethbridge, Alta.		Havana, Cuba		CMHD 920 Caibarien, Cuba		KBTM 1200 Paragould, Ark.	
CJOR 1210		CMBP 1500		CMHE 1429		KCRC 1370	
Sea Island, B.C.		Havana, Cuba		Santa, Clara Cu.		Enid, Okla.	
CJRM 600 Moose Jaw, Sask.		CMBQ 1405 Havana, Cuba		CMHH 870 Cifuentes, Cuba		KCRJ 1310 Jerome, Ariz.	
CJRW 600		CMBR 1500		CMHI 1110		KDB 1500	
Fleming, Sask		Havana, Cuba		Santa Clara, Cu.		S. Barbara, Cal.	
					1000	8 88	77 =

KDFN 1210	KFPM 1310	KGDM 1100	KGW 620
Casper, Wyo.	Greenville, Tex. KFPW 1340	Stockton, Cal. KGDY 1200	Portland, Ore. KGY 1200
KDKA 980 Pittsburgh, Pa.	KFPW 1340 Ft. Smith, Ark.	Huron, S. D.	Lacev. Wash.
KDLR 1210	KFPY 1340		KHJ 900
Devils Lake, N.D.	Spokane, Wash.	Los Angeles, Cal. KGEK 1200	Los Angeles, Cal. KHQ 590
KDYL 1290	KFQD 1230 Anchorage, Alas.	Yuma, Colo.	Spokane, Wash.
Salt Lake City KECA 1430	KFQU 1420	KGER 1360	KICK 1420
Los Angeles, Cal. KELW 780	Holy City, Cal. KFQW 1420	Long Beach, Cal. KGEW 1200	Red Oak, Iowa.
	KFQW 1420	Ft. Morgan, Colo.	KID 1320 Idaho Falls, Ida.
Burbank, Cal.	Seattle, Wash. KFRC 610	II IZ C E Z 1310	KIDO 1250
KEX 1180 Portland, Ore.	San F'ncisco, Cal.	Kalispell, Mont.	Boise, Idaho
KEAR 770	KFRU 630	KGFF 1420	KIT 1310
Lincoln, Nebr.	Columbia, Mo.	Shawnee, Okla. KGFG 1370	Yakima, Wash. KJBS 1070
KFBB 1280	KFSD 600 San Diego, Cal.	Oklahoma City	San F'ncisco, Cal.
Great Fls., Mont KFBK 1310	KFSG 1120	KGFI 1500	KJR 970
Sacramento, Cal.	Los Angeles, Cal.	Corpus Ch'sti, Tex	Seattle, Wash. KLCN 1290
KFBL 1370	KFUL 1290	KGFJ 1200 Los Angeles, Cal.	Blytheville, Ark.
Everett, Wash.	Galveston, Tex KFUM 1270	KGFK 1500	KLO 1400
KFDM 560 Beaumont, Tex.	Col. Spgs., Colo.	Moorhead, Minn.	Ogden, Utah
KFDY 550	KFUO 550	KGFL 1370 Raton, N. M. KGFW 1310	KLPM 1420 Minot, N. Dak.
Brookings, S.D.	St. Louis, Mo.	- Raton, N. M. KGFW 1310	KLRA 1390
KFEL 920 Denver, Colo.	KFUP 1310 Denver, Colo.	Ravenna, Nebr.	Little Rock, Ark.
KFEQ 680		KGFX 580	KLS 1440
St. Joseph. Mo.	Culver City, Cal.	Pierre, S. D. KGGC 1420	Oakland, Cal. KLX 880
KFGQ 1310 Boone, Iowa	KFVS 1210 Cape Gir'rd'u, Mo	San F'neisco, Cal.	Oakland, Cal.
KFH 1300	KFWB 950	II KGGF 1010	KLZ 560
Wichita, Kansas	Hollywood, Cal.	ii Coffevville, Kans.	Denver, Colo.
KFI 640	KFWF 1200	KGGM 1230	KMA 930 Shenandoah, Ia.
Los Angeles, Cal. KFIO 1120	St. Louis, Mo. KFWI 930	Alb'q'rque, N.M. KGHF 1320	KMAC 1370
Spokane, Wash.	San F'neisco, Cal.	Pueblo, Colo.	San Antonio, Tex.
Kriu 1910	KFXD 1420	KGHI 1200	KMBC 950
Juneau, Alaska	Nampa, Idaho KFXF 920	Little Rock, Ark. KGHL 950	Kan. City, Mo. KMCS 1120
KFIZ 1420 Fond du Lac, Wis	Denver, Colo.	Billings, Mont.	Inglewood, Cal.
KFJB 1200	KFXJ 1310	KGIR 1360	KMED 1310
Marshalltown, Ia.	GrandJunc., Colo.	Butte, Mont. KGIW 1420	Medford, Ore. KMJ 1210
KFJF 1480 Oklahoma City	KFXM 1210 San Ber'd'no,Cal.	Trinidad, Colo.	Fresno, Cal.
KFJI 1370	KFXR 1310	KGIX 1420	KMLB 1200
Astoria, Ore.	Oklahoma City	Las Vegas, Nev. KGIZ 1500	Monroe, La. KMMJ 740
KFJM 1370	KFXY 1420 Flagstaff, Ariz.	Grant City, Mo.	Clay Ctr., Nebr.
Grd. Forks, N.D. KFJR 1300	KFYO 1420	KGJF 890	WMO 860
Portland, Ore.	Abilene, Texas	Little Rock, Ark.	Tacoma, Wash.
KFJY 1310	KFYR 550	KGKB 1500 Brownwood, Tex.	St. Louis, Mo.
Fort Dodge, Ia. KFJZ 1370	Bismarck, N.D. KGA 1470	KCKL 1370	KMPC 710
Ft. Worth, Tex.	Spokane, Wash.	San Angelo, Tex.	Los Angeles, Cal.
KFKA 880	KGAR 1370	KGKO 570 Wichita Flis., Tex	KMTR 570 Los Angeles, Cal.
Greeley, Colo. KFKB 1050	Tucson, Ariz.	KGKX 1420	KNX 1050
KFKB 1050 Milford, Kansas	San Diego, Cal.	Sand Point, Ida.	Los Angeles, Cal.
KFKU 1220	KGBU 900	KGKY 1500	Denver, Colo.
Lawrence, Kans.	Ketchikan, Al'ka	Scottsbluff, Nebr	KOAC 550
KFKX 1020 Chicago, Ill.	St. Joseph, Mo.	Honolulu, T. H.	Corvallis, Ore.
KFLV 1410	B KCRZ 930	11 KGMP 1210 1	KOB 1180 State Coll., N.M.
Rockford, Ill.	York, Nebr.	Elk City, Okla. KGNF 1430	KOCW 1400
KFLX 1370 Galveston, Tex.	MGCA 1270 Decorah, Iowa	No. Platte, Neb.	Chickasha, Okla.
KFMX 1250	KGCR 1210	KGNO 1210	KOH 1380
N'thfield, Minn.	Watertown, S.D.	Dodge City, Kans. 790	Reno, Nevada KOIL 1260
KFNF 890 3	KGCU 1200 Mandan, N.D.	KGO 790 San F'ncisco, Cal.	Council Bluffs, Ia.
Shenandoah, Ia. KFOR 1210	KCCV 1310	KGRS 1410	KOIN 940
Lincoln, Nebr.	Wolf P't, Mont.	Amarillo, Texas	Portland, Ore. KOL 1270
KFOX 1250	II KGDA 1970	KGU 940 Honolulu, Hawaii	KOL 1270 Seattle, Wash.
Long Beach, Cal. KFPL 1310	Mitchell, S. D. KGDE 1200	KGVO 1420	Seattle, Wash. KOMO 920
KFPL 1310 Dublin, Texas	Ferg's F'lls, Minn	Missoula, Mont.	Seattle, Wash.
	.	-11	
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			WDAI
KONO 1370	KTLC 1310	WAAM 1250	WCAC 600 20
San Antonio, Tex KOOS 1370	Houston, Texas KTM 780	Newark, N. J. WAAT 940	Storrs, Conn.
Marshfield, Ore.	Los Angeles, Cal.	Jersey City, N. J.	WCAD 1220 Canton, N. Y.
KORE 1420	KTNT 1170	WAAW 660	WCAE 1220
Eugene, Ore. KOY 1390	Muscatine, Iowa KTRH 1120	Omaha, Nebr.	Pittsburgh, Pa.
Phoenix, Ariz.	Houston, Texas	WABC 860 New York City 33 5	WCAH 1430 Columbus, Ohio
KPCB 650	KTSA 1290	WABI 1200	WCAJ 590
Seattle, Wash. KPJM 1500	San Antonio, Tex. KTSL 1310	Bangor, Maine	Lincoln, Nebr.
Prescott, Ariz.	Shreveport, La.	WABZ 1200 New Orleans, La.	WCAL 1250 Northfield, Minn.
KPO 680	KTSM 1310	WACO 1940	WCAM 1280
San F'ncisco, Cal. KPOF 880	El Paso, Texas KTW 1270	Waco, Texas WADC 1320	Camden, N. J.
Denver, Colo.	Seattle, Wash.	WADC 1320 Akron, Ohio	WCAO 600
KPPC 1210	H KUJ 1370	WAIU 640	Baltimore, Md. WCAP 1280
Pasadena, Cal. KPQ 1500	Walla Wal., Wash.	Columbus, Ohio	Asbury Pk., N. J.
KPQ 1500 Wenatchee, Wash	KUOA 1390 Fayetteville, Ark.	WALR 1210 Zanesville, Ohio	WCAT 1200
KPRC 920	KUSD 890	WAPI 1140	Rapid City, S. D. WCAU 1170
Houston, Texas	Vermillion, S. D.	Birmingham, Ala.	Philadelphia, Pa.
KPSN 1360 Pasadena, Cal.	KUT 1500 Austin, Texas	WASH 1270	WCAX 1200
KQV 1380	KVI 760	Gr. Rapids, Mich. 10 7	Burlington, Vt. WCAZ 1070
Pittsburgh, Pa.	Tacoma, Wash.	New York City	Carthage, Ill.
KQW 1010 San Jose, Cal.	KVL 1370 Seattle, Wash.	WBAA 1400	WCBA 1440
KRE 1370	KVOA 1260	Lafayette, Ind. WBAK 1430	Allentown, Pa.
Berkeley, Cal.	Tucson, Arizona	Harrisburg, Pa.	WCBD 1080 Zion, Ill.
KREG 1500	KVOO 1140	WIRAT 10co	WCBM 1370
Santa Ana, Cal. KRGV 1260	Tulsa, Okla KVOS 1200	Baltimore, Md.	Baltimore, Md.
Harlingen, Texas	Bellingh'm, Wash.	WBAP 800 Fort Worth, Tex.	WCBS 1210 Springfield, Ill.
KRLD 1040	KWCR 1310	WBAX 1210	WCCO 810
Dallas, Texas KRMD 1310	Cedar Rapids, Ia. KWEA 1210	Wilkes-Barre, Pa.	Minneap., Minn.
Shreveport, La.	Shreveport, La.	WBBC 1400 Brooklyn, N. Y.	WCDA 1350 New York City
KROW 930	KWG 1200	WBBL 1210	WCFL 970
Oakland, Cal. KRSC 1120	Stockton, Cal. KWJJ 1060	Richmond, Va.	Chicago, Ill.
Seattle, Wash.	_ KWJJ 1060 Portland, Ore.	WBBM 770 44	WCGU 1400 Brooklyn, N. Y.
MSAC 580	II KWK 1350	WRRD 1300	WCHI 1490
Manh'tt'n, Kans. KSCJ 1330	St. Louis, Mo.	Brooklyn, N. Y.	Chicago, Ill.
Sioux City, Ia.	KWKC 1370 Kansas City, Mo.	WBBZ 1200 Ponca City, Okla.	WCKY 1490
KSD 550	KWKH 850	WBCM 1410	Covington, Ky. WCLB 1500
St. Louis, Mo. KSEI 900	_ Sireveport, La.	Bay City, Mich.	Long Beach, N.Y.
KSEI 900 Pocatello, Idaho	KWLC 1270 Decorah, Iowa	WBEN 900 Buffalo, N. Y.	WCLO 1200
KSL 1130	KWSC 1220	WBEO 1310	Janesville, Wis. WCLS 1310
Salt Lake City	Pullman, Wash.	Marquette, Mich.	Joliet, Ill.
KSMR 1200 Santa Maria, Cal.	KWWG 1260 Brownsville, Tex.	WBGF 1370 Glens Falls, N. Y.	WCMIA 1400
KSO 1380	KXA 570	WBIG 1440	Culver, Ind. WCOA 1340
Clarinda, Iowa	Seattle, Wash.	Greensboro, N.C.	Pensacola, Fla.
KSOO 1110 Sioux Falls, S.D.	KXL 1420 Portland, Ore.	WBIS 1230	WCOC 880
KSTP 1460	H KXO 1500)	Boston, Mass. WBMS 1450	Meridian, Miss. WCOD 1200
St. Paul, Minn.	El Centro, Cal.	Hackensack, N.J.	Harrisburg, Pa.
KTAB 560 San F'ncisco, Cal.	KXRO 1310	WBNX 1350	WCOH 1210
KTAP 1420	Aberdeen, Wash KXYZ 1420	New York City WBOQ 860	Yonkers, N. Y. WCRW 1210
San Antonio, Tex.	Houston, Texas	New York City 22	Chicago, Ill.
KTAR 620 Phoenix, Ariz.	KYA 1230 San Fingisco, Cal	WBOW 1310	Chicago, Ill. WCSC 1360
KTAT 1240	San F'ncisco, Cal. KYW 1020	Terre Haute, Ind. WBRC 930	Charleston, S. C. WCSH 940
Ft. Worth, Tex. KTBI 1300	Chicago, Ill.	Birmingham, Ala.	Portland, Maine
KTBI 1300	KZM 1370	WBRE 1310	WDAE 1220
Los Angeles, Cal. KTBR 1300	Hayward, Cal.	Wilkes-Barre, Pa. WBSO 920	Tampa, Fla. WDAF 610
Portland, Ore.	Arlington, Va.	Needham, Mass.	Kansas City, Mo.
KTBS 1450	[[TIC 750]	WBT 1080 🧷	WDAG 1410
Shreveport, La. KTFI 1320	San Jose, C. R. VAS 685	Charlotte, N. C. WBTM 1370	Amarillo, Texas
Twin Fails, Ida.	Glace Bay, N. S.	Danville, Va.	WDAH 1310 El Paso, Texas
KTHS 1040	WAAF 920	WBZ-A 990 02	WDAY 940
Hot Spgs., Ark.	Chicago, Ill.	Springfield, Mass.	Fargo, N. D.

WDBJ 930	WFDW 1420		WHDL 1420	i	WJBO 1420	
Roanoke, Va.	Talladega, Ala.		TupperLake, N.Y.		New Orleans, La.	-
VDBO 1120	WFI 560	1	WHEC 1440	1	WJBT 770	4
Orlando, Fla.	Philadelphia, Pa.		Rochester, N. Y.		Chicago, Ill. WJBU 1210	
VDEL 1120	WFIW 940	10%	WHFC 1420	- 1		
Vilmington, Del.	Hopkinsville, Ky.	0 9	Cicero, Ill. WHIS 1410		Lewisburg, Pa. WJBW 1200	-
VDGY 1180	WFLA 620	722			New Orleans, La.	
Minneap., Minn.	Clearwater, Fla.	15	Bluefield, W. Va.			-
VDIX 1500	WFOX 1400		WHK 1390			
upelo, Miss.	Brooklyn, N. Y.		Cleveland, Ohio		Gadsden, Ala.	_
VDOD 1280	WGAL 1310		WHN 1010		WJDX 1270	
hattan'ga, Tenn 🛴	Lancaster, Pa.		New York City		Jackson, Miss.	
WDRC 1330	WGAR 1450		WHO 1000	05-	WJJD 1130	
Iartford, Conn.	Cleveland, Ohio		Des Moines, Ia.	col The	Mooseheart, Ill.	_
WDSU 1250	WGBB 1210	1 1	WHOM 1450		WJKS 1360	1
New Orleans, La. 📃	Freeport, N. Y.		Jersey City, N. J.		Gary, Ind.	-
VDWF 1210	WGBC 1430		WHP 1430	1	WJR 750	4
Providence, R. I.	Memphis, Tenn.		Harrisburg, Pa.		Detroit, Mich.	1
VDZ 1070	H WGBF 630	77	WIAS 1420		WJSV 1460	1
Tuscola, Ill.	Evansville, Ind.	10	Ottumwa, Iowa		Alexandria, Va.	-
WEAF 660	WGBI 880		WIBA 1280		[W J W 1210	
New York City	Scranton, Pa.		Madison, Wis.		Mansfield, Ohio	
VEAI 1270	WGBS 1180		WIBG 930		WJZ 760	11.
thaca, N. Y.	New York City		Elkins Park, Pa.		New York City	7-
VEAN 780	WGCM 1210		WIBM 1370		WKAQ 890	
rovidence, R. I.	Gulfport, Miss.		Jackson, Mich.		San Juan, P. R.	
VEAO 570	WGCP 1250		WIBO 560	915	WKAR 1040	
Columbus, Ohio	Newark, N. J.		Chicago, Ill.	7/3	E. Lansing, Mich.	
WEBC 1290	WGES 1360		WIBR 1420		WKAV 1310	
uperior, Wis.	Chicago, Ill.	. I	Steubenville, O.		Laconia, N. H.	1
WEBQ 1210	WGH 1310		WIBU 1210		WKBB 1310	-
Harrisburg, Ill.	Newp't News, Va.	1	Poynette, Wis.		Ioliet III	
VEBR 1310 4	WGL 1370		WIBW 580	1.11	Joliet, Ill. WKBC 1310	
WEBR 1310 Buffalo, N. Y.	Ft. Wayne, Ind.	l 1	Topeka, Kansas	85	Birmingham, Ala.	
WEDC 1210	WGN 720	- 1	WIBX 1200		WKBF 1400	
Chicago, Ill.	Chicago, Ill.	5-2	Utica, N. Y.		Indianapolis, Ind.	
WEDH 1420	WGR 550	- /	WICC 600		WKBH 1380	
Erie, Pa.	Buffalo, N. Y.	96	Bridgeport, Conn.		La Crosse, Wis.	1
VEEL 590	WGST 890	1-12	WIL 1200		WKBI 1420	27
Boston, Mass.	Atlanta, Ga.	l ì	St. Louis, Mo.	- 1	Chicago, Ill.	
VEHC 1200	WGY 790	.711	WILL 890	n /	WKBN 570	00
VEHC 1200	Schenec'd'y, N.Y.	4/-5	Urbana, Ill.	3/	Youngstown, O.	1
Emory, Va. WEHS 1420	WHA 940		WILM 1420		WKBO 1450	-
VERIS 1420			Wilmington, Del.	- 1	Jorgov City N. I.	
Cicero, Ill.	Madison, Wis. WHAD 1120		WIOD 1300		Jersey City, N. J. WKBS 1310	-
VELK 1370		i I	Minmi Fla	- 1	Calcaburg Ill	
hiladelphia, Pa.	Milwaukee, Wis.		Miami, Fla. WIP 610		Galesburg, Ill. WKBV 1500	
VELL 1420	WHAM 1150	15	Philadelphia, Pa.	- 1	Connersville, Ind.	
attleCreek,Mich	Rochester, N.Y.	-	rmiadeipma, ra.		WEDW 1400	4.0
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hicago, Ill.	New York City	10	Columbia, S. C.		Buffalo, N. Y.	
VEPS 1200	WHAS 820	37-5	WISJ 780	- 1	WKBZ 1500	
Vorcester, Mass.	Louisville, Ky.	- 1 8	Madison, Wis.		Ludington, Mich.	
VEVD 1300	WHAT 1310		WISN 1120		WKJC 1200	ı
lew York City	Philadelphia, Pa.		Milwaukee, Wis. WJAC 1310		Lancaster, Pa. WKRC 550	-
VEW 760	WHAZ 1300			- 1		w/
t. Louis, Mo.	Troy, N. Y. 860		Johnstown, Pa.	i	Cincinnati, O.	
VEXL 1810	WHB 860		WJAG 1060	- 1		
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VFAA 800	WHBC 1200		WJAK 1310	- {	WKZO 590	1
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noxville, Tenn.	Rock Island, Ill.		Pittsburgh, Pa.		Louisville, Ky.	
YFDE 1200	WHBL 1410		WJAX 900	2 1	WLB 1250	
incinnati, Ohio	Sheboygan, Wis.		Jacksonville, Fla.		St. Paul, Minn.	
VFBG 1310	WHBQ 1370		WJAY 610	75	WLBC 1310	
ltoona, Pa.	Memphis, Tenn.		Cleveland, Ohio	/	Muncie, Ind.	
VFBL 1360	WHBU 1210		WJAZ 1490		WLBF 1420	
yracuse, N. Y.	Anderson, Ind.		Chicago, Ill.		Kansas City, Ks.	
VFBM 1230	WHBY 1200		WJBC 1200		WLBG 1200	
ndianapolis, Ind.	Green Bay, Wis.		La Salle, Ill.		Ettrick, Va.	
VFBR 1270	WHDF 1370		WJBI 1210		WLRL 900	
altimore, Md.	Calumet, Mich.		Red Bank, N. J.		Stevens Pt., Wis.	
VFDF 1310	7 WHDH 830	22 4	WJBK 1370	1	WLBW 1260	
lint, Mich.	Boston, Mass.	162	Detroit, Mich.		Oil City, Pa.	
VFDV 1370	WHDI 1180		WJBL 1200	î	WLBX 1500	
lome, Ga.	Minneap., Minn.		Decatur, Ill.		L.I.City, N.Y.	
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Sangor, Me. WICI 1210 Carbondale, Pa. WINW 1200 Carbondale, Pa. WINW 1200 Scranton, Pa. WSM 650 Nashville, Tenn. WSM 150 Nashville, Tenn. WSM 1410 Nashville, Tenn. WSM 150 Nashville, Tenn. WSM								
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W.	Ithaca, N. Y.				Scranton, Pa.			14.5
W. 1370	WLEX 1410		WNBX 1200		WQAO 1010		WSMB 1320	
Saranacl-ke, N. Y. Wold Williamsport, Pa. Williamsport, Pa	Lexington, Mass.		Springfield, Vt.		New York City		New Orleans, La.	
WILT								
WOX 1500 WOX 1500 WOX 1210 WOX 1280 WOX	WLIT 560		WNJ 1450		WQDM 1370		WSOC 1210	
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Wilson W				114				
Chicago, 111 Vis. Vis. Vis. Vis. Vis. Vis. Vis. Vis.	Boston, Mass.	4.1	WNVC 570	11.2	WRAF 1200		WSPD 1240	
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WAN 1310 WSU S80 S80 WAN 1310 WSU S80 S90 WAN 1310 WSU S80 S90 WAN W	WLSI 1210		WOAI 1190		WRAK 1370		WSSH 1410	
Trenton, N. Y. VIVA	Providence, R. I.				Williamsport, Pa.		Boston, Mass.	
WRAX 1370				Int	WRAW 1310			
Description	WIVA 1370		WORT 1310	12	WRAX 1020		WSIIN 620	
WRIST 1310 Charlest'n, W. Va. WRIST 1310 WSYS 1370 WULL 1100 WOC 1000 Davenport, Iowa WOLL 1210 WRB1 1370 WRB1 1370 WRSY 1500 WRB1 1370 WRSY 1500 WRBL 1200 Columbus, Ga. WRB1 1370 WRSY 1500 WRBL 1200 Columbus, Ga. WRSY 1500 WSY 570 WRSY 1500 WRSY 1370	Lynchburg, Va.			734				1723
Weight 1370 Word 1500 Word 1500 Word 1500 Word 1210 Word 1250		C	WOBU 580	05	WRBI 1310		WSVS 1370	
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WARC 170 Jamestown, N. Y. WODA 1250 Jamestown, N. Y. WODA 1250 Paterson, N. J. WODA 1250 Paterson, N. J. WODA 1250 Paterson, N. J. WODA 1210 WODX 1410 WRBT 1370 WTAG 580 WTAG 5	WLWL 1100			53				
Syracuse, N. Y. WAMAK 1940 Data Suffalo, N. Y. WODA 1250 Paterson, N. J. WODX 1410 Mobile, Ala. WODX 1410 Mobile, Ala. WWMAG 670 Chicago, Ill. WODX 1410 Mobile, Ala. WWRD 1370 WRBX 1410 Chicago, Ill. WODX 1410 Mobile, Ala. WWRD 1370 Cleveland, Ohio WAMAZ 890 Albany, N. Y. WODX 1410 WRDX 1410 Chicago, Ill. WODX 1410 WRDX 1410 Chicago, Ill. WODX 1410 WRDX 1410 Chicago, Ill. WODX 1310 WRDX 1410 Chicago, Ill. WODX 1310 Chicago, Ill. WOQX 1310 Chicago, Ill. WOWX 1310 WRDX 1310 WRX 1310 Chicago, Ill. WWX 1310 WRX 1310 Chicago, Ill. WWX 1310 Chicago, Ill. WRX 1310 Chicago			WOCL 1210		WRBL 1200		WSYR 570	
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Chicago, III	WMAQ 670		WOI 640				WTAM 1070	100
WOKO 1440 Albany, N. Y. Washington, D.C. Wa	Chicago, Ill.	6	Ames, Iowa	- 1				118 :
Norfolk Va. Washington,D.C. WoMT 1210 Width of Manitowoc, Wis. Width of Manitowoc, Wis. WoVD 1270 Gr. Rapids, Mich. WOPI 1500 Memphis, Tenn. WREN 1220 WTRO 1420 Culmberland, Md. WTRO 1420 Word 1310 WoR 710 Newark, N. J. WoRC 1200 Worcster, Mass. WOS 630 Isolatory, WoMS 1370 Saroklyn, N. Y. WMEN 1370 Saroklyn, N. Y. WPOR 1370 Saroklyn, N. Y. WPOR 1350 WSAN 1350 Saroklyn, N. Y. WPOR 1350 WPOR 13	WMAZ 890		WOKO 1440		WRC 950		WTAQ 1330	
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(Continued from page 55)

THE TELEVISION BAND

The Federal Radio Commission has instituted the new allocations of frequencies for television broadcasters, the outcome of the recommendation of a recent engineering conference called by the Commission. The new reallocations went into effect as follows:

2 000-2 100 kc

	2,000 2,100 NC.
W3XK	5,000 Wheaton, Md.
W2XCR	5,000Jersey City, N. J.
W2XAP	250 Portable
W2XCD	5,000 Passiac, N. J.
W9XOA	500Chicago, Ill.
W2XBU	100Beacon, N. Y.
	2,100-2,200 kc.
W3XAK	5,000Bound Brook, N. J.
W3XAD	500Camden, N. J.
W2XBS	5,000New York, N. Y.
W2XCW	20,000Schenectady, N. Y.
W8XAV	20.000East Pittsburgh, Pa.

$_{\rm W2XR}^{\rm W9XAP}$	1,000 Chicago, Ill. 500 Long Island City, N. Y.
W2XBO W9XAA W9XG	2,750—2,850 kc. 500 Long Island City, N. Y. 1,000 Chicago, Ill. 1,500 West Lafayette, Ind.
W1XAV W2XR W9XR	2,850—2,950 kc. 500 Boston, Mass. 500 Long Island City, N. Y. 5,000 Downers Grove, Ill.

Other proposals of the conference now being considered by the Engineering Division of the Federal Radio Commission, will probably be recommended for approval within a brief period.

This realignment of visual broadcasting stations is expected to aid experiments and to hasten the day when the art will be ready for public entertainment on a commercial scale.

Letters From Readers

(Continued from page 26)

the same wave as WEAF and the call sounded like CE9CL of Winnipeg. Know that must be wrong because I never heard a call like that before. They were broadcasting late news and music. This was at 7 p.m. CST. Wonder if you could help me locate it." Earl R. Roberts, 4319 E. 30th Street, Indianapolis, Ind.

"I notice that many DXers have never logged stations of 1500 kcys. I have now logged nine stations on that channel; namely, WDIX, WKBZ, WLBX, WMBA, WMBJ, WMPC, WOPI, WPEN and WWRL. Nearly every morning between 5 and 6 a.m. CST. I can pick up either WDIX or WPEN. After 10 p.m. CST. I can usually bring in one or more of the others. There is nearly always some station broadcasting on that channel which can be brought in." H. L. Ball, 514 31st Street, South Bend, Ind.

"I am a very ardent DXer and have hooked 476 stations since I started DXing five months ago. Have hooked CKWX, Vancouver, B.C.; CMBY, Havana; WBGF, Glen Falls, N. Y.; KCRJ, Jerome, Ariz.; KDFN, Casper, Wyo.; KOB, State College, N. M.; XEH, Monterrey, Mexico; CFCY, Charlottetown, P.E.I.; KGU, Honolulu; 8WMC, St. Johns, N. F.; VAS, Glace Bay; XEO, Mexico City, and XFE, Villahermosa, Mexico." George Spies, 1538 N. Edward Street, Decatur, Ill.

"I have logged 320 stations in two DX seasons. I haven't got any across the ocean, except Cuba. There I have five, three in Mexico and 10 on the west coast. KOY, Phoenix, Ariz., from which I have a verification, broadcasts till 1 a.m. MST. on Saturday nights and would like to hear from listeners. They reply promptly and issue a nice verification." Chas. Mella, 674 Park Avenue, W. New York, N. J.

"I have been keeping track of the number of stations I have received since October 1, 1930, and to date they number 288, including 15 stations in Canada, five in Cuba, three in Mexico, one in Porto Rico, and 29 on the west coast. I have heard from every state in the Union with the exception of Vermont,

Nevada and Wyoming. I use a Lincoln superheterodyne battery set." Norman H. Rohe, 11816 McCracken Road, Bedford, Ohio.

"My total verified log comprises 146 stations to date. Foreign stations I have sent letters to and have had no answer are: CMI, Havana; CMK, Havana; CFCN, Calgary; CKLC, Calgary; COMK, Mukden; 2YA, Wellington, N. Z.; XEJ, Juarez; 5CL, Adelaide; CJBC, Toronto. I have sent at least four letters each to KFKB in Milford, Kansas, and KGIQ in Twin Falls, Idaho. Have had no answer from either, although a stamped envelope was enclosed in each letter." C. R. Simpson, 162 W. Alvarado, Pomona, Calif.

"On January 3rd I received my new Silver-Marshall 9-tube super. It has eight tubes and to date I have received 202 stations on the broadcast range of 540 to 1500 keys. I have stations in every band except 540 which is CKX, Brandon, Man. I am using a 160-foot aerial and the set is sure selective. WABC at New York, on 860 keys., comes in without WLS or WENR at Chicago, on 870 keys., interfering at all." Harold Rowe, Medaryville, Ind.

"I have received WKAQ in San Juan, Porto Rico, and VAS, Glace Bay, N. S. I have 43 states and most of the Canadian provinces logged. I have had my present set, an Atwater Kent, Model 55, for 15 months, and in this time I have logged over 300 stations, including 19 stations in California, six in Cuba, and three in Mexico." D. P. Scriven, Oakwood Farm, Titusville, Pa.

"Last Saturday, February 14th, I tuned in 106 stations in about five hours. Eleven were on the west coast, three Mexicans, three Cubans, a 50-watter in Sydney, N. S., 100-watter in Corpus Christi, Texas, and 100-watter in Laconia, N. H., four of the west coast stations use only 1000 watts and two only 500 watts. I am using a Brunswick Model 21, with an antenna 42 feet long." E. Palmer, 9130 112th Street, Richmond Hill, Long Island, N. Y.

"We have had for a month now a General Electric 9-tube super and it's a peach. I have received 149 stations so far and expect to get lots more yet. I can't tune out our own station and get another anytime on one point. I would like to know if it is possible for anyone in Winnipeg to get Japan. Has it been done?" Dorothy Young, 168 College Street, Winnipeg, Man.

"We have a Radiola 80 super, and since November 1, 1930, we have logged 285 stations and all but a few are verified. Of these 24 are west coast stations, six are Cuban, five are Mexican, and 17 are Canadian. We have logged stations on all 96 channels, including CKX on 540 kcys. Of these 32 are 100-watters, seven are 50-watters and one 25-watter." Fred and Ernst Bagel, 3222 No. Newhall Street, Milwaukee, Wis.

"I have an 8-tube, Model 86, Philco and have received stations on all the wave lengths but four: 690, 680, 1360 and 1300. I would like very much to receive letters from other DXers." Don. H. Walthers, R.R. No. 2, Butler County,

Shandon, Ohio.

"The other night I got 105 stations, XEW, XED, KFVD, KSL, KNX, KFI, KHU, KHQ, KGW, and plenty more." Milton Thomas, 3125 East Overlook

Road, Cleveland Heights, Ohio.

"I use an Atwater Kent 60 and fifty feet of copper wire washed in silver and then rewashed in gold, an iron pipe about seven feet in the ground filled with rock salt about once a month. I pick up Australia most any night and the Japanese stations also." J. W. Mehan, 446 Daisy Avenue, Long Beach, Calif.

"I am now operating a Philco baby grand. Have logged 158 stations since January 15th. This includes 18 stations in the Pacific coast, two in Cuba, ten in Mexico. My best catches are two 100-watters, WNBO, Washington, Pa., and KGFJ, Los Angeles; also KGB, a 250-watter in San Diego." J. R. Hollomon, Corrigan, Texas.

"I have had a Majestic, Model 131, radio for two months and to date have logged 201 stations on every frequency except 1030 kcys. I would like to state that there is a new Cuban station which you did not list in the February issue. This station is CMCS, Havana, operating on 890 kcys." Justin McGowan, 2117 Courtland Avenue, Memphis, Tenn.

"Just last Saturday night, from 4 p.m. to 4:45 a.m., I got a record that I don't believe I will ever touch again — 163 stations; and from 4:30 p.m. till 12 midnight I had 109 stations, and of the total I had 24 stations in California, Oregon, and Washington alone, and one in Vancouver, B. C. I got these stations on a Philco set." A. G. Schleiter, Freedom, Pa.

"Have been keeping a log since November 1, 1930, and, using a Philco with headphones, have been lucky enough to bag 274 different stations, including 26 on the west coast, four in Mexico and four in Cuba. Only four states have not been heard from: Arizona, Vermont, Delaware and New Mexico. I would appreciate information on broadcasting schedules of stations in those states." Laurance Angel, Jr., Tarrytown Daily News, Tarrytown, N. Y.

"My log contains 284 stations. I have not yet received any from Montana, Arizona, Idaho, Vermont or New Hampshire. I have 14 stations from California, including KFVD, five from Washington and two from Oregon." Harry Irion, 75 Chestnut Street, Woodbury, N. J.

"I have received, in the past 120 days, 325 stations in 42 states and every channel, including 11 in Canada, five in Cuba, and 12 in Mexico. Where is KCAA? 1170 or 1180 kcys. It seems to be a police or air transport station." Lewis Wallis, 430 W. Coler Street, Neosho. Mo.

"I have been shooting for distance for years and have enjoyed every night of it. In my present location I am working under difficulties with a power-house two blocks away and high-tension wires in front of the house, but have managed to pull in 196 stations on my RCA 60 during the last year." Eugene Hollingsworth, 65 Lent Avenue, Hempstead, Long Island, N. Y.

NEXT MONTH—A Completely Revised List of World Stations by Frequencies.

FAVORITE PROGRAMS

me Station	Dials	Feature	Time Station		Feature		
DAILY			WEDNESDAY				
	_						
_							
	27.777						
SUNDAY				THURSDA	Y		
							
MONDAY		FRIDAY					
WORDA 1			- INDAT				
					*		
TUESDAY			SATURDAY				

HOW TO TUNE A SET CORRECTLY

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

INDEX BY FREQUENCIES AND DIAL NUMBERS

LL stations in America are listed in RADEX A LL stations ...

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

greatest volume.

Let us assume that the station we are hearing is WEAF in New York. First we must ascertain the frequency for this station. Look it up under WEAF in the Index by Call Letters or under New York in the Index by States and Cities. In. either of these indexes we find that the frequency of WEAF is 660. Now we turn to 660 kilocycles in the Index by Frequencies and Dial Numbers. Here we find that WEAF is one of the two stations which have been assigned the 660 kcys. frequency by the Federal Radio Commission. We also Commission. 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.

WMAQ 5000 Chicago, Ill.

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 kcys, are 72-70 and the dial numbers for 660 kcys, are 69-67. If we now will set our dials for 70-68 it is obvious we will have our set tuned for 650 keys. We listen carefully and if they are on the 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 kcys. and at that point KFI of Los Angeles will be heard, always assuming, of course, that it is on the air and within range of our particular set.

Now we tune in some other station, proceeding

590 kilocycles 508.2 meters 1006 Spokane, Wash, 506 Lincoln Nebr, 500 Borros, Mass, 1006 Ornalis, Nebr, 1006 Berrien Springe, Mich. Abilibi Power A Paper Co. Hishop N. S. Thomas Airlan Rudio Corp. Monumental Rudio Co., Inc. Briot College Briot College WHY C. Thomas Co. Trevelare Linuarance Co. 600 kilocycles 499.7 meters Troquoli Falls, Ont.
Larante, Wyo.
Son Hiego, Calif.
Larante, Wyo.
San Hiego, Calif.
Saltimore, Md.
Seloti, Wik.
Sol. Lawrenceburg, Tenn.
Memphis, Teon.
Herriord, Cono. 610 kilocycles 491.5 meters Don Lee, Inc.
Kansas City Ster Co.
Keystone Brusstearling Co., Inc.
Cimbel Bruss, Inc.
Unity School of Christianity 620 kilocycles 483.6 meters 73 | 7/ 500 Phornis, Aria. 1904 Parriand, Ore. 1908 Tamps, Fis. 1908 Orlands, Fis. 502 Dover-toucroft, Ma. 1908 Milwaukee, Wis. 630 kilocycles 475.9 meters 72 1 70 500 Victoria, B. C. 508 Vorkton, Sask, 500 Monction, N. B. 100 Magatton, Mer. 500 Columbit, Mo. 500 Engagelle ind. 256 Washington, D. C. 506 Jeffreson Giry, Mo. Victoria Broadcasting Ass'o, Winnipeg Grain Excliange Canadian National Railways Castino Harriss Gallege Evansellic on the Afr. Inc. M. A. Leser (b. State Marketing Bureau 640 kilocycles 468.5 meters 5000 Los Angeles, Calif. 70 1 68 650 kilocycles 461.3 meters 5006 Nashallle, Tenn. stlonal Life & Accident Inc. Co. 660 kilocycles 454.3 meters WAAW 500 Omahs, Nebr. 670 kilocycles 447.5 meters 680 kilocycles 440.9 meters RPO 5000 San Francisco, Call

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. should not 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.



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