

THE MARCH 1930

# RADIO INDEX

Always Up-to-Date



Winsome and Demure

IN THIS ISSUE:

A Debate on the Merits of the New Five-Element Tube

Short Waves for the Radio Fan, a Field for Experimenting

No. 37

With the March 2nd Changes

N. S. E.

# My **NEW BOOK** is ready for you

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Hold your job until you are ready for another. Give me only part of your spare time. I'll give you what you need to know to break into Radio. My 8 Outfits of Radio Parts, given without extra



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City ..... State .....

J. E. Smith, President

**National  
Radio Institute**

Dept. OC52

**Washington, D. C.**

THE MARCH 1930

# RADIO IN DEX

REG. U. S. PATENT OFFICE

FRED CLAYTON BUTLER

Editor and Publisher



SIXTH YEAR

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# Short Waves for the Radio Fan

A Great Field for the Experimenter

By J B SMITH

FOR the radio fan as well as the experimenter, short-wave reception is an especially attractive field for long-distance work, for, as is well known to short-wave enthusiasts, much greater distance can be obtained on the lower wavebands than on the regular broadcast wavebands. It is due to the great range of short waves that constant communication with the polar expeditions was possible. At the present time many broadcasting stations are operating on two wave-lengths simultaneously, which is of considerable advantage to the radio fan as he is able to get away from the crowded condition of the broadcast range by tuning in on the same programs at a lower wave-length or higher frequency. The short waves are also valuable because the "side-band cutting" is less severe than it is in the case with the broadcast waves. A third advantage of short-wave reception is that less static and atmospheric disturbances are picked up, making it possible to obtain reception with greater clarity. Furthermore, television broadcasts are being made on the short waves as they are especially adaptable for this purpose.

The simplest method of picking up short waves, and the most practical for the average radio fan, which will eliminate the need of building an entire receiver, is to use a short-wave adaptor. Such an adaptor usually consists of one or two tubes with a separate tuning control, and comes equipped with a cord and adaptor plug which is plugged into the detector socket of the regular broadcast receiver. In this way the audio end of the receiver is utilized. The aerial and ground leads are, of course, also transferred to the aerial and ground binding posts on the adaptor unit. Adaptors designed for either a. c. or d. c. operation can be obtained from radio dealers and mail-order houses at prices from \$6.00 to \$60.00. They are equipped with a tuning dial and sometimes with variable inductance controls. For best results in bringing in low-wave stations, a set of four tuning coils of the inter-

changeable type, covering the 20, 40, 80 and 150-meter wave-bands, should be used. Adaptor units can be purchased completely assembled and wired, ready to plug into your set, or they can be obtained in kit form, to be wired at home. For the experimenter it will be most satisfactory to build one, as there is more choice in kits than in ready-made units. Some units have a radio-frequency stage preceding the detector, which means two sets of interchangeable coils at a higher cost, but the advantage of a two-tube unit is greater distance than can reasonably be expected from a one-tube unit. In one-tube short-wave receivers regeneration from the detector plate circuit is often employed to build up the signal. A good regenerative circuit, in which the aerial is connected to the plate output of the detector tube, has been used with success, this method of regeneration being known as the "ultra-audion" hookup. However, the disadvantage of regeneration is that there is reradiation from the antenna the moment the detector tube begins to oscillate, and the best working condition of the set is just below the oscillation point. Such reradiation causes interference with radio reception of others in the vicinity when the short-wave receiver is operating directly under the 200-meter band, and other receivers in the neighborhood are getting reception at wave-lengths just above 200 meters. In a two-tube set employing a screen-grid r. f. tube, such trouble is entirely eliminated as the screen-grid tube serves effectively in blocking reradiation.

The interchangeable coils on the market are made to fit suitable bases, and in many cases, they are designed to fit UX tube sockets. In a few instances UY tube sockets are used as coil bases, and in other instances special bases are provided by the manufacturer of the coils. The radio experimenter can also make the coils himself, if he desires, and in this may effect a saving of from \$5 to \$10.00. The materials required are four

*(Continued on page 18)*

# The Stormy Petrel of KWKH

THE following interesting comment on "Old Man" Henderson of KWKH is clipped from the news service of the *Cleveland Plain Dealer*.

"Hello, world! Dawgone ya! Don't go 'way, now! Don't go 'way! Shreevepo't on the air—Shreevepo't everywhere. Dawgone!"

It's the theme song.

Nightly it goes booming through the loud speakers of the nation.

In Detroit, a theater manager, checking up the day's receipts, pauses to listen.

son has become a national character. In the last two months he has become the stormy petrel of the radio world, the champion long wave length cusser.

If fans could meet "Hello World" they would find a rather fussy old man, small and slight with a protruding and wabby little stomach.

He sits with his cheek almost touching the microphone, grumbling for all the world like an old soldier who refights battles that never occurred.

Each morning the mailmen stagger



*Did you hear the inimitable Mill Gross version of Romeo and Juliet on the Philco Hour recently? Fanny Brice and Henry Burbig presented an uproarious burlesque of the great lovers.*

In Kansas City, a father exclaims irritably, "Get away from that radio!" to the daughter about to twirl the dials in a search for Rudy Vallee.

"It's old man Henderson on KWKH!" They all exclaim. "Wonder what he's going to pull tonight."

Some sneer, some are sincere, some speak in terms of amusement.

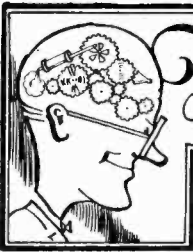
To the country at large, W. K. Henderson appears in a variety of aspects ranging from blasphemer and clown to crusader and courtier.

In two years, "Hello World" Hender-

son into the office of KWKH bearing 1,500 to 2,000 letters.

He has a southerner's instinctive flair for the dramatic. He dramatizes his arguments.

He punctuates his invective and oratory with phonograph records. Beyond this he makes no effort at giving entertainment. This fact was placed before the radio commission last February, when W. G. Skelly, owner of KVOO at Tulsa, Okla., petitioned for full-time broadcasting on the wave length of 850 kilocycles used by the Shreveport station.



# The EDITOR THINKS~

That the most complaints our readers make concern the failure of announcers to give their call letters frequently. Ruling of the Radio Commission requires a station announcement at least every fifteen minutes. Many announcers have evidently never heard of this ruling for we have had distant stations for the better part of an hour during which time no announcement of call letters was given. It seems to be a strange part of announcer psychology to feel that because he knows who he is, everyone else must know. Good-will and advertising value are two of the most important by-products for which the owners of every station are seeking. It passes understanding why they permit their announcers to pass up golden opportunities for making their station known. It takes but three seconds to give call letters and city and does not in the least detract from the program. On the contrary we like to hear the harmonious "W-L-S Chicago" that comes in nearly every break of that station's program.

\* \* \*

That our readers should like the new arrangement of "What's On the Air" in this month's issue of this magazine. At first they may miss the familiar call letters, but we feel sure that after the new form has been used for a while it will prove much more convenient than the old. We shall await word from our readers regarding it with much interest. We have had many requests that we arrange the stations broadcasting each program in alphabetical order or in the order in which they come in on the dials. We decided that the latter method would be preferable, as one could then start at one end of the dial and turn to each frequency in order. Having decided upon this method, it seemed advisable to use the channels rather than the call

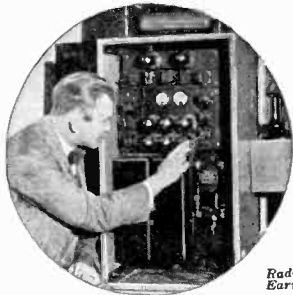
letters, for where the latter are used, they must first be turned into frequencies. We therefore adopted the plan which will be found in this issue, of using the kilocycle numbers for each feature instead of the call letters. This will prove especially valuable where dials are marked with kilocycles as so many of the modern sets are. We invite comment on the new arrangement after our readers have tried it a few nights.

\* \* \*

That manufacturers of receiving sets are overlooking an opportunity when they fail to furnish with each set sold an accurate and up-to-date list of stations. An index is as necessary to radio as a directory is to a telephone. Many new buyers of radio sets become disgruntled over their failure to receive distant stations and blame their sets when the trouble is that they do not know how really to tune a set. The great lure of a radio set is the ability to tune in any one of a large number of stations and the average user has no idea how to tune his set for any desired frequency. Consequently he uses his set merely as a sort of phonograph, tuning in his local station and letting it go at that. To pack a copy of RADEX with each set when it leaves the factory is hardly feasible, as it might be out of date by the time it passed through the hands of distributor and dealer and reached the customer. And this might lead the buyer to think he had purchased an old set. To meet this situation, we have designed a coupon which may be packed with the set. This coupon may be filled out by the purchaser of the set and mailed to us and entitles him to a free copy of the latest RADEX. These coupons are then redeemed by the manufacturer at the wholesale price. Such a plan should add greatly to the customer's satisfaction with his set.

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Name.....

Address.....

Please mention RADEX

# Another Intelligence Test

Only Present Stations in This Cross Call Teaser

**W**ELL, that January puzzle certainly was a sticker. Only three readers were able to solve it accordingly and copies of RADEX have accordingly been mailed to J. Kenneth Loudon, Orangeville, Ontario; Harold Fogelsinger, Buffalo, N. Y., and Raymond M. Bell, Syracuse, N. Y. Mr. Loudon writes: "You sure said something when you called it a hard nut to crack. I had to trot out all my old radio logs to solve it and it took me all of three weeks."

In submitting what was unfortunately an incorrect solution, Cyril P. Engelmeier, of Pittsburgh, Pa., has this to say: "I am very reluctant to admit that our good friend, Mr. Angel, has the best of me in the January Cross-Call. My experience goes back only to February, 1928, and those 1924 and 1926 calls are decidedly unknown to me. Will wait for the one in February and try that as I think it is great fun and very broadening in a radio sense."

Here is the correct solution of the January puzzle:

KWK WJW  
WOL NOF  
WCX JAB  
WGL K KNX  
O HHK E  
WCK Q WWB  
KGW WLB  
WHO RAA  
XFI WWZ

We suggest that our puzzlers make a practice of comparing the descriptions of calls with the correct solutions and thus get the full benefit of the education in stations.

The puzzle this month is an exceptionally clever one as it is not only perfectly symmetrical, but every space is keyed both ways. It was submitted by Walter H. Roe, of Tiffin, Ohio, to whom a leatherette cover has been mailed as a very slight token of appreciation. Mr. Roe has confined his stations to those at present existing and all of the calls used will be found in this edition of RADEX. Here is the food for thought:

	1	2	3		4		5	6	7	
8	9	10	11	12	13	14	15	16	17	18
19	20		21	22	23	24	25		26	27
28	29	30		31	32	33		34	35	36
	37	38	39		40		41	42	43	
44	45	46	47	48	D	50	51	52	53	54
	55	56	57		58		59	60	61	
62	63	64		65	66	67		68	69	70
71	72		73	74	75	76	77		78	79
80	81	82	83	84	85	86	87	88	89	90
	91	92	93		94		95	96	97	

## Horizontal

- 1- 3. 50,000 watts on a clear channel.
- 5- 7. Church in the North-West.
- 8-11. 100 watts in the show-me state.
- 12-14. In the central part of the Buckeye state.
- 15-18. In the Wolverine state—last three letters the owner's initials.
- 19-20. A Mexican station less ten.
- 21-23. Where they teach farming.
- 23-25. Changed from 1360 to 1330 in December. Reverse.
- 26-27. Last two letters from 28-30.
- 28-30. Ohio station owned by radio service store.
- 31-33. Owned by a southern city.
- 34-36. A western broadcasting company.
- 37-39. On twelve-seventy.
- 41-43. A publishing company in the North-west.
- 44-47. 100-watt Bible class.
- 51-54. 50-watt hardware company. Reverse.
- 55-57. In a state of only three stations.
- 59-61. Use the last three letters which pronounce the owner's name.
- 62-64. Radio telephone company in the North-west.
- 65-67. A state marketing bureau.
- 68-70. 1000 watts in one of the peninsula states.
- 71-72. Middle initials stand for a flour.
- 73-75. 10 watts in West. Reverse.



- 75-77. Pacific Coast publishing company.  
 78-79. First and last letters of a New England station.  
 80-83. About 229 meters.  
 83-85. Peery Building Co.  
 86-89. In J-4.  
 88-90. A 5000-watt sharing wave with a 10000. Reverse  
 91-93. One of two 10000 watts on same wave by same owner.  
 95-97. A State station in Mexico.

*Vertical*

- 1-29. 100 watts on the Gulf coast.  
 2-10. In the Flour City. Last two letters.  
 3-21. 1000 watts on Lake Erie.  
 4-32. Wheat producers.  
 5-25. 1000 watts sharing wave with four 250 watts.  
 6-16. Pickwick Broadcasting Corp. Last two letters.  
 7-35. In Keystone State. Owner's name is a city.  
 8-28. 1000 watts sharing wave with a 30,000.  
 12-31. Owner an organization with the same initials.  
 14-33. Radio station Inc. in New York.  
 18-36. A Canadian station sharing wave with a Mexican.  
 30-56. Chamber of Commerce with 10,000 watts.  
 34-52. 2190 miles from New York.  
 37-63. 100 watts at a "point" in the West.  
 39-57. 100 Watts, a saint and a Broadcasting corp.  
 41-59. Near the Gulf of California.  
 43-69. A college station at the same place.  
 62-80. First three letters of 37-63.  
 46-64. In a grand place. Last three letters reversed.  
 65-84. In a Hoosier city which also has a 10,000 watt.  
 66-94. In the Hudson Valley. Reverse.  
 67-86. Three 250 and five 500 watts on this wave. Reverse.  
 42-68. A 1000-watt with five 500 and one 250. Reverse.  
 69-97. Last three letters are owner's initials.  
 70-90. Last two letters the initials of the state. Reverse.  
 73-93. Last two letters abbreviation of another state. Reverse.  
 77-95. Excelsior in Mexico.

- 82-92. Last two letters of a 1200 kc. station.  
 88-96. Reverse two middle letters of a call that tells the state.

There, that will hold our puzzlers for one evening. Get busy if you want to have an extra copy of the April RADEX and incidentally take a post-graduate course in station calls.



*This charming lady was born Nagy Janka in Hungary. The English equivalent is Johanna Grosse and she is now the featured organist of WTAM. She first became known to the radio world through her playing at WLW. She came to Cleveland to dedicate the new \$40,000 organ for WTAM and remained as a member of the staff.  
 Miss Grosse has a strange hobby — high diving — for which she has received many medals. She commenced giving concerts at nine years and has devoted her life to music ever since.*

## Changing to Screen-Grid

Our Technical Editor is preparing an article on this interesting subject for the April issue.

## Some Foreign Programs

**A** NUMBER of our readers kindly call the attention of DXers to programs they have received. These should provide some interesting moments in trying to tune these stations in. Karl Halpern, of Brooklyn, N. Y., reports HHK at Haiti, on the air every day except Sundays and holidays 12:15 to 12:45 p.m. E. S. T., with a musical program, and each Friday 8 to 9 p.m. E. S. T., and each Saturday from 6:45 to 7:15 a.m. E. S. T., with educational lectures and music.

C. M. Falconer, of Baltimore, advises us that at 11 p.m. E. S. T. (10 p.m. C. S. T.) The Mexican Daily News broadcast news in both English and Spanish over station XFX on 910 kcs. with 1000 watts.

Frank A. Johnson, author of the DX article in the February issue, writes that 8WMC at St. Johns, Newfoundland, broadcasts Sunday morning church services on 415 meters with 500 watts and Monday and Thursday nights at 8:30 Atlantic Standard Time, an amateur program. Mr. Johnson contributes information regarding NBA and TIX which we are incorporating in the index. He writes regarding JFAK, Taihoku, Taiwan, Japan, "At exactly 6:40 a.m. C. S. T. (which is 9:40 p.m., or 15 hours later in Japan) they come in with 'Gan—g, gan—g, gan—g' (sound of the Japanese time signals) then give weather conditions, storm reports, latest happenings of the day, tomorrow's program, etc., and close down at ten o'clock, Japanese time. If it's a morning program they say 'Ohayo,' which means "good morning.' Signing off and saying "good-night,' they say 'Sayonoi-a,' which means 'good-bye.' The English language instructions reach us here at 3:30 a.m. (a good time to catch them). The announcer comes to the mike at JOAK and then you hear 'J-O-A-K Kochirarva Tokyo Chiwo Hoso-Kyoku de Arimsau' which means JOAK. This is Tokio Central Broadcasting Station."

Leon V. Garland, El Segundo, Calif., writes: "Many on this Coast could get the Japanese stations if they knew where to get them. I will list them below

showing comparison with U. S. stations: JOBK, Osaka, 10,000 watts. Dial same as WJR.

JOHK, Sendai, 10,000 watts. Dial same as WBBM.

JOGK, Kumamoto, 10,000 watts. Dial same as KGO.

JOCK, Nagoya, 1,000 watts. Dial same as WCCO.

JODK, Keijo, 1,000 watts. Dial same as WHAS.

JOIK, Sapporo, 10,000 watts. Dial same as KOA.

JOFK, Hiroshima, 10,000 watts. Dial same as KOA.

JOAK, Tokio, 10,000 watts. Dial same as WENR.

## Batteries to A.C.

**W**E greatly regret that an error crept into the article in the January issue, *Electrifying Battery Sets*. The description of changes in the text did not agree exactly with the cut. Readers interested in changing over old sets operated by batteries to a. c. will please note the following correction:

The last paragraph of the article on page 23 of the January RADEX should read as follows:

The resistors are then installed. The end terminals of the 15-ohm potentiometer are connected across the 1.5-volt filament lines. The center terminal of the potentiometer is connected to one side of a 0 to 750 or 1000-ohm variable resistor, and the other side of the latter is connected to the ground line. One side of the 2000-ohm fixed resistor is connected to the ground line and the other side to the center tap of the 5-volt winding of the transformer. The center tap of the 2.5-volt winding of transformer is connected to the B-positive line supplying detector-plate voltage, which is 45 volts. The resistors can be attached to the subpanel and need not be touched after they have once been adjusted. Two variable resistors for controlling stability and volume are then installed on the panel, these being substituted for rheostats formerly used but now discarded. The stability control is a 0 to 2000-ohm variable resistor. It is cut in the B-positive line supplying the r. f.

*(Continued on page 23)*

R. T. I. QUALIFIES YOU TO MAKE MONEY AND ITS SERVICE KEEPS YOU UP-TO-THE-MINUTE ON THE NEWEST DEVELOPMENTS IN RADIO, TELEVISION, AND TALKING PICTURES



**BIG MONEY QUICK**—the chance to more than double your salary — is offered to you now. RADIO has leaped to a gigantic industry, employing many, many thousands and loudly calling for more trained men to fill the Big-Pay jobs.

**TALKING PICTURES** are sweeping the entire country, opening up many new good jobs everywhere. TELEVISION now comes with even greater promise of a large number of good paying jobs for those who are prepared.

### Big Money Now! More to Come

Big-Money Jobs — \$2500 — \$3500 — \$5000 and up, right now — lots of money easily made in spare time — increasing pay for you and more and more money as this new industry grows bigger and bigger.

### Answer the Call---Get Into This Money-Making Industry Now!

The "R.T.I." famous "3 in 1" Home Training in Radio, Television and Talking Pictures makes it easy for men, young men and boys to get into this new field quickly. R.T.I. home training is practical and easy to understand. It trains your head and hands at the same time. Your opportunities for money-making are unlimited. Your age, amount of education, or experience, make no difference. If you are interested and ambitious you can succeed. You will be ready for a good job or profitable business of your own, even before you finish the training. Remember — you learn at home in your spare time on actual equipment included in fine, big outfits sent you. R.T.I. with all its connections in the industry, keeps you up-to-date and pushing forward all the time.

### R.T.I. Wonderful Free Book Nothing Like It Ever Published

It will open your eyes to the dawn of the greatest development in the history of the world — the vast number of new money-making jobs — enormous spare time profits — all within easy reach of ambitious men. Send for your copy before this edition is exhausted.

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#### \$500 EXTRA MONEY IN 2 MONTHS

Your radio course has enabled me to earn over \$600 in two months. This is all spare time work, as I have a permanent position with my father in our store. I give you all the credit for the above.  
—J. NOPPING

R. I., Box 37, Greenville, Ky.



#### MAKES \$25 A DAY

I make as high as \$25.00 per day and have made \$600.00 in 2 months from Radio work. That's not so bad when I'm only 19 and in a small town. You did all you said you would and much more.—FLOYD KNEISLY  
Box 91, St. Joe, Ind.



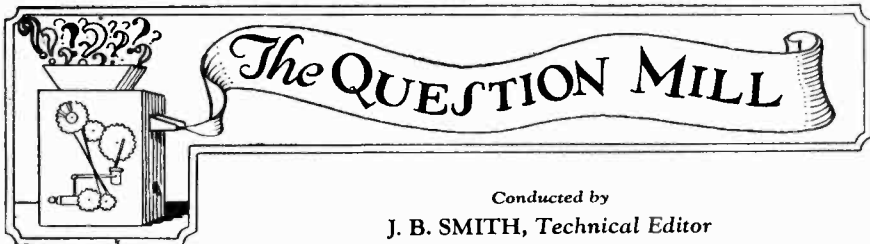
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Send me Free and prepaid your **BIG BOOK** "Tune In On Big Pay" and full details of your three-in-one Home Training (without obligating me in any way).

Name .....

Address .....

City..... State.....

Please mention RADEX



# The QUESTION MILL

Conducted by

J. B. SMITH, Technical Editor

We are glad to publish replies in this column to questions asked by any reader. We cannot promise, however, to reply by mail to other than yearly subscribers. If you are not a subscriber and desire personal reply, please send your subscription with your question. You will find blank for this purpose on page 34

*I would like to know if you can connect a headphone in the plate circuit of the 222 screen-grid tube. I have a Fada five-tube battery set that seems to have a noise in it. When you turn up the volume the set has whistling noise and, of course, this ruins reception. I tested the batteries, aerial and ground and they are O. K., but the whistling noise comes in just the same. What is wrong?*

As the output of the screen-grid tube is oscillating at a high frequency—radio frequency—you would get no results whatever if you connected a headset in the plate circuit. Radio-frequency waves cannot be heard by the human ear and they must be converted to audio frequency, which is done by means of a detector. A constant whistling may be due to various causes of which the most frequent are: too high a plate voltage on the r. f. stages or too high detector plate voltage, a high-voltage wire running close to a grid line or near the grid condenser. If you will check these possibilities in your set I think that you will soon discover the trouble. Sometimes a poor tube also causes whistling.

*I have an "Aero-dyne" 6 D. C. receiver, which I built two years ago and it has never given the distance that I think it should. Now it seems to be losing sensitiveness and selectivity. I am using a Balkite AB 6-180 eliminator, which is getting noisy. Since the change of wavelength of WTAM and WADC these stations cover up most of the dial where I formerly got other stations. By removing the tubes in the second r. f. stage the volume is sometimes greatly increased. I am using 201A tubes*

*and a 112A tube in the last a. f. stage. There is a hum when I place my hand on the first a. f. transformer. The volume also increases when I connect the variable condenser frame to the ground binding post. What can be done to make it more sensitive and selective, and what will make it give better service and distance?*

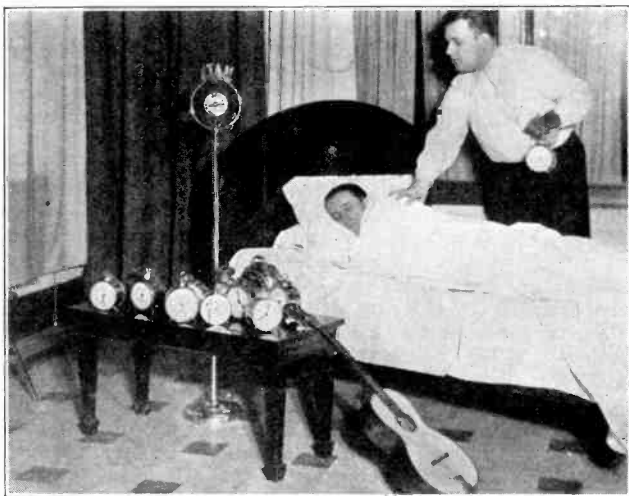
Evidently your second r. f. stage is not working properly. This may be due to a poor tube, poor contact between the tube and socket, broken connection, touching plates in the variable condenser, or a short-circuited coil. The latter is very seldom the case. I suggest that you replace the old eliminator with a new one or otherwise have the defective parts replaced. Also, have all of your tubes tested, replacing those that are not up to the normal value. Your radio dealer will be glad to do this for you. If you are troubled with broad tuning shorten the length of the aerial. Your main trouble, however, is the second r. f. stage.

*I have a Silver-Marshall 740 D. C. receiver, which has given excellent service for the past year, but a short time ago the drain on the B-batteries became too much so I took it to a radio shop to see what could be done about the trouble. They replaced the midjet bypass condenser, which is specified in the data on this set as .25-mfd. capacity. They also replaced the bypass condenser, which is 1 mfd., and the tubes. Since this work has been done I am unable to pick up very many stations, or to get the volume on those that I do pick up, most of which are not 500 miles away. Neither do I get any signal from*

the stations when turning the dials. The stations always come in and out without any warning at all. Before this work was done the set would always squeal whenever a station was close by, or when the distance control was turned too far. Now the distance control, which is a .000075 mfd. midgel variable condenser, can be turned clear around without having any effect on the set at all. The screen-grid tube or r. f. amplifier tube was not changed but the other three were replaced with UX 112A tubes. These three tubes are all the same

toms, as expressed in your letter, your B-batteries are probably getting too low for the efficient operation of the set. This would account for your inability to get distant stations. The batteries should be discarded when they have dropped 15 per cent below their normal voltage when new. Therefore, a 45-volt battery should be discarded when it drops to 38 volts. Also be sure to keep your A-battery up to 1280 specific gravity. A low A-battery will make it impossible to get distance. Then it is well to renew the

*It's hard to get up in the morning especially when you have to go on the air at 6:30. Listeners who were anxious to hear them, contributed alarm clocks, but in spite of them Glenn finds it hard to waken Gene. Hear them over WTAM each morning 6:30 to 8:00.*



but when they are changed around with each other there is a great loss in volume.

You mention in your letter that you are now using one screen-grid tube and three UX 112A tubes. Here is one point of difference with the instructions for the No. 740 Silver-Marshall receiver, which state that two 112A tubes and one UX 171A tube should be used, the latter for the second a. f. stage. This is highly important as the connections to the B-batteries or eliminator, and also the C-voltage, as given in the instructions, are especially intended for the UX 171A tube, which requires a 40.5-volt C-bias at 180 volts B, whereas the UX 112A requires only 9 volts. If you have a c. current in your locality, I suggest that you purchase an eliminator and discard the B-batteries. According to the symp-

screen-grid tube after a year's service. If you follow these simple precautions I am quite certain that your troubles will be over, and you will find that the set is again as sensitive as formerly.

*What should the normal flow of plate current be in my set, which has one r. f. stage using a UX 201A tube, a detector UX 201A, one stage of audio UX 201A, and a second stage of audio having two UX 171A tubes in push-pull. I use 45 volts of B on the detector, 90 volts on the other tubes and 4.5 volts of C-battery.*

A 0 to 30 milliammeter is necessary to measure plate current drawn by your receiver, the milliammeter being connected in the negative line to the battery. Your set should not draw more than 27.5 milliamperes as the detector draws 1.5 mls., the other two UX 201A tubes

each draw 2 mils., and each 171A tube draws 11 mils., the latter being supplied with 90 volts of B and proper C bias, which should be 16 volts in this case. Your power tubes are therefore drawing more than two-thirds of the total amount of current. It is advisable to replace the B-batteries with a suitable B-eliminator, which will provide higher voltages. You should have at least 135 volts of B for the 171A tubes, although 180 volts is preferable. With 135 volts of B, a C-bias of 27 volts must be provided, and with 180 volts of B, a C-bias of 40.5 volts.

*I have a Philco all-electric 8-tube No. 86 receiver. Sometimes I can get the local stations without advancing the volume control at all, but at other times I must advance it halfway or more before I can hear the signal. When the volume is turned all the way up the set roars for a minute, then pops and stops for a while, after which it starts all over again. The pilot light flickers sometimes. Distant stations are hard to get and are always accompanied by whistling and howling. I have no aerial but have a good water-pipe ground. Where shall I look for the trouble?*

The fact that you are using no aerial is the cause of your trouble. Your set is designed for use on an outside aerial. The volume control, in your set, is connected between the aerial and the ground and serves as a stabilizer. Erect a suitable aerial and with a good ground you should get satisfactory reception. At present, you are overloading your first r. f. tube when you advance the volume control.

*I would like to know whether screen-grid tubes could be used in my Victoreen 1928 "Universal-Circuit" Superheterodyne receiver, in connection with the 4 r. f. intermediate transformer. Also, what resistor would be best to use. When assembling the receiver I must have made a wrong connection as the oscillator got hot and started to smoke and the switch also became extremely hot. Do you think that the oscillator has been ruined? Would a choke coil, connected to the oscillator, eliminate getting stations at two places on the dial?*

To attempt using screen-grid tubes in your Victoreen super-heterodyne would

be a positive method of inviting trouble. In other words the installation of these tubes would throw your receiver entirely out of balance, unless numerous circuit changes were made, which is entirely experimental. Your oscillator is perhaps still in good condition provided there are no breaks in the wiring or loose connection at the terminals. No choke coil is advisable at this point. All super-heterodyne receivers, except those especially designed to eliminate harmonics, get stations at two points on the dial. It is impossible to remedy this condition in your case.

*I have an old 5-tube Apex T. R. F. battery-operated set of which the transformers are burned out, and I am wondering if I can convert this into a short-wave receiver. What radio transformers should I use and how must I proceed to rebuild it?*

It is a very easy matter to adapt your set to short-wave reception. Purchase special coils for this purpose from your radio dealer, or a mail-order house, and install them according to instructions which accompany them. You will find that short-wave coils are generally classified in three groups, covering different wavebands, namely, low, intermediate and high, the latter covering the broadcast wavelengths from 200 to 600 meters, or 1200 to 540 kilocycles. The coils to use depends entirely on the waveband you wish to cover. It is preferable to get the type of coils that are interchangeable, and are known as the "plug-in" type. Special sockets are often provided with the coils as they are made to fit a standard tube socket. By using plug-in coils you can cover all wavebands by inserting coils of various sizes, as indicated. Circuit changes are, of course, necessary, but are fully covered in instructions. If your audio transformers are burned out it will be necessary to replace them.

*I have a Grebe five-tube battery-operated receiver using CX 301A tubes. I am using an 18-inch cone speaker, but talking and singing is hard to understand as it is greatly distorted. Will this receiver operate a dynamic loudspeaker? Shall I make any changes in the tubes or elsewhere?*

Undoubtedly your loudspeaker is largely responsible for your trouble.

Some speakers of the cone type lack the necessary sensitivity for good reception and are easily overloaded, which distorts reproduction. It would, therefore, be advisable to get a speaker of the latest design. You can operate a dynamic loudspeaker if you desire, provided you insert a UX 171A power tube in the last audio stage, using 180 volts of B-supply instead of 135 volts, and a C-bias of 40.5 volts, connecting the negative of the C-battery to the C-negative terminal between the aerial

for a 112A tube. Greater distance can usually be obtained by proving a long aerial and a perfect ground connection. Of course, distance also depends on the condition of the tubes in the set, and it is therefore advisable to have them tested, replacing those below the normal rating. One of the most important requirements for getting distant stations is very careful tuning, which involves careful manipulation of the variable controls. I have observed different persons operate a receiver, with the re-

*"Our Gang" are now dividing their antics between screen and speaker. They appeared in "Voices from Filmland" over the CBS on January 27th.*



and loop terminals, and the C-positive of the battery to the A-negative terminal on the receiver. A frequent cause of poor reception can be traced to defective tubes, so be sure to renew them when necessary, depending on tests made by your radio dealer. Usually tubes should be replaced at least once every year.

*I have an R. C. A. Radiola No. 17 and would like to know if I could use a UX 112A tube in the last audio stage. Also please advise me how to get more distance.*

Your inability to get distance does not lie in the audio stage. This stage is designed for the use of a 171A tube and proper C-voltage for that tube is provided by the power pack. Consequently substituting a 112A tube would throw the last stage entirely out of balance, and there would be too high a C-voltage

sult that those experienced in tuning with extreme accuracy could bring in distant stations, which were outside of the range of the average fan.

*I am operating a Zenith Model 27 set, which calls for a type B Raytheon rectifier tube for the B-eliminator. The substitution of the BH tube throws the set entirely out of balance as it increased the B-voltage to the r. f. stages from 75 volts, which is normal, to 96 volts. I would like to know where I can purchase a type B rectifier tube. Several dealers have told me that they are not being made any more. If this is true kindly let me know what I can do to reduce the voltage to normal.*

To reduce the voltage of your B-supply, when using a BH-type Raytheon rectifier tube as a substitute for the B-type, formerly used, locate the flexible

lead running from the A-supply across the upper portion of the cabinet to the B-supply. Slit the insulation thereby exposing two separate insulated wires. Cut one of them in two and connect the two resulting ends to the terminals of a porcelain receptacle, mounted in a nearby position. Now insert a 60-watt Mazda lamp and then make a voltage test from B-negative to B-positive maximum. (This test is made from the brown wire on the Multiplug, which is negative, to the separate miniature plug on the B unit, which is B-positive maximum.) Make this test while the receiver is in operation, with the Multiplug and the single lead to the miniature plug connected, the resulting voltage should be between 170 and 180 volts. If the voltage is above 180, replace the 60-watt lamp with one of the 50-watt size, or a still smaller one, until the correct voltage reading is obtained. This will automatically reduce your r. f. voltage to the proper value, which can then be checked by means of a voltmeter. Inasmuch as the type B Raytheon rectifier tube is no longer available, this is the best method to follow.

*I have a five-tube Freshman set which does not work. No signal comes through the loudspeaker although a ringing sound can be heard when any one of the tubes are tapped. When the headset is connected, in place of the loudspeaker, only a noise resembling static can be heard. The set uses Ux 201A tubes. Will you kindly tell me where to look for the trouble?*

Your trouble is perhaps a break in the wiring, a loose connection, a broken-down coil, a defective resistor, or one or more poor tubes. Test each coil for open circuits by running the current from a C-battery hooked up in parallel with a small voltmeter. If the needle moves there is a continuity in the circuit under test. Each instrument should be tested in this way. Also examine the plates of the variable condensers to make sure that they are not touching each other.

*I have a Magnaformer A. C. 29 receiver with a Muter dynamic loudspeaker. There is a bubbling noise in the speaker that sounds like water boiling. This is not very loud but I would rather not have it and would therefore like to know how to eliminate it.*

Undoubtedly the bubbling noise in your speaker is caused by an overloaded tube in the last audio stage. This may be due to an incorrect C-voltage on this tube. Check up this voltage to be certain that it corresponds to that advised in the instructions accompanying the receiver. If this is correctly adjusted and the trouble persists, substitute another tube for the one in the last audio stage. Another possible source of your trouble may be too high a grid-leak resistor, which can be overcome by substituting one of lower value.

## These Pesky Announcers

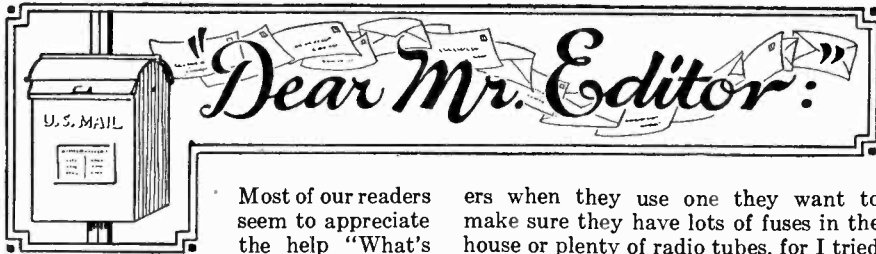
**M**Y feelings on the technique of station announcers have been becoming stronger and stronger for the past month—since, in fact, we got a new 9-tube screen-grid Philco, and at last I just have to write to somebody in order to relieve my feelings.

I think all announcers should attend a training school, or take a correspondence course in their art—for indeed it is an art. They could at least listen to the announcers as heard on National Broadcasting programs, or to the announcers from such stations as KPO and KGO in California and KSL in Utah.

The climax came tonight when I sat from 5:00 p.m. until 5:30 p.m. with my ear glued to a station. The music was not too strong, so, knowing that it was from a far-off station, I persevered. The announcer said a lot of unimportant things. He would say a few words clearly, then he would run his words together and finally end up in a mumble. If he had enunciated as does Walter Damrosch, I could have heard every word however low the tone. At the half-hour I thought now he will *have* to announce his station. He advertised a sale of radios at half-price, then mentioned telechrons, and then while I was straining ears and brain, he hurriedly stated that he was about to sign off, that he operated at eleven hundred kilocycles, and then he departed, to keep a heavy date I suppose, making no mention of station, country, state or city.

(Continued on page 20)





Most of our readers seem to appreciate the help "What's on the Air Tonight?" gives them even though our calendar must necessarily be subject to change without notice. "It is much more satisfactory than the daily papers in this section," writes L. F. Locke, of Woodward, Okla. "I think it would be a big loss if you were to cut it out," comments John H. Lyford, of New Hampton, Iowa. "Of course there are bound to be inaccuracies."

CJBC, with its four different calls, puzzles some readers. Howard B. Hubbard, of Elizabeth, N. J., writes that he has never succeeded in picking them up and asks what time Sundays they broadcast. CJBC is the call of the Jarvis Street Baptist Church of Toronto. They have no station of their own but have been assigned these call letters for use Sundays over any of the four stations named. The power varies also, naturally. Mr. Hubbard also says he has never been able to tune in WJBT although he gets WBBM regularly. This is also listed as a Sunday call. WBOQ is not listed as a Sunday station but Mr. Hubbard has likewise been unable to receive them.

#### *Socket Aerials Dangerous*

Wave traps continue to interest a number of readers and we would be glad to receive reports from any who have made the one described in the September issue. Copies of this issue may still be secured by those interested in building their own.

Abel F. Wood complains that at some points on the dial of his Majestic the music seems to waver or become tremolo. This is undoubtedly caused by interference from stations on the next channel and nothing can be done to remedy it outside of another general reallocation. Mr. Wood also comments on the use of the lamp-socket aerial. "Tell your read-

ers when they use one they want to make sure they have lots of fuses in the house or plenty of radio tubes, for I tried one out once to my sorrow and I had only one wire in the socket." These socket-aerials have been considered perfectly safe. Have any other readers had trouble with them?

#### *Noises and Their Cure*

"I have a new Brunswick receiver but am unable to get distance satisfactorily due to intense interference," writes Stuart N. Frolick, of Syracuse, N. Y. "I have tried an inside antenna and also an aerial plug, but to no avail. There are two broadcasting stations within a quarter of a mile, while directly across the street is a factory and within half a block a battery-charger, all of which furnish considerable interference." As for the broadcasting stations there are but two remedies—either move the stations or move the set. We can offer no hope beyond this. If Mr. Frolick will send twenty-five cents to the Tobe Deutschmann Corp., Canton, Mass., and secure a copy of their book, "Radio Noises and Their Cure," he will find described therein "filterettes" for each particular interference-causing device. If he will then bring these to the attention of the factory and the battery shop and get their owners to install a suitable filter, the noise from these sources can be lessened.

#### *Special Programs*

Francis H. Dexter, of San Juan, Porto Rico, would like to have a list of stations which broadcast a resume of the day's news between the hours of 6 and 9 p.m. Eastern and Central time. Some day we think we shall have to try to publish a classification of programs such as Day's News, Stock Reports, Business Talks, etc., for the use of our business and professional readers. E. J. Overing, Red Cloud, Nebr., wants to know what stations rebroadcast the Arlington time

signals. Who can advise him? These used to be quite common but we do not remember tuning them in lately.

We had an inquiry two months ago for Polish programs. Richard Vanza, of Cleveland, advises us that WJAY broadcasts Polish music from 1 to 2 every afternoon and from 4 to 5 on Sundays. John Costic, Stony Brook, N. Y., reports WICC at 11:30 a.m. Sunday and WAAT at 2:15 and 4:30 daily.

#### *Vallee and Osborne*

G. B. Abbaduska, North Chicago, Ill., wants to know if his hunch is correct. He writes: "I have heard an orchestra of Will Osborne's over the CBS several times, last night through WISN at Milwaukee. As you know Rudy Vallee and his orchestra appear over the NBC system on the Fleischman program every Thursday. Now the question is this, are there two different orchestras, one conducted by Will Osborne and one by Rudy Vallee? Their music is just about identical, the voices of Osborne and Vallee are almost the same in both speech and song, and their programs are conducted in the same manner." What do our readers think? We clip from the daily press a news item of a critic who visited Rudy Vallee at his night club in New York the other evening and later called upon Will Osborne at the Grand Central Hotel. "Program and personality very much alike, but Rudy is still best," says this critic.

#### *The New Improvements*

The extra column of symbols in the Index by Frequencies has brought us many letters. Some readers want to know what ——— means in this symbol column. These dashes have no meaning; the printer contributed them to hold the space if symbols should be desired later. The various combinations you use to enable a radio fan to know about the stations, are very cleverly arranged and help to make RADEX a great investment." This from E. O. Cutler, of New York City, who writes that he is greatly pleased with his "Seven Seas" receiver for he recently brought in KNX, KFI and KPO with a forty-foot indoor aerial. James Richter, of Reading, Pa., likes the new arrangement also and adds: "RA-

DEX improves with each issue; one copy arrives and then the next is best." Mr. Richter says that his dealer has a plan for delivering the new copy of RADEX each month and then giving the receiving set the once over at the same time. He says this monthly inspection of tubes and radio is easily worth a dollar and only costs him the price of a new RADEX.

#### *Jobs for the Commission*

James J. Butcher, of Bridgeport, N. J., wants us to use our influence with the Radio Commission to stop music from playing while the announcer is giving the call letters. Next to not making any announcement at all, is an announcement that is swallowed up by the orchestra or organ. But we hesitate to add any more troubles to those the Commission now has.

"I want to suggest that you plead with the proper officials to reserve a space of one hundred kilocycles for foreign stations that could be in one space on the dial and not have interference from U. S. stations," is the request of M. D. Fernanzo, of Little Rock, Ark. The Commission struggled long and hard to clear ten channels for U. S. stations and we fear they would quit if they had to clear ten all in a row for foreign ones even if those foreign stations would consent to change their frequencies so they would come within this allocation.

#### *Unhappy Experiments*

J. R. S., of Baltimore, Md., likes the Question Mill. "With its help, I, although the greenest amateur, located and corrected two sources of trouble with my set, when four different service men could not even guess at what was wrong." The same reader tried the line-noise eliminator as described in the September number. He refers to the suggestion for two condensers in series across the power line with a ground lead between them. "I tried this out, leaving my set ground connected and developed such a terrific hum that I shut the set off. I then disconnected my set ground and switched on again. This time there was no hum but when I turned the dial on my telephone I heard it in the loudspeaker

just the same. I also noticed that when I touched my ground connection with the ground lead from the condensers, there was a slight blue spark. Evidently this is another freak appliance which will work on one set and not on another. Have you had any further information concerning it?"

A number of readers have written us that this device had reduced line noises but of course it would have no effect on interference from telephone dial which is an air disturbance. Some of the manufacturers of a. c. sets caution their users against operating the set without the ground connected, and against removing one or more tubes while the set is in operation.

#### *Some DX Records*

We have so many letters from readers regarding their reception that it is quite impossible to use them all. We can make but brief reference to a very few. Thomas C. Rogers, of Altoona, Penna., brought in 146 stations in less than two months in one of the worst locations in town. He asks if it is possible to keep readers informed about test programs for the month. We regret that it is not; these tests are not scheduled and licenses covering them are for but ten days. "Quite the best two-bits worth I have got in a long while," comments Mr. Rogers regarding his RADEX.

Mrs. Charles D. Waldron, of Concord, N. H., needs verification from Nevada, Wyoming, Delaware, South Carolina and North Dakota to complete her tour of the states via the air. "The DXers right hand," is her comment.

"I am only 13 years old but a great DX fan," writes Alexander Maley, of Elizabeth, N. J. He asks about WWV, Hadley Field, N. J. This is a government station broadcasting weather reports to aviators and is not a broadcasting station in the usual sense of the word.

"I am located where anything under 1000 miles is a local!" writes V. G. Stevens from Kirkland Lake, Northern Ontario. "But short wave lengths and all I have logged 591 stations." Mr. Stevens would like to see a complete list of all short-wave broadcasting stations. We regret that even the government does not publish such a list except in

connection with several thousand other short-wave stations. We are adding to the list in RADEX as fast as we can verify the data given us by readers.

"In three days I have tuned in 40 stations that I never knew broadcast before," says Newton M. Brown, Florence, N. J. Mr. Brown and others ask for information regarding DX clubs which they may join. Will some members of clubs advise us?

"218 stations in the last two months," says George Hennell, of Milwaukee, Wis.



*These four artists are heard every week in "Around the Samovar"—a regular feature of the Columbia programs. They celebrated their first anniversary on January 18th. They are Mme. Zinaida Nicolina, soprano, Mlle. Eliena Kazanova, violinist, Eli Spivak, baritone, and Peter Bijlo, director of the Balalaika Orchestra.*

"1,183,698 miles," is the unique record of B. A. Butts, of Ellensburg, Wash. "273 stations in a little over a year" records F. A. Perkey, Dunbar, Pa. "191 stations from Boston to San Diego and Portland, Ore., to Havana, with a two-tube set and a home-made amplifier," writes Rodney Whitten, of Neosho, Mo.

In five nights, 185 stations, is the best record of J. E. Rimedio, of Dover, Ohio.

"I have a new Philco and have logged 210 stations in less than two months," writes Edw. C. Webber, of Plattsburg, N. Y. M. C. Wissler, Omaha, Nebr., confined at home recuperating from an operation, used a radio for the first time. "With the help of RADEX I have logged 114 different stations in four days, including eighteen West Coast and Six East Coast stations, three Canadian and one Cuban."

Low power stations were reported by many. Orié W. Huddleston, Dublin, Indiana, received KLCN at Blytheville, Ark., when it used but seven and a half watts, WOBT with 15 watts and several hundred-watters. John T. Thacher, of Windsor, Conn., reports a number of low-power stations, among them CFBO of St. Johns, N. B., a fifty-watter, WNBO at Washington, Pa., 15 watts and CHRC at Quebec, 25 watts.

The rest of our letters will have to wait until April.

## Short Waves for the Radio Fan

*(Continued from page 2)*

2¼-inch mailing tubes cut down to 8 inches in length, four strips of bakelite, 8 inches long, and four old UX tube sockets. A primary winding of 10 turns of No. 26 double silk-covered copper wire is wound on each tube near the center, and a secondary winding is started one-half inch from the primary winding. For each coil the secondary winding varies as follows: For the 20-meter wave-band, 3 turns; for the 30-meter wave-band, 7 or 8 turns; for the 80 meter wave-band, 15 turns, and for the 150-meter wave-band, 25 turns. The variable condenser to be used with these coils should have .00025-mfd. capacity. The coils are attached to the bakelite strips by means of brass machine screws, using suitable washers and nuts. The UX tube bases are cut down so that only a disk with the extending prongs remain, and the cut-down bases are then attached to the center of the bakelite strip, connections from the coil ends being made to the prongs. It will be found that they are hollow and the ends of the wire can be soldered in them without any difficulty. Of course, similar coil ends should be

run to similar prongs, which must be marked accordingly, so that the coils are interchangeable. They are fitted to UX sockets which are attached to the subpanel of the adaptor unit.

Short-wave adaptor kits contain full instruction concerning the wiring of the unit and these should be carefully followed. The above-mentioned instructions for making coils are especially intended for the radio experimenter who has or can readily obtain wiring diagrams for the purpose.

## February Changes

**A**MONG the changes recently made by the Radio Commission are the following:

WKRC, Cincinnati, given construction permit to increase power.

C. P. given for new stations in Lynchburg, Va., Gueda Springs, Kansas; Rayne, La., and Little Rock, Ark. These stations have not yet been assigned call letters.

CHYC, CNRM, WSB increase power to 5000 watts and KFKX and KYW to 10,000. There are also many increases of power among the smaller stations.

KJR is moved from 760 kcs. to 970, KFBB from 1360 to 1280 and the following new stations are listed: TIX, San Jose, Costa Rica, on 750 kcs.; NBA, Balboa, Canal Zone, on 850; KGHG, McGehee, Ark., on 1310; KGMC, Jerome, Ariz., on 1310; KGMB, Honolulu, T. H., on 1320; WFDV, Rome, Ga., on 1370; WQDM, St. Albans, Vt., on 1370; KGMD, Roswell, N. M., on 1500; and KUT, Austin, Texas, on 1500.

WFBL has been given the use of 900 kcs. in addition to 1490 for thirty days.

There are also a number of changes in locations and owners which will be found in the Index by Frequencies.

Tom Lovell, of Belton, Texas, writes that KTRH, Austin, Texas, has been changed from 1120 to KUT on 1500, but the government reports that it was KGDR which was changed to KUT. Who can state definitely?

Several readers report hearing WCHI at Chicago, evidently new call letters for

*(Continued on page 63)*

# That Which Is Under the Bed

## Radio Brings Faith to the Unbeliever

By W. E. DEATON

THE tall, laughing woman gave Talbot the same answer that had followed him up the long winding path of Turkee Mountain.

"Shore, stranger," she admitted, "yo' contraption speaks for hitself, so t' say, and accepting yo' claims, the price don't seem too tall, but—wal—there ain't nobody 'round these parts got one."

"If you'd buy one," the salesman suggested, "folks from far and near would be coming to listen—"

She chuckled softly, "And my ole man would beat me, 'cause we'd have to feed 'um. No, friend, no hard feelings, but I reckon you'd better foot it on for to find another buyer."

Talbot grinned in spite of himself, "If I had sold one to the Newcombs, or the Twiddys, would you buy one?"

"Hit wouldn't of seemed so new-fangled," she admitted. A sly smile crossed her face; "Ef you sell Ole Man Godless, up top the hill—by crackey! we all'll take one, and I—"

"How much further?" Talbot asked, "I'm right tired. Is Godless his real name?"

"Oh, jest a piece." She gestured over her shoulder. "Naw—we jes call him that, 'count of him hatin' the churchers, and talkin' down all the parsons what call on him."

"You sending me up there to get a taste o' buckshot?" Talbot asked, grinning again.

"Honest, Stranger, he ain't bad! Probably talk yo' arm off, do you let him. Jest don't git him started on 'ligion."

The salesman shouldered his burden wearily, "Remember now—if I sell him, you'll buy one, and help me line up the other folks 'long the road."

"Ef you sell him!" Her laughter followed him along the steep, dusty path.

The 'jest a piece' proved to be an hour's climb under a hot Carolina sun, and the afternoon shadows had grown long before Talbot halooed before the cabin.

An old man, grizzled, heavy-set and active, came out and raised his arm in greeting. A dog raced around the yards barking shrilly and Old Godless caught up a stick and ran him into the rhododendron bushes. "Don't pay no heed to him," he said. Then seeing Talbot's burden, asked, "What you peddlin'? You don't look like no road-store."

Talbot grinned disarmingly, "I'm not a regular. You see, I had a chance to pick up some things mighty cheap. Some things I figured you folks back in the hills would appreciate. I—"

"Ain't no sense standin' in the sun," interrupted Godless, "come in and set a spell." He led the way into the calin and waved a hand hospitably toward the only chair in the room. He sat on the edge of a bed and began to pack a corn-cob pipe with tobacco. "You was saying—"

Talbot put down his burden and wiped a damp forehead. "Well—I bought this stuff cheap and I've been walking all day to give you folks the opportunity of getting something that will be a real blessing—"

"You ain't a preaching-man?" Godless cut in.

"No."

"Sound mighty like hit! Talkin' 'bout givin' folks blessings and such. Oh, they come up here to argue with me, but I shuts 'em up quick. I jest say—"

"But—"

"Lemme finish, stranger. I jest asks them; 'Where at is this here God you talkin' 'bout?' and they allus says 'Why, he's everywhere!' and then I gets 'em. I says, 'Is he in this house?' 'Oh yes,' says they; 'Is he under my bed?' and do they say, 'Yes,' I jest lifts up my mattress and show them there ain't nothin' but the springs, and prove them to be liars."

Talbot wiped his forehead again. "I have here something which can make your whole life different; something which will bring the world to your door.

It will be a companion in your lonely moments; a comforter when you're blue, and—"

"I know! I know!" Godless cut in bitterly, "Hit's name is 'Holy Ghost!' Your're jest a preacher under a—"

"Wait!" pleaded Talbot. "You've got me wrong. Let me show you: It's all in this box. I hook these on—simple, isn't it? Now—"

The old man leaned forward in open interest. "What'll yo' contraption do?"

"Now—it's fixed—ready to operate. Suppose you want some music—"

"Well, supposin'? Where do she come from?"

"Right out of the air."

Godless cursed vigorously. "Knew you'd say that! The air in this here house is full of it?"

"Yep."

"I knowed hit!" The old man cried triumphantly. "You're jest the same as the preaching-men. Reckon you'll say hit's under my bed too?"

"Sure."

"There!" Godless threw back the light mattress. "There! You and yo' music, and yo' God is all lies! You be a—"

"Hold on!" Talbot cut in hotly. "You just put this little piece of wire under the bed to catch the music."

The old man obeyed mechanically and the moment the wire touched the springs of the bed, the cabin was flooded with the brief, final chord of an organ. A clear voice followed: "The eyes of the Lord are in every place . . . beholding the good . . . and the evil." This concludes the sunset services from station—"

"How's that for—" Talbot asked jubilantly, then stopped short in amazement, for Godless' face was twitching convulsively. In the half-light his eyes glowed, and the cabin walls sharply echoed the bitterness of his laughter.

"The fool's done said in his heart—" he quoted wearily. "An' I'm the fool—"

"It was just the radio," Talbot explained kindly.

"No! No! Hit were Him, stranger! Him taking the trouble to speak to a po' fool whose mouth done dragged him nigh Hell!" He knelt awkwardly and Talbot stood in embarrassed silence as Godless' hands clasped and unclasped. "Oh

Lord!" he began, then stopped. "I—don't know no words— Me—a long-tongued fool standing in the need of prayer and—"

"Don't feel bad, friend. You—"

The old man checked him. "Stranger you better go. I'll buy yo' machine. Hit showed me the light, but you gotta leave me to figger out my salvation."

"But I—"

"Go 'way! I got sins for to wash away this night."

"These wires—"

"Git out!" Godless screamed, "Leave me to my sorrows! Git!"

\* \* \* \* \*

It was dusk when Talbot knocked at the cabin half-way down the mountain. The woman came to the door. "Well, stranger—" she said, recognizing him, "Old Man Godless didn't—"

"I sold him," Talbot stated briefly, "I'll be back Monday with a radio for you. I just stopped to tell you—don't ever be calling that man Godless again!"

## These Pesky Announcers

*(Continued from page 14)*

It could have been station KGDM California, WLWL New York City, or WPG Atlantic City—but I will never know.

Both my husband and myself are wild enthusiasts and sit up until all hours getting far-off stations. We have had Cuba and Mexico, to say nothing of Canada, Virginia, North Dakota, Chicago, New York, Georgia and even the little station at Bismarck, North Dakota. But it certainly dampens one's ardor to sit for hours listening in spite of static, near-by noises, interference from other stations, etc., only to be disappointed time and time again. Some of these would-be announcers find time to make silly local jokes which cannot greatly appeal to the scattered radio audience. They find time to state street addresses and telephone numbers, to advertise bargain sales and restaurants and night clubs, but try and find out whether they are north, south, east or west, let alone learning the name of the state, city or station.

Perhaps an editorial on the subject would help—if the announcers themselves would read it.

*Mrs. C. D. Roeder, Reno, Nev.*

# Two Sides of the New Pentode Tube

## Five-Element Tube Creates Furore in Trade

THE affirmative side is taken by the CeCo Manufacturing Company in the following announcement:  
*CeCo Engineers Perfect AC Pentode Tube*

New Five-Element Tube Three Times as Powerful as Screen Grid—Will Cancel Need for Multi-tube Receivers—Makes Possible Lower Unit Cost for Sets—Called Greatest Advance in Radio Since Three-Element Tube Was Perfected Twenty Years Ago.

In the laboratories of the CeCo Manufacturing Company, Providence, R. I., tube engineers working under the direction of N. O. Williams, vice-president and works manager, after months of experimentation have perfected the AC pentode or five-element tube.

According to Ernest Kauer, president of the company, the pentode tube will represent as great an advance in radio as did the three-element tube back in 1906. Mr. Kauer summarized its principal features as follows:

- a—Three times as powerful as the screen grid tube.
- b—Capable of being utilized to its full efficiency.
- c—Cancels necessity of multi-tube receivers.
- d—Will lower manufacturing costs of sets.
- e—Will decrease maintenance costs for set owners.
- f—Through savings will greatly enlarge radio merchandise market.

### *Asserts Public Demand*

"The public has been asking for receiving sets," said Mr. Kauer, "which do not employ so many tubes. This new development makes it possible to build sets which will satisfy that demand. Bringing, as it is bound to do, more simplicity into radio manufacture and receiver operation and maintenance, it will reduce manufacturing costs, material costs, and therefore costs to the radio public."

Mr. Kauer did not believe that by the use of few-tube instead of multi-tube sets  
*(Continued on page 22, column 1)*

THE negative side is presented by The Radio Manufacturers' Association in an announcement headed:  
*Radio Makers Declare Pentode Tubes Not New Nor Give Better Service*

To advise the radio public and industry correctly and authoritatively regarding the "new" pentode radio tube, the Radio Manufacturers' Association, comprising all important manufacturers, today issued a statement regarding the pentode. It was declared neither new nor revolutionary. No improvement in performance can be obtained with pentodes that cannot be had with present tubes, the official statement declared, and it is unlikely that pentodes will replace present tubes this year.

The statement was prepared by Mr. Walter E. Holland, a prominent radio engineer of Philadelphia, and director of the Engineering Division of the Radio Manufacturers' Association, after consultation with other leading radio engineers.

### *"Nothing New"*

"There is nothing new or revolutionary about pentodes," said Director Holland. "No improvement in performance can now be obtained with pentodes that cannot be had with present tubes. A given result is impossible with less tubes, using pentodes, but it is unlikely that the cost of a complete radio receiver would be any less.

"The pentode is used more widely in England because of the greater popularity of battery operated portable sets, and because patent licenses are based on the number of tubes in the receiver. Reduction of number of tubes has, therefore, been more important in England, just as low-powered automobiles are more popular there on account of the license taxes being based upon horsepower of the motor. These factors are not important in this country, so that there is no advantage here at present in either low-powered automobiles, or pentodes."

*(Continued on page 22, column 2)*

the tube division of the radio industry would suffer.

"It means less tubes per family, but a great many more families will own receivers," he said. "The probabilities are that tube sales would be greater than ever."

Mr. Kauer said that the circuit worked out by the CeCo engineers for the use of the new pentode tube would be made available to manufacturers of radio receiving sets without obligation. He added:

"Our general sales manager, Larry Hardy, and Franklin Snow Huddy, assistant to our chief engineer, Mr. Williams, are soon to start out on a visit to set manufacturers, to show them this new tube, how it works, what its possibilities are. Our engineering staff and our engineering facilities are available for cooperation on set-building problems. This is a service tube-makers owe to set makers and we are eager to render all the aid we can."

The new tube is a sort of double screen-grid, having a screen grid around the plate, as is the case with the screen grid of the present; also another screen between the control grid and the cathode. The insertion of this second screen permits a greatly increased amplification; three to four times as great as the screen grid.

Mr. Williams, CeCo's chief engineer, who since his graduation from Pennsylvania State College has spent his entire working life in tube research and manufacture, said the new pentode tube will realize the hopes which were entertained of the so-called screen grid or four-element tube.

"The screen-grid is a very wonderful tube," Mr. Williams said, "but the radio industry has not been able to develop a receiving circuit which permits the use of the tube's full efficiency. Nor is such a circuit likely to be developed. There are too many difficulties in the way.

"The easier method has been to center research on the development of a newer tube which would make possible the building of a circuit capable of getting out of the tube all the power and valuable attributes inherent in it. This is what we have done in the case of the pentode."

Summarizing the development in Europe of the pentode tube and experimental work in this country, Director Holland added:

"The pentode tube has long been known abroad and has found limited commercial use there, especially in England. Many radio receiver and vacuum tube engineers in this country have experimented with this type of vacuum tube, and are thoroughly familiar with its characteristics and possible applications.

"The pentode, as the name implies, has five electrodes, or electrical elements. It has the usual cathode and plate, but between these elements there are three grids or screens as compared with two in the tetrode, commonly known as the screen grid tube.

"The pentodes developed abroad are designed for use in the last audio stage, where we use triode power tubes, such as the 245 and 250 tubes.

#### *Use As RF Amplifier*

"There is a possible application of the pentode to radio frequency circuits, but it is unlikely that this type of tube will prove of much practical importance as a radio frequency amplifier. All it could do would be to reduce the number of stages of amplification required for a given sensitivity. The elimination of a stage of radio frequency amplification ordinarily means a reduction in the number of tuned circuits, and such a reduction is impracticable for the reason that a given number of tuned circuits is essential to give the high degree of selectivity needed under the broadcasting conditions existing in this country.

"The pentode power tubes used abroad have greater sensitivity, and, therefore, provide higher amplification per stage than our triode power tubes. This makes it possible to eliminate a stage of audio amplification and work from the detector directly into a single power stage without overloading the detector or the radio frequency amplifier tubes.

#### *Disadvantages Listed*

"Another advantage is that it is possible with pentodes to obtain greater undistorted output where the plate voltage is limited, as in battery receivers



and receivers for operation on the 110-volt direct current supply used in certain sections of a few cities.

"Against the above advantages the pentode has a number of disadvantages. It is a most difficult tube to manufacture with uniformity owing to its complexity, and to the fact that it must be exhausted to an extremely high degree of vacuum. Non-uniformity of pentodes will make greater differences in the operation of a radio receiver than with tubes of the present type. It is inherently a high-cost tube.

"In radio receivers for use on the common alternating current supply used for house lighting, the pentode presents a more difficult problem from the standpoint of manufacturing cost than the standard type of power tube. With present power tubes of the 245 type it is almost universal practice to use two tubes connected in push-pull circuit to reduce hum and improve the quality of reproduction.

#### *Pentodes in Push-Pull*

"Owing to the high cost of pentodes and the greater complexity of the circuits, it is a question whether it is practical to use pentodes in push-pull. On the other hand, if a single pentode is used to give the same result as two triode power tubes in push-pull, the cost of the filter, required to smooth out the ripple in the rectified alternating current, will come up probably enough to more than offset any possible saving in eliminating the power tube and the usual first stage of audio amplification. In addition a larger and more expensive output transformer would have to be used on account of the high direct current flowing in one direction in the primary winding of the transformer."

#### **Batteries to A. C.**

*(Continued from page 8)*

stages, but is not indicated in the drawing. The volume control is a 0 to 25,000 or 50,000-ohm potentiometer, and it is connected to the aerial, ground and primary winding of the tuning coil as indicated.

The diagram and the balance of the text are correct as published.

## Jake and Lena

In the skits which Gene and Glenn put on over WTAM, one of the boys plays two parts, that of Jake and also of his wife, Lena. A club of young women recently devoted a lot of thought to this matter before they reached this deduction. But they also insist that the one who takes two parts must have false teeth and must take them out for the Jake role. In the latter, however, they are all wrong, for the young man in question has a perfectly good set of au natural teeth. They are willing to demonstrate this to the young ladies any time they wish to call at WTAM. The pictures of Gene and Glenn appear elsewhere in this issue.

## Have You Heard It?

Who is WCHI? The Radio Commission reports no new station in Chicago and as that district is already overcrowded, probably no new station would be licensed there. Ergo, some old station must have changed its call letters unbeknownst to the Commission. R. Morris Pierce, chief engineer of WJAY, informs us that WCHI is probably a successor to WORD, which formerly used the Webster hotel studios now employed by the new WCHI. WORD was a 5000-watt station with its transmitter at Batavia, Ill., and occupied the 1480 kc. channel now being used by WCHI.

## Here's a New One

Have you heard station KUKU? We wonder if it has any connection with the Cuckoo program now listed on the WJZ chain for Wednesdays at 9:30 p.m. On this Cuckoo program one finds such things as the Radio Guilded theatre's presentation of "The Face on the Grandfather's Clock" and Mrs. Pennyfeather's personal service for perturbed people. The station also maintains a Kiddies' Komfort bureau, with true stories about unreal people. According to the station manager, anything is apt to happen and therefore it probably will.

# WHAT'S ON THE AIR TONIGHT?

## A WEEKLY CALENDAR

### Leading Features of the Network Programs

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

Features marked (C) are for the Columbia Broadcasting System; those marked (N) are the National Broadcasting Company. Under each feature are listed the channels (kilocycles) on which that feature may be heard.

*These programs are subject to change daily*

#### Daily (Except Saturday and Sunday)

6:45-8:00 Tower Health Exercises (N)	810	860	900	920	930	940	950
550	1160	1260	1280	1290	1320	1340	1390
550 560 590 660 790 950 1220	1430	1490					
8:00-8:15 The Aunt Jemima Man (N)	550	580	660	920	1300		
690 750 760 950 980 990 1060							
8:00-8:30 Organ Reveille (C)	750	760	830	1020	1140	1150	1300
570 580 600 780 860 900 930							
950 1170 1240 1260 1280 1290 1340							
1390 1430 1490							
8:15-8:30 Morning Devotions (N)	1230	1240	1260	1280	1290	1300	1320
550 560 590 660 680 790 820							
870 890 900 920 940 950 1080							
1220 1480							
8:15-8:45 The Headliners (N)	590	610	650	680	700	740	750
750 760 980 990 1060 1150							
8:30-8:45 Morning Devotions (C)	760	770	780	800	820	830	870
570 600 780 860 930 950 1170							
1240 1260 1280 1300 1340 1370 1390							
1430 1490							
8:30-9:00 Cheerio (N)	900	920	950	980	990	1000	1020
550 560 580 590 610 660 680							
690 740 790 820 890 900 920							
940 950 1070 1080 1110 1140 1190							
1220 1460 1480							
8:45-9:30 Something for Everyone (C)	1120	1160	1170	1230	1240	1260	1280
550 570 600 670 780 860 900							
930 940 1090 1170 1240 1260 1280							
1290 1340 1370 1390 1430 1490							
9:00-9:15 The Aunt Jemima Man (N)	1290	1300	1320	1340	1390	1410	1430
700 770 870 1220 1350							
9:00-10:00 Morning Melodies (N)	550	560	570	580	600	630	900
590 660 820 920 950 1000 1070							
1110 1480							
9:30-9:45 Morning on Broadway (C)	920	930	950	1090	1120	1160	1230
550 570 600 630 860 930 940							
1090 1240 1260 1280 1290 1340 1370							
1390 1430 1470 1490							
10:00-10:30 Ida Bailey Allen (C)	1240	1260	1280	1290	1320	1340	1390
550 600 630 770 780 860 950							
1090 1160 1170 1230 1240 1260 1290							
1320 1340 1390 1470 1490							
10:00-11:00 The Manhatters (N)	1410	1430	1490				
750 760 970 990 1060 1140 1150							
1220 1350 1480							
10:45-11:00 Betty Crocker (N)	500	560	580	610	660	790	890
550 560 580 610 660 790 890							
900 920 940 950 1000 1020 1060							
1070 1140 1190 1220 1330							
10:45-11:00 Food Talk (N)	1320	1340	1360	1490			
620 650 680 690 740 750 760							
780 900 970 980 990 1080 1110							
1140 1150 1220 1290 1300 1320 1350							
1460 1480							
11:00-11:30 Forecast School of Cookery (N)	550	560	580	590	660	790	890
700 720 750 760 980 990 1150							
1220 1350							
11:15-11:30 Radio Household Institute (N)	680	690	750	760	900	950	980
550 560 580 590 610 620 650							
660 740 780 790 820 890 900							
920 940 950 1000 1020 1040 1070							
1140 1190 1220 1290 1320 1330 1460							
11:30-11:45 Lamb Menus (N)	1340	1370	1390	1410	1430	1490	
700 750 760 770 980 990 1020							
1220 1350							
12:00-12:30 Columbia Revue (C)	550	560	570	600	610	630	780
550 560 570 600 610 630 780							
	810	860	900	920	930	940	950
	1160	1260	1280	1290	1320	1340	1390
	1430	1490					
	550	580	660	920	1300		
	750	760	830	1020	1140	1150	1300
	550	560	570	600	620	630	780
	860	900	930	940	950	1160	1170
	1230	1240	1260	1280	1290	1300	1320
	1340	1390	1410	1430	1490		
	590	610	650	680	700	740	750
	760	770	780	800	820	830	870
	900	920	950	980	990	1000	1020
	1040	1060	1080	1110	1140	1150	1190
	1220	1270	1290	1300	1320	1350	1460
	550	570	600	630	780	860	900
	930	1170	1240	1280	1290	1320	1340
	1390	1410	1430	1490			
	550	560	570	580	600	630	770
	780	860	900	920	930	950	1090
	1120	1160	1170	1230	1240	1260	1280
	1290	1300	1320	1340	1390	1410	1430
	550	590	660	920	950	1000	
	750	760	980	1060	1140	1350	
	550	560	570	580	600	630	900
	920	930	950	1090	1120	1160	1230
	1240	1260	1280	1290	1320	1340	1390
	1410	1430	1490				
	550	560	570	580	600	630	860
	920	930	950	1160	1170	1230	1240
	1260	1280	1290	1340	1390	1410	1470
	550	560	570	580	600	620	630
	770	780	810	860	900	920	930
	940	950	1090	1120	1160	1170	1230
	1240	1260	1280	1290	1320	1340	1390
	1410	1430	1490				
	550	600	630	670	810	860	900
	950	1090	1160	1170	1240	1260	1290
	1320	1340	1360	1490			
	550	660	920	950	1220		
	550	560	580	590	660	790	890
	920	940	950	1070	1330		
	680	690	750	760	900	950	980
	990	1080	1110	1150	1300	1480	
	550	570	580	600	630	810	900
	920	950	1120	1230	1260	1280	1290
	1340	1370	1390	1410	1430	1490	
	550	750	760	770	980	1080	1220
	550	610	620	650	670	740	780
	790	800	820	830	900	920	1020

1130 1190 1220 1270 1290 1320 1350  
1430 1460

## Sunday

**8:00-9:00 Heroes of the Church (C)**  
570 780 860 930 950 1090 1230  
1280 1410 1430 1490

**9:00-10:00 Morning Musicales (C)**  
570 580 600 780 860 930 1090  
1170 1230 1240 1280 1290 1300 1410  
1440 1490

**10:00-10:50 Land O' Make Believe (C)**  
570 580 600 780 860 930 950  
1230 1280 1290 1300 1490

**10:50-11:00 Columbia's Commentator (C)**  
570 580 600 780 860 930 950  
1230 1240 1280 1290 1490

**12:30-12:55 The Nomads (N)**  
760 820 830 950 1060 1350

**1:00-2:00 National Light Opera (N)**  
690 700 750 760 820 950 1060  
1130 1290 1350 1460

**1:30-1:45 Spanish Dreams (N)**  
550 590 610 660 920 1220

**1:30-2:00 The Aztecs (C)**  
550 560 570 580 600 630 810  
920 930 940 950 1160 1170 1240  
1280 1320 1340 1390 1410 1470 1490

**1:45-2:00 Godfrey Ludlow, violinist (N)**  
550 590 660 920 1220

**2:00-2:25 Troika Bells (N)**  
550 660 680 870 900 920 1000

**2:00-2:30 Ballad Hour (C)**  
550 560 570 580 600 620 630  
670 810 920 930 940 950 1120  
1230 1240 1280 1290 1340 1390 1410  
1430 1470 1490

**2:00-3:00 Roxy Symphony Concert (N)**  
620 680 690 700 760 770 800  
820 950 980 990 1020 1060 1140  
1290 1460

**2:30-3:00 Concert Bureau Program (N)**  
550 580 590 620 660 680 790  
870 900 920 940 1000 1130 1290

**3:00-4:00 The Jewish Hour (N)**  
550 660 890 920 940 950 970  
1220 1330

**3:00-4:00 National Youth Conference (N)**  
590 620 680 700 740 760 770  
780 790 800 900 920 980 1060  
1080 1110 1130 1140 1190 1220 1350

**3:00-4:00 Chicago Symphony Orchestra (N)**  
550 590 610 620 720 750 1000  
1290 1460

**3:00-4:00 Symphonic Hour (C)**  
550 560 570 580 600 620 630  
670 810 860 920 930 940 950  
1090 1120 1160 1170 1240 1260 1280  
1290 1300 1320 1330 1340 1390 1410  
1430 1470 1490

**4:00-5:00 Cathedral Hour (C)**  
550 560 570 580 600 620 630  
780 810 860 920 930 940 950  
1090 1120 1160 1170 1230 1240 1260  
1280 1290 1300 1320 1340 1390 1410  
1430 1470 1490

**4:00-5:00 Dr. S. Parkes Cadman (N)**  
550 580 590 610 620 650 660  
680 740 780 790 800 820 830  
890 900 920 940 970 1000 1080  
1110 1140 1190 1220 1270 1290 1330

**4:30-5:00 Duo Disc Duo (N)**  
760 770 980 990 1020 1060 1220

**5:00-5:30 McKesson News Reel (C)**  
550 560 570 600 610 630 670  
780 810 860 900 920 930 940  
950 1040 1090 1120 1160 1170 1230  
1240 1250 1260 1280 1290 1320 1340  
1390 1440 1470 1490

**5:00-6:00 National Religious Service (N)**  
700 760 770 830 900 990 1060  
1140 1150 1290 1320 1350

**5:00-6:00 Davey Tree Hour (N)**  
550 560 580 590 610 660 790  
870 890 940 950 970 1000 1070  
1220 1330 1450

**5:30-6:00 Rev. Donald G. Barnhouse (C)**  
550 600 630 670 780 860 950  
960 1160 1170 1230 1260 1290 1320  
1430 1470 1490

**6:00-6:15 Echoes of the Orient (N)**  
550 590 660 790 920 950 1000

**6:15-6:30 Countess Olga Medolago Albani (N)**  
550 590 660 790 920 950 1000

**6:30-7:00 Acousticon Program (C)**  
550 630 670 780 860 950 1090  
1160 1170 1230 1240 1260 1290 1320  
1340 1390 1470 1490

**6:30-7:00 Old Company's Songalogue (N)**  
550 560 580 590 660 790 890  
940 950

**7:00-7:30 Our Romantic Ancestors (C)**  
560 570 580 600 610 630 920  
930 940 1090 1120 1280 1290 1340  
1390 1410 1430 1490

**7:00-7:30 Durant Heroes of the World (N)**  
550 560 580 590 610 620 650  
660 680 690 740 780 790 800  
820 830 870 890 900 920 940  
950 1000 1080 1110 1140 1190 1220  
1290 1300 1320 1330 1450 1460

**7:30-7:45 French Trio (C)**  
560 570 600 630 860 920 930  
940 1090 1120 1260 1280 1290 1340  
1390 1410 1430 1490

**7:30-8:00 Williams Oilomatics (N)**  
700 720 750 760 830 990 1060  
1130 1150 1220 1350

**7:30-8:30 Maj. Bowes' Family (N)**  
550 590 660 740 780 790 820  
890 900 920 950 1000 1040 1070  
1190 1220 1270 1300 1320 1330 1450

**7:45-8:00 World's Business (C)**  
550 560 570 580 600 630 670  
780 810 860 920 930 940 950  
1090 1120 1230 1260 1280 1290 1340  
1390 1410 1430 1490

**8:00-8:15 Enna Jettick Melodies (N)**  
590 620 640 650 680 690 700  
740 750 760 780 800 820 830  
900 920 980 990 1020 1040 1130  
1150 1190 1220 1270 1290 1300 1320  
1350

**8:00-8:30 La Palma Rhapsodizers (C)**  
550 600 630 640 780 860 900  
950 1090 1120 1130 1170 1230 1240  
1260 1290 1320 1340 1390 1490

**8:15-9:15 Collier's Radio Hour (N)**  
590 620 640 680 700 750 760  
830 920 980 990 1020 1130 1150  
1220 1350 1480

**8:30-9:00 Sonatron Program (C)**  
550 560 570 600 610 630 770  
780 860 900 940 950 1090 1170  
1230 1240 1260 1290 1320 1340 1390

**8:30-9:00 Chase & Sanborn Orchestra (N)**  
550 560 580 590 610 620 660  
690 740 780 790 820 870 890  
900 920 940 950 1000 1040 1060  
1070 1080 1140 1190 1220 1270 1290  
1300 1320 1330 1450

**9:00-9:15 Our Government (N)**  
550 560 580 590 650 660 740  
780 790 800 820 890 900 920  
940 950 1000 1060 1080 1110 1190  
1220 1270 1290 1320 1330 1450

**9:00-10:00 Majestic Theatre of the Air (C)**  
550 560 570 580 600 610 630  
730 770 780 810 860 900 930  
940 950 960 1040 1090 1120 1160  
1170 1230 1240 1250 1260 1280 1290  
1300 1320 1340 1390 1470 1490

**9:15-9:45 Salon Singers (N)**  
690 760 980 990 1150 1220

<b>9:15-10:15 Atwater Kent Hour (N)</b>										
550	560	590	610	620	640	650				
660	680	720	740	780	790	800				
820	830	900	920	950	1000	1070				
1080	1130	1190	1220	1320	1330	1460				
<b>10:00-10:30 Royal's Poet of the Organ (C)</b>										
550	560	570	600	610	630	770				
780	860	900	940	950	1090	1160				
1170	1230	1240	1260	1290	1320	1340				
1390	1470	1490								
<b>10:15-10:45 Studebaker Champions (N)</b>										
550	560	580	590	610	620	640				
660	720	790	830	890	920	940				
950	1000	1060	1070	1220	1290	1460				
<b>10:30-11:00 Arabesque (C)</b>										
550	560	570	580	600	630	670				
780	860	930	940	950	1090	1120				
1160	1230	1240	1260	1280	1290	1320				
1340	1390	1430	1470	1490						
<b>10:45-11:15 Sunday at Seth Parker's (N)</b>										
550	590	600	780	790	820	830				
900	920	940	950	1000	1220	1300				
<b>11:00-12:00 Back Home Hour (C)</b>										
560	600	630	810	860	930	940				
1090	1120	1170	1230	1240	1260	1280				
1300	1320	1340	1390	1430	1470					
<b>11:15-11:45 Russian Cathedral Choir (N)</b>										
550	590	660	780	790	800	900				
920	950	1000								
<b>11:45-12:00 Sam Herman, xylophonist (N)</b>										
550	590	660	780	800	920	950				
1000	1140									

## Monday

<b>9:30-10:00 Blue Monday Gloom Chasers (C)</b>										
550	570	600	630	860	900	930				
940	1090	1240	1260	1280	1290	1370				
1390	1430	1490								
<b>10:30-10:45 Harmonies and Contrasts (C)</b>										
600	630	770	780	860	940	950				
1090	1160	1230	1260	1280	1320	1340				
1390	1430	1470	1490							
<b>10:45-11:00 High Gear (C)</b>										
630	780	860	900	940	950	1160				
1170	1230	1260	1280	1290	1300	1320				
1340	1390	1430	1490							
<b>11:00-11:15 Mirrors of Beauty (C)</b>										
570	600	620	630	780	900	930				
940	950	1160	1170	1230	1260	1280				
1340	1390	1430	1490							
<b>11:15-11:30 Ben and Helen (C)</b>										
560	570	600	620	630	780	810				
860	900	920	930	940	950	1160				
1170	1230	1240	1260	1280	1340	1390				
1430	1490									
<b>11:30-11:45 Children's Corner (C)</b>										
560	570	600	620	630	780	860				
900	920	930	940	950	1160	1170				
1230	1240	1260	1280	1290	1340	1390				
1430	1490									
<b>11:45-12:00 Your Diet (C)</b>										
560	570	600	620	630	780	860				
900	920	930	940	1160	1230	1260				
1280	1290	1340	1390	1430	1490					
<b>2:00-2:30 The Honoluluans (C)</b>										
560	570	600	610	630	770	780				
860	900	930	1120	1230	1240	1260				
1280	1290	1300	1320	1340	1390	1410				
1430	1490									
<b>4:00-5:00 U.S. Marine Band (N)</b>										
750	760	950	970	1060	1140	1220				
<b>4:30-5:00 Pacific Vagabonds (N)</b>										
550	560	590	610	620	660	790				
830	920	950	1140							
<b>5:00-5:45 National Student Federation (C)</b>										
550	560	570	600	610	630	670				
860	900	930	940	950	1090	1120				
1160	1240	1280	1340	1390	1410	1430				
<b>6:00-6:30 Mormon Tabernacle Choir (N)</b>										
560	650	680	760	770	790	830				
920	980	1060	1110	1130	1140	1220				
1350	1460									

<b>6:00-6:30 Ben Pollack's Orchestra (C)</b>										
560	570	600	770	860	900	920				
930	940	950	1160	1230	1260	1280				
1290	1300	1320	1390	1410	1430	1490				
<b>6:30-7:00 Current Events (C)</b>										
560	570	600	610	630	860	900				
920	930	940	950	1120	1230	1260				
1280	1300	1340	1390	1410	1430	1490				
<b>7:15-7:30 The World Today (N)</b>										
550	560	660	740	890	920	940				
950	1080	1190	1220	1270	1290	1320				
1330	1450									
<b>7:30-8:00 Voices from Filmland (C)</b>										
550	560	580	600	610	640	670				
810	860	900	920	930	940	950				
1040	1090	1120	1200	1230	1240	1280				
1290	1320	1340	1390	1410	1430	1470				
<b>7:30-8:30 Roxy and His Gang (N)</b>										
560	650	680	690	740	760	990				
1150	1220	1270	1320	1350						
<b>7:45-8:00 Back of News in Washington (N)</b>										
550	590	610	620	660	790	890				
900	940	950	1000	1140	1220	1290				
<b>8:00-8:30 Henry-George (C)</b>										
550	600	630	670	780	810	860				
900	950	1090	1120	1170	1230	1240				
1260	1290	1320	1340	1370	1390	1490				
<b>8:00-8:30 Voice of Firestone (N)</b>										
550	560	580	590	610	620	650				
660	680	690	740	780	790	800				
820	890	900	920	940	950	1000				
1020	1040	1060	1070	1080	1110	1140				
1190	1220	1270	1290	1300	1320	1330				
1450	1460									
<b>8:30-9:00 Cecco Couriers (C)</b>										
550	600	630	670	780	810	860				
900	950	1090	1170	1230	1240	1260				
1290	1320	1340	1390	1490						
<b>8:30-9:00 Ipana Troubadors (N)</b>										
620	650	700	740	750	760	770				
780	820	900	920	980	990	1020				
1040	1080	1110	1150	1190	1220	1290				
1300	1320	1350								
<b>8:30-9:30 A. &amp; P. Gypsies (N)</b>										
550	560	590	610	660	720					
790	890	920	940	950	1000	1060				
1070	1220	1330								
<b>9:00-9:30 Physical Culture Magazine Hour (C)</b>										
550	600	630	670	780	860	900				
950	1090	1170	1230	1240	1260	1290				
1320	1340	1370	1390	1490						
<b>9:00-9:30 Momet Musicals (N)</b>										
590	620	760	790	830	920	980				
1130	1150	1220	1320	1350	1460					
<b>9:30-10:00 General Motors Family Party (N)</b>										
550	560	580	590	610	620	640				
650	660	720	740	780	790	800				
820	830	890	900	920	940	950				
1000	1060	1070	1080	1130	1190	1220				
1330	1460									
<b>9:30-10:00 An Evening in Paris (C)</b>										
550	600	630	670	780	860	900				
950	960	1090	1160	1170	1230	1240				
1260	1290	1320	1340	1390	1490					
<b>9:30-10:00 Chesebrough Real Folks (N)</b>										
690	700	750	760	980	990	1020				
1150	1220	1350								
<b>10:00-10:30 Robt. Burns Panatela Program (C)</b>										
550	600	630	670	780	860	900				
780	790	800	820	830	900	920				
980	990	1020	1040	1080	1110	1140				
1150	1190	1220	1270	1290	1300	1320				
1350	1460									
<b>10:00-10:30 Whittal Anglo-Persians (N)</b>										
550	560	580	590	610	660	790				
890	920	940	950	1000	1060	1220				
1330	1450									
<b>10:30-11:00 Empire Builders (N)</b>										
590	620	640	700	750	760	790				

800	830	900	920	980	990	1020
1130	1150	1190	1220	1290	1350	1460
10:30-11:00 Strings and Bows (N)						
580	660	790	890	920	940	950
1220	1320	1450				
10:30-11:30 Voice of Columbia (C)						
550	560	570	580	600	630	670
780	810	860	900	930	940	950
1090	1120	1160	1170	1230	1240	1260
1280	1290	1300	1320	1340	1390	1410
11:00-12:00 Bernie Cummins Orchestra (N)						
550	590	660	780	790	870	920
11:30-12:00 Jan Garber's Orchestra (C)						
560	570	580	600	630	810	860
930	940	950	1120	1240	1260	1280
1290	1300	1340	1390	1470	1490	
12:00-1:00 Ted Fiorito's Orchestra (N)						
550	590	650	660	780	900	950
1000	1020	1070	1140			

## Tuesday

10:15-10:30 Through the Looking Glass (N)						
700	750	760	770	980	990	1020
1150	1220	1350				
10:30-10:45 A Stroll on the Avenue (C)						
570	600	630	770	780	860	940
950	1160	1170	1230	1250	1280	1290
1300	1320	1340	1390	1430	1470	1490
10:45-11:00 Jean Carroll (C)						
550	600	630	770	780	860	950
1160	1170	1230	1240	1260	1290	1320
1340	1390	1470	1490			
11:00-11:15 The Pot of Gold (C)						
560	600	610	620	630	780	860
900	930	940	950	1170	1230	1260
1280	1340	1390	1430	1470		
11:00-11:15 Blue Streaks (N)						
550	650	660	790	920	950	1070
11:15-11:30 Sen. Arthur Capper (C)						
560	570	600	610	620	630	770
780	860	900	930	940	950	1160
1170	1230	1240	1260	1280	1290	1340
1390	1430	1470	1490			
11:30-12:00 The Party House (C)						
560	570	600	620	780	860	900
920	930	940	950	1160	1170	1230
1240	1260	1280	1290	1340	1390	1430
1470	1490					
2:00-2:30 Romany Patteran (C)						
560	570	600	630	780	860	930
1120	1170	1230	1240	1260	1280	1290
1300	1320	1340	1390	1410	1430	1470
3:15-4:00 Matinee Gems (N)						
680	750	760	800	820	830	900
980	1020	1110	1140	1300	1350	
4:00-5:00 Classic Gems (N)						
750	760	1020	1140	1150	1350	
4:30-5:00 Auction Bridge Game (N)						
550	560	580	590	610	650	660
720	740	780	790	800	820	890
900	920	940	950	1000	1040	1060
1070	1080	1110	1140	1190	1220	1330
5:00-5:15 Dancing Melodies (N)						
550	790	920	940	950	1110	
5:00-5:30 Rhythm Kings (C)						
550	560	570	600	610	630	670
810	860	930	940	950	1090	1120
1240	1280	1290	1340	1390	1410	1430
1470	1490					
5:15-5:30 The American Flag (N)						
550	560	580	610	620	660	740
790	800	820	830	890	900	920
940	950	1000	1070	1080	1110	1140
1220	1450	1460				
5:30-6:30 Bert Low's Billmore Orchestra (C)						
550	560	570	600	610	630	810
930	940	950	1240	1280	1340	1390
1410	1430	1470	1490			
6:30-7:00 Yoeng's Restaurant Orchestra (C)						
560	570	600	860	920	930	940
950	1120	1160	1230	1260	1280	1290
1300	1340	1390	1410	1430	1470	1490

7:00-7:30 Voters' Service (N)						
550	580	590	610	620	660	680
780	790	800	820	830	890	900
920	940	1000	1040	1080	1190	1220
1290	1320	1330				
7:00-8:00 Carborundum Hour (C)						
670	860	1170	1340	1470		
7:30-7:45 Lew White Organ Recital (N)						
680	690	950	1060	1220	1350	
7:30-8:00 Soconyland Sketches (N)						
550	580	590	660	790	890	940
8:00-8:30 Blackstone Program (C)						
600	630	780	860	950	1170	1230
1250	1260	1290	1340	1430	1440	1470
8:00-8:30 Pure Oil Concert (N)						
620	650	740	750	760	770	780
820	900	980	1020	1060	1080	1110
1150	1220	1270	1290	1300	1350	1460
8:00-8:30 Songs of the Season (N)						
550	560	580	660	690	920	950
1220	1330					
8:30-9:00 Around the World with Libby (N)						
590	620	650	700	740	750	760
780	790	820	830	920	980	990
1020	1060	1130	1150	1220	1320	1350
8:30-9:00 True Romances (C)						
550	600	630	780	860	950	1090
1160	1170	1230	1240	1260	1290	1320
1340	1390	1470	1490			
8:30-9:00 Florsheim Frolics (N)						
550	560	580	590	610	660	720
790	890	900	920	940	950	1000
1080	1110	1190	1220	1290	1300	1330
9:00-9:30 Johnson & Johnson Melodrama (N)						
690	700	760	980	990	1020	1060
1150	1220	1350				
9:00-9:30 Eveready Program (N)						
550	560	590	610	620	640	650
660	720	740	780	790	820	830
890	920	940	950	1000	1070	1130
1250	1270	1320	1330	1450		
9:00-10:00 Old Gold-Paul Whiteman Hour (C)						
550	560	570	580	600	610	630
770	780	810	860	900	930	940
950	1040	1090	1120	1160	1170	1230
1240	1250	1260	1280	1290	1320	1330
1340	1390	1410	1430	1440	1470	1490
9:30-10:00 Neapolitan Nights (N)						
760	980	1060	1150	1220	1480	
9:30-10:00 Happy Wonder Bakers (N)						
550	560	580	590	610	620	660
740	780	790	820	830	890	900
920	940	950	1000	1070	1110	1130
1140	1190	1220	1270	1290	1320	1330
1430	1450	1460				
10:00-10:30 Westinghouse Salute (N)						
590	620	640	650	740	750	760
780	790	820	830	900	920	980
990	1020	1060	1080	1110	1130	1140
1150	1190	1220	1290	1300	1320	1350
10:00-10:30 Harbor Lights (N)						
550	560	580	590	610	660	790
890	920	940	950	1220		
10:00-10:30 Graybar's, Mr. and Mrs. (C)						
550	560	570	580	600	610	630
770	780	810	860	900	930	940
950	1040	1090	1120	1160	1170	1230
1240	1250	1260	1280	1290	1320	1340
1390	1470	1490				
10:30-11:00 Conclave of Nations (C)						
550	560	570	580	600	630	780
860	930	940	950	1090	1160	1170
1230	1240	1260	1280	1290	1320	1340
1390	1410	1430	1470	1490		
10:30-11:30 Radio-Keith-Orpheum Hour (N)						
550	560	580	590	610	620	640
650	660	740	780	790	800	820
830	890	900	920	940	950	1000
1040	1070	1080	1110	1130	1140	1190
1220	1270	1290	1300	1320	1330	1450
11:00-11:30 Will Osborne's Orchestra (C)						
560	570	580	600	610	630	860

930	940	950	1120	1160	1240	1260
1280	1290	1300	1340	1390	1410	1430
11:30-12:00	Phil Spitalny's Music (N)					
550	560	590	660	780	920	1140
11:30-12:00	Publix Radio-Vue (C)					
550	560	570	580	600	630	780
810	860	930	940	950	1120	1170
1230	1240	1260	1280	1290	1300	1320
1340	1390	1410	1430			

### Wednesday

9:30-10:00	U.S. Navy Band (C)					
550	570	600	630	860	900	930
940	1240	1260	1280	1290	1370	1390
1430	1490					
10:00-11:00	National Home Hour (N)					
550	560	580	590	660	790	890
920	940	950	970	1000	1020	1070
1220	1330					
11:15-11:30	R.S.V.P. (C)					
560	570	600	620	630	780	860
900	930	940	950	1160	1170	1230
1240	1260	1280	1290	1340	1390	1430
11:30-11:45	Mr. Fixit (C)					
560	570	600	620	630	780	860
900	920	930	940	950	1160	1230
1260	1280	1300	1340	1390	1430	1490
2:00-2:30	Grace Hyde (C)					
560	570	600	610	630	770	780
860	900	930	1120	1230	1240	1260
1280	1290	1300	1320	1340	1390	1410
1430	1490					
2:30-3:00	Synopated Silhouettes (C)					
550	560	570	580	600	610	630
770	780	860	900	920	930	950
1120	1160	1230	1240	1260	1280	1290
1300	1320	1340	1390	1410	1430	1490
3:30-4:00	Evening Stars (N)					
550	560	580	590	650	660	680
690	790	820	890	900	920	1000
1080	1110	1220	1290	1300	1330	1460
4:00-4:30	Musical Album (C)					
560	570	580	600	610	620	630
770	780	810	860	900	920	930
940	950	1090	1120	1230	1240	1260
1280	1290	1320	1340	1390	1410	1430
4:00-5:00	The Radio Guide (N)					
620	680	690	760	780	790	830
900	920	1040	1060	1130	1140	1300
4:30-5:15	Club Plaza Orchestra (C)					
550	560	570	580	600	610	630
670	780	810	860	900	920	930
940	950	1090	1120	1230	1240	1260
1280	1290	1320	1340	1390	1410	1430
5:00-5:15	National Women's Party (N)					
590	620	700	740	760	780	790
800	820	830	900	920	950	1060
1080	1140	1150	1190	1270	1290	1350
5:00-5:30	Sky Sketches (N)					
550	790	920	940	950		
5:15-5:45	Twilight Troubadours (C)					
550	560	570	600	610	630	670
810	930	940	950	1120	1240	1280
1340	1390	1410	1430	1490		
6:15-6:30	Bill Schudt's Going to Press (C)					
560	570	600	860	920	940	950
1260	1280	1290	1300	1320	1340	1390
1410	1490					
6:30-7:00	Hotel Paramount Orchestra (C)					
560	570	600	770	860	900	920
930	940	950	1120	1230	1260	1280
1290	1300	1340	1390	1410	1430	1490
7:00-7:30	Jeddo Highlanders (N)					
550	660	790	890	1060		
7:15-7:30	Rise of the Goldbergs (N)					
690	760	950	1320	1350		
7:30-7:45	Hindermyer & Tuckerman (N)					
550	660	890	920	950		
7:38-8:00	The Choristers (N)					
760	770	780	790	830	920	1220
1320	1350	1460	1480			
7:45-8:00	The Eternal Question (N)					
550	560	580	590	610	660	790

890	920	940	950	1000	1060	1220
1330	1450					
8:00-8:30	The Yeast Foamers (N)					
520	700	760	770	980	990	1020
1150	1220	1290	1350	1460		
8:00-8:30	East of Cairo (N)					
550	580	590	660	780	890	920
940	950	1000				
8:00-8:30	Gen. Mills Fast Freight (C)					
550	560	570	600	610	630	640
670	780	810	860	900	930	940
950	1040	1090	1120	1170	1230	1250
1260	1280	1290	1300	1320	1330	1340
1390	1470	1490				
8:30-9:00	Sylvania Foresters (N)					
760	770	980	990	1020	1150	1220
8:30-9:00	Mobiloil Concert (N)					
550	560	580	590	610	660	800
830	890	900	920	940	950	1000
1070	1130	1140	1190	1220	1330	1450
8:30-9:00	Forty Fathom Trawlers (C)					
550	600	630	670	780	860	1090
1170	1230	1240	1260	1290	1320	1340
1370	1390	1430	1440	1470	1490	
9:00-9:30	Halsey-Stuart Program (N)					
550	560	580	590	620	640	650
660	690	740	780	790	820	830
890	900	920	940	950	1000	1080
1110	1130	1140	1190	1220	1320	1330
9:00-9:30	U.S. Marine Band Concert (C)					
550	560	570	580	600	630	780
860	900	930	940	950	1090	1120
1160	1230	1240	1260	1280	1290	1320
1340	1390	1410	1490			
9:30-10:00	Cuckoo (N)					
560	760	980	990	1150	1220	1350
9:30-10:00	La Palina Smoker (C)					
550	600	630	670	780	810	860
900	950	1090	1120	1160	1170	1230
1240	1260	1290	1320	1340	1390	1490
9:30-10:30	Palmolive Hour (N)					
550	560	580	590	610	620	640
650	660	720	740	780	790	800
820	830	890	900	920	940	950
1000	1060	1070	1080	1130	1140	1190
1220	1320	1330	1460			
10:00-10:30	Philco Hour (C)					
550	560	570	580	600	610	630
670	730	770	780	810	860	900
930	940	950	960	1040	1090	1120
1160	1170	1230	1240	1250	1260	1280
1290	1320	1340	1390	1440	1470	1490
10:30-11:00	Floyd Gibbons (N)					
550	580	590	620	650	660	720
790	830	890	900	920	950	1000
1040	1060	1110	1130	1220	1270	1320
1460						
10:30-11:00	Grand Opera Concert (C)					
550	560	570	580	600	630	670
780	810	860	900	930	940	950
1090	1120	1160	1230	1240	1260	1280
1290	1320	1340	1390	1410	1490	
10:30-11:30	St. Regis Hotel Orchestra (N)					
760	980	1150	1220	1350		
11:00-12:00	Casino Orchestra					
550	590	610	660	920		
11:00-12:00	Hank Simmons Show Boat (C)					
550	560	570	580	600	610	630
780	810	860	900	930	940	950
1120	1160	1230	1240	1260	1280	1290
1300	1320	1340	1390	1410	1490	

### Thursday

9:00-10:00	U.S. Marine Band (N)					
760	950	990	1220	1350		
10:00-10:30	Ceresota Program (N)					
760	950	970	990	1460		
10:30-10:45	Busy Fingers (C)					
560	570	600	630	770	780	860
940	950	1120	1170	1230	1240	1260
1280	1290	1300	1320	1340	1390	1430
1470	1490					

<b>10:45-11:00 Helen Chase (C)</b>	550	600	630	770	780	860	950
	1090	1160	1170	1230	1240	1260	1290
	1320	1340	1470	1490			
<b>11:00-11:15 Your Child, Grace Abbott (N)</b>	550	580	650	660	790	890	900
	920	950	1000	1080	1140	1220	1460
<b>11:00-11:30 Sewing Circle (C)</b>	560	570	600	620	630	780	810
	860	900	930	940	950	1120	1160
	1230	1260	1280	1340	1390	1430	1470
<b>11:30-11:45 Du Barry Beauty Talk (C)</b>	550	600	630	640	770	780	860
	950	1120	1160	1170	1230	1240	1260
	1290	1320	1340	1390	1470	1490	
<b>2:00-2:30 Thirty-Minute Men (C)</b>	560	570	600	610	630	770	780
	860	930	1120	1160	1230	1240	1260
	1280	1290	1300	1320	1340	1390	1410
	1430	1470	1490				
<b>2:30-3:00 American School of the Air (C)</b>	550	560	570	580	600	610	620
	630	670	770	780	860	900	920
	930	940	950	1090	1120	1160	1170
	1230	1240	1260	1280	1290	1300	1320
	1340	1390	1410	1430	1470	1490	
<b>3:15-3:30 The Magic of Speech (N)</b>	550	590	660	830	950	1290	
<b>3:30-4:00 La Forge-Berumen Musicale (N)</b>	550	660	830	920	950	1020	1060
<b>4:00-5:00 U.S. Army Band (N)</b>	700	750	760	790	830	950	970
	990	1220					
<b>4:00-5:00 Twilight Hour (N)</b>	590	660	920	940	1020		
<b>4:30-5:00 Curtain Calls (C)</b>	550	560	570	580	600	610	630
	810	860	920	930	940	950	1090
	1120	1230	1240	1260	1280	1290	1320
	1340	1390	1410	1430	1470	1490	
<b>5:00 5:15 Ebony Twins (C)</b>	550	560	570	600	610	630	670
	810	860	930	940	950	1090	1120
	1240	1280	1340	1390	1410	1430	1470
<b>5:00-5:30 R-K-O Program</b>	550	560	580	590	610	660	790
	890	920	940	950	1000	1020	1060
	1070	1220	1330	1450			
<b>5:30-6:00 Gov. Clinton Hotel Orchestra (C)</b>	550	560	570	600	610	630	670
	810	930	940	950	1160	1280	1340
	1390	1410	1430	1470	1490		
<b>6:00-6:30 Hotel Shelton Orchestra (C)</b>	560	570	600	770	860	920	930
	940	950	1160	1230	1260	1280	1290
	1300	1320	1340	1390	1410	1430	1470
<b>6:30-7:00 Civic Repertory Theatre (C)</b>	560	570	600	610	860	900	920
	930	950	1120	1230	1260	1280	1290
	1300	1340	1390	1410	1430	1470	1490
<b>7:00-7:30 Mid-Week Hymn Sing (N)</b>	560	660	780	820	830	890	940
<b>7:30-8:00 Ward's Tip Top Club (C)</b>	570	600	670	780	860	1090	1170
	1230	1290	1340	1390	1490		
<b>7:30-8:00 Half Hour in Capitol (N)</b>	580	660	780	890	900	950	1190
	1290	1320					
<b>7:30-8:00 Frontier Days (N)</b>	690	760	770	1220	1350		
<b>8:00-8:15 The Vagabonds (C)</b>	560	570	580	600	620	630	780
	900	920	930	940	950	1120	1160
	1230	1260	1280	1290	1300	1340	1390
	1410	1430	1470	1490			
<b>8:00-8:30 Golden Gems (N)</b>	760	1150	1220	1350			
<b>8:00-9:00 Rudy Vallee's Orchestra (N)</b>	550	560	580	590	620	650	660
	680	690	740	780	790	800	820
	830	890	900	920	940	950	1000
	1040	1070	1080	1110	1130	1140	1190
	1220	1270	1290	1300	1320	1330	1430
	1450	1460					
<b>8:30-9:00 Champion Sparkers (N)</b>	700	750	760	770	870	980	990
	1060	1150	1220	1350			
<b>8:30-9:00 Manhattan Moods (C)</b>	550	560	570	580	600	610	620
	630	780	860	900	920	930	940
	950	1090	1120	1230	1240	1260	1280
	1290	1300	1340	1390	1410	1430	1470
<b>9:00-9:30 True Detective Mysteries (C)</b>	550	600	630	770	780	810	860
	950	1090	1120	1160	1170	1230	1240
	1260	1290	1320	1340	1390	1440	1470
<b>9:00-9:30 Smith Brothers (N)</b>	560	750	760	980	990	1060	1150
	1220	1350	1480				
<b>9:00-9:30 Selberling Singers (N)</b>	550	560	580	590	610	620	640
	650	660	740	780	790	800	820
	830	890	900	920	940	950	1000
	1020	1070	1080	1110	1140	1190	1220
	1300	1320	1330	1460			
<b>9:30-10:00 Maxwell House Melodies (N)</b>	590	620	650	700	740	750	760
	780	790	800	820	830	900	920
	980	990	1020	1060	1080	1110	1130
	1150	1190	1220	1290	1300	1320	1350
	1430	1460					
<b>9:30-10:00 DeVoe Redskins Orchestra (C)</b>	550	600	630	770	780	860	950
	1090	1160	1170	1230	1240	1260	1290
	1320	1340	1390	1470	1490		
<b>9:30-10:00 Jack Frost's Melody Moments (N)</b>	550	560	580	660	790	870	890
	920	940	950	1220	1330		
<b>10:00-10:30 In a Russian Village (C)</b>	550	560	570	580	600	610	630
	770	780	810	860	900	920	930
	940	950	960	1090	1120	1160	1170
	1230	1240	1250	1260	1280	1290	1300
	1320	1340	1390	1440	1470	1490	
<b>10:00-11:00 Atwater Kent Program (N)</b>	720	750	760	980	990	1060	1150
	1220	1350	1480				
<b>10:00-11:00 RCA Victor Hour (N)</b>	550	560	580	590	610	620	640
	650	660	740	780	790	800	820
	830	890	900	920	940	950	1000
	1020	1040	1070	1080	1110	1130	1140
	1190	1220	1270	1290	1300	1320	1330
	1450	1460					
<b>10:30-11:00 National Radio Forum (C)</b>	550	560	570	580	600	610	630
	770	780	860	930	940	950	1090
	1120	1230	1240	1260	1280	1290	1300
	1320	1340	1390	1410	1430	1470	1490
<b>11:00-11:30 Conoco Adventurers (N)</b>	590	610	700	780	800	820	830
	870	900	920	1000	1040	1130	1140
	1190	1220	1350				
<b>11:00-11:30 Dream Boat (C)</b>	550	560	570	580	600	630	780
	860	930	940	950	1120	1160	1230
	1240	1260	1280	1290	1300	1340	1390
	1410	1430	1470	1490			
<b>11:00-12:00 National Grand Opera (N)</b>	550	560	590	660	690	920	950
	1070	1080	1110				
<b>11:30-12:00 Bert Lown's Biltmore Orch. (C)</b>	560	570	580	600	630	780	810
	860	930	940	950	1120	1230	1240
	1260	1280	1290	1300	1340	1390	1410
	1430	1470	1490				
<b>Friday</b>							
<b>9:15-9:30 Cultural Broadcast for Women (C)</b>	550	570	600	860	900	930	940
	1090	1280	1340	1370	1390	1430	1490
<b>10:30-10:45 Three Men in a Tub (C)</b>	560	570	600	630	770	780	810
	860	900	940	950	1160	1170	1230
	1240	1260	1280	1290	1300	1320	1340
	1390	1430	1490				

11:00-11:15 Nell Vinick, Beauty Adviser (C)	900	950	1090	1160	1170	1230	1240
550	600	630	640	770	780	860	
1160	1170	1230	1240	1260	1290	1320	
1340	1440	1470	1490				
11:00-12:00 NBC Music Appreciation Hour (N)	1080	1110	1150	1220	1300	1350	
550	560	580	590	610	620	650	
660	680	690	700	720	740	750	
760	770	780	790	800	820	830	
890	900	920	940	950	980	990	
1000	1020	1040	1060	1070	1080	1110	
1130	1140	1150	1190	1220	1270	1290	
1300	1320	1330	1350	1450	1460		
11:15-11:30 Columbia Salon Orchestra (C)	1110	1130	1140	1150	1190	1220	1290
560	570	600	610	620	630	780	
860	900	930	940	950	1170	1230	
1260	1280	1290	1340	1390	1430	1490	
11:30-12:00 The Week Enders (C)	1190	1220	1270	1290	1300	1320	1340
560	570	600	610	620	630	780	
810	860	900	920	930	940	950	
1160	1170	1230	1260	1280	1290	1340	
1390	1430	1490					
2:00-2:30 Dominion Male Quartet (C)	560	570	600	610	630	770	780
860	900	930	1120	1160	1230	1240	
1260	1280	1290	1300	1320	1340	1390	
1410	1430	1490					
3:00-4:00 U.S. Marine Symphony Orch. (N)	550	590	660	920	950	1000	1020
4:00-5:00 Pacific Feature Hour (N)	700	760	790	830	920	950	1060
1140	1220	1300	1350				
4:30-5:00 Tea Timers (N)	550	660	920	940	950		
5:00-5:15 Browsing Among Books (C)	550	560	570	600	610	630	810
860	900	930	940	1090	1280	1290	
1340	1390	1410	1430	1490			
5:15-5:30 The March of Events (N)	550	620	660	740	820	890	900
920	940	950	1080	1290	1460		
5:15-5:45 Bert Lown's Biltmore Orchestra (C)	550	560	570	600	610	630	810
860	900	930	940	950	1120	1240	
1280	1290	1340	1390	1410	1430	1490	
6:00-6:15 Musical Foursome (C)	560	570	600	610	860	900	920
930	940	950	1260	1280	1320	1340	
1390	1410	1430	1490				
6:15-6:30 The World in Music (N)	550	590	660	950	1070	1220	
6:30-7:00 Will Osborne's Orchestra (C)	560	570	600	770	900	920	930
940	950	1120	1230	1260	1280	1290	
1300	1340	1390	1410	1430	1490		
7:00-7:30 The Family Goes Abroad (N)	550	560	580	650	660	740	920
1270	1320						
7:00-7:30 Hotel Paramount Orchestra (C)	560	570	580	600	620	810	900
920	930	1120	1230	1260	1280	1290	
1340	1390	1410	1430	1490			
7:30-8:00 Stars of Melody (N)	760	770	780	830	920	1150	1220
1320	1350	1460	1480				
7:30-8:00 Raybestos Twins (N)	550	560	590	610	650	660	690
740	780	790	820	830	920	940	
950	1060	1140	1220	1270	1320	1330	
7:30-8:00 Howard Fashion Plates (C)	780	860	1170	1290	1490		
8:00-8:30 Brown-Bilt Footlights (C)	550	560	570	600	610	630	670
780	810	860	900	930	940	950	
1040	1090	1160	1170	1230	1250	1260	
1280	1290	1300	1320	1340	1390	1430	
1430	1440	1470	1490				
8:00-9:00 Cities Service Orchestra (N)	550	560	580	590	610	620	660
690	790	800	830	890	900	920	
940	950	1000	1020	1060	1070	1130	
1190	1220	1290	1330	1430	1460		
8:30-9:00 Eversharp Penman (C)	550	600	630	670	780	810	860
1260	1290	1320	1340	1390	1490		
560	700	760	770	900	980	990	
8:45-9:00 Natural Bridge Program (N)	1080	1110	1150	1220	1300	1350	
550	560	580	590	610	660	790	
890	920	940	950	1060	1220	1330	
9:00-9:30 Cluquot Club Eskimos (N)	590	620	640	650	680	690	700
740	750	760	780	790	800	820	
830	900	920	980	990	1020	1080	
1110	1130	1140	1150	1190	1220	1290	
9:00-9:30 Interwoven Pair (N)	1300	1320	1350				
550	560	570	600	610	630	670	
780	810	860	900	920	930	940	
950	1040	1090	1120	1160	1170	1230	
1240	1250	1260	1280	1290	1300	1320	
1340	1390	1440	1470	1490			
9:30-10:00 Broadcasting Broadway (N)	550	560	590	610	660	890	920
940	950	1000	1060	1220	1330	1450	
9:30-10:00 Armour Program (N)	590	620	640	650	680	740	750
760	780	820	830	900	920	980	
990	1020	1080	1110	1130	1140	1150	
1190	1220	1270	1290	1300	1320	1350	
10:00-10:30 Around the Samovar (C)	550	560	570	580	600	630	670
780	860	900	930	940	950	1090	
1120	1160	1170	1230	1240	1260	1280	
1290	1320	1340	1390	1410	1490		
10:00-10:30 Grand Opera Burlesque (N)	550	580	590	660	690	790	870
920	940	950	1000	1060	1220		
10:00-10:30 Armstrong Quakers (N)	590	620	640	650	700	740	750
760	780	790	800	820	830	900	
920	980	990	1020	1040	1080	1130	
1140	1150	1190	1220	1290	1320	1350	
10:30-11:00 Curtis Institute of Music (C)	550	560	570	580	600	630	780
810	860	900	930	940	950	1090	
1120	1160	1170	1230	1240	1260	1280	
1290	1320	1340	1390	1410	1490		
10:30-11:00 Mystery House (N)	550	580	590	610	660	690	920
950	1000	1220					
10:30-11:00 Smith Ballew's Orchestra (N)	750	760	790	980	1110	1150	1190
1220	1290	1350					
11:00-11:15 Hamilton-Brown Sketch Book (N)	560	590	620	750	760	770	790
830	920	980	990	1130	1150	1220	
1350	1430	1480					
11:00-11:30 Sleepy Hall's Orchestra (C)	570	580	600	630	780	860	900
930	940	950	1120	1160	1170	1240	
1260	1280	1290	1300	1340	1390	1410	
11:00-12:00 Hotel St. Regis Orchestra (N)	590	660	690	780	790	870	920
11:30-12:00 Ben Pollack's Orchestra (C)	550	560	570	580	600	630	780
860	930	940	950	1120	1160	1240	
1260	1280	1300	1340	1390	1410	1470	
<b>Saturday</b>							
10:00-10:30 Saturday Syncopators (C)	570	600	620	630	770	780	810
860	940	950	1160	1170	1230	1260	
1280	1290	1340	1390	1430	1470	1490	
10:30-11:00 Columbia Grenadiers (C)	560	570	600	620	630	770	780
810	860	940	950	1090	1160	1170	
1230	1260	1280	1290	1340	1390	1430	
1470	1490						
11:00-12:00 U.S. Army Band Concert (C)	560	570	580	600	610	620	630
780	860	900	920	930	940	950	
1160	1170	1230	1240	1260	1280	1290	
1340	1390	1430	1470	1490			



12:00-12:30 <b>Adventures of Helen and Mary (C)</b>										8:00-8:30 <b>The New Business World (N)</b>									
550	560	570	580	600	610	630				550	560	580	590	610	620	660			
780	860	900	920	930	940	950				680	780	790	830	890	900	920			
1160	1230	1280	1290	1320	1340	1390				940	950	1000	1040	1080	1110	1130			
1430	1470	1490								1140	1190	1220	1320	1330	1430	1450			
1:30-2:00 <b>Keystone Chronicle (N)</b>										8:15-8:30 <b>Babson Finance Period (C)</b>									
590	610	620	650	700	770	780				550	600	630	670	780	810	860			
820	830	870	900	920	980	1000				950	1090	1160	1170	1230	1240	1260			
1140	1190	1220	1290	1320	1350	1460				1290	1320	1340	1390	1470	1490				
2:00-2:30 <b>Scotti Orchestra (C)</b>										8:30-9:00 <b>Dixie Echoes (C)</b>									
560	570	600	630	770	780	810				550	570	580	600	610	620	630			
860	900	930	1170	1230	1240	1260				780	810	860	900	920	930	940			
1280	1290	1300	1320	1340	1390	1410				950	1090	1120	1230	1240	1260	1280			
1430	1470	1490								1290	1300	1340	1390	1410	1430	1470			
2:30-3:00 <b>The Gauchos (C)</b>										8:30-9:00 <b>Launderland Lyrics (N)</b>									
550	560	570	580	600	630	770				550	560	580	590	610	650	660			
780	810	860	900	920	930	1160				740	780	790	800	820	830	870			
1170	1230	1240	1260	1280	1290	1300				890	900	920	940	950	1000	1080			
1320	1340	1390	1410	1430	1470	1490				1110	1130	1140	1190	1220	1230	1290			
4:00-4:30 <b>The Aztecs (C)</b>										9:00-9:15 <b>Broadway Lights (N)</b>									
560	570	600	610	630	770	780				750	760	980	1220	1350					
810	860	920	930	940	950	1090				9:00-9:30 <b>Nit Wit Hour (C)</b>									
1170	1230	1240	1260	1280	1290	1320				550	560	570	580	600	610	620			
1340	1390	1410	1430	1470	1490					630	670	780	810	860	900	930			
4:30-5:00 <b>Club Plaza Orchestra (C)</b>										9:00-9:30 <b>General Electric Hour (N)</b>									
550	560	570	580	600	610	620				550	560	580	590	610	620	640			
630	810	860	900	920	930	940				660	740	780	790	800	920	830			
950	1090	1170	1230	1240	1260	1280				890	900	920	940	950	1000	1070			
1290	1320	1340	1390	1410	1430	1470				1080	1110	1130	1140	1190	1220	1290			
4:30-5:00 <b>Whyte's Orchestra (N)</b>										9:30-10:00 <b>Around the Samovar (C)</b>									
560	590	610	660	800	950	1000				550	560	570	580	600	620	630			
5:00-5:30 <b>Women's Aviation Hour (C)</b>										9:30-10:00 <b>Dutch Masters Minstrels (N)</b>									
550	560	570	580	600	610	630				700	750	760	980	990	1020	1060			
670	810	860	900	920	930	940				1150	1220	1350							
950	1090	1240	1280	1290	1340	1390				10:00-10:30 <b>Ship of Memory (N)</b>									
1410	1430	1470	1490							690	760	980	1220	1350	1480				
5:00-5:30 <b>The Tea Timers (N)</b>										10:00-11:00 <b>Paramount-Public Hour (C)</b>									
660	780	920	950	1020	1070	1220				550	560	570	580	600	610	620			
5:30-5:45 <b>Quiet Harmonies (C)</b>										10:00-11:00 <b>Lucky Strike Orchestra (N)</b>									
550	560	570	580	600	610	630				550	560	580	590	610	620	640			
670	810	860	900	920	930	940				660	720	740	780	790	800	820			
950	1090	1240	1280	1290	1340	1390				830	890	900	920	940	950	1000			
1410	1430	1470	1490							1080	1130	1140	1190	1220	1270	1290			
5:30-6:00 <b>Blue Aces (N)</b>										10:30-11:00 <b>The Miniature Theatre (N)</b>									
760	780	820	870	1220						690	750	760	980	1150	1220	1350			
5:45-6:00 <b>Dr. Thatcher Clark (C)</b>										11:00-11:15 <b>Troubadour of the Moon (N)</b>									
550	560	570	580	600	610	860				550	560	590	660	780	1000	1220			
920	940	1280	1290	1340	1390	1410				1270	1300	1320	1450						
1470	1490									11:00-11:30 <b>Guy Lombardo's Orchestra (C)</b>									
6:00-6:30 <b>Hotel Shelton Orchestra (C)</b>										11:15-12:00 <b>Smith Ballew Orchestra (N)</b>									
560	570	580	600	610	770	810				550	560	590	610	660	780	900			
860	920	930	940	950	1160	1230				920	1270	1300	1320	1450	1480				
1260	1280	1300	1320	1340	1390	1410				11:30-12:00 <b>Hotel Paramount Orchestra (C)</b>									
1430	1470	1490								550	560	570	580	600	630	860			
6:30-7:00 <b>Ten Husing's Sportsclats (C)</b>										12:00-1:00 <b>Rudy Vallee and His Orchestra (N)</b>									
560	570	600	810	860	900	920				550	590	660	780	900	950	1000			
930	940	950	1230	1260	1280	1290				1070	1460								
1300	1340	1390	1410	1430	1470	1490													
7:00-7:15 <b>Floyd Williams, tenor (N)</b>																			
590	660	740	780	790	890	920													
940	1320																		
7:15-7:30 <b>The Jameses (N)</b>																			
550	580	590	660	790	890	920													
7:15-7:30 <b>RCA Theremin Ether Wave Music (N)</b>																			
650	680	740	760	770	780	820													
830	900	920	1040	1080	1130	1140													
1190	1220	1290	1300	1320	1350	1460													
7:30-8:00 <b>Phil Spitalny's Music (N)</b>																			
660	680	690	780	790	890	920													
940																			
7:30-8:00 <b>The Fuller Man (N)</b>																			
700	760	770	980	990	1020	1060													
1150	1220	1350																	
8:00-8:15 <b>Dr. Arthur Torrance (C)</b>																			
550	560	570	580	600	610	620													
630	780	810	860	900	920	930													
950	1120	1160	1170	1230	1240	1260													
1280	1290	1300	1320	1340	1390	1410													
1430	1470	1490																	
8:00-8:15 <b>Dixies Circus (N)</b>																			
700	760	980	990	1020															

# AIR-LINE DISTANCES

Atlanta, Ga.	1273	1670	774	1967	838	1577	1126	1248	1417	332	833	1360	228	968	561	803	588	773	1252	1492	717	643	1174	936	1710	980	8		
Baltimore, Md.	-	575	1830	933	-	2055	1525	273	603	423	305	1505	913	398	1750	1143	1239	1245	1154	964	808	682	962	2133	498	792	958	948	1947
Boise, Idaho	-	-	-	2266	1610	1872	1453	1663	1754	637	1155	1671	969	975	1263	1538	934	1384	1367	2098	1158	663	1623	1506	2368	1140	258		
Boston, Mass.	-	1881	398	849	737	550	1766	1159	613	2067	1304	1574	1598	1415	1302	922	1015	1250	2590	823	1133	1258	1125	2124	1258	1125	2124		
Brownsville, Tex.	-	-	-	-	1575	1234	1184	1402	1047	1102	1398	688	1445	471	287	1013	650	1543	1025	923	1370	1093	777	1100	1335	1706	-		
Buffalo, N. Y.	-	-	454	392	175	-	1368	762	218	1690	923	1221	1289	1019	956	560	880	662	2195	483	802	1184	733	1740	-	-			
Chicago, Ill.	-	-	249	307	-	-	918	310	236	1249	571	820	954	566	585	367	861	413	1741	268	461	1130	356	1348	-	-			
Cincinnati, Ohio	-	-	218	-	-	-	1090	509	234	1333	818	839	897	742	569	589	628	541	1842	92	410	957	603	1562	-	-			
Cleveland, Ohio	-	-	1223	617	94	1521	838	1046	1116	871	727	518	768	700	2044	309	627	1088	632	156	-	-	-	-	-	-			
Denver, Colo.	-	-	607	1153	554	642	643	925	353	749	970	1468	555	828	1035	878	1732	699	6	-	-	-	-	-	-	-			
Des Moines, Iowa	-	-	545	980	397	-	640	851	856	498	458	1024	180	1423	477	485	1339	235	104	-	-	-	-	-	-	-			
Detroit, Mich.	-	-	1475	745	-	-	1018	1111	800	761	427	832	643	1976	315	621	1156	542	158	-	-	-	-	-	-	-			
El Paso, Tex.	-	-	-	-	-	-	943	723	757	802	1422	1481	836	702	1253	978	1662	1156	111	-	-	-	-	-	-	-			
Fargo, N. Dak.	-	-	-	-	-	-	573	1218	440	875	393	1400	548	1426	818	882	1721	219	8	-	-	-	-	-	-	-			
Fort Worth, Tex.	-	-	283	544	273	1093	943	460	1212	751	448	1150	870	13	-	-	-	-	-	-	-	-	-	-	-	-			
Galveston, Tex.	-	-	808	375	1277	-	799	677	1423	797	492	941	1087	15	-	-	-	-	-	-	-	-	-	-	-	-			
Galveston, Tex.	-	-	513	666	1178	226	1177	693	591	1468	399	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Hastings, Nebr.	-	-	901	-	-	-	728	326	1437	460	176	983	722	13	-	-	-	-	-	-	-	-	-	-	-	-			
Hot Springs, Ark.	-	-	1216	633	1787	636	830	1545	872	121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Houghton, Mich.	-	-	952	2153	595	591	328	1192	207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Jacksonville, Fla.	-	-	1352	480	370	-	1247	413	111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Kansas City, Mo.	-	-	1825	1602	2355	1522	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Los Angeles, Calif.	-	-	878	700	141	-	1516	23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Louisville, Ky.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Memphis, Tenn.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Miami, Fla.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Minneapolis, Minn.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
Missoula, Mont.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			

## How To Use Your RADEX

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

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

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

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

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

Let us assume that the station we are hearing is WEFW in New York.

First we must ascertain the frequency for this station. Look it up under WEFW 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 WEFW is 660. Now we turn to 660 kilocycles in the Index by Frequencies and Dial Numbers. Here we find that WEFW is one of the two stations which have been assigned the 660 kcys. frequency by the Federal Radio Commission. We also find that it has a power of 50,000 watts, that it is located in New York City and is owned by the National Broadcasting Co., Inc.

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

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

We now have found that the dial numbers for 630 kcys. are 72-70 and the dial numbers for 660 kcys. are 69-67. If we now will set our dials for 70-68 it is obvious we will have our set tuned for 660 kcys. We listen carefully and if they are on the air and within range of our set we will tune in WSM of Nashville at this point. We then enter the dial readings for WSM opposite 660 kcys. Now it is clear that if we reset our dials at 71-69 our set will be tuned to 640 kcys. and at that point KFI of Los Angeles will be heard, always assuming of course that it is on the air and within range of our particular set.

Now we tune in some other station, proceeding

### INDEX BY FREQUENCIES AND DIAL NUMBERS

590 kilocycles 508.2 meters

EHIO	800	Spokane, Wash.
WED	500	Lincoln, Neb.
WV	1000	Dayton, N. Car.
WVW	1000	Omaha, Neb.
WMEG	1000	Berlin Springs, Mich.

76	74
Louis Warner, Inc.	
Petera Wesleya University	
Edison Elec. Illuminating Co.	
Westerns of the World	
Commercial University College	

600 kilocycles 499.7 meters

CFHC	254	Ingonia Falls, Ont.
FSHU	500	Lansing, Mich.
RFSD	500	San Diego, Calif.
OCAG	250	Baltimore, Md.
WEAW	250	Hobart, Wis.
WGAN	500	Greensburg, Tenn.
WZAC	500	Memphis, Tenn.
WIC	250	Hartford, Conn.

75	73
Abilene Power & Paper Co.	
Bluffton N. S. Thome	
African Radio Club, Inc.	
Marionville Radio Co., Inc.	
Rural College	
Virginia School of Music	
WMAE, Inc.	
Travelers Insurance Co.	

610 kilocycles 491.5 meters

BRBC	1000	San Francisco, Calif.
WDAF	1000	Kansas City, Mo.
WFAN	500	Philadelphia, Pa.
WIP	500	Philadelphia, Pa.
WOC	1000	Kansas City, Mo.

74	72
Don Lee, Inc.	
Business City Star Co.	
Epworth Broadcasting Co., Inc.	
Clasid Bros., Inc.	
Unity School of Christianity	

620 kilocycles 483.6 meters

EPAD	500	Phoenix, Ariz.
CFW	1000	Portland, Ore.
WIDR	1000	Tampa, Fla.
WHDJ	1000	Orlando, Fla.
WELZ	500	Dover, Pa.
WTLZ	1000	Madison, Wis.

73	71
Electrical Equipment Co.	
Edgerton Publishing Co.	
Tampa Publishing Co.	
Rollins College, Inc.	
Central Florida	
Thompson E. Garmany	
Hillmeier	

630 kilocycles 475.9 meters

CFCC	500	Fort St. Vrain, Colo.
CGCX	500	Yukon, Alaska
WVW	500	Monroeville, N. C.
CVB	250	Stettin, Me.
CFBU	500	Conamish, Ore.
WCRP	500	Franklin, Ind.
WMMAL	250	Washington, D. C.
WOS	800	Jefferson City, Mo.

72	70
Victoria Broadcasting Assn.	
Washington Great Exchange	
National Railways	
Central Florida	
Thompson E. Garmany	
Hillmeier	
St. A. Lewis Co.	
State Marketing Bureau	

640 kilocycles 468.5 meters

EPI	500	Los Angeles, Calif.
WAIU	500	Columbus, Ohio

Eric C. Anthony, Inc.	
American Insurance Union	

650 kilocycles 461.3 meters

WSM	500	Nashville, Tenn.
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70	68
National Life & Accident Ins. Co.	

660 kilocycles 454.3 meters

WEAF	500	Omaha, Neb.
WAAF	5000	New York City

69	67
Omaha Grain Exchange	
National Broadcasting Co., Inc.	

670 kilocycles 447.5 meters

WMAO	2000	Chicago, Ill.
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68	66
Chicago Daily News, Inc.	

680 kilocycles 440.9 meters

EPO	800	San Francisco, Cal.
WTFP	800	Raleigh, N. C.

67	65
Hess Bros. & The Chronicle	
Durham Life Insurance Co.	

# N STATUTE MILES

	New Orleans, La.	New York, N. Y.	Norfolk, Va.	Oklahoma, Okla.	Omaha, Nebr.	Philadelphia, Pa.	Phoenix, Ariz.	Pittsburgh, Pa.	Portland, Me.	Portland, Oreg.	Richmond, Va.	St. Louis, Mo.	Salt Lake City, Utah	San Francisco, Calif.	Schenectady, N. Y.	Seattle, Wash.	Shreveport, La.	Spokane, Wash.	Springfield, Mass.	Vermillion, S. Dak.	Washington, D.C.	
17 1030	1810 1696	518	718 1748	330 1498	2015 1107 1628	938 483 893 1823 1178	764 1028 1869 742 1648	Albuquerque, N. Mex.														
18 427	747 507	753 815 663	1592 520 1022 2172 470	467 1580 2133 840 2180	731 1858 2451 278 2341	548 1960 863 917 542	1064 2160 2822 1083 53	Brownsville, Tex.														
97 1001	170 167	1173 1026	900 202 194 446 2367 128	731 1858 2451 278 2341	548 1960 863 917 542	1064 2160 2822 1083 53	1433 290 2196 973 2045	Boston, Mass.														
31 1713	2153 2137	1138 1044 2113	2225 478 100 2553 471	1036 2099 2696 150 2508	1410 8279 79 1214 392	975 1317 1675 1770 2015	510 1858 1805 1161 1493	Brownsville, Tex.														
41 1359	188 467	1490 1280 266	2225 478 100 2553 471	1036 2099 2696 150 2508	1410 8279 79 1214 392	975 1317 1675 1770 2015	510 1858 1805 1161 1493	Brownsville, Tex.														
52 536	1695 1465	659 1061 1614	1023 1424 1961 1944 1428	975 1317 1675 1770 2015	510 1858 1805 1161 1493	1080 1900 325 916 290	1080 1900 325 916 290	Brownsville, Tex.														
26 1087	291 435	1117 883 278	1904 178 438 2167 375	259 1260 1855 702 1743	688 1764 659 694 403	1080 1900 325 916 290	1080 1900 325 916 290	Brownsville, Tex.														
94 831	711 696	689 432 664	1685 208 157 1975 445	1033 689 993 1930 1373	1002 976 1240 284 1141	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
239 708	568 474	755 620 501	1578 258 802 1987 399	1033 689 993 1930 1373	1002 976 1240 284 1141	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
156 922	404 429	946 738 343	1745 115 603 2063 353	490 1567 2163 408 2035	688 1764 659 694 403	1080 1900 325 916 290	1080 1900 325 916 290	Brownsville, Tex.														
18 1079	1628 1562	503 485 1575	585 1320 1603 985 1488	793 372 946 1618 1020	799 827 1692 468 1490	975 1317 1675 1770 2015	510 1858 1805 1161 1493	Brownsville, Tex.														
232 825	1023 983	469 122 972	11254 718 1197 1479 905	270 952 1547 1012 1470	624 1243 1085 187 895	975 1317 1675 1770 2015	510 1858 1805 1161 1493	Brownsville, Tex.														
168 938	843 522	905 666 444	1685 208 157 1975 445	452 1490 2087 467 1945	891 1715 540 705 397	975 1317 1675 1770 2015	510 1858 1805 1161 1493	Brownsville, Tex.														
169 986	1902 1575	578 875 1834	347 1592 8126 1286 1695	1033 689 993 1930 1373	1002 976 1240 284 1141	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
300 1221	813 1258	786 390 1186	1225 952 1313 1248 1180	658 865 1447 1157 1206	1002 976 1240 284 1141	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
843 470	1398 1226	188 590 1324	858 1097 1642 1612 1170	568 977 1454 1445 1658	209 1470 1456 689 1210	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
566 288	1415 1195	456 888 1335	1065 1140 1678 1865 1154	697 1249 1693 1487 1938	233 1753 1594 938 1214	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
597 870	1275 1216	357 135 1222	901 967 1454 1271 1142	455 708 1297 1267 1288	615 1061 1340 167 1139	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
370 358	1125 955	260 490 1051	1904 825 1371 1733 897	325 1116 1648 1175 1759	142 1552 1242 605 936	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
760 1187	849 946	926 547 827	1550 630 924 1638 870	591 1242 1833 776 1588	1043 1360 880 510 813	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
502 511	838 548	988 1098 758	1800 703 1113 2442 953	1755 1840 2375 960 2450	733 2239 957 1203 647	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
472 678	1019 1009	293 165 1037	1050 784 1300 1397 937	238 128 122 1500 1107 1505	328 1286 1173 280 943	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
777 1675	2446 2352	1182 1312 2368	565 2135 2631 825 2283	1585 577 345 2445 956	1428 939 2515 1291 2295	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
153 623	650 528	675 579 580	1518 545 892 1853 457	242 1400 1983 695 1945	598 1720 745 663 473	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
195 358	953 778	422 529 878	1264 660 1205 1452 722	242 1250 1800 1010 1847	279 1652 1055 648 763	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
821 681	1095 802	1233 1402 1023	1998 1014 1357 2716 831	1067 2098 2603 1229 2740	950 2528 1210 1510 927	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
695 1050	1019 1047	692 291 985	1279 745 1145 1435 968	404 988 1585 975 1403	859 1173 1056 238 936	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
562 1733	2030 2045	1162 978 997	932 1754 3113 240 1967	1331 435 762 1978 395	1457 170 2060 887 1940	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
- 470	758 586	602 604 663 1445	470 1215 1970 526	253 1390 1958 820 1973	470 1752 863 704 567	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
- 1173	932 575	845 1090 1318	923 1445 2063 899	599 1433 1923 1259 2098	280 1698 1287 960 968	688 1764 659 694 403	1080 1900 325 916 290	Brownsville, Tex.														
-	293 1334 1144	83 2142 313 277 2455 287	873 1972 2568 142 2419	873 1972 2568 142 2419	873 1972 2568 142 2419	873 1972 2568 142 2419	873 1972 2568 142 2419	Brownsville, Tex.														
-	1186 1095 220	2027 316 565 2458 79	771 1925 2510 426 2440	1037 2211 411 1166 143	456 862 1386 1354 1523	897 1324 1412 502 1150	897 1324 1412 502 1150	Brownsville, Tex.														
-	405 1256	843 1013 1550 1488 1122	352 833 1425 1133 1372	617 1149 1205 115 1012	599 1433 1923 1259 2098	1152 2158 801 1143 122	1152 2158 801 1143 122	Brownsville, Tex.														
-	1094	1032 837 1318 1373 1020	809 1923 2518 205 2388	1057 1020 2220 1043 1980	1270 504 652 2152 1112	1067 1020 2220 1043 1980	1067 1020 2220 1043 1980	Brownsville, Tex.														
-	1829 2345 1007 1960	-	545 2174 242	561 1670 2264 350 2145	939 1918 400 891 188	939 1918 400 891 188	939 1918 400 891 188	Brownsville, Tex.														
-	545 2174 242	-	2563 565	1094 2127 2725 197 2513	1484 2285 159 1345 480	1484 2285 159 1345 480	1484 2285 159 1345 480	Brownsville, Tex.														
-	2381	-	2381	1723 636 536 2405 143	1783 295 2488 1293 2360	1783 295 2488 1293 2360	1783 295 2488 1293 2360	Brownsville, Tex.														
-	699 1850 8436 408 2362	-	699 1850 8436 408 2362	699 1850 8436 408 2362	985 2133 407 1089 96	985 2133 407 1089 96	985 2133 407 1089 96	Brownsville, Tex.														
-	1158 1738 898 1722	-	466 1500 958 450 710	466 1500 958 450 710	592 1950 697	592 1950 697	592 1950 697	Brownsville, Tex.														
-	2548 660	-	1655 730 2625 1383 2437	1655 730 2625 1383 2437	2363	2363	2363	Brownsville, Tex.														
-	2363	-	1290 2139 86 1165 313	1290 2139 86 1165 313	1820 229	1820 229	1820 229	Brownsville, Tex.														
-	1820 229	-	2445 1282 3335	2445 1282 3335	1621 1333	1621 1333	1621 1333	Brownsville, Tex.														
-	1621 1333	-	726 1035	726 1035	2216 1055	2216 1055	2216 1055	Brownsville, Tex.														
-	2216 1055	-	2105 1055	2105 1055	1242 321	1242 321	1242 321	Brownsville, Tex.														
-	1242 321	-	1073	1073	1073	1073	1073	Brownsville, Tex.														

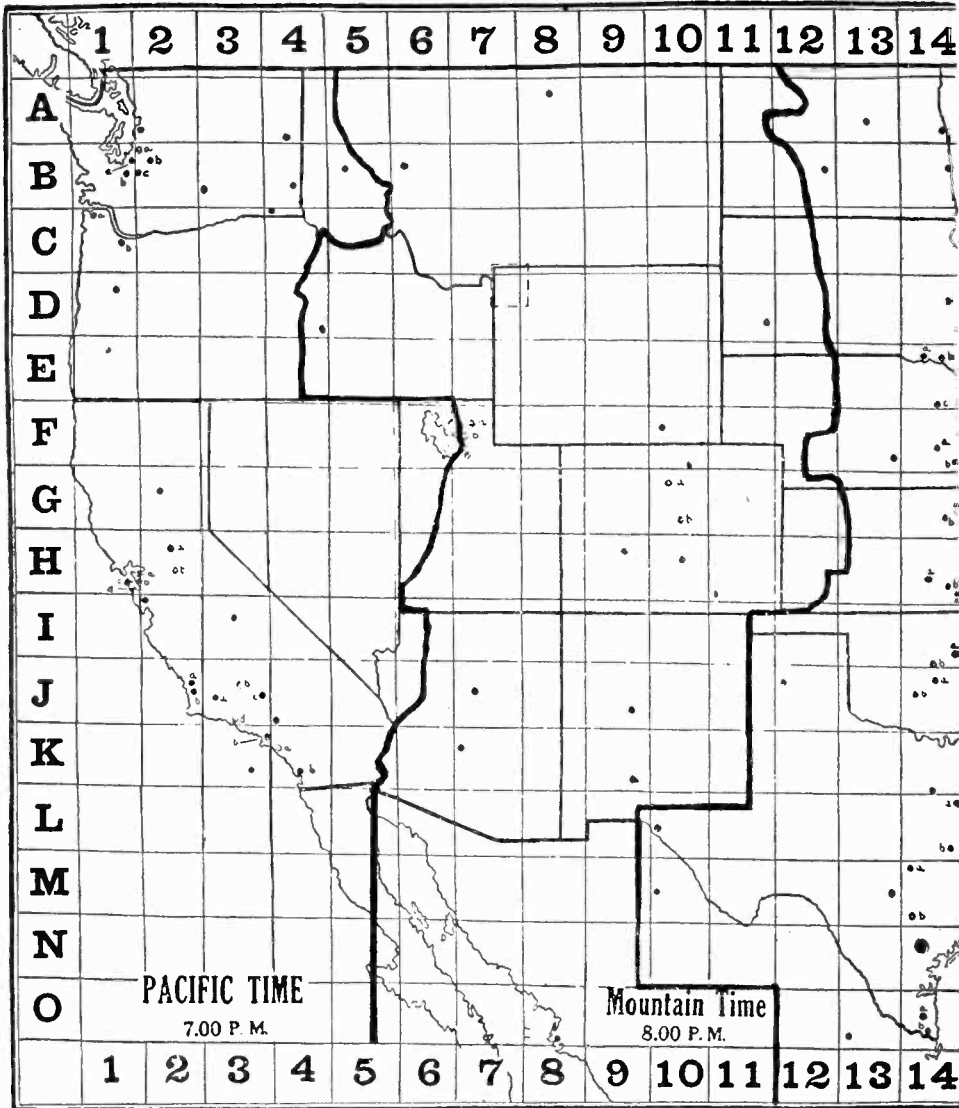
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tion we may want whether we have  
er received it before or not.

Our index now becomes of great value to us identifying programs. Let us say that we hear six at 67-65 on our dials. We refer to our lex by Frequencies and Dial Numbers and we find that we are in tune to 680 kilocycles. On this we have 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 would not interfere. When two stations in the same locality have the same frequency, they are required to divide 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, 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



The Radex Press,  
1367 East 6th Street,  
Cleveland, Ohio

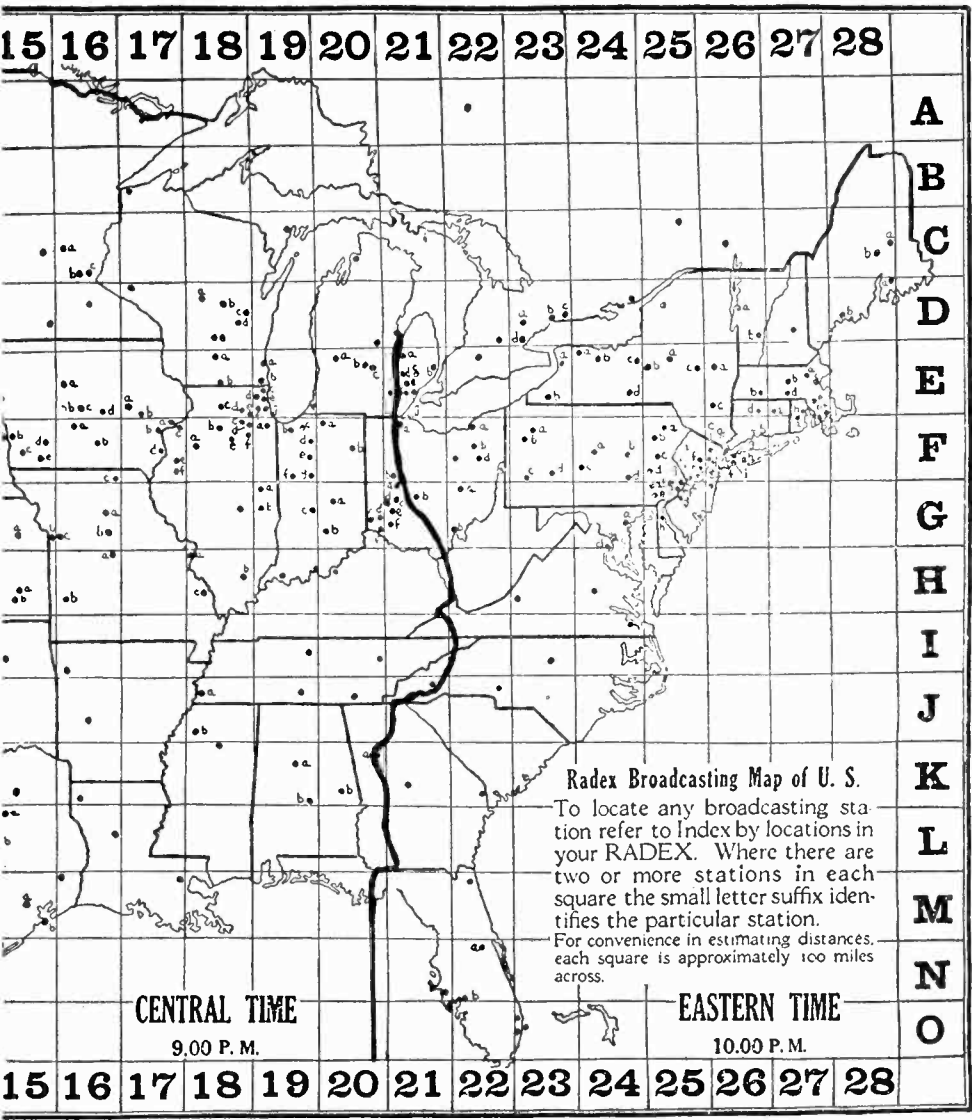
Enclosed find \$ \_\_\_\_\_ Enter  
my subscription as shown.

Write Name Plainly .....

Street and No. ....

City and State .....

Leatherette cover .....	\$0.50
Next five issues .....	1.00
Next ten issues .....	1.75
Next twenty issues and cover free .....	3.50
Two yearly subscriptions and cover .....	3.50
Begin with No. 37. No. 38.	



**Radex Broadcasting Map of U. S.**

To locate any broadcasting station refer to Index by locations in your RADEX. Where there are two or more stations in each square the small letter suffix identifies the particular station.

For convenience in estimating distances, each square is approximately 100 miles across.

**CENTRAL TIME**

9.00 P.M.

**EASTERN TIME**

10.00 P.M.

Radio is in a constant process of change. New developments and changes in stations, are taking place monthly. If you are one of those who like to be intelligent in your interests, you cannot afford to miss a single copy of this magazine.

RADEX is published monthly excepting in July and August. The price is 25c per copy. Subscription prices are shown in coupon on opposite page. Fill it out and mail it at once.

We can provide you with a beautiful leatherette cover stamped in gold to protect your RADEX from wear, give solid backing for making entries and add attractiveness to your set. Price, 50c each or we will give one free as shown on coupon.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

### NOTICE OF COPYRIGHT

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

### KEY

Frequency in kilocycles. Wave lengths in meters. Second column shows power in watts. Third 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.

### 540 kilocycles      555.6 meters

CKX	500	---	Brandon, Manitoba
XFA	50	---	Mexico City

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Manitoba Telephone System  
Sria. de Agricultura y Fomento

### 550 kilocycles      545.1 meters

KFDY	500	1+	Brookings, S. D.
KFUO	500	2+	St. Louis, Mo.
KFYR	500	1	Bismarck, N. D.
KOAC	1000	---	Corvallis, Ore.
KSD	500	2N	St. Louis, Mo.
WGR	1000	N	Buffalo, N. Y.
WKRC	500	X	Cincinnati, Ohio
XEY	105	---	Merida, Yucatan

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S. D. State College  
Concordia Theological Seminary  
Hoskins-Meyer  
State Agricultural College  
Pulitzer Publishing Co.  
Radio Station WGR, Inc.  
WKRC Incorporated  
Partido Socialista del Sureste

### 560 kilocycles      535.4 meters

KFDM	500	X+	Beaumont, Texas
KLZ	1000	C	Denver, Colo.
KTAB	1000	---	Oakland, Cal.
WEBW	500	3D	Beloit, Wis.
WFI	500	1N	Philadelphia, Pa.
WIBO	1000	3+N	Chicago, Ill.
WLIT	500	1N	Philadelphia, Pa.
WNOX	1000	X+	Knoxville, Tenn.
WPCC	500	3S	Chicago, Ill.
WQAM	1000	---	Miami, Fla.

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

### 570 kilocycles      526.0 meters

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

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Wichita Falls Broadcasting Co.  
KMTR Radio Corp.  
American Radio Tel. Co.  
Ohio State University  
W. P. Williamson, Jr.  
Clive B. Meredith  
Knickerbocker Broadcasting Co., Inc.  
Gurney Seed & Nursery Co.  
Dept. of Plants and Structures  
Clive B. Meredith  
Citizens Broadcasting Co., Inc.

### 580 kilocycles      516.9 meters

CFCL	500	3S	Toronto, Ont.
CHMA	250	4	Edmonton, Alta.
CJBC	500	3S	Toronto, Ont.
CJCA	500	4	Edmonton, Alta.
CJSC	500	4	Toronto, Ont.
CKCL	500	3	Toronto, Ont.
CKNC	500	3	Toronto, Ont.
CKUA	500	4	Edmonton, Alta.
CNRE	500	4	Edmonton, Alta.
KGFX	200	D	Pierre, S. D.
KSAC	500	2+	Manhattan, Kans.
WIBW	500	2+C	Topeka, Kansas
WOBW	250	1	Charleston, W. Va.
WSAZ	250	1	Huntington, W. Va.
WTAG	250	N	Worcester, Mass.

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

# INDEX BY FREQUENCIES AND DIAL NUMBERS

## 590 kilocycles 508.2 meters

KHQ	1000	X+N
WCAJ	500	1
WEEI	1000	N
WEMC	1000	D
WOW	1000	1N
XFI	1000	---
----	500	CP

Spokane, Wash.  
Lincoln, Nebr.  
Boston, Mass.  
Berrien Springs, Mich.  
Omaha, Nebr.  
Mexico City  
Lynchburg, Va.

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

KCYS.  
**670**  
MTRS.  
**447.5**  
DIAL

## 600 kilocycles 499.7 meters

CFCH	250	3
CJRM	500	4
CJRW	500	4
CMW	1000	---
CNRO	500	3
KFSD	500	+
WCAC	250	2+
WCAO	250	C
WGBS	350	2+
WMT	500	X
WOAN	500	1
WREC	500	1+C

Iroquois Falls, Ont.  
Moose Jaw, Sask.  
Fleming, Sask.  
Havana, Cuba  
Ottawa, Ont.  
San Diego, Cal.  
Storrs, Conn.  
Baltimore, Md.  
New York City  
Waterloo, Iowa  
Lawrenceburg, Tenn.  
Memphis, Tenn.

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Abitibi Power & Paper Co.  
Jas. Richardson & Sons, Ltd.  
Jas. Richardson & Sons, Ltd.  
Columbus Commercial & Radio Co.  
Canadian National Railways  
Airfan Radio Corp.  
Conn. Agricultural College  
Monumental Radio, Inc.  
General Broadcasting System, Inc.  
Waterloo Broadcasting Co.  
WREC, Inc.  
WREC, Inc.

## 610 kilocycles 491.5 meters

CMBY	200	612
KFRC	1000	C
WDAF	1000	N
WFAN	500	2C
WIP	500	2
WJAY	500	D

Havana, Cuba  
San Francisco, Cal.  
Kansas City, Mo.  
Philadelphia, Pa.  
Philadelphia, Pa.  
Cleveland, Ohio

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

## 620 kilocycles 483.6 meters

KGW	1000	X+N
KTAR	500	+
WFLA	1000	1+
WLBZ	500	---
WSUN	1000	1+
WTMJ	1000	+N

Portland, Ore.  
Phoenix, Arizona  
Clearwater, Fla.  
Bangor, Maine  
St. Petersburg, Fla.  
Milwaukee, Wis.

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Oregonian Publishing Co.  
KAR Broadcasting Co.  
Chamber of Commerce  
Maine Broadcasting Co., Inc.  
Chamber of Commerce  
Milwaukee Journal

## 630 kilocycles 475.9 meters

CFCT	500	---
CJGX	500	---
CNRA	500	---
KFRU	500	1
WGBF	500	1
WMAL	250	+C
WOS	500	1+
XFC	350	---

Victoria, B. C.  
Yorkton, Sask.  
Moncton, N. B.  
Columbia, Mo.  
Evansville, Ind.  
Washington, D. C.  
Jefferson City, Mo.  
Jalapa, Ver.

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Victoria Broadcasting Association  
Winnipeg Grain Exchange  
Canadian National Railways  
Stephens College  
Evansville On the Air, Inc.  
M. A. Leese  
State Marketing Bureau  
Goberno Estado de Veracruz

## 640 kilocycles 468.5 meters

CMCF	250	643
KFI	5000	N
WATU	500	C
WOI	5000	D
XFG	2000	---

Havana, Cuba  
Los Angeles, Cal.  
Columbus, Ohio  
Arnes, Iowa  
Mexico City

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Raul Karmen  
Earle C. Anthony, Inc.  
American Insurance Union  
State College of Agriculture  
Sria, de Guerra y Marina

## 650 kilocycles 461.3 meters

WSM	5000	N
-----	------	---

Nashville, Tenn.

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National Life & Accident Ins. Co.

## 660 kilocycles 454.3 meters

WAAW	500	D
WEAF	50000	N

Omaha, Neb.  
New York City

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Omaha Grain Exchange  
National Broadcasting Co., Inc.

## 670 kilocycles 447.5 meters

WMAQ	5000	C
XEB	1000	---

Chicago, Ill.  
Mexico City

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Chicago Daily News, Inc.  
E. Buen Tono, S. A.

CUT OUT ON DOTTED LINES

INDEX BY FREQUENCIES AND DIAL NUMBERS

680 kilocycles 440.9 meters

KFEQ	2500	D	St. Joseph, Mo.
KPO	5000	N	San Francisco, Cal.
WPTF	1000	N	Raleigh, N. C.
-----	250	CP	Gueda Springs, Kans.

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Scroggin & Co. Bank  
Hale Bros. & The Chronicle  
Durham Life Insurance Co.  
R. E. Campbell and F. L. Stallard

690 kilocycles 434.5 meters

CFAC	500	1	Calgary, Alta.
CFCN	500	1	Calgary, Alta.
CHCA	500	1	Calgary, Alta.
CJBC	5000	2S	Toronto, Ont.
CJ CJ	500	1	Calgary, Alta.
CKGW	5000	2N	Toronto, Ont.
CNRC	500	1	Calgary, Alta.
CNRX	5000	2	Toronto, Ont.
NAA	1000	---	Arlington, Va.
VAS	500	---	Louisburg, N. S.

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The Calgary Herald  
Western Broadcasting Co.  
The Western Farmer  
Jarvis Street Baptist Church  
Albertan Publishing Co., Ltd.  
Gooderham & Worts, Ltd.  
Canadian National Railways  
Canadian National Railways  
U. S. Navy  
Department of Fisheries

700 kilocycles 428.3 meters

WLW	50000	N	Cincinnati, Ohio
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Crosley Radio Corp.

710 kilocycles 422.3 meters

KEJK	500	---	Los Angeles, Cal.
WOR	5000	---	Newark, N. J.

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R. S. MacMillan  
Bamberger Broadcasting Service, Inc.

720 kilocycles 416.4 meters

WGN	25000	N	Chicago, Ill.
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Chicago Tribune

730 kilocycles 410.7 meters

CHLS	50	1	Vancouver, B. C.
CHYC	5000	2	Montreal, Que.
CKAC	5000	2C	Montreal, Que.
CKCD	50	1	Vancouver, B. C.
CKFC	50	1	Vancouver, B. C.
CKMO	50	1	Vancouver, B. C.
CKWX	100	1	Vancouver, B. C.
CMK	2000	---	Havana, Cuba
CNRM	5000	2	Montreal, Que.
XEN	1000	---	Mexico City

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

740 kilocycles 405.2 meters

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

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

750 kilocycles 399.8 meters

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

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WJR, The Goodwill Station, Inc.

760 kilocycles 394.5 meters

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

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Puget Sound Broadcasting Co., Inc.  
St. Louis University  
Radio Corp. of America, Inc.

770 kilocycles 389.4 meters

KFAB	5000	IN	Lincoln, Nebr.
WBBM	25000	1C	Chicago, Ill.
WJBT	25000	1S	Chicago, Ill.

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

780 kilocycles 384.4 meters

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

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Manitoba Telephone System  
Canadian National Railways  
Earl L. White  
Pickwick Broadcasting Corp.  
The Shepard Co.  
Memphis Commercial-Appeal  
WTAR Radio Corp.  
WTAR Radio Corp.



INDEX BY FREQUENCIES AND DIAL NUMBERS

790 kilocycles 379.5 meters

CMHC 500 791  
KGO 7500 N  
WGY 50000 N

Tuinucu, Cuba  
Oakland, Cal.  
Schenectady, N. Y.

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

800 kilocycles 374.8 meters

WBAP 50000 1N  
WFAA 5000 1XN

Fort Worth, Texas  
Dallas, Texas

Carter Publications, Inc.  
News & Journal

810 kilocycles 370.2 meters

WCCO 7500 C  
WPCH 500 D

Minneapolis, Minn.  
New York City

Northwestern Broadcasting, Inc.  
Eastern Broadcasters, Inc.

820 kilocycles 365.6 meters

CMI 500 815  
WHAS 10000 N

Havana, Cuba  
Louisville, Ky.

Instituto Provincial  
Courier-Journal & Times

830 kilocycles 361.2 meters

CMGA 300 834  
KOA 12500 N  
WHDH 1000 D  
WRUF 5000 ---

Colon, Cuba  
Denver, Colo.  
Gloucester, Mass.  
Gainesville, Fla.

Leopoldo V. Figueros  
General Electric Co.  
Matheson Radio Co., Inc.  
University of Florida

840 kilocycles 356.9 meters

CFCB 500 1  
CHCT 1000 2  
CJBC 1000 1S  
CKLC 1000 2  
CKOW 500 1  
CMC 500 ---  
CNRD 1000 2  
CNRT 500 1  
WOOP 100 ---

Toronto, Ont.  
Red Deer, Alta.  
Toronto, Ont.  
Red Deer, Alta.  
Toronto, Ont.  
Havana, Cuba  
Red Deer, Alta.  
Toronto, Ont.  
Jeannette, Pa.

Star Publishing & Ptg. Co.  
G. F. Tull & Ardern, Ltd.  
Jarvis Street Baptist Church  
Alberta Pacific Grain Co., Ltd.  
Nestle's Food Co.  
Cuban Telephone Co.  
Canadian National Railways  
Canadian National Railways  
Oakford-Olympia Park Corp.

850 kilocycles 352.7 meters

KWKH 10000 1  
NBA 750 846  
WWL 5000 1

Shreveport, La.  
Balboa, Canal Zone  
New Orleans, La.

W. K. Henderson  
Loyola University

860 kilocycles 348.6 meters

KFQZ 250 ---  
KMO 500 +  
WABC 5000 1XC  
WBOQ 5000 1X  
WHB 500 D

Los Angeles, Cal.  
Tacoma, Wash.  
New York City  
New York City  
Kansas City, Mo.

Taft Radio & Broadcasting Co., Inc.  
KMO, Inc.  
Atlantic Broadcasting Corp.  
Atlantic Broadcasting Corp.  
WHB Broadcasting Co.

870 kilocycles 344.6 meters

WENR 50000 1N  
WLS 5000 1XN

Chicago, Ill.  
Chicago, Ill.

Great Lakes Broadcasting Co.  
Agricultural Broadcasting Co.

880 kilocycles 340.7 meters

CHCS 10 4  
CHML 50 4  
CHRC 100 3  
CJCB 50 ---  
CKCI 22.5 3  
CKCV 50 3  
CKOC 50 4  
CNRQ 50 3  
KFKA 500 2+  
KLX 500 ---  
KPOF 500 2  
WCOC 500 +  
WGBI 250 1  
WQAN 250 1  
WSUI 500 2

Hamilton, Ont.  
Hamilton, Ont.  
Quebec, Que.  
Sydney, N. S.  
Quebec, Que.  
Quebec, Que.  
Hamilton, Ont.  
Quebec, Que.  
Greeley, Colo.  
Oakland, Cal.  
Meridian, Miss.  
Scranton, Pa.  
Scranton, Pa.  
Iowa City, Iowa

The Hamilton Spectator  
Maple Leaf Radio Co., Ltd.  
E. Fontaine  
N. Nathanson  
Le "Soleil," Ltd.  
G. A. Vandry  
Wentworth Radio & Auto Sply. Co., Ltd.  
Canadian National Railways  
State Teachers College  
Tribune Publishing Co.  
Pillar of Fire, Inc.  
Mississippi Broadcasting Co.  
Scranton Broadcasters, Inc.  
Scranton Times  
University of Iowa

KCYS.  
880  
MTRS.  
340.7  
DIAL

CUT OUT ON DOTTED LINES

INDEX BY FREQUENCIES AND DIAL NUMBERS

890 kilocycles 336.9 meters

CFBO	50	---	St. John, N. B.
CKCO	100	---	Ottawa, Ont.
CMBC	100	887	Havana, Cuba
KFNF	500	2+	Shenandoah, Iowa
KGJF	250	---	Little Rock, Ark.
KUSD	500	2+	Vermillion, S. D.
WGST	250	1	Atlanta, Ga.
WILL	250	2+	Urbana, Ill.
WJAR	250	+N	Providence, R. I.
WKAQ	500	---	San Juan, P. R.
WMAZ	250	1+	Macon, Ga.
WMMN	250	+	Fairmount, W. Va.

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C. A. Munro, Ltd.  
Dr. G. M. Geldert  
D. Fernandez Cruz  
Henry Field Seed Co.  
Church of the Nazarene  
University of South Dakota  
Georgia School of Technology  
University of Illinois  
The Outlet Co.  
Radio Corp. of Porto Rico  
Junior Chamber of Commerce  
Holt-Rowe Novelty Co.

900 kilocycles 333.1 meters

KGBU	500	---	Ketchikan, Alaska
KHJ	1000	C	Los Angeles, Cal.
KSEI	250	---	Pocatello, Idaho
WJAX	1000	N	Jacksonville, Fla.
WKY	1000	N	Oklahoma City
WLBL	2000	D	Stevens Pt., Wis.
WMAK	750	C	Buffalo, N. Y.

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

910 kilocycles 329.6 meters

CFQC	500	1	Saskatoon, Sask.
CJGC	500	2	London, Ont.
CJHS	250	1	Saskatoon, Sask.
CNRL	500	2	London, Ont.
CNRS	500	1	Saskatoon, Sask.
XFX	1000	---	Mexico City

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The Electric Shop, Ltd.  
Free Press Printing Co., Ltd.  
Radio Service, Ltd.  
Canadian National Railways  
Canadian National Railways  
Sria. de Educacion Publica

920 kilocycles 325.9 meters

CMHD	250	---	Caibarien, Cuba
CMX	250	916	Havana, Cuba
HIK	1000	---	Port au Prince, Haiti
KFEF	500	1	Denver, Colo.
KFXF	500	1	Denver, Colo.
KOMO	15000	N	Seattle, Wash.
KPRC	1000	+N	Houston, Texas
WAAF	500	D	Chicago, Ill.
WBSO	250	DX	Wellesley Hills, Mass.
WWJ	1000	N	Detroit, Mich.
XEX	500	---	Mexico City
XFF	250	---	Chihuahua, Chih.

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Manuel A. Alvarez  
Francisco Lavin  
Republic of Haiti  
Eugene P. O'Fallon, Inc.  
Colorado Radio Corp.  
Fisher's Blend Station, Inc.  
Houston Printing Co.  
Drovers Journal Publishing Co.  
Babson Statistical Organization, Inc.  
The Detroit News  
Excelsior, Cia Editorial, S. A.  
Gobierno Estado de Chihuahua

930 kilocycles 322.4 meters

CHNS	500	---	Halifax, N. S.
CKIC	50	---	Wolfville, N. S.
KFWI	500	1	San Francisco, Cal.
KFWM	500	1+	Richmond, Cal.
KGBZ	500	2+	York, Nebr.
KMA	500	2+	Shenandoah, Iowa
WBRC	500	+C	Birmingham, Ala.
WDBJ	250	+C	Roanoke, Va.
WIBG	50	D	Elkins Park, Pa.

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Halifax Herald, Ltd.  
Acadia Academy  
Radio Entertainments, Inc.  
Educational Broadcasting Corp.  
Dr. George R. Miller  
May Seed & Nursery Co.  
Birmingham Broadcasting Co., Inc.  
Richardson-Wayland Elec. Corp.  
St. Pauls P. E. Church

940 kilocycles 319.0 meters

KGU	1000	---	Honolulu, Hawaii
KOIN	1000	C	Portland, Ore.
WCSH	1000	N	Portland, Maine
WDAY	1000	---	Fargo, N. D.
WFIV	1000	C	Hopkinsville, Ky.
WHA	750	D	Madison, Wis.

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Marion A. Mulrony  
KOIN, Inc.  
Congress Square Hotel Co.  
WDAY, Inc.  
The Acme Mills, Inc.  
University of Wisconsin

950 kilocycles 315.6 meters

CMCB	150	952	Havana, Cuba
KFWB	1000	---	Hollywood, Cal.
KGHL	500	---	Billings, Mont.
CMBC	1000	C	Kansas City, Mo.
WRC	500	N	Washington, D. C.

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Jose Fernandez Suviaur  
Warner Bros. Broadcasting Corp.  
Northwestern Auto Supply Co., Inc.  
Midland Broadcasting Co., Inc.  
Radio Corp. of America

INDEX BY FREQUENCIES AND DIAL NUMBERS

960 kilocycles

CFCR	500	3
CFCY	250	1
CFRB	4000	2C
CHCK	30	1
CHWC	500	3
CJBC	5000	2
CJBR	500	3
CKCK	500	3
CNRR	500	3
XEE	101	---

312.3 meters

Regina, Sask.
Charlottetown, P. E. I.
Toronto, Ont.
Charlottetown, P. E. I.
Pilot Butte, Sask.
Toronto, Ont.
Regina, Sask.
Regina, Sask.
Regina, Sask.
Pueblo, Pue.

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Sydney I. Robinson  
The Island Radio Co.  
Rogers-Majestic Corp., Ltd.  
W. E. Burke  
R. H. Williams & Sons, Ltd.  
Jarvis St. Baptist Church  
Cooperative Wheat Producers, Ltd.  
Leader Publishing Co., Ltd.  
Canadian National Railways  
Ramon Huerta G.

970 kilocycles

KJR	5000	D
XEH	1000	---
WCFL	1500	N

309.1 meters

Seattle, Wash.
Monterey, N. L.
Chicago, Ill.

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Northwest Broadcasting System, Inc.  
Ing. Constantino de Tarnava  
Chicago Federation of Labor

980 kilocycles

KDKA	5000	N
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305.9 meters

Pittsburgh, Pa.
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Westinghouse Elec. & Mfg. Co.

990 kilocycles

WBZ	15000	1N
WBZA	500	1N

302.8 meters

Springfield, Mass.
Boston, Mass.

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

1000 kilocycles

KFVD	250	---
WHO	5000	1N
WOC	5000	1N
XEI	101	---

299.8 meters

Culver City, Cal.
Des Moines, Iowa
Davenport, Iowa
Morelia, Mexico

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

1010 kilocycles

CFLC	50	3
CKCR	50	3
CKSH	50	---
KGGF	500	2
KQW	500	---
WGTT	500	+
WHN	250	1
WNAD	500	2
WPAP	250	1
WQAO	250	1
WRNY	250	1

296.8 meters

Prescott, Ont.
Waterloo, Ont.
St. Hyacinthe, Que.
Picher, Okla.
San Jose, Cal.
Columbia, S. C.
New York City
Norman, Okla.
New York City
New York City
New York City

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Radio Association  
John Patterson  
City of St. Hyacinthe  
D. L. Connell, M. D.  
First Baptist Church  
George T. Barnes, Inc.  
Marcus Loew Booking Agency  
University of Oklahoma  
Calvary Baptist Church  
Calvary Baptist Church  
Aviation Radio Station, Inc.

1020 kilocycles

KFKX	10000	1N
KYW	10000	1N
WRAX	250	D

293.9 meters

Chicago, Ill.
Chicago, Ill.
Philadelphia, Pa.

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Westinghouse Elec. & Mfg. Co.  
Westinghouse Elec. & Mfg. Co.  
Berachah Church, Inc.

1030 kilocycles

CFCC	1650	---
CJOR	50	---
CMBW	50	1027
CMZB	100	1027
CNRV	500	---

291.1 meters

Montreal, Que.
Sea Island, B. C.
Marianao, Cuba
Havana, Cuba
Vancouver, B. C.

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Canadian Marconi Co.  
G. C. Chandler  
Modesto Alvarez  
Manuel y G. Salas  
Canadian National Railways

1040 kilocycles

KRLD	10000	1C
KTHS	10000	1N
WKAR	1000	D
WKEN	1000	---

288.3 meters

Dallas, Texas
Hot Springs, Ark.
East Lansing, Mich.
Buffalo, N. Y.

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KRLD Radio Corp.  
Chamber of Commerce  
Michigan Agricultural College  
Radio Station WKEN, Inc.

1050 kilocycles

KFKB	5000	---
KNX	5000	X

285.5 meters

Milford, Kansas
Hollywood, Cal.

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KFKB Broadcasting Assn., Inc.  
Western Broadcast Co.

KCYS.  
1050  
MTRS.  
285.5  
DIAL

CUT OUT ON DOTTED LINES

INDEX BY FREQUENCIES AND DIAL NUMBERS

1060 kilocycles 282.8 meters

KWJJ	500	---	Portland, Ore.
WBAL	10000	1N	Baltimore, Md.
WJAG	1000	---	Norfolk, Nebr.
WTIC	50000	1N	Hartford, Conn.

Wilbur Jerman
Consolidated Gas Elec. & Pwr. Co.
Norfolk Daily News
Travelers Broadcasting Service Corp.

1070 kilocycles 280.2 meters

KJBS	100	D	San Francisco, Cal.
WAAT	300	D	Jersey City, N. J.
WCAZ	50	D	Carthage, Ill.
WDZ	100	D	Tuscola, Ill.
WEAR	1000	IND	Cleveland, Ohio
WTAM	50000	1N	Cleveland, Ohio

Julius Brunton & Sons Co.
Bremer Broadcasting Corp.
Carthage College
James L. Bush
WTAM and WEAR, Inc.
WTAM and WEAR, Inc.

1080 kilocycles 277.6 meters

WBT	5000	N	Charlotte, N. C.
WCBG	5000	1	Zion, Ill.
WMBI	5000	1	Chicago, Ill.

Station WBT, Inc.
Wilbur Glenn Voliva
Moody Bible Institute

1090 kilocycles 275.1 meters

KFQA	5000	1S	St. Louis, Mo.
KMOX	5000	1C	St. Louis, Mo.

Voice of St. Louis, Inc.
Voice of St. Louis, Inc.

1100 kilocycles 272.6 meters

CMCE	100	1098	Havana, Cuba
KGDM	250	D	Stockton, Cal.
WLWL	5000	1	New York City
WPG	5000	1	Atlantic City, N. J.

Julio E. Power
E. F. Peffer
Missionary Society of St. Paul
Municipality of Atlantic City

1110 kilocycles 270.1 meters

KSOO	2000	---	Sioux Falls, S. D.
WRVA	5000	1N	Richmond, Va.

Sioux Falls Broadcasting Assn., Inc.
Larus & Bros. Co., Inc.

1120 kilocycles 267.7 meters

CFJC	15	---	Kamloops, B. C.
CFRC	500	---	Kingston, Ont.
CHGS	25	---	Summerside, P. E. I.
CJOC	50	---	Lethbridge, Alta.
CKPR	50	---	Midland, Ont.
KFSG	500	3	Los Angeles, Cal.
KMIC	500	3	Inglewood, Cal.
KRSC	50	D	Seattle, Wash.
KTRH	500	2	Austin, Texas
WDBO	500	+	Orlando, Fla.
WDEL	250	+	Wilmington, Del.
WHAD	250	1	Milwaukee, Wis.
WISN	250	1C	Milwaukee, Wis.
WTAW	500	2	College Station, Texas
-----	150	CP	Rayne, La.

N. S. Dalgleish & Sons
Queen's University
R. T. Holman, Ltd.
Harold R. Carson
Midland Broadcasting Corp.
Echo Park Evag. Assn.
Dalton's, Inc.
Radio Sales Corp.
KUT Broadcasting Co.
Orlando Broadcasting Co., Inc.
WDEL, Inc.
Marquette University
Evening Wisconsin Co.
Agricultural & Mech. College
Ber, Killmer & Bailey

1130 kilocycles 265.3 meters

KSL	5000	N	Salt Lake City
WJJD	20000	---	Mooseheart, Ill.
WQV	1000	D	New York City
XEF	105	---	Oaxaca, Oax.

Radio Service Corp. of Utah
Loyal Order of Moose
International Broadcasting Corp.
Federico Zorrilla

1140 kilocycles 263.0 meters

KVOO	5000	1N	Tulsa, Okla.
WAPI	5000	1N	Birmingham, Ala.

Southwestern Sales Corp.
Alabama Polytechnic Institute

1150 kilocycles 260.7 meters

CMHA	200	1154	Cienfuegos, Cuba
WHAM	5000	N	Rochester, N. Y.

Jose Gandux
Stromberg-Carlson Tel. Mfg. Co.

INDEX BY FREQUENCIES AND DIAL NUMBERS

1160 kilocycles 258.5 meters

WOWO 1000 1C  
WVVA 5000 1

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

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Main Auto Supply Co.  
West Virginia Broadcasting Corp.

1170 kilocycles 256.3 meters

KTNT 5000 ---  
WCAU 10000 C

Muscataine, Iowa  
Philadelphila, Pa.

--	--	--

Norman Baker  
Universal Broadcasting Co.

1180 kilocycles 254.1 meters

KEX 5000 2  
KOB 20000 2  
WDGY 1000 1  
WHDI 500 1

Portland, Ore.  
State College, N. M.  
Minneapolis, Minn.  
Minneapolis, Minn.

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Western Broadcasting Co.  
College of Agriculture & Mech. Arts  
Dr. George W. Young  
Wm. Hood Dunwoody, Industry Inst.

1190 kilocycles 252.0 meters

WICC 500 D  
WOAI 5000 XN

Bridgeport, Conn.  
San Antonio, Texas

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Bridgeport Broadcasting Station, Inc.  
Southern Equipment Co.

1200 kilocycles 249.9 meters

KBTM 100 CPD  
KFHA 50 ---  
KFJB 100 ---  
KFWF 100 5  
KGDW 100 +  
KGDY 15 ---  
KGEK 50 9  
KGEW 100 9  
KGFJ 100 ---  
KGFK 50 ---  
KGHI 100 ---  
KGY 10 ---  
KSMR 100 ---  
KVOS 100 ---  
KWG 100 ---  
KXO 100 ---  
WABI 100 ---  
WABZ 100 1  
WBBY 75 ---  
WBBZ 100 ---  
WCAT 100 ---  
WCAJ 100 2  
WCLO 100 ---  
WCOD 100 3  
WFBC 50 ---  
WFBE 100 ---  
WHBC 10 4S  
WHBY 100 ---  
WIBX 100 +  
WIL 100 5+  
WJBC 100 6  
WJBL 100 6  
WJBW 30 1  
WKJC 100 3  
WLAP 30 ---  
WLBG 100 D+  
WMAY 100 5+  
WNBO 100 4  
WNBW 10 ---  
WNBX 10 2  
WORC 100 ---  
WRAF 100 8  
WRBL 50 ---  
WWAE 100 8  
XEA 101 ---  
XES 250 ---

Paragould, Ark.  
Gunnison, Colo.  
Marshalltown, Iowa  
St. Louis, Mo.  
Fergus Falls, Minn.  
Oldham, S. D.  
Yuma, Colo.  
Fort Morgan, Colo.  
Los Angeles, Cal.  
Hallock, Minn.  
Little Rock, Ark.  
Lacey, Wash.  
Santa Maria, Cal.  
Bellingham, Wash.  
Stockton, Cal.  
El Centro, Cal.  
Bangor, Maine  
New Orleans, La.  
Charleston, S. C.  
Ponca City, Okla.  
Rapid City, S. D.  
Burlington, Vt.  
Kenosha, Wis.  
Harrisburg, Pa.  
Knoxville, Tenn.  
Cincinnati, Ohio  
Canton, Ohio  
Green Bay, Wis.  
Utica, N. Y.  
St. Louis, Mo.  
La Salle, Ill.  
Decatur, Ill.  
New Orleans, La.  
Lancaster, Pa.  
Louisville, Ky.  
Petersburg, Va.  
St. Louis, Mo.  
Washington, Pa.  
Carbondale, Pa.  
Springfield, Vt.  
Worcester, Mass.  
La Porte, Ind.  
Columbus, Ga.  
Hammond, Ind.  
Guadalajara, Jal.  
C. Lerdo Dgo.

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W. J. Beard's Temple of Music  
Western College of Colorado  
Marshall Electric Co., Inc.  
St. Louis Truth Center, Inc.  
Jaren Drug Co.  
J. Albert Loesch and George W. Wright  
Beehler Elec. Equipment Co.  
City of Fort Morgan  
Ben S. McGlashan  
Lautzenheiser & Mitchell  
Berean Bible Class  
St. Martin's College  
Santa Maria Valley R. R. Co.  
KVOS, Inc.  
Portable Wireless Tel. Co., Inc.  
E. R. Ireys and F. M. Bowles  
First Universalist Church  
Coliseum Place Baptist Church  
Washington Light Infantry  
C. L. Carrell  
State School of Mines  
University of Vermont  
C. E. Whitmore  
Norman R. Hoffman  
First Baptist Church  
WFBE, Inc.  
St. John's Catholic Church  
St. Norbert's College  
WIBX, Inc.  
Missouri Broadcasting Corp.  
Hummer Furniture Co.  
Commodore Broadcasting, Inc.  
Charles C. Carlson, Jr.  
Kirk Johnson & Co.  
American Broadcasting Corp. of Ky.  
Robert Allen Gamble  
Kingshighway Presbyterian Church  
John Brownlee Spriggs  
Home Cut Glass & China Co.  
First Congregational Church  
Alfred Frank Kleindienst  
The Radio Club, Inc.  
David Parmer  
Hammond-Calumet Broadcasting Corp.  
Alberto Palos Sauza  
Cerveceria de Durango, S. A.

KCYS.  
1200  
MTRS.  
249.9  
DIAL

CUT OUT ON DOTTED LINES

INDEX BY FREQUENCIES AND DIAL NUMBERS

1210 kilocycles 247.8 meters

CFCO	100	---	Chatham, Ont.
CFNB	500	---	Fredericton, N. B.
CHWK	5	---	Chilliwack, B. C.
CKMC	15	---	Cobalt, Ont.
CKPC	25	---	Preston, Ont.
KDFN	100	---	Casper, Wyo.
KDLR	100	8	Devils Lake, N. D.
KFOR	100	+	Lincoln, Nebr.
KFVS	100	6	Cape Girardeau, Mo.
KFXM	100	9	San Bernardino, Calif.
KGCR	100	---	Watertown, S. D.
KGCU	100	8	Mandan, N. D.
KMJ	100	---	Fresno, Cal.
KPCB	100	7	Seattle, Wash.
KPPC	50	9	Pasadena, Cal.
KPO	50	7	Wenatchee, Wash.
KWEA	100	---	Shreveport, La.
WBAX	100	1	Wilkes-Barre, Pa.
WCBS	100	2	Springfield, Ill.
WCOH	100	3	Yonkers, N. Y.
WCRW	100	4	Chicago, Ill.
WDWF	100	5	Providence, R. I.
WBEB	100	---	Cambridge, Ohio
WBEQ	100	6	Harrisburg, Ill.
WBDC	100	4	Chicago, Ill.
WGBB	100	3	Freeport, N. Y.
WGCM	100	---	Gulfport, Miss.
WHBF	100	---	Rock Island, Ill.
WHBU	100	---	Anderson, Ind.
WIBA	100	---	Madison, Wis.
WJBI	100	3	Red Bank, N. J.
WJBU	100	1	Lewisburg, Pa.
WJBY	50	---	Gadsden, Ala.
WJW	100	---	Mansfield, Ohio
WLCI	50	---	Ithaca, N. Y.
WLSI	100	5	Providence, R. I.
WMAN	50	---	Columbus, Ohio
WMBG	100	---	Richmond, Va.
WOCL	25	---	Jamestown, N. Y.
WOMT	100	---	Manitowoc, Wis.
WPAW	100	5	Pawtucket, R. I.
WRBQ	100	X+	Greenville, Miss.
WRBU	100	---	Gastonia, N. C.
WSBC	100	4	Chicago, Ill.
WSIX	100	---	Springfield, Tenn.
WTAX	50	2	Streator, Ill.

			Western Ontario "Better Radio" Club
			James S. Neill & Sons, Ltd.
			Chilliwack Broadcasting Co., Ltd.
			R. L. MacAdam
			Wallace Russ
			Donald Lewis Hathaway
			Radio Electric Co.
			Howard A. Shuman
			Hirsch Battery & Radio Co.
			J. C. & E. W. Lee
			Cutler's Radio Brdcastg. Service, Inc.
			Mandan Radio Association
			James McClatchy Co.
			Westcoast Broadcasting Co.
			Pasadena Presbyterian Church
			Westcoast Broadcasting Co.
			William E. Antony
			John H. Stenger, Jr.
			H. L. Dewing & Chas. Messter
			Westchester Broadcasting Corp.
			Clinton R. White
			Dutree W. Flint
			Roy W. Waller
			First Trust & Savings Bank
			Emil Denmark, Inc.
			Harry H. Carman
			Great Southern Land Co., Inc.
			Beardsley Specialty Co.
			Citizens Bank
			Capital Times
			Robert S. Johnson
			Bucknell University
			Gadsden Broadcasting Co., Inc.
			Mansfield Broadcasting Assn.
			Lutheran Assn. of Ithaca
			The Lincoln Studios, Inc.
			W. E. Heskett
			Havens & Martin, Inc.
			A. E. Newton
			Francis M. Kadow
			Shartenburg & Robinson Co.
			J. Pat Scully
			A. J. Kirby Music Co.
			World Battery Co., Inc.
			638 Tire & Vulcanizing Co.
			Williams Hardware Co.

1220 kilocycles 245.8 meters

KFKU	1000	1	Lawrence, Kans.
KWSC	500	X+	Pullman, Wash.
WCAD	500	D	Canton, N. Y.
WCAE	500	XN	Pittsburgh, Pa.
WDAE	1000	---	Tampa, Fla.
WREN	1000	1N	Lawrence, Kans.

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

1230 kilocycles 243.8 meters

KFTIO	100	D	Spokane, Wash.
KFOD	100	---	Anchorage, Alaska
KGGM	250	+	Albuquerque, N. Mex.
KYA	1000	---	San Francisco, Calif.
WBIS	1000	2	Boston, Mass.
WFBM	1000	1C	Indianapolis, Ind.
WNAC	1000	2C	Boston, Mass.
WPSC	500	D	State College, Pa.
WSBT	500	1	South Bend, Ind.

			Spokane Broadcasting Corp.
			Anchorage Radio Club
			New Mexico Broadcasting Co.
			Pacific Broadcasting Corp.
			Shepard-Norwell Co.
			Indianapolis Power & Light Co.
			Shepard-Norwell Co.
			Pennsylvania State College
			South Bend Tribune

1240 kilocycles 241.8 meters

KSAT	1000	1	Ft. Worth, Texas
WACO	1000	1	Waco, Texas
WSPD	500	C+	Toledo, Ohio

			S. A. T. Flying Service, Inc.
			Frank P. Jackson
			Toledo Broadcasting Co.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

### 1250 kilocycles 239.9 meters

KFMX	1000	2
KFOX	1000	---
KIDO	1000	---
WAAM	1000	1+
WCAL	1000	2
WDSU	1000	C
WGCP	250	1
WGMS	500	2X
WLB	500	2X
WODA	1000	1
WRHM	1000	2C
-----	500	CP

Northfield, Minn.  
Long Beach, Cal.  
Boise, Idaho  
Newark, N. J.  
Northfield, Minn.  
New Orleans, La.  
Newark, N. J.  
Minneapolis, Minn.  
Minneapolis, Minn.  
Paterson, N. J.  
Minneapolis, Minn.  
Little Rock, Ark.

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Carleton College  
Nichols & Warinner, Inc.  
Boise Broadcasting Station  
WAAM, Inc.  
St. Olaf College  
Jos. H. Uhalt  
May Radio Broadcast Corp.  
University of Minnesota  
Washburn-Crosby Co.  
Richard E. O'Dea  
Minnesota Broadcasting Corp.  
Joseph E. Phelps

### 1260 kilocycles 238.0 meters

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

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

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Mona Motor Oil Co.  
Valley Radio-Electric Corp.  
Robert M. Riculfi  
Chamber of Commerce  
Radio-Wire Program Corp.  
Savannah Broadcasting Co.

### 1270 kilocycles 236.1 meters

KFUM	1000	---
KGCA	50	2D
KOL	1000	3
KTW	1000	3
KWLC	100	2D
WASH	500	1
WEAI	500	D
WFBR	250	---
WJDX	500	+N
WOOD	500	1

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

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W. D. Corley  
Charles W. Greenley  
Seattle Broadcasting Co., Inc.  
First Presbyterian Church  
Luther College  
WASH Broadcasting Corp.  
Cornell University  
Baltimore Radio Show, Inc.  
Lamar Life Insurance Co.  
Walter B. Stiles, Inc.

### 1280 kilocycles 234.2 meters

KFBB	1000	+
WCAM	500	1
WCAP	500	1
WDOD	1000	+C
WOAX	500	1
WRR	500	---

Great Falls, Mont.  
Camden, N. J.  
Asbury Park, N. J.  
Chattanooga, Tenn.  
Trenton, N. J.  
Dallas, Texas

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Buttery Broadcast, Inc.  
City of Camden  
Radio Industries Broadcast Co.  
Chattanooga Radio Co., Inc.  
Franklyn J. Wolf  
City of Dallas

### 1290 kilocycles 232.4 meters

KDYL	1000	C
KFUL	500	1
KLCN	50	D
KTSA	1000	1+C
WEBC	1000	X+N
WJAS	1000	C
WNBZ	50	D

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

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

### 1300 kilocycles 230.6 meters

KFH	1000	CP2C
KFJR	500	3
KGEF	1000	4
KTBI	750	4
KTBR	500	3
WBRR	1000	1
WEVD	500	1
WHAP	1000	1
WHAZ	500	1
WIOD	1000	N
WOQ	1000	2

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

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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 Co.  
Unity School of Christianity

### 1310 kilocycles 228.9 meters

KFBK	100	---
KFGQ	100	7
KFJY	100	7
KFPL	100	---
KFPM	15	---
KFUI	10	---

Sacramento, Cal.  
Boone, Iowa  
Ft. Dodge, Iowa  
Dublin, Texas  
Greenville, Texas  
Juneau, Alaska

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Jas. McClatchy Co.  
Boone Biblical College  
C. S. Tunwall  
C. C. Baxter  
The New Furniture Co.  
Alaska Electric Light & Power Co.

KCY5.

1310

MTRS.

228.9

DIAL

CUT OUT ON DOTTED LINES

## INDEX BY FREQUENCIES AND DIAL NUMBERS

KFUP	100	8	Denver, Colo.	Fitzsimmons General Hospital
KFXJ	50	8	Edgewater, Colo.	R. G. Howell
KFXR	100	X+	Oklahoma City	Exchange Ave. Baptist Church
KGBX	100	---	St. Joseph, Mo.	Foster-Hall Tire Co.
KGCX	100	+	Wolf Point, Mont.	First State Bank of Vida
KGEZ	100	---	Kalispell, Mont.	Chamber of Commerce
KGFV	50	X	Ravenna, Neb.	Otto F. Sothman and Roy H. McConnell
KGHG	50	CP	McGehee, Ark.	Chas. W. McCollum
KGMC	100	CP	Jerome, Ariz.	Charles C. Robinson
KIT	100	---	Yakima, Wash.	Carl E. Haymond
KMED	50	---	Medford, Ore.	Mrs. W. J. Virgin
KRMD	50	9	Shreveport, La.	Robert M. Dean
KTS	100	9	Shreveport, La.	Houseman Sheet Metal Works, Inc.
KTSM	100	2	El Paso, Texas	W. S. Bledsoe & W. T. Blackwell
KWCR	100	7	Cedar Rapids, Iowa	Harry F. Paar
KXRO	75	---	Aberdeen, Wash.	KXRO, Inc.
WAGM	50	---	Royal Oak, Mich.	Robert L. Miller
WBOW	100	---	Terre Haute, Ind.	Banks of Wabash, Inc.
WBRE	100	---	Wilkes-Barre, Pa.	Louis G. Baltimore
WCLS	100	1	Joliet, Ill.	WCLS, Inc.
WDAH	100	2	El Paso, Texas	Trinity Methodist Church
WEBR	100	+	Buffalo, N. Y.	Howell Broadcasting Co., Inc.
WFBG	100	3	Altoona, Pa.	Wm. F. Gable Co.
WDFD	100	---	Flint, Mich.	Frank D. Fallain
WFKD	50	4	Philadelphia, Pa.	Foulkrod Radio Engineering Co.
WGAL	15	5	Lancaster, Pa.	WGAL, Inc.
WGH	100	---	Newport News, Va.	Virginia Broadcasting Co., Inc.
WHAT	100	4X	Philadelphia, Pa.	Albert A. Walker
WIBU	100	---	Poynette, Wis.	William C. Forrest
WJAC	100	3	Johnstown, Pa.	Johnstown Automobile Co.
WJAK	50	6	Marion, Ind.	Marion Broadcasting Co.
WKAV	100	---	Laconia, N. H.	Laconia Radio Club
WKBB	100	1	Joliet, Ill.	Sanders Bros.
WKBC	100	---	Birmingham, Ala.	R. B. Broyles Furniture Co.
WKBS	100	---	Galesburg, Ill.	Pernil N. Nelson
WLBC	50	6	Muncie, Ind.	Donald A. Burton
WMBO	100	---	Auburn, N. Y.	Radio Service Laboratories
WNBH	100	---	New Bedford, Mass.	New Bedford Broadcasting Co.
WNBJ	50	---	Knoxville, Tenn.	Lonsdale Baptist Church
WOBT	100	+	Union City, Tenn.	Tittsworth's Radio & Music Shop
WOL	100	---	Washington, D. C.	American Broadcasting Co.
WRAW	100	5	Reading, Pa.	Avenue Radio & Electric Shop
WRBI	20	---	Tifton, Ga.	Kent's Furniture and Music Store
WRK	100	---	Hamilton, Ohio	Hamilton Radio Service
WSAJ	100	---	Grove City, Pa.	Grove City College
WSJS	100	CP	Winston-Salem, N. C.	Winston-Salem Journal Co.

### 1320 kilocycles 227.1 meters

KGHB	500	---	Honolulu, Hawaii	
KGHF	250	X+	Pueblo, Colo.	Honolulu Broadcasting Co., Ltd.
KGIO	250	1	Twin Falls, Idaho	C. P. Ritchie & J. E. Finch
KGMB	500	CP	Honolulu, Hawaii	Radio Broadcasting Corp.
KID	250	1X+	Idaho Falls, Idaho	Honolulu Broadcasting Co., Ltd.
WADC	1000	C	Akron, Ohio	Jack W. Duckworth, Jr.
WSMB	500	N	New Orleans, La.	Allen T. Simmons

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Saenger Theatre & Maison Blanche Co.

### 1330 kilocycles 225.4 meters

KGB	250	---	San Diego, Cal.	Pickwick Broadcasting Corp.
KSCJ	1000	1C+X	Sioux City, Iowa	Perkins Bros. Co.
WDRG	500	---	New Haven, Conn.	Doolittle Radio Corp.
WSAI	500	N	Cincinnati, Ohio	Crosley Radio Corp., Lessee
WTAQ	1000	1	Eau Claire, Wis.	Gillette Rubber Co.

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### 1340 kilocycles 223.7 meters

KFPW	50	D	Carterville, Mo.	
KFPY	1000	CX	Spokane, Wash.	Rev. Lannie W. Stewart
WCOA	500	---	Pensacola, Fla.	Symons Broadcasting Co.
WGHP	750	C	Detroit, Mich.	City of Pensacola

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American Broadcasting Corp.

### 1350 kilocycles 222.1 meters

KWK	1000	N	St. Louis, Mo.	Greater St. Louis Broadcasting Corp.
WBNY	250	1	New York City	Baruchrome Corp.
WCDA	250	1	New York City	Italian Educ. Broadcasting Co., Inc.
WRBQ	250	1	New York City	Standard Cahill Co., Inc.
WMSG	250	1	New York City	Madison Square Garden Brcdstg. Corp.

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INDEX BY FREQUENCIES AND DIAL NUMBERS

1360 kilocycles 220.4 meters

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KGER 1000 4  
 KGIR 500 ---  
 KPSN 1000 4  
 WFBL 1000 C  
 WGES 500 1  
 WJKS 500 1+  
 WQBC 300 ---

Long Beach, Cal.  
 Butte, Mont.  
 Pasadena, Cal.  
 Syracuse, N. Y.  
 Chicago, Ill.  
 Gary, Ind.  
 Utica, Miss.

C. Merwin Dobyns  
 KGIR, Inc.  
 Pasadena Star-News  
 The Onondaga Co., Inc.  
 Oak Leaves Broadcasting Station, Inc.  
 Johnson-Kennedy Radio Corp.  
 Delta Broadcasting Co.

1370 kilocycles 218.7 meters

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KCRC 100 2+  
 KFBL 50 3  
 KFJI 100 ---  
 KFJM 100 ---  
 KFJZ 100 ---  
 KFLX 100 ---  
 KGAR 100 +  
 KGCI 100 5  
 KGDA 50 ---  
 KGFG 100 2  
 KGFL 50 ---  
 KGKL 100 ---  
 KGRC 100 5  
 KLO 100 +  
 KOH 100 ---  
 KOOS 100 ---  
 KRE 100 6  
 KVL 100 3  
 KWKC 100 4  
 KZM 100 6  
 WBBL 100 ---  
 WCBM 100 +  
 WEHC 100 ---  
 WELK 100 ---  
 WFBJ 100 ---  
 WFDV 100 CP  
 WGL 100 ---  
 WHBD 100 ---  
 WHBQ 100 ---  
 WHDF 100 +X  
 WIBM 100 1  
 WJBK 50 1  
 WLEY 100 +  
 WMBR 100 ---  
 WPOE 100 ---  
 WQDM 5 CP  
 WRAK 50 ---  
 WRBJ 10 ---  
 WRBT 100 ---  
 WRJN 100 ---  
 WSVS 50 ---  
 ----- 100 CP7  
 ----- 100 CP7

Enid, Okla.  
 Everett, Wash.  
 Astoria, Ore.  
 Grand Forks, N. D.  
 Ft. Worth, Texas  
 Galveston, Texas  
 Tucson, Ariz.  
 San Antonio, Texas  
 Dell Rapids, S. D.  
 Oklahoma City  
 Raton, N. M.  
 San Angelo, Texas  
 San Antonio, Texas  
 Ogden, Utah  
 Reno, Nevada  
 Marshfield, Ore.  
 Berkeley, Cal.  
 Seattle, Wash.  
 Kansas City, Mo.  
 Haywood, Cal.  
 Richmond, Va.  
 Baltimore, Md.  
 Emory, Va.  
 Philadelphia, Pa.  
 Collegeville, Minn.  
 Rome, Ga.  
 Fort Wayne, Ind.  
 Mount Orab, Ohio  
 Memphis, Tenn.  
 Calumet, Mich.  
 Jackson, Mich.  
 Ypsilanti, Mich.  
 Lexington, Mass.  
 Tampa, Fla.  
 Patchogue, N. Y.  
 St. Albans, Vt.  
 Erie, Pa.  
 Hattiesburg, Miss.  
 Wilmington, N. C.  
 Racine, Wis.  
 Buffalo, N. Y.  
 Danville, Va.  
 Lynchburg, Va.

Champlin Refining Co.  
 Leese Bros.  
 KFJI Broadcasters, Inc.  
 University of North Dakota  
 H. C. Meacham  
 George Roy Clough  
 Tucson Motor Service Co.  
 Liberto Radio Sales Co.  
 Home Auto Co.  
 Faith Tabernacle Assn.  
 W. E. Whitmore  
 KGKL, Inc., Opr. by Ragsdale Auto  
 Eugene J. Roth  
 Peery Building Co.  
 Jay Peters  
 H. H. Hanseth  
 First Congregational Church  
 Arthur C. Dailey  
 Wilson Duncan Broadcasting Co.  
 Leon P. Tenney  
 Grace Covenant Presbyterian Church  
 Baltimore Broadcasting Corp.  
 Emory & Henry College  
 Howard R. Miller  
 St. John's University  
 Dolies Goings  
 Fred C. Zieg  
 F. P. Moler  
 Broadcasting Station WHBQ, Inc.  
 Upper Michigan Broadcasting Co.  
 C. L. Carrell  
 James F. Hopkins  
 Lexington Air Stations  
 F. J. Reynolds  
 Nassau Broadcasting Corp.  
 A. J. St. Antoine  
 C. R. Cummins  
 Woodruff Furniture Co., Inc.  
 Wilmington Radio Association  
 Racine Broadcasting Corp.  
 Seneca Vocational School  
 L. H., R. H. and A. S. Clarke  
 Edw. A. and Philip P. Allen

1380 kilocycles 217.3 meters

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KOV 500 2  
 KSO 500 1  
 WKBH 1000 1  
 WSMK 200 2

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

Doubleday-Hill Electric Co.  
 Berry Seed Co.  
 Callaway Music Co.  
 Stanley M. Krohn, Jr.

1390 kilocycles 215.7 meters

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KLRA 1000 1C  
 KOQ 500 ---  
 KUA 1000 1  
 WHK 1000 CX

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

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

KCYS.  
 1390  
 MTRS.  
 215.7  
 DIAL

CUT OUT ON  
 DOTTED LINES

## INDEX BY FREQUENCIES AND DIAL NUMBERS

### 1400 kilocycles 214.2 meters

KOCW	250	+	Chickasha, Okla.
WBAA	500	1	Lafayette, Ind.
WBBC	500	2	Brooklyn, N. Y.
WCGU	500	2	Coney Island, N. Y.
WCMA	500	1	Culver, Ind.
WKBF	500	1	Indianapolis, Ind.
WLTH	500	2	Brooklyn, N. Y.
WSGH	500	2	Brooklyn, N. Y.

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College for Women  
Purdue University  
Brooklyn Broadcasting Corp.  
U. S. Broadcasting Corp.  
Culver Military Academy  
Indianapolis Broadcasting, Inc.  
The Voice of Brooklyn, Inc.  
Amateur Radio Specialty Co.

### 1410 kilocycles 212.6 meters

KFLV	500	4	Rockford, Ill.
KGRS	1000	1	Amarillo, Texas
WBCM	500	---	Bay City, Mich.
WDAG	250	1	Amarillo, Texas
WHBL	500	4	Sheboygan, Wis.
WLX	500	2	Lexington, Mass.
WMAF	500	2	S. Dartmouth, Mass.
WODX	500	3	Mobile, Ala.
WSFA	500	3CP	Montgomery, Ala.
WSSH	500	2	Boston, Mass.

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Rockford Broadcasters, Inc.  
Gish Radio Service  
James E. Davidson  
National Radio & Broadcasting Corp.  
Press Pub. Co. & C. L. Carrell  
Lexington Air Stations  
Round Hills Radio Corp.  
Mobile Broadcasting Corp.  
Montgomery Broadcasting Corp.  
Tremont Temple Baptist Church

### 1420 kilocycles 211.1 meters

KFFIF	100	4	Portland, Ore.
KFIZ	100	---	Fond du Lac, Wis.
KFOU	100	5	Holy City, Cal.
KFOW	100	---	Seattle, Wash.
KFXD	50	---	Jerome, Idaho
KFXV	100	---	Flagstaff, Ariz.
KFYO	100	+	Abilene, Texas
KGFF	100	---	Alva, Okla.
KGGC	50	5	San Francisco, Cal.
KGIV	100	---	Trinidad, Colo.
KGIX	100	CP	Las Vegas, Nevada
KGKX	100	---	Sand Point, Idaho
KICK	100	---	Red Oak, Iowa
KLPM	100	---	Minot, North Dakota
KORE	100	---	Eugene, Ore.
KTAP	100	---	San Antonio, Texas
KTUE	100	X	Houston, Texas
KXL	100	4	Portland, Ore.
WEDH	30	---	Erie, Pa.
WEHS	100	2	Evanston, Ill.
WFDW	100	CP	Talledega, Ala.
WHDL	10	---	Tupper Lake, N. Y.
WHFC	100	2	Cicero, Ill.
WHIS	100	---	Bluefield, W. Va.
WIAS	100	---	Ottumwa, Iowa
WIBR	50	1	Staubenville, Ohio
WILM	100	---	Wilmington, Del.
WJBO	100	---	New Orleans, La.
WKBI	50	2	Chicago, Ill.
WKBP	50	---	Battle Creek, Mich.
WLB	100	---	Kansas City, Kas.
WMBC	100	X+	Detroit, Mich.
WMBH	100	+	Joplin, Mo.
WMRJ	10	---	Jamaica, N. Y.
WQBZ	60	1	Weirton, W. Va.
WTBO	50	X	Cumberland, Md.

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Benson Polytechnic Institute  
Reporter Printing Co.  
W. E. Riker  
KFQW, Inc.  
Service Radio Co.  
Mary M. Costigan  
T. E. Kirksey  
KGFF Broadcasting Co.  
Golden Gate Broadcasting Co.  
Leonard E. Wilson  
Las Vegas, Nevada, Radio Corp.  
C. E. Twiss and F. H. McCann  
Red Oak Radio Corp.  
E. C. Reineke  
Eugene Broadcasting Station  
Alamo Broadcasting Co.  
Uhalt Electric  
KXL Broadcasters, Inc.  
Erie Dispatch-Herald  
Victor C. Carlson  
Raymond G. Hammett  
George Franklin Bissell  
Triangle Broadcasters  
Daily Telegraph  
Poling Electric Co.  
George W. Robinson  
Delaware Broadcasting Co., Inc.  
Valdemar Jensen  
Fred L. Schoenwolf  
Enquirer-News Co.  
WLB Broadcasting Co.  
Michigan Broadcasting Co., Inc.  
Edwin Dudley Aber  
Peter J. Prinz  
J. H. Thomson  
Associated Broadcasting Corp.

### 1430 kilocycles 209.7 meters

KECA	1000	N	Los Angeles, Calif.
WBAK	500	1	Harrisburg, Pa.
WBRL	500	---	Tilton, N. H.
WCAH	500	1C	Columbus, Ohio
WGBC	500	2	Memphis, Tenn.
WHP	500	1C	Harrisburg, Pa.
WNBR	500	2	Memphis, Tenn.

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Earle C. Anthony, Inc.  
Penna. State Police  
Booth Radio Laboratories  
Commercial Radio Service Co.  
First Baptist Church  
Pennsylvania Broadcasting Co.  
John Ulrich

### 1440 kilocycles 208.2 meters

KLS	250	D	Oakland, Cal.
WCBA	250	1	Allentown, Pa.
WHEC	500	2C	Rochester, N. Y.

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Warner Bros.  
B. B. Musselman  
Hickson Electric Co.

## INDEX BY FREQUENCIES AND DIAL NUMBERS

WMBD 500	3+	Peoria Heights, Ill.	Peoria Heights Radio Laboratory
WNRC 500	---	Greensboro, N. C.	Wayne M. Nelson
WOKO 500	2	Poughkeepsie, N. Y.	Hudson Valley Broadcasting Co.
WSAN 250	1	Allentown, Pa.	Allentown Call Publishing Co., Inc.
WTAD 500	3	Quincy, Ill.	Ills. Stock Medicine Broadcasting Co

### 1450 kilocycles 206.8 meters

KTBS 1000	---	Shreveport, La.	Elliott & Steere
WBMS 250	1	Hackensack, N. J.	WBMS Broadcasting Corp.
WCSO 500	2	Springfield, Ohio	Wittenberg, College
WFJC 500	2N	Akron, Ohio	W. F. Jones Broadcasting, Inc.
WIBS 250	1	Jersey City, N. J.	New Jersey Broadcasting Corp.
WKBO 250	1	Jersey City, N. J.	Camith Corp.
WNJ 250	1	Newark, N. J.	Radio Investment Co.
WSAR 250	---	Fall River, Mass.	Doughty & Welch Electric Co., Inc.
WTFI 250	---	Toccoa, Ga.	Toccoa Falls Institute

### 1460 kilocycles 205.4 meters

KSTP 10000	N	St. Paul, Minn.	National Battery Broadcasting Co.
WJSV 10000	---	Mt. Vernon Hills, Va.	Independent Publishing Co.

### 1470 kilocycles 204.0 meters

KGA 5000	---	Spokane, Wash.	Northwest Broadcasting System, Inc.
WLAC 5000	1C	Nashville, Tenn.	Life & Casualty Insurance Co.
WTNT 5000	1	Nashville, Tenn.	Tennessee Publishing Co.

### 1480 kilocycles 202.6 meters

KFJF 5000	C	Oklahoma City	National Radio Mfg. Co.
WKBW 5000	C	Buffalo, N. Y.	Churchill Evangelistic Assn., Inc.

### 1490 kilocycles 201.2 meters

KPWF 5000	CP	Westminster, Cal.	Pacific Western Broadcasting Fed.
WCKY 5000	1N	Covington, Ky.	L. B. Wilson, Inc.
WJAZ 5000	1	Chicago, Ill.	Zenith Radio Corp.
WORD 5000	1	Chicago, Ill.	People's Pulpit Association
WSOA 5000	1	Chicago, Ill.	Radiophone Broadcasting Corp.

### 1500 kilocycles 199.9 meters

KDB 100	---	Santa Barbara, Cal.	Santa Barbara Broadcasting Co.
KGFI 100	---	Corpus Christi, Texas	Eagle Broadcasting Co., Inc.
KGKB 100	---	Brownwood, Texas	Eagle Publishing Co.
KGKY 100	CP	Scottsbluff, Nebr.	Hilliard Co., Inc.
KGMD 100	CP	Roswell, N. M.	Dispatch Publishing Co.
KPJM 100	---	Prescott, Ariz.	Miller & Klahn
KREG 100	---	Santa Ana, Calif.	Pacific Western Broadcasting
KTLC 100	X	Houston, Texas	Houston Broadcasting Co.
KUJ 10	3X	Longview, Wash.	Columbia Broadcasting Co., Inc.
KUT 100	CP	Austin, Texas	Rice Hotel
KVEP 15	3	Portland, Ore.	Schaeffer Radio Co.
WCLB 100	1	Brooklyn, N. Y.	Arthur Faske
WKBV 100	+	Connersville, Ind.	Knox Battery & Electric Co.
WKBZ 50	---	Ludington, Mich.	K. L. Ashbacher
WLBX 100	1	Long Island City, N. Y.	John N. Brahy
WLOB 100	2	Boston, Mass.	Boston Broadcasting Co.
WMBA 100	---	Newport, R. I.	LeRoy Joseph Beebe
WMBJ 100	---	Wilkinsburg, Pa.	Rev. J. W. Sproul
WMBQ 100	1	Brooklyn, N. Y.	Paul J. Gollhofer
WMBS 50	2	Boston, Mass.	Boston Broadcasting Co.
WMPC 100	---	Lapeer, Mich.	First M. E. Church
WNBf 100	---	Binghamton, N. Y.	Hewitt-Wood Radio Co., Inc.
WOPI 100	---	Bristol, Tenn.	Wilson Radiophone Service Co.
WPEN 100	+	Philadelphia, Pa.	Wm. Penn Broadcasting Co.
WRRL 100	1	Woodside, N. Y.	Long Island Broadcasting Corp.

KCYS.  
**1500**  
 MTRS.  
**199.9**  
 DIAL

# INDEX BY LOCATIONS WITH MAP KEY

<b>ALABAMA</b>				<b>Santa Ana K-4</b> 100 KREG 1500			
Birmingham K-19-a	5000	WAPI	1140	Santa Barbara J-3	100	KDB	1500
	500	WBRC	930	Santa Maria J-2-b	100	KSMR	1200
	100	WKBC	1310	Stockton H-2-b	250	KGDM	1100
Gadsden K-20-a	50	WJBY	1210		100	KWG	1200
Mobile L-19	500	WODX	1410	Westminster	5000	KPWF	1490
Montgomery K-19	500	WSFA	1410	<b>CANAL ZONE</b>			
Talladega K-20	100	WFDW	1420	Balboa	750	NBA	850
<b>ALASKA</b>				<b>COLORADO</b>			
Anchorage	100	KFQD	1230	Colo. Springs H-10	1000	KFUM	1270
Juneau	10	KFUI	1310	Denver G-10-b	500	KFEL	920
Ketchikan	500	KGBU	900		100	KFUP	1310
<b>ARIZONA</b>					500	KFXF	920
Flagstaff J-7	100	KFXY	1420		1000	KLZ	560
Jerome J-7	100	KGMC	1310		12500	KOA	830
Phoenix K-7	500	KOY	1390		500	KPOF	880
	500	KTAR	620	Edgewater G-10	50	KFXJ	1310
Prescott J-6	100	KPJM	1500	Fort Morgan G-11	100	KGEW	1200
Tucson L-7	100	KGAR	1370	Greeley F-10	500	KFKA	880
	500	KVOA	1260	Gunnison H-9	50	KFHA	1200
<b>ARKANSAS</b>				Pueblo H-11	250	KGHF	1320
Blytheville I-18	50	KLCN	1290	Trinidad H-10	100	KGIW	1420
Fayetteville I-16	1000	KUOA	1390	Yuma G-11	50	KGEK	1200
Hot Springs J-16	1000	KTHS	1040	<b>CONNECTICUT</b>			
Little Rock J-17	100	KGHI	1200	Bridgeport F-26	500	WICC	1190
	250	KGJF	890	Hartford E-26-d	50000	WTIC	1060
	1000	KLRA	1390	New Haven F-26-b	500	WDRC	1330
	500		1250	Storrs	250	WCAC	600
McGehee K-17	50	KGHG	1310	<b>DELAWARE</b>			
Paragould I-17	100	KBTM	1200	Wilmington G-25	250	WDEL	1120
<b>CALIFORNIA</b>					100	WILM	1420
Berkeley H-1-a	100	KRE	1370	<b>DISTRICT OF COLUMBIA</b>			
Burbank J-4	500	KELW	780	Washington G-24-c	250	WMAL	630
Culver City K-3	250	KFVD	1000		500	WRC	950
El Centro K-5	100	KXO	1200		100	WOL	1310
Fresno I-3	100	KMJ	1210	<b>FLORIDA</b>			
Hayward H-2	100	KZM	1370	Clearwater N-21	1000	WFLA	620
Hollywood K-3	1000	KFWB	950	Gainesville M-21	5000	WRUF	830
	500	KMTR	570	Jacksonville M-22	1000	WJAX	900
	5000	KNX	1050	Miami O-23	1000	WQAM	560
Holy City I-2	100	KFOU	1420	Miami Beach O-23	1000	WIOD	1300
Inglewood K-4	500	KMIC	1120	Orlando N-22	500	WDBO	1120
Long Beach K-4-a	1000	KFOX	1250	Pensacola L-19	500	WCOA	1340
	1000	KGER	1360	St. Petersburg N-21	1000	WSUN	620
Los Angeles K-3-b	1000	KECA	1430	Tampa N-22-b	1000	WDAE	1220
	500	KEJK	710		100	WMBR	1370
	5000	KFI	640	<b>GEORGIA</b>			
	250	KFQZ	850	Atlanta K-20-a	250	WGST	890
	500	KFSG	1120		5000	WSB	740
	1000	KGEF	1300	Columbus K-20	50	WRBL	1200
	100	KGfJ	1200	Macon K-21	250	WMAZ	890
	1000	KHJ	900	Rome J-20	100	WFDV	1370
	500	KTM	780	Savannah K-22	500	WTQC	1260
Oakland H-1-b	7500	KTO	1300	Tifton L-21	20	WRBI	1310
	250	KLS	1440	Toccoa J-21	250	WTFI	1450
	500	KLX	880	<b>HAWAII</b>			
	1000	KTAB	560	Honolulu	500	KGHB	1320
Pasadena J-4	50	KPPC	1210		500	KGMB	1320
	1000	KPSN	1360		500	KGU	940
Richmond I-1	500	KFSM	930	<b>IDAHO</b>			
Sacramento H-2-a	100	KFBK	1310	Boise D-4	1000	KIDO	1250
San Bernardino J-3	100	KFXM	1210	Idaho Falls D-7	250	KID	1320
San Diego K-4-b	500	KFSD	600	Jerome E-5	50	KFXD	1420
	250	KGB	1330	Pocatello E-7	250	KSEI	900
San Francisco H-1-c	1000	KFRC	610	Sand Point A-4	100	KGXK	1420
	500	KFWI	930	Twin Falls E-5	250	KGIQ	1320
	50	KGGC	1420				
	100	KJBS	1070				
	5000	KPO	680				
San Jose I-2	1000	KYA	1230				
	500	KQW	1010				

## INDEX BY LOCATIONS WITH MAP KEY

### ILLINOIS

Carthage F-17-c	50	WCAZ	1070
Chicago E-19-g	10000	KFKX	1020
	10000	KYW	1020
	500	WAAF	920
	25000	WBBM	770
	1000	WCFL	970
	100	WCRW	1210
	100	WEDC	1210
	50000	WENR	870
	500	WGES	1360
	25000	WGN	720
	1000	WIBO	560
	5000	WJAZ	1490
	25000	WJBT	770
	50	WKBI	1420
	5000	WLS	870
	5000	WMAQ	670
	5000	WMBI	1080
	5000	WORD	1490
	500	WPCC	560
	100	WSBC	1210
	5000	WSOA	1490
Cicero E-19	100	WHFC	1420
Decatur G-18	100	WJBL	1200
Evanston E-19	100	WEHS	1420
Galesburg F-18-a	100	WKBS	1310
Harrisburg H-18-b	100	WEBQ	1210
Joliet E-19-f	100	WCLS	1310
	100	WKBB	1310
	100	WJBC	1200
La Salle F-18-d	20000	WJJD	1130
Mooseheart E-18-e	500	WMBD	1440
Peoria Heights G-18	500	WTAD	1440
Quincy G-17	500	KFLV	1410
Rockford E-18-c	500	KFLV	1410
Rock Island F-17-c	100	WHBF	1210
Springfield G-18	100	WCBS	1210
Streator F-18-c	50	WTAX	1210
Tuscola G-19-b	100	WDZ	1070
Urbana G-19-a	250	WILL	890
Zion E-19-c	5000	WCBD	1080

### INDIANA

Anderson G-20-a	100	WHBU	1210
Connersville G-20	100	WKBV	1500
Culver F-19-d	500	WCMA	1400
Evansville H-19	500	WGBF	630
Fort Wayne F-20-b	100	WGL	1370
	10000	WOWO	1160
Gary F-19	500	WJKS	1360
Hammond F-19	100	WVAE	1200
Indianapolis G-19-c	1000	WFBM	1230
	500	WKBF	1400
Lafayette G-19	500	WBAA	1400
La Porte F-19-c	100	WRAF	1200
Marion F-20	50	WIAK	1310
Muncie G-20	50	WLBC	1310
South Bend F-20-a	500	WSBT	1230
Terre Haute G-19	100	WBOW	1310
Valparaiso F-19-b	500	WRBC	1240

### IOWA

Ames E-16-c	5000	WOI	640
Boone E-16	100	KFGQ	1310
Cedar Rapids E-17-a	100	KWCR	1310
Clarinda E-15-c	500	KSO	1380
Council Bluffs F-15-b	1000	KOIL	1260
Davenport F-17-a	5000	WOC	1000
Decorah D-17	50	KCCA	1270
	100	KWLC	1270
Des Moines F-16-a	5000	WHO	1000
Fort Dodge E-16-a	100	KFJY	1310
Iowa City E-17-b	500	WSUI	880
Marshalltown E-16-d	100	KFJB	1200
Muscatine F-17-b	5000	KTNT	1170

Ottumwa F-17	100	WIAS	1420
Red Oak F-15	100	KICK	1420
Shenandoah F-15-c	500	KRNF	890
	500	KMA	930
Sioux City E-15	1000	KSCJ	1330
Waterloo F-17	500	WMT	600

### KANSAS

Gueda Springs	250		680
Kansas City G-15	100	WLBK	1420
Lawrence G-15-a	1000	KFKU	1220
	1000	WREN	1220
Manhattan G-14-a	500	KSAC	580
Milford G-14	5000	KFKB	1050
Topeka G-14	500	WIBW	580
Wichita H-14-a	1000	KFH	1300

### KENTUCKY

Covington G-20	5000	WCKY	1490
Hopkinsville I-19	1000	WFIW	940
Louisville H-20	10000	WHAS	820
	30	WLAP	1200

### LOUISIANA

New Orleans M-17	100	WABZ	1200
	1000	WDSU	1250
	100	WJBO	1420
	30	WJWB	1200
	500	WSMB	1320
	5000	WWL	850
Rayne M-17	150		1120
Shreveport K-16	50	KRMD	1310
	1000	KTBS	1450
	100	KTSL	1310
	100	KWEA	1210
	10000	KWKH	850

### MAINE

Bangor C-28-b	100	WABI	1200
	500	WLBZ	620
Portland D-28-b	1000	WCSH	940

### MARYLAND

Baltimore G-24-a	10000	WBAL	1060
	250	WCAO	600
	100	WCBM	1370
	250	WFBR	1270
Cumberland G-23	50	WTBO	1420

### MASSACHUSETTS

Boston E-27-c	1000	WBIS	1230
	500	WBZA	990
	1000	WEEL	590
	100	WLOE	1500
	50	WMES	1500
	1000	WNAC	1230
	500	WSSH	1410
	250	WSAR	1450
Fall River E-27	1000	WHDH	830
Gloucester E-27	500	WLEX	1410
Lexington E-27	100	WLEY	1370
	100	WNBH	1310
New Bedford E-27	500	WMAF	1410
S. Dartmouth E-27	15000	WBZ	990
Springfield E-26-b	250	WBSO	920
Wellesley Hills E-27	100	WORC	1200
Worcester E-27-b	250	WTAG	580

### MICHIGAN

Battle Creek E-20	50	WKBP	1420
Bay City D-21	500	WBGM	1410
Berrien Spgs. E-19	1000	WEMC	590
Calumet B-18	100	WHDF	1370

## INDEX BY LOCATIONS WITH MAP KEY

Detroit E-21-g	750	WGHP	340	<b>NEBRASKA</b>			
	5000	WJR	750	Clay Center G-14	1000	KMMJ	740
	100	WMBC	1420	Lincoln F-14-b	5000	KFAB	770
East Lansing E-20-b	1000	WWJ	920		100	KFOR	1210
Flint E-21-a	1000	WKAR	1040		500	WCAJ	590
Grand Rapids E-20-a	100	WDFD	1310	Norfolk E-14-c	1000	WJAG	1060
	500	WASH	1270	Omaha F-15-a	500	WAAW	660
Jackson E-20	500	WOOD	1270		1000	WOW	590
Lapeer E-21	100	WIBM	1370	Ravenna F-13	50	KGFW	1310
Ludington D-19	100	WMPC	1500	Scottsbluff F-11	100	KGKY	1500
Royal Oak E-21-e	50	WKBZ	1500	York F-13	500	KGBZ	930
Ypsilanti E-21-f	50	WAGM	1310				
	50	WJBK	1370	<b>NEVADA</b>			
<b>MINNESOTA</b>				Las Vegas I-5	100	KGIX	1420
Collegeville C-15	100	WFBJ	1370	Reno G-3	100	KOH	1370
Fergus Falls B-15	100	KGDE	1200	<b>NEW HAMPSHIRE</b>			
Hallock A-14	50	KGFK	1200	Laconia D-27	100	WKAV	1310
Minneapolis C-16-b	7500	WCCO	810	Tilton D-27	500	WBRL	1430
	1000	WDGY	1180	<b>NEW JERSEY</b>			
	500	WGMS	1250	Asbury Park G-26	500	WCAP	1280
	500	WHDI	1180	Atlantic City G-25	5000	WPG	1100
	500	WLB	1250	Camden F-25-f	500	WCAM	1280
	1000	WRHM	1250	Hackensack F-26	250	WBMS	1450
Northfield D-16	1000	KFMX	1250	Jersey City F-26-d	300	WAAT	1070
	1000	WCAL	1250		250	WIBS	1450
St. Paul C-16-c	10000	KSTP	1460		250	WKBO	1450
				Newark F-25-h	1000	WAAM	1250
<b>MISSISSIPPI</b>					250	WGCP	1250
Greenville K-17	100	WRBQ	1210		250	WNJ	1450
Gulfport M-18	100	WGCM	1210		5000	WOR	710
Hattiesburg L-18	10	WRBJ	1370	Paterson F-26-c	1000	WODA	1250
Jackson L-18	500	WJDX	1270	Red Bank G-26	100	WJBI	1210
Meridian L-18	500	WCOC	880	Trenton F-25	500	WOAX	1280
Utica L-17	300	WQBC	1360	<b>NEW MEXICO</b>			
<b>MISSOURI</b>				Albuquerque J-9	250	KGGM	1230
Cartersville H-16	50	KFPW	1340	Raton I-11	50	KGFL	1370
Cp. Girardeau H-18-c	100	KFVS	1210	Roswell K-10	100	KGMD	1500
Columbia G-16-b	500	KFRU	630	State College K-9	20000	KOB	1180
Jefferson City H-16-a	500	WOS	630	<b>NEW YORK</b>			
Joplin H-16	100	WMBH	1420	Auburn E-24	100	WMBO	1310
Kansas City G-15-b	1000	KMBC	950	Binghamton E-25	100	WNBF	1500
	100	KWKC	1370	Brooklyn F-26-f	500	WBBC	1400
	1000	WDAF	610		100	WCLB	1500
	500	WHB	860		100	WLTH	1400
	1000	WQQ	1300		100	WMBQ	1500
St. Joseph G-15	2500	KFEQ	680		500	WSGH	1400
	100	KGBX	1310	Buffalo E-23-a	100	WEBR	1310
St. Louis H-18-a	5000	KFQA	1090		1000	WGR	350
	500	KFUO	550		5000	WKBW	1480
	100	KFWF	1200		1000	WKEN	1040
	5000	KMOX	1090		750	WMAK	900
	500	KSD	550		50	WSVS	1370
	1000	KWK	1350	Canton D-25	500	WCAD	1220
	1000	WEW	760	Cazenovia E-25-b	250	WMAC	570
	100	WIL	1200	Coney Island F-26	500	WCGU	1400
	100	WMAY	1200	Freeport F-26-1	100	WGBB	1210
<b>MONTANA</b>				Ithaca E-24-d	500	WEAI	1270
Billings C-8	500	KGHL	950		50	WLCI	1210
Butte C-7	500	KGIR	1360	Jamaica F-26-f	10	WMRJ	1420
Great Falls A-8	1000	KFBB	1280	Jamestown E-23-b	25	WOCL	1210
Kalispell A-5	100	KGEZ	1310	Long Island City F-26	100	WLBX	1500
Wolf Point A-10	100	KGCX	1310				

## INDEX BY LOCATIONS WITH MAP KEY

New York City F-26	5000	WABC	860	Steubenville F-22	50	WIBR	1420
	250	WBNY	1350	Toledo F-21-a	500	WSPD	1240
	5000	WBOQ	860	Youngstown F-22	500	WKBN	570
	250	WCDA	1350	<b>OKLAHOMA</b>			
	50000	WEAF	660	Alva I-13	100	KGFF	1420
	500	WEVD	1300	Chickasha J-14-b	250	KOCW	1400
	250	WGBS	600	Enid I-14	100	KCRC	1370
	1000	WHAP	1300	Norman J-14-a	500	WNAD	1010
	2500	WHN	1010	Oklahoma I-14-b	5000	KFJF	1480
30000	WJZ	760			100	KFXR	1310
250	WKBQ	1350			100	KGFG	1370
5000	WLWL	1100			1000	WKY	900
250	WMCA	570		Picher I-15	500	KGFF	1010
500	WMSG	1350		Ponca City I-14	100	WBBZ	1200
500	WNYC	570		Tulsa I-15	5000	KVOO	1140
1000	WOV	1130		<b>OREGON</b>			
250	WPAP	1010		Astoria C-1-a	100	KFJI	1370
500	WPCH	810		Corvallis D-1	1000	KOAC	550
250	WQAO	1010		Eugene D-1	100	KORE	1420
250	WRNY	1010		Marshfield E-1	100	KOOS	1370
100	WPOE	1370		Medford E-1	50	KMED	1310
500	WOKO	1440		Portland C-1-b	5000	KEX	1180
5000	WHAM	1150			100	KFIF	1420
500	WHEC	1440			500	KFJR	1300
1000	WBBR	1300			1000	KGW	620
50	WNBZ	1290			1000	KOIN	940
Saranac Lake D-26	50000	WGY	790		500	KTBR	1300
Schenectady E-25-c	1000	WFBL	1360		15	KVEP	1500
Syracuse E-24-c	250	WSYR	570		500	KWJJ	1060
Troy E-21-a	500	WHAZ	1300		100	KXL	1420
Tupper Lake D-25	10	WHDL	1420	<b>PENNSYLVANIA</b>			
Utica E-25-a	100	WIBX	1200	Allentown F-25-c	250	WCBA	1440
Woodside F-26	100	WWRL	1500		250	WSAN	1440
Yonkers E-26	100	WCOH	1210		100	WFBG	1310
<b>NORTH CAROLINA</b>					10	WNBW	1200
Asheville J-21	1000	WWNC	570		50	WIBG	930
Charlotte J-22	5000	WBT	1080		30	WEDH	1420
Gastonia J-22	100	WRBU	1210		50	WRAK	1370
Greensboro I-22	500	WNRC	1440		100	WSAJ	1310
Raleigh I-23	1000	WPTF	680		500	WBAK	1430
Wilmington J-24	100	WRBT	1370		100	WCOD	1200
Winston-Salem I-22	100	WSJS	1310		500	WHP	1430
<b>NORTH DAKOTA</b>					100	WOOP	840
Bismarck B-12	500	KFYR	550		100	WJAC	1310
Devils Lake A-13	100	KDLR	1210		15	WGAL	1310
Fargo B-14	1000	WDAY	940		100	WKJC	1200
Grand Forks A-14	100	KFJM	1370		100	WJBU	1210
Mandan B-12	100	KGCU	1210		500	WLBW	1260
Minot A-12	100	KLPM	1420		10000	WCAU	1170
<b>OHIO</b>					100	WELK	1370
Akron F-22-b	1000	WADC	1320		500	WFAN	610
	500	WFJC	1450		500	WFI	560
Cambridge F-22	100	WBBE	1210		50	WFKD	1310
Canton F-22-d	10	WHBC	1200		100	WHAT	1310
Cincinnati G-20-e	100	WFBE	1200		500	WIP	610
	500	WKRC	550		500	WLIT	560
	50000	WLW	700		100	WPEN	1500
Cleveland F-22-a	1000	WSAI	1330		250	WRAX	1020
	1000	WEAR	1070		50000	KDKA	980
	1000	WHK	1390		500	KQV	1380
	500	WJAY	610		500	WCAE	1220
Columbus G-21-b	50000	WTAM	1070		1000	WJAS	1290
	500	WAIU	640		100	WRWA	1310
	500	WCAH	1430		250	WGBI	880
	750	WEAO	570		250	WQAN	880
	50	WMAN	1210		500	WPSC	1238
Dayton G-21-e	200	WSMK	1380		100	WNBO	1200
Hamilton G-20-d	100	WRK	1310		100	WBOX	1210
Mansfield F-21	100	WJW	1210		100	WBRE	1310
Mount Orab	100	WHBD	1370		100	WMBJ	1500
Springfield G-21-c	500	WCSO	1450				

INDEX BY LOCATIONS WITH MAP KEY

<b>PORTO RICO</b>							
San Juan	500	WKAQ	890				
<b>RHODE ISLAND</b>							
Newport F-27	100	WMBA	1500				
Pawtucket E-27	100	WPAW	1210				
Providence E-27-h	100	WDWF	1210				
	250	WEAN	780				
	250	WJAR	890				
	100	WLSI	1210				
<b>SOUTH CAROLINA</b>							
Charleston K-23	75	WBBY	1200				
Columbia K-22	500	WGTB	1010				
<b>SOUTH DAKOTA</b>							
Brookings D-14	500	KFDY	550				
Dell Rapids D-14	50	KGDA	1370				
Oldham D-14	15	KGDY	1200				
Pierre D-12	200	KGFX	580				
Rapid City D-11	100	WCAT	1200				
Sioux Falls D-14	2000	KSOO	1110				
Vermillion E-14-b	500	KUSD	890				
Watertown	100	KGCR	1210				
Yankton E-14-a	1000	WNAX	570				
<b>TENNESSEE</b>							
Bristol I-22	100	WOPI	1500				
Chattanooga J-20	1000	WDOD	1280				
Knoxville I-20	50	WFBC	1200				
	50	WNBJ	1310				
	1000	WNOX	560				
Lawrenceburg J-19	500	WOAN	600				
Memphis J-18-a	500	WGBC	1430				
	100	WHBQ	1370				
	500	WMC	780				
	500	WNBR	1430				
	500	WREC	600				
Nashville I-19	5000	WLAC	1470				
	5000	WSM	650				
	5000	WTNT	1470				
Springfield I-19	100	WSIX	1210				
Union City I-18	100	WOBT	1310				
<b>TEXAS</b>							
Abilene K-13	100	KFYO	1420				
Amarillo J-12	1000	KGRS	1410				
	250	WDAG	1410				
Austin L-14-b	500	KTRH	1120				
	100	KUT	1500				
Beaumont M-16	500	KFDM	560				
Brownsville O-14-b	500	KWVW	1260				
Brownwood L-13	100	KGKB	1500				
College Sta. M-13	500	WTAW	1120				
Corpus Christi N-14	100	KGFI	1500				
Dallas L-15-a	10000	KRLD	1040				
	5000	WFAA	800				
	500	WRR	1280				
Dublin K-14	100	KFPL	1310				
El Paso L-10	100	KTSM	1310				
	100	WDAH	1310				
Fort Worth L-14-a	100	KFJZ	1370				
	1000	KSAT	1240				
	50000	WBAP	800				
Galveston M-15-b	100	KFLX	1370				
	500	KFUL	1290				
Greenville K-15	15	KFPM	1310				
Harlingen O-14	500	KRGV	1260				
Houston M-15-a	1000	KPRC	920				
	100	KTUE	1420				
	100	KTLC	1500				
San Angelo M-12	100	KGKL	1370				
San Antonio M-14-a	100	KGCI	1370				
	100	KGRC	1370				
				100	KTAP	1420	
				1000	KTSA	1290	
				5000	WOAI	1190	
Waco L-15-b				1000	WACO	1240	
Wichita Falls K-14				250	KGKO	570	
<b>UTAH</b>							
Ogden F-7-b				100	KLO	1370	
Salt Lake City F-7-c				1000	KDYL	1290	
				5000	KSL	1130	
<b>VERMONT</b>							
Burlington D-26-a				100	WCAX	1200	
St. Albans D-26				5	WQDM	1370	
Springfield D-26-b				10	WNBX	1200	
<b>VIRGINIA</b>							
Arlington G-24-d				1000	NAA	690	
Danville I-23				100		1370	
Emory				100	WEHC	1370	
Lynchburg H-23				100		1370	
				500		590	
Mt. Vernon Hills				10000	WJSV	1460	
Newport News I-24				100	WGH	1310	
Norfolk I-24				500	WPOR	780	
				500	WTAR	780	
Petersburg H-24				100	WLBG	1200	
Richmond H-24				100	WBBL	1370	
				100	WMBG	1210	
				5000	WRVA	1110	
Roanoke H-23				250	WDBJ	930	
<b>WASHINGTON</b>							
Aberdeen B-1				75	KXRO	1310	
Bellingham A-1				100	KVOS	1200	
Everett A-2				50	KFBL	1370	
Lacey B-2-b				10	KGY	1200	
Longview B-1				10	KUJ	1500	
Pullman B-4				500	KWSC	1220	
Seattle B-2-a				100	KFWW	1420	
				5000	KJR	970	
				1000	KOL	1270	
				15000	KOMO	920	
				100	KPCB	1210	
				50	KRSC	1120	
				1000	KTW	1270	
				100	KVL	1370	
				500	KXA	570	
Spokane A-4				100	KFIO	1230	
				1000	KFPY	1340	
				5000	KGA	1470	
				1000	KHQ	590	
Tacoma B-1-a				500	KMO	860	
				1000	KVI	760	
Wenatchee B-3				50	KPQ	1210	
Yakima B-3				100	KIT	1310	
<b>WEST VIRGINIA</b>							
Bluefield H-22				100	WHIS	1420	
Charleston H-22				250	WOBU	580	
Fairmont G-23				250	WMMN	890	
Huntington G-22				250	WSAZ	580	
Weirton G-22				60	WQBZ	1420	
Wheeling G-22				5000	WVVA	1160	
<b>WISCONSIN</b>							
Beloit E-18-b				500	WBAW	560	
Eau Claire D-17				1000	WTAQ	1330	
Fond du Lac D-18-d				100	KFIZ	1420	
Green Bay D-19				100	WHBY	1200	
Kenosha E-19				100	WCLO	1200	
La Crosse E-17				1000	WKBH	1380	
Madison E-18-2				750	WHA	940	
				100	WIBA	1210	
Manitowoc D-19				100	WOMT	1210	
Milwaukee E-19-a				250	WHD	1120	
				250	WISN	1120	
				1000	WTMJ	620	



## INDEX BY LOCATIONS WITH MAP KEY

Poynette D-18-e	100	WIBU	1310
Racine E-19	100	WRJN	1370
Sheboygan C-18	500	WHBL	1410
Stevens Pt. D-18-b	2000	WLBL	900
Superior B-17	1000	WEBC	1290

### WYOMING

Casper	100	KDFN	1210
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## CANADA

### ALBERTA

Calgary	500	CFAC	690
	500	CFCN	690
	500	CHCA	690
	500	CJCI	690
	500	CNRC	690
Edmonton	250	CHMA	580
	500	CJCA	580
	500	CKUA	580
	500	CNRE	580
Lethbridge	50	CJOC	1120
Red Deer	1000	CHCT	840
	1000	CKLC	840
	1000	CNRD	840

### BRITISH COLUMBIA

Chilliwack	5	CHWK	1210
Kamloops	15	CFJC	1120
Sea Island	50	CJOR	1030
Vancouver	50	CHLS	730
	50	CKCD	730
	50	CKFC	730
	50	CKMO	730
	100	CKWX	730
	500	CNRV	1030
Victoria	500	CFCT	630

### MANITOBA

Brandon	500	CKX	540
Winnipeg	5000	CKY	780
	5000	CNRW	780

### NEW BRUNSWICK

Fredericton	50	CFNB	1210
Moncton	500	CNRA	630
St. John	50	CFBO	890

### NOVA SCOTIA

Halifax	500	CHNS	930
Louisburg	500	VAS	690
Sydney	50	CJCB	880
Wolfville	50	CKIC	930

### ONTARIO

Chatham	100	CFCO	1210
Cobalt	15	CKMC	1210
Hamilton	10	CHCS	880
	50	CHML	880
	50	CKOC	880
Iroquois Falls	250	CFCH	600
Kingston	500	CFRC	1120
London	500	CJGC	910
	500	CNRL	910
Midland	50	CKPR	1120
Ottawa	100	CKCO	890
	500	CNRO	600
Prescott	50	CFLC	1010
Preston	25	CKPC	1210
Toronto	500	CFCA	840
	500	CFCL	580
	4000	CFRB	960
	500	CJBC	580
	5000	CJBC	690
	1000	CJBC	840
	5000	CJBC	960
	500	CJSC	580
Toronto	500	CKCL	580

	5000	CKGW	690
	500	CKNC	580
	500	CKOW	840
	500	CNRT	840
	5000	CNRX	690
Waterloo	50	CKCR	1010

### PRINCE EDWARD ISLAND

Charlottetown	250	CFCY	960
	30	CHCK	960
Summerside	25	CHGS	1120

### QUEBEC

Montreal	1650	CFCF	1030
	5000	CHYC	730
	5000	CKAC	730
	5000	CNRM	730
Quebec	100	CHRC	880
	22	CKCI	880
	50	CKCV	880
	50	CNRQ	880
St. Hyacinthe	50	CKSH	1010

### SASKATCHEWAN

Fleming	500	CJRW	600
Moose Jaw	500	CJRM	600
Pilot Butte	500	CHWC	960
Regina	500	CFCR	960
	500	CJBR	960
	500	CKCK	960
Saskatoon	500	CNRR	960
	250	CFQC	910
	500	CJHS	910
	250	CNRS	910
Yorkton	500	CJGX	630

### HAITI

Port au Prince	1000	HHK	920
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### MEXICO

Chihuahua	250	XFF	920
C. Lerdo, Dgo.	250	XES	1200
Guadalajara, Jal.	101	XEA	1200
Jalapa, Ver.	350	XFC	630
Merida, Yucatan	105	XEY	550
Mexico City	1000	XEB	670
	1000	XEN	730
	500	XEX	920
	50	XFA	540
	2000	XFG	640
	1000	XFI	590
	1000	XFX	910
Monterrey, N. L.	1000	XEH	970
Morelia, Mich.	101	XEI	1000
Oaxaca, Oax.	105	XEF	1130
Pueblo, Pue.	101	XEE	960

### CUBA

Caibarien	250	CMHD	920
Cienfuegos	200	CMHA	1150
Colon	300	CMGA	830
Havana	100	CMBC	890
	200	CMBY	610
	100	CMBZ	1030
	500	CMC	840
	150	CMCB	950
	100	CMCE	1100
	250	CMCF	640
	500	CMJ	820
	2000	CMK	730
	1000	CMW	600
	500	CMX	920
Marianao	50	CMBW	1030
Tuinucu	500	CMHC	790

### COSTA RICA

San Jose	50	TIX	750
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CFAC 690			CJOC 1120			CMHA 1150		
Calgary, Alta.			Lethbridge, Alta.			Cienfuegos, Cuba		
CFBO 890			CJOR 1030			CMHC 790		
St. John, N. B.			Sea Island, B.C.			Tuinucu, Cuba		
CFCA 840	33		CJRM 600			CMHD 920		
Toronto, Ont.			Moose Jaw, Sask.			Caibarien, Cuba		
CFCF 1030			CJRW 600			CMJ 820		
Montreal, Que.			Fleming, Sask.			Havana, Cuba		
CFCH 600			CJSC 580			CMK 730		
Iroq's Falls, Ont.			Toronto, Ont.			Havana, Cuba		
CFCL 580			CKAC 730			CMW 600		
Toronto, Ont.			Montreal, Que.			Havana, Cuba		
CFCN 690			CKCD 730			CMX 920		
Calgary, Alta.			Vancouver, B.C.			Havana, Cuba		
CFCO 1210			CKCI 880			CNRA 630		
Chatham, Ont.			Quebec, Que.			Moncton, N.B.		
CFCR 960			CKCK 960			CNRC 690		
Regina, Sask.			Regina, Sask.		90	Calgary, Alta.		
CFCT 630			CKCL 580			CNRD 840		
Victoria, B. C.			Toronto, Ont.			Red Deer, Alta.		
CFCY 960			CKCO 890			CNRE 580		
Ch'lottet'n, P.E.I.			Ottawa, Ont.			Edmonton, Alta.		
CFJC 1120			CKCR 1010			CNRL 910		
Kamloops, B. C.			Waterloo, Ont.			London, Ont.		
CFLC 1010			CKCV 880			CNRM 730		
Prescott, Ont.			Quebec, Que.			Montreal, Que.		
CFNB 1210			CKFC 730			CNRO 600		
Fredericton, N.B.			Vancouver, B.C.		74	Ottawa, Ont.		
CFQC 910			CKGW 690			CNRQ 880		
Saskatoon, Sask.			Toronto, Ont.			Quebec, Que.		
CFRB 960	43		CKIC 930			CNRR 960		
Toronto, Ont.			Wolfville, N.S.			Regina, Sask.		
CFRC 1120			CKLC 840			CNRS 910		
Kingston, Ont.			Red Deer, Alta.			Saskatoon, Sask.		
CHCA 690			CKMC 1210			CNRT 840		
Calgary, Alta.			Cobalt, Ont.			Toronto, Ont.		
CHCK 960			CKMO 730			CNRV 1030		
Ch'lottet'n, P.E.I.			Vancouver, B.C.			Vancouver, B.C.		
CHCS 880			CKNC 580			CNRW 780		
Hamilton, Ont.			Toronto, Ont.			Winnipeg, Man.		
CHCT 840			CKOC 880			CNRX 690	74	
Red Deer, Alta.			Hamilton, Ont.			Toronto, Ont.		
CHGS 1120			CKOW 840			HHK 920		
Sum'side, P.E.I.			Toronto, Ont.			Port au Prince, H.		
CHLS 730			CKPC 1210			KBTM 1200		
Vancouver, B.C.			Preston, Ont.			Paragould, Ark.		
CHMA 580			CKPR 1120			KCRC 1370		
Edmonton, Alta.			Midland, Ont.			Oklahoma City		
CHML 880	51		CKSH 1010			KDB 1500		
Hamilton, Ont.			St. H'cinthe, Que.			S. Barbara, Cal.		
CHNS 930			CKUA 580			KDFN 1210		
Halifax, N.S.			Edmonton, Alta.			Casper, Wyo.		
CHRC 880			CKWX 730			KDKA 980	41	
Quebec, Que.			Vancouver, B.C.			Pittsburgh, Pa.		
CHWC 960			CKX 540			KDLR 1210		
Pilot Butte, Sask.			Brandon, Man.			Devils Lake, N.D.		
CHWK 1210			CKY 780			KDYL 1290		
Chilliwack, B.C.			Winnipeg, Man.			Salt Lake City		
CHYC 730			CMBC 890			KECA 1430		
Montreal, Que.			Havana, Cuba			Los Angeles, Cal.		
CJBC580-840-960			CMBW 1030			KEJK 710		
Toronto, Ont.			Marianao, Cuba			Los Angeles, Cal.		
CJBR 960			CMBY 610			KELW 780		
Regina, Sask.			Havana, Cuba			Burbank, Cal.		
CJCA 580			CMBZ 1030			KEX 1180		
Edmonton, Alta.			Havana, Cuba			Portland, Ore.		
CJCB 880			CMC 840		53	KFAB 770		
Sydney, N.S.			Havana, Cuba			Lincoln, Nebr.		
CJCJ 690			CMCB 950			KFB 1280		
Calgary, Alta.			Havana, Cuba			Great Fls., Mont.		
CJGC 910			CMCE 1100			KFBK 1310		
London, Ont.			Havana, Cuba			Sacramento, Cal.		
CJGX 630			CMCF 640			KFBL 1370		
Yorkton, Sask.			Havana, Cuba			Everett, Wash.		
CJHS 910			CMGA 830			KFDM 560		
Saskatoon, Sask.			Colon, Cuba			Beaumont, Tex.		

KFDY 550		KFSG 1120		KGEZ 1310	
Brookings, S. D.		Los Angeles, Cal.		Kaliapell, Mont.	
KFEL 920		KFUI 1310		KGFF 1420	
Denver, Colo.		Juneau, Alaska		Alva, Okla.	
KFEQ 680		KFUL 1290		KGFG 1370	
St. Joseph, Mo.		Galveston, Tex.		Oklahoma City	
KFGQ 1310		KFUM 1270		KGFI 1500	
Boone, Iowa		Col. Spgs., Colo.		C'pus Ch'sti, Tex.	
KFH 1300		KFUO 550		KGfJ 1200	
Wichita, Kansas		St. Louis, Mo.		Los Angeles, Cal.	
KFHA 1200		KFUP 1310		KGFK 1200	
Gunnison, Colo.		Denver, Colo.		Hallock, Minn.	
KFI 640		KFVD 1000		KGFL 1370	
Los Angeles, Cal.		Culver City, Cal.		Raton, N.M.	
KFIF 1420		KFVS 1210		KGFW 1310	
Portland, Ore.		Cape Gir'rd'u, Mo.		Ravenna, Nebr.	
KFIO 1230		KFWB 950		KGFX 580	
Spokane, Wash.		Hollywood, Cal.		Pierre, S.D.	
KFIZ 1420		KFWF 1200		KGGC 1420	
Fond du Lac, Wis.		St. Louis, Mo.		San F'ncisco, Cal.	
KFJB 1200		KFWI 930		KGGF 1010	
Marshalltown, Ia.		San F'ncisco, Cal.		Picher, Okla.	
KFJF 1480		KFWM 930		KGGM 1230	
Oklahoma City		Richmond, Cal.		Alb'q'rque, N. M.	
KFJI 1370		KFXD 1420		KGHB 1320	
Astoria, Ore.		Jerome, Idaho		Honolulu, T. H.	
KFJM 1370		KFXF 920		KGHF 1320	
Grd. Forks, N. D.		Denver, Colo.		Pueblo, Colo.	
KFJR 1300		KFXJ 1310		KGHG 1310	
Portland, Ore.		Edgewater, Colo.		McGehee, Ark.	
KFJY 1310		KFXM 1210		KGHI 1200	
Fort Dodge, Ia.		San Ber'd'no, Cal.		Little Rock, Ark.	
KFJZ 1370		KFXR 1310		KGHL 950	
Ft. Worth, Tex.		Oklahoma City		Billings, Mont.	
KFKA 880		KFXY 1420		KGIQ 1320	
Greeley, Colo.		Flagstaff, Ariz.		Twin Falls, Ida.	
KFKB 1050		KFYO 1420		KGIR 1360	
Milford, Kansas		Abilene, Texas		Butte, Mont.	
KFKU 1220		KFYR 550		KGIW 1420	
Lawrence, Kans.		Bismarck, N. D.		Trinidad, Colo.	
KFKX 1020		KGA 1470		KGIX 1420	
Chicago, Ill.		Spokane, Wash.		Las Vegas, Nev.	
KFLV 1410		KGAR 1370		KGJF 890	
Rockford, Ill.		Tucson, Ariz.		Little Rock, Ark.	
KFLX 1370		KGB 1330		KGKB 1500	
Galveston, Tex.		San Diego, Cal.		Brownwood, Tex.	
KFMX 1250		KGBU 900		KGKL 1370	
N'thfield, Minn.		Ketchikan, Al'ka.		San Angelo, Tex.	
KFNF 890		KGBX 1310		KGKO 570	
Shenandoah, Ia.		St. Joseph, Mo.		Wichita Flls., Tex	
KFOR 1210		KGBZ 930		KGKX 1420	
Lincoln, Nebr.		York, Nebr.		Sand Point, Ida.	
KFOX 1250		KGCA 1270		KGKY 1500	
Long Beach, Cal.		Decorah, Iowa		Scottsbluff, Nebr.	
KFPL 1310		KGCI 1370		KGMB 1300	
Dublin, Texas		San Ant'nio, Tex.		Honolulu, T. H.	
KFPM 1310		KGCR 1210		KGMC 1310	
Greenville, Tex.		Watertown, S.D.		Jerome, Ariz.	
KFPW 1340		KGCU 1210		KGMD 1500	
Cartersville, Mo.		Mandan, N. D.		Roswell, N. M.	
KFPY 1340		KG CX 1310		KGO 790	
Spokane, Wash.		Wolf P't, Mont.		Oakland, Cal.	
KFQA 1090		KGDA 1370		KGRC 1370	
St. Louis, Mo.		Dell Rapids, S.D.		San Antonio, Tex.	
KFQD 1230		KGDE 1200		KGRS 1410	
Anchorage, Alas.		Ferg's F'lls, Minn		Amarillo, Texas	
KFQU 1420		KGDM 1100		KGU 940	
Holy City, Cal.		Stockton, Cal.		Honolulu, Hawaii	
KFQW 1420		KG DY 1200		KGW 620	
Seattle, Wash.		Oldham, S.D.		Portland, Ore.	
KFQZ 860		KGEF 1300		KG Y 1200	
Los Angeles, Cal.		Los Angeles, Cal.		Lacey, Wash.	
KFRC 610		KGEK 1200		KHJ 900	
San F'ncisco, Cal.		Yuma, Colo.		Los Angeles, Cal.	
KFRU 630		KGER 1360		KHQ 590	
Columbia, Mo.		Long Beach, Cal.		Spokane, Wash.	
KFSD 600		KGEW 1200		KICK 1420	
San Diego, Cal.		Ft. Morgan, Colo.		Red Oak, Iowa	

KID 1320		KPQ 1210		KUOA 1390	
Idaho Falls, Ida.		Wenatchee, Wash		Fayetteville, Ark.	
KIDO 1250		KPRC 920		KUSD 890	
Boise, Idaho		Houston, Texas		Vermillion, S.D.	
KIT 1310		KPSN 1360		KUT 1500	
Yakima, Wash.		Pasadena, Cal.		Austin, Texas	
KJBS 1070		KQV 1380		KVEP 1500	
San F'nscisco, Cal.		Pittsburgh, Pa.		Portland, Ore.	
KJR 970		KQW 1010		KVI 760	
Seattle, Wash.		San Jose, Cal.		Tacoma, Wash.	
KLCN 1290		KPWF 1490		KVL 1370	
Blytheville, Ark.		Westminster, Cal.		Seattle, Wash.	
KLO 1370		KRE 1370		KVOA 1260	
Ogden, Utah		Berkeley, Cal.		Tucson, Arizona	
KLPM 1420		KREG 1500		KVOO 1140	
Minot, N. Dak.		Santa Ana, Cal.		Tulsa, Okla.	
KLRA 1390		KRGV 1260		KVOS 1200	
Little Rock, Ark.		Harlingen, Texas		Bellingh'm, Wash.	
KLS 1440		KRLD 1040		KWCR 1310	
Oakland, Cal.		Dallas, Texas		Cedar Rapids, Ia.	
KLX 880		KRMD 1310		KWEA 1210	
Oakland, Cal.		Shreveport, La.		Shreveport, La.	
KLZ 560		KRSC 1120		KWG 1200	
Denver, Colo.		Seattle, Wash.		Stockton, Cal.	
KMA 930		KSAC 580		KWJJ 1060	
Shenandoah, Ia.		Manh'tt'n, Kans.		Portland, Ore.	
KMBC 950		KSAT 1240		KWK 1350	
Kan. City, Mo.		Ft. Worth, Tex.		St. Louis, Mo.	
KMED 1310		KSCJ 1330		KWKC 1370	
Medford, Ore.		Sioux City, Ia.		Kansas City, Mo.	
KMIC 1120		KSD 550		KWKH 850	
Inglewood, Cal.		St. Louis, Mo.		Shreveport, La.	
KMJ 1210		KSET 900		KWLC 1270	
Fresno, Cal.		Pocatello, Idaho		Decorah, Iowa	
KMMJ 740		KSL 1130		KWSC 1220	
Clay Ctr., Nebr.		Salt Lake City		Pullman, Wash.	
KMO 860		KSMR 1200		KWWG 1260	
Tacoma, Wash.		Santa Maria, Cal.		Brownsville, Tex.	
KMOX 1090		KSO 1380		KXA 570	
St. Louis, Mo.		Clarinda, Iowa		Seattle, Wash.	
KMTR 570		KSOO 1110		KXL 1420	
Hollywood, Cal.		Sioux Falls, S.D.		Portland, Ore.	
KNX 1050		KSTP 1460		KXO 1200	
Los Angeles, Cal.		St. Paul, Minn.		El Centro, Cal.	
KOA 830		KTAB 560		KXRO 1310	
Denver, Colo.		Oakland, Cal.		Aberdeen, Wash.	
KOAC 550		KTAP 1420		KYA 1230	
Corvallis, Ore.		San Antonio, Tex.		San F'nscisco, Cal.	
KOB 1180		KTAR 620		KYW 1020	
State Coll., N.M.		Phoenix, Ariz.		Chicago, Ill.	
KOCW 1400		KTBI 1300		KZM 1370	
Chickasha, Okla.		Los Angeles, Cal.		Hayward, Cal.	
KOH 1370		KTBR 1300		NAA 690	
Reno, Nevada		Portland, Ore.		Arlington, Va.	
KOIL 1260		KTBS 1450		NBA 850	
Council Bluffs, Ia.		Shreveport, La.		Balboa, C. Z.	
KOIN 940		KTHS 1040		TIX 750	
Portland, Ore.		Hot Spgs., Ark.		San Jose, C. R.	
KOL 1270		KTLC 1500		VAS 690	
Seattle, Wash.		Houston, Texas		Louisburg, N. S.	
KOMO 920		KTM 780		WAAF 920	
Seattle, Wash.		Los Angeles, Cal.		Chicago, Ill.	
KOOS 1370		KTNT 1170		WAAM 1250	
Marshfield, Ore.		Muscatine, Iowa		Newark, N. J.	
KORE 1420		KTRH 1120		WAAT 1070	
Eugene, Ore.		Austin, Texas		Jersey City, N.J.	
KOY 1390		KTSA 1290		WAAW 660	
Phoenix, Ariz.		San Antonio, Tex.		Omaha, Nebr.	
KPCB 1210		KTSL 1310		WABC 860	
Seattle, Wash.		Shreveport, La.		New York City	
KPJM 1500		KTSM 1310		WABI 1200	
Prescott, Ariz.		El Paso, Texas		Bangor, Maine	
KPO 680		KTUE 1420		WABZ 1200	
San F'nscisco, Cal.		Houston, Texas		New Orleans, La.	
KPOF 880		KTW 1270		WACO 1240	
Denver, Colo.		Seattle, Wash.		Waco, Texas	
KPPC 1210		KUJ 1500		WADC 1320	
Pasadena, Cal.		Longview, Wash.		Akron, Ohio	

WAGM 1310		WCAX 1200		WEAO 570	
Royal Oak, Mich.		Burlington, Vt.		Columbus, Ohio	93
WAIU 640	80	WCAZ 1070		WEAR 1070	
Columbus, Ohio		Carthage, Ill.		Cleveland, Ohio	
WAPI 1140		WCBA 1440		WEBC 1290	
Birmingham, Ala.		Allentown, Pa.		Superior, Wis.	
WASH 1270		WCBD 1080		WEBE 1210	
Gr. Rapids, Mich.		Zion, Ill.		Cambridge, Ohio	
WBAA 1400		WCBM 1370		WEBQ 1210	
Lafayette, Ind.		Baltimore, Md.		Harrisburg, Ill.	
WBAK 1430		WCBS 1210		WEBR 1310	
Harrisburg, Pa.		Springfield, Ill.		Buffalo, N.Y.	
WBAL 1060	85	WCCO 810	53	WEBW 560	
Baltimore, Md.		Minneap., Minn.		Beloit, Wis.	
WBAP 800		WCDA 1350		WEDC 1210	
Fort Worth, Tex.		New York City		Chicago, Ill.	
WBAX 1210		WCFL 970		WEDH 1420	
Wilkes-Barre, Pa.		Chicago, Ill.		Erie, Pa.	
WBBC 1400		WCGU 1400		WEEI 590	
Brooklyn, N.Y.		Coney Is., N.Y.		Boston, Mass.	
WBBL 1370		WCKY 1490	48	WEHC 1370	
Richmond, Va.		Covington, Ky.		Emory, Va.	
WBBM 770	63	WCLB 1500		WEHS 1420	
Chicago, Ill.		Brooklyn, N.Y.		Evanston, Ill.	
WBBR 1300		WCLO 1200		WELK 1370	
Rossville, N.Y.		Kenosha, Wis.		Philadelphia, Pa.	
WBBY 1200		WCLS 1310		WEMC 590	
Charleston, S.C.		Joliet, Ill.		Ber'n Spgs., Mich	
WBBZ 1200		WCMA 1400		WENR 870	57
Ponca City, Okla.		Culver, Ind.		Chicago, Ill.	
WBCM 1410		WCOA 1340		WEVD 1300	
Bay City, Mic		Pensacola, Fla.		New York City	
WBIS 1230		WCOC 880	51	WEW 760	
Boston, Mass.		Meridian, Miss.		St. Louis, Mo.	
WBMS 1450		WCOD 1200		WFAA 800	
Hackensack, N.J.		Harrisburg, Pa.		Dallas, Texas	
WBNY 1350		WCOH 1210		WFAN 610	
New York City		Yonkers, N.Y.		Philadelphia, Pa.	
WBOQ 860		WCRW 1210		WFBC 1200	
New York City		Chicago, Ill.		Knoxville, Tenn.	
WBOV 1310		WCSH 940		WFBE 1200	
Terre Haute, Ind.		Portland, Maine		Cincinnati, Ohio	
WBRC 930		WCSO 1450		WFBG 1310	
Birmingham, Ala		Springfield, Ohio		Altoona, Pa.	
WBRE 1310		WDAE 1220		WFBJ 1370	
Wilkes-Barre, Pa.		Tampa, Fla.		Coll'geville, Minn.	
WBRL 1430		WDAF 610		WFBL 1360	
Tilton, N.H.		Kansas City, Mo.		Syracuse, N.Y.	
WBSO 920		WDAG 1410		WFBM 1230	
Well'ly H'ls, Mass		Amarillo, Texas		Indianapolis, Ind.	
WBT 1080		WDAH 1310		WFBR 1270	
Charlotte, N.C.		El Paso, Texas		Baltimore, Md.	
WBZ 990		WDAY 940		WFDF 1310	
Springfield, Mass.		Fargo, N.D.		Flint, Mich.	
WBZA 990		WDBJ 930		WFDV 1370	
Boston, Mass.		Roanoke, Va.		Rome, Ga.	
WCAC 600		WDBO 1120		WFDW 1420	
Storrs, Conn.		Orlando, Fla.		Talladega, Ala.	
WCAD 1220		WDEL 1120		WFI 560	
Canton, N.Y.		Wilmington, Del.		Philadelphia, Pa.	
WCAE 1220		WDGY 1180		WFIW 940	
Pittsburgh, Pa.		Minneap., Minn.		Hopkinsville, Ky.	
WCAH 1430		WDOD 1280		WFJC 1450	
Columbus, Ohio		Chatt'an'ga, Tenn		Akron, Ohio	
WCAJ 590		WDRS 1330		WFKD 1310	
Lincoln, Nebr.		N. Haven, Conn.		Philadelphia, Pa.	
WCAL 1250		WDSU 1250		WFLA 620	
Northfield, Minn.		New Orleans, La.		Clearwater, Fla.	
WCAM 1280		WDWF 1210		WGAL 1310	
Camden, N.J.		Providence, R.I.		Lancaster, Pa.	
WCAO 600		WDZ 1070		WGBB 1210	
Baltimore, Md.		Tuscola, Ill.		Freeport, N.Y.	
WCAP 1280		WEAF 660	78	WGBC 1430	
Asbury Pk., N.J.		New York City		Memphis, Tenn.	
WCAT 1200		WEAI 1270		WGBF 630	
Rapid City, S.D.		Ithaca, N.Y.		Evansville, Ind.	
WCAU 1170	26	WEAN 780		WGBI 880	
Philadelphia, Pa.		Providence, R.I.		Scranton, Pa.	

WGBS 600  
 New York City  
 WGCM 1210  
 Gulfport, Miss.  
 WGCP 1250  
 Newark, N.J.  
 WGES 1360  
 Chicago, Ill.  
 WGH 1310  
 Newp't News, Va.  
 WGHP 1340  
 Detroit, Mich.  
 WGL 1370  
 Ft. Wayne, Ind.  
 WGMS 1250  
 Minneap., Minn.  
 WGN 720  
 Chicago, Ill.  
 WGR 550  
 Buffalo, N.Y.  
 WGST 890  
 Atlanta, Ga.  
 WGTB 1010  
 Columbia, S. C.  
 WGY 790  
 Schnech'd'y, N.Y.  
 WHA 940  
 Madison, Wis.  
 WHAD 1120  
 Milwaukee, Wis.  
 WHAM 1150  
 Rochester, N.Y.  
 WHAP 1300  
 New York City  
 WHAS 820  
 Louisville, Ky.  
 WHAT 1310  
 Philadelphia, Pa.  
 WHAZ 1300  
 Troy, N.Y.  
 WHB 860  
 Kansas City, Mo.  
 WHBC 1200  
 Canton, Ohio  
 WHBD 1370  
 Mt. Orab, O.  
 WHBF 1210  
 Rock Island, Ill.  
 WHBL 1410  
 Sheboygan, Wis.  
 WHBQ 1370  
 Memphis, Tenn.  
 WHBU 1210  
 Anderson, Ind.  
 WHBY 1200  
 Green Bay, Wis.  
 WHDF 1370  
 Calumet, Mich.  
 WHDH 830  
 Gloucester, Mass.  
 WHDI 1180  
 Minneap., Minn.  
 WHDL 1420  
 TupperLake, N.Y.  
 WHEC 1440  
 Rochester, N.Y.  
 WHFC 1420  
 Cicero, Ill.  
 WHIS 1420  
 Bluefield, W. Va.  
 WHK 1390  
 Cleveland, Ohio  
 WHN 1010  
 New York City  
 WHO 1000  
 Des Moines, Ia.

70  
 98  
 61  
 57

WHP 1430  
 Harrisburg, Pa.  
 WIAS 1420  
 Ottumwa, Iowa  
 WIBA 1210  
 Madison, Wis.  
 WIBG 930  
 Elkins Park, Pa.  
 WIBM 1370  
 Jackson, Mich.  
 WIBO 560  
 Chicago, Ill.  
 WIBR 1420  
 Steubenville, O.  
 WIBS 1450  
 Jersey City, N.J.  
 WIBU 1310  
 Poynette, Wis.  
 WIBW 580  
 Topeka, Kansas  
 WIBX 1200  
 Utica, N.Y.  
 WICC 1190  
 Bridgeport, Conn.  
 WIL 1200  
 St. Louis, Mo.  
 WILL 890  
 Urbana, Ill.  
 WILM 1420  
 Wilmington, Del.  
 WIOD 1300  
 Miami Bch., Fla.  
 WIP 610  
 Philadelphia, Pa.  
 WISN 1120  
 Milwaukee, Wis.  
 WJAC 1310  
 Johnstown, Pa.  
 WJAG 1060  
 Norfolk, Nebr.  
 WJAK 1310  
 Marion, Ind.  
 WJAR 890  
 Providence, R.I.  
 WJAS 1290  
 Pittsburgh, Pa.  
 WJAX 900  
 Jacksonville, Fla.  
 WJAY 610  
 Cleveland Ohio  
 WJAZ 1490  
 Chicago, Ill.  
 WJBC 1200  
 La Salle, Ill.  
 WJBI 1210  
 Red Bank, N. J.  
 WJBK 1370  
 Ypsilanti, Mich.  
 WJBL 1200  
 Decatur, Ill.  
 WJBO 1420  
 New Orleans, La.  
 WJBT 770  
 Chicago, Ill.  
 WJBU 1210  
 Lewisburg, Pa.  
 WJBW 1200  
 New Orleans, La.  
 WJBY 1210  
 Gadsden, Ala.  
 WJDX 1270  
 Jackson, Miss.  
 WJDD 1130  
 Moosheart, Ill.  
 WJKS 1360  
 Gary, Ind.

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 48  
 86

WJR 750  
 Detroit, Mich.  
 WJSV 1460  
 Mt. Vern. H'ls, Va  
 WJW 1210  
 Mansfield, Ohio  
 WJZ 760  
 New York City  
 WKAQ 890  
 San Juan, P.R.  
 WKAR 1040  
 E. Lansing, Mich.  
 WKAV 1310  
 Laconia, N.H.  
 WKBB 1310  
 Joliet, Ill.  
 WKBC 1310  
 Birmingham, Ala.  
 WKBF 1400  
 Indianapolis, Ind.  
 WKBH 1380  
 La Crosse, Wis.  
 WKBI 1420  
 Chicago, Ill.  
 WKBN 570  
 Youngstown, O.  
 WKBO 1450  
 Jersey City, N.J.  
 WKBP 1420  
 Battle Crk., Mich  
 WKBQ 1350  
 New York City  
 WKBS 1310  
 Galesburg, Ill.  
 WKBV 1500  
 Connersville, Ind.  
 WKBW 1480  
 Buffalo, N.Y.  
 WKBZ 1500  
 Ludington, Mich.  
 WKEN 1040  
 Buffalo, N.Y.  
 WKJC 1200  
 Lancaster, Pa.  
 WKRC 550  
 Cincinnati, O.  
 WKY 900  
 Oklahoma City  
 WLAC 1470  
 Nashville, Tenn.  
 WLAP 1200  
 Louisville, Ky.  
 WLB 1250  
 Minneap., Minn.  
 WLBC 1310  
 Muncie, Ind.  
 WLBF 1420  
 Kansas City, Ks.  
 WLBG 1200  
 Ettrick, Va.  
 WLBL 900  
 Stevens Pt., Wis.  
 WLWB 1260  
 Oil City, Pa.  
 WLXB 1500  
 L.I. City, N.Y.  
 WLBZ 620  
 Bangor, Me.  
 WLCI 1210  
 Ithaca, N.Y.  
 WLEX 1410  
 Lexington, Mass.  
 WLEY 1370  
 Lexington, Mass.  
 WLIT 560  
 Philadelphia, Pa.

65  
 73  
 36  
 21



WSFA 1410		WTAQ 1330		XEB 670	
Montgomery, Ala.		Eau Claire, Wis.		Mexico City	
WSGH 1400		WTAR 780		XEE 960	
Brooklyn, N.Y.		Norfolk, Va.		XEF 1130	
WSIX 1210		WTAW 1120		XEH 970	
Springfield, Tenn.		College Sta., Tex.		Oaxaca, Oax.	
WSJS 1310		WTAX 1210		XEI 1000	
Winst.-Sal., N.C.		Streator, Ill.		Monterey, N.L.	
WSM 650	79	WTBO 1420		XEL 730	
Nashville, Tenn.		Cumberland, Md.		Mexico City	
WSMB 1320	73	WTFI 1450		XES 1200	
New Orleans, La.		Toccoa, Ga.		C. Lerdo, Dgo.	
WSMK 1380		WTIC 1060		XEX 920	
Dayton, Ohio		Hartford, Conn.		Mexico City	
WSOA 1490		WTMJ 620		XEY 550	
Chicago, Ill.		Milwaukee, Wis.		Merida, Yucatan	
WSPD 1240		WTNT 1490		XFA 540	
Toledo, Ohio		Nashville, Tenn.		Mexico City	
WSSH 1410		WTOC 1260		XFC 630	
Boston, Mass.		Savannah, Ga.		Jalapa, Ver.	
WSUI 880		WWAE 1200		XFF 920	
Iowa City, Ia.		Hammond, Ind.		XFG 640	
WSUN 620		WWJ 920		Mexico City	
St. Petersburg, Fla.		Detroit, Mich.		XFI 590	
WSVS 1370		WWL 850		Mexico City	
Buffalo, N.Y.		New Orleans, La.		XFX 910	
WSYR 570		WWNC 570		Mexico City	
Syracuse, N.Y.		Asheville, N.C.			
WTAD 1440		WWRL 1500			
Quincy, Ill.		Woodside, N.Y.			
WTAG 580		WWVA 1160			
Worcester, Mass.		Wheeling, W.Va.			
WTAM 1070		XEA 1200			
Cleveland, Ohio	33	Guadalajara, Jal.			

## The Short Wave Stations

Call	Station	Owner	City and State	Meters	Watts
W1XAA	WRAH	Stanley N. Read	Providence, R. I.		75
W1XAB	WCSH	Congress Square Hotel Co.	Portland, Maine	63.79	250
W1XAE	WBZ	Westinghouse Elec. & Mfg. Co.	Springfield, Mass.	70.0	
W1XAF	WEEI	Edison Elec. Illuminating Co.	Boston, Mass.		
W1XAG		Edison Elec. Illuminating Co.	Boston, Mass.		
W1XY	WBRL	Booth Radio Laboratories	Tilton, N. H.	105-109	250
W2XA	WRMU	Yacht, "MU-1" Grebe Co.	New York		
W2XAC	WGY	General Electric Co.	Schenectady, N. Y.		
W2XAD	WGY	General Electric Co.	Schenectady, N. Y.	19.56	
W2XAE	WGY	General Electric Co.	Schenectady, N. Y.		
W2XAF	WGY	General Electric Co.	Schenectady, N. Y.	31.48	
W2XAG	WGY	General Electric Co.	Schenectady, N. Y.		
W2XAH	WGY	General Electric Co.	Schenectady, N. Y.		
W2XAK	WGY	General Electric Co.	Schenectady, N. Y.		
W2XAL	WRNY	Aviation Radio Station, Inc.	New York	49.67	500
W2XAO		Atlantic Broadcasting Co.	New York	105.9	100
W2XAP	WOR	L. Bamberger Co.	Newark, N. J.	65.4	50
W2XAW	WGY	General Electric Co.	Schenectady, N. Y.		
W2XBA	WAAM	WAAM, Inc.	Newark, N. J.	65.18	50
W2XBB	WCGW	Chas. G. Ungar	Coney Island, N. Y.	54.02	150
W2XBC	WBNY	Baruchrome Corp.	New York City	49.83	
W2XCD		DeForest Radio Co.	Passaic, N. J.	187.30	
W2XE	WABC	Atlantic Broadcasting Co.	Richmond Hill, N. Y.	49.02	50
W2XZ		National Broadcasting Co.	Bellmore, L. I.	49.15	5000
W3XAU	WCAU	Universal Broadcasting Co.	Philadelphia, Pa.	49.50	
W3XX		C. Francis Jenkins Labs.	Washington, D. C.		
W3XL	WJZ	Radio Corp. of America	Bound Brook, N. J.	59.96	30000
W3XN		Bell Telephone Laboratory	Whippany, N. J.		
W4XD	WSM	Nat'l Life & Accident Ins. Co.	Memphis, Tenn.	31.43	
W4XE		William Justice Lee	Winter Park, Fla.	200.	250
W6XA	KNX	Los Angeles Express	Los Angeles, Cal.	107.1	100
W6XAD	KFWO	Lawrence Mott	Avalon, Cal.	53.07	100
W6XAF	KNRC	Clarence B. Juneau	Santa Monica, Cal.	108.2	100
W6XAI	KGGM	Los Angeles Radio Club	Los Angeles, Cal.	66.04	50
W6XAL	KFWH	F. W. Morse	Chico, Cal.	108.2	50
W6XAM	KFQZ	L. E. Taft	Hollywood, Cal.	66.04	50
W6XAN	KRLO	Freeman Lang	Los Angeles, Cal.	105.9	250
W6XAR	KJBS	J. Brunton & Sons	San Francisco, Cal.	32.	50
W6XAU	KHJ	Times-Mirror Co.	Los Angeles, Cal.	104.1	50
W6XAX	KGO	General Electric Co.	Oakland, Cal.	10-40	10000
W6XAZ		Nelson Radio Co.	San Diego, Cal.	106.	50



W6XBA	KFSG	Air-Fan Radio Corp.	Los Angeles, Cal.	108.2	250
W6XBE	KFBC	W. K. Azbill	San Diego, Cal.		
W6XBH	KFQU	W. E. Riker	Holy City, Cal.	31-106	50
W6XBR	KFWB	Warner Bros. Picture Studio	Los Angeles, Cal.	40-105	50
W6XBV	KGER	C. Merwin Dobyns	Long Beach, Cal.	48.86	
W6XBZ	KFVD	McWhinnie Electric Co.	Venice, Cal.	105.	50
W6XN	KGO	General Electric Co.	Oakland, Cal.	23.35	10000
W7XAB	KFPY	Symons Investment Co.	Spokane, Wash.	105.9	
W7XAO	KWJJ	Wilbur Jerman, Inc.	Portland, Ore.	53-54	100
W7XC	KJR	Northwest Radio Service	Seattle, Wash.	105.2	
W7XO	KJR	Northwest Radio Service	Seattle, Wash.		
W8XAC	WHAM	Stromberg-Carlson Tel. Mfg. Co.	Rochester, N. Y.		
W8XAL	WLW	Crosley Radio Corp.	Cincinnati, Ohio	49.50	500
W8XOA	WJR	WJR, Inc.	Detroit, Mich.	32.	75
W8XJ	WHK	Radio Air Service Corp.	Cleveland, Ohio	66.04	500
W8XK	WEO	Ohio State University	Columbus, Ohio	54.02	250
W8XL	KDEK	Westinghouse Elec. & Mfg. Co.	Pittsburgh, Pa.	25.25	40000
W8XM	KDKA	Westinghouse Elec. & Mfg. Co.	Pittsburgh, Pa.	10-150	500
W8XS	KDKA	Westinghouse Elec. & Mfg. Co.	Pittsburgh, Pa.	62.57	
W9XAA	WCFL	Federation of Labor	Chicago, Ill.	49.34	
W9XAB	WNAL	R. J. Rockwell	Omaha, Nebr.	105.	50
W9XF	WENR	Great Lakes Broadcasting Co.	Chicago, Ill.	49.83	
W9XU	KOIL	Mona Motor Oil Co.	Council Bluffs, Iowa	61.06	500

## February Changes

(Continued from page 18)

an old station, but the Commission makes no report regarding it.

Joseph Stokes, of Pittsburgh, Pa., reports a station WGM at Jeannette, Pa., alternating every Sunday with WOOP. Radio Commission makes no report. C. M. Falconer, of Baltimore, Md., and others, report hearing a station with call letters WBAE. No such station is listed in government reports. Could it be WDAE, at Tampa, Fla.?

And who and where is KUKU?

We have just received notice that 18 stations will have their frequencies changed on March 2nd. These changes will be made in each index but they will be received too late to specify them here. Some fourteen other changes affecting important stations on cleared waves are contemplated. Watch the April issue for this reallocation.

## Pity the Poor Editor

THE final authority in radio is the Federal Radio Commission. Presumably stations make no changes of any kind without its sanction. In a desperate effort to make this magazine 100 per cent correct, we study every report emanating from the Commission and check their records by comparison with the United States Daily, a most valuable newspaper devoted entirely to the business of state and national governments. But what is a poor editor to do when he cannot rely on the reports of the Commission?

On December 2nd, the Commission sent us a report that they had that day granted the following applications of broadcasting stations: KOMO, Seattle given full time on 970 kcs., KJR, Seattle put on 760 kcs., and KVI, Tacoma, Wash., given full time on 920 kcs. Naturally we made these changes in the January issue only to receive a number of letters from our readers protesting the stations were still being received on their old frequencies. One subscriber sends in a letter from KJR stating that they are still on 970, where they have been since 1927. We are taking the statement of the stations and putting them back in their former frequencies in this issue.

It is our ambition to make RADEX not only the most interesting and the most helpful publication of its kind, but to keep it up to the moment and accurate always. Readers can assist us greatly by notifying us promptly of any station that is received contrary to its listing in RADEX. But please make sure you have the last issue. We can then check such reports with the stations concerned and make sure they are entered in our index according to the frequency they are actually using.

## Attaching Headphones

Modern receivers make no provision for the use of headphones. Our Technical Editor is preparing an article for the April RADEX describing how phones may best be attached. Don't miss it.



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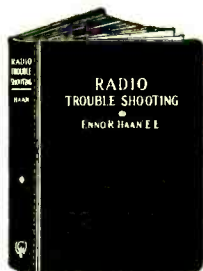
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