

THE FEBRUARY 1933

RADIO INDEX

THE ALL-WAVE RADIO MAGAZINE

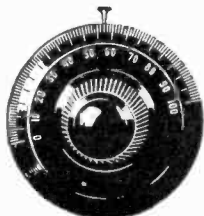


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How to Attach Phones to Your Set
Substituting the New Type Tubes
Time on the Air of Trans-Pacifc
The 100 Best Short Wave Stations
Friday's Time on the Air

No. 66

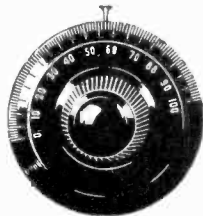
FEBRUARY 1, 1933



RADIO IN DEX

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FRED CLAYTON BUTLER
Editor and Publisher



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of the firm of "Myrt & Marge"

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ADDRESS ALL CORRESPONDENCE TO CLEVELAND OFFICE

USING PHONES

... For Elusive Signals

By B. FRANCIS DASHIELL

THIS magazine receives many communications from its readers who wish to attach headphones to their modern a. c. radio sets. While manufacturers persist in offering new receivers without provision for headphone operation, there are many thousands of enthusiastic listeners who would like to DX for elusive signals if they could substitute sensitive telephone sets for noisy loud speakers. This is especially true late at night when the speaker may prove to be an annoyance to others.

It is impossible to brush over the whole field of modern radio sets in an article such as this. The directions must necessarily be rather general in their scope and require individual interpretation and adaption to meet the peculiar characteristics of the radio receiver in question. However, anyone should be able quickly to attach a pair of headphones to any a. c. or battery operated set.

The headphones should be selected with care; they should be light in weight, fit snugly to exclude external noises, and yet not be uncomfortable after some hours of wear. The resistance must be from 2,000 to 3,000 ohms. Sensitivity can be tested by moistening the cord tips on the tongue and then touching them together; a sharp click should be heard. The cord ought to be heavy, long, and well insulated. Reverse the diaphragms beneath the caps occasionally to prevent warping under the constant pull of the magnets.

The uninitiated listener need only know the location of the power tube in order to install headphones. But the typical circuit diagrams shown herewith will provide a more complete explanation, for the diagrams

that accompany new sets will be found similar in most respects to those portions of the standard circuits illustrating this text. The additional wiring and parts necessary to install headphones are indicated by the broken lines. It is necessary only to identify the audio output and tube, make the connection to the plate or grid by means of a thin wafer adapter permanently placed beneath the tube, and place a small switch to silence the speaker.

Many of our readers have used the plug-in type of telephone adapter. It simplifies the connection of headphones to radio sets, but does not give the volume obtained by the methods to be described. And a certain difficulty arises from the use of



Yes, this is Gracie herself. Radio's inimitable comic. Burns and Allen, Wednesdays at 9:30 p.m. EST on the CBS

plug adapters due to the fact that a tube must be removed from its socket. This may seriously change the potentials and balancing of the receiver power and filter unit, and most manufacturers are emphatic in their warnings of such procedure.

When a plug-in adapter is used in the first audio tube socket the volume of sound in the headphones will be less than when used in the last power tube socket, and it will be much less if used in the second detector tube socket. Figure 1 shows the internal connections of the adapter. The telephone tips are connected directly to the grid prong and to one of the filament terminals. Adapter "A" has four prongs and may be inserted in sockets taking tube types -10, -12A, -20, -26, -30, -31, -45 and -71A.

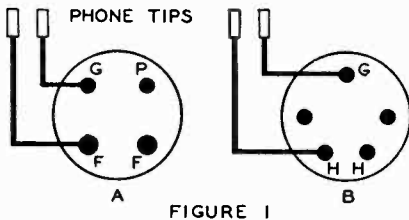


FIGURE 1

Adapter "B" shows a 5 prong base for use in sockets taking -27, -33, 46, -47 and 56 type tubes. These adapters cannot be used in sockets for tubes having the control-grid cap on the top, such as types -22, -24A, -32, -35, -36, -38, -39, 57 and 58.

It must be remembered that headphones cannot be attached in place of a dynamic loud speaker. Ordinary phones with a current capacity of only 5 milliamperes will not handle the high potentials of modern a. c. receivers. The coils of extremely fine wire are quickly overloaded and the phones become hot and soon are damaged. Headphones can be used only in output circuits where plate potentials do not exceed 135 volts, in connection with -01A, -12A, -20, -30, -31, and -71A types of tubes. Even then, in excess of 90 volts, the use of an output transformer, with phones con-

nected across the secondary, is recommended.

Headphones cannot be connected in high voltage circuits unless suitable blocking condensers and resistors are utilized to keep harmful direct currents out of the windings. Only the surges of pulsating, or alternating current, which actually vibrate the diaphragms of the phones, are permitted to pass. Care must be exercised to avoid the high voltages present in the plate circuits with the resulting risk of severe shocks through the telephones, or short circuits and serious damage.

Insulated installation is all that is necessary when attaching wafer adapters, condensers, resistors and extension wiring. The headphone-tip connections should be provided at some convenient location in the cabinet, while a small switch is used to turn off the loudspeaker at will.

Connections to tubes and sockets are made with permanently placed "wafer adapters." This form of adapter is a contacting device made of a thin sheet of insulating material with either four or five holes punched through so as to fit over the prongs of the tube. It then fits snugly between the tube base and the socket without further removal of the tube. Contacts to the tube prongs are provided for in the holes, and there are projecting lugs to which the connecting wires are soldered.

Figure 2 shows an arrangement of such sockets, looking down upon the tops, and which correspond to the holes in the wafer adapters. These will serve as a guide when making headphone connections to the plates or grids of the tubes when the proper prong locations are not known. Adapter "A" may be used with tube types -10, -12A, -20, -26, -30, -31,

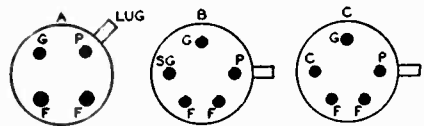


FIGURE 2

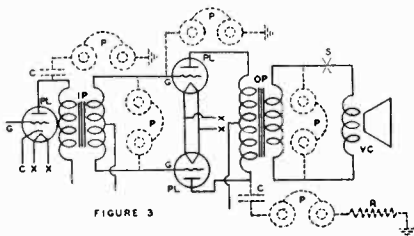


FIGURE 3

-45 and -71A; "B" with types -33, 46 and -47; and "C" with types -27 and 56.

A typical power stage is shown in Figure 3. The telephones P may be attached in several positions. Tube at left is a first audio stage, and phones can be connected between its plate PL and the ground, chassis frame, or cathode terminal. A .1 to .5 microfarad blocking condenser C must be connected between the plate and the phones. A very simple arrangement is to place the phones across the grids of the two push-pull tubes, or the secondary of the input transformer IP. Likewise, phones may be placed across the secondary of the output transformer OP. If phones are connected to plate PL, of either of the power tubes, at least a .25 mfd. condenser C must be used in series with a 2-watt resistance R of 15,000 ohms and the ground or chassis.

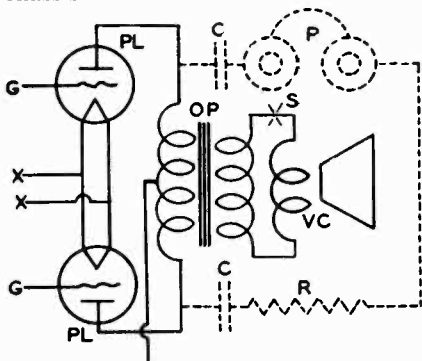


FIGURE 4

Good results will be obtained when the phones P are connected across the two power tube plates, as shown in Figure 4. Use two .1 to .5 mfd.

blocking condensers C (300 volts) with a 25,000 ohm resistor R in series. This connection may also be made directly across the primary of the output transformer OP if tube socket leads are not practicable.

Figure 5 shows an adjustable arrangement. The .25 blocking condensers C are connected to adapter lugs under the power tubes. They in turn connect to the terminals of a 500,000 ohm potentiometer R2. The phones P are placed in the circuit between the grounded end of the potentiometer and its movable arm. Two 100,000 ohm resistors R and R1, each of two watts capacity, are also connected in series between the condensers, but have their common terminal grounded. The adjusting knob varies the current passing through the phones and regulates the volume of sound.

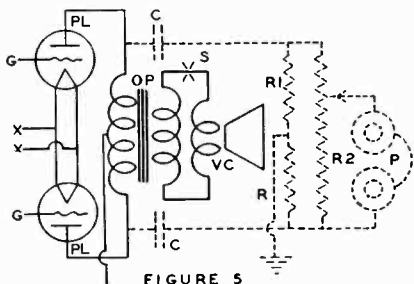


FIGURE 5

When headphones are placed in the circuit of a second detector, ahead of the driver or first audio tube, they should be attached as shown in Figure 6—across the primary of the audio transformer IP. Radio sets that utilize batteries with fixed-magnet dynamic speakers should have the phones attached to the plate PL of the power tube and then to the ground through a .1 mfd. condenser C, as shown in Figure 7.

Connecting headphones to the plates of power tubes with blocking condensers in series will keep out the dangerous high voltages, and the volume of sound will be at its maximum. But such capacity coupling, with all tubes properly in place, also permits the usual current to flow in the

DXing on the High Seas

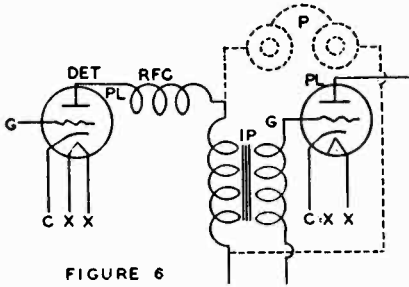


FIGURE 6

speaker circuit which operates at full volume. This is a disadvantage and requires additional treatment. The use of adapter plugs, previously mentioned, connects the phones into the grid circuit with less volume of sound, but the removal of the tube effectively silences the loud speaker.

The speaker can be silenced by preventing the voice coil VC, shown in Figures 3, 4, 5, and 7, from operating by opening one of the wires leading to the secondary of the output transformer OP and inserting small snap-switch at S. This switch is opened when the headphones are being used. In most receivers the transformer OP and voice coil VC are mounted closely adjacent in a single unit, and it will be necessary to locate one of the short wires, which, after cutting, must be extended to some convenient place in the cabinet where the switch can be placed.

(Publisher's Note—If the wafer adapters cannot be secured from a radio dealer, they are available through this magazine for fifty cents each. Be sure to specify four-hole or five-hole.)

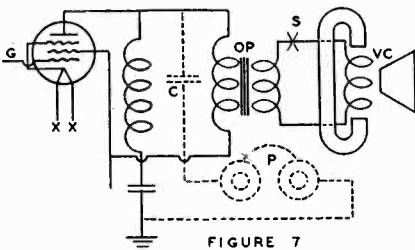


FIGURE 7

AN interesting letter comes to us from Wm. S. Vincent, a member of the crew of the ocean-going freight steamer, S. S. Bessemer-City, of the Isthmian Steamship Co., who writes: "Our trips are not over any one route. We never know where we are going next trip. Letters are forwarded to us from the home office but magazines are not so I look for RADEX whenever I am in a U. S. port. The October number I purchased here (Honolulu).

"I am using a receiver made by Nathaniel Baldwin of Salt Lake City. When closed up it is a small suit case. It uses eight tubes, two 24s and six 27s. I am using it on direct current from the ship's generators and I might say that it has exceeded my highest hopes both in port and at sea.

"Some of the freak distances that I have received would astonish Mr. Ripley himself. My standbys are KFI, KOA, KSL, KMOX, WENR from the Pacific. The best Canadian is CFCN. Of course XER is heard plainly. WOAI is good on the two oceans. On the Atlantic our best are KDKA, WLW, WEA, WABC, WPG and WBZ. These stations are dependable and consistent.

"I noticed with interest the mention you made of the Tobe Filterette in the October issue. They are good. I am using their No. 110 P. O., 110 volts, 5 amps. Have used it for a year now. Without it my set is almost useless—electric fans, pumps, machine shop motors, etc., added to the noise from generators. The Tobe eliminates all that. Remember my current comes direct from the dynamo with nothing but a couple of fuse plugs between. I use a lead covered lead in wire with soldered joints."

Mr. Vincent has sailed the seas for over ten years, two of them on his present ship.

Short Wave Antennas *and* Grounds

By JAMES MILLEN, M. E.

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THE importance of a good short wave antenna cannot be overstated if the full possibilities of enjoyable reception are to be realized. Commercial companies have spent millions of dollars in the development of suitable short wave aerial systems, while the average short wave experimenter is content with a shoddy installation which experience has taught him works fairly well on his broadcast receiver.

Because an antenna is effective on the lower broadcast frequencies, it does not follow that it is a satisfactory short wave aerial. Induced currents, man-made static and leakage effects which would not be annoying on 300 meters, will seriously impair reception at 30 meters. The peculiar carrying power of the very high frequencies, which makes short wave reception possible on almost any kind of an antenna, is responsible for the slipshod aerial systems, which, in turn, are largely responsible for noisy reception and a retarded acceptance of short wave reception on the part of the average radio fan.

Wherever choice is possible the short wave receiving station should be located away from power lines, electrically operated machinery of any kind and isolated, as far as practical, from roads carrying automobile traffic and monitored by traffic lights.

While the antenna should be carefully installed, it need not be in any way elaborate. A single horizontal wire, T or L type, twenty-five to fifty feet in length will provide ample pick-up. If possible, the antenna should be erected in the open, and as high as practical. It should be well insulated, at each end, and of fairly heavy wire—say number 14, insulated or bare. It should be erected as far away as

circumstances will permit from possible sources of noise interference, and should not parallel power lines. It should preferably run at right angles to the nearest road. It should be clear of tree branches in the strongest wind.

The leadin should be well supported, thoroughly insulated, and should be brought indoors through a leadin insulator not of the window strip variety. The lightning arrestor should be of the highest quality. Any joints in the antenna system—aerial, leadin and ground—should be soldered. It is particularly important that the leadin be kept as far away as possible from power lines, elevator shafts and electrical machines of all descriptions.

Equal care and attention should be directed to the ground connection. Where several possible grounds are available, they should be tried individually and in groups for the least noisy connection. The ground leads should be soldered to the clamps and the clamps themselves soldered to the pipes.

Indoor antennas are very effective, but obviously it is seldom possible to erect them as far away from interference inducing sources as an outdoor antenna. The indoor antenna is really nothing more than "leadin"—and it is appreciated that the ordinary leadin will pick-up noise. The main idea of the outdoor antenna is to obtain a noise free pick-up so that the signal to noise ratio will be improved. If an indoor antenna is erected, the same precautions as to rigidity, insulation and preferred location should be observed.

Under no circumstances use any form of "patented" aerial tacked to the walls, under rugs, or socket type antennas and expect satisfactory short wave results.

GOSSIPING ABOUT RADIO

• • • *With the Editor*

BEGINNING with this issue of your favorite radio magazine, we are changing our entire method of distribution throughout North America. One of our objects is to try to have each issue on the newsstand by the first day of the month. If our readers find that we are failing to achieve this goal in any particular city, we ask that they advise us and thus help us to eliminate any causes of delay.

Copies will be mailed to our subscribers between the 20th and 24th of the previous month and these should be in their hands by the 28th excepting in the far western states and parts of Canada. Certainly all subscribers should have their copies by the last day of the month.

So great has been the demand for the map of the world with time converting dial that our edition is entirely exhausted but a second issue is now on the press. Our New Zealand and Australian readers will be able to secure one of the map-converters from the Radio Record of Wellington, N. Z., who have been licensed under our copyright to produce an Oceanic edition.

Those DX Rules

In our next issue we will try to summarize the opinions of our readers in regard to the DX rules suggested and analyzed in the January number. At present there is a sharp division of opinion in regard to most of the rules which we shall seek to harmonize.

From time to time we receive requests from our readers asking our help in identifying certain stations whose programs consisted of phonograph records without announcements. In almost every case these are stations testing merely for their own information. After midnight stations may conduct tests for the im-

provement of their transmission. It is, of course, quite impossible for us to identify such programs as they may come from any one of the several stations on the given frequency. This replies to T. J. Johnson, Bowlegs, Okla., James Ottenberg, 161 West 86th St., New York, and others.

In this connection we have found that it is quite useless for us to publish requests as to "what station did I hear" with the name of the selection. Few if any of our readers note down selections heard and most selections are played over and over by various stations. For us to help you identify the program heard must be something out of the ordinary like the cricket game, the source of which we are now trying to find.

How Much Postage?

"Could you put a list of countries in RADEX giving the postage rates?" asks Joe Tamele, 13201 Coath Ave., Cleveland. Roughly, first-class letters to any country in North America require three cents postage. The two exceptions are Bermuda and British Honduras which like the other parts of the British Empire including Australia and New Zealand, require five cents. The other European countries are likewise five cents, with the exception of Spain and the Spanish colonies which are still three cents. South American countries are still three cents with the exception of British and Dutch possessions there. These are five cents.

Next to increasing their distance our readers are most interested in the elimination of man-made noises which spoil their reception and reports of success on the part of listeners in remedying this problem are always welcome.

"I purchased a new Philco radio model 71-D, 7-tube super in October and had noisy reception with little

distance, due to very poor conditions around me," reports Fred D. Thompson, 11 Ave. A., Johnson City, N. Y. "I live in an apartment with a barber shop, and a restaurant using a large electric refrigerator below me, and three factories less than two blocks distant. In November I installed a Tobe Filterizer and the results have been truly remarkable. Stations I could not get before came tumbling in every night. Have dialed 150 so far, including 12 Canadian, 2 Cuban and 3 Mexican. Among the Canadians are CFAC and CJA in Alberta, and CKPC, CFCH, CHCH, three 100-watters, and CKIC, Wolfville, N. S., using 50 watts. Another 50-watt station I logged was WEXL, Royal Oak, Mich. I would advise Eugene Delmore who wrote you in November issue to try this Tobe Filterizer and to increase his aerial to at least forty feet, the length I use. I have my receiver and the shielded lead-in grounded to a ten-foot pipe driven in the ground and the Filterizer unit is connected between the receiver and electric power supply grounded to a water pipe. This gives best results."

Delco Interference

From O. L. Hart, 251 Walnut Street, Greenville, Ohio, an agent for the "Delco" products, comes the following information: "On page 4 of the December issue, you describe the Delco radio which was placed on the market in August, 1931. In March, 1932, the B battery 140 volt was discarded and replaced with an electrifier operating off 32 volt pulling 32 watts and producing 140 volt current, making a complete 32 volt electric receiver. In August 1932 new models came on the market including a 7-tube superheterodyne in two models with twin speakers and single speaker; also two models for 110 volt a. c. 9-tube. On page 20 of the December number someone asks about Delco interference. I wish to inform you that the Delco Appliance Corp. of Rochester, N. Y., gave to their dealers a set of interference



Big Chief Harry Reser and a few of his tribe of Eskimos ready for their seventh radio winter. Cliquot Club program NBC-WEAF Fridays, 9:00 p.m. EST

eliminators for Delco lighting systems and power motors. If this Delco user will just go to his Delco service man he should be able to get the required eliminators."

"DX fans bothered by man-made static," suggests George Fabian, 1463 Virginia Park, Detroit, Mich., "may be interested to know that a G.E. noise eliminator kit greatly improved the operation of our 1932 G.E. 12-tube receiver. The kit is not a 'cure for all' but troubles are minimized and sixty hours of DX brought 43 new stations."

With the DX Clubs

Ray LaRocque, 135 Highland Street, Worcester, Mass., Chairman of the Courtesy Programs Committee of the New England Radio Club, sends us some interesting information in regard to the activities of that organization. The Club meets the last Saturday of each month at 306 Main Street, Worcester. DX tip sheets are mailed to all members twice a month

from September to May and once a month during the summer. The dues are \$1.50 yearly and no set number of stations is required to be logged before joining.

"A group of us fellows have organized the Greater Chicago DX Club," says Irving R. Butler, 3759 N. Lavergne Ave., Chicago, Ill. They pass on to us several tips of DX programs which unfortunately reach us too late to serve our readers. It is necessary for us to have notice of DX programs by the fifth of the previous month in order to be sure of getting them in our DX calendar.

After serving the Buffalo Evening News DX Club for several years as Secretary-Treasurer, Mrs. M. L. Ellis has resigned and Keith L. Freas, 400 Fargo Ave., Buffalo, N. Y., has been elected to that office.

That 915 Mystery

"For the benefit of Paul Cintrat and Raymond Bell, their Spanish station on 915 kcs. is most likely CMCD. I always pick him up there," volunteers L. E. Wallace, 110 N. Duval Street, Tallahassee, Fla. But I. E. Beitman, 249 Gates Ave., Elyria, Ohio, thinks this "mystery" station on 915 is CFLC, Prescott, Ont., whose announcer, he states, speaks in French which might easily be mistaken by some listeners for Spanish. "Count me as one who has received the mystery station on 915. It could hardly be TIGR with a one-tube set. This Spanish station occasionally comes in very distinctly," adds Ivor H. Nixon, 265 Pacific Ave., Toronto, Ontario.

"The Spaniard inquired about so much on 915 kcys.," advises Earl R. Roberts, 105 Gomber Ave., Cambridge, Ohio, "is CMCD, Havana. I have noticed also that these Cubans are always off wave. CMCJ comes in on 1185 kcys. now; CMK on 725; CMC on 835, etc. Even those Canadians are getting that way now, as I always hear CKCL on 575; CFCA on 1125; CKCO on 885; CKPR on 895; CFCA on 1195 and HHK on 925.

CMCQ is usually on 775 also, and CMCB on 1055 where XES belongs."

"This business of stations not announcing is getting awful," complains P. J. Hauss, 221 S. Butler Ave., Indianapolis, Ind. "I listened to CJGX for an hour and CKY for one hour and a half before I heard a call. KWKC has started 'hogging' 1370 kcys. and rarely announces. They just say, 'We continue the program.'"

This is a Strong One

Page Lowell Thomas; here is an entry for his "Tall-Story Club"—a Mexican station so strong that the program came from a pair of disconnected headphones away up in Cincinnati.

"In experimenting with earphones on a Midwest 16-tube set, at 2.12 A. M. Wednesday morning, December 7th, several queer things happened," says Frank E. Switalski, 2819 Victoria Ave., Cincinnati, Ohio. "Both speakers were cut off by means of switches, and a pair of 4000-ohm headphones was lying on the table next to the chassis. Although the leads were close to the '46 tubes, they made no contact whatever with the chassis; but when the set was turned on, the speakers sizzled, the power tubes flickered until they almost blew out, and speech came from the disconnected phones. The volume was tremendous and I waited only long enough for the announcement, which was the new one, XEPN, Piedras Negras, Mexico, on 885 kcys."

Another Shake-up Coming?

The broadcasting band may be widened in a possible radio conference between representatives of the United States, Canada, Mexico and Cuba. If this is done, the sentiment of engineers is that it must be toward the lower frequencies and not the higher. Failure to effect a treaty will, it is held, precipitate a radio war which would bring chaos into the ether far worse than the nightmare

(Continued on page 32)

With the STARS and STOOGES

By "BETTY"

ONE of the funniest individuals on stage and radio, Jack Benny, is a most serious person in real life. He seems continually steeped in worries. Whereas most of radio's comics have but one program weekly, Jack has his Canada Dry broadcasts on two nights a week. This, he says, would worry anybody; his fellow comedians who point towards one microphone appearance every seven days agree with him. Once, when asked why he doesn't crack jokes with his friends, he replied: "I'm too busy thinking them up for my broadcasts."

The Mary Livingstone of his programs is Mrs. Jack Benny. She and the stage were total strangers until her marriage six years ago. Then Jack, wishing to find something to keep her time occupied, gave her a "bit" in his act. She took to the footlights as an operatic soprano takes to the high notes. Like several other comedians' wives, she became a

"stooge" for her husband. For his first thirteen weeks on the radio last spring, Jack performed without "Mary," but she became microphone-struck. She pleaded for a chance on the air. Jack usually accedes to her whims and fancies, and this was no exception, and Mary made a hit with audiences.

The Bennys' closest friends belong to the theatrical and radio professions. They and George Burns and Gracie Allen are inseparable. Jay C. Flippen and the Benny Rubins also may be found at the Benny's Central Park apartment almost any night. When not engaged in working on his radio programs, Jack takes Mary to the latest shows. Her real name is Sadie.

His Fun is Work

When he works with his collaborators on his radio scripts, Jack wears his blue dressing-gown and paces up and down his living room floor. His grayish hair mussed, he resembles more the banker struggling with problems of finance, than a funny man reaching for gags. He never strives to amuse at rehearsals, but when on the air he is at his best—hat perched on head, and clowning all over the studio.

Jack was born in Waukegan, Illinois, on February 14, 1894. Benny was not his family name. That, he says, he's forgotten how to spell. His tag, in fact, has since undergone several changes. Once he was known to vaudeville patrons as Ben Benny, but this monicker caused him to be confused with a chap named Ben Bernie. Both played the violin and indulged in wise-cracks. This bewildered audiences and even bookers. So the present "nickel-back" comedian came to be addressed as Jack Benny. Now, in radio, listeners mix him up with Jack Denny, the band-leader, and to make matters worse



Jack Benny

for Jack Benny, his voice and Goodman Ace's (Easy Aces) are similar:

Jack lived in Waukegan for twenty years. He admits his early life was uneventful. The only really important things that happened to him, he reveals, are birth, marriage and radio. He first went into vaudeville as a violinist with a piano-player. The act was known as Benny and Wood. They played around Chicago and were moderately successful. With the advent of the war, he joined the Navy at the Great Lakes Naval Training Station. Instead of seeing the world, he saw the country, touring the theatres with a Navy show for the benefit of the Seaman's Fund. After the war, when he returned to vaudeville, he kept adding jokes to his violin routine. Soon the fiddle became only an added attraction for Jack, now a full-fledged master-of-ceremonies. After a tour, he opened at the Palace Theatre, New York. His success on Broadway resulted in a contract that called for engagements from coast to coast, landing him in Los Angeles, where he first met "Mary." Several years later, when in Chicago, he *happened* to meet "Mary" again and they *happened* to get married.

Into the Movies

Then came a period when he served under the Shubert banner in "Great Temptations." Afterwards, he opened at the Orpheum Theatre in Los Angeles as master-of-ceremonies, where his smart humor became very popular. Then he was engaged by M-G-M for pictures, appearing in the "Hollywood Revue," "Chasing Rainbows" and in "The Medicine Man." Back to New York and Earl Carroll's Vanities in which he was starred. Later he played an engagement in England, where he found the audiences very responsive to his type of wit. Back in this country, he toured with Vanities, suddenly decided that it was about time he tried radio, and asked for his release. This was given and he returned to Manhattan to prepare for a long siege of auditions. But he only gave one sample of his

work and was signed by Canada Dry. This was last May. He clicked from the start. And now, on the Columbia network, backed by the tunes of Ted Weems' Orchestra, he is continuing to click.



William O'Neal

William O'Neal is the latest contribution to the ranks of radio stars from the State of Louisiana. Born in New Orleans twenty-seven years ago, Bill O'Neal was the fifth of nine children. With four to the right of him and four to the left of him in the family line-up, he says there is ample explanation of the fact, that he's a middle-of-the-roader. His father was an hotel owner, so the youthful William early came into contact with various kinds of entertainment, and no sooner had he been taken to the opera than the ambition to appear on the lyric stage possessed him.

He did not, however, take the shortest cut to the fulfillment of this ambition. In the first place, it was not a very stable desire, for it vied with a yearning to become a fireman—explained by the fact that he liked fires. When his parents talked him out of this and a career as a singer seemed somewhat impracticable, Bill

decided to take up electrical engineering, and it was with transformers and rheostats in mind for the future that he entered Louisiana State University.

His singing advanced more rapidly than his knowledge of electricity, however, and both were superior to his performance on the gridiron. He played football, and with his physical set-up—his 200-odd pounds are distributed along more than six feet of length—he should have been a success among the scrubs, at any rate, but a bent and broken nose made him get out of the game and stay out.

The Singing Electrician

Soon after his graduation from L. S. U., Bill found that as an electrician he sang successfully and well. Friends in his work paid him the left-handed compliment of telling him he "ought to be in the opera"; the people who heard him sing in churches, at club musicales, at charity events and college reunions told him the same thing. Eventually, he set out for New York and submitted himself for an audition with the Shuberts. He got the job and was picked to understudy for Walter Woolf in "The Lady in Ermine." From this he graduated to "May Flowers" and "The Desert Song." After touring this country and the Continent in these plays, and appearing in "The New Moon," he turned to vaudeville, and was equally well received.

During the run of "The Desert Song" Bill made his first broadcast at a benefit performance and was scared stiff of the mike. When he joined the Columbia Broadcasting System constellation he still objected to singing before the "dead pan gadget," preferring an audience to warm up to. Gradually he's overcoming this aversion, but he still likes to have an audience in the studio while he is on the air.

William O'Neal is now being costarred with Col. Stoopnagle and Budd on the weekly Pontiac broadcasts over the C. B. S. Thursdays at 9:30 P. M. EST.

How They Got Into Radio

Ruth Etting, who has never given an audition in her life, was invited to make "Music That Satisfies" on the basis of her work on the stage, in the movies and on recordings.

Irene Beasley entered broadcasting for the purpose of "plugging" a tune she had written.

It was no break that got Georgie Price in radio. He spent eleven months and dropped \$25,000 in vaudeville salaries trying to break into broadcasting. Eventually he got an audition from a man who had never heard of him.

George Burns and Gracie Allen first broadcast when their friend, Eddie Cantor, invited them to appear on his show.

Ted Husing hurried to New York because his father was undergoing an operation. While in Manhattan he saw a newspaper advertisement for an announcer.

Chase Taylor was sitting with his feet on a desk in a Buffalo station when his friend, Wilbur Hulick, an announcer, rushed in and asked him to help fill fifteen minutes because the network line had broken down. At that moment "Colonel Lemuel Q. Stoopnagle" was born.

Connie Boswell and her sisters won a newspaper talent contest for children. The prize was a week's appearance on a New Orleans station.

Jay C. Flippen was toastmaster at a banquet that was broadcast, when someone phoned and asked if he wanted to go on the air regularly.

Andre Kostelanetz first got into radio when he was called at the last minute to play the piano as accompaniment for Bonelli, the opera star.

Editor's Note—Since "Betty's" article was written, word has been received that the Canada Dry program featuring Jack Benny and Ted Weems' Orchestra on the CBS will go off the air January 26th. No reason for the discontinuance of this popular program was given. Jack Benny has notified NBC of his willingness to accept a program on that network.

The Monthly RADIO CLINIC

• • • by the TECHNICAL EDITOR

I HAVE a Majestic model 72 receiver which is badly troubled with local electric static received through the lighting circuits and from a trolley line nearby. The set also seems to lack selectivity. What do you recommend?

We believe you can improve reception by utilizing one of the line filters now on the market. The October issue (page 6) of RADEX has a description of a very good device to eliminate troublesome electric noises coming over the electric lines.

It appears that you have too large a spread over your dial when powerful stations are received, for from 40 to 70 kilocycles range is proof of a lack of selectivity. Shorten your aerial to about 40 feet. There are several types of wave traps that should give some aid in making the tuning more selective. All wave trap devices have some use indicated when reception is unusually broad.

Re-Tubing the Philco

I wish to replace the older tubes in my model 86 Philco with the latest types of tubes. Is this practicable?

The present -26 tubes in your set cannot be replaced with newer types, but the -27 should be replaced with the new type 56. The two -71s in push-pull can be replaced by two pentode -47, if use is made of a pair of suitable adapters which can be procured at radio supply houses. This set of adapters is arranged so that the filament of the -47s are connected in series, for each -47 takes only 2.5 volts, while a single -71A takes 5.0 volts. The screen holes of the top of the adapter are connected through to the plate prongs; other connections go through. The adapters, therefore, have 5 holes in the top and 4 prongs beneath to fit into the -71A sockets. The amperage of the two new -47s is

in excess of that required for the old -71As, and some drain and heating may result in unsatisfactory operation of the powerpack unit.

Also, you may use two -45s in the push-pull if you change the filament connections to the sockets so as to have the two -45 filaments in series instead of parallel as at present. The current drain will be somewhat less than when -47s are used, but the value of the -47 over the -45 is well known.

New Tubes in Radiola

I have a 7-tube Radiola 33 receiver and desire to replace the older tubes with newer ones, if practicable. Please advise me.

You cannot substitute for the -26s, since they use only 1.5 volts each while the newer ones require 2.5 volts. This would require a rebuilding and readjustment of the powerpack unit of the set. The -27 type tube should be replaced with a 56 which will fit into the same socket, and take less current.

The -71A may be replaced with a -47 by using a proper adapter. There is a 5-hole 4-prong adapter which has a resistance in series to reduce the 5 volts used on the -71A tube to 2.5 volts necessary for the -47 type.

Short Wave Operation

Can a Crosley Show-Box receiver be changed into a short-wave receiver? Where can I get an a.c. short-wave adapter (not converter) to use with this set if it cannot be rebuilt?

The Crosley Show-Box model 706 receiver is not so well adapted to short-wave conversation. This always is a difficult feat for it calls for practically an entire rebuilding and rewiring. We are of the opinion that short-wave kits for building a proper receiver can be purchased as cheaply as rebuilding an old set at this particular time.

There is a device known as the A-C

Dayton Fleweling short-wave adapter which is being sold for approximately five dollars. Try the Federated Purchaser, 25 Park Place, New York City, N. Y. This small adapter should work nicely with your set.

Pentode Power Tubes

In making what is known as the "Megadyne" one-tube pentode loud-speaker set using a -38 power tube, can I substitute a 2-volt tube instead?

While not being familiar with this circuit we see no reason why a -34 pentode power tube cannot be used in place of the -38 pentode of the 6.3-volt series when building this set. But a 15-ohm rheostat must be placed in series between the tube and battery when two dry cells of 3 volts are used on the filament of the -34 pentode tube. The -34 has a 4-prong base with the cathode and suppressor grid tied together to the -A side of the filament. Your circuit calls for this arrangement, and there is no difference in this respect between the type -38 and the type -34 tubes.

Hum and Weak Signals

When I touch the trimmer condensers of my Philco 87 receiver a loud hum takes place. Does this indicate that a readjustment is necessary? Also, the set brings in stations best between 700 and 1500 kilocycles. What is the reason for this?

When you touch the compensating condenser in your set you ground the lead connecting this plate to the grid of one of the tubes, most likely the detector. An instant hum is created, as is always the case when the control-grid lead is not well insulated.

Your reception of weaker signals below 700 kilocycles on the dial is more or less natural. These are the longer waves, and stations are fewer and less energetic in this section of the dial. No set brings in as many stations as they do between 700 and 1500 kcs. While such is a natural result, it may also indicate that readjustment should be made by a competent service man. See page 22 of the June issue of RADEX.



The Songfellows of the Armour program, Fridays at 9:30 on the NBC-WJZ

Phones, Aerial and Static

I have a Crosley model 603 receiver and wish to know how to use headphones with the detector tube. Also, what is the best aerial wire, and how can I stop static created by my 6-volt wind-mill driven electric generator?

We believe you can use headphones in the plate circuit of the detector tube of your set without adapters, condensers or an output transformer. An adapter may be more convenient. If you wish more power you may connect a 1.0 mfd. fixed condenser to the plate terminal of the power audio tube socket and place the phones in series between this condenser and the ground or -B end of the circuit. The primary of the output transformer must not be changed since this circuit provides the high voltage B current to the tube plate, but if a speaker is connected to the secondary, a switch may be placed in the circuit to cut out the speaker voice coil.

A solid copper wire, about number 12 or 14, is sufficient for an aerial.

Stranded wire of the same size is more flexible and stronger, but it holds more ice and sleet in winter. There is no advantage in using peculiar types of antenna wires. An aerial about 100 feet in length in regions where there is little interference is all that is necessary.

Polish the commutator and brushes of your 6-volt wind-mill driven electric generator so excessive sparking does not take place. Connect two 0.5 mfd. fixed condensers in series across the two wires leading from the generator, and place a grounded wire to the series connection between the two condensers. Shielding of the entire generator in a grounded metallic box will also help. If the dynamo is driven by a friction belt then the frame of the machine must be grounded.

Phones With Bosch Receiver

Will it be safe to connect headphones to my Bosch model 58 tuned radio frequency receiver, and if so, how can it be accomplished? What is the proper way to cut out the speaker without unbalancing the receiver?

The proper method of cutting out your speaker without causing any maladjustments in the set is to open the voice coil lead and insert a small switch. This causes no change in the output plate current or voltage elsewhere in the receiver. When an audio stage precedes the final output a headphone adapter is not advised in connection with the -45 power sockets simply because enough power already is available at the output of the first audio amplifier. No strain will be placed on the powerpack unit by this method, of course, if it should be used, but there is constant risk of overloading and heating the headphones and coupling condenser. It is sufficient to connect headphones to the socket of the first audio tube, and, in fact, usually to the detector tube. The added power of the audio tubes does not increase the sensitivity of the set to signals that cannot be heard through the detector tube.

Short Wave Converter

I have a Stewart Warner model 301A short wave converter which I use in connection with a Bosch broadcast receiver. It does not bring in any stations between 42 and 50 meters, yet seems to work fairly well on the other wave lengths. What can be done to correct this defect?

Your receiver is acting in accordance with the usual principles of radio, and without changing the design of the equipment you are using, no great improvement can be expected. We assume that the circuit with converter attached is equally sensitive over its entire operating wave band, yet, there is no proof that good signals can be expected on all waves. Aside from the natural causes for unreliable reception there are other factors which enter into the problem. Self-resonance of the antenna and associated circuits may seriously attenuate certain bands of frequencies, and in fact, it is almost impossible to design any radio receiver or circuit of wide-band coverage which will not favor or disfavor some frequency band. It is im-



Marian Anderson of the "March of Time" on the CBS Fridays at 8:30 p.m. EST

possible to advise as to the exact electrical constants which are causing this band loss. It may be overcome to some extent by the use of a variable condenser in series with the aerial, but, then, the tuning of the converter may require some readjustments that will throw the dial out of alignment for other established wave bands and cause variations in the permanent station log.

Where Is Audio Tube?

Can you advise me which tube is the first audio tube in my Kennedy 9-tube receiver? Also, what is the output transformer and how should it be connected back into the circuit from which it has been dismantled?

The Kennedy receiver you own is, we believe, the old model 80 "Royal." It has four -26 tubes used in the radio frequency circuit; one -27 detector tube; one -26 first audio amplifier tube; and two 71-As in push-pull power amplification. So, then, the only -26 tube, between the -27 detector and the two -71As, is the first audio stage tube.

The transformer with a three-tap input coil and a two-tap outlet coil is the output transformer. The two wires coming from the two plates of the two -71A tubes in the push-pull audio stage are connected to the two outer terminals of the primary of the transformer. The 180-volt line connects to the central terminal. The two terminals on the secondary side go to the voice coil of the cone of the loud speaker. There are, also, two other leads from the powerpack to connect to the field magnet coil of the speaker.

Our Short-Wave Adapter

I built the short-wave adapter described in the May, 1931, issue of RADEX. It does not oscillate well. Is the choke coil connected properly? It seems to me different from the usual method. I am using 23 plate condensers in the circuit. Are they too large?

The plate of the -21 detector tube must connect directly to the tickler coil. The choke coil is incorrectly



Out of the eerie pages of Sax Rohmer's novels, the sinister Dr. Fu Manchu comes to life in the person of John C. Daly, CBS Mondays at 8:30 p.m. EST

shown in this path. It must be separate, and is connected to the plate and then to the plate prong of the adapter plug which is to be inserted in place of the -27 detector tube in the broadcast receiver.

You have too much capacity in the variable condensers, and especially the one used to control regeneration between the tickler and the cathode of the -27 tube. Remove all plates on the rotating part except 5 from the far end. The 23 plates now in use are far too many. This change permits of easier motion and less noise, as well as the clearing up of the voice signals.

In case you fail to get good oscillation try reversing the two wires leading to the two ends of the tickler coil. Very often failure of oscillation is due to reversal of tickler coils. If the set then persists in too much oscillation remove a few turns of wire from the tickler coil, or remove still another one of the rotor plates of the oscillation condenser.

The Tubes in Majestic 20

I have a Majestic model 20 chassis

receiver, but it seems to be impossible to locate the tubes in the set from the wiring diagram, because there are several tubes of the same type in the set. Can you describe and locate the different tubes in this set?

Stand at the back of the receiver with the chassis in front of you but with the dials and front away from you. The type -27 tube in the upper left-hand corner is the oscillator; the -51 tube in the lower left-hand corner is the intermediate frequency tube; the three tubes in a row extending across the center in a line away from you are: The -27 farthest away is the second detector; the middle -51 tube nearest to you is the radio frequency. At the right are the two -45 power amplifier push-pull audio tubes, and in the lower right-hand corner is the -80 rectifier.

Freak Reception

At times my set has brought in some exceptional distance. Is it possible that the A and B battery eliminators in use have made a superheterodyne of my set at these times?

The use of A and B eliminators cannot in any way make a superheterodyne receiver of your set if it is some other kind of circuit. The superheterodyne circuit is one that is of special design and cannot be created by outside influences. It may be that changes in voltage from the eliminators caused higher filament and plate currents and potentials at times because of some defective operation, and thus caused the tubes in the set to become more sensitive and powerful for a short interval. This, and other freak situations, are not uncommon in radio reception, and, when they do occur, tend to change the operating characteristics of the receiver without damaging the tubes and wiring.

Beat Notes and Inside Aerials

At times my receiver gives out throbbing and wavering signals. Why is this? I use an inside aerial and some radio men have told me that this is hard on my radio. What do

you think about it, and will it cause the quivering and fading just mentioned?

The wavering and throbbing—beating—of incoming signals, which often cause the radio speaker to sound as if he were covering his mouth with his hand at rapid intervals while talking, is due to a “beat” phenomenon. When two stations are being received on almost, or, in fact, the identical wave length, they interfere and cause beats. For instance, a station on 1460 kilocycles and another on 1461 kilocycles cause a frequency difference of 1 kilocycle or a beat whistle of 1,000 cycles per second. This carrier wave, modulated at a lower frequency, will therefore throb at a lower frequency, often about two or three beats a second. Music or voice will rise and fall in volume at a rapid rate and appear meaningless. If all stations operated *exactly* on their assigned frequencies, with 10 kilocycles separation, beats of this character would be almost unknown, provided the radio set was reasonably selective. Then, too, harmonics and other interferences, cause throbbing, wavering reception of signals and interfering whistles and hums.

The inside aerial cannot in any way be hard on your radio set. It is likely that your advisers intended to convey the belief that an inside aerial, because of its small pick-up capacity, delivered a comparatively weak signal and therefore made necessary the advancing of the volume control to obtain signals equal in strength to those received by larger, outdoor aerials with less advance of the volume control and, consequently, less power consumption in the audio stages.

More DX Tips

The Transcontinental Radio DX Club advises us they have arranged with LV1, San Juan, Argentina, for a special DX program on 1430 kcs. with 500 watts, Wednesday morning, February 1 from 3:00 to 5:00 a. m. EST.

They are arranging a “Missouri on the Air” for the morning of February 4, “Rocky Mountain on the Air” for the morning of the 11th, and “New York on the Air” for the mornings of the 18th and 25th.

FROM OVER THE PACIFIC

• • • *On the B. C. Band*

MOST of our reports of the reception of Trans-Pacific stations come from our West Coast readers, but this month we are starting off with a couple from the Atlantic side.

"Australian reception has been remarkable here from September 6th to November 5th," comments Clyde W. Ham, 1002 So. Lafayette St., Shelby, N. C. "I have heard the following stations in that time: 2UW, 4BH, 4TO, 2HD, 4BC, 5CK, 4QG, 2CO, all are new to me. I also heard a very weak station in New Zealand, on 820 keys., October 8th. They were broadcasting a wrestling match. I have written to both 3ZE and 3ZR, listed on 820 keys. My tenth verification from Australia was 4BC, and it was the nicest letter I have had the pleasure of receiving from any station. I would be very glad if you would print it for me to show your readers how much a station likes to get good reports. Here is the letter from 4BC:

"Dear Sir:

"We have your favor of the 6th of September reporting successful reception of the old time dance programme broadcast by this station on September 6th on 1145 k. c., the time mentioned, and relayed from the Trocadero Dancant, South Brisbane.

"As this station only uses 600 watts aerial dissipation, your reception was remarkably creditable, particularly considering the seasons prevailing, and we congratulate you on your excellent reception.

"Further adjustments have been made to our transmitter within the course of the last few weeks, and we would be glad to have further reports from you on receipt of this letter, if you pick up our transmissions again, and any comparisons you would care to make with the reception of September 6th would be useful to us.

"Many thanks for the dime, which we have handed to the manager of the Trocadero Dancant and he has framed it as a memento of the reception of the music from the dance hall so many thousands of miles away. Yours faithfully, Chandlers Broadcasting Service, per R. F. Roberts, Manager."

"I note with interest," comments Wm. E. Johnson, Vinalhaven, Maine, "that quite a few of the listeners are

picking up Australia, so I wish to state that on the mornings of November 14th and 15th I received my first Aussie. This was 2BL, and since then I have heard a few others but not good enough to warrant trying for a verification. The past three nights I have been getting 1BC between 6 and 7 P. M. I was surprised with their volume. These are my first real good catches, and other catches this winter are KJBS, KGFJ, KWSC and CKCK. For the benefit of other DXers who may be interested, I use a Radiola 20 with four tubes, using headphones and I use but one 45 v. B-battery. When regeneration doesn't handle well on weak signals I cut the plate voltage on my detector to 22½ v. My antenna is 150 feet of No. 14 bare copper wire between poles 40 feet high and about 60 feet more of lead-in.



Bernadine Flynn and Arthur Van Harvey in "Vic and Sade." Every weekday at 9:30 a. m. EST on the NBC-WJZ network

My ground is copper buried four feet in the soil."

"This winter up to December 16th I have WKAQ, KGU, 5CK, 3AR, 4QG, 2UE, 4RK, 2BL, and 4BC all verified," writes Jimmy Blake, Box 868, Kenora, Ont., "2YA and 4BC come in best. One morning I had 2YA coming in with almost as good volume as WGN; in fact, I thought it really was WGN testing."

"Here is a real DX tip," suggests Earl R. Roberts, 105 Gomber Ave., Cambridge, Ohio. "VQ7LO broadcasts a special DX program the first Tuesday of each month on 750 kcys., from 3 to 4 a. m. EST. That would be broad daylight there, so I doubt if it will come in. Am very pleased with my RADEX map of the world and time converter. Sure is a great invention. Seems to me that RADEX gets better every issue. Wish there were 100 pages. That time on the air is one of the handiest features of all and certainly helpful."

And now back to the West Coast. OK California!

"This season so far I have received the following New Zealanders," reports Don H. Townsend, 1421 Arch St., Berkeley, Calif. "1YA, 2YA, 3YA, 4YA, 2ZD. I had already verified 2YA and I have written the other four and expect verifications back any day now. I received, about three weeks ago, a verification from JOLK so I now have the following Japanese verified: JOAK, JOCK, JOFK, JOGK, JOIK, JOPK, and, last but not least, JOLK. I have written JOHK, JOBK, and JFAK several different times, but have never had even a reply to any of my letters, but am still trying."

"I have been DXing since December, 1930, but this is the first time I have ever written to RADEX," admits Frank Macedo, 1011 Burdette Ave., Victoria, B. C. "I use a two-tube battery set but I have gathered quite a few veries with it. Some of my best include HIX, HHK, 1BC, 2YA, JOAK, JOCK, JOFK, JOIK, JOLK, JOPK and XGOA, China. Many of your readers may be receiv-

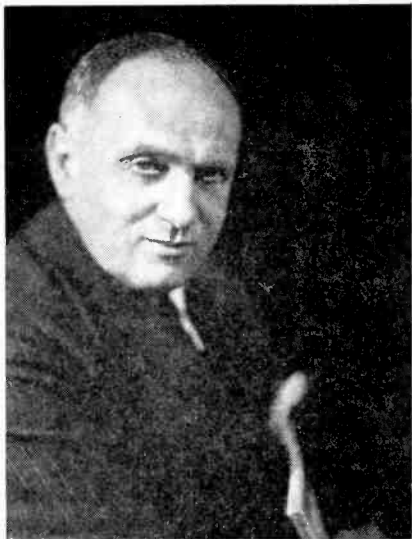
ing this new 75,000 watt Chinese in Nanking and not know it because of similarity to the Japs. They sent me a very nice verification." Mr. Macedo sends us the daily schedule of XGOA. It is typewritten in English and shows the station on the air from 8:00 a. m. to 10:00 p. m., Nanking time. Nanking is in Zone 42 on the RADEX Time Converter. The daily features are varied, including news, foreign and Chinese music, code practice, talks on radio, the home, electricity, agriculture, language, stories for children, talks in English and Japanese—a very well balanced daily program. The station operates on 440 meters (about 680 kc.).

"I have received six Japanese stations in one morning," states Louie Sani, 307 Eleventh St., Sacramento, Calif., "JOCK, JONK, JOGK, JOIK, JOAK, and JOHK, all verified. I also have KGU, 2YA, CMK. I hear Casper, Wyoming, every night. I now have a total of 236 on my 8-tube Earl radio."

That Filipino

And here are some reports on the "K" station in the Far East:

"As to KZRM, Manila," writes Fred Pheasey, Inverness P. O., Skeena River, B. C., Canada, "this station is hard to get and static is usually bad even when Australia and Japan are as clear as locals. Have picked him up about 2:30 a. m. PST, playing recordings between announcements in favor of local advertisers. For the benefit of eastern listeners who have not had much success with trans-Pacific stations, I would suggest the following as easiest to pick up almost any night after about 1:00 A. M. PST, when most of the b. c. stations on this side have signed off for the night: VK4QG, Brisbane, Australia, 760 kcys.; VK5CL, Adelaide, Australia, 730 kcys.; ZL2YA, Wellington, N. Z., 720 kcys.; 5CK, Crystal Brook, Australia, 635 kcys.; JOAK, Tokyo, Japan, 870 kcys.; JOFK, Hiroshima, Japan, 850 kcys.; JOIK, Sopporo, Japan, 830 kcys.; JOCK, Nagoya, Japan, 810 kcys.



Rozy (S. L. Rothajel) Radio Impresario and Showman Extraordinary, in full charge of "Radio City" broadcasts with his "gang" every Sunday at 12:15 p.m. EST over NBC-WJZ

Many others can be received, but do not appear to be such consistently good performers, at least in my experience.

"May I commend your very fair presentation of the case for real DX? Anyone who has spent much time at this knows that the power rating of a station is of little consequence compared with the influence of freak weather conditions and a location and installation favorable to reception.

"Seattle, Portland, Tacoma, Los Angeles and San Francisco are practically on the same air-line from this spot, yet note the following peculiarities in reception. I have held Seattle stations all day only to lose them completely after sundown, when reception from California is strong. I have received KOMO, Seattle, when KJR in the same city faded out completely, and vice versa. Some days Seattle is strong and Portland and Tacoma, both near by, are quite inaudible, and again vice versa. No one dare say what is or is not possible in radio reception, at least, no

one but a novice without experience."

"Just to let you know that on Saturday morning, November 19th, I received KZRM, Manila, P. I.," says Raymond Corbett, 619 12th St., Sacramento, Calif. "The time was 3:58 A. M. Reception was clear, but not very loud. In my opinion anything is possible in radio, and I thoroughly disagree with any DXer who believes the contrary."

"In regard to KZRM," postcards Homer G. Gosney, 431 S. Elena Ave., Redondo Beach, Calif., "I have their verification in the form of a blue card under date of June 2, 1930, which is receiving date here. I logged this station in May, but unfortunately I have destroyed the date. Mr. A. E. Armstrong, Glendale, Calif., and myself played KZRM the same morning and compared notes. Why bother with them if they are not interested to hear from the American fans?"

The Radio Map of North America is now reduced to 15 cents.



Roy Atwell is the fellow who gets his tongue all twisted up in the "Bath Club" Sundays at 9:00 p.m. EST on CBS-WABC. If he wanted to say "Show this lady to a seat," it would come out "Sew this lady to a sheet!"

Among the SHORT WAVE COILS

• • • *DXing in H. F.*

MANY plaintive calls for help come to us from shortwavers who are unable to bring in foreign stations. Too many people have been led to believe that if they will only buy a s. w. set, foreign stations will come tumbling in at a turn of the dial. Successful reception of the signals on the higher frequencies is an entirely different problem from b. c. tuning. The dials require most skillful manipulation and everything about the receiver must be in the best possible condition. An aerial which may be quite satisfactory for b. c. logging may be entirely inefficient in the short waves particularly with the distant foreign stations. In this issue we are publishing an article on s. w. antennas which we hope will be helpful.

Big changes have been made in the British s. w. system. "G5SW, Chelmsford, the Experimental station of the British Broadcasting Corporation" is a call that will never be heard again. On Monday, December 19th, the new Empire s. w. station at Daventry, England, transmitted the first program of the Empire broadcasting service, replacing the experimental service given by G5SW for over five years.

Two powerful s. w. stations have been erected by the BBC at Daventry which will use a complicated system of directional aerials. The Empire has been divided into five zones and different programs will be arranged for each zone. These programs will take the air over the particular antenna designed to reach the zone for which it is intended. According to World-Radio, the publication of the BBC, eight different wavelengths will be used, each of which will use a special call as follows: GSA 49.6 m. (6045 kcs.); GSB 31.5 m. (9519 kcs.); GSC 31.3 m. (9570

kcs.); GSD 25.5 m. (11760 kcs.); GSE 25.3 m. (11852 kcs.); GSF 19.81 m. (15,140 kcs.); GSG 16.9 m. (17740 kcs.); and GSH 13.97 m. (21465 kcs.) The five zones are Australia, India, South Africa, West Africa and Canada. The times of broadcast are as yet purely tentative.

"I received your very thorough description of my set and your instructions for improving the short-wave adapter," remarks E. L. Merten, 315 E. Fountain St., Colorado Springs, Colo., "and I want to thank you for the trouble that you went to and to tell you how much I appreciate it. I have connected the Kennedy, as you said, and it works great! I wound a coil, as you said, for the 25 meter band, and at 2:00 p. m. on Thanksgiving Day I picked up W8XX on 25.25 meters. I am afraid that with only the last two stages of a



Tom Howard, the droll wise boob and his partner, George Shelton, who's wiser still. On the CBS Tuesdays and Fridays, 9 p.m. EST

Stewart-Warner TRF, it isn't enough amplification. I heard an amateur in Providence, Bowmanville, Montreal, and VE9CS, 100 watts, in Vancouver. Lots of amateurs, police, of course, one side of a phone to the Leviathan, and KEJ relaying to KGU. On the broadcast band, I have much better luck, for the Stewart-Warner 801 is pretty sensitive, for an old set. I have heard about 525 stations, 150 of these 100 watts or less, and 25 of these 50 watts or less. The best, I guess, is WEDH, Erie, when they used 30 watts. I have heard all states except Delaware, Vermont, Maine and Rhode Island, and all the channels. I have 40 in Canada, 24 in Mexico, and 9 in Cuba. I have letters of confirmation from RUS, WKAQ and VAS. Have heard 9 in Japan, and several in Australia, with letters from 4QG and JOAK."

The New Panaman

"While listening via the short waves this morning, Saturday, December 3rd," comments E. A. Wright, 10 Esther St., Brantford, Ont., "I heard a station, the call letters of which I believe were RXT. This station was heard at approximately 11:15 A. M. EST and they announced a great many times that the station was RXT testing with Miami. They gave their frequency as 14,485 keys. Could you please advise me if this station is listed and where I could write for verification? The radio I have is a Marconi 11-tube Model SW-27, and can certainly bring in the stations. Some of the short-wave stations I have received are as follows: VE9JR, VE9DR, G5SW, FYA, 12RO, GBW, GBS, WEL-WEJ, KKZ, GBB, GBC, W3XAL, W3XAU, W9XF and a large number of other American stations. We have listened to a great many 'hams' and enjoy hearing them as much as the regular broadcasts."

"In your December issue, Charles Horton reported hearing EAQ and WCCO with two sets on the same aerial," writes Carleton Lord, 137 N. Highland Ave., Akron, Ohio. "I think

I can go him one better by hearing WEAQ and VK2ME on the same set at the same time. Sound ridiculous? The explanation is simple. My set is a Silver-Marshall 726-SW and has two tuning controls, one for short waves and the other for the broadcast band. In order to listen to the short-wave end, it is necessary to set the b. c. dial at approximately 650 keys. and do the tuning with the other dial. If enough power is used and the b. c. dial is set to the exact frequency of some b. c. station, that station will come through in the background. Thus, with the b. c. dial set at 660 keys. and VK2ME tuned in, the two stations can be heard simultaneously on one receiver using one aerial."

"Have just recently purchased a Marconi SW-33 receiver," advises M. L. Griffith, Deaf School, Winnipeg, Man. "My first attempt at short waves and have had good results from the States and Canada, but have not been able to get foreigners as yet. On the long wave could not be better. Brings in 100-watters from 600 to 800 miles. Am using three aerials, 60 feet, 90 feet, and 110 feet. My 110-foot is 70 feet from the ground and is a straight single wire and is by far the best."

Grounds to the River

"I have a Pilot all-wave set, 7 tubes, and am wondering if such a set is powerful enough to receive foreign reception," inquires Ralph H. Heiss, Manitowoc, Wis. "This being my first real attempt to do some DX-ing, I would like to hear from someone who has a set similar to mine and as to their luck on short-wave reception. The set is new and I have a very good ground which is right in a river, which is supposed to be very good. I have two aerials running at right angles or nearly so, each about fifty feet in length, but separated by a switch so that I can use either aerial alone. Am using this set on a boat which is docked in the downtown district. Would the location have much to do with the re-

ception?"

"Just another line in appreciation of your magazine and the short-wave end of it," states Francis Orcutt, 127 South Ave., Penn Yan, N. Y. "I have DXed on the b. c. b. for three years, totaling 575 stations, all over the U. S., Mexico, Canada, Cuba, Porto Rico and Salvador and Dominica, and every state in the Union except that old sticker, Wyoming. This new season I have not done much on the old receiver due to a new attraction. For about a year I have been licensed with the call W8GWT. I wish you would publish my interest in short waves, and the fact that I have an amateur station. I will be glad to correspond with any interested fan either short or broadcast waves."

From Prince Edward Island

"Reception is good here on short waves," writes Anthony Arsenaault, 9 Spring St., Summerside, P. E. I. "On a 2-tube home-made receiver using 230 tubes, here's a list of the farthest 20 and 75 meter amateur phones I heard: W4TM, W9ARK, W4ACY, W5ABO, W6CNE, W9CJJ, W9JI, W9FKE, W4MK, W9EGU, W4IB, W4AAD, W4WM, W4MU, W9CSH, W9GFQ, W9GXI, W4ZF, W9EKU, W9DHK, W4WL, W8DSO, W8UD, W4RS, W9HAV, W5ZA, W4LU, W4TR. I heard about 225 in all, but this is a list of the farthest ones. Here's a list of the six best amateur phones I heard: W1BIC, W2DKA, W3IS, W1BES, W8NE, W1AUK."

"Received a Canadian in the 160-meter amateur band broadcasting an organ program from 10:45 to 11 p. m. EST, and an orchestra from Toronto afterwards," reports Earl R. Roberts, 105 Gomber Ave., Cambridge, Ohio. "Faded badly and is weak. They are on the Central Canada network, but I have not yet heard their call. Picked them up twice lately on Monday night."

Many inquiries have been received in regard to the short-wave converter built by Edward C. Houlgate as de-

(Continued on page 33)

Substituting the New Tubes

THE flood of new radio tubes has raised a question that seems highly controversial to many radio servicemen. Readers of RADEX, as well as dealers and radio engineers, wonder just how far they may go toward the substitution of tubes such as 46s, 56s, 57s, 58s and 82s for -45s, -27s, -24As, -35s and -80s. There are many factors involved, and it is obvious that we cannot attempt to go into the special requirements of hundreds of models of receivers in order to advise what tubes can or cannot be substituted for older types.

Generally speaking, however, any of the new tubes can be used to replace older ones, except that adapters are necessary for all but the 56 type. And, of course, all the new types consume less current than the older, which means increased economy of operation. It is practicable, and usually profitable, to utilize the 56 in place of the -27 in most cases except oscillators. Even then this tube will perform satisfactorily, but there are times when, due to its characteristics, there will arise an unbalancing of some sets which will throw them into oscillation. The 56 is a good grid-bias second detector and audio amplifier, especially in resistance-coupled stages. In such circuits it is recommended as a substitute for the -27. However, it may be necessary in nearly every case to change the cathode bias resistor to one having a resistance of 3,000 ohms.

In general, it is not recommended that other new types be substituted in receivers designed for older tubes. The electrical characteristics of the 57s and 58s are somewhat different from those of -24As and -35s. However, substitutions may be made by means of adapters, but it will be too much to expect the improved results which the superiority of the tubes might lead one to believe can be at-

tained in old receivers built for older types of tubes.

To obtain the advantages of the new tube designs, radio receivers must be especially designed for the tube characteristics. It is then that super-results are obtained. But in t. r. f. circuits the 57s and 58s can be substituted if proper adapters are used, and the results will be equal to or slightly better than -24As and -35s. In some superheterodynes the 57 is best utilized as a radio frequency amplifier or a biased second detector. It is not recommended in any other positions. It cannot be used as a first detector. The type 58 can be substituted in radio frequency stages, intermediate stages, and also as a first detector. Neither the 57 nor 58 must be substituted in oscillator, automatic volume control, or audio amplifier sockets. It is seldom that 57s or 58s can be substituted for -24As or 35s, for the special adapter adds to the total height of the tubes and prevents their clearing the overhead shielding.

In the case of substitution of the 46 for the -45 there is no advantage in old receivers. The main purpose of the 46, in all class A power output circuits, lies in its flexibility of design, which permits a receiver to be designed with the least number of different types of tubes. The change is not necessary or recommended. Same applies to the substitution of the 82 rectifier tube for the type -80.

Too Much VOLUME

W E are often asked how one can get more volume but here is an inquiry as to how to get less! "Local stations come in altogether too loud even without an aerial," says George W. Otto, 447 Fourth Street, Beaver, Pa. "With an aerial the volume is so great that when I was in a sanatorium recently, I used one of your headphone adapters and connected up 75 sets of phones to it without any trouble." Mr. Otto does not say what receiver he uses but as the "local" stations of which he speaks must be those in Pittsburgh, 25 miles away, his set certainly has some pick-up. The only possible remedy for reducing the volume of local stations seems to lie in "de-tuning," that is turning the dial a mark or two off the correct reading. The fault with Mr. Otto's set evidently is lack of proper shielding. A set should be shielded so perfectly that with aerial and ground disconnected even powerful local stations should give either not a peep or the faintest whisper. When a receiver brings stations in without an aerial it is evidence of a fault and not a virtue. If it will bring in signals that happen to be wanted, it will also bring those in that are not wanted.



Buck Rogers and Wilma Deering watch the hypnotelevisor at work on the Mongolian Princess. A scene from "Buck Rogers in the Year 2432," a fantastic, imaginative tale a la Jules Verne, on the Columbia daily except Saturday and Sunday at 7:15 p.m. EST

Turning the Illuminated DIAL

• • • *With the Radexers*

"I PURCHASED a RADEX the other night and what is this DXing there is so much about in the log?" inquires a new friend, R. A. Mabe, Box 283, Ozark, Mo. "Please explain what it is all about. The fellows' records seem so interesting."

If Mr. Mabe and others for whom his inquiry speaks, will get the October issue of this magazine and read "Radio DX as a Hobby" and the November article on "Rules and Regulations of DX," they will have the whole story. A full description of the possibilities of radio as explained at length in these two articles, cannot be repeated here. But if they want to get the fullest enjoyment from their radio sets, they should read these two stories and then join our Radexers.

"I never knew DXing was so much

fun until I started buying RADEX," says James Reese, 2037 Seventh Ave., New York City. "DXing is fun, interesting and enjoyable. I have been DXing since October 12th and have logged 140 stations. I have a 5-tube battery set, using B 135 v. and A-battery. I use two speakers. The name of this set is W.K.O.W., King of Waves. I have a good antenna. It is shaped like a zeppelin, 50 feet long and 50 feet high, using steam pipe for a ground."

"I am ardent DX fan," confesses Alfredo Rozzundo, R. F. D. 1, Fayette City, Pa. "With my Apex 9-tube set I have received 430 stations in every state except Wyoming. I have never reached Honolulu, Porto Rico and Santo Domingo. Will someone tell me the best time to try for them?"

"I am only a beginner at DXing, having only started in October,"

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writes Dudley Clarke, 1962 Tupper St., Montreal, Que. "A friend of mine got me interested and I am now a confirmed DXer. My total is only 197, but I hope to increase it steadily. Have logged 63 new stations since October 24th. I operate an 8-tube Bosch Model 58 CB, and I am planning to purchase a Stewart-Warner SW converter. I'd be pleased to hear from any DXer who operates such a set and converter."

"Have been a DX hound for ten years," says Ross Huffman, 901 Main St. East, Hamilton, Ont., "Use a Philco 9-tube with Cameron loop antenna. Since October first have logged 223 stations, and, thanks to your DX calendar, CKX, Brandon, and CHGS, a 100-watter in Summerside, P. E. I. Would like to hear of DX program from Newfoundland."

"I have been pulling them in since broadcasting got fairly started," writes Lt. Donald M. Gildersleeve, 2518 Webb Ave., New York City. "WDY, Roselle Park, N. J.; WWZ, Wanamaker's, New York City; WDT, Ship Owners' Radio Service, Inc.; WNO, Jersey Journal, Jersey City, etc. In 1926 I threw away a log of nearly 400 stations. Began, just over a year ago, a new log that is now in process of rearrangement (cross-index) and which carries some 300 plus stations, with about 90 of 100 watts power or less."

From French Canada

"For a year and a half I have been very much interested in your RA-DEX," comments F. Gaston Fortier, C.S.E., 80 de Salaberry Ave., Quebec, Que. "I have it reserved every month at my newspaper dealer. I read it all over. The experiences of DXers mentioned therein are always more and more interesting. I must tell you the truth in saying that RA-DEX is the most interesting Radio Booklet I have found on our Canadian market. I had it adopted by two friends who now buy it every month.

"I am not an expert in any way, but I like very much to tune-in distant stations as far as my receiver

can take. After using a Radiola, Brunswick, Fada, and Rogers, I now have secured, since the end of September last, a 1933 Model 30-A Stromberg-Carlson 10-tube receiving set. The results with this set are wonderful considering our locality here. Since September 30th last, up to the 12th of December, inclusively, my list of broadcasting stations tuned-in total 310. I have already 8 Canadian provinces out of 9; 42 American states of 48; 3 stations from District of Columbia; one from Porto Rico.

"The weather conditions are not too bad here, but still it takes a strong set to reach very distant stations. This is why I find that U. S. recordmen are very much better situated in U. S. for the purpose of recording a great number of stations, considering the fact that, only in U. S., there are approximately 675 stations broadcasting. Do you think that my presumption is correct? Since four or five months I have taken the habit of collecting your RADEX issues instead of giving them away. I like to refer to them by and by. I hope they will always be as interesting as they are since the time I started to read them regularly."

Being an artist of no mean ability, Chas. L. Morgan, 800 East 179th St., New York City, draws his own individual verification stamps, each one of different design. He sends these to the station and asks them to sign them. Naturally this gives him a stamp book of unusual interest but we fear not many Radexers would be able to draw such attractive verifications. We would like to reproduce two or three of the designs but as they are in colors we cannot do so. Mr. Morgan has logged every state and the provinces from Prince Edward Island to British Columbia, Alaska, Hawaii and several countries in Central and South America. He still uses an RCA 5-tube battery Radiola.

Early Morning DX

"I rented an old table type Philco

7-tube superhet a week ago," comments Yeoman H. Conduct, 130 N. Center College St., Yellow Springs, Ohio. "Am not in college this division so have plenty of time on my hands. Since a week ago last Saturday, I've logged 211 stations. Yesterday afternoon, logged Canton, N. Y. and Camden, N. J., new stations, and at 5 o'clock KSOO on Richmond's wave. Early this morning KGER, Long Beach, Calif., was very loud. I also received new KFAC, KECA, KFVD and KGFJ, of Los Angeles, the latter being the 100-watt perpetual motion station. As 6 A. M. approached I decided to get the sunrise programs. I listened for WABI, Bangor, on 1200 keys., but heard WIBX, Utica, instead. Up to 7:45 Texas was coming in well, a sunrise devotional service, from WACO and KFPL, a 100-watter of Dublin, Texas. I'll never hear that again probably. I listened on 635 keys. for Australia in accordance with the letter from the lady in Mississippi, but not a peep, although KGFI, Los Angeles, 100 watts, was swell. However, I heard the faintest of murmurs on 650 keys., but could not identify. My suggestion to DXers is that they go to bed early once in a while and get up at 5:45 to catch the sunrise programs. You hear 100-watters such as WSIX, WIBX, and KFPL, which may be hard to get otherwise."

Wants Station Honor Roll

"I now have a total log of 391 stations, of which 268 are verified," comments Rexford Newcomb, Jr., 605 Nevada St., Urbana, Ill. "I have logged every station in the United States on 41 of the 96 channels, all on a Trav-ler midget with a 4-foot copper wire as both ground and aerial. This fall, I logged and have since verified KGGM, Albuquerque, at 7 P. M. WILL broadcasts an hour of dance music from Bradley Hall each Saturday evening from 11 P. M. to midnight and keeps going until 2 A. M. the first Saturday night of each month. KGHI ruins DX on the 1200 key. channel for me every morning.

Wish they would shut down at midnight for about a month and give me a chance on that channel for a while. I think we ought to have an honor roll for such stations as WNBH, WAAT, KFWI, WGBI, KOMO and others that send very prompt and courteous replies to requests for verification. Since I started DXing I have written 282 letters to stations, including follow-up letters when necessary, and I've received positive verifications from 268 of them, so I think my postage is rather well spent. Can you name several short-wave converters suitable to operate with the type of set I use?"

His Greatest Winter

"This is the greatest winter I have ever experienced for DX work," says Wm. Ellis, Box 13, Hughson, Calif. "Any night (or rather evening) after 4:30 P. M. PST, I am able to listen to WBT, Charlotte, N. C., WGN, WLW, WOWO, WCAU, KMOX, WTAM, (with KGDM, Stockton, a local only 10 keys. away). After dusk and when it gets dark, well, the sky is the limit. WABC, WJZ, WENR, WEAJ, etc., are like locals. I have heard WCCO announced as early as 3:45 P. M. PST. WHAS and WCCO are two favorite stations in our home. Several times I have heard a foreign station broadcasting between WTAM and WTIC. I wonder who he is? WTAM interferes too much to understand him clearly. It most certainly sounds like Spanish speaking. Perhaps some southern DXer may know of such a station. This cold weather brings in the JO's in Japan like locals. Any morning after 2:00 PST, eight to twelve of the Japs may be heard. I am going to start to verify them next week when I again listen to them. I have not considered verifying them before, but perhaps ten or eleven JO—verifications will look good."

Time Converter Helps

"For quick reference for time in other zones," remarks H. S. Trumble, Rt. 1, Box 147, Port Arthur, Texas, "the RADEX time converter dial is

certainly worth the money for radio and DX fans, and RADEX is absolutely indispensable to those who want to get the most out of radio. I heartily agree with Mr. A. Curror of Schenectady, N. Y., in that DX fans should mention make of receiver when writing in their DX catches. I am using a Philco 11-tube '31 model and have logged 257 stations since February 1, 1931. The Gulf Coast climate is not very favorable for DX reception. Only when a cold wave is on can we expect to have static-free reception. I am using at present a 4-wire bare copper, single strand, large gauge wire, wires spaced 16 inches apart on spreaders and 92 feet between spreaders, 34 feet high T-type antenna, with an Ollie Ross ground. My prize catch so far has been CHLS, 730 kcys., 50 watts, Vancouver, B. C., 2000 air miles from Port Arthur, Texas, on local switch, and it came in strong."

It Brought His Aussies

"I have secured the last two copies of your RADEX and find it the most complete and up-to-date publication of its kind," comments Paul F. Klingman, 88 Forsyth St. S. W., Atlanta, Ga. "In fact, I do not intend to be without it hereafter. The information is indeed helpful and was responsible for my tuning in one of the Australians two nights in succession, December 5th and 6th, the station at Northampton, call letters of which I do not have before me just now. While I have been a DXer for about nine years, I have not gone in for this very much lately until inspired by your first-hand information. During the past few weeks, however, I have not had my share of sleep, tuning for the weak stations and those of long distance. My best catch, along with the Australian, is 10-BQ, a 15-watter at Brantford, Ont. My log includes numerous west coast stations, some 100-watters, stations in Canada, Mexico, Cuba and Porto Rico."

Likes His "Gloritone"

"I purchased my radio, a 5-tube

midget set U. S. Gloritone made by the United States Radio & Television Co., on October 15th and since then have a log of 150 stations with only three nights of late dialing," reports Ruth E. Kroeger, 94 Burton Ave., Akron, Ohio. "My set is not an all-wave, but above 1500 on the dial I can go to about 1900. In this space I have police calls of Chicago, Cincinnati, Pittsburgh, St. Louis, Michigan police at East Lansing, and Massachusetts police. I also had W1XAU, the Boston Television station, broadcasting a program. I would like to hear from others who are using a U. S. Gloritone and what success they have had in distant reception. My most distant stations are CMAF, Havana, 500 watts, and CHRC, Quebec, 100 watts, several Mexican and about ten in California and the West Coast."

"It is a regular occurrence to receive CMC, Havana, each night, with strong volume, using a 15-foot No. 14 wire attached to antenna post and no ground," states Edwin F. Dreher, Box 26, La Mesa, Calif. "This area is so sensitive to radio impulses that elaborate aeriels are a handicap. WJZ may be received at 4 P. M. as a local. WBAL's call invariably follows WJZ's. JONK, Nagano, Japan, 500 watts, is a good catch, using a 90-foot aerial. Tokyo (JOAK) seems much stronger on its new 590 kc. frequency than formerly at 870 kcys. XET, Monterrey, is also strong. With XER off the air there is a hairbreadth's difference between the channel of CKAC, Montreal, and CMK, Havana. Otherwise XER blankets a good many stations. The set used is an Edison C-2."

Ground Aerial Best

"I wish to answer Archie Ferrie and Stewart Stowell," says Albert C. Port, 37 Elm St., Salisbury, Md. "I've picked up W1XO and WEY, also WMP, WRDS and WBAK, police. Then WIEH, a portable transmitter which I've picked up several times, once on the Hudson River in New York, and another was at the Polo

Grounds. Then I also have 30 amateurs and 3 television stations on my log, all on a Crosley b. c. set, the Playboy. DXing since June and all told have 257 on my log. My best catch is KGHI on 1200, a 100-watter, at Little Rock, Ark. In this section an aerial is an encumbrance and a ground works best on aerial post."

"Since writing you last, I have increased my log from 356 to 414," writes Howard R. Garrett, 171 Hillsdale Ave., East, Toronto, Ont. "Some of my best catches are 4QG, YV1BC, WKAQ, KJBS, and KWG. In answer to Mr. Rosenberger's query in November RADEX, let me say that the call he heard was CNRO, Ottawa. CNRO is the key station for a number of chain programs that CFRB broadcasts. I have only Vermont and Wyoming left to log in the U. S. and would appreciate any tips on them. Also would some fan be good enough to tell me when WNBZ is broadcasting. I am interested in forming a DX club in Northeastern U. S. and Canada and wish some others would communicate with me with this object in view."

Only One Refusal

"I use an RCA 42 and in the past two years have received 422 stations with about 400 verified to date," writes Kenneth Vetter, 964 Waukegan Road, Deerfield, Ill. "Including all those which have replied I have had only one refusal to verify, which I believe is fairly good. My DX this year does not at all compare with last. I have had much trouble with man-made static caused by an electrical appliance of some neighbor. Among my best catches this season have been CKWX, 10-BI, KGGM, WLEY, KFSG, KTFI, CFCF and CFAC. These are not impressive and the twenty or so other are less so."

"With the help of your magazine I expect to increase my log of 225 radio stations to a greater number," promises Robert Osborne, Stellarton, N. S., Canada. "My best so far have been WKAQ, KFVD (250 watts), XEW, WCAZ (50 watts), CMCD, WALR, JWJ, XER, CMX."

Long Antenna Helps

"The threat I made in my last letter to get 150 new stations this season is starting well," admits T. J. Johnson, Bowlegs, Okla. "I now have 31 new ones, including two more in Australia, and YV1BC which everyone else also seems to get. My new 200-foot antenna is a great help on the distant stations. Your DX calendar is getting better every month. Station KGFF, 1420 kcys., Shawnee, Okla., will broadcast DX tips including Newark News Club tips, every Thursday morning on their DX program, from 1:30 to 3:30 a. m. CST; the tips will probably go out about 2 a. m."

Trying for Europe

"I hear the Japs, Aussies, and Newzies once in a while," reports Meyer Tuchinsky, 3436 Filbert St., Philadelphia, Pa., "but can't get them as regularly as some people can, probably due to location. Have only one European, and haven't been lucky enough to hit another yet; still trying, though, as I have figured that there is one that should come in, since he is on a wave that is absolutely clear in North America after 1:30 a. m. EST. Station is in Stockholm, on 689 kcys., with 55 KW (input?)."

"I have logged over 300 stations on the b.c. band in the last three months," reports Steve Nemeth, 5326 Turney Road, Garfield Heights, Ohio. "My best catch is KROW, at 7 a. m. EST, verified. Plenty of 100-watters with KLCN using 7½ watts, and 10 BQ, 15 watts. Have about twenty west coast stations nearly all verified. Have tuned in a station on 760 kcys. that does not give any call letters. Have had it several times with the same result. I am using a Grebe 5-tube set now."

Good for a Midget

Six Radexers in La Grange, Ill., are in friendly competition with each other and each of them gets a big kick out of pulling in some station the others haven't got. One of them, Bob Wais, 51 N. Brainerd Street, tells us he has a ten dollar midget with only

four tubes on which he has received 240 stations in less than a year. Among his scalps are the little tenner, WHBC in Canton, Ohio, CHML, 10BQ and KGFK with 50 watts in Moorhead, Minn.

"Wish to report an unusual DX daylight reception," postcards George D. Kitzinger, Piedmont Hotel, Atlanta, Ga. "On Thursday, November 3rd, at 4:20 p. m., CST, I picked up CKAC, Montreal. This is unusual because WSB, our local station, is on 740 keys. and I got Canada on 730 keys. with WSB going full blast. I stayed with CKAC until 5 o'clock. I'm using a Zenette No. 230 8-tube set, located in my room, with plenty of motors, streetcars, electric signs, etc., all around me."

"I recently purchased a new Lafayette ten-tube super," writes William E. May, 14 Burnett Place, Nutley, N. J. "I am using an aerial about 150 feet long and a cold-water pipe ground. I have no trouble in getting distance, and have added 46 new stations to my log since I bought the set less than a month ago, making my total 426. These include three 100-watters on the coast, a 25-watter in Saskatchewan, and about 12 other higher powered stations on the coast."

Some Prize Catches

"My total thus far is 465 stations," reports Charles F. Kyle, 392 Preble St., South Portland, Maine. "My two best catches of this season are WBIG and 10-BP. Have received KOB at last but still fishing for Nevada and Wyoming. In reply to the question of John R. Carter, Erie, Pa., regarding KFPM in the May RADEX, I received this station March 24th and in their letter of verification they stated they used only 15 watts during that test and received 89 reports on it."

"During the past year I have logged 381 stations in 45 states," reports Ken Board, Box 255, Smithfield, W. Va. "Canada, Cuba, Haiti, Mexico, Porto Rico and South America. I have verifications from the most distant. These are some of my best ones: YV-BC, Caracas, Venezuela; WKAW, San

Juan, Porto Rico; HHK, Port-au-Prince, Haiti; VAS, Glace Bay, N. S.; CJOR, Sear Island, B. C.; CFBO, St. John, N. B.; XFI, XEW, XETY, XEN, XER, XEH, XED and XEB, Mexico."

"My log now stands at 329, including 3 Aussies, 1 New Zealand, 2 Japs, and 2 in Great Britain, received at 3 a. m. MST last March," reports Russell N. Johnson, 535 Ave. J No, Saskatoon, Sask. "Find on my R-32 10-tube b.c. receiver that the Aussies come in better after daylight in the morning, and just at sunrise about 5 a. m. Have four aeriels and four switches hooked up with an aerial tuner, and can use each aerial separately or collectively as desired."

Likes DX Calendar

"Thanks to RADEX's reliable DX calendar I was able to log KGMB, Hawaii; CKOV, British Columbia; 10-BQ, Ontario; 10-AB, Saskatchewan; KPJM, Arizona, and KPCB in the State of Washington," comments Rudolph Kure, 3633 Vine St., Cincinnati, Ohio. "My log has reached the 700 mark. Received in this morning's mail my verification from KFXM, San Bernardino, Calif., 100 watts."

"I started DXing about January 8th and have 261 stations logged with 101 verifications to date," writes Jack Varner, 1114 Rugby Blvd., Roanoke, Va. "33 states, with 234 stations, 14 in Canada, 4 in Cuba, and 4 in Mexico, also 5 short-wave stations. I have a Victor R-15 7-tube T.R.F. set and would like to hear from owners of the same model, and any other DXer."

"Increased my list of 459 stations to 496 up to the time of writing," comments E. D. Petrie, 916 Dundas St., E., Toronto, Ont. "In the months of October 16th to November 25th a total of 37 stations in about forty days DXing. Pretty good DX I think, don't you? Some of the best are YV1BC, KPCB, CKMO, KXA, XEF, KCRC, CMCU, CMBY verified. Am using a 7-tube Sonora C-34."

A Twelve Day Record

In twelve days Robert Rosenberger's

new Majestic 9-tube has brought in WKAQ, CMGA, CMCD, CMDE, CMBL, CMBN, TICR, CMGB, CPX (Bolivia), LR4 and LR6 (Argentine). He claims four kc. separation on distant stations and ten on locals, daylight reception of WFBL and 120 stations in twelve days. His address is 17 Janssen Place, Kansas City, Mo.

"Last year's record 597 stations, with the freak chances verified," says C. G. Colby, 92 West St., Concord, N. H. "Have logged every state but Nevada and Wyoming, and all wavelengths but 1340. Really enjoy DXing and find that RADEX is just the thing to help dig out the wanted DX stations. I use a Majestic No. 71."

Two at Once

"Have just logged KGEK, Yuma, Colo., and KGHJ, Little Rock, Ark., both 100-watters and broadcasting at the same time," says B. L. Ahman, Jr., 3313 Westerwald Ave., Baltimore, Md. "I am waiting for a verification from each, as I could separate each station and yet hear both distinctly, although they are supposed to be on the same frequency."

"My reception so far this season has been excellent," says D. H. Shatzes, 45 Flax St., Delaware, Ohio. "New stations received are KGU, YV1BC, KGB, WENC, WHET and KCRJ. Looks like a great season. KGU is my most distant station. WENC is on every Thursday night after midnight CST."

"My radio is a homemade, 5 tubes, A.C. and have 344 stations to date," reports George J. Barmann, 232 West 2nd St., Chillicothe, Ohio. "My best catches are KGFJ, KERN, KDFN, KFIO, CHGS, KFVD and about 120 100-watters from coast to coast. I should like to correspond with readers of RADEX. Will answer promptly."

"I have a new Kolster 10-tube superheterodyne," says R. E. Stromberg, 24 Argyle Place, Arlington, N. J., "and have logged over 100 stations in two weeks; received stations from the west coast, KFI coming in the best; XER from Mexico, also other stations from the west, Mexico and Canada."

"I bring in CMK, XER, and most any station in the U. S., but not so many Canadian stations," writes Harold Wheelock, 725 Orinsby St., Adrian, Mich. "I have a Victor R-32. I have used everything possible for an aerial. I would like to know if any DXer on your list uses a receiver similar to mine."

Robert L. Bridge, 66 Chestnut Street, Turtle Creek, Pa., wants any other owner of a similar set to tell him how he can make his Courier receiver more selective. His log has passed the 300 mark, seven of them being hundred-watters on the Pacific Coast and eleven Mexicans.

In three weeks, with his Emerson Model T four-tuber, M. E. Borah, 495 N. Main St., Ashland, Oregon, has brought in 154 stations including seven Jo's, 2YA and 10 AT. He has logged all states west of the big river and ten east of it. Wants to hear from other Emersonians.

"I have tuned in every state in the Union except Rhode Island, Wyoming and Idaho," comments Russell Hicks, 105 Navarre St., Monroe, Mich. "In two years and 11 months I have tuned in 394 stations in U. S., Canada, Mexico, Cuba, Porto Rico and Venezuela."

"I am a newcomer to DX, but since October 21st I have logged 177 stations," writes Morris J. Flashman, 120 Rose Ave., Syracuse, N. Y. "I have at least one station on each of the 97 channels and have almost completed my roster of stations."

Needs Three States

"I have a Buckingham 8-tube all-electric receiver," reports Carl Heyn, 2738 West 22nd St., Chicago, Ill. "and I have to date 465 stations in North America. I have all the states except Maine, Rhode Island and Nevada."

R. Hodge, 24 Briggs Street, Buffalo, N. Y., and his wife are Radexers who would like to join some DX club and hear from other owners of Scott, Zenith or Howard receivers.

"I have listened to KTFI at Twin Falls, Idaho, this morning at 1:35 a. m. EST. It came in at exactly 1240 kcys. with good volume and

tone," postcards Charles Keinath, 38 Prospect St., Newark, Ohio. "They were having a DX program and were reading a list of DX fans who had written in. I dropped them a line and hope to hear my name from their station next Sunday morning as announced. I also received a station, WRL, which I cannot find listed. They said they wanted to hear from DX listeners. They were on a low wave on the broadcast band. I didn't think to write down the frequency."

"WRAM has been ordered by the FRC to broadcast frequency checks on the mornings of January 6th and 20th, between 2 and 3 a. m. EST," reports Meyer Tuchinsky, 3436 Filbert St., Philadelphia, Pa. "Advise all readers to look for stations in North Carolina, South Carolina, Tennessee, Georgia, Alabama and Florida, on these same nights; also WKAQ. This is the old fourth district."

Can't Locate XETQ

"XETQ ought to be deleted," says Meyer Tuchinsky, 3436 Filbert St., Philadelphia, Pa. "I wrote to this station after copying an hour's program on 1230 kcys., and getting the first three letters of the call XET. My letter came back from Mexico City after a month and a half, with about a dozen postmarks on it, from every part of that city, advising that the station could not be located."

"CMCW is now on 955 kcys.," advises Meyer Tuchinsky, 3436 Filbert St., Philadelphia, Pa. "This is their fourth frequency, as they were formerly on 1270, 1325, and 1375 kcys. They are now on the air every Tuesday and Saturday morning from 1 to 2 EST, announcing in English and Spanish, and come through fine."

CFBO broadcasts the weather reports from the Maritime Provinces from 6:00 a. m. to 6:05 AST, is information that comes from George E. Lowry, David Street, Brampton, Ont., who also reports that KROW will give another DX program on January 21st but the hours are not known. Mr. Lowry now has 376 on his log.

More About CRICKET

STILL the inquiries come in regarding that cricket game mentioned in the last issue. We are hopeful that some reader will yet give us the station which broadcast this game before the forms for this number are closed. But at the moment of writing, it is still a mystery. VK2ME broadcast this series on the short waves but what station carried it in the broadcast band?

P. J. Hauss, 221 S. Butler Ave., Indianapolis, Indiana, thinks it was 4RK as it came in as the Aussies usually do. L. E. Wallace, 110 N. Duval St., Tallahassee, Fla., reports picking it up on approximately 915 kcys. and that the announcer had a marked British accent. Another announcer who gave the record of each of the players, also had the typical English pronunciation.

Earl R. Roberts, 105 Gomber Ave., Cambridge, Ohio, thinks he has solved the problem. "A friend has located the station I heard December 2nd, 3rd, and 6th, on 910-915 kcys. broadcasting a ball game," he writes. "It was Poste Parisien, Paris, France. How's that for a record? My first European and heard with really fine volume three mornings in succession. It came in from 1 a. m. to 3 a. m. EST and was loud enough so that nearly every word could be understood easily until after 2:00 when it faded continually." We can hardly believe, in view of the number of readers reporting the reception, that this program came from Paris. If it was a foreign station, it was much more likely one of the Australians. Mr. Roberts receives a number of the VK's such as 4BC, 4QG and others.

The first likely tip on the source of the cricket game comes from Bill Vornkahl, Westport, Conn., who says: "That station was a Canadian because the announcer said that the reports

were being read from cables and that we were hearing them but a few minutes after the plays were made. I did not hear any call letters but my guess is that it was CFQC at Saskatoon."

WITH THE EDITOR . . .

(Continued from page 8)

period in the United States in the fall of 1928. It is possible that the band from 160 kcs to 224, now used in Europe, may be set aside for broadcasting in North America.

Canadian Industries Limited, Box 1260, Montreal, Que., have published a most beautiful book regarding the 1932-1933 season of the "C-I-L Opera House of the Air," which interested listeners may secure upon request. This cycle of operas concludes with "A Midsummer Night's Dream" on January 29th and "Merrie England" on February 5th. It may be brought in between 9:00 and 10:00 p. m. EST. over stations CFRB, CKOC, CJGC, CNRO, CFCF or CKAC.

A number of readers of whom Clarence Markel, 622 North 7th St., Quincy, Ill., is one, have received station UYR on about 1740 kcs. The official Canadian list does not show any UYR but we believe this is a new station in Montreal, possibly a police. Will some of our Quebec readers please advise us? Right this minute comes a letter from Heinz Milark, 102-10 135th St., Richmond Hill, N. Y., with the information direct from Montreal police that VE9BM is the test call for their station UYR. Our guess was a good one.

G. Wightman, 1171 West 32nd Ave., Vancouver, B. C., wants to know what readers are tuning the long waves above the b. c. band and what success they are having. He has built a two-tuber to tune up to 15,000 meters.

"We have a Victor R. 30 battery set, using five 230 tubes and three 232 screen-grid," writes P. J. Hoffmann, Annaheim, Sask. "At times we

experience considerable trouble cutting out nearby stations (cross talk) and were wondering if the set could not be supplied with the 234 R.F. pentode tubes, the same as are now furnished with the latest Victor Model R. 68. These latter tubes are intended to cut out the cross talk, I understand."

If any of our readers have had experience with the tubes mentioned, will they give their opinion to Mr. Hoffmann?

Calibrating a Set

"MY set never was calibrated at all accurately," complains John H. Madigan, 379 Rockingham Street, Rochester, N. Y. "It is o. k. from 550 kcs. to 1000 and then it begins to read less than it should until WHAM comes in at 1115 instead of 1150 and WHEC is at 1345 instead of 1430 as it should be. The local agency told me that if the set calibrated all right at but one end of the dial, that was as much as I could expect! Is this trouble caused by misalignment?" We have often said before that there is nothing more annoying about a radio receiver than inaccuracy in calibration thus causing the operator to go through a sort of arithmetical calisthenics every time he wants to tune a station in. Before we bought any receiver, we should insist upon a demonstration. Fortunately this is an easy fault to detect before the purchase is made. Tune in a few stations and note whether they come in exactly where they should upon the dial. If they do not, then pass that receiver up as you would a bad check. No matter how faithful the tone or how beautiful the cabinet, if the dial is inaccurate you are just buying a constant source of annoyance.

Now what can be done about it? It is utterly out of the question to think of making any changes in the receiver to match the dial. The only recourse is to make the dial match the receiver. If all stations from

540 to 1500 read either too high or too low, they could be brought into position by changing the position of the dial upon the condenser shaft. But if some read too high and others too low or if some are right and others are wrong, there is no possible adjustment that will bring them into line. You will have to make a new scale.

Tune in as many different channels as you can and mark down their exact readings even to fractions. Now remove the old celluloid scale from your dial and use it as a pattern for cutting a new one. On the new scale mark your frequencies, not in accordance with the old scale, but in accordance with the channel log you have made. Your dial may not be beautiful when you have finished but at least it will be accurately calibrated.

If set manufacturers cannot calibrate their dials correctly in kilocycles, they should mark them with numbers from zero to 100. Perhaps some day the manufacturers will bring out a dial on which the kilocycle markings are adjustable and may be moved slightly either way so that the owner may calibrate his own set. Until then the moral is "*Do not buy any set that is not calibrated accurately.*"

The Bogota Program

“ON Saturday morning, December 17th, at 4:15 a. m. EST, I heard a man describing Colombia, then the man announced in Spanish and the station signed off at 5:10 a. m.,” reports Derek Wharton, 22 Elmwood Ave., Rye, N. Y. “The station operated on 665 kcs.”

Charles E. Head, Route 2, Box 74, Derry, N. H., reports the same program. “It came in at about 660 to 663 kcs. and appeared to be coming from Colombia, South America. I tuned in at about 4:15 a. m. and listened to this station until it closed at 5:05 a. m. EST. There was some

music and then quite a lot of talk describing Colombia, a good part of which was in English. They described the coffee they grow there and spoke of the temperature averaging nearly 100 degrees all the year. At no time did I hear them announce their call letters. They spoke of the different DX clubs such as the Atlantic and the International at Miami. They closed by playing their national anthem.

Others reporting this station were William E. Johnson, Vinalhaven, Maine, and Francis Kline, 608 Juniper Street, Quakertown, Pa.

Earl R. Robert, Cambridge, Ohio, answers these inquirers by saying: “Last Saturday morning, December 17th, I was lucky enough to pick up HJN, Bogota, Colombia, on 675 kcs. (The world list of broadcasting stations in the October RADEX shows HJN on 685 kcs.) This program was at my request dedicated to the Atlantic Radio Club. It was also dedicated to the Newark News and the International Radio clubs.”

On The Short Waves

(Continued from page 22)

scribed in his article in the November issue of this magazine. Mr. Houlgate advises us that he took this circuit from another magazine and we have been trying to secure permission to republish it but so far without success. Unless such permission can be secured, we regret that we cannot give out copies of the diagram.

“I have tried three makes of short-wave converters,” advises L. A. Brodhecker, Brownstown, Ind., “and found the Stewart-Warner the most satisfactory. With this set I pulled in EATH, a station in Buenos Aires, several Mexican stations; Bowmanville, Canada, comes in great. I have had IRO, Rome, Italy; EAQ, Madrid, Spain, and G5SW, Chelmsford, England.”

FEBRUARY DX CALENDAR

A. M. time is given as of the night before. Thus early Monday morning programs are listed under Sunday night. Time is given in Eastern Standard so that programs may be listed in proper sequence.

SUNDAY NIGHT

3:00-5:00—KPCB, 650, Seattle, Wash.
Feb. 5th
 2:30-5:00—10-BI, 1200, Prince Albert, Sask.
Feb. 5th, 12th, 19th, 26th
 12:00-1:00—WSAZ, 580, Huntington, W. Va.
 12:30-1:00—KNOO, 1110, Sioux Falls, S. D.
 1:00-3:00—WGES, 1360, Chicago, Ill.

MONDAY NIGHT

Feb. 6th
 4:45-5:00—WEAO 570, Columbus, Ohio
Feb. 6th, 20th
 5:00-6:00—WAWZ, 1350, Zarephath, N. J.

2:00-3:00—WQAN, 880, Scranton, Pa.

Feb. 27th

12:30-2:00—CJCY, 690, Calgary, Alta.
 4:00-5:00—KPOF, 880, Denver, Colo.
Feb. 6th, 13th, 20th, 27th
 12:00-2:30—WMIL, 1500, Brooklyn, N. Y.
 1:00-5:00—WABZ, 1290, New Orleans, La.
 2:00-4:00—KOY, 1390, Phoenix, Ariz.
 5:15-5:30—WHP, 1430, Harrisburg, Pa.

TUESDAY NIGHT

Jan. 31st
 2:00-9:00—KGIR, 1360, Butte, Mont.
 3:00-5:00—LV-1, 1430, San Juan, Arg.

Feb. 7th
 3:00-6:00—WOPI, 1500, Bristol, Tenn.

Feb. 14th
 2:00-3:00—WJMS, 1420, Ironwood, Mich.
 2:00-4:00—WHET, 1210, Troy, Ala.
 4:00-5:00—KFBL, 1050, Abilene, Kans.

Feb. 21st
 2:30-3:30—WCLO, 1200, Janesville, Wis.

Jan. 31st, Feb. 28th
 4:00-5:00—KGAR, 1370, Tucson, Ariz.

Feb. 7th, 14th, 21st, 28th
 12:00-1:00—XEH, 1132, Monterrey, Mex.
 1:00-4:00—WSUI, 880, Iowa City, Iowa
 3:00-4:00—CFJC, 1120, Kamloops, B. C.
 3:00-4:00—KFGQ, 1310, Boone, Iowa

WEDNESDAY NIGHT

Feb. 1st
 9:00-9:00—WEBQ, 1210, Harrisburg, Ill.
 1:00-3:00—KFJZ, 1370, Ft. Worth, Tex.
 2:00-3:00—CHWK, 665, Chilliwack, B. C.
 2:30-4:30—KXO, 1500, El Centro, Calif.

Feb. 8th, 22nd
 1:00-2:30—WCBQ, 1080, Zion, Ill.

Feb. 22nd
 1:00-4:00—WWNC, 570, Asheville, N. C.
Feb. 1st, 8th, 15th, 22nd
 11:30-1:00—KFUO, 550, St. Louis, Mo.
 12:00-1:00—WHBL, 1410, Sheboygan, Wis.
 2:00-3:00—KFNJ, 1310, Grand Junction, Colo.
 2:30-4:30—CKWX, 730, Vancouver B. C.
 2:30-4:30—KGPF, 1420, Shawnee, Okla.

THURSDAY NIGHT

Feb. 2nd, 16th
 11:30-3:00—WMBC, 1420, Detroit, Mich.

Feb. 9th
 3:00-5:00—WHBF, 1210, Rock Island, Ill.

Feb. 2nd, 9th, 16th, 23rd
 12:00-1:00—WTEL, 1310, Philadelphia, Pa.
 2:00-3:00—CFAC, 690, Calgary, Alta.
 3:00-4:00—CKOV, 1200, Kelowna, B. C.

FRIDAY NIGHT

Feb. 3rd, 17th
 1:00-5:00—KASA, 1210, Elk City, Okla.

Feb. 17th
 5:00-6:00—WJBU, 1210, Lewisburg, Pa.

Feb. 24th
 3:00-4:00—KDLR, 1210, Devils Lake, N. D.
 3:00-4:00—WHA, 940, Madison, Wis.
 4:30-6:30—10-BP, 1199, Wingham, Ont.

Feb. 3rd 10th, 17th 24th
 12:30-1:30—WCAJ, 590, Lincoln, Neb.
 1:00-2:00—CFCN, 985, Calgary, Alta.
 1:00-3:00—CKCL, 581, Toronto, Ont.
 1:00-2:00—WENC, 1420, Americus, Ga.
 1:30-3:30—KGEK, 1200, Yuma, Colo.
 4:30-5:00—CMJH, 1150, Ciego de Avila, Cuba

SATURDAY NIGHT

Jan. 28th
 3:00-4:00—WOL, 1310, Washington, D. C.
 4:00-5:00—WRDW, 1500, Augusta, Ga.
 5:00-6:00—KOOS, 1370, Marshfield, Ore.

Feb. 4th
 12:00-2:00—CMCH, 1395, Havana, Cuba
 12:00-4:00—WRBX, 1410, Roanoke, Va.
 1:00-3:00—WILL, 890, Urbana, Ill.
 1:30-2:30—CHGS, 1120, Summerside, P. E. I.
 2:00-3:00—CHML, 880, Hamilton, Ont.
 2:00-4:00—10-BQ, 1200, Brantford, Ont.
 3:00-4:00—KVOR, 1270, Colorado Springs
 6:30-7:30—WCAL, 1250, Northfield, Minn.

Feb. 4th, 18th
 1:00-5:00—WJEJ, 1210, Hagerstown, Md.
 2:30-4:30—10-AB, 1200, Moose Jaw, Sask.

Feb. 11th
 1:05-4:00—WNAD, 1010, Norman, Okla.
 1:30-3:00—YVIBC, 960, Caracas, Venez.

Feb. 11th, 25th
 1:00-3:00—KUSD, 890, Vermilion, S. D.

Feb. 18th
 2:00-3:00—WTOC, 1260, Savannah, Ga.

Feb. 25th
 12:00-4:00—WIBW, 580, Topeka, Kan.
 2:00-2:30—WFAS, 1210, White Plains, N. Y.

Feb. 4th 11th, 18th, 25th
 12:00-1:00—WJBK, 1370, Detroit, Mich.
 12:00-2:00—WCAH, 1430, Columbus, Ohio
 12:00-2:00—WGBL, 880, Scranton, Pa.
 12:00-3:00—CMCD, 1140, Havana, Cuba
 12:00-3:00—WWRL, 1500, Woodside, N. Y.
 12:00-5:00—WTFI, 1450, Athens, Ga.

12:30-3:00—WBBZ, 1200, Ponce City, Okla.
 1:00-1:30—WKY, 900, Oklahoma, City
 1:00-2:00—CMCY, 1325, Havana, Cuba
 1:00-2:00—KQV, 1380, Pittsburgh, Pa.
 1:00-2:00—WGBF, 630, Evansville, Ind.
 1:30-3:00—KMAC, 1370, San Antonio, Tex.
 1:00-3:00—KRLD, 1040, Dallas, Tex.
 1:00-3:00—WGES, 1360, Chicago, Ill.
 1:00-3:00—WIBG, 930, Glenside, Pa.
 1:00-3:00—WOW, 590, Omaha, Neb.
 1:00-1:00—KGU, 750, Honolulu, Hawaii
 1:15-2:30—WOMT, 1210, Manitowoc, Wis.
 2:00-3:00—CMGE, 1375, Cardenas, Cuba
 2:00-3:00—KFEL, 920, Denver, Colo.
 2:00-4:00—WWAE, 1200, Hammond, Ind.
 2:00-6:00—WTRC, 1310, Elkhart, Ind.
 2:30-1:30—CKWX, 730, Vancouver, B. C.
 3:00-4:00—CFCT, 630, Victoria, B. C.
 3:00-4:00—CKOV, 1200, Kelowna, B. C.
 3:00-4:00—KDB, 1500, Santa Barbara, Calif.
 3:00-4:00—KPFX, 920, Denver, Colo.
 3:00-4:00—KFXM, 1210, San Bernardino, Calif.
 3:00-4:00—KGER, 1360, Long Beach, Calif.
 3:00-6:00—KGCX, 1310, Wolf Point, Mont.
 4:00-5:00—XES, 1055, Tampico, Mex.
 4:00-6:00—KVOA, 1260, Tucson, Ariz.

WHAT'S ON THE AIR TONIGHT?

Fill in calls and dial numbers for those stations through which you best receive the three chains. You can then turn quickly to the one that has the feature you want.

COLUMBIA (C).....WABC NATIONAL, Red (R).....WEAF NATIONAL, Blue (B).....WJZ

Call	Dial	Call	Dial

Call	Dial	Call	Dial

Call	Dial	Call	Dial

TIME—E Eastern Standard; C Central Standard; M Mountain Standard; P Pacific Standard.

RADEX is the only publication listing stations in alphabetical order for your convenience.

Editor's Note: These programs are correct at the time of going to press but are subject to change thereafter.

MONDAY

E-5:45 p.m., C-4:45, M-3:45, P-2:45

B—Little Orphan Annie

CKGW KDKA WBAL WBZA WCKY
WGAR WHAM WIS WJAX WJR
WJZ WRVA WWCN

E-6:00 p.m., C-5:00, M-4:00, P-3:00

C—Freddie Rich's Orchestra

CFRB CKOK KFH KLZ KSCJ KSL
KTRH KVOR WAAB WABC WADC
WBCM WBIG WBRC WBT WCAO
WDAE WDBO WDOD WDSU WFAE
WFEA WHIC WICC WIP WJAS
WJSV WKBH WKBN WKBY WLBY
WLBZ WNAX WODX WOKO WORC
WQAM WSBT WSFA WSJS WSPD
WTAQ WTAR WTOG

R—Waldorf-Astoria Orchestra

CKGW KFYR KGO KOA KPRC
KSD KTBS WBN WCAE WCKY
WCSH WDAF WEAF WENR WFBR
WFL WHO WJAX WJOD WJAR
WKY WMC WOA WOC WRC WSB
WSMB WTAG WWCN

B—Del Lampe and Orchestra

KOIL KSO KWCR WBAL WJZ
WMAQ WREN

E-6:15 p.m., C-5:15, M-4:15, P-3:15

C—Reis and Dunn

CFRB CKOK KFAB KFH KLZ
KMBC KSCJ KSL KTRH KVOR
WAAB WADC WBCM WBIG WBRC
WBT WCAO WDAE WDBO WDOD
WDSU WEAN WFAE WGR WHEC
WIP WISN WJAS WJSV WKBH
WLBW WLBZ WNAX WOKO WORC
WQAM WSBT WSFA WSJS WSPD
WTAQ WTAR WTOG

E-6:30 p.m., C-5:30, M-4:30, P-3:30

C—Vaughn De Leath

CFRB CKOK KTRH WAAB WABC
WADC WBCM WBIG WBRC WBT
WDBO WDOD WDSU WEAN WFEA
WGR WJSV WKBN WLBW WLBZ
WOKO WORC WQAM WSFA WSJS
WSPD WTAR WTOG

R—Al Bernard, Minstrel Man

KFSO KGO KOA WBN WDAF
WEAF WGR WJOD WIS WMAQ
WMC WRC WSB WSMB

E-6:45 p.m., C-5:45, M-4:45, P-3:45

C—Buddy Harrod and Orchestra

CFRB CKOK WAAB WABC WADC
WBCM WDSU WEAN WFLA WHEC
WHK WIP WJAS WJSV WKBN
WKBW WLBW WLBZ WOKO WORC
WSBT WSPD WTOG

R—Rhythm String Quartet

WBEN WCAE WCSH WEAF WFBR
WFI WJAR WRC WSAI WTAG
WTAM WTIC WWJ

B—Lowell Thomas

CKGW KDKA WBAL WBZ WBZA
WGAR WHAM WJR WJZ WLW

B—Little Orphan Annie

KFYR KOIL KPRC KSO KSTP
KTBS KWCR KWK WBAP WDAY
WEBC WENR WKY WOAI WREN

E-7:00 p.m., C-6:00, M-5:00, P-4:00

C—Myrt and Marge

CKOK KRLD WABC WADC WCAO
WCAU WDRC WEAN WFBL WGR
WHK WJAS WJSV WKRC WNAC
WOKO WSBT WSPD WWVA

R—Jane Froman and Band

WCAE WCSH WEAF WFBR WSM

B—Amos 'n' Andy

CKGW KDKA WBAL WBZ WBZA
WCKY WFLA WGAR WHAM WJOD
WJAX WJR WJZ WLW WPTF WRC
WRVA WWCN

E-7:15 p.m., C-6:15, M-5:15, P-4:15

C—Buck Rogers in Year 2432

CKOK WABC WGR WHK WNAC

R—Wheatonville Ray Knight

WDAF WEAF WEEI WGY WHO
WJAR WLIT WMAQ WOC WOW
WRC WTAM WWJ

B—Tasteyest Jesters

KDKA WBAL WBZ WBZA WCKY

WHAM WJZ

E-7:30 p.m., C-6:30, M-5:30, P-4:30

C—Dolf Martin's Orchestra

WABC WCAO WCAU WDRC WEAN
WFBL WFEA WGR WHEC WHP
WJAS WLBZ WNAC WOKO WORC
WSJS

R—Melody Keepsakes

WCAE WEAF WEEI WFBR WGY
WHO WJAR WMAQ WOC WOW
WRC WTAG WWJ

B—Five Star Theatre

KDKA KTBS WBAL WBZ WBZA
WHAM WIS WJZ WMAJ WMC
WPTF WRVA WSZ WSMB WWCN

E-7:45 p.m., C-6:45, M-5:45, P-4:45

C—Boake Carter, News Flashes

CKOK KMBC KMOX WABC WBBM
WBT WCAO WCAU WCCO WGR
WHAS WHK WJSV WNAC

R—The Goldbergs

KFYR KPRC WBN WCAE WCSH
WEAF WEEI WFAA WFBR WGY
WJAR WKY WLIT WOAI WRC
WTAG WTAM WJZ

E-8:00 p.m., C-7:00, M-6:00, P-5:00

C—Whispering Jack Smith

CKOK KMBC KMOX WABC WADC
WCAO WCAU WDRC WEAN WFBL
WFBM WGN WGR WHAS WHK
WJAS WJSV WKRC WNAC WOKO
WSPD

R—Soconyland Sketches

WBEN WCSH WEAF WEEI WGY
WJAR WTAG WTIC

B—Clitquot Club Eskimos

KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WGAR
WHAM WJZ WLS WREN

E-8:15 p.m., C-7:15, M-6:15, P-5:15

C—Singin' Sam

CKOK KMBC KMOX WABC WADC
WCAU WCCO WDRC WEAN WFBL
WFBM WGN WGR WHK WJAS
WJSV WKRC WNAC WOKO WSPD

E-8:30 p.m., C-7:30, M-6:30, P-5:30

C—Fu Manchu Mystery

CFRB CKOK KMBC KMOX KRLD
WABC WADC WT WTCAO WCAU
WDRC WEAN WFBM WGN WGR
WHAS WHK WJAS WJSV WKRC
WNAC WOKO WOVO WSPD

R—Voice of Firestone

CFCF CKGW KPRC KSD KTBS
KVOO WBN WCAE WCSH WEAF
WEEI WFAA on 8:45 WFBR WFLA
WGY WHO WJOD WIS WJAR WJDX
WKY WLIT WLW WMAQ WMC
WOAI WOC WOW WRC WRVA
WSB WSM WSMB WTAG WTAM
WTIC WWJ WWCN

B—Jack Fulton

KDKA KSO WBAL WBZ WBZA
WJR WJZ WLW WREN

E-8:45 p.m., C-7:45, M-6:45, P-5:45

B—Phillips Lord in Country Doctor

KDKA KOIL KWCR KWK WBAL
WBZ WBZA WGAR WJR WJZ WLS
WREN

E-9:00 p.m., C-8:00, M-7:00, P-6:00

C—Chesterfield Program

CKOK KBD KERN KFBK KFFY
KPRC KGB KHJ KLRA KLZ KMBC
KMJ KMOX KOH KOIN KOL KOMA
KRLD KSL KTRH KTSR KVI KWG
WABC WADC WBRC WBT WCAH
WCAO WCAU WCCO WDAE WDBJ
WDBO WDRC WDSU WEAN WFBL
WFBM WGN WGST WJAS WHEC
WHK WISN WJAS WJSV WKBW
WKRC WLAC WLBY WMBG WMT
WNAC WOKO WORC WWOV WPG
WQAM WRFC WSPD WTAR WTOG

R—A. & P. Gypsies

KSD WBN WCAE WCSH WDAF

MONDAY—Continued

WEAF WEEI WGY WHO WJAR
WLIT WMAQ WOC WOV WRC
WSAI WTAG WTAM WTIC WWJ
B — Sinclair Wiener Minstrels
KDKA KFVK KOIL KPRC KSO
KSTP KTBS KTHS KVOO KWCR
KWK WAPI WBAL WBZ WBZA
WDAY WDBC WFLA WFLA WGAR
WHAM WIBA WIOD WIS WJAX
WJDX WJZ WJZ WKY WLW WMC
WOAI WREN WRVA WSB WSM
WSMB WTMJ WWNC

E-9:15 p.m., C-8:15, M-7:15, P-6:15
C — The Mills Brothers
CROK KMBC KMOX WABC WADC
WCAO WCAU WDRC WEAN WTFB
WGN WHAS WHK WJAS WJSV
WKBW WKRC WNBC WOKO WSPD

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — Mysteries in Paris
CROK KMBC KMOX WABC WADC
WBT WCAO WCAU WEAN WFLB
WGN WHK WJAS WJSV WKBW
WKRC WNAC WOKO WOVO WSPD

R — Paul Whiteman and Orchestra
KDYL KFI KFSD KFYR KGH
KGR KGO KGW KHQ KOA KOMO
KPRC KSD KSTP KTAI KTHS
WBEN WCAE WSH WDAF WDAY
WEAF WIBC WEEI WFLA WFR
WFLA WGY WHO WIBA WIOD
WJAR WJAX WJDX WKY WLIT
WMAQ WMC WOAI WOC WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAM WTMJ WWJ WWNC
B — Jack Frost's Melody Moments
KDKA WBAL WENR WGAR WHAM
WJR WJZ WLW

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Morton Downey
CFRB CROK KLZ KMBC KSCJ
KTSR KVOR WABC WADC WBCM
WBIG WBRC WBT WCAO WCAU
WDAE WDIO WDOD WDRC WDSU
WEAN WFBM WFEA WHEC WICC
WJAS WJSV WKBH WKBN WKBW
WLWB WLWZ WNAX WODX WOKO
WORC WPG WQAM WSPD WTAR
WTOC

R — Contented Program
CFCC CKGW KFYR KPRC KSD
KSTP WBN WCAE WDAF WDAF
WIBC WENR WFLA WFLA WGY
WHO WIOD WJAX WKY WMC
WOAI WOC WRVA WSAI WSB
WSM WTMJ WTMJ WWJ

B — Alice Joy, Contralto
KDKA KOA KOIL KSO KWCR
KWK WBAL WBZ WBZA WCKY
WGAR WHAM WJR WJZ WMAQ
WREN

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — Columbia Revue
CFRB CROK KLZ KMBC KSCJ
KTRH KTSR KVOR WAAB WABC
WADC WBBM WBCM WBIG WBRC
WBT WCAO WCAU WCOO WDAF
WDOD WDOD WDRC WDSU WFBM
WFSB WFLA WHEC WIBW WJAX
WJDX WJAS WJSV WKBH WKBN
WLWB WLWZ WLWZ WMBD WNAX
WODX WOKO WDRC WQAM WSJS
WSPD WTAR WTOC

R — National Radio Forum
KECA KGA KPO KSD KTAR KTBS
WHEN WSH WDAF WEAF WEEI
WENR WFBR WFLA WIBA WIOD
WIS WJAR WJDX WKY WOC
WRC WRVA WSAI WTAG WTAM
WWJ WWNC

B — Archer Gibson, Organist
CFCC KDKA KWCR KWK WBAL
WBZ WBZA WCKY WJR WJZ WREN

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C — Myrt and Marge
KDB KERN KFBK KFPY KFRC
KGB KHJ KLZ KMBC KMJ KMOX
KOIN KOL KSL KVI KWG WBBM
WCCO WDSU WFBM WHAS WLAC

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Howard Barlow's Symphony
CFRB CROK KFAB KFH KLZ
KMBC KNCJ KSL KTRH KVOR
WAAB WABC WADC WBCM WBRC
WBT WCAO WDOD WDRC WDSU
WEAN WFBM WFBM WHK WIBW
WICC WIP WISN WJAS WJSD
WKBN WKBW WLWB WLWZ WMBD
WNAX WODX WOKO WORC WQAM
WSBT WSJS WSPD WTAR WTOC

R — Ted Weems and Orchestra
KPYR KGO KOA KSD WBN WCAE
WCKY WDAF WEAF WIBC WFBR
WGY WHO WIBA WJAR WOC
WRC WTAG WTAM WWJ

B — Amos 'n' Andy
KDYL KFI KFSD KGO KGW KHQ
KOA KOIL KOMO KPRC KSTP
KTHS KWK WBAP WDAF WENR
WJDX WKY WMAQ WMC WOAI
WREN WSB WSM WTMJ

E-11:15 p.m., C-10:15, M-9:15, P-8:15
B — Cesare Sodero Concert Orchestra
KFI KFSD KFYR KGO KOA KPRC
KSO KTBS KWCR KWK WBAL
WCKY WBC WENR WFLA WGAR
WHAM WIBA WJAX WJR WJZ
WKY WMC WOAI WSB WSM WSMB
WWNC

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Guy Lombardo and Orchestra
CFRB CROK KFAB KFH KLZ
KMBC KMOX KSCJ KSL KTRH
KVOR WAAB WABC WADC WBCM
WBRC WBT WCAO WCAU WCOO
WDOD WDRC WDSU WFBM WFBM
WHK WIBW WICC WISN WJSV
WKBN WKBW WLWB WLWZ WMBD
WNAX WODX WOKO WORC WPG
WQAM WSBT WSJS WSPD WTAR
WTOC

R — Jack Denny and Orchestra
WEAF WFBR WJAR WRC WTAG
WTIC

R — Voice of Firestone
KDYL KFI KFSD KFYR KGH
KGR KGO KGW KHQ KOA
KOMO KSTP KTAR WDAY WBC
WIBA WTMJ

E-12:00 p.m., C-11:00, M-10:00, P-9:00
C — Abe Lyman and Orchestra
CROK KFAB KLZ KMBC KMOX
KRLD KSCJ KSL KTRH KVOR
WBIG WBRC WBT WCAU WCOO
WDOD WDSU WIBW WICC WISN
WJSV WKBW WLWB WMBD WNAX
WNAX WOKO WPG WSBT WSPD
WTOC

R — The Goldbergs
KDYL KECA KEX KGA KJR KOA
KPO
B — Russ Columbo and Orchestra
KDKA KOIL KWCR KWK KYW
WBZ WBZA WGAR WJZ WRC WREN

TUESDAY

E-5:45 p.m., C-5:45, M-3:45, P-2:45
B — Orphan Annie, See Monday

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C — H. V. Kaltenborn
CROK KFH KSCJ KSL KTRH KVOR
WAAB WABC WADC WBCM WBCM
WBIG WBRC WBT WCAO WDAE
WDBO WDOD WDRC WDSU WEAN
WFEA WHEC WICC WISN WJAS
WJSV WKBH WKBN WKBW WLWB
WLWZ WNAX WODX WOKO WORC
WQAM WSBT WSPA WSJS WSPD
WTAG WTAR WTOC

R — Waldorf-Astoria, See Monday
B — Gus Van and Joe Furst
KDKA KOIL KSO KWCR WBZ
WBZA WJZ WMAQ WJZ

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — Reis and Dunn, See Monday

E-6:30 p.m., C-5:30, M-4:30, P-3:30
R — Mid-Week Hymn Sing
KPYR KGO KOA KOMO KTBS
KTHS KVOO WBN WDAF WEAF
WFBR WFI WIS WMAQ WMC
WOAI WPTA WSB WSMB WTAG
WWNC

E-6:45 p.m., C-5:45, M-4:45, P-3:45
R — Back of the News
WBEN WEAF WFBR WFI WIS WJAR
WPTF WRC WSM WTAG WWJ
B — Lowell Thomas, See Monday
B — Orphan Annie, See Monday

E-7:00 p.m. C-6:00, M-5:00, P-4:00
C — Myrt and Marge, See Monday
B — Amos 'n' Andy, See Monday
R — Jay Dennis and Ted Reese
KDYL KFI KGIR KGO KHQ KOA
KTAR KTBS KVOO WBN WCHS
WDAF WEAF WFBR WIBA WJAR
WJDX WSAI WSB WSM WTAG WWJ

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Buck Rogers, See Monday
R — Wheatonville, See Monday
B — Radio in Education
KDKA KDYL KECA KEX KFSD
KPYR KGA KGIR KJI KOA KOIL
KPO KTBS KVOO KWCR WBZ
WBZA WENR WFLA WIBA WIS
WJDX WJZ WMC WOAI WPTF
WREN WSB WSM WSMB WWNC

E-7:30 p.m., C-6:30, M-5:30, P-4:30
R — Irene Taylor
WBEN WCAE WEAF WFBR WFI
WGY WJAR WRC WTAG WTAM

E-7:45 p.m., C-6:45, M-5:45, P-4:45
C — Boske Carter, See Monday
R — The Goldbergs, See Monday
B — Anson Weeks and Orchestra
CFCC CKGW KSO KWCR KWK
WBAL WBZ WBZA WGAR WHAM
WIOD WIS WJZ WREN WSMB
WWNC

TUESDAY—Continued

E-8:00 p.m., C-7:00, M-6:00, P-5:00

C—Easy Aces

CKOK KDB KERN KFBK KFPY
KFRK KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KSL KVI KWG
WAAB WABC WADC WCAO WCAU
WCCO WDRG WEAN WFBL WFBM
WGN WHAS WHK WJAS WJW
WKWB WKRC WOKO WQAM WSPD
R—Blackstone, Sanderson-Crumit
KSD KSTP KYW WBBN WCAE
WCSH WDAF WFAE WFCB WFEI
WFI WGY WHO WJR WOC WOW
WRC WSAI WTAR WTAM WJW
B—Eno Crime Club
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WGAR WHAM
WJZ WLW WMAQ WREN

E-8:15 p.m., C-7:15, M-6:15, P-5:15

C—Magic Voice

CKOK KMBC KMOX WABC WADC
WCAO WCAU WDRG WEAN WFBL
WFBM WGN WGR WHAS WHK
WJAS WJW WKRC WNAC WOKO
WSPD

E-8:30 p.m., C-7:30, M-6:30, P-5:30

C—Kate Smith

CKOK KMBC KMOX WABC WADC
WBCM WCAH WCAO WCAU WCCO
WFBL WFBM WGN WGR WHAS
WHCC WHK WISN WJAS WJW
WKWB WKRC WOKO WQAM WSPD
R—Wayne King and Orchestra
KSD KSTP WBBN WCAE WCKY
WCSH WFAE WFCB WFEI WFBR
WFI WGY WHO WJW WJR
WMAQ WOC WOW WRC WSAI
WTAR WTAM WTMJ WJW
B—Horlick-Health Talks
KDKA KOIL KWCR KWK WBAL
WBZ WBZA WGAR WHAM WJZ
WLS WLW WREN

E-8:45 p.m., C-7:45, M-6:45, P-5:45

C—Abe Lyman and Orchestra

CKOK KMBC KMOX WABC WADC
WCAO WCAU WDRG WEAN WFBL
WFBM WGN WGR WHAS WHK
WJAS WJW WKRC WNAC WOKO
WOW WSPD
B—Phillips Lord, See Monday

E-9:00 p.m. C-8:00, M-7:00, P-6:00

C—Chesterfield, See Monday

R—Ben Bernie and Orchestra

KFYR KOA KPRC KSTP WBAP
WBBN WCAE WCKY WCSH WDAF
WDAY WFAE WFEI WFBR WFI
WGY WHO WJW WJW WLS WMC
WQAI WOC WOW WRC WRVA
WSAI WSB WSM WSMB WTAR
WTAM WJW
B—Household Musical Memories
KDKA KSO KWK WBAL WBZ
WBZA WHAM WJR WJZ WMAQ
WREN

E-9:15 p.m., C-8:15, M-7:15, P-6:15

C—Threads of Happiness

CKOK KDB KERN KFBK KFH
KFPY KFRK KGB KHJ KLRA KLZ
KMBC KMJ KMOX KOIN KOMA
KRLD KSL KTRH KTSR KVI KVG
WABC WADC WBRG WBT WCAO
WCAU WCCO WDAE WDBO WDDO
WDRG WDSU WEAN WFBL WFBM
WGN WGST WHAS WHCC WHK
WJAS WJW WKWB WKRC WLAC

WNAC WOKO WQAM WRC

WSPD WTAR WTOC

E-9:30 p.m., C-8:30, M-7:30, P-6:30

R—Ed Wynn-Dan Voorhees

CFPC KDYL KFI KFSD KFYR
KGHL KGR KGO KGW KHQ KOA
KOMO KPRC KSD KSTP KTAR
KTBBS KTHS KVOO WBAP WBBN
WCAE WCSH WDAF WDAY WFAE
WFCB WFEI WFBR WFI WFLA
WGY WHO WJW WJW WLS WJR
WJW WJDX WKY WLW WMAQ
WMC WQAI WOC WOW WRC
WRVA WSB WSM WSMB WTAR
WTAM WTMJ WJW WJW
C—California Melodies
CFRC CKOK KFH KLZ KMBC
KMOX KSCJ KSL KTRH KTSR
WABC WBCM WBG WBRC WBT
WCAO WCAU WCCO WDAE WDDO
WDRG WEAN WFBM WFEA WHEC
WHK WJW WJAS WKWB WKBN
WLWB WLWZ WMBD WNAC WNAX
WODX WOKO WQAM WJW WTAR
WTOC
B—Garcia's Novelty Orchestra
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WGAR
WHAM WJR WJZ WREN

E-10:00 p.m., C-9:00, M-8:00, P-7:00

C—Five Star Theatre

KLRA WABC WBG WBT WCAO
WCAU WDBJ WDDO WDRG WDSU
WEAN WFBL WFLA WHP WVIC
WJAS WJW WKWB WLAC WMBG
WNAC WNOX WOBU WOKO WORC
WREC WJS WTAR

R—Lucky Strike Hour

KDYL KFI KFSD KFYR KGO KGU
KGW KHQ KOA KOMO KPRC KSD
KSTP KTAR TBS KTHS WAPI
WBAP WBBN WCAE WCSH WDAF
WDAY WFAE WFCB WFEI WENR
WFBR WFI WFLA WGY WHO
WJW WJW WLS WJW WJW
WJDX WKY WLW WMC WQAI
WOC WRC WRVA WSB WSM WSMB
WTAR WTAM WTMJ WJW WJW
B—Morin Sisters
CFPC CKGW KDKA KOIL KSO
KWCR KWK WBAL WCKY WGAR
WHAM WJR WJZ WREN

E-10:15 p.m., C-9:15, M-8:15, P-7:15

B—Sigmund Spaeth, Song Sleuth

CFPC KSO KWCR WBAL WCKY
WJZ WJW

E-10:30 p.m., C-9:30, M-8:30, P-7:30

C—Edwin C. Hill

CFRB CKOK KFH KLZ KMBC
KSCJ KTRH KTSR WAAB WABC
WADC WBBM WBCM WBG WBRC
WBT WCAO WCCO WDAE WDBO
WDDO WDSU WEAN WFBM WFBM
WFEA WHEC WHK WJW WJW
WIP WISN WJAS WJW WKBB
WKBN WKWB WLWB WLWZ WMBD
WNAX WODX WOKO WORC WPG
WQAM WJW WSPD WTAR WTOC
B—Homy Bailey, Soprano
KSO KWCR KWK WBAL WCKY
WGAR WHAM WJR WJZ WMAQ
WREN

E-10:45 p.m., C-9:45, M-8:45, P-7:45

C—William O'Neal, Tenor

CFRB CKOK WAAB WABC WADC
WBCM WBT WCAU WEAN WFEA
WHEC WHK WJW WJW WLS WJW

WKBN WKWB WLWB WLBZ WOKO

WORC WPG WSBT

C—Myrt and Marge See Monday

E-11:00 p.m., C-10:00, M-9:00, P-8:00

B—Lanny Ross, Tenor

CKGW WBAL WFLA WGAR WHAM
WIOD WIS WJAX WJZ WJW
C—Howard Barlow, See Monday
B—Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15

B—Cesare Sodero, See Monday

E-11:30 p.m., C-10:30, M-9:30, P-8:30

C—Isham Jones and Orchestra

CFRB CKOK KPAB KFH KLZ
KMBC KSCJ KSL KTRH WAAB
WABC WADC WBCM WBRG WBT
WCAO WCAU WCCO WDAE WDBO
WDDO WDRG WDSU WEAN WFBM
WHEC WHK WJW WJW WLS WJR
WJW WKBN WKWB WLWB WLWZ
WMBD WNAX WODX WOKO WORC
WPG WQAM WJW WSPD WTAR
WTOC WJW

E-12:00 m., C-11:00, M-10:00, P-9:00

C—Den Redman and Orchestra

CKOK KPAB KLZ KMBC KMOX
KRLD KSCJ KSL KTRH WABC
WBRG WBT WCAU WDAE WDDO
WDSU WEAN WJW WJW WLS WJR
WJW WKBN WLWB WMBD WNAC
WNAX WOKO WPG WSBT WSPD
WTOC

R—The Goldbergs, See Monday

B—Cab Calloway and Orchestra

KDKA KOIL KPRC KSO KTBS
KWCR KWK WAPI WBZ WBZA
WFLA WGAR WIOD WJR WJZ WJW
WMC WBBN WSB WSM WSMB
WJW

E-12:30 a.m., C-11:30, M-10:30, P-9:30

R—Sam Robbins and Orchestra

WAPI WCAE WFAE WFBR WFI
WFLA WJW WJW WMAQ WMC
WRC WSB WSM WSMB WTAM
WJW
R—Ben Bernie and Orchestra
KFI KFSD KGO KHQ KOMO KSD
KTAR

WEDNESDAY

E-5:45 p.m., C-4:45, M-3:45, P-2:45

B—Orphan Annie, See Monday

E-6:00 p.m., C-5:00, M-4:00, P-3:00

C—Vaughn DeLeath

CFRB CKOK KFH KMOX KSCJ
KSL KTRH KVOR WAAB WABC
WADC WBBM WBCM WBG WBT
WCAO WDAE WDBO WDDO WDRG
WDSU WFBM WFEA WHEC WIP
WISN WJW WJW WKBB WKBN
WKWB WLWB WLWZ WNAX WODX
WOKO WORC WQAM WSBT WJW
WJW WSPD WTAQ WTOC
R—Waldorf-Astoria See Monday

E-6:15 p.m., C-5:15, M-4:15, P-3:15

C—George Hall and Orchestra

CFRB CKOK KPAB KFH KLZ
KMBC KSCJ KSL KTRH KVOR
WAAB WADC WBCM WBG WBRC
WBT WCAO WDAE WDBO WDDO
WDRG WDSU WFBM WGR WHEC
WJW WIP WISN WJAS WJW

WEDNESDAY—Continued

WKBH WLBZ WNAX WOKO WORC
WQAM WSBT WNSA WSJS WSPD
WTAQ WTOC

E-6:45 p.m., C-5:45, M-4:45, P-3:45

C—The Funnyboners

CFRB CKOK KLZ KMBC WAAB
WADC WBCM WDSU WFAN WFEA
WHCC WTP WJAS WJSV WKBW
WKBW WLBW WLBZ WOKO WORC
WSPD WTOC

B—Lowell Thomas, See Monday

B—Orphan Annie, See Monday

E-7:00 p.m., C-6:00 M-5:00, P-4:00

C—Myrt and Marge, See Monday

B—Amos 'n' Andy, See Monday

E-7:15 p.m., C-6:15, M-5:15, P-4:15

C—Buck Rogers, See Monday

R—Wheatonville, See Monday

B—Carson Robison, Barbasol

KDKA KOIL KWK WBAL WBZ
WBZA WENR WJZ

E-7:30 p.m., C-6:30, M-5:30, P-4:30

C—Three X Sisters

WABC WCAO WCAU WDRC WEAN
WFBL WFEA WGR WHCC WHP
WJAS WJSV WLBZ WNAC WOKO
WORC

B—Five Star Theatre, See Monday

E-7:45 p.m., C-6:45, M-5:45, P-4:45

C—Boake Carter, See Monday

R—The Goldbergs, See Monday

E-8:00 p.m., C-7:00, M-6:00, P-5:00

C—Whispering Jack Smith, See Mon.

R—Royal Vagabonds, Ken Murray

KSD WHEN WCAE WCSH WDAF

WEAF WEAF WFBW WGY WJAR

WLIT WLS WOW WRC WSAI WTAG

WTAM WTIC WWJ

B—Eno Crime Club, See Tuesday

E-8:15 p.m., C-7:15, M-6:15, P-5:15

C—Singin' Sam, See Monday

E-8:30 p.m., C-7:30, M-6:30, P-5:30

C—Kate Smith, See Tuesday

R—The Shadow, Mystery Drama

WBEN WCSH WEAF WEEL WFBW

WGY WJAR WLIT WRC WTAG

WTIC

E-8:45 p.m., C-7:45, M-6:45, P-5:45

C—Abe Lyman, See Tuesday

B—Phillips Lord, See Monday

E⁹:00 p.m., C-8:00, M-7:00, P-6:00

C—Chesterfield, See Monday

R—Symphony Concert

KDYL KFI KFSD KFYR KGO KHQ

KOA KOMO KSD KTAR KTBS

KVOO WBEN WCAE WCSH WDAF

WEAF WFBW WFLA WHO WIBA

WIOD WLS WJAR WKY WLIT

WMC WOAI WOC WOW WRC WSB

WSM WTAG WTAM WWJ WNNC

B—Sherlock Holmes

CFCP CKGW KDKA KOIL KWCR

KWK WBAL WBZ WBZA WGAR

WHAM WJR WJZ WLS WLW WREN

E-9:15 p.m., C-8:15, M-7:15, P-6:15

C—Edwin C. Hill

CFRB CKOK KFH KMBC KRLD

KSCJ KSL KTEA KVOR WABC

WADC WBCM WBIQ WBRC WBT
WCAO WCCO WDAE WDBO WDOD
WDRC WDSU WEAN WFAN WFBM
WFEA WIBW WICC WIP WISN
WJAS WJSV WKBH WKBW WLBW
WLBZ WNAC WNAX WODX WOKO
WORC WQAM WSJS WSPD WTAR
WTOC

E-9:30 p.m., C-8:30, M-7:30, P-6:30

C—Guy Lombardo-Burns and Allen

CKOK KMBC KMOX KOMA KRLD

KTRH KTEA WABC WADC WCAO

WCAU WCCO WDRC WEAN WFBW

WFBM WGN WHK WJAS WJSV

WKBW WKRC WNAC WOKO WOWO

WSPD

B—Morton Downey and Donald Novis

KDKA KDYL KFI KGHL KGIR

KGO KGW KHQ KOA KOIL KOMO

KPRC KTAR KTBS KTHS KVOO

KWCR KWK WBAL WBZ WBZA

WENR WFAA WGAR WHAM WJDX

WJR WJZ WKY WLW WOAI WREN

WSB WSM WSMB

E-10:00 p.m., C-9:00, M-8:00, P-7:00

C—Boswell Sisters

CFRB CKOK KMBC KSCJ KSL

KTSA KVOR WABC WADC WBCM

WBIQ WBRC WBT WCAO WCAU

WCCO WDAE WDBO WDDO WDC

WDSU WEAN WFBM WFEA WHK

WICC WJAS WJSV WKBH WKBW

WLBW WLBZ WNAX WODX WOKO

WORC WPG WQAM WSPD WTAR

WTOC

R—Corn Cob Pipe Club

KDYL KFI KGHL KGIR KGO KGW

KHQ KOA KOMO KSD WBNB

WCAE WCSH WDAF WEAF WEEL

WENR WFBW WGY WHO WJAR

WLIT WLW WOC WOW WRC WRVA

WTAG WTAM WTIC WWJ

B—D. W. Griffith's Hollywood

KDKA KOIL KPRC KWK WBAL

WBZ WBZA WFAA WGAR WJR WJZ

WKY WMAQ WMC WREN WSB

WSMB

E-10:15 p.m., C-9:15, M-8:15, P-7:15

B—Alice Joy, Contralto

KFYR KSO KTBS KWCR WBAL

WBZ WBZA WCKY WDAY WEBC

WFLA WGAR WIBA WIS WJZ WKY

WREN WSB WSMB WNNC

E-10:30 p.m., C-9:30, M-8:30, P-7:30

C—Columbia Revue, See Monday

R—Carveth Wells

KDYL KFYR KGA KGHL KGIR

KOA KPRC KSD KSTP KTHS WDAF

WDAY WEBC WFAA WFBW WHO

WIBA WKY WMAQ WOAI WOC

WOW WTMJ

B—L'Heure Exquise

CFCP KDKA KSO KWCR WBAL

WCKY WENR WFLA WHAM WIOD

WIS WJAX WJR WJZ WRC WREN

WNNC

E-10:45 p.m., C-9:45 M-8:45, P-7:45

C—Myrt and Marge, See Monday

E-11:00 p.m., C-10:00, M-9:00, P-8:00

C—Howard Barlow, See Monday

R—Nellie Revell, Interview

KSD WCAE WCKY WEAF WFBW

WGY WJAR WLIT WRC WTAM

WWJ

B—Amos 'n' Andy, See Monday

E-11:15 p.m. C-10:15 M-9:15, P-8:15

B—Cesare Sodero, See Monday

E-11:30 p.m., C-10:30 M-9:30 P-8:30

C—Isham Jones, See Tuesday

E-12:00 p.m., C-11:00 M-10:00, P-9:00

C—Don Redman, See Tuesday

R—The Goldbergs, See Monday

B—Ben Bernie and Orchestra

KDKA KFYR KOIL KSO KWCR

KWK WBZ WBZA WEBC WENR

WFLA WGAR WIBA WIOD WJZ

WREN WWNC

E-12:15 a.m. C-11:15, M-10:15, P-9:15

B—Sherlock Holmes

KDYL KFI KFSD KGHL KGIR

KGO KGW KHQ KOA KOMO KTAR

THURSDAY

E-5:45 p.m., C-4:45, M-3:45 P-2:45

B—Orphan Annie, See Monday

E-6:00 p.m., C-5:00 M-4:00, P-3:00

C—H. V. Kaltenborn, See Tuesday

R—Waldorf-Astoria, See Monday

E-6:15 p.m., C-5:15, M-4:15, P-3:15

C—Harold Stern and Orchestra

CFRB CKOK KFAB KFH KLZ

KMBC KSCJ KSL KTRH KVOR

WAAB WADC WBIG WBRC WBT

WCAU WDAE WDDO WDRC WDSU

WGR WHCC WISN WJAS WJSV

WKBH WLBW WLBZ WNAX WOKO

WORC WQAM WSBT WSJS WSPD

WTAQ WTAR WTOC

E-6:30 p.m., C-5:30, M-4:30, P-3:30

C—Better Reception—O. H. Caldwell

CFRB CKOK WABC WBCM WBIG

WBRC WBT WCAO WDBO WDOD

WEAN WGR WJSV WKBN WLBZ

WORC WQAM WSA WJSJ WSPD

WTAR

E-6:35 p.m., C-5:35, M-4:35, P-3:35

R—Donald Novis, Tenor

KJR WEAF WFI WMAQ WRC

WNNC

E-6:45 p.m., C-5:45, M-4:45, P-3:45

C—Joe Haymes and Orchestra

CFRB CKAC KFH KLZ KMBC KSCJ

KVOR WAAB WADC WBBM WBCM

WBIQ WBRC WCAO WDAE WDBO

WDDO WDSU WFAN WFEA WHCC

WIP WISN WJAS WKBW WLBW

WLBZ WNAX WOKO WORC WQAM

WWSA WWSJ WSPD WTAQ WTAR

WWVA

B—Lowell Thomas, See Monday

B—Orphan Annie, See Monday

E-7:00 p.m. C-6:00, M-5:00, P-4:00

C—Myrt and Marge, See Monday

R—Jane Froman, See Monday

B—Amos 'n' Andy, See Monday

E-7:15 p.m., C-6:15, M-5:15, P-4:15

C—Buck Rogers, See Monday

R—Wheatonville, See Monday

B—Carson Robison, See Wednesday

E—7:30 p.m., C-6:30 M-5:30, P-4:30

THURSDAY—Continued

B — Louise Bernhardt, Contralto
KDKA KEX KGA KJR KOA KOIL
KPO KSO KTBS KWCH KWK WBAL
WBZ WBZA WGAR WIBA WIS WJZ
WOAI WREN WSM WSMB WWNC

E-7:45 p.m., C-6:45, M-5:45, P-4:45
C — Boake Carter, See Monday
R — The Goldbergs, See Monday

E-8:00 p.m., C-7:00, M-6:00, P-5:00
R — Rudy Vallee and Orchestra
CFCE CKGW KDYL KFI KFJR
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP KTAR WAPI WBAP
WBEN WCAE WCKY WCSH WDAF
WDAY WFAF WFCB WEEI WFBR
WFI WFLL WGY WHO WIOD WJAR
WJAX WJDX WKY WMAQ WMC
WOAI WOC WOW WRC WRVA
WSAI WSB WSM WSMB WTAG
WTAM WTMJ WWJ
C — Easy Aces, See Tuesday

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — Kate Smith, See Tuesday
B — Rin Tin Tin Thriller
KDKA KOIL KWK WBZ WBZA
WGAR WHAM WJZ WLS WLW
WREN

E-8:45 p.m., C-7:45, M-6:45, P-5:45
C — Abe Lyman, See Tuesday
B — Howard Thurston, Magician
KDKA KOIL KWK WBZ WBZA
WGAR WHAM WJR WJZ WLS
WLW WREN

E-9:00 p.m., C-8:00, M-7:00, P-6:00
R — Maxwell House Showboat
KDYL KFI KFSD KGO KGW KHQ
KOA KOMO KPRC KSD KSTP
KTAR KTBS WAPI WBEN WCAE
WCKY WCSH WDAF WFAF WEEI
WFBR WFI WFLL WGY WHO
WIOD WIS WJAR WJAX WJDX
WKY WMAQ WMC WOAI WOC
WOW WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WTMJ WWJ
WWNC

C — Chesterfield, See Monday
B — Death Valley Days
KDKA KOIL KWK WBAL WBZ
WBZA WGAR WHAM WJR WJZ
WLS WLW WREN

E-9:15 p.m., C-8:15, M-7:15, P-6:15
C — Mills Brothers, See Monday

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — Col. Stoopnagle and Budd
CKOK KDB KERN KFBK KFH
KFYP KFRC KGB KHJ KLRA KJZ
KMBC KMJ KMOX KOIN KOL
KOMA KSCJ KSL KTRH KTAT
KTSa KVI KWG WABC WADC
WBRC WBT WCAH WCAO WCAU
WCCO WDAE WDBO WDRC WDSU
WEAN WFBL WFBM WGN WGST
WHAS WHFC WHK WJAS WJSV
WKBW WKRC WLK WNAC WOKO
WOWO WQAM WRFC WRR WSPD
WTAR

B — Len Joy's Dancing Strings
KDKA KFSD KOIL KSO KWCW
KWK WBAL WBZ WBAZ WENR
WGAR WHAM WJZ WREN

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Five Star Theatre, See Tuesday
R — Lucky Strike, See Tuesday
B — Mr. Twister, Jim Jordan
CFCE CKGW KDKA KOIL KWCR
KWK WBAL WBZ WBZA WCKY
WGAR WHAM WJR WJZ WMAQ
WREN

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — Edwin C. Hill, See Tuesday
B — Ilomay Bailey, See Tuesday

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C — Charles Carlile, Tenor
CFRB CKOK WAAB WABC WADC
WBCW WCAU WDRC WDSU WEAN
WFBA WHEC WHK WICC WJAS
WJSV WKBN WLWB WLWZ WOKO
WOWC WSPD
C — Myrt and Marge, See Monday

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Howard Barlow, See Monday
R — Don Bestor and Orchestra
WDAF WFAF WHO WJAR WOC
WOW WTAG
B — Three Keys
WBAL WHAM WIS WJZ WWNC
B — Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
B — Cesare Soderò, See Monday

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Asham Jones, See Tuesday
R — Jack Denny, See Monday

E-12:00 p.m., C-11:00, M-10:00, P-9:00
C — Abe Lyman, See Monday
R — The Goldbergs, See Monday

FRIDAY

E-5:45 p.m., C-4:45, M-3:45, P-2:45
B — Orphan Annie, See Monday

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C — Vaughn DeLeath, See Wednesday
R — Waldorf-Astoria, See Monday
B — Del Lampe, See Monday

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — George Hall, See Wednesday

E-6:45 p.m., C-5:45, M-4:45, P-3:45
B — Lowell Thomas, See Monday
B — Orphan Annie, See Monday

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C — Myrt and Marge, See Monday
R — Jane Froman, See Monday
B — Amos 'n' Andy, See Monday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Buck Rogers, See Monday
R — Borrah Minevitch, Harmonica
WCFE WDAF WFAF WJAR WOW
WRC

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C — Threc X Sisters, See Wednesday
B — Five Star Theatre, See Monday

E-7:45 p.m., C-6:45, M-5:45, P-4:45
C — Boake Carter, See Monday
R — The Goldbergs, See Monday

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Trade and Mark
CKOK KLZ KMBC KMOX KSL
WABC WADC WCAO WCAU WCCO
WDRC WEAN WFBL WFBM WGN
WGR WHAS WHK WJSV WKRC
WNAC WOKO WSPD

R — Cities Service Concert
CKGW KDYL KOA KPRC KSD
KSTP KTBS KYW WBEN WCAE
WCSH WDAF WFAF WFCB WEEI
WFAA WFBF WGY WHO WJAR
WKY WLIT WOL WOC WOW WJAZ
WSAI WTAG WTAM WTIC WTMJ
WWJ

B — Nestle's Program
KDKA KOIL KWK WBAL WBZ
WBZA WGAR WHAM WJR WJZ
WLS WREN

E-8:15 p.m., C-7:15, M-6:15, P-5:15
C — Singin' Sam, See Monday

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — March of Time
CKOK KDB KERN KFBK KFYP
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KSL KVI KWG
WABC WADC WCAO WCAU WCCO
WDRC WEAN WFBL WFBM WGN
WGR WHAS WHK WJAS WJSV
WKRC WNAC WOKO WOWO WSPD
B — Horlick Program, See Tuesday

E-8:45 p.m., C-7:45, M-6:45, P-5:45
B — Howard Thurston, See Thursday

E-9:00 p.m., C-9:00, M-7:00, P-6:00
C — Chesterfield, See Monday
B — First Nighter, Drama
KDKA KDYL KFI KFSD KGO KGW
KHQ KOA KOIL KOMO KPRC
KSTP KTAR KTBS KWK WAPI
WBAL WBZ WBZA WCKY WFCB
WGAR WHAM WJR WJZ WKY WLS
WOAI WREN WSB WSM WSMB
WTMJ

E-9:15 p.m., C-8:15, M-7:15, P-6:15
C — William Hall, Do Re Mi
CFRB CKOK KFH KLZ KMBC
KMOX KRLD KSCJ KSL KTSa
WABC WADC WBCW WBIG WBRC
WBT WCAO WCAU WCCO WDAE
WDBO WDOD WDSU WEAN WFBM
WFBA WHEC WHK WICC WISN
WJAS WJSV WKBH WLWB WLBZ
WNAC WNAX WOKO WORC WQAM
WSIS WSPD WTAR WTCO

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — Inside Story—Edwin C. Hill
CKOK KFH KLRA KMBC KMOX
KOMA KRLD KTRH KTSa WAAB
WABC WADC WBCW WCAH WCAO
WCAU WCCO WDRC WEAN WFBL
WFBM WGN WGR WHAS WHFC
WHK WHF WBW WISN WJAS
WJSV WKBH WLWB WLBZ WMBD
WOKO WORC WOWO WSPD

R — Pond's Program
KSD WBEN WCAE WCSH WDAF
WFAF WENR WFBF WGY WHO
WJAR WLIT WOC WOW WRC WSAI
WTAG WTAM WWJ

B — Eddie and Ralph
KDKA KDYL KFI KGO KGW KHQ
KOA KOIL KOMO KPRC KSO
KSTP KWK WAPI WBAL WBZ
WBZA WFCB WFAA WGAR WHAM

FRIDAY—Continued

WIOD WJAX WJR WJZ WKY WMAQ
WMC WOAI WREN WRVA WSB
WSM WSMB WTMJ WWNC

E-10:00 p.m., C-9:00, M-8:30, P-7:00

R — Chevrolet—Al Jolson
KDYI KEI KFSD KFYR KGHL
KGRJ KGO KGW KHQ KOA KOMO
KPRC KSD KSTP KTRT KTBS
KTHS KVOO WBNB WCAE WCSH
WDAF WDAY WEAF WEBC WEEI
WENR WFAA WFBR WFLA WGY
WIO WIBA WIOD WJZ WJAX
WJX WKY WLIT WLW WMC
WOAI WOC WOW WRC WRVA WSB
WSM WSMB WTAG WTAM WTIC
WTMJ WWJ WWNC
B — Morton Downey, See Monday
C — Alice Joy, See Monday

E-10:30 p.m., C-9:30, M-8:30, P-7:30

C — Columbia Revue, See Monday
B — Concert O chestra
KDKA KPRC KSO KWCR WBAL
WGAR WHAM WJZ WREN

E-10:45 p.m., C-9:45, M-8:45, P-7:45

C — Myrt and Margs, See Monday
R — Lanny Ross Tenor
KSD WCAE WCKY WEAF WFBR
WGY WOW WRC WTAG WTAM
WWJ

E-11:00 p.m., C-10:00, M-9:00, P-8:00

C — Howard Barlow, See Monday
R — Anson Weeks and Orchestra
KSD WCAE WCKY WEAF WFBR
WRC WTAG WWJ
B — Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15

B — Aileen Stanley, Soprano
CFCF CKGW KDYL KEX KFSD
KFYR KGA KJR KOA KPO KPRC
KSO KTBS KWCR WBAL WBAF
WBZ WBZA WCKY WEBC WENR
WFLA WIBA WIS WJZ WMC WREN
WSMB WWNC

E-11:30 p.m., C-10:30, M-9:30, P-8:30

C — Abe Lyman and Orchestra
CFRB CKOK KFAB KFH KLZ
KMBC KSCJ KSL KTRH KVOB
WAAB WABC WADC WBCM WBBC
WBT WCAO WCAU WCCO WDAE
WDBO WDOD WDRS WDSU WEAN
WFEM WHEC WHK WICC WISN
WJSV WLBW WLBZ WNAC WOKO
WORO WQAM WSPA WSJS WSPD
WTAR WTOC

E-12:00 p.m., C-11:00, M-10:00, P-9:00

C — Ben Pollack and Orchestra
CKOK KFAB KLZ KMBC KRLD
KSCJ KSL KTRH KVOB WABC
WBRC WBT WCAU WCCO WDAE
WDOD WDSU WICC WISN WJSV
WLBW WMBD WNAC WNAX WOKO
WPG WSBT WSPD WTOC
R — The Goldbergs, See Monday
B — Cab Calloway, See Tuesday

SATURDAY

E-5:45 p.m., C-4:45, M-3:45, P-2:45

B — Orphan Annie, See Monday

E-6:00 p.m., C-5:00, M-4:00, P-3:00

C — America's Grub Street
CFRB CKOK KFAB KFH KSCJ KSL
KTRH KVOB WAAB WABC WADC

WBWM WRCM WBIG WBRC WBT
WCAO WCAU WCCO WDAE WDBO
WDOD WDRS WDSU WEAN WFLA
WHEC WICC WISN WJSV WKBH
WLBW WLBZ WNAX WOKO WORC
WQAM WSBT WSPA WSJS WSPD
WTAG WTAR WTOC WWVA
R — Waldorf-Astoria, See Monday
B — Little German Band
KDKA KOIL KSO KWCR WBAL
WENR WJR WJZ WREN

E-6:30 p.m., C-5:30, M-4:30, P-3:30

B — Laws That Safeguard
KDYI KEX KFSD KFYR KGA KGRJ
KJR KOA KOIL KPO KPRC KSO
KSTP KTRT KTBS KTHS KWCR
KWK WBAL WBZ WBZA WCKY
WEBC WFLA WIBA WIOD WIS
WJAX WJR WJZ WKY WMAQ
WMC WOAI WREN WRVA WSB
WSMB WWNC

E-6:45 p.m., C-5:45, M-4:45, P-3:45

C — Funnyboners, See Wednesday
B — Fields and Hall
WBAL WGAR WHAM WIOD WIS
WJR WJZ WMC
B — Orphan Annie, See Monday

E-7:00 p.m., C-6:00, M-5:00, P-4:00

C — Frederick William Wile
KMBC KRLD KTRH WABC WADC
WBWM WBCM WBIG WBRC WBT
WCAO WCAU WDAE WDBO WDOD
WDRS WDSU WEAN WFBM WFLA
WGR WHEC WHK WICC WJAS
WJSV WLBW WLBZ WNAC WOKO
WQAM WSPA WSPD WTAR WWVA
R — Jackie Heller, Tenor
WEAF WFBR WFI WJAR WRC
WTAG
B — Anson Weeks and Orchestra
CFCF CKGW KDKA KSO KWK
WBAL WBZ WBZA WCKY WFLA
WGAR WHAM WJZ WLW WOAI
WSB WWNC

E-7:15 p.m., C-6:15, M-5:15, P-4:15

C — William Hall, Baritone
CFRB CKOK KTRH WABC WADC
WBCM WBIG WBRC WCAO WCAU
WDAE WDOD WDRS WDSU WEAN
WFBM WFLA WGR WICC WJAS
WJSV WLBW WLBZ WNAC WOKO
WORO WQAM WSPA WSJS WSPD
WTAR WWVA

R — Ozzie Nelson and Orchestra

CKGW KGO KOA WBNB WACE
WCKY WDAF WEAF WFBR WFI
WIO WJAR WOC WTAG WWJ

B — Merle Thorpe Talk

KDYI KECA KEX KFSD KFYR
KGA KJR KOA KOIL KPO KPRC
KSTP KTBS KWCR KWK WBAL
WBZ WBZA WEBC WENR WFLA
WGAR WHAM WIBA WIOD WIS
WJDX WJZ WKY WMC WOAI
WREN WSB WSMB WWNC

E-7:45 p.m., C-6:45, M-5:45, P-4:45

C — Street Singer
CFRB CKOK KMBC KMOX KRLD
KSCJ KSL KTRH KVOB WABC
WADC WBCM WBIG WBBC WBT
WCAO WCAU WCCO WDAE WDBO
WDOD WDRS WDSU WEAN WFBM
WFLA WGR WHEC WISN WJAS
WJSV WKBH WLBW WLBZ WNAC
WOKO WQAM WSPA WSPD WTAG
WTAR WTOC

B — Cuckoo—Ray Knight
CKGW KFYR KSO KWCR KWK
WBAL WBZ WBZA WCKY WEBC
WFLA WGAR WHAM WIBA WIOD
WIS WJDX WJZ WMC WREN
WSB WSMB WWNC

E-8:00 p.m., C-7:00, M-6:00, P-5:00

C — Easy Aces, See Tuesday
R — Archer Gibson Organist
KEX KGA KJR KOA KPO KPRC
KSD KTBS WBNB WDAY WEAF
WEBC WEEI WFI WHO WIBA WIS
WJAR WMAQ WMC WOAI WOC
WWSB WSMB WTAG WTAM WWJ
WWNC
B — American Taxpayers' League
KDKA KDYL KEX KFSD KFYR
KGA KGRJ KGLR KJR KOA KOIL
KPO KPRC KTRT KWK WAPI
WBAL WCKY WDAY WEBC WFLA
WHAM WIBA WIOD WJAX WJDX
WJZ WLS WRC WREN WSM WSMB
WWNC

E-8:15 p.m., C-7:15, M-6:15, P-5:15

C — Magic Voice, See Tuesday
B — Boston Symphony Orchestra
CFCF CKGW KDKA KOIL KSO
KWCR KWK WBAL WBZ WBZA
WCKY WGAR WHAM WJR WJZ
WREN

E-8:30 p.m., C-7:30, M-6:30, P-5:30

C — Alexander Haas Gypsy Ensemble
CFRB CKOK KFH KLZ KMBC
KSCJ KSL KTRH KTHS KVOB
WABC WADC WBCM WBIG WBRC
WBT WCAO WCCO WDAE WDBO
WDOD WDRS WDSU WEAN WFBM
WFLA WGR WHEC WICC WISN
WJSV WKBH WLBW WLBZ WNAX
WOKO WORC WPG WQAM WSBT
WSPA WSPD WTAR WTAR WTOC

R — Economic World Today

KDYI KFSD KFYR KGA KGHL
KGRJ KJR KOA KPO KPRC KSD
KSTP WAPI WBAP WBNB WCSH
WDAF WDAY WEAF WEBC WEEI
WFBR WFI WFLA WGY WHO WIBA
WIOD WIS WJAR WJDX WKY
WMAQ WMC WOAI WOC WOW
WRC WSAI WSMB WTAG WTAM
WWJ WWNC

E-9:00 p.m., C-8:00, M-7:00, P-6:00

C — Chesterfield, See Monday

E-9:15 p.m., C-8:15, M-7:15, P-6:15

C — Edwin C. Hill
CFRB CKOK KFH KLZ KMBC
KRLD KSCJ KSL KTRH KTHS
KVOB WABC WADC WBBM WBCM
WBIG WBRC WBT WCAO WCCO
WDAE WDBO WDOD WDRS WDSU
WEAN WFBM WFLA WGR WHEC
WHK WFC WIP WISN WJAS WJSV
WKBH WLBW WLBZ WNAX WOKO
WORO WQAM WSBT WSPD WTAR
WTOC

E-9:30 p.m., C-8:30, M-7:30, P-6:30

C — Carborundum Band
CKOK KMBC KMOX WAAB WABC
WCAO WCAU WCCO WGN WHAS
WHK WJAS WKBW WKRC WSPD
R — George Olsen and Orchestra
KDYI KEI KFSD KFYR KGO KGW
KHQ KOA KOMO KSD KSTP WHAP
WBNB WCAE WCSH WDAF WDAY
WEAF WEBC WEEI WFBR WFI

SATURDAY—Continued

WGY WHO WIBA WJAR WKY WLW
WMAQ WOAI WOC WOW WRC
WSAI WSB WTAG WTAM WTMJ
WWJ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
R — Boswell Sisters, See Wednesday
R — Lucky Strike, See Tuesday

E-10:15 p.m., C-9:15, M-8:15, P-7:15
C — Public Affairs Institute

KFH KLZ KSCJ KTRH KTSa KVOR
WAAB WBAC WADC WBBM WBCM
WBIG WBRC WBT WCAO WCAU
WCCO WDAE WDBO WDDO WDRC
WDSU WEAN WFBM WFEA WHEC
WICC WJAS WJSV WKBH WLWB
WLWB WMBD WNAX WOKO WORC
WPG WQAM WSBT WSJS WSPD
WTAR WTOC WWVA

B — Salon Singers

CFCE CKGW KDKA KOIL KSO
KWCR WBAL WBZ WBZA WGAR
WHAM WJZ WMAQ WREN

E-10:30 p.m., C-9:30, M-8:30, P-7:30
B — Harding Sisters, Piano

CFCE CKGW KDKA KOIL KSO
KWCR KWK WBAL WGAR WHAM
WJZ WMAQ WREN

E-10:45 p.m., C-9:45, M-8:45, P-7:45
B — Pickens Sisters

CKGW KDKA KOIL KSO KWK
WBAL WHAM WJZ WMAQ WREN

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Guy Lombardo and Orchestra

CFRB CKOK KFAB KLZ KSCJ KSL
KTRH KVOR WAAB WABC WADC
WBCM WBRC WBT WCAO WCAU
WCCO WDAE WDBO WDDO WDRC
WDSU WEAN WFBM WFEA WHEC
WICC WJAS WJSV WKBH WLWB
WLWB WMBD WNAX WOKO WORC
WPG WQAM WSBT WSJS WSPD
WTAR WTOC WWVA

R — Jack Denny and Orchestra

KSD WBEN WCAE WCKY WDAF
WEAF WEEL WFRB WFI WGY
WHO WJAR WOC WRC WSAI WTAG
WWJ

B — Buccaneers, Vocal Trio

CFCE KDKA KOIL KSO KWCR
KWK WBAL WBZ WHAM WJZ
WREN

E-11:15 p.m., C-10:15, M-9:15, P-8:15
B — Lew White Organist

KOIL KSO KWCR KWK WBAL WBZ
WBZA WGAR WHAM WJR WJZ
WRC WREN

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Harold Stern and Orchestra

CFRB CKOK KFAB KLZ KSCJ KSL
KTRH KVOR WAAB WABC WADC
WBCM WBRC WBT WCAO WCCO
WDAE WDBO WDDO WDRC WDSU
WEAN WFBM WFEA WHEC WICC
WIP WJSV WKBH WLWB WLWB
WNAX WOKO WORC WQAM WSBT
WSJS WSPD WTAR WTOC WWVA

R — Paul Whiteman and Orchestra

KSD WBEN WCAE WCKY WDAF
WEAF WEEL WFRB WFI WGY
WHO WJAR WMAQ WOC WTAG
WWJ

E-12:00 p.m., C-11:00, M-10:00, P-9:00

C — Ted Fiorito and Orchestra

CKOK KFAB KFAB KLZ KSCJ KSL
KTRH KVOR WABC WBRC
WBT WCAU WCCO WDDO WDSU
WFBM WFK WICC WJAS
WJSV WLWB WMBD WNAX WOKO
WPG WSBT WSPD WTOC

R — Ted Weems and Orchestra

KDYL KFSD KFYR KGA KGHL
KJR KOA KPO KPRC KSD KSTP
KTAR KTBS WCAE WCKY WDAF
WDAY WEAF WFAA WFRB WFI
WGY WHO WIBA WIOD WJAR
WJAX WMAQ WMC WOAI WOC
WRC WSB WSBM WTAG WTAM
WWNC

E-12:30 a.m., C-11:30, M-10:30, P-9:30

R — Vincent Lopez and Orchestra

KDYL KEX KFYR KGA KJR KPO
KPRC KSD KSTP KTBS KVOP
WBEN WCAE WCKY WDAF WEAF
WFRB WFI WFLA WHO
WIBA WIOD WJAR WJAX WKY
WMC WOAI WOC WSB WSBM
WTAG WTAM WWNC

SUNDAY

E-11:15 a.m., C-10:15, M-9:15, P-8:15

R — Major Bowes' Family

KDYL KEX KFSD KFYR KGA KJR
KOA KPO KPRC KVOP WBAF
WDAF WDAY WEAF WFRB WFLA
WGY WHO WIOD WJAR WJAX
WKY WMC WOC WRC WSM WSBM
WTAG WTAM WTMJ WWJ WWNC

E-12:00 p.m., C-11:00, M-10:00, P-9:00

C — Salt Lake Tabernacle Choir

CFRB CKOK KFAB KLZ KSCJ KSL
KTRH KTSa KVOR WABC WADC
WBCM WBIG WBT WCAO WCAU
WCCO WDAE WDBO WDDO WDRC
WDSU WEAN WFEA WGR WHEC
WHK WIBW WJAS WJAX WMBD
WNAX WODX WOKO WORC
WPG WQAM WSBT WSJS WSPD
WTAQ WTAR WWVA

E-12:30 p.m., C-11:30, M-10:30, P-9:30

R — Southland Sketches

CKGW KDYL KEX KFSD KFYR
KGA KGHL KGIR KJR KOA KPO
KPRC KTAR WCKY WCHS WDAF
WDAY WEAF WGAR WHO WIOD
WIS WJAX WOC WSBM WTAG
WTAM WWJ WWNC

E-12:45 p.m., C-11:45, M-10:45, P-9:45

C — Street Singer

CFRB CKOK KFAB KLZ KMBC
KSCJ KSL KTRH KTSa KVOR
WABC WADC WBCM WBIG WBT
WCAO WCCO WDAE WDBO WDDO
WDSU WGR WHEC WHK WIBW
WJAS WJAX WJSV WKBH WKBH
WLWB WLWB WMBD WNAX WODX
WOKO WPG WQAM WSJS WSPD
WTAQ WTAR WTOC WWVA

E-1:00 p.m., C-12:00, M-11:00, P-10:00

C — Thirty Minute Men

CFRB CKOK KFAB KLZ KMBC
KSCJ KTRH KTSa KVOR WAAB
WABC WADC WBCM WBRC WCCO
WDAE WDBO WDDO WDRC WDSU
WFBM WGR WHEC WHK WIBW

WJAS WJSV WKBH WKBH
WLWB WLWB WNAX WODX WOKO
WPG WQAM WSBT WSPA WSJS
WSPD WTAQ WTAR WWVA

R — K-7 Drama

WBEN WCAE WCKY WCHS WDAF
WEAF WFRB WFI WGY WJAR
WRC WSAI WTAG WTAM WWJ

E-1:30 p.m., C-12:30, M-11:30, P-10:30

C — Columbia Church of the Air

CFRB CKOK KLZ KSCJ KSL KTRH
KTSa KVOR WAAB WABC WADC
WBCM WBIG WCAO WCCO WDAE
WDBO WDDO WDRC WDSU WGR
WHEC WIBW WJAS WJSV WKBH
WLWB WLWB WNAX WODX WOKO
WPG WQAM WSBT WSJS WSPD
WTAQ WTAR WTOC WWVA

R — Walter Logan Pop Concert

KSD WBEN WCAE WCKY WCHS
WDAF WEAF WFRB WFI WGY
WJAR WOV WRC WSAI WTA
WTAM WWJ

E-2:00 p.m., C-1:00, M-12:00, P-11:00

C — Smiling Ed McConnell

CKOK KERN KFBB KFPY KFRC
KGB KHJ KLZ KMBC KMOX KOIL
KOL KSL KVI KWG WABC WBBM
WBT WCO WDSU WGR WGST
WHAS WHFC WJAS WJSV WKRC
WLAC WNAC WOWO WQAM WRR

R — International Radio Forum

CFCE CKGW KFI KFSD KGO KGW
KHQ KOA KOMO KSD KTBS WAPI
WBEN WCAE WCKY WCHS WDAF
WEAF WEEL WFAA WFRB WFLA
WGY WIOD WIS WJAR WJAX
WJDX WMC WOAI WOW WRVA
WSAI WSB WSM WSBM WTAG
WTAM WWJ WWNC

B — Monarch Mystery Tenor

KDKA KDYL KFI KFYR KGO KOA
KOIL KSO KSTP KWCR KWK WBZ
WBZA WCKY WDAY WEBC WGAR
WHAM WIBA WJAR WJAX WJR
WJZ WMAQ WREN WTMJ WWNC

E-2:15 p.m., C-1:15, M-12:15, P-11:15

C — Victor Arden and Orchestra

CKOK KMBC KMOX WABC WBBM
WCAO WCAU WGR WHEC WHK
WJAS WRC WNAC WOKO WOWO

R — Clyde Doerr's Saxophone Octet

CFCE CKGW KFI KFSD KGO KGW
KHQ KOA KOMO KPRC KSD KTBS
KYW WAPI WBEN WCAE WCKY
WCHS WDAF WEAF WFAA WFRB
WFLA WGY WIOD WIS WJAR
WJAX WJDX WKY WMC WOAI
WOW WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WWJ WWNC

E-2:30 p.m., C-1:30, M-12:30, P-11:30

R — Moonshine and Honeysuckle

CFCE CKGW WCAE WCKY WCHS
WDAF WEAF WEEL WFRB WGY
WHO WJAR WMAQ WOC WOW
WRC WTAG WTAM WWJ

B — Yeast Foamers

KDKA KDYL KFI KFSD KFYR
KGHL KGIR KGO KGW KHQ KOA
KOL KOMO KPRC KSO KSTP
KTAR KTHS KVOP KWCR KWK
KYW WAPI WBAL WBZ WBZA
WDAY WEBC WFAA WFLA WGAR
WHAM WIBA WIOD WIS WJAX
WJDX WJR WJZ WKY WLW WMC

SUNDAY—Continued

WOAI WPTF WREN WRVA WSB
WSM WSMB WTMJ WWNC

E-2:45 p.m., C-1:45, M-12:45, P-11:45
C—Hoosier Editor

KERN KFAB KFBK KFPY KFRC
KGB KHJ KLZ KMBC KMOX KOIN
KOL KOMA KSL KVI KWX WABC
WBMM WCAH WCAO WCAU WCCO
WGR WHAS WHK WJAX WWSV
WKRC WMT WNAC WOWO WRR

E-3:00 p.m., C-2:00, M-1:00, P-12:00

C—N. Y. Philharmonic Orchestra
CFRB CKOK KFAB KFH KLZ KMBC
KRLD KSCJ KSL KTRH KVOR
WAAB WABC WADC WBCM WBZ
WBRC WBT WCAO WCCO WDAF
WDBO WDOO WDRC WDSU WDFW
WFBM WFEA WHEC WHK WIBW
WICC WIP WJAX WJWS WWSV
WKBN WKBY WLWB WLWB WMBD
WODX WOKO WORC WQAM WSBT
WSFA WSJS WSPD WTAQ WTR
WTOC WWVA

R—Wayne King and Orchestra

KDYL KFI KGO KGW KHQ KOA
KOMO KPRC KSD KSTP KTBS
KTHS KVOO KYW WBNB WCAE
WCKY WCSH WDAF WDAF WIBC
WEEI WFAA WFBR WGY WHO
WIBA WJAR WKY WLIT WOAI
WOC WOW WRC WSAI WTAG
WTAM WTMJ WWJ

B—Our American Music

KOIL KWCR KWK WBAL WFLA
WGAR WJAX WJAX WJAX WMAQ
WREN WRVA WSB WSM WSMB
WSM WWNC

E-3:30 p.m., C-2:30, M-1:30, P-12:30

R—Dr. S. Parkes Cadman
KDYL KFSJ KFNR KGHL KGO
KHQ KOA KOMO KPRC KSD
KSTP KTAR KTHS KVVO WBNB
WCAE WCSH WDAF WDAY WDAF
WDFW WEEI WFBR WGY WHO
WIBA WJAR WKY WLIT WOAI
WOC WOW WRC WSAI WTAM WWJ

B—Manhattan Merry-Go-Round

KDKA KOIL KWCR WHM KYW
WBAL WBZ WBZA WHAM WJZ
WREN

E-4:00 p.m., C-3:00, M-2:00, P-1:00

—Father Coughlin
KMOX KSTP KYW WCAO WCAU
WDRB WEAN WFBL WFAA WGAR
WGR WHB WMT WJAS WJR WLWB
WLW WMT WNAC WNBH WOC
WLO WOKO WOR WORC

R—Jodent—Jane Froman

KDYL KFI KFSJ KFNR KGHL
KGR KGO KGW KHQ KOA KOMO
KPRC KTAR KTBS KTHS KVVO
WAPI WBAP WBNB WCAE WCSH
WDAF WDAY WDAY WIBC WEEI
WFBR WFLA WGY WIBA WIOD
WLS WJAR WJAX WJDX WKY
WLIT WMAQ WMC WOAI WOW
WPTF WRC WRVA WSAI WSB
WSM WSMB WTAM WTMJ WTMJ
WWJ WWNC

B—Temple of Song

CFPC KDKA KFI KFSJ KFNR
KGHL KGO KGW KOA KOIL KSO
KSTP KTBS KWCR KWK WBAL
WBZ WBZA WCKY WIBC WGAR

WHAM WIBA WIOD WIS WJAX
WJR WJZ WKY WMAQ WMC WREN
WRVA WSB WSM WSMB WWNC

E-4:15 p.m., C-3:15, M-2:15, P-1:15

R—Wildroot—Vee Lawnhurst
KDYL KFI KGO KGW KHQ KOA
KOMO WBNB WCAE WCSH WDAF
WDAF WEEI WFBR WGY WJAR
WLIT WMAQ WOW WRC WSAI
WTAG WTAM WWJ

E-4:30 p.m., C-3:30, M-2:30, P-1:30

R—Squibb's Program
WBNB WCAE WCSH WDAF WDAF
WEEI WFBR WGY WJAR WMAQ
WOW WRC WTAG WTAM WWJ

B—National Youth Conference

KDYL KFSJ KFNR KGHL KGO
KGW KHQ KOA KOIL KOMO KPRC
KSO KSTP KTAR KVVO KWCR
KWK WAPI WBAL WBZ WJAZ
WDAY WIBC WENR WHAM WIOD
WIS WJAX WJDX WJZ WMC WOAI
WPTF WREN WRVA WSB WSM
WWNC

E-5:00 p.m., C-4:00, M-3:00, P-2:00

C—Roses and Drums
CKOK KMBC KMOX KRLD WAAB
WABC WADC WCAO WCCO WDSU
WGN WGR WHAS WHK WJAS
WJSV WKRC

R—Lowell Thomas

WBNB WCAE WDAF WEEI WFBR
WGY WJAR WRC WSAI WTAG
WTAM WWJ

B—National Vespers

KFSJ KFNR KGHL KGO KGW
KHQ KOA KOIL KOMO KPRC KSO
KTAR KTBS KWCR KWK WAPI
WBAL WBAP WBZ WJAZ WIBC
WFLA WGAR WIOD WIS WJAX
WJDX WJZ WOAI WPTF WREN
WSB WSM WSMB WWNC

E-5:15 p.m., C-4:15, M-3:15, P-2:15

R—Big Ben's Dream Dramas
WBNB WCAE WCSH WDAF WEEI
WFBR WFI WGY WJAR WMAQ
WRC WSAI WTAG WTAM WWJ

E-5:30 p.m., C-4:30, M-3:30, P-2:30

C—Blue Coal Musical Revue
WAAB WABC WCAO WCAU WDRB
WEAN WFBL WGR WHEC WHP
WOKO

B—Pages of Romance, Drama

KDKA KOIL KSO KWCR KWK
KYW WBAL WBZ WBZA WGAR
WJR WJZ WLW WREN

—Josef Koestner's Orchestra

KDYL KFI KFNR KGHL KGR
KGO KGW KHQ KOA KOMO KPRC
KSTP KTAR KTBS KVVO WAPI
WBAP WDAF WDAY WIBC WIBA
WJDX WKY WMC WOAI WSB WSM
WSMB WTMJ

E-6:00 p.m., C-5:00, M-4:00, P-3:00

C—H. V. Kaltenborn, See Tuesday
R—Catholic Hour
KDYL KEX KFNR KGHL KGR
KJR KOA KPRC KSD KTAR KTBS
KVVO WAPI WBAP WBNB WCAE
WCKY WCSI WDAF WDAY WDAF
WIBC WEEI WENR WFBR WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLIT WMC
WOAI WOC WOW WRC WRVA

WSAI WSB WSM WSMB WTAG
WTAM WWJ WWNC

B—Josef Koestner's Orchestra
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WENR
WGAR WHAM WJR WJZ WREN

E-6:15 p.m., C-5:15, M-4:15, P-3:15

C—Little Jack Little
CFRB CKOK KFAB KFH KLZ
KRLD KSCJ KSL KVOR WADC
WBMM WBCM WBIG WBRC WBT
WCAO WCAU WDBO WDOO WDRB
WDSU WEAN WFEA WHEC WIBW
WICC WIP WJAX WJWS WWSV
WKBN WLWB WLWB WNAX WOKO
WORC WPG WQAM WSBT WSFA
WSJS WSPD WTR WTOC WWVA

E-6:30 p.m., C-5:30, M-4:30, P-3:30

C—Cathedral Hour
CFRB CKOK KFH KIZ KMBC
KRLD KSCJ KSL KVOR WAAB
WABC WADC WBMM WBCM WBIG
WBRC WBT WCAO WCAU WCO
WDAE WDBO WDOO WDRB WDSU
WFBM WFEA WHEC WIBW WICC
WISN WJAS WJSV WKHN WKBN
WKWB WLWB WLWB WNAX WOKO
WORC WQAM WSBT WSFA WSJS
WSPD WTR WTOC WWVA

R—Our American Schools

KDYL KECA KEX KFSJ KFNR
KGA KOA KPO KPRC KSD KSTP
KTBS KVVO WBNB WBNB WCAE
WCSH WDAY WDAF WIBC WEEI
WENR WFBR WFLA WGY WIBA
WIOD WJAR WKY WLIT WMC
WOAI WOW WPTF WRC WRVA
WSAI WSM WSMB WTAG WWJ
WWNC

B—Paul Whiteman's Rhythmic Concert

CFPC CKGW KOIL KSO KWCR
KWK WBAL WBZ WBZA WCKY
WGR WHAM WJR WJZ WREN

E-7:00 p.m., C-6:00, M-5:00, P-4:00

C—World's Business, Dr. Klein
KFH KLZ KMBC KRLD KSCJ KSL
KTRH KVOR WABC WACO WADC
WBCM WBIG WBRC WBT WCAO
WCCO WDAE WDBO WDOO WDRB
WDSU WEAN WEAN WFBM WFEA
WGR WHEC WIBW WICC WIP
WISN WJAS WJSV WKHN WKBN
WLWB WLWB WNAX WNAX WOKO
WORC WPG WQAM WSBT WSFA
WSJS WSPD WTR WTOC WWVA

R—Barrah Minevitch, Harmonica

KDYL KFI KFSJ KFNR KGO KGW
KOA KPRC KTBS KVVO WBNB
WCAE WCKY WDAF WDAY WDAF
WIBC WEEI WENR WFLA WGY WIBA
WIOD WIS WJAR WJAX WMAQ
WOAI WRC WSMB WTAM WWJ
WWNC

C—Walter Smith and Concert Band

CKOK KFH KLZ KMBC KRLD
KSCJ KSL KTRH KVOR WABC
WADC WBCM WBIG WBRC WBT
WCAO WCCO WDAE WDBO WDOO
WDRB WDSU WDEAN WFBM WFEA
WFEA WGR WHEC WIBW WICC
WIP WJSV WKBN WKWB WLWB
WLWB WNAX WNAX WOKO WQAM
WSBT WSFA WSJS WSPD WTR
WTOC WWVA

R—Wheatnavorie, See Monday

SUNDAY—Continued

E-7:30 p.m., C-6:30, M-5:30, P-4:30

R — Pickens Sisters
CFPC KSD WBSN WCAE WDAF
WEAF WFBR WGY WIO WJAR
WOC WRC WSAI WTAG WVIC WWJ
B — Great Moments in History
KDKA KDYL KFI KFSB KFYR
KGO KGW KHQ KOA KOIL KOMO
KPRC KSTP KTR KTV KVOO KWCR
KWK WBAL WBZ WBZA WDAY
WEBC WFAA WFLA WGAR WHAM
WIBA WIOD WJAX WJDX WJR
WJZ WKY WLS WLW WMC WOAI
WPTF WREN WRVA WSB WSM
WSMB WTAM WWNC

E-7:45 p.m., C-6:45, M-5:45, P-4:45

C — Angelo Patri, Your Child
CKOK KMBC KMOX WABC WCAO
WCAU WCCO WFBL WGN WGR
WHAS WHK WJAS WJSV WKRC
WNAC
R — Trade and Mark
KSD WBSN WCAE WDAF WEAF
WFBR WGY WJAR WMAQ WRC
WSAI WTAG WTAM WWJ

E-8:00 p.m., C-7:00, M-6:00, P-5:00

R — Chase and Sanborn—Eddie Cantor
CFPC CKGW KDYL KFI KFSB
KFYR KGO KGW KHQ KOA KOMO
KPRC KSD KSTP KTR KVOO
WBSN WCAE WGSB WDAF WDAY
WEAF WEBC WFAA WFBR WFLA
WGY WIO WIOD WIS WJAR WJDX
WKY WLIT WLW WMAQ WMC
WOAI WOC WOV WRC WSB WSM
WSMB WTAG WTAM WVIC WTMJ
WWJ WWNC
B — Russian Gaities
KDKA KOIL KSO KWCR WBAL
WBZ WBZA WGAR WJR WJZ WLS
WREN

E-8:15 p.m., C-7:15, M-6:15, P-5:15

C — Andre Kostelanetz Presents
CKOK KLZ KMBC KMOX KRLD
KSCJ KSL KTRH KTSa KVR
WABC WADC WBBM WBCM WBRC
WBT WCAO WCAU WCCO WDAE
WDBO WDOB WDRC WDSU WEAN
WFBB WFEA WGR WHCC WHK
WIBW WISN WJAS WJSV WKBN
WLBW WLBZ WNAE WNAK WOKO
WDRS WBSZ WSEA WSSS WSPD
WTAR WTOC WVVV

E-8:30 p.m., C-7:30, M-6:30, P-5:30

C — Foreign Legion
CKOK KLRA KMBC KRLD KSCJ
KSL KTSa WABC WBCM WBT
WCAH WCAO WCAU WCCO WDBJ
WDBO WDOB WDRC WDSU WEAN
WFBB WFEA WGR WGST WHCC
WHK WHP WIBW WICC WISN
WJAS WKBH WKBN WLWB WLBZ
WMT WNAC WNAK WOV WOKO
WORC WREC WSFA WSSS WSPD
B — Red Adams Drama
KDKA KSO KWCR WBAL WBZ
WBZA WGAR WJR WJZ WLS WREN

E-9:00 p.m., C-8:00, M-7:00, P-6:00

C — Fred Allen's Bath Club
CKOK KDB KERN KFKB KFPY
KFCR KGB KHJ KLRA KLZ KMBC
KMJ KMOX KOIN KOL Koma KSCJ
KSL KVI KWG WABC WADC WBT
WCAH WCAO WCAU WCCO WDAE

WDBO WDOB WDRC WDSU WEAN
WFBL WFRM WGN WGR WGST
WHAS WHEC WHK WISN WJAS
WJSV WKRC WLAC WMT WNAC
WOKO WORC WOWO WQAM WREC
WSPD WTAR

R — General Electric Concert
KDYL KFI KFSB KFYR KGO KGW
KHQ KOA KOMO KPRC KSD KSTP
KTR KTSB KTHS WAPI WBEN
WCAE WGSB WDAF WDAY WEAF
WEBC WENR WFAA WFBR WFI
WFLA WGY WHO WIBA WIS WJAR
WJAX WJDX WKY WOAI WOC
WOW WRC WRVA WSAI WBS WSM
WSMB WTAG WTAM WTMJ WWJ
WWNC

B — Warden Lawes-Sing Sing
KDKA KOIL KSO KWCR KWK
KYW WBAL WBZ WBZA WGAR
WHAM WJR WJZ WLW WREN

E-9:30 p.m., C-8:30, M-7:30, P-6:30

C — Pennzoil Parade
CKOK KLRA KMBC KMOX KOMA
KTSa WABC WADC WBIC WBT
WCAO WCAU WCCO WDRC WEAN
WFBL WGN WGR WGST WHAS
WHEC WJAS WJSV WKRC WLAC
WLBZ WNAC WOKO WSPD

R — Album of Familiar Music
KDYL KFI KGO KGW KHQ KOA
KOMO KPRC KSD KSTP KTHS
WAPI WBEN WCAE WCKY WGSB
WEAF WENR WFAA WFBR WFI
WFLA WGN WHO WIOD WJAR
WJAX WJDX WKY WMC WOAI
WOC WOW WRC WRVA WSAI WSB
WSM WSMB WTAG WTAM WTMJ
WWJ

B — Walter Winchell
KDKA KOIL KSO KWCR KWK
KYW WBAL WBZ WBZA WGAR
WHAM WJR WJZ WLW WREN

E-10:00 p.m., C-9:00, M-8:00, P-7:00

B — D. W. Griffith, See Wednesday

E-10:15 p.m., C-9:15, M-8:15, P-7:15

R — David Lawrence
KSD KTSB KVOO WEAF WENR
WFBR WFI WFLA WGY WIO WIOD
WIS WJAR WJDX WKY WOAI WOC
WOW WRC WSAI WWNC

E-10:30 p.m., C-9:30, M-8:30, P-7:30

C — Ernest Hutcheson, Pianist
CFRB CKOK KFH KLZ KMBC
KSCJ KTRH KTSa KVR WAAB
WABC WADC WBCM WBT WCAO
WCAU WCCO WDAE WDOB WDOB
WDRC WDSU WEAN WFRM WFEA
WGR WHEC WHK WIBW WICC
WISN WJAS WJSV WKBN WLBW
WLBZ WMBD WODX WOKO WORC
WPG WQAM WSSS WSPD WTAR
WTOC

R — Romances
KSD WBSN WCAE WDAF WEAF
WEEI WFBW WFI WGY WIO WIOD
WIS WJAR WJAX WMAQ WOV WOV
WRC WTAG WTAM WWJ WWNC
B — Orange Lantern Drama
CFPC CKGW KDKA KSO KWCR
KWK WBAL WGAR WJZ WREN

E-10:45 p.m., C-9:45, M-8:45, P-7:45

R — Sunday at Seth Parker's
CFPC CKGW KDYL KFSB KFYR
KGHL KGRH KGO KGW KHQ KOA
KPRC KSTP KTR KTSB KTHS
KYW WAPI WBAP WBEN WCAE

WCKY WCSH WDAF WDAY WEAF
WEBC WEEL WFBR WFI WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WMC WOAI WOC
WOW WRC WRVA WSAI WBS WSM
WSMB WTAG WTAM WTMJ WWJ
WWNC

E-11:00 p.m., C-10:00, M-9:00, P-8:00

C — The Gauchos
CKOK KFAB KPH KLZ KSCJ KTRH
KVR WAAB WABC WADC WBCM
WBRC WBT WCAO WDAE WDBO
WDOB WDRC WDSU WEAN WFBM
WFBM WGR WHEC WIBW WICC
WIP WISN WJAS WJSV WKBN
WLBW WLBZ WMBD WNAX WODX
WOKO WPG WQAM WSSS WSPD
WTAR WTOC

E-11:15 p.m., C-10:15, M-9:15, P-8:15

C — Angelo Patri, Your Child
KDB KERN KFKB KFPY KFCR
KGB KHJ KLZ KOIN KOL KSL KVI
KWG
B — Sam Herman, Zythophonist
CFPC CKGW KOIL KSO KWCR
KWK WBAL WGAR WHAM WJR
WJZ WMAQ WREN
B — Walter Winchell
KDYL KFI KGHL KGRH KGO KGW
KHQ KOA KOMO KPRC KTR
KTSB KTHS WAPI WBAP WJDX
WKY WMC WOAI WSB WSM WSMB

E-11:30 p.m., C-10:30, M-9:30, P-8:30

C — Isham Jones and Orchestra
CFRB KTRH WABC WADC WBCM
WBRC WBT WCAO WCAU WCCO
WDAE WDOB WDOB WDRC WDSU
WEAN WGR WICC WISN WJSV
WKBN WLBZ WNAC WOKO WPG
WQAM WSBT WSSS WSPD WTAR
WTOC

C — Pennzoil Parade
KDB KERN KFKB KFPY KFCR
KGB KHJ KLZ KMJ KOIN KOL
KSL KVI KWG
R — Melodic Serenade
KDYL KFSB KFYR KGHL KGO
KHQ KPRC KSTP KTR KTSB
WAPI WBAP WCAE WGSB WDAF
WEAF WEBC WENR WFBR WFLA
WGY WHO WIBA WIS WJAR WMC
WOC WOW WRC WSB WSM WTAG
WTAM WVIC WWNC

B — Jesse Crawford, Organist
KDKA KOIL KSO KWCR KYW
WBAL WBZ WBZA WCKY WHAM
WJZ WREN

E-12:00 p.m., C-11:00, M-10:00, P-9:00

C — Ben Pollack and Orchestra
CKOK KFAB KLZ KMBC KSCJ
KTRH KVR WABC WBRC WBT
WCAU WCCO WDAE WDOB WDOB
WGR WIBW WICC WISN WJSV
WLBW WMBD WNAC WNAX
WOKO WPG WSBT WSPD
R — Gus Van and Joe Furst
WCAE WEAF WFBR WGY WJAR
WOW WTAM

B — William Stoess and Orchestra
KFYR KGHL KGO KGW KHQ KOA
KOIL KOMO KPRC KSTP KTSa
KTRC KWK WBZ WBZA WDAY
WEBC WENR WFLA WGAR WHAM
WIBA WIOD WIS WJR WJZ WKY
WLW WMC WREN WSB WSM
WSMB WWNC

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Standard

BANDS

Carborundum Band, 9:30 p.m., Saturday, C.
Little German Band, 6:00 p.m., Saturday, B.

CONCERTS

Howard Barlow, 11:00 p.m., daily, ex. Sat. and Sun., C.
Boston Symphony, 8:15 p.m., Saturday, B.
Concert Footlights, 7:30 p.m., Thursday, B.
Concert Orchestra, 10:30 p.m., Friday, B.
Gauchos, 11:00 p.m., Sunday, C.
General Electric, 9:00 p.m., Sunday, R.
Alexander Haas, 8:30 p.m., Saturday, C.
L'Heure Exquise, 10:30 p.m., Wednesday, B.
Walter Logan, 1:30 p.m., Sunday, R.
N. Y. Philharmonic, 3:00 p.m., Sunday, C.
Russian Gaieties, 8:00 p.m., Sunday, B.
Walter Smith Concert, 7:15 p.m., Sunday, C.
Cesare Sodero, 11:15 p.m., daily, ex. Fri., Sat. and Sun., B.
Symphony Concert, 9:00 p.m., Wednesday, R.
Waldorf-Astoria, 6:00 p.m., daily, ex. Sunday, R.

DANCE BANDS

Ben Bernie, 12 mid., Wed., B; 9:00 p.m. and 12:30 a.m. Tuesday, R.
Don Bestor, 11:00 p.m., Thursday, R.
Cab Calloway, 12 mid., Tues. and Fri., B.
Jack Denny, 11:30 p.m., Mon. and Thurs.; 11 p.m., Sat., R.
Clyde Doerr, 2:15 p.m., Sunday, R.
Ted Fiorito, 12 mid., Saturday, C.
George Hall, 6:15 p.m., Wed. and Fri., C.
Buddy Harrod, 6:45 p.m., Monday, C.
Joe Haymes, 6:45 p.m., Thursday, C.
Isham Jones, 11:30 p.m., Sun., Tues., Wed. and Thurs., C.
Len Joy, 9:30 p.m., Thursday, B.
Wayne King, 3:00 p.m., Sun.; 8:30 p.m., Tues., R.
Del Lampe, 6:00 p.m., Mon. and Fri., B.
Guy Lombardo, 11:30 p.m., Mon.; 9:30 p.m., Wed.; 11:00 p.m., Sat., C.
Vincent Lopez, 12:30 a.m., Saturday, R.
Abe Lyman, 12 mid., Mon. and Thurs.; 11:30 p.m., Fri.; 8:45 p.m., Tues., Wed. and Thurs., C.
Dolf Martin, 7:30 p.m., Monday, C.
Ozzie Nelson, 9:30 p.m., Saturday, R.
George Olsen, 9:30 p.m., Saturday, R.
Bon Pollack, 12 mid., Sun. and Fri., C.
Don Redman, 12 mid., Tues. and Wed., C.
Harold Stern, 11:30 p.m., Saturday, C.
William Stoess, 12 mid., Sunday, B.
Rudy Vallee, 8:00 p.m., Thursday, R.
Anson Weeks, 7:45 p.m., Tues.; 7:00 p.m., Sat., B; 11:00 p.m., Fri., R.
Ted Weems, 11:00 p.m., Mon.; 12 mid., Sat., R.
Paul Whiteman, 6:30 p.m., Sun., B; 9:30 p.m., Mon.; 11:30 p.m., Sat., R.

DRAMA

Fred Allen, 9:00 p.m., Sunday, C.
Arms 'n' Andy, 7 and 11 p.m., daily, ex. Sat. and Sun., B.
Burns and Allen, 9:30 p.m., Wednesday, C.
Cuckoo, 7:45 p.m., Saturday, B.
Easy Aces, 8:00 p.m., Tues., Thurs. and Sat., C.
Howard and Shelton, 9:00 p.m., Tues. and Fri., C.
Marx Brothers, 7:30 p.m., Monday, B.
Baron Munchausen, 10:00 p.m., Thursday, R.
Ken Murray, 8:00 p.m., Wednesday, R.
Reis and Dunn, 6:15 p.m., Mon. and Tues., C.
Stoopnagle and Bud, 9:30 p.m., Thursday, C.
Mr. Twister, 10:00 p.m., Thursday, B.
Red Adams, 8:30 p.m., Sunday, B.
Big Ben, 5:15 p.m., Sunday, R.
Death Valley Days, 9:00 p.m., Thursday, B.
Eno Crime Club, 8:00 p.m., Tues. and Wed., B.
First Nighter, 9:00 p.m., Friday, B.
Foreign Legion, 8:30 p.m., Sunday, C.
Fu Manchu Mystery, 8:30 p.m., Monday, C.
Goldbergs, 7:45 p.m. and 12 mid., daily, ex. Sat. and Sun., R.
Great Moments in History, 7:30 p.m., Sunday, B.
Griffith's Hollywood, 10:00 p.m., Sun. and Wed., B.

Sherlock Holmes, 9:00 p.m. and 12:15 a.m., Wednesday, B.
K-7, 1:00 p.m., Sunday, R.
Phillips Lord, 8:45 p.m., Mon., Tues. and Wed., B.
Magie Voice, 8:15 p.m., Tues. and Sat., C.
March of Time, 8:30 p.m., Friday, C.
Moonshine and Honeyuckle, 2:30 p.m., Sunday, R.
Myrt and Marge, 7:00 and 10:45 p.m., daily, ex. Sat. and Sun., C.
Mysteries in Paris, 9:30 p.m., Monday, C.
Orange Lantern, 10:30 p.m., Sunday, B.
Pages of Romance, 5:30 p.m., Sunday, B.
Rin Tin Tin, 8:30 p.m., Thursday, B.
Buck Rogers, 7:15 p.m., daily, ex. Sat. and Sun., C.
Roses and Drums, 5:00 p.m., Sunday, C.
The Shadow, 8:30 p.m., Wednesday, R.
Soonyland Sketches, 8:00 p.m., Monday, R.
Snuibbs, 4:30 p.m., Sunday, R.
Wheatonville, 7:15 p.m., daily, ex. Fri. and Sat., R.

PIANO AND ORGAN

Jesse Crawford, 11:30 p.m., Sunday, B.
Archer Gibson, 10:30 p.m., Mon., B; 8:00 p.m., Sat., R.
Harding Sisters, 10:30 p.m., Saturday, B.
Ernest Hutcheson, 10:30 p.m., Sunday, C.
Vee Lawnhurst, 4:15 p.m., Sunday, R.
Ohman and Arden, 2:15 p.m., Sun., C.; 9:30 p.m., Sun. R.
Lew White, 11:15 p.m., Saturday, B.

POPULAR PROGRAMS

A. & P. Gypsies, 9:00 p.m., Monday, R.
Album of Familiar Music, 9:30 p.m., Sunday, R.
Bath Club, 9:00 p.m., Sunday, C.
Blue Coal Revue, 5:30 p.m., Sunday, C.
Major Bowes' Family, 11:15 a.m., Sunday, R.
California Melodies, 9:30 p.m., Tuesday, C.
Chase and Sanborn, 8:00 p.m., Sunday, R.
Cities Service, 8:00 p.m., Friday, R.
Chequott Club Eskimos, 8:00 p.m., Monday, B.
Columbia Revue, 10:30 p.m., Mon., Wed. and Fri., C.
Contented Program, 10:00 p.m., Monday, R.
Corn Cob Pipe Club, 10:00 p.m., Wednesday, R.
Firestone, 8:30 and 11:30 p.m., Monday, R.
Five Star Theatre, 10:00 p.m., Tues. and Thurs., C.; 7:30 p.m., Mon., Wed. and Fri., B.
Jack Frost's Melody, 9:30 p.m., Monday, B.
Garcia's Novelty Orchestra, 9:30 p.m., Tuesday, B.
Sam Herman, 11:15 p.m., Sunday, B.
Household Musical Memories, 9:00 p.m., Tuesday, B.
Iodent Program, 4:00 p.m., Sunday, R.
Lucky Strike, 10:00 p.m., Tues., Thurs. and Sat., R.
Manhattan Merry-Go-Round, 3:30 p.m., Sunday, B.
Matinee of the Air, 2:15 p.m., Sunday, C.
Maxwell House, 9:00 p.m., Thursday, R.
Borrah Minevitch, 7:00 p.m., Sun.; 7:15 p.m., Fri., R.
Nestle's Program, 8:00 p.m., Friday, B.
Pennzoil Parade, 9:30 and 11:30 p.m., Sunday, C.
Pond's Program, 9:30 p.m., Friday, R.
Royal Vagabonds, 8:00 p.m., Wednesday, R.
Sinclair Minstrels, 9:00 p.m., Monday, B.
Wildroot Institute, 4:15 p.m., Sunday, R.
Ed Wynn, 9:30 p.m., Tuesday, R.
Yeast Foamers, 2:30 p.m., Sunday, B.
QUARTETS
Mills Brothers, 9:15 p.m., Mon. and Thurs., C.
Revelers, 4:30 p.m., Sunday, R.
Singing Cylinders, 5:30 and 6:00 p.m., Sunday, B.
Southernaires, 12:30 p.m., Sunday, R.
RELIGIOUS
Dr. S. Parkes Cadman, 3:30 p.m., Sunday, R.
Cathedral Hour, 6:30 p.m., Sunday, C.
Catholic Hour, 6:00 p.m., Sunday, R.
Church of the Air, 1:30 p.m., Sunday, C.
Rev. Charles E. Coughlin, 4:00 p.m., Sunday, R.
Mil-Week Hymn Sing, 6:30 p.m., Tuesday, R.
National Vespers, 5:00 p.m., Sunday, B.
National Youth Conference, 4:30 p.m., Sunday, B.
Our Church Music, 3:00 p.m., Sunday, B.

Seth Parker's, 10:45 p.m., Sunday, R.
 Salt Lake Choir, 12 noon, Sunday, C.
 Temple of Song, 4:00 p.m., Sunday, B.

SINGERS

Ismay Bailey, 10:30 p.m., Tues. and Thurs., B.
 Al Bernard, 6:30 p.m., Monday, R.
 Louise Bernhardt, 7:30 p.m., Thursday, B.
 Boswell Sisters, 10:00 p.m., Wed. and Sat., C.
 Buccaneers, 11:00 p.m., Saturday, B.
 Eddie Cantor, 8:00 p.m., Sunday, R.
 Charles Carlie, 10:45 p.m., Thursday, C.
 Russ Columbo, 12 mid., Monday, B.
 Richard Crooks, 8:30 and 11:30 p.m., every other Mon., R.
 Bing Crosby, 9:00 p.m., Wed. and Sat., C.
 Vaughn De Leath, 6:30 p.m., Mon.; 6:00 p.m., Wed. and Fri., C.
 Dennis and Reese, 7:00 p.m., Tuesday, R.
 Do Re Mi Girls, 9:15 p.m., Friday, C.
 Morton Downey, 10:00 p.m., Mon. and Fri., C; 9:30 p.m., Wed., B.
 Jessica Dragonette, 8:00 p.m., Friday, R.
 Mary Eastman, 8:15 p.m., Sunday, C.
 Eddie and Ralph, 9:30 p.m., Friday, B.
 Ruth Etting, 9:00 p.m., Mon. and Thurs., C.
 Fields and Hall, 6:45 p.m., Saturday, B.
 Jane Froman, 4:00 p.m., Sun.; 7:00 p.m., Mon., Thurs. and Fri., R.
 Jack Fulton, 8:30 p.m., Monday, B.
 Funnyboners, 6:45 p.m., Wed. and Sat., C.
 William Hall, 9:15 p.m., Fri.; 7:15 p.m., Sat., C.
 Jackie Heller, 7:00 p.m., Saturday, R.
 Al Jolson, 10:00 p.m., Friday, R.
 Alice Joy, 10:00 p.m., Mon and Fri.; 10:15 p.m., Wed., B.
 Little Jack Little, 6:15 p.m., Sunday, C.
 Nino Martini, 11:00 p.m., Wed. and Fri., C.
 Smiling Ed McConnell, 2:00 p.m., Sunday, C.
 Tommy McLaughlin, 9:15 p.m., Tuesday, C.
 Monarch Mystery Tenor, 2:00 p.m., Sunday, B.
 Morin Sisters, 10:00 p.m., Tuesday, B.
 Frank Munn, 9:30 p.m., Sunday, R.
 Donald Novis, 9:30 p.m., Wed., B; 6:35 p.m., Thurs., R.
 William O'Neal, 10:45 p.m., Tues.; 9:30 p.m., Thurs., C.
 Pickens Sisters, 10:45 p.m., Sat., B; 7:30 p.m., Sun., R.
 Carson Robison, 7:15 p.m., Wed. and Thurs., B.
 Lanny Ross, 11:00 p.m., Tues., B; 9:00 p.m., Thurs.; 10:45 p.m., Fri., R.
 Salon Singers, 10:15 p.m., Saturday, B.

Sanderson-Crumit, 8:00 p.m., Tuesday, R.
 Ethel Slutta, 9:30 p.m., Saturday, R.
 Singin' Sam, 8:15 p.m., Mon., Wed. and Fri., C.
 Kate Smith, 8:30 p.m., Tues., Wed. and Thurs., C.
 Aileen Stanley, 11:15 p.m., Friday, B.
 Street Singer, 12:45 p.m., Sun.; 7:45 p.m., Sat., C.
 Tastyest Jesters, 7:15 p.m., Monday, B.
 Irene Taylor, 7:30 p.m., Tuesday, R.
 Three Keys, 11:00 p.m., Thursday, B.
 Three X Sisters, 7:30 p.m., Wed. and Fri., C.
 Lawrence Tibbett, 8:30 and 11:30 p.m., every other Mon. R.
 Trade and Mark, 8:00 p.m., Fri., C; 7:45 p.m., Sun., R.
 Gus. Van, 6:00 p.m., Tues., B; 12:00 mid., Sun.; 9:30 p.m., Sat., R.
 Whispering Jack Smith, 8:00 p.m., Mon. and Wed., C.

TALKS

America's Grub Street, 6:00 p.m., Saturday, C.
 American Taxpayers' League, 8:00 p.m., Saturday, B.
 Better Reception, 6:30 p.m., Thursday, C.
 Boake Carter, 7:45 p.m., daily, ex. Sat. and Sun., C.
 Economic World Today, 8:30 p.m., Saturday, R.
 William Hard, 6:45 p.m., Tuesday, R.
 Edwin C. Hill, 10:30 p.m., Tues. and Thurs.; 9:15 p.m., Wed.; 9:30 p.m., Fri.; 9:15 p.m., Sat., C.
 Horlick's Health, 8:30 p.m., Tues. and Fri., B.
 International Forum, 2:00 p.m., Sunday, R.
 H. V. Kaltenborn, 6:00 p.m., Sun., Tues. and Thurs., C.
 Dr. Julius Klein, 7:00 p.m., Sunday, C.
 Frederiek Landis, 2:45 p.m., Sunday, C.
 Warden Lawrence, 9:00 p.m., Sunday, B.
 David Lawes, 10:15 p.m., Sunday, R.
 Laws That Safeguard, 6:30 p.m., Saturday, B.
 National Radio Forum, 10:30 p.m., Monday, R.
 Our American Schools, 6:30 p.m., Sunday, R.
 Angelo Patri, 7:45 and 11:15 p.m., Sunday, C.
 Public Affairs Institute, 10:15 p.m., Saturday, C.
 Radio in Education, 7:15 p.m., Tuesday, B.
 Nellie Revell, 11:00 p.m., Wednesday, B.
 Sigmund Spaeth, 10:15 p.m., Tuesday, B.
 Lowell Thomas, 6:45 p.m., daily, ex. Sat. and Sun., B; 5:00 p.m., Sunday, R.
 Merle Thorpe, 7:15 p.m., Saturday, B.
 Howard Thurston, 8:45 p.m., Thurs. and Fri., B.
 Carveth Wells, 10:30 p.m., Wednesday, R.
 Frederic William Wile, 7:00 p.m., Saturday, C.
 Walter Winchell, 9:30 and 11:15 p.m., Sunday, B.

KEY TO SYMBOLS

As Shown in the Index by Frequencies and Dial Numbers

Frequency is given in kilocycles; wavelength in meters. Night power is shown in watts in third column. Daytime power is shown in parenthesis in fourth column in kilowatts, thus (.25) indicating 250 watts. Some stations outside the United States use a "split frequency." Their exact frequency is shown in fourth column. R-C indicates Remote Control. Where space permits, names of hotels or other buildings used in announcements are shown in parenthesis. These are not mail addresses.

- Second Column Symbols**
- a Verifies reception for return postage.
 - b Verifies only occasionally.
 - c Does not verify.
 - d Verification 10¢; letter 25¢.
 - e Sends Ekko stamp for 10¢.
 - f Sends Ekko stamp for 5¢.
 - g Sends Ekko stamp for postage.
 - h Sends own station stamp for 10¢.
 - ii Sends own station stamp for 5¢.
 - j Sends own station stamp for postage.
 - k Has no stamps.
 - z No information available.
- Fourth Column Symbols**
- A These stations are synchronized.

- B National "Blue" network.
- C Columbia network.
- D Daytime only.
- Dn Daytime with occasional evening hours.
- E Trans-Canada network.
- F Canadian National Railways network.
- G All Canadian networks.
- H Yankee network.
- J Orange and gold network.
- K Mexican networks.
- L Canadian Pacific Ry. network (Dominion).
- M Canadian Radio Corp. network.
- N National "Red" and "Blue" networks.

- P Has construction permit only.
- Q Great Lakes network.
- R National "Red" network.
- S Sunday only.
- T Don Lee System.
- U Dixie network.
- V Maritime Broadcasting network.
- W Curtis-Indiana network.
- X Has permit to increase power.
- Y Has permit to change location.
- Z Has permit to change frequency.
- a-b-c. Small letters show stations using same transmitter.
- 1-2-3. Figures denote stations sharing time.
- No information.

INDEX BY FREQUENCIES AND DIAL NUMBERS

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FOR KEY TO SYMBOLS SEE PAGE 45

540 kilocycles 555.2 meters

CKOK	ae	5000	CG	Windsor, Ont.
XEY	z	105	546.8	Merida, Mex.

Essex Broadcasters, Ltd. Partido Socialista S. E.		

550 kilocycles 545.1 meters

KFDY	ae	500	(1)1	Brookings, S. D.
KFUO	ae	500	2(1)	St. Louis, Mo.
KFYR	ah	1000	1N(2.5)	Bismarck, No. Dakota
KOAC	ak	1000	...	Corvallis, Ore.
KSD	ak	500	2R	St. Louis, Mo.
WDEV	ae	500	D	Waterbury, Vt.
WGR	ae	1000	C	Buffalo, N. Y.
WKRC	ak	1000	C	Cincinnati, Ohio

South Dakota State College Evangelical Lutheran Church Meyer Broadcasting Co. Oregon State Agricultural College Pulitzer Publishing Co. Harry G. Whitehill Buffalo Broadcasting Corp. WKRC, Inc., Hotel Alms		

560 kilocycles 535.4 meters

KFDM	ak	500	(1)	Beaumont, Texas
KLZ	ae	1000	C	Denver, Colo.
KTAB	ae	1000	.....	San Francisco, Calif.
WFI	ae	500	1R	Philadelphia, Pa.
WBIO	ae	1000	(1.5)a	Chicago, Ill.
WLIT	ak	500	1R	Philadelphia, Pa.
WNXX	ak	1000	C(2)	Knoxville, Tenn.
WPCC	ak	500	Sa	Chicago, Ill.
WQAM	ae	1000	C	Miami, Fla.

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Sabine Broadcasting Co., Inc. Reynolds Radio Co., Inc. Associated Broadcasters, Inc. WFI Broadcasting Co. Nelson Bros. Bond & Mfg. Co. Lit Bros. Broadcasting System, Inc. So. Carolina Broadcasting Co. Inc. North Shore Congregational Church Miami Broadcasting Co.		

570 kilocycles 526.0 meters

KGKO	z	250	(.5)	Wichita Falls, Texas
KMTR	ae	500	.....	Hollywood, Calif.
KVI	ae	500	C	Tacoma, Wash.
TGW	z	50	.....	Guatamala
WEAO	ae	750	1	Columbus, Ohio
WKBN	ak	500	1C	Youngstown, Ohio
WMCA	ak	500	3	New York, N. Y.
WNAX	ae	1000	C	Yankton, S. D.
WNYC	ak	500	3	New York, N. Y.
WSYR	ak	250	R2	Syracuse, N. Y.
WWNC	ae	1000	N	Asheville, N. C.

Wichita Falls Broadcasting Co. KMTR Radio Corp. Puget Sound Broadcasting Co. Ohio State University WKBN Broadcasting Corp. Knickerbocker Broadcasting Co., Inc. House of Gurney, Inc. Dept. of Plant & Structures Central N. Y. Brdcastg. Corp. Citizens Broadcasting Co., Inc.		

580 kilocycles 516.9 meters

CFCY	ae	500	E	Charlottetown, P. E. I.
CHMA	ak	250	4S	Edmonton, Alta.
CKCL	aj	500	.....	Toronto, Ont.
CKUA	ak	500	4F	Edmonton, Alta.
CMDD	z	150	588	Havana, Cuba
CMIW	ae	1400	585	Havana, Cuba
KMJ	ak	500	CT	Fresno, Calif.
KSAC	ak	500	2(1)	Manhattan, Kans.
WDBO	ae	250	CU	Orlando, Fla.
WIBW	ae	1000	C2	Topeka, Kans.
WOBU	ak	250	1(.5)	Charleston, W. Va.
WSAZ	ak	250	1(.5)	Huntington, W. Va.
WTAG	ae	250	R(.5)	Worcester, Mass.

Island Radio Broadcasting Co., Ltd. Christian & Missionary Alliance The Dominion Battery Co. University of Alberta G. deSequeira Troncoso y Gil McClatchy Radio Stations (Fresno Bee) State Agricultural College Orlando Broadcasting Co., Inc. Capper Publications WOBU, Inc., Ruffner Hotel WSAZ, Inc. Worcester Telegram Pub. Co., Inc.		

590 kilocycles 508.2 meters

CJGC	ae	5000	595GZ	London, Ont.
KHQ	ak	1000	N(2)	Spokane, Wash.
WCJ	ae	500	1	Lincoln, Neb.
WEEI	ak	1000	R	Boston, Mass.
WKZO	ae	1000	D	Kalamazoo, Mich.
WOW	ae	1000	1R	Omaha, Neb.

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Free Press Printing Co., Ltd. Louis Wasmer, Inc. Nebraska Wesleyan University Edison Electric Illuminating Co. WKZO, Inc., Burdick Hotel Woodmen of the World		

INDEX BY FREQUENCIES AND DIAL NUMBERS

600 kilocycles 499.7 meters

CNRO ak 500 F Ottawa, Ont.
 KFSD ah 1000 N San Diego, Calif.
 WCAC ak 250 2 Storrs, Conn.
 WCAO ae 250 C Baltimore, Md.
 WICC ae 250 2H(.5)C Bridgeport, Conn.
 WRC ak 500 C Waterloo, Iowa
 WREC z 500 C(1) Memphis, Tenn.

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

KCYS.
680
 MTRS.
440.9
 DIAL

610 kilocycles 491.5 meters

KFRC ae 1000 C San Francisco, Calif.
 WDAF ae 1000 R Kansas City, Mo.
 WIP ak 500 C Philadelphia, Pa.
 WJAY ae 500 D Cleveland, Ohio
 XETR z 1000 Mexico City, Mexico

Don Lee Broadcasting System
 Kansas City Star Co.
 Pennsylvania Bdctg. Co. (WFAN)
 Cleveland Radio Broadcasting Corp.
 Cia. Difusora Mexicana S. A.

620 kilocycles 483.6 meters

KGW ae 1000 N Portland, Ore.
 KTRAR ae 500 NJ(1) Phoenix, Ariz.
 WFLA ak 1000 Na(2.5) Clearwater, Fla.
 WLBZ ak 500 C Bangor, Maine
 WSUN ae 1000 Na(2.5) St. Petersburg, Fla.
 WTMJ ae 1000 N(2.5) Milwaukee, Wis.

Oregonian Publishing Co.
 KTRAR Broadcasting Co.
 Florida West Coast Bdctg. Co., Inc.
 Maine Broadcasting Co., Inc.
 Florida West Coast Bdctg. Co., Inc.
 Journal Company

630 kilocycles 475.9 meters

CFCT ae 500 G Victoria, B. C.
 CJGX ae 500 FL Yorkton, Sask.
 CKOC ae 1000 635aG Hamilton, Ont.
 KCTB ac 1000 635aL St. Catharines, Ont.
 CMCU z 150 Havana, Cuba
 CMQ z 250 Havana, Cuba
 CNRA ae 700 F Moncton, N. B.
 HIX ah 1000 i Santo Domingo, D. R.
 KFRU ak 500 1 Columbia, Mo.
 KGFX z 200 D Pierre, S. D.
 WGBF z ae 500 W Evansville, Ind.
 WMAL ae 250 (.5) Washington, D. C.
 WOS ak 500 1D Jefferson City, Mo.
 XETF ak 500 K Veracruz, Ver., Mexico
 XFG z 2000 638.3 Mexico City, Mexico

Victoria Broadcasting Assn.
 Winnipeg Grain Exchange
 Wentworth Radio Bdctg. Co., Ltd.
 Wentworth Radio Bdctg. Co., Ltd.
 Jorge Garcia Serra
 Jose Fernandez
 Canadian National Railways
 The Dominican Government
 KFRU, Inc.
 Dana McNeil
 Evansville On the Air, Inc.
 M. A. Leese Radio Corp., Inc.
 Missouri State Marketing Bureau
 Manuel Angel Fernandez
 Sria. de Guerra y Marina

640 kilocycles 468.5 meters

CHRC ak 100 645aG Quebec, Que.
 CKCI ck 100 645a Quebec, Que.
 CKCR ak 100 645G Waterloo, Ont.
 KFI ah 5000 N1 Los Angeles, Calif.
 WAU ae 500 1 Columbus, Ohio
 WOI ae 5000 D Ames, Iowa

CHRC, Ltd., Victoria Hotel
 Le Soleil, Ltd.
 Mitchell & Liddle
 Earl C. Anthony, Inc.
 American Insurance Union
 State College of Agriculture

650 kilocycles 461.3 meters

KPCB ae 100 Seattle, Wash.
 WSM aej 50000 N Nashville, Tenn.

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

660 kilocycles 454.3 meters

CHWK ak 100 665 Chilliwack, B. C.
 CJRM z 500 665 Moose Jaw, Sask.
 CJRW z 1000 665 Fleming, Sask.
 RUS z 500 664 Salvador
 WAAW agh 500 D Omaha, Neb.
 WEAF ak 50000 R New York City

Chilliwack Broadcasting Co., Ltd.
 Jas. Richardson & Sons, Ltd.
 Jas. Richardson & Sons, Ltd.
 Republic of El Salvador
 Omaha Grain Exchange
 National Broadcasting Co., Inc.

670 kilocycles 447.5 meters

WMAQ ae 5000 N Chicago, Ill.

WMAQ, Inc. (NBC Lessees)

680 kilocycles 440.9 meters

CMAF ak 1000 Havana, Cuba
 KFEQ ak 2500 D St. Joseph, Mo.
 KPO ak 5000 N San Francisco, Calif.
 WPTF ae 1000 N Dn Raleigh, N. C.

International Broadcasting Co.
 Scroggin & Co., Bank
 National Broadcasting Co., Inc.
 Durham Life Insurance Co.

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690 kilocycles 434.5 meters

CFAC	ak	500	1G	Calgary, Alta.
CFRB	ae	10000	CM	Toronto, Ont.
CJCJ	ak	500	1LE	Calgary, Alta.
NAA	z	1000	.....	Arlington, Va.
VAS	z	2000	685(4)	Glace Bay, N. S.
XET	ck	500	.....	Monterrey, Mexico

Calgary Herald, Ltd.
Rogers-Majestic Corp., Ltd.
Albertan Publishing Co., Ltd.
U. S. Navy
Canadian Marconi Co.
Cadena Radio Difusora Mexicana S. A.

700 kilocycles 428.3 meters

WLW	ae	50000	N	Cincinnati, Ohio
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The Crosley Radio Corporation

710 kilocycles 422.3 meters

KMPC	ae	500	Dn	Beverly Hills, Calif.
WOR	ak	5000	X	Newark, N. J.
XEN	egj	1000	711K	Mexico City

R. S. MacMillan
Bamberger's Broadcasting Service, Inc.
Cerveceria Modelo S. A.

720 kilocycles 416.4 meters

WGN	ak	25000	C	Chicago, Ill.
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WGN, Inc., Drake Hotel

730 kilocycles 410.7 meters

CHLS	ak	100	1b	Vancouver, B. C.
CHYC	z	5000	Sa	Montreal, Que.
CKAC	ak	5000	CaM	Montreal, Que.
CKCD	z	100	1b	Vancouver, B. C.
CKFC	ak	50	1	Vancouver, B. C.
CKMO	z	100	1	Vancouver, B. C.
CKWX	ak	100	1L	Vancouver, B. C.
CMK	aeH	3150		Havana, Cuba
XEF-XER	z	75000	735-665	Villa Acuna, Mexico

W. G. Hassell (Province Bldg.)
Northern Electric Co., Ltd.
La Presse Publishing Co., Ltd.
Vancouver Daily Province
United Church of Canada
Sprott-Shaw Radio Co.
Western Broadcasting Co., Ltd.
National Broadcasting Co. of Cuba
Villa Acuna Broadcasting Co., Inc.

740 kilocycles 405.2 meters

CJCA	ae	500	745EL	Edmonton, Alberta
KMMJ	bk	1000	Dn	Clay Center, Neb.
WSB	aeH	5000	N	Atlanta, Ga.
WHBB	ak	250	D	Portsmouth, N. H.

Edmonton Journal, Ltd.
M. M. Johnson Co. (R/C Lincoln)
Atlanta Journal, Biltmore Hotel
Granite State Broadcasting Co.

750 kilocycles 399.8 meters

KGU	aj	2500	NX	Honolulu, Hawaii
VOWR	ak	750	.....	St. John's, N. F.
WJR	ak	10000	B	Detroit, Mich.
XEAN	aeH	5000	.....	Juarez, Chih., Mexico

Advertiser Publishing Co.
Wesley United Church
WJR, The Goodwill Station, Inc.
Radio Difusora Nacional S. A.

760 kilocycles 394.5 meters

KXA	ae	250	(.5)	Seattle, Wash.
WBAL	ae	10000	BA	Baltimore, Md.
WEW	ae	1000	D	St. Louis, Mo.
WJZ	ck	30000	BA	New York City

American Radio Tel. Co.
(See 1060 kcys. also)
St. Louis University
National Broadcasting Co., Inc.

770 kilocycles 389.4 meters

KFAB	ae	5000	1C	Lincoln, Neb.
WBMM	ae	25000	1C	Chicago, Ill.

KFAB Broadcasting Co.
WBMM Bdctg. Corp. (Wrigley Bldg.)

780 kilocycles 384.4 meters

CKY	z	5000	.....	Winnipeg, Man.
CMBS	z	150	.....	Havana, Cuba
CMCQ	z	1000	.....	Havana, Cuba
KELW	aeH	500	2	Burbank, Calif.
KTM	ak	500	2(1)	Los Angeles, Calif.
WEAN	ak	250	CH(.5)	Providence, R. I.
WMC	ak	500	N(1)	Memphis, Tenn.
WPOR	aeH	500	b	Portsmouth, Va.
WTAR	aeH	500	bC	Norfolk, Va.
XEP	z	1000	.....	Mexico City

Manitoba Telephone System
Enrique Artalejo
Andres Martinez
Magnolia Park, Ltd.
Pickwick Broadcasting Corp., Ltd.
Shepard Broadcasting Service, Inc.
Memphis Commercial Appeal, Inc.
WTAR Radio Corp. (Norfolk)
WTAR Radio Corp.
Cia. Difusora de Mexico S. A.

790 kilocycles 379.5 meters

CMHC	z	250		Tuinucu, Cuba
CMJK	z	300	.....	Camaguey, Cuba
KGO	ak	7500	N	San Francisco, Calif.
WGY	ak	50000	R	Schenectady, N. Y.

Frank H. Jones
Tano Gomez
General Electric Co. (Opr. NBC)
General Electric Co.

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800 kilocycles 374.8 meters

WBAP	ak	5000	Na	Fort Worth, Texas
WFAA	ak	5000	Na	Dallas, Texas

Carter Publications, Inc. Dallas News-Dallas Journal

810 kilocycles 370.2 meters

CHNS	ae	500	815aZG	Halifax, N. S.
CNRH	ak	500	815aZ	Halifax, N. S.
VOAS	ak	200	D	St. John's, N. F.
WCCO	ae	5000	C	Minneapolis, Minn.
WPCW	ak	500	D	New York City
XFC	z	350	.....	Aguascalientes, Mex.
XFI	z	1000	818	Mexico City, Mexico

Maritime Bdctg. Co., Ltd. Oprs. Canadian National Railways Ayre & Sons, Ltd. Northwestern Broadcasting, Inc. Eastern Broadcasters, Inc. Gobierno del Estado de Aguascalientes Sria. de Ind. C. y Trabajo
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KCY5.

890

MTRS.

336.9

DIAL

820 kilocycles 365.6 meters

CMGC	z	30	Matanzas, Cuba
WHAS	aj	25000	C	Louisville, Ky.

Oscar S. Mechoso The Louisville Times Co., Inc.
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830 kilocycles 361.2 meters

CMGA	z	100	834	Colon, Cuba
KOA	ak	12500	NJ	Denver, Colo.
WEEU	ak	1000	D	Reading, Pa.
WHDH	ae	1000	DY	Boston, Mass.
WRUF	ae	5000	DnC	Gainesville, Fla.
XETW	z	500	.....	Mexico City, Mexico

L. Valdes Figueroa General Electric Co. (NBC Opr.) Berks Broadcasting Co. Matheson Radio Co., Inc. State of Florida (Univ. of Fla.) Rafael M. Pena

840 kilocycles 356.9 meters

CHNC	z	5000	a	Toronto, Ont.
CKGW	ae	5000	NEa	Toronto, Ont.
CKLC	ak	1000	G	Red Deer, Alta.
CMC	z	500	.....	Havana, Cuba
CPRY	ae	5000	La	Toronto, Ont.
XETH	z	100	.....	Puebla, Mexico
XETM	z	18000	P845	Matamoros, Mex.
XFB	z	500	.....	Jalapa, Mexico

Canadian National Carbon Co., Ltd. Goderham & Worts, Ltd. Alberta Pacific Grain Co., Ltd. Cuban Telephone Co. Canadian Pacific Co., Royal York Hotel Ramon Huerta Miguel Musquiz, A. Estado de Vera Cruz

850 kilocycles 352.7 meters

KIEV	z	100	D	Glendale, Calif.
KWKH	ae	10000	1	Shreveport, La.
WWL	ak	10000	1DnX	New Orleans, La.

Cannon Systems, Inc. Helo World Broadcasting Corp. WWL Development Co. (Loyola Univ.)

860 kilocycles 348.6 meters

VOGY	z	500	P	St. John's, N. F.
WABC	ae	50000	aC	New York City
WBOQ	ae	50000	a	New York City
WHB	ae	500	D	Kansas City, Mo.
XFX	z	500	.....	Mexico City, Mexico

Atlantic Broadcasting Corp. Atlantic Broadcasting Corp. (tests) WHB Broadcasting Co. Secretaria de Educacion Publica

870 kilocycles 344.6 meters

WENR	ak	50000	Na	Chicago, Ill.
WLS	ae	50000	Na	Chicago, Ill.

Great Lakes Bdctg. Co. NBC Opr. Agricultural Broadcasting Co.
--

880 kilocycles 340.7 meters

CHML	ae	50	4G	Hamilton, Ont.
CJCB	ak	100	G	Sydney, N. S.
CKCV	ak	100	.....	Quebec, Que.
CKPC	ak	100	4L	Preston, Ont.
KFKA	ak	500	2(1)	Greeley, Colo.
KLX	ae	500	.....	Oakland, Calif.
KPOF	ae	500	2	Denver, Colo.
WCOC	ae	500	(1)	Meridian, Miss.
WGBI	ah	250	Q1	Scranton, Pa.
WQAN	ak	250	1	Scranton, Pa.
WSUI	ae	500	.....	Iowa City, Iowa
XEPN	z	100000	885	Piedras Negras, Mex.

Maple Leaf Radio Co., Ltd. Nathan's Radio Headquarters Vandry, Inc. Cyrus Dolph Mid-Western Radio Corp. Tribune Publishing Co. Pillar of Fire Mississippi Broadcasting Co., Inc. Scranton Broadcasters, Inc. Scranton Times State University of Iowa (Yolanda Hotel, Eagle Pass, Tex.)

890 kilocycles 336.9 meters

CFBO	z	500	.....	St. John, N. B.
CKCO	z	100	3	Ottawa, Ont.
CKPR	ak	100	3G	Fort William, Ont.
CMCF	ak	250	1	Havana, Cuba
CMX	ae	500	1	Havana, Cuba
KARK	ak	250	.....	Little Rock, Ark.
KENF	ak	500	2(1)	Shenandoah, Iowa
KSEI	ae	250	(.5)	Pocatello, Idaho
KUSD	ae	500	2	Vermillion, S. Dak.

C. A. Munro, Ltd. Dr. G. M. Geldert Dougall Motor Car Co., Ltd. Raoul Karman, Casa DelaPorte Casa "Lavin" Francisco A. Lavin, Adm. Arkansas Radio & Equipment Co. Henry Field Company Radio Service Corporation University of South Dakota
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<p>VOGT 400 893 WGST ae 250 C(.5) WILL ak 250 2(.5) WJAR ae 250 (.5)R WMMN aeh 250 (.5) XETU z 100</p>	<p>Wabana, N. F. Atlanta, Ga. Urbana, Ill. Providence, R. I. Fairmont, W. Va. Pachuca, Mexico</p>	<p>The Gaiety Theatre Southern Broadcasting Co. University of Illinois The Outlet Co. A. M. Rowe, Inc. Rodrigo Mariquez</p>
<p>900 kilocycles 333.1 meters</p>		
<p>KGBU ak 500 KHJ ae 1000 CT WBEN ae 1000 R WJAX aeh 1000 N WKY ae 1000 N WLBL ae 2000 D</p>	<p>Ketchikan, Alaska Los Angeles, Calif. Buffalo, N. Y. Jacksonville, Fla. Oklahoma City, Okla. Stevens Point, Wis.</p>	<p>Alaska Radio & Service Co. Don Lee Broadcasting System WBEN, Inc., Buffalo Evening News City of Jacksonville Oklahoma Publishing Co. Wis. Dept. Agriculture & Markets</p>
<p>910 kilocycles 329.6 meters</p>		
<p>CFQC z 500 CFLC ae 100 915 TICR z 50 911 XEW ak 5000 XFF z 500 915</p>	<p>Saskatoon, Sask. Prescott, Ont. San Jose, Costa Rica Mexico City, Mex. Chihuahua, Mex.</p>	<p>The Electric Shop, Ltd. Radio Association of Prescott Cadena Radio-difusora Mexicana S. A. Gobierno del Estado de Chihuahua</p>
<p>920 kilocycles 325.9 meters</p>		
<p>CMBW z 150 925 CMCN z 250 925 CMDE z 250 925 HHK z 1000 KFEL ak 500 1 KFXF ae 500 1 KOMO aj 1000 N KPRC ae 1000 N(2.5) WAAF ae 500 D WBSO ae 500 D WWJ ak 1000 R</p>	<p>Havana, Cuba Havana, Cuba Havana, Cuba Port au Prince, Haiti Denver, Colo. Denver, Colo. Seattle, Wash. Houston, Texas Chicago, Ill. Babson Park, Mass. Detroit, Mich.</p>	<p>Alvarez-Moris Antonio Ginard Evilio Villar Republic of Haiti Gene O'Fallon (Albany Hotel) Colorado Radio Corp. Fisher's Blend Station, Inc. Houston Printing Co. (Houston Post Drivers Journal Publishing Co. Broadcasting Service Org., Inc. The Detroit News</p>
<p>930 kilocycles 322.4 meters</p>		
<p>CFCH ak 100 3LM CFRC ak 50 3(.2) CKX ak 500 E CMJF z 200 KFVI aj 500 1 KGBZ ak 500 2(1) KMA ae 500 2(1) KROW ae 500 1(1) WBRC ak 500 C(1) WDBJ ae 250 C(.5) WIBG ae 25 D</p>	<p>North Bay, Ont. Kingston, Ont. Brandon, Manitoba Camaguey, Cuba San Francisco, Calif. York, Neb. Shenandoah, Iowa Oakland, Calif. Birmingham, Ala. Roanoke, Va. Glenside, Penna.</p>	<p>Northern Supplies, Ltd. Queen's University Manitoba Telephone System John L. Stowers Radio Entertainment, Ltd. Dr. Geo. R. Miller Earl E. May Seed & Nursery Co. Educational Broadcasting Corp. Birmingham Bdctg. Co., Inc. Times-World Corp. WIBG, Inc. (Keswick Bldg.)</p>
<p>940 kilocycles 319.0 meters</p>		
<p>KOIN zk 1000 CT WAAT ae 300 D WCHS ae 1000 R(2.5) WDAY ae 1000 N WFIW ae 1000 C WHA ak 1000 D XEFO ak 5000 (3.5)</p>	<p>Portland, Ore. Jersey City, N. J. Portland, Maine Fargo, No. Dakota Hopkinsville, Ky. Madison, Wis. Mexico City, Mexico</p>	<p>KOIN, Inc. (New Heathman Hotel) Bremer Broadcasting Corp. Congress Square Hotel Co. WDAY, Inc. (Black Bldg.) WFIW, Inc. University of Wisconsin National Revolucionario Party (XFO)</p>
<p>950 kilocycles 315.6 meters</p>		
<p>CMHD z 250 KFWB ak 1000 KGHL ak 1000 NJ(2.5) KMBC ak 1000 C VONA z 100 WRC ak 500 N</p>	<p>Caibarien, Cuba Los Angeles, Calif. Billings, Mont. Kansas City, Mo. St. John's, N. F. Washington, D. C.</p>	<p>Manual Alvarez Warner Bros. Broadcasting Corp. Northwestern Auto Supply Co. Midland Bdctg. Co. (Pickwick Hotel) Lane, Gillard & Avery National Broadcasting Co., Inc.</p>
<p>960 kilocycles 312.3 meters</p>		
<p>CHCK ak 100 V CHWC ak 500 3FL CKCK ak 500 3FL CKNC ak 500 M CMAY z 150 965 CMBD z 150 965 CMCW ak 150 965 XEAW z 1000 965 CMJL z 50 YVIBC ak 5000</p>	<p>Charlottetown, P.E. I. Regina, Sask. Regina, Sask. Toronto, Ont. Havana, Cuba Havana, Cuba Havana, Cuba Reynosa, Mexico Camaguey, Cuba Caracas, Venezuela</p>	<p>J. A. Gesner & W. E. Burke R. H. Williams & Sons, Ltd. Leader Post, Ltd. (Leader Bldg.) Canadian National Carbon Co., Ltd. Efigenio Oliver Luis Perez Garcia Vitarino y Cervantes International Broadcasting Co. Enrique Artimes Broadcasting Caracas</p>

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970 kilocycles 309.1 meters

KJR	ac	5000	N	Seattle, Wash.
WCFL	ak	1500	RX	Chicago, Ill.

Northwest Broadcasting System, Inc. Chicago Federation of Labor
--

980 kilocycles 303.9 meters

CFCN	ak	10000	985FL	Calgary, Alberta
CMGF	z	100	987	Matanzas, Cuba
KDKA	ak	50000	B	Pittsburgh, Pa.

The Voice of the Prairies, Ltd. Bernabe R. de la Torre Westinghouse Elec. & Mfg. Co.
--

990 kilocycles 302.8 meters

WBZ	ak	25000	BA	Boston, Mass.
WEBA	ak	1000	BA	Springfield, Mass.
XEK	z	101	.....	Mexico City, Mexico

Westinghouse Elec. & Mfg. Co. Westinghouse Elec. & Mfg. Co. Arturo Martinez

1000 kilocycles 299.8 meters

KFVD	ak	250	Dn	Los Angeles, Calif.
WHO	z	5000	RAX	Des Moines, Iowa
WOC	ak	5000	RAX	Davenport, Iowa
WORK	aj	1000	D	York, Pa.
XEA	ak	100	.....	Guadalajara, Mexico
XEC	z	50	.....	Toluca, Mexico
XEFE	z	100	.....	N. Laredo, Tams., Mex.
XEFJ	z	100	.....	Chihuahua, Mexico
XEFJ	z	100	.....	Monterrey, Mexico
XEFS	z	40	.....	Queretaro, Mexico
XEJ	ak	100	K	Juarez, Mexico
XEL	ak	10	.....	Saltillo, Mexico
XETC	z	100	.....	Jalapa, Ver., Mexico

Los Angeles Broadcasting Co. Central Broadcasting Co. Central Broadcasting Co. York Broadcasting Co. Radiofonografica de Guadalajara, S.A. Jesus R. Benavides Rafael T. Carranza Feliciano Lopez Islas Rodolfo Junco de la Vega Salvador Sanchez Juan G. Buttner & Leo Allande Antonio Garza Castro y J. T. Perez Juventino Sanchez

KCYs.
1050
MTRS.
285.5
DIAL

1010 kilocycles 296.9 meters

CFCO	ak	250	.....	Chatham, Ont.
CKIC	ak	50	.....	Wolfville, N. S.
CMBZ	ak	150	.....	Havana, Cuba
CMCX	z	150	.....	Havana, Cuba
KGGF	ak	500	2(1)	Coffeyville, Kans.
KOW	ae	500	T	San Jose, Calif.
WHN	ae	250	1	New York City
WTS	ae	500	N(1)	Columbia, S. C.
WNAD	ae	500	2	Norman, Okla.
WPAP	ae	250	1a	New York City
WQAO	ae	250	1a	New York City
WRNY	z	250	1	New York City
XEU	ak	100	.....	Veracruz, Mexico

John Beardall (Wm. Pitt Hotel) Acadia University Manuel & Guillermo Salas Diario "El Mundo" Powell & Platz Pacific Agricultural Foundation, Ltd. Marcus Loew Booking Agency WIS, Inc. University of Oklahoma Jersey Boulevard Corp. Jersey Boulevard Corp. Aviation Radio Station, Inc. Baltasat Pazos Sosa

1020 kilocycles 293.9 meters

KYW	ae	10000	N	Chicago, Ill.
WRAX	ae	250	D	Philadelphia, Pa.
XEFD	z	300	.....	Tijuana, Mex.

Westinghouse Elec. & Mfg. Co. (KFKX) WRAX Broadcasting Co. Carlos de la Sierra
--

1030 kilocycles 291.1 meters

CFCF	ae	500	NG	Montreal, Que.
CMHI	ck	30	a	Santa Clara, Cuba
CMKC	z	150	1034a	Santiago de Cuba
CNRV	ak	500	.....	Vancouver, B. C.
XEB	ak	1000	.....	Mexico City, Mexico

Canadian Marconi Co. Laviz & Paz Pinol Battle y Co. Canadian National Railways El Buen Tono, S. A.
--

1040 kilocycles 288.3 meters

CMGH	z	15	.....	Matanzas, Cuba
KRLD	ae	10000	1C	Dallas, Tex.
KTHS	ae	10000	1N	Hot Springs, Ark.
WESG	ae	1000	D	Elmira, N. Y.
WKAR	ae	1000	D	East Lansing, Mich.

O. y J. Alvarez KRLD Radio Corp. (Adolphus Hotel) Chamber of Commerce WESG, Inc. Michigan State College

1050 kilocycles 285.5 meters

CMJG	z	50	.....	Carnaguey, Cuba
KFBI	ae	5000	Dn	Abilene, Kans.
KNX	ae	25000	X	Hollywood, Calif.
XEFC	z	10	.....	Merida, Yuc.
XES	dk	250	1055K	Tampico, Mexico

Jose Antonio Lefran Farmers & Bankers Life Ins. Co. Western Broadcast Co. Hugo Molina Font Emilio Balli, Jr.
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1060 kilocycles 282.8 meters

KWJJ	z	500	Dn	Portland, Ore.
WBAL	ae	10000	1B	Baltimore, Md.
WJAG	ak	1000	Dn	Norfolk, Neb.
WTIC	ak	50000	1R	Hartford, Conn.

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

1070 kilocycles 280.2 meters

CMBG	z	225	.....	Havana, Cuba
CMCB	af	150	.....	Havana, Cuba
KJBS	ae	100	D	San Francisco, Calif.
WCAZ	ae	50	D	Carthage, Ill.
WDZ	ak	100	D	Tuscola, Ill.
WTAM	ak	50000	R	Cleveland, Ohio
XEG	z	250	1075	Mexico City, Mexico

John L. Stowers
Metropolitan-Radio de Cuba
Julius Brunton & Sons Co.
Superior Bdctg. Service, Inc.
James L. Bush
National Broadcasting Co., Inc.
Ricardo Gonzales Montero

1080 kilocycles 277.6 meters

WBT	ae	25000	CU	Charlotte, N. C.
WCBQ	ae	5000	1Dn	Zion, Ill.
WMBI	ck	5000	1Dn	Chicago, Ill.

Station WBT, Inc.
Wilbur Glenn Voliva
Moody Bible Institute

1090 kilocycles 275.1 meters

KMOX	ak	50000	C	St. Louis, Mo.
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Voice of St. Louis, Inc.

1100 kilocycles 272.6 meters

KGDM	ak	250	D	Stockton, Calif.
WLWL	ae	5000	1	New York City
WPG	ae	5000	1C	Atlantic City, N. J.

E. F. Peffer
National Society of St. Paul
Municipality of Atlantic City

1110 kilocycles 270.1 meters

CMJO	z	15	.....	Ciego de Avila, Cuba
KSOO	ae	1000	Dn(2.5)	Sioux Falls, So. Dak.
VONF	z	500	1115	St. John's, N. F.
WRVA	ae	5000	N	Richmond, Va.
XENT	z	150000	1115	Neuvo Laredo, Mex.

Rey-Borges
Sioux Falls Broadcast Assn., Inc.
Larus & Bros. Co., Inc.
Compania Industrial Universal, S. A.

1120 kilocycles 267.7 meters

CFCA	ak	500	GL	Toronto, Ont.
CFJC	ak	100	EL	Kamloops, B. C.
CHGS	cc	100	VX	Summerside, P. E. I.
CJOC	ak	100	.....	Lethbridge, Alta.
CMHJ	ae	40	1125	Cienfuegos, Cuba
KFIO	ae	100	D	Spokane, Wash.
KFSG	ak	500	a	Los Angeles, Calif.
KRKD	aeH	500	a	Los Angeles, Calif.
KRSC	ak	100	D	Seattle, Wash.
KTRH	ak	500	2C	Houston, Tex.
WDEL	aj	250	(.5)	Wilmington, Del.
WHAD	ae	250	1C	Milwaukee, Wis.
WISN	ak	250	1C	Milwaukee, Wis.
WTAW	ae	500	2	College Station, Texas

Toronto Daily Star
The Kamloops Sentinel
R. T. Holman, Ltd.
Harold R. Carson
Victorino Lopez (Hotel Bristol)
Spokane Broadcasting Corp.
Echo Park Evangelistic Assn.
Fireside Broadcasting Co.
Radio Sales Corp. (Wash. Ath. Club)
KTRH Broadcasting Co. (Rice Hotel)
WDEL, Inc.
Marquette University
American Radio News Corp.
Agricultural & Mech. College

1130 kilocycles 265.3 meters

KSL	ae	50000	C	Salt Lake City, Utah
WJJD	ze	20000	Dn	Chicago, Ill.
WQV	ae	1000	D	New York City
XEH	ak	250	1132	Monterrey, Mexico

Radio Service Corp. of Utah
WJJD, Inc. (Palmer House)
International Broadcasting Corp.
Tarnava & Cia

1140 kilocycles 263.0 meters

CMBJ	z	150	.....	Havana, Cuba
CMCD	z aeh	250	.....	Havana, Cuba
KVOO	ae	5000	1N	Tulsa, Okla.
WAPI	aj	5000	1N	Birmingham, Ala.
XETA	z	250	.....	Mexico City, Mexico

Emilio Perera
Angel Bertermaty y Garcia
Southwestern Sales Corp.
WAPI Broadcasting Corp.
Manuel Espinosa Tagle

1150 kilocycles 260.7 meters

CMJH	ak	50	.....	Ciego de Avila, Cuba
WHAM	ae	5000	BX	Rochester, N. Y.
XED	z	500	1155	Guadalajara, Mex.
10-AT	-	25	1155	Trail, B. C.

Luis Marauri Mendoza
Stromberg-Carlson Tel. Mfg. Co.
International Broadcasting Co.
Trail Amateur Radio Assn.

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1160 kilocycles 258.5 meters

WOWO ae 10000 1C Fort Wayne, Ind.
 WWOV ae 5000 1C Wheeling, W. Va.

Main Auto Supply Co.
 West Virginia Broadcastg Corp.

1170 kilocycles 256.3 meters

CMJE z 50 1175 Camaguey, Cuba
 WCAU ae 50000 C Philadelphia, Pa.

Manuel Fernandez
 Universal Broadcasting Corp.

1180 kilocycles 254.1 meters

CMCJ z 250 1185 Havana, Cuba
 KEX ak 5000 2N Portland, Ore.
 KOB ae 20000 2 Albuquerque, N. M.
 WDG Y ak 1000 Dn Minneapolis, Minn.
 WINS ae 500 New York City
 WMAZ ak 500 Macon, Ga.

Rafael Rodriguez
 National Broadcasting Co.
 N. M. Coll. of Agr. & Mechanical Arts
 George W. Young
 American Radio News Corp.
 Southeastern Broadcasting Co.

1190 kilocycles 252.0 meters

WOAI aeh 50000 N San Antonio, Texas

Southern Equipment Co.

1200 kilocycles 249.9 meters

CHCH z 100 2 Montreal, Que.
 CHLP z 100 2 Montreal, Que.
 CKOV ak 100 Kelowna, B. C.
 CMGB z 30 1205 Matanzas, Cuba
 KBTM ak 100 D Paragould, Ark.
 KERN ak 100 CT Bakersfield, Calif.
 KFJB ak 100 (.25) Marshalltown, Iowa
 KFWF ak 100 5 St. Louis, Mo.
 KFXD ae 100 Nampa, Idaho
 KFXJ ak 100 Grand Junction, Colo.
 KGDE ae 100 (.25) Fergus Falls, Minn.
 KGDY ak 100 Huron, S. D.
 KGEB ak 100 9 Yuma, Colo.
 KGEW ak 100 9 Ft. Morgan, Colo.
 KGFJ ae 100 Los Angeles, Calif.
 KGHI ak 100 Little Rock, Ark.
 KGVO ak 100 Missoula, Mont.
 KMLB ae 100 Monroe, La.
 KVOS z 100 Bellingham, Wash.
 KWG ak 100 CT Stockton, Calif.
 WABI ak 100 Bangor, Maine
 WABZ ak 100 1 New Orleans, La.
 WBBZ ak 100 Ponca City, Okla.
 WBHS ak 100 4 Huntsville, Ala.
 WCAT ak 100 D Rapid City, S. D.
 WCAX ak 100 Burlington, Vt.
 WCLO ak 100 Janesville, Wis.
 WCOD ae 100 3 Harrisburg, Pa.
 WFAM ak 100 8C South Bend, Ind.
 WFBC z 50 X Greenville, S. C.
 WFBE ak 100 (.25) Cincinnati, Ohio
 WHBC ak 100 Canton, Ohio
 WHBY ak 100 Green Bay, Wis.
 WIBX z 100 (.3) Utica, N. Y.
 WIL ae 100 5(.25) St. Louis, Mo.
 WJBC ae 100 6 LaSalle, Ill.
 WJBL ae 100 6 Decatur, Ill.
 WJBW ak 100 1 New Orleans, La.
 WKJC ae 100 3 Lancaster, Pa.
 WLAP ae 100 (.25) Louisville, Ky.
 WNBO aeh 100 Washington, Pa.
 WNBW z 10 (1) Carbondale, Pa.
 WORC ak 100 CH Worcester, Mass.
 WPHR ae 100 (.25) Petersburg, Va.
 WRBL ak 100 Columbus, Ga.
 WWAE aeh 100 8 Hammond, Ind.
 10-AB ak 25 Moose Jaw, Sask.
 10-AK ak 15 Stratford, Ont.
 10-BI ak 25 Prince Albert, Sask.
 10-BP ak 25 1199 Wingham, Ont.
 10-BQ ak 15 Brantford, Ont.
 10-BU z 15 Canora, Sask.

Montreal Radio Corp.
 La Patrie, Ltd.
 Okanagan Broadcasters, Ltd.
 Jose Anorga
 Beard's Temple of Music
 Bee Bakersfield Broadcasting Co.
 Marshall Electric Co., Inc.
 St. Louis Truth Center, Inc.
 Frank E. Hurt (R/C Boise)
 Western Slope Brcdctg. Co.
 Jaren Drug Co.
 Voice of South Dakota, Inc.
 Beehler Electrical Equipment Co.
 City of Fort Morgan
 Ben. S. McGlashan
 O. A. Cook
 Mosby's, Inc.
 Limer's Broadcasting Station, Inc.
 KVOS, Inc.
 McClatchy Newspapers
 First Universalist Society
 Samuel D. Reeks
 C. L. Carrell (R/C various cities)
 Radio Station WBHS, Inc.
 State School of Mines
 Burlington Daily News
 WCLO Radio Corp. (R/C Beloit)
 Keystone Broadcasting Corp.
 South Bend Tribune (WSBT)
 News-Piedmont Co.
 The Post Publishing Co., Opr.
 Edward P. Graham
 WHBY, Inc.
 WIBX, Inc.
 Missouri Broadcasting Corp.
 Kaskaskia Broadcasting Co.
 Commodore Broadcasting, Inc.
 C. C. Carlson
 Lancaster Bdctg. Service, Inc.
 American Broadcasting Corp. of Ky.
 Spriggs Symplex
 WNBW, Inc.
 A. F. Kleindienst
 WLBG, Inc.
 WRBL Radio Station, Inc.
 Hammond-Calumet Bdctg. Corp.
 Moose Jaw Radio Assn.
 M. I. Higgins Elec. & Radio Co.
 Prince Albert Radio Club
 W. T. Cruickshank
 Tom Brown & Harold Brown
 Canora Radio Assn.

KCYS.
 1210
 MTRS.
 247.8
 DIAL

1210 kilocycles 247.8 meters

CFNB ae 100 B Fredericton, N. B.

James S. Neill & Sons, Ltd.

INDEX BY FREQUENCIES AND DIAL NUMBERS

CJOR	ak	500	E	Vancouver, B. C.	George C. Chandler
CKMC	ak	100	8	Cobalt, Ont.	R. L. McAdam
KASA	ak	100	.....	Elk City, Okla.	E. M. Woody (Casa Grande Hotel)
KDLR	ak	100	.....	Devils Lake, N. Dak.	KDLR, Inc.
KFJI	ak	100	.....	Klamath Falls, Ore.	KFJI Broadcasters, Inc.
KFOR	ak	100	(25)	Lincoln, Neb.	Howard A. Shuman
KFPV	ak	100	.....	Fort Smith, Ark.	Southwestern Hotel Co.
KFXM	ae	100	6	Cape Girardeau, Mo.	Oscar C. Hirsch
KGCR	ak	100	9	San Bernardino, Calif.	J. C. & E. W. Lee
KGNO	ak	100	.....	Watertown, S. Dak.	Greater Kampeska Radio Corp.
KGY	ak	100	.....	Dodge City, Kans.	Dodge City Broadcasting Co.
KIEM	z	100	DP	Olympia, Wash.	KGY, Inc. (Capitol Park Bldg.)
KPPC	z	50	9	Eureka, Calif.	Harold H. Hanseth
KWEA	z	100	.....	Pasadena, Calif.	Pasadena Presbyterian Church
WALR	ae	100	.....	Shreveport, La.	Hello World Broadcasting Corp.
WBAX	ae	100	.....	Zanesville, Ohio	WALR Broadcasting Corp.
WBBL	ak	100	1	Wilkes-Barre, Pa.	John H. Stenger, Jr. (Morris Bldg.)
WCBS	ak	100	2	Richmond, Va.	Grace Covenant Pres. Church
WCRW	ae	100	7S	Springfield, Ill.	WCBS, Inc.
WEBQ	ae	100	4	Chicago, Ill.	Clinton R. White
WEDC	z	100	6	Harrisburg, Ill.	Harrisburg Broadcasting Co.
WFAS	ak	100	3	Chicago, Ill.	Emil Denemark, Inc.
WGBB	ak	100	3	White Plains, N. Y.	Westchester Broadcasting Corp.
WGCM	ae	100	3	Freeport, N. Y.	Harry H. Carman
WGNY	z	50	5	Gulfport, Miss.	Great Southern Land Co.
WHBF	ae	100	P	Chester Twp., N. Y.	Peter Goelet
WHBU	aj	100	.....	Rock Island, Ill.	Rock Island Broadcasting Co.
WHET	ak	100	.....	Anderson, Ind.	Anderson Broadcasting Corp.
WIBU	ae	100	D	Troy, Ala.	Troy Broadcasting Co.
WJBI	ak	100	.....	Poynette, Wis.	Wm. C. Forrest
WJBU	ae	100	3	Red Bank, N. J.	Monmouth Broadcasting Co., Inc.
WJBY	ae	100	1	Lewisburg, Pa.	Bucknell University
WJEJ	ae	100	.....	Gadsden, Ala.	Ingrams Broadcasting Co.
WJW	ae	100	D	Hagerstown, Md.	A. V. Tidmore
WKFI	aj	100	.....	Akron, Ohio	John F. Weimer
WMBG	aj	100	7C	Greenville, Miss.	J. Pat Scully
WOCL	ak	50	.....	Richmond, Va.	Havens & Martin, Inc.
WOMT	ak	100	.....	Jamestown, N. Y.	A. E. Newton
WPAW	ak	100	.....	Manitowoc, Wis.	Francis Mangin Kadow
WPRO	ak	100	a	Providence, R. I.	Cherry & Webb Broadcasting Co.
WQDX	z	100	a	Providence, R. I.	Cherry & Webb Broadcasting Co.
WSBC	z	100	.....	Thomasville, Ga.	Stevens Luke
WSEN	ak	100	4	Chicago, Ill.	World Battery Co., Inc.
WSIX	ae	100	.....	Columbus, Ohio	Columbus Bdctg. Corp. (Seneca Hotel)
WSOC	ae	100	.....	Springfield, Tenn.	638 Tire & Vulc. Co. (R/C WLW)
WTAX	ae	100	.....	Gastonia, N. C.	WSOC, Inc.
XEX	z	500	2	Springfield, Ill.	WTAX, Inc.
			.....	Mexico City, Mexico	Excelsior, Cia Editorial S. A.

1220 kilocycles 245.8 meters

CMHK	z	15	1225	Cruces, Cuba
KFKU	ae	500	1	Lawrence, Kans.
KTW	z	1000	2S	Seattle, Wash.
KWSC	ae	1000	2(2)	Pullman, Wash.
WCAD	ak	500	D	Canton, N. Y.
WCAE	ae	1000	R	Pittsburgh, Pa.
WDAE	ak	1000	C	Tampa, Fla.
WREN	ak	1000	1B	Lawrence, Kans.

				V. Villaneuva
				University of Kansas
				First Presbyterian Church
				State College of Washington
				St. Lawrence University
				WCAE, Inc. and Sun-Telegraph
				Tampa Daily Times (Tampa Terrace)
				Jenny Wren Co.

1230 kilocycles 243.8 meters

CMBY	z	350	1235	Havana, Cuba
CMCA	z	150	1235	Havana, Cuba
KFQD	aj	250	.....	Anchorage, Alaska
KGGM	ak	250	(5)	Albuquerque, N. M.
KYA	ae	1000	N	San Francisco, Calif.
WFBM	ae	1000	1C	Indianapolis, Ind.
WNAC	ae	1000	CH	Boston, Mass.
WSBT	ak	500	1C	South Bend, Ind.

				Callejas-Estefani
				Manuel Cruz
				Anchorage Radio Club, Inc.
				New Mexico Broadcasting Co.
				Pacific Broadcasting Co.
				Indianapolis Power & Light Co.
				Shepard Broadcasting Service, Inc.
				South Bend Tribune (WFAM)

1240 kilocycles 241.8 meters

CMAB	z	20	1249	Pinar del Rio, Cuba
KGCU	ak	250	3	Mandan, N. Dak.
KLPM	ak	250	3	Minot, N. Dak.

				Jose Silveira
				Mandan Radio Assn.
				John B. Cooley

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KTAT	ak	1000	1	Fort Worth, Texas	KTAT Broadcast Co., Inc.
KTFI	ak	500	Twin Falls, Idaho	Radio Broadcasting Corp. of Idaho
WACO	ak	1000	1C	Waco, Texas	Central Texas Broadcasting Co.
WKAQ	ae	1000	.....	San Juan, P. R.	Radio Corp. of Porto Rico
WXYZ	ak	1000	.....	Detroit, Mich.	Kunsky-Trendle Broadcasting Corp.
XEFW	z	70	.....	Tampico, Mex.	Jose Expedito Martinez

1250 kilocycles 239.9 meters

KFMX	aj	1000	2	Northfield, Minn.	Carleton College
KFOX	ae	1000	CT	Long Beach, Calif.	Nichols & Warinner, Inc.
WAAM	ae	1000	1(2.5)	Newark, N. J.	WAAM, Inc.
WCAL	ae	1000	2	Northfield, Minn.	St. Olaf College
WDSU	ak	1000	C	New Orleans, La.	Jos. H. Uhalt
WGCP	ak	250	1	Newark, N. J.	May Radio Broadcasting Co.
WLB	ak	1000	2	Minneapolis, Minn.	University of Minnesota
WODA	z	1000	1	Paterson, N. J.	Richard E. O'Dea
WRHM	ae	1000	2	Minneapolis, Minn.	Minnesota Broadcasting Corp.
XFEA	z	500	.....	Mexico City, Mexico	Eduardo Limon Segui

1260 kilocycles 238.0 meters

CMJI	ak	5	.....	Ciego de Avila, Cuba	Gilberto Gessa Lopez
KOIL	ak	1000	B	Council Bluffs, Iowa	Mona Motor Oil Co.
KRGV	ae	500	1	Harlingen, Texas	KRGV, Inc. (Rio Grande Na. Life Bldg.)
KVOA	ak	500	P	Tucson, Arizona	Robert M. Riculfi
KWWG	z	500	1	Brownsville, Texas	Frank P. Jackson
WLBW	ak	500	C(1)	Erie, Pa.	Broadcasters of Pennsylvania, Inc.
WNBX	ak	250	D	Springfield, Vt.	WNBX Broadcasting Corp.
WTOC	ae	500	CU	Savannah, Ga.	Savannah Broadcasting Co., Inc.

1270 kilocycles 236.1 meters

CMBC	ae	150	.....	Havana, Cuba	Domingo Fernandez
CMJN	z	50	.....	Camaguey, Cuba	E. de Ugarriza
KGCA	ak	100	D2	Decorah, Iowa	Chas. W. Greenley
KOL	ae	1000	CT	Seattle, Wash.	Seattle Broadcasting Co.
KVOR	ae	1000	C	Colorado Springs, Col.	Reynolds Radio Co., Inc.
KWLC	ak	100	D2	Decorah, Iowa	Luther College
WASH	ak	500	a	Grand Rapids, Mich.	Kunsky-Trendle Broadcasting Corp.
WFBR	ae	500	R	Baltimore, Md.	Baltimore Radio Show, Inc.
WJDX	ak	1000	N	Jackson, Miss.	Lamar Life Insurance Co.
WOOD	ak	500	a	Grand Rapids, Mich.	Kunsky-Trendle Broadcasting Corp.

1280 kilocycles 234.2 meters

KFBB	ae	1000	1(2.5)	Great Falls, Mont.	Buttrey Broadcast, Inc.
WCAM	ae	500	1	Camden, N. J.	City of Camden (City Hall Tower)
WCAP	ae	500	1C	Asbury Park, N. J.	Radio Industries Broadcast Co.
WDOD	ae	1000	C(2.5)	Chattanooga, Tenn.	WDOD Bldg. Corp. (Hotel Patten)
WIBA	ae	500	N(1)	Madison, Wis.	Badger Broadcasting Co., Inc.
WOAX	ae	500	1	Trenton, N. J.	Trenton Broadcasting Co.
WRR	ae	500	C	Dallas, Texas	City of Dallas (Hilton Hotel)

1290 kilocycles 232.4 meters

CMHL	z	20	.....	Cienfuegos, Cuba	Oscar Zayas
KDYL	ak	1000	N	Salt Lake City, Utah	Intermountain Broadcasting Corp.
KFUL	ak	500	1	Galveston, Texas	News Publishing Co. (Buccaneer Hotel)
KLCN	z	50	D	Blytheville, Ark.	C. L. Lintzenich
KTSA	ak	1000	1C(2.5)	San Antonio, Texas	Southwest Broadcast Co. (Plaza Hotel)
WEBC	ae	1000	N(2.5)	Superior, Wis.	Head of the Lakes Broadcasting Co.
WJAS	ak	1000	C(2.5)	Pittsburgh, Pa.	Pittsburgh Radio Supply House
WNBZ	z	50	D	Saranac Lake, N. Y.	Smith & Mce

1300 kilocycles 230.6 meters

CMKJ	z	20	.....	Guantanamo, Cuba	Luis Morlote
KALE	ak	500	3C	Portland, Ore.	KALE, Inc.
KFAC	aj	1000	.....	Los Angeles, Calif.	Los Angeles Broadcasting Co.
KFH 1	ak	1000	C	Wichita, Kans.	Wichita Eagle—Hotel Lassen
KFJR	ag	500	3	Portland, Ore.	Ashley C. Dixon—KFJR, Inc.
WBBR	aej	1000	1	Brooklyn, N. Y.	Peoples Pulpit Assn.
WEVD	ae	500	1	New York City	Debs Memorial Radio Fund, Inc.
WFAB	z	1000	1	New York City	Fifth Avenue Broadcasting Corp.
WHAZ	ae	500	1	Troy, N. Y.	Rensselaer Polytechnic Institute
WIOD	ae	1000	N	Miami, Fla.	Isle of Dreams Broadcasting Corp.
WQO	ae	1000	Kansas City, Mo.	Unity School of Christianity

KYCS.
1300
MTRS.
230.6
DIAL

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1310 kilocycles 228.9 meters

CMJP	z	7.5	Moron, Cuba	Cesar Canals
KCRJ	ak	100	D	Jerome, Arizona	Chas. C. Robinson
KFBK	ak	100	C	Sacramento, Calif.	Jas. McClatchy Co.
KFGQ	ak	100	7	Boone, Iowa	Boone Biblical College
KFPL	ck	100	.....	Dublin, Texas	C. C. Baxter
KFPF	ae	15	.....	Greenville, Texas	New Furniture Co.
KFXR	ak	100	(.25)	Oklahoma City, Okla.	Exchange Ave. Baptist Church
KFYO	ak	100	(.25)Z	Lubbock, Texas	Kirksey Brothers
KGBX	ae	100	.....	Springfield, Mo.	KGBX, Inc.
KGCX	ak	100	(.25)	Wolf Point, Mont.	First State Bank of Vida
KGEZ	aj	100	.....	Kalispell, Mont.	Donald C. Treloar
KGFV	ah	100	.....	Kearney, Neb.	Central Nebraska Bdctg. Corp.
KIFH	z	100	.....	Juneau, Alaska	Juneau Broadcasting Co.
KIT	ak	100	.....	Yakima, Wash.	Valley Broadcasters, Inc.
KMED	ak	100	.....	Medford, Ore.	Mrs. W. J. Virgin
KRMD	ak	100	.....	Shreveport, La.	KRMD, Inc. (Jefferson Hotel)
KTSM	z	100	a	El Paso, Texas	Tri-State Broadcasting Co., Inc.
KXRO	ak	100	.....	Aberdeen, Wash.	KXRO, Inc. (Hotel Morck)
WBEO	z	100	.....	Marquette, Mich.	Lake Superior Broadcasting Co.
WBOW	ak	100	.....	Terre Haute, Ind.	Banks of Wabash, Inc.
WBRE	z	100	.....	Wilkes-Barre, Pa.	Louis G. Baltimore
WCLS	ae	100	b	Joliet, Ill.	WCLS, Inc.
WDAH	z	100	a	El Paso, Texas	Tri-State Broadcasting Co., Inc.
WEHR	ae	100	Q(.25)	Buffalo, N. Y.	Howell Broadcasting Station
WEXL	ak	50	.....	Royal Oak, Mich.	Royal Oak Broadcasting Co.
WFBG	ae	100	3	Altoona, Pa.	The Gable Broadcasting Co.
WFDF	ae	100	.....	Flint, Mich.	Frank D. Fallain (Union Ind. Bldg.)
WGAL	ae	100	5	Lancaster, Pa.	WGAL, Inc. (Lancaster Newsp. Bldg.)
WGH	ae	100	.....	Newport News, Va.	Hampton Roads Broadcasting Corp.
WHAT	ak	100	4	Philadelphia, Pa.	Independence Broadcasting Co.
WIAS	ak	100	7	Ottumwa, Iowa	Iowa Bdctg. Co. (Hotel Ottumwa)
WJAC	ae	100	3	Johnstown, Pa.	WJAC, Inc.
WKAV	ae	100	.....	Laconia, N. H.	Laconia Radio Club
WKBB	ae	100	bYZ	Joliet, Ill.	Richard W. Hoffman
WKBC	z	100	.....	Birmingham, Ala.	R. B. Broyles Furniture Co.
WKBS	z	100	.....	Galesburg, Ill.	Permil N. Nelson
WLBC	ak	50	6	Muncie, Ind.	D. A. Burton—A. J. Marriott
WMBO	ak	100	.....	Auburn, N. Y.	WMBO, Inc. (Masonic Temple)
WNBH	ae	100	H(.25)	New Bedford, Mass.	New Bedford Bdctg. Co. (N. B. Hotel)
WOL	ae	100	.....	Washington, D. C.	American Broadcasting Co.
WRAW	ak	100	5X	Reading, Pa.	Reading Broadcasting Co.
WROL	ak	100	.....	Knoxville, Tenn.	Stuart Bdctg. Co. (Farragut Hotel)
WSAJ	ae	100	.....	Grove City, Pa.	Grove City College
WSJS	ae	100	C	Winston-Salem, N. C.	Winston-Salem Journal Co.
WTEL	ae	100	4	Philadelphia, Pa.	Foulkrod Radio Eng. Co., Inc.
WTJS	ak	100	(.25)	Jackson, Tenn.	Sun Publishing Co. (Sun Bldg.)
WTRC	ak	50	6 (.1)	Elkhart, Ind.	Elkhart Daily Truth
WTSL	z	100	.....	Laurel, Miss.	Southland Radio Corp.
XEFB	ak	100	1315	Monterrey, N. L., Mex.	Quintanilla y Stevenson
XEI	ak	150	.....	Morelia, Mexico	Carlos Gutierrez M.

1320 kilocycles 227.1 meters

CMBF	z	150	1325	Havana, Cuba	Ramon Bardales
CMCY	ak	1000	1325	Havana, Cuba	M. D. Autran
KGHF	ak	250	(.5)	Pueblo, Colo.	C. P. Ritchie & J. E. Finch
KGMB	ak	250	C	Honolulu, Hawaii	Honolulu Broadcasting Co.
KID	ae	250	(.5)	Idaho Falls, Idaho	KID Broadcasting Co., Inc.
WADC	ae	1000	C	Akron, Ohio	Allan T. Simmons
WSMB	ae	500	N	New Orleans, La.	WSMB, Inc.

1330 kilocycles 225.4 meters

KGB	ae	1000	CT	San Diego, Calif.	Don Lee Broadcasting System
KMO	ak	250	.....	Tacoma, Wash.	KMO, Inc. (Hotel Winthrop)
KSCJ	ah	1000	1C(.2.5)	Sioux City, Iowa	Perkins Bros. Co.
WDRG	ae	500	CH	Hartford, Conn.	WDRG, Inc.
WSAI	ae	500	R(1)	Cincinnati, Ohio	The Crosley Radio Corp.
WTAQ	ae	1000	1C	Eau Claire, Wis.	The Gillette Rubber Co.

1340 kilocycles 223.7 meters

KFPY	ae	1000	CT	Spokane, Wash.	Symons Bdctg. Co. (Symons Bldg.)
WCOA	agj	500	Pensacola, Fla.	Pensacola Bdctg. Co. (San Carlos Hot.)
WSPD	ae	1000	C	Toledo, Ohio	Toledo Bdctg. Co. (Com. Perry Hotel)

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1350 kilocycles 222.1 meters



KIDO	ak	1000	Boise, Idaho
KWK	ak	1000	B	St. Louis, Mo.
WAWZ	ae	250	1	Zarephath, N. J.
WBNX	ae	250	1a	New York City
WCDA	ae	250	1a	New York City
WEHC	ae	500	DY	Emory, Va.
WM5G	ae	250	1a	New York City

C. G. Phillips & Frank Hill
Thomas Patrick, Inc. (Hotel Chase)
Pillar of Fire
New York Met. Broadcasting Corp.
Italian Educ. Bdctg. Co., Inc.
Emory & Henry College
New York Met. Broadcasting Corp.

1360 kilocycles 220.4 meters



KGER	ah	1000	.....	Long Beach, Calif.
KGIR	ak	500	NJ	Butte, Mont.
WCSC	ae	500	.....	Charleston, S. C.
WFBL	ak	1000	C(2.2)	Syracuse, N. Y.
WGES	ae	500	1(1)	Chicago, Ill.
WJKS	agj	1000	1Z	Gary, Ind.
WQBC	ak	500	.....	Vicksburg, Miss.
XEFH	z	250	P	Mexico City, Mexico

Consolidated Bdctg. Co. (R/C Los An.)
KGR, Inc.
So. Carolina Broadcasting Co., Inc.
Onondaga Radio Broadcasting Corp.
Oak Leaves Broadcasting Station, Inc.
Johnson-Kennedy Radio Corp.
Delta Bdctg. Co. (Post-Herald Station)
Francisco Hornedo

1370 kilocycles 218.8 meters

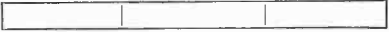


CMCR	z	150	1375	Havana, Cuba
CMGE	z	30	1375	Cardenas, Cuba
KCRC	ak	100	2(.25)	Enid, Okla.
KFBL	aj	50	3	Everett, Wash.
KFJM	zk	100	.....	Grand Forks, N. Dak.
KFJZ	ae	100	.....	Fort Worth, Texas
KFLX	z	100	.....	Galveston, Texas
KGAR	ae	100	(.25)	Tucson, Arizona
KGDA	ak	100	.....	Mitchell, S. Dak.
KGFG	bk	100	2	Oklahoma City, Okla.
KGLF	zk	100	4-Y	Santa Fe, N. Mex.
KGKL	ak	100	.....	San Angelo, Texas
KICA	z	100	4	Clovis, N. Mex.
KMAC	ak	100	5	San Antonio, Texas
KONO	ak	100	5	San Antonio, Texas
KOOS	ae	100	.....	Marshfield, Ore.
KRE	ak	100	.....	Berkeley, Calif.
KSO	z	100	B(.25)	Des Moines, Iowa
KUJ	ak	100	D	Walla Walla, Wash.
KVL	z	100	3	Seattle, Wash.
KWKC	z	100	.....	Kansas City, Mo.
WBTM	ak	100	7	Danville, Va.
WCBM	ae	100	Z(.25)	Baltimore, Md.
WDAS	ae	100	(.25)	Philadelphia, Pa.
WGLC	z	50	Y(.1)	Hudson Falls, N. Y.
WGL	ae	100	C	Fort Wayne, Ind.
WHBD	bk	100	.....	Mount Orab, Ohio
WHBQ	ak	100	.....	Memphis, Tenn.
WHDF	ak	100	(.25)	Calumet, Mich.
WIBM	ae	100	1	Jackson, Mich.
WJBK	ae	50	1Q	Detroit, Mich.
WJEQ	z	100	6P	Williamsport, Pa.
WJTL	ae	100	.....	Atlanta, Ga.
WLEY	ae	100	(.25)	Lexington, Mass.
WLVA	ck	100	7	Lynchburg, Va.
WMBR	ak	100	.....	Tampa, Fla.
WPFB	ak	100	.....	Hattiesburg, Miss.
WQDM	ae	100	D	St. Albans, Vt.
WRAK	ak	100	6	Williamsport, Pa.
WRAM	ae	100	.....	Wilmington, N. C.
WRDO	ae	100	.....	Augusta, Maine
WRJN	ae	100	.....	Racine, Wis.
WSVS	ak	50	.....	Buffalo, N. Y.
XEFV	z	50	.....	Juarez, Mexico

Aurelio Hernandez
Genaro Sebater
Enid Radiophone Co. (Oxford Hotel)
Leese Bros.
University of North Dakota
Fort Worth Broadcasters, Inc.
George Roy Clough
Tucson Motor Service Co.
Mitchell Broadcasting Corp.
Oklahoma Broadcasting Co., Inc.
KGBL, Inc.
KGLK, Inc. (St. Angelus Hotel)
Southwest Broadcasting Co.
Walmac Co., Inc. (Blue Bonnet Stud.)
Mission Broadcasting Co.
H. H. Hanseth, Inc. (Hall Bldg.)
First Cong. Church of Berkeley
Iowa Broadcasting Co.
KUJ, Inc. (Marcus Whitman Hotel)
KVL, Inc.
Wilson Duncan Broadcasting Co.
Piedmont Broadcasting Corp.
Wilmington Broadcasting Corp.
WDAS Bdctg. Sta., Inc. (Elks Hotel)
O. T. Griffin & G. F. Bissell
F. C. Zieg
F. P. Moler
Station WHBQ, Inc. (Hotel Claridge)
Upper Michigan Broadcasting Co.
WIBM, Inc. (Otsega Hotel)
James F. Hopkins, Inc. (Curtiss Bldg.)
Sun-Gazette Broadcasting Co.
Oglethorpe University
Lexington Air Station
Lynchburg Broadcasting Corp.
F. J. Reynolds
Hattiesburg Broadcasting Co.
A. J. St. Antoine & E. J. Regan
C. R. Cummins (Penn Central Bldg.)
Wilmington Radio Assn., Inc.
WRDO, Inc. (Augusta House)
Racine Bdctg. Corp. (Hotel Racine)
Seneca Vocational School
Jose Onofre Meza

KCY5.
1380
MTRS
217.3
DIAL

1380 kilocycles 217.3 meters



CMJC	z	150	1382	Camaguey, Cuba
KOH	ak	500	C	Reno, Nevada
KOV	ak	500	2	Pittsburgh, Pa.
WRBH	aj	1000	1C	LaCrosse, Wis.
WSMK	ak	200	2	Dayton, Ohio
XETB	z	125	.....	Torreón, Coah., Mex.

Feliciano Isaac
McClatchy Newspapers
KOV Bdctg. Co. (Investment Bldg.)
WRBH, Inc. (Radio Bldg.)
Stanley M. Krohn, Jr.
Jose A. Berumen

INDEX BY FREQUENCIES AND DIAL NUMBERS

1390 kilocycles 215.7 meters

CMCH	ak	50	1395	Havana, Cuba
CMCM	z	15	1395	Havana, Cuba
CMDB	z	40	1395	Havana, Cuba
KLRA	ae	1000	1C	Little Rock, Ark.
KOY	ae	500	C	Phoenix, Arizona
KUOA	bk	1000	1	Fayetteville, Ark.
WHA	ae	1000	C(2.5)	Cleveland, Ohio

Wifredo & Hum. Fontanals Sanchez			
Aurelio Balino			
Julio Powers			
Arkansas Broadcasting Co.			
Nielson Radio & Sporting Goods Co.			
Southwestern Hotel Co. (Ft. Smith)			
Radio Air Service Corp. (Higbee Store)			

1400 kilocycles 214.2 meters

KLO	ae	500	.....	Ogden, Utah
KOCV	z	250	(.5)	Chickasha, Okla.
WBAA	ak	500	1	Lafayette, Ind.
WBBC	ae	500	2	Brooklyn, N. Y.
WCGU	ak	500	2	Brooklyn, N. Y.
WCMA	ak	500	1	Culver, Ind.
WFOX	ak	500	2	Brooklyn, N. Y.
WKBF	ak	500	1W	Indianapolis, Ind.
WLTH	ae	500	2	Brooklyn, N. Y.

Interstate Bcg. Corp.			
J. T. Griffin			
Purdue University			
Brooklyn Broadcasting Corp.			
United States Broadcasting Corp.			
General Broadcasting, Inc.			
Paramount Broadcasting Co.			
Indianapolis Broadcasting, Inc.			
Voice of Brooklyn, Inc.			

1410 kilocycles 212.6 meters

KFLV	ak	500	4	Rockford, Ill.
KGRS	ae	1000	1	Amarillo, Texas
WAAB	ae	500	CH	Boston, Mass.
WBGM	ae	500	C	Bay City, Mich.
WDAG	ae	1000	1	Amarillo, Texas
WHBL	ae	500	4	Sheboygan, Wis.
WHIS	ak	250	2	Bluefield, W. Va.
WODX	ea	500	3CU	Mobile, Ala.
WRBX	ae	250	2	Roanoke, Va.
WSFA	ak	500	3C	Montgomery, Ala.

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

1420 kilocycles 211.1 meters

KABC	ak	100	.....	San Antonio, Texas
KBPS	aj	100	4	Portland, Ore.
KCMC	ak	100	.....	Texarkana, Ark.
KFIZ	ak	100	.....	Fond du Lac, Wis.
KGFF	ak	100	.....	Shawnee, Okla.
KGGC	ak	100	.....	San Francisco, Calif.
KGIW	ak	100	5	Trinidad, Colo.
KGIX	ak	100	1	Las Vegas, Nevada
KGKX	ak	100	.....	Lewiston, Idaho
KICK	z	100	Y	Red Oak, Iowa
KIDW	ak	100	1	Lamar, Colo.
KORE	ae	100	.....	Eugene, Ore.
KUMA	ak	100	.....	Yuma, Arizona
KWCR	ae	100	B(.25)	Cedar Rapids, Iowa
KXL	ae	100	4	Portland, Ore.
WAGM	af	100	.....	Presque Isle, Maine
WAMC	ae	100	.....	Anniston, Ala.
WAZL	z	100	2	Hazleton, Pa.
WEHS	ak	100	a	Cicero, Ill.
WELL	z	50	.....	Battle Creek, Mich.
WENC	ak	100	D	Americus, Ga.
WHDL	ae	100	D	Tupper Lake, N. Y.
WHFC	ae	100	a	Cicero, Ill.
WILM	ae	100	2	Wilmington, Del.
WJBO	z	100	D	New Orleans, La.
WJMS	ak	100	.....	Ironwood, Mich.
WKBI	ak	100	a	Cicero, Ill.
WLBF	ae	100	.....	Kansas City, Kans.
WMAS	ak	100	CH	Springfield, Mass.
WMBC	ae	100	(.25)	Detroit, Mich.
WMBH	ak	100	(.25)	Joplin, Mo.
WPAD	ak	100	.....	Paducah, Ky.
WSPA	ae	100	(.25)	Spartanburg, S. C.
WTBO	ae	100	(.25)	Cumberland, Md.

Alamo Bctg. Co., Inc. (Texas Theatre)			
Student Body Benson Polytech. School			
Texarkana Gazette & Daily News			
Reporter Printing Co.			
KGFF Bdtg. Co. (Aldridge Hotel)			
Golden Gate Broadcasting Co.			
Leonard E. Wilson			
J. M. Heston			
Sand Point Broadcasting Co.			
Red Oak Radio Corp.			
Lamar Broadcasting Co.			
Frank L. Hill & Curtis G. Phillips			
Dr. Albert H. Schermann			
Cedar Rapids Broadcast Co.			
KXL Broadcasters (Hotel Multnomah)			
Aroostook Broadcasting Corp.			
Raymond C. Hammett (Alabama Hot.			
Hazleton Brdctg. Service, Inc.			
WEHS, Inc.			
Enquirer-News Co.			
Americus Broadcast Co.			
Tupper Lake Broadcasting Co., Inc.			
WHFC, Inc.			
Delaware Broadcasting Co.			
Baton Rouge Brdctg. Co., Inc.			
WJMS, Inc. (St. James Hotel)			
WKBI, Inc.			
WLBF Bdtg. Co. (Aladdin Hotel)			
Albert S. Moffet			
Michigan Broadcasting Co.			
W. M. Robertson			
Paducah Bdtg. Co. (Ritz Hotel)			
The Voice of South Carolina			
Interstate Broadcasting System, Inc.			

1430 kilocycles 209.7 meters

KECA	ah	1000	N	Los Angeles, Calif.
KGNF	ak	500	D	North Platte, Neb.
WBAK	ak	500	1(D)D	Harrisburg, Pa.

Earle C. Anthony, Inc.			
Great Plains Broadcasting Co.			
Pennsylvania State Police			

INDEX BY FREQUENCIES AND DIAL NUMBERS

WCAH	ae	500	1C	Columbus, Ohio
WFEA	ae	500	CH	Manchester, N. H.
WHEC	ae	500	C	Rochester, N. Y.
WHP	ak	500	1C(1)	Harrisburg, Pa.
WNBR	ae	500	C	Memphis, Tenn.
WOKO	ae	500	C	Albany, N. Y.

Commercial Radio Service Co.
New Hampshire Broadcasting Co.
WHEC, Inc. (Roch. Sav. Bank Bldg.)
WHP, Inc. (Harrisburg Telegraph)
Memphis Bdctg. Co. (WGBC)
WOKO, Inc. (Hotel Ten Eyck)

1440 kilocycles 208.2 meters

CMBL	ak	20	1444	Havana, Cuba
CMBN	ak	30	1444	Havana, Cuba
KDFN	ak	500	.....	Casper, Wyo.
KLS	ae	250	D	Oakland, Calif.
KXYZ	ak	500	.....	Houston, Texas
WBIG	ae	500	C(1)	Greensboro, N. C.
WCBA	ah	250	a	Allentown, Pa.
WMBD	ae	500	3C(1)	Peoria, Ill.
WSAN	z	250	a	Allentown, Pa.
WTAD	ak	500	3	Quincy, Ill.

Julio C. Hidalgo
Armando Romeu Marrero
Donald L. Hathaway
Warner Bros.
Harris County Broadcast Co.
No. Carolina Broadcasting Co., Inc.
B. Bryan Musselman
Peoria Broadcasting Co.
Allentown Call Publishing Co., Inc.
Illinois Broadcasting Corp.

1450 kilocycles 206.8 meters

KTBS	ae	1000	N	Shreveport, La.
WGAR	ak	500	B(1.)	Cleveland, Ohio
WHOM	ae	250	.....	Jersey City, N. J.
WSAR	ae	250	.....	Fall River, Mass.
WTFI	ak	500	.....	Athens, Ga.

Tri-State Bdctg. System, Inc.
WGAR Broadcasting Co., Inc.
New Jersey Broadcasting Corp.
Doughty & Weich Electric Co., Inc.
Liberty Broadcasting Co.

1460 kilocycles 205.4 meters

KSTP	ae	1000	N	St. Paul, Minn.
WJSP	ck	1000	C	Washington, D. C.

National Battery Broadcasting Co.
Old Dominion Broadcasting Co.
(Transmitter at Alexandria, Va.)

1470 kilocycles 204.0 meters

KGA	ak	5000	B	Spokane, Wash.
WLAC	ae	5000	C	Nashville, Tenn.

Northwest Broadcasting System
Life & Casualty Insurance Co.

1480 kilocycles 202.6 meters

CMBK	z	15	1485	Havana, Cuba
KOMA	ak	5000	C	Oklahoma City, Okla.
WKBW	ae	5000	C	Buffalo, N. Y.

Alberto Alvarez
National Radio Mfg. Co.
Buffalo Broadcasting Corp.

1490 kilocycles 201.2 meters

WCKY	ae	5000	N	Covington, Ky.
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L. B. Wilson, Inc. (Mabley & Carew)

1500 kilocycles 199.9 meters

CMBR	z	40	Havana, Cuba
KDB	ak	100	CT	Santa Barbara, Calif.
KGFI	aj	100	(.25)	Corpus Christi, Texas
KGFK	ak	100	.....	Moorhead, Minn.
KGIZ	ak	100	.....	Grant City, Mo.
KGKB	bk	100	.....	Tyler, Texas
KGKY	ck	100	.....	Scottsbluff, Neb.
KNOW	ak	100	.....	Austin, Texas
KPJM	ak	100	.....	Prescott, Arizona
KPO	aj	100	.....	Wenatchee, Wash.
KREG	ak	100	.....	Santa Ana, Calif.
KXO	az	100	.....	El Centro, Calif.
WFDV	ak	100	.....	Rome, Ga.
WHEF	ak	100	(.25)	Kosciusko, Miss.
WKBV	z	100	.....	Connersville, Ind.
WKBZ	ak	100	.....	Ludington, Mich.
WLOE	ae	100	(.25)	Boston, Mass.
WMBQ	ae	100	1	Brooklyn, N. Y.
WMIL	ak	100	1	Brooklyn, N. Y.
WMPC	ak	100	.....	Lapeer, Mich.
WNBF	ae	100	.....	Binghamton, N. Y.
WOPJ	ae	100	.....	Bristol, Tenn.
WPEN	ce	100	(.25)	Philadelphia, Pa.
WRDWB	ae	100	.....	Augusta, Ga.
WSYB	ae	100	.....	Rutland, Vt.
WWRL	sch	100	1	Woodside, N. Y.
WWSW	ae	100	X(.25)	Pittsburgh, Pa.
XEFZ	ae	100	.....	Coyoacan, Mexico

Tomas Basail
Santa Barbara Broadcasters, Ltd.
Eagle Broadcasting Co., Inc.
Red River Broadcasting Co., Inc.
Grant City Park Corp.
East Texas Broadcasting Co.
Hilliard Co., Inc.
KUT Bdctg. Co. (Driskill Hotel)
Scott & Sturm
Wescoast Broadcasting Co.
Voice of Orange Empire, Inc.
E. R. Irey and F. M. Bowles
Rome Broadcasting Corp.
Attala Milling & Produce Co.
William O. Knox
K. L. Ashbacher
Boston Broadcasting Co. (WRSC)
Paul J. Gollhofer
Arthur Faske
First Methodist Protestant Church
Howitt-Wood Radio Co., Inc.
Radiophone Bdctg. Station WOPJ
Wm. Penn Broadcasting Co.
Muscovice, Inc. (Relays WLW)
Philip Weiss Music Co.
Long Island Broadcasting Corp.
Walker & Downing Radio Corp.
Manuel Zetina

KCY5.
1500
MTR5.
199.9
DIAL

INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

ALABAMA			Watts	Kcys.				Watts	Kcys.
Anniston O-21 tr	100	WAMC	1420	San Jose J-1	500	KQW	1010		
Birmingham O-21	5000	WAPI	N 1140	Santa Ana M-3	100	KREG	1500		
	500	WBRC	C 930	Santa Barbara M-2	100	KDB	C 1500		
	100	WKBC	1310	Stockton J-2	250	KGDM	1100		
Gadsden O-21	100	WJBY	1210		100	KWG	C 1200		
Huntsville N-21 c	100	WBHS	1200	COLORADO					
Mobile Q-20	500	WODX	C 1410	Colorado Springs K-11	1000	KVOR	C 1270		
Montgomery P-21	500	WSDA	C 1410	Denver K-11	500	KFEL	920		
Troy P-21 rc	100	WHET	1210		500	KFXF	920		
					1000	KLZ	C 560		
ALASKA						12500	KOA	N 830	
Anchorage	250	KFOD	1230		500	KPOF	880		
Juneau	100	KIFH	1310	Fort Morgan J-11	100	KGEW	1200		
Ketchikan	500	KGBU	900	Grand Junction K-9 lc	100	KFXJ	1200		
ARIZONA						500	KFKA	880	
Jerome M-6	100	KCRJ	1310	Greeley J-11	500	KIDW	880		
Phoenix N-6	500	KOY	C 1390	Lamar L-12 lc	100	KIDW	1420		
	500	KTAR	N 620	Pueblo L-11	250	KGFH	1320		
Prescott M-6	100	KPJM	1500	Trinidad L-11	100	KGIW	1420		
Tucson O-7	100	KGAR	1370	Yuma J-12	100	KGEK	1200		
	500	KVOA	1260	CONNECTICUT					
Yuma O-5 tl	100	KUMA	1420	Bridgeport H-27	250	WICC	C 600		
ARKANSAS					Hartford H-27	500	WDRG	C 1330	
Blytheville M-19	50	KLCN	1290		50000	WTIC	R 1060		
Fayetteville M-16	1000	KUOA	1390	Storrs H-28	250	WCAC	600		
Fort Smith N-16	1000	KFPW	1210	DELAWARE					
Hot Springs N-17	1000	KTBS	N 1040	Wilmington J-26	250	WDEL	1120		
Little Rock N-17	250	KARK	890		100	WILM	1420		
	100	KGHI	1200	DISTRICT OF COLUMBIA					
	1000	KLRA	C 1390	Washington J-26	10000	WJSV	C 1460		
Paragould M-18	100	KBTM	1200		250	WMAL	630		
Texarkana O-17 bl	100	KCMC	1420		500	WRC	N 950		
					100	WOL	1310		
CALIFORNIA					FLORIDA				
Bakersfield L-2 br	100	KERN	C 1200	Clearwater R-24	1000	WFLA	N 620		
Berkeley J-2	100	KRE	1370	Gainesville Q-24	5000	WRUF	C 830		
Beverly Hills M-3 bl	500	KMPC	710	Jacksonville Q-24	1000	WJAX	N 900		
Burbank M-3	500	KELW	780	Miami T-25	1000	WIOD	N 1300		
El Centro N-4	100	KXO	1500		1000	WQAM	C 560		
Eureka H-1 tc	100	KIEM	1210	Orlando R-24	250	WDDB	C 580		
Fresno K-2	500	KMJ	C 580	Pensacola Q-21	500	WCOA	1340		
Glendale M-3	100	KIEV	850	St. Petersburg S-24	1000	WSUN	N 620		
Hollywood M-3	500	KMTR	570	Tampa R-24	1000	WDAE	C 1220		
	25000	KNX	1050		100	WMBR	1370		
Long Beach M-3	1000	KFOX	C 1250	GEORGIA					
	1000	KGER	1360	Americus P-22 c	100	WENC	1420		
Los Angeles M-3	1000	KECA	N 1430	Athens N-23 bc	500	WTFI	1450		
	1000	KFCAC	1300	Atlanta O-22	250	WGST	C 890		
	50000	KFI	N 640		100	WJTL	1370		
	500	KFSG	1120		5000	WSB	N 740		
	250	KFVD	1000	Augusta O-23	100	WRDW	1500		
	1000	KFWB	950	Columbus O-22	100	WRBL	1200		
	100	KGFJ	1200	Macon O-23	500	WMAZ	1180		
	1000	KHJ	C 900	Rome N-22	100	WFDW	1500		
	500	KRKD	1120	Savannah O-24	500	WTOC	C 1260		
	500	KTM	780	Thomasville Q-22	100	WQDX	1210		
Oakland J-1	250	KLS	1440	HAWAII					
	500	KLX	880	Honolulu	250	KGMB	C 1320		
	500	KROW	930		1000	KGU	N 750		
Pasadena M-3	50	KPPC	1210	IDAHO					
Sacramento J-2	100	KFBK	C 1310	Boise G-5	1000	KIDO	1350		
San Bernardino M-3	100	KFXM	1210	Idaho Falls G-7	250	KID	1320		
San Diego N-3	1000	KFSD	N 600	Nampa G-5	100	KFXD	1200		
	1000	KGB	C 1330	Pocatello H-7	250	KSEI	890		
	1000	KFRC	C 610	Lewiston E-5 rc	1000	KGKX	1420		
	500	KFWI	930	Twin Falls H-6	500	KTFI	1240		
	100	KGGC	1420						
	7500	KGO	N 790						
	100	KJBS	1070						
	5000	KPO	N 680						
	1000	KTAB	560						
	1000	KYA	N 1230						

INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

ILLINOIS		Watts		Kcys.
Carthage J-18		50	WCAZ	1070
Chicago I-20		10000	KFKX	1020
		10000	KYW	N 1020
		500	WAAF	920
		25000	WBEM	C 770
		1500	WCFL	R 970
		100	WCRW	1210
		100	WEDC	1210
		50000	WENR	N 870
		500	WGES	1360
		25000	WGN	C 720
		1000	WIBO	560
		20000	WJJD	1130
		50000	WLS	N 870
		5000	WMAQ	N 670
		5000	WMBI	1080
		500	WPCC	560
		100	WSBC	1210
		100	WEHS	1420
		100	WHFC	1420
		100	WKBI	1420
		100	WJBL	1200
		100	WKBS	1310
		100	WEBQ	1210
		100	WCLS	1310
		100	WKBB	1310
		100	WJBC	1200
		500	WMBD	C 1440
		500	WTAD	1440
		500	KFLY	1410
		100	WHBF	1210
		100	WCBS	1210
		100	WTAX	1210
		100	WDZ	1070
		250	WILL	890
		5000	WCBD	1080
Cicero I-20				
Decatur K-19				
Galesburg J-18				
Harrisburg L-19				
Joliet I-19				
La Salle J-19				
Peoria J-19				
Quincy K-18				
Rockford I-19				
Rock Island I-18				
Springfield K-19				
Tuscola K-20				
Urbana J-20				
Zion I-20				

INDIANA		Watts		Kcys.
Anderson J-21		100	WHBU	1210
Connersville K-21		100	WKBV	1500
Culver I-20		500	WCMA	1400
Elkhart I-21 bc		50	WTRC	1310
Evansville L-20		500	WGBF	630
Fort Wayne J-21		100	WGL	C 1370
		10000	WOWO	C 1160
Gary I-20		1000	WJKS	1360
Hammond I-20 bc		100	WWAE	1200
Indianapolis J-21		1000	WFBM	C 1230
		500	WKBF	1400
		500	WBAA	1400
		50	WFLC	1310
Lafayette J-20		100	WFAM	C 1200
Muncie J-21		500	WSBT	C 1230
South Bend I-20		100	WBOW	1310
Terre Haute K-20				

IOWA		Watts		Kcys.
Ames I-17		5000	WOI	640
Boone I-17		100	KFGQ	1310
Cedar Rapids I-18		100	KWCR	B 1420
Council Bluffs J-16		1000	KOIL	B 1260
Davenport I-18		5000	WOC	R 1000
Decorah H-18		100	KGCA	1270
		100	KWLC	1270
Des Moines I-17		100	KSO	B 1380
		5000	WHO	R 1000
Iowa City I-18		500	WSUI	880
Marshalltown I-17		100	KFJB	1200
Ottumwa J-17		100	WIAS	1310
Red Oak J-16		100	KICK	1420
Shenandoah J-16		500	KFNF	890
		500	KMA	930
Sioux City I-15		1000	KSCJ	C 1330
Waterloo I-17		500	WMT	C 600

KANSAS		Watts		Kcys.
Abilene K-15 bl		5000	KFBI	1050
Coffeyville M-15 tr		500	KGGF	1010
Dodge City L-13		100	KGNO	1210
Kansas City K-16		100	WLBF	1420
Lawrence K-16		500	KFKU	1220
		1000	WREN	B 1220
Manhattan K-15		500	KSAC	580
Topeka K-16		1000	WIBW	C 580
Wichita L-15		1000	KFH	C 1300

KENTUCKY		Watts		Kcys.
Covington K-22		5000	WKCY	N 1490
Hopkinsville M-20		1000	WFIW	C 940
Louisville L-21		25000	WHAS	C 820
		100	WLAP	1200
Paducah M-19		100	WPAD	1420

LOUISIANA		Watts		Kcys.
Monroe P-18		100	KMLB	1200
New Orleans R-19		100	WABZ	1200
		1000	WDSU	C 1250
		100	WJBO	1420
		100	WJBW	1200
		500	WSMB	N 1320
		10000	WWL	850
Shreveport P-17		100	KRMD	1310
		1000	KTBS	N 1450
		100	KWEA	1210
		10000	KWKH	850

MAINE		Watts		Kcys.
Augusta F-28		100	WRDO	1370
Bangor F-29		100	WABI	1200
		500	WLBZ	C 620
Portland F-28		1000	WCSH	R 940
Presque Isle D-29 lc		100	WAGM	1420

MARYLAND		Watts		Kcys.
Baltimore J-26		10000	WBAL	B 1060
		250	WCAO	C 600
		100	WCBM	1370
		500	WFBR	R 1270
Cumberland J-25		100	WTBO	1420
Hagerstown J-25 rc		100	WJEJ	1210

MASSACHUSETTS		Watts		Kcys.
Babson Park G-28		500	WBSO	920
Boston G-28		500	WAAB	C 1410
		25000	WBZ	B 990
		1000	WEEI	R 590
		1000	WHDH	830
		100	WLOE	1500
		1000	WNAC	C 1230
Fall River H-28		250	WSAR	1450
Lexington G-28		100	WLEY	1370
New Bedford H-28		100	WNBH	1310
Springfield H-27		1000	WBZA	B 990
		100	WMAS	1420
Worcester G-28		100	WORC	C 1200
		250	WTAG	R 580

MICHIGAN		Watts		Kcys.
Battle Creek I-21		50	WELL	1420
Bay City H-22		500	WBCM	C 1410
Calumet E-19		100	WHDF	1370
Detroit H-22		50	WJBK	1370
		10000	WJR	B 750
		1000	WMBG	1420
		1000	WJW	R 920
		1000	WXYZ	1240
East Lansing H-21		1000	WKAR	1040

INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

	Watts		Kcys.		Watts		Kcys.
Flint H-22	100	WFDF	1310	NEVADA			
Grand Rapids H-21	500	WASH	1270	Las Vegas L-5	100	KGIX	1420
	500	WOOD	1270	Reno I-3	500	KOH	C 1380
Ironwood F-18 rc	100	WJMS	1420	NEW HAMPSHIRE			
Jackson I-21	100	WIBM	1370	Laconia G-28 1c	100	WKAV	1310
Kalamazoo I-21 tl	1000	WKZO	590	Manchester G-28	500	WFEA	C 1430
Lapeer H-22	100	WMPC	1500	Portsmouth G-28 tc	250	WHEB	740
Ludington H-20	100	WKBZ	1310	NEW JERSEY			
Marquette F-19	100	WBEQ	1310	Asbury Park I-27	500	WCAP	C 1280
Royal Oak H-22	50	WEXL	1310	Atlantic City J-27	5000	WPG	C 1100
MINNESOTA				Camden I-26	500	WCAM	1280
Fergus Falls F-15	100	KGDE	1200	Jersey City I-27	300	WAAT	940
Minneapolis G-17	50000	WCCO	C 810		250	WHOM	1450
	1000	WDGY	1180	Newark I-27	1000	WAAM	1250
	1000	WLB	1250		250	WGCP	1250
	1000	WRHM	1250		5000	WOR	710
Moorhead F-15	100	KGFK	1500	Paterson I-27	1000	WODA	1250
Northfield G-17	1000	KFMX	1250	Red Bank I-27	100	WJBI	1210
	1000	WCAL	1250	Trenton I-26	500	WOAX	1280
St. Paul G-17	10000	KSTP	N 1460	Zarephath I-27	250	WAWZ	1350
MISSISSIPPI				NEW MEXICO			
Greenville O-18	100	WKFI	1210	Albuquerque N-7	250	KGGM	1230
Gulfport Q-19	100	WGCM	1210		20000	KOB	1230
Hattiesburg Q-19	100	WPFB	1370	Clovis O-11 tr	100	KICA	1370
Jackson P-19	1000	WJDX	N 1270	Santa Fe M-10	100	KGFL	1370
Kosciusko O-19 bc	100	WHEF	1500	NEW YORK			
Laurel P-19 br	100	WTSL	1310	Albany G-27 bl	500	WOKO	C 1430
Meridian P-20	500	WCOC	880	Auburn H-25	100	WMBO	1310
Vicksburg P-18	500	WQBC	1360	Binghamton H-26	100	WNBF	1500
MISSOURI				Brooklyn I-27	500	WBBC	1400
Cp. Girardeau L-19	100	KFVS	1210		1000	WBBR	1300
Columbia K-17	500	KFRU	630		500	WCCU	1400
Grant City J-16	100	KGJZ	1500		500	WFOX	1400
Jefferson City L-17	500	WOS	630		500	WLTH	1400
Joplin M-16	100	WMBH	1420		100	WMBQ	1500
Kansas City K-16	1000	KMBC	C 950	Buffalo H-24	1000	WBEN	R 900
	100	KWKC	1370		100	WEBR	1310
	1000	WDAF	R 610		1000	WGR	C 550
	500	WHB	860		5000	WKBW	C 1480
St. Joseph K-16	2500	KFEQ	680		50	WSVS	1370
St. Louis L-18	500	KFUO	550	Canton F-26	500	WCAD	1220
	100	KFWF	1200	Chester Twp.	50	WGNV	1210
	50000	KMOX	C 1090	Elmira H-25 c	1000	WESG	1040
	500	KSD	R 550	Freeport I-27	100	WGBB	1210
	1000	KWK	B 1350	Hudson Falls G-27	50	WGLC	1370
	1000	WEW	760	Jamestown H-24	50	WOCL	1210
	100	WIL	1200	New York City I-27	50000	WABC	C 860
Springfield M-17	100	KGBX	1310		250	WBNX	1350
MONTANA					50000	WBOQ	860
Billings F-9	1000	KGHL	N 950		250	WCDA	1350
Butte F-7	500	KGIR	N 1360		50000	WEAF	R 660
Great Falls E-8	1000	KFBB	1280		500	WEVD	1300
Kalispell D-7	100	KGEB	1310		1000	WFAB	1300
Missoula E-7	100	KGVO	1200		500	WINS	1180
Wolf Point E-11	100	KGCC	1310		250	WHN	1010
NEBRASKA					30000	WJZ	B 760
Clay Center J-14	1000	KMMJ	740		5000	WLWL	1100
Kearney J-14 bc	100	KGFW	1310		500	WMCA	570
Lincoln J-15	5000	KFAB	C 770		250	WMSG	1350
	100	KFOR	1210		500	WNYC	570
	500	WCAJ	590		1000	WOV	1130
Norfolk I-15	1000	WJAG	1060		250	WPAP	1010
North Platte J-13	500	KGNF	1430		500	WPCH	810
Omaha J-15	500	WAAW	660		250	WQAO	1010
	1000	WOW	R 590		250	WRNY	1010
Scottsbluff I-11	100	KGKY	1500	Rochester G-25	5000	WHAM	B 1150
York J-15	500	KGBZ	930		500	WHEC	C 1430

INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

	Watts		Keys.
Saranac Lake F-26	50	WMBZ	1290
Schenectady G-27	50000	WGY	R 790
Syracuse G-25	1000	WFBL	C 1360
	250	WMAC	570
	250	WSYR	R 570
Troy G-27	500	WHAZ	1300
Tupper Lake F-26	100	WHDL	1420
Utica G-26	100	WIBX	1200
Woodside I-27	100	WWRL	1500
White Plains H-27 bl	100	WFAS	1210

NORTH CAROLINA

Asheville M-23	1000	WWNC	N 570
Charlotte M-24	25000	WBT	C 1080
Gastonia M-24	100	WSOC	1210
Greensboro M-24	500	WBIG	C 1440
Raleigh M-25	1000	WPTF	N 680
Wilmington N-26	100	WRAM	1370
Winston-Salem M-24	100	WSJS	C 1310

NORTH DAKOTA

Bismarck F-13	1000	KFYR	N 550
Devils Lake E-14	100	KDLR	N 1210
Fargo F-15	1000	WDAY	N 940
Grand Forks E-15	100	KFJM	1370
Mandan F-13	250	KGCU	1240
Minot E-13	250	KLPM	1240

OHIO

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

OKLAHOMA

Chickasha N-14	250	KOCW	1400
Elk City N-13	100	KASA	1210
Enid M-14	100	KCRC	1370
Norman N-15	500	WNAD	1010
Oklahoma N-15	100	KFXR	1310
	100	KGFG	1370
	5000	KOMA	C 1480
	1000	WKY	N 900
Ponca City M-15	100	WBZZ	1200
Shawnee N-15	100	KGFF	1420
Tulsa M-15	5000	KVOO	N 1140

OREGON

Corvallis E-2	1000	KOAC	550
Eugene F-2	100	KORE	1420
Klamath Falls G-3 c	100	KFJI	1210
Marshfield F-1	100	KOOS	1370
Medford G-2	100	KMED	1310

	Watts		Keys.
Portland E-3	500	KALE	C 1300
	5000	KEX	N 1180
	100	KBPS	1420
	500	KFJR	1300
	1000	KGW	N 620
	1000	KOIN	C 940
	500	KWJJ	1060
	100	KXL	1420

PENNSYLVANIA

Allentown I-26	250	WCBA	1440
	250	WSAN	1440
Altoona I-25	100	WFBG	1310
Carbondale H-26	10	WNBW	1200
Erie H-24	500	WLBW	C 1260
Glenside I-26 rc	25	WIBG	930
Grove City I-24	100	WSAJ	1310
Harrisburg I-25	500	WBAK	1430
	100	WCOD	1200
	500	WHP	C 1430
	100	WAZL	1420
Hazleton I-26 lc	100	WJAC	1310
Johnstown J-24	100	WGAL	1310
Lancaster I-26	100	WKJC	1200
	100	WJBU	1210
Lewisburg I-26	1000	WCAU	C 1170
Philadelphia I-26	100	WDAS	1370
	500	WFAN	C 610
	500	WFI	R 560
	100	WHAT	1310
	500	WIP	C 610
	500	WLIT	R 560
	100	WPEN	1500
	250	WRAX	1020
	100	WTEL	1310
Pittsburgh J-24	50000	KDKA	B 980
	500	KOY	1380
	1000	WCAE	R 1220
	1000	WJAS	C 1290
	100	WWSW	1500
Reading I-26	1000	WEEU	830
	100	WRAW	1310
Scranton H-26	250	WGBI	880
	250	WQAN	880
Washington J-24	100	WNBO	1200
Wilkes-Barre I-26	100	WBAX	1210
	100	WBRE	1310
Williamsport I-25	100	WRAK	1370
	100	WJEQ	1370
York J-25 tr	1000	WORK	1000

PHILIPPINES

Cebu	500	KZRC	937.5
Manila	1000	KZKA	1110
	50000	KZRM	618.5

PORTO RICO

San Juan W-34	1000	WKAQ	1240
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RHODE ISLAND

Providence H-28	250	WEAN	C 780
	250	WJAR	R 890
	100	WPAW	1210
	100	WPRO	1210

SOUTH CAROLINA

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

INDEX BY LOCATIONS WITH MAP KEY

Columbia: C. National: Red, R; Blue, B; Both, N.

	Watts		Kcys.		Watts		Kcys.
Edmonton A-8	250	CHMA	580	Quebec D-27	100	CHRC	645
	500	CJCA	745		100	CKCI	645
	500	CKUA	580		100	CKCV	880
Lethbridge C-8	100	CJOC	1120	SASKATCHEWAN			
Red Deer A-8	1000	CKLC	840	Canora B-13 tl	15	10-BU	1200
BRITISH COLUMBIA				Fleming C-13	1000	CJRW	665
Chilliwack B-3	100	CHWK	665	Moose Jaw C-11	500	CJRM	665
Kamloops B-5	100	CJFC	1120		25	10-AB	1200
Kelowna C-6 tl	100	CKOV	1200	Prince Albert A-11 rc	25	10-BI	1200
Trail C-6 c	25	10-AT	1155	Regina C-12	500	CHWC	960
Vancouver B-3	100	CHLS	730	Saskatoon B-11	500	CKCK	960
	500	CJOR	1210	Yorkton B-13	500	CFQC	910
	100	CKCD	730		500	CJGX	630
	50	CKFC	730	NEWFOUNDLAND			
	100	CKMO	730	St. Johns A-35	200	VOAS	810
	100	CKWX	730		500	VOGY	860
	500	CNRV	1030		100	VONA	950
Victoria C-3	500	CFCT	630		500	VONF	1115
					750	VOWR	750
MANITOBA				Wabana A-35	400	VOGT	893
Brandon D-14	500	CKX	930	CENTRAL AMERICA			
Winnipeg D-15	5000	CKY	780	COSTA RICA			
NEW BRUNSWICK				San Jose FF-23	50	TICR	911
Fredericton D-29	100	CFNB	1210	GUATAMALA			
Moncton D-30	700	CNRA	630	Guatamala CC-18 tr	50	TGW	570
St. John D-30	500	CFBO	890	SALVADOR			
NOVA SCOTIA				Salvador CC-19 br	500	RUS	664
Glace Bay C-32	2000	VAS	685	MEXICO			
Halifax E-31	500	CHNS	815	AGUASCALIENTES			
	500	CNRH	815	Aguascalientes W-11 bc	350	XFC	805
Sydney C-32	100	CJCB	880	BAJA CALIFORNIA			
Wolfville D-31	50	CKIC	1010	Tiajuana N-3 bc	300	XEFD	1020
ONTARIO				CHIHUAHUA			
Brantford H-23 tr	15	10-BO	1200	Chihuahua R-9	100	XEFI	1000
Chatham H-22	250	CFCO	1010		250	XFF	915
Cobalt E-23	100	CKMC	1210	Juarez P-9	5000	XEAN	750
Ft. William E-19 bl	100	CKPR	890		50	XEFV	1370
Hamilton H-24	50	CHML	880		100	XEJ	1000
	1000	CKOC	635	COAHUILA			
Kingston G-25	50	CFRC	930	Piedras Negras S-12 tr	10000	XEPN	885
London H-23	5000	CJGC	595	Saltito, Coah. U-12	10	XEL	1000
North Bay F-23 c	100	CFCH	930	Torreón U-11 tl	125	XETB	1380
Ottawa F-25	100	CKGO	890	Villa Acuna R-12 c	75000	XER-XEF	735
	500	CNRO	600	D. F.			
	100	CFLC	915	Coyoacan Y-13	100	XEFZ	1500
Prescott F-25	100	CKPC	880	Mexico City Y-13	1000	XEB	1030
Preston H-23	100	CKTB	635		500	XEFA	1250
St. Catharines H-24 tl	1000	CFCA	1200		250	XEFH	1360
Stratford H-23 tc	15	10-TK	1120		250	XEG	1075
Toronto G-24	500	CFBA	1120		100	XEK	990
	10000	CFBA	690		1000	XEN	711
	5000	CHMC	840		5000	XEFO	940
	500	CKL	580		1000	XEP	780
	5000	CKGW	840		250	XETA	1140
	500	CKNC	960		1000	XETR	610
	500	CPR Y	840		500	XETW	830
	5000	CKR Y	645		5000	XEW	910
Waterloo G-23	100	CKOK	540		500	XEX	1210
Windsor I-22 tc	5000	CKOK	540		2000	XFG	638
Wingham G-23	25	10-BP	1199		1000	XFI	818
PRINCE EDWARD ISLAND					5000	XFO	940
Charlottetown C-31	500	CFCY	580		500	XFX	860
	100	CHCK	960		50	XEC	1000
Summerside C-31	100	CHGS	1120				
QUEBEC							
Montreal E-26	500	CFCF	N 1030				
	100	CHCH	1200				
	100	CHLP	1200				
	5000	CHYC	730				
	5000	CKAC	C 730				

INDEX BY LOCATIONS WITH MAP KEY

	Watts		Kcys.		Watts		Kcys.
HIDALGO							
Pachuca Y-13 rc	100	XETU	890	Guantanamo X-28 tc	20	CMKJ	1300
JALISCO				Havana W-23	1000	CMAF	680
Guadalajara, Ja. X-10	100	XEA	1000		150	CMAY	965
	500	XED	1155		150	CMBC	1270
MICHOACAN					150	CMBD	965
Morelia, Mich. Y-12	125	XEI	1310		150	CMBF	1325
NEUVO LEON					225	CMBG	1070
Monterrey, N. L. U-13	100	XEFB	1315		150	CMBJ	1140
	100	XEFJ	1000		15	CMBK	1485
	250	XEH	1132		20	CMBL	1444
	500	XET	690		30	CMBN	1444
					40	CMBR	1500
PUEBLA					150	CMBS	780
Puebla Z-13	100	XETH	840		150	CMBW	925
					350	CMBY	1235
QUERETARO					150	CMBZ	1010
Queretaro X-12 br	40	XEFS	1000		500	CMC	840
					150	CMCA	1235
TAMAULIPAS					150	CMCB	1070
Matamoros U-14 tr	150000	XETM	845		250	CMCD	1140
N. Laredo S-13	100	XEFE	1000		250	CMCF	890
	150000	XENT	1115		50	CMCH	1395
Reynosa, Tams. T-14	10000	XEAW	965		250	CMCJ	1185
Tampico, Tams. W-14	70	XEFW	1240		15	CMCM	1395
	250	XES	1055		250	CMCN	925
VERA CRUZ					1000	CMCQ	780
Jalapa Y-14	100	XETC	1000		150	CMCR	1375
	500	XFB	840		150	CMCU	630
Vera Cruz, Ver. Z-14	500	XETF	630		150	CMCW	965
	100	XEU	1010		150	CMCX	1010
YUCATAN					1000	CMCY	1325
Merida, Yuc. X-19	10	XEFC	1050		40	CMDB	1395
	105	XEY	546.8		150	CMDD	588
					250	CMDE	925
WEST INDIES					3150	CMK	730
CUBA					250	CMQ	630
Caibarien W-25	250	CMHD	950	Matanzas W-24	1400	CMW	585
Camaguey W-26	150	CMJC	1382		500	CMX	890
	50	CMJE	1175		30	CMGB	1205
	200	CMJF	930		30	CMGC	820
	50	CMJG	1050		100	CMGF	987
	300	CMJK	790		15	CMGH	1040
	50	CMJL	960	Moron	7.5	CMJP	1310
	50	CMJN	1270	Pinar del Rio W-22	20	CMAB	1249
Cardenas W-24	30	CMGE	1375	Santa Clara W-25	30	CMHI	1030
Ciego de Avila W-26	50	CMJH	1150	Santiago X-28	150	CMKC	1034
	5	CMJI	1260	Tuinucu W-25 rc	250	CMHC	790
	15	CMJO	1110	DOMINICAN REPUBLIC			
Cienfuegos W-25	40	CMJH	1125	Santo Domingo X-31	1000	HIX	630
	20	CMHL	1290	HAITI			
Colon W-24	100	CMGA	834	Port au Prince X-30	1000	HHK	920
Cruces	15	CMHK	1225	SOUTH AMERICA			
				Caracas Venez. DD-31	5000	YVIBC	960

Map Key: For locating cities not shown on the RADEX Map of North America, use the small letters following the square in which that city is located thus: tl top left, tc top center, tr top right, bl bottom left, bc bottom center, br bottom right, l left, c center, r right.

TIME CONVERSION TABLE

	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
Atlantic												
Eastern	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
Central	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
Mountain	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
Pacific	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00

CFAC 690 Calgary, Alta., <i>MST</i> . 7:30-9 a.m.; 11:30 a.m.-1:30 p.m.; 4:30-6 p.m.	CKCD 730 Vancouver, B. C.	CMCH 1395 Havana, Cuba, <i>EST</i> . 5-9 p.m.
CFBO 890 St. John, N. B.	CKCI 645 Quebec, Que., <i>EST</i> . 1-1:30 p.m.	CMCJ 1186 Havana, Cuba.
CFCA 1120 Toronto, Ont., <i>EST</i> . 7:15-noon; 1 p.m.-mid.	CKCK 960 Regina, Sask., <i>MST</i> . 9-10 a.m.; 11 a.m.-noon; 1-3:30; 5:30-mid.	CMCM 1395 Havana, Cuba.
CFCF 1030 Montreal, Que., <i>EST</i> . 8 a.m.-mid.	CKCL 800 Toronto, Ont., <i>EST</i> . 8:30 a.m.-mid.	CMCN 925 Havana, Cuba.
CFCH 930 North Bay, Ont., <i>EST</i> . 8-8:30 a.m.; noon-1 p.m.; 5-8	CKCO 890 Ottawa, Ont.	CMCQ 780 Havana, Cuba.
CFCN 985 Calgary, Alta., <i>MST</i> . 7:30 a.m.-1:30 p.m.; 5 p.m.-mid.	CKCR 645 Waterloo, Ont., <i>EST</i> . 10 a.m.-1:15 p.m.; 4-10 p.m.	CMCQ 1375 Havana, Cuba.
CFCO 1010 Chatham, Ont., <i>EST</i> . 7:15-7:30 p.m.; 9:45-11 p.m.	CKCV 880 Quebec, Que., <i>EST</i> . Noon-2 p.m.; 6:30-11 p.m.	CMCU 630 Havana, Cuba.
CFCT 630 Victoria, B. C., <i>PST</i> . 8:30 a.m.-12:30 p.m.; 6-8 p.m.; 10-11 p.m.	CKFC 730 Vancouver, B. C. Silent.	CMCW 965 Havana, Cuba, <i>EST</i> . 1-3 a.m.; 11 a.m.-6 p.m.
CFCY 580 Charlottetown, P. E. I. <i>AST</i> . 11:30 a.m.-noon; 4:30-8 p.m.	CKGW 840 Toronto, Ont., <i>EST</i> . 6:45 a.m.-mid.	CMCX 1326 Havana, Cuba, <i>EST</i> . 13:25-10:30 p.m.
CFJC 1120 Kamloops, B. C., <i>PST</i> . 7:30-9:30 a.m.; noon-2 p.m.; 5:30-7 p.m.; mid.-2 a.m.	CKIC 1010 Wolfville, N. S., <i>AST</i> . 7:30-8:30 a.m.; 12:15-1:15 p.m.; 6-7 p.m.	CMDB 1395 Havana, Cuba.
CFLC 915 Prescott, Ont., <i>EST</i> . 8-10 a.m.; noon-2 p.m.; 6-7:30 p.m.; 8-10 p.m.	CKLC 840 Red Deer, Alta., <i>MST</i> . 8 a.m.-8 p.m.	CMDD 588 Havana, Cuba.
CFNB 1210 Fredericton, N. B., <i>AST</i> . 8:30-9:30 a.m.; 12:30-2 p.m.	CKMC 1210 Cobalt, Ont., <i>EST</i> . 7-8 p.m.	CMDE 925 Havana, Cuba.
CFQC 810 Saskatoon, Sask.	CKMO 730 Vancouver, B. C.	CMGA 834 Colon, Cuba.
CFRB 690 Toronto, Ont., <i>EST</i> . 8 a.m.-mid.	CKNC 960 Toronto, Ont., <i>EST</i> . 8 a.m.-12:30 p.m.; 2:30-11:15.	CMGB 1205 Matanzas, Cuba.
CFRC 930 Kingston, Ont.	CKOC 635 Hamilton, Ont., <i>EST</i> . 8 a.m.-10:30 p.m.	CMGC 820 Matanzas, Cuba.
CHCH 1200 Montreal, Que.	CKOK 540 Windsor, Ont., <i>EST</i> . 7:30 a.m.-mid.	CMGE 1375 Cardenas, Cuba, <i>EST</i> . noon-2; 8-10 p.m.
CHCK 960 Charlottetown, P. E. I. Noon-2 p.m.; 6-7:30 p.m., <i>AST</i> . 11:20 Summerside, P. E. I.	CKOV 1200 Kelowna, B. C., <i>PST</i> . 8-9 a.m.; 11:30 a.m.-2 p.m.; 4:30-7:30 p.m.	CMGF 987 Matanzas, Cuba.
CHGS 630 a.m.-2 p.m.; 4-8 p.m., <i>AST</i> . 11:20 Montreal, Que.	CKPC 880 Preston, Ont., <i>EST</i> . 10 a.m.-2 p.m.	CMGH 1040 Matanzas, Cuba.
CHLP 730 Vancouver, B. C., <i>PST</i> . 8:50-9 p.m.	CKPR 890 Ft. William, Ont., <i>EST</i> . 9 a.m.-2 p.m.; 5:30-11 p.m.	CMHG 790 Tuinucu, Cuba.
CHMA 650 Edmonton, Alta., <i>MST</i> . Silent.	CKTB 635 St. Catharines, Ont., 1:30-5 p.m.; 6:30-8 p.m., <i>EST</i> .	CMHD 950 Caibarien, Cuba.
CHML 880 Hamilton, Ont., <i>EST</i> . 3-11 p.m.	CKUA 580 Edmonton, Alta., <i>MST</i> . 4-9 p.m.	CMHI 1030 Santa Clara, Cuba, <i>EST</i> 11 a.m.-1 p.m.; 8-10 p.m.
CHNC 840 Toronto, Ont. 7:15-7:30 p.m.	CKWX 730 Vancouver, B. C., <i>PST</i> . 8-9:30 a.m.; 10:30 a.m.-noon; 4:30-8:30 p.m.; 9-10:30 p.m.	CMHJ 1125 Cienfuegos, Cuba, <i>EST</i> . 11 a.m.-1 p.m.; 7-9 p.m.
CHNS 815 Halifax, N. S., <i>AST</i> . 8 a.m.-4 p.m.; 6 p.m.-mid.	CKX 930 Brandon, Man., <i>CST</i> . 8:30-9:30 a.m.; 7:45-10 p.m.	CMHK 1225 Cruces, Cuba.
CHRC 645 Quebec, Que., <i>EST</i> . 9 a.m.-2 p.m.; 5 p.m.-mid.	CKY 780 Winnipeg, Man., <i>CST</i> . 8:30 a.m.-2:15; 3:30-10:45 p.m.	CMHL 1290 Cienfuegos, Cuba.
CHWC 960 Regina, Sask., <i>MST</i> . 7-9 a.m.; 10-11 a.m.; noon-1 p.m.; 3:30-6:30 p.m.	CMAB 1249 Pinar del Rio, Cuba.	CMJM 1175 Camaguey, Cuba.
CHWK 665 Chilliwack, B. C., <i>PST</i> . Noon-8 p.m.	CMAF 690 Havana, Cuba, <i>EST</i> . 6-11:30 p.m.	CMJF 930 Camaguey, Cuba.
CHYC 730 Montreal, Que.	CMAY 965 Havana, Cuba.	CMJG 1050 Camaguey, Cuba.
CJCA 745 Edmonton, Alta., <i>MST</i> . 7:45-9:30 a.m.; noon-1 p.m.; 3:30-4:30 p.m.; 5-10 p.m.	CMBC 1270 Havana, Cuba, <i>EST</i> . 4 a.m.-11 p.m.	CMJH 1150 Ciego de Avila, Cuba. 10 a.m.-2 p.m.; 5-10 p.m., <i>EST</i>
CJCB 880 Sydney, N. S., <i>AST</i> . 10 a.m.-2 p.m.; 6-10 p.m.	CMBD 965 Havana, Cuba.	CMJI 1260 Ciego de Avila, Cuba. 10 a.m.-1:30 p.m.; 6-10, <i>EST</i> .
CJJC 690 Calgary, Alta., <i>MST</i> . 9-11:30 a.m.; 1:45-3 p.m.; 6-8.	CMBF 1325 Havana, Cuba.	CMJK 790 Camaguey, Cuba.
CJGC 595 London, Ont., <i>EST</i> . 8:45 a.m.-1:15 p.m.; 5:30-10.	CMBG 1070 Havana, Cuba.	CMJL 980 Camaguey, Cuba.
CJGJ 630 Yorkton, Sask., <i>CST</i> . 8:30-9:15 a.m.; 10:30-10:45 a.m.; 12:40-1:45 p.m.; 6:45-8 p.m.	CMBJ 1140 Havana, Cuba.	CMJM 1270 Camaguey, Cuba.
CJOC 1120 Lethbridge, Alta., <i>MST</i> . 8:45-10 a.m.; noon-1:15 p.m.; 3-4 p.m.; 6-8 p.m.	CMBK 1185 Havana, Cuba.	CMJN 1110 Ciego de Avila, Cuba.
CJOR 1210 Vancouver, B. C., <i>PST</i> . 7:30 a.m.-1 p.m.; 4-11:30 p.m.	CMBL 1444 Havana, Cuba, <i>EST</i> . 7-9 p.m.	CMJO 1310 Moron, Cuba.
CJRM 665 Moose Jaw, Sask., <i>MST</i> . 8-10:30 a.m.; noon-2:30 p.m. 9-10:30 p.m.	CMBN 1444 Havana, Cuba, <i>EST</i> . 2-3 p.m.	CMJP 730 Havana, Cuba, <i>EST</i> . 10 a.m.-noon; 6 p.m.-mid.
CJRW 665 Fleming, Sask., <i>MST</i> . Noon-1 p.m.; 4:30-7:30 p.m.	CMBR 1500 Havana, Cuba.	CMKC 1300 Guantanamo, Cuba.
CKAC 780 Montreal, Que., <i>EST</i> . 7:30 a.m.-mid.	CMBS 780 Havana, Cuba.	CMKQ 630 Havana, Cuba.
	CMBW 925 Havana, Cuba.	CMW 585 Havana, Cuba, <i>EST</i> . 7:30 a.m.-11:30 p.m.
	CMBY 1235 Havana, Cuba.	CMX 890 Havana, Cuba, <i>EST</i> . 11 a.m.-2 p.m.; 7-11 p.m.
	CMBZ 1010 Havana, Cuba, <i>EST</i> . 9-10:30 a.m.; noon-2 p.m.; 4-5 p.m.; 6-7 p.m.; 8-11 p.m.	CMRA 830 Moncton, N. B., <i>AST</i> . 12:30-2 p.m.; 6:15-7:15 p.m. 8:10-10 p.m.
	CMC 840 Havana, Cuba.	CMRH 115 Halifax, N. S., <i>AST</i> Silent.
	CMCA 1235 Havana, Cuba.	CMRO 600 Ottawa, Ont., <i>EST</i> . Noon-1 p.m.; 6-11 p.m.
	CMCB 1070 Havana, Cuba, <i>EST</i> . 11:30 a.m.-1 p.m.; 5-6 p.m.; 7-10 p.m.	CMRV 1030 Vancouver, B. C., <i>PST</i> . 2-3:30 p.m.; 5:30-8:30 p.m.
	CMCD 1140 Havana, Cuba, <i>EST</i> . Noon-8 p.m.; 8 p.m.-mid.	CPRY 840 Toronto, Ont., <i>EST</i> . 1-1:30 p.m.; 10-10:30 p.m.
	CMCF 890 Havana, Cuba, <i>EST</i> . 5-8 p.m.; 9-11 p.m.	HHK 290 Port-au-Prince, Haiti.
		HIX 630 Santo Domingo, <i>EST</i> . 8:25-9:40 p.m.
		KABC 1420 San Antonio, Tex., <i>CST</i> . 6:45 a.m.-1:30 p.m.; 4-11:30 p.m.
		KALE 1300 Portland, Ore., <i>PST</i> . 7-10:30 a.m.; 2:30-5; 6-7 p.m.; 7-9 a.m.-9 p.m.
		KARK 690 Little Rock, Ark., <i>CST</i> . 7:30 a.m.-9 p.m.
		KASA 1210 Elk City, Okla., <i>CST</i> . 7 a.m.-9 p.m.
		KBPS 1420 Portland, Ore., <i>PST</i> . 11 a.m.-12:30 p.m.; 3-5 p.m.
		KBTM 1200 Paragould, Ark., <i>CST</i> . 7:30 a.m.-3 p.m.

KCMC 1420 Texarkana, Ark., <i>CST</i> . 6:45 a.m.-2 p.m.; 4-9 p.m.	KFLX 1370 Galveston, Texas.	KGCA 1270 Decorah, Iowa, <i>CST</i> . 8:30-9:45 a.m.; 10:45-11:30 a.m.; 12:30-2:30 p.m.
KCRC 1370 Enid, Okla., <i>CST</i> . 10 a.m.-2 p.m.; 3:45-7:45 p.m.	KFMX 1250 Northfield, Minn., <i>CST</i> . 10:15-10:35 a.m.; 8-9 p.m.	KGCR 1210 Watertown, S. D., <i>CST</i> . 6:30 a.m.-3 p.m.; 5-9.
KCRJ 1310 Jerome, Ariz., <i>MST</i> . 7:30-9:30 a.m.; noon-1 p.m.; 3:45-6 p.m.	KFNF 890 Shenandoah, Iowa, <i>CST</i> . 5-8 a.m.; 9-10 a.m.; 12:15-5 p.m.; 6-8 p.m.; 9-10 p.m.	KGCU 1240 Mandan, N. D., <i>MST</i> . Noon-5 p.m.; 6:45-9 p.m.
KDB 1600 Santa Barbara, Calif., 8 a.m.-mid., <i>PST</i> .	KFOR 1210 Lincoln, Nebr., <i>CST</i> . 7 a.m.-10 p.m.	KGCV 1310 Wolf Point, Mont., <i>MST</i> . 6:30-9 a.m.; 11:30-3; 6-9 p.m.
KDFN 1440 Casper, Wyo., <i>MST</i> . 9 a.m.-9 p.m.	KFOX 1250 Long Beach, Calif., <i>PST</i> . 6 a.m.-mid.	KGDA 1370 Mitchell, S. D., <i>CST</i> . 8 a.m.-4:30 p.m.; 5:30-9.
KDKA 980 Pittsburgh, Pa., <i>EST</i> . 7 a.m.-12:30 a.m. next day.	KFPL 1310 Dublin, Texas, <i>CST</i> . 6 a.m.-10:30 p.m.	KGDE 1200 Fergus Falls, Minn. 7 a.m.-9 p.m., <i>CST</i> .
KDLR 1210 Devils Lake, N. D., <i>CST</i> . 7 a.m.-3 p.m.; 5:30-9:30 p.m.	KFPM 1310 Greenville, Texas, <i>CST</i> . 7:45-9 a.m.; 1-2:45 p.m.; 6-9.	KGDM 1100 Stockton, Calif., <i>PST</i> . 6 a.m.-sunset.
KDYL 1290 Salt Lake City, Utah. 6:30 a.m.-1 a.m., <i>MST</i> .	KFPW 1210 Fort Smith, Ark., <i>CST</i> . 6:30 a.m.-2 p.m.; 5-10:30 p.m.	KGDY 1200 Huron, S. D., <i>CST</i> . 7 a.m.-2 p.m.; 4-9 p.m.
KECA 1430 Los Angeles, Calif., <i>PST</i> . 9 a.m.-11 p.m.	KFPY 1340 Spokane, Wash., <i>PST</i> . 7 a.m.-12:30 a.m. next day.	KGDK 1200 Yuma, Colo., <i>MST</i> . 11:30 a.m.-mid.
KELW 780 Burbank, Calif., <i>PST</i> . 10 a.m.-1 p.m.; 5-8 p.m.	KFQD 1230 Anchorage, Alaska. 6 p.m.-mid. (Zone 6)	KGEE 1380 Long Beach, Calif., <i>PST</i> 6 a.m.-mid.
KERN 1200 Bakersfield, Calif., <i>PST</i> . 7:30 a.m.-mid.	KFRK 610 San Francisco, Calif. 7 a.m.-1 a.m., <i>PST</i> .	KGEW 1200 Ft. Morgan, Colo., <i>MST</i> 6:30-9:30 p.m.
KEX 1180 Portland, Ore., <i>PST</i> . 7 a.m.-noon; 1 p.m.-mid.	KFRU 630 Columbia, Mo., <i>CST</i> . 6:30-9 a.m.; 4-7:30 p.m.; 9 p.m.-mid.	KGEZ 1310 Kalispell, Mont., <i>MST</i> . 8 a.m.-9 p.m.
KFAB 770 Lincoln, Neb., <i>CST</i> . 6 a.m.-10:30 p.m.	KFSD 600 San Diego, Calif., <i>PST</i> . 7:30 a.m.-mid.	KGFF 1420 Shawnee, Okla., <i>CST</i> .
KFAC 1300 Los Angeles, Calif., <i>PST</i> . 7 a.m.-mid.	KFSG 1120 Los Angeles, Calif., <i>PST</i> . 1:30-3 p.m.	KGFG 1370 Oklahoma City, Okla. 7:15-10 a.m.; 3-3:45 p.m.; 7-4:50 p.m., <i>CST</i> .
KFBB 1280 Great Falls, Mont., <i>MST</i> 8 a.m.-3 p.m.; 5-10 p.m.	KFUL 1290 Galveston, Texas, <i>CST</i> . 8-9:30 a.m.; 11 a.m.-1 p.m.; 2:30-4 p.m.; 5:30-8 p.m.; 10:15-mid.	KGFI 1500 Corpus Christi, Texas. 7 a.m.-3 p.m.; 6-10 p.m., <i>CST</i> .
KFBI 1050 Abilene, Kans., <i>CST</i> . 5 a.m.-9 p.m.	KFUO 550 St. Louis, Mo., <i>CST</i> . 6:30-7 a.m.; 12:15-12:40 p.m.; 9:30-10:30 p.m.	KGFJ 1200 Los Angeles, Calif. 24 hours daily.
KFBK 1310 Sacramento, Calif., <i>PST</i> . 7 a.m.-11 p.m.	KFVD 1000 Los Angeles, Calif., <i>PST</i> . 6 a.m.-6:45 p.m.; 10 p.m.-mid.	KGFK 1500 Moorhead, Minn., <i>CST</i> . 8 a.m.-9 p.m.
KFBL 1370 Everett, Wash., <i>PST</i> . 8:30 a.m.-noon; 3-6 p.m.; 3-6 a.m.	KFVS 1210 Cape Girardeau, Mo. 9 a.m.-noon; 4-8:30 p.m., <i>CST</i> .	KGFL 1370 Santa Fe, N. M., <i>MST</i> . 9-10 a.m.; 11 a.m.-3 p.m.; 4-5:30 p.m.; 7:30-9.
KFDM 560 Beaumont, Tex., <i>CST</i> . 7 a.m.-2 p.m.; 4:30-10:30 p.m.	KFWB 950 Los Angeles, Calif., <i>PST</i> . 7:30 a.m.-mid.	KGFW 1310 Kearney, Neb., <i>CST</i> . 7:30 a.m.-1:30 p.m.; 5-10:30 p.m.
KFDY 550 Brookings, S. D., <i>CST</i> . 12:30-2 p.m.	KFWF 1200 St. Louis, Mo., <i>CST</i> . 9:45-11:15 a.m.	KGFX 630 Pierre, S. D.
KFEL 920 Denver, Colo., <i>MST</i> . 7-8:30 a.m.; 10 a.m.-12:30 p.m.; 3-4:30 p.m.; 6-7:30 p.m.; 9-mid.	KFWI 930 San Francisco, Calif. 7-8 a.m.; 9 a.m.-1 p.m.; 6-7:30-8:30 p.m.-1 a.m., <i>PST</i> .	KGGC 1420 San Francisco, Calif. 9 a.m.-9 p.m., <i>PST</i> .
KFEQ 680 St. Joseph, Mo., <i>CST</i> . 6 a.m.-7:45 p.m.	KFXD 1200 Nampa, Idaho, <i>MST</i> . 7 a.m.-9 p.m.	KGGF 1010 Coffeyville, Kans., <i>CST</i> . 7:30 a.m.-2 p.m.; 5-10:30.
KFBQ 1310 Boone, Iowa, <i>CST</i> . 6-7:30 a.m.; 1:30-2:30 p.m.	KFXF 920 Denver, Colo., <i>MST</i> . 8:30-10 a.m.; 12:30-3; 4:30-6; 7:30-9 p.m.	KGGM 1230 Albuquerque, N. M. 8 a.m.-2 p.m.; 4-10 p.m., <i>MST</i> .
KFHH 1300 Wichita, Kans., <i>CST</i> . 7-8:30 a.m.; 9-11 a.m.; 11:30 a.m.-2 p.m.; 3-6 p.m.; 7-9 p.m.; 10-11 p.m.	KFXJ 1200 Grand Jet, Colo., <i>MST</i> . 8 a.m.-2 p.m.; 6-9 p.m.	KGHN 1320 Pueblo, Colo., <i>MST</i> . 7 a.m.-1 p.m.; 4-10 p.m.
KFI 840 Los Angeles, Calif., <i>PST</i> . 6:30 a.m.-mid.	KFXM 1210 San Bernardino, Calif. 7 a.m.-mid. <i>PST</i> .	KQHI 1200 Little Rock, Ark., <i>CST</i> 8:30 a.m.-1:30 p.m.; 5-9; mid-3 a.m.
KFIO 1120 Spokane, Wash., <i>PST</i> . 6 a.m.-sunset.	KFXR 1310 Oklahoma City, Okla. 7:30 a.m.-2 p.m.; 4-10, <i>CST</i> .	KQHL 950 Billings, Mont., <i>MST</i> . 7:30 a.m.-4 p.m.; 5:30-11.
KFIZ 1420 Fond du Lac, Wis., <i>CST</i> . 10 a.m.-1 p.m.; 4-10 p.m.	KFYO 1310 Lubbock, Texas, <i>CST</i> . 6 a.m.-2 p.m.; 4-10 p.m.	KQIR 1360 Butte, Mont., <i>MST</i> . 7 a.m.-mid.
KFJB 1200 Marshalltown, Iowa. 6-9 a.m.; noon-3 p.m.; 6-9 p.m.	KFYR 550 Bismarck, N. D., <i>CST</i> . 6:30 a.m.-12:30 p.m.; 2-11 p.m.	KGIW 1420 Trinidad, Colo., <i>MST</i> . 6-8 a.m.; 10-2 p.m.; 5-8 p.m.
KFJI 1210 Klamath Falls, Ore. 7:30 a.m.-9 p.m., <i>PST</i> .	KGA 1470 Spokane, Wash., <i>PST</i> . 6 a.m.-mid.	KGIX 1420 Las Vegas, Nev., <i>PST</i> . 6-9 a.m.; noon-3 p.m.; 6-9 p.m.
KFJM 1370 Grand Forks, N. D. 7 a.m.-9 p.m., <i>CST</i> .	KGAR 1370 Tucson, Ariz., <i>MST</i> . 7 a.m.-1:30 p.m.; 4-11.	KGIZ 1500 Grant City, Mo., <i>CST</i> . 7-11 a.m.; noon-5 p.m.; 6-9 p.m.
KFJR 1300 Portland, Ore., <i>PST</i> . 10:30 a.m.-2:30 p.m.; 5-6 p.m.; 7 p.m.-mid.	KGB 1330 San Diego, Calif., <i>PST</i> . 7 a.m.-mid.	KGKB 1500 Tyler, Texas, <i>CST</i> . 7 a.m.-2 p.m.; 4-10 p.m.
KFJZ 1370 Fort Worth, Texas, <i>CST</i> . 7 a.m.-11 p.m.	KGBU 900 Ketchikan, Alaska. (Zone 8), 10 a.m.-3 p.m.; 5-7; 10 p.m.-3 a.m.	KGKL 1370 San Angelo, Texas, <i>CST</i> 8 a.m.-9:30 p.m.
KFKA 880 Greeley, Colo., <i>MST</i> . 6-7:30 a.m.; 9 a.m.-2:30 p.m.; 8-11 p.m.	KGBX 1310 Springfield, Mo., <i>CST</i> . 6:30-9:30 a.m.; 11 a.m.-2 p.m.; 4-10 p.m.	KGKO 570 Wichita Falls, Texas.
KFKU 1220 Lawrence, Kans., <i>CST</i> . 2:30-3 p.m.; 6-6:30 p.m.	KGBZ 930 York, Neb., <i>CST</i> . 7:30-9:30 a.m.; 11 a.m.-12:30 p.m.; 2-3:30 p.m.; 5-6:30 p.m.; 8-10-10 p.m.	KGKX 1420 Lewiston, Idaho.
KFKX 1020 Chicago, Ill.		KGY 1500 Scottsbluff, Neb., <i>MST</i> . 6:30 a.m.-2 p.m.; 4-30-9.
KFLV 1410 Rockford, Ill., <i>CST</i> . 10 a.m.-12:30 p.m.; 3-6 p.m.; 8-10 p.m.		KQMB 1320 Honolulu, Hawaii. 7-9 a.m.; 10:40 a.m.-11 p.m. (Zone 5)
		KGNF 1430 North Platte, Neb. 7 a.m.-sunset, <i>MST</i> .
		KGNO 1210 Dodge City, Kans. 7:30 a.m.-3:30 p.m.; 5-9, <i>MST</i>

KGO 790 San Francisco, Calif. 7 a.m.-12:30 a.m., <i>PST</i> .	KMTR 670 Hollywood, Calif., <i>PST</i> . 6:30 a.m.-mid.	KSAC 580 Manhattan, Kans., <i>CST</i> . 5-9 a.m.; 10-10:30 a.m.; 12:30-1:30 p.m.; 4:30-5:30 p.m.
KGRS 1410 Amarillo, Texas, <i>CST</i> . 6-8 a.m.; 10 a.m.-12:30 p.m.; 2:15-7:30 p.m.; 9-10 p.m.	KNOW 1500 Austin, Texas, <i>CST</i> . 7:30 a.m.-1 p.m.; 5-11 p.m.	KSCJ 1330 Sioux City, Iowa, <i>CST</i> . 6:30 a.m.-11 p.m.
KGU 750 Honolulu, Hawaii. 6:15-10:30 a.m.; noon-11 p.m.; 4:45-11 p.m. (Zone 5)	KNX 1050 Hollywood, Calif., <i>PST</i> . 6:30 a.m.-1 a.m. next day.	KSD 550 St. Louis, Mo., <i>CST</i> . 7 a.m.-12:15 p.m.; 12:40-11 p.m.
KQVO 1200 Missoula, Mont., <i>MST</i> . 6 a.m.-mid.	KOA 830 Denver, Colo., <i>MST</i> . 7 a.m.-mid.	KSEI 890 Pocatello, Idaho, <i>MST</i> . 8 a.m.-11 p.m.
KGW 620 Portland, Ore., <i>PST</i> . 6:30 a.m.-mid.	KOAC 550 Corvallis, Ore., <i>PST</i> . 6:30 a.m.-4 p.m.; 6-8:30 p.m.	KSL 1130 Salt Lake City, Utah. 7 a.m.-mid., <i>MST</i> .
KGY 1210 Olympia, Wash., <i>PST</i> . 6 p.m.-mid.	KOB 1180 Albuquerque, N. M. 7 a.m.-9 p.m., <i>MST</i> .	KSO 1380 Des Moines, Iowa.
KHJ 900 Los Angeles, Calif., <i>PST</i> 7 a.m.-1 a.m. next day.	KOCW 1400 Chickasha, Okla. 1380 Reno, Nev., <i>PST</i> . 8 a.m.-9 p.m.	KSOO 1110 Sioux Falls, S. D., <i>CST</i> . 6 a.m.-3 p.m.
KHK 590 Spokane, Wash., <i>PST</i> . 7 a.m.-mid.	KOH 1800 Council Bluffs, Ia., <i>CST</i> 6 a.m.-1 a.m.	KSTP 1460 St. Paul, Minn., <i>CST</i> . 6:30 a.m.-12:30 a.m. next day
KICA 1370 Clovis, N. M.	KOIL 940 Portland, Ore., <i>PST</i> . 6 a.m.-1 a.m. next day.	KTAB 560 San Francisco, Calif. 6:45 a.m.-1 a.m., <i>PST</i> .
KICK 1420 Red Oak, Iowa. Silent.	KOL 1270 Seattle, Wash., <i>PST</i> . 6:45 a.m.-mid.	KTAR 620 Phoenix, Ariz., <i>MST</i> . 7 a.m.-11:15 p.m.
KID 1320 Idaho Falls, Idaho, <i>MST</i> . 9 a.m.-mid.	KOMA 1480 Oklahoma City, Okla. 7 a.m.-11 p.m., <i>CST</i> .	KTAT 1240 Ft. Worth, Texas. 7-9 a.m.; noon-1:30 p.m.; 4-7 p.m.; 9-mid.
KIDO 1350 Boise, Idaho, <i>MST</i> . 7 a.m.-9:30 p.m.	KOMO 920 Seattle, Wash., <i>PST</i> . 6:55 a.m.-12:30 a.m. next day.	KTBS 1450 Shreveport, La., <i>CST</i> . 6 a.m.-mid.
KIDW 1420 Lamar, Colo., <i>MST</i> . 6-8 a.m.; 2-6 p.m.; 8-10.	KONO 1370 San Antonio, Tex., <i>CST</i> . 8:30-10 a.m.; 11 a.m.-noon; 1:30-4 p.m.; 6-7 p.m.; 8-10.	KTFI 1240 Twin Falls, Idaho, <i>MST</i> . 6:30 a.m.-11 p.m.
KIEM 1210 Eureka, Calif., <i>PST</i> .	KOOS 1370 Marshfield, Ore., <i>PST</i> . 9 a.m.-9 p.m.	KTHS 1040 Hot Springs, Ark., <i>CST</i> . 9-10 a.m.; 11 a.m.-12:30 p.m.; 1:45-2:15 p.m.; 4:30-5:30 p.m.; 6:30-7:30 p.m.; 9-10:45 p.m.
KIEV 850 Glendale, Calif., <i>PST</i> .	KORE 1420 Eugene, Ore., <i>PST</i> . 7:45 a.m.-8:30 p.m.	KTM 780 Los Angeles, Calif., <i>PST</i> . 6-10 a.m.; 1-5 p.m.; 8 p.m.- 4 a.m. next day.
KIFH 1310 Juneau, Alaska.	KOY 1390 Phoenix, Ariz., <i>MST</i> . 7 a.m.-10 p.m.	KTRH 1120 Houston, Texas, <i>CST</i> . 6:30-11 a.m.; noon-11:30 p.m.
KIT 1310 Yakima, Wash., <i>PST</i> . 7 a.m.-11 p.m.	KPCB 650 Seattle, Wash., <i>PST</i> . 5:30 a.m.-8 p.m.; 10 p.m.-4 a.m.	KTSA 1290 San Antonio, Tex., <i>CST</i> . 6-8 a.m.; 9:30-11:30 a.m.; 3-5 p.m.; 7-10 p.m.
KJBS 1070 San Francisco, Calif. Mid. to local sunset, <i>PST</i> .	KPJM 1500 Prescott, Ariz., <i>MST</i> . 9 a.m.-9 p.m.	KTSM 1310 El Paso, Texas.
KJR 870 Seattle, Wash., <i>PST</i> . 7 a.m.-mid.	KPO 680 San Francisco, Calif. 7:30 a.m.-mid., <i>PST</i> .	KTW 1220 Seattle, Wash.
KLCN 1290 Blytheville, Ark.	KPOF 880 Denver, Colo., <i>MST</i> . 7:30-9 a.m.; 2:30-4:30 p.m.; 6-8 p.m.	KUJ 1370 Walla Walla, Wash. 6 a.m.-sunset, <i>PST</i> .
KLD 1400 Ogden, Utah.	KPPC 1210 Pasadena, Calif., <i>PST</i> . Silent.	KUMA 1420 Yuma, Ariz., <i>MST</i> . 7-9 a.m.; noon-3 p.m.; 6-9 p.m.
KLPM 820 Minot, N. D., <i>CST</i> . 7 a.m.-1 p.m.; 6-7:45 p.m.; 10- 11:30 p.m.	KPRC 1500 Wenatchee, Wash., <i>PST</i> . 7 a.m.-10 p.m.	KUOA 1390 Fayetteville, Ark., <i>CST</i> . 7-8 a.m.; 11 a.m.-1 p.m.; 5-6:30 p.m.
KLRA 1390 Little Rock, Ark., <i>CST</i> . 8-11 a.m.; 1-5 p.m.; 6:30-11 p.m.	KPRQ 920 Houston, Texas, <i>CST</i> . 6:30 a.m.-mid.	KUSD 890 Vermillion, S. D., <i>CST</i> . 8-9 p.m.
KLS 1440 Oakland, Calif., <i>PST</i> . 8:30 a.m.-7:30 p.m.	KQV 1380 Pittsburgh, Pa., <i>EST</i> . 8:30 a.m.-1 p.m.; 2-11 p.m.	KVI 570 Tacoma, Wash., <i>PST</i> . 6:30 a.m.-mid.
KLX 880 Oakland, Calif., <i>PST</i> . 7 a.m.-11 p.m.	KQW 1010 San Jose, Calif., <i>PST</i> . 7 a.m.-3 p.m.; 4:30-10 p.m.	KVL 1370 Seattle, Wash.
KLZ 560 Denver, Colo., <i>MST</i> . 6:30 a.m.-11:30 p.m.	KRE 1370 Berkeley, Calif., <i>PST</i> . 6:30-9:30 a.m.; noon-3 p.m.; 6-9 p.m.	KVOA 1260 Tucson, Ariz. 6-9 a.m.; noon-3 p.m.; 6-9 p.m.
KMA 930 Shenandoah, Iowa, <i>CST</i> . 6-7:30 a.m.; 9:30-11 a.m.; 12:30- 2 p.m.; 3:30-5 p.m.; 6:30-8:30 p.m.; 10 p.m.-mid.	KREG 1500 Santa Ana, Calif., <i>PST</i> . 9 a.m.-11 p.m.	KVOO 1140 Tulsa, Okla., <i>CST</i> . 7 a.m.-7:45 p.m.; 9 p.m.-mid.
KMAC 1370 San Antonio, Tex., <i>CST</i> . 7-8:30 a.m.; 10-11 a.m.; noon- 1:30 p.m.; 4-6 p.m.; 7-8 p.m.; 10 p.m.-mid.	KRGV 1260 Harlingen, Texas, <i>CST</i> . 7-9:30 a.m.; 12:30-3:30 p.m.; 6:30-9:30 p.m.	KVOR 1270 Colorado Springs, Colo. 7 a.m.-10 p.m., <i>MST</i> .
KMBC 950 Kansas City, Mo., <i>CST</i> . 6:15 a.m.-mid.	KRKD 1120 Los Angeles, Calif., <i>PST</i> . 6 a.m.-1:30 p.m.; 3 p.m.-mid.	KVOS 1200 Bellingham, Wash.
KMED 1310 Medford, Ore., <i>PST</i> . 8 a.m.-9:30 p.m.	KRLD 1040 Dallas, Texas, <i>CST</i> . 6-7:15 a.m.; 7:45-9 p.m.; 10-11 a.m. 12:30-12:45 p.m.; 1:15- 4:30 p.m.; 5:30-6:30 p.m.; 7:30-9 p.m.; 10:45 p.m.-12:15 a.m.	KWCR 1420 Cedar Rapids, Ia., <i>CST</i> . 6:30 a.m.-mid.
KMJ 580 Fresno, Calif., <i>PST</i> . 7 a.m.-mid.	KRMD 1310 Shreveport, La., <i>CST</i> . 7 a.m.-1 p.m.; 5-8 p.m.	KWEA 1210 Shreveport, La.
KMLB 1200 Monroe, La., <i>CST</i> . 7 a.m.-10 p.m.	KROW 930 Oakland, Calif., <i>PST</i> . 8-9 a.m.; 1-6 p.m.; 7:30-8:30 p.m.	KWG 1200 Stockton, Calif., <i>PST</i> 7 a.m.-mid.
KMMJ 740 Clay Center, Neb., <i>CST</i> . 5:45 a.m.-sunset.	KRSC 1120 Seattle, Wash., <i>PST</i> . Sunrise to local sunset.	KWJ 1060 Portland, Ore.
KMO 1330 Tacoma, Wash., <i>PST</i> . 6:30 a.m.-11 p.m.		KWK 1350 St. Louis, Mo., <i>CST</i> . 6:55 a.m.-12:15 a.m. next day.
KMOX 1090 St. Louis, Mo., <i>CST</i> . 6:45 a.m.-12:45 a.m. next day.		KWKH 850 Shreveport, La., <i>CST</i> . 8:30 p.m.-mid.
KMPC 710 Beverly Hills, Calif. 6:30 a.m.-5:15 p.m.; 8-1 a.m. <i>PST</i> .		KWLC 1270 Decorah, Iowa, <i>CST</i> . 6:45-8 a.m.; 10:30-9:30 p.m.; 11:30 a.m.-12:30 p.m.
		KWSC 1220 Pullman, Wash., <i>PST</i> . 6:45-8 a.m.; 10:30 a.m.-9:30 p.m.

KWWG 1260 Brownsville, Texas.	WBAK 1430 Harrisburg, Pa., <i>EST</i> . 10:30-11:30 a.m.; 1:30-2:30; 4-4:30 p.m.	WCBA 1440 Allentown, Pa., <i>EST</i> . 7:30 a.m.-1 a.m.
KXA 760 Seattle, Wash., <i>PST</i> . 7 a.m.-sundown; 9 p.m.-mid.	WBAL 1060 Baltimore, Md., <i>EST</i> . 7 a.m.-mid.	WCBD 1080 Zion, Ill., <i>CST</i> . 7:30-10:30 a.m.; 1:30-2 p.m.; 4-4:45 p.m.
KXL 1420 Portland, Ore., <i>PST</i> . 7 a.m.-mid.	WBAP 800 Ft. Worth, Texas, <i>CST</i> . 8:30-10:30 a.m.; 12:30-3 p.m.; 4:30-5:30 p.m.; 9 p.m.-mid.	WCBM 1370 Baltimore, Md., <i>EST</i> . 7 a.m.-1:30 p.m.; 5-11 p.m.
KXO 1500 El Centro, Calif.	WBAX 1210 Wilkes Barre Pa., <i>EST</i> . 7:30-11 a.m.	WCBS 1210 Springfield, Ill., <i>CST</i> . 11:30 a.m.-3 p.m.; 6:45-9 p.m.
KXRO 1310 Aberdeen, Wash., <i>PST</i> 7:30 a.m.-10 p.m.	WBBC 1400 Brooklyn, N. Y., <i>EST</i> . 4-6 p.m.; 10 p.m.-1 a.m.	WCCO 810 Minneapolis, Minn. 6:45 a.m.-mid., <i>CST</i> .
KXYZ 1440 Houston, Texas, <i>CST</i> . 7-10 a.m.; 11 a.m.-1:15 p.m.; 3:30-10:30 p.m.	WBBL 1210 Richmond, Va., <i>EST</i> . Silent.	WCDA 1350 New York City, <i>EST</i> . 9 a.m.-4 p.m.
KYA 1230 San Francisco, Calif. 7:30 a.m.-mid., <i>PST</i> .	WBBM 770 Chicago, Ill., <i>CST</i> . 6:45 a.m.-10 p.m.; 11:30 p.m.-2 a.m.	WCFL 970 Chicago, Ill., <i>CST</i> . 6 a.m.-mid.
KYW 1230 Chicago, Ill., <i>CST</i> . 7 a.m.-1 a.m. next day.	WBBR 1300 Brooklyn, N. Y., <i>EST</i> . 10 a.m.-noon; 6-8 p.m.	WCGU 1400 Brooklyn, N. Y., <i>EST</i> . 11:15 a.m.-1:30 p.m.; 6-7:30 p.m.
KZRM 618.5 Mania, P. I. 6:30-7:30 a.m.; 12:15-1:15; 3-10:30 p.m.	WBBS 1200 Ponca City, Okla., <i>CST</i> . 6 a.m.-10 p.m.	WCKY 1490 Covington, Ky., <i>CST</i> . Mid.-mid.
NAA 690 Arlington, Va.	WBBS 1200 Ponca City, Okla., <i>CST</i> . 6 a.m.-10 p.m.	WCLO 1200 Jonesville, Wla., <i>CST</i> . 7:30 a.m.-3:30 p.m.; 5-9 p.m.
RUS 664 Salvador.	WBCM 1410 Bay City, Mich., <i>EST</i> . 8 a.m.-mid.	WCLS 1130 Joliet, Ill., <i>CST</i> . 11 a.m.-noon; 3-8 p.m.; 10 p.m.-mid.
TGW 570 Guatemala.	WBCN 800 Buffalo, N. Y., <i>EST</i> . 6:45 a.m.-mid.	WCMA 1400 Culver, Ind., <i>CST</i> . 6-6:30 a.m.; 1:15-4:15 p.m.; 10-10:30 mid.
TICR 911 San Jose, C. R.	WBEO 1310 Marquette, Mich., <i>CST</i> . 9:30 a.m.-1:15 p.m.; 5-7 p.m.	WCOA 1340 Pensacola, Fla., <i>CST</i> . 9 a.m.-10:30 p.m.
VAS 685 Glace Bay, N. S., <i>AST</i> . 1-1:15 p.m.; mid.-12:15 p.m.	WBHS 1200 Huntsville, Ala., <i>CST</i> . 8 a.m.-2 p.m.; 5-9:30 p.m.	WCOC 880 Meridian, Miss., <i>CST</i> . 7:30 a.m.-2 p.m.; 5-11 p.m.
VOAS 810 St. Johns, N. F. 11 a.m.-12:30 p.m.; 4-5:30 p.m. (Zone 19).	WBIG 1440 Greensboro, N. C., <i>EST</i> . 8 a.m.-3 p.m.; 5-11 p.m.	WCOD 1200 Harrisburg, Pa., <i>EST</i> . 8-11 a.m.; 3-6 p.m.; 8-11 p.m.
VOGT 893 Wabana, N. F. Silent.	WBNX 1350 New York City, <i>EST</i> . 4:00-7:30 p.m.; 8:30-10:30 p.m.	WCRW 1210 Chicago, Ill., <i>CST</i> . 7-8:30 a.m.; 11:30 a.m.-1:30 p.m.; 6-7 p.m.; 9-10 p.m.
VOGY 860 St. Johns, N. F.	WBOQ 360 New York City.	WCSC 1360 Charleston, S. C., <i>EST</i> . 8 a.m.-3 p.m.; 6-11 p.m.
VONA 950 St. Johns, N. F. 12:30-2 p.m.; 6:30-8 p.m. (Zone 19)	WBOW 1310 Terre Haute, Ind., <i>CST</i> . 7 a.m.-2 p.m.; 4-11 p.m.	WCSH 940 Portland, Maine, <i>EST</i> . 7:45 a.m.-1 p.m.; 2-10:45 p.m.
VONF 1115 St. Johns, N. F. 1-2 p.m.; 6:30-8 p.m. (Zone 19)	WBRC 930 Birmingham, Ala., <i>CST</i> . 7 a.m.-11 p.m.	WDAE 1220 Tampa, Fla., <i>EST</i> . 8 a.m.-mid.
VOWR 750 St. Johns, N. F. Silent.	WBRE 1310 Wilkes Barre, Pa.	WDAF 610 Kansas City, Mo., <i>CST</i> . 6:28 a.m.-mid.
WAAB 1410 Boston, Mass., <i>EST</i> . 7:45 a.m.-mid.	WBSO 920 Babeon Park, Mass., 7 a.m.-5 p.m., <i>EST</i>	WDAG 1410 Amarillo, Texas, <i>CST</i> . 8-10 a.m.; 12:30-2:15 p.m.; 7:30-9 p.m.; 10 p.m.-mid.
WAAF 920 Chicago, Ill., <i>CST</i> . 6 a.m.-local sunset.	WBT 1080 Charlotte, N. C., <i>EST</i> . 7 a.m.-mid.	WDAH 1310 El Paso, Texas.
WAAM 1250 Newark, N. J., <i>EST</i> . 7-9 a.m.; 10 a.m.-noon; 2-4:30 p.m.; 9 p.m.-mid.	WBTM 1370 Danville, Va., <i>EST</i> . 7:30 a.m.-1 p.m.; 4-6:30 p.m.	WDAS 1370 Philadelphia, Pa., <i>EST</i> . 9 a.m.-10:30 p.m.
WAAT 940 Jersey City, N. J., <i>EST</i> . 6 a.m.-8 p.m.	WBZ 990 Boston, Mass., <i>EST</i> . 7 a.m.-mid.	WDAY 940 Fargo, N. D., <i>CST</i> . 6 a.m.-11 p.m.
WAAW 660 Omaha, Neb., <i>CST</i> . 6 a.m.-6 p.m.	WBZA 990 Springfield, Mass., <i>EST</i> . 7 a.m.-mid.	WDBJ 930 Roanoke, Va., <i>EST</i> . 8 a.m.-mid.
WABC 860 New York City, <i>EST</i> . 7:30 a.m.-2 a.m. next day.	WCAC 600 Storrs, Conn., <i>EST</i> . 12:30-1 p.m.; 7-8 p.m.	WDBO 580 Orlando, Fla., <i>EST</i> . 7 a.m.-mid.
WABI 1200 Bangor, Maine, <i>EST</i> . 9 a.m.-2 p.m.; 6-10 p.m.	WCAD 1220 Canton, N. Y., <i>EST</i> . 12:30-1:20 p.m.	WDEL 1120 Wilmington, Del., <i>EST</i> . 9 a.m.-10 p.m.
WABZ 1200 New Orleans, La., <i>CST</i> . Noon-4 p.m.; 8 p.m.-mid.	WCAE 1220 Pittsburgh, Pa., <i>EST</i> . 6:45 a.m.-mid.	WDEV 550 Waterbury, Vt., <i>EST</i> . 9:30-11 a.m.; noon-2 p.m.
WACO 1240 Waco, Texas, <i>CST</i> . 6-7 a.m.; 9-noon; 1:30-4 p.m.; 7-9 p.m.	WCAH 1430 Columbus, Ohio, <i>EST</i> . 7:45 a.m.-mid.	WDGY 1180 Minneapolis, Minn. 6:30 a.m.-8:15 p.m., <i>CST</i> .
WADC 1320 Akron, Ohio, <i>EST</i> . 8:30 a.m.-mid.	WCAJ 590 Lincoln, Neb., <i>CST</i> . 10-10:45 a.m.; 3:30-4:30 p.m.; 11-10:30 p.m.-mid.	WDD 1280 Chattanooga, Tenn. 7:30 a.m.-11 p.m., <i>CST</i> .
WAGM 1420 Presque Isle, Me., <i>EST</i> . 10 a.m.-1 p.m.; 4:30-9:30 p.m.	WCAL 1250 Northfield, Minn., <i>CST</i> . 9:45-10:15 a.m.	WDRC 1330 Hartford, Conn., <i>EST</i> . 8 a.m.-mid.
WAIU 640 Columbus, Ohio, <i>EST</i> . 7 a.m.-sunset.	WCAM 1280 Camden, N. J., <i>EST</i> . 11 a.m.-noon; 2-5 p.m.; 9 p.m.-mid.	WDSU 1250 New Orleans, La., <i>CST</i> . 7 a.m.-11:45 p.m.
WALR 1210 Zanesville, Ohio, <i>EST</i> . 9 a.m.-10 p.m.	WCAO 600 Baltimore, Md., <i>EST</i> . 7 a.m.-mid.	WDZ 1070 Tuscola, Ill., <i>CST</i> . 7 a.m.-4:30 p.m.
WAMC 1420 Anniston, Ala., <i>CST</i> . 7-10:30 a.m.; noon-9 p.m.	WCAP 1280 Asbury Park, N. J., <i>EST</i> . 9-11 a.m.; 5-9 p.m.	WEAF 660 New York City, <i>EST</i> . 6:45 a.m.-1 a.m. next day.
WAPI 1140 Birmingham, Ala., <i>CST</i> . 6 a.m.-9 p.m.	WCAT 1200 Rapid City, S. D., <i>CST</i> . 1:30-2:30 p.m.	WEAN 780 Providence, R. I., <i>EST</i> . 7:30 a.m.-1 a.m. next day.
WASH 1270 Gd. Rapids, Mich., <i>EST</i> . 7 a.m.-mid.	WCAU 1170 Philadelphia, Pa., <i>EST</i> . 8 a.m.-1 a.m. next day.	WEAO 570 Columbus, Ohio, <i>EST</i> . 9-11 a.m.; 7 p.m.-mid.
WAWZ 1350 Zarephath, N. J., <i>EST</i> . 6-9 a.m.; 7:30-8:30 p.m.	WCAX 1200 Burlington, Vt., <i>EST</i> . Noon-1 p.m.; 6-9 p.m.	
WAZL 1420 Hazelton, Pa., <i>EST</i> .	WCAZ 1070 Carthage, Ill., <i>CST</i> . 9:30 a.m.-3:30 p.m.	
WBAA 1400 Lafayette, Ind., <i>CST</i> . 7-8 p.m.		

WEBC 1290 Superior, Wis., <i>CST.</i> 7 a.m.-11 p.m.	WGBF 630 Evansville, Ind., <i>CST.</i> 6:30 a.m.-3 p.m.; 4-6:45 p.m.; 7-9 p.m.	WHK 1390 Cleveland, Ohio, <i>EST.</i> 7 a.m.-mid.
WEBC 1210 Harrisburg, Ill., <i>CST.</i> 6-9 a.m.; noon-4 p.m.; 8:30-mid.	WGBI 850 Scranton, Pa., <i>EST.</i> 9:30 a.m.-12:30 p.m.; 1:30-4:30 p.m.; 5:30-8 p.m.	WHN 1010 New York City, <i>EST.</i> 9:30 p.m.-1 a.m.
WEBR 1310 Buffalo, N. Y., <i>EST.</i> 7 a.m.-2 a.m. next day.	WGCM 1210 Gulfport, Miss., <i>CST.</i> 8 a.m.-2 p.m.; 3-9 p.m.	WHO 1000 Des Moines, Iowa.
WEDC 1210 Chicago, Ill.	WGCP 1250 Newark, N. J., <i>EST.</i> 2-5 p.m.; 8-10 p.m.	WHOM 1450 Jersey City, N. J., <i>EST.</i> 8-10 a.m.; noon-3 p.m.; 8-10 p.m.
WEEI 590 Boston, Mass., <i>EST.</i> 6:45 a.m.-mid.	WGES 1980 Chicago, Ill., <i>CST.</i> 8 a.m.-12:30 p.m.; 6:15-8:30 p.m.	WHP 1430 Harrisburg, Pa., <i>EST.</i> 8:30-10:30 a.m.; 11:30-1:30; 2:30-4; 4:30-1 a.m.
WEEU 830 Reading, Pa., <i>EST.</i> 8 a.m.-8 p.m.	WGH 1310 Newport News, Va. 7 a.m.-2 p.m.; 5-11 p.m., <i>EST.</i>	WIAS 1310 Ottumwa, Iowa, <i>CST.</i> 7:30 a.m.-1:30 p.m.; 4-9 p.m.
WEHC 1350 Emory, Va., <i>EST.</i> 6-8 a.m.; 11 a.m.-2 p.m.; 4-7.	WGL 1370 Fort Wayne, Ind., <i>CST.</i> 6:15 a.m.-9:30 p.m.	WIBA 1280 Madison, Wis., <i>CST.</i> 6:30 a.m.-11:30 p.m.
WEHS 1420 Cicero, Ill., <i>CST.</i> 4-6 p.m.	WGLC 1370 Hudson Falls, N. Y., <i>EST.</i>	WIBG 930 Glenside, Pa., <i>EST.</i> Daybreak to sunset.
WELL 1420 Battle Creek, Mich.	WGN 1270 Chicago, Ill., <i>CST.</i> 7:30 a.m.-1:30 a.m. next day.	WIBM 1370 Jackson, Mich., <i>EST.</i> 7:30 a.m.-8:15 p.m.; 11 p.m.- mid.
WENC 1420 Americus, Ga., <i>EST.</i> 7 a.m.-2 p.m.; 4 p.m.-sunset.	WGNV 1210 Chester, N. Y., <i>EST.</i>	WIBO 560 Chicago, Ill., <i>CST.</i> 6:30 a.m.-mid.
WENR 870 Chicago, Ill., <i>CST.</i> 10:15-11:45 a.m.; 3:30-7 p.m.; 8:30 p.m.-1 a.m. next day.	WGR 550 Buffalo, N. Y., <i>EST.</i> 7:30 a.m.-mid.	WIBU 1210 Poynette, Wis., <i>CST.</i> 9 a.m.-9 p.m.
WESG 1040 Elmira, N. Y. Variable.	WGST 890 Atlanta, Ga., <i>CST.</i> 7 a.m.-11 p.m.	WIBW 580 Topeka, Kans., <i>CST.</i> 6 a.m.-mid.
WEVD 1300 New York City, <i>EST.</i> 8-9 a.m.; 3-6 p.m.; 8-9 p.m.; 10-11 p.m.	WGY 790 Schenectady N.Y., <i>EST.</i> 6:45 a.m.-1 a.m. next day.	WIBX 1200 Utica, N. Y.
WEW 760 St. Louis, Mo., <i>CST.</i> 8 a.m.-5 p.m.	WHA 940 Madison, Wis., <i>CST.</i> 8 a.m.-3:30 p.m.	WICC 600 Bridgewater, Conn., <i>EST.</i> 7:30 a.m.-mid.
WEXL 1310 Royal Oak, Mich., <i>EST.</i> 8 a.m.-11 p.m.; 1:30-5 a.m.	WHAD 1120 Milwaukee, Wis., <i>CST.</i> 9:30-10:15 a.m.; 3-4 p.m.; 8:30- 9:30 p.m.	WIL 1200 St. Louis, Mo., <i>CST.</i> 7-9:45 a.m.; 11:15 a.m.-mid.
WFAA 800 Dallas, Texas, <i>CST.</i> 6:45-8:30 a.m.; 10:30 a.m.-12:30 p.m.; 3-5 p.m.; 5:30-9 p.m.	WHAM 1150 Rochester, N. Y., <i>EST.</i> 7:45 a.m.-mid.	WILL 890 Urbana, Ill., <i>CST.</i> 10 a.m.-12:15 p.m.; 5-6 p.m.
WFAB 1300 New York City.	WHAS 820 Louisville, Ky., <i>CST.</i> 7 a.m.-mid.	WILM 1420 Wilmington, Del., <i>EST.</i> 7:30 a.m.-2 p.m.; 4:30-10 p.m.
WFAM 1200 South Bend, Ind., <i>CST.</i> 7:30-10:15 a.m.; noon-3 p.m.; 5:30-8:30 p.m.	WHAT 1310 Philadelphia, Pa., <i>EST.</i> 9-11:30 a.m.; 1-2 p.m.; 5-6:30 p.m.	WINS 1180 New York City, <i>EST.</i> 7 a.m.-10:15 p.m.
WFAN 610 Philadelphia, Pa., <i>EST.</i> 9 a.m.-mid.	WHAZ 1300 Troy, N. Y., <i>EST.</i> Silent.	WIOD 1300 Miami, Fla., <i>EST.</i> 7 a.m.-1 a.m. next day.
WFAS 1210 White Plains, N. Y. Silent.	WHB 860 Kansas City, Mo., <i>CST.</i> 6 a.m.-sunset.	WIP 610 Philadelphia, Pa., <i>EST.</i> 9 a.m.-mid.
WFBC 1200 Knoxville, Tenn.	WHBC 1200 Canton, Ohio, <i>EST.</i> 6-9 a.m.; noon-3 p.m.; 6-9 p.m.	WIS 1010 Columbia, S. C., <i>EST.</i> 7 a.m.-1:30 p.m.; 5:30-11 p.m.
WFBE 1200 Cincinnati, Ohio, <i>EST.</i> 7 a.m.-11:30 p.m.	WHBD 1370 Mt. Orab, Ohio, <i>EST.</i> 7-11 a.m.; noon-5 p.m.; 6-9 p.m.	WISN 1120 Milwaukee, Wis., <i>CST.</i> 7-9:30 a.m.; 10:15 a.m.-3 p.m.; 4-8:30 p.m.; 9:30 p.m.-mid.
WFBG 1310 Altoona, Pa. 10:30 a.m.-4:30 p.m.; 6:15-9:15	WHBF 1210 Rock Island, Ill., <i>CST.</i> 10 a.m.-3 p.m.; 5 p.m.-mid.	WJAC 1310 Johnstown, Pa., <i>EST.</i> 8:30-10:30 a.m.; 4:30-6:15 p.m.; 9:15 p.m.-mid.
WFBM 1360 Syracuse, N. Y., <i>EST.</i> 7:30 a.m.-mid.	WHBL 1410 Sheboygan, Wis., <i>CST.</i> 7-10 a.m.; 12:30-3 p.m.; 6-8 p.m.	WJAG 1060 Norfolk, Neb., <i>CST.</i> 6 a.m.-sunset.
WFBM 1230 Indianapolis, Ind., <i>CST.</i> 7:30-10:15 a.m.; noon-3 p.m.; 5:30 p.m.-mid.	WHBQ 1370 Memphis, Tenn., <i>CST.</i> 7:55 a.m.-10:30 p.m.	WJAR 890 Providence, R. I., <i>EST.</i> 8 a.m.-mid.
WFBR 1270 Baltimore, Md., <i>EST.</i> 7 a.m.-mid.	WHBU 1210 Anderson, Ind., <i>CST.</i> 7 a.m.-1 p.m.; 3-9 p.m.	WJAS 1290 Pittsburgh, Pa., <i>EST.</i> 7:30 a.m.-11:30 p.m.
WFDF 1310 Flint, Mich., <i>EST.</i> 7 a.m.-11 p.m.	WHBY 1200 Green Bay, Wis., <i>CST.</i> 7 a.m.-10 p.m.	WJAX 900 Jacksonville, Fla., <i>EST.</i> 7 a.m.-11 p.m.
WFDV 1500 Rome, Ga., <i>CST.</i> 6-9 a.m.; noon-3 p.m.; 6-9 p.m.	WHDF 1370 Calumet, Mich., <i>CST.</i> 9-10:15 a.m.; noon-1 p.m.; 4:40- 7:30 p.m.	WJAY 610 Cleveland, Ohio, <i>EST.</i> 6 a.m.-6:45 p.m.
WFEA 1430 Manchester, N. H., <i>EST.</i> 9 a.m.-11 p.m.	WHDH 830 Boston, Mass., <i>EST.</i> 8 a.m.-12:45 p.m.; 2:45-7:15.	WJBC 1200 LaSalle, Ill., <i>CST.</i> 8-9 a.m.; 10 a.m.-12:30 p.m. 6:30-10 p.m.
WFI 560 Philadelphia, Pa., <i>EST.</i> 6:45-9 a.m.; 9:45-11 p.m.; 1-2 p.m.; 3-4:30 p.m.; 6-7 p.m.	WHDL 1420 Tupper Lake, N. Y., <i>EST.</i> 7:45 a.m.-1 p.m.; 3-7:45 p.m.	WJBI 1210 Red Bank, N. J., <i>EST.</i> 9 a.m.-noon; 3 p.m.-mid.
WFIW 940 Hopkinsville, Ky., <i>CST.</i> 6 a.m.-3 p.m.; 5 p.m.-mid.	WHEB 740 Portsmouth, N. H., <i>EST.</i> 10 a.m.-sunset.	WJBK 1370 Detroit, Mich., <i>EST.</i> 7 a.m.-11 p.m.
WFLA 620 Clearwater, Fla., <i>EST.</i> 7:15 a.m.-11 a.m.	WHEC 1430 Rochester, N. Y., <i>EST.</i> 8 a.m.-mid.	WJBL 1200 Decatur, Ill., <i>CST.</i> 6:30-8 a.m.; 9-10 p.m.; 12:30-3; 4:30-6:30 p.m.
WFOX 1400 Brooklyn, N. Y., <i>EST.</i> 8-11:15 a.m.; 7:30-9 p.m.	WHEF 1500 Kosciusko, Miss.	WJBO 1420 New Orleans, La.
WGAL 1310 Lancaster, Pa., <i>EST.</i> 10 a.m.-12:45 p.m.; 1:30-6 p.m.; 8-11 p.m.	WHET 1210 Troy, Ala., <i>CST.</i> 6-8 a.m.; 11 a.m.-5 p.m.	WJBU 1210 Lewisburg, Pa., <i>EST.</i> Noon-2 p.m.; 4-10 p.m.
WGAR 1450 Cleveland, Ohio, <i>EST.</i> 6 a.m.-1 a.m. next day.	WHFC 1420 Cicero, Ill., <i>CST.</i> 7 a.m.-1:30 p.m.; 6-9 p.m.; 11 p.m.-1 a.m. next day.	WJBW 1200 New Orleans, La., <i>CST.</i> 8 a.m.-noon; 4-8 p.m.
WGBB 1210 Freeport, N. Y., <i>EST.</i> Silent.	WHIS 1410 Bluefield, W. Va., <i>EST.</i> 8-9 a.m.; noon-2 p.m.; 6-8 p.m.	WJBY 1210 Gadsden, Ala., <i>CST.</i> 6 a.m.-12:10 next day.
		WJDX 1270 Jackson, Miss., <i>CST.</i> 6:15-10 a.m.; 11:30 a.m.-10 p.m.

WJEF 120 Hagerstown, Md. 7 a.m.-5 p.m.	WLOE 1500 Boston, Mass., <i>EST.</i> 10 a.m.-1:30 p.m.; 4:30-10 p.m.	WNOX 560 Knoxville, Tenn., <i>CST.</i> 6:45 a.m.-11 p.m.
WJEQ 1370 Williamsport, Pa.	WLS 870 Chicago, Ill., <i>CST.</i> 6-10:15 a.m.; 11:45 a.m.-3:30 p.m.; 7-8:30 p.m.	WNYC 570 New York City, <i>EST.</i> 11 a.m.-noon; 6-7:30 p.m.
WJJD 1130 Chicago, Ill., <i>CST.</i> 6 a.m.-8:30 p.m.	WLTH 1400 Brooklyn, N. Y., <i>EST.</i> 1:30-4 p.m.; 9-10 p.m.	WQAI 1190 San Antonio, Tex., <i>CST</i> 6:30-9:30 a.m.; 11:15-3 p.m. 4:45-11:30 p.m.
WJKS 1360 Gary, Ind., <i>CST.</i> 12:30-6:15 p.m.; 8:30 p.m.-mid.	WLVA 1370 Lynchburg, Va., <i>EST</i> 1-3 p.m.; 6:30-10 p.m.	WQAX 1280 Trenton, N. J., <i>EST.</i> Noon-2 p.m.
WJMS 1420 Ironwood, Mich., <i>CST.</i> 7 a.m.-2:30 p.m.; 4:30 p.m.-sun- set.	WLW 700 Cincinnati, Ohio, <i>EST.</i> 6:30 a.m.-1 a.m. next day.	WQBU 580 Charleston, W. Va., <i>EST.</i> 9 a.m.-noon; 2-4 p.m.; 8:30 p.m.- mid.
WJR 750 Detroit, Mich., <i>EST.</i> 6:00 a.m.-1 a.m. nextday.	WLWL 1100 New York City 2-3 p.m.; 6-8 p.m. <i>EST.</i>	WOC 1000 Davenport, Iowa, <i>CST.</i> 7 a.m.-11 p.m.
WJSV 1460 Washington, D. C., <i>EST</i> 7:30 a.m.-1 a.m. next day.	WMAC 570 Syracuse, N. Y.	WOCL 1210 Jamestown, N. Y., <i>EST.</i> Noon-mid.
WJTL 1370 Atlanta, Ga., <i>CST.</i> 6:45 a.m.-mid.	WMAL 830 Washington, D. C., <i>EST.</i> 8 a.m.-mid.	WODA 1250 Paterson, N. J.
WJW 1210 Akron, Ohio, <i>EST.</i> 8 a.m.-10 p.m.	WMAQ 870 Chicago, Ill., <i>CST.</i> 7 a.m.-1 a.m. next day.	WODX 1410 Mobile, Ala., <i>CST.</i> 9 a.m.-4 p.m.; 9-11 p.m.
WJZ 760 New York City, <i>EST.</i> 7:30 a.m.-1 a.m. next day.	WMAS 1429 Springfield, Mass., <i>EST</i> 7:45 a.m.-mid.	WOI 640 Ames, Iowa, <i>CST.</i> 6:30 a.m.-1:30 p.m.
WKAQ 1240 San Juan, P. R., <i>AST.</i> 2:30-4:30 p.m.; 6:30-10:30 p.m.	WMAZ 1180 Macon, Ga., <i>EST.</i> 7 a.m.-9:30 p.m.	WOKO 1430 Albany, N. Y., <i>EST.</i> 9 a.m.-1 a.m. next day.
WKAR 1040 E Lansing, Mich., <i>EST.</i> Noon-12:30 p.m.	WMBC 1420 Detroit, Mich., <i>EST.</i> 7:30 a.m.-mid.	WOL 1310 Washington, D. C., <i>EST</i> 7 a.m.-1 p.m.; 3-9 p.m.
WKAV 1310 Laconia, N. H., <i>EST.</i> 9 a.m.-1 p.m.; 3-8 p.m.	WMBD 1440 Peoria, Ill., <i>CST.</i> 6-9:30 a.m.; 1-2:30 p.m.; 8-mid.	WOMT 1210 Manitowoc, Wis., <i>CST</i> 7 a.m.-9 p.m.
WKBB 1310 Joliet, Ill., <i>CST.</i> 8-11 a.m.; noon-3 p.m.; 8-10 p.m.	WMBG 1210 Richmond, Va., <i>EST.</i> 7:30 a.m.-1:30 p.m.; 5-11 p.m.	WOOD 1270 Gd. Rapids, Mich., <i>EST.</i> 7 a.m.-mid.
WKBC 1310 Birmingham, Ala.	WMBH 1420 Joplin, Mo. Noon-2 p.m.; 6-9:30 p.m., <i>CST.</i>	WOPI 1500 Bristol, Tenn., <i>EST.</i> 7 a.m.-2 p.m.; 4-9 p.m.
WKBF 1400 Indianapolis, Ind., <i>CST.</i> 6:30 a.m.-1:15 p.m.; 4:15-10:30	WMBI 1080 Chicago, Ill., <i>CST.</i> 7-7:30 a.m.; 10:30-11:30 a.m.; noon-1:30; 2-4:30; 5:30-8 p.m.; mid-1 a.m.	WOQ 1300 Kansas City, Mo., <i>CST</i> 6-7 a.m.; 8:35-9:05 a.m.; 1- 11:30 a.m.; 2-3 p.m.; 6-7 p.m.; 9-10 p.m.; 11:30-12:30 a.m.
WKBH 1380 LaCrosse, Wis., <i>CST.</i> 7:30 a.m.-10 p.m.	WMBD 1310 Auburn, N. Y., <i>EST.</i> 9 a.m.-9 p.m.	WOR 710 Newark, N. J., <i>EST.</i> 6:45 a.m.-mid
WKBI 1420 Cicero, Ill., <i>CST.</i> 1:30-4 p.m.; 9-11 p.m.	WMBQ 1590 Brooklyn, N. Y., <i>EST.</i> 9-11 a.m.	WORC 1200 Worcester, Mass., <i>EST.</i> 8 a.m.-mid.
WKBN 570 Youngstown, Ohio, <i>EST.</i> 7-9 a.m.; 11 a.m.-7 p.m.	WMBR 1370 Tampa, Fla., <i>EST.</i> 6:45 a.m.-10 p.m.	WORK 1000 York, Pa., <i>EST.</i> 7:55 a.m.-sunset.
WKBS 1310 Galesburg, Ill.	WMC 780 Memphis, Tenn., <i>CST.</i> 7 a.m.-11 p.m.	WOS 630 Jefferson City, Mo. 9 a.m.-4 p.m., <i>CST.</i>
WKBV 1500 Connersville, Ind., <i>CST.</i> 10 a.m.-noon; 6-10 p.m.	WMC 570 New York City, <i>EST.</i> 8-11 a.m.; noon-6 p.m.; 7:30-2 a.m.	WOV 1130 New York City, <i>EST.</i> 8 a.m.-8 p.m.
WKBW 1480 Buffalo, N. Y., <i>EST</i> 9:15 a.m.-1 a.m. next day.	WMIL 1500 Brooklyn, N. Y., <i>EST.</i> 2-6 p.m.; 8-10 p.m. †	WOW 590 Omaha, Neb., <i>CST.</i> 6:15-10 a.m.; 10:45-3:30; 4-11:30 p.m.
WKBZ 1500 Ludington, Mich., <i>CST.</i> 9 a.m.-9 p.m.	WMMN 890 Fairmont, W. Va., <i>EST.</i> 7 a.m.-9 p.m.	WOWO 1180 Fort Wayne, Ind., <i>CST.</i> 7:50 a.m.-7:45 p.m.; 9:15 p.m.- mid.
WKFI 1210 Greenville, Miss., <i>CST.</i> 7 a.m.-2 p.m.; 4-9 p.m.	WMPC 1500 Lapeer, Mich., <i>EST.</i> 10 a.m.-2 p.m.; 3:30-6 p.m.; 7- 10:30 p.m.	WPAD 1420 Paducah, Ky., <i>CST.</i> 7-9:30 a.m.; 11 a.m.-2 p.m. 4-10:30 p.m.
WKJC 1200 Lancaster, Pa., <i>EST.</i> 11 a.m.-3 p.m.; 6-8 p.m.	WMSG 1350 New York City, <i>EST.</i> 10:30 p.m.-mid.	WPAP 1010 New York City, <i>EST.</i> 9:30 a.m.-1:30 p.m.
WKRC 550 Cincinnati, Ohio, <i>EST.</i> 6:45 a.m.-mid.	WMT 800 Waterloo, Iowa, <i>CST.</i> 7 a.m.-11 p.m.	WPAW 1210 Providence, R. I., <i>EST.</i> 9 a.m.-1:45 p.m.; 3 p.m.-mid.
WKY 900 Oklahoma City, Okla., 6:30 a.m.-11:30 p.m., <i>CST.</i>	WNAC 1230 Boston, Mass., <i>EST.</i> 8 a.m.-1 a.m. next day.	WPCC 580 Chicago, Ill. Silent.
WKZO 580 Kalamazoo, Mich., <i>EST.</i> 6:30 a.m.-8:15 p.m.	WNAD 1010 Norman, Okla. Silent.	WPCH 810 New York City, <i>EST.</i> 8 a.m.-sunset.
WLAC 1470 Nashville, Tenn., <i>CST.</i> 7 a.m.-11 p.m.	WNAX 570 Yankton, S. D., <i>CST.</i> 6 a.m.-mid.	WPEN 1500 Philadelphia, Pa., <i>EST.</i> 7:30 a.m.-10:30 p.m.
WLAP 1200 Louisville, Ky., <i>CST.</i> 6:30 a.m.-11 p.m.	WNBF 1500 Binghamton, N. Y., <i>EST.</i> 7 a.m.-10 p.m.	WPFB 1370 Hattiesburg, Miss., <i>CST.</i> 7 a.m.-2 p.m.; 4-9 p.m.
WLB 1250 Minneapolis, Minn., 12:30-1 p.m.; 4-5 p.m., <i>CST.</i>	WNBH 1310 New Belford, Mass., <i>EST.</i> 8:30 a.m.-1:10 p.m.; 3-11 p.m.	WPG 1100 Atlantic City, N. J., <i>EST.</i> 8:15 a.m.-2 p.m.; 3-6 p.m.; 8 p.m.-1 a.m.
WLBC 1510 Muncie, Ind., <i>CST.</i> 7 a.m.-11 p.m.	WNBO 1200 Washington, Pa., <i>EST.</i> 9 a.m.-noon; 3-6 p.m.; 9 p.m.- mid.	WPHR 1200 Petersburg, Va., <i>EST.</i> 7-11 a.m.; noon-5 p.m.; 6-9 p.m.
WLBF 1420 Kansas City, Kans. 7 a.m.-11 p.m., <i>CST.</i>	WNBR 1430 Memphis, Tenn., <i>CST.</i> 7:30 a.m.-12:30 p.m.; 3-10:15	WPOR 780 Norfolk, Va.
WLBI 900 Stevens Point, Wis. 8 a.m.-3:30 p.m., <i>CST.</i>	WNBW 1200 Carbondale, Pa.	WPRO 1210 Providence, R. I., <i>EST.</i> 9 a.m.-1:45 p.m.; 3 p.m.-mid.
WLBW 1260 Erie, Pa., <i>EST.</i> 8 a.m.-1 a.m. next day.	WNBX 1260 Springfield, Vt., <i>EST.</i> 6 a.m.-sunset.	WPTF 680 Raleigh, N. C., <i>EST.</i> 6:45 a.m.-8:45 p.m.
WLBZ 820 Bangor, Maine, <i>EST.</i> 8:30 a.m.-mid.	WNBZ 1290 Saranac Lake, N. Y.	WQAM 560 Miami, Fla., <i>EST.</i> 7 a.m.-mid.
WLEY 1370 Lexington, Mass., <i>EST.</i> Noon-3 p.m.; 6-9 p.m.		
WLIT 560 Philadelphia, Pa., <i>EST.</i> 9-9:45 a.m.; 11 a.m.-1 p.m.; 2-3 p.m.; 4:30-6 p.m.; 7-12:15 a.m.		

WQAN 880 Scranton, Pa., <i>EST.</i> 9-9:30 a.m.; 12:30-1:30 p.m.; 4:30-5:30 p.m.; 8-11 p.m.	WSMK 1380 Dayton, Ohio, <i>EST.</i> 7 a.m.-8 p.m.; 10 p.m.-mid.	XEFB 1315 Monterrey, Mex., <i>CST.</i> 11 a.m.-2 p.m.; 6-10 p.m.
WQAD 1010 New York City, <i>EST.</i> Silent.	WSCC 1210 Gastonia, N. C., <i>EST.</i> 8 a.m.-10 p.m.	XEFC 1050 Merida, Mex.
WQBC 1360 Vicksburg, Miss., <i>CST.</i> 7:30 a.m.-2:30 p.m.; 5-10 p.m.	WSPA 1420 Spartanburg, S. C., <i>EST.</i> 7:30 a.m.-11 p.m.	XEFD 1020 Tijuana, Mex.
WQDM 1370 St. Albans, Vt., <i>EST.</i> 8-9 a.m.; 11 a.m.-2 p.m.	WSPD 1340 Toledo, Ohio, <i>EST.</i> 7:30 a.m.-mid.	XEFE 1000 Laredo, Mex.
WQDX 1360 Thomasville, Ga.	WSUI 880 Iowa City, Iowa, <i>CST.</i> 9-10 a.m.; 11-12:30; 2-4; 6-10	XEFH 1380 Mexico City, Mex.
WRAK 1370 Williamsport, Pa., <i>EST.</i> 8:30 a.m.-2:30 p.m.; 4:30-10:30.	WSUN 620 St. Petersburg, Fla., <i>EST.</i> 7:15 a.m.-1 a.m.	XEFI 1000 Chihuahua, Mex.
WRAM 1370 Wilmington, N. C., <i>EST.</i> 7:30 a.m.-3 p.m.; 6:30-11 p.m.	WSVS 1370 Buffalo, N. Y., <i>EST.</i> 8:30 a.m.-10 a.m.; 2-3 p.m.	XEFJ 1000 Monterrey, Mex.
WRBW 1310 Reading, Pa., <i>EST.</i> 7:30-9:30 a.m.; 6-8 p.m.	WSTB 1500 Rutland, Vt., <i>EST.</i> 10 a.m.-1 p.m.; 5-9 p.m.	XEFO 940 Mexico City, Mex., <i>CST</i> 2-3 p.m.; 7-11 p.m.
WRAX 1020 Philadelphia, Pa., <i>EST.</i> 7 a.m.-sunset.	WSYR 570 Syracuse, N. Y., <i>EST.</i> 7 a.m.-3 p.m.; 4-11 p.m.	XEFS 1000 Queretaro, Mex., <i>CST.</i> 7:30-11 p.m.
WRBL 1200 Columbus, Ga., <i>CST.</i> 7 a.m.-9 p.m.	WTAO 1440 Quincy, Ill., <i>CST.</i> 9:30 a.m.-1 p.m.; 2-30-8 p.m.	XEFV 1370 Juarez, Mex.
WRBX 1410 Roanoke, Va., <i>EST.</i> 9 a.m.-noon; 3-6 p.m.; 8 p.m.-1.	WTAG 580 Worcester, Mass., <i>EST.</i> 8 a.m.-11:15 p.m.	XEFW 1240 Tampico, Mex.
WRC 950 Washington, D.C., <i>EST.</i> 6:45 a.m.-1 a.m. next day.	WTAM 1070 Cleveland, Ohio, <i>EST.</i> 6:30 a.m.-1 a.m. next day.	XEFZ 1500 Coyoacan, Mex., <i>CST.</i> 8-11 p.m.
WRDD 1370 Augusta, Maine, <i>EST.</i> 7-9:30 a.m.; 10:30 a.m.-1:30 p.m.; 3:30-10 p.m.	WTAQ 1330 Eau Claire, Wis., <i>CST.</i> 7 a.m.-8 p.m.	XEG 1075 Mexico City, Mex.
WRDW 1500 Augusta, Ga., <i>EST.</i> 8 a.m.-2 p.m.; 5-11 p.m.	WTAR 780 Norfolk, Va., <i>EST.</i> 7 a.m.-mid.	XEH 1132 Monterrey, Mex., <i>CST.</i> 9 a.m.-1:30 p.m.; 6-10 p.m.
WREC 800 Memphis, Tenn.	WTAW 1120 College Station, Texas. 12:30-1:30 p.m.; 8-9 p.m.	XEI 1310 Morelia, Mex., <i>CST.</i> 2-3:30 p.m.; 8:30-10:30 p.m.
WREN 1220 Lawrence, Kans., <i>CST.</i> 7 a.m.-mid.	WTAX 1210 Springfield, Ill., <i>CST.</i> 7-11:30 a.m.; 3-6:45; 9-mid.	XEJ 1000 Juarez, Mex., <i>CST.</i> 11 a.m.-4 p.m.; 6-11 p.m.
WRHM 1250 Minneapolis, Minn. 6:15-9:45 a.m.; 10:35 a.m.-12:30 p.m.; 1-4 p.m.; 5-8 p.m.; 9-1 a.m., <i>CST.</i>	WTBO 1420 Cumberland, Md., <i>EST.</i> 7 a.m.-1:30 p.m.; 2:30-8 p.m.	XEK 990 Mexico City, Mex.
WRJN 1370 Racine, Wis., <i>CST.</i> 8 a.m.-10:30 p.m.	WTCL 1310 Philadelphia, Pa., <i>EST.</i> 7-9 a.m.; noon-1 p.m.; 6:30-9	XEL 1000 Saltillo, Mex., <i>CST.</i> 11 a.m.-1 p.m.; 6-9 p.m.
WRNY 1010 New York City.	WTFI 1450 Athens, Ga., <i>EST.</i> 8 a.m.-4 p.m.; 6-10 p.m.	XEN 711 Mexico City, Mex., <i>CST</i> 10 a.m.-noon; 2-4 p.m.; 7-11
WROL 1310 Knoxville, Tenn., <i>CST.</i> 7 a.m.-10 p.m.	WTIC 1060 Hartford, Conn., <i>EST.</i> 4 p.m.-mid.	XENT 1115 Nuevo Laredo, Mex.
WRR 1280 Dallas, Texas, <i>CST.</i> 6:30 a.m.-11 p.m.	WTJS 1310 Jackson, Tenn., <i>CST.</i> 7 a.m.-1 p.m.; 3-9 p.m.	XEP 780 Mexico City, Mex.
WRUF 830 Gainesville, Fla., <i>EST.</i> 8 a.m.-7:30 p.m.	WTMJ 620 Milwaukee, Wis., <i>CST.</i> 6:45 a.m.-12:30 a.m.	XEPN 885 Piedras Negras, Mex.
WRVA 1110 Richmond, Va., <i>EST.</i> 7 a.m.-mid.	WTDC 1260 Savannah, Ga., <i>EST.</i> 7 a.m.-mid.	KER 735 Villa Acuna, Mex. 24 hours daily.
WSAI 1330 Cincinnati, Ohio, <i>EST.</i> 8 a.m.-11 p.m.	WTRC 1310 Elkhart, Ind., <i>CST.</i> 7:30 a.m.-7:30 p.m.	XES 1055 Tampico, Mex., <i>CST.</i> 9-10:30 a.m.; noon-2 p.m.; 7-15 10 p.m.
WSAJ 1310 Grove City, Pa. 5-6 p.m.	WTSL 1310 Laurel, Miss.	XET 690 Monterrey, Mex., <i>CST.</i> 9 a.m.-2 p.m.; 6-10 p.m.
WSAN 1440 Allentown, Pa., <i>EST.</i> Silent.	WWAE 1200 Hammond, Ind., <i>CST.</i> 7 a.m.-8:30; 11-1 p.m.; 4-11:30 p.m.	XETA 1140 Mexico City, Mex.
WSAR 1450 Fall River, Mass., <i>EST.</i> 8 a.m.-3:30 p.m.; 5-10 p.m.	WWJ 920 Detroit, Mich., <i>EST.</i> 7:30 a.m.-mid.	XETB 1380 Torreon, Mex.
WSAZ 580 Huntington, W. Va., <i>EST.</i> 6-9 a.m.; noon-2 p.m.; 4-8:30.	WWL 850 New Orleans, La., <i>CST.</i> 8 a.m.-8:30 p.m.	XETC 1000 Jalapa, Mex.
WSB 740 Atlanta, Ga., <i>CST.</i> 7 a.m.-mid.	WWNC 570 Asheville, N. C., <i>CST.</i> 7 a.m.-mid.	XETF 630 Veracruz, Mex., <i>CST.</i> 7-8 a.m.; noon-2 p.m.; 7 p.m. mid.
WSBC 1210 Chicago, Ill.	WWRL 1500 Woodside, N. Y., <i>EST.</i> 8-9 a.m.; 11 a.m.-noon; 10-mid.	XETH 840 Puebla, Mex.
WSBT 1230 South Bend, Ind., <i>CST.</i> 6-7:30 a.m.; 10:15 a.m.-noon; 3-5:30 p.m.	WWSW 1500 Pittsburgh, Pa., <i>EST.</i> 8 a.m.-1:30 p.m.; 3-11:30 p.m.	XETM 845 Matamoros, Mex.
WSEN 1210 Columbus, Ohio, <i>EST.</i> 8 a.m.-11 p.m.	WWVA 1160 Wheeling, W. Va., <i>EST.</i> 7:30 a.m.-9 p.m.	XETR 610 Mexico City, Mex.
WSFA 1410 Montgomery, Ala., <i>CST.</i> 6 a.m.-9 p.m.	WXYZ 1240 Detroit, Mich., <i>EST.</i> 7:30 a.m.-mid.	XETU 890 Pachuca, Mex.
WSIX 1210 Springfield, Tenn., <i>CST.</i> 6 a.m.-3 p.m.; 6-9 p.m.	XEA 1000 Guadalajara, Mex., <i>CST.</i> 11 a.m.-noon; 2-3 p.m.; 5-11.	XETW 830 Mexico City, Mex.
*WSJS 1310 Winston-Salem, N. C. 8 a.m.-mid., <i>EST.</i>	XEAN 750 Juarez, Mex., <i>MST.</i> 9 a.m.-2 p.m.; 5-11 p.m.	XEU 1010 Veracruz, Mex., <i>CST.</i> 7-8 a.m.; 10-11 a.m.; noon-3 p.m.; 6-mid.
WSM 650 Nashville, Tenn., <i>CST.</i> 6:30 a.m.-mid.	XEAW 965 Reynosa, Mex.	XEW 910 Mexico City, Mex., <i>CST</i> 10 a.m.-mid.
WSMB 1320 New Orleans, La., <i>CST.</i> 7 a.m.-mid.	XEB 6030 Mexico City, Mex., <i>CST.</i> 8 a.m.-mid.	XEX 1210 Mexico City, Mex.
	XEC 8000 Toluca, Mex.	XEY 546.8 Mexida, Mex.
	XEO 1155 Guadalajara, Mex.	XFB 840 Jalapa, Mex.
	XEF 735 Villa Acuna, Mex. 24 hours daily.	XFC 805 Aguascalientes, Mex.
	XEFA 1250 Mexico City, Mex.	XFG 538.3 Mexico City, Mex.
		XFI 818.1 Mexico City, Mex.
		XFO 940 Mexico City, Mex.
		XFX 860 Mexico City, Mex.
		YVIBC 960 Caracas, Venez. 11 a.m.-1:30 p.m.; 5:45-10:30 p.m.
		10-AB 1200 Moose Jaw, Sask., <i>MST.</i> 5:30-7 p.m.
		10-AK 1200 Stratford, Ont., <i>EST.</i> 6-8 p.m.
		10-AT 1155 Trail, B. C.
		10-BI 1200 Prince Albert, Sask. Noon-1 p.m.; 6-8 p.m., <i>MST.</i>
		10-BP 1199 Wingham, Ont., <i>EST.</i> Silent.
		10-BQ 1200 Brantford, Ont., <i>EST.</i> 8-10 p.m.
		10-BU 1200 Canora, Sask.

Trans-Pacific Broadcasting Stations by Frequencies—*With Their Time on the Air*

Note—In some cases the power is figured differently than is the rule in the United States, making it four or five times as much as American stations of the same wattage.

Kcs.	Call	Power	City and Country	Zone
	2BL	5000	Sydney, N. S. W.	46
	National Broadcasting Station, 96-98 Market St., Daily, 9:45 a.m.-Midn.; Sun., 12:30 p.m.-4:30 p.m., 6-6:30; 8-11:30			
870	JOAK	10000	Tokyo, Japan	44
880	6PR	200	Perth, W. Aus.	42
	Nicholsons Ltd., Barrack St., daily, 8 p.m.-2 a.m.; Sun. 10 p.m.-1:30 a.m.			
890	7HO	50	Hobart, Tas.	46
	Commercial Broadcasters, Ltd., 82 Elizabeth St., daily, 7:30 p.m.-Midn.; Sun. 9:30 p.m.-11 p.m.			
900	2ZP	500	Wairoa, Hawke's Bay, N. Z.	49
	E. A. Perry, 128 Queen St., daily, ex. Tues. 7 a.m.-9 a.m.; Tues. 7 a.m.-9 a.m.; 6-10:30 p.m.			
910	4RK	2000	Rockhampton, Queens.	46
	National Broadcasting Station. Relays 4QG.			
920	JQJK	500	Nugata, Japan	44
930	3UZ	500	Melbourne, Vict.	46
	Oliver J. Nilsen & Co., 45 Bourke St., daily, 9 a.m.-12:30 a.m.; Sun. 7:15 p.m.-11:15 p.m.			
950	2GB	3000	Sydney, N. S. W.	46
	Theosophical Broadcasting Station, 29 Bligh St., daily, 8:30 a.m.-12:45 a.m.; Sun., 8:30 a.m.-11:30 p.m.			
960	JQOK	300	Kyoto, Japan.	44
960	5DN	500	Adelaide, S. Aus.	45
	Hume Broadcasters, Ltd., Franklin St., Parkside, Mon. to Fri., 6 p.m.-1:20 a.m.; Sat., 7:30 p.m.-1 a.m.; Sun., 10-11:30 p.m.			
970	3BO	200	Bendigo, Vict.	46
	Amalgamated Wireless, Ltd., Kangaroo Flat, daily, 9 p.m.-mid.; Sun., 8:30-10:30 p.m.			
980	3YA	500	Christchurch, N. Z.	49
	National Broadcasting Service, daily, 10 a.m.-10 p.m.; Tues. and Wed., till 11 p.m.; Sat., 3-11 p.m.; Sun., 2-10 p.m.			
1000	4GR	50	Toowoomba, Queens.	46
	Gold Radio Service, Ruthven St., daily, 7:30-11:30 p.m.; Sun., 8:30-11:30 p.m.			
1010	3HA	200	Hamilton, Vict.	46
	Western Province Radio Co., 37 Gray St., daily, 8 p.m.-mid.; Sun., 8:30 p.m.-mid.			
1025	2UE	1000	Sydney, N. S. W.	46
	Radio House, 617 George St., daily, 8:30 a.m.-1:30 p.m.; 7:15-mid.; Sun., 11:30 a.m.-1:30 p.m.; 9:30-11:45 p.m.			
1041	5PI	50	Port Pirie, S. Aus.	45
	Midland, Ellen St., daily 7:30 p.m.-mid.			
1050	2CA	50	Canberra, N. S. W.	46
	A. J. Ryan, Kingston, daily 9-11:30 p.m.; Sun., 9:30-11:30 p.m.			
	2ZF	150	Palmerston North, N. Z.	49
	Manawatu Radio Club, King St., Mon., Thur., Sat., 8 p.m.-10 p.m.; Wed., 6:30 p.m.-10 p.m.; Fri., 7 p.m.-10 p.m.; Sun., 7 p.m.-9:30 p.m.			
1050	2ZO	200	Palmerston North, N. Z.	49
	J. V. Kyle, 50 Waldegrave St., Tues., 7 p.m.-9:30 p.m.; Sat., 1 p.m.-2:30 p.m.; Sun., 10 a.m.-12:30 p.m.			
1060	4MB	50	Maryborough, Queens.	46
	Maryborough Brdcstg. Co., Wynnes' Station.			
1070	2KY	1500	Sydney, N. S. W.	46
	Trades & Labor Council, Goulburn St., daily, 7:30-mid.; Sun., 8:30-mid.			
1080	3SH	50	Swan Hill, Vict.	46
	Swan Hill Brdcstg. Co., daily, 9-11:30 p.m.; Sun., 5:45-11:30 p.m.			
	4ZF	10	Dunedin, N. Z.	49
	Laidlaw & Gray, Ltd., 123 George St., daily, 9:55 a.m.; 1-2 p.m.; Mon., 3-5 p.m.; Tues., 6-7:30 p.m.; Wed., 3-5 p.m.; 11-mid.; Sun., 5-6 p.m.			
	4ZB	20	Dunedin, N. Z.	49
	Otago Radio Assn., 182 Rattray St., Wed., 6:30-11 p.m.; Thur., 6-11 p.m.; Sun., 10 a.m.-noon.			
580	7ZL	3000	Hobart, Tasmania	46
	National Broadcasting Service, Elizabeth Street, Daily: 12:30-3:30 p.m., 7:30 p.m.-12:30 a.m., Sun., Noon-1 p.m., 4:30-6 p.m., 9:30-11:30 p.m.			
590	JOAK	10000	Tokyo, Japan	44
600	2ZK	120	Wanganui, N. Z.	49
	D. A. Morrison & Co., Victoria Ave., Mon. to Fri., 7-8 p.m.			
610	3AR	5000	Melbourne, Victoria	46
	National Broadcasting Station, 120A Russell St., Daily: 9-45 a.m.-Midn.; Sats., to 1 a.m., Sun., 12:30-11:30 p.m.			
625	JOTK	500	Matsue, Japan	44
630	1ZH	45	Hamilton, N. Z.	49
	G. S. Anchor, 165 Victoria St., Mon., Thur., Fri., Noon-1; 8-10 p.m., Tue., Noon-1; 7:30-10 p.m., Wed., Noon-1 p.m.			
635	JONK	500	Nagano, Japan	44
	5CK	7500	Crystal Brook, S. Aus.	46
	National Broadcasting Station, Relays 5CL.			
645	JOUK	300	Akita, Japan	44
	JQAK	500	Dairen, Manchuria	42
650	4YA	500	Dunedin, N. Z.	49
	National Broadcasting Service, Stuart St., almost continuous, 10 a.m.-10 p.m. week days; till 11 p.m., Mons., Thurs.; Sat. 3-11 p.m.; Sun. 2-10 p.m.			
665	2FC	5000	Sydney, N. S. W.	46
	National Broadcasting Station, 96-98 Market St., Daily, 9:30-9:45 a.m., Noon-1 a.m., almost continuous. Sun., 12:30-2 p.m., 4:30-6, 7:30-Midn.			
670	JFAK	10000	Taihoku, Formosa	42
680	JOLK	500	Fukuoka, Japan	44
	JOVK	500	Hakodate, Japan	44
	XGOA	75000	Nanking, China	42
690	6WF	5000	Perth, W. Aus.	42
	National Broadcasting Station, Hay St., Daily, 9:30 p.m.-2:30 a.m.; Sun. same			
	JODK	1000	Keijo, Korea	44
700	JOKK	500	Okayama, Japan	44
710	JOKJ	3000	Kanazawa, Japan	44
720	2YA	5000	Wellington, N. Z.	49
	National Broadcasting Service, Featherston St., Mon. and Fri., 10 a.m.-11 p.m.; Tue., Wed., Thur., 10 a.m.-10 p.m., Sat., 3-11 p.m., Sun., 2-4:30 p.m., 6-10 p.m.			
	JORK	500	Kochi, Japan	44
730	5CL	5000	Adelaide, S. Aus.	45
	National Broadcasting Station, Hindmarsh Sq., Daily, 7:50 p.m.-12:30 a.m.; Sun., 5 p.m.-12:30 a.m.			
735	JOSK	1000	Kokura, Japan	44
750	JOBK	10000	Osaka, Japan	44
760	4QG	5000	Brisbane, Queens.	46
	National Broadcasting Station, State Ins. Bldg., Daily, 9 a.m.-12:30 a.m.; Sun., Noon-11:30 p.m.			
770	JOHK	10000	Sendai, Japan	44
778	JOPK	500	Shidzuoka, Japan	44
790	JOGK	10000	Kumamoto, Japan	44
800	3LO	5000	Melbourne, Vict.	46
	National Broadcasting Station, 120A Russell St., Daily, 8:30 a.m.-1 a.m.; Sun. 11:30 a.m.-Midn.			
810	JOCK	10000	Nagoya, Japan	44
820	1YA		Auckland, N.Z.	49
	Radio Broadcasting Board, Karangahape Road, Daily, 10 a.m.-10 p.m.; Tue. and Wed. until 11 p.m.; Sat. 3-11 p.m.; Sun. 2-10 p.m.			
830	JOJK	10000	Hirosho, Japan	44
850	JOJK	10000	Hiroshima, Japan	44

Kcs. Call Power City and Country Zone

42M 45 Dunedin, N. Z. 49
McCracken & Walls, 17 George St., daily ex. Tues., 10-11:45 a.m.; Tues, 10 a.m.-11:45 a.m.; 3-5; 7:30-11 p.m.; Sun., 2-5 p.m.; 6-10 p.m.

42O 40 Dunedin, N. Z. 49
Barnett's Radio Supplies, Ltd., The Octagon daily, ex. Fri., noon-1; 5-6 p.m.; Fri, noon-1; 5-6; 7-11 p.m.

42W 50 Dunedin, N. Z. 49
A. E. E. Clarke, 19 Dowling St., Mon., Tues., Wed., and Thur., 2-3 p.m.; Fri., 2-4:30 p.m.; 6-7 p.m.; Sat., 2-3 p.m.; 7-mid.; Sun., noon-2 p.m.

1090 12R 80 Auckland, N. Z. 49
Lewis Eady, Ltd., 192 Queen St., daily, ex. Sat., 10:30 a.m.-2 p.m.; Mon., 5-7:30 p.m.; Tues. and Fri., 5-10 p.m.; Wed., 5-8 p.m.; Thurs. and Sat., 5-11 p.m.; Sat., 10:30-1:30 p.m.; 2:30-4 p.m.; Sun., 9-10:30 a.m.; 2:30-4 p.m.; 6-9:30 p.m.

1100 7LA 200 Launceston, Tasm. 46
Findlay & Willis Pty., Ltd., 67 Brisbane St., daily, 7 p.m.-mid.; Sun., 7:30-11:30 p.m.

1110 2HD 200 Newcastle, N. S. W. 46
Airsales Building Co., Civic Centre, daily, 7:30 p.m.-11:45 p.m.; Sun., 8:30-10:30 p.m.

1111 JFBK 1000 Tainan, Japan. 44
1120 2ZW 400 Wellington, N. Z. 49
2ZW Brdstg. Service, Ltd., 89 Willis St., Mon. and Tues., 7-8:30 a.m.; 10 a.m.-2 p.m.; 7-11 p.m.; Wed., 7-8:30 a.m.; 10 a.m.-2 p.m.; 5-6 p.m.; 7-11 p.m.; Thurs., 7-8:30 a.m.; 10 a.m.-2 p.m.; 3-4:15 p.m.; 5-6 p.m.; 7-11 p.m.; Fri., 7-8:30 a.m.; Sat., 7-8:30 a.m.; 10 a.m.-2 p.m.; 7 p.m.-mid.; Sun., 11 a.m.-noon; 6:30-10 p.m.

1125 2UW 1500 Sydney, N. S. W. 46
Radio Broadcasting, Ltd., Palings Bldg., Ash St., daily 9 a.m.-mid.; Sun., noon-mid.

1135 6ML 300 Perth, W. Aus. 42
Musgroves, Ltd., Lyric House, Murray St., daily, 9:15 p.m.-1:30 a.m.; Sun., 10:30 p.m.-1:30 a.m.

1145 3YB 25 Melbourne, Vict. 46
Mobile Brdstg. Service, 430 Little Collins St., daily, 8:30 p.m.-mid.

4BC 600 Brisbane, Queens. 46
J. B. Chandler & Co., 43 Adelaide Road, daily, 8:30 a.m.-1:30 a.m.; Sat. and Sun., 7:15 p.m.-11:30 p.m.

1150 2ZJ 75 Gisborne, N. Z. 49
G. T. C. Hands, 229 Gladstone Road, M. O. P. A., Mon. and Sat., 2:30-4:30 p.m.; 7-8 p.m.; Tues., noon-1:30 p.m.; 7-8 p.m.; Wed., noon-1:30 p.m.; 7-8 p.m.; 8:15-10 p.m.; Thurs., 7-8 p.m.; Fri., 4-5:15 p.m.; 7-8 p.m.; 8:15-10 p.m.

22M 110 Gisborne, N. Z. 49
Atwater Kent Radio Service, Ltd., 258 Gladstone Road, M. O. P. A., Mon., Fri. and Sat., 6:45-7:45 a.m.; 12:30-1 p.m.; Tues., 6:45-7:45 a.m.; 2:30-4:30 p.m.; Wed., 6:45-7:45 a.m.; Thurs., 6:45-7:45 a.m.; 12:30-1 p.m.; 7-10 p.m.; Sun., 12:30-1 p.m.; 7-10 p.m.

1155 2WG 50 Wagga, N. S. W. 46
Riverina Brdstg. Co., 16 Fitzmaurice St., daily, 8:30-11:30 p.m.

1160 42P 125 Invercargill, N. Z. 49
R. T. Parsons, 155 Layard St., Mon., Tues. and Thurs., 10 a.m.-noon; 1-4 p.m.; 5-10 p.m.; Wed., 10 a.m.-noon; 1-4 p.m.; 5-8 p.m.; Fri., 10 a.m.-noon; 1-4 p.m.; 5-11 p.m.; Sat., 10 a.m.-noon; 2-4 p.m.; 5-8 p.m.; 10:15 p.m.-mid.; Sun., 11 a.m.-noon; 6:30-10 p.m.

42I 8 Invercargill, N. Z. 49
G. C. Batchelor, 130 Dee St.

1170 4TO 100 Townsville, Queens. 46
Amalgamated Wireless Ltd., daily, 8-8:30 p.m.; 9-11:45 p.m.; Sun., silent.

1180 3DB 500 Melbourne, Vict. 46
Broadcasting Station Pty., 36 Flinders St., daily, 8:30 a.m.-12:15 a.m.; Sun., 7:30 a.m.-11:15 p.m.

22D 2.5 Masterton, N. Z. 49
W. D. Ansell, 7 Rimu St., daily, 7:30-9 a.m.; 7-10 p.m.; Sat., 7-10:30 p.m.; Sun., 8-10 p.m.

Kcs. Call Power City and Country Zone

1190 4MK 100 Mackay, Queens. 46
Williams' Agencies, Ltd., P. I. Box 165, daily, 8:30-11:45 p.m.; Sun., 8:30-11 p.m.

12Q 25 Auckland, N. Z. 49
Atwaters Piano Co., Ltd., Civic Square, daily, 8 a.m.-10:30 p.m.; Sun., 4-6 p.m.; 7:30-10 p.m.

1200 5KA 300 Adelaide, S. Aus. 45
Sport Radio Brdstg. Co., 81 Flinders St., daily, 4:45 p.m.-12:15 a.m.; Sun., 5-6 p.m.; 9-11:30 p.m.

32C 250 Christchurch, N. Z. 49
N. Z. Farmers Cooperative Assn. of Canterbury, Ltd., 212-226 Cashel St., Mon., noon-2 p.m.; 8-10 p.m.; Tues., 10-11:30 a.m.; noon-2 p.m.; 2:30-4 p.m.; 5:30-10:30 p.m.; Wed., 10-11:30 a.m.; 5:30-10 p.m.; Thurs., 10-11:30 a.m.; noon-2 p.m.; 6:15-7:15 p.m.; 8-10 p.m.; Fri., noon-2 p.m.; Sat., 5:30-11 p.m.; Sun., 10-11:30 a.m.; 6:15-7:15 p.m.; 8-10 p.m.

1210 2CH 1000 Sydney, N. S. W. 46
Council of Churches, 77 York St., daily, 11:30 a.m.-mid.; Sun., 11:30 a.m.-1:30 p.m.

1210 2ZE 10 Eketahuna, N. Z. 49
G. R. S. Allen, Main St., Sun., 4:30-6 p.m.

1220 6KG 100 Kaigoofie, W. Aus. 42
Goldfields Broadcasters, Ltd., Bourke St., daily, 3 p.m.-1:30 a.m.

42L 100 Dunedin, N. Z. 49
Radio Service, Ltd., 243 McAndrews Road, Mon., 7-9 a.m.; 7:30-11 p.m. Tues., Wed., and Fri., 7-9 a.m.; Thurs. and Sat., 7-9 a.m.; 3-5 p.m.; Sun., 8-10 a.m.

1230 2YB 100 New Plymouth, N. Z. 49
North Taranaki Radio Society, Empire Bldg., King St., Mon., 7-10 p.m.; Wed., 6:30-10 p.m.; Sat., 6:30-10 p.m.; Sun., 6-6:45 p.m.; 7-10 p.m.

1245 2NG 2000 Newcastle, N. S. W. 46
National Brdstg. Service, relays 2FC and 2BL.

1250 3WR 50 Wangaratta, Vict. 48
Wangaratta Brdstg. Pty. Ltd., Reid St., Mon. to Sat., 7:30-11:30 p.m.; Sun., 9:30-11:15 p.m.

12M 10 Auckland, N. Z. 49
V. V. Rodgers, Massey Road, Manurewa, Mon., 9-11:30 a.m.; 2-5 p.m.; 7-10 p.m.; Tues., Wed., Thurs. and Fri., 9-11:30 a.m.; 7-8 p.m.; Sat., 9 a.m.-2 p.m.; 7-8 p.m.; Sun., 10 a.m.-noon; 1-3 p.m.; 4-6 p.m.; 8:30-11 p.m.; Holidays, 8 a.m.-noon.

1270 25M 1000 Sydney, N. S. W. 46
Catholic Brdstg. Co., Carrington St., daily, 8:30-10 a.m.; 2:30-3:30 p.m.; 7-mid.; Sun., 12:30-3 p.m.; 7:30-11:45 p.m.

1280 3TR 50 Trafalgar, Vict. 46
Gippsland Brdstg. Service, P. O. Box 89, daily, 7:30-11:45 p.m.; Sun., 8:30-11:30 p.m.

42C 20 Otago, N. Z. 49
John I. Bilton, Lowburn Ferry, Cromwell, Mon., Tues., Wed. and Fri., noon-1:30 p.m.; Thurs., noon-1:30 p.m.; 7-10 p.m.; Sat., noon-1:30 p.m.; 5:30-7 p.m.; Sun., 9-11 a.m.

1290 4BK 200 Brisbane, Queens. 46
Brisbane Brdstg. Co., King House, Queen St., Mon. to Fri., 6 p.m.-12:30 a.m.; Sat., 7:15 p.m.-12:30 a.m.; Sun., 8:30-11:30 p.m.

22B 7.5 Napier, N. Z. 49
T. H. Boston, 116 Wellesley Road, Mon., Thurs. and Sat., 6-7 p.m.; Sun., 10:30 a.m.-noon.

22H 65 Napier, N. Z. 49
G. B. Hansen & Co., 59 Latham St., Mon., Tues. and Fri., noon-2 p.m.; 7-10:30 p.m.; Wed., noon-2 p.m.; 6:20-10:30 p.m.; Thurs., noon-2 p.m.; Sat., 10 a.m.-5 p.m.; 7-11 p.m.; Sun., noon-3 p.m.; 6:30-10 p.m.

1300 3BA 50 Ballarat, Vict. 46
Ballarat Broadcasters Pty., Ltd., Sturt St., daily, 8:30-mid.; Sun., 8-11:30 p.m.

32E 50 Greymouth, N. Z. 49
Schaeff's Ltd., Mackay St., Mon. and Wed., 12:30-1:30 p.m.; Fri., noon-2 p.m.; Sat., 9:15-11 p.m.

Kcs.	Call	Power	City and Country	Zone	Kcs.	Call	Power	City and Country	Zone
	3ZR	80	Greymouth, N. Z.	49	1380	4BH	200	Brisbane, Queens.	48
	West Coast Radio Society, Bright St., Cobden, Mon to Fri., 7-9 a.m.; 6-10 p.m.; Sat., 7-9 a.m.; 3-5 p.m.; 6-9 p.m.; Sun., noon-1:30 p.m.; 3-9 p.m.					Broadcasters, Ltd., 90-92 Queen St., daily, 7:30 p.m.-mid.; Sat., to 12:30 a.m.; Sun., 8:30-11:30 p.m.			
1310	5AD	300	Adelaide, S. Aus.	45	1390	2GN	50	Goulburn, N. S. W.	46
	Advertiser Newspaper, Ltd., Weymouth St., daily, 8 p.m.-1 a.m.; Sun., 7:30-mid.					Goulburn Brdstg. Co., Auburn St., Tues and Thurs., 8-8:30 p.m.; 9:30-11:30 p.m.; Sat., 8 p.m.-mid.; Sun., 9:30-11 p.m.			
1320	2MO	50	Gunnedah, N. S. W.	46	1400	3GL	50	Geelong, Vict.	46
	M. J. Oliver, P. O. Box 78, daily, 8:30-10:30 p.m.; Sun., 9:30-11:30 p.m.					Geelong Brdstg. Pty. Ltd., Nat'l Mutual Bldg., daily, 7 p.m.-mid.; Sun., 8:30-11:30 p.m.			
	1ZJ	26	Auckland, N. Z.	49	2ZL	20	Hastings, N. Z.	49	
	Johns, Ltd., Chancery St., Tues. and Thurs., noon-2 p.m.; Wed., 7:30-9:30 p.m.					Lockyer's Radio Stores, Ltd., 815 Lawrence St., Thurs., 6:30-10 p.m.			
1330	4RO	250	Rockhampton, Queens.	46	1415	2KO	200	Newcastle, N. S. W.	46
	Rockhampton Brdstg. Co., daily, 7:30-11:30 p.m.					Newcastle Brdstg. Co., 57 Hunter St., daily, 11-11:30 p.m.; Sun., 8:30-10:30 p.m.			
	2ZI	15	Hastings, N. Z.	49	1420	1ZB	20	Auckland, N. Z.	49
	Sutcliffe, Ltd., Heretaunga St.					La Gloria Gramophones, Ltd., 157 Karangahape Road, Mon., 7:30-10 p.m.; Wed., 8-10 p.m.			
1340	2XN	50	Lismore, N. S. W.	46	1ZS	5	Auckland, N. Z.	49	
	G. W. Exton, P. O. Box 138b, daily, 8-10 p.m.; Sun., church services. Occasionally relays 4BK.					McCabe's Radios, Mon. to Fri., 7:30-9 a.m.; 2-3 p.m.; Sat., 7:30-9 a.m.			
	4ZR	5	Otaga, N. Z.	49	1425	3AW	300	Melbourne, Vict.	46
	B. R. Renton & C. G. Clark, Clyde St., Balclutha, Thurs., 8-11 p.m.; Fri., 2-3 p.m.; Sun., 10 a.m.-noon; 6-8:30 p.m.					Vogue Brdstg. Co., Ltd., His Majesty's Theatre, daily 4 p.m.-12:30 a.m.; Sat., till 1 a.m.; Sun., 6 p.m.-mid.			
1350	3KZ	200	Melbourne, Vict.	46	1435	2WL	50	Woollongong, N. S. W.	46
	3KZ Broadcasting Station, 40 Victoria St., daily, 7:30 p.m.-12:30 a.m.; Sun., 7:30-11:30 p.m.					Woollongong Brdstg. Co., 149 Crown St., daily, 8-11:30 p.m.; Sun., 8:30-10:30 p.m.			
1360	2ZR	50	Nelson, N. Z.	49	1480	2AY	50	Albury, N. S. W.	46
	N. D. Braithwaite, Begg & Co. Bldg., Trafalgar St., Mon., Tues. and Thurs., noon-2 p.m.; 5-11 p.m.; Wed., noon-2 p.m.; 5-10 p.m.; Sat., on till mid.; Fri., noon-2 p.m.; 5-10 p.m.; Sun., 6-10 p.m.					Charles Rice, 610 Dean St., daily, 8:30 p.m.-mid.; Sun., 9-11:30 p.m.			
					7UV	200	Ulverstone, Tasm.	46	
					North Western Tasmanian Broadcasters, Ltd.				
					1500	3AK	50	Melbourne, Vict.	46
					Akron Broadcasting Service, Ltd., 490 Elizabeth St., Mon. to Fri., 1-3:30 a.m.; Sat., mid-4:30 a.m.; Sun., 11:30 p.m.-1:30 a.m.				

One Hundred Best Short Wave Stations

By Frequencies and Wave Lengths

Submitted by our readers as being most regularly received. Times are given in Eastern Standard. First column gives frequency in megacycles (for kilocycles read the decimal point as a comma) and the second column, wave-lengths in meters.

For complete lists of short-wave stations see the following issues of this magazine:

September: Foreign stations arranged by countries.

October: Complete list by frequencies and waves.

November: American stations by states.

December: Canadian stations by provinces and Complete list by call letters.

Broadcast B. Phone P.

2.735	109.62	VE9CI	London, Ontario, Daily 9-11 p.m.; Sun. 11 a.m.-7	B	6.050	49.56	GSA	Daventry, England, To Canada 8-10 p.m.	B
3.998	75.00	HCBJ	Quito, Ecuador, 7:30-9:45 a.m.	B	6.057	49.50	CMCI	Havana, Cuba, 9-11 p.m.	B
4.273	70.65	RV15	Khabarovsk, USSR 3 a.m.-9 a.m.	B	6.060	49.48	VQ7LO	Nairobi, Kenya, 11 a.m.-3:30 p.m.; Tues. 3-4 a.m.; Thur. 8-9 a.m.	B
4.283	70.00	ICEJ	S. S. "Rex"	P	6.060	49.48	W8XAL	Cincinnati, O. Relays WLW 6-10:30 a.m.; 1:30-3:30 p.m.; 7 p.m.-1:30 a.m.	B
4.792	62.56	VE9BY	London, Ontario, Sat. midn.-1 a.m.	B	6.070	49.39	VE9CS	Vancouver, B. C., Fri. 12:30-1:45 a.m.; Sun. 11 a.m.-7 p.m.	B
4.975	60.27	GBC	Rugby, England, Phones ships irregularly	P	6.076	49.34	W9XAA	Chicago, Ill., Sun. 11 a.m.-9 p.m.	B
5.045	59.42	VRT-ZFA	Hamilton, Bermuda, Phones WNB-GMBJ nights	P	6.090	49.23	VE9BJ	St. John, N. B., 5 p.m. and 11 p.m.	B
5.144	58.33	DIQ	Nauen, Germany	B	6.092	49.22	VE9GW	Bowmanville, Ont., 5-11 p.m.; Sun. 1-7 p.m.	B
5.766	52.00	XAM	Merida, Yucatan, Tests XDA 10 a.m. 8 p.m. irreg.	P	6.095	49.18	W9XF	Chicago, Ill., 4:30-8 p.m.; 9:30 p.m.-2 a.m.	B
5.879	51.00	XDA	Mexico City, Tests XAM 10 a.m. 8 p.m. irreg.	P	6.096	49.17	W3XAL	Boundbrook, N. J., Sat. 4:30 p.m.-1 a.m.	B
5.925	50.60	HKO	Medellin, Colombia, Tues.-Thur-Sat. 8-10 p.m.-Sun. 6-8 p.m.	B	6.119	49.00	YV1BC	Caracas, Venez., Relays 960 kos. 10:30 a.m.-1 p.m.; 5:15-10 p.m.	B
5.968	50.26	HVJ	Vatican City, 2-2:15 p.m.; Sun. 5:5-8:30 a.m.	B	6.125	48.95	YV1BMO	Maracaibo, Venez., 8-11 p.m.	B
5.996	50.00	HKD	Barranquilla, Col., 8-10 p.m.	B	6.140	48.83	W8XK	Pittsburgh, Pa. Relays KDKA 4-11 p.m.	B
6.005	49.93	VE9DR	Drummondville, Que., 7 p.m.-mid.	B	6.335	47.35	VE9AP	Drummondville, Que.	B
6.036	49.67	W4XB	Miami, Fla. Reported 5-11 p.m.	B					

6.386	46.96	W3XL Boundbrook, N. J. Experimental	B	11.760	25.50	XDA Mexico City. Tests XAM 1 p.m. and	P		
6.426	46.65	VE9BY London, Ontario, Wed. 8:30-9:30	B			6 p.m.	P		
		p.m.; Fri. 7-8 p.m.; Sat. 8-11 p.m.	B	11.780	25.44	VE9DR Drummondville, Que.	B		
6.611	45.35	TGW Gustamala City, Tues.-Thur.-Fri.	B	11.800	25.40	I2R0 Rome, Italy, 11 a.m.-12:30 p.m.;	B		
		10:30 p.m.-mid.	B			2:30-5:30 p.m.	B		
6.618	45.31	PRADO Riobamba, Ecuador, Thur. 9-11	B	11.865	25.27	GSE Daventry, England, To India 9:30-	B		
		p.m.	B			11:30 a.m.	B		
6.648	45.10	IAC, Coitano, Italy. Testing irregularly	P	11.872	25.25	WSXK Pittsburgh, Pa. Relays KDKA	B		
6.675	44.91	DGK Nauen, Germany. Heard 9 p.m. with	P			4-10 p.m.	B		
		WEJ	P	11.898	25.20	FYA Paris, France, 11:30 a.m.-2:30 p.m.	B		
6.888	43.54	KEQ Kahuku, Hawaii. Phones California	P			(Pontoise)	B		
		nights	P	12.000	24.98	FZS Saigon, Indo-China, 9-10 a.m.	B		
7.139	42.00	HJ4AB Manizales, Colombia, Sat. 10	B	12.490	23.81	DAN Norden, Germany. Talks to ships	P		
		p.m.-mid.	B	12.780	23.46	GBC Rugby, England. Phones ships irregu-	P		
7.312	41.03	CM5RY Matanzas, Cuba, Sat. 10:45-11:30	B			larly	P		
		p.m.	B	12.820	23.38	CNR Rabat, Morocco, Sun. 7:30 a.m.-	B		
7.518	39.89	KDK-KKH Kahuku, Hawaii, 9 p.m. and	P			9 a.m.	B		
		2 a.m.	P	13.074	22.93	J1AA Tokyo, Japan. Phones, experimental	P		
7.610	39.40	HJ3ABF Bogota, Colombia, 7 p.m.-11 p.m.	B			13.298	22.55	CGA Drummondville, Que., 9 a.m.-2 p.m.	B
			B			13.500	22.09	GBB Rugby, England. Talks Canada day-	P
7.790	38.49	HBP Geneva, Switzerland, Sun. 5-5:45 p.m.	B					times	P
			B	13.818	21.70	SUZ Cairo, Egypt, 7 a.m. and 3:30 p.m.	P		
8.180	36.65	PSK Rio de Janeiro, Brazil. Reported work-	P	14.450	20.75	GBW Rugby, England, 6 a.m. and 6 p.m.	P		
		ing WOK	P	14.550	20.60	HBJ Geneva, Switzerland	P		
8.566	35.00	ICEJ S. S. "Rex"	P	14.550	20.60	RXC Panama City. Afternoons	P		
8.645	34.68	VE9BY London, Ontario, Mon. 3-4 p.m.	B	14.682	20.42	PSS Rio de Janeiro, Brazil, 5-6 p.m.	P		
8.950	33.50	TGX Guatemala City, Sat. 10 p.m.-mid.	B	14.760	20.32	HJB Bogota, Colombia, 11 a.m.-5 p.m.	P		
9.012	33.27	KEJ, Bolinas, Calif. Tests irregularly	P	14.796	20.27	WMB Miami, Fla., 1-5 p.m.	P		
9.276	32.32	CNR Rabat, Morocco, Sun. 3 p.m.-6 p.m.	B	15.066	19.90	T14NRH Heredia, Costa Rica, Sat.-Sun.	B		
9.480	31.63	PLW Bandoeng, Java. Phones Australia	P			11-noon	B		
		3-8 a.m. irreg.	P	15.120	19.83	HVJ Vatican City, 5-5:15 a.m.	B		
9.492	31.58	PRBA Rio de Janeiro, Brazil, 6-6:15 p.m.	B	15.140	19.81	GSF Daventry, England	B		
9.503	31.55	VK3ME Melbourne, Australia, Wed. 5-6:30	B	15.190	19.73	DJB Zeesen, Germany, 8 a.m.-noon	B		
		a.m.; Sat. 5-7 a.m.	B	15.204	19.72	W8XX Pittsburgh, Pa. Relays KDKA	B		
9.510	31.53	GSB Daventry, England. To Canada 8-10	B			9 a.m.-4 p.m.	B		
		p.m.	B	15.234	19.68	FYA Paris, France, 8 a.m.-11 a.m. (Pon-	B		
9.520	31.49	OXY Skamleback, Denmark, 2-6:30 p.m.	B			toise)	B		
9.530	31.46	W2XAF Schenectady, N. Y., 5:15-11 p.m.;	B	15.320	19.57	W2XAD Schenectady N. Y. Daily 1-3	B		
		Sat.-Sun., 4-11 p.m.	B			p.m.; Sat.-Sun. to 4	B		
9.552	31.38	DJA Zeecon, Germany, 2 p.m.-6:30 p.m.	B	15.410	19.46	KWO Dixon, Calif. Phones Hawaii 2-7 p.m.	P		
9.555	31.37	VE9DR Drummondville, Que.	B				P		
9.560	31.36	W1XAZ Springfield, Mass., 4 p.m.-12:30	B	15.760	19.02	J1AA Tokyo, Japan. Phones experimental	B		
		a.m.	B	16.150	18.56	GBX Rugby, England, 4 p.m. and 11 p.m.	P		
9.570	31.33	SRI Poznan, Poland, Tues. 6 a.m.-8 a.m.	B	17.080	17.55	GBC Rugby, England. Talks with ships	P		
9.580	31.30	HBI Geneva, Switzerland, Sun. 5-5:45 p.m.	B			irregularly	P		
			B	17.770	16.90	GSB Daventry, England. To India 9:30-	B		
9.585	31.28	GSC Daventry, England	B			11:30 a.m.	B		
9.585	31.28	VK2ME Sydney, Australia, Sun. 1-2 a.m.;	B	17.772	16.87	W3XAL Boundbrook, N. J., 8 a.m.-4 p.m.	B		
		5-9 a.m.; 9:30-11 a.m.	B	17.830	16.82	PCV Kootwijk, Holland, 6-9 a.m.	P		
9.592	31.25	CT1AA Lisbon, Portugal, Tues.-Fri., 5-7	B	18.170	16.50	PMC Bandoeng, Java, 3:30-9 a.m.	P		
		p.m.	B	18.296	16.39	YVQ Maracaibo, Venezuela. Heard about	P		
9.670	31.00	T14NRH Heredia, Costa Rica, week days	B			10 a.m.	P		
		10-11 p.m.; Sat.-Sun., 11-noon	B	18.400	16.29	PCK Kootwijk, Holland. Phones Java	P		
9.862	30.40	EAQ Madrid, Spain, 6:30-8 p.m.	B			about 7 a.m.	P		
9.862	30.40	J1AA Tokyo, Japan, 5-7:45 a.m.	B	18.444	16.25	HJY Bogota, Colombia, 11 a.m. and 4 p.m.	P		
9.895	30.30	LSN Buenos Aires, Argentina, 6 p.m. and	P				P		
		6 a.m.	P	18.670	16.06	OCI Lima, Peru, 2 p.m.	P		
9.928	30.20	HJY Bogota, Colombia. Phones OCI eve-	P	18.820	15.93	PLE Bandoeng, Java, Tues.-Fri. 5:40-10:40	P		
		nings irregularly	P			a.m.	P		
10.060	29.80	VRT-ZFA Hamilton, Bermuda. Phones	P	18.958	15.82	LSR Buenos Aires, Arg., 11 a.m. and 4 p.m.	P		
		WNB days	P				P		
10.090	29.70	OPM Leopoldsville, Africa. Phones ORK	P	19.270	15.57	PPU Rio de Janeiro, Brazil, 10:30 a.m. and	P		
		9-11 a.m.; 3-6 p.m.	P			3:30 p.m.	P		
10.212	29.35	PSH Rio de Janeiro, Brazil. Tests W2XBJ	P	19.282	15.55	FTM St. Assise, France, 10 a.m.-2 p.m.	P		
		evenings	P	19.678	15.24	CEC, Santiago, Chile, 11 a.m. and 4 p.m.	P		
10.246	29.26	DIQ Nauen, Germany	B	19.684	15.23	EAQ Madrid, Spain. Phones Sat. 1-3 p.m.	B		
10.285	29.15	DJQ Koenigswusterhausen	B	19.895	15.07	LSG Buenos Aires, Argentina, 10:30 a.m.-	P		
10.340	28.99	ORX Brussels, Belgium. Phones OPM 2-4	P			3:30 p.m.	P		
		9-11 a.m.; 3-6 p.m.	P	20.028	14.97	DHO Nauen, Germany. Phones LSG	P		
10.830	27.68	KWV Dixon, Calif. Phones Hawaii irregu-	P			7 a.m.-11 a.m. irregularly	P		
		larly	P	20.500	14.63	W9XF Chicago, Ill., 4:30-8 p.m.; 9:30 p.m.-	B		
11.174	26.83	CT3AQ Funchel, Maderia, Tues.-Thur.	B			2 a.m.	B		
		5-6:30 p.m.; Sun. 10:30-noon	B	20.820	14.40	LSY Buenos Aires, Argentina. Heard 10	P		
11.530	26.00	XAM Merida, Yucatan	P			a.m. to 2 p.m.	P		
11.644	25.75	PPQ Rio de Janeiro, Brazil. Heard testing	P	21.020	14.27	LSN, Buenos Aires, Argentina, 8 a.m. and	P		
		6 p.m.	P			4 p.m.	P		
11.680	25.67	YVQ Maracaibo, Venezuela. Tests Germany	P	21.054	14.24	WKA Lawrenceville, N. J., 8 a.m.-4 p.m.	P		
		5-7 p.m.	P	21.069	14.23	PSA Rio de Janeiro, Brazil, 8 a.m.	P		
11.710	25.60	DGT Koenigswusterhausen	B	21.400	14.01	WKK Lawrenceville, N. J., 8 a.m.-4 p.m.	P		
11.710	25.60	VE9JR Winnipeg, Manitoba, Tues. 6:30-	B	21.470	13.96	GSH Daventry, England	B		
		8:30 p.m.; Fri. to 9	B				B		
11.750	25.51	GSD Daventry, England. To Oceania 4:30-	B				B		
		6:30 a.m.	B				B		

The Time Converter will turn these hours instantly into the time used by the station.

The Hundred Best S. W. Stations by Calls . . .

CEC Santiago, Chile 19.678 15.24 11 a.m.-4 p.m.	P	GSG Daventry, England 17.770 16.90 Broadcasts for India 9:30-11:30 a.m.	B	PLE Bandoeng, Java 18.820 15.93 Tues., Fri., 10:40 a.m.	P
CGA Drummondville, Que. 13.296 22.55 9 a.m. to 2 p.m.	P	GSH Daventry, England 21.470 13.96	B	PLW Bandoeng, Java 9.480 31.63	P
CMCI Havana, Cuba 6.057 49.60 9 p.m.-11 p.m.	B	HBJ Geneva, Switzerland 14.550 20.60	P	PMC Bandoeng, Java 18.170 16.50 3:30-9 a.m.	P
CM5RY Matanzas, Cuba 7.312 41.03 Sat. 10:45-11:30 p.m.	B	HBL Geneva, Switzerland 9.580 31.30 Sun. 5-5:45 p.m.	P	PPQ Rio de Janeiro, Brazil 11.644 25.75	P
CNR Rabat, Morocco 9.276 32.32 Sun. 3 p.m.-6 p.m.	B	HBP Geneva, Switzerland 7.790 38.49 Sun. 5-5:45 p.m.	B	PPU Rio de Janeiro, Brazil 19.270 15.57 10:30 a.m.-3:30 p.m.	P
CT1AA Lisbon, Portugal 9.992 31.25 Tues.-Fri. 5-7 p.m.	B	HCJB Quito, Ecuador 3.998 75.00 7:30-9:45 a.m.	B	PRADO Riobamba, Ecuador 6.618 45.31 Thurs. 9-11 p.m.	B
CT3AQ Funchel, Madeira 11.174 26.83 Tues.-Thur. 5-6:30 p.m.; Sun. 10:30-noon	B	HJB Bogota, Colombia 14.760 20.32 11 a.m.-5 p.m.	P	PRBA Rio de Janeiro, Brazil 9.492 31.58 6-6:15 p.m.	P
DAN Norden, Germany 12.592 23.81 Talks to ships	P	HJY Bogota, Colombia 9.928 30.20	P	PSA Rio de Janeiro, Brazil 21.069 14.23 8 a.m.	P
DGK Nauen, Germany 6.675 44.91	P	18.444 16.25 11 a.m.-4 p.m.	B	PSH Rio de Janeiro, Brazil 10.212 29.35	P
DGT Koenigswusterhausen 11.710 25.5	P	HJ3ABF Bogota, Colombia 7.610 39.40 7 p.m.-11	B	PSK Rio de Janeiro, Brazil 8.180 36.65	P
DHO Nauen, Germany 20.028 14.97	P	HJ4BB Manizales, Colombia 7.139 42.00 Sat. 10 p.m.-mid.	B	PSS Rio de Janeiro, Brazil 14.682 20.42 5-6 p.m.	P
DIQ Nauen, Germany 10.246 29.26	B	HKD Barranquilla, Colombia 5.996 50.00 8-10 p.m.	B	RV-15 Khabarovsk, USSR. 4.273 70.65 3-9 a.m.	B
DJA Zeesen, Germany 9.552 31.38 2 p.m.-6:30	B	HKO Medellin, Colombia 5.925 50.60 Mon.-Wed.-Fri. 8-10 p.m.; Tues.-Thur.-Sat.-Sun. 6-8 p.m.	B	RXC Panama City, Panama 14.550 20.60 p.m.	P
DJB Zeesen, Germany 15.190 19.73 8 a.m.-noon	B	HVJ Vatican City 5.968 50.26 2-2:15 p.m.; Sun., 5-5:30 a.m.	B	SR-1 Poznan, Poland 9.570 31.33 Tues.-6-8 a.m.	B
DJQ Koenigswusterhausen 10.285 29.15	B	15.120 19.83 5-5:15 a.m.	B	SUZ Cairo, Egypt 13.816 21.70 7 a.m.-3:30 p.m.	P
EAQ Madrid, Spain 9.862 30.40 6:30-8 p.m.	B	IAC Coltano, Italy 6.648 45.10	P	TGW Guatemala City 6.611 45.35 Tues., Thurs., 10:30-mid.	B
19.684 15.23 Phones Sat. 1-3 p.m.	B	ICEJ S. S. "Rex" 8.566 35.00	P	TGX Guatemala City 8.950 33.50 Sat. 10 p.m.-mid.	B
FTM St. Assise, France 19.282 15.55 10 a.m.-2 p.m.	P	4.283 70.00	P	TI4NRH Heredia, Costa Rica 9.670 31.00 Weekdays 10-11 p.m.	B
FYA Pontoise, France 11.898 25.20 11:30 a.m.-2:30 p.m. 15.234 19.68 8:00 a.m.-11 a.m.	B	I2RO Rome, Italy 11.800 25.40 11 a.m.-12:30 p.m.; 2:30-5:30 p.m.	B	15.066 19.90 Sat., Sun. 11 a.m.-noon.	B
FZS Saigon, Indo-China 12.000 24.98 9-10 a.m.	P	J1AA Tokyo, Japan 9.862 30.40 5:00-7:45 a.m. 13.074 22.93 Phones 15.760 19.02 Phones	B	VE9AP Drummondville, Que. 6.335 47.35	B
GBB Rugby, England 13.500 22.09	P	KDK-KKH Kahuku, Hawaii 7.518 39.89 9 p.m.-2 a.m.	B	VE9BJ St. John, N. B. 6.090 49.23 5 p.m.-11 p.m.	B
GBC Rugby, England 4.975 60.27 12.780 23.46 17.080 17.55	P	KEJ Bolinas, Calif. 9.012 33.27	P	VE9BY London, Ont. 4.792 62.56 Sat. mid.-1 a.m. 6.426 46.65 Wed. 8:30-9:30 p.m. Fri. 7-8 p.m.; Sat. 8-11 p.m.	B
GBW Rugby, England 14.450 20.75 6 a.m.-6 p.m.	P	KEQ Kahuku, Hawaii 6.888 43.54	P	8.645 34.68 Mon. 3-4 p.m.	B
GBX Rugby, England 16.150 18.56 4 p.m.-11 p.m.	P	KWO Dixon, Calif. 15.410 19.46 2-5 p.m.	B	VE9CI London, Ont. 2.735 109.62 Daily 9-11 p.m.; Sun. 11 a.m.-7 p.m.	B
GSA Daventry, England 6.050 49.56 Broadcasts for South 49.8 Africa 1:00-3:00 p.m.; West Africa 3:30-5:30 p.m.; Canada 8-10 p.m.	B	KWV Dixon, Calif. 10.830 27.68	B	VE9CS Vancouver, B. C. 6.070 49.39 Fri. 12:30-1:45 a.m.; Sun. noon-mid.	B
GSB Daventry, England 9.510 31.53 Broadcasts for South 31.5 Africa 1:00-3:00 p.m.; West Africa 3:00-5:30 p.m.; Canada 8-10 p.m.	B	LSG Buenos Aires, Arg. 19.895 15.07 10:30 a.m.-3:30 p.m.	P	VE9DR Drummondville, Que. 6.005 49.93 7 p.m.-mid. 9.555 31.37 11.780 25.44	B
GSC Daventry, England 9.585 31.28	B	LSR Buenos Aires, Arg. 18.958 15.82 11 a.m.-4 p.m.	P	VE9GW Bowmanville, Ont. 6.092 49.92 Daily 5-11 p.m.; Sun. 1-7 p.m.	B
GSD Daventry, England 11.750 25.51 Broadcasts for Australia 4:30-6:30 a.m.	B	LSY Buenos Aires, Arg. 20.820 14.40	P	VE9JR Winnipeg, Man. 11.710 25.60 Tues. 6:30-8:30 p.m. Fri. to 9	B
GSE Daventry, England 11.865 25.27 Broadcasts for India 9:30-11:30 a.m.	B	OCI Lima, Peru 18.670 16.06 2 p.m.	P	VK2ME Sydney, Australia 9.585 31.28 Sun. 1-3 a.m.; 5-9 a.m.; 9:30-11 a.m.	B
GSF Daventry, England 15.140 19.81	B	OPM Leopoldville, Africa 10.090 29.70	P	VK3ME Melbourne, Australia 9.503 31.55 Wed. 5-5:30 a.m.; Sat. 5-7 a.m.	B
		ORK Brussels, Belgium 10.340 28.99	P	VQ7LO Nairobi, Kenya 6.060 49.48 Daily 11 a.m.-3:30 p.m.; Tues. 3-4 a.m.; Thur. 8-9 a.m.	B
		OXY Skamleback, Denmark 9.520 31.49 2-6:30 p.m.	B		
		PCK Kootwijk, Holland 18.400 16.29	P		
		PCV Kootwijk, Holland 17.830 16.82 6-9 a.m.	P		

VRT-ZFA Hamilton, Bermuda	P	6.096 49.17	Sat. 4:30 p.m.-1 a.m.	6.076 49.34	Sun. 11 a.m.-9 p.m.
5.045 59.42		17.772 16.87	8 a.m.-4 p.m.	W9XF Chicago, Ill.	B
10.060 29.80		W3XL Boundbrook, N. J.		6.095 49.18	4:30-8 p.m.; 9:30-2 a.m.
WKA Lawrenceville, N. J.	P	6.386 46.96		XAM Merida, Yucatan	P
21.054 14.24	8 a.m.-4 p.m.	W4XB Miami, Fla.		5.766 52.00	
WKK Lawrenceville, N. J.	P	6.636 49.67		11.530 26.00	
21.400 14.01	8 a.m.-4 p.m.	W8XAL Cincinnati, Ohio	B	XDA Mexico City	P
WMB Miami, Fla.	P	6.060 49.48	Relays WLW 6 a.m.-10:30 a.m.; 7 p.m.-1:30 a.m.	5.879 51.00	
14.796 20.27	1-5 p.m.			11.760 25.50	
W1XAZ Springfield, Mass.	B			YVQ Maracaibo, Venez.	P
9.560 31.36	4 p.m.-12:30 a.m.	W8XK Pittsburgh, Pa.	B	18.296 16.39	
W2XAD Schenectady, N. Y.	B	6.140 48.83	Relays KDKA 4-11 p.m.	YV1BC Caracas, Venez.	B
15.320 19.57	Daily 1-3 p.m.; Sat., Sun. to 4.			6.080 49.32	Relays 960 kcs.; 10:30 a.m.-1 p.m.; 5:15-10 p.m.
W2XAF Schenectady, N. Y.	B	11.872 25.25		YV11BMO Maracaibo, Venez.	B
9.530 31.46	Daily 5:15-11 p.m.; Sat., Sun. 4-11.	15.204 19.72	Relays KDKA 9 a.m.-4 p.m.		
W3XAL Boundbrook, N. J.	B	W9XAA Chicago, Ill.		6.125 48.95	8-11 p.m.

The Month's Changes

FREQUENCY

546.8 XEY	Merida, Mex., from 1000
585 CMW	Havana, Cuba, from 1185
638.3 XFG	Mexico City, from 680
780 XEP	Mexico City, from 1400
860 XFX	Mexico City, from 867
925 CMBW	Havana, Cuba, from 1140
925 CMCN	Havana, Cuba, from 1270
965 CMBD	Havana, Cuba, from 1270
965 CMCW	Havana, Cuba, from 1365
965 XEAW	Reynosa, Mex., from 955
1000 XEA	Guadalajara, Mex., from 1155
1010 CFCCO	Chatham, Ont., from 1210
1010 XEU	Vera Cruz, Mex., from 1007
1075 XEG	Mexico City, from 1070
1140 CMCN	Havana, Cuba, from 925
1185 CMCJ	Havana, Cuba, from 1180
1200 KFXJ	Grand Junction, Colo., from 1310
1235 CMBY	Havana, Cuba, from 1230
1235 CMCB	Havana, Cuba, from 1230
1270 CMCB	Havana, Cuba, from 965
1325 CMBF	Havana, Cuba, from 1365
1375 CMCB	Havana, Cuba, from 1325
1370 KSO	Des Moines, Iowa, from 1380
1395 CMCB	Havana, Cuba, from 1405
1395 CMCB	Havana, Cuba, from 1405
1395 CMCB	Havana, Cuba, from 1405
1500 CMBR	Havana, Cuba, from 1480
1500 XEFZ	Coyoacan, Mex., from 1370

LOCATIONS

780 XEP	Laredo, Mex., to Mexico City
1200 WFBC	Greenville, S. C., from Knoxville, Tenn.
1370 KSO	Des Moines, Iowa, from Clarinda, Iowa

PERMIT TO CHANGE LOCATION

1370 KGFL	Sante Fe, N. M., to Roswell, N. M.
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OWNERS

570 WSYR	Syracuse, N. Y., to Central New York Broadcasting Corp.
780 XEP	Mexico City, to Cia. Difusora de Mexico, S. A.
965 CMCW	Havana, Cuba, to Vilarino y Cervantes
1010 WIS	Columbia, S. C., to WIS, Inc.
1050 XES	Tampico, Mex., to Emilio Balli, Jr.
1075 XEG	Mexico City, to Ricardo Gonzales Montero.
1120 KRKD	Los Angeles, Calif., to Fireside Broadcasting Co.
1200 WFBC	Greenville, S. C., to Greenville News-Piedmont Co.
1250 XEFA	Mexico City, to Eduardo Limon Segui

1310 KFYO	Lubbock, Tex., to Kirksey Bros.
1370 KICA	Clovis, N. M., to South West Broadcasting Co.
1420 WAZL	Hazleton, Pa., to Hazleton Broadcasting Service, Inc.
1420 WJBO	New Orleans, La., to Baton Rouge Broadcasting Co., Inc.
1500 KREG	Santa Ana, Calif., to Voice of the Orange Empire, Inc.

POWER

600 KFSB	San Diego, Calif., 500 to 1000
610 XETR	Mexico City, 2500 to 1000
780 XEP	Mexico City, 200 to 1000
800 WBAP	Fort Worth, Tex., 10,000 to 50,000
810 XFC	Agua Calientes, Mex., 250 to 350
1000 XEA	Guadalajara, Mex., 500 to 100
1050 XES	Tampico, Mex., 500 to 250
1132 XEH	Monterrey, Mex., 1000 to 250
1140 XETA	Mexico City, 500 to 250
1180 KOB	Albuquerque, N. M., 10,000 to 20,000
1250 XEFA	Mexico City, 250 to 500
1310 XET	Morelia, Mex., 150 to 125
1390 WHK	Cleveland, Ohio, to 2500 days
1450 WGAR	Cleveland, Ohio, to 1000 days

NEW

818 XFI	Mexico City
830 XETW	Mexico City
840 XETH	Puebla, Mex.
840 XFB	Jalapa, Mex.
890 XETU	Pachuca, Mex.
1000 XEFJ	Monterrey, Mex.
1200 CHLP	Montreal, Que.
1240 XEFW	Tampico, Mex.
1310 KIFH	Juneau, Alaska
1360 XEFH	Mexico City
1370 XEFV	Jaurez, Mex.

DELETED

780 XEZ	Mexico City
1000 XEE	Oaxaca, Mex.
1000 XETG	Torreón, Mex.
1000 XEV	Puebla, Mex.
1230 XETQ	Mexico City
1300 XEM	Tampico, Mex.
1420 WERE	Erie Pa.

CALLS

750 XEAN	Jaurez, Mex., from XEQ
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CHAINS

700 WLW	Cincinnati Ohio, from Blue to N.
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Last Minute DX Tips

Here is some good news for those that missed YV1BC on their last program. They advise us they will give another special DX program the night of Saturday, Feb. 11th, from 2:00 to 3:30 a. m. Caracas time.

WNAD, "The Voice of Soonerland," honor us with a special DX program on the morning of Feb. 12th, from 2:05 to 3:00 CST. They promise an excellent program and will send pictures of studio and history of the station to all who report reception. They want at least 500 replies.

KVOR, "The Voice of the Rockies," will be on the air from 1:00 to 2:00 a. m. MST the morning of Sunday, Feb. 5th, with a special DX program. Here is a fine opportunity to add Colorado to your log.

KGER, Long Beach, Calif., is now presenting a series of DX programs beginning at midnight every Saturday and concluding at 1:00 or 1:20 a. m. PST. If you want to verify be sure to send three cents return postage or ten cents for an Ekko.

The International Radio Club of Miami tells us that they are now on the air regularly three times a week over station WIOD on 1300 kcs. the nights of Monday, Wednesday and Friday at one o'clock. They give DX talks and tips.

CFCO, Chatham, Ont., tell us they have finally succeeded in securing allocation on 1010 kcs. which they feel sure will greatly increase their coverage. If you couldn't get them on 1210, try them now on 1010.

WEXL, Royal Oak, Mich., now has an early morning schedule every day of the week except Saturday and Sunday, from 1:30 to 5:00 a. m. EST.

Have you logged WJW yet at its new location in Akron, Ohio? They will have a DX special early Saturday morning, Feb. 4th, from 3:00 to 4:00 a. m. EST.

Here are some foreign DX specials arranged by the International DXers

Alliance of Bloomington, Ill., given us by T. Colegrove of Frankfort, Mich. We assume the times are those of the night before. All time is a. m. EST.

Jan. 29th, 12:00- 1:30 Bordeaux, France, 986 kcs.
11:30- 1:00 Sottens, Switzerland, 743 kcs.
Jan. 30th, 12:00- 1:30 London National, 1147 kcs.
Jan. 31st, 12:00- 1:30 North National, England, 995 kcs.
Feb. 1st, 1:00- 2:30 Brussels, Belgium, 887 kcs.
Feb. 2nd, 2:00- 3:30 Stuttgart, Germany, 832 kcs.
Feb. 3rd, 12:30- 2:00 Scottish Regional, 797 kcs.
Feb. 4th, 12:00- 1:30 Stockholm, Sweden, 689 kcs.
Feb. 5th, 11:15-12:45 London Regional, 843 kcs.
12:00- 1:30 Beromuenster, Switzerland, 653 kcs.
Feb. 6th, 12:00- 1:30 Budapest, Hungary, 545 kcs.
Feb. 7th, 12:30- 2:30 Poste Parisien, France, 914 kcs.

Regarding CMGE, J. J. Connolly, Rosedale, L. I., writes: "Here is a Cuban who is looking for reports and will 'play ball' with the boys on the 'veri' end of it."

Two mysteries in Texas for our readers to solve. "I have heard a station testing on 980 kcs. They have no call letters as yet and call themselves 'Capital X.' They are located in the Alamo Hotel here in Austin." This report comes from Hardy Pattillo of that city. "Yesterday and today I listened to a new station in Texas called either KNTX or DNTX. They were on 970 kcs. and are located in the Southern Hotel in Denton, Texas." This one is from O. D. Duncan, Denison, Texas. More outlaws?

KPOF has changed its DX program from Monday, Feb. 27th, to Thursday, Feb. 23rd.

WBSO, 920, Needham, Mass., will have a DX program on Sunday night, Feb. 19th, from 2:00 to 4:00 a. m.

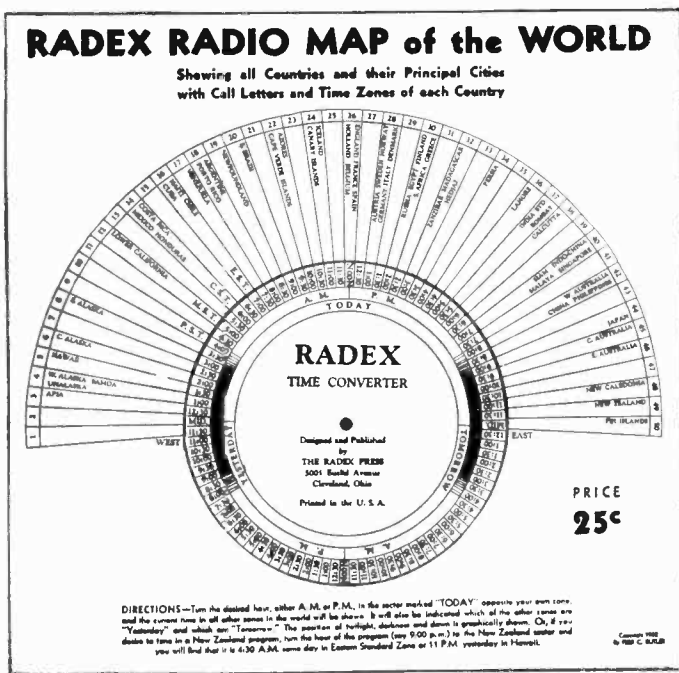
CHGS, 1120, Summerside, P. E. I., Friday night, Feb. 3rd, at 4:00 to 5:00 a. m.

10-BQ, 1170, Brantford, Ontario, Saturday night, Feb. 18th, at 4:00 to 5:00 a. m.

TELLS THE TIME For the Whole World

Just set the dial for the hour of the day in your zone and—presto—there is the time for every country in the world. No adding nor subtracting. Shows which times are yesterday, today and tomorrow.

Shows where twilight, darkness and dawn lie.



Tells You When You Must Tune for Distant Programs

On the double page inside is a fine map of the world—the size of six pages of RADEX—with all the principal cities and time zones plainly shown. Adds immensely to pleasure of DXing.

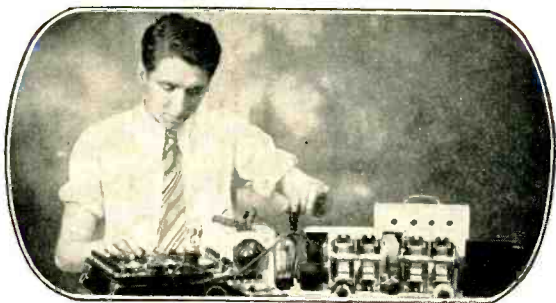
On the back is a list of all countries in the world with the call letters assigned to each and zone key for use on the Converter.

Mailed anywhere in the world for 25 cents. Given free with a year's subscription to RADEX; see subscription blank on page 24.

THE RADEX PRESS, INC.

5005 EUCLID AVENUE

CLEVELAND, OHIO, U. S. A.



Sometimes I think there ought to be a law to make everyone do a little studying every week. I didn't think that a year ago because it looked like all the cards were stacked against me. But I am certainly rolling in the money now. Maybe my story will show you the way to larger earnings also.

I Thought Radio Was a Plaything

But Now My Eyes Are Opened, and I'm Making Over \$75.00 a Week!

\$50 a week! Man alive, a year ago I thought anyone making that much was just plain lucky.

Twelve months ago I was just barely getting by. It was the same old story—a little job; a salary as small as the job.

If you had told me that twelve months later I would be making \$75 a week in my own Radio business—I'd thought you were crazy.

But I am getting ahead of my story—let me tell you how it all started. I was hard up a year ago because I had been kidding myself—that's all—not because I had to be. I thought a fellow either had to be lucky or have a string of college degrees a half a mile long to make good money.

One day I picked up a magazine and the headline of an ad attracted me because it seemed to fit my case. It said, "I will show you how to start a spare time or full time Radio business of your own **WITHOUT CAPITAL.**"

"They're trying to kid somebody," I thought, "but I'll find out what it is all about anyway."

I wrote in and within a few days received a 64-page book telling about the opportunities in Radio, how I could prepare right at home in my spare time, and how they would show me how to start making money in my neighborhood selling and repairing Radio sets. It would probably have sounded too good to be true if the promises had not been backed up by 100 letters from fellows who had taken their course and were very enthusiastic about it.

What has happened since seems almost like a dream to me now. I took their course and in about a month I was ready to start making money in my neighborhood—as much as \$5 and \$15 a week. It wasn't long until I had saved enough money to start a little business of my own.

That business has since grown to the point where I am clearing an average of \$75 a week. All this took place under the watchful guidance of my friends at the National Radio Institute. They also offered to train me for other lines—in case I wasn't interested in having my own business. Broadcasting stations, Radio Manufacturers, Operating on Board Ship, Servicing Sets, Aircraft Radio, Television and Talking Movies

are other fields their training covers. And to think, until the day I wrote for that book, I'd been waiting. "I have never had a chance—will never have one because I have no pull and have never had the advantage of a good education!"

Friend—you may not be as bad off as I was—but think it over—are you satisfied? Are you making as much money as you need? Would you sign a contract to stay where you are for the next ten years at the same salary? Those are the things you have to think about—because no one is going to make it his business to push you ahead—you must make it your own business.

Take my tip—write for their book. It won't cost you anything—only a three-cent stamp. It shows you a lot of things which I don't believe you know now—a lot of facts and figures on the opportunities in this new, fast-growing field. Where the jobs are, what they pay, how to get ready for one. Beginners as well as experienced men are making as much as \$1,000 to \$2,000 a year more as a result of N. R. I. training. You place yourself under no obligation because the book is free and is gladly sent to anyone who is ambitious and wants to get ahead. Just address J. E. Smith, President National Radio Institute, Dept. 3BO, Washington, D. C.

**J. E. Smith, President,
National Radio Institute,
Dept. 3BO, Washington, D. C.**

Dear Mr. Smith: Send me your free book, "Rich Rewards in Radio," which points out the opportunities for spare time and full-time jobs in Radio and your famous 50-50 method of training men to become Radio Experts through home study. I understand this request places me under no obligation.

Name

Address

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