

THE JANUARY 1937

25^c

RADIO INDEX

The All-wave DX Log of the World



Mystery Contest

Television Developments

Prize Letters

No. 105

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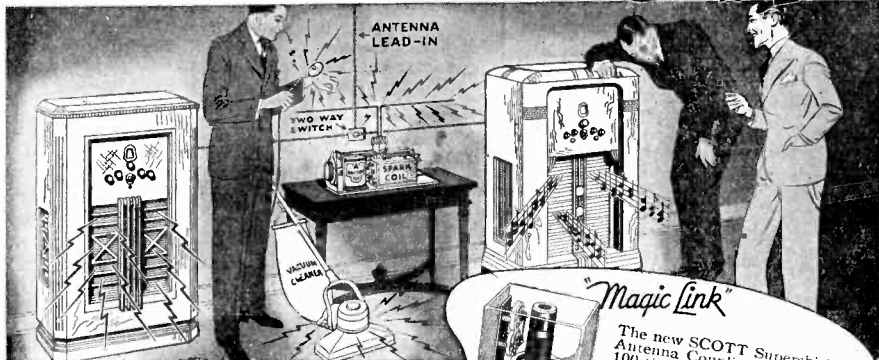
The largest and most beautiful Globe we have ever seen for the money. Almost 37 inches in circumference. Maps in brilliant colors completely up-to-date. It should be in every home.

Price \$3.95 postpaid.
(In Canada and west of the Rockies, 50c more)

If you live in Ohio, add 3% for State Sales Tax

The Radex Press, Conneaut, O.

SENSATIONAL *New* SCOTT "MAGIC LINK" CONQUERS "Man-Made" STATIC



23 Tube High Fidelity SCOTT Equipped with "MAGIC LINK" IN AMAZING DEMONSTRATION PROVES QUIET FOREIGN RECEPTION NOW POSSIBLE IN BAD RECEIVING LOCATIONS

On Wednesday, October 7, 1936, at the SCOTT Radio Laboratories, a small group of radio engineers and short wave enthusiasts were shown, for the first time, the latest development of the SCOTT Research Laboratories. They intently watched two radio sets at one end of a room—both connected to the same lead-in with a two-way switch, and both tuned in to DJB, Germany, 15.20 megacycles.

Quiet Foreign Reception Now Possible for First Time in Many Locations

WHAT SCOTT SUPERSHIELD ANTENNA COUPLING SYSTEM ACCOMPLISHES

1. Doubles sensitivity or distance-getting ability of antenna and receiver combination, as compared with best results with any previous noise-reducing antenna with inefficient shielded coupler.
2. Improves antenna lead-in signal to noise ratio by 100 to 1 over best previous accomplishment of any antenna.
3. Eliminates shielded coupler switch. Switching from broadcast to short wave bands is automatic with SCOTT Supershield System.

The climax of 8 years of tireless research, this sensational new development means that "man-made" static caused by electrical appliances and picked up on the lead-in has, for the first time, been conquered without loss of signal strength! Up to

The new SCOTT Supershield Antenna Coupling System 100 times more effective than any other "noise-reducing" system in slashing away from the lead-in "man-made" static so disturbing to enjoyably dependable foreign reception.

Germany Blotted Out

Suddenly, within three feet of these receivers, a terrific barrage of interference was turned on—from a violet ray machine, vacuum cleaner and automobile ignition coil, buzzing out streams of "man-made" static! What happened? From one receiver came a deafening roar such as you would hear in a boiler factory—and the program from Germany was completely blotted out!

Clear with "Magic Link"

The two-way switch on the antenna was then thrown to the 23-tube SCOTT equipped with the sensational new "MAGIC LINK", the SCOTT Supershield Antenna Coupling System, and from Germany, over 4,000 miles away, the program came in as crystal clear, strong and enjoyable as a local station—all without the slightest trace of "man-made" static from the violet ray machine, vacuum cleaner and spark coil, each crashing and spluttering only three feet away from the antenna lead-in.

E. H. SCOTT RADIO LABORATORIES, INC.

4424 Ravenswood Avenue, Dept. 15A7, Chicago, Illinois.

630 Fifth Avenue, New York, N. Y.

115 N. Robertson Blvd., Los Angeles, Cal.

Builders of the World's Finest Custom-Built Radios Since 1924

this time foreign reception from England, Germany, France, Italy and many other foreign stations has been spoiled for thousands of residents of apartment buildings, hotels and homes by the static from electrical appliances picked up on the antenna lead-in. Now these programs can be heard clearly, quietly, regularly—with the 23-tube SCOTT equipped with the new SCOTT Supershield Antenna Coupling System.

COMPARE IN YOUR OWN HOME

We invite you to make a 30-day side-by-side comparison test of the SCOTT against any other receiver, regardless of price. If the SCOTT does not bring in foreign and domestic stations with more volume, greater clarity, and with finer and more natural tone, we will refund your payment price without question.

Send TODAY for complete proof—and full description of this remarkable new development that now makes possible in conjunction with the 23-tube FULL RANGE HIGH FIDELITY SCOTT Receiver, unparalleled tone, and distance performance in every continent of the globe. Discover this vast new world of radio entertainment you will never hear without a SCOTT. SEND COUPON NOW.



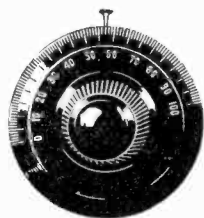
FREE-SEND TODAY FOR DETAILS

E. H. Scott Radio Laboratories, Inc. 4424 Ravenswood Ave., Dept. 15A7, Chicago, Ill.

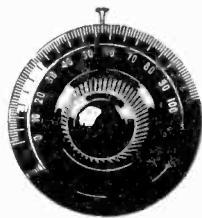
Send details of unequalled D X Tone of 23 Tube SCOTT with new "Magic Link" Antenna Coupling System.

Name _____
 Address _____
 City _____ State _____

JANUARY 1, 1937



RADIO INDEX



Reg. U. S. Patent Office

ELIZABETH S. BUTLER
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B. FRANCIS DASHIELL, *Technical*
CARLETON LORD, *Broadcast*

THIRTEENTH YEAR

NUMBER 105

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NBC—Blue on Sundays at 3:15 p. m.

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Here and There in RADIO

• • • TELEVISION IS HERE

TELEVISION, like the will-o-the-wisp a year ago, is now a reality. It is still called "experimental," to be sure, but it has been taken out of the secret chambers of the laboratories and exhibited openly for the first time.

Four demonstrations were held in New York City during the celebration of the Tenth Anniversary of the inauguration of the National Broadcasting Company. Everyone who attended, broadcasting officials, visiting European radio men, newspaper men and others, was deeply impressed with the progress our engineers have made. Naturally, the RCA television is not yet at its highest perfection, but the pictures are large, fairly steady, clear and recognizable. Many kinks and "bugs" have to be ironed out, but television is ready for its greatest test, its reception by the American public.

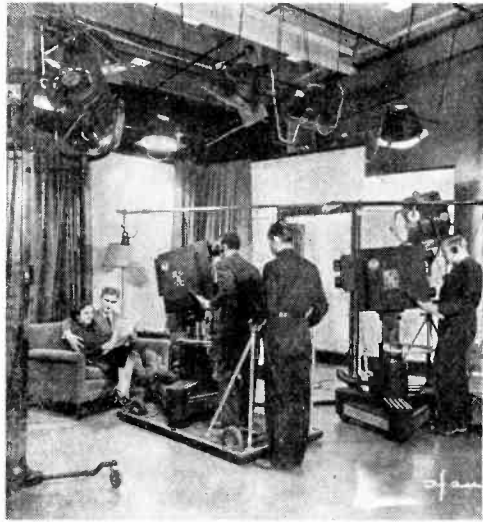
It is planned by RCA and NBC to establish public "looking-in" stations in various large cities where the people as a whole may see and know what is in store for them. These posts will be established some time this year.

At the demonstrations two different kinds of televisors were used. In some of the models a kinescope tube with a diameter of nine inches was used, and in others a 12-inch tube was employed. The 9-inch tubes framed pictures 5½ by 7 inches in size, and the larger tubes painted pictures 7¼ by 10¼ inches. The 9-inch kinescope showed the pictures in a bluish green hue while yellowish pictures were seen on the other. Engineers seem to be satisfied with both tubes, but those who witnessed the demonstrations did not agree which of the two colors was the most pleasing to watch.

Each receiver had 31 tubes in ad-

dition to the kinescope tube, and fourteen control knobs were required. The kinescope is something like an ordinary oscillograph tube, and on its round end the pictures are painted. In one of the experimental sets the image was viewed directly on the tube, and in the other model the picture was reflected onto a mirror.

Lenox R. Lohr, President of the NBC, pointed out that television receivers will not be ready for the public until the number of scanning lines and speed of transmission can



A view of the NBC television studio where a program is being broadcast for sight and sound. Inside the two "iconoscope" cameras the image of Grace and Eddie Albert is changed from a visual thing to electrical impulses. This magic is accomplished, principally, by the iconoscope tube, which is to the iconoscope camera what film is to the ordinary camera. One of the cameras is mounted on a dolly so it can be moved around, focusing in many different ways on the subject without interrupting the transmission.

be agreed upon. It is necessary that the transmitter and receiver be perfectly synchronized to receive pictures, and these standards wait to be officially established by the Communications Commission. Even when that time arrives, picture reception will be a city service until some method is learned whereby the ultra-high frequencies, necessary for pictures, can be transmitted over greater distances than at present.

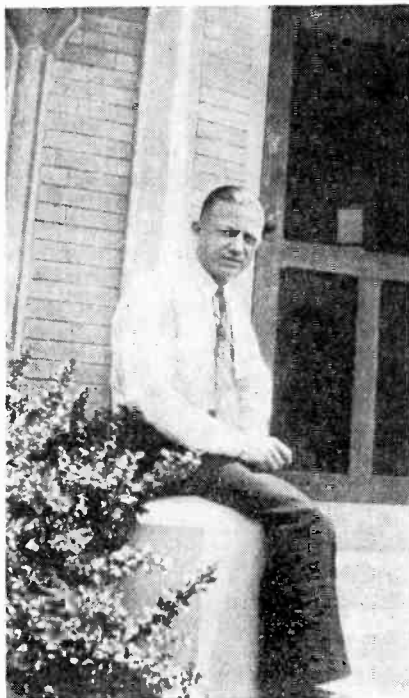
It is with pleasure that RADEX presents, this month, the first television pictures released by the NBC. We are pleased to announce also that Mr. Dashiell, our Technical Editor, will prepare a series of articles explaining, in simple language, how pictures are transmitted and received. This series will commence in an early issue and readers desiring knowledge of this fascinating new art should not miss a single chapter.

KDKA Aerial Destroyed

Construction of the new vertical aerial for KDKA at Saxonburg, Pa., was temporarily suspended when the partly-completed radiator was blown down in a windstorm. The aerial, which was to have been a steel mast 710 feet high and only 5½ feet wide at its widest part, incorporated features hitherto unused in broadcasting. It was to provide sky wave suppression of high degree and greatly enlarge the non-fading listening service area.

The writer had the pleasure of visiting the KDKA transmitter site late last summer and was shown around the grounds by the operator on duty, Mr. W. Floyd Stuebgen, who supplied the information used here.

Saxonburg is a little village in Butler County, situated nine miles south of Butler and 28 miles north of Pittsburgh. The transmitter building is located on a hill a mile out of the town and commands an excellent view of the entire sur-



W. Floyd Stuebgen

rounding country. The aerials in use at that time were mounted on 90- to 100-foot poles, brought at great expense from the forests of Oregon where trees grow tall and straight as arrows. The broadcasting antenna was of the conventional horizontal type, while all the short-wave antennae were vertical except the 49-meter radiator. All the short-wave transmitters (except the ultra-shortwave) and the broadcast station are housed in the same building. The 400,000 watt station W SXAR, in use a few years ago, has been dismantled.

With the construction of the new radiator it was also planned to completely modernize the transmitter building and make room for a 500 kw station. Application has been made to the FCC for permission to use the high power but it is doubt-

ful now when permission will be granted since the Commission has decided to shelve all these applications.

The aerial which was destroyed was to have been held in position by two sets of guy wires, half of them being attached at 1/3 and the others at 2/3 of its height. The weight of the entire mast would have been supported by a porcelain insulator only 18 inches in diameter.

Engineers have announced that construction of a new aerial will proceed immediately.

KGKO Moves to Ft. Worth

Station KGKO, Wichita Falls, Texas, was recently authorized by the FCC to move into Fort Worth, where it will become a NBC-Blue Network outlet. Coincident with this announcement comes news of a new company, the West Texas Broadcasting Co., which seeks permission to erect a new station in Wichita Falls to work on 1380 kcs. with 1000 watts, full time. Stockholders in the new company are also officers and directors of the Wichita Falls Times and Record-News. KGKO was sold to Mr. Amon Carter, publisher of the Fort Worth Star Telegram and owners of station WBAP at Fort Worth.

Australian and Asiatic News

Mr. A. I. Breen of the New Zealand DX Radio Association sends a list of alterations of Australian stations. DXers should make these changes in the Foreign Broadcasting Station indices in the December, 1936 issue of RADEX.

2LM at Lismore came on the air on 900 kcs. instead of the 1340 kcs. channel.

3MA, Mildura, and 4WK, Warwick, have both moved to 1360 kcs.

2MO, as forecast, is now operating on 1370 kcs. This station is located at Gunnedah.

The Warrnambool station, 3YB, is

now on 1210 kcs.

4MK, Mackay, has been on 1080 kcs. for the past several weeks.

2DU, Dubbo, is now on 660 kcs. with 7BU and still does not verify reports. These two similar calls on the same frequency make logging difficult unless the location is distinctly heard.

3SH, Swan Hill, is now heard on 1130 kcs.

VUD, at New Delhi, India, is on 882 kcs. with an aerial power of 20 kw. Mr. C. W. Goyder, the Chief Engineer, states that reports will be verified for return postage, but we have yet to hear of anyone receiving a reply.

The Colombo, Ceylon, station VPB, uses the same call sign for the long and short wave transmitter, according to the Chief Telecommunication Engineer, Central Telegraph Office, Colombo. The broadcast transmitter is on 700 kcs. with 1000 watts, but this is to be increased to 5000 watts about next February.

VUM in Madras, India, is operated by the Corporation of Madras, Electrical Department, Ripon Buildings, Park Town P. O., Madras. Its frequency is 769.230 kcs. and the power, 100 watts. Mr. Breen says he believes the Indians must have a sense of humor. The letter from Madras is endorsed "all letters must be addressed to the Electrical Engineer by designation and not by name." The name of the Engineer is M. R. Ry. Rao Bahadur C. V. Krishnaswami Chetty Garu, M. B. E., B. A., B. Sc. (Tech.), AMIEE, M. I. E. (Ind.).

Quaker State Network Formed

Mr. Donald Withycomb, general manager of WFIL, announced the formation of a regional chain of sixteen radio stations under the banner of the Quaker State Network, for the purpose of supplying commercial advertisers with concentrated coverage in the rural and urban markets of Pennsylvania. The net-

work consists of the following stations: WAZL, Hazleton; WBRE, Wilkes-Barre; WCBA, Allentown; WEST, Easton; WFBG, Altoona; WFIL, Philadelphia; WGAL, Lancaster; WGBI, Scranton; WJAC, Johnstown; WKBO, Harrisburg; WKOK, Sunbury; WLEU, Erie; WORK, York; WRAK, Williamsport; WRAW, Reading; WTBO, Cumberland, Md.; and WWSW, Pittsburgh. Negotiations are under way to add a New York outlet. Plans have also been completed to provide a number of stations with sustaining service, most of which will come from WFIL.

The NBC Blue Network continues to expand. The 500 watt KGBX at Springfield, Mo., was recently added to this system, as well as WEBR at Buffalo and WABY at Albany.



The RCA television receiver. This set employs 30 tubes and is controlled by 14 knobs. Only 70 of these experimental sets were built. When they are placed on the market the number of tubes and knobs will be greatly reduced. These receivers pick up the sound as well as the pictures.

Guess Again, DX'ers!

(Compiled by Roy Covert)

1. The call letters KVCV stand for?
2. The Voice of Denver is?
3. What station has the permission of the government to boast, "We excel"?
4. What do the call letters KGGC signify?
5. What 100-watt station in the east has a "booster" of 50-watts synchronized with it on 1370 kcs.?
6. What might the letters KFRC mean?
7. What were the original call letters of KSFO; what did they mean; what does the present call stand for?
8. Why are 1200, 1210, 1370, 1420, and 1500 kcs. known as the "graveyard channels"?
9. What station's call letters are paradoxical?
10. What is the favorite sign-off signal of many stations?

(Answers on page 36)

Mystery Contest

We are pleased to announce that the Grand Prize in the Second RADEX Mystery Contest will be the latest 23-tube Scott High-Fidelity Receiver. We consider that we are very fortunate to be able to offer this fine receiver, and we know that contestants will have an award well worth the winning.

The contest will take place on the mornings of Feb. 20, 21 and 22, and full details will be given in the February issue of RADEX. All entries must be submitted on the standard forms which will be forwarded upon receipt of the 25c entrance fee.

As an added feature of this year's contest, we will give place prizes to contestants who finish 50th, 100th, 150th, etc. in the final standing. Awards for these places have not been decided upon but some will be subscriptions to RADEX.

BCB Prize Letter

*S. R. Lewis, 1733 Kensington Rd.,
Toledo, Ohio*

The other morning while waiting for the frequency checks to begin, I was listening to W9XBY and came across a little program which did me more good than half-a-dozen European or Australian catches. There was nothing in the way of DX to the whole thing, but it was heard during a regular DX session and perhaps may be recorded in that classification.

The announcer was interviewing one of the students at the radio and television school which operates the station. Frank Collins was just one of scores of others striving to solve the mysteries of the medium which brings daily enjoyment to so many millions.

Unlike the others, Frank is blind. He cannot see the text in the books or the diagrams on the blackboards. He must feel his way among the condensers, resistors, coils and tubes of radio receivers. He must adjust dials and knobs by touch and hearing. Which sense he employs when soldering connections is a mystery to me, and heaven alone knows how he can read scales and meters.

But Frank is in radio to stay. He has serviced receivers for two years—and made a living at it. He isn't just sure what branch of the field he will choose when he completes his training, but he is determined to prepare himself for his life's work and nothing will stop him.

We unfortunates who have our sight and still think life is hard, should put on a blindfold some night and try to tune a radio. Then locate some trouble in the "innards" by touch and hearing alone. Trace a wiring diagram and see how easy it is to solder a couple of wires.

We all can learn something of the

SW Prize Letter

By Paul Dilg, Evanston, Ill.

For a long time I have been curious to know how many air miles a week's tuning on shortwaves would cover. During my recent vacation period I could think of no better way to spend a week of the time than by turning the dials of my new 23-tube Scott and finding the answer to my question. The results I obtained during the week's tuning are, without question, quite startling.

I kept a record of every station heard broadcasting entertainment, excluding Canadians and Mexicans and at the end of each day computed the number of miles I had covered. Tuning was confined to regular hours, the earliest in the morning being at 5:50 am, and the latest I was at the dial was at 10:50 pm.

On Sunday I traveled the least, covering only 239,000 miles, while Friday's tuning took me the greatest distance, 336,000 miles. During the seven days I journeyed the astounding total of **2,039,800** miles, visiting 105 different stations in 37 countries on every continent.

very special brand of courage possessed by Frank Collins of Reubens, Idaho.

On this page are reproduced two letters which the Editors have selected as being the best received in last month's mail. Readers are invited to write, telling us which they believe to be the most interesting, and a year's subscription to RADEX will be donated to the person who wrote the letter receiving the greater number of votes. Let us have your letters. You may win a subscription to your favorite magazine next month.

A Christmas Gift that comes ten times a year

Make up your gift list now.

Give RADEX to your friends for a year around reminder of your affectionate thoughtfulness. Remember especially the shut-ins to whom radio is a chief joy.

An attractive Christmas Gift Card will be sent to announce on Christmas Day your name and gift. Or we will mail the cards direct to you to be forwarded with a message in your own writing, *if you so request.*

Special Christmas Rates

(Good only until Dec. 31, 1936)

The subscription price of RADEX is \$1.75 per year. At this time only, we will accept subscriptions three for \$4.50, two for \$3.25, or one for \$1.75. Each year that you order counts as one subscription. Your own subscription (new or renewal) may be included at these rates.

Christmas Order Form

The Radex Press, Conneaut, Ohio.

Please enter the following subscription to RADEX and send Gift Announcements for Christmas Day.

Name
Please print
Address New
Renewal
City State 1 or 2
Years?
Send Gift Card to recipient Send Gift Card to me

Name
Please print
Address New
Renewal
City State 1 or 2
Years?
Send Gift Card to recipient Send Gift Card to me

And enter my own subscription (new or Renewal) at the special Christmas rate for year(s).

I enclose \$ in payment.

Name of person sending order

Address

The Monthly DX CLINIC

• • • By CARLETON LORD

FOR some time it has been apparent that something is wrong with DXing. The impression is one of those vague sensations which cannot be traced directly, yet is evident to all who stop to consider.

It may be that the art of fishing for distant stations no longer offers the same thrills of former years and that, as a consequence, the old-timers are losing interest. It is a matter of record that listeners who kept us busy with reports a few seasons ago, are seldom heard from today.

It is possible that the leadership which raised DXing to a high standard is lacking. A newer generation has come along and, finding that the hobby was ably handled by the veterans, contented themselves by becoming followers instead of potential directors.

The wolves that howl over outstanding reports of reception have undoubtedly caused the withdrawal of many listeners from active DXing. Even today, not a few prominent DXers refuse to submit reports for publication in even their own club bulletins, for fear of becoming targets for promiscuous pot shooting.

The increased tendency of many stations to broadcast all-night programs receives its share of blame.

But the real menace to DXing as we know it today is probably concealed in what has been considered the most important phase of the hobby—Courtesy Programs work. Here is the real obstacle to the continued prosperity of midnight marauding.

Time and again in the past we have warned against the dangers of over-activity in this field. We have contended that floods of special programs could only work to the detri-

ment of station and listener alike. Radio club officials have privately agreed with this point of view, but zealous CPCers continue to labor overtime lining up as many DX broadcasts as possible.

The larger clubs have condemned the smaller organizations for entering the already crowded field. The small clubs steadfastly maintain that the big organizations have more than their share as it is.

As a solution for the problem, we offer the suggestion of Arthur R. Willis, 103 Stanley St., St. Thomas, Ont., who writes:

"The Clearing House Plan worked out very well during the last DX



Hildegarde, lovely singer from Paris, London and Vienna, who was starred on the NBC press demonstration of RCA experimental television. She sang two numbers at the demonstration, playing her own piano accompaniment for one. She is a native of Wisconsin but won her greatest success at smart European cafes.

season, but there still seems to be something wrong with the whole plan of arranging special programs. I should not criticize too harshly unless I was able to offer what I felt was a better plan.

"My idea is to contact the heads of the various DX clubs, with the idea of forming a Co-Operative Programs Scheme." Let this be a committee composed of CPC workers from all the clubs. Each committeeman would be assigned to specified frequencies and would be at liberty to get as many special programs as he deemed wise. All programs so arranged would be dedicated to all DXers in America, and each co-operating club would list the broadcasts in its bulletin.

"With only one CPCer working on a given frequency, clashes of programs would automatically be eliminated. By receiving requests from but one source, stations would be more willing to broadcast special programs. With members of all clubs listening to a certain broadcast, the station would undoubtedly receive a better response than at present.

"The co-operative scheme would apply only to the scheduling of programs. Beyond that, each club would be on its own as at present. It would continue to publish DX news, tips, discussions and other topics of interest, striving only to improve the quality of its publication and to render better service to its members."

We can anticipate some of the protests to this idea. The prestige of a club would suffer if it no longer received specific dedications. A club would lose its identity if its courtesy programs committee was abolished. And so on.

However, we are inclined to doubt the real importance of this point insofar as the fundamental purpose of the club is concerned. The members want special DX broadcasts and, if they can receive a needed station, it

really matters little whether the program is dedicated to the NNRC, CDXR or NRC. Although important, the DX calendar occupies but a very small portion of a club bulletin, and the scope of a club's activi-



A famous radio lady. Emily Griswold of West Hartford, Conn., Operator of the Clearing House for DX Programs. It is her job to check all the special programs arranged by the various DX Clubs.

ties is by no means limited to the publication of DX tips.

The suggestion is merely passed on the RADEXers for discussion and comment. We trust that it may receive some consideration when radio club officials make their plans for next season.

Prize Letter

As announced in the December issue, we are going to award a year's subscription to RADEX each month

to the reader who sends in the most interesting letter. Two letters from the monthly mail will be selected for publication in their entirety, one covering the short waves and the other the broadcast band. Readers will then vote on which one they prefer.

While the December issue appeared too late for many readers to get letters mailed, we have selected a communication from S. R. Lewis, 1533 Kensington Rd., Toledo, Ohio, as being just about what we want for the broadcast band entry.

Incidentally, it was a story by Mr. Lewis in the May RADEX that started another discussion on what was possible in DXing. He claimed that, in June 1934, he had verified all but two of the active stations in the United States. In our October issue, Malcomb L. Gavin felt that this was not possible under our radio set-up. Another to take issue with the claim is William Buchanan, 189 Park St., Sydney, N. S.

"I don't see how a person can verify all but two stations," he writes, "as there are a lot of stations on the East and West Coasts which use 100 watts and less, and operate only during the daytime. I was telling a friend about this, and the only thing he could say about it was that Mr. Lewis must have moved around a lot."

We will not attempt to decide what percentage of stations may be heard, but we have a sneaking suspicion that several other listeners have come pretty close to having all active stations verified. Perhaps they will write in, telling us how close they came and how they did it.

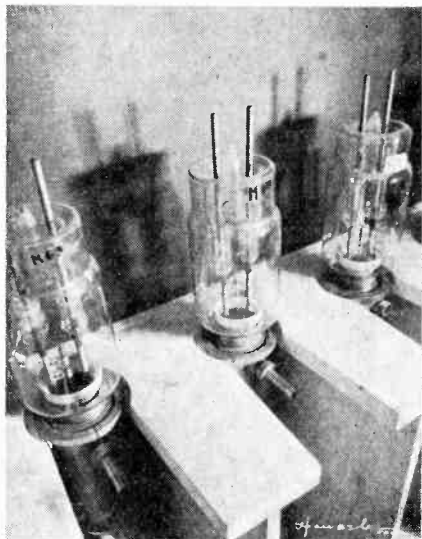
Verifying Non-Verifiers

"In the November issue of RADEX," reminds Alexander Maley, 738 Emerson Ave., Elizabeth, N. J., "you quoted a letter from WJRD which said they would not verify reports. At this time, I had a report out to them and was quite disappointed. However, I tried sending them a typewritten verification card

for them to sign and return. The card just came back and J. R. Doss who signed it, wrote: 'Thanks! Glad to hear from you any time.' "

"Good thing all stations aren't like KASA and WJRD," briefs R. E. Everly, Newton, Ill., "or DXing would be pretty thin soup. It must be terrible to be so self-centered in civic pride that you can't enjoy a good report from a DX fan. Thank Heaven we have stations like KBIX, KCMO and a few others who do appreciate a report and who aren't so rushed that they can't answer when postage is enclosed."

"Besides WJRD and KASA," points out Arthur H. Brackbill, Lancaster, Pa., "you should add WMFO, KGKY and WHJB to the list of non-verifiers. WHJB used to verify, but it is impossible to get any sort of an answer from them now. WMFO is owned by the same firm as WJRD, so it is obvious that they will not



The high-frequency tubes shown here are used in RCA's television transmitting station in the Empire State Building. In the tube room 220 tubes, worth more than \$25,000, are kept in reserve at all times. The tubes pictured amplify the picture signal.

verify and they announce that fact. KGKY has not been known to verify for more than five years, despite the fact that your magazine has always listed them as doing so."

According to back issues of RADEX, KGKY verified reception during the 1931-32 season. For the next three years, they refused confirmations and were listed accordingly. In reply to our most recent questionnaire, which was postmarked at Scottsbluff on September 9, 1936, they are now verifying correct reports and are so listed. However, we do not have any reports for this season on whether or not they live up to that promise.

From Mr. Maley's letter, WJRD has verified at least one report on a prepared verification card. The writer has a similar card from WMFO, which covered reception of their September 12th frequency check and was signed by J. L. Doss. In fact, the card was postmarked in Decatur six days after the report had been mailed.

"We DXers are lucky and don't know it," observes Warren Winkley, Ahwahnee, Calif. "All we have to do is turn knobs and listen, while someone else does all the work. When a station wants to put on a special DX program, it must get permission from the F.C.C. to be on the air (if it's a daytime station), pay help for conducting the program, pay bill for running transmitter, and answer all requests for verification. All this to satisfy some listener in Siwash, Kenhio. And if the verie isn't received in a hurry, the station is blackballed. Such people are we!"

Special Programs

"I am enclosing a list of special programs for the purpose of making frequency measurements," advises Everett L. Dillard of the Commercial Radio Equipment Co., Kansas City, Mo. "These broadcasts have been arranged so that we check the stations when their channels are known

to be reasonably free from interference. We are forwarding this information for the benefit of listeners who might not be able to hear these stations at other times."

The list of stations so kindly forwarded by Mr. Dillard includes KTSA, KWBG, WACO, KNOW, KASA, WJAG, KPOF, WRR, KIUL, KGFV, KADA, KBIX, WPAD and WSUI. The transmission from WSUI is scheduled for either the last Wednesday of the month or the first Wednesday of the next month from 0130 to 0200 EST. The other broadcasts are fixed and are so listed in the DX calendar.

"Station WCOP will broadcast a special DX tip program every Saturday morning from 0600 to 0700 EST," advises Chief Announcer Morton Blender of the station. "Joe Lippencott, an NNRC director, will preside at the microphone with DX tips and I will assist with recordings and general news of the wireless world. Reports will be verified and graded, and they should be sent to Mr. Lippencott at Box 2, Tufts College, Boston, Mass. Radio clubs desiring dedications will please form a line to the right. We'll take care of them all at any time."

"Some of your West Coast listeners may be interested in our schedule of wrestling broadcasts," submits Duke McLeod, Business Manager, Station CFCT, Victoria, B. C. "We have shows with nationally known wrestlers, and our broadcasts work in with similar accounts from Portland, Salt Lake City, Seattle and Vancouver to give the wrestling fan a complete week of entertainment. The broadcasts commence at 0015 EST every Saturday night. We also invite listeners to tune in our weekly DX programs from 0300 to 0500 EST Sunday mornings."

Concerning Aerials

"By staying up all night for three days," reports Jack Anderson, R.F.D. 2, Duncan, B. C., "I managed to log 51 new stations and bring my

log up to 401 stations. Included in the total are three stations in New Zealand, three in Australia, nine in Japan, and one in China. All of these were heard on a little 5-tube Victor of 1932 vintage.

"I think the secret of some of the better catches is my aerial. I have 100 feet of wire strung between two tall trees and passing over the top of my house. The lead-in has to be 90 feet long to reach the ground level."

"Four or five years ago, when I stated that an aerial was directional, you replied 'not so!'" reminds "Pretzelite," Allentown, Pa., and formerly of Reading. "Your October magazine agrees with my first statement. I am now using a bird-cage type of aerial, which is constructed in a zeppelin shape with six zinc plates. There are two disks 15 inches in diameter, two 10 inches, and two of 5 inches. A total of 100 feet of 14 gauge wire is used to make the cage, which is but 10 feet long. String it horizontally, it works well and good. Hanging it vertically, I seem to bring in more stations, but with less volume."

Becoming a DXer

"I have had a radio in the house as far back as the good, old battery days of 1923," admits E. B. Hunter, 1062 Simmons Ave., Los Angeles, Calif., "but merely accepted it as a matter of course. Only once in a blue moon did I try to get reception outside of the immediate vicinity. Just last week I purchased a new Philco 116X and forthwith was smitten with what I am told is the DX bug. I bought a copy of RADEX and now my history is complete to the present. I would be very grateful if you would tell me the proper way to ask for verifications—that is, how to describe the way I received the signals."

Welcome to the Order of Midnight Marauders, Mr. Hunter! We are sure that you will enjoy DXing. The article, "Let's Verify," on page 16

of the November RADEX should answer your question about verifications. There are undoubtedly many DXers in and around Los Angeles who will be pleased to help you get off to a good start.

"Metal tubes really are a success," avers Raymond C. Corbett, 610 Twelfth St., Sacramento, Calif. "The other day I took all seven tubes from my set and had them tested. Every one was as good as the day they were purchased over a year ago. As they were used many hundreds of hours for DXing, it proves that the experimental stage is over."

The period during which a tube can perform at maximum efficiency is a very vital point for DXers. Metal tubes undoubtedly are coming into their own, but they will have to step some to surpass a record of service made by a set of glass tubes. When our new Scott was delivered on November 1st, the old Deluxe Model was retired to semi-active service. Checking the tubes, we found that nine of the original 12 tubes were still in perfect condition. That was after exactly three years of operation, dur-



The new ultra-modern transmitter house of WFBC, Greenville, South Carolina. Also included in this house are living quarters for the engineer, a garage and workshop. It is located on the Atlanta Highway (U. S. No. 29) four miles out of Greenville.

ing which time the set had been running on an average of eight hours daily.

Contest News

"While I would favor a repetition of the Mystery DX Contest this year," supplies Carl E. Sylvester, Box 213, Yale, Mich., "I think that each contestant should be allowed to make his own report cards. You can specify the size of paper and the information required. This would permit entries from DXers who are not readers of RADEX, as the rules are generally mentioned on the broadcasts."

While we are not limiting entries in the contest to readers of RADEX, we do not see how it would be possible for listeners to receive all the necessary information unless they were able to read these columns regularly. After checking all of the contest stations last year, we know for a fact that only a very small percentage followed the rules in their entirety.

Furthermore, after seeing how many versions there could be of our specified standard report cards last year, we must insist that all report forms be uniform in every respect. After all, it is no small task to check several hundred entries and it is necessary to make the work of the judges as easy as possible.

"I am in favor of you folks printing the sheets for entering the contest," votes Walter J. Budd, St. Mihiel Dr., Burlington, N. J., one of last year's winners, "and making a charge for this service. It is a pretty tiresome job to write or type all of the cards for 30 or 40 different stations."

It has been decided, therefore, to print a pad of 100 report forms. We will also furnish a printed summary sheet and a page of the complete rules of the contest. This material will be sent to all listeners who intend to enter the contest. A charge of 25 cents will be made to cover

the costs of printing and distributing. All requests for this material, accompanied by the fee of 25 cents, should be received at our Conneaut office by February 1, 1937.

Complete details of the contest will be given in the February issue of RADEX. Readers should make a point of reserving a copy at their local newsstand, or better still, be sure of getting the news by taking out a year's subscription.

IDXS Contest

Irwin E. Beitman, 249 Gates Ave., Elyria, Ohio, sends details of a contest being sponsored by the International DXers Society and open to listeners everywhere. A specified group of stations has been established for contestants to tune between September 1, 1936 and May 13, 1937. All stations heard must be verified and the final entries mailed no later than June 15, 1937.

In Group I, the stations are Kaunas, Lithuania (155 keys); Brasov, Roumania; an unidentified station in Greenland; Istanbul, Turkey; Radio Luxembourg; Berlin No. 1, Germany 191 keys; Leningrad and Moscow III (401 keys), USSR. Group II: WCAD, WLW, WMPC, KDKA, KPPC, CJLS, CJCU, CFRB, CKFC, KOB, FQN, RDN, CMJO, XEPN, VFB, ZP1, YLZ, FJP, KFI, XHHX, RW31, RW9, RW84, LR5, KZRM, Tallinn, Jerusalem, Cairo, VK2CA, ZL1YA, 3YA, 1YX and VK3LO. Group III: TI4NRH, HJ1ABE, VQ7LO, RV15, ZBW, VE9CS, ZEC, W4XB, SPW, OER2,

NOTES TO CONTESTANTS

All listeners who wish to enter the RADEX MYSTERY CONTEST are requested to send in their entries as early as possible, accompanied by the required entrance fee of 25c. The fee may be sent in unused United States postage stamps of any denomination, or in coin, carefully wrapped.

ZTJ, VPD, CJRO, HI2S, CQN, W3XL, VK6ME, FO8AA and PRA8.

In scoring, 4 points per mile will be awarded for stations heard from Group I, 3 points per mile for Group II, and 1 point per mile for Group III. Power points per mile (after the first 1000 miles) will be awarded as follows: 1 to 99 watts, 5 points; 100 to 249 watts, 3 points; 250 watts to 1 kilowatt, 2 points; and 1 to 10 KW, 1 point.

Additional 5 points will be awarded for singleton reception. In other words, when no other contestant has verified the same station.

The person holding the greatest number of points on this basis will receive the IDXS loving cup for 1936. No mention was made where entries should be sent, but further information may be received by writing direct to Mr. Beitman.

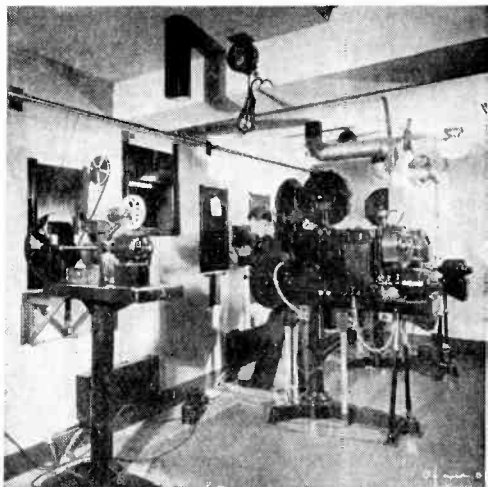
Foreign Reception

"The Australian and New Zealand stations are not as strong as they were last spring," observes Isaac T. Davis, Elkhart, Texas. "On three separate mornings last year, I heard about 60 Aussies and Zedders, but the best I have been able to do so far this year has been 20—heard on October 11. On the other hand, the Japs are even better than at any time last winter. The South Americans are below the par of last year.

"The two best Aussies are 2NR on 700 and 2CO on 670. In New Zealand, 1YA on 650 and 4YA on 790 stand out. JOHK on 770 and JOCK1 on 810 are the best of the Japs. LS2, Buenos Aires, has been heard through WOAI. The 250 watt KHBC at Hilo, Hawaii, is twice as strong as the higher powered KGU and KGMB."

"Will somebody tell me the address of Radio Normandie?" queries W. A. Kinsman, 76 Beech St., Halifax, N. S. "I have been hearing them frequently and would like the address for my records."

A report addressed to Radio Normandie, Fecamp, France, will be de-



Experimental television programs of the NBC are of two types, studio pickups (with live talent) and from motion picture film. This picture shows the machine which converts movie film into television pictures. The film is placed in the projector and run off exactly as it might be in any motion picture theater, but, instead of showing an enlarged image on a screen, it is focussed on the Iconoscope camera, shown in another photograph.

livered to the proper authorities.

"Last season I won the CDXR foreign BCB contest," informs John W. Ker, 4426 W. Eleventh Ave., Vancouver, B. C., "and received a very fine bronze plaque as first award. My DXing was done at home in Sardis, some 60 miles east of Vancouver. I was using a 1930 Model 50 Majestic super-het, attached to three inverted-L aerials pointing northeast, northwest and west and 125, 150 and 250 feet long respectively. The ground consisted of an auto radiator, filled with water and buried in the earth.

"The stations entered in the CDXR contest included 1YA, 2AY, 2BL, 2CO, 2FC, 2GB, 2GZ, 2HD, 2KO, 2NC, 2UE, 2UW, 2WL, 2YA, 3DB, 3GI, 3GL, 3HA, 3KZ, 3XY, 3YA, 4AK, 4BC, 4BH, 4GR, 4QG, 4TO, 4YA, 5CK, 7BU, 7NT, 7UV, 7ZL, CB138, JOAK1, JOCK2, JOHG, JOHK, JOIK, KGMB, KGU, LR1, LR4, LR5, LS2, Moravia-Ostrava and Radio Normandie. In addition,

I heard 3AR, XGOA, JOLK, 5CL, 3LO, 3UZ, 5DN, 2KY, KZRM, 2CH, 4BK and 3AW. All told, last winter I logged 110 different BDB stations outside of North America.

"This winter, however, it is a different story. I am attending Varsity at Vancouver, and we have no radio in our digs and no time to DX if we had one."

Station News

"Our local radio station WOCL has been sold to Col. H. C. Wilder," contributes Edward F. Shirley, 802 N. Main St., Jamestown, N. Y. "He also operates WSYR at Syracuse. The call letters of WOCL have been changed to WJTN, effective November 12th, and a new high fidelity Western Electric transmitter is being installed. They broadcast from 0900 to 2300 EST daily including Sundays."

"Valley City, N. D., now has their
(Please turn to page 56)



Charles C. Norton, President of the Universal Radio DX Club



The Lucky Strike Girl. While the Lucky Strike Sweepstakes features the songs which are the hits of the week, the Lucky Strike Girl previews costumes which prove to be the hits of the month.

Stop Press Flash!

Station PRF3, Rio de Janeiro, Brazil, is scheduled to broadcast between 1:30 and 3:30 am. on Jan. 4, dedicating an hour of the program to the National Radio Club. The Club suggests that DXers write XEAW and ask if the channel can be cleared for this broadcast. We add the suggestion that all requests simply be requests and not demands.

W. H. Applegate sends news of special programs to be broadcast for the Newark News Radio Club. XEFW, Tampico, 1310 kcs., will work on Dec. 27, Jan. 3 and Jan. 10 from 1 to 2 am, EST. A program from XEBK, Nuevo Laredo, will be on the air from 2 to 3 am, EST, Jan. 17. on 1000 kcs.

The Universal Radio DX CLUB

●●● By CHARLES C. NORTON, President

THE Official Organ of the Universal Radio DX Club, the "Universalite," is issued weekly from the headquarters at 2018 Green St., San Francisco, Calif. Information for this bulletin is gathered from many sources, and its main features are the broadcast band tips from the bulletins of the Inter-Club Cooperation Plan; station changes from the FCC Bulletins; shortwave information edited by Robert A. Curtis, operator of amateur station N1EXZ; world-wide broadcast and shortwave information from our various representatives in all parts of the world; and a regular feature called "DXing in Japan," written by Shokichi Yoshimura, our Asiatic Representative.

We feel that DX schedules are not all that count, so we believe in knowing about the stations that are really being heard. This is accomplished by the Universal Letter Parade, a section of the bulletin dedicated to letters from our members from all parts of the world. In the Bulletin is also to be found a Singleton and Eliminator Contest for the amusement of members, and annual prizes are given.

Every DX Club has important problems which arise during every season. We have a board of directors elected by the members annually, and all important problems are voted on by these directors. The management of publicity is distributed to various districts.

The Club has two weekly DX tip programs. They come from KGGC in San Francisco, and WTAR in Norfolk. KGGC is on Sundays from 0045 to 0100, EST, and WTAR Wednesdays from 1030 to 1045 am, EST. In Luther Putman of KGGC and Lee Chadwick of WTAR, the pro-

grams have two fine announcers who do their best to make the programs ideal for DXers.

There are no qualifications for membership in the Club. We welcome the beginners as well as the old-time DXer, and believe the "Universalite" is truly universal in its appeal to all.

The picture of Count Alexis (Ollie) Ross shows the special tube he made for use in the Ethiopian war zone, and a portion of one of his famous radio receivers. Count Ross is the proud possessor of more than 1500 broadcast band verifications from every part of the world. Ollie Ross was created a nobleman by King Carol of Roumania for his splendid radio work and inventions.

Tuning Trans-Pacifcs

Warren E. Winkley, Director, CPC Chairman, **URDXC**. My luck in tuning the trans-Pacific stations has been quite good, as I have heard 92 of them on the broadcast band well enough to log.

The best of them are JOAK-1, JOCK-1, JOFK, JOHK, XGOA, 1YA, 2YA, 3YA, 2BL, 2CO and MTCY. The easiest way to identify the Japanese stations is by their peculiar music and language and the very fast fading. The Chinese and Manchukuoan stations are just about as easily identified. The Aussies and the Zedders have a deep slow fade and can be recognized by the accent of the speakers, whether men or women. It is not meant that positive identification of any station can be made by observing the manner in which it fades; when stations fading in the manner described are found they should be held until an announcement or some positive identification is given.

FIRST AID For Sick Radios

• • • *By the* TECHNICAL EDITOR

M*Y RADIO is a Sparton 8-tube all-wave model 580, and I am having considerable trouble keeping the dial calibrated. This difficulty appears on all the bands. When I move the needle to the extreme of the dial either way, the calibration is completely changed. I have had this trouble fixed once, but it seemed better for only a short while. Upon examining the set I find that there is some wax on the bottom of the chassis, which I presume is from overheating. Will you advise me what should be done to correct this?*

Dial creeping is a matter that often has a very obscure cause. The dial seldom moves in itself, and if it does, after careful watching, the remedy is obvious, for the trouble will be found entirely in the mechanical drive and movements of the dial and tuning condensers.

The slipping of the stations over the dial is usually due to a change in the frequency generated in the mixing circuits of the set. This throws the whole responsibility upon the oscillator—either the tube or the coils and tuning units involved. Sometimes a new unit is advised, and again a careful drying and cleaning and adjusting of the tuning will be needed. You will find this thoroughly covered in an article on page 36 of the March, 1936, No. 97, issue of RADEX.

The melted wax drippings that you found under the chassis of the set may not indicate a failure of some part, but it does mean that some part is not mechanically perfect. Heat often softens and melts the wax in condensers and when too much is lost there is apt to be trouble. In any case, melted wax dripping from some small unit is

sufficient reason for removing and replacing the part in question. As we do not have any data concerning the part that has lost its wax impregnation, it is impossible for us to say whether it is causing a loss of permanent calibration, but if it happens to be in the oscillator and first-detector unit, it is likely to be at fault.

More Dial Trouble

I have a Zenith model 808. The dial calibration is off at different points; for instance: Stations on 560 come in at 570, 650 on 660, and then all are perfect until 740 kcs., when the station reads 730. 1100 kcs., comes in on 1090, and 1130 on 1120. Then at 1400 it is off 10 to 20 kcs., up to 1500 kcs. On the 1500 reading I receive a station that is supposed to be on 1480 and I have to switch to the police band to get the 1500 station. And a station that is supposed to be 1200 comes in either 1190 or 1210. Would a different dial or a new dial with a new calibration help?

This set does not need a new dial as that would not solve the problem. Your trouble seems very much to be a permanent lack of proper adjustment, for, from your description, other than the 1200 kcs., station, the different stations all come in about 10 kilocycles off to one side of their rated positions. If the dial were troubled with creeping or frequency shifting, as answered in the foregoing item and more thoroughly in the March, 1936, issue of RADEX, it would move about from the regular readings to the slightly-off readings of about 10 kilocycles after the set is turned on.

We suggest that this set be taken to a good service man who, with his equipment of meters and analyzers,

will quickly be able to determine just what parts of the tuning circuits are out of alignment and adjustment. We believe that a simple readjustment of the tuning circuits will turn back all the stations to their proper dial assignments, and the set will tune nicely without further inconvenience. This type of work is strictly for a serviceman, and we strongly urge that such work on modern sets be performed in that way. The day of making simple home adjustments is fast disappearing, along with the older types of tuned-radio-frequency (neutrodyne) receivers, and simpler models of superheterodynes.

Antenna For Zenith

Having just purchased a Zenith, model 6-S-152, but living in an apartment, I am unable to install an aerial on the roof or any lofty place. I studied all the antennas in the September RADEX, but do not believe I can use any of them. Can you suggest an aerial that would give me even fair results for short-wave reception? This set is built for a doublet leadin.

The new set you have bought is a very good six-tube receiver, and is made to operate on either a single-wire antenna and leadin or a two-wire leadin from a doublet antenna. The three posts on the antenna and ground terminal strip are marked; "A," "Z" and "G." The "Z" and "G" terminals are connected together when a single-wire leadin and antenna is used. The connection is broken when a doublet antenna is used and the leadin wires are attached to "Z" and "A." Although it is not necessary to ground the receiver, there may be a few instances when a ground connection will remove noise and aid distant reception of signals. It can be tried and left connected if improvement is observed. If it does not help, or causes hum, try reversing the wall plug or leave the ground wire off entirely.

There are a number of good

doublet antennas, but, as in all cases similar to this one, we recommend strongly that the user erect the doublet antenna sold by the manufacturer of a set. We believe that these aerials have been designed under conditions best met by the characteristics of the set itself. The new Zenith doublet antenna is not an exception to our policy; it is a very efficient aerial.

The fact that you cannot erect an antenna provides a problem to overcome. We wonder why an aerial cannot be placed on your building. It could be arranged on the roof; be-



Make-up, never a factor in sound broadcasting, is extremely important in television. This scene, backstage in the NBC studio, shows Grace Albert making up for the iconoscope camera. Complete facial make-up essentials, greasepaint, mascara, powder and lip rouge, are kept on hand. Luckily for television performers, the first basic make-up of chalk white face and black eyebrows and lips, has been discarded in favor of shades of pale orange, red and brown.

tween two adjacent buildings; or along one side of the building. You need not worry about the lead-in wires, as these can run down close to the outside wall, in all directions, and be any length. If you cannot use a doublet, arrange a single wire in your apartment, or out of a window to some support, from 40 to 60 feet distant.



Betty Goodwin has been chosen as the first announcer for the RCA television broadcasts. Her initial appearance at the press demonstration was highly praised.

Has a Freed-Eisemann

I have a Freed-Eisemann neutrodyne receiver which uses the 01A type of tubes. It is my wish to change these tubes over to type 30 so as to use 2 volts instead of 5 volts as at present. This will save me considerable in current consumption. What do you think about this, and will the type 30's neutralize as easily as the 01A's?

You have failed to mention the model number of the receiver you contemplate rebuilding so as to use newer types of low-voltage tubes. Since there are at least 30 or more

models of early sets of this make you will understand that in this case our suggestions have to be very broad. *Once more the Technical Editor wishes to call attention to readers that if they will give all the data about their sets he can answer their problem in a more direct way.*

However, your set has two stages of a-f amplification. And with a detector and three stages of r-f amplification, this makes a six-tube receiver. We know that the two audio tubes can be replaced by a 30 and a 31, because the neutralizing question does not enter here. While there is a slight difference in the operating characteristics of the 01A and the 30 type tubes, we think that in this set they can be substituted for the former. It will require some readjustment, but the capacities of the neutralizing condensers should be sufficient to take up these different capacities.

When the 30 and 31 types are placed in an old set using the bayonet type of sockets, new sockets must be installed. As both type of sockets have four contacts and four terminals, the new types are merely substituted for the older, using the same connections. But the filament terminals of the six tubes are connected together without the use of any filament resistances or rheostats. A potential of two volts must be supplied to the filaments without change. Therefore, it may be necessary to make certain alterations in the filament circuits to the tubes. Volume control must be provided outside of the filament circuit.

It will not be necessary to replace the audio transformers in order to match them to the new tubes. Some change also must be made in the C bias voltage, as the grid of the last 31 tube needs 22½ volts, while the grid of the first a-f 30 tube requires 4½ volts. The grids of the r-f tubes may work best with about 1½ C volts instead of the —A now

provided for them. Sometimes the grid of the detector tube and its grid leak operate best when connected to the A plus terminal instead of the negative A.

And, of course, any change of this character calls for a complete neutralization job. We suggest, as the most satisfactory way, that you have this done by a competent service man, but it can be done by the experimenter if the instructions that have been given in these columns from time to time are carefully followed.

While it is possible to take the required list of parts and connect them together so that they will work, it becomes a different matter when distance reception and all-wave work is considered. Then, too, if we consider the cost of the parts we can often purchase a good factory-built set at perhaps even less cost, and it will be built to known specifications. Of course, we can sit down and plan a diagram; it's only a moment's work for in no case is a radio set a thing of mystery—there is only one principle for all radio receivers. But we dislike to encourage our readers to build a complicated superheterodyne using modern tubes and their bewildering characteristics, with the expectation of receiving signals having the perfection that is possible in commercial receivers.

We know of no particular circuit that is much better than some other as we do no experimenting of this sort, and if we published a diagram it would only be a reproduction of some other circuit that has been tried and proven. We suggest, however, that you study the *Beginners' Story of Radio* which shows several excellent circuits that can be adapted to your needs.

Boosting Radiola 60

As I have a Radiola, model 60, I would like, if possible, to use the signal booster described on page 39, of the April, 1934, copy of RADEX.

Will this harm the tone? In your diagram, I do not understand the aerial and ground connections. Also, can I use my Brandes headphones by plugging them in the place where the speaker is now connected?

Any signal booster can be used with the Radiola 60, as the purpose of a booster is to provide an additional stage of radio-frequency amplification. Some call it a "pre-amplifier." In your set the antenna signal feeds directly into the control grid of a type 27 first radio-frequency or input amplifier. As a rule this set should need no booster as it already has two stages of radio-frequency amplification ahead of the first detector and oscillator. The usual number of r-f amplifiers in superheterodynes is but one. We are afraid that an additional stage of r-f will alter the tone somewhat by cutting off some of the audio band, as this set is, or should be, rather sharp in its tuning because of its two r-f stages. The booster coil is attached to the antenna and ground. The ground connection on your set remains as it is. The booster output, indicated by the arrow in the diagram, attaches to your set's aerial terminal.

You can attach a pair of headphones to this set very easily. The output to the speaker passes through a 5 mfd. condenser so as to remove the high potential direct current that would damage the windings of the speaker. However, as a further safeguard, we suggest that two 0.5 mfd. condensers be connected in series with the tips of the headphone cord.

More Power

My Lafayette 4-tube set, using one 6D6, one 6C6, one 25Z5 and one 43 pentode, does not give me as much power as I would like to have. Can I add another tube to this set to pep it up? Please tell me what tube is
(Please turn to page 36)

The DX Calendar

Special programs arranged by the stations for the benefit of distant listeners. The regular monthly frequency checks were given in the October RADEX. All times are in Eastern Standard.

Sunday Mornings

01:00-03:00	WHAZ	1300	Troy, N. Y.	
02:30-03:30	KMJ	580	Fresno, Calif.	UDXC
03:00-04:00	KXA	760	Seattle, Wash.	UDXC
03:30-04:00	CKWX	1010	Vancouver, B. C.	UDXC
03:30-04:30	CKMO	1410	Vancouver, B. C.	UDXC
04:00-05:00	KROW	930	Oakland, Calif.	UDXC
04:30-05:30	KMPC	710	Beverly Hills, Cal.	UDXC

December 20

02:00-05:00	CFLC	930	Prescott, Ont.	NNRC
00:00-05:00	TGW	1210	Guatemala City	
02:00-05:00	CMCU	1460	Havana, Cuba	
03:00-05:00	CFCT	1450	Victoria, B. C.	
03:30-05:00	XEP	1160	Juarez, Chihl.	

January 3

02:00-03:00	THNRH	980	Heredia, C. R.	NNRC
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January 31

02:00-05:00	CFLC	930	Prescott, Ont.	NNRC
00:00-05:00	TGW	1210	Guatemala City	
02:00-05:00	CMCU	1460	Havana, Cuba	
02:30-05:00	CKWX	1010	Vancouver, B. C.	
03:00-05:00	CFCT	1450	Victoria, B. C.	
03:30-05:00	XEP	1160	Juarez, Chihl.	

Monday Mornings

01:00-01:15	KTSA	550	San Antonio, Texas	
05:30-06:00	WRAW	1310	Reading, Pa.	
01:00-02:00	WHEF	1500	Kosciusko, Miss.	
02:00-06:00	FCC		Frequency Checks	
02:45-03:15	KADA	1200	Ada, Okla.	

Tuesday Mornings

01:00-02:30	CT1AA	620	Lisbon, Portugal	IDA
01:00-01:30	.....	660	Jerusalem, Palestine	IDA
02:00-06:00	FCC		Frequency Checks	
00:00-04:00	EGVO	1260	Missoula, Mont.	
05:30-06:00	KBIX	1500	Muskogee, Okla.	
01:00-01:15	WRR	1280	Dallas, Texas	
03:00-03:30	KIUL	1210	Garden City, Kans.	
05:30-05:45	WHEC	1430	Rochester, N. Y.	

Wednesday Mornings

02:30-03:00	WBHQ	1370	Memphis, Tenn.	NNRC
03:00-04:00	KHBC	1400	Hilo, Hawaii	NNRC
02:00-05:50	FCC		Frequency Checks	
03:00-06:00	CMOX	1320	Havana, Cuba	NNRC
03:00-04:00	KHBC	1400	Hilo, Hawaii	NNRC
05:00-05:30	WPAD	1420	Paducah, Ky.	
06:30-07:00	KWBG	1420	Hutchinson, Kans.	
02:30-03:00	WBHQ	1370	Memphis, Tenn.	
06:00-06:30	WOOD	1270	Grand Rapids, Mich.	

Thursday Mornings

05:00-05:30	WFLA	620	Clearwater, Fla.	
02:00-05:50	FCC		Frequency Checks	
02:00-05:00	CFLC	930	Prescott, Ont.	NNRC

Friday Mornings

01:45-02:15	KNOW	1500	Austin, Texas	
01:45-02:15	WACO	1420	Waco, Texas	
03:00-06:00	KOOS	1395	Marshfield, Ore.	
04:00-05:00	KIUN	1420	Pecos, Texas	
01:30-02:00	WJAG	1060	Norfolk, Neb.	
02:00-06:00	FCC		Frequency Checks	
02:15-02:45	KPOF	880	Denver, Colo.	
01:00-01:30	.....	660	Jerusalem, Palestine	IDA
06:00-06:30	KGFW	1310	Kearney, Neb.	

Saturday Mornings

02:30-03:30	KGER	1360	Long Beach, Calif.	UDXC
03:00-04:00	KVI	570	Seattle, Wash.	UDXC
03:30-04:30	KVL	1370	Seattle, Wash.	UDXC
04:30-05:30	KRE	1370	Berkeley, Calif.	UDXC
03:00-04:00	KFRO	1370	Longview, Texas	NNRC
06:00-07:00	WTRC	1310	Elkhart, Ind.	NRC
02:00-02:30	WGL	1370	Fort Wayne, Ind.	NNRC
03:00-03:30	KFRO	1370	Longview, Texas	NNRC
03:30-03:50	KASA	1210	Elk City, Okla.	
03:30-04:30	WFOR	1370	Hattiesburg, Miss.	NNRC
04:00-04:30	KTEM	1370	Temple, Texas	NNRC
04:30-05:00	KVL	1370	Seattle, Wash.	NNRC
02:00-06:30	FCC		Frequency Checks	
02:30-03:00	WRJN	1370	Racine, Wis.	NNRC
03:00-04:00	KGKL	1370	San Angelo, Texas	NNRC
03:00-05:00	WHAZ	1300	Troy, N. Y.	
04:00-05:00	KFGQ	1370	Boone, Iowa	NNRC
03:00-04:00	KFRO	1370	Longview, Texas	NNRC
03:30-04:00	WEXL	1310	Royal Oak, Mich.	NRC
06:00-07:00	WTRC	1310	Elkhart, Ind.	CDXR
06:00-07:00	WCOP	1120	Boston, Mass.	

The Chicago Federation of Labor shortwave station W9XAA, located in York Township, DuPage County, Ill., will be off the air while changes are made in the transmitter and the power is increased from 500 watts to 5000 watts, in conformity with the recent ruling of the FCC that s.w. stations must have high power. The frequencies used by this station are 6080, 11830 and 17780 kcs.

Stations WHK and WJAY of Cleveland have merged. Both stations are now operated under the same management and personnel, from the same studios. A new transmitter is under construction at Seven Hills Village, near Cleveland.

Leaves From a DXer's Scrapbook

• • • By COUNT DE VERIES

FUNNY thing, this DX game. A person never can tell how and when the bug is going to bite. You may get a very severe case and never recover, or it may come in cycles like the sunspots.

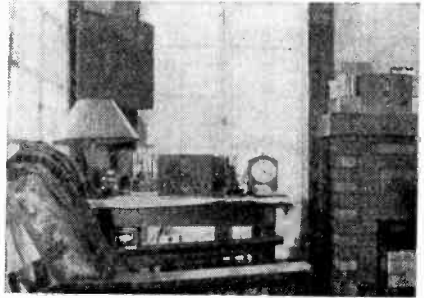
Last spring, for example, this old night owl was very glad to lay aside the headphones and go into hibernation for a few months. Then, along about the middle of August, the old urge was felt and every few nights the dial was twirled to KFI to check on the static situation.

By the end of September, however, repeated doses of atmospheric fireworks had numbed the senses and the DX fever suffered a relapse. During October, a few half-hearted attempts were made, but a balky alarm clock failed to interrupt some concentrated shut-eye and the month was written off as a failure from a DX standpoint.

The arrival of a new Scott receiver for test early in November resulted in an about-face. The patient responded to this gentle stimulus and the 1936-37 DX season was officially opened with a 23-tube salute. The lights in the radio den once more burned bright and long.

Incidentally, this radio den has long been a secret pride and joy. It is a small room away on the second floor, where a loudspeaker may run all night without fear of disturbing anyone. It is purely a man's room, replete with comfortable chairs, occasional tables, a desk, typewriter stand, bookcases and smoking accessories.

The accompanying picture shows one corner where many a dial is turned. The tuner of the new Scott is handy on the table, while the speaker is mounted behind a baffle on the wall and the amplifier is on



a shelf below the table. Just below the speaker, on the window casement, is a panel with an assortment of aerial and ground connections, making it possible to plug in a number of different receivers at will. The older Scott Deluxe model, shown on the mantel, is available when a second receiver may be desired. A third receiver, not shown in the picture, is on a small table beside the desk.

The large chair makes for comfortable tuning, although it does make it easy to dose off. When some real DXing is in order, a smaller straight chair is substituted and the typewriter stand brought into position to pound out the reports as the stations are heard.

Micrometer Dial

One of the neatest developments on the new Scott is the recently-introduced micrometer dial. This is pretty much the same as the previous dial, with one exception. Down below the ground glass screen is a tiny white cylinder graduated from 1 to 20. This revolves when the dial is turned and the graduations may be read through a small lens at the base of the dial escutcheon.

This is intended for accurate logging of stations. The cylinder re-

volves 25 times while the dial scale covers one wave band. On the crowded 31-meter band, for example, there is a complete revolution of the cylinder between 9.4 and 9.8 megacycles. By dividing each of the 20 divisions into quarters, it is possible to get 80 *accurate* readings over a sweep of 400 kilocycles. This means that a DXer may read this band to within 5 kilocycles of a given frequency — or twice as close as the average short wave log lists the stations.

On the broadcast band, there are two and a half revolutions, or 200 accurate readings, in the 100 kilocycles sweep between 900 and 1000 kcys. Thus, it is possible to have a definite dial setting for every half kilocycle in this range.

Reception Picking Up

Prognostications to the contrary, reception during November showed some very decent results. The frequency checks brought 22 new stations in five nights of listening and, with but one or two exceptions, all of the small stations throughout the country were logged with excellent volume and quality. The general noise level was much lower than last year, while signals seemed to carry better over distances.

Outstanding among the stations heard were KFBK and KHBC. The former, with but 5 KW of power, was pushing through a signal equal to that of the 50-KW KFI and KNX, and actually superior to KPO. KHBC showed twice the punch of the more powerful KGU and KGMB.

Incidentally, I wonder how many listeners noticed the tendency of stations to pass up selection announcements during the frequency checks. At least half of the new catches logged announced call and location regularly, but neglected to identify the numbers played. That made it most difficult to get a complete report on a station, and often

it was necessary to listen for the full 20 minutes before two or three selections could be recognized.

It is just possible that the stations hope to discourage requests for verifications by adopting this policy. It certainly happened too frequently to be just a coincidence.

Thoughts While Tuning

Forgotten Men of Radio:—the lads who stick in the Spanish announcements for the Mexican border stations. By law, they must exist; but who listens to them?

Grand and Glorious Feeling:—the first time you hear an Aussie or Zedder carrier swish, and know you've struck a good night for reception.

Shameful Confession:—between DX catches, the hated all-night programs make pretty good listening. A variety of popular recordings and a pleasant-voiced announcer make a nice combination when there are no special programs to hear.

Tip for Tuners:—when ever an unknown station is tuned in, it is a good idea to take down on scratch paper every selection and announcement heard, even before the station is identified. When the call letters are given, you probably have the basis for a report. It may be an old station, but the time isn't wasted as you would have listened for the call anyhow. If it should be a needed station, you'd be glad for the material if the station immediately signed off.

Timely Dedication:—at 0457 EST on November 13th, Station WJAG dedicated "Easy Come, Easy Go" to the Atlantic Radio Club. Offhand, I'd say that it's been at least two years since the National Radio Club absorbed the ARC membership list.

Things I Never Noodle Now:—next time local interference is so loud that reception is impossible, try an inside aerial! At least, one prominent designer claims daily re-

(Please turn to page 32)

NEW NAMES in Radio

• • • By B. FRANCIS DASHIELL

Two well-known names enter the 1937 radio field. Those who plan to purchase new receivers as the Christmas season arrives once more will do well to consider what is behind the names of Fairbanks-Morse and Arvin. The former, known to users of scales for more than a century, and for a lesser time engaged in the production of machinery, is offering a long line of excellent radios. And the latter, famous because of its pioneering in the field of automobile heating, also is offering its new radio sets.

When Fairbanks-Morse, or, more exactly, Fairbanks, made the first

improved weighing device back in 1830, he never realized that a century later his name would be associated with strange devices that picked sounds and music out of the air. So this old concern, with its wealth of experience in precision manufacturing and merchandising, comes to the modern radio field with a line of radios that have proved an instant triumph.

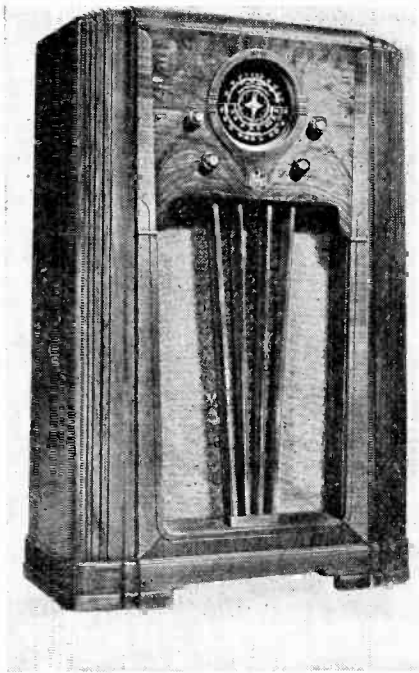
Fairbanks-Morse Radios

The Fairbanks-Morse engineers, after three years of constant study, experimentation and rigid development, have successfully designed the new Fairbanks-Morse radio line of 1937. It is well understood that tuning the short waves demands patience and skill, when compared to broadcast reception. Fairbanks-Morse engineers have gone to extreme lengths in developing their new precision short-wave tuning controls. And they have even added the ultra-short-wave band up to 70,000 kilocycles, now utilized in television broadcasts.

The line includes six console cabinets and five table models. Also, there are three console battery or farm radios and three table models. The battery models are all operated from two or six-volt batteries. All these sets are "all-wave" models with the newest and exclusive Fairbanks-Morse features for 1937.

Turret-Shielded Chassis

The chassis of the Fairbanks-Morse radio of 1937 operates *inside* an electrically shielded cage, approximating "screen-room" reception employed in the laboratory by every radio engineer. Noise and interference are literally screened out allowing broadcasts to be received with a hitherto unattained degree of selectivity and clear undistorted



One of the oldest names in Industry, but a new name in Radio, is Fairbanks Morse. This is the turret-shielded super-heterodyne, which covers all wave bands.

tone. Tubes, condensers and other delicately balanced electrical elements can function at maximum efficiency. The whole thing is simple; it is a surprise to learn that no radio maker seemed to think it wise to do this long before.

This shielding, in addition to the individual shielding between high-frequency parts of the chassis, is a turret-shaped cage of strong, self-supporting copper mesh wire. In addition, the entire chassis base is metal enclosed, and floated on soft rubber. The turret cage may be instantly removed by turning a few thumb screws.

The A. C. Models

The line of 1937 radios embraces one 12-tube console type; two 9-tube consoles and one table type; two 7-tube consoles and one table type, and one 5-tube console and three table models. The 12-tube model covers five wave bands, including the ultra short-wave band, and also a long-wave weather band. The 9-tube models cover four wave bands, but one includes the band below 10 meters in addition. The 7-tube types cover three wave bands, and the 5-tube models have three bands, while one covers only two bands.

All receivers use the new metal tubes, but the smaller sets have Octal-base tubes that are interchangeable with metal tubes. Other interesting features are: New tone projector; band identification; short-wave separator; visual volume indicator; visual tone indicator; voice control; electron beam output tube; tuning eye; variable selectivity; unit band window; and beautiful classic cabinets of Greek architecture.

F-M Model 72-C-2

One of the most popular Fairbanks-Morse models of 1937, is the type 72-C-2. This is an attractive console cabinet containing the type 72 chassis with its seven Octal-base tubes. This is a turret-shielded su-

perheterodyne receiver that tunes to American and Foreign stations, police, aviation and amateur conversation. The tuning range of the three bands embraces: 540 to 1,750 kcs.; 2,300 to 7,700 kcs.; and 7,500 to 23,500kcs. The dial is an improved "Great Circle" type. The tuning eye contributes to perfect visual station finding. A triangular segment of light opens and closes when a station has been found. When the segment gets to its narrowest width the tuning is exact. The short-wave separator extends the usual limited movement of the tuning condensers over the equivalent of many times a 360 degree circle. It is thus possible to split degrees into very accurate fractions.

There is individual band illumination on the dial. The speaker is a large 12-inch unit with extra large baffle board. It projects and makes audible the musical overtones that often are lost; adds the bass notes and diffuses the treble notes. Some of the sets show visually, by a spot of light, in advance just how the program will come in—loud or soft, so adjustment may be made. Another spot of light indicates the tone quality. The model 72-C-2 console in its balanced perspective cabinet measures 40 inches high, 24½ inches wide and 12¾ inches deep.

The New Arvin Line

Arvin has become a byword for automobile owners who enjoyed the warmth provided by this pioneer heater system. The Arvin manufacturers—The Noblitt-Sparks Industries, already had turned to motor radios with a well-deserved degree of success. It is only natural, then, with their experience and sales organization, that they should enter the home radio field. An excellent line of new 1937 radios is the result, and they are creating instant sales and highly favorable comment.



One of the new Arvin models for 1937. This is the 927, known as the "Rhythm Queen." Combinations of walnut, mahogany and satin wood make it a pleasing piece of furniture.

These Rhythm Radios, as they are designated by the makers, take in eight A. C. models, in console cabinets; and six in table styles. There are four battery sets; two in console and two in table types. And there are also two A.C.-D.C. table models. The battery or farm sets are the new 6-volt battery types without the use of "A" and "C" batteries. The Arvin line would not be complete without mention of the several powerful 6-tube superheterodynes tailored to fit any car with any combination of speaker arrangement and instrument panel to match the interior.

Rhythm Queen—927

Model 927 is instantly pleasing to the eye at first glance, and its ear-pleasing performance should satisfy the most exacting radio critic. The unusual cabinet is of walnut with combinations of striped mahogany

and satin wood, and its rich graining and many-toned shades makes it a pleasing piece of furniture. The console is 40 inches high, 25¼ inches wide and 13 inches deep.

This set uses 9 Octal-base tubes, either glass or metal. The radio amplifier is a type 6K7G. Then comes a type 6A8G detector-oscillator; 6K7G I. F. amplifier; 6R7G combination 2nd detector, automatic volume control and 1st audio amplifier; 6C5G 2nd audio amplifier; two 6N6G push-pull power output amplifiers; 5Y3 rectifier; and 6CG cathode-ray tuning indicator. The power output is full 8 watts, and current consumption is 120 watts. The chassis is clean, open and perfectly shielded against interactions and outside electrical interferences.

All-Wave Performances

The frequency range of this set includes: 535 to 1,750 kcs. (560 to 171 meters); 1,700 to 5,750 kcs. (176 to 52 meters); and 5,500 to 18,000 kcs. (54.5 to 16.5 meters). These embrace all broadcast services now practicable on the air. The huge, reverse-lighted dial eliminates glare, is easy to read, and makes station finding easy. There is a spotlight finder that travels behind the dial and in back of the indicator needle on whatever band is in use. A cathode-ray precision tuning indicator shows when the station is properly tuned in.

An automatic over-drive provides accurate station changing with speed. The speaker is 12 inches in diameter and has a wide tone range with true fidelity at all amplifications. An automatic built-in aerial tuning system operates at all wave bands. The radio-frequency unit is mounted separately on rubber, is heavily shielded and instantly removable for tests or repairs. The volume level is pre-set and remains so without change and also controls the top limits of the automatic volume control.

Let's Listen To ASIA

● ● ● SHORTWAVE NEWS

THIS winter and spring should prove to be the best seasons ever enjoyed by shortwave DXers for reception of Asiatic stations. Japan, China, Hong Kong, India, the East Indies and Pacific Islands are the countries providing improved radio fare.

The new Japanese shortwave stations are on the air, according to a postal card received from George C. Sholin, 55 Lapidge St., San Francisco, Calif. "The following transmitters are now testing and will be used for all overseas broadcasts with 50 kilowatts power and beam antennae," Mr. Sholin writes. "JZH, 6095; JZI, 9535; JZJ, 11800; JZK, 15160; JZL, 17785, and JZM, 21520 kcs. Stations JZI and JZK have been heard from 1 to 2 p.m., PST., broadcasting to eastern North and South America. JZK also relays JOAK during the afternoons while JZI, with JVN on 10660 kcs. and sometimes JVT on 6750 kcs. carry the JOAK programs from 1 to 4:40 p.m. PST. All the new stations are located at Nazaki."

Mr. Sholin tells us that PMH, Bandoeng, Java, 6720 kcs., relays the native programs from 2:30 to 7:00 a.m. PST., and is heard with good volume. It is also stated that the Bandoeng stations will discontinue verifying reports after January 1, 1937.

New Zealand Reports

From A. I. Breen of Dunedin, New Zealand, comes news of several other Asiatics. The Penang transmitter, ZHJ, is reported to be on the air daily from 1140 to 1340, GMT, which is 6:40 to 8:40 a.m. EST. With an aerial power of only 49 watts, this station will not prove to be an easy catch. Mr. Breen did not

give the frequency, but according to last reports it worked on 6080 kcs. The announcer says, "ZHJ, J for Jubilee, the broadcasting station of the Penang Wireless Society." Reports should be addressed to the Society at 40 Perak Road, Penang, Malaya.

In Colombo, Ceylon, station VPB works on 6160 kcs. with 300 watts in the aerial, according to information sent out by the station, but their actual frequency is 6070 kcs., says Mr. Breen.

VUB, Bombay, has 4500 watts in the aerial on 9565 kcs., and will acknowledge reports of reception. The schedule is stated to be irregular. The address is C. B. Sethna, Sprott Road, Ballard Estate, Bombay.

The Hong Kong shortwaver ZBW is now on the 31 and 19 meter bands. A recent announcement heard was "ZBW, Hong Kong, transmitting simultaneously on 855, 8750 and 9526 kcs." Its signal on 19 meters was terrific in New Zealand. Incidentally, ZBW has been reported in the United States on 15.19 megacycles, with a good signal but much better on 9526 kcs.

Anthony Tarr, 909 West Lee St., Seattle, Wash., an old reliable RADEXer, sends lots of good information in a recent letter. "My log now totals 166 regular s.w. broadcasters," he reports. "The only stations I have any real difficulty in logging are the HI's in the Dominican Republic, who sign off long before it is dark here in many instances. Some new stations are ZBW, 9.530 megs., who present a very good program and are heard best here at 0700, PST, and YV1RH, heard on about 6390 kcs., at Maracaibo, Venezuela. (ZBW has moved

to the 15 meg. band, according to later reports. Ed.). I have heard OLR in Prague, Czechoslovakia, on two of its frequencies, 11760 and 15230 kcs. Neither was received very well, but as well as could be expected out here.



Russell K. Heller, Vice-President of the URDXC.

A Russian Stranger

"I am hearing a stranger on a frequency of about 5680 kcs. It is almost without doubt a Russian. The program, which begins near 2230 PST, consists of semi-classical selections, and announcements by a lady who sounds like the RV15 announcer. At 0200, PST, after a long pause, they commence another program with an anthem by a band and an announcement by a man. At this time they are QSA5, R9, the loudest foreign signal ever heard here. It is even possible to hear someone walking across the floor

of the studio. I suspect this is RV15 on a new frequency."

His First Report

"This is the first letter I ever wrote to any radio magazine," confesses Stephen G. Spicer, 2030 Lenox St., Harrisburg, Pa. "I have been DXing on the broadcast band since the latter part of 1932 in a big way, that is, staying up every night until 2 or 3 in the morning, and all night every Saturday. However, the s.w. bug hit me, and I had to write and tell you about my obsession. I had always felt that to be an s.w. DXer you first had to prove your ability to finish the job you started, and the job I started out to do was to try to hear VK3ME. The other morning I turned on the Zenith to try a little DXing, and the first thing heard was a selection from an opera. On its completion the announcer said, "This is VK3ME, Melbourne, calling." You can imagine how I felt; I walked on feathers all day long. After three years of wearing sets down to the binding posts, I finally accomplished the feat. (It was a feat for me, even though others have been hearing 3ME for years). Now that I have qualified as an s.w. DXer, I want to write to all the other shortwavers. I will answer every letter I receive, even if there are one, two, or three thousand!" DXers, welcome this man to your clan. He says he hopes you break the mail man's bag; show him you can.

"I have just completed a year of s.w. DXing, with very satisfactory results," contributes Robert Park, 5950 East Blvd., Vancouver, B. C. "I use a 1936 all-wave Westinghouse 5 tube set, with a noise-reducing antenna 40 feet high. This helps to eliminate noise from a nearby inter-urban line. I notice that during the last month or so some new s.w. stations have made their appearance and old ones have changed power and frequency.

"ZBW in Hong Kong, for instance, was received QSA5, R9 on roughly 9540 kcs for a week or so, but now this much sought-for station has moved to the 19-meter band where it is barely possible to hear it. ZBW can be heard there from 2 until 7 am, PST, and on Sundays on 9540 from 2 to 9 am, PST.

"There is now a large Java short-wave network. I can receive five Javan s.w. broadcasters, as follows: An unknown on 6.7 megs. from 0200 to 0600; YDB, 9.64 megs. from 0200 to 0800; PMN on 10.26 megs. from 0200 to 0730 or 0800; PLP on 11 megs. from 2 to 7 am on weekdays and until 8 or 9 am on Saturdays; and PLO, 11.49 megs. from 2 to 6 am, all times PST.

"The Prague station now works on 11.870 megs. instead of 11.760 and causes considerable interference with Radio Coloniale on 11.880. Our local, VE9CS, operates on 6.070 daily. France comes on the air daily on 11.88 megs. at 8:15 am with the Marseillaise, and remains until 3:00 pm. It then moves to 11.715 megs. DJB in Germany is heard signing off at 8 am; and then at 8:30 DJD and DJP come on broadcasting for Africa until 1:30 pm. At 2 o'clock DJD returns broadcasting for North and South America until 8 pm. After 9 o'clock DJN and DJA are heard. The Japanese station JVN is on practically all night and even at 2 in the morning there is no fading and the hum of the transmitter is plainly audible. Stations VPD2, VK3LR, and VK3ME are 31 meter early morning standbys."

Mr. Park, who is 17, concludes his report with some observations on receivers. "I am of the opinion that any up-to-date radio, equipped with a good aerial and ground, should bring in plenty of stations. The state of the atmosphere is the main factor in shortwave, as in long wave

reception, the difference being that on the medium waves the whole dial is good or bad, while on s.w. it depends on the station, frequency, time and chance."

Rebuilding Daventry

Big changes are planned at the BBC Empire Broadcasting station at Daventry which should result in improved reception of the BBC Empire programs in all parts of the world. This will ensure that the British shortwave service shall not be inferior to any other similar service in the world.

At the present time there are three shortwave transmitters at Daventry. These transmitters can all radiate on a number of different frequencies with an average power in the aerial of 10 kw. It has been decided to install three new transmitters which will work with a power of 50 kw. in the aerial. The three existing transmitters will probably be retained, and space has been allowed in the new building for the installation of a fourth high power sender at some later date.

At the time of writing there are seventeen different aerials at Daventry, supported by two masts 500 feet high and two steel towers each 350 feet high. Construction has already started on eight new masts, with an average height of 300 feet, which, together with the existing masts, will support a total of twenty-four beam aerial arrays of the latest design. To provide space for the aerial system, the BBC has purchased an additional 90 acres of land, making a total of approximately 150 acres at Borough Hill, Daventry.

For those interested in listening in on the "ham" bands, Wallace Howe, 3 Headley Terrace, Irvington, N. J., submits information which should be interesting. "The African stations are beginning to come in on 20 meter 'phone," he states.

"ZU6P, W. F. Meyer, 58 Sixth Ave., Bezuidenhout Valley, Johannesburg, South Africa, was heard two nights in succession near 11 pm, EST."

A number of favorable comments were received on Mr. Ahman's amateur column which appeared in the November RADEX and we have requested him to submit more information of a similar nature.

"I recently purchased a new Philco 620B," reports James Shock, Jr., 4045 Ashland St., F'kd., Philadelphia, Pa. "I am using two aerials, one running southeast by northwest, and the other running north and south. The first aerial is about 45 feet high and 115 feet long, including lead-in. The other aerial is 30 feet high and its length, 82 feet. The two aerials are connected to the all-wave terminals of the radio. Up to date my log consists of HAT4, HAS3, VK3ME, VPD2, VK3LR, PCJ, RAN, and many others. The lowest wave lengths I have tuned so far have been 31 meters and a little in the 20-meter amateur band. Although my amateur log is small, I have some good catches, including G6GO, G5ML and others in England; F3JD in France, ZU6P in South Africa and plenty from Canada and Cuba."

Prague Is Heard

"I have heard the Czechoslovakia s.w. station twice," reports Wells Gresham, 1449 Westover Ave., Norfolk, Va. "My receiver is not a very good one and I did not have enough volume to pull in the station like I wanted to. The second time they were heard better than the first, however, and as they were giving news reports in English the reception was more enjoyable. This reception was accomplished on about 11.8 megs., according to my dial, but my dial is not very accurate." (The exact frequency is 11.760 megs.)

From Drakeville, Iowa, comes another report on the new YV1RH at Maracaibo, Venezuela. Harold

Heckart writes: "A new station, YV1RH in Venezuela was heard on a frequency of 6350 kcs. It came in with an R8-9 wallop with good quality but considerable fading. I was tuning a Monroe 7-tube battery set, only about five months old, and the reception was obtained on the speaker. My antenna is about 180 feet long and 35 feet off the ground. Other shortwave stations logged are DJB Germany, DJL and the Davenport station GSF. On the police bands I was fortunate to receive the 10-watt station KNFU at Skykomish, Wash."

According to the "Union Telefonica", a radio-telephone service between the Argentine Republic and the Union of South Africa has been placed in service. It is reported that this new telephone connection is not expected to be a financial success, but that it represents a step in the company's plan of connecting Argentina with the entire outside world. In pursuing this policy, it has also been announced that a telephone service will be inaugurated between Argentina and San Salvador.

A Clean-up Worth While

"Some years ago I did a little DXing with a 5-tube Distantone set, but I threw away my old log of stations heard and am starting all over again," announces Sgt. A. W. Brummond, Box 84, Ft. Douglas, Utah. "I have the use of an 8-tube Crosley, four-band set of the 1935 vintage, and, having permission to clean it up, have done the following: I cleaned the condenser plates with pipe cleaners, drew all the dust from the chassis with the suction hose of a vacuum cleaner, and emery papered the tube prongs and connections. Formerly stations could be received only from 20 to 40 kcs. apart, so I moved the ground wire from the ground connection of the

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Scrapbook

(Continued from page 24)

ception of VK3LR "using only 30 feet of wire inside his house — in a location so noisy that he can't even use an outside antenna, so much noise does it pick up from nearby street car lines, autos and local electrical equipment."

The All-Night Problem

It's about time someone debunked the so-called menace of the all-night stations. To hear some of the night owls talk, a person would think that these stations meant the end of DXing.

It is admitted that these late programs block many of our best channels. We now find one or more broadcasters on each of the graveyard frequencies, while some of the more powerful stations in the United States and Mexico dominate other channels. It isn't an enviable situation, but not nearly as bad as some listeners paint the picture.

While condemning the Federal Communications Commission for allowing such a state of affairs, the average DXer seems to forget that the FCC offers six nights a month of virtually perfect listening conditions. I refer, of course, to the frequency check broadcasts which find nearly 300 stations transmitting on clear channels. Even the all-night stations stand by when they may interfere. The best Courtesy Programs Committee in the world couldn't do any better.

To these 300 stations, add on the number of broadcasters who may be heard at some time of the day during their regular schedules. Consider the additional stations which transmit occasional DX and test programs, and you realize that a very large percentage of the stations in this country may be logged during the course of a winter season.

Contrast this with conditions a few years ago when the all-nighters had not become a problem. A DXer might twirl a dial every night for a week without adding a new station, while it could easily take a couple of years to log the 300 broadcasters which may now be heard once a month.

It seems likely that the principal trouble today is that DXers are having things too easy for their own good. Many of those who have become interested during the past three years don't know what it is to fight for a station. They seem to want their quota of new verifications handed to them on a silver platter, and they feel abused when they have to work for a good catch.

Regardless of conditions, the most cherished of all possessions are those which were secured in spite of obstacles. In the old days, a station pulled out of a jumble on a crowded channel during the early-evening hours was a true prize, valued far more than even a more distant station heard on a clear frequency.

The current formula of *listening plus reporting equals verifications* makes the log grow, but it doesn't bring half the enjoyment that was possible when *perseverance* and *skill in tuning* went before the mere *listening* qualification.

So, the current challenge of the all-night stations should be an added incentive to better tuning. When domestic stations may not be heard, countless foreign catches await the skillful dialer. And when a DXer finds a night when he can't go overseas, it might be a good idea for him to lay off for a day or two. Repeated doses of fruitless tuning can quench the most ardent thirst for DX, while less frequent turns at the dials will whet the most jaded DX appetite.

Where to Get the DAY'S NEWS

The time given in these news flash schedules is daily except Sunday unless otherwise noted.

ATLANTIC TIME

1 Thursday only	7:15 a.m.	Noon	5:30 p.m.
2 Sunday only	WKAQ 1240	CJCB 1240	CKCW 1370
3 Monday only	8:00 a.m.	12:30 p.m.	6:00 p.m.
4 Except Monday	CFNB 550	CHNC 1010	CJCB 1240
5 Except Saturday	8:15 a.m.	12:45 p.m.	7:00 p.m.
6 Tuesday and Friday	CJCB 1240	CFNB 550	CFNB 550
7 Tues., Thurs. and Sat.	CKCW 1370	CHNS 930	7:15 p.m.
8 Mon., Wed., and Fri.	8:30 a.m.	1:15 p.m.	CJCB 1240
9 Saturday only	CHNC 960	CKCW 1370	WKAQ 1240
a Including Sunday	10:30 a.m.	5:00 p.m.	7:30 p.m.
b Tuesday and Wednesday	CHNS 930	CFNB 550	CHNS 930
c Tues., Thurs. and Fri.	11:00 a.m.	CFNB 550	10:00 p.m.
d Thurs., Fri. and Sat.	CJCB 1240	CFNC 1010	WKAQ 1240

EASTERN STANDARD TIME

6:30 a.m.	WORC 1280	WGR 550 ²	WALR 1210	WGBI 880 ²	1:55 p.m.	5:00 p.m.	6:10 p.m.
WWJ 920	WORL 920	WHDH 830	WBAL 1060	WGH 1310	WRUF 830	CFCE 600	WSPDF 1340a
7:00 a.m.	WPRO 630	WJAY 600	WBZ 990	WHKC 640	2:00 p.m.	WDEF 550	6:15 p.m.
WBZ 990	WSOC 1210	WPG 1100	WDBO 580	WJAS 1290	WDEV 550	WGR 550	CJCS 1210
WCOF 1120	WSPA 920a	WQAM 560	WDEV 550	WNBX 1260	WFDF 1310	WMAL 630	WBT 1080
WDEV 550	WSPR 1140	WELL 1420	WELL 1420	WOR 710	WICC 600	WNBC 1380	WCHA 1440
WJR 750	WTAG 580	9:55 a.m.	WESG 850	WORK 1320	WKBW 1480	WORL 920	WDEL 1120
WLS 870	WTIC 1040	10:00 a.m.	WFDL 1310	WQAN 880	WORL 920	WOV 1130	WEAF 660
WORL 920	WTNJ 1280	10:00 a.m.	WFTL 560	WRVA 1110	2:30 p.m.	WQAM 560	WEHR 1310
7:15 a.m.	8:15 a.m.	WBAL 1060	WHDH 830a	WWJ 920	WORC1280 ²	WSAZ 1190	WJAS 1290
WHDH 830	KDKA 980	WCOF 1120	WHIO 1260a	12:35 p.m.	WSPA 920	WSPR 1140a	WORK 1320
WHBX 1260	WCSC 1360	WDEV 550	WIP 610	12:40 p.m.	2:45 p.m.	5:15 p.m.	6:20 p.m.
WSAZ 1190	WDHJ 930	WFDF 1310	WIS 560	WLS 870	WNBC 1380	WBAL 1060	WMA 570
WSPR 1140	WDHO 580	WELL 560	WKBW 1480	12:45 p.m.	WSPR 1140	WGR 550 ²	6:25 p.m.
7:25 a.m.	WEAF 660	WKBI 1480	WVMN 890	12:45 p.m.	2:55 p.m.	WMFF 1310	WRVA 1110
WBAL 1060	WTP 610	WMAZ1180 ²	WORO 1430	WMCA 570 ²	WJAY 600	5:25 p.m.	6:30 p.m.
WGY 790	WIS 560	WNBC 870 ²	WORO 1280	WNAC1230 ²	3:00 p.m.	WJAY 610	CFRB 690
WKRC 550	WMMN 900	WMA 570 ²	WQAL 920	WSAR 1350	WBRE 1310	WNYC 810	CHML 1010
7:30 a.m.	WOKK 1320	WNYC 810	WQAM 560	WTIC 1040 ²	WDEV 550	5:30 p.m.	CKSO 780
WCM1 1310	8:30 a.m.	WOR 710	WSOC 1210	12:55 p.m.	WDBR 1310	WNBH 1310	WDRCl330a
WHKC 640	WGH 1310	WORL 920	WSPA 920 ²	WBRE 1310	WELL 1420	5:35 p.m.	WDFD 1310
WMBC 1420	WJR 750	WSOC 1210	WSPD 1340	1:00 p.m.	WGBI 880	WPTF 680	WFIL 560
7:35 a.m.	WLS 870	10:15 a.m.	WXYZ 1240	CKCV 1310	WGR 550	5:40 p.m.	WGH 1310
WICC 600	WMCA 570	WNBC1380 ²	12:10 p.m.	CMHJ 730	WHDH 830	WKRC 550	WIS 560
WXYZ 1240	WTFI 1450	WSAR 1350	12:15 p.m.	WBT 1080	WHIO 1260a	WKRC 550	WLLH 1370
7:40 a.m.	8:45 a.m.	WSPD 1340	12:15 p.m.	WCOF 1120	WKBW 1480	5:45 p.m.	WNAC1230 ²
WPTF 680	WEAN 780 ²	10:30 a.m.	WCAP 1280	WCOF 1120	WMMN 900	CMHJ 1160	WPRO 630
WNNC 570	WNAC1230 ²	WOV 1130	WCLS 1310	WDEV 550	WORL 920	WBRE1310 ⁸	WTAG 580
7:45 a.m.	WORC1280 ²	WRUF 830 ²	WCSC 1360	WEAN 780	WQAM 560	WDRCl330	WTIC 1040
CFCE 600	WRUF 830	WSPA 920	WCSH 940	WEAN 780	3:15 p.m.	WICC 600	WTNJ 1280
WBEN 900	WSPR 1140 ²	WSPR 1140 ²	WDRCl330	WEEL 590	WPTF 680	WPG 1100	WWJ 920
WDRCl330	WTIC 1040 ²	10:45 a.m.	WEAN 780	WGR 550	3:45 p.m.	WSAR 1350	WNNC 570
WEEI 590	8:55 a.m.	W2XR 1550	WEBR 1310	WJR 750	WBAL 1060	6:00 p.m.	WXYZ 1240
WJAY 610	WEAN 780	11:00 a.m.	WHAM 1150	WKRC 550	3:55 p.m.	CKCV 1310	6:35 p.m.
WNBC 1380	WSPD 1340	WBAL 1060	WKBN 570	WLLH 1370	WRUF 830	WALR 920	WHAM 1150
7:50 a.m.	9:00 a.m.	WDEV 550	WLBZ 620	WNAC 1230	4:00 p.m.	KDKA 980	6:40 p.m.
WMAZ 1180	WABY 1370	WGBI 880	WMCA 570	WNBH 1310	WCOF 1120	WBEN 900	WHK 1390
WQAM 560	WAZL 1420	WGR 550	WNBC 1380	WORL 920	WDPE 1220	WBZ 990	6:45 p.m.
7:55 a.m.	WBEN 900	WMBE 1420	WSPR 1140	WPRO 630	WDEV 550	WEAN 1220	WDBO 580
WFIL 560	WDEV 550	WMBE 1420	WUNC 570	WTAG 580	WKBW 1480	WEEI 590	WEAN 780
WJZ 760	WGR 550	WORL 920	12:20 p.m.	WTIC 1040	WOR 710	WGBI 880	WGBI 880a
WRVA 1110	WMAL 630	WPTF 680	WPTF 680	1:10 p.m.	WORL 920	WGY 550	WLWL 1100
8:00 a.m.	WMFF 1310	WTFI 1450 ²	12:25 p.m.	CFRB 690	WOV 1130	WGR 550	WMAL 1180
CFRB 690	WORL 920	11:30 a.m.	CKNX 1200	WCAD 1220	4:15 p.m.	WGY 550	7:00 p.m.
CJCS 1210	9:15 a.m.	CMJA 1010	WFBC 1360	1:15 p.m.	WRVA 1110	WHDH 830	WRVA 1110
WBT 1080	WBRE 1310	WCOF 1120	WJZ 760	WDBJ 930	4:30 p.m.	WHKC 640	W2XR 1550
WDAE 1220	WNBC 1380	11:45 a.m.	12:30 p.m.	WNNC 1230	WCM1 1310	WJZ 760	7:00 p.m.
WEAN 780	9:30 a.m.	WKAR 850	CJCS 1210	WQAM 560	WMAL 1180	WMMN 900	WJAY 1010
WEBR 1310	WDRCl330	WMAZ 1180	CKCL 580	1:30 p.m.	WQAM 560	WNAC 1230	WAZL 1420
WFDF 1310	WMA 570	WQAM 560	CKSO 780	WEAN 780	WRAN 880	WNC1230	WCLS 1420
WGBI 880	9:35 a.m.	11:55 a.m.	WAZL 1420	WEAN 780	4:45 p.m.	WORC1280a	WCL 1420
WHIO 1260a	WMAZ 1180	WJAY 610	WBEN 900	WGR 550 ²	WCOP 1120 ²	WPTF 680	WHAM1150 ²
WHK 1390a	9:40 a.m.	WRUF 830	WCAE 1220	WSPR 1140	WCSH 940	WQAM 560	WKBW 1480
WJAS 1290	WKRC 550	Noon	WDAE 1220	WTFI 1450	WNBC1380 ²	WSOC 1210	WKBW 1480
WNAC 1230	9:45 a.m.	CHML 1010	WDEL 1120	1:50 p.m.	4:50 p.m.	WSPA 920 ²	WLBZ 620 ²
WOR 710	WCOP 1120 ²	KDKA 980	WDRCl330 ²	WMAZ 1180	WMAL 1180	WTIC 1040	WQAM 560 ²

7:05 p.m.	WTFI 1450	WGH 1310	WGBI 880	10:45 p.m.	WCSC 1360	WJR 750	WTAG 580
WCSC 1360a	8:00 p.m.	WGR 550	WGR 550	CKCL 580	WDAF 1220	WKBW 1480	WTIC 1040a
WMAZI 180 ²	WELL 1420	9:15 p.m.	WMAL 630	CRCM 910	WDBO 580	WKRC 550a	WWNC 570
7:15 p.m.	WDFD 1310	WMCA 570	WNBH 1310	WCBA 1440	WDRS 1330	WMCA 570 ²	11:10 p.m.
CKBN 1200	WKWB 1480	9:30 p.m.	10:30 p.m.	WEAF 660	WNAC1230a		WOKO 1430
WBRE 1310	8:15 p.m.	CMJK 780	CKCK 1010	WEAN 780a	WOR 210a		11:15 p.m.
WTFI 1450	WCAP 1280	9:45 p.m.	CMCD 950	WEEL 590a	WORC1230a		WHK 1390
7:30 p.m.	9:00 p.m.	WORK 1320	WDBJ 930	WEFL 560	WPG 1100a		WICC 600a
CRCM 910	CMCD 950	10:00 p.m.	WEBR 1310	WGY 790	WPRO 630		11:30 p.m.
WNBX 1260	WAZL 1420	WBRE 1310	WGR 550 ²	WBT 1080	WQAM 560a		WJZ 760
7:45 p.m.	WFBC 1300	WDEL 1120	WMMN 890	WBZ 990	WIS 560	WRVA 1110	11:45 p.m.
WMCA 570 ²	WGBI 880 ²	WDFD 1310	WSPD 1340	WCAE 1220	WJAS 1290	WSOC 1210	WIP 610

CENTRAL STANDARD TIME

5:45 a.m.	KSOO 1110	KWTO 560	KFRU 630	WAAW 660	4:30 p.m.	6:05 p.m.	9:45 p.m.
KFNE 890	KVOO 1140	WAAW 660 ²	KGNE 1430	WHO 1000 ²	WAAW 660	WGST 890a	KMBC 950
6:00 a.m.	WGST 890 ²	WHBF 1210	KMBC 950	1:30 p.m.	WDAF 610	6:30 p.m.	WDDO 1250
KARK 890	WNRB 1430	WTRC 1310	KRGV 1260a	KFAB 770	WDGY 1180	KSO 1430	WDSU 1250a
WBW 580	WOAI 1190	9:45 a.m.	WBW 580	WFDM 1230	WOI 640	WHO 1000	WFRM1230 ²
WMIN1370a	WOW 590	WDGY 1180	WJJD 1130	1:50 p.m.	4:45 p.m.	WIBZ 1280	WBW 580a
6:05 a.m.	7:50 a.m.	9:50 a.m.	WMIN1370a	WMFO 1370	WTMJ 620	WMT 600	WROK 1410
WAAW 660	KFNE 890	WMFO 1370	12:15 p.m.	1:55 p.m.	4:50 p.m.	WNAX 570	10:00 p.m.
6:15 a.m.	7:55 a.m.	10:00 a.m.	KGFF 1010	WGST 890	WMFO 1370	WNBR1430a	KARK 890
WBAP 800	WDAY 940	KARK 890	KRLD 1040	2:00 p.m.	5:00 p.m.	WSFA 1410	KPRC 920
6:25 a.m.	WJJD 1130	KFRU 630	KSO 1430	KARK 890	KARK 890	WTAQ 1330a	KRGV 1260a
WJJD 1130	8:00 a.m.	KLPM 1240	KVOL 1310	KRGV 1260a	KFAB 770	6:35 p.m.	KRLD 1040
6:30 a.m.	KADA 1200	KRGV 1260a	WJAG 1060	WAVE 940	KFDM 660	XEB 1030	KUSD 800 ⁵
WOW 590	KARK 890	KSOO 1110	WKBH1380 ²	WMIN1370a	KOMA 1480	6:45 p.m.	WDAY 940a
6:35 a.m.	KFDM 560	WMIN1370a	WNAX 570	2:15 p.m.	KRGV 1260a	WFBM 1230	WHBF 1210
KMOX 1090	KLPM 1240	WSMB 1320	WROK 1410	WDGY 1180	KSOU 1110a	WKRH 1380	WJDX 1270a
6:40 a.m.	KMOX 1090	10:05 a.m.	12:30 p.m.	2:30 p.m.	KUSD 890 ⁵	WSMB 1320	WMIN1370a
KGGF 1010	KRGV1260a	WDGY 1180	KFJM 1370	WDSU 1250a	WDAF 610 ⁵	7:00 p.m.	WMT 600
WDGY 1180	WCOC 880	10:15 a.m.	KUOA 1260	WNBR 1430	WHBF 1210	KARK 890	WNHR 1430
6:45 a.m.	WFBM 1230	KGFF 1010	KWTO 560	WSFA 1410	WMIN1370a	KFRU 630	WOAI 1190
KFAB 770	WKBH 1380	10:30 a.m.	KGBX 1230	WTAQ 1330	5:15 p.m.	KRGV 1260a	WTMJ 620a
KRLD 1040	WMIN1370a	KTAT 1240 ⁵	WDSU 1250	2:45 p.m.	WAAW 660	KVOL 1310	10:05 p.m.
KVOO 1140	WSMB 1320	KUOA 1260	WHBF 1210	WBAP 800	WAVE 940	WHBF 1210	WGST 890
WNAX 570	XET 600	WDSU 1250	WIBA 1280	WBW 580	WIBW 580	WMIN1370a	10:15 p.m.
6:55 a.m.	8:05 a.m.	WNBR 1430	WJBY 1210	2:55 p.m.	KFNE 890	7:15 p.m.	KLPM 1240
WJJD 1130	WILL 580	10:50 a.m.	WNBR 1430	3:00 p.m.	KFNE 890	7:45 p.m.	KRNT 1320a
7:00 a.m.	WSM 650	KFH 1300	WOW 590	KARK 890	KFRU 630	8:00 p.m.	KSO 1430a
KARK 890	8:10 a.m.	WAVE 940	WSFA 1410	KARK 890	KGNE 1430	KUSD 890 ²	WFBM 1230
KFRU 630	WGST 890	11:00 a.m.	WSM 650	KFRU 630	KRGV 1260a	8:00 p.m.	WMC 780
KLPM 1240	8:15 a.m.	KARK 890	WSMB 1320	KGNE 1430	KSOU 1110	KARK 890	WOAI 1190
KRGV1260a	KFJM 1370	KFNE 890	12:35 p.m.	KSOU 1110	KWTO 560	KRGV 1260a	WCOC 880a
KRNT 1320	WDDO 1280	KLPM 1240	KFEQ 680	WGST 890	WDSU 1250a	KGBX 1230	WTAQ 1330a
KSO 1430	WJBY 1210	KRGV 1260a	KLPM 1240	WMIN1370a	WIBA 1280 ²	WHBF 1210	10:30 p.m.
KUSD 890 ²	8:30 a.m.	WISN 1120	12:40 p.m.	WDSU 1250a	WMIN1370a	WTRC 1310	KMOX 1090
WBW 580	KGBX 1230	WJDX 1270	WOI 640	WIBA 1280 ²	WMIN1370a	XEBZ 820	WOW 590
WMIN1370a	WDGY 1180	WMIN1370a	12:45 p.m.	WSMB 1320	WMIN1370a	XEBZ 820	WSMB 1320
WMT 600	WDSU 1250	WTRC 1310	KSOU 1110a	XET 890	XET 890	8:30 p.m.	XEB 1030
7:15 a.m.	WHBF 1210	11:10 a.m.	WCOC 880a	3:30 p.m.	5:50 p.m.	WJBY 1210	10:45 p.m.
KGFF 1010	8:45 a.m.	KGFF 1010	WDAF 940	WAVE 940	WDGY1180 ²	WTAQ 1330a	KOMA 1480a
KMBC 950	KFAB 770	11:15 a.m.	WHO 1000	WDGY 1180	WSU 880	8:45 p.m.	11:00 p.m.
WGST 890	WTAQ 1330	KVOO 1140	WKBH 1380	WGBF 630	5:55 p.m.	KFNE 890	KARK 890
WHO 1000	9:00 a.m.	WBBZ 1200	WQBC 1360	WISN 1120	6:00 p.m.	9:00 p.m.	KFH 1300a
7:25 a.m.	KARK 890	WDGY 1180	12:50 p.m.	WJJD 1130	KARK 890	KARK 890	WGST 890a
WDAF 610	KLPM 1240	WDDO 1280	WDGY 1180	3:45 p.m.	KFDM 560	WHBF 1210	11:15 p.m.
7:30 a.m.	KRGV 1260a	11:30 a.m.	KFDM 560	KVOO 1140	KMOX 1090	WIBW 580	WMIN1370a
KFEQ 680	WJDX 1270	KFPW 1210	KGKL 1370	WOW 590	KRGV 1260a	WHBF 1210	WMIN1370a
KUOA 1260	WMIN1370a	WAAW 660	KRGV 1260a	4:00 p.m.	KMOX 1090	KUSD 890 ⁵	11:15 p.m.
KWTO 560	WMT 600	WGST 890	WAAW 660 ²	KARK 890	KRGV 1260a	WHBF 1210	KMOX 1090 ²
WAAW 660	WNRB 1430	11:45 a.m.	WAVE 940 ⁹	KMBC 950	KVOL 1310	WMIN1370a	WHO 1000a
WDGY 1180	WROK 1410	WMT 600	WMIN1370a	KRGV 1260a	KGBX 1230a	WNRB1430 ²	11:30 p.m.
WDSU 1250	WTMJ 620	11:50 a.m.	WTRC 1310	WDDO 1280	WWSU 880	WMC 780	
WIBA 1280	9:15 a.m.	11:55 a.m.	WTAQ 1330a	WHBF 1210	9:15 p.m.	11:45 p.m.	
WMC 780	WNAX 570	WDAF 610	1:05 p.m.	WIBW 580a	KFPW 1210	WDSU 1250	
WSFA 1410	9:30 a.m.	WDAF 610	1:05 p.m.	WMIN1370a	9:30 p.m.	Midnight	
WTMJ 620	KOMA 1480	WOAI 1190	1:15 p.m.	WTAQ 1330	WOAI 1190	KTAT 1240	KARK 890
7:45 a.m.	KRNT 1320 ²	Noon	KWTO 560 ²	4:15 p.m.	WOW 590	WGBF 630a	KMBC 950
KOMA 1480	KSO 1430 ²	KARK 890		WAAW 660 ²	WSFA 1410	WHBF 1210	WHBF 1210

MOUNTAIN STANDARD TIME

6:30 p.m.	KFXD 1200	7:15 a.m.	KVOR 1270	7:45 a.m.	7:55 a.m.	8:00 a.m.	CJRM 540
KOBH 1370	7:00 a.m.	KGVO 1260	7:30 a.m.	KLZ 560	CHAB 1200	CKCK 1010	
6:50 a.m.	KOA 830	KTFI 1240	KDYL 1290	KOBH 1370	EKL 1130	CJJC 690	KFEL 920

8:15 a.m. KLO 1400	10:00 a.m. KDFN 1440 KDYL 1290	KGIR 1340 KIDO 1350 KSTAR 620	KSL 1130 12:55 p.m. KDYL 1290 KTFI 1240	3:15 p.m. KGVO 1260 KSL 1130	5:45 p.m. KVOR 1270 5:55 p.m. KDFL 1290	KIDO 1350 7:30 p.m. CJRM 540 KFBB 1280	10:00 p.m. KJBB 1280 KLZ 560a KOBH 1370 KOY 1390 KVOD 920 ²
8:30 a.m. KDFN 1440 KDYL 1290 KSEI 900	10:30 a.m. KDFN 1440 KIDO 1350 KOBH 1370	12:15 p.m. KDFN 1440 ² KFBB 1280 KGVO 1260 KLZ 560 KVOR 1270	1:00 p.m. KVOD 920 1:30 p.m. KDFN 1440 KDYL 1290 ² KFEL 920a	4:00 p.m. KDFN 1440 KDYL 1290 ² KFEL 920a	6:00 p.m. KGIJ 1340 KYO 1400 KOY 1390	8:00 p.m. KSIJ 900a KVOD 920a KOB 1180	10:35 p.m. KVOD 920 ² KSL 1130
8:45 a.m. KIUN 1420	11:00 a.m. KDFN 1440	XEAF 990 12:20 p.m. KID 1350	KFXD 1200 KIDO 1350	4:30 p.m. KOA 830	6:15 p.m. CHAB 1200 KGVO 1260	8:30 p.m. KDFN 1440 KFD 1200	11:00 p.m. KSL 1130
9:00 a.m. KOBH 1370 KVOD 920	11:10 a.m. KDYL 1290	KOY 1390a 12:30 p.m. CHAB 1200	KVOD 920 ² 2:00 p.m. KVOD 920	4:45 p.m. KIBO 1350 ² 5:00 p.m. CKCK 1010	6:30 p.m. KOBH 1370 KSL 1130	8:45 p.m. CKCK 1010 XEAF 990	10:45 p.m. KSL 1130a
9:30 a.m. KDYL 1290 KGHF 1320 KTFI 1240	11:15 a.m. KLZ 560 ²	CKCK 1010 KDFN 1440 KFKA 880 KFXD 1200	2:30 p.m. KSL 1130 ² KTFI 1240	5:30 p.m. KID 1350 KVOD 920	6:45 p.m. KDFN 1440 KIUN 1420	9:00 p.m. KGIJ 1340 KSTAR 620	11:15 p.m. KIDYL 1290a KGIR 1340 KOA 830 KTAR 620
9:45 a.m. KFBB 1280	11:30 a.m. KOA 830	KFCU 1240 12:45 p.m. CJRM 540	3:00 p.m. KDYL 1290 KIDO 1350 KOY 1390	5:30 p.m. KDFN 1440 KSEI 900 KTFI 1240	7:00 p.m. KFBB 1280 KFEL 920a	9:15 p.m. KGOV 1260 9:30 p.m. CJJC 690	
9:50 a.m. KFXD 1200 KSEI 900	Noon KFEL 920a						

PACIFIC STANDARD TIME

7:00 a.m. EGDM 1100 KHSL 950 KQW 1010	KYO 1040 8:45 a.m. KFVD 1000 KWJJ 1040	10:30 a.m. KIRO 710 11:30 a.m. CJAT 910 KIRO 710	KMJ 580 KOL 1270 KOOS 1390a KVI 570	KPO 680 2:45 p.m. KYO 1040 3:00 p.m. KJBS 1070 KQW 1010	4:45 p.m. KFRG 610 KGD 1100 KYO 1040	7:00 p.m. KIT 1310 KLX 880	KOL 1270a KVI 570 KYA 1230
7:15 a.m. KFBK 1490 KMN 580	9:00 a.m. KFI 640 KFPY 890 KOL 1270	11:45 a.m. KHQ 590 Noon KFAC 1300	KIN 940 KRNR 1500 KWSC 1220 KYOS 1040	3:30 p.m. KIRO 710 KOIN 940	5:00 p.m. KFPY 890 5:15 p.m. KIOS 1390	8:00 p.m. KOAC 550 8:00 p.m. KGA 1470	10:00 p.m. KFI 640a KFRG 610a KFWB 950a KGA 1470 KGB 1320a KOMO 920 ⁵
7:30 a.m. KFAC 1300 KIEM 1450 KJR 710 KNX 1050 KRNR 1500 KWSC 1220	9:15 a.m. KGD 1100 KJR 970 KOOS 1390 KOL 1270	Noon KIT 1310 KNX 1050 KOAC 550 KROW 930 KSPO 560	1:00 p.m. KFRC 610 ² KGA 1470 1:15 p.m. KGER 1360 KOL 1270	3:40 p.m. KFAC 1300 3:45 p.m. KGER 1360 KOL 1270 KYOS 1040	5:30 p.m. CJOV 630 KIRO 710 5:45 p.m. KPO 680	9:00 p.m. KGIJ 1250 KIEM 1450 KJR 970a KNX 1050a	10:10 p.m. KGER 1360a 10:30 p.m. KFVD 1000 10:45 p.m. KNA 750
7:45 p.m. KVI 570	9:45 a.m. KFWB 950 KNX 1050	12:15 p.m. CKOV 630 KFBK 1490 KHSL 950	1:30 p.m. KIRO 710 1:45 p.m. KHSL 950	4:00 p.m. KFVD 1000 KGA 1470 KLX 880 ²	6:00 p.m. KECA 1430 KFAC 1300 KFWB 950a KQW 1010	8:15 p.m. KGIN 940 ² KQW 1010 KROW 930 KSFO 560	11:00 p.m. KECA 1430
8:00 p.m. KGA 1470 KHQ 590 KIT 1310 KOL 1270	10:00 a.m. KJBS 1070 KQW 1010	12:30 p.m. KFPY 890 KFRC 610 KFVD 1000 KKB 880	2:00 p.m. KFVD 1000 KGD 100 ² KLX 880	4:15 p.m. KHSL 950 KRNR 1500 KWJJ 1040	6:15 p.m. KROW 930 XEMO 860	9:15 p.m. KGMH 1320 9:30 p.m. KFPY 890a KJBR 970 KLX 880	Midnight KFWB 950 KNX 1050
8:30 a.m. CKOV 630 KFRC 610 KIRO 710 KOIN 940	10:15 a.m. KGBU 1000 10:20 a.m. KLX 880	1:00 p.m. KREM 1450 KIRO 710 KJBS 1070	2:15 p.m. KGD 1100 2:30 p.m. KIRO 710	4:30 p.m. KIRO 710	6:30 p.m. KGBU 900	9:45 p.m. KIT 1310	1:00 a.m. KGBU 900

THE MONTH'S CHANGES IN STATION DATA

NEW		
790	KOAM	Pittsburgh, Kans.
1200	KELO	Sloux Falls, S. Dak.
	WBHP	Huntsville, Ala.
	WFTC	Kinston, N. C.
1250	WAIR	Winston-Salem, N. C.
1310	KRMC	Jamestown, N. Dak.
	KSUB	Cedar City, Utah
	KVOX	Moorhead, Minn.
	KWOS	Jefferson City, Mo.
1370	WSAU	Wausau, Wis.
1420	WNYY	Watertown, N. Y.
1480	WHIP	Hammond, Ind.
1500	KSJS	Salina, Kans.

FREQUENCY		
1450	KGCCX	Wolf Point, Mont., from 1310
POWER		
1050	WEAU	Eau Claire, Wis., 1000 from 250
1200	KDNC	Lewistown, Mont., 100 from 250
CALL LETTERS		
640	WGAN	Portland, Me., from WSPG
1210	WJTN	Jamestown, N. Y., from WOCL
1310	KRQA	Santa Fe, N. Mex., from KIUI
1420	KCKN	Kansas City, Kans., from WLBF
LOCATION		
1080	WCBD	Chicago, Ill., from Waukegan
NETWORK		
920	KVOD	Denver, Colo., new NBC—Blue
1050	KNX	Hollywood, Calif., new CBS
1110	WRVA	Richmond, Va., CBS from NBC
1190	WOAI	San Antonio, Texas, CBS from NBC
1200	KWG	Stockton, Calif., NBC from CBS
DELETE		
1250	KXOK	St. Louis, Mo.

First Aid

(Continued from page 21)

best to add and how to do the job. What is the output of this set at present and what will it be when I add the extra tube?

As this is only a four-tube set it does not seem reasonable that it should be expected to deliver great power. While the tubes are dual purpose in their action, except the 43 and the rectifier, the set still has definite limitations. And it is not good radio engineering to push the volume of any set beyond these limits. The type 43 pentode tube gives you about all the power that is practicable with the degree of previous amplification that is fed into the power tube. However, you might try connecting another 43 tube in parallel with the first 43 tube. In this manner you will connect another socket adjacent to the present socket and attach all similar leads or connections. Two 43 tubes thus work together handling just twice the amount of plate current that is possible with one 43 tube. Distortion is reduced and the tone is better at the greatest volume although intensity is not increased very much as there is no additional amplification provided for in this connection. It is likely that the rectifier and powerpack of this set will take care of an additional 43 tube, but if undue heating is observed you must pull the new 43 tube out of its socket and forget about it. The output of your set is approximately 1 watt of audio power while two 43's in push-pull should deliver nearly full two watts of power. The type 43, while taking 25 volts on its heater, uses a relative low plate voltage, making it ideal for a-c or d-c and universal sets. At 100 volts on the plate it still delivers a strong wattage for audio power.



Frances Langford, singing star of Columbia's "Hollywood Hotel" programs, puts an original touch into her songs that has made her famous both as a radio and film star. She is heard on the CBS from 9 to 10 pm, EST on Fridays.

Answers

(Questions on page 6)

1. The Voice of the Central Valley.
2. KVOB.
3. WEXL, Royal Oak, Mich.
4. Golden Gate Broadcasting Company.
5. WLLH, Lowell, Mass.
6. Keep Furnishing Radio Cheer.
7. KTAB, Knowledge, Truth and Beauty; The Associated Broadcasters; Tenth Avenue Baptist Church; KSFO, San Francisco and Oakland.
8. So many stations are placed on these channels that many of them die from interference.
9. WEST, Easton, Pa.
10. Ted Lewis' recording of the "Goodnight Waltz."

JACK BENNY, Funny Man

● ● ● By MARY LIVINGSTONE

CONTRARY to what many people think, life with a comedian is not one long succession of wisecracks. "And thank goodness for it too," says Mary Livingstone, wife of radio's funny man Jack Benny. Mary had a lot on her mind and got relieved of most of it when she wrote the "piece" which follows.

Another bubble I'd like to bust is that the private existence of all people in the entertainment business is surrounded by what the Hollywood press agents call "glamour." It certainly isn't so with us and I'd like to see a publicity man who could build a glamorous story around a guy who has little interest in going to night clubs and receives friends at home wearing an old red bathrobe and even older bedroom slippers.

Jack and I are as congenial a couple as I know, but of course we have our arguments. All married couples do. But on looking back I find that I am invariably the one that starts them. In justice to myself, though, I do want you to know that Jack is very annoying at times. For instance, what can you do with a fellow who is cheerful bright and early in the morning, no matter what time he went to bed. Jack gets up long before breakfast every day. He bathes, shaves and gets fully dressed before we sit down to eat. The latter part of the week he works on the program and Sunday we have our reading rehearsal in the morning.

Sometimes he goes out to play golf. He's not very good, but he doesn't take it serious. If he comes home with a big grin I know he has broken 110.

In the evenings we usually go out with another couple, generally George Burns and Gracie Allen. Once in a while we go to the fights or to a new movie but nine times out of ten we just visit. Gracie and I talk about our babies, clothes or recipes, or if we stay home we play backgammon. But Jack and George just talk, mostly about their programs or horse races.

People still tell Jack he shouldn't try to do radio and pictures at the same time, but he thrives on hard work and lots of it. Fred Allen and Portland Hoffa told us one night they couldn't understand why Jack tried to do so many things at once, but we don't mind and we're having a lot of fun. We don't see how Fred Allen ever finds time to enjoy himself. I understand he writes seven days a week on his scripts. If I'm not mistaken there aren't many more left in the average week.

* * *

MORTIMER GOOCH: Mortimer proved indisputably that he was not superstitious when he made his initial appearance on the air over the CBS Network on Friday the 13th, under the sponsorship of Wrigley's Chewing Gum. Mortimer is a salesman. And what a salesman! His aggressiveness frequently occasions difficulties for himself, his employers and the public in general, but troubles do not perturb his serene and effective salesmanship. He goes right on selling incredible quantities of the product manufactured by his company. This program is addressed to dealers only, but this will not be a small audience when it is remembered that 1,000,000 dealers handle Wrigley's.

FOR RENT: A couple of years ago Floyd Gibbons went to Florida for some sailfishing. While there, he bought a house. Since he purchased it, so much has been happening in his life, including the Ethiopian and Spanish conflicts and his CBS broadcasting commitments, that he has spent but a quarter of an hour in the new house.

* * *

TWIN STARS: Helen Claire and Rosemarie Brancato wear twin gowns especially designed for their weekly broadcasts as the Twin Stars. The young artists, both golden blondes, both blue-eyed, carry their twinship further by wearing interchangeable evening ensembles of black and white lame, interwoven with gold.

* * *

CROSSED WIRES: Visitors at NBC were interviewed by Ben Grauer in a special broadcast connected with the tenth anniversary of the Network. Queried by Mr. Grauer, one after the other named ANDRE KOSTELANETZ and GUY LOMBARDO as their favorite orchestra leaders, blithely ignoring the fact that both these leaders are heard regularly over the CBS instead of the NBC.

* * *

GREEK: Parkyakarkus, Eddie Cantor's Greek dialog stooge, has probably the most difficult name in radio. He has received, among others, letters addressed as follows: Peppycarriage; Pepperpottus; Habescorpus; Roastporkus, and Pet-intheparkis.

"Dot's okay, keed," says Parky (that's easier), "sometimes I got it trouble spelling him myself. But a Grik by any other nem would spell as sweet."

* * *

WE'RE PUNNY THAT WAY: Walter O'Keefe has bought a ten room house which requires twenty tons of coal to heat for the winter

months. We understand that, as he peruses the coal bills, Walter hums, "O'Keefe the home fires burning."

* * *

SIDELIGHTS: Radio's melting pot is the WE, THE PEOPLE program . . . average individuals representing every race and creed and economic stratum are brought together on equal terms . . . FRED ALLEN has only one brief period of relaxation during the week . . . it's the two hour period between his first Town Hall Tonight Show on Wednesdays and the repeat for the West coast . . . he regales anyone who stays around with hilarious stories of his vaudeville days and he never lacks for listeners . . . HAL KEMP and his band commute to New York from Philadelphia every Sunday for the Phil Baker programs: . . . ED WYNN'S new Saturday night broadcasts over NBC are being recorded and re-broadcast over sixteen stations in the south . . . sponsor was unable to clear time for those outlets on the network schedule . . . the JACK PEARL programs also are being recorded and rebroadcast over 18 stations in addition to the 43 on the NBC-Blue which carry the original broadcast . . . PHIL BAKER'S contract has been renewed for another 26 weeks . . . Rubinoff, Virginia Rea and Jan Peerce may be looking for a new spot on the completion of their present assignment . . . it will not be renewed . . . AMOS 'N' ANDY'S two-man radio act has expanded to a minstrel show . . . their Friday night programs include an orchestra, guest stars and announcer BILL HAY as interlocutor.

* * *

Andre Kostelanetz steps up the smart Cuban rhythms his orchestra plays on his Columbia series, with "bangos," small Cuban drums heated to the proper pitch by an alcohol flame.

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)	
Call	Dial

NATIONAL, Red (R)	
Call	Dial

NATIONAL, Blue (B)	
Call	Dial

Time: E Eastern; C Central; M Mountain; P Pacific

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

While these programs are correct at the time of going to press, changes are made from time to time.

MONDAY

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — Bobby Benson — Sunny Jim
 WAAB WABC WCAU WDRC WEAN
 WFBL WGR WHCC WOKO

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C — Renfrew of the Mounted

KFAB KFH KLRA KMBC KMOX
 KOMA KRLL KRNT KSCJ KTUL
 KWKH WABC WADC WBBM WBNS
 WCCO WDRC WFBM WGR WHCC
 WHK WBNX WICC WISN WJR
 WJSV WKBH WMAS WMBG WNAC
 WNBH WOC WREC WSMK WSPD
 WWVA

B — Lowell Thomas

CRCT KDKA WBAL WBZ WBZA
 WFLA WIOD WJAX WJZ WLW
 WMAL WOOD WRVA WSYR WTAM
 WXYZ

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

C — Poetic Melodies; Jack Fulton
 WABC WADC WBT WCAO WCAU
 WDRC WEAN WEEI WFBL WGR
 WHCC WHK WJAS WJZ WJSV
 WKRC WOKO WSPD WTCO WWVA

R — Amos 'n' Andy

KYW WBNX WCAE WCSH WCFB
 WEEI WFBR WGY WJAR WLW
 WRC WTAM WTC

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

C — Popeye the Sailor
 KFAB KLZ KMBC KMOX KRNT
 KSL WABC WADC WBBM WBNS
 WCAO WCAU WDRC WEAN WFBL
 WFBM WGR WHAS WHEC WHK
 WHX WICC WJAS WJSV WKRC
 WNAC WOC WOKO WORC WSMK

R — Uncle Ezra's Radio Station

KPRC KTBS KTHS KVOO KYW
 WBAF WBNX WCAE WCKY WCSH
 WDAF WFAF WEEI WFBR WGY
 WHO WIRE WJAR WKY WMAQ
 WOAI WOOD WOW WRC WTAG
 WTAM WTC

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

C — Goose Creek Parson
 KFAB KMBC WABC WBBM WBNS
 WBT WCAO WCAU WDAE WDBJ
 WDBO WDRC WEAN WFBL WGR
 WGST WHEC WHK WICC WJAS
 WJR WJSV WKRC WLWZ WMIBG

WMBR WNAC WOKO WORC WQAM
 WTCO

B — Lum and Abner

WBZ WHZA WENR WJZ WLW
 WMC WSM WSYR

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

C — Boake Carter

KMBC KMOX KOMA KRLL WABC
 WBBM WBT WCAO WCAU WCCO
 WDRC WEAN WFBL WGR WHAS
 WHK WJAS WJR WJSV WKRC
 WNAC

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

C — Horace Heidt and Orchestra

WDB KERN KFAB KFBC KFH
 KFNY KPRC KGB KIJ KLRA KLZ
 KMBC KMJ KMOX KOIN KOL
 KRLL KRNT KSL KTRH KTSa
 KTUL KVI KWG WABC WBBM
 WBRB WBT WCAO WCAU WCCO
 WDRC WFBL WFBM WGR WGST
 WHAS WHK WJAS WJR WJSV
 WKRC WLAC WMBR WNAC WNAX
 WOKO WREC WWL

R — Fibber McGee and Molly

KSD KYW WBNX WCAE WCKY
 WCHS WDAF WFAF WEEI WFBR
 WGY WHO WIRE WJAR WMAQ
 WOOD WOW WRC WTAG WTAM
 WTC WJZ

B — Helen Hayes, Drama

KDKA KOIL KSO KWK WABY
 WBAL WBZ WBZA WEBR WFBR
 WFLL WGAR WHAM WJZ WLS
 WMAL WMT WREN WSAI WSYR
 WXYZ

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

C — Pick and Pat

KFAB KMBC WABC WADC WBBM
 WBT WCAO WCAU WDRC WEAN
 WFBL WGR WGST WHEC WHK
 WHL WICC WJAS WJR WJSV
 WKRC WLBZ WMAS WNAC WORO
 WORC WSPD

R — Voice of Firestone

CFCF CRCT KFYR KPRC KSD
 KSTP KTBS KVOO KYW WAVE
 WBNX WCAE WCSO WCHS WDAF
 WDAY WFAF WFCB WEEI WFAA
 WFCB WFBR WFLA WGY WHO
 WHO WBA WIOD WIRE WIS
 WJAR WJAX WJDX WKY WMAQ
 WMC WOAI WOW WPTF WRC

WRVA WSB WSM WSMB WSOO
 WTAG WTAM WTAR WTCO WTMJ
 WWJ WWNC

B — Melodiana; Abe Lyman

KDKA KOIL KSO KWK WBAL WBZ
 WBZA WCKY WFLL WGAR WHAM
 WJZ WLS WMAL WMT WREN
 WSYR WXYZ

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

C — Lux Radio Theatre

CERB CRAC KDB KERN KFAB
 KFBC KFPY KPRC KGB KIJ
 KLRA KLZ KMBC KMJ KMOX
 KOIN KOL KOMA KRLL KRNT
 KSL KTRH KTSa KTUL KVI KWG
 WABC WADC WBBM WBNS WBRB
 WBT WCAO WCAU WCCO WDAE
 WDBJ WDRC WEAN WFBL WFBM
 WGST WHAS WHEC WHK WICC
 WISN WJAS WJR WJSV WKBW
 WKRC WLAC WNAC WNAX WOKO
 WORC WQAM WREC WWL

R — Warden Lawes, Prison Drama

KDYL KFI KGW KHQ KOA KOMO
 KPO KPRC KSD KYW WBNX
 WCAE WCKY WCHS WDAF WFAF
 WGY WHO WHO WIRE WJAR
 WMAQ WNAC WOW WRC WTAM
 WTC WWJ

B — Sinclair Greater Minstrels

KDKA KDYL KFYR KOA KOIL
 KPRC KSO KSTP KTBS KTHS
 KVOO KWK WBAL WBZ WBZA
 WDAY WFCB WFAA WFLA WGAR
 WHAM WBA WDA WIOD WIS WJAX
 WJDX WJZ WKY WLS WLW WMAL
 WMC WMT WOAI WPTF WREN
 WRVA WSB WSM WSMB WSOO
 WSN WSYR WTAR WTMJ WWNC
 WXYZ

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

R — Richard Himber and Orchestra

KFYR KPRC KSD KSTP KTBS
 KVOO KYW WBNX WCAE WCHS
 WDAF WDAY WFAF WFCB WFAA
 WFBR WGY WHO WBA WJAR
 WKY WLW WMAQ WOAI WOW
 WRC WTAG WTAM WTCO WTMJ
 WWJ

B — Jack Pearl; Morton Bose

KDKA KECA KFSD KGA KGO
 KJR KLO KOIL KSO KWK WABY
 WAVE WBAL WBZ WBZA WCKY

MONDAY (Continued)

WCOL WBRR WENR WFIL WFLA
WGAR WHAM WIOD WIS WJAX
WJDX WJZ WMAL WMC WMT
WOOD WPTF WREN WRVA WSB
WSM WSMB WSOC WSUN WSYR
WTAR WUNC WXYZ

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

R — Contented Program
CFCE CRCT KDYL KFI KGW
KHQ KOA KOMO KPO KPFC KSD
KYW WBN WCAE WCSH WDAF
WEAF WEEL WFBR WFLA WGY
WHO WIOD WIS WJAR WJAX
WKY WMAQ WMC WOA1 WOV
WPTF WRC WRVA WSB WSM
WTAG WTAM WTAR WTC WJZ
WUNC

B — Singin' Sam

KDKA KECA KFSD KGA KGO
KJR KLO KOIL KSO KWK WBAL
WBZ WBZA WENR WFIL WGAR
WHAM WJZ WMAL WMT WREN
WSYR WXYZ

C — Wayne King and Orchestra

KDB KERN KFAB KFBK KFPY
KFRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KRNT
KSL KVI KWG WAAB WABC
WADC WBHM WBNS WBT WCAO
WCAU WCCO WDRG WEAN WFBL
WFBM WHAS WHK WIBW WJAZ
WJR WJSV WKBW WKRC WOKO
WSPD WWL

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

R — Krueger Musical Teat
WCSC WCSH WEAF WFBC WFLA
WGY WIOD WIS WJAR WJAX
WNAC WPTF WSB WSOC WSUN
WTAG WTAR WTC WUNC

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

C — Goose Creek Parson
KDB KERN KFBK KFH KFPY
KFRC KGB KHJ KLRA KLZ KMJ
KOIN KOL KOMA KRLL KRNT
KSL KTRH KTSa KTUL KVI KWG
KWKH WBRG WCCO WFBM WHAS
WISN WLAC WREC WWL

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

C — Poetic Melodies; Jack Fulton
KERN KFBK KFBK KFPY KFRC
KGB KHJ KLRA KLZ KMBC KMOX
KOIN KOL KOMA KRLL KRNT
KSL KTRH KTSa KVI WBMM
WBRG WCCO WFBM WGST WLAC
WREC WWL

R — Amos 'n' Andy

KDYL KFI KGW KHQ KOA KOMO
KPO KPFC KSD WBAF WDAF
WHQ WKY WLW WMC WOA1 WOV
WSB WSM WSMB WTAM WJZ

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

C — Renfrew of the Mounted
KDB KERN KFBK KFPY KFRC
KGB KHJ KMJ KOIN KOL KSL
KVI KWG

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

C — Dance Orchestra
CFRB CKAC KLRA WAAB WABC
WADC WALA WBNS WBRG WBT
WCAO WCAU WDAE WDBJ WDBO
WDNC WDOO WDRG WEAN WFBL
WFBM WFEA WGST WHAS WHEC
WHK WIBX WICC WJAS WJR
WJSV WKBW WKBW WKRC WLAC
WLWB WMAS WMBG WMBR WNOX
WOKO WORC WQAM WRC WSBT
WSJS WSMK WSPD WTC

C — Pick and Pat

KDB KERN KFBK KFPY KFRC
KFBC KGKO KHJ KLRA KLZ KMJ
KMOX KOIN KOL KOMA KRLL
KRNT KSCJ KSL KTUL KVI KWG
KWKH WACO WBRG WCCO WFBM
WHAS WLAC WREC

TUESDAY

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

C — News of Youth
WABC WADC WRNS WCAO WCAU
WDRG WEAN WFBL WHK WIBX
WICC WJR WKBW WLBZ WNAC
WOKO WORC WVVV

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

B — Lowell Thomas, See Monday
C — Renfrew, See Monday

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

C — Poetic Melodies, See Monday

R — Amos 'n' Andy, See Monday

B — Easy Aces

KDKA KDYL KFI KGW KHQ KOA
KOIL KOMO KPO KSO KWK WBAL
WBZ WBZA WCKY WENR WFIL
WGAR WHAM WHIO WIRE WJZ
WMAL WMT WSYR WXYZ

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

R — Voice of Experience
KDYL KFI KFPY KGW KHQ KOA
KOMO KPO KSD KSTP KYW WBN
WCAE WCSI WDAF WDAY WEAF
WEEL WEER WFBR WGY WHO
WIBA WJAR WLW WMAQ WOW
WRC WTAG WTAM WTC

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

B — Lum and Abner, See Monday

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

C — Boake Carter, See Monday

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

C — Hammerstein Music Hall
KFAB KMOX KRNT WABC WADC
WBMM WBNS WCAO WCAU WDRG
WEAN WFBL WFBM WGR WHAS
WHK WJAS WJR WJSV WKRC
WMAS WNAC WOKO WSPD

R — Leo Reisman and Orchestra

KFYR KPFC KSD KSTP KTBS
KV00 KYW WBAF WBN WCAE
WCSH WDAF WDAY WEAF WEEL
WFBR WFLA WGY WHO WIBA
WIOD WIS WJAR WJAX WJDX
WKY WLW WMAQ WOW WPTF
WRC WRVA WSOC WTAG WTAM
WTAR WTC WTMJ WWJ WUNC

B — Log Cabin Dude Ranch

KDKA KOIL KSO KWK WBAL
WBZ WBZA WFIL WGAR WHAM
WIRE WJZ WLS WMAL WMT
WREN WSYR WXYZ

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

C — Russ Morgan; Ken Murray
CFRB CRCM KFAB KFH KLRA
KMBC KMOX KOMA KRLL KRNT
KSL KTRH KTSa KTUL WABC
WADC WBMM WBNS WBRG WBT
WCAO WCAU WCCO WDAE WDBJ
WDRG WEAN WFBM WGR
WGST WHAS WHEC WHK WICC
WISN WJAS WJR WJSV WKRC
WLAC WMAS WMBD WMBG
WNAC WNAX WOKO WORC WQAM
WREC WWL

R — Wayne King and Orchestra

KFYR KPFC KSD KSTP KTBS
KV00 KYW WAVE WBAF WBN
WCAE WCKY WCSH WDAF WDAY

WEAF WEBC WEEL WFBR WGY
WHQ WHIO WIBA WIRE WJAR
WJDX WKY WMAQ WMC WOA1
WOW WRC WSB WSM WSMB WTAG
WTAM WTC WTMJ WWJ

B — Edgar Guest, Welcome Valley

KDKA KOIL KSO KWK WBAL WBZ
WBZA WFIL WGAR WHAM WJZ
WLS WLW WMAL WMT WREN
WSYR WXYZ

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

C — Fred Waring and Orchestra

CFRB CKAC KFAB KFH KGKO
KLRA KMBC KMOX KOMA KRLL
KRNT KSCJ KTRH KTSa KTUL
KWKH WABC WACO WADC WALA
WBMM WBIG WBNS WBRG WBT
WCAO WCAU WCCO WDAE WDBJ
WDBO WDNC WDOO WDRG WEAN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHF WIBW WIBX
WICG WISN WJAS WJR WJSV
WKBW WKBW WKBW WKRC
WLAC WLWB WMAS WMBD WMBG
WMBR WMNN WNAC WNAX
WNBW WNOX WOC WOKO WORC
WOWO WPG WQAM WREC WSBT
WSFA WSJS WSPD WTC WWL

R — Vox Pop; Sidewalk Interviews

KSD KYW WBN WCAE WCKY
WCSH WDAF WEAF WEEL WFBR
WGY WHO WHIO WIRE WJAR
WMAQ WOW WRC WTAG WTAM
WTC WWJ

B — Ben Bernie and Orchestra

KDKA KDYL KFI KFSD KFYR
KGW KHQ KOA KOIL KOMO KPO
KPFC KSO KSTP KTAR KTBS
KV00 KWK WAVE WBAL WBAF
WBZ WBZA WDAY WEBC WFLA
WFLA WGAR WHAM WIBA WIOD
WIS WJAX WJDX WJZ WKY WLS
WLW WMAL WMC WMT WOA1
WPTF WREN WRVA WSB WSM
WSMB WSOC WSYR WTAR WTMJ
WUNC WXYZ

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

C — Camel Caravan

KDB KERN KFAB KFBK KFH
KFPY KFRC KGB KGKO KHJ
KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KOMA KRLL
KRNT KSCJ KSL KTRH KTSa
KTUL KVI KVOR KWG KWKH
WABC WACO WADC WALA WBMM
WBIG WBNS WBRG WBT WCAO
WCAU WCCO WDAE WDBJ WDBO
WDNC WDOO WDRG WEAN WFBL
WFBM WFEA WGST WHAS WHEC
WHK WHF WIBW WIBX WICC
WJAS WJR WJSV WKBW WKBW
WKRC WLAC WLWB WMAS WMBD
WMBG WMBR WNAC WNAX
WNOX WOKO WORC WOWO WPG
WQAM WREC WSBT WSFA WSJS
WSPD WTC WWL

R — Fred Astaire; Johnny Green

CRCT KDYL KFI KFYR KGW
KHQ KOA KOMO KPO KPFC KSD
KSTP KTBS KTHS KV00 KYW
WAVE WBAF WBN WCAE WCKY
WCSH WDAF WDAY WEAF WEBC
WEEL WFBR WFLA WGY WHO
WHIO WIBA WIOD WIRE WIS
WJAR WJAX WJDX WKY WMAQ
WMC WOA1 WOW WPTF WRC
WRVA WSM WSMB WSOC WTAG
WTAM WTAR WTC WTMJ WWJ
WUNC

B — Husbands and Wives

KECA KEX KFSD KGA KGO EJR

TUESDAY (Continued)

KLO KOIL KSO KWK WBAL WBZ
WBZA WEBR WENR WHAM WJZ
WMAL WMT WREN WSAI WSYR
WXYZ

E-10:30 p.m., C-9:30, M-8:30, P-7:30
R—Jimmy Fiddler Hollywood Gospel
KDYL KFI KGW KHQ KOA KOMO
KPO KSD KTAR KYW WBNB
WCAE WCSI WDAF WFAE WFBR
WGY WHO WJAR WLW WMAQ
WNAC WOOD WOW WRC WTAT
WTAM WTIC WWJ

B—Portraits of Harmony
KDKA KECA KFSD KGA KGHL
KGR KGO KJR KLO KOIL KPRC
KSO KTBS KTHS KWK WAPI WAVE
WBAL WBAP WBZ WBZA WCKY
WENR WFIL WFLA WGAR WHAM
WIOD WIRE WIS WJAX WJDX
WJZ WKY WMAL WMC WMT WQAI
WPTF WREN WRVA WSB WSM
WSMB WSOB WSUN WSYR WTAR
WVNC WXYZ

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C—Poetic Melodies, See Monday

R—Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C—Renfrew of Mounted, See Monday

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

CFRB CKAC KLRA KSCJ WAAB
WABC WADC WALA WBBM WBNS
WBRC WBT WCAU WCCO WDAE
WDBJ WDBO WDNC WDOE WDRC
WEAN WFBL WFBM WFEA WGST
WHAS WHEC WHK WIBX WICC
WISN WJAS WJR WJSV WKBW
WKRC WLAC WLWB WMAS WMBD
WMBG WMBR WNAX WNOX WOC
WOKO WORC WQAM WREC WSBT
WSJS WSMK WSPD WTOC

R—Leo Reisman and Orchestra
KDYL KFI KFSD KGHL KGR
KGW KHQ KOA KOMO KPO KTAR

WEDNESDAY

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C—Bobby Benson, See Monday

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C—Renfrew of Mounted, See Mon.
B—Lowell Thomas, See Monday

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C—Poetic Melodies, See Monday
R—Amos 'n' Andy, See Monday
B—Easy Aces, See Tuesday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C—Popeye, See Monday
R—Uncle Ezra, See Monday

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C—Goose Creek Parson, See Mon.
B—Lum and Abner, See Monday

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

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C—Cavalcade of America
KDB KERN KFAB KFBK KFPY
KFRK KGB KHJ KIZ KMBC KMJ
KMOX KOIN KOL KRLD KRNT
KSL KVI KWG WABC WBBM
WBNS WCAU WCAU WCCO WDRC
WEAN WFBL WFBM WGR WHAS
WHEC WHK WJAS WJR WJSV
WKRC WLAC WMBG WNAC WOKO
WTOC WVL

B—Follies de Paree
KDKA KOIL KSO KWK WBAL
WBZ WBZA WCKY WFIL WGAR
WHAM WHO WIRE WJZ WLS
WMAL WMT WREN WSYR WXYZ

R—One Man's Family
KDYL KFI KFYR KGW KHQ KOA
KOMO KPO KPRC KSD KSTP
KTAR KTBS KTHS KVOO KYW
WAPI WAVE WBAP WBAE WCAE
WCSH WDAF WDAY WFAE WFCB
WEEI WFAA WFBR WFLA WGY
WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WQAI WOW WPTF WRC
WRVA WSB WSM WSMB WSOB
WSUN WTAT WTAM WTAR WTIC
WTMJ WWJ WVNC

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C—Burns and Allen

CKAC KFAB KFH KLRA KMBC
KMOX KOMA KRLD KRNT KSCJ
KTRH KTSa KTUL KWKB WABC
WADC WBBM WBNS WBRC WBT
WCAU WCAU WCCO WDAE WDBJ
WDBO WDRC WEAN WFBL WFBM
WFEA WGR WGST WHAS WHEC
WHK WHP WIBW WIBX WICC
WJAS WJR WJSV WKRC WLAC
WLWB WMAS WMBD WMBG
WMBR WNAC WNAX WNOX WOKO
WORC WPG WQAM WREC WSPD
WVL

R—Wayne King, See Tuesday

B—Ethel Barrymore, Drama
KDKA KOIL KSO KWK WBAL WBZ
WBZA WENR WFIL WGAR WHAM
WJZ WMAL WMT WREN WSAI
WSYR WXYZ

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

KDB KERN KFAB KFBK KFH
KFPY KFRK KGB KGKO KGMB
KHJ KLRA KIZ KMBC KMJ
KMOX KOH KOIN KOL KOMA
KRLD KRNT KSCJ KSL KTRH
KTSa KTUL KVI KVOR KWG
KWKB WABC WACO WADC WALA
WBNS WBIG WBNS WBRC WBT
WCAU WCAU WCCO WCOA WDAE
WDBG WDBO WDNC WDOE WDRC
WEAN WFBL WFBM WFEA WGST
WHAS WHEC WHK WHP WIBW
WJAS WICC WISN WJAS WJR
WJSV WKBH WKBW WCRK WLAC
WLWB WMAS WMBD WMBG
WMBR WNAC WNAX WNBFWNOX
WOC WOKO WORC WOWO WPG
WQAM WREC WSPA WSJS WSPD
WTOC WVL

R—Town Hall Tonight

KFYR KPRC KSD KSTP KTBS
KTHS KVOO KYW WAVE WBNB
WCAE WCSH WDAF WDAY WFAE
WFCB WEEI WFAA WFBR WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WQAI WOW WPTF WRC WSB
WSM WSMB WSOB WTAT WTAM
WTAR WTIC WTJ WWJ WVNC

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

C—Come On, Let's Sing
KDB KERN KFAB KFBK KFH
KFPY KFRK KGB KGMB KHJ
KLRA KIZ KMBC KMJ KMOX
KOIN KOL KOMA KRLD KRNT
KSL KTRH KTSa KTUL KVI KWG
KWKB WABC WBBM WBNS WBRC
WBT WCAU WCAU WCCO WDAE
WDBJ WDBO WDRC WEAN WFBL

WFBM WGST WHAS WHEC WHK
WICC WISN WJAS WJR WJSA
WKHW WKRC WLAC WLWB WMBG
WMBR WNAC WOKO WORC WOWO
WQAM WREC WTOC WVL

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

C—Crime Crusade; Phil Lord
KDB KERN KFAB KFBK KFH
KFPY KFRK KGB KHJ KLRA KIZ
KMBC KMJ KMOX KOIN KOL
KOMA KRLD KRNT KSL KTRH
KTSa KTUL KVI KWG KWKB
WABC WACO WBBM WBNS WBRC
WBT WCAU WCAU WCCO WDAE
WDBJ WDBO WDRC WEAN WFBL
WFBM WGST WHAS WHEC WHK
WICC WISN WJAS WJR WJSV
WKBW WKRC WLAC WLWB WMBG
WMBR WNAC WOKO WORC WOWO
WQAM WREC WTOC WVL

R—Your Hit Parade

KDYL KEX KFI KFYR KGHL
KGR KGU KGW KHQ KOA KOMO
KPO KPRC KSD KSTP KTAR
KTBS KTHS KVOO KYW WAVE
WCAE WCSC WCSH WDAF WDAY
WEAF WFCB WFAA WFBM WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WNAC WQAI WOW WPTF
WRC WRVA WSB WSM WSMB
WSO WSUN WSYR WTAT WTAM
WTAR WTIC WTJ WWJ WVNC

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C—Goose Creek Parson, See Mon.

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C—Poetic Melodies, See Monday
R—Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C—Renfrew of Mounted, See Monday

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

CKAC KLRA WAAB WABC WADO
WALA WBRC WBT WCAU WCAU
WDAE WDBJ WDBO WDNC WDOI
WDRC WEAN WFBL WFBM WFEA
WGST WHAS WHEC WHK WICC
WJAS WJR WJSV WKBW WKRC
WLAC WLWB WMBG WMBR WNOX
WOKO WOC WQAM WREC WSPD
WTOC

C—Burns and Allen

KDB KERN KFBK KFPY KFRK
KGB KHJ KIZ KMJ KOIN KOL
KSL KVI KVOR KWG

THURSDAY

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C—News of Youth, See Tuesday

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C—Renfrew of Mounted, See Mon.
B—Lowell Thomas, See Monday

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C—Poetic Melodies, See Monday
R—Amos 'n' Andy, See Monday
B—Easy Aces, See Tuesday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
R—Experience, See Tuesday

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C—Judy Starr and Charlieaters
KDB KERN KFAB KFBK KFPY
KFRK KGB KHJ KIZ KMJ KMOX
KOIN KOL KVI KWG WABC WBBM
WCAU WCAU WCCO WEAN WEEI

THURSDAY (Continued)

WFBL WFBN WGR WHCC WHK
WJAS WJR WJSV WKRC

B — Lum and Abner, See Monday

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

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

C — Kate Smith; Babe Ruth
KFAB KMBC KMOX KRLL KRNT
KTRH WABC WADC WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCCO WDAE WDBJ WDRC WEAN
WEEL WFBL WFBM WGR WGST
WHAS WHK WHIP WJAX WJAS
WJR WJSV WKBN WKRC WLZ
WMAS WMBG WMBR WOC WOKO
WSPD WTOC WWL WYVA

R — Rudy Vallee's Variety Hour
CFCT CRCT KDYL KFI KFJR
KGW KHQ KOA KOMO KPO KSD
KSTP KTR KTW WBNB WCAE
WCSH WDAE WDAY WEAF WERC
WEEL WFBR WGY WHO WJAR
WLW WMAQ WOW WRC WTAM
WTIC WTMJ WWJ

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

C — Major Bowes' Amateurs
CFBR CKAC KDB KERN KFAB
KFBB KFH KFPY KFRC KGB
KGKO KLRA KLZ KMBC KMJ
KMOX KOIN KOL KOMA KRLL
KRNT KSCJ KSL KTRH KTSK
KTUL KVI KVOR KWG KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRC WBT WCAO
WCAU WCCO WCOA WDAE WDBJ
WDBO WDNC WDDO WDRB WEAN
WEFL WFBM WFEA WGST WHAS
WHCC WHK WHIP WJAX WJR
WJSV WKBN WKRC WLAC WLZ
WMAS WMBD WMBG WMBR
WMNN WMAC WNAK WOC WOKO
WORC WOYO WPG WQAM WREC
WSFA WSJS WSPD WTOC WWL

R — Maxwell House Show Boat
KDYL KFI KFSB KFJR KGLH
KGRH KWK KHQ KOA KOMO KPO
KPRC KSD KSTP KTR KTBS
KYW WAPI WAVE WBAF WBNB
WCAE WCSH WDAE WDAY WEAF
WEBC WEEL WFBR WFLA WGY
WHO WHIO WIBA WIOD WIRE WIS
WJAR WJAX WJDX WJY WMAQ
WMC WOAI WOW WPTP WRC
WRVA WSB WSM WSMB
WSOC WTAG WTAM WTAR WTIC
WTMJ WWJ WYWC

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Sears — Then and Now

KDB KERN KFAB KFBB KFBB
KFH KFPY KFRC KGB KGKO
KGMX KHJ KLRA KLZ KMBC
KMJ KMOX KOH KOIN KOL KOMA
KRLL KRNT KSCJ KSL KTRH
KTRH KTUL KVI KVOR KWG
KWKH WABC WACO WADC WALA
WBBM WBIG WBNS WBRC WBT
WCAO WCAU WCOA WDAE
WDBJ WDBO WDNC WDDO WDRB
WEAN WEEL WFBM WFEA WFEA
WGST WHAS WHCC WHK WHIP
WJAX WJDX WJY WMAQ WMBG
WMAS WMBD WMBG WMBR
WMNN WMAC WNAK WNOX WOC
WOKO WORC WOYO WPG WQAM
WREC WSBT WSFA WSJS WSMK
WSPD WTOC WWL

R — Bing Crosby; Bob Burns
CFCT CRCT KDYL KFI KFJR
KGW KHQ KOA KOMO KPO KPRC
KSD KSTP KTR KTBS KTHS
KVOO KYW WAVE WBAF WBNB
WCAE WCSH WDAE WDAY WEAF
WEBC WEEL WFBR WFLA WGY
WHO WIBA WIOD WIS WJAX
WJAX WJDX WJY WLV WMAQ
WMC WOAI WOW WPTP WRC
WRVA WSB WSM WSMB WSOC
WTAG WTAM WTAR WTIC WTMJ
WYWC WYWC

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — March of Time

KDB KERN KFAB KFBB KFPY
KFRC KGB KHJ KLZ KMJ KMOX
KOLN KOL KOMA KRNT KSL KVI
KWG WABC WBBM WBNS WCAO
WCAU WCCO WDRB WEAN WEEL
WFL WFBM WGST WHAS WHCC
WHK WJAS WJR WJSV WKBW
WKRC WOKO WWL

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Poetic Melodies, See Monday

R — Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C — Renfrew of Mounted, See Monday

FRIDAY

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — Bobby Benson, See Monday

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C — Renfrew of Mounted, See Tues.

B — Lowell Thomas, See Monday

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C — Mortimer Gooch, Sketch

WABC WADC WBT WCAO WCAU
WDRB WEAN WEEL WFBL WGR
WHCC WHK WJAS WJR WJSV
WKRC WOKO WSPD WTOC WYVA

R — Amos 'n' Andy, See Monday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Popeye, See Monday

R — Uncle Ezra, See Monday

B — Stainless Show; Mario Cocci

KDKA KECA KEX KFSB KGA
KGO KJR KLO KOIL KSO KVOD
KWK WBAL WBZ WBZA WEBR
WENR WFIL WGAR WHAM WJZ
WMAL WMT WSAI WSYR WXYZ

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C — Goose Creek Parson, See Mon.

B — Lum and Abner, See Monday

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

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

KDB KERN KFAB KFBB KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KOMA KRNT
KSL KVI KWG WABC WBBM
WBNS WBRC WBT WCAO WCAU
WCCO WDRB WEAN WFBL WFBM
WGR WGST WHAS WHK WJAS
WJR WJSV WKRC WMAS WMBG
WNAK WOKO WWL

R — Cities Service Concert

CRCT KFJR KOA KPRC KSD
KSTP KTBS KTHS KVOO KYW
WBAF WBNB WCAE WCSH WDAF
WDAY WEAF WEBC WEEL WFAA
WFBR WGY WHO WHIO WIBA
WIOD WJAR WKY WMAQ WYAI

WOW WRC WRVA WSAI WTAG
WTAM WTIC WTMJ WWJ

B — Irene Rich; Drama
KDKA KDYL KFI KGW KHQ KOIL
KOMO KPO KSO KTR KWK WAVE
WBAL WBZ WBZA WCKY WJL
WGAR WHAM WIRE WJZ WLS
WMAL WMC WMT WREN WSB
WSYR WSYR WXYZ

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

KDKA KOIL KSO KWK WBAL
WBZ WBZA WFIL WGAR WHAM
WJZ WLS WMAL WMT WREN
WSYR WXYZ

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

KDB KERN KFAB KFBB KFH
KFPY KFRC KGB KGKO KGMX
KHJ KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KOMA KRLL
KRNT KSCJ KSL KTRH KTSK
KTUL KVI KVOR KWG KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRC WBT WCAO
WCAU WCCO WCOA WDAE WDBJ
WDBO WDNC WDDO WDRB WEAN
WFBL WFBM WFEA WGST WHAS
WHCC WHK WHIP WJAX WJR
WJSV WKBW WKRC WLAC WLZ
WMAS WMBD WMBG WMBR WNAK
WNAK WNAK WNOX WOC WOKO
WORC WOYO WPG WQAM WREC
WSFA WSJS WSMK WSPD WTOC
WWL

B — Death Valley Days

KDKA KDYL KFI KGW KHQ
KOIL KOMO KPO KSO KWK WBAL
WBZ WBZA WFIL WGAR WHAM
WJZ WLS WLW WMAL WMT
WREN WSYR WXYZ

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

CFBR CKAC KDB KERN KFAB
KFBB KFH KFPY KFRC KGB KHJ
KLRA KLZ KMBC KMJ KMOX
KOIN KOL KOMA KRLL KRNT
KSCJ KSL KTRH KTSK KTUL KVI
KVOR KWG KWKH WABC WADC
WBBM WBNS WBRC WBT WCAO
WCAU WCCO WDAE WDBJ WDBO
WDRB WEAN WFBL WFBM WFEA
WGST WHAS WHCC WHK WHP
WIBW WJAX WJDX WJY WMAQ
WMBG WMAS WMBD WMBG WMBR
WMNN WMAC WNAK WNOX WOKO
WORC WPG WQAM WREC WSPD
WWL

R — Frank Munn; Bernice Claire
KSD KYW WBNB WCAE WCSH
WDAF WEAF WEEL WFBR WGY
WJAR WLW WMAQ WOW WRC
WTAG WTAM WWJ

B — Fred Waring

KDKA KDYL KFJR KOA KOIL
KPRC KSO KSTP KTBS KWK
WAPI WAVE WBAL WBZ WBZA
WDAY WEBC WFAA WFIL WFLA
WGAR WHAM WIBA WIOD WIS
WJAX WJDX WJY WJY WLS WLW
WMAL WMC WMT WOAI WOOD
WPTP WREN WRVA WWSB WSM
WSMB WSOC WSUN WSYR WTAR
WTMJ WYWC WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30
R — True Story Court

KSD KYW WBNB WCAE WCSH
WEAF WEEL WFBR WGY WHO

FRIDAY (Continued)

WHIO WJAZ WMAQ WOW WRC
WTAG WTAM WTTIC WWJ

B—Rosemarie Brancato; Helen Claire
KDKA KECA KFSB KTYR KOA
KGHL KGIR KGO KJR KLO KOIL
KPRC KSO KSTP KTAJ KTBS
KTHS KWK WABY WAPI WAVE
WBAL WBZ WBZA WCKY WCSC
WDAY WFCB WFCR WENR WFSA
WFBC WFIL WFLA WGAR WHAM
WIBA WIOD WIRE WIS WJAZ
WJDX WJZ WKY WMAL WMC
WMT WOAI WOOD WPTF WREN
WRVA WSB WSM WSMB WSOC
WSUN WSYR WTAR WTMJ WWNC
WXYZ

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

R—First Nighter; Drama
KDYL KFI KFYR KGW KHQ KOA
KOMO KPO KPRC KSD KSTP
KTBS KTHS KYW WAVE WBNB
WCAE WCFH WDAF WDAY WEAF
WERC WEI WFSA WFRB WFLA
WGY WHO WIBA WIOD WIS WJAZ
WJAX WJDX WKY WLW WMAL
WMC WPTF WRC WRVA WSB
WSM WSMB WSOC WTAG WTAM
WTAR WTTIC WTMJ WWJ WWNC

B—Your Radio Guide

CHRT KDKA KOIL KSO KWK
WBAL WBZ WBZA WENR WFIL
WGAR WFAM WIRE WJZ WMAL
WMT WREN WSYR WXYZ

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

C—Mortimer Gooch, Sketch
KERN KFAB KFBK KFYR KTRC
KGB KHJ KLRA KLZ KMBC KMOX
KOLN KOL KOMA KRLD KRNT
KSL KTRH KTSa KYI WBBM
WBRC WCCO WFBM WGST WLAC
WRCR WWL

R—Amos 'n' Andy, See Monday

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

C—Dance Orchestra
CFRB CKAC KTRA KSCJ WAAB
WABC WADC WAEA WBAE WBRC
WBT WCAO WCAU WDAE WDBJ
WDBO WDNC WDOJ WDRC WFBL
WFSA WGST WHBC WHK WHX
WISN WJAS WJR WKBW WLAC
WJLZ WMAS WMBD WMBG
WMBR WNAX WNOX WOC WOKO
WOPG WQAM WREC WSBT
WSJS WSMK WSPD WTOC

C—Renfrew of Mounted, See Mon.

SATURDAY

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

C—News of Youth, See Tuesday

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

C—Saturday Swing Club
CFRB CKAC KFBK KFH KGB KLZ
KMBC KNOW KOH KRLD KSL
KTRH KTSa KVOR KWKH WABC
WACO WADC WALA WBNS WCAO
WDAE WDBJ WDOJ WDNC WDRG
WDEI WFBL WFBM WFEA WHAS
WHBC WHK WHX WIC WJAS
WLZ WMBG WMBR WMAN WOC
WOKO WORC WQAM WSBT WSJS
WSPD

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

C—Carborundum Band
KFAB KMBC KNOX WABC WBBM
WBT WCAU WCCO WEAN WEI
WFBL WGR WHAS WHK WJAS
WJR WRC

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

C—Columbia Workshop; Drama
CFRB CKAC KFAB KFH KTRC
KLRA KMBC KMOX KOMA KRNT
KTRH KTSa KTUL KWKH WABC
WBBM WBNS WBRC WBT WCAO
WCAU WCCO WDAE WDBJ WDBO
WDRG WEAN WFBL WFBM WGR
WGST WHAS WHBC WHK WHX
WIC WISN WJAS WJR WJSV
WKRC WLAC WLZ WMBG WMBR
WNAC WOKO WORC WQAM WREC
WSPD WWL

R—Saturday Night Party

KSD KYW WAPI WAVE WBNB
WCAE WCFH WOSH WDAF WEAF
WMBD WMBG WMBR WNAC
WNAX WNOX WOC WOKO WORC
WPG WQAM WREC WSBT WSFA
WSJS WSPD WTOC WWL WWVA

B—Ed Wynn; Don Voorhees

KDKA KFYR KOIL KPRC KSO
KSTP KTBS KWK WABY WBAL
WHP WBZ WBZA WCKY WDAY
WFCB WFRB WFIL WGAR WHAM
WIBA WIRE WJZ WKY WLS WMAL
WMT WOAI WREN WSYR WTMJ
WXYZ

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

C—Floyd Gibbons; Vincent Lopez
KDB KERN KFAB KFRK KFYR
KTRC KGB KHJ KLRA KLZ KMBC
KMLD KRNT KSL KTRH KTSa
KVI KWG WABC WBBM WBNS
WBT WCAO WCAU WCCO WDAE
WDBO WDRG WEAN WFBL WFBM
WGST WHAS WHK WISN WJAS
WJR WJSV WKBW WKRC WMBR
WOKO WQAM WREC WSPD WWL

R—Snow Village Sketches

KSD KYW WBNB WCAE WCFH
WDAF WEAF WFRB WGY WJAZ
WMAQ WNAC WOW WRC WTAG
WTAM WTTIC WWJ

B—National Barn Dance

KDKA KOIL KPRC KSO KTBS
KTHS KWK WABY WAPI WAVE
WBAL WBP WBZ WBZA WFIL
WFLA WGAR WHAM WIOD WIRE
WIS WJAX WJDX WJZ WKY WLS
WMAL WMC WMT WOAI WOOD
WPTF WREN WRVA WSB WSMB
WSOC WSUN WSYR WTAR WWNC
WXYZ

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

C—Mary Eastman; Gus Haenschen
KDB KERN KFAB KFBK KFH
KFYR KTRC KGB KGKO KHJ
KLRA KLZ KMBC KMIJ KMOX
KOLN KOL KOMA KRLD KTRH
KTSa KTUL KYI KWG KWKH
WBT WCAO WCOA WDAE WDBO
WDOJ WEAN WFBL WFBM WGST
WHAS WHBC WHK WHX WJAS
WJR WKBW WLAC WMBD WMBR
WNOX WOC WQAM WREC WSFA
WSPD WTOC WWL WWVA

R—Shell Chateau

KDYL KFI KFSB KFYR KGHL
KGIR KGW KHQ KOA KOMO KPO
KSD KSTP KTAJ KYW WBNB
WCAE WCFH WDAF WDAY WEAF
WERC WEI WFRB WGY WIBA
WJAZ WLW WMAQ WOW WRC
WTAG WTAM WTTIC WTMJ WWJ

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

C—Your Hit Parade
KERN KFAB KFBK KFH KFYR
KTRC KGB KGKO KGMD KHJ
KLRA KLZ KMBC KMIJ KMOX
KOH KOIN KOL KOMA KRLD
KRNT KSCJ KSL KTRH KTSa
KTUL KYI KVOR KWG KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRC WBT WCAO
WCAU WCCO WCOA WDAE WDBJ
WDBO WDNC WDOJ WDRG WEAN
WFBL WFBM WFEA WGST WHAS
WHBC WHK WIP WIBW WIRX
WICC WISN WJAS WJR WJSV
WKBW WKRC WLAC WLZ WMAS
WMBD WMBG WMBR WNAC
WNAX WNOX WOC WOKO WORC
WPG WQAM WREC WSBT WSFA
WSJS WSPD WTOC WWL WWVA

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

C—American Dances; Lud Gluskin
CFRB CKAC KERN KFBK KFBK
KFI KFYR KGB KGKO KLZ KMBC
KNOW KOH KOI KRLD KTRH
KTSa KVI KVOR KWG KWKH
WABC WACO WADC WALA WBNS
WCAO WDAE WDBJ WDBO WDNC
WDOJ WDRG WEI WFBL WFBM
WFEA WGR WHAS WHBC WHK
WHX WJAS WJR WKRC WLZ
WMBD WMBG WMBR WMMN
WOKO WOPG WPG WQAM WSBT
WSJS WSPD

R—Ervin S. Cobb

KDYL KFI KFYR KGHL KGIR
KGW KHQ KOA KOMO KPO KPRC
KSD KSTP KTAJ KTBS KTHS
KVOO KYW WAVE WBP WBNB
WCAE WCFH WDAF WDAY WEAF
WERC WFRB WFLA WGY WIBA
WIOD WIS WJAZ WJAX WJDX
WKY WMAQ WMC WNAC WOOD
WOW WPTF WRC WRVA WSB
WSMB WSOC WSUN WTAG WTAM
WTAR WTTIC WTMJ WWJ WWNC

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

C—Dance Orchestra
CFRB CKAC KFH KGKO KLRA
KLZ KMBC KMOX KOMA KRLD
KSCJ KSL KTRH KTSa KVOR
KWKH WABC WACO WADC WALA
WBBM WBNS WBRC WBT WCAO
WCAU WCCO WDAE WDBJ WDBO
WDOJ WDNC WDRG WFBL WFBM
WFEA WGST WHAS WHBC WHK
WHX WISN WJAS WJR WKBW
WKRC WLAC WMBD WMBO
WMBR WNAX WNOX WOC WOKO
WOPG WQAM WREC WSBT WSJS
WSMK WSPD WTOC

B—National Barn Dance

KDYL KFI KFSB KFYR KGHL
KGIR KGU KGW KHQ KOA KOMO
KPO KSTP KTAJ WDAY WFCB
WIBA WLW WTMJ

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

C—Dance Orchestra
CFRB CKAC KFH KGKO KLRA
KLZ KMBC KMOX KOMA KSL
KTRH KTSa KVOR KWKH WABC
WACO WADC WALA WBNS WBRC
WBT WCAO WCAU WDAE WDBJ
WDBO WDNC WDOJ WDRG WEAN
WFBL WFBM WFEA WGST WHAS
WHBC WHK WIBW WHX WICC
WJAS WJR WKBW WKRC WLAC
WLBZ WMAS WMBG WMBR WNOX
WOKO WORC WQAM WREC WSBT
WSJS WSMK WSPD WTOC

SUNDAY

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

C — Major Bowes' "Family"
CFRB KERN KFAB KFBH KFBK
KFH KFY KFCR KGB KGG KTHV
KMBC KOH KOL KRLL KSL KTRH
KTSa KVI KVOR KWG KWK
WABC WACO WADC WALA WBNS
WBRC WCAO WCCO WDAE WDBJ
WDBO WDNC WESB WFBL WFEA
WHAS WHK WIBX WJAZ WJR
WRCS WLBY WMBD WMBR
WMMN WOC WOKO WORC WQAM
WQAN WSBT WSJS WSPD WTOG

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

C — Salt Lake Tabernacle Choir
CFRB KFAB KFBH KFBK KFH
KFPY KFCR KGB KLZ KOH KOL
KRLL KSL KTRH KTSa KVI
KVOR KWG WABC WACO WADC
WALA WBNS WBRC WCAO
WCCO WDAE WDBJ WDBO WESB
WFBL WFEA WGR WHAS WIBC
WJAZ WJR WKRC WLBY WMBR
WMMN WOC WOKO WORC WQAM
WQAN WSBT WSJS WSPD WTOG

B — Radio City Music Hall
CFRC CRCT KDKA KDYL KFI
KFYR KGO KGW KHQ KOH KOMO
KPRC KSO KVoo WAPI WBAL
WBZ WBZA WCKY WDAY WECB
WGAR WHAM WIS WJDX WJZ
WJY WMAL WOAI WREN WSMB
WSYR WYWC

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

C — Trans-Atlantic Broadcast
CFRB CKAC KFH KGKO KLRA
KLZ KMBC KRLL KESC KTRH
KTSa KVOR WABC WACO WADC
WALA WBIG WBRC WCAO WCAU
WCCO WDAE WDBJ WDBO WDRC
WEAN WESG WFBL WFBM WFEA
WGR WHAS WIBX WJAZ WJS
WKRN WLAC WLBY WMBD WMBR
WNAO WOC WOKO WORC WPG
WQAM WREC WSJS WSMK WSPD
WTOG WWL

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

C — Church of the Air
KFBK KFH KFY KFCR KGB
KHJ KMOX KOH KOL KOMA KRLL
KRLL KSCJ KSL KTRH KTSa
KVI KVOR KWG WABC WALA
WBNS WBT WCAO WCCO WDAE
WDBJ WDBO WDRC WESG WFBL
WFBM WGR WHAS WHIP WIBX
WJAZ WJSV WKBN WKRC WLAC
WLBY WMBR WNBW WOC WOKO
WORC WPG WQAM WREC WSBT
WSJS WSPD WTOG WYVA

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

R — Muriel Dickson; Morton Bowe
KDYL KFI KFYR KGW KHQ KOA
KOMO KPO KSD KSTP KYW WBEN
WCAE WCKY WCSH WDAF WDAY
WEAF WEBC WFBZ WGY WIBA
WIRE WJAR WMAQ WNAO WOW
WRC WTAG WTAM WTIC WTMJ
WVJ

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

C — Pittsburgh Symphony
KFAB KLRA KLZ KMBC KMOX
KOH KRLL KRNT KTRH KTSa
KTUL KWKH WABC WADC WBBM
WBNS WBRC WBT WCAO WCAU
WCCO WDAE WDBJ WDHO WDRC
WEAN WFBL WFBM WGST WHAS

WHCC WHK WIBX WISN WJAS
WJR WJSV WKBW WKRC WLAC
WMBG WMBR WMNN WNAC
WNOX WOC WOKO WQAM WREC
WTOG WWL

B — Magic Key of RCA
CFRC CRCT KDKA KDYL KFI
KFYR KGW KHQ KOA KOIL
KOMO KPO KPRC KSO KSTP
KTHS KTHS KVoo KWK WAPI
WAVE WBAL WBZ WBZA WCKY
WDAY WEBC WENR WFaa WFIL
WFLA WGAR WHAM WHIO WIBA
WIOD WIRE WIS WJAX WJDX
WJZ WKY WMAL WMC WMT
WOAI WPTF WREN WRVA WSB
WSM WSMB WSOC WSYR WTAR
WTMJ WYWC WYXZ

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

C — New York Philharmonic
CFRB CKAC KERN KFAB KFBH
KFBK KFH KFY KFCR KGB
KGVO KLRA KLZ KMBC KNOW
KOH KOL KRLL KSL KTRH KTSa
KVI KVOR KWKH WABC WACO
WADC WALA WBIG WBNS WBRC
WCAO WCCO WDAE WDBJ WDBO
WDNC WDND WDRC WEAN WEI
WESG WFBL WFBM WFEA WHAS
WHCC WHIO WHK WIBX WICC
WJAS WJR WKBW WKRC WLBY
WMBD WMBG WMBR WMMN
WOC WOKO WORC WQAM WSBT
WSJS WSPD WTOG

R — Metropolitan Auditions
CFRC KDYL KFI KFYR KGW KHQ
KOA KOMO KPO KSD KSTP KTRH
KYW WAPI WAVE WBEN WCAE
WCKY WCSH WDAF WDAY WEAF
WEBC WFBZ WGY WHO WIBA
WIRE WJAR WJDX WMAQ WMC
WNAO WOV WRC WSB WSM WSMB
WTAG WTAM WTIC WTMJ WVJ

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

R — Grand Hotel; Drama
KDYL KFI KFYR KGW KHQ KOA
KOMO KPO KSD KSTP KYW
WBEN WCAE WCSH WDAF WDAY
WEAF WEBC WFBZ WGY WHO
WIBA WJAR WMAQ WNAO WOW
WRC WSAI WTAG WTAM WTIC
WVJ

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

R — Musical Camera; Willie Morris
KDYL KFI KGW KHQ KOA KOMO
KPO KYW WBEN WCAE WCSH
WEAF WGY WJAR WLW WMAQ
WOW WJR WSB WSMB WTAM
WTIC WVJ

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

C — Your Unseen Friend; Drama
KFAB KLZ KMOX KSL KWKH
WABC WADC WBBM WBNS WCAO
WCAU WCOA WDAE WDBJ WDOD
WDRC WEAN WEET WESG WFBL
WHAS WHCC WHK WHIP WIBX
WJAZ WJR WKBW WKRC WLAC
WLBY WMAS WMBG WMMN
WNOX WOKO WORC WOVO WQAM
WREC WSMK WSPD WWL WWVA

R — Marion Talley, Soprano
KDYL KFI KFYR KGW KHQ KOA
KOMO KPO KSTP KYW WBEN
WCAE WCKY WCSH WDAF WDAY
WEAF WEBC WFBZ WGY WHO
WIBA WIRE WJAR WMAQ WNAO
WOW WJR WTAG WTAM WTIC
WTMJ WVJ

B — We, The People; Phil Lord
KDKA KECA KEX KFSD KGA

KGHL KGIR KGO KJR KLO KOIL
KPRC KSO KTHS KTHS KVoo
KWK WABY WAPI WAVE WBAL
WBAP WBZ WBZA WEBR WENR
WFIL WFLA WGAR WHAM WIOD
WIS WJAX WJDX WJZ WKY WLW
WMAL WMC WMT WOAI WPTF
WREN WRVA WSB WSM WSMB
WSOC WSON WSYR WTAR WYWC
WYXZ

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

C — Guy Lombardo and Orchestra
KFH KMBC KMOX KOMA KTUL
WAAB WABC WBNS WCAO WCAU
WDRC WEAN WFBL WFBM WGR
WHAS WHCC WHK WIBX WICK
WJR WJSV WMAS WOKO WORC
WSPD WWVA

R — Smiling Ed McConnell
KDYL KFI KFYR KGIR KGW KHQ
KOMO KPO KSTP KYW WBEN
WCAE WCSH WDAF WDAY WEAF
WEBC WFBZ WGY WHO WIBA
WJAR WLW WMAQ WNAO WOW
WRC WTAG WTAM WTIC WTMJ
WVJ

B — Stoopnagle and Budd
KDKA KECA KEX KFSD KGA
KGO KJR KLO KOIL KSO KWK
WBAL WBZ WBZA WCKY WENR
WFIL WGAR WHAM WHIO WIRE
WJZ WMAL WMT WREN WSYR
WYXZ

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

C — Joe Penner; Jimmy Grier
KDB KERN KFAB KFBK KFPY
KFCR KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KOMO KRLL
KSL KTRH KTSa KVI KWG WABC
WBBM WBNS WBT WCAO WCAU
WCCO WDAE WDBJ WDBO WFBM
WFBM WGST WHAS WHCC WHK
WJAZ WJR WJSV WKBW WKRC
WMBG WMBR WOKO WQAM WWL

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

C — Rubinoff and His Violin
KDB KERN KFAB KFBK KTRK
KFI KFY KFCR KGB KGKO KHJ
KLRA KLZ KMJ KMOX KOH KOIL
KOL KOMA KRLL KRNT KSCJ
KSL KTRH KTSa KTUL KVIVOR
KWG KWKH WABC WACO WADC
WALA WBBM WBIG WBNS WBRC
WBZ WCAO WCAU WCCO WCOA
WDAE WDBJ WDBO WDNC WDOD
WDRC WEET WFBL WFBM WFLA
WGST WHAS WHCC WHK WHIP
WIBX WJAZ WJAX WJAZ WJR
WJSV WKBN WKBW WKRC WLAC
WLBY WMAS WMBD WMBG
WMBR WNAO WNOX WOC WOKO
WORC WPG WQAM WREC WSBT
WSFA WSJS WSMK WSPD WTOG
WWL WWVA

R — A Tale of Today
WHEN WEAF WGY WJAR WMAQ
WOW WRC WTAM

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

R — Jack Benny; Mary Livingstone
KSD KYA KYW WBEN WCAE
WCSH WDAF WEAF WFBZ WGY
WHO WJAR WLW WMAQ WNAO
WOW WRC WTAG WTAM WTIC
WVJ

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

C — Phil Baker; Hal Kemp
KLRA KLZ KRLL KTRH KTSa
KTUL KWKH WABC WACO WADC
WALA WBIG WBNS WBRC WBT

SUNDAY (Continued)

WCAO WCAU WCOA WDAE WDBJ
WDBO WDCN WDDO WDRG WEAN
WFBL WFBN WFEA WGR WGST
WHAS WHBC WHK WHP WIBX
WICC WJAS WJR WJSV WKBN
WRRK WLAC WLWB WMAS WMBR
WNAK WNOX WOKO WORC WQAM
WREC WSBT WSFA WSJS WSMK
WSPD WTOC WWL WVVV

R — Fireside Recitals

KSD KYW WBN WCAE WCSH
WDAF WFAF WFBR WGY WHIO
WIRE WJAR WMAQ WOW WRC
WSAI WTAG WTAM WTIC WWJ

B — Ozzie Nelson; Bob Ripley

KDKA KOIL KPRC KSO KTBS
KTHS KVOO KWK WAPI WAVE
WBAL WBAP WBZ WBZA WOKY
WFIL WGAR WHAM WHIO WIRE
WJDX WJZ WKY WLS WMAL WMC
WMT WQAM WREN WSB WSM
WSMB WSYR WXYZ

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

R — Sunset Dreams; Morin Sisters
CFRC CRCT KSD KYW WBN
WCAE WCSH WDAF WFAF WFBR
WGY WHIO WIRE WJAR
WLW WMAQ WOAI WOOD WVC
WRC WTAG WTAM WTIC WWJ

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

C — Nelson Eddy; Franca White
KDB KERN KFAB KFK KFH
KFPY KPRC KGB KHJ KLRA KLZ
KMBC KMJ KMOX KOIN KOL
KOMA KRLD KRNT KSCJ KSL
KTRH KTSB KTUL KWKH WABC
WADC WALA WBBM WBIG WBZ
WBRC WBT WCAO WCAU WCCO
WDAE WDBJ WDBO WDDO WDRG
WEAN WFBL WFBM WFEA WGR
WGST WHAS WHEC WHK WHP
WIBW WIBX WICC WISN WJAS
WJR WJSV WKBN WKRC WLAC
WLWB WMAS WMBD WMBR
WNAK WNOX WOC WOKO WORC
WQAM WREC WSBT WSFA WSMK
WTOC WWL WVVV

R — Good Will Court

CFRC CRCT KDYL KFI KFYR
KGW KHQ KOA KOMO KPO KPRC
KSD KSTP KTAR KTBS KTHS
KVOO KYW WAPI WAVE WBN
WCAE WCSH WDAF WDAY WFAF
WFCB WFAA WFBR WFLA WGY
WHIO WIRA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WNAK WOAI WOW WPTF
WRC WRVA WSB WSM WSMB
WSOC WSUN WTAG WTAM WJAR
WTIC WTMJ WWJ WWNC

B — Armczo Band

KDKA KECA KFSD KGA KGO KJR
KLO KOIL KSO KVOD KWK WRAL
WBZ WBZA WEBR WENR WFIL
WGAR WHAM WIRE WJZ WMAL
WMT WREN WSAI WSYR WXYZ

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

C — Eddie Cantor; Bobby Breen
KFAB KFH KGKO KLRA KMBC

KMOX KOMA KRLD KRNT KSCJ
KTRH KTSB KTUL KWKH WABC
WACO WADC WALA WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCCO WCOA WDAE WDBJ WDBO
WDCN WDDO WDRG WEAN
WFBL WFBM WFEA WGR WGST
WHAS WHEC WHK WHP WIBW
WIBX WICC WISN WJAS WJR
WJSV WKBN WKRC WLAC WLWB
WMAS WMBD WMBR WMXN
WNAK WNOX WOC WOKO WORC
WQAM WREC WSBT WSFA WSJS
WSMK WSPD WTOC WWL WVVV

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

R — Manhattan Merry-Go-Round
CFRC KDYL KFI KFYR KGW
KHQ KOA KOMO KPO KPRC KSD
KSTP KTBS KTHS KYW WAVE
WBN WCAE WCKY WCSH WDAF
WDAY WFAF WFCB WFEI WFAA
WFBR WFLA WGY WHO WHIO
WIRA WIOD WIRE WIS WJAR
WJAX WJDX WKY WMAQ WMC
WOAI WOW WPTF WRC WRVA
WSB WSM WSMB WSOC WTAG
WTAM WTAR WTIC WTMJ WWJ
WWNC

C — Ford Sunday Evening Hour

CFRB CKAK KDB KERN KFAB
KFBK KFH KFPY KFCR KGB
KGKO KHJ KLRA KLZ KMBC
KMJ KMOX KOH KOIN KOL KOMA
KRLD KRNT KSCJ KSL KTRH
KTSB KTUL KVI KVOR KVG
KWKH WABC WACO WADC WALA
WBBM WBIG WBNS WBRC WBT
WCAO WCAU WCCO WCOA WDAE
WDBJ WDBO WDCN WDDO WDRG
WEAN WFBL WFBM WFEA WGR
WGST WHAS WHEC WHK WHP
WIBW WIBX WICC WISN WJAS
WJR WJSV WKBN WKRC WLAC
WLWB WMAS WMBD WMBR WNAK
WNAK WOC WOKO WORC WQAM
WREC WSBT WSFA WSJS WSPD
WTOC WWL WVVV

B — Walter Winchell

KDKA KECA KEN KFSD KGA
KGHL KGIR KGO KJR KLO KOIL
KSO KTARKWK WBAL WBZ WBZA
WENR WFIL WGAR WHAM WJZ
WLW WMAL WMT WREN WSYR
WXYZ

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

P — Paul Whiteman's Varieties
KDKA KECA KFSD KGA KGHL
KGIR KGU KJR KLO KOIL KSO
KTAR KVK WBAL WBZ WBZA
WENR WFIL WGAR WHAM WJZ
WLW WMAL WMT WREN WSYR
WXYZ

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

R — Album of Familiar Music
CFRC CRCT KDYL KFI KFYR
KGW KHQ KOA KOMO KPO KPRC
KSD KSTP KTBS KYW WAPI
WAVE WBN WCAE WCSH WDAF
WDAY WFAF WFCB WFEI WFAA
WFBR WFLA WGY WHO WHIO

WIBA WIOD WIS WJAR WJAX
WJDX WKY WMAQ WMC WOAI
WOW WPTF WRC WRVA WSAI
WSB WSM WSMB WSOC WTAG
WTAM WTAR WTMJ WWJ WWNC

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

C — Gillette Community Sing
CFRB CKAK KDB KERN KFAB
KFBK KFBK KFH KFPY KFCR
KGB KGKO KGM B KGVO KHJ
KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KOMA KRLD
KRNT KSCJ KSL KTRH KTSB
KTUL KVI KVOR KVG KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRC WBT WCAO
WCAU WCCO WCOA WDAE WDBJ
WDBO WDCN WDDO WDRG WEAN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WIBX
WICC WISN WJAS WJR WJSV
WKBN WKBW WKRC WLAC WLWB
WMAS WMBD WMBG WMBR
WMXN WNAK WNAK WNOX WOC
WOKO WORC WOWO WPG WQAM
WREC WSBT WSFA WSJS WSMK
WSPD WTOC WWL

R — General Motors Concert

CFRC CRCT KDYL KFI KFYR
KGHL KGIR KGW KHQ KOA
KOMO KPO KPRC KSTP KTAR
KTBS KTHS KYW WAPI WAVE
WBN WCAE WCKY WCSH WDAF
WDAY WFAF WFCB WFEA WFBM
WFLA WGY WHO WHIO WIRA
WIOD WIRE WIS WJAR WJAX
WJDX WKY WMAQ WMC WNAK
WOAI WOOD WOW WPTF WRC
WRVA WSB WSM WSMB WSOC
WSUN WTAG WTAM WTAR WTIC
WTMJ WWJ WWNC

B — Edwin C. Hill

KDKA KECA KFSD KGA KGO
KJR KLO KOIL KSO KWK WBAL
WBZ WBZA WENR WFIL WGAR
WHAM WJZ WLW WMAL WMT
WREN WSYR WXYZ

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

C — Eddie Cantor; Bobby Breen
KERN KFBK KFBK KFPY KFCR
KGB KGVO KHJ KLZ KMJ KOH
KOIN KOL KSL KVI KVOR

R — Sunset Dreams; Morin Sisters

KDYL KFI KFSD KGW KHQ KOA
KOMO KPO KPRC KTAR KTBS
KTHS WBAP WDAF WXY

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

B — Walter Winchell
KDYL KFI KFSD KGHL KGIR
KGW KHQ KOA KOMO KPO KPRC
KTAR KTBS KTHS WAPI WAVE
WBAP WJDX WKY WMC WOAI
WSB WSM WSMB

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

B — Paul Whiteman's Musical Varieties
KDKA KECA KFSD KGA KGO KJR
KPRC KTBS KTHS WAPI WAVE
WBAP WJDX WKY WMC WOAI
WSB WSM WSMB

“Time Marches On!” That staccato voice belongs to Cornelius Westbrook Van Voorhies, Jr., a young man who used to have \$150,000. While attend-

ing the U. S. Naval Academy he was bequeathed a legacy of that amount, after which Van really lived as a gentleman and the money didn't last long.

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Standard

C—Columbia; R—National (Red); B—National (Blue)

CONCERTS

Frank Black, 2 p.m. Sun., B
 Rosario Bourdon, 8 p.m. Fri., R
 Ford Concert, 9 p.m. Sun., C
 Metropolitan Auditions, 3 p.m. Sun., R
 General Motors Concert, 10 p.m. Sun., R
 New York Philharmonic, 3 p.m. Sun., C
 Pittsburgh Symphony, 2 p.m. Sun., C
 Radio City Music Hall, 12:30 p.m. Sun., B
 Don Voorhees, 8 p.m. Wed., C

DANCE BANDS

Victor Arden, 8 p.m. Wed., B; 8 p.m. Fri., C; 1:30 p.m. Sun., R
 Ben Bernie, 9:00 p.m. Tues., B
 Bunny Berigan, 6:45 p.m. Sat., C
 Ray Block, 10:30 p.m. Mon., R
 Jimmie Dorsey, 10 p.m. Thurs., R
 Tommy Dorsey, 9:30 Mon., B
 Lud Gluskin, 10:30 Sat., C
 Al Goodman, 9 and 11:15 p.m. Thurs., R
 Benny Goodman, 9:30 p.m. Tues., C
 Johnny Green, 9:30 p.m. Tues., R
 Jimmy Grier, 6 p.m. Sun., C
 Gus Haenschen, 9:30 p.m. Sat., C
 Horace Heidt, 8 p.m. Mon., C
 Richard Himber, 9:30 p.m. Mon., R
 Hal Kemp, 7:30 p.m. Sun., C
 Henry King, 8:30 and 11:30 p.m. Wed., C
 Wayne King, 8:30 p.m. Tues. and Wed., R. 10 p.m. Mon., C
 Andre Kostelanetz, 9 p.m. Wed., C and 8:30 p.m. Fri., C
 Benny Krueger, 8:30 and 11:30 p.m., Mon., C
 Guy Lombardo, 5:30 Sun., C
 Vincent Lopez, 9 p.m. Sat., C
 Abe Lyman, 8:30 p.m. Mon., B. 9 p.m. Fri., R
 Russ Morgan, 8:30 p.m. Tues., C
 Ozzie Nelson, 7:30 Sun., B
 Raymond Paige, 9 p.m. Fri., C
 Portraits in Harmony, 10:30 Tues., B
 Leo Reisman, 8 and 11:30 p.m. Tues., R
 Jacques Renard, 8:30 and 11 p.m. Sun., C
 Harry Salter, 10 p.m. Sat., C
 Andy Sanella, 9 p.m. Sun., R
 Nathaniel Shilkret, 9:30 p.m., Tues., C
 Harry Sosnik, 10 p.m. Wed., R; 10 p.m. Sun., B
 Rudy Vallee, 8 p.m. Thurs., R
 Peter Van Steeden, 9 p.m. Wed., R
 Don Voorhees, 5:30 p.m. Sun., and 8 p.m. Sat., B
 Fred Waring, 9:00 Tues., C; 9:00 Fri., B
 Paul Whiteman, 9:15 and 11:30 p.m. Sun., B
 Victor Young, 9:30 p.m. Sat., R

DIALOG

Fred Allen, 9:00 Wed., R
 Amos 'n' Andy, 7 and 11 p.m. daily except Sat. and Sun., R
 Phil Baker, 7:30 p.m. Sun., C
 Jack Benny, 7 and 11:30 p.m. Sun., R
 Milton Berle, 10 p.m. Sun., C
 Bob Burns, 10:00 Thurs., R
 Burns and Allen, 8:30 and 11:30 p.m. Wed., C
 Charles Butterworth, 9:30 Tues., R
 Eddie Cantor, 8:30 and 11 p.m. Sun., C
 Irvin S. Cobb, 10:30 p.m. Sat., R
 Easy Aces, 7 p.m. Tues., Wed., Thurs., B
 Ed. Everett Horton, 9:30 p.m. Sat., R
 Fibber McGee and Molly, 8 p.m. Mon., R
 Lum and Abner, 7:30 p.m. daily except Sat. and Sun., B
 Ken Murray, 8:30 p.m. Tues., C
 Jack Pearl, 9:30 p.m. Mon., B
 Joe Penner, 6 p.m. Sun., C
 Pick and Pat, 8:30 and 11:30 p.m. Mon., C
 Popeye the Sailor, 7:15 Mon., Wed., Fri., C
 Babe Ruth, 8 p.m. Thurs., C

Stoopnagle and Budd, 5:30 p.m. Sun., B
 Uncle Ezra's Radio Station, 7:15 Mon., Wed., Fri., R
 Ed Wynne, 8 p.m. Sat., B

DRAMA

Ethel Barrymore, 8:30 p.m., Wed., B
 Helen Claire, 9:30 p.m. Fri., B
 Columbia Workshop, 8:00 p.m. Sat., C
 Death Valley Days, 8:30 p.m. Fri., B
 First Nighter, 10 p.m. Fri., R
 Gang Busters, 10 p.m. Wed., C
 Goose Creek Parson, 7:30 and 10:45 Mon., Wed., Fri., C
 Grand Hotel, 3:30 p.m. Sun., R
 Helen Hayes, 8:00 Mon., B
 Hollywood Hotel, 9 p.m. Fri., C
 Warden Lawes, 9 p.m. Mon., R
 Log Cabin Ranch, 8 p.m. Tues., B
 Phillips Lord, 10 p.m. Wed., C
 Lux Radio Theater, 9 p.m. Mon., C
 News of Yough, 6:15 p.m. Tues., Thurs., Sat., C
 One Man's Family, 8 p.m. Wed., R
 Renfrew of the Mounted, 6:45 and 11:15 p.m. Mon. thru Fri., C
 Irene Rich, 8 p.m. Fri., B
 Snow Village Sketches, 9 p.m. Sat., R
 Tale of Today, 6:30 p.m. Sun., R
 True Story Court, 9:30 p.m. Fri., R
 Welcome Valley, 8:30 p.m. Tues., B
 Your Unseen Friend, 5 p.m. Sun., C

POPULAR PROGRAMS

Album of Familiar Music, 9:30 p.m. Sun., R
 Arno Band, 8 p.m. Sun., B
 Major Bowes, 11:30 a.m. Sun. and 9 p.m. Thurs., C
 Broadway Varieties, 8:00 p.m. Fri., C
 Camel Program, 9:30 p.m. Tues., C
 Carborundum Band, 7:30 p.m. Sat., C
 Cavalcade of America, 8 p.m. Wed., C
 Chesterfield Program, 9 p.m. Wed., C
 Cities Service Concert, 8 p.m. Fri., R
 Contented Program, 10 p.m. Mon., R
 Come On, Let's Sing, 9:30 p.m. Wed., C
 Community Sing, 10 p.m. Sun., C
 Fireside Recitals, 7:30 p.m. Sun., R
 Fleischmann Variety Hour, 8 p.m. Thurs., R
 Good Will Court, 8 p.m. Sun., R
 Hammersten's Music Hall, 8 p.m. Tues., C
 Hit Parade, 10 p.m. Red Wednesday; 10 p.m. Sat., C
 Hollywood Hotel, 9 p.m. Fri., C
 Husbands and Wives, 9:30 p.m. Tues., B
 Krueger Musical Toast, 10:30 p.m. Mon., R
 Magic Key of RCA, 2 p.m. Sun., B
 Manhattan Merry-Go-Round, 9 p.m. Sun., R
 March of Time, 10:30 p.m. Thurs., C
 Maxwell House Show Boat, 9 p.m. Thurs., R
 Melodiana, 8:30 p.m. Mon., B
 Melody Matinee, 1:30 p.m. Sun., R
 National Barn Dance, 9:00 and 11:30 p.m. Sat., B
 Packard Hour, 9:30 p.m. Tues., R
 Sears, Then and Now, 10 p.m. Thurs., C
 Sinclair Minstrels, 9 p.m. Mon., B
 Variety Show, 8 p.m. Thurs., C
 Voice of Preston, 8:30 p.m. Mon., R
 Vox Pop, 9 p.m. Tues., R
 Waltz Time, 9 p.m. Fri., R

SINGERS

Fred Astaire, 9:30 p.m. Tues., R
 Kenny Baker, 7 and 11:30 p.m. Sun., R
 Smith Ballew, 9:30 p.m. Sat., R
 Morton Bowe, 1:30 p.m. Sun., R
 Rosemarie Brancato, 9:30 p.m. Fri., B
 Bobby Breen, 8:30 and 11 p.m. Sun., C
 Rachel Carlay, 9 p.m. Sun., R
 Charlotteers, 7:30 p.m. Thurs., C
 Bernice Claire, 9 p.m. Fri., R. and 8:30 Mon., B

Jerry Cooper, 10:30 p.m. Mon., R
 Mario Cozzi, 7:15 p.m. Fri., B
 Bing Crosby, 10 p.m. Thurs., R
 Muriel Dickson, 1:30 p.m. Sun., R
 Bing Crosby, 10 p.m. Thurs., R
 Fifi D'Orsay, 8 p.m. Wed., B
 Jessica Dragonette, 8 p.m. Fri., R
 Phil Ducey, 8 and 11:30 p.m. Tues., R
 Nelson Eddy, 8 p.m. Sun., C
 Jack Luiton, 7 and 11 p.m. Mon. through Thurs., C
 Wendell Hall, 10 p.m. Sun., C
 Helen Jepson, 9 and 11:15 p.m. Thurs., R
 Vee Lownhurst, 7:30 p.m. Thurs., C
 Elizabeth Lennox, 8:00 p.m. Fri., C
 Nino Martini, 9 p.m. Wed., C
 Ed McConnell, 5:30 p.m. Sun., R
 Luey Monroe, 9:30 p.m. Sun., R
 Morin Sisters, 7:45 and 11 p.m. Sun., R
 Willie Morris, 4:30 p.m. Sun., R
 Frank Munn, 9:30 p.m. Sun. and 9 p.m. Fri., R
 Jan Peerce, 6:30 p.m. Sun., C
 Carmella Ponselle, 8:00 p.m. Fri., C
 Dick Powell, 9 p.m. Fri., C
 Virginia Rea, 6:30 p.m. Sun., C

Homer Rodeheaver, 9:30 p.m. Wed., C
 Lanny Ross, 9 p.m. Thurs., R
 Singin' Sam, 8:15 Fri. and 10 p.m. Mon., B
 Sally Singer, 10:30 p.m. Mon., R
 Kate Smith, 8 p.m. Thurs., C
 Oliver Smith, 5 p.m. Sun., C
 Marion Talley, 10 p.m. Fri., R
 Francis White, 8 p.m. Sun., C

TALKS

Boake Carter, 7:45 p.m. Mon. thru Fri., C
 Jimmy Fiddler, 10:30 p.m. Tues., R
 Floyd Gibbons, 9 p.m. Sat., C
 Eddie Guest, 8:30 p.m. Tues., B
 Edwin C. Hill, 10 p.m. Sun., B
 Bob Ripley, 7:30 Sun., B
 Sidewalk Interviews, 9 p.m. Tues., R
 Lowell Thomas, 6:45 p.m. Mon., thru Fri., B
 Trans-Atlantic Broadcast, 12:45 p.m. Sun., C
 Voice of Experience, Tues., Thurs., 7:15 R
 Walter Winchell, 9 and 11:15 p.m. Sun., B

CBS Stations

RESPONDING to several requests, we present herewith a list of the stations of the Columbia Broadcasting System, arranged alphabetically by call letters.

CFRB	690	Toronto
CRAC	730	Montreal
KFAB	770	Lincoln
KFBB	1280	Great Falls
KFRK	1490	Sacramento
KFH	1300	Wichita
KFPY	890	Spokane
KFRG	610	San Francisco
KGB	1330	San Diego
KGKO	570	Wichita Falls
KGVO	1260	Missoula
KHJ	900	Los Angeles
KLRA	1390	Little Rock
KLZ	560	Denver
KMHC	950	Kansas City
KNOX	1090	St. Louis
KNOW	1500	Austin
KOH	1380	Reno
KOIN	940	Portland
KOL	1270	Seattle
KOMA	1480	Oklahoma City
KRLD	1040	Dallas
KRNT	1320	Des Moines
KSCJ	1330	Sioux City
KSL	1130	Salt Lake City
KTRH	1298	Houston
KTSA	550	San Antonio
KTUL	1400	Tulsa
KVI	570	Tacoma
KVOR	1270	Colorado Springs
KWKH	1100	Shreveport
WABC	860	New York
WACO	1420	Waco
WADC	1320	Akron
WALA	1380	Mobile
WBBM	770	Chicago
WBIG	1440	Greensboro
WBNS	1430	Columbus
WBRC	930	Birmingham
WBT	1080	Charlotte
WCAO	600	Baltimore
WCAU	1170	Philadelphia
WCCO	810	Minneapolis

WCOA	1340	Pensacola
WDAE	1220	Tampa
WDBJ	930	Roanoke
WDBO	580	Oriando
WDNC	1500	Durham
WDOD	1280	Chattanooga
WDRC	1330	Hartford
WEAN	780	Providence
WEEL	590	Boston
WESG	850	Elmira
WFBL	1360	Syracuse
WFBM	1230	Indianapolis
WFEA	1340	Manchester
WGL	1370	Fort Wayne
WGR	550	Buffalo
WGST	890	Atlanta
WHAS	820	Louisville
WHEC	1430	Rochester
WHIO	1260	Dayton
WHK	1390	Cleveland
WHYP	1430	Harrisburg
WIBW	580	Topeka
WIBX	1200	Utica
WICC	600	Bridgeport
WISN	1120	Milwaukee
WJAS	1230	Pittsburgh
WJRH	750	Detroit
WJSV	1460	Washington
WKBN	570	Youngstown
WKBC	1480	Buffalo
WKRC	550	Cincinnati
WLAC	1470	Nashville
WLBZ	620	Bangor
WMAS	1420	Springfield
WMBD	1440	Peoria
WMRG	1210	Richmond
WMBR	1370	Jacksonville
WMNX	890	Fairmont
WNAX	570	Yankton
WNBP	1500	Binghamton
WNOX	1010	Knoxville
WOC	1370	Davenport
WOKO	1430	Albany
WORC	1280	Worcester
WOWO	1160	Fort Wayne
WPG	1100	Atlantic City
WQAM	560	Miami
WREC	600	Memphis
WSBT	1360	South Bend
WSFA	1410	Montgomery
WSJS	1310	Winston-Salem
WSMK	1380	Dayton
WSPD	1340	Toledo
WTOC	1260	Savannah
WWL	850	New Orleans
WWVA	1160	Wheeling

Short Wave Stations By Frequencies

Police Broadcasters are shown in italics.

Megs.	Meters			Megs.	Meters		
1.606	189.69	KIKP	<i>Ruby, Alaska.</i>			WAKV	<i>Fall River, Mass.</i>
1.610	186.22	WQPC	<i>Chicago, Ill.</i>			WPDB	<i>Chicago, Ill.</i>
		WQPD	<i>DeQuoin, Ill.</i>			WPDC	<i>Chicago, Ill.</i>
		WQPF	<i>Efingham, Ill.</i>			WPDD	<i>Chicago, Ill.</i>
		WQPG	<i>Sterling, Ill.</i>			WPDU	<i>Pittsburgh, Pa.</i>
		WQPM	<i>Maconb, Ill.</i>			WPED	<i>Arlington, Mass.</i>
		WQPI	<i>Pontiac, Ill.</i>			WPEH	<i>Somerville, Mass.</i>
		WQPS	<i>Springfield, Ill.</i>			WPEI	<i>E. Providence, R. I.</i>
1.630		WEY	<i>Boston, Mass.</i>			WPFA	<i>Newton, Mass.</i>
		WKDT	<i>Detroit, Mich.</i>			WPFN	<i>Fairhaven, Mass.</i>
1.634	183.48	WPHE	<i>Marion County, Ind.</i>			WPGF	<i>Providence, R. I.</i>
		WPHS	<i>Culver, Ind.</i>			WPGU	<i>Cohasset, Mass.</i>
		WPHU	<i>Jasper, Ind.</i>			WPGV	<i>Boston, Mass.</i>
		WQFE	<i>Seymour, Ind.</i>	2.318	129.34	WPHG	<i>Medford, Mass.</i>
		WQFW	<i>Columbia City, Ind.</i>	2.342	128.02	WQFL	<i>Oak Park, Ill.</i>
1.642	182.59	WRDP	<i>Paw Paw, Mich.</i>	2.366	126.72	WQFX	<i>Waukegan, Ill.</i>
		WRDS	<i>E. Lansing, Mich.</i>	2.382	125.87	CYQ	<i>Toronto, Ont.</i>
1.658	180.83	KNHD	<i>Redwood Falls, Minn.</i>			CGZ	<i>Vancouver, B. C.</i>
		KSW	<i>Berkeley, Calif.</i>			WAKC	<i>Freehold, N. J.</i>
		WPGC	<i>S. Schenectady, N. Y.</i>			KGHT	<i>Brownsville, Texas</i>
1.666	179.96	WMP	<i>Framingham, Mass.</i>			KGHV	<i>Corpus Christi, Tex.</i>
		WPEL	<i>W. Bridgewater, Mass.</i>			KNFE	<i>Duluth, Minn.</i>
		WPEV	<i>Portable in Mass.</i>	2.390	125.45	KNHB	<i>Green Bay, Wisc.</i>
		WPEW	<i>Northampton, Mass.</i>	2.396	125.14	WAKE	<i>Oshkosh, Wisc.</i>
1.674	179.10	KGHK	<i>Palo Alto, Calif.</i>	2.406	124.61	WPDN	<i>Auburn, N. Y.</i>
		KGZT	<i>Santa Cruz, Calif.</i>			WPEA	<i>Syracuse, N. Y.</i>
		KIUK	<i>Jefferson, Mo.</i>			WPFM	<i>Birmingham, Ala.</i>
		WPSP	<i>Harrisburg, Pa.</i>	2.414	124.30	WPGW	<i>Mobile, Ala.</i>
1.682	178.25	KACC	<i>Fairfield, Iowa</i>			CJW	<i>St. John, N. B.</i>
		KACD	<i>Atlantic, Iowa</i>			CJZ	<i>Verdun, P. Q.</i>
		KGHO	<i>Des Moines, Iowa</i>			FYW	<i>Winnipeg, Man.</i>
		KNFN	<i>Waterloo, Iowa</i>			KGHZ	<i>Little Rock, Ark.</i>
		KNFO	<i>Storm Lake, Iowa</i>			KGPW	<i>Salt Lake City, Utah</i>
1.692	177.19	WQFT	<i>Portable in Ohio</i>			KNHE	<i>Fort Smith, Ark.</i>
1.698	176.57	KNCC	<i>Phoenix, Ariz.</i>			KACE	<i>Olympia, Wash.</i>
		WAKJ	<i>Duval County, Fla.</i>			KACJ	<i>Wenatchee, Wash.</i>
1.706	175.74	KGPC	<i>St. Louis, Mo.</i>			KACK	<i>Bellingham, Wash.</i>
		WKDU	<i>Cincinnati, Ohio</i>			KACN	<i>San Buenaventure, C.</i>
		WPET	<i>Lexington, Ky.</i>			KACO	<i>Tracy, Calif.</i>
1.710	175.33	CZ6F	<i>Hamilton, Ont.</i>			KACS	<i>Bakersfield, Calif.</i>
1.712	175.13	COL2	<i>Havana, Cuba</i>			KACV	<i>Walla Walla, Wash.</i>
		KACU	<i>Gladevater, Texas</i>			KGHS	<i>Spokane, Wash.</i>
		KGHY	<i>Whittier, Calif.</i>			KCHW	<i>Centralia, Wash.</i>
		KGJX	<i>Pasadena, Calif.</i>			KCPA	<i>Seattle, Wash.</i>
		KGJP	<i>Beaumont, Texas</i>			KCPF	<i>Santa Fe, N. Mex.</i>
		KGPL	<i>Los Angeles, Calif.</i>			KGPS	<i>Bakersfield, Calif.</i>
		KGPP	<i>Honolulu, T. H.</i>			KGZA	<i>Fresno, Calif.</i>
		KGPR	<i>Fort Worth, Texas</i>			KGZM	<i>El Paso, Texas</i>
		KGZB	<i>Houston, Texas</i>			KGZN	<i>Tacoma, Wash.</i>
		KGZL	<i>Shreveport, La.</i>			KGZO	<i>Santa Barbara, Calif.</i>
		KGZY	<i>Waco, Texas</i>			KGZV	<i>Aberdeen, Wash.</i>
		KNFJ	<i>San Bernardino, Cal.</i>			KGZX	<i>Albuquerque, N. M.</i>
		KNCE	<i>Pomona, Calif.</i>			KNFA	<i>Clovis, N. Mex.</i>
		KNGL	<i>Cleburne, Texas</i>			KNFI	<i>Mt. Vernon, Wash.</i>
		KNHF	<i>Galveston, Texas</i>			KNFP	<i>Eberett, Wash.</i>
		KVP	<i>Denton, Texas</i>			KNGU	<i>Yakima, Wash.</i>
		YVR	<i>Dallas, Texas</i>			KNGY	<i>Lodi, Calif.</i>
		WAKF	<i>Montreal, P. Q.</i>			WAKN	<i>Herkimer, N. Y.</i>
			<i>Everett, Mass.</i>			WCK	<i>Detroit, Mich.</i>
						WMO	<i>Highland Park, Mich.</i>
						WPDA	<i>Tulare, Calif.</i>
						WPDJ	<i>Passaic, N. J.</i>
						WPDJ	<i>Detroit, Mich.</i>
						WPDY	<i>Atlanta, Ga.</i>
						WPEH	<i>Baltimore, Md.</i>
						WPEI	<i>Columbus, Ga.</i>
						WPCJ	<i>Albany, N. Y.</i>
						WPCM	<i>Utica, N. Y.</i>
						WQFB	<i>La Grange, Ga.</i>
						WQFJ	<i>Macon, Ga.</i>
						WQFV	<i>Oneonta, N. Y.</i>
						WRDR	<i>Augusta, Ga.</i>
							<i>Grosse Pointe, Mich.</i>
							<i>Stockton, Calif.</i>

SHORT WAVE STATIONS BY FREQUENCIES

Megs.	Meters		Megs.	Meters	
2.422	123.79	KACA Atchison, Kans. KACI Eureka, Calif. KGPE Kansas City, Mo. KCPG Vallejo, Calif. KCZC Topeka, Kans. KNGF Sacramento, Calif. KNCV Salina, Kans. WMJ Buffalo, N. Y. WNFT Niagara Falls, N. Y. WPDR Rochester, N. Y. WPDW Washington, D. C. WPFU Portland, Me. WPHB Nashua, N. H.	2.458	121.97	KACM Big Spring, Tex. KCZI Wichita Falls, Tex. KCZW Lubbock, Texas KNFB Idaho Falls, Idaho KNGW Brownwood, Texas WPDC Youngstown, Ohio WPDO Akron, Ohio WPDV Charlotte, N. C. WPFJ Asheville, N. C. WPGD Rockford, Ill. WPHD Steubenville, Ohio WQFZ Ottawa, Ill. WRBH Cleveland, Ohio Urbana, Ill.
2.430	123.38	KCPB Minneapolis, Minn. KCZJ Phoenix, Ariz. KNGP Shreveport, La. KNHG Prescott, Ariz. WAKH Bloomfield, N. J. WAME Baton Rouge, La. WCPD Charleston, S. C. WPTD Columbus, Ohio WPTM Dayton, Ohio WPDS St. Paul, Minn. WPEK New Orleans, La. WPFD Highland Park, Ill. WPEK Hackensack, N. J. WPCI Portsmouth, Ohio WPHO Zanesville, Ohio WQFO Lancaster, Ohio	2.466	121.58	KGOZ Cedar Rapids, Iowa KCPD San Francisco, Calif. KCPI Omaha, Nebr. KCPK Sioux City, Iowa KCPM San Jose, Calif. KCPN Davenport, Iowa KCZC Des Moines, Iowa WAKB New London, Conn. WAKG Clearwater, Fla. WPEC Memphis, Tenn. WPEM Woonsocket, R. I. WPFV Pawtucket, R. I. WPFV Bridgeport, Conn. WPGA Bay City, Mich. WPCB Port Huron, Mich. WPCK Cranston, R. I. WPCX Worcester, Mass. WPHA Fitchburg, Mass. WPHN Tampa, Fla. WPHP Jackson, Mich. WQFA New Haven, Conn. WQFC Gainesville, Fla. WQFK Clearwater, Fla.
2.442	122.77	KGHU Austin, Texas KGPP Portland, Ore. KGPX Denver, Colo. KGZH Klamath Falls, Ore. KGZR Salem, Ore. KNHM Fargo, N. Dak. WAKO Ft. Lauderdale, Fla. WAMB Connersville, Ind. WMDZ Indianapolis, Ind. WUDE Louisville, Ky. WPDF Richmond, Mich. WPDH Richmond, Ind. WDDL Lansing, Mich. WPEB Grand Rapids, Mich. WPEJ Saginaw, Mich. WPEE Muskegon, Mich. WPEF Reading, Pa. WPEC Jacksonville, Fla. WFFT Lakeland, Fla. WPEX Palm Beach, Fla. WPFY Yorkers, N. Y. WPEZ Miami, Fla. WPCB Binghamton, N. Y. WPCG Muncie, Ind. WPHM Orlando, Fla. WQFM Wilkes-Barre, Pa. WQFQ Lafayette, Ind. Miami, Fla. York, Pa.	2.474	121.19	KCHC Las Vegas, Nev. KCHM Reno, Nev. KNEH Garden City, Kans. KNGH Dodge City, Kans. WAKI Sandusky, Ohio WDDP Philadelphia, Pa. WPFQ Knoxville, Tenn. WPFQ Swarthmore, Pa. WPFJ Asheville, N. C. WPGZ Johnson City, Tenn. WPHY Elizabethton, Tenn. WQFY Mansfield, Ohio WRDQ Toledo, Ohio
2.450	122.38	KACF Chickasha, Okla. KACL Altus, Okla. KACP Ponca City, Okla. KACR Seminole, Okla. KAPB Cushing, Okla. KAPC Drumright, Okla. KAPD El Dorado, Kans. KAPE Norman, Okla. KAPF Okmulgee, Okla. KCHIN Hutchinson, Kans. KCHP Lawton, Okla. KCPH Oklahoma City, Ok. KCPO Tulsa, Okla. KCPZ Wichita, Kans. KGZF Chanute, Kans. KGZP Coffeyville, Kans. KNCK Duncan, Okla. KNCM Rapid City, S. Dak. KNGT Muskogee, Okla. KNHC Ada, Okla. KVPB Huron, S. Dak.	2.482	120.80	KCZE San Antonio, Texas WPGT New Castle, Pa. WPHZ Oil City, Pa. WQFF Monessen, Pa. WQFU Sharon, Pa.
			2.490	120.41	KACQ Kalaloch, Wash. KCHD Seattle, Wash. KCHX Santa Ana, Calif. KCZD San Diego, Calif. KCZU Lincoln, Nebr. KNFC Olympia, Wash. KNFK Bellingham, Wash. KNFM Compton, Calif. KNFX Ellenburg, Wash. KNCB Yakima, Wash. KNGC Vancouver, Wash. KNGD Walla Walla, Wash.

SHORT WAVE STATIONS BY FREQUENCIES

Megs.	Meters		Megs.	Meters		
		KNGJ El Centro, Calif.	4.865	61.63	VDO	Vancouver, B. C.
		KNGN Norfolk, Nebr.				
		KNGQ Wenatchee, Wash.	5.000	59.96	WWV	Beltsville, Md.
		KNGR Spokane, Wash.				
		KNGZ Ephrata, Wash.	5.025	59.67	ZFA	Hamilton, Bermuda
		WAKA Huntington, Ind.	5.520	54.32	T15HH	San Ramon, Costa Rica
		WAKK Frankfort, Ind.				
		WPDT Kokomo, Ind.	5.710	52.51	TGS	Guatemala City, Guat.
		WPDZ Fort Wayne, Ind.				
		WPEP Clarksburg, W. Va.	5.720	52.42	YV1ORSC	San Cristobal, Venezuela
		WPGN South Bend, Ind.				
		WPGO Huntington, N. Y.	5.730	52.32	JVV	Nazaki, Japan
		WPGS Mineola, N. Y.				
		WPHI Charleston, W. Va.	5.760	52.05	HJ4ABD	Medellin, Colombia
		WPHJ Fairmont, W. Va.				
		WPHQ Parkersburg, W. Va.	5.780	51.87	OAX4D	Lima, Peru
		..... Marion, Ind.	5.790	51.78	JVU	Nazaki, Japan
2.506	119.64	WOU Marshfield, Mass.				
2.512	119.36	KGM Ketchikan, Alaska	5.800	51.69	YV2RC	Caracas, Venezuela
		KLE Rose Inlet, Alaska				
2.538	118.13	KDK Wrangell, Alaska	5.810	51.60	YV7RMO	Maracaibo, Venez.
		KILD Cordova (Eyak River)Aaa.	5.820	51.52	CEC	Santiago, Chile
2.566	116.84	KFF Union Bay, Alaska			TIGPH	San Jose, Costa Rica
		KHV Nakeen, Alaska	5.830	51.43	TDD	Shinkio, Manchukuo
		KLA Waterfall, Alaska	5.850	51.25	YV5RMO	Maracalbo, Venez.
		KLD Hidden Inlet, Aaa.				
2.604	115.14	VVD Seattle, Wash.	5.865	51.12	H11J	San Ped. de Macoris, D. R.
		WXH Ketchikan, Alaska	5.875	51.03	HRN	Tegucigalpa, Honduras
2.616	114.61	KAEB Hydaburg, Alaska	5.885	50.95	HCK	Quito, Ecuador
		KAED Angoon, Alaska	5.895	50.86	YV8RB	Barquisimeto, Venez.
		KAEF Jack Wade, Alaska	5.915	50.69	HH2S	Port-au-Prince, Haiti
		KAEP Tenakee, Alaska				
2.632	113.91	KIJW Shearwater Bay, Aaa.	5.940	50.47	TG2X	Guatemala City, Guat.
		KIJX Kadiak Island, Alaska	5.950	50.39	HJN	Bogota, Colombia
		KIMA Port Hobron, Alaska	5.980	50.14	HJ2ABD	Bucaramanga, Colombia
		KIOC Port Wakefield, Alaska	5.985	50.10	XEWI	Mexico City, D. F.
		KIOD Nellie Juan, Alaska	6.000	49.97	TGWA	Guatemala City, Guat.
		KIOH Iron Creek, Alaska			XEBT	Mexico City, D. F.
		KIOI Akutan, Alaska	6.005	49.93	CFCX	Montreal, P. Q.
2.726		KIIV Los Angeles, Calif.			HP5K	Colon, Panama
		WAJN Portable in Fla.				
		WANB Dinsmore, Fla.	6.010	49.89	CJCX	Sydney, N. S.
2.912	102.96	KHW Akutan, Alaska			COCO	Havana, Cuba
		KHZ Port Hobron, Alaska	6.012	49.87	HJ1ABC	Quibdo, Colombia
2.986	100.41	KGQ Todd, Alaska.	6.014	49.85	HJ3ABH	Bogota, Colombia
2.994	100.14	KILY Excursion Inlet, Alaska	6.018	49.82	H13U	Santiago, D. R.
2.998	100.00	WXE Anchorage, Alaska	6.020	49.80	ZHI	Singapore, Straits Settl'ts
3.040	98.63	YDA Tandjong Priok, Java	6.025	49.76	DJC	Zeesen, Germany
3.093	96.94	KIAY Ketchikan, Alaska			XEUW	Veracruz, Ver.
4.098	73.16	WND Hialeah, Fla.	6.030	49.72	HJ1ABJ	Santa Marta, Colombia
4.178	71.76	WOO Ocean Gate, N. J.	6.040	49.64	HP5B	Panama City, Panama
4.253	70.56	WKF Lawrenceville, N. J.			W1XAL	Boston, Mass.
4.273	70.16	RV15 Khabarovsk, USSR.	6.042	49.62	W4XB	Miami, Fla.
4.512	66.44	ZFS Nassau, Bahamas	6.045	49.60	YDA	Tandjongpriok, N.E.I.
4.600	65.18	HC2ET Guayaquil, Ecuador	6.048	49.58	HJ1ABG	Barranquilla, Colombia
4.753	63.08	WOO Ocean Gate, N. J.	6.050	49.56	H19B	Santiago, D. R.
4.755	63.05	CFU Rossland, B. C.	6.050	49.52	GSA	Daventry, Gt. Britain
4.795	62.53	VE9BK Vancouver, B. C.	6.055	49.52	HJ3ABD	Bogota, Colombia
4.820	62.20	GDW Rugby, England	6.060	49.48	W3XAU	Philadelphia, Pa.
			6.070	49.39	W8XAL	Cincinnati, Ohio
			6.080	49.31	CFRX	Toronto, Ont.
					VE9CS	Vancouver, B. C.
					DJM	Zeesen, Germany
					HP5F	Colon, Panama
					W9XAA	Chicago, Ill.

SHORT WAVE STATIONS BY FREQUENCIES

Megs.	Meters			Megs.	Meters		
6.085	49.27	HJ5ABD	Cali, Colombia	6.814	44.00	HIH	San Ped. de Macoris, D.R.
6.090	49.23	CRCX	Toronto, Ont.	6.860	43.71	KEL	Bolinas, Calif.
6.092	49.22	HJ4ABE	Medellin, Colombia	6.905	43.42	GDS	Rugby, Gt. Britain
6.100	49.15	W3XAL	Bound Brook, N. J.	7.100	42.23	F08AA	Papeete, Tahiti
		W9XF	Chicago, Ill.	7.220	41.53	VP3BG	Georgetown, Br. Guiana
6.110	49.07	GSL	Belgrade, Yugo Slavia	7.280	41.18	HJ1ABD	Cartagena, Colombia
6.115	49.03	.....	Daventry, Gt. Britain	7.380	40.63	XECR	Mexico City, D. F.
6.120	48.99	W2XE	Prague, Czechoslovakia	7.520	39.87	KKH	Kahuku, T. H.
		YDA5	New York, N. Y.	7.797	38.47	HBP	Geneva, Switzerland
6.122	48.97	HJ3ABX	Bandoeng, N.E.I.	7.850	38.19	HC2JSB	Guayaquil, Ecuador
6.130	48.91	COCD	Bogota, Colombia	7.920	37.86	GDP	Rugby, Gt. Britain
		VE9HX	Havana, Cuba	7.960	37.67	VLZ	Sydney, Australia
6.135	48.87	HJ4ABP	Halifax, N. S.	8.050	37.24	WXA	Juneau, Alaska
6.140	48.83	W8XK	Medellin, Colombia	8.075	37.13	WEZ	Rocky Point, N. Y.
6.150	48.75	CB615	Pittsburgh, Pa.	8.095	37.04	VLK	Sydney, Australia
		CJRO	Santiago, Chile	8.560	35.03	WOO	Ocean Gate, N. J.
		HISN	Winnipeg, Man.	8.565	35.00	HAT3	Budapest, Hungary
6.155	48.74	COKG	Santiago, D. R.	8.575	34.96	TYD2	Pontoise, France
6.165	48.63	YV3RC	Santiago, Cuba	8.590	34.90	YNVA	Balikpapan, N.E.I.
6.170	48.60	HJ2ABA	Caracas, Venezuela	8.620	34.78	WVD	Managua, Nicaragua
		HJ3ABF	Tunja, Colombia	8.665	34.60	CO9JQ	Seattle, Wash.
		.....	Bogota, Colombia	8.680	34.54	GBC	Camaguey, Cuba
6.182	48.50	XEXA	Mexico, D. F.	8.690	34.50	WVZ	Rugby, Gt. Britain
6.185	48.48	HI1A	Santiago, D. R.	8.750	34.26	ZBW	Kirkee, India
6.230	48.13	OAX4G	Lima, Peru	8.900	36.50	HCJB	Hong Kong
6.235	48.09	HRD	La Ceiba, Honduras	9.010	33.28	KEJ	Quito, Ecuador
6.243	48.03	HIN	Trujillo, D. R.	9.020	33.24	GCS	Bolinas, Calif.
6.280	47.74	CO9WR	Sancti-Spiritus, Cuba	9.045	33.15	VWY	Rugby, Gt. Britain
		HIG	Trujillo, D. R.	9.125	32.86	HAT4	Kirkee, India
6.300	47.59	YV12RM	Maracay, Venezuela	9.168	32.70	YVR	Budapest, Hungary
6.315	47.48	HIZ	Trujillo, D. R.	9.280	32.31	GCB	Maracay, Venezuela
6.340		HIX	Trujillo, D. R.	9.415	31.84	PLV	Rugby, Gt. Britain
6.356	47.17	HRP1	San Pedro Sula, Hond.	9.428	31.80	COCH	Bandoeng, N. E. I.
6.375	47.03	YV4RC	Caracas, Venez.	9.448	31.73	WES	Havana, Cuba
6.400	46.85	YV9RC	Caracas, Venez.	9.450	31.74	WES	Rocky Point, N. Y.
6.410	46.77	TIPG	San Jose, Costa Rica	9.460	31.69	XGOX	Guatemala City, Guat.
6.420	46.70	HI1S	Puerto Plata, D. R.	9.470	31.66	WKJ	Nanking, China
6.425	46.66	W2XGB	Hicksville, N. Y.	9.480	31.63	WET	New Brunswick, N. J.
		W3XL	Bound Brook, N. J.	9.480	31.63	KES	Rocky Point, N. Y.
		W9XF	Chicago, Ill.	9.490	31.59	OXY	Bolinas, Calif.
		W9XBS	Chicago, Ill.	9.500	31.56	VK3ME	Copenhagen, Denmark
6.446	46.50	HJ1ABB	Barranquilla, Colombia	9.505	31.54	HJ1ABE	Melbourne, Australia
6.450	46.48	HJ4ABC	Ibagu, Colombia	9.510	31.53	XEFT	Cartagena, Colombia
6.480	46.27	HI4V	Trujillo, D. R.	9.520	31.49	PRF5	Veracruz, Ver.
6.500	46.13	HIL	Trujillo, D. R.	9.530	31.46	GSB	Rio de Janeiro, Brazil
		HI4D	Trujillo, D. R.	9.540	31.43	HJU	Daventry, Gt. Britain
6.520	45.98	YV6RV	Valencia, Venezuela	9.585	31.28	RAN	Buenaventura, Colombia
6.545	45.81	YV11RB	Bollivar, Venez.	9.590	31.26	XEDQ	Moscow, USSR
6.550	45.76	TIRCC	San Jose, Costa Rica	9.530	31.46	W2XAF	Guadalajara, Jal.
6.620	45.29	PRADO	Rio Bamba, Ecuador	9.540	31.43	DJN	Schenectady, N. Y.
6.630	45.22	HIT	Trujillo, D. R.	9.560	31.56	LKJ1	Zeesen, Germany
6.650	45.09	HC2RL	Guayaquil, Ecuador	9.570	31.33	VPD2	Jeloy, Norway
6.662	45.00	WXH	Ketchikan, Alaska	9.575	31.31	DJA	Suva, Fiji
6.672	44.94	YVQ	Maracay, Venezuela	9.580	31.30	W1XK	Zeesen, Germany
6.700	44.75	TIEP	San Jose, Costa Rica	9.585	31.28	HJ2ABC	Boston, Mass.
6.750	44.42	HI3C	La Romana, D. R.	9.590	31.26	GSC	Cucuta, Colombia
		JVT	Nazaki, Japan	9.585	31.28	3LR	Daventry, Gt. Britain
6.755	44.38	WOA	Lawrenceville, N. J.	9.590	31.26	VK2ME	Melbourne, Australia
6.800	44.89	HI7P	Trujillo, D. R.			PCJ	Sydney, Australia
						VK6ME	Hilversum, Netherlands
						W3XAU	Perth, Australia
							Philadelphia, Pa.

SHORT WAVE STATIONS BY FREQUENCIES

Megs.	Meters		Megs.	Meters	
9.595	31.25	HBL	12.000	24.99	RNE
9.600	31.23	CB960	12.225	24.53	TFJ
9.605	31.21	HP5J	12.290	24.49	GBU
9.615	31.18	HJ1ABP	12.830	23.36	CNR
9.617	31.18	HH3W	12.840	23.35	WOO
9.635	31.12	I2RO	13.075	22.93	VPD
9.640	31.10	YDB	13.380	22.41	IDU
9.650	31.07	CT1AA	13.410	22.36	WCT
9.660	31.03	LRX	13.585	22.05	GBB
9.670	31.01	TI4NRH	13.880	21.60	VJZ
9.675	30.99	DZA	13.990	21.43	GBA2
9.700	30.91	CQN	14.440	20.76	GBW
9.755	30.74	COCQ	14.590	20.55	WMN
9.862	30.40	EAQ	14.640	20.48	JVH
9.870	30.38	WON	14.960	20.04	YSL
9.895	30.30	LSN	14.970	20.03	LZA
9.950	30.13	GCU	15.000	19.99	WWV
9.990	30.01	KAZ	15.055	19.91	WNC
10.000	29.98	WWV	15.090	19.87	RKI
10.042	29.85	DZB	15.120	19.83	HVJ
10.055	29.82	SUV	15.140	19.80	G5F
		ZFB	15.175	19.76	RV96
10.135	29.58	OPM	15.180	19.75	G5O
10.160	29.51	RIO	15.200	19.73	DJB
10.220	29.34	PSH	15.210	19.71	W8XK
10.250	29.25	LSL	15.220	19.70	PCJ
10.260	29.22	PMN	15.230	19.69	.....
10.285	29.15	DZC	15.245	19.67	TPA2
10.290	29.14	HPC	15.260	19.65	G5I
10.330	29.02	ORK	15.270	19.64	W2XE
10.335	29.01	ZFD	15.290	19.61	LRU
10.610	28.25	WEA	15.310	19.58	G5P
10.660	28.13	JVN	15.330	19.56	W2XAD
10.670	28.10	CEC	15.340	19.55	DJR
10.740	27.92	JVM	15.355	19.52	KWU
10.770	27.84	GCP	15.360	19.52	DZG
10.840	27.66	KWV	15.370	19.51	HAS3
10.955	27.37	H58PJ	15.415	19.45	KWO
11.000	27.26	PLP	16.140	18.58	GBX
11.290	26.56	HIN	17.080	17.55	GBC
11.490	26.09	PLO	17.120	17.51	WOO
11.595	25.86	VRR4	17.310	17.32	W3XL
11.650	25.73	COCX	17.480	17.15	VWY2
11.715	25.59	TPA4	17.760	16.88	W2XE
11.720	25.58	CJRX	17.775	16.87	PHI
11.750	25.52	GSD	17.780	16.86	W3XAL
11.760	25.50	.....	17.790	16.85	G5G
11.770	25.47	DJD	18.310	16.40	GAS
11.790	25.43	W1XAL	18.350	16.34	WLA
11.795	25.42	DJO	18.620	16.10	GAU
11.810	25.39	I2RO	18.670	16.06	OCI
11.820	25.37	G5N	18.830	15.92	PLE
11.830	25.34	W2XE	19.480	15.39	GAD
		W9XAA	19.630	15.27	VQG
11.855	25.29	DJP	19.650	15.26	LSN5
11.860	25.28	GSE	20.380	14.71	GAA
11.870	25.25	W8XK	21.470	13.96	G5H
11.880	25.24	TPA3	21.520	13.93	W2XE
			21.530	13.93	G5J
			21.540	13.92	W8XK
			26.100	11.49	G5K
					Moscow USSR.
					Reykjavik, Iceland
					Rugby, Gt. Britain
					Rabat, Morocco
					Ocean Gate, N. J.
					Suva, Fiji
					Asmara, Eritrea
					San Juan, Puerto Rico
					Rugby, Gt. Britain
					Raboul, New Guinea
					Rugby, Gt. Britain
					Rugby, Gt. Britain
					Lawrenceville, N. J.
					Nazaki, Japan
					San Salvador, El Salv.
					Sofia, Bulgaria
					Beltsville, Md.
					Hialeah, Fla.
					Moscow, USSR.
					Vatican City
					Daventry, Gt. Britain
					Moscow, USSR.
					Daventry, Gt. Britain
					Zeesen, Germany
					Pittsburgh, Pa.
					Hilversum, Netherlands
					Prague, Czechoslovakia
					Pontoise, France
					Daventry, Gt. Britain
					New York N. Y.
					Buenos Aires, Argentina
					Daventry, Gt. Britain
					Schenectady, N. Y.
					Berlin, Germany
					Dixon, Calif.
					Zeesen, Germany
					Budapest, Hungary
					Dixon, Calif.
					Rugby, Gt. Britain
					Rugby, Gt. Britain
					Ocean Gate, N. J.
					Bound Brook, N. J.
					Kirkee, India
					New York, N. Y.
					Hilversum, Netherlands
					Bound Brook, N. J.
					Daventry, Gt. Britain
					Rugby, Gt. Britain
					Lawrenceville, N. J.
					Rugby, Gt. Britain
					Lima, Peru
					Bandoeng, N. E. I.
					Rugby, Gt. Britain
					Nairobi, Kenya
					Buenos Aires, Argentina
					Rugby, Gt. Britain
					Daventry, Gt. Britain
					New York, N. Y.
					Daventry, Gt. Britain
					Pittsburgh, Pa.
					Daventry, Gt. Britain

SHORT WAVE STATIONS BY LOCATIONS

ARGENTINA (LOA-LVZ)	BRITISH COLUMBIA	Bogota	DOMINICAN REPUBLIC (HIA-HIZ)	DJB 15.200 DJC 6.020 DJD 11.770 DJM 6.080 DJN 9.540 DJO 11.795 DJP 11.855 DJQ 15.280 DJR 15.340 DZA 9.675 DZE 10.042 DZC 10.285 DZG 15.360	San Pedro Sula HRP1 6.356 Tegucigalpa HRN 5.875 HONKONG (Z) Honkong ZBW 8.750
Buenos Aires LRU 15.290 LRX 9.660 LSL 10.250 LSN 9.895 LSN 14.480 LSX 10.350	Rossland CFU 4.755 Vancouver CGZ 2.342 VDO 4.865 VE9BK 4.795 VE9CS 6.070	HJN 5.950 HJ3ABD 5.055 HJ3ABF 5.170 HJ3ABH 5.012 HJ3ABX 6.122 Bucaramanga HJ2ABD 5.980 Buenaventura HJU 9.510 Cali HJ5ABD 6.085 Cartagena HJ1ABD 7.280 HJ1ABE 9.500 HJ1ABP 9.615 Cucuta HJ2ABC 9.575 Ibague HJ4ABC 6.450 Manizales HJ4ABL 6.100 Medellin HJ4ABD 5.760 HJ4ABE 6.092 HJ4ABP 6.135 Quibdo HJ1ABC 6.010 Santa Marta HJ1ABJ 6.025 Tunja HJ2ABA 6.170	H13 6.570 H15 6.420 San Pedro de Macoris H1H 6.814 H1IJ 5.865 Santiago de Los Caballeros H1-1-A 6.185 H13U 6.014 H15N 6.150 H19B 6.045 Trujillo HIG 6.280 HIL 6.500 HIN 6.243 HIN 11.290 HIT 6.630 HIX 6.340 HIZ 6.315 H14D 6.500 H14V 6.480 H17P 6.800	GREAT BRITAIN (G; M) Daventry GSA 6.050 GSB 9.510 GSC 9.580 GSD 11.750 GSE 11.860 GSF 15.140 GSG 17.790 GSH 21.470 GSI 15.260 GSJ 21.530 GSK 26.100 GSL 6.110 GSN 11.820 GSO 15.180 GSP 15.310	HUNGARY (HAA-HAZ) Budapest HAS3 15.370 HAT3 8.565 HAT4 9.125 ICELAND (TFA-TFZ) Reykjavik TFJ 12.225 INDIA (VTA-VWZ) VWY 9.045 VWY2 17.480 VWZ 8.690
AUSTRALIA (VHA-VMZ)	MANITOBA	COSTA RICA (TIA-TIZ)	ECUADOR (HCA-HCZ)	Rugby	ITALY (I)
Melbourne VK3LR 9.580 VK3ME 9.490	Winnipeg CJRO 6.150 CJRX 11.720 VYW 2.396	Heredia T14NRH 9.670 San Jose T1EP 6.700 T1GPH 5.820 T1PG 6.410 T1RCC 6.550	Guayaquil HC2ET 4.600 HC2JSB 7.850 HC2RL 6.650 Quito HCJB 8.900 HCK 5.885 Riobamba PRADO 6.620	GAA 20.380 GAD 19.480 GAS 18.310 GAU 18.620 GBA2 13.990 GCB 13.585 GBC 8.680 GBC 17.080 GBU 12.290 GBW 14.440 GBX 16.140 GCB 9.280 GCP 10.770 GCS 9.020 GCU 9.950 GDP 7.920 GDS 6.995 GDW 4.820	12R0 9.635 12R0 11.810
Perth VK6ME 9.590 Sydney VK2ME 9.585 VLK 8.095	NEW BRUNSWICK	CUBA (CLA-CMZ; COA-COZ)	EGYPT (STA-SUZ)	Guatemala City	JAMAICA
BAHAMAS (ZF-)	St. John CJW 2.390	Camaguey CO9JQ 8.665 Havana COCD 6.130 COCH 9.428 COCO 6.010 COCQ 9.755 COCX 11.650 COL2 1.712 Sancti Spiritus CO9WR 6.280 Santiago COJK 6.155	Cairo SUV 10.055	Guatemala City TGS 5.710 TCWA 6.000 TG2X 5.940	Stoney Hill VRR4 11.595
Nassau ZFS 4.512	NOVA SCOTIA	CZECHO-SLOVAKIA	EL SALVADOR	HAITI	JAPAN (J)
BELGIAN CONGO (OP-)	Halifax VE9HX 6.130 Sydney CJXC 6.010	Prague 6.115 11.760 15.230	San Salvador YSL 14.960	Port au Prince HH2S 5.915 HH3W 9.617	Nazaki JVM 10.740 JVN 10.660 JVT 6.750 JVU 5.790 JVV 5.730
Leopoldville OPM 10.135	ONTARIO	FRANCE (F; TYA-TZZ)	FIJI (VPA-VSZ)	HONDURAS (HRA-HRZ)	KENYA (VQ7-)
BELGIUM (ONA-OTZ)	Hamilton CZ6F 1.710 Toronto CFRX 6.070 CRCX 6.090 CYQ 2.318	GERMANY (D)	Suva VPD 13.075 VPD2 9.540	La Celba HRD 6.235	Nairobi VQG 19.630
Brussels ORK 10.330	QUEBEC	MONTE CARLO (MCA-MCZ)	GERMANY (D)	MACAU	MACAU Macau CQN 9.700
BERMUDA (ZF-)	Montreal CFXC 6.005 VYR 1.712 Verdun CJZ 2.390	CHINA (CAA-CEZ)	GERMANY (D)	MANCHUKUO (J)	Shinkio TDD 5.830
Hamilton ZFA 5.025 ZFB 10.055	CHILE (CAA-CEZ)	CHINA (XGA-XUZ)	GERMANY (D)		
BRITISH GUIANA	Santiago CB615 6.150 CB960 9.600 CEC 5.820 CEC 10.670	Nanking XGOX 9.460	GERMANY (D)		
Georgetown VP3BG 7.220	CANADA (CFA-CKZ; CXA-CZZ; VAA-VGZ; VXA-VYZ)	COLOMBIA (HJA-HKZ)			
BULGARIA (LZA-LZZ)	Barranquilla HJ1ABB 6.447 HJ1ABG 6.042	DENMARK (OUA-OZZ)			
Sofia LZA 14.970	CHINA (XGA-XUZ)	COPENHAGEN OPY 9.490			

SHORT WAVE STATIONS BY LOCATIONS

MEXICO (XAA-XFZ)	PERU (OAA-OCZ)	Mobile WPGW 2.382	Bolinas KEE 7.715 KEJ 9.010 KEL 6.860 KES 9.480	FLORIDA	Oak Park WQFL 1.712
Mexico City	Lima OAX4D 5.780 OAX4G 6.230	ALASKA	Compton KNFM 2.490	Clearwater WAKG 2.466 WQFK 2.466	Ottawa WQFZ 2.458
XEBT 6.000 XECR 7.380 XEWI 5.985 XEXA 6.182	PHILIPPINE ISLANDS (K)	Akutan KHW 2.912 KIOI 2.632	Dixon KWO 15.415 KWU 15.355 KWV 10.840	Dinsmore WANB 2.726	Pontiac WQPP 1.610
Veracruz XEFT 9.505 XEUW 6.020	Manila KAZ 9.990	Anchorage WXE 2.998	El Centro KNGJ 2.490	Duval County WAKJ 1.698	Rockford WPGD 2.458
MOROCCO	PORTUGAL (CSA-CUZ)	Angoon KAED 2.616	Fresno KACI 2.422	Ft. Lauderdale WAKO 2.442	Sterling WQFG 1.610
Rabat	Lisbon CSW 9.380 CT1AA 9.650	Cordova KILD 2.538	Lodi KNGY 2.414	Gainesville WQFC 2.466	Springfield WQPS 1.610
CNR 12.838	SIAM (HSA-HSZ)	Excursion Inlet KILY 2.994	Los Angeles KGPL 1.712	Hialeah WND 4.098 WNC 15.055	Waukegan WQFX 1.712
NETHERLANDS (PAA-PIZ)	Bangkok H58PJ 10.955	Hydaburg KAEB 2.616	Pasadena KGGJ 2.414	Jacksonville WPFJ 2.442	INDIANA
Hilversum	Spain (EAA-EHZ)	Iron Creek KIOH 2.632	Pomona KNFJ 1.712	Lakeland WPFJ 2.442	Columbia City WQFW 1.634
PCJ 9.590 PCJ 15.220 PHI 11.730 PHI 17.775	Madrid EAQ 9.862	Jack Wade KAEF 2.616	Sacramento KNGF 2.422	Miami WPFZ 2.442 W4XB 6.040	Connersville WAMB 2.442
NETHERLAND EAST INDIES (PKA-POZ; YBA-YHZ)	STRAITS SETTLEMENTS	Juneau WXA 8.050	San Bernardino KGYZ 1.712	Orlando WPHM 2.442	Culver WPHS 1.634
PLE 18.830 PLP 11.000 PLV 9.415 PMN 10.260 YDA5 6.120	Singapore ZHI 6.018	Kadiak Island KIJX 2.632	Santa Ana KGNJ 2.414	Palm Beach WPFX 2.442	Fort Wayne WPDZ 2.490
Sourabaya YDB 9.640	SWITZERLAND (HBA-HBZ)	Ketchikan KGM 2.512 KIAY 3.093	Santa Barbara KGGZ 2.466	Tampa WPHN 2.466	Frankfort WAKK 2.490
Tandjongpriok YDA 3.840 YDA 6.040	Geneva HBL 5.995 HBP 7.797	KGM KXW 2.604 WXH 6.662	San Jose KGNM 2.466	Indianapolis WMDZ 2.442	Huntington WAKA 2.490
NEW GUINEA	TAHITI	Nakeen KHV 2.566	San Francisco KGGD 2.466	Atlanta WPDY 2.414	Jasper WPHU 1.634
Raboul VJZ 13.880	Papeete F08AA 7.100	Nellie Juan KIOD 2.632	San Diego KGGZ 2.490	Augusta WQFV 2.414	Kokomo WPDZ 2.490
NICARAGUA (YNA-YNZ)	UNION OF SOVIET REPUBLICS (R; U)	Port Hobron KHZ 2.912	Santa Cruz KGGT 1.674	Columbus WPFJ 2.414	Lafayette WQFQ 2.442
Managua YNLF 9.650 YNVA 8.590	Baku RIO 10.160	KIMA KIM 2.632	Santa Barbara KGGZ 2.414	La Grange WPGM 2.414	Marion County WPHE 1.634
NORWAY (LAA-LNZ)	Khobarovsk RV15 4.273	P. Wakefield KIOC 2.632	Santa Ana KGNM 2.466	Macon WQFB 2.414	Muncie WPGP 2.442
Jeløy LKJ1 9.540	Moscow RAN 9.520 RKI 15.090 RNE 12.000 RV96 15.175	Rose Inlet KLE 2.512	Santa Cruz KGGT 1.674	HAWAII	Richmond WPDH 2.442
PANAMA (HPA-HPZ)	UNITED STATES (K; N; W)	Shearwater Bay KIJW 2.632	Tracy KACO 2.414	Honolulu KGPQ 1.712	Seymour WQFE 1.634
Colon HP5F 6.080 HP5K 6.005	ALABAMA	Union Bay KFF 2.566	Tulare WPDA 2.414	Kahuku KKH 7.520	South Bend WPGN 2.490
Panama City HP5B 6.030 HP5J 9.605	Birmingham WPFM 2.382	Waterfall KLA 2.566	Vallejo KGGP 2.422	IDAHO	IOWA
		Wrangell KDK 2.538	Whittier KGGY 1.712	Idaho Falls KNFB 2.458	Atlantic KACD 1.682
		ARIZONA	COLORADO	ILLINOIS	Cedar Rapids KGOZ 2.466
		Phoenix KNGG 1.698 KGGZ 2.430	Denver KGPX 2.442	Chicago WPDB 1.712 WPDC 1.712 WPDD 1.712 WQPC 1.610 W9XAA 6.080 W9XAA 11.830 W9XBS 6.425 W9XF 6.100 W9XF 6.425	Davenport KGNP 2.466
		Prescott KNHG 2.430	CONNECTICUT	DeQuoin WQPD 1.610	Des Moines KGHO 1.682 KGGZ 2.466
		ARKANSAS	Bridgeport WPFW 2.466	Effingham WQFF 1.610	Fairfield KACC 1.682
		Fort Smith KNHE 2.406	New Haven WQFA 2.466	Highland Park WPFJ 2.430	Sioux City KGGK 2.466
		Little Rock KGGH 2.406	New London WAKB 2.466	Macomb WQPM 1.610	Storm Lake KNFO 1.682
		CALIFORNIA	DISTRICT OF COLUMBIA		Waterloo KNFN 1.682
		Bakersfield KACS 2.414 KGPS 2.414	WASHINGTON WPDW 2.422		KANSAS
		Berkeley KSW 1.658			Atchison KACA 2.422

SHORT WAVE STATIONS BY LOCATIONS

Chanute KGZF 2.450	Newton WPFA 1.712	NEW HAMPSHIRE	W2XE 11.830	Youngstown WPDG 2.458	PUERTO RICO
Coffeyville KGZP 2.450	Northampton WPEW 1.666	Nashua WPHB 2.422	W2XE 15.270	Zanesville WPHO 2.430	San Juan WCT 13.410
Dodge City KNGH 2.474	Somerville WPEH 1.712	NEW JERSEY	W2XE 17.760	OKLAHOMA	RHODE ISLAND
Eldorado KAPD 2.450	W. Bridgewater WPEL 1.666	Bloomfield WAKH 2.430	W2XE 21.520	Ada KNHC 2.450	Cranston WPGK 2.466
Garden City KNFH 2.474	Worcester WPGX 2.466	Bound Brook W3XAL 6.100	Niagara Falls WNFP 2.422	Altus KACL 2.450	E. Providence WPEI 1.712
Hutchinson KGHN 2.450	MICHIGAN	W3XAL 17.780	Oneonta WQFJ 2.414	Chickasha KACF 2.450	Pawtucket WPFV 2.466
Salina KNGV 2.422	Bay City WPGA 2.466	W3XL 6.425	Rochester WPDR 2.422	Cushing KAPB 2.450	Providence WPGF 1.712
Topeka KGZC 2.422	Detroit WCK 2.414	W3XL 17.310	Rocky Point WEA 10.610	Drumright KAPC 2.450	Woonsocket WPEM 2.466
Wichita KGPZ 2.450	WPDX 2.414	Freehold WAKC 2.366	WES 9.448	Duncan KNGK 2.450	
KENTUCKY	E. Lansing WRDS 1.642	Hackensack WPKF 2.430	WET 9.470	Lawton KGHP 2.450	SOUTH CAROLINA
Lexington WPET 1.706	Flint WPDF 2.442	Lawrenceville WPKF 4.253	WEZ 8.075	Muskogee KNGT 2.450	Charleston WCPD 2.430
Louisville WPDE 2.442	Grand Rapids WPEB 2.442	WKF 19.220	Schenectady W2XAD 15.330	Norman KAPE 2.450	
LOUISIANA	WPEB 2.442	WLA 18.350	W2XAF 9.530	Oklahoma City KGFH 2.450	SOUTH DAKOTA
Baton Rouge WAME 2.430	Grosse Pointe WRDR 2.414	WMN 14.590	S. Schenectady WPGC 1.658	Okmulgee KAPF 2.450	Huron KVPB 2.450
New Orleans WPEK 2.430	Highland Park WMO 2.414	WOA 6.755	Syracuse WPEA 2.382	Ponca City KACP 2.450	Rapid City KNGM 2.450
Shreveport KGZL 1.712	Jackson WHPJ 2.466	WON 9.870	Utica WPGJ 2.414	Seminole KACR 2.450	
KGZP 2.430	Lansing WPLD 2.442	New Brunswick WKJ 9.460	Yonkers WPFY 2.442	Tulsa KGPO 2.450	TENNESSEE
MAINE	Muskegon WPEC 2.442	Ocean Gate WOO 4.178	NORTH CAROLINA	OREGON	Elizabethton WPHY 2.474
Portland WPFU 2.422	Paw Paw WRDP 1.642	Passaic WPDJ 2.414	Asheville WPSF 2.474	Klamath Falls KGZH 2.442	Johnson City WPGZ 2.474
MARYLAND	Port Huron WPCB 2.466	NEW MEXICO	WPFSS 2.474	Portland KGPP 2.442	Knoxville WPF0 2.474
Baltimore WPFH 2.414	Saginaw WPES 2.442	Albuquerque KGZX 2.414	Charlotte WPDV 2.458	Salem KGZR 2.442	Memphis WPEC 2.466
Beltsville WWV 5.000	MINNESOTA	Clovis KNFA 2.414	NORTH DAKOTA	PENN- SYLVANIA	Nashville 1.666
WWV 10.000	Duluth KNFE 2.382	Santa Fe KGPF 2.414	Fargo KNHM 2.442	Harrisburg WPSP 1.674	TEXAS
WWV 15.000	Minneapolis KGPB 2.430	NEW YORK	OHIO	Monessen WQFF 2.482	Austin KGHU 2.442
MASSACHUSETTS	Redwood Falls KNHD 1.658	Albany WPGH 2.414	Akron WPD0 2.458	New Castle WPGT 2.482	Beaumont KGPJ 1.712
Arlington WPED 1.712	St. Paul WPD5 2.430	Auburn WPDN 2.382	Cincinnati WKDU 1.706	Oil City WPHZ 2.482	Big Spring KACM 2.458
Boston WPGV 1.712	MISSOURI	Binghamton WPLG 2.442	Cleveland WRBH 2.458	Philadelphia WPDV 2.474	Brownsville KGMT 2.382
WIXAL 6.040	Jefferson KIUK 1.674	Bronx WPEF 2.450	Columbus WPGI 2.430	W3XAU 6.060	Brownwood KNGW 2.458
WIXAL 11.790	Kansas City KGPE 2.422	Brooklyn WPEE 2.450	Dayton WPDV 2.430	W3XAU 9.590	Cleburne KNGE 1.712
Cohasset WPGU 1.712	St. Louis KGPC 1.706	Buffalo WMEJ 2.422	Findlay WPGG 1.596	W3XAU 9.590	Corpus Christi KGHV 2.382
Everett WAKF 1.712	NEBRASKA	Herkimer 2.414	Lancaster WQFO 2.430	Pittsburgh WPDV 1.712	Dallas KVP 1.712
Fairhaven WPFN 1.712	Lincoln KGZU 2.490	Hicksville W2XGB 6.425	Mansfield WQFY 2.474	W8XK 6.140	Denton KNHF 1.712
Fall River WAKV 1.712	Norfolk KNGN 2.490	Huntington WPGO 2.498	Portsmouth WPGI 2.430	W8XK 11.870	
Fitchburg WPHA 2.466	Omaha KGPI 2.466	Mineola WPGS 2.490	Sandusky WAKI 2.474	W8XK 15.210	
Framingham WMP 1.666	NEVADA	New York WPEG 2.450	Steubenville WPHD 2.458	W8XK 21.540	
Marshfield WOU 2.506	Las Vegas KCHG 2.474	W2XE 6.120	Toledo WRDQ 2.474	Reading WPFE 2.442	
Medford WPHG 1.712	Reno KGHM 2.474			Sharon WQFU 2.482	
				Swarthmore WPFQ 2.474	
				Wilkes-Barre WQFM 2.442	

SHORT WAVE STATIONS BY LOCATIONS

<p>El Paso KGZM 2.414 Fort Worth KGPR 1.712 Galveston KNGL 1.712 Gladewater KACU 1.712 Houston KGZB 1.712 Lubbock KGZW 2.458 San Antonio KGZE 2.482 Waco KGZQ 1.712 Wichita Falls KGZI 2.458</p> <p style="text-align: center;">UTAH</p> <p>Salt Lake City KGPW 2.406</p>	<p style="text-align: center;">VIRGINIA</p> <p>Lynchburg WQFH 2.450 Petersburg WQFI 2.450 Richmond WPHF 2.450 Roanoke WQFG 2.450</p> <p style="text-align: center;">WASHINGTON</p> <p>Aberdeen KGZV 2.414 Bellingham KACK 2.414 KNFK 2.490 Centralia KGHW 2.414 Ellensburg KNFX 2.490</p>	<p style="text-align: center;">Ephrata</p> <p>KNGZ 2.490 Everett KNFP 2.414 Kalaloch KACQ 2.490 Mt. Vernon KNFI 2.414 Olympia KACE 2.414 KNFG 2.490</p> <p style="text-align: center;">Seattle</p> <p>KGPA 2.414 WVD 2.604 WVD 8.620 Spokane KGHS 2.414 KNGR 2.490 Tacoma KGZN 2.414 Vancouver KNGC 2.490</p>	<p style="text-align: center;">Walla Walla</p> <p>KACV 2.414 KNGD 2.490 Wenatchee KACJ 2.414 KNGQ 2.490 Yakima KNGB 2.490 KNGU 2.414</p> <p style="text-align: center;">WEST VIRGINIA</p> <p>Charleston WPHI 2.490 Clarksburg WPFP 2.490 Fairmont WPHJ 2.490 Parkersburg WPHQ 2.490</p>	<p style="text-align: center;">WISCONSIN</p> <p style="text-align: center;">Green Bay</p> <p>KNHB 2.382 Kenosha WPEP 2.450 Milwaukee WPDK 2.450 Oshkosh WAKE 2.382</p> <p style="text-align: center;">VATICAN STATE (HVA-HVZ)</p> <p>Vatican City HVJ 15.120</p> <p style="text-align: center;">VENEZUELA (YVA-YWZ)</p> <p>Barquisimeto YV8RB 5.895</p>	<p style="text-align: center;">Bolivar</p> <p>YV11RB 6.545</p> <p style="text-align: center;">Caracas</p> <p>YV2RC 5.800 YV3RC 6.165 YV4RC 6.375 YV9RC 6.400</p> <p style="text-align: center;">Maracaibo</p> <p>YV5RMO 5.850 YV7RMO 5.810</p> <p style="text-align: center;">Maracay</p> <p>YVQ 6.672 YVR 9.168 YV12RM 6.300</p> <p style="text-align: center;">San Cristobal</p> <p>YV10RSC 5.720 Valencia YV6RV 6.520</p> <p style="text-align: center;">YUGO SLAVIA</p> <p style="text-align: center;">Belgrade</p> <p>..... 6.100</p>
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DX Clinic

(Continued from page 16)

new station KOVC on 1500 keys," postcards O. Ingmar Oleson, Ambrose, N. D. "Best time for DXers to get them is early in the morning. KFJM is now on 1410 keys with 1000 watts. They are using a vertical antenna 165 feet high, and their signal is about 20 times as strong as when they had 100 watts."

"I'm back in Rochester, N. Y., after seven months in Laredo, Texas," greets Samuel A. Meyer, Jr., 83 Canterbury Rd., that city, "and have a little Mexican dope that may interest you. XEFO, which has been using 5 KW for many years, has changed managers and will increase power to 50 KW very soon. There are two stations in Mexico City which you do not list, XEMC and XEJP, but I don't know the frequency or power of either. XEWZ has changed its call to XEOO. When I tuned a radio in Mexico City at about 1900 in the evening, the whole dial seemed to be covered with local stations. Twelve-watters like XEMX

came in with nearly the strength of XEW or XEFO.

"In your broadcast band lists, you show only three stations in Trujillo, D.R. HIT, HIG, HI8Q, and HI9B and at least five other short wave stations are relaying BCB transmitters of the same call. Two Colombians not listed in RADEX are HJ1ABR, 1400 keys, Cartagena, and HJ4ABQ, 1320 keys, Medellin. I am afraid that most of the short wave stations down there have BCB equivalents."

Reports and Such

"I joined with the GRDA-IDA about six months ago," says F. H. Hagedorn, Ambrose N. E. Line, Queensland, Australia, "and find DXing a most fascinating hobby indeed. I am using a four-valve Victor receiver and, being in a farming district, it is battery-operated. It costs a little more to operate than an A.C. set in the city, but this is more than compensated by the fact that we have no electricity to cause interference. Except during a thunderstorm, we get practically undistorted reception at all times.

SHORT WAVE STATIONS BY CALLS

CBG15	6.150	GSG	17.790	JVT	6.750	KGZA	2.414	KNGZ	2.490	VPD	13.075	WPDV	2.458
CB960	9.600	GSH	21.470	JVU	5.790	KGZB	1.712	KNHB	2.382	VPD2	9.540	WPDW	2.424
CEC	5.820	GSI	15.260	JVV	5.730	KGZC	2.422	KNHC	2.450	VP3BG	7.220	WPDX	2.442
CEC	10.670	G SJ	21.530	KACA	2.422	KGZD	2.490	KNHD	1.658	VQ3MR	7.080	WPDY	2.414
CEX	10.230	GSK	26.100	KACC	1.682	KGZE	2.482	KNHE	2.406	VQG	19.630	WPDZ	2.490
CFX	6.005	GSJ	6.110	KACD	1.682	KGZF	2.450	KNHF	1.712	VRRA	11.595	WPEA	2.382
CFRX	6.070	GSO	11.820	KACE	2.414	KGZG	2.466	KNHG	2.430	VWY	9.045	WPEB	2.442
CFU	4.755	GSN	15.180	KACF	2.450	KGZH	2.442	KNHM	2.442	VWY2	17.480	WPEC	2.466
CFU	6.720	GSP	15.310	KACG	2.422	KGZI	2.458	KSW	1.658	VWZ	8.690	WPED	1.712
CGZ	2.342	HAS3	15.370	KACJ	2.414	KGZJ	2.430	KVP	1.712	VYR	1.712	WPEE	2.450
CJXC	6.010	HAT4	9.125	KACK	2.414	KGZL	1.712	KVPB	2.450	VYW	2.396	WPEF	2.450
CJRO	6.150	HBL	9.595	KACL	2.450	KGZM	2.414	KWO	15.415	WAJN	2.726	WPEG	2.450
CJRX	11.720	HBP	7.797	KACM	2.458	KGZN	2.414	KWU	15.355	WAKA	2.490	WPEH	1.712
CJW	2.390	HCJB	8.900	KACN	2.414	KGZO	2.414	KWV	10.840	WAKB	2.466	WPEI	1.712
CJZ	2.390	HCK	5.885	KACO	2.414	KGZP	2.450	LKJ1	9.540	WAKC	2.366	WPEK	2.430
CNR	12.830	HC2ET	4.600	KACP	2.450	KGZQ	1.712	LRU	15.290	WAKE	2.382	WPEL	1.666
CODC	6.130	HC2JSB	7.850	KACQ	2.490	KGZR	2.442	LRX	9.660	WAKF	1.712	WPEM	2.466
COCN	9.428	HC2RL	6.590	KACR	2.450	KGZT	1.674	LSL	10.250	WAKG	2.466	WPEP	2.450
COCO	6.010	HM2S	6.590	KACS	2.414	KGZU	2.490	LSN	8.895	WAKH	2.430	WPEQ	2.442
COCQ	9.750	HM3W	9.627	KACV	1.712	KGZV	2.414	LSN	14.480	WAKI	2.474	WPET	1.706
COCX	11.650	HIG	6.280	KACW	2.414	KGZW	2.458	LSN5	19.650	WAKJ	1.698	WPEV	1.666
COKG	6.155	HIH	6.814	KAEB	2.616	KGZX	2.414	LSX	10.350	WAKK	2.490	WPEW	1.666
COL2	1.712	HIL	6.500	KAED	2.616	KGZY	1.712	LZA	14.970	WAKN	2.414	WPFA	1.712
CO9JQ	8.665	HIN	6.243	KAEF	2.616	KHV	2.566	OAX4D	5.780	WAKO	2.442	WPFC	2.442
CO9WR	6.280	HIN	11.290	KAEP	2.616	KHW	2.312	OAX4G	6.230	WAKV	1.712	WPFD	2.430
CRCX	6.090	HIT	6.630	KAPB	2.450	KHZ	2.312	OPM	10.135	WAKO	2.442	WPFE	2.442
CSW	9.380	HIX	6.340	KAPC	2.450	KIAY	3.093	ORK	10.330	WANB	2.726	WPGF	2.442
CT1AA	9.650	HIZ	6.315	KAPD	2.450	KIHY	2.726	OXY	9.490	WCK	2.414	WPFH	2.414
CXA4	6.125	HIJ	6.185	KAPE	2.450	KIJW	2.632	PCJ	9.590	WCPD	2.430	WPGI	2.414
CYQ	2.318	HIJ1	5.865	KAPF	2.450	KIJK	2.632	PCJ	15.220	WCT	13.410	WPKF	2.430
CZ6F	1.710	HIJ5	6.420	KAZ	9.990	KIKP	1.606	PHI	11.730	WEA	10.610	WPFM	2.382
DJA	9.560	HI3C	6.750	KDK	2.538	KILD	2.538	PHI	17.775	WES	9.448	WPFN	1.712
DJB	15.200	HI3U	6.034	KEE	7.715	KILY	2.394	PLE	18.830	WET	9.470	WPGO	2.474
DJC	6.020	HI4D	6.500	KEJ	9.010	KIMA	2.632	PLP	11.000	WEY	1.630	WPPF	2.490
DJD	11.770	HI4V	6.480	KEL	6.860	KIOC	2.632	PLV	9.415	WEZ	8.075	WPPQ	2.474
DJE	17.760	HI5N	6.150	KES	9.480	KIQD	2.632	PMN	10.260	WKDT	1.630	WPPS	2.458
DJM	6.080	HI7P	6.800	KFF	2.566	KIQH	2.632	PMY	5.140	WKDU	1.706	WPPV	2.474
DJN	9.540	HI9B	6.045	KGHD	2.490	KIQI	2.632	Prado	6.040	WKF	4.253	WPPW	2.442
DJO	11.795	HJB	14.930	KGHG	2.474	KIUK	1.674	PRA8	6.620	WKJ	9.460	WPPU	2.422
DJP	11.855	HJN	5.950	KGHK	1.674	KKH	7.520	PRF5	9.500	WLA	18.350	WPPV	2.466
DJQ	15.280	HJU	9.510	KGHM	2.474	KLA	2.566	PSN	10.220	WMDZ	2.442	WPPW	2.466
DJR	15.340	HJ1ABB	4.447	KGHN	2.450	KLD	2.566	RAN	9.520	WMJ	2.422	WPPX	2.442
DZA	9.675	HJ1ABC	6.010	KGHO	1.682	KLE	2.512	RNE	12.000	WMN	14.590	WPPY	2.442
DZB	10.042	HJ1ABD	7.280	KGHP	2.450	KNBE	5.165	RV15	4.273	WMO	2.414	WPZ	2.442
DZC	10.285	HJ1ABE	9.500	KGHS	2.414	KNFA	2.414	RV59	5.996	WMP	1.666	WPGA	2.466
DZG	15.360	HJ1ABG	6.042	KGHT	2.382	KNFB	2.458	RV96	15.175	WNC	15.055	WPGB	2.466
DZH	14.460	HJ1ABJ	6.025	KGHU	2.442	KNFE	2.382	SUV	10.055	WND	4.098	WPGC	1.658
EAQ	9.862	HJ1ABP	9.615	KGHV	2.382	KNFG	2.490	TDA	6.762	WNFP	2.422	WPGD	2.458
EHZ	10.370	HJ2ABA	6.170	KGHW	2.414	KNFH	2.474	TDD	5.830	WOA	6.755	WPGF	1.712
F08AA	7.100	HJ2ABC	6.575	KGHX	2.490	KNFI	2.414	TDF	5.970	WOB	8.850	WPGH	2.414
GAA	20.380	HJ2ABD	5.980	KGHY	1.712	KNFJ	1.712	TFJ	12.225	WON	9.870	WPGI	3.430
GAD	19.480	HJ3ABD	6.055	KGHZ	2.406	KNFK	2.490	TGF	14.545	WOO	4.178	WPGJ	2.414
GAS	18.310	HJ3ABF	6.170	KGJX	1.712	KNFM	2.490	TGS	5.710	WOO	4.753	WPGK	2.466
GAU	18.620	HJ3ABH	6.012	KGM	2.512	KNFN	1.682	TGWA	6.000	WOO	8.560	WPLG	2.442
GBA2	13.990	HJ3ABX	6.122	KGOZ	2.466	KNFO	1.682	TGZX	5.940	WOO	12.840	WPLM	2.414
GBB	13.585	HJ4ABC	6.450	KGPA	2.414	KNFP	2.414	TIEP	6.700	WOO	17.120	WPLN	2.490
GBC	4.975	HJ4ABD	5.760	KGPE	2.430	KNFX	2.490	TIGPH	5.820	WOU	2.506	WPGO	2.490
GBC	8.680	HJ4ABE	6.097	KGPC	1.706	KNGB	2.490	TIN	14.545	WPDA	2.414	WPGP	2.442
GBC	17.080	HJ4ABP	6.135	KGPD	2.466	KNGC	2.490	TIPG	6.410	WPDB	1.712	WPGS	2.490
GBS	12.150	HJ5ABD	6.085	KGPE	2.422	KNGD	2.490	T14NRH	9.670	WPDC	1.712	WPGT	2.482
GBU	12.290	HPF	14.455	KGPF	2.414	KNGE	1.712	T15HH	5.520	WPDD	1.712	WPGU	1.712
GBW	14.440	HP5B	6.030	KGPG	2.422	KNGF	2.422	TPA2	15.245	WPDE	2.442	WPGV	1.712
GBX	16.140	HP5F	6.080	KGPH	2.450	KNGG	1.698	TPA3	11.880	WPDF	2.442	WPGW	2.382
GCB	9.280	HP5J	9.605	KGPI	2.466	KNGH	2.474	TPA4	11.715	WPDG	2.458	WPGX	2.466
GCP	10.770	HP5K	6.005	KGPP	1.712	KNGJ	2.490	TYA2	9.040	WPDH	2.442	WPGZ	2.474
GCS	9.020	HRD	6.235	KGPK	2.466	KN GK	2.450	VDO	4.436	WDDI	2.430	WPHA	2.466
GCU	9.950	HRN	5.875	KGPL	1.712	KNGL	1.712	VDO	4.865	WDDJ	2.414	WPHB	2.422
GDP	7.920	HRP1	6.356	KGPM	2.466	KNGM	2.450	VE9BJ	6.090	WDDK	2.450	WPHD	2.458
GDS	6.905	HS8PJ	10.955	KGPN	2.466	KNGN	2.490	VE9BK	4.795	WDDL	2.442	WPHF	1.634
GDW	4.820	HVJ	15.120	KGPO	2.450	KNGO	2.450	VE9CS	6.070	WDDM	2.430	WPHG	2.450
GSA	6.050	I2R0	9.635	KGPP	2.442	KNGP	2.430	VE9HX	6.130	WDDN	2.382	WPHJ	1.712
GSB	9.510	I2R0	11.810	KGQP	1.712	KNGQ	2.490	VJZ	13.880	WDDO	2.458	WPHI	2.490
GSC	9.580	JIB	10.535	KGPR	1.712	KNGR	2.490	VK2ME	9.585	WDDP	2.474	WPHJ	2.490
GSD	11.750	JVH	14.640	KGPS	2.414	KNGT	2.450	VK3LR	9.580	WDDR	2.422	WPHM	2.442
GSE	11.860	JVM	10.740	KGPV	2.406	KNGU	2.414	VK3ME	9.490	WDDS	2.430	WPHN	2.466
GSF	15.140	JVN	10.660	KGPX	2.442	KNGV	2.422	VK6ME	5.950	WDDT	2.490	WPHO	2.430
				KGQZ	2.450	KNGW	2.458	VLK	8.095	WDDU	1.712	WPHQ	2.466
				KGPY	2.986	KNGY	2.414					WPHQ	2.490

SHORT WAVE STATIONS BY CALLS

WPHS 1.634	WQFO 2.430	WRDP 1.642	W2XAD 15.330	W8XK 6.140	XG0X 9.460	YV5RMO 5.850
WPHU 1.634	WQFQ 2.442	WRDQ 2.474	W2XAF 9.530	W8XK 11.870	YDA 3.040	YV6RV 6.520
WPHY 2.474	WQFT 1.596	WRDR 2.414	W2XE 6.120	W8XK 15.210	YDA 6.040	YV7RMO 5.810
WPHZ 2.482	WQFU 2.482	WRDS 1.642	W2XE 11.830	W8XK 21.540	YDA5 6.120	YV8RB 5.895
WPSP 1.674	WQFV 2.414	WVD 2.604	W2XE 15.270	W9XAA 6.080	YDB 9.640	YV9RC 6.400
WQFA 2.466	WQFW 1.634	WVD 8.620	W2XE 17.760	W9XAA 11.830	YNA 14.480	YV10RS 5.720
WQFB 2.414	WQFX 1.712	WVV 5.000	W2XE 21.520	W9XBS 6.425	YNLF 9.650	YV11RB 6.545
WQFC 2.466	WQFY 2.474	WVV 10.000	W2XGB 6.425	W9XF 6.100	YNVA 8.590	YV12RM 6.300
WQFE 1.634	WQFZ 2.458	WVV 15.000	W3XAL 6.100	W9XF 6.425	YSL 14.960	ZBW 8.750
WQFF 2.482	WQPC 1.610	WXA 8.050	W3XAL 17.780	XEBT 6.000	YVQ 6.672	ZFA 5.025
WQFG 2.450	WQPD 1.610	WXE 2.998	W3XAU 6.060	XECR 7.380	YVQ 13.337	ZFB 10.055
WQFH 2.450	WQPF 1.610	WXH 2.604	W3XAU 9.590	XEFT 9.505	YVR 9.168	ZFD 10.335
WQFI 2.450	WQPG 1.610	WXH 6.662	W3XL 6.425	XEUW 6.020	YV2RC 5.800	ZFS 4.512
WQFJ 2.414	WQPM 1.610	WXH 8.050	W3XL 17.310	XEWI 5.985	YV3RC 6.165	ZHI 6.018
WQFK 2.466	WQPP 1.610	W1XAL 6.040	W4XB 6.040	XEXA 6.182	YV4RC 6.375	ZLT4 11.000
WQFL 1.712	WQPS 1.610	W1XAL 11.790	W8XAL 6.060			
WQFM 2.442	WRBH 2.458	W1XK 9.570				

Let's Listen

(Continued from page 31)

set to the second antenna connection. I put up an aerial only 50 feet in over-all length. I am using No. 28 double rubber covered electric power wire for the antenna and ground, and can now separate the stations from hair line to 10 kcs. apart.

"The other evening I tried out this set with the result that on the short-wave bands, these stations were received: XEBT, 6000 kcs., Mexico City, 2029 pm, MST, very strong; GSB, Daventry, England, 2135 pm, audible to strong; DJP in Zeesen, Germany; HJ2ABD, Bucaramanga, Colombia; XEWI, Mexico City, just audible; COCO, 6020 kcs., Havana, Cuba; COCH in Havana and HJ2ABC in Cucuta, Colombia."

So many new readers join our ranks each month that we deem it advisable, once or twice a year at least, to devote an entire article to a discussion of terms and expressions used in radio. "We want to know *how* to find stations," one reader writes, and another says, "I would like to see an article dedicated to greenhorns." An article for "greenhorns" is now in preparation. It will tell what can be heard on short-waves and how to tune for overseas stations. The QSA and R signals will be explained, as well as "fre-

This month our Frequency list shows the "extra" time that stations may be heard. We have shown, as much as we were able with the information on hand, the hours that the stations transmit outside of their regular broadcasting periods. The time is given in Eastern Standard.

quencies," "megacycles," "meters," "Greenwich Mean Time" and other words perplexing to a beginner. Watch for this feature in an early issue of RADEX.

Carl and Anne Eder, Pouch A, Willmar, Minn., have asked us to send a general call to all s.w. tuners that they wish to exchange QSL cards.

"Station W3XEY, on a frequency of 31.6 megs. and located here in Baltimore, relays the Red Network programs between 1800 and 0000 EST," writes Paul Wirtz, 633 St. John's Road, Baltimore, Md. "Reports to this station should be addressed in care of station WFBR, 7 St. Paul St., and they will be verified for return postage." Paul is only 15 years old and claims that he has just started in radio, although he has already built three sets, one of them a one-tube regenerative rig on which he logged 25 foreign stations in about a month and a half. Among the better catches were PCJ, HAT4, 2RO, GSC and EAQ.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

540 kcys. (555.2)

CJRM ak 1000 F Moose Jaw, Sask.

550 kcys. (545.1)

CFNB	mk	500	F (1)	Fredericton, N. B.	
KFUO	ae	500	2 (1)	St. Louis, Mo.	
KFYR	ae	1000	N (5)	Bismarck, N. D.	
KOAC	ak	1000		Corvallis, Ore.	
KSD	ak	1000	2R (5)	St. Louis, Mo.	
KTSA	ak	1000	C (5)	San Antonio, Tex.	—Jan. 4, 0100-0115
WDEV	ae	500	D	Waterbury, Vt.	—2nd Mon., 0420-0440
WGR	ae	1000	C	Buffalo, N. Y.	
WKRC	ak	1000	CX	Cincinnati, Ohio	—2nd Tues., 0320-0340
WSVA	ak	500	D	Harrisonburg, Va.	
XEFC	ak	250	.....	Merida, Yuc.	

560 kcys. (535.4)

KFDM	ak	500	(1)	Beaumont, Tex.	—2nd Mon., 0400-0420
KLZ	ae	1000	C (5)	Denver, Colo.	
KSFO	ak	1000	.....	San Francisco, Cal.	
KWTO	ak	5000	D	Springfield, Mo.	
WFIL	ak	1000	B	Philadelphia, Pa.	
WIND	ak	1000	(5)	Gary, Ind.	
WIS	ae	1000	N (5)	Columbia, S. C.	
WOAM	ak	1000	C	Miami, Fla.	—2nd Sat., 0300-0320
XEAO	ak	250	.....	Mericali, L. C.	

570 kcys. (526.0)

KGKO	ak	250	C(1)Y	Wichita Falls, Tex.	—2nd Thurs., 0300-0320
KMTR	ak	1000	.....	Hollywood, Calif.	
KVI	ak	1000	C(5)	Tacoma, Wash.	
WKBN	ae	500	1C	Youngstown, Ohio	—2nd Wed., 0320-0340
WMCA	ak	500	X	New York, N. Y.	
WNAX	ak	1000	C (5)	Yankton, S. D.	
WOSU	ak	750	I (1)	Columbus, Ohio	—2nd Wed., 0350-0410
WYSR	ak	1000	B	Syracuse, N. Y.	—2nd Tues., 0420-0440
WWNC	ak	1000	N	Asheville, N. C.	

580 kcys. (516.9)

CFPR	ak	50	.....	Prince Rupert, B.C.	
CHRC	ak	100	F	Quebec, Que.	
CKGL	ag	100	F	Toronto, Ont.	
CKUA	ak	500	.....	Edmonton, Alta.	
KMJ	ak	500	C (1)	Fresno, Calif.	
KSAC	ak	500	2 (1)	Manhattan, Kans.	
WCHS	ak	500	(1)	Charleston, W. Va.	
WDBO	ak	1000	C	Orlando, Fla.	—2nd Mon., 0330-0350
WIBW	ak	1000	C2 (5)	Topeka, Kans.	
WILL	ak	1000	D	Urbana, Ill.	
WTAG	ae	500	RX	Worcester, Mass.	

590 kcys. (508.2)

KHIO	ak	1000	R (2.5)	Spokane, Wash.	
WEEI	ak	1000	CX	Boston, Mass.	
WKZO	ak	1000	D	Kalamazoo, Mich.	
WOW	ae	5000	R	Omaha, Nebr.	

600 kcys. (499.7)

CFCF	ae	400	FN	Montreal, Que.	
CJOR	ak	500	.....	Vancouver, B. C.	
CMW	ak	1400	.....	Havana, Cuba	
CRCW	ak	500	F (1)	Windsor, Ont.	
FON	z	250	609	St. Pierre, Miq.	

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KFSD ae 1000 B San Diego, Calif.
 WCAO ae 500 C (1) Baltimore, Md.
 WICC ae 500 C (1) Bridgeport, Conn.
 WMT ak 1000 B (5) Cedar Rapids, Ia.
 WREC c 1000 C (5) Memphis, Tenn.

610 kcys. (491.5)

KFRC ck 1000 C (5) San Francisco, Cal.
 WDAF ak 1000 R (5) Kansas City, Mo.
 WIP ak 1000 Philadelphia, Pa.
 WJAY ae 500 D Cleveland, Ohio —2nd Tues., 0430-0450
 XEXM z Mexico City, D. F.
 XFX ak 1000 Mexico City, D. F.

620 kcys. (483.6)

KGW ak 1000 R (5) Portland, Ore.
 KTAR ae 1000 N Phoenix, Ariz. —Jan. 7, 0500-0530
 WFLA ae 1000 Na (5) Clearwater, Fla.
 WHJB ak 250 D C Greensburg, Pa.
 WLBZ ak 500 C (1) Bangor, Maine
 WSUN ae 1000 Na (5) St. Petersburg, Fla.
 WTMJ ak 1000 N (5) Milwaukee, Wis.

630 kcys. (475.9)

CFCO ak 100 F Chatham, Ont.
 CFGY ae 1000 F Charlottetown, P.E.I.
 CJRC ak 1000 F Winnipeg, Man.
 CKOV ak 100 F Kelowna, B. C.
 KFRU ak 500 I (1) Columbia, Mo.
 KGFX ak 200 D Pierre, S. D.
 WGBF ak 500 I Evansville, Ind. —2nd Sat., 0350-0410
 WMAL ak 250 B (5) Washington, D. C.
 WOS ak 500 1D Jefferson City, Mo.
 WPRO ak 500 (1) Providence, R. I.
 XEZ z 500 Merida, Yuc.
 WGAN ck 500 P Portland, Me.

640 kcys. (468.5)

CMBC dj 150 Havana, Cuba
 KFI ak 50000 R Los Angeles, Calif.
 WHKC ak 500 Columbus, Ohio
 WOI ae 5000 D Ames, Iowa
 XEOX ak 500 Saltillo, Coah.

650 kcys. (461.3)

TIGPH ak 1000 San Jose, C. R.
 WSM ae 50000 N Nashville, Tenn.

660 kcys. (454.3)

WAAW ae 500 D Omaha, Neb.
 WEAJ ak 50000 R New York, N. Y.

670 kcys. (447.5)

WMAQ ak 50000 N Chicago, Ill.

680 kcys. (440.9)

CMCG ak 1000 Havana, Cuba
 KFEQ ak 2500 D St. Joseph, Mo.
 KPO ak 50000 R San Francisco, Cal.
 RDN z 500 San Salvador, E. S.
 VAS akn 2000 685 Glace Bay, N. S.
 VQWR ck 500 681 St. John's, Nfld.
 WPTF ak 1000 N (5) Raleigh, N. C.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

690 kcys. (434.5)

CFRB	ae	10000	C	Toronto, Ont.
CJ CJ	ak	100	F	Calgary, Alta.
NAA	akn	1000	Arlington, Va.
XET	ak	500	Monterrey, N. L.

700 kcys. (428.3)

WLW	ak	500000	N	Cincinnati, Ohio
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710 kcys. (422.3)

KIRO	ak	1000	Seattle, Wash.
KMPC	ak	500	Beverly Hills, Cal.
WOR	ak	50000	Newark, N. J.
XEN	ak	1000	.....	Mexico City, D. F.

720 kcys. (416.4)

WGN	ak	50000	.....	Chicago, Ill.
XEH	ak	250	.....	Monterrey, N. L.

730 kcys. (410.7)

CFPL	ak	100	F	London, Ont.
CJCA	ak	1000	F	Edmonton, Alta.
CKAC	ak	5000	CF	Montreal, Que.
CKPR	ak	100	F	Fort William, Ont.
CMK	ae	3000	.....	Havana, Cuba
XEBC	z	5000	.....	Agua Caliente, L. C.
XEPN	ak	100000	.....	Piedras Negras, Ch.

740 kcys. (405.2)

KMMJ	ae	1000	D	Clay Center, Neb.	
KTRB	ak	250	D	Modesto, Calif.	-2nd Thurs., 0510-0530
WHEB	ak	250	D	Portsmouth, N. H.	
WSB	ae	50000	N	Atlanta, Ga.	

750 kcys. (399.8)

CMCW	dk	150	.....	Havana, Cuba	
KGU	aj	2500	N	Honolulu, T. H.	-2nd Thurs., 0420-0440
WJR	ak	50000	C	Detroit, Mich.	
XEAM	z	7.5	.....	Matamoros, Tams.	

760 kcys. (394.5)

CMHX	ak	200	.....	Cienfuegos, Cuba	
KXA	ae	250	(.5)	Seattle, Wash.	
WBAL	ae	2500	BSy	Baltimore, Md.	
WEW	ae	1000	D	St. Louis, Mo.	-2nd Fri., 0320-0340
WJZ	ak	50000	BSy	New York, N. Y.	
XEOK	ak	250	.....	Tijuana, L. C.	

770 kcys. (389.4)

CMBS	ak	150	.....	Havana, Cuba	
KFAB	ak	10000	CSy	Lincoln, Neb.	
WBBM	ae	50000	CSy	Chicago, Ill.	

780 kcys. (384.4)

CHWK	dk	100	F	Chilliwack, B. C.	
CKSO	ak	1000	F	Sudbury, Ont.	
CMJK	ak	250	.....	Camaguey, Cuba	
KEHE	ak	500	(1)X	Los Angeles, Calif.	
KFDY	ae	1000	D	Brookings, S. D.	
KFOD	ck	250	.....	Anchorage, Alaska	-2nd Sat., 0400-0420
KGHL	ak	1000	N (5)	Billings, Mont.	
WEAN	ae	500	CX	Providence, R. I.	

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

MWG ak 1000 N (5.) Memphis, Tenn.
 WTAR ae 500 NX (1) Norfolk, Va.
 XEYZ z 10000 Mexico City, D. F.

790 kcys. (379.5)

CMGH z 250 Matanzas, Cuba
 KGO ak 7500 B San Francisco, Cal.
 KOAM z 1000 DP Pittsburg, Kans.
 WGY ak 50000 R Schenectady, N. Y.

800 kcys. (374.8)

HIX ak 700 Trujillo, D. R.
 TIX ak San Jose, C. R.
 WBAP ak 50000 Na Fort Worth, Tex.
 WFAA ak 50000 Na Dallas, Tex.
 WTBO ak 250 D Cumberland, Md.

810 kcys. (370.2)

CMCF ak 600 Havana, Cuba
 WCCO ae 50000 C Minneapolis, Minn.
 WNYC ak 1000 D New York, N. Y.
 XFC z 350 Aguascalientes, Ags.

820 kcys. (365.6)

CMHW ak 100 Cienfuegos, Cuba
 WHAS aj 50000 C Louisville, Ky.
 XEBZ ae 100 Mexico City, D. F.
 XEMZ z Coronado Isle, L. C.

830 kcys. (361.2)

CMJX ae 500 Camaguey, Cuba
 KOA ak 50000 N Denver, Colo.
 WEEU ak 1000 D Reading, Pa.
 WHDH ae 1000 Dn Boston, Mass.
 WRUF ae 5000 Dn Gainesville, Fla.

840 kcys. (356.9)

CFQC ak 1000 F Saskatoon, Sask.
 CRCT ak 5000 FN Toronto, Ont.
 VOGY ak 400 St. John's, Nfld.
 XERA ck 350000 Villa Acuna, Coah.

850 kcys. (352.7)

CMBN z 150 Havana, Cuba
 KIEV ak 250 D Glendale, Calif.
 TIEP z 500 San Jose, C. R.
 WESG ak 1000 C Elmira, N. Y.
 WKAR ae 1000 D East Lansing, Mich.
 WWL ae 10000 C New Orleans, La.

860 kcys. (348.6)

WABC ae 50000 C New York, N. Y.
 WHB ak 1000 D Kansas City, Mo.
 XEMO ak 5000 Tijuana, L. C.

870 kcys. (344.6)

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

880 kcys. (340.7)

CFJC ak 100 F Kamloops, B. C.
 CMQ ak 500 Havana, Cuba
 CRCO ak 1000 F Ottawa, Ont.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KFKA	ak	500	2 (1)	Greeley, Colo.	
KLX	ae	1000	....	Oakland, Calif.	
KPOF	ae	500	2	Denver, Colo.	—Jan. 8, 0215-0245
WCOC	ae	500	(1)	Meridian, Miss.	—2nd Wed., 0410-0430
WGBI	ae	500	1	Scranton, Pa.	
WPHR	ak	500	D	Petersburg, Va.	
WQAN	ae	250	1	Scranton, Pa.	—2nd Thurs., 0300-0320
WSUI	ae	500	(1)	Iowa City, Iowa	

890 keys. (336.9)

KARK	ak	250	(.5)X	Little Rock, Ark.	—2nd Wed., 0350-0410
KFNF	ak	500	2 (1)	Shenandoah, Iowa	
KFPY	ak	1000	C (5)	Spokane, Wash.	
KUSD	ae	500	2	Vermillion, S. D.	
WBAA	ak	500	(1)	W. Lafayette, Ind.	
WGST	ak	1000	C	Atlanta, Ga.	
WJAR	ae	1000	R	Providence, R. I.	
WMMN	ak	500	C (1)	Fairmont, W. Va.	
XEW	ak	50000	....	Mexico City, D. F.	

900 keys. (333.1)

KGBU	ak	500	X	Ketchikan, Alaska	—2nd Tues., 0440-0500
KHJ	ae	1000	C (5)	Los Angeles, Calif.	
KSEI	ae	250	(.5)	Pocatello, Idaho	
WBEN	ak	1000	R (5)	Buffalo, N. Y.	
WELI	ak	500	D	New Haven, Conn.	
WFMD	ak	500	D	Frederick, Md.	
WJAX	ak	1000	N (5)	Jacksonville, Fla.	
WKY	ae	1000	N (5)	Oklahoma City, Okla.	
WLBL	ak	2500	DX	Stevens Point, Wis.	
WTAD	ak	500	DXI	Quincy, Ill.	—2nd Tues., 0340-0400

910 keys. (329.6)

CJAT	ak	1000	F	Trail, B. C.	
CKY	ak	15000	F	Winnipeg, Man.	
CRCM	ak	5000	F	Montreal, Que.	
XENT	ak	150000	...	Nuevo Laredo, Tams.	

920 keys. (325.9)

CMX	ae	1000	....	Havana, Cuba	
HHK	ae	1000	....	Port-au-Prince, Haiti	
KFEL	ak	500	a	Denver, Colo.	
KOMO	ak	1000	R (5)	Seattle, Wash.	
KPRC	ak	1000	N (5)	Houston, Texas	
KVOD	ak	500	aB	Denver, Colo.	
WAAF	ak	1000	D	Chicago, Ill.	
WORL	ae	500	D	Boston, Mass.	
WPEN	ak	250	(.5) 1	Philadelphia, Pa.	
WRAX	ak	250	1 (.5)	Philadelphia, Pa.	
WSPA	ae	1000	D	Spartanburg, S. C.	
WWJ	ak	1000	R (5)	Detroit, Mich.	
XEAA	ak	200	....	Mexicali, L. C.	

930 keys. (322.4)

CFAC	ak	100	F	Calgary, Alta.	
CFCH	ak	100	F	North Bay, Ont.	
CFLC	ae	100	....	Prescott, Ont.	
CHNS	ae	1000	F	Halifax, N. S.	—Jan. 21 and 31, 0200-0500
CKPC	ae	100	F	Brantford, Ont.	
KMA	ak	1000	(5)	Shenandoah, Iowa	
KROW	ak	1000	....	Oakland, Calif.	
TIRH	z	50	....	San Jose, C. R.	
WBRC	ak	1000	C	Birmingham, Ala.	
WDBJ	ae	1000	C (5)	Roanoke, Va.	
XEBH	ak	500	....	Hermosillo, Sonora	

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

940 kcys. (319.0)

KOIN	ak	1000	C (5)	Portland, Ore.	
VOAS	ak	100	.....	St. John's, Nfld.	
WAAT	ak	500	D	Jersey City, N. J.	
WAVE	ak	1000	N	Louisville, Ky.	
WCSH	ak	1000	R (2.5)	Portland, Maine	—2nd Tues., 0510-0530
WDAY	ae	1000	N (5)	Fargo, N. D.	
WHA	ak	5000	D	Madison, Wis.	
XEFO	ak	5000	(XFO)	Mexico City, D. F.	

950 kcys. (315.6)

CJOC	ak	100	F	Lethbridge, Alta.	
CMCD	ak	250	.....	Havana, Cuba	
CRCS	ak	100	F	Chicoutimi, Que.	
KFWB	ak	1000	(5)	Hollywood, Calif.	
KHSL	ak	250	D	Chico, Calif.	—2nd Thurs., 0440-0500
KMBC	ae	1000	C (5)	Kansas City, Mo.	
WRC	ak	500	R (1)	Washington, D. C.	
YNVA	z	30	.....	Managua, Nic.	

960 kcys. (312.3)

CFRN	ak	100	F	Edmonton, Alta.	
CHNC	ak	1000	F	New Carlisle, Que.	
XEAW	ck	50000	.....	Reynosa, Tams.	

970 kcys. (309.1)

CMBY	z	150	.....	Havana, Cuba	
KJR	ak	5000	B	Seattle, Wash.	
WCFL	ae	5000	B	Chicago, Ill.	
WIBG	ak	100	D	Glenside, Pa.	

980 kcys. (306.0)

KDKA	c	50000	B	Pittsburgh, Pa.	
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990 kcys. (302.8)

WBZ	c	50000	BSy	Boston, Mass.	
WBZA	c	1000	BSy	Springfield, Mass.	
XEAF	ak	500	Nogales, Sonora	
XEK	ak	100	.....	Mexico City, D. F.	
XES	dk	250	.....	Tampico, Tams.	

1000 kcys. (299.8)

CMBZ	ak	500	(1)	Havana, Cuba	
KFVD	ae	250	DnX	Los Angeles, Calif.	
TIGH	z	500	.....	San Jose, C. R.	
WHO	ak	50000	R	Des Moines, Iowa	
XEBK	ak	100	.....	Nuevo Laredo, Tams.	
XEY	z	10	.....	Merida, Yuc.	

1010 kcys. (296.9)

CHML	ak	100	F	Hamilton, Ont.	
CKCD	ak	100	I	Vancouver, B. C.	
CKCD	ak	100	.....	Vancouver, B. C.	
CKCK	ak	500	F	Regina, Sask.	
CKCO	ak	100	F	Ottawa, Ont.	
CKIC	ak	50	.....	Wolfville, N. S.	
CKWX	ak	100	F I	Vancouver, B. C.	—Every Sun., 0230-0500
CMJA	ak	300	.....	Camaguey, Cuba	
KGGF	ak	1000	2	Coffeyville, Kans.	
KQW	ae	1000	.....	San Jose, Calif.	
TIGA	z	30	1014	Cartago, C. R.	
WHN	ae	1000	(5)	New York, N. Y.	
WNAD	ae	1000	2	Norman, Okla.	—2nd Tues., 0330-0350
WNOX	ak	1000	C (2)	Knoxville, Tenn.	
XEU	ak	250	.....	Veracruz, Ver.	

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

1020 keys. (293.9)

KYW	ak	10000	R	Philadelphia, Pa.	—2nd Wed., 0510-0530
WDZ	ak	250	D	Tuscola, Ill.	
XEJ	ak	1000	.....	Juarez, Chih.

1030 keys. (291.1)

CFCN	ak	10000	.....	Calgary, Alta.
CKLW	ae	5000	.....	Windsor, Ont.
CMCY	ak	5000	.....	Havana, Cuba
XEB	ak	10000	.....	Mexico City, D. F.

1040 keys. (288.3)

KRLD	ak	10000	C	Dallas, Texas
KWJJ	ak	500	.....	Portland, Ore.
KYOS	z	250	D	Merced, Calif.
WTIC	ah	50000	R	Hartford, Conn.

1050 keys. (285.5)

CMKD	ak	250	.....	Santiago, Cuba
CRCK	ak	1000	F	Quebec, Que.
KFBI	ak	5000	Dn	Abilene, Kans.
KNX	ak	50000	C	Hollywood, Calif.
TIFA	z	75	.....	San Jose, C. R.
WEAU	z	1000	DP	Eau Claire, Wis.

1060 keys. (282.8)

KTHS	ak	10000	N	Hot Springs, Ark.	—Jan. 8, 0130-0200
VOAC	z	40	1065	St. John's, Nfld.	
WBAL	ak	10000	B (25)	Baltimore, Md.	
WJAG	ak	1000	D	Norfolk, Neb.	
XFA	ak	500	.....	Guadalajara, Jal.

1070 keys. (280.2)

CMBX	ak	500	Havana, Cuba	—2nd Thurs., 0410-0430 —2nd Fri., 0410-0430
CMHA	z	50	.....	Sagua la Grande, C.
KJBS	ak	500	Dn	San Francisco, Cal.	
WCAZ	ak	100	DX	Carthage, Ill.	
WTAM	ak	50000	R	Cleveland, Ohio	

1080 keys. (277.6)

WBT	ak	50000	C	Charlotte, N. C.
WCBD	ak	5000	1Dn	Chicago, Ill.
WMBI	ak	5000	1Dn	Chicago, Ill.

1090 keys. (275.1)

KMOX	ak	50000	C	St. Louis, Mo.
XEAQ	ak	1000	.....	Rosarito, L. C.

1100 keys. (272.6)

CRGV	ak	1000	FX	Vancouver, B. C.	—2nd Mon., 0420-0440
KGDM	ak	1000	D	Stockton, Calif.	
KWKH	ae	10000	C	Shreveport, La.	
WLWL	ae	5000	I	New York, N. Y.	
WPG	ak	5000	IC	Atlantic City, N. J.	
XEL	z	250	.....	Mexico City, D. F.

1110 keys. (270.1)

CMCJ	ak	500	.....	Havana, Cuba
KSOO	ak	2500	Dn	Sioux Falls, S. D.
WRVA	ak	5000	C	Richmond, Va.
XELO	z	10000	.....	Piedras Negras, Co.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

1120 kcys. (267.7)

CHLP	ak	100	F	Montreal, Que.	
CHSJ	ak	500	F (1)	St. John, N. B.	
CKOC	ae	500	F (1)	Hamilton, Ont.	
CKX	ak	100	F	Brandon, Man.	
CMGF	dt	150	.....	Matanzas, Cuba	
CMKM	ak	200	.....	Manzanillo, Cuba	
KEFO	ae	100	D	Spokane, Wash.	—2nd Tues., 0420-0440
KFSG	ag	500	a (2.5)	Los Angeles, Calif.	
KRKD	ak	500	a (2.5)	Los Angeles, Calif.	
KRSC	ak	100	DX	Seattle, Wash.	
WCOP	ak	500	D	Boston, Mass.	
WDEL	ak	250	(5)	Wilmington, Del.	
WISN	ak	250	(1) C	Milwaukee, Wis.	
WTAW	ae	500	.....	College Station, Tex.	—2nd Tues., 0350-0410

1130 kcys. (265.3)

CMJI	ak	150	.....	Ciego de Avila, Cuba	
KSL	ak	50000	C	Salt Lake City, Utah	
WJJD	ak	20000	Dn	Chicago, Ill.	
WOV	ag	1000	D	New York, N. Y.	

1140 kcys. (263.0)

CMBG	z	200	.....	Havana, Cuba	
KVOO	ak	25000	IN	Tulsa, Okla.	
WAPI	ak	5000	IN	Birmingham, Ala.	
WSPR	ak	500	D	Springfield, Mass.	

1150 kcys. (260.7)

CMJF	z	200	.....	Camaguey, Cuba	
WHAM	ae	50000	B	Rochester, N. Y.	
XEFL	ak	250	.....	Tijuana, L. C.	
XEWZ	ak	100	.....	Mexico City, D. F.	

1160 kcys. (258.5)

CMHJ	ak	175	.....	Cienfuegos, Cuba	
WOWO	c	10000	1C	Fort Wayne, Ind.	
WWVA	ak	5000	1C	Wheeling, W. Va.	
XEAS	z	100	.....	Saltillo, Coah.	
XEC	z	30	.....	Tijuana, L. C.	
XED	ak	2500	.....	Guadalajara, Jal.	
XEP	ak	500	.....	Juarez, Chih.	—Every Sunday. 0300-0500

1170 kcys. (256.3)

CMBD	ae	500	.....	Havana, Cuba	
WCAU	ak	50000	C	Philadelphia, Pa.	

1180 kcys. (254.1)

CMJO	ak	50	.....	Ciego de Avila, Cuba	
KEX	ak	5000	2B	Portland, Ore.	
KOB	ak	10000	2	Albuquerque, N.M.	
VE9EK	ak	10	1185	Montmagny, Que.	
WDGY	ak	1000	Dn (5)	Minneapolis, Minn	
WINS	ak	1000	.....	New York, N. Y.	
WMAZ	ak	1000	.....	Macon, Ga.	
XEFA	z	500	.....	Mexico City, D. F.	

1190 kcys. (252.0)

HIJ	z	15	1195	Trujillo, D. R.	
VONF	ak	500	1195	St. John's, Nfld.	
WATR	ak	100	DXZ	Waterbury, Conn.	

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

WOAI ak 5000 C San Antonio, Tex.
 WSAZ ak 1000 Huntington, W. Va.

1200 kcys. (249.9)

CHAB	ak	100	F	Moose Jaw, Sask.	
CKNX	ak	50	....	Wingham, Ont.	
CKTB	ag	100	F	St. Catherines, Ont.	
CMCO	ad	250	....	Havana, Cuba	
KADA	ak	100	D	Ada, Okla.	
KBTM	ak	100	D	Jonesboro, Ark.	—2nd Mon., 0350-0410; 25th of month 0245-0315
KDNC	z	100	P(.25)	Lewistown, Mont.	—2nd Sat., 0510-0530
KELO	z	100	P	Sioux Falls, S. Dak.	
KFJB	ak	100	(.25)	Marshalltown, Iowa	—2nd Wed., 0500-0520
KFXD	ae	100	(.25)	Nampa, Idaho	—2nd Sat., 0530-0550
KFXJ	ak	100	(.25)	Grand Junc., Colo.	—2nd Wed., 0340-0400
KGDE	ak	100	(.25)	Fergus Falls, Minn.	—2nd Fri., 0450-0510
KGEK	ak	100	....	Sterling, Colo.	—2nd Fri., 0510-0530
KGfJ	ae	100	....	Los Angeles, Calif.	
KGHI	ak	100	(.25)	Little Rock, Ark.	—2nd Thurs., 0400-0420
KMLB	ak	100	....	Monroe, La.	—2nd Mon., 0410-0430
KOOS	ae	250	D	Marshfield, Ore.	
KSUN	c	100	(.25)	Lowell, Ariz.	—2nd Thurs., 0430-0450
KVCV	z	100	P	Redding, Calif.	
KVEC	z	250	DP	San Luis Obispo, Cal.	
KVOS	dk	100	....	Bellingham, Wash.	—2nd Sat., 0410-0430
KWG	ak	100	N	Stockton, Calif.	
WABI	ak	100	....	Bangor, Maine	
WAIM	ak	100	XZ	Anderson, S. C.	—2nd Wed., 0210-0230
WAYX	ak	100	....	Waycross, Ga.	
WBBZ	ak	100	....	Ponca City, Okla.	
WBHP	z	100	P	Huntsville, Ala.	
WBNO	ak	100	1	New Orleans, La.	—2nd Mon., 0440-0500
WCAT	ak	100	D	Rapid City, S. D.	—2nd Tues., 0540-0600
WCAX	ak	100	....	Burlington, Vt.	—2nd Mon., 0250-0310
WCLO	ak	100	(.25)	Janesville, Wis.	—2nd Tues., 0420-0440
WCPO	ak	100	(.25)	Cincinnati, Ohio	—2nd Thurs., 0300-0320
WEST	ae	100	3 (.25)	Easton, Pa.	
WFAM	ak	100	8	South Bend, Ind.	—2nd Wed., 0300-0320
WFTC	z	100	(.25)P	Kinston, N. C.	
WHBC	ak	100	(.25)	Canton, Ohio	—2nd Tues., 0440-0500
WHBY	ak	100	(.25)	Green Bay, Wis.	—2nd Sat., 0320-0340
WIBX	ak	100	(.3) C	Utica, N. Y.	—2nd Fri., 0320-0340
WIL	ak	100	(.25)	St. Louis, Mo.	—2nd Fri., 0530-0550
WJBC	ak	100	6(.25)	Bloomington, Ill.	—2nd Thurs., 0340-0400
WJBL	ak	100	6	Decatur, Ill.	—2nd Sat., 0340-0400
WJBW	ak	100	1	New Orleans, La.	—2nd Mon., 0230-0250
WJNO	ak	100	....	W. Palm Beach, Fla.	—2nd Wed., 0400-0420
WJRD	c	100	D	Tuscaloosa, Ala.	
WKBO	ak	100	3 (.25)	Harrisburg, Pa.	
WLVA	ak	100	(.25)	Lynchburg, Va.	—2nd Tues., 0300-0320
WMFR	ae	100	D	High Point, N. C.	—2nd Sat., 0200-0220
WMPC	ak	100	(.25)	Lapeer, Mich.	—2nd Wed., 0420-0440
WNRI	ak	100	(.25)	Newport, R. I.	—2nd Fri., 0240-0300
WRBL	ak	100	....	Columbus, Ga.	
WTHT	ak	100	D	Hartford, Conn.	
WWAE	ae	100	8	Hammond, Ind.	—2nd Thurs., 0510-0530

1210 kcys. (247.8)

CJCS	ak	50	....	Stratford, Ont.	
CJCU	z	50	....	Aklavik, N. W. T.	
CKBI	ak	100	F	Prince Albert, Sask.	
CKCH	ak	100	F	Hull, Que.	
CKMC	ak	50	....	Cobalt, Ont.	
GMHI	ak	150	....	Santa Clara, Cuba	
KANS	ak	100	....	Wichita, Kans.	
KASA	ck	100	....	Elk City, Okla.	—Jan. 2, 0330-0350
KDLR	ak	100	....	Devils Lake, N. D.	—2nd Wed., 0530-0550
KDON	z	100	....	Del Monte, Calif.	—2nd Mon., 0510-0530
KFJI	ak	100	(.25)	Klamath Falls, Ore.	—2nd Tues., 0520-0540
KFOR	ae	100	(.25)	C. Lincoln, Neb.	
KFPW	ak	100	....	Fort Smith, Ark.	—2nd Mon., 0330-0350
KFVS	ak	100	6(.25)	Cape Girardeau, Mo.	—2nd Tues., 0340-0400
KFXM	ak	100	9	San Bernardino, Calif.	
KGLO	z	100	P	Mason City, Iowa	
KGY	ak	100	....	Olympia, Wash.	—2nd Sat., 0550-0610
KIUL	ak	100	....	Garden City, Kans.	—2nd Fri., 0400-0420

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KLAH	z	100	P	Carlsbad, N. Mex.	
KOCA	z	100	P	Kilgore, Texas	
KPPC	ak	100	9	Pasadena, Calif.	
KVSO	ak	100	....	Ardmore, Okla.	—2nd Sat., 0400-0420
KWTN	ak	100	....	Watertown, S. D.	—2nd Sat., 0450-0510
TGW	ak	10000	....	Guatemala City	—Every Sun., 0000-0500
WALR	ak	100	....	Zanesville, Ohio	—2nd Thurs., 0530-0550
WBAX	ae	100	....	Wilkes Barre, Pa.	—2nd Tues., 0200-0220
WBBL	ak	100	S	Richmond, Va.	—2nd Tues., 0220-0240
WBLV	z	100	DP	Lima, Ohio	
WBRB	ak	100	3	Red Bank, N. J.	—2nd Mon., 0210-0230
WCOL	ak	100	N	Columbus, Ohio	—2nd Tues., 0400-0420
WCRW	ae	100	4	Chicago, Ill.	
WEBQ	ae	100	6(.25)	Harrisburg, Ill.	—2nd Fri., 0300-0320
WEDC	ae	100	4	Chicago, Ill.	
WFAS	ak	100	3	White Plains, N. Y.	—2nd Mon., 0350-0410
WFOY	z	100	P	St. Augustine, Fla.	
WGBB	ae	100	3	Freeport, N. Y.	—2nd Fri., 0220-0240
WGCM	ae	100	(.25)	Gulfport, Miss.	—2nd Mon., 0500-0520
WGNV	ak	100	3	Newburgh, N. Y.	—2nd Fri., 0200-0220
WHBF	ak	100	(.25)	Rock Island, Ill.	—2nd Thurs., 0450-0510
WHBU	ak	100	(.25)	Anderson, Ind.	—2nd Wed., 0400-0420
WIBU	ak	100	(.25)	Poynette, Wis.	—2nd Thurs., 0320-0340
WJBY	ak	100	....	Gadsden, Ala.	
WJEJ	ae	100	D	Hagerstown, Md.	
WJIM	z	100	(.25)	Lansing, Mich.	—2nd Thurs., 0410-0430
WJTN	ak	50	....	Jamestown, N. Y.	—2nd Thurs., 0230-0250
WJW	ae	100	(.25)	Akron, Ohio	—2nd Fri., 0340-0400
WKOK	ak	100	....	Sunbury, Pa.	—2nd Thurs., 0210-0230
WLMU	z	100	P	Middlesboro, Ky.	
WMBG	ak	100	C(.25)	Richmond, Va.	—2nd Tues., 0240-0300
WMFG	ak	100	X	Hibbing, Minn.	—2nd Fri., 0420-0440
WMFN	ak	100	Y	Clarksdale, Miss.	—2nd Mon., 0310-0330
WOMT	ak	100	....	Manitowoc, Wis.	—2nd Tues., 0310-0330
WPAX	ak	100	D	Thomasville, Ga.	—2nd Wed., 0310-0330
WSAY	z	100	D	Rochester, N. Y.	—2nd Tues., 0500-0520
WSBC	ae	100	4	Chicago, Ill.	
WSIX	ak	100	Y	Springfield, Tenn.	—2nd Sat., 0240-0300
WSOC	ak	100	N(.25)	Charlotte, N. C.	—2nd Sat., 0220-0240
WTAX	ak	100	....	Springfield, Ill.	—2nd Wed., 0450-0510
XEAT	ak	300	(.25)	Hidalgo, Chih.	
XEE	z	50	....	Durango, Dgo.	
XEFV	ak	100	....	Juarez, Chih.	
XETH	ak	100	....	Puebla, Pue.	

1220 keys. (245.8)

GMJE	z	50	....	Camaguey, Cuba	
KFKU	ak	1000	a (5)	Lawrence, Kans.	
KTW	ak	1000	S2	Seattle, Wash.	
KWSC	ae	1000	2 (5)	Pullman, Wash.	
TIVCA	ak	....	1225	San Jose, C. R.	
WCAE	ak	500	D	Canton, N. Y.	—2nd Mon., 0310-0330
WCAE	ak	1000	R(5)	Pittsburgh, Pa.	
WDAE	ae	1000	C (5)	Tampa, Fla.	
WREN	ak	1000	Ba(5)	Lawrence, Kas.	
XETF	ak	30	....	Veracruz, Ver.	

1230 keys. (243.8)

CMCB	ak	150	....	Havana, Cuba	
KG BX	ak	500	....	Springfield, Mo.	—2nd Wed., 0330-0350
KGGM	ak	250	(.5)X	Albuquerque, N. M.	—2nd Thurs., 0340-0400
KYA	ak	1000	N	San Francisco, Calif.	
WFBM	ae	1000	C(5)	Indianapolis, Ind.	
WNAC	ak	1000	R (5)	Boston, Mass.	
XEFJ	ak	100	....	Monterrey, N. L.	
YNOP	z	100	....	Managua, Nic.	

1240 keys. (241.8)

CJCB	ak	1000	F	Sydney, N. S.	
CMHB	z	50	....	Sancti Spiritus, Cuba	
KGCU	ak	250	I	Mandan, N. D.	—2nd Sat., 0320-0340

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KLPM	ak	250	1	Minot, N. D.	—2nd Tues., 0410-0430
KTAT	ak	1000	....	Fort Worth, Texas	
KTFI	ak	1000	....	Twin Falls, Idaho	
WKAQ	ae	1000	....	San Juan, P. R.	—2nd Wed., 0240-0300
WXYZ	ak	1000	B	Detroit, Mich.	—2nd Tues., 0520-0540
XEAC	z	250	....	Tijuana, L. C.	
XEAI	z	100	....	Mexico City, D. F.	
XEKL	z	500	....	Leon, Guan.	
XELA	z	50	....	Saltillo, Coah.	
XEME	z	15	....	Merida, Yuc.	

1250 keys. (239.9)

CMKC	ak	150	....	Santiago, Cuba	
KFOX	ae	1000	....	Long Beach, Calif.	
WAIR	z	250	DP	Winston-Salem	
WCAL	ah	1000	2(2.5)	Northfield, Minn.	
WDSU	ak	1000	....	New Orleans, La.	
WHBI	ak	1000	1(2.5)	Newark, N. J.	
WLB	ak	1000	2	Minneapolis, Minn.	—2nd Wed., 0410-0430
WNEW	ae	1000	1(2.5)	Newark, N. J.	
WTCN	ak	1000	2(5)	Minneapolis, Minn.	

1260 keys. (238.0)

KGVO	ak	1000	C	Missoula, Mont.	—2nd Tues., 0450-0510
KOIL	ak	1000	B(2.5)	Omaha, Nebr.	
KPAC	ak	500	D	Port Arthur, Texas	—2nd Tues., 0310-0330
KRGV	ae	500	X	Weslaco, Texas	—2nd Sat., 0340-0400
KUOA	ak	1000	DX	Sileam Spgs., Ark.	—2nd Fri., 0330-0350
KVOA	ak	500	X	Tucson, Ariz.	
WHIO	ak	1000	C(5)	Dayton, Ohio	
WNBX	ak	1000	....	Springfield, Vt.	
WTOC	ae	1000	C	Savannah, Ga.	

1270 keys. (236.1)

CMHD	dk	250	....	Caibarien, Cuba	
KGCA	ak	100	2D	Decorah, Iowa	—2nd Tues., 0430-0450
KOL	ae	1000	C(5)	Seattle, Wash.	
KVOR	ae	1000	C	Colorado Sp'gs, Colo.	
KWLC	ak	100	2D	Decorah, Iowa	—2nd Mon., 0320-0340
WASH	ak	500	aN	Grand Rapids, Mich.	—Every other Wed. from 0600-0615
WFBR	ae	500	R(1)	Baltimore, Md.	
WJDX	ae	1000	N(2.5)	Jackson, Miss.	
WOOD	ak	500	aN	Grand Rapids, Mich.	—Same as WASH
XEG	z	200	....	Ensenada, L. C.	
XFB	ak	250	....	Jalapa, Ver.	
YNLF	z	20	1275	Managua, Nic.	

1280 keys. (234.2)

CMCU	aed	500	....	Havana, Cuba	
KFBB	ae	1000	C(2.5)	Great Falls, Mont.	—Every Sunday, 0200-0500
WCAM	ae	500	1	Camden, N. J.	
WCAP	ae	500	1	Asbury Park, N. J.	—2nd Mon., 0400-0420
WDOD	ak	1000	C(5)	Chattanooga, Tenn.	
WIBA	ae	1000	N(5)	Madison, Wis.	
WORC	ak	500	C	Worcester, Mass.	
WRR	ak	500	....	Dallas, Texas	—Jan. 5 and 19, 0100-0115
WTNJ	ak	500	1	Trenton, N. J.	
XEMX	z	12	....	Mexico City, D. F.	

1290 keys. (232.4)

KDYL	ak	1000	RX	Salt Lake City, Utah	
KLCN	ak	100	D	Blytheville, Ark.	—2nd Wed., 0310-0330
KTRH	ak	1000	C(5)	Houston, Texas	—2nd Mon., 0300-0320
WEBC	ak	1000	N(5)	Duluth, Minn.	
WJAS	ak	1000	C(5)	Pittsburgh, Pa.	
WNBZ	ak	100	D	Saranac Lake, N. Y.	—2nd Fri., 0340-0400
WNEL	ak	1000	(2.5)	San Juan, P. R.	—2nd Sat., 0320-0340

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

1300 keys. (230.6)

KALE	ak	500	3C	Portland, Ore.	
KFAC	ak	1000	....	Los Angeles, Calif.	
KFH	ak	1000	C	Wichita, Kans.	
KFJR	ag	500	3	Portland, Ore.	
WBRR	ak	1000	1	Brooklyn, N. Y.	
WEVD	ak	1000	1	New York, N. Y.	
WFAB	ae	1000	1	New York, N. Y.	
WFBC	ak	1000	(5)N	Greenville, S. C.	
WHAZ	ae	500	1	Troy, N. Y.	—Jan. 16, 0300-0500
WHBL	ae	250	....	Sheboygan, Wis.	
WIOD	ak	1000	N	Miami, Fla.	—2nd Mon., 0220-0240

1310 keys. (228.9)

CHCK	ak	50	....	Charlottetown, P.E.I.	
CJKL	ak	100	F	Kirkland Lake, Ont.	
CJLS	ak	100	....	Yarmouth, N. S.	
KCGV	ak	100	F	Quebec, Que.	
KCRJ	ak	100	D	Jerome, Ariz.	—2nd Mon., 0410-0430
KFPL	dk	100	(.25)	Dublin, Texas	—2nd Wed., 0320-0340
KFXR	ak	150	(.2)	Oklahoma City, Okla.	—2nd Wed., 0450-0510
KFYO	ak	100	(.25)	Lubbock, Texas	—2nd Thurs., 0310-0330
KGEZ	ae	100	....	Kalispell, Mont.	—2nd Sat., 0520-0540
KGFW	ak	100	....	Kearney, Neb.	
KHUB	z	250	DP	Watsonville, Calif.	
KINY	ak	100	....	Juneau, Alaska	—2nd Sat., 0600-0620
KIT	ak	100	(.25)	Yakima, Wash.	—2nd Sat., 0500-0520
KMED	ck	100	(.25)	Medford, Ore.	—2nd Sat., 0610-0630
KFPD	z	100	D	Pampa, Texas	—3rd and 17th of month, 0300-0400
KRMC	z	100	DP	Jamestown, N. D.	
KRMD	ak	100	....	Shreveport, La.	—2nd Tues., 0420-0440
KROC	ak	100	....	Rochester, Minn.	—2nd Mon., 0430-0450
KROY	z	100	DP	Sacramento, Calif.	
KROA	ak	100	....	Santa Fe, N. Mex.	—2nd Fri., 0340-0400
KRRV	z	100	D	Sherman, Texas	
KSUB	z	100	P	Cedar City, Utah	
KTSM	ak	100	....	El Paso, Texas	—2nd Sat., 0420-0440
KVOL	ak	100	....	Lafayette, La.	—2nd Wed., 0220-0240
KVOX	z	100	DP	Moorhead, Minn.	
KWOS	z	100	DP	Jefferson City, Mo.	
KXRO	ak	100	....	Aberdeen, Wash.	—2nd Sat., 0540-0600
WAML	ak	100	....	Laurel, Miss.	—2nd Sat., 0330-0350
WBEO	ae	100	....	Marquette, Mich.	—2nd Wed., 0410-0430
WBOW	ak	100	(.25)	Terre Haute, Ind.	—2nd Thurs., 0420-0440
WBRE	ak	100	....	Wilkes Barre, Pa.	—2nd Tues., 0400-0420
WCLS	ak	100	....	Joliet, Ill.	—2nd Sat., 0310-0330
WCMJ	ak	100	(.25)	Ashland, Ky.	—2nd Fri., 0400-0420
WDAH	ak	100	S	El Paso, Texas	—2nd Thurs., 0440-0500
WEBR	ak	100	B(.25)	Buffalo, N. Y.	—2nd Tues., 0250-0310
WEMP	ak	100	D	Milwaukee, Wis.	—2nd Fri., 0440-0500
WEXL	ak	50	....	Royal Oak, Mich.	—2nd Wed., 0430-0450
WFBG	ae	100	3	Altoona, Pa.	—2nd Tues., 0230-0250
WFDK	ak	100	....	Flint, Mich.	—2nd Sat., 0400-0420
WGH	ak	100	(.25)	Newport News, Va.	—2nd Tues., 0440-0500
WHAT	ak	100	4	Philadelphia, Pa.	
WJAC	ae	100	3	Johnstown, Pa.	—2nd Tues., 0340-0400
WLAK	z	100	....	Lakeland, Fla.	—2nd Mon., 0450-0510
WLBC	ak	100	6(.25)	Muncie, Ind.	—2nd Fri., 0310-0330
WLNH	ak	100	....	Laconia, N. H.	—2nd Mon., 0200-0220
WMBO	ak	100	....	Auburn, N. Y.	—2nd Mon., 0300-0320
WMFF	ak	250	D	Plattsburg, N. Y.	—2nd Mon., 0330-0350
WNBH	ak	100	(.25)	New Bedford, Mass.	
WOL	ae	100	XZ	Washington, D. C.	
WRAW	ak	100	....	Reading, Pa.	—2nd Thurs., 0220-0240
WROL	ak	100	(.25)	Knoxville, Tenn.	—2nd Sat., 0250-0310
WSAJ	ae	100	....	Grove City, Pa.	—2nd Thurs., 0330-0350
WSGN	ak	100	(.25)	Birmingham, Ala.	
WSJS	ak	100	C	Winston-Salem, N.C.	—2nd Wed., 0250-0310
WTAL	ak	100	....	Tallahassee, Fla.	—2nd Mon., 0510-0530
WTFL	ce	100	4	Philadelphia, Pa.	—2nd Thurs., 0240-0300
WTJS	ak	100	(.25)	Jackson, Tenn.	—2nd Sat., 0230-0250
WTRC	ak	100	6(.25)	Elkhart, Ind.	—2nd Thurs., 0500-0520
XEAG	z	10	....	Cordoba, Ver.	
XECW	z	10	....	Mexico City, D. F.	
XEPW	ak	250	....	Tampico, Tams.	
XETB	ak	125	....	Torreón, Coah.	

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

XEX ak 125 Monterrey, N. L.
XFA z 5 Aguascalientes, Ags.
 z 100 DP Corsicana, Texas

1320 kcys. (227.1)

CMOX	ak	200	....	Havana, Cuba	—Jan. 13, 0300-0600
KGHF	am	500	....	Pueblo, Colo.	—2nd Thurs., 0350-0410
KGMB	ak	1000	C	Honolulu, T. H.	—2nd Mon., 0540-0600
KID	ae	500	(1)	Idaho Falls, Idaho	
KRNT	ak	500	C(1)	Des Moines, Iowa	
WADC	ae	1000	C(5)	Akron, Ohio	—2nd Wed., 0340-0400
WORK	ak	1000	....	York, Pa.	
WSMB	ak	1000	N	New Orleans, La.	—2nd Mon., 0340-0400

1330 kcys. (225.4)

CMHK	z	250	....	Cruces, Cuba	
CMKW	z	....	....	Santiago, Cuba	
KGB	ag	1000	C(2.5)	San Diego, Calif.	
KMO	ak	250	....	Tacoma, Wash.	
KSCJ	ak	1000	C(2.5)	Sioux City, Iowa	
WDRC	ae	1000	C(5)	Hartford, Conn.	
WSAI	ak	1000	N(2.5)	Cincinnati, Ohio	
WTAQ	ae	1000	....	Green Bay, Wis.	—2nd Fri., 0420-0440

1340 kcys. (223.7)

CMAB	z	....	....	Pinar del Rio, Cuba	
CMJL	z	75	....	Camaguey, Cuba	
HRN	z	50	....	Tegucigalpa, Hond.	
KGDY	ak	250	D	Huron, S. D.	
KGIR	ak	1000	N(2.5)	Butte, Mont.	
KGNO	ak	250	....	Dodge City, Kans.	
WCOA	ak	500	C	Pensacola, Fla.	
WFEA	ae	500	C(1)	Manchester, N. H.	
WSPD	ae	1000	C(5)	Toledo, Ohio	—2nd Tues., 0500-0520
XEFE	z	250	....	Nuevo Laredo, Tams.	
XFD	z	350	....	Jalapa, Ver.	

1350 kcys. (222.1)

CMCA	z	250	....	Havana, Cuba	
KIDO	ak	1000	(.25)	Boise, Idaho	
KWK	ak	1000	B(5)	St. Louis, Mo.	
WAWZ	ae	500	1(1)	Zarephath, N. J.	
WBNX	ae	1000	1	New York, N. Y.	

1360 kcys. (220.4)

CMJH	dk	50	....	Ciego de Avila, Cuba	
KCRC	ak	250	....	Enid, Okla.	
KGER	ak	1000	....	Long Beach, Calif.	
WCSC	ak	500	(1)N	Charleston, S. C.	
WFBL	ak	1000	C(5)	Syracuse, N. Y.	
WGES	ae	500	1	Chicago, Ill.	
WQBC	ak	1000	D	Vicksburg, Miss.	—2nd Wed., 0330-0350
WSBT	ak	500	1	South Bend, Ind.	

1370 kcys. (218.8)

CKCW	ak	100	F	Moncton, N. B.	
CMGE	ak	150	....	Cardenas, Cuba	
HIZ	z	10	....	Trujillo, D. R.	
KAST	ak	100	D	Astoria, Ore.	—2nd Tues., 0510-0530
KCMO	ak	100	....	Kansas City, Mo.	—2nd Tues., 0520-0540
KELD	z	100	....	El Dorado, Ark.	—2nd Wed., 0520-0540
KERN	ak	100	....	Bakersfield, Calif.	—2nd Thurs., 0450-0510
KFGQ	ak	100	....	Boone, Iowa	
KFJM	ak	100	(.25)XZ	Grand Forks, N. D.	—2nd Tues., 0440-0500
KFJZ	ae	100	(.25)	Fort Worth, Texas	—2nd Wed., 0400-0420
KFRO	ak	100	D	Longview, Texas	—2nd Sat., 0520-0540
KGAR	ae	100	(.25)	Tucson, Ariz.	—2nd Mon., 0430-0450

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KGFG	bk	100	...	Oklahoma City, Okla	—2nd Fri., 0540-0600
KGFL	ak	100	4	Roswell, N. M.	—2nd Thurs., 0330-0350
KGKL	ak	100	(.25)	San Angelo, Texas	—2nd Thurs., 0430-0450
KIGA	ak	100	4	Clovis, N. M.	—2nd Fri., 0300-0320
KIUP	ak	100	...	Durango, Colo.	—2nd Fri., 0430-0450
KLUF	ak	100	(.25)	Galveston, Texas	—2nd Mon., 0420-0440
KMAC	ak	100	5	San Antonio, Tex.	—2nd Fri., 0520-0540
KOBH	ak	100	P	Rapid City, S. Dak.	
KONO	ak	100	5	San Antonio, Tex.	—2nd Sat., 0410-0430
KRE	ak	100	(.25)	Berkeley, Calif.	—2nd Mon., 0450-0510
KRKO	ak	50	1	Everett, Wash.	—2nd Sat., 0510-0530
KSLM	ak	100	...	Salem, Ore.	
KTEM	z	100	DP	Temple, Texas	—Jan. 2, 0400-0430
KUJ	ak	100	...	Walla Walla, Wash.	—2nd Sat., 0430-0450
KVL	ak	100	1	Seattle, Wash.	—2nd Sat., 0450-0510
KWYO	ak	100	(.25)	Sheridan, Wyo.	—2nd Sat., 0310-0330
WABY	ak	100	B	Albany, N. Y.	—2nd Fri., 0230-0250
WAGF	ak	250	D	Dothan, Ala.	—2nd Mon., 0400-0420
WATL	ak	100	...	Atlanta, Ga.	
WBLK	z	100	DP	Clarksburg, W. Va.	
WBNU	ak	100	2(.25)	Buffalo, N. Y.	—2nd Tues., 0350-0410
WBTM	ak	100	(.25)	Danville, Va.	—2nd Tues., 0310-0330
WCBM	ae	100	(.25)	Baltimore, Md.	
WDAS	ag	100	(.25)	Philadelphia, Pa.	—2nd Tues., 0210-0230
WDWS	ak	100	DP	Champaign, Ill.	
WEOA	z	100	...	Evansville, Ind.	—2nd Wed., 0500-0520
WFOR	ak	100	...	Hattiesburg, Miss.	
WGL	ae	100	C	Fort Wayne, Ind.	—2nd Thurs., 0310-0330
WGRC	ak	250	D	New Albany, Ind.	
WHBQ	ak	100	...	Memphis, Tenn.	—2nd Wed., 0230-0250
WHDF	ak	100	(.25)	Calumet, Mich.	—2nd Fri., 0330-0350
WHLB	ak	100	...	Virginia, Minn.	—2nd Wed., 0430-0450
WIBM	ak	100	(.25)	Jackson, Mich.	—2nd Thurs., 0520-0540
WLLH	ak	100	(.25)	Lowell, Mass.	
WMBR	ak	100	C(.25)	Jacksonville, Fla.	—2nd Mon., 0240-0300
WMFD	ak	100	D	Wilmington, N. C.	—2nd Wed., 0300-0320
WMFO	ak	100	D	Decatur, Ala.	—2nd Sat., 0210-0230
WMIN	ak	100	(.25)	St. Paul, Minn.	
WOC	ak	100	C(.25)	Davenport, Iowa	—2nd Mon., 0310-0330
WPAY	ak	100	...	Portsmouth, Ohio	—2nd Tues., 0410-0430
WPRA	z	100	(.25)P	Mayaguez, P. R.	
WQDM	ae	100	DXZ	St. Albans, Vt.	—2nd Sat., 0340-0400
WRAC	ak	100	(.25)	Williamsport, Pa.	—2nd Mon., 0340-0400
WRDO	ae	100	...	Augusta, Maine	—2nd Tues., 0330-0350
WRJN	ak	100	(.25)	Racine, Wis.	—2nd Fri., 0350-0410
WSAU	z	100	DP	Wausau, Wis.	
WSVS	ak	50	D2	Buffalo, N. Y.	—2nd Thurs., 0200-0220
XEFZ	ak	100	...	Mexico City, D. F.	
XEI	ak	125	...	Morelia, Mich.	
XEZZ	z	100	...	San Luis Potosi, SLP.	

1380 keys. (217.3)

CMCR	z	150	...	Havana, Cuba	
KOH	ak	500	C	Reno, Nev.	
KOV	ae	500	1C	Pittsburgh, Pa.	—2nd Tues., 0540-0600
WALA	af	500	C(1)	Mobile, Ala.	
WKBH	ae	1000	...	LaCrosse, Wis.	
WNBC	ak	250	D	New Britain, Conn.	
WSMK	ak	200	1C	Dayton, Ohio	—2nd Thurs., 0400-0420

1390 keys. (215.7)

CJGX	ak	100	...	Yorkton, Sask.	
CMJC	z	150	...	Camaguey, Cuba	
HHH	ak	15	1395	San Ped. de Macoris	
KLRA	ae	1000	C(2.5)	Little Rock, Ark.	
KOY	ae	500	(1)	Phoenix, Ariz.	
WHK	ae	1000	C(2.5)	Cleveland, Ohio	—2nd Tues., 0400-0420

1400 keys. (214.2)

CMGC	ad	150	...	Matanzas, Cuba	
CMKR	z	100	...	Santiago, Cuba	
KHBC	z	250	...	Hilo, T. II.	—2nd Thurs., 0500-0520
KLO	ak	500	B	Ogden, Utah	
KTUL	ak	500	C(1)	Tulsa, Okla.	

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

TGX	ak	250	...	Guatemala City, Gt.
WARD	ak	500	2	Brooklyn, N. Y.
WBBC	ae	500	2(1)	Brooklyn, N. Y.
WEGL	z	500	P	Brooklyn, N. Y.
WIRE	ak	500	R(1)	Indianapolis, Ind.
WLTH	ak	500	2	Brooklyn, N. Y.
WVFW	ak	500	2	Brooklyn, N. Y.

1410 keys. (212.6)

CKFC	ak	50	5	Vancouver, B. C.	
CKMO	ag	100	5F	Vancouver, B. C.	
CMCQ	ak	250	.....	Havana, Cuba	
KGNC	ae	1000	(2.5)	Amarillo, Texas	
WAAB	ak	500	.....	Boston, Mass.	
WBCM	ae	500	.....	Bay City, Mich.	-2nd Thurs., 0330-0350
WHIS	ak	500	(1)	Bluefield, W. Va.	-2nd Thurs., 0250-0310
WROK	ak	500	.....	Rockford, Ill.	
WSFA	ak	500	C(1)	Montgomery, Ala.	

1420 keys. (211.1)

CKGB	ak	100	F	Timmins, Ont.	
KABC	ak	100	(.25)	San Antonio, Texas	-2nd Mon., 0340-0400
KABR	ak	100	.....	Aberdeen, S. Dak.	-2nd Wed., 0300-0320
KALB	z	100	D	Alexandria, La.	-2nd Mon., 0430-0450
KBPS	ak	100	4	Portland, Ore.	
KCKN	ak	100	.....	Kansas City, Kans.	-2nd Fri., 0410-0430
KCMC	ak	100	.....	Texarkana, Ark.	-2nd Sat., 0440-0500
KEUB	z	100	P	Price, Utah	
KFIZ	ak	100	.....	Fond du Lac, Wis.	-2nd Tues., 0300-0320
KGFF	ak	100	(.25)	Shawnee, Okla.	-2nd Sat., 0500-0520
KGCC	ak	100	.....	San Francisco, Cal.	
KGIW	ak	100	1	Alamosa, Colo.	-2nd Thurs., 0410-0430
KIDW	ak	100	1	Lamar, Colo.	-2nd Tues., 0530-0550
KIUN	ak	100	.....	Pecos, Texas	-2nd Fri., 0500-0520
KNET	z	100	D	Palestine, Texas	-2nd Tues., 0510-0530
KORE	ae	100	.....	Eugene, Ore.	-2nd Tues., 0430-0450
KRBC	ak	100	.....	Abilene, Tex.	
KRLC	ak	100	XZ	Lewiston, Idaho	-2nd Sat., 0420-0440
KRLH	z	100	D	Midland, Tex.	-2nd Tues., 0450-0510
KUMA	ak	100	.....	Yuma, Ariz.	-2nd Mon., 0520-0540
KWBG	ak	100	.....	Hutchinson, Kans.	-Jan. 6 and 20, 0630-0700
KXL	ak	100	4(.25)	Portland, Ore.	
WACO	ak	100	C	Waco, Texas	-2nd Fri., 0310-0330
WAGM	ae	100	.....	Presque Isle, Maine	-2nd Fri., 0330-0350
WAPO	ak	100	DP	Chattanooga, Tenn.	
WAZL	ak	100	2	Hazleton, Pa.	
WCBS	ak	100	.....	Springfield, Ill.	-2nd Thurs., 0430-0450
WCHV	ak	100	3(.25)	Charlottesville, Va.	
WEED	ak	100	3(.25)	Rocky Mt., N. C.	-2nd Sat., 0350-0410
WEHS	ak	100	a	Cicero, Ill.	
WELL	ak	100	.....	Battle Creek, Mich.	-2nd Wed., 0330-0350
WGPC	ak	100	.....	Albany, Ga.	-2nd Wed., 0350-0410
WHDL	ak	100	DXZ	Olean, N. Y.	-2nd Mon., 0410-0430
WHFC	ae	100	a	Cicero, Ill.	
WILM	aj	100	2	Wilmington, Del.	
WJBO	ak	100	.....	Baton Rouge, La.	-2nd Mon., 0200-0220
WJBR	z	100	P	Gastonia, N. C.	
WJMS	ak	100	.....	Ironwood, Mich.	-2nd Wed., 0440-0500
WKBI	ak	100	a	Cicero, Ill.	
WLAP	ak	100	(.25)	Lexington, Ky.	-2nd Thurs., 0350-0410
WLEU	ak	100	(.25)	Erie, Pa.	-2nd Thurs., 0310-0330
WMAS	ak	100	C(.25)	Springfield, Mass.	-2nd Mon., 0220-0240
WMBG	ae	100	(.25)	Detroit, Mich.	-2nd Tues., 0330-0350
WMBH	ak	100	(.25)	Joplin, Mo.	-2nd Fri., 0350-0410
WMFJ	ak	100	.....	Daytona Beach, Fla.	-2nd Wed., 0200-0220
WMSD	ak	100	.....	Sheffield, Ala.	
WNNY	z	100	(.25)P	Watertown, N. Y.	
WPAD	ak	100	(.25)	Paducah, Ky.	-2nd Fri., 0430-0450
WPAR	ak	100	.....	Parkersburg, W. Va.	-2nd Tues., 0410-0430
WPRP	z	100	P(.25)	Ponce, P. R.	-2nd Sat., 0310-0330
XEAZ	z	7	.....	Guanajuato, Gto.	
XEFB	ak	100	.....	Monterrey, N. L.	

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

1430 kcys. (209.7)

CMJP	ak	75	....	Camaguey, Cuba	
KECA	ak	1000	(5) B	Los Angeles, Calif.	
KGNF	ak	1000	D	North Platte, Neb.	
KSO	ak	500	B (1)	Des Moines, Iowa	—2nd Wed., 0420-0440
WBNS	ak	500	C (1)	Columbus, Ohio	—2nd Tues., 0350-0410
WHBC	ak	500	C (1)	Rochester, N. Y.	—2nd Tues., 0320-0340
WHP	ak	500	C (1)	Harrisburg, Pa.	
WNBK	ae	500	(1)	Memphis, Tenn.	—2nd Mon., 0320-0340
WOKO	ae	500	C (1)	Albany, N. Y.	—2nd Mon., 0240-0300

1440 kcys. (208.2)

CMOA	z	150	....	Havana, Cuba	
HP50	z	25	....	Colon, Panama	
KDFN	ak	500	....	Casper, Wyo.	
KLS	ae	250	D	Oakland, Calif.	—2nd Mon., 0400-0420
KXYZ	ak	1000	....	Houston, Texas	—2nd Sat., 0330-0350
TIFS	z	7.5	(1441)	Cartago, C. R.	
WBIG	ae	500	C (1)	Greensboro, N. C.	
WCBA	aj	500	a	Allentown, Pa.	
WMBD	ak	500	C (1)	Peoria, Ill.	
WSAN	aj	500	a	Allentown, Pa.	
XEFI	ae	250	....	Chihuahua, Chih.	

1450 kcys. (206.8)

CFCT	ae	75	(.05)	Victoria, B. C.	—Every Sunday, 0300-0500
CHGS	ae	50	F	Summerside, P.E.I.	
KGCX	ak	1000	....	Wolf Point, Mont.	—2nd Tues., 0530-0550
KIEM	ak	500	....	Eureka, Calif.	—2nd Mon., 0500-0520
KTBS	ak	1000	N	Shreveport, La.	
WGAR	ak	500	B (1)	Cleveland, Ohio	—2nd Tues., 0530-0550
WHOM	ae	250	....	Jersey City, N. J.	
WSAR	ae	1000	....	Fall River, Mass.	
WIFI	ak	500	Y	Athens, Ga.	
XEF	ak	100	....	Juarez, Chih.	

1460 kcys. (205.4)

CMKF	z	50	....	Holguin, Cuba	
KSTP	ak	10000	N (25)	St. Paul, Minn.	
WJSV	ak	10000	C	Washington, D. C.	

1470 kcys. (204.0)

CMOK	z	150	....	Havana, Cuba	
KGA	ak	5000	B	Spokane, Wash.	
WLAC	ak	5000	C	Nashville, Tenn.	

1480 kcys. (202.6)

KOMA	ak	5000	C	Oklahoma City, Okla.	
WHIP	z	5000	P	Hammond, Ind.	
WKBW	ae	5000	C	Buffalo, N. Y.	

1490 kcys. (201.2)

KFBK	ak	5000	C	Sacramento, Calif.	
WCKY	ae	5000	N	Covington, Ky.	

1500 kcys. (199.9)

CJIC	ak	100	....	Sault Ste. Marie, Ont.	
CMCX	z	150	....	Havana, Cuba	
KBIX	z	100	....	Muskogee, Okla.	—2nd Tues., 0320-0340
KBST	z	100	P	Big Spring, Tex.	
KDB	ak	100	C	Santa Barbara, Cal.	
KGFI	ak	100	(.25)	Corpus Christi, Tex.	—2nd Thurs., 0320-0340
KGFK	ak	100	Y	Moorhead, Minn.	—2nd Tues., 0300-0320
KGKB	ak	100	....	Tyler, Texas	—2nd Thurs., 0420-0440
KGKY	ak	100	(.25)	Scottsbluff, Neb.	

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KNEL	ak	100	D	Brady, Texas	—2nd Sat., 0350-0410
KNOW	ak	100	C	Austin, Texas	—2nd Fri., 0440-0500
KOIN	ak	100	D	Pine Bluff, Ark.	—2nd Sat., 0300-0320
KOVC	ak	100	.....	Valley City, N. Dak.	
KPLC	ak	100	.....	Lake Charles, La.	—2nd Wed., 0340-0400
KPLT	z	100	DP	Paris, Texas	
KPQ	ak	100	(.25)	Wenatchee, Wash.	—2nd Tues., 0410-0430
KRRR	ak	100	D	Roseburg, Ore.	—2nd Sat., 0440-0500
KSJS	z	100	P	Salina, Kans.	
KTEP	z	100	P	El Paso, Texas	
KUTA	z	100	P	Salt Lake City, Utah	
KVOE	ak	100	.....	Santa Ana, Calif.	—2nd Thurs., 0400-0420
KXO	ak	100	.....	El Centro, Calif.	—2nd Fri., 0210-0230
WCNW	ak	100	I (.25)	Brooklyn, N. Y.	—2nd Mon., 0420-0440
WDNC	ae	100	C	Durham, N. C.	
WGAL	ae	100	(.25)	Lancaster, Pa.	
WHBB	ak	100	D	Selma, Ala.	—2nd Mon., 0210-0230
WHEF	ak	100	(.25)	Kosciusko, Miss.	—2nd Mon., 0350-0410
WJBK	ae	100	(.25)	Detroit, Mich.	—2nd Fri., 0350-0410
WKBK	ak	100	(.25)	E. Dubuque, Ill.	—2nd Fri., 0320-0340
WKBY	ak	100	(.25)	Richmond, Ind.	—2nd Sat., 0330-0350
WKBZ	ak	100	(.25)	Muskegon, Mich.	—2nd Sat., 0410-0430
WKUJ	ak	100	D	Griffin, Ga.	
WMBQ	ae	100	I	Brooklyn, N. Y.	—2nd Mon., 0320-0340
WMEX	ak	100	(.25)	Boston, Mass.	
WNBF	ae	100	C	Binghamton, N. Y.	—2nd Tues., 0430-0450
WNLC	ak	100	D	New London, Conn.	
WOPJ	ae	100	.....	Bristol, Tenn.	—2nd Mon., 0250-0310
WRDW	ak	100	.....	Augusta, Ga.	—2nd Wed., 0320-0340
WRGA	ak	100	(.25)	Rome, Ga.	
WSBY	ak	100	.....	Rutland, Vt.	—2nd Fri., 0250-0310
WTMV	ak	100	.....	East St. Louis, Ill.	—2nd Thurs., 0440-0500
WWRL	ak	100	I (.25)	Woodside, N. Y.	—2nd Mon., 0230-0250
WWSW	ae	100	(.25)	Pittsburgh, Pa.	—2nd Tues., 0450-0510

1510 kcys. (198.6)

CFRC	ak	100	F	Kingston, Ont.
CKCR	ak	100	.....	Waterloo, Ont.

1530 kcys. (196.0)

W1XBS	ak	1000	.....	Waterbury, Conn.
W9XBY	ak	1000	.....	Kansas City, Mo.

1550 kcys. (193.4)

W2XR	ak	1000	.....	Long Isl. City, N. Y.
W6XA1	ak	1000	.....	Bakersfield, Calif.

KEY TO SYMBOLS

As shown in the Index by
Frequencies and Dial Numbers

Frequency is given in kilocycles; wave lengths 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.

Second Column Symbols		k Has no stamps.	networks.
a Verifies reception for return postage.	m Verifies for 5c.	P Has construction permit only.	
b Verifies only occasionally.	n Weather or time only.	R National "Red" network.	
c Does not verify.	s No information available.	S Sunday only.	
d Verification 10c; letter 25c.	Fourth Column Symbols		Sy Synchronized.
e Sends Ekko stamp for 10c.	B National "Blue" network.	X Has permit to increase power.	
f Sends Ekko stamp for 5c.	C Columbia network.	Y Has permit to change location.	
g Sends Ekko stamp for postage.	D Day time only.	Z Has permit to change frequency.	
h Sends own station stamp for 10c.	Dn Day time with occasional evening hours.	a-b-c. Small letters show stations using same transmitter.	
i Sends own station stamp for 5c.	F Canadian Radio Brdstg. Commission.	1-2-3. Figures denote stations sharing time.	
j Sends own station stamp for postage.	N National "Red" and "Blue"	.... No information.	

Time on the Air

All times are shown in Eastern Standard. The hours are given according to the International or 24-hour clock. To convert to ordinary time, subtract 12 where the time shown is greater than that figure. Thus, 1700 is 5:00 p.m.; 1200 is noon; midnight is either 0000 or 2400.

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Frequency in kilocycles in second column. Night power in watts in third column. Net work affiliations in fourth column: C Columbia, R National Red, B National Blue, N National Red and Blue, F Canadian.

ALABAMA	CALIFORNIA	Steckton	Gainesville
Birmingham	Bakersfield	KGDM 1100 1000	WRUF 830 5000
WAPI 1140 5000 N	✓ KERN 1370 100 C	KWG 1200 100 N	Jacksonville
WBRC 930 1000 C	✓ WENR 1550 1000	Watsonville	WJAX 900 1000 N
WSGN 1310 100	Berkeley	✓ KHUB 1310 250	WMBR 1370 100 C
Decatur	✓ KRE 1370 100	COLORADO	Lakeland
WMFO 1370 100	Beverly Hills	Alamosa	WLAK 1310 100
Dothan	✓ KMPC 710 500	KGJW 1420 100	Miami
WAGF 1370 250	Chico	Colorado Springs	WIOD 1300 1000 N
Gadsden	✓ KHSL 950 250	KVOR 1270 1000 C	WQAM 560 1000 C
WJBY 1210 100	Del Monte	Denver	Orlando
Huntsville	✓ KDON 1210 100	KFEL 920 500	WDBO 580 1000 C
WBHP 1200 100	El Centro	KLZ 560 1000 C	Pensacola
Mobile	✓ KXO 1500 100	KOA 830 50000 N	WCOA 1340 500 C
WALA 1380 500 C	Eureka	KPOF 880 500	St. Augustine
Montgomery	✓ KIEM 1450 500	KVOD 920 500 B	WFOY 1210 100
WSFA 1410 500 C	Fresno	Durango	St. Petersburg
Selma	✓ KMJ 580 500 C	KIUP 1370 100	WSUN 620 1000 N
WHBB 1500 100	Glendale	Grand Junction	Tallahassee
WJSD 1420 100	✓ KIEV 850 250	KFXJ 1200 100	WTAL 1310 100
Tuscaloosa	Hollywood	Greeley	Tampa
WJRD 1200 100	✓ KFVB 950 1000	KFKA 880 500	WDAE 1220 1000 C
	✓ KMTR 570 1000	Lamar	West Palm Beach
	✓ KNX 1050 50000 C	KIDW 1420 100	WJNO 1200 100
	Long Beach	Pueblo	GEORGIA
	✓ KFOX 1250 1000	KGHF 1320 500	Albany
	✓ KGER 1360 1000	Sterling	WGPC 1420 100
	Los Angeles	KGEK 1200 100	Athens
	✓ KECA 1430 1000 B	CONNECTICUT	WTFI 1450 500
	✓ KEHE 780 500	Bridgeport	Atlanta
	✓ KFAC 1300 1000	WICC 600 500 C	WATL 1370 100
	✓ KFI 640 50000 R	Hartford	WGST 890 1000 C
	✓ KFSG 1120 500	WDRG 1330 1000 C	WSD 740 50000 N
	✓ KFVD 1000 250	WTIC 1040 50000 R	Augusta
	✓ KFTJ 1200 100	WTHT 1200 100	WRDW 1500 100
	✓ KHJ 900 1000 C	New Britain	Columbus
	✓ KRKD 1120 500	WNBC 1380 250	WRBL 1200 100
	Merced	New Haven	Griffin
	KYOS 1040 250	WELI 900 500	WKEU 1500 100
	Modesto	New London	Macon
	KTRB 740 250	WNLC 1500 100	WMAZ 1180 1000
	Oakland	Waterbury	Rome
	KLS 1440 250	WATR 1190 100	WRGA 1500 100
	KLX 880 1000	WIXBS 1530 1000	Savannah
	KROW 930 1000	DELAWARE	WTOC 1260 1000 C
	Pasadena	Wilmington	Thomasville
	KPPC 1210 100	WDEL 1120 250	WPAX 1210 100
	Redding	WILM 1420 100	Waycross
	✓ KVOY 1200 100	DISTRICT OF COLUMBIA	WAYX 1200 100
	Sacramento	Washington	IDAHO
	KFBK 1490 5000 C	WJSV 1460 10000 C	Boise
	KROY 1310 100	WMAL 630 250 B	KIDO 1350 1000
	San Bernardino	WOL 1310 100	Idaho Falls
	KFXM 1210 1000	WRC 950 500 R	KID 1320 500
	San Diego	FLORIDA	Lewiston
	KFSD 600 1000 B	Clearwater	KRLC 1420 100
	KGFB 1330 1000 C	WFLA 620 1000 N	Nampa
	San Francisco	Daytona Beach	KFXD 1200 100
	KFRG 610 1000 C	WMFJ 1420 100	Pocatello
	KGCC 1420 100		KSEI 900 250
	KGO 790 7500 B		Twin Falls
	KJBS 1070 500		KTFI 1240 1000
	KPO 680 50000 R		
	KSFO 560 1000		
	KYA 1230 1000 N		
	San Jose		
	KQW 1010 1000		
	San Luis Obispo		
	KVEG 1200 250		
	Santa Ana		
	KVOE 1500 100		
	Santa Barbara		
	KDB 1500 100 C		
ALASKA			
Anchorage			
KFQD 780 250			
Juneau			
KINY 1310 100			
Ketchikan			
KGBU 900 500			
ARIZONA			
Jerome			
KCRJ 1310 100			
Lowell			
KSUN 1200 100			
Phoenix			
KOY 1390 500			
KTAR 620 1000 N			
Tucson			
KGAR 1370 100			
KVOA 1260 500			
Yuma			
KUMA 1420 100			
ARKANSAS			
Blytheville			
KLCN 1290 100			
El Dorado			
KELD 1370 100			
Fort Smith			
KFPW 1210 100			
Hot Springs			
KTHS 1060 10000 N			
Jonesboro			
KBTM 1200 100			
Little Rock			
KARK 890 250			
KGHI 1200 100			
KLRA 1390 1000 C			
Pine Bluff			
KOTN 1500 100			
Siloam Springs			
KUOA 1260 1000			
Texarkana			
KCMC 1420 100			

Frank Andrew J. C. Lee

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

ILLINOIS	Muncie	Covington	Fall River
Bloomington WJBC 1200 100	WLCB 1310 100 New Albany WGR 1370 250 Richmond WKBV 1500 100 South Bend WFAM 1200 100 WSBT 1360 500 C	WCKY 1490 5000 N Lexington WLAP 1420 100 Louisville WAVE 940 1000 N WHAS 820 50000 C Middlesboro WLMU 1210 100 Paducah WPAD 1420 100	WSAR 1450 1000 Lowell WLLH 1370 100 New Bedford WNBH 1310 100 Springfield WBZA 990 1000 B WMAZ 1420 100 C WSPR 1140 500 Worcester WTRC 1280 500 C WTAG 580 500 R
Chicago WAAF 920 1000 WBBM 770 50000 C WCBF 1080 5000 WCFL 970 5000 B WCRW 1210 100 WEDC 1210 100 WENR 870 50000 N WGES 1360 500 WGN 720 50000 WJJD 1130 20000 WLS 870 50000 N WMAO 670 50000 N WMBI 1080 5000 WSBC 1210 100	Terre Haute WBOW 1310 100 West Lafayette WBAA 890 500		
Cicero WEHS 1420 100 WHFC 1420 100 WKBI 1420 100			
Decatur WJBL 1200 100			
East Dubuque WKBB 1500 100			
East St. Louis WTM 1500 100			
Harrisburg WEBQ 1210 100			
Joliet WCLS 1310 100			
Peoria WMBD 1440 500 C			
Quincy WTAD 900 500			
Rockford WROK 1410 500			
Rock Island WHBF 1210 100			
Springfield WCBS 1420 100 WTAX 1210 100			
Tuscola WDZ 1020 250			
Urbana WILL 580 250			
INDIANA	IOWA	LOUISIANA	MICHIGAN
Anderson WHBU 1210 100 Elkhart WTRC 1310 100 Evansville WEOA 1370 100 WGBF 630 500 Fort Wayne WGL 1370 100 C WOWO 1160 10000 C Gary WIND 560 1000 Hammond WWAE 1200 100 WHIP 1480 5000 Indianapolis WFBM 1230 1000 C WIRE 1400 500 R	Ames WOI 640 5000 Boone KFGO 1370 100 Cedar Rapids WMT 600 1000 B Davenport WOC 1370 100 C Decorah KGCA 1270 100 KWLC 1270 180 Des Moines KRNT 1320 500 C KSO 1430 500 B WHO 1000 50000 R Iowa City WSUI 880 500 Marshalltown KFJB 1200 100 Mason City KGLO 1210 100 Shenandoah KFNF 890 500 KMA 930 1000 Sioux City KSCJ 1330 1000 C	Alexandria KALB 1420 100 Baton Rouge WJBO 1420 100 Lafayette KVOL 1310 100 Lake Charles KPLC 1500 100 Monroe KMLB 1200 100 New Orleans WBNO 1200 100 WDSU 1250 1000 WJWB 1200 100 WSMB 1320 1000 N WWL 850 10000 C Shreveport KRMD 1310 100 KCBS 1450 1000 N KWKH 1100 1000 C	Battle Creek WELI 1420 100 Bay City WBCM 1410 500 Calumet WHDF 1370 100 Detroit WJBK 1500 100 WJR 750 50000 C WMBC 1420 100 WWJ 920 1000 R WXYZ 1240 1000 B East Lansing WKAR 850 1000 Flint WFDF 1310 100 Grand Rapids WASH 1270 500 N WOOD 1270 500 N Ironwood WJMS 1420 100 Jackson WIBM 1370 100 Kalamazoo WKZO 590 1000 B Lansing WJIM 1210 100 Lapeer WMPC 1200 100 Marquette WBEQ 1310 100 Muskegon WKBZ 1500 100 Royal Oak WEXL 1310 50
	KANSAS	MAINE	MARYLAND
	Ablene KFBI 1050 5000 Coffeyville KGGF 1010 1000 Dodge City KGNM 1340 250 Garden City KIUL 1210 100 Hutchinson KWBG 1420 100 Kansas City KCKN 1420 100 Lawrence KFKU 1220 1000 WREN 1220 1000 B Manhattan KSAC 580 500 Pittsburg KOAM 790 1000 Salina KSJS 1500 100 Topeka WIBW 580 1000 C Wichita KANS 1210 100 KFH 1300 1000 C	Augusta WRDO 1370 100 Bangor WABI 1200 100 WLBZ 620 500 C Portland WCSE 940 1000 R WGAN 640 500 Presque Isle WAGM 1420 100	Baltimore WBAL 760 2500 B WBAL 1060 10000 B WCAO 600 500 C WCBM 1370 100 WFBR 1270 500 R Cumberland WTBO 800 250 Frederick WFMD 900 500 Hagerstown WJEJ 1210 100
	KENTUCKY	MASSACHUSETTS	MINNESOTA
	Ashland WCMJ 1310 100	Boston WAAB 1410 500 WBZ 990 50000 C WCOP 1120 500 WEEI 590 1000 C WHDH 830 1000 WMEX 1500 100 WNAZ 1230 1000 R WORL 920 500	Duluth KDAL WBCB 1290 1000 N Fergus Falls KGDE 1200 100 Hibbing WMFG 1210 100 Minneapolis WCCO 810 50000 C WDGY 1180 1000 WLB 1250 1000 WTCN 1250 1000 Moorhead KGFG 1500 100 KVXX 1310 100 Northfield WCAL 1250 1000 Rochester KROC 1310 100 St. Paul KSTP 1460 10000 N WMIN 1370 100 Virginia WHLB 1370 100

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

MISSISSIPPI	Norfolk	WLTH 1400 500	High Point
Clarkdale	WJAG 1060 1000	WMBQ 1500 100	WMFR 1200 100
WMFN 1210 100	North Platte	WVFW 1400 500	Klinton
Gulfport	KGNF 1430 1000	Buffalo	WFTC 1200 100
WGCM 1210 100	Omaha	WBEN 900 1000 R	Raleigh
Hattiesburg	KOIL 1260 1000	WBNY 1370 100	WPTF 680 1000 N
WFOR 1370 100	WAAW 660 500	WEBR 1310 100 B	Rocky Mount
Jackson	WOW 590 5000 R	WGR 550 1000 C	WEED 1420 100
WJDJ 1270 1000 N	Scottsbluff	WKBW 1480 5000 C	Wilmington
Kosciusko	KGKY 1500 100	WSVS 1370 50	WMFD 1370 100
WHEF 1500 100	NEVADA	Canton	Winston-Salem
Laurel		WCAD 1220 500	WAIR 1250 250
WAML 1310 100	Reno	Elmira	WSJS 1310 100 C
Meridian	KOH 1380 500 C	WESG 850 1000 C	
WCOC 880 500	NEW HAMPSHIRE	Freeport	NORTH DAKOTA
Vicksburg		WGGB 1210 100	Bismarck
WQBC 1360 1000	Laconia	Jamestown	KFYR 550 1000 N
	WLNH 1310 100	WJTN 1210 50	Devils Lake
MISSOURI	Manchester	Long Island City	KDLR 1210 100
Cape Girardeau	WFEA 1340 500 C	W2XR 1550 1000	Fargo
KFVS 1210 100	Portsmouth	Newburgh	WDAY 940 1000 N
Columbia	WHEB 740 250	WGNV 1210 100	Grand Forks
KFRU 630 500	NEW JERSEY	New York	KFJM 1370 100
Jefferson City	Asbury Park	WABC 860 50000 C	Jamestown
WOS 630 500	WCAP 1280 500	WBNX 1350 10000	KRMC 1310 100
KWOS 1310 100	Atlantic City	WBOQ 860 50000 R	Mandan
Joplin	WPG 1100 5000 C	WEAF 660 50000 R	KGCU 1240 250
WMBH 1420 100	Camden	WEVD 1300 1000	Minot
Kansas City	WCAM 1280 500	WFAB 1300 1000	KLPM 1240 250
KCMO 1370 100	Jersey City	WIN 1010 1000	Valley City
KMBC 950 1000 C	WAAT 940 500	WINS 1180 1000	KOVC 1500 100
WDAF 610 1000 R	WHOM 1450 250	WIJ 760 50000 B	
WBB 860 1000	Newark	WJWL 1100 5000	OHIO
W9XBY 1530 1000	WHBI 1250 1000	WMCA 570 500	Akron
St. Joseph	WNEW 1250 1000	WNYC 810 1000	WADC 1320 1000 C
KFEQ 680 2500	WOR 710 50000	WOV 1130 1000	WJW 1210 100
St. Louis	Red Bank	Olean	Canton
KFUC 550 500	WRRB 1210 100	WHDL 1420 100	WBBC 1200 100
KMOX 1090 50000 C	Tranton	Plattsburg	Cincinnati
KSD 550 1000 R	WTNJ 1280 500	WMFF 1310 250	WCPO 1200 100
KWK 1350 1000 B	Zarephath	Rochester	WKRC 550 1000 C
KEW 760 1000	WAWZ 1350 500	WHAM 1150 50000 B	WLW 700 50000 N
WIL 1200 100	NEW MEXICO	WHEC 1430 500 C	WSAI 1330 1000 N
Springfield	Albuquerque	WSAY 1210 100	Cleveland
KGBX 1230 500	KGGM 1230 250	Saranac Lake	WGAR 1450 500 B
KWTO 560 5000	KOB 1180 10000	WNBZ 1290 100	WPK 1390 1000 C
	Carlsbad	Schenectady	WJAY 610 500
MONTANA	KLAH 1210 100	WGY 790 50000 R	WTAM 1070 50000 R
Billings	Clovis	Syracuse	Columbus
KGHL 780 1000 N	KICA 1370 100	WFBL 1360 1000 C	WENS 1430 500 C
Butte	Roswell	WSYR 570 1000 B	WGOL 1210 100 N
KGIR 1340 1000 N	KGFL 1370 100	Troy	WHKC 640 500
Great Falls	Santa Fe	WHAZ 1300 500	WOSU 570 750
KFBB 1280 1000 C	KROA 1310 100	Utica	Dayton
KallsPELL	NEW YORK	WIBX 1200 100 C	WHIO 1260 1000 C
KGEZ 1310 100	Albany	Watertown	WSMK 1380 200 C
Lewistown	WABY 1370 100 B	WNNY 1420 100	Lima
KDNC 1200 100	WOKO 1430 500 C	White Plains	WBLV 1210 100
Missoula	Auburn	WFAS 1210 100	Portsmouth
KGVO 1260 1000 C	WMBQ 1310 100	Woodside	WPAV 1370 100
Wolf Point	Binghamton	WWRL 1500 100	Toledo
KGCX 1450 1000	WBNF 1500 100 C	NORTH CAROLINA	WSPD 1340 1000 C
NEBRASKA	Brooklyn	Ashville	Youngstown
Clay Center	WARD 1400 500	WNCN 570 1000 N	WKBN 570 500 C
KMMJ 740 1000	WBBC 1400 500	Charlotte	Zanesville
Kearney	WBRR 1300 1000	WBT 1080 50000 C	WALR 1210 100
KGFW 1310 100	WCNW 1500 100	WSOC 1210 100 N	OKLAHOMA
Lincoln	WEGL 1400 500	Durham	Ada
KFAB 770 10000 C		WDNC 1500 100 C	KADA 1200 100
KFOR 1210 100 C		Gastonia	Ardmore
		WJBR 1420 100	KVSO 1200 100
		Greensboro	Etik City
		WBG 1440 500 C	KASA 1210 100

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

<p>Enid KCRC 1360 250</p> <p>Muskogee KBIX 1500 100</p> <p>Norman WNAD 1010 1000</p> <p>Oklahoma KFXR 1310 150 KGFG 1370 100 KOMA 1480 5000 C WKY 900 1000 N</p> <p>Ponca City WBBZ 1200 100</p> <p>Shawnee KGFF 1420 100</p> <p>Tulsa KTUL 1400 500 C KVOO 1140 25000 N</p> <hr/> <p style="text-align: center;">OREGON</p> <hr/> <p>Astoria KAST 1370 100</p> <p>Corvallis KOAC 550 1000</p> <p>Eugene KORE 1420 100</p> <p>Klamath Falls KFJ 1210 100</p> <p>Marshfield KOOS 1200 250</p> <p>Medford KMED 1310 100</p> <p>Portland KALE 1300 500 C KBPS 1420 100 KBX 1180 5000 N KFJR 1300 500 KGW 620 1000 R KOIN 940 1000 C KWJJ 1040 500 KXL 1420 100</p> <p>Roseburg KRNR 1500 100</p> <p>Salem KSLM 1370 100</p> <hr/> <p style="text-align: center;">PENNSYLVANIA</p> <hr/> <p>Allentown WCBA 1440 500 WSAN 1440 500</p> <p>Altoona WFBG 1310 100</p> <p>Easton WEST 1200 100</p> <p>Erie WLEU 1420 100</p> <p>Glenaside WBG 970 100</p> <p>Greensburg WHJB 620 250 C</p> <p>Grove City WSAJ 1310 100</p> <p>Harrisburg WHP 1430 500 C WKBO 1200 100</p> <p>Hazleton WAZL 1420 100</p> <p>Johnstown WJAC 1310 100</p> <p>Lancaster WGAL 1500 100</p>	<p>Philadelphia KYW 1020 10000 R WCAU 1170 50000 C WDA5 1370 100 WFIL 560 1000 B WHAT 1310 100 WIP 610 1000 WPEN 920 250 WRAX 920 250 WTEL 1310 100</p> <p>Pittsburgh KDKA 980 50000 B KOV 1380 500 C WCAE 1220 1000 R WJAS 1290 1000 C WWSW 1500 100</p> <p>Reading WEEU 830 1000 WRAW 1310 100</p> <p>Scranton WGBI 880 500 WQAN 880 250</p> <p>Sunbury WKOK 1210 100</p> <p>Wilkes-Barre WBAX 1210 100 WBRE 1310 100</p> <p>Williamsport WRAK 1370 100</p> <p>York WORK 1320 1000</p> <hr/> <p style="text-align: center;">PUERTO RICO</p> <hr/> <p>Mayaguez WPR4 1370 100</p> <p>Ponce WPRP 1420 100</p> <p>San Juan WKAQ 1240 1000 WNEL 1290 1000</p> <hr/> <p style="text-align: center;">RHODE ISLAND</p> <hr/> <p>Newport WNRI 1200 100</p> <p>Providence WEAN 780 500 C WJAR 890 1000 R WPRO 630 500</p> <hr/> <p style="text-align: center;">SOUTH CAROLINA</p> <hr/> <p>Anderson WAIM 1200 100</p> <p>Charleston WCSC 1360 500 N</p> <p>Columbia WIS 560 1000 N</p> <p>Greenville WFBC 1300 1000 N</p> <p>Spartanburg WSPA 920 1000</p> <hr/> <p style="text-align: center;">SOUTH DAKOTA</p> <hr/> <p>Aberdeen KABR 1420 100</p> <p>Brookings KFDY 780 1000</p>	<p>Huron KGDY 1340 250</p> <p>Pierre KGF6 630 200</p> <p>Rapid City KOBH 1370 100 WCAT 1200 100</p> <p>Sioux Falls KELO 1200 100 KSOO 1110 2500</p> <p>Vermillion KUSD 890 500</p> <p>Watertown KWTN 1210 100</p> <p>Yankton WNAX 570 1000 C</p> <hr/> <p style="text-align: center;">TENNESSEE</p> <hr/> <p>Bristol WOP1 1500 100</p> <p>Chattanooga WAP0 1420 100 WDOD 1280 1000 C</p> <p>Jackson WTJS 1310 100</p> <p>Knoxville WNOX 1010 1000 C WR0L 1310 100</p> <p>Memphis WHB0 1370 100 WMC 780 1000 N WNBK 1430 500 WREK 600 1000 C</p> <p>Nashville WLAC 1470 5000 C WSM 650 50000 N</p> <p>Springfield WSIX 1210 100</p> <hr/> <p style="text-align: center;">TEXAS</p> <hr/> <p>Ablene KRBC 1420 100</p> <p>Amarillo KGNC 1410 1000</p> <p>Austin KNOW 1500 100 C</p> <p>Beaumont KFDM 560 500</p> <p>Big Spring KBST 1500 100</p> <p>Brady KNEL 1500 100</p> <p>College Station WTAW 1120 500</p> <p>Corpus Christi KGFI 1500 100</p> <p>Corsicana 1310 100</p> <p>Dallas KRLD 1040 10000 C WFAA 800 50000 N WRR 1280 500</p> <p>Dublin KFPL 1310 100</p> <p>El Paso KTSP 1500 100 KTSM 1310 100 WDAH 1310 100</p> <p>Fort Worth KFJZ 1370 100 KTAT 1240 1000 WBAP 800 50000 N</p> <p>Galveston KLVF 1370 100</p>	<p>Houston KPRC 920 1000 N KTRH 1290 1000 C KXYZ 1440 1000</p> <p>Kilgore KOGA 1210 100</p> <p>Longview KFRO 1370 100</p> <p>Lubbock KFYO 1310 100</p> <p>Midland KRLH 1420 100</p> <p>Palatka KNET 1420 100</p> <p>Pampa KPDN 1310 100</p> <p>Paris KPLT 1500 100</p> <p>Pecos KIUN 1420 100</p> <p>Port Arthur KPAC 1260 500</p> <p>San Angelo KGKL 1370 100</p> <p>San Antonio KABC 1420 100 KMAC 1370 100 KONO 1370 100 KTSa 550 1000 C WOAI 1190 50000 C</p> <p>Sherman KRRV 1310 100</p> <p>Temple KTEM 1370 100</p> <p>Tyler KGKB 1500 100</p> <p>Waco WACO 1420 100 C</p> <p>Weslaco KRGV 1260 500</p> <p>Wichita Falls KGKO 570 250 C</p> <hr/> <p style="text-align: center;">UTAH</p> <hr/> <p>Cedar City KSUB 1310 100</p> <p>Ogden KLO 1400 500 B</p> <p>Price KEUB 1420 100</p> <p>Salt Lake City KDYL 1290 1000 R KSL 1130 50000 C KUTA 1500 100</p> <hr/> <p style="text-align: center;">VERMONT</p> <hr/> <p>Burlington WCAX 1200 100</p> <p>Rutland WSYB 1500 100</p> <p>St. Albans WODM 1370 100</p> <p>Springfield WNBX 1260 1000</p> <p>Waterbury WDEV 550 500</p> <hr/> <p style="text-align: center;">VIRGINIA</p> <hr/> <p>Arlington NAA 690 1000</p> <p>Charlottesville WCHV 1420 100</p>
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NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Danville	
WBTM 1370	100
Harrisonburg	
WSVA 550	500
Lynchburg	
WLVA 1200	100
Newport News	
WGH 1310	100
Norfolk	
WTAR 780	500 N
Petersburg	
WPHR 880	500
Richmond	
WBBL 1210	100
WMBG 1210	100 C
WRVA 1110	5000 C
Roanoke	
WDBJ 930	1000 C
WASHINGTON	
Aberdeen	
KXRO 1310	100
Bellingham	
KVOS 1200	100
Everett	
KRKO 1370	50
Olympia	
KGY 1210	100
Pullman	
KWSC 1220	1000
Seattle	
KIRO 710	1000
KJR 970	5000 B
KOL 1270	1000 C
KOMO 920	1000 R
KRSC 1120	100
KTW 1220	1000
KVL 1370	100
KXA 760	250
Spokane	
KFIO 1120	100
KFPY 890	1000 C
KGA 1470	5000 B
KHQ 590	1000 R
Tacoma	
KMO 1330	250
KVI 570	1000 C
Walla Walla	
KUJ 1370	100
Wenatchee	
KPQ 1500	100
Yakima	
KIT 1310	100
WEST VIRGINIA	
Bluefield	
WHIS 1410	500
Charleston	
WCHS 580	500
Clarksburg	
WBLK 1370	100
Fairmont	
WMMN 890	500 C
Huntington	
WSAZ 1190	1000
Parkersburg	
WPAR 1420	100
Wheeling	
WVVA 1160	5000 C

WISCONSIN	
Eau Claire	
WEAU 1050	1000
Fond du Lac	
KFJZ 1420	100
Green Bay	
WBHY 1200	100
WTAQ 1330	1000
Janesville	
WCLO 1200	100
LaCrosse	
WKBH 1380	1000
Madison	
WHA 940	5000
WIBA 1280	1000 N
Manitowoc	
WOMT 1210	100
Milwaukee	
WEMP 1310	100
WISN 1120	250 C
WTMJ 620	1000 N
Poynette	
WIBU 1210	100
Racine	
WRJN 1370	100
Sheboygan	
WHBL 1300	250
Stevens Point	
WLBL 900	2500
Wausau	
WSAU 1370	100
WYOMING	
Casper	
KDFN 1440	500
Sheridan	
KWYO 1370	100
CANADA	
ALBERTA	
Calgary	
CFAC 930	100 F
CFCN 1030	10000
CJGJ 690	100 F
Edmonton	
CFRN 960	100 F
CJCA 730	1000 F
CKUA 580	500
Lethridge	
CJOC 950	100 F
BRITISH COLUMBIA	
Chilliwack	
CHWK 780	100 F
Kamloops	
CFJC 880	100 F
Kelowna	
KEOV 630	100 F
Prince Rupert	
CFPR 580	50
Trail	
CJAT 910	1000 F
Vancouver	
CJOR 600	500
CKCD 1010	100
CKFC 1410	50
CKMO 1410	100 F
CKWX 1010	100 F
CRCV 1100	1000 F
Victoria	
CFCT 1450	75

MANITOBA	
Brandon	
CKX 1120	100 F
Winnipeg	
CJRC 630	1000 F
CKY 910	15000 F
NEW BRUNSWICK	
Fredericton	
CFNB 550	500 F
Moncton	
CKCW 1370	100 F
St. John	
CHSJ 1120	500 F
N. W. TERRITORY	
Aklavik	
CJCU 1210	50
NOVA SCOTIA	
Glace Bay	
VAS 685	2000
Halifax	
CHNS 930	1000 F
Sydney	
CJCB 1240	1000 F
Wolfville	
CKK 1010	50
Yarmouth	
CJLS 1310	100
ONTARIO	
Brantford	
CKPC 930	100 F
Chatham	
CFCO 630	100 F
Cobalt	
CKMC 1210	50
Fort William	
CKPR 730	180 F
Hamilton	
CHML 1010	100 F
CKOC 1120	500 F
Kingston	
CFRC 1510	100 F
Kirkland Lake	
CJKL 1310	100 F
London	
CFPL 730	100 F
North Bay	
CFCH 930	100 F
Ottawa	
CKGO 1010	100 F
CRCO 880	1000 F
Prescott	
CFLC 930	100
St. Catharines	
CKTB 1200	100 F
Sault Ste. Marie	
CJIC 1500	100
Stratford	
CJCS 1210	50
Sudbury	
CKSO 780	1000 F
Timmins	
CKGB 1420	100 F

Toronto	
CFRB 690	10000 C
CKCL 580	100 F
CRCT 840	5000 N
Waterloo	
CKCR 1510	100
Windsor	
CKLW 1030	5000
CRCW 600	500 F
Wingham	
CKNX 1290	50
PRINCE EDWARD ISLAND	
Charlottetown	
CFCY 630	1000 F
CHCK 1310	50
Summerside	
CHGS 1450	50 F
QUEBEC	
Chicoutimi	
CRCS 950	100 F
Hull	
CKCH 1210	100 F
Montmagny	
VE9EK 1185	10
Montreal	
CFCF 600	400 N
CHLP 1120	100 F
CKAC 730	5000 C
CRCM 910	5000 F
New Carlisle	
CHNC 960	1000 F
Quebec	
CHRC 580	100
CKCV 1310	100 F
CRCK 1050	1000 F
SASKATCHEWAN	
Moose Jaw	
CHAB 1200	100 F
CJRM 540	1000 F
Prince Albert	
CKBI 1210	100 F
Regina	
CKCK 1010	500 F
Saskatoon	
CFQC 840	1000 F
Yorkton	
CJGX 1390	100
NEWFOUNDLAND	
St. John's	
VOAC 1065	40
VOAS 940	100
VOGY 840	400
VONF 1195	500
VOWR 681	500
MIQUELON	
St. Pierre	
FQN 609	250

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

<p style="text-align: center;">CENTRAL AMERICA</p> <hr/> <p style="text-align: center;">COSTA RICA</p> <p>Cartago</p> <p>TIFS 1441 7.5 TIGA 1014 30</p> <p>San Jose</p> <p>TIEP 850 500 TIFA 1050 75 TIGH 1000 500 TIGPH 650 1000 TIRH 930 50 TIVCA 1225 TIX 800</p> <hr/> <p style="text-align: center;">GUATEMALA</p> <p>Guatemala City</p> <p>TGW 1210 10000 TGX 1400 250</p> <hr/> <p style="text-align: center;">HONDURAS</p> <p>Tegucigalpa</p> <p>HRN 1340 100</p> <hr/> <p style="text-align: center;">NICARAGUA</p> <p>Managua</p> <p>YNLF 1275 20 YNOP 1230 100 YNVA 950 30</p> <hr/> <p style="text-align: center;">PANAMA</p> <p>Colon</p> <p>HP50 1440 25</p> <hr/> <p style="text-align: center;">EL SALVADOR</p> <p>San Salvador</p> <p>RDN 680 500</p>	<p>Saltillo</p> <p>XEAS 1160 100 XELA 1240 50 XEOX 640 500</p> <p>Torreon</p> <p>KETB 1310 125</p> <p>Villa Acuna</p> <p>XERA 840 350000</p> <hr/> <p style="text-align: center;">D. F.</p> <p>Mexico City</p> <p>XEAI 1240 100 XEB 1030 10000 XEBZ 820 100 XECW 1310 10 XEFA 1180 500 XEFO 940 5000 XEFZ 1370 100 XEK 990 100 XEL 1100 250 XEMX 1280 12 XEN 710 1000 XEW 890 50000 XEWZ 1150 100 XEXM 610 XEYZ 780 10000 XFX 610 1000</p> <hr/> <p style="text-align: center;">DURANGO</p> <p>Durango</p> <p>XEE 1210 50</p> <hr/> <p style="text-align: center;">GUANAJUATO</p> <p>Guajuato</p> <p>XEAZ 1420 7</p> <p>Leon</p> <p>XEKL 1240 500</p> <hr/> <p style="text-align: center;">JALISCO</p> <p>Guadalajara</p> <p>XEA 1060 500 XED 1160 2500</p> <hr/> <p style="text-align: center;">LOWER CALIFORNIA</p> <p>Agua Caliente</p> <p>XEBC 730 5000</p> <p>Coronado Island</p> <p>XEMZ 820</p> <p>Ensenada</p> <p>XEG 1270 200</p> <p>Mexicali</p> <p>XEAA 920 200 XEAO 560 250</p> <p>Rosarito</p> <p>XEAQ 1090 1000</p> <p>Tijuana</p> <p>XEAG 1240 250 XEC 1160 30 XEFL 1150 250 XEMO 860 5000 XEOK 760 250</p> <hr/> <p style="text-align: center;">MICHOACAN</p> <p>Morelia</p> <p>XEI 1370 125</p>	<p style="text-align: center;">NUEVO LEON</p> <p>Monterrey</p> <p>XEFB 1420 100 XEFJ 1230 100 XEH 1150 250 XET 690 500 XEX 1310 125</p> <hr/> <p style="text-align: center;">PUEBLA</p> <p>Puebla</p> <p>XETH 1210 100</p> <hr/> <p style="text-align: center;">SAN LUIS POTOSI</p> <p>San Luis Potosi</p> <p>XEZZ 1370 100</p> <hr/> <p style="text-align: center;">SONORA</p> <p>Hermosillo</p> <p>XEBH 930 500</p> <p>Noales</p> <p>XEAF 990 500</p> <hr/> <p style="text-align: center;">TAMAULIPAS</p> <p>Matamoros</p> <p>XEAM 750 7.5</p> <p>Nuevo Laredo</p> <p>XEBK 1000 100 XEFE 1340 250 XENT 910 150000</p> <p>Reynosa</p> <p>XEAW 960 50000</p> <p>Tampico</p> <p>XEFW 1310 250 XES 990 250</p> <hr/> <p style="text-align: center;">VERACRUZ</p> <p>Cordoba</p> <p>XEAG 1310 10</p> <p>Jalapa</p> <p>XFB 1270 250 XFD 1340 350</p> <p>Veracruz</p> <p>XETF 1220 30 XEU 1010 250</p> <hr/> <p style="text-align: center;">YUCATAN</p> <p>Merida</p> <p>XEFC 550 250 XEME 1240 15 XEY 1000 10 XEZ 630 500</p>	<p style="text-align: center;">Cardenas</p> <p>CMGE 1370 150</p> <p>Ciego de Avila</p> <p>CMJH 1360 100 CMJI 1130 150 CMJO 1180 50</p> <p>Cienfuegos</p> <p>CMHJ 1160 175 CMHW 820 100 CMHX 760 200</p> <p>Cruces</p> <p>CMHK 1330 250</p> <p>Havana</p> <p>CMBC 640 150 CMBD 1170 500 CMBG 1140 200 CMBN 850 150 CMBS 770 150 CMBX 1070 500 CMBY 970 150 CMBZ 1000 500 CMCA 1350 250 CMCB 1230 150 CMCD 950 250 CMCF 810 600 CMCG 680 1000 CMCJ 1110 500 CMCO 1200 250 CMCO 1410 250 CMCR 1380 150 CMCU 1280 500 CMCW 750 150 CMCX 1500 150 CMCY 1030 5000 CMK 730 3000 CMOA 1440 150 CMOK 1470 150 CMOX 1320 200 CMQ 880 500 CMW 600 1400 CMX 920 1000</p> <p>Holguin</p> <p>CMKF 1460 250</p> <p>Manzanillo</p> <p>CMKM 1120 200</p> <p>Matanzas</p> <p>CMGC 1400 150 CMGF 1120 150 CMGH 790 250</p> <p>Pinar del Rio</p> <p>CMAB 1340</p> <p>Sagua la Grande</p> <p>CMHA 1070 50</p> <p>Sancti Spiritus</p> <p>CMHB 1240 50</p> <p>Santa Clara</p> <p>CMHI 1210 150</p> <p>Santiago</p> <p>CMKC 1250 150 CMKD 1050 250 CMKR 1400 100 CMKW 1330</p> <hr/> <p style="text-align: center;">DOMINICAN REPUBLIC</p> <p>San Pedro de Macoris</p> <p>HH 1395 15</p> <p>Trujillo</p> <p>HIJ 1195 15 HIX 800 700 HIZ 1370 10</p> <hr/> <p style="text-align: center;">HAITI</p> <p>Port-au-Prince</p> <p>HHK 920 1000</p>	<p style="text-align: center;">WEST INDIES</p> <hr/> <p style="text-align: center;">CUBA</p> <p>Caibarien</p> <p>CMHD 1270 250</p> <p>Camaguey</p> <p>CMJA 1010 300 CMJC 1390 150 CMJE 1220 50 CMJF 1150 200 CMJK 780 250 CMJL 1340 100 CMJP 1430 75 CMJX 830 500</p>
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NORTH AMERICAN B. C. STATIONS BY CALLS

CFAC 930	100	CJIC 1500	100	CMAB 1340
Calgary, Alta.		S. Ste. Marie, Ont.		Pinar del Rio, Cuba	
CFCF 600	400	CJKL 1310	100	CMBC 640	150
Montreal, Que.		Kirkland Lake, Ont.		Havana, Cuba	
CFCH 930	100	CJLS 1310	100	CMBD 1170	500
North Bay, Ont.		Yarmouth, N. S.		Havana, Cuba	
CFCN 1030	10000	CJOC 950	100	CMBG 1140	200
Calgary, Alta.		Lethbridge, Alta.		Havana, Cuba	
CFCO 630	100	CJOR 600	500	CMBN 850	150
Chatham, Ont.		Vancouver, B. C.		Havana, Cuba	
CFCT 1450	75	CJRC 630	1000	CMBS 770	150
Victoria, B. C.		Winnipeg, Man.		Havana, Cuba	
CFCY 630	1000	CJRM 540	1000	CMBX 1070	500
Charlottetown, P.E.I.		Moose Jaw, Sask.		Havana, Cuba	
CFJC 880	100	CKAC 730	5000	CMBY 970	150
Kamloops, B. C.		Montreal, Que.		Havana, Cuba	
CFLC 930	100	CKBI 1210	100	CMCZ 1000	500
Prescott, Ont.		Prince Albert, Sask.		Havana, Cuba	
CFNB 550	500	CKCD 1010	100	CMCA 1350	250
Fredericton, N. B.		Vancouver, B. C.		Havana, Cuba	
CFPL 730	100	CKCH 1210	100	CMCB 1230	150
London, Ont.		Hull, Que.		Havana, Cuba	
CFPR 580	50	CKCK 1010	500	CMCD 950	250
Prince Rupert, B. C.		Regina, Sask.		Havana, Cuba	
CFQC 840	1000	CKCL 580	100	CMCF 810	600
Saskatoon, Sask.		Toronto, Ont.		Havana, Cuba	
CFRB 690	10000	CKCO 1010	100	CMCG 680	1000
Toronto, Ont.		Ottawa, Ont.		Havana, Cuba	
CFRC 1510	100	CKCR 1510	100	CMCJ 1110	500
Kingston, Ont.		Waterloo, Ont.		Havana, Cuba	
CFRN 960	100	CKCV 1310	100	CMCO 1200	250
Edmonton, Alta.		Quebec, Que.		Havana, Cuba	
CHAB 1200	100	CKCW 1370	100	CMCQ 1410	250
Moose Jaw, Sask.		Moncton, N. B.		Havana, Cuba	
CHCK 1310	50	CKFC 1410	50	CMCR 1380	150
Charlottetown, P. E. I.		Vancouver, B. C.		Havana, Cuba	
CHGS 1450	50	CKGB 1420	100	CMCU 1280	500
Summerside, P. E. I.		Tinminis, Ont.		Havana, Cuba	
CHLP 1120	100	CKIC 1010	50	CMCW 750	150
Montreal, Que.		Wolfville, N. S.		Havana, Cuba	
CHML 1010	100	CKLW 1030	5000	CMCX 1500	150
Hamilton, Ont.		Windsor, Ont.		Havana, Cuba	
CHNC 960	1000	CKMC 1210	50	CMCY 1030	5000
New Carlisle, Que.		Cobalt, Ont.		Havana, Cuba	
CHNS 930	1000	CKMO 1410	100	CMGC 1400	150
Halifax, N. S.		Vancouver, B. C.		Matanzas, Cuba	
CHRC 580	100	CKNX 1200	50	CMGE 1370	150
Quebec, Que.		Wingham, Ont.		Cardenas, Cuba	
CHSJ 1120	500	CKOC 1120	500	CMGF 1120	150
St. John, N. B.		Hamilton, Ont.		Matanzas, Cuba	
CHWK 780	100	CKOV 630	100	CMGH 790	250
Chilliwack, B. C.		Kelowna, B. C.		Matanzas, Cuba	
CJAT 910	1000	CKPC 930	100	CMHA 1070	50
Trail, B. C.		Brantford, Ont.		Sagua la Grande, Cu.	
CJCA 730	1000	CKPR 730	100	CMHB 1240	50
Edmonton, Alta.		Fort William, Ont.		Sancti Spiritus, Cuba	
CJCB 1240	1000	CKSO 780	1000	CMHD 1270	250
Sydney, N. S.		Sudbury, Ont.		Calbarien, Cuba	
CJCI 690	100	CKTB 1200	100	CMHI 1210	150
Calgary, Alta.		St. Catharines, Ont.		Santa Clara, Cuba	
CJCS 1210	50	CKUA 580	500	CMHJ 1160	175
Stratford, Ont.		Edmonton, Alta.		Cienfuegos, Cuba	
CJCU 1210	50	CKWX 1010	100	CMHK 1330	250
Aklavik, N. W. T.		Vancouver, B. C.		Cruces, Cuba	
CJGX 1390	100	CKX 1120	100	CMHW 820	100
Yorkton, Sask.		Brandon, Man.		Cienfuegos, Cuba	
		CKY 910	15000	CMHX 760	200
		Winnipeg, Man.		Cienfuegos, Cuba	

NORTH AMERICAN B. C. STATIONS BY CALLS

CMJA 1010 Camaguey, Cuba	300	HIH 1395 San Pedro de M., D. R.	15	KEUB 1420 Price, Utah	100
CMJC 1390 Camaguey, Cuba	150	HIJ 1195 Trujillo, D. R.	15	KEX 1180 Portland, Ore.	5000
CMJE 1220 Camaguey, Cuba	50	HIX 800 Trujillo, D. R.	700	KFAB 770 Lincoln, Neb.	10000
CMJF 1150 Camaguey, Cuba	200	HIZ 1370 Trujillo, D. R.	10	KFAC 1300 Los Angeles, Calif.	1000
CMJH 1360 Ciego de Avila, Cuba	100	HP50 1440 Colon, Panama	25	KFBB 1280 Great Falls, Mont.	1000
CMJI 1130 Ciego de Avila, Cuba	150	HRN 1340 Tegucigalpa, Hond.	100	KFBI 1050 Ablene, Kans.	5000
CMJK 780 Camaguey, Cuba	250	KABC 1420 San Antonio, Texas	100	KFBK 1490 Sacramento, Calif.	5000
CMJL 1340 Camaguey, Cuba	100	KABR 1420 Aberdeen, S. Dak.	100	KFDM 560 Beaumont, Texas	500
CMJO 1180 Ciego de Avila, Cuba	50	KADA 1200 Ada, Okla.	100	KFDY 780 Brookings, S. D.	1000
CMJP 1430 Camaguey, Cuba	75	KALB 1420 Alexandria, La.	100	KFEL 920 Denver, Colo.	500
CMJX 830 Camaguey, Cuba	500	KALE 1300 Portland, Ore.	500	KFEQ 680 St. Joseph, Mo.	2500
CMK 730 Havana, Cuba	3000	KANS 1210 Wichita, Kans.	100	KFGQ 1370 Boone, Iowa	100
CMKC 1250 Santiago, Cuba	150	KARK 890 Little Rock, Ark.	250	KFH 1300 Wichita, Kans.	1000
CMKD 1050 Santiago, Cuba	250	KASA 1210 Elk City, Okla.	100	KFI 640 Los Angeles, Calif.	50000
CMKF 1460 Holguin, Cuba	250	KAST 1370 Astoria, Ore.	100	KFIO 1120 Spokane, Wash.	100
CMKM 1120 Manzanillo, Cuba	200	KBIX 1500 Muskogee, Okla.	100	KFIZ 1420 Fond du Lac, Wis.	100
CMKR 1400 Santiago, Cuba	100	KBPS 1420 Portland, Ore.	100	KFJB 1200 Marshalltown, Iowa	100
CMKW 1330 Santiago, Cuba	....	KBST 1500 Big Spring, Texas	100	KFJI 1210 Klamath Falls, Ore.	100
CMOA 1440 Havana, Cuba	150	KBTM 1200 Jonesboro, Ark.	100	KFJM 1370 Grand Forks, N. D.	100
CMOK 1470 Havana, Cuba	150	KCKN 1420 Kansas City, Kans.	100	KFJR 1300 Portland, Ore.	500
CMOX 1320 Havana, Cuba	200	KCMC 1420 Texarkana, Ark.	100	KFJZ 1370 Fort Worth, Texas	100
CMQ 880 Havana, Cuba	500	KCMO 1370 Kansas City, Mo.	100	KFKA 880 Greeley, Colo.	500
CMW 600 Havana, Cuba	1400	KCRC 1360 Enid, Okla.	250	KFKU 1220 Lawrence, Kans.	1000
CMX 920 Havana, Cuba	1000	KCRJ 1310 Jerome, Ariz.	100	KFNF 890 Shenandoah, Iowa	500
CRCK 1050 Quebec, Que.	1000	KDB 1500 Santa Barbara, Calif.	100	KFOR 1210 Lincoln, Neb.	100
CRCM 910 Montreal, Que.	5000	KDFN 1440 Casper, Wyo.	500	KFOX 1250 Long Beach, Calif.	1000
CRCO 880 Ottawa, Ont.	1000	KDKA 980 Pittsburgh, Pa.	50000	KFPL 1310 Dublin, Texas	100
CRC5 950 Chicoutimi, Que.	100	KDLR 1210 Devils Lake, N. D.	100	KFPW 1210 Fort Smith, Ark.	100
CRCT 840 Toronto, Ont.	5000	KDNC 1200 Lewistown, Mont.	250	KFPY 890 Spokane, Wash.	1000
CRCV 1100 Vancouver, B. C.	1000	KDON 1210 Del Monte, Calif.	100	KFQD 780 Anchorage, Alaska	250
CRCW 600 Windsor, Ont.	500	KDYL 1290 Salt Lake City, Utah	1000	KKRC 610 San Francisco, Calif.	1000
FQN 609 St. Pierre, Miq.	250	KECA 1430 Los Angeles, Calif.	1000	KKRO 1370 Longview, Texas	100
HHK 920 Port-au-Prince, Haiti	1000	KEHE 780 Los Angeles, Calif.	500	KFRU 630 Columbia, Mo.	500
		KELD 1370 El Dorado, Ark.	100	KFSO 600 San Diego, Calif.	1000
		KELO 1200 Sioux Falls, S. Dak.	100		
		KERN 1370 Bakersfield, Calif.	100		

NORTH AMERICAN B. C. STATIONS BY CALLS

KFSG 1120	500	KGGF 1010	1000	KIUL 1210	100
Los Angeles, Calif.		Coffeyville, Kans.		Garden City, Kans.	
KFUO 550	500	KGGM 1230	250	KIUN 1420	100
St. Louis, Mo.		Albuquerque, N. M.		Pecos, Texas	
KFVD 1000	250	KGHF 1320	500	KIUP 1370	100
Los Angeles, Calif.		Pueblo, Colo.		Durango, Colo.	
KFVS 1210	100	KGHI 1200	100	KJBS 1070	500
Cape Girardeau, Mo.		Little Rock, Ark.		San Francisco, Calif.	
KFWB 950	1000	KGHL 780	1000	KJR 970	5000
Hollywood, Calif.		Billings, Mont.		Seattle, Wash.	
KFXD 1200	100	KGIR 1340	1000	KLAH 1210	100
Nampa, Idaho		Butte, Mont.		Carlsbad, N. Mex.	
KFXJ 1200	100	KGIW 1420	100	KLCN 1290	100
Grand Junction, Colo.		Alamosa, Colo.		Blytheville, Ark.	
KFXM 1210	100	KGKB 1500	100	KLO 1400	500
San Bernardino, Calif.		Tyler, Texas		Ogden, Utah	
KFXR 1310	100	KGKL 1370	100	KLPM 1240	250
Oklahoma City, Okla.		San Angelo, Texas		Minot, N. D.	
KFYB 1310	100	KGKO 570	250	KLRA 1390	1000
Lubbock, Texas		Wichita Falls, Texas		Little Rock, Ark.	
KFYR 550	1000	KGKY 1500	100	KLS 1440	250
Bismarck, N. D.		Scottsbluff, Neb.		Oakland, Calif.	
KGA 1470	5000	KGLO 1210	100	KLUF 1370	100
Spokane, Wash.		Mason City, Iowa		Galveston, Texas	
KGAR 1370	100	KGMB 1320	1000	KLX 880	1000
Tucson, Ariz.		Honolulu, T. H.		Oakland, Calif.	
KGB 1330	1000	KGNC 1410	1000	KLZ 560	1000
San Diego, Calif.		Amarillo, Texas		Denver, Colo.	
KGBU 900	500	KGNF 1430	1000	KMA 930	1000
Ketchikan, Alaska		North Platte, Neb.		Shenandoah, Iowa	
KGBX 1230	500	KGNO 1340	250	KMAC 1370	100
Springfield, Mo.		Dodge City, Kans.		San Antonio, Texas	
KGCA 1270	100	KGO 790	7500	KMBC 950	1000
Decorah, Iowa		San Francisco, Calif.		Kansas City, Mo.	
KGCU 1240	250	KGU 750	2500	KMED 1310	100
Mandan, N. D.		Honolulu, T. H.		Medford, Ore.	
KGCK 1450	1000	KGVO 1260	1000	KMJ 580	500
Wolf Point, Mont.		Missoula, Mont.		Fresno, Calif.	
KGDE 1200	100	KGW 620	1000	KMLB 1200	100
Fergus Falls, Minn.		Portland, Ore.		Monroe, La.	
KGDM 1100	1000	KGY 1210	100	KMMJ 740	1000
Stockton, Calif.		Olympia, Wash.		Clay Center, Neb.	
KGDY 1340	250	KHBC 1400	250	KMO 1330	250
Huron, S. D.		Hilo, T. H.		Tacoma, Wash.	
KGEK 1200	100	KHJ 900	1000	KMOX 1090	50000
Sterling, Colo.		Los Angeles, Calif.		St. Louis, Mo.	
KGER 1360	1000	KHQ 590	1000	KMPK 710	500
Long Beach, Calif.		Spokane, Wash.		Beverly Hills, Calif.	
KGEZ 1310	100	KHSL 950	250	KMTR 570	1000
Kalspell, Mont.		Chico, Calif.		Hollywood, Calif.	
KGFF 1420	100	KHUB 1310	250	KNEL 1500	100
Shawnee, Okla.		Watsonville, Calif.		Brady, Texas	
KGFG 1370	100	KICA 1370	100	KNET 1420	100
Oklahoma City, Okla.		Clovis, N. M.		Palestine, Texas	
KGFI 1500	100	KID 1320	500	KNOW 1500	100
Corpus Christi, Texas		Idaho Falls, Idaho		Austin, Texas	
KGfJ 1200	100	KIDO 1350	1000	KNX 1050	50000
Los Angeles, Calif.		Boise, Idaho		Hollywood, Calif.	
KGfK 1500	100	KIDW 1420	100	KOA 830	50000
Moorhead, Minn.		Lamar, Colo.		Denver, Colo.	
KGfL 1370	100	KIEM 1450	500	KOAC 550	1000
Roswell, N. M.		Eureka, Calif.		Corvallis, Ore.	
KGfW 1310	100	KIEV 850	250	KOAM 790	1000
Kearney, Neb.		Glendale, Calif.		Pittsburg, Kans.	
KGfX 630	200	KINY 1310	100	KOB 1180	10000
Pierre, S. D.		Juneau, Alaska		Albuquerque, N. M.	
KGfC 1420	100	KIRO 710	1000	KOBH 1370	100
San Francisco, Calif.		Seattle, Wash.		Rapid City, S. Dak.	
		KIT 1310	100	KOCA 1210	100
		Yakima, Wash.		Kilgore, Texas	
				KOH 1380	500
				Reno, Nev.	

NORTH AMERICAN B. C. STATIONS BY CALLS

KOIL 1260 Omaha, Nebr.	1000	KROY 1310 Sacramento, Calif.	100	KVEC 1200 San Luis Obispo, Calif.	250
KOIN 940 Portland, Ore.	1000	KRQA 1310 Santa Fe, N. Mex.	100	KVI 570 Tacoma, Wash.	1000
KOL 1270 Seattle, Wash.	1000	KRRV 1370 Sherman, Texas	100	KVLA 1370 Seattle, Wash.	100
KOMA 1480 Oklahoma City, Okla.	5000	KRSC 1120 Seattle, Wash.	100	KVOA 1260 Tucson, Ariz.	500
KOMO 920 Seattle, Wash.	1000	KSAC 580 Manhattan, Kans.	500	KVOD 920 Denver, Colo.	500
KONO 1370 San Antonio, Texas	100	KSCJ 1330 Sioux City, Iowa	1000	KVOE 1500 Santa Ana, Calif.	100
KOOS 1200 Marshfield, Ore.	250	KSD 550 St. Louis, Mo.	1000	KVOL 1310 Lafayette, La.	100
KORE 1420 Eugene, Ore.	100	KSEI 900 Pocatello, Idaho	250	KVOO 1140 Tulsa, Okla.	25000
KOTN 1500 Pine Bluffs, Ark.	100	KSFO 560 San Francisco, Calif.	1000	KVOR 1270 Colorado Spgs., Colo.	1000
KOVC 1500 Valley City, N. Dak.	100	KSJS 1500 Salina, Kans.	100	KVOS 1200 Bellingham, Wash.	100
KOY 1390 Phoenix, Ariz.	500	KSL 1130 Salt Lake City, Utah	50000	KVOX 1310 Moorhead, Minn.	100
KPAC 1260 Port Arthur, Texas	500	KSLM 1370 Salem, Ore.	100	KVSO 1210 Ardmore, Okla.	100
KPDN 1310 Pampa, Texas	100	KSO 1430 Des Moines, Iowa	500	KWBG 1420 Hutchinson, Kans.	100
KPLC 1500 Lake Charles, La.	100	KSOO 1110 Sioux Falls, S. D.	2500	KWG 1200 Stockton, Calif.	100
KPLT 1500 Paris, Texas	100	KSTP 1460 St. Paul, Minn.	25000	KWJJ 1040 Portland, Ore.	500
KPO 680 San Francisco, Calif.	50000	KSUB 1310 Cedar City, Utah	100	KWK 1350 St. Louis, Mo.	1000
KPOF 880 Denver, Colo.	500	KSUN 1200 Lowell, Ariz.	100	KWKH 1100 Shreveport, La.	10000
KPPC 1210 Pasadena, Calif.	100	KTAR 620 Phoenix, Ariz.	1000	KWLC 1270 Decorah, Iowa	100
KPQ 1500 Wenatchee, Wash.	100	KTAT 1240 Fort Worth, Texas	1000	KWOS 1310 Jefferson City, Mo.	100
KPRC 920 Houston, Texas	1000	KTBS 1450 Shreveport, La.	1000	KWSC 1220 Pullman, Wash.	1000
KQV 1380 Pittsburgh, Pa.	500	KTEM 1370 Temple, Texas	100	KWTN 1210 Watertown, S. D.	100
KQW 1010 San Jose, Calif.	1000	KTEP 1500 El Paso, Texas	100	KWTO 560 Springfield, Mo.	5000
KRBC 1420 Ablene, Texas	100	KTFI 1240 Twin Falls, Idaho	1000	KWYO 1370 Sheridan, Wyo.	100
KRE 1370 Berkeley, Calif.	100	KTHS 1060 Hot Springs, Ark.	10000	KXA 760 Seattle, Wash.	250
KRGV 1260 Weslaco, Texas	500	KTRB 740 Modesto, Calif.	250	KXL 1420 Portland, Ore.	100
KRKD 1120 Los Angeles, Calif.	500	KTRH 1290 Houston, Texas	1000	KXO 1500 El Centro, Calif.	100
KRKO 1370 Everett, Wash.	50	KTSA 550 San Antonio, Texas	1000	KXRO 1310 Aberdeen, Wash.	100
KRLC 1420 Lewiston, Idaho	100	KTSM 1310 El Paso, Texas	100	KXYZ 1440 Houston, Texas	1000
KRLD 1040 Dallas, Texas	10000	KTUL 1400 Tulsa, Okla.	500	KYA 1230 San Francisco, Calif.	1000
KRLH 1420 Midland, Texas	100	KTW 1220 Seattle, Wash.	1000	KYOS 1040 Merced, Calif.	250
KRMC 1310 Jamestown, N. Dak.	100	KUJ 1370 Walla Walla, Wash.	100	KYW 1020 Philadelphia, Pa.	10000
KRMD 1310 Shreveport, La.	100	KUMA 1420 Yuma, Ariz.	100	NAA 690 Arlington, Va.	1000
KRNR 1500 Roseburg, Ore.	100	KUOA 1260 Siloam Springs, Ark.	1000	RDN 680 San Salvador, E. S.	500
KRNT 1320 Des Moines, Iowa	500	KUSD 890 Vermillion, S. D.	500	TGW 1210 Guatemala, Gua.	10000
KROC 1310 Rochester, Minn.	100	KUTA 1500 Salt Lake City, Utah	100	TGX 1400 Guatemala City	250
KROW 930 Oakland, Calif.	1000	KVCV 1200 Redding, Calif.	100	TIEP 850 San Jose, C. R.	500

NORTH AMERICAN B. C. STATIONS BY CALLS

TIFA 1050 San Jose, C. R.	75	WATL 1370 Atlanta, Ga.	100	WCAD 1220 Canton, N. Y.	500
TIFS 1441 Cartago, C. R.	7.5	WATR 1190 Waterbury, Conn.	100	WCAE 1220 Pittsburgh, Pa.	1000
TIGA 1014 Cartago, C. R.	30	WAVE 940 Louisville, Ky.	1000	WCBS 1250 Northfield, Minn.	100
TIGH 1000 San Jose, C. R.	500	WAWZ 1350 Zarephath, N. J.	500	WCAM 1280 Camden, N. J.	500
TIGPH 650 San Jose, C. R.	1000	WAYX 1200 Waycross, Ga.	100	WCAD 600 Baltimore, Md.	500
TIRH 930 San Jose, C. R.	50	WAZL 1420 Hazleton, Pa.	100	WCAP 1280 Asbury Park, N. J.	500
TIVCA 1225 San Jose, C. R.	....	WBBA 890 West Lafayette, Ind.	500	WCAT 1200 Rapid City, S. D.	100
TIX 800 San Jose, C. R.	....	WBAL 760 Baltimore, Md.	2500	WCAU 1170 Philadelphia, Pa.	50000
VAS 685 Glace Bay, N. S.	2000	WBAL 1060 Baltimore, Md.	10000	WCAX 1200 Burlington, Vt.	100
VESEK 1185 Mountnaghy, Que.	10	WBAP 800 Fort Worth, Texas	50000	WCAZ 1070 Carthage, Ill.	100
VOAC 1065 St. John's, Nfld.	40	WBAX 1210 Wilkes-Barre, Pa.	100	WCBA 1440 Allentown, Pa.	500
VOAS 940 St. John's, Nfld.	100	WBBC 1400 Brooklyn, N. Y.	500	WCBD 1080 Chicago, Ill.	5000
VOGY 840 St. John's, Nfld.	400	WBBL 1210 Richmond, Va.	100	WCBM 1370 Baltimore, Md.	100
VONF 1195 St. John's, Nfld.	500	WBMM 770 Chicago, Ill.	50000	WCBS 1420 Springfield, Ill.	100
VOWR 681 St. John's, Nfld.	500	WBBR 1300 Brooklyn, N. Y.	1000	WCCO 810 Minneapolis, Minn.	50000
WAAB 1410 Boston, Mass.	500	WBBZ 1200 Ponca City, Okla.	100	WCFL 970 Chicago, Ill.	5000
WAAF 920 Chicago, Ill.	1000	WBGM 1410 Bay City, Mich.	500	WCHS 580 Charleston, W. Va.	500
WAAT 940 Jersey City, N. J.	500	WBEN 900 Buffalo, N. Y.	1000	WCHV 1420 Charlottesville, Va.	100
WAAW 660 Omaha, Neb.	500	WBEO 1310 Marquette, Mich.	100	WCKY 1490 Covington, Ky.	5000
WABC 860 New York, N. Y.	50000	WBHP 1200 Juntsville, Ala.	100	WCLO 1200 Janesville, Wis.	100
WABI 1200 Bangor, Maine	100	WBIG 1440 Greensboro, N. C.	500	WCLS 1310 Joliet, Ill.	100
WABY 1370 Albany, N. Y.	100	WBLK 1370 Clarksburg, W. Va.	100	WCMI 1310 Ashland, Ky.	100
WACO 1420 Waco, Texas	100	WBLY 1210 Lima, Ohio	100	WCNW 1560 Brooklyn, N. Y.	100
WADC 1320 Akron, Ohio	1000	WBNO 1200 New Orleans, La.	100	WCOA 1340 Pensacola, Fla.	500
WAGF 1370 Dothan, Ala.	250	WBNS 1430 Columbus, Ohio	500	WCCO 880 Meridian, Miss.	500
WAGM 1420 Presque Isle, Me.	100	WBNX 1350 New York, N. Y.	1000	WCOL 1210 Columbus, Ohio	100
WAIM 1200 Anderson, S. C.	100	WBNY 1370 Buffalo, N. Y.	100	WCOP 1120 Boston, Mass.	500
WAIR 1250 Winston-Salem, N. C.	250	WBOQ 860 New York, N. Y.	50000	WCPO 1200 Cincinnati, Ohio	100
WALA 1380 Mobile, Ala.	500	WBOW 1310 Terre Haute, Ind.	100	WCRW 1210 Chicago, Ill.	100
WALR 1210 Zanesville, Ohio	100	WBRB 1210 Red Bank, N. J.	100	WCSC 1360 Charleston, S. C.	500
WAML 1310 Laurel, Miss.	100	WBRC 930 Birmingham, Ala.	1000	WCSH 940 Portland, Me.	1000
WAPI 1140 Birmingham, Ala.	5000	WBRE 1310 Wilkes-Barre, Pa.	100	WDAE 1220 Tampa, Fla.	1000
WAPO 1420 Chattanooga, Tenn.	100	WBT 1080 Charlotte, N. C.	50000	WDAF 610 Kansas City, Mo.	1000
WARD 1400 Brooklyn, N. Y.	500	WBTM 1370 Danville, Va.	100	WDAH 1310 El Paso, Texas	100
WASH 1270 Grand Rapids, Mich.	500	WBZ 990 Boston, Mass.	50000		
		WBZA 990 Springfield, Mass.	1000		

NORTH AMERICAN B. C. STATIONS BY CALLS

WDAS 1370	100	WFAA 800	50000	WHAS 820	50000
Philadelphia, Pa.		Dallas, Texas		Louisville, Ky.	
WDAY 940	1000	WFB 1300	1000	WHAT 1310	100
Fargo, N. D.		New York, N. Y.		Philadelphia, Pa.	
WDBJ 930	1000	WFAM 1200	100	WHAZ 1300	500
Roanoke, Va.		South Bend, Ind.		Troy, N. Y.	
WDBO 580	1000	WFAS 1210	100	WHB 860	1000
Orlando, Fla.		White Plains, N. Y.		Kansas City, Mo.	
WDEL 1120	250	WFBC 1300	1000	WHBB 1500	100
Wilmington, Del.		Greenville, S. C.		Selma, Alabama	
WDEV 550	500	WFBG 1310	100	WHBC 1200	100
Waterbury, Vt.		Altoona, Pa.		Canton, Ohio	
WBGY 1180	1000	WFBL 1360	1000	WHBF 1210	100
Minneapolis, Minn.		Syracuse, N. Y.		Rock Island, Ill.	
WDNC 1500	100	WFBM 1230	1000	WHBI 1250	1000
Durham, N. C.		Indianapolis, Ind.		Newark, N. J.	
WDOD 1280	1000	WFR 1270	500	WHBL 1300	250
Chattanooga, Tenn.		Baltimore, Md.		Sheboygan, Wis.	
WDRC 1330	1000	WFDF 1310	100	WHBQ 1370	100
Hartford, Conn.		Flint, Mich.		Memphis, Tenn.	
WDSU 1250	1000	WFEA 1340	500	WHBU 1210	100
New Orleans, La.		Manchester, N. H.		Anderson, Ind.	
WDWS 1370	100	WFIL 560	1000	WHBY 1200	100
Champaign, Ill.		Philadelphia, Pa.		Green Bay, Wis.	
WDZ 1020	250	WFLA 620	1000	WHDF 1370	100
Tuscola, Ill.		Clearwater, Fla.		Calumet, Mich.	
WEAF 660	50000	WFMD 900	500	WHDH 830	1000
New York, N. Y.		Frederick, Md.		Boston, Mass.	
WEAN 780	500	WFOR 1370	100	WHDL 1420	100
Providence, R. I.		Hattiesburg, Miss.		Olean, N. Y.	
WEAU 1050	1000	WFOY 1210	100	WHBB 740	250
Eau Claire, Wis.		St. Augustine, Fla.		Portsmouth, N. H.	
WEBC 1290	1000	WFTC 1200	100	WHCC 1430	500
Duluth, Minn.		Kinston, N. C.		Rochester, N. Y.	
WEBQ 1210	100	WGAL 1500	100	WHCF 1500	100
Harrisburg, Ill.		Lancaster, Pa.		Kosciusko, Miss.	
WEBR 1310	100	WGAN 640	500	WHCF 1420	100
Buffalo, N. Y.		Portland, Me.		Cicero, Ill.	
WEDC 1210	100	WGAR 1450	500	WHIO 1260	1000
Chicago, Ill.		Cleveland, Ohio		Dayton, Ohio	
WEED 1420	100	WGBB 1210	100	WHIP 1480	5000
Rocky Mount, N. C.		Freeport, N. Y.		Hammond, Ind.	
WEEL 590	1000	WGBF 630	500	WHIS 1410	500
Boston, Mass.		Evansville, Ind.		Bluefield, W. Va.	
WEUU 830	1000	WGBI 880	500	WHJB 620	250
Reading, Pa.		Scranton, Pa.		Greensburg, Pa.	
WEGL 1400	500	WGCM 1210	100	WHK 1390	1000
Brooklyn, N. Y.		Gulfport, Miss.		Cleveland, Ohio	
WEHS 1420	100	WGES 1360	500	WHKC 640	500
Cicero, Ill.		Chicago, Ill.		Columbus, Ohio	
WELI 900	500	WGH 1310	100	WHLB 1370	100
New Haven, Conn.		Newport News, Va.		Virginia, Minn.	
WELL 1420	100	WGL 1370	100	WHN 1010	1000
Battle Creek, Mich.		Fort Wayne, Ind.		New York, N. Y.	
WEMP 1310	100	WGN 720	50000	WHO 1000	50000
Milwaukee, Wis.		Chicago, Ill.		Des Moines, Iowa	
WENR 870	50000	WGNV 1210	100	WHOM 1450	250
Chicago, Ill.		Newburgh, N. Y.		Jersey City, N. J.	
WEOA 1370	100	WGPC 1420	100	WHP 1430	500
Evansville, Ind.		Albany, Ga.		Harrisburg, Pa.	
WESG 850	1000	WGR 550	1000	WIBA 1280	1000
Elmira, N. Y.		Buffalo, N. Y.		Madison, Wis.	
WEST 1200	100	WGRC 1370	250	WIBG 970	100
Easton, Pa.		New Albany, Ind.		Glenside, Pa.	
WEVD 1300	1000	WGST 890	1000	WIBM 1370	100
New York, N. Y.		Atlanta, Ga.		Jackson, Mich.	
WEW 760	1000	WGY 790	50000	WIBU 1210	100
St. Louis, Mo.		Schenectady, N. Y.		Poynette, Wis.	
WEXL 1310	50	WHA 940	5000	WIBW 580	1000
Royal Oak, Mich.		Madison, Wis.		Topeka, Kans.	
		WHAM 1150	50000		
		Rochester, N. Y.			

NORTH AMERICAN B. C. STATIONS BY CALLS

WIBX 1200	100	WJTN 1210	50	WMAL 630	250
Utica, N. Y.		Jamestown, N. Y.		Washington, D. C.	
WICC 600	500	WJW 1210	100	WMAQ 670	50000
Bridgeport, Conn.		Akron, Ohio		Chicago, Ill.	
WIL 1200	100	WJZ 760	50000	WMAS 1420	100
St. Louis, Mo.		New York, N. Y.		Springfield, Mass.	
WILL 580	250	WKAQ 1240	1000	WMAZ 1180	1000
Urbana, Ill.		San Juan, P. R.		Macon, Ga.	
WILM 1420	100	WKAR 850	1000	WMBC 1420	100
Wilmington, Del.		East Lansing, Mich.		Detroit, Mich.	
WIND 560	1000	WKBB 1500	100	WMBD 1440	500
Gary, Ind.		East Dubuque, Ill.		Peoria, Ill.	
WINS 1180	1000	WKBH 1380	1000	WMBC 1210	100
New York, N. Y.		LaCrosse, Wis.		Richmond, Va.	
WIOD 1300	1000	WKBI 1420	100	WMBH 1428	100
Miami, Fla.		Cicero, Ill.		Joplin, Mo.	
WIP 610	1000	WKBN 570	500	WMBI 1080	5000
Philadelphia, Pa.		Youngstown, Ohio		Chicago, Ill.	
WIRE 1400	500	WKBO 1200	100	WMBO 1310	100
Indianapolis, Ind.		Harrisburg, Pa.		Auburn, N. Y.	
WIS 560	1000	WKBV 1500	100	WMBQ 1500	100
Columbia, S. C.		Richmond, Ind.		Brooklyn, N. Y.	
WISN 1120	250	WKBW 1480	5000	WMBR 1370	100
Milwaukee, Wis.		Buffalo, N. Y.		Jacksonville, Fla.	
WJAC 1310	100	WKBZ 1500	100	WMC 780	1000
Johnstown, Pa.		Muskegon, Mich.		Memphis, Tenn.	
WJAG 1060	1000	WKEU 1500	100	WMCA 570	500
Norfolk, Neb.		Griffin, Ga.		New York, N. Y.	
WJAR 890	1000	WKOK 1210	100	WMEX 1500	100
Providence, R. I.		Sunbury, Pa.		Boston, Mass.	
WJAS 1290	1000	WKRC 550	1000	WMFD 1370	200
Pittsburgh, Pa.		Cincinnati, Ohio		Wilmington, N. C.	
WJAX 900	1000	WKY 900	1000	WMFF 1310	250
Jacksonville, Fla.		Oklahoma City, Okla.		Plattsburg, N. Y.	
WJAY 610	500	WKZO 590	1000	WMFG 1210	100
Cleveland, Ohio		Kalamazoo, Mich.		Hibbing, Minn.	
WJBC 1200	100	WLAC 1470	5000	WMFJ 1428	100
Bloomington, Ill.		Nashville, Tenn.		Daytona Beach, Fla.	
WJBK 1500	100	WLAK 1310	100	WMFN 1210	100
Detroit, Mich.		Lakeland, Fla.		Clarksdale, Miss.	
WJBL 1200	100	WLAP 1420	100	WMFO 1370	100
Decatur, Ill.		Lexington, Ky.		Decatur, Ala.	
WJBO 1420	100	WLB 1250	1000	WMFR 1200	100
Baton Rouge, La.		Minneapolis, Minn.		High Point, N. C.	
WJBR 1420	100	WLBC 1310	100	WMIN 1370	100
Gastonia, N. C.		Muncie, Ind.		St. Paul, Minn.	
WJBW 1200	100	WLBL 900	2500	WMNN 890	500
New Orleans, La.		Stevens Point, Wis.		Fairmont, W. Va.	
WJBY 1210	100	WLBZ 620	500	WMPC 1200	100
Gadsden, Ala.		Bangor, Me.		Lapeer, Mich.	
WJDX 1270	1000	WLEU 1420	100	WMSD 1420	100
Jackson, Miss.		Erie, Pa.		Sheffield, Ala.	
WJEJ 1210	100	WLLH 1370	100	WMT 600	1000
Hagerstown, Md.		Lowell, Mass.		Cedar Rapids, Iowa	
WJIM 1210	100	WLMU 1210	100	WNAC 1230	1000
Lansing, Mich.		Middlesboro, Ky.		Boston, Mass.	
WJJD 1130	20000	WLNH 1310	100	WNAD 1010	1000
Chicago, Ill.		Laconia, N. H.		Norman, Okla.	
WJMS 1420	100	WLS 870	50000	WNAX 570	1000
Ironwood, Mich.		Chicago, Ill.		Yankton, S. D.	
WJNO 1200	100	WLTH 1400	500	WNBC 1380	250
W. Palm Beach, Fla.		Brooklyn, N. Y.		New Britain, Conn.	
WJR 750	50000	WLVA 1200	100	WNBF 1500	100
Detroit, Mich.		Lynchburg, Va.		Binghamton, N. Y.	
WJRD 1200	100	WLW 700	500000	WNBH 1310	100
Tuscaloosa, Ala.		Cincinnati, Ohio		New Bedford, Mass.	
WJSV 1460	10000	WLWL 1100	5000	WNER 1430	500
Washington, D. C.		New York, N. Y.		Memphis, Tenn.	

NORTH AMERICAN B. C. STATIONS BY CALLS

WNBX 1260	1000	WPRO 630	500	WSGN 1310	100
Springfield, Vt.		Providence, R. I.		Birmingham, Ala.	
WNBZ 1290	100	WPRP 1420	100	WSIX 1210	100
Saranac Lake, N. Y.		Ponce, P. R.		Springfield, Tenn.	
WNEL 1290	1000	WPTF 680	1000	WSJS 1310	100
San Juan, P. R.		Raleigh, N. C.		Winston-Salem, N. C.	
WNEW 1250	1000	WQAM 560	1000	WSM 650	50000
Newark, N. J.		Miami, Fla.		Nashville, Tenn.	
WNLC 1500	100	WQAN 880	250	WSMB 1320	1000
New London, Conn.		Scranton, Pa.		New Orleans, La.	
WNNY 1420	100	WQBC 1360	1000	WSMK 1380	200
Watertown, N. Y.		Vicksburg, Miss.		Dayton, Ohio	
WNOX 1010	1000	WQDM 1370	100	WSOC 1210	100
Knoxville, Tenn.		St. Albans, Vt.		Charlotte, N. C.	
WNRI 1200	100	WRAC 1370	100	WSPA 920	1000
Newport, R. I.		Williamsport, Pa.		Spartanburg, S. C.	
WNYC 810	1000	WRAP 1310	100	WSPD 1340	1000
New York, N. Y.		Reading, Pa.		Toledo, Ohio	
WQAI 1190	50000	WRAX 920	250	WSPR 1140	500
San Antonio, Texas		Philadelphia, Pa.		Springfield, Mass.	
WQC 1370	100	WRBL 1200	100	WSUI 880	500
Davenport, Iowa		Columbus, Ga.		Iowa City, Iowa	
WOI 640	5000	WRC 950	500	WSUN 620	1000
Ames, Iowa		Washington, D. C.		St. Petersburg, Fla.	
WOKO 1430	500	WRDO 1370	100	WSVA 550	500
Albany, N. Y.		Augusta, Me.		Harrisonburg, Va.	
WOL 1310	100	WRDW 1500	100	WSVS 1370	50
Washington, D. C.		Augusta, Ga.		Buffalo, N. Y.	
WOMT 1210	100	WREC 600	1000	WSYB 1500	100
Manitowoc, Wis.		Memphis, Tenn.		Rutland, Vt.	
WOOD 1270	500	WREN 1220	1000	WSYR 570	1000
Grand Rapids, Mich.		Lawrence, Kans.		Syracuse, N. Y.	
WOPI 1500	100	WRGA 1500	100	WTAD 900	500
Bristol, Tenn.		Rome, Ga.		Quincy, Ill.	
WOR 710	50000	WRJN 1370	100	WTAG 580	500
Newark, N. J.		Racine, Wis.		Worcester, Mass.	
WORC 1280	500	WROK 1410	500	WTAL 1310	100
Worcester, Mass.		Rockford, Ill.		Tallahassee, Fla.	
WORK 1320	1000	WROL 1310	100	WTAM 1070	50000
York, Pa.		Knoxville, Tenn.		Cleveland, Ohio	
WORL 920	500	WRR 1280	500	WTAQ 1330	1000
Boston, Mass.		Dallas, Texas		Green Bay, Wis.	
WOS 630	500	WRUF 830	5000	WTAR 780	500
Jefferson City, Mo.		Guinnessville, Fla.		Norfolk, Va.	
WOSU 570	750	WRVA 1110	5000	WTAW 1120	500
Columbus, Ohio		Richmond, Va.		College Station, Tex.	
WOV 1130	1000	WSAI 1330	1000	WTAX 1210	100
New York, N. Y.		Cincinnati, Ohio		Springfield, Ill.	
WOW 590	5000	WSAJ 1310	100	WTBO 800	250
Omaha, Neb.		Grove City, Pa.		Cumberland, Md.	
WOWO 1160	10000	WSAN 1440	500	WTCN 1250	1000
Fort Wayne, Ind.		Allentown, Pa.		Minneapolis, Minn.	
WPAD 1420	100	WSAR 1350	1000	WTEL 1310	100
Paducah, Ky.		Fall River, Mass.		Philadelphia, Pa.	
WPAR 1420	100	WSAU 1370	100	WTFI 1450	500
Parkersburg, W. Va.		Wausau, Wis.		Athens, Ga.	
WPAX 1210	100	WSAY 1210	100	WTHT 1200	100
Thomasville, Ga.		Rochester, N. Y.		Hartford, Conn.	
WPAY 1370	100	WSAZ 1190	1000	WTCI 1040	50000
Portsmouth, Ohio		Huntington, W. Va.		Hartford, Conn.	
WPEN 920	250	WSB 740	50000	WTJS 1310	100
Philadelphia, Pa.		Atlanta, Ga.		Jackson, Tenn.	
WPG 1100	5000	WSBC 1210	100	WTMJ 620	1000
Atlantic City, N. J.		Chicago, Ill.		Milwaukee, Wis.	
WPHR 880	500	WSBT 1360	500	WTMV 1500	100
Petersburg, Va.		South Bend, Ind.		East St. Louis, Ill.	
WPRA 1370	100	WSFA 1410	500		
Mayaguez, P. R.		Montgomery, Ala.			

NORTH AMERICAN B. C. STATIONS BY CALLS

	WTNJ 1280	500		XECW 1310	10		XERA 840	350000
	Trenton, N. J.			Mexico City, D. F.			Villa Acuna, Coah.	
	WTOC 1260	1000		XED 1160	2500		XES 990	250
	Savannah, Ga.			Guadalajara, Jal.			Tampico, Tams.	
	WTRC 1310	100		XEE 1210	50		XET 690	500
	Elkhart, Ind.			Durango, Dgo.			Monterrey, N. L.	
	WVFW 1400	500		XEF 1450	100		XETB 1310	125
	Brooklyn, N. Y.			Juarez, Chih.			Torreón, Coah.	
	WWAE 1200	100		XEFA 1180	500		XETF 1220	30
	Hammond, Ind.			Mexico City, D. F.			Veracruz, Ver.	
	WWJ 920	1000		XEFB 1420	100		XETH 1210	100
	Detroit, Mich.			Monterrey, N. L.			Puebla, Pue.	
	WWL 850	10000		XEFC 550	250		XEU 1010	250
	New Orleans, La.			Merida, Yuc.			Veracruz, Ver.	
	WWNC 570	1000		XEFE 1340	250		XEW 890	50000
	Asheville, N. C.			Laredo, Tams.			Mexico City, D. F.	
	WWRL 1500	100		XEFI 1440	250		XEWZ 1150	100
	Woodside, N. Y.			Chihuahua, Chih.			Mexico City, D. F.	
	WWSW 1500	100		XEFJ 1230	100		XEX 1310	125
	Pittsburgh, Pa.			Monterrey, N. L.			Monterrey, N. L.	
	WWVA 1160	6000		XEFL 1150	250		XEXM 610	.....
	Wheeling, W. Va.			Tijuana, L. C.			Mexico City, D. F.	
	WXYZ 1240	1000		XEFO 940	5000		XEY 1000	10
	Detroit, Mich.			Mexico City, D. F.			Merida, Yuc.	
	WIXBS 1530	1000		XEFV 1210	100		XEYZ 780	10000
	Waterbury, Conn.			Juarez, Chih.			Mexico City, D. F.	
	WZXR 1550	1000		XEFW 1310	250		XEZ 630	500
	Long Island City, N. Y.			Tampico, Tams.			Merida, Yuc.	
	WXAI 1550	1000		XEFZ 1370	100		XEZZ 1370	100
	Bakersfield, Calif.			Mexico City, D. F.			San Luis Potosí, S. L. P.	
	WSXBY 1530	1000		XEG 1270	200		XFA 1310	5
	Kansas City, Mo.			Ensenada, B. C.			Aguascalientes, Ags.	
	XEA 1060	500		XEH 1150	250		XFB 1270	250
	Guadalajara, Jal.			Monterrey, N. L.			Jalapa, Ver.	
	XEAA 920	200		XEI 1370	125		XFC 810	350
	Mexicali, B. C.			Morelia, Mich.			Aguascalientes, Ags.	
	XEAC 1240	250		XEJ 1020	1000		XFD 1340	350
	Tijuana, L. C.			Juarez, Chih.			Jalapa, Ver.	
	XEAF 990	500		XEK 990	100		XFO 940	5000
	Nogales, Son.			Mexico City, D. F.			Mexico City, D. F.	
	XEAG 1310	10		XEKL 1240	500		XFX 610	1000
	Cordoba, Ver.			Leon, Guan.			Mexico City, D. F.	
	XEAI 1240	100		XEL 1100	250		YNLF 1275	20
	Mexico City, D. F.			Mexico City, D. F.			Managua, Nicaragua	
	XEAM 750	7.5		XELA 1240	50		YNOP 1230	100
	Matamoros, Tams.			Saltillo, Coah.			Managua, Nicaragua	
	XEAO 560	250		XELO 1110	10000		YNVA 950	30
	Mexicali, B. C.			Piedras Negras, Coah.			Managua, Nicaragua	
	XEAQ 1090	1000		XEME 1240	15			
	Rosarito, L. C.			Merida, Yuc.				
	XEAS 1160	100		XEMO 860	5000			
	Saltillo, Coah.			Tijuana, L. C.				
	XEAT 1210	300		XEMX 1280	12			
	Hidalgo, Chih.			Mexico City, D. F.				
	XEAW 960	50000		XEMZ 820	.....		
	Reynosa, Tams.			Coronado Isl., L. C.				
	XEAZ 1420	7		XEN 710	1000			
	Guanajuato, Gto.			Mexico City, D. F.				
	XEB 1030	10000		XENT 910	150000			
	Mexico City, D. F.			Nuevo Laredo, Tams.				
	XEBC 730	5000		XEOK 760	250			
	Agua Caliente, L. C.			Tijuana, L. C.				
	XEBH 930	500		XEOX 640	500			
	Hermosillo, Sonora			Saltillo, Coah.				
	XEBK 1000	100		XEP 1160	500			
	Nuevo Laredo, Tams.			Juarez, Chih.				
	XEBZ 820	100		XEPN 730	100000			
	Mexico City, D. F.			Piedras Negras, Coah.				
	XEC 1160	30						
	Tijuana, L. C.							

	Eastern Time	
	P. M.	
W2XXAF, Solt'day, 9.530		12:00
W2XXE, Wayne, 6.120		12:15
W2XXE, Wayne, 11.330		12:30
W2XXE, Wayne, 15.270		12:45
W2XXE, Wayne, 17.760		13:00
W3XAV, Phila., 6.060		13:15
W3XAV, Phila., 9.590		13:30
W4XB, Miami, 6.040		13:45
W4XB, Miami, 6.040		14:00
W8XAL, Cinch'n Ti., 6.060		14:15
W8XK, Pittsburgh, 6.140		14:30
W8XK, Pittsburgh, 11.870		14:45
W8XK, Pittsburgh, 15.210		15:00
W9XP, Chicago, 6.100		15:15
XE8T, Mexico Cy., 6.000		15:30
XE8R, Mexico Cy., 7.380		15:45
XEDQ, Guadila., 9.520		16:00
XEYI, Mexico Cy., 5.980		16:15
YVQ, Maracay, 6.672		16:30
YV2RC, Caracas, 5.890		16:45
YV3RC, Caracas, 6.165		17:00
YV4RC, Caracas, 6.375		17:15
YV6RMO, Mar'cho, 5.850		17:30
YV6RV, Valencia, 6.520		17:45
YV10MSC, S. Crabi, 5.720		18:00
TP44, Pontoise, 11.720		18:15
TP43, Pontoise, 11.880		18:30
		18:45
		19:00
		19:15
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		23:30
		23:45

Hints on Tuning the Short Waves

It has been noted that shortwave reception follows certain definite trends. Stations between 5 and 7 megacycles favor darkness between the transmitter and the receiver. Transmitters working between about 8 and 10 megacycles are best when the station is in a night-time area and the receiver in daylight, so tuners should try for Europeans in this band in the early evening and for Australians near dawn. Below 10 megacycles the difficulty in tuning increases; here the path of the transmission should be as nearly as possible completely in daylight.

At night tune for South America between 5 and 10 megs. Europeans are good in the early evening and some of the higher powered Europeans are good all night. In the early morning tune for Australia and Asia between 6 and 10 megs. During the daytime tune for Europe, Africa and South America below 10 megacycles.

	Eastern Time			Eastern Time	
	P.	M.		P.	M.
HJLABG, Bar q'lla, 9.580			12:00		
HJLABJ, Sta Ma, 6.025			12:15		
HJLABD, Buvar ga, 5.980			12:30		
HJLABF, Bogota, 6.170			12:45		
HJLABH, Bogota, 6.012			13:00		
HJLABI, Bogota, 6.012			13:15		
HJABAA, Medellin, 11.720			13:30		
HJABAB, Medellin, 5.760			13:45		
HJABAE, Medellin, 5.930			14:00		
HJABAF, Medellin, 6.135			14:15		
HJABAD, Cali, 6.480			14:30		
HP5B, Panama Cy., 6.030			14:45		
HP5J, Panama Cy., 9.680			15:00		
HRN, Tegucigalpa, 5.875			15:15		
I2RO, Rome, 9.635			15:30		
I2RO, Rome, 11.810			15:45		
OAXXAD, Lima, 5.780			16:00		
OAXXAG, Lima, 6.230			16:15		
ORX, Brussels, 10.330			16:30		
Prado, Riobamba, 6.620			16:45		
PRP5, Rio de Jan., 9.500			17:00		
RAN, Moscow, 9.530			17:15		
RGWA, Gima, Cy., 6.000			17:30		
TGIX, Gima, Cy., 6.450			17:45		
TGZX, Gima, Cy., 5.940			18:00		
TJEP, San Jose, 6.710			18:15		
TJOPH, San Jose, 5.820			18:30		
TJPG, San Jose, 6.385			18:45		
TJROQ, San Jose, 6.550			19:00		
TJ5HH, San Ramon, 6.520			19:15		
TJ8WS, Punt'inas, 7.550			19:30		
TK3JR, Mch'rne, 9.580			19:45		
WIXAL, Boston, 6.040			20:00		
WIXAL, Boston, 11.730			20:15		
WIXK, Mills, 9.570			20:30		
W2XAD, Sch'ldy, 15.330			20:45		
W2XAD, Sch'ldy, 15.330			21:00		
W2XAD, Sch'ldy, 15.330			21:15		
W2XAD, Sch'ldy, 15.330			21:30		
W2XAD, Sch'ldy, 15.330			21:45		
W2XAD, Sch'ldy, 15.330			22:00		
W2XAD, Sch'ldy, 15.330			22:15		
W2XAD, Sch'ldy, 15.330			22:30		
W2XAD, Sch'ldy, 15.330			22:45		
W2XAD, Sch'ldy, 15.330			23:00		
W2XAD, Sch'ldy, 15.330			23:15		
W2XAD, Sch'ldy, 15.330			23:30		
W2XAD, Sch'ldy, 15.330			23:45		

A. M.	Eastern Time	
	00:00	
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	11:45	
CFMX, Montreal, 6,005		
DJA, Berlin, 9,560		
DJB, Berlin, 15,200		
DJD, Berlin, 11,770		
DJE, Berlin, 17,760		
DJN, Berlin, 9,540		
DJQ, Berlin, 15,280		
DSB, Daventry, 9,510		
DSD, Daventry, 11,750		
CSF, Daventry, 15,140		
CSG, Daventry, 17,790		
CSH, Daventry, 21,470		
CSO, Daventry, 15,180		
GSP, Daventry, 15,310		
HAS3, Budapest, 15,370		
HVJ, Vatican City, 15,120		
JVM, Nazari, 10,740		
JVN, Nazari, 10,660		
PHI, Hiversum, 11,725		
RKI, Moscow, 15,090		
RNE, Moscow, 12,000		
RNE, Moscow, 12,000		
RV15, Khabarovsk, 4,273		
TPA2, Paris, 15,250		
TPA3, Paris, 11,880		
TPA4, 11,720, Paris		
VK2ME, Sydney, 9,555	Sunday	
VK3IR, Melbourne, 9,560		
VK3ME, Melbourne, 9,510		
VPD, Suva, 13,075		
W1XK, Mills, 9,570		
W2XAD, Sch 104, 15,330		
W2XE, Wayne, 21,520		
W6XK, Pittsbg., 21,540		
W9XF, Chicago, 6,100		
YDA5, Bandoeng, 6,120		
	Sunday	

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AROUND THE CLOCK ON THE SHORT WAVES

The time is given by the 24-hour clock. Noon is always 12:00 but midnight may be either 00:00 or 24:00. To change time to your own clock, subtract twelve from p.m. hours. Thus, 18:00 is 6 p.m. and 23:00 is 11:00 p.m. The time lines used in charts are for Eastern Standard. Those living in other zones may clip out the lines below and paste them over the EST lines. The following strips are for Central Standard Time. For MST, start with 10:00 and 22:00. For PST with 09:00 and 21:00.

Central Time A. M.	Central Time P. M.	Central Time P. M.	Central Time P. M.
23:00	11:00	11:00	11:00
23:15	11:15	11:15	11:15
23:30	11:30	11:30	11:30
23:45	11:45	11:45	11:45
00:00	12:00	12:00	12:00
00:15	12:15	12:15	12:15
00:30	12:30	12:30	12:30
00:45	12:45	12:45	12:45
01:00	13:00	13:00	13:00
01:15	13:15	13:15	13:15
01:30	13:30	13:30	13:30
01:45	13:45	13:45	13:45
02:00	14:00	14:00	14:00
02:15	14:15	14:15	14:15
02:30	14:30	14:30	14:30
02:45	14:45	14:45	14:45
03:00	15:00	15:00	15:00
03:15	15:15	15:15	15:15
03:30	15:30	15:30	15:30
03:45	15:45	15:45	15:45
04:00	16:00	16:00	16:00
04:15	16:15	16:15	16:15
04:30	16:30	16:30	16:30
04:45	16:45	16:45	16:45
05:00	17:00	17:00	17:00
05:15	17:15	17:15	17:15
05:30	17:30	17:30	17:30
05:45	17:45	17:45	17:45
06:00	18:00	18:00	18:00
06:15	18:15	18:15	18:15
06:30	18:30	18:30	18:30
06:45	18:45	18:45	18:45
07:00	19:00	19:00	19:00
07:15	19:15	19:15	19:15
07:30	19:30	19:30	19:30
07:45	19:45	19:45	19:45
08:00	20:00	20:00	20:00
08:15	20:15	20:15	20:15
08:30	20:30	20:30	20:30
08:45	20:45	20:45	20:45
09:00	21:00	21:00	21:00
09:15	21:15	21:15	21:15
09:30	21:30	21:30	21:30
09:45	21:45	21:45	21:45
10:00	22:00	22:00	22:00
10:15	22:15	22:15	22:15
10:30	22:30	22:30	22:30
10:45	22:45	22:45	22:45

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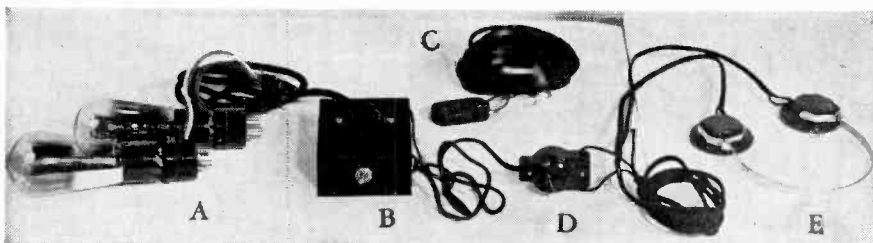
Enclosed find \$ _____ for which send me postpaid my choice of your offers
as checked below:

- Program "slates" 1 for 10c 2 for 15c 4 for 25c
- One Radio World Map and Time Converter 25c
- One copy of the next RADEX 25c
- One year's subscription to RADEX, 10 issues \$1.75
- Two years \$3.25 Three years \$4.75
- Beginner's Story of Radio35
(If you live in Ohio, add 3% for State Sales Tax. No tax on subscriptions.)

Write Name Plainly

Street and Number

City and State



The "Perfect" Phone Adapter

The Simplest method of attaching headphones to your radio set. Anyone can install it, without tools, and in no time at all. The speaker can be silenced while the headphones are being used. The adapter is a small and attractive box that will not detract from the appearance of the radio.

IDEAL FOR THE HARD-OF-HEARING

At last the hard-of-hearing can enjoy radio reception without annoying others. A customer who recently tried one of the new HOH models writes:

"The new device suits me perfectly. It permits me to tap in while the family is using the radio, affording me plenty of volume without the speaker being turned up the least bit above normal."

There has been no increase in price for the new model.

Sent Postpaid Anywhere for **\$3.95**

If you live in Ohio add 3% for Sales Tax

In ordering be sure to give make and model of receiver and a list of the tubes used.

The Radex Press
Conneaut, Ohio



**J. E. SMITH, President
National Radio Institute
(Established 1914)**

The man who has directed the home study training of more men for the Radio Industry than any other man in America.



**Earned \$50
First Month
In Spare Time**

"I knew nothing about Radio. After four lessons I began servicing Radios, earning \$50 the first month. Last winter I made as high as \$100 a month in spare time."—C. E. WALTON, 808 West Olney Road, Norfolk, Va.

**Own
Business
Pays
\$300
a Month**



"I now have my own Radio business which shows three hundred dollars a month profit—thanks again to National Radio." FRANK T. REESE, 39 N. Felton St., Philadelphia, Penna.

**GET FREE LESSON
on Radio Servicing Tips**

Here's proof that N. R. I. Training is practical money-making information—that it is easy to understand—that it is just what you need to master Radio. The sample lesson text, "Radio Receiver Troubles—Their Cause and Remedy" covers a long list of Radio receiver troubles in A. C., D. C., battery, universal, auto, T.R.F., superheterodyne, all-wave and other types of sets. Get this lesson Free. Mail Coupon.

I WILL TRAIN YOU TO START A SPARE TIME OR FULL TIME RADIO SERVICE BUSINESS WITHOUT CAPITAL

Do you want to make more money? The world-wide use of Radio has made many opportunities for you to have a spare time or full time Radio service business of your own. Three out of every four homes in the United States have Radio sets which regularly require repairs, servicing, new tubes, etc. Many sets are old and will soon be replaced by new models. I will train you at home in your spare time to sell, install, service, all types of Radio sets—to start your own Radio business and build it up on money you make in your spare time while learning. Mail coupon for my 64-page book. It's Free—it shows what I have done for others.

**Many Make \$5, \$10, \$15
a Week Extra**

In Spare Time While Learning

Practically every neighborhood needs a good spare time serviceman. The day you enroll I start sending you Extra Money Job Sheets. They show you how to do Radio repair jobs that you can cash in on quickly. Throughout your training I send plans and ideas that have made good spare time money for hundreds of fellows. I send special equipment which gives you practical experience—shows you how to conduct experiments and build circuits which illustrate important Radio principles.

**There's a Real Future in Radio
for Well Trained Men**

Radio already gives jobs to more than 300,000 people. In 1935 over \$300,000,000 worth of sets, tubes and parts were sold—an increase of 20% over 1934! Over 1,100,000 auto Radios were sold in 1935, 25% more than in 1934! 22,000,000 homes are today equipped with radios, and every year millions of these sets go out of date and are replaced with newer models. Millions more need servicing, new tubes, repairs, etc. Broadcasting stations pay their employees (exclusive of artists) more than \$23,000,000 a year! And Radio

is a new industry, still growing fast! A few hundred \$30, \$50, \$75-a-week jobs have grown to thousands in less than 20 years.

**Get Ready Now for Your Own
Radio Business and for Jobs Like These**

Broadcasting stations employ engineers, operators, station managers and pay up to \$5,000 a year. Spare time Radio set servicing pays as much as \$200 to \$500 a year—full time servicing jobs pay as much as \$30, \$50, \$75 a week. Many Radio Experts own their own full or part time Radio businesses. Radio manufacturers and jobbers employ testers, inspectors, foremen, engineers, servicemen, paying up to \$5,000 a year. Radio operators on ships get good pay and see the world. Automobile, police, aviation, commercial Radio, and loud speaker systems offer good opportunities now and for the future. Television promises many good jobs soon. Men I trained have good jobs in these branches of Radio.

**Find Out What Radio Offers You
Get My 64 Page Book Free Now**

Act Today. Mail the coupon now for my Free Lesson and my book, "Rich Rewards in Radio." Both are free to anyone over 16 years old. My book describes Radio's spare time and full time opportunities and those coming in Television; tells about my Training in Radio and Television; shows you actual letters from men I have trained, telling what they are doing and earning, tells about my Money-Back Agreement. Find out what Radio offers YOU! MAIL THE COUPON in an envelope, or paste it on a penny post card—NOW!



GOOD FOR BOTH 64 PAGE BOOK SAMPLE LESSON FREE

**J. E. SMITH, President
National Radio Institute, Dept. 7A0
Washington, D. C.**

Dear Mr. Smith: Without obligation, send me the Sample Lesson and your book free about spare time and full time Radio opportunities, and how I can train for them at home in spare time. (Please write plainly.)

Name..... Age.....
Address.....
City..... State..... 14X1