

NSE

NOVEMBER 1938

RADIO INDEX

The All-Wave Radio Log Authority



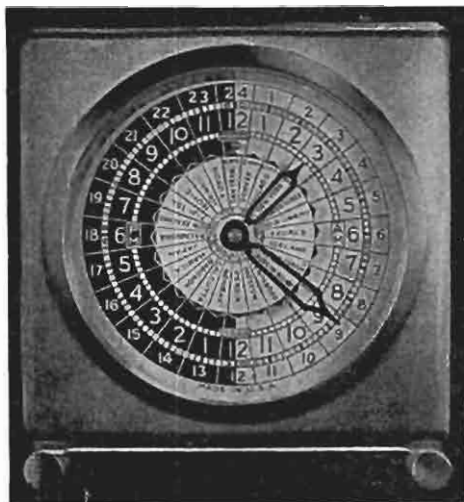
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The Broadcasting Stations of the World
How to Dial the Foreign Stations

No. 123

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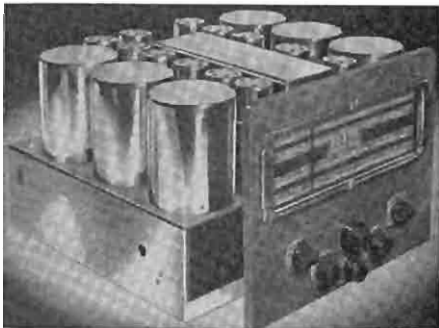
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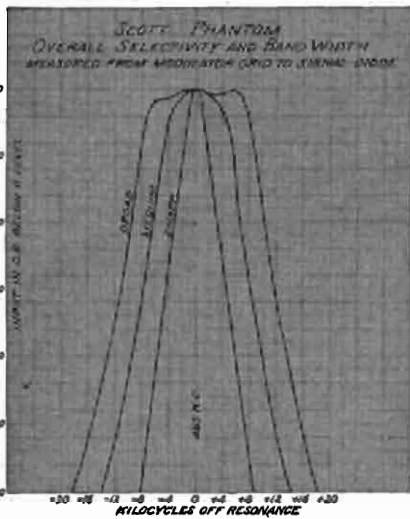
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NOVEMBER 1, 1938



RADIO IN DEX

Reg. U. S. Patent Office



FIFTEENTH YEAR

NUMBER 123

PAGE TAYLOR

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FOR SALE AT YOUR NEWSSTAND



DIALING THE FOREIGN STATIONS

PART TWO

THE DXer who roams the medium waves is one of the world's most difficult persons to please. No matter how much success he may have had with stations in his own country, he is constantly striving to better his record and reach new goals.

By the same token, he is never satisfied with his log of foreign stations. Whether he possesses two or twenty trans-oceanic veries, the thirst for foreigners continues unabated and he probably will never be entirely content.

Despite opinions to the contrary, the extent of a DXer's success with overseas stations rests largely upon his own shoulders. Listeners may contend that the fellows with big logs have favorable locations and sundry other advantages, but in the great majority of cases the success of a night owl is almost entirely dependent upon his own skill. With few exceptions, the number of foreign veries in his files is a direct tribute to his ability to get the most out of his receiver.

It is true that there are some listeners who are favorably situated in a suburban location, where signals are better received and noise is at a minimum. Also, other dial twisters

have been able to afford expensive receivers and impressive antenna installations. But the possession of a good location and fine equipment is no guarantee of successful foreign reception. If the listener doesn't know how and where and when to tune, he will be lucky indeed if he ever gets off his own continent.

Realizing that virtually every DXer has an insatiable appetite for overseas dialing, last month this section opened a discussion of the problems attending foreign reception. Intended for the neophyte who has yet to hear his first TA or TP, as well as for the old-timer who would like to increase his already-large log, the article tried to cover the fundamentals of good tuning procedure.

The respective arts of tuning and hearing were discussed in some detail, and an attempt was made to impress readers with the importance of developing these arts to the highest degree. Vagaries of reception were illustrated by examples of how signals from various directions were received in the United States. Tips were given on proven methods of dialing and of overcoming apparent obstacles. The matter of equipment was given

some attention, although it had been discussed more in detail in the September issue.

Considering the season of the year, particular attention was given to reception of stations in South America and the Antipodes. Selected lists of the more powerful stations on each continent were included in the text of the article, and problems peculiar to the reception of these stations received ample attention.

That the first part of this article was timely is shown by recent reception. As this issue goes to press, strong carriers from stations in New Zealand and Australia have been noticed. A couple of SA's have pushed their noses through the domestic barrage, and it begins to look as though predictions of a good season were more than justified.

By the time this, the November issue, reaches the newsstands, yet another cycle of foreign reception will have commenced. With the SA's and TP's at a peak towards the last of October, the stations in Asia and Europe will start their annual invasion of these shores, and so the spotlight is focussed on them.

The Europeans

For years DXers regarded reception of European BCB stations as quite impossible for American listeners. Despite the relative success of the international tests in 1926-27, it was argued that the difference in time created obstacles which could not be overcome. Suspicion was directed at the few who did report transmitters in France and Germany, and one prominent radio club official had a standing wager that no one could

tune in a medium-wave European station in his presence.

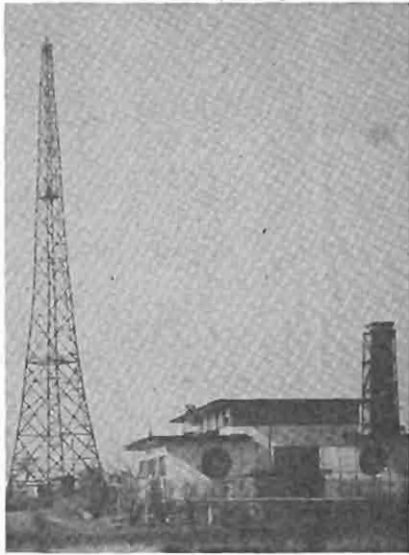
Then on December 2, 1932, DX history was made. Between 1 and 3 a. m., EST, scores of listeners dialed an unknown station on 914 kcys which was carrying an account of a cricket game being played in Australia. Great was the conjecture as to the identity of the station.

A few DXers dared to think that they had heard a European station, but they were in the minority. Tentatively the station was put down as either Canadian or American, although not a few listeners were convinced that they had heard 4RK at Rockhampton, Australia.

The cricket games continued through January and so did the play-by-play accounts — and also the guesses. The Editor of RADEX could not believe that the station could have been Paris, as a few readers reported, and voiced the opinion that it was some American station.

Finally the March 1933 RADEX confirmed the fact that the unknown station had indeed been Poste Parisien in Paris and that the play-by-play account had been re-created from cable dispatches. And so a series of cricket matches dispelled doubts about trans-Atlantic reception, provided the first instance of mass listening to a European station, and paved the way for many thrilling TA catches by American listeners.

During the 1933-34 and 1934-35 seasons which followed, DXers reaped a real harvest of TA's, logging stations in virtually every European country. The period of sun-spot maximum activity caused TA reception to slacken off appreciably



The transmitter building and aerial tower of the Frankfurt-am-Main station in Germany. This 25 kilowatt station works on 1195 kcs. and has been heard many times in this country.

during the 1935-36 and 1936-37 winters, only to come back stronger than ever last year.

With general reception conditions on a definite upgrade, the current season should find Europeans making a banner showing on the logs of American DXers.

Tuning the Europeans

Coming up in November and continuing through December and January, trans-Atlantic medium-wave stations should provide excellent targets for listeners in the East and Middle West.

Although their signals are not as strong as those from South America, the TA's do manage to make a respectable showing along the Atlantic

Seaboard, particularly in the Middle Atlantic and New England States and in the Maritime Provinces. Farther West, signal strength ebbs out gradually, although DXers in Ohio, Indiana and Illinois frequently report exceptional results. By the time they have crossed the Great Plains, European signals are practically gone and they are seldom heard on the West Coast.

Trans-Atlantic stations may be divided into two general classes for the purpose of tuning—those which are heard in the early evening and those which are best heard during the early morning hours. In a few instances, there are stations which embrace both classes, but they are in a minority.

In the case of the early evening stations, DXers find a greater variety of possible catches as well as the most difficulties attending reception. Since the stations are being tuned during the hour or two prior to their sign-off, reception takes place between the fall of darkness over here and (1) the time they go off the air or (2) the time the local stations get too loud for separation.

During the late fall and winter, trans-Atlantic stations may be heard as early as 4:30 p. m., EST, along the Atlantic Seaboard. Between 5:00 and 6:00, their signals reach a peak which is maintained until their sign-off. However, between 6:00 and 7:00 p. m., separation is made increasingly difficult by gains in strength of the locals. Hence, there is a relatively short period early every evening when the TA's are at maximum strength and local interference is at a minimum. This may be but 20

or 30 minutes in duration, or it may last a full hour, but that is the only time when DXers can cross the Atlantic during the early evening.

In picking the stations to tune in the early evening, it is necessary to consider their schedules. With the exception of the principal German transmitters which go off at 3 a. m. their time, virtually all of the Europeans sign off between 11 p. m. and midnight, their time. In the case of mid-continental stations—Italy, Hungary, Germany and Czechoslovakia—this would be 5:00 and 6:00 p. m., EST. And stations operating on Greenwich Time—France and England—will thus leave the air between 6:00 and 7:00 p. m.

Reception of these early evening stations is limited almost exclusively to listeners in the Atlantic and Eastern time belts. In fact, it is only those on the actual coastline who can enjoy consistent reception.

By far the best time to hear Europeans is in the early morning hours when most of the channels are clear. Many of the German stations come on the air for their day's schedule at 6 a. m., Middle European Time, which would be midnight, EST. However, the channels don't begin to clear up until 1:00 or 1:30, at which time they can be heard. Italian stations come on the air between 1:30 and 2:30 a. m., EST, as do the French stentors. As day breaks across the Atlantic, the signals begin to fade out. This usually starts at 2:30 in the case of the Germans and Italians, it being 8:30 a. m. there, and most of the TA's are gone by three o'clock, when it is 8 a. m. in England and France.

Here again it is necessary to consult a schedule. It will be noticed that many of the more powerful stations, such as the English regional transmitters, do not sign on until after daylight has made reception quite impossible. Hence, the late signers-on must be placed in the early-evening classification. Occasionally, a few stations—notably the Germans, who are on a schedule of 21 to 22 hours daily—can be heard at both times, but usually it is necessary to place the average station in one of the two classes.

Following is a list of the principal European stations, with frequency in kilocycles and power in kilowatts. When known, the schedule is given in Eastern Standard Time. All of these stations have been heard in the United States from time to time, and many are regular visitors. A complete list of all European stations is given in another part of this issue.

546	Budapest, Hungary 120 KW Daily 6:05 am - 6 pm
556	Beromunster, Switzerland 100 KW Daily 6 am - 5 pm
565	Athlone, Eire 100 KW Daily 2 am - 5 pm
574	Stuttgart, Germany 100 KW Daily 11:45 pm - 9 pm
583	Grenoble, France 15 KW Daily 2 am - 5 pm
583	Madona, Latvia 50 KW 1 am on
592	Vienna, Germany 120 KW Daily Midnight - 9 pm
601	Rabat, Morocco 25 KW
610	Florence, Italy 20 KW Daily 2 am - 6 pm
620	Brussels I, Belgium 15 KW Daily 1 am - 6 pm
620	Cairo, Egypt, 20 KW
638	Praha, Czechoslovakia 120 KW Daily 12:01 am - 5:15 pm
648	Lyons PTT, France 100 KW Daily 2 am - 5 pm

- 658 Cologne, Germany 100 W
Daily 12:01 am - 9 pm
- 668 Manchester (No. Reg.), G. B. 70 KW
Weekdays 5:15 am - 7 pm
Sundays 4:25 am - 6 pm
- 677 Sottens, Switzerland 100 KW
Until 6 pm
- 686 Beograd, Yugoslavia 20 KW
Until 5 pm
- 695 Paris PTT, France 120 KW
Daily 1:30 am - 6 pm
- 704 Stockholm, Sweden 55 KW
Daily 6:05 am - 5 pm
- 713 Rome I, Italy 120 KW
Daily 2 am - 6 pm
- 731 Tallinn, Estonia 50 KW
- 740 Munich, Germany 100 KW
Daily 12:01 am - 9 pm
- 749 Marseilles, France 100 KW
Daily 2 am - 5 pm
- 758 Katowice, Poland 12 KW
Daily 1 am - 5:05 pm
- 767 Scottish Regional, G.B. 60 KW
Weekdays 5:15 am - 7 pm
Sundays 4:25 am - 6 pm
- 776 Toulouse PTT, France 120 KW
Daily 2 am - 5 pm
- 785 Leipzig, Germany 120 KW
Daily 10:50 pm - 9 pm
- 795 Lwow, Poland 50 KW Until 5 pm
- 804 Wales Regional, G.B. 70 KW
Weekdays 5:15 am - 7 pm
Sundays 4:25 am - 6 pm
- 814 Milan I, Italy 50 KW
Daily 2 am - 6 pm
- 841 Berlin, Germany 100 KW
Daily 12:01 am - 11 pm
- 850 Sofia, Bulgaria 100 KW Until 5 pm
- 859 Strasbourg, France 80 KW
Daily 12:30 am - 5 pm
- 877 London Regional, G.B. 70 KW
Weekdays 5:15 am - 7 pm
Sundays 4:25 am - 6 pm
- 904 Hamburg, Germany 100 KW
Daily 11 pm - 9 pm
- 913 Toulouse, France 60 KW Until 6 pm
- 922 Brno, Czechoslovakia 32 KW
Daily 6 am - 5 pm
- 932 Brussels II, Belgium 15 KW
Until 6 pm
- 941 Algiers, Algeria 11.5 KW
- 950 Breslau, Germany 100 KW
Daily 11 pm - 9 pm
- 959 Poste Parisien, Paris, France 60 KW
Daily 2 am - 7 pm
- 977 North Ireland Regional 100 KW
Weekdays 5:15 am - 7 pm
Sundays 4:25 am - 6 pm
- 986 Bologna, Italy 50 KW
Daily 2 am - 5 pm
- 995 Hilversum II, Holland 60 KW
Daily 1:40 am - 5:40 pm
- 1004 Bratislava, Czech 13.5 KW
Daily 1:05 am - 5 pm
- 1013 Midland Regional, G. B. 70 KW
Weekdays 5:15 am - 7 pm
Sundays 4:25 am - 6 pm
- 1031 Konigsberg, Germany 100 KW
Daily 11 pm - 9 pm
- 1040 Rennes, France 120 KW
Daily 1:30 am - 5 pm
- 1050 West Regional, G. B. 50 KW
Weekdays 5:15 am - 7 pm
Sundays 4:25 am - 6 pm
- 1059 Bari I, Italy 20 KW Until 6 pm
- 1077 Bordeaux, France 30 KW Until 5 pm
- 1104 Kuldiga, Latvia 50 KW
- 1113 Praha II, Czechoslovakia 60 KW
Daily 12:01 am - 5 pm
- 1131 Horby, Sweden 60 KW
- 1158 Kosice, Czechoslovakia 10 KW
Daily 1:35 am - 4 pm
- 1167 Monte Ceneri, Switz. 15 KW
Daily 6:40 am - 4 pm
- 1185 Nice, France 60 KW
- 1195 Frankfurt, Germany 25 KW
Daily 11 pm - 9 pm
- 1213 Lille PTT, France 60 KW Until 5 pm
- 1222 Rome II, Italy 60 KW Until 5 pm
- 1393 Radio Lyons, France 25 KW
- 1411 Fecamp (Radio Normandie), France
10 KW Daily 1 am - 8 pm

From this list, DXers will be able to select a group of the more powerful stations as a test for any early evening or morning session. As soon as darkness has fallen, they might try Budapest on 546, the British North Regional on 668, Milan I on 814, and Toulouse on 913. In each case,

interference from locals should be at a minimum around five o'clock.

As in the case of all foreign dialing, "spot tuning" is recommended as the best way of going after weak signals. The listener will try one of the four stations suggested above. Budapest should not be hard, as there is no powerful local on an adjacent channel. The British station on 668 should be far enough from WEAJ to be heard until WMAQ starts to come through. Neither WHAS nor WCCO will offer early-evening opposition to Milan on 814. If one isn't heard at first, stick around for a couple of minutes. If the signal hasn't faded in after a reasonable wait, try one of the others. And so on until each of the four has had a chance to come through.

If it is found that none of these can be heard, try another group of transmitters which are known to be on the air. Should interference be too great, see if the station can't be heard during the early morning. And then go on for a try at another frequency.

In the event that one station is found to be coming through, the natural tendency is to go after a lot more. But such a habit should be discouraged, as a good report on one station is worth more than several poor reports on a number of stations. There are always other nights to try for the rest of the broadcasters, and a good signal should never be passed up until a complete report has been logged.

The same general procedure should be followed for tuning during the early morning hours. Pick a group of German stations—say, Stuttgart on 574, Vienna on 592, Cologne on 658,

Munich on 740, Berlin on 841 and Breslau on 950—and start "spot tuning" at 1 a. m., EST. These channels are usually clear and, if European reception is good that morning, at least one or two of them should be heard. Along towards two o'clock, try the French stations—Strasbourg on 859, Toulouse on 913, Rennes on 1040, Bordeaux on 1077 and Radio Normandie on 1411. If XEAW isn't on late, Poste Parisien on 959 is always a good bet. Frankfurt on 1195 always shows a good signal for its power.

No matter if the first five or six tried fail to show up, there is no reason to give up. Frequently only one or two TA's can be heard on any one morning, and it is up to the DXer to discover which one is coming through. Of course, there are occasional mornings when every European seems to be pounding through, and then there is a race to see how many can be logged before they commence to fade out.

While the nights of "perfect reception" are the exception rather than the rule, hardly a week of the TA season will go by without at least one or two days when many of the more powerful Europeans can be logged. If the wise DXer takes advantage of average reception to tune the bigger stations, he will then be free to go after the smaller transmitters when unusual conditions find them coming through.

Everything considered, there are few DXers today who, by patience and perseverance, could not build up an impressive log of TA's and other foreign stations. Equipment and lo-

(Please turn to page 42)

High Frequency Globe Trotting

• • • With RAY LA ROCQUE

THE identity of the station on 15180 kcs. remains a mystery, although we have fairly good reason to believe it is a Soviet transmitter. This broadcaster has been reported to be anything from Ankara to Helsinki, but after hearing them sign off day after day with the "Internationale," which is the Soviet national anthem, we are lead to believe that its nationality is Russian.

We are convinced that the identification of this 15180 kcs. station as Ankara, Turkey, is incorrect. There is no Turkey on the 15 megacycle band; at least, it is not being heard on the North American continent. It is possible that the Turkish station is not yet operating, in which case we hope they get going soon so we'll be able to have Turkey for Thanksgiving!

MEGACYCLE BREVITIES

It seems to be a favorite habit of ours to start this brevities department with a "puzzler" or mystery station each month. This month we're having a sale, a bargain so to speak—we're going to give you two stations to identify for us. Both seem to be in Chile, but here again we are only guessing. The frequencies are 9730 kcs. and 11742 kcs. You may have trouble with COCX on the latter. . . It might interest some curious fans to listen to conversations of the Pacific coast fishing fleet. They work on approximately 2680 kcs. from early evening till after midnight (PST). The yachts "Gypsy" and "Chief" both on 2174 kcs. also work these ships. . . A relief in these times of threatening war and strife in which shortwave radio is used mainly



Verification cards from the Praba station are illustrated with many different pictures, showing scenes in Czechoslovakia or pictures of their people. A bevy of Czechoslovakian YL's adorns this card. (Courtesy of A. C. Tarr).

for propaganda purposes are the programs of PCJ, the "Happy Station" in Holland, which typify a spirit of peace and good will among nations. . . Paris Mondial verified with a printed letter. in response to our notice of RADEX's change of address. We can't be too critical, though. These large stations have so many letters in foreign languages, that it is not odd that they make mistakes occasionally. . . A Rome transmitter is being heard afternoons on 15190 kcs. Quality is very poor and it may be a harmonic, but we can't imagine which of the many Rome trans-

mitters could be dropping a harmonic on this frequency! . . . Germany will increase the power of the Austrian shortwave stations to 50 kw. and will add new frequencies to the existing ones so that the set-up of the Austrian shortwave network will be as follows: OER-2 on 6072 kcs., OER-3 on 11801 kcs., OER-4 on 9570 kcs., and OER-5 on 15190 kcs. This from the National Radio Club. . .

"An anti-Stalin station in Riga, Latvia has been reported heard in America. The station broadcasts from 7 to 10:15 p.m. on 10030 kcs."—*Radio Guia*—Havana. . . The Before Breakfast DX Club reports that VIG at Port Moresby, Papua is being heard regularly on 7300 kcs. relaying 4 P.M. Try for this station at 3 a.m. on the first and third Saturday of each month. QUOTE AND UNQUOTE

Al Bartholomew, Bradford, New York: "Can anyone supply any information on when to tune to OER-3?"

Walter V. Scholz, Webster Groves, Mo.: "I need help in identifying a station on 17765 kcs. speaking in a foreign language other than Spanish. The station is heard between 5 and 6 p.m."

Chester Ramon, Chicago, Illinois: "I would like to know if you have any information on the following stations. CZJ7 on 2260 kcs., WLD on 2330 kcs., and WOWB which seems to be a ship called the 'Stanley'."

Harry Honda, Los Angeles, California: "Who is the Italian-speaking station on 15100 kcs. who signs at 10:45 a.m.?"

Bertram Podall, Gilman, Vermont: "Please inform me on the Yugoslavia station on 15120 kcs. Their program is in Yugoslavian except for one an-

nouncement in English asking for letters to be sent to Radio Station Belgrade, Yugoslavia." (The station is one of the Berlin experimental transmitters relaying Belgrade—see Germany in the "Shortwaves in Review" section—RL).

ULTRA HIGH

The very erratic conditions on this band, including the skip-distance effect, make it necessary for us to caution you to notice the location of the reader reporting a station. One station may be heard R9 in one state and may not be audible across the border. This, in our opinion, adds greatly to the appeal of these bands. We like uncertainty with our DXing!

W2XDV on 31600 kcs. in New York City is heard with Columbia Broadcasting System programs on Sundays and Tuesdays from 8-9 p.m. (Horlick—Ohio).

W6XI on 31380 kcs. in Bolinas, California has been granted permission to operate on this frequency for the purpose of determining the effectiveness of the ultra-high frequencies for long distance communication. (RX)

W6XKG on 25950 kcs. In Los Angeles, California announces as the "Twenty-four Hour Station" and is heard as early as 9:30 a.m. with news at 10 a.m. They are good most of the afternoon and heard between 8 and 10 p.m. (Horlick—Ohio).

W8XNU on 25950 kcs. in Cincinnati, Ohio comes in a shade higher than W6XKG and is best from 2-6 p.m. (Horlick—Ohio).

W9XHW on 31600 kcs. in Minneapolis, Minn. is best on Sundays, Mondays, and Saturdays from 7-8 p.m. They verify promptly. (Horlick—Ohio).

W9XJL on 26100 kcs. in Superior, Wisconsin is heard as early as 10 a.m. with news items at 10:30 a.m. They are good in the afternoon and also from 6-8 p.m. when they sign off. (Horlick—Ohio). W9XJL is heard with a strong signal on the west coast from 11 a.m. to 2 p.m. (Honda—Calif.)

W9XPD on 31600 kcs. in St. Louis, Mo. verifies by letter through Robert L. Coe of KSD! They promise to keep RADEX posted on any changes at W9XPD. (RL—Mass.)

W9XA in Kansas City will rebroadcast programs of WLW as well as those of KITE when they begin their program tests. Watch the various broadcast frequencies on the ultra high bands for these tests. (RL—Mass.)

W9XUP on 25950 kcs. at St. Paul, Minnesota is heard from noon to 4:30 p.m. News bulletins given at 12:45 and 4:15 p.m. (Horlick—Ohio).

NEW on 41100 kcs. to the Board of Education of the city of New York for a station in Brooklyn to be used for non-commercial educational broadcasts with 500 watts power. (RX).

VERI NEWS AND NEW VERIES

EAJ-43 of the Radio Club Tenerife verified by card signed by Enrique Diaz giving the address as Apt. 222, Santa Cruz de Tenerife, Canary Islands. (Deterly—La.)

RADIO MARTINIQUE's card is colorful. Done in red, yellow, and blue with black printing the make-up is such that it cannot be properly described without viewing it. (It was illustrated in the September, 1938, issue of RADEX). (RL—Mass.)

RKI verified with a photo of the Kremlin and enclosed a station schedule. The letter contained a fine

stamp picturing the Russian Arctic explorers. (Travener—Texas).

Jim Walker informs that ZLT does not verify. . . You can always be certain of something new from Prague. It seems every card from them has a different picture. . . A verification from SPW received by Edward Hirsch (R111) of St. Albans, N. Y. states that they now use a power of 10 kilowatts. . . Japan is to issue verifications in CARD form instead of folders beginning this month.

SHORTWAVES IN REVIEW

Albania

NEW—a three and one half kilowatt transmitter is scheduled to go into operation early in 1939! The construction has been under way for some time at Tirana, but this is all the information available at this time. (Morey—Mass.)

Canada

NEW—a transmitter, designed to operate on approximately 4324 kcs. will be installed at headquarters of the government reindeer station, lying immediately east of the Mackenzie River delta in the Northwest territory. The station will be used for communication with the Signals Station of the Department of National Defence at Aklavik during periods of break-up and freeze-up when travel over extended distances is not possible in that country. (RX).

China

XTJ on 11690 kcs. in Hankow is heard from 7-8:30 a.m. with best signals during the first half hour. News items in several languages are given at 8 a.m. Announcements are made by both male and female announcers. The address is P. O. Box 90. (Bartholomew—N. Y., and Skyten—Mass.)

XGW on 10420 kcs. in Shanghai is

the best signal from China on the coast and they are operating daily from 6-9:45 a.m. English news is given at 9:15 a.m. Address is XGW—Chinese Gov't. Radio Administration, Sassoon House, Jinkee Rd., Shanghai. (R35—Cal. 2).

XTC on 9290 kcs. at Nanking is another well-heard Chinese station. They operate from 8-9:10 a.m. (R35—Cal. 2).

Colombia

HJU on 9510 kcs. in Buenaventura informs the Cleveland Radio Club that they are closing down their transmitter. (RX).

HJ3CAD on 4841 kcs. at Bogota, known as "Emisora Nueva Grenada" is the call now being used by what was formerly HJ3ABD. May we add that this is a "belief" and will bear confirmation? We know there has been a change but will not guarantee our interpretation of the announcer's utterances. So 'elp us it sounded like HJ3CAD to us in English as well as in Spanish. (RL—Mass.)

Costa Rica

TI4NRH on 9670 kcs. in Heredia, will conduct a special DX program for the National Radio Club on November 24 from 9 to 10 p.m. The NRC will appreciate it if every RADEX reader will report on this program. (Herz—III.)

Denmark

OZF on 9520 kcs. in Copenhagen has inaugurated a special daily broadcast for North America, after the receipt of several letters from the BBDXC. The broadcast is from 10-11 p.m. and is in addition to their old schedule of 2-6 p.m. Reports should



Printed in light blue, dark blue and black, this card from CSW is one of the most attractive of all QSL cards. (Courtesy of A. M. Hankins.)

be addressed to Postog Telegrafvæsenet, Radioingenioertjenesten, Bernstorffsgade 32, 1, Copenhagen V, Denmark. (R35—Cal. 2). Taglauer—Ky.)

OZH on 15165 kcs. is heard very well from 8 a.m. to 1:30 p.m. They announce in English as "Danish Shortwave Station." (Herz—III.)

Dominican Republic

HI3X on 15280 kcs. in Trujillo City is heard every Sunday from 7:40-10:40 a.m. Their schedule also calls for week-day broadcasting from 12:10-1:10 p.m. (Herz—III.)

Federated Malay States

ZGE on 6200 kcs. in Kuala Lumpur, now on this frequency, has been heard with a fair signal on the west coast. Their schedule is Sunday, Tuesday, and Friday from 6:40-8:40 a.m. ZGE is operated by the Institute of Medical Research at Kuala Lumpur. The frequency seems to vary from 6120 to 6200, but broadcasts of late seems to have been on 6200 kcs. (R35—Cal. 2).

Finland

OFD on 9500 kcs. at Lahti is heard

in the afternoon from 3:30-5 p.m. when XEWW is not broadcasting. Occasionally, the Mexican stays up on 15160 in the afternoon and then it is not too difficult to pull in a signal from Lahti! (Miner—Wollaston).

Germany

DZC on 10390 kcs. and DJL on 15110 kcs. are now relaying programs from the "Radio Beograd", Belgrade, Yugoslavia, otherwise known as YUA. Care should be taken not to mistake these for new Yugoslavia frequencies. (The Eders—Minn.)

Guatamala

TGWA on 9685 kcs. broadcasts from 10 p.m. to 11:30 p.m. They announced that they will verify all reports and that the listeners need not include return postage. (Lang—Pa.)

TGWB on 6490 in Guatamala City is now on the air. They are heard in parallel with TGWA and remain on the air for 45 minutes along with TGW after the 9685 kcs. station signs off at 1:30 p.m. (Bruder and RL.—Mass.)

Haiti

HH2S on 5925 kcs. in Port-au-Prince broadcasts programs from Jamaica every night between 8 and 9:30 p.m. The station is heard with an R7-9 signal. (R21—Pa. 3).

Hungary

HAT-4 on 9125 kcs. in Budapest informs that they might change frequency. They receive too many reports of poor reception on the present channel. (Sekach-Mich.)

India

ALL INDIA RADIO—Schedule of transmissions:

VUD3 Delhi (5) 15160 kcs.:

8:30 p.m. to 10:30 p.m.

1:30 a.m. to 3:30 a.m.

VUD3 Delhi (5) 9590 kcs.:

7:30 a.m. to 12:30 p.m.

VUD2 Delhi (10) 9590 kcs.:

8:30 p.m. to 10:30 p.m.

1:30 a.m. to 3:30 a.m.

VUD2 Delhi (10) 4995 kcs.:

7:30 a.m. to 12:30 p.m.

VUB2 Bombay (10) 9550 kcs.:

9:30 p.m. to 10:30 p.m.

1:00 a.m. to 3:30 a.m.

VUB2 Bomboy (10) 4905 kcs.

7:00 a.m. to 12:30 p.m.

VUM2 Madras (10) 4950 kcs.:

7:00 a.m. to 12:30 p.m.

VUC2 Calcutta (10) 9530 kcs.:

2:06 a.m. to 4:06 a.m.

VUC2 Calcutta (10) 4880 kcs.:

6:36 a.m. to 12:06 p.m.

Power in kilowatts is shown in parentheses after the location. (Marion—La.)

VUD3 on 15160 kcs. in Delhi is still being heard well when it starts its program at 8:30 p.m. They fade out almost completely one hour after the start of the program. The 9590 kcs. transmitter is not heard at the 8:30 p.m. schedule as they are QRM'ed by PCJ or W3XAU. (Tag-lauer—Ky., and R7—Pa. 1).

Italy

IQY on 11676 kcs. at Rome is heard during the American Hour from 7:30-9 p.m. The station is reported along with I2RO-4 on 11810 kcs. (Worthington—B.C., and Marion—La.)

Japan

JFO on 9636 kcs. in Taiwan, Formosa is one which you should have a tough time logging. They're on from 6-7 a.m., but use only one kilowatt! (Bartholomew—N. Y.)

JVN on 10660 kcs. broadcasts the news at 4:55 a.m. daily. The station is received here with very good volume

of late. It has been noticed that a short period before the news is broadcast the station closes down temporarily. A few minutes later JVN comes back only to have about three or four times the original strength! (Wells—Ala.)

JZK on 15160 kcs. is now carrying the North American program from 8-8:30 p.m. in place of JZL. JZK is also being heard well around 5 p.m. with occasional. English announcements. (Barker—Me.)

JZO on 10270 kcs. is a new Tokyo station which is being used from 8-9:30 a.m. (Bartholomew—N. Y.)

Kenya Colony

VQ7LO on 10730 kcs. in Nairobi was heard relaying jungle music to NBC at 9 p.m. (Taglauer—Ky.)

Mexico

XECR on 15150 kcs. in Mexico City is now being heard occasionally on this frequency. Try for it Sundays. (Skyten—Mass.)

Netherlands

PCJ on 15220 kcs. in Huizen heard on west coast 1:55 a.m. to 2:15 p.m. (Worthington—B.C.)

NEW station on 21480 kcs. in Huizen is heard daily broadcasting simultaneously with PHI on 17770 kcs. The signal is the best on the 13 meter band. (Skyten—Mass.)

New Caledonia

RADIO NOUMEA on 6100 kcs. at Nouma can now be heard relaying FJP the long wave station after W9XF leaves the air at 2 a.m. The broadcasts are in French and begin at 2 a.m. on Tuesdays through Saturdays. Due to its low power, this station is heard only when best conditions prevail. At 3:30 a.m., "Radio Noumea" signs off with the French National Anthem. The ad-

dress is 44 rue de l'Alma, Noumea, New Caledonia and all reports will be verified if they are correct. (R35—Cal. 2).

Panama

HP5I on 11895 kcs. has been heard very well of late announcing their address at P. O. Box 1121, Panama City. (Barker—Me.)

HP5'G on 11895 kcs. now, having transferred to this frequency from 11780 kcs. (Brodowski—N. Y., and Miner—Mass.) Particulars on the station: Slogan—Ron Dalley; Power 750 to 1500 watts; P. O. Box 1121; Opening and closing theme—"Prelude of Traviata". Interval signal or chimes—none; Language used—English and Spanish; operating hours—6 to 10 p.m.; verifications for an I.R.C. (Gallivan—Canal Zone).

Poland

SP-19 on 15121 kcs. and SP-25 on 11740 kcs., the new Polish stations are being used with directional aerials to South America. SP-19 is not too difficult to hear, but SP-25 is hiding behind COCX's skirt and doing a very fine job of it. They couldn't have gotten closer to COCX if they'd borrowed the Cuban's own crystal! Reports on these stations are solicited and should be addressed to Polskie Radio Warszawa, Warsaw, Poland. Schedule is from 6-9 p.m. According to announcement more experimental short-wave stations are due to take the air soon. (Borey—Mass., Scholz—Mo., Bruder—Mass., Leshner—Mass., Skyten—Mass., Sekach—Mich.)

Portugal

CSW on 15100 kcs. at Lisbon heard in the morning around 9 o'clock with Portuguese National Anthem. Skyten—Mass.)

Spain

RADIO NACIONAL on the frequencies listed below are the principal stations being used by General Franco and his government. The times shown are for English broadcasts.

- FETI Valladolid 7006 kcs.
No English program.
- Bilbao 7246 kcs.
(Radio Espana) Tues., Thurs., and Sat. 3:15 p.m. Sun. 4:30 p.m.
- San Sebastian 7205 kcs.
(Radio Espana) 8:20 a.m. and 4:30 p.m.
- Madrid Front 6750 kcs.
(Radio Nacional A Z) 5:15 p.m.
- Madrid Front 7050 kcs.
(Radio A Z) 5:15 p.m.
- EA9BJ Alcazarquivir 7125 kcs.
- FET-5 Burgos 7351 kcs. 2:15 p.m.
- EA2AE Las Palmas 7152 kcs.
- EA2BH Jaca 14115 kcs. 8 p.m.
- EA9AH Teruan 13992 kcs. 5 p.m. (Gardner-Ohio).

Straits Settlements

ZHP on 9690 kcs. in Singapore heard daily with signal at it's best between 6-7 a.m. (Bartholomew—N. Y.)

United States

NEW—The NBC has been granted a construction permit for a new international broadcast station at Boundbrook, N. J. on 17780 kcs. with 35 kw. The CP and license are experimental and may be cancelled at any time by the FCC. (RX).

W3XAU in Philadelphia has been granted permission to add the frequency of 15270 kcs. to those authorized in its existing license. (RX).

W3XAL in Boundbrook, N. J. has also been granted a couple of additional frequencies — experimentally. They are 9670 kcs. and 21630 kcs. (RX).

W2XAA on 8655 kcs. was heard operating portable in Chicago. It is

owned by Bell Telephone Labs., New York City. (Hill—D.C.)

W9XDH on 12862.5 kcs., Elgin, Ill., of the Press Wireless, Inc. was heard testing about 12:30 p.m. Frequency was announced and popular recordings played. Station identification was given every 10 minutes. Signal very strong! (Hyde—Conn.)

U.S.S.R.

RAN on 9595 kcs. from 9-9:15 p.m. with English program was heard with R5-7 signal. RNE was on 12000 kcs. commencing at 10:20 p.m. (Scholz—Mo.)

Union of South Africa

ZRK on 9610 kcs. in Klipheuevel is heard on the west coast until 1 a.m. with good signal. (Honda—Calif.)

Uruguay

CXA-8 on 9640 kcs. has been heard operating as late as 2 o'clock on Sunday morning. (RL—Mass.)

Reporters For The Month

A word of explanation: The items above are not direct quotations from the readers' letters. They are, instead, our own version of the news as submitted by the readers. Credit is given as follows: "RX" means official news; "RL" is your truly; and the others are the last names of the reporters. When the reporter is a member of the RADEX club (and we believe everyone of them should be) his club number is given instead of his name.

- R7, Pa. 1, A. M. Hankins, Latrobe, Pa.
- R9, Mo. 1, Walter V. Scholz, Webster Groves, Mo.
- R21, Pa. 3, Edward Lang, Philadelphia, Pa.
- R35, Calif. 2, Stanley B. LaRue, Beverly Hills, Calif.
- R49, D.C. 2, David Hill, Washington, D.C.

R111, Edward Hirsch, St. Albans, N. Y.

R140, Conn. 5, J. Herbert Hyde, Elmwood, Conn.

R184, Carl Eder, Willmar, Minn.

R185, Anne Eder, Willmar, Minn.

Elvyn Barker, Portland, Me.

A. Bartholomew, Bradford, N. Y.

John Brodowski, Brooklyn, N. Y.

Arthur F. G. Bruder, Allston, Mass.

Wilbert F. Cornwall, Englewood, Colo.

A. V. Deterly, Baton Rouge, La.

J. D. Gallivan, Balboa, Canal Zone.

J. E. Gardner, Cleveland, Ohio.

Leo Herz, Chicago, Ill.

Hary Honda, Los Angeles, Calif.

Mark Horlick, Youngstown, Ohio.

Matthew Leshner, Lawrence, Mass.

Charles A. Marion, New Orleans, La.

Capt. W. W. Massey, Fort Payne, Ala.

Hary V. Miner, Wollaston, Mass.

Kenneth Morey, Easthampton, Mass.

Frank Sekach, Detroit, Mich.

Robert Skyten, E. Brookfield, Mass.

Walter C. Snyder, Grand Rapids, Mich.

Bob Taglauer, Covington, Ky.

Cliff Tavener, Rosenberg, Texas

Jaek Wells, Phoenix City, Ala.

E. Worthington, Vancouver, B. C.

New BBC Station

A new 5 kilowatt transmitting station at Redmoss, near Aberdeen, Scotland, was put into service on Sept. 9, replacing the one kilowatt transmitter that has been serving the Aberdeen district for fifteen years. The old station's frequency of 1285 kcs. is retained by the new station. The programs radiated originate in studios in Aberdeen or in London.

RAY SAHLBACH



Ray Sahlbach is a well-known DXer, residing in St. Louis, Mo. The photograph above shows him seated at his set, in his "den," with but a few of his many verification cards on the wall. He did not identify the cards which are shown, but we can make out cards from EAQ in Madrid, Berlin, W9XAA, and a Venezuelan veri.

We invite our readers to send photographs for reproduction in RADEX. Radio fans are requested, when sending pictures of themselves, to send also a short history of their DXing activity. All photographs will be returned.

TUBES Need to be Replaced

By B. FRANCIS DASHIELL

NEARLY every passerby along Main Street came to a halt before the windows of Higrade Radio Sales and Service to admire the new automatic all-wave radios. And Turner Dial, Higrade's proprietor, was proud of his display of receivers and the interest his fellow townsmen were showing was pleasing him. Already he had sold several sets because of his window and floor exhibition. So, when an express truck unloaded several crates of still another maker's 1939 models, Turner became anxious to get them in the store.

"Bill," he called. "Lets move these crates back and get 'em opened.. I'm anxious to see how they look."

"Coming," replied Bill Wood, as he reached the nail puller. Bill was a young man of untiring energy who had a yearning to become an expert radio serviceman. Soon the two men had the crates moved to the rear of the store, and Bill was carefully opening them.

Turner Dial, who serviced most of the town's radio sets, had also sold nearly every set in use. There was one thing that spoiled the radio business as far as he was concerned, and that was the problem of trading in old sets. Turner knew beforehand that he would have to face that prospect whenever a customer entered the store. Dial did not like it, and often expressed his opinions in no uncertain terms.

"Guess we'll have to take in an ancient set every time we sell one of these new ones," Turner remarked to Bill Wood.



"I can't see why you mind that, replied Bill. "You've made two profits." With an air that he had solved the depression problem. Wood pulled back the last piece of crate. Ain't it a beaut!" he exclaimed.

But Turner Dial was filled with argument. "This tradein business is a racket," he opined. "Everybody does it, and we have to, but no one likes it." Turner's thoughts passed down to the "museum" in the basement where dozens of old receivers, too good to junk, were stored. Those trade-ins represented discounts from list prices on new receivers—often bargains to his customers and reduced profits to himself. If he could only sell them! But the market for used sets simply did not exist. Perhaps he could push them a bit and make a market for good secondhand receivers. He had always argued that, with an overhauling, many of those sets would perform for years in modest homes where new, expensive sets, frequently purchased on time payments, were financial burdens.

The insistent ringing of the tele-

phone broke Turner's reverie. He stepped quickly into the little alcove which served as his office. "Good morning - Higrade Radio - may we be of service?" Turner responded, using the phrase of the moment. "Yes! That's too bad. I'll fix it up, and be there right away." Dial hung up the receiver and stepped into the service department.

"What's the matter," asked Wood. "Sounds like real trouble."

"Don't know exactly," answered Turner. "That new 12-tube set we just sold Mr. White has gone haywire. He's plenty sore too. I'll run out there, so you take care of the store."

Wood grinned. "I knew that sale was too good to be true. He paid cash and didn't have a trade-in to argue about. Guess it can't be bad, for it was the best set on the floor."

But Turner Dial had stepped behind the counter. He had already formed an opinion, and was reaching for several different tubes. Every time he looked at those shelves filled with tubes he boiled a bit internally. He was compelled to stock up more than half a dozen different makes, and now there were so many types he could not remember them all. Of course, he did not have every kind on hand. One of America's leading tube makers listed 161 different types of receiving tubes, not to mention all the special kinds. Dial picked up his emergency kit, stuffed the tube cartons in it, and said: "I'm off. Be back soon as I can."

Ten minutes later Turner Dial drove up before a home set among the trees in the suburban section of town. He rang the bell, and Mrs. White

opened the door. "Come in," she said. "My husband had to go out a few minutes, but you will find the radio in the living room."

Turner could see annoyance in her eyes. He knew now he had an indignant woman to face. It made him feel nervous, but Turner usually was that way around women, especially when they had new radios that had gone haywire for no good reason at all.

"We've had this set only a few days," began Mrs. White. "Its getting worse all the time, and last night it got so we could hardly understand it. It simply will not pick up a distant station. Mr. White got the best you had, and now it's no good!" And she snapped her thin lips together in a straight, tight line.

"Well, let me examine it," remarked Turner, as he laid open his kit and removed the portable tube checker. "I'll test the tubes." He snapped the set on. A door closed, and Turner, glancing around, saw Mr. White just entering. Mr. White nodded and spoke.

"I heard you mention tubes," he began. "I understand that new tubes came with the set, and that they were guaranteed. Did I get new tubes?"

Turner flared up a bit internally, but he took a deep breath and pulled the heavy receiver out from the wall. Peering into its interior he saw the tubes had heated, and all were revealing a filament glow to his practiced eyes. "These sets come direct from the factory fully equipped with new tubes," was all he dared venture. Perhaps it was not a tube at all, and Turner shivered inwardly. How Mrs. White would carry on if he had to



The talks studio of the Helsinki, Finland radio station. Programs from this station are now relayed on shortwaves over the new Lahti stations.

take the set back to shop and work on it! Certainly, that would be embarrassing!

Now that the set was warmed, Turner tuned it to a local. But it gave forth only weak distorted sounds. Switching to the short wave bands did not help for the set appeared to be dead. The receiver definitely was out of order, but Turner felt certain the fault was in one of the tubes.

"I'll test the whole 12 tubes first, just to be sure," Turner remarked, more for the want of something to ease the tension. "If they are not

right, we'll replace 'em. This set has to perform properly, or I'll take it back. But its one of the best 1939 receivers made."

Turner quickly checked over the tube layout. The first was a type 6K7G radio frequency amplifier. Next was a type 6L7G converter, then a 6K7G intermediate frequency tube. Turner felt certain these tubes were good, since the set would be dead if they were bad. The next tube was a type 6H6G second detector and automatic volume control. Here was a possible cause of trouble. Removing the 6H6G, he placed it in the tube checker. Just as he had imagined, the hand of the meter slowly moved to the "dead" sector of the scale. "See," Turner called to the Whites, "this tube is defective. I'll put in a new one, free, of course."

"Humph!" answered Mrs. White. "And what, may I ask, is to prevent it from going dead again?"

"I don't think it will. That first tube showed up its defects after it had been in use a short time," ventured Dial. "It was something that neither the factory inspectors nor anyone could foresee without actually trying the set for a long period." Turner prayed to himself that the new tube would not fail, but he decided first to check the socket potentials. They turned out to be normal. "Just a bad tube," said Dial, "lets see how it works."

The local station that sounded so distorted and weak now came in loud and clear. Then, switching to the shortwave band, a number of stations were heard with good volume. Changing the three dials about, ama-

teurs were heard, and a few police and airplane conversations came in.

"Why!" exclaimed Mrs. White, "it never worked that well before, and we thought it was fine then." Her belligerent attitude changed as she turned to her husband: "It never sounded so lifelike before!" Mr. White nodded, and continued to listen. Then Mrs. White went into the next room. "Mary, come here!" she called.

Turner Dial was picking up his kit and contents when a new voice from behind made him quickly swing around. "Oh, Mother! How perfectly lovely it sounds!"

"This is Mr. Dial, Mary!" said Mrs. White by the way of introduction. Mary smiled and her blue eyes sparkled.

Turner smiled back and confusedly said a few words. He was thinking that he had never seen such an attractive young lady. But the crash of a falling screwdriver as it slipped through his fingers brought him to his senses. "I feel sure that the set will work well this time," he said, as the last tool was placed in the kit. "Maybe moving the set out here did something to the tube." Turner passed through the front door, followed by Mary, and added: "Please call me if anything does not seem right in that receiver." Secretly he hoped that he would have to examine the set again, if Mary called.

Back in the store Bill Wood was trying to please half a dozen customers. So, when Turner hastened in, Wood called: "There's a fellow waiting for you back at the service bench. He's got plenty of trouble, according to him!"

Turner glanced at the customers. Most of them seemed to be buying tubes. "Winter season and good radio reception calls for new tubes in old sets," thought Turner. That was an idea - he would make a sign like that for the window! He continued to move toward the rear of the store. "Yes, Sir?" he asked.

"Turner Dial?" questioned the waiting customer. "I've been told by several friends to look you up. My radio is giving trouble."

"What seems to be wrong?" asked Turner.

"The set," began the middle aged man, "cuts on and off suddenly, but more or less regularly. It has worked just fine all the time up to now. Even the tubes have lasted a long while, but I took them out and brought 'em along."

"Humph!" muttered Turner. "Let's see those tubes." Walking over to the tube tester, which was a new model having the meter face flush in the counter top so it could be seen easily by the customers, he snapped on the switch. He inserted each tube, one at a time, and always the little hand swung to that portion of the dial between "fair" and "good." "Well," said Turner, "these tubes test up fairly well, and ought to run a while longer. Your trouble might be caused by other things. If we had the set here on the bench, we could soon find out if it has an open-circuited by-pass or coupling condenser or resistor."

"How will I know?" asked the man. "If its just a tube I wouldn't have to bring in the set. I live out a ways from town."

"Let me tell you something about

tubes," said Turner Dial, as he leaned back on the bottom shelf. "Sometimes tubes check o. k. on a tester, yet give trouble. Your tubes are pretty old. They can be the cause of intermittent reception." Bill Wood, having dismissed his last customer, joined the two. "Now," continued Turner, Dial, "tube trouble in a set is so common that the first thing we look for is a bad tube. While an instrument test, just like I have given, is the proper thing, sometimes a replacement test works better. This is a simple test and it also permits you to try the new tubes under actual operating conditions. That's what I propose to do in your case."

"For instance," Dial continued, for he enjoyed explaining radio to really interested customers, "if there is a broken element, such as a heater filament, or even a poorly insulated cathode, the tube might fail to operate continuously after it gets hot. If the tiny filament breaks, the ends might make contact again when it cools and start the set up once more. Thus, the on-and-off operation. Then, too, the internal insulation and spacing of the elements may change when the tube gets good and hot."

"But why doesn't that show up on your test?" asked the customer. "Can't you tell when a tube is bad?"

"Yes, I guess I could," answered Turner, "if I took a long time on each tube and watched its performance carefully after it got good and hot. To test these tubes that way would take too long, and then I might not discover the trouble." Turner placed the old tubes in a row on the

counter. "Bill," he said, "go back in the shop and pick out a set of used duplicate tubes from the bins."

In a few moments Wood was back with ten used tubes. "I know these are good," said Turner. "I'll loan 'em to you to take home and put in your set. If the receiver does not cut on and off, then start replacing my tubes with yours, allowing about one-quarter of an hour or longer between each tube replacement. Sooner or later you'll find that one of your tubes brings on intermittent reception. That will be the bad tube. Come in and get a new one, and bring my tubes back at the same time. Better still, get a complete new set, for, after all, yours are pretty old. You'll be surprised at the difference new tubes will make. But, listen, Mister, if your set cut on and off with my tubes in it, you need a shop job. It won't cost much or take very long."

Turner Dial turned to his young assistant. "Well, Bill, what's been going on while I was out?"

(Please turn to page 95)



This is one of the cards used by SPW in Warsaw, Poland, to verify reception of their station. The colors are blue and black. (Courtesy of A. C. Tarr).

NIGHT LIFE OF THE RADEXERS

By CARLETON LORD

With the opening of a new radio season, thousands of DXers are making ready for their regular jaunts down the mid-night air lanes. In the article which follows, new DXers will find a wealth of information, and old-timers will find a helpful hint or two, to aid them in the enjoyment of their hobby.

THE cobwebs of a past winter have been brushed away by a summer hibernation away from the dials, and each night owl anxiously awaits the first cool nights of the season. Whether the listener be an old-timer or a new disciple of DXing, he is looking forward to a harvest of new stations. Regardless of his past successes, he generally has a new goal to be reached by the following spring—and more often than not, he is successful in his quest for bigger and better DX.

During the past few years, the early-season hopes for good listening have been squelched by ominous predictions of heavy static, poor signals and the other evils attending the maximum of a sun spot cycle. In some cases the prognosticators have seen their dire forecasts come true, and many a listener has become discouraged before the season was well under way.

But this year every indication points to reception such as we haven't enjoyed in half a decade. As reported in the September issue, the sun spot cycle hit a peak in July of 1937 and has been on a real decline ever since. The marked improvement in general reception, as indicated by many listeners last season, is more than substantiated by early reports this year. Signals as a whole seem to be showing greater punch, static is lighter than usual, and many

distant stations are showing to advantage. All in all, it looks as though it won't be long before an old-fashioned DX season will be with us in full force.

Listeners who have not as yet made full preparations for a winter of serious dial twisting, would do well to read over the article in the September issue which gave many tips on making the most of good reception conditions. Among the everyday problems covered were factors governing location, choice of receivers, efficient antenna installations, the noise nuisance, and the all-night broadcasters.

The October issue contained the first part of an article on tuning the foreign stations. Fundamentals of good tuning were covered in detail, and many tips were given on *how*, *when* and *where* to tune for stations in South America and the Antipodes. The second section of this article, with emphasis on European and Asiatic reception, appears in another section of the current issue. Old-timers may find a new kink or two, while the newer DXers should find a wealth of information on this most fascinating part of DXing.

Many new stations, both in this country and abroad, have come on the air since last season, and should afford worthwhile targets for every night owl. The latest available schedule of the monthly frequency checks, appearing elsewhere in this is-

sue, includes more than a score of new stations now on a regular schedule.

In addition to the new transmitters, there have been many changes in the broadcast spectrum. Many stations have increased their power, while others have switched frequencies, with varying effects on range and interference. All of these changes, of course, are included in the regular indices each month, so the midnight marauders will not want for authoritative information.



The Palace of Commerce at Rennes, France. This handsome building houses the radio station of the Rennes transmitter on 1040 kcs. This is one of the most frequently heard European stations.

Station News

Recent reports of a new station at Kenora, Ont., have been confirmed in the announcement that the Kenora Broadcasting Co. has been formed to manage and operate CKCA in the Hotel Kenricia in that town. Although the original license called for a power of 100 watts on 1420 kcs. it is understood that 250 watts will be used for daytime transmissions. The Canadian Marconi Co. is manufacturing the equipment and the station is expected to be on the air by the time this issue reaches the newsstands.

Following negotiations by Station KGGC (now KSAN), San Francisco, with the Western Merchandising Mart to remove the studios and transmitter to that building, plans are under way for the construction of a 300-foot tower atop the building. RCA has the contract to install complete and modern equipment. S. H. Patterson, formerly manager of KVOR, will be in charge of the new KSAN set-up.

According to Harry Honda of Los Angeles, Station XERB Rosarito Beach, B. Cfa., has been testing from 7 to 10 p. m., PST, on 1090 kcs and is no longer heard on its old frequency of 730 kcs. And Bob Vernon of Sacramento notes that the station will verify for return postage.

Stephen Mann, Lakewood, Ohio, advises that KWLK, 780 kcs, Longview, Wash.; KXOK, 1250 kcs, St. Louis, Mo.; KDNT, 1420 kcs, Denton, Texas; KFAM, 1420 kcs, St. Cloud, Minn.; and KTRI, 1420 kcs, Sioux City, Iowa are now on the air and broadcasting on regular schedules.

"I would like to correct the classification in your index which states that XERA does not verify," contributes Walter Klein, 216 Montague Place, South Orange, N. J. "Reports are verified promptly if addressed to Don Howard, Station XERA, Apartado 30, Villa Acuna, Coah., Mexico."

"Station WFAA at Dallas is erecting a new vertical radiator," supplies Leonard Woodall, R. D. 2, Plano, Texas. "It will be 654 feet high and will replace the two 300-foot towers from which the present antenna is strung. Increased signal strength is expected to extend WFAA's listening audience by at least 200,000 persons.

The new tower is triangular in shape, weighs 50 tons, and is supported by six guy wires to withstand a wind velocity of 110 miles per hour.

"Station KGKO, formerly at Wichita Falls, is now broadcasting from its new location in Fort Worth. They are using 5000 watts non-directional in the daytime and 1000 watts directed East and West at night. They broadcast from 7 to 1 a. m., EST, daily, and carry NBC Blue network programs."

"A recent letter from VOAS, St. John's, Nfld.," postcards Richard Wright, 5762 Harper Ave., Chicago, Ill., "advises that their transmitter is closed down, so you can delete them from your indices."

"At present, KWJJ, Portland, Ore., signs off at 6 a. m., EST, and comes back on the air at 9 a. m.," offers Rud Anderson, Ambrose, N. D. "During daylight saving, WMCA was signing on an hour before WNAX on 570, but this won't help Western DXers until next spring. Many DXers seem to think that KRE and KXL are 24-hour stations. Actually, although KXL used to be in this classification, it now signs off at 3 a. m., EST. KRE has been calling it a day at 4 a. m., EST, daily except Sunday mornings."

"KLPM started to use 1360 kcs on April 11th and have been putting a fair signal into Regina," writes Paul Sampson, 1820 Collge Ave., Regina, Sask. "CKBI has been granted a power increase to 1000 watts on a frequency to be announced later. CJRM is moving its transmitter from 25 miles West of Regina to a point seven miles East and two miles North of the city, where they are installing

a new 400-foot self-supporting antenna."

From Samuel A. Meyer, Jr., 83 Canterbury Rd., Rochester, N. Y., comes word of two new Guatamalan BCB stations. The first is TGQ, 1450 kcs, 200 watts power, located at Quezaltenango. Reports should be addressed to the Director of Electrical Communications at Guatamala City. The second is TGX, 1400 kcs, power unknown, Partido Liberal Progresista, Guatamala City.

"For your indices," notes Baker Young, Parma, Idaho, "here are two more stations which will verify reports for return postage: KYOS, 1040 kcs, Merced, Calif., and KVCV, 1200 kcs, Redding, Calif. KVCV, incidentally, told me that they were printing up some attractive verification cards."

Daytime Reception

From time to time readers have brought up the subject of DXing in daylight. Because of the freakish behavior of broadcast band signals during the daytime, it has been difficult to determine just how far it is possible to hear at that time.

There is no doubt but what really incredible distances are covered under unusual conditions, and reception of powerful stations as much as a thousand miles away is frequently reported. In fact, according to some reports, there are spots in Minnesota and the Dakotas where stations from coast-to-coast may be dialed during the early afternoon. But such reception is not usual and the average listener may well be satisfied when noon-time dialing brings in transmitters more than three or four hundred miles away.

"Recently I tried to see how many stations I could hear in the daytime," submits Stephen Mann, 1281 Ramona Ave., Lakewood, Ohio. "Using a 10-year-old General Motors 8 tube receiver, with an inverted-L aerial 20 feet long and 15 feet high, I logged 56 stations between 1 and 4 p. m., EST. Beginning at 550 kcs and ending up at 1510, I heard WGR, WKRC, WKBN, WCLE, CFCO, WMAQ, CFRB, WLW, WGN, CFPL, WJR, WBBM, WHAS, CBL, WKAR, WLS, WENR, WMMN, WBEN, WWI, WICA, CRCY, KDKA, CHML, CKLW, WTAM, CKOC, WJJD, WHAM, WWVA, WOWO, WTOL, WHBC, WJW, WCAE, WXYZ, WHIO, WJAS, WEXL, WADC, WSPD, WHLS, WBNY, KQV, WHK, WBCM, WHIS, WMBC, WBNS, WGAR, WKBW, WWSW, WJBK and CKCR. The weather was clear and the temperature about 70°. All of the stations were loud enough to take down a complete report. Although this is not exceptional daytime reception, it shows what can be done with an old set and a small aerial."

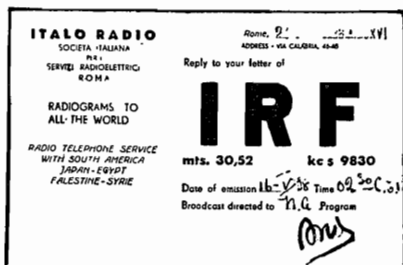
"The other noon I tried to see how many stations I could hear," recalls A. M. Hankins, 1006 Ligonier St., Latrobe, Pa., "and scanned the dial from 540 to 1550 kcs. A total of 47 stations could be heard, although not more than half of them were very clear."

"Just a line to let you know how pleased I am with my new Model 12-S-232 Zenith receiver," proclaims George Tonison, 714 McAllister St., San Francisco, Calif. "It is the most

sensitive and selective set I have ever owned. Distant stations come in on each side of all our local transmitters."

DXing with Two Tubes

"I haven't been DXing as much as I should," admits Frank Macedo, 1011 Burdette Ave., Victoria, B. C., "but the old bug seems to get me every winter and I always spend at least a month in harness. I am still using my old two-tube regenerative receiver, and I wouldn't trade it for



This IRF card is reproduced through the courtesy of J. R. Hahn.

any of the multi-tube jobs you could offer. That may sound foolish, but here is the reason:

"In 1932 I heard my first TP—good old 2YA. I thought this was the height of success, but that year brought a regular invasion of Japanese station. I verified the big 10-kilowatt JOAK, JOIK, JOFK, JOHK, JOCK and JOGK; the 3000-watt JOJK; and the 500-watt JOTK, JOLK, JOPK and JQAK. I also verified XGOA, being one of the first to hear it over on this side. Two other lucky catches were the 3000 watt ZBW in Hong Kong and 8WMC, a 500-watt in St. Johns, Nfld.

"One of my rare veries was from RXXR, the famous transmitter located on the S. S. City of Panama. Shortly afterwards, I got HHK in Santo Domingo, followed by HIX in Port au Prince; HJI, Bogota; WNEL and WKAQ in Puerto Rico; and a fine diploma from LR5. My other Argentine verie came from LR1, heard on a regular broadcast.

"Trans-Pacific stations were always fascinating, and I have spent many hours tuning the elusive Aussies and Zedders. To date, I have verified six stations in New Zealand—2Ya (then using 5000 watts), 1YA, 3YA, 4YA, 2YC and 1ZB. In Australia, I have a total of 19 veries, including 3AR, 3LO, 4QG, 4RK, 2BL, 4BC, 4BH, 6WF, 3UZ, 2CH, 7UV, 4BU, 2GF, 2LM, 4IP, 2WL, 4AY, 2KO and 4BK. Several of these were 500-watters and three—4BU, 2GF and 4IP—used but 100 watts.

"On this continent, there have been several good catches such as KFPM with 15 watts, WTRC and WEXL with 50 watts, and 100-watters from all over the Midwest and Southwest.

"All of these were heard on my two-tube receiver. Some of them were only heard once, while others pop up every once in a while. At any rate, I wouldn't part with my set for anything in the world—and I think you will agree that I have good reason."

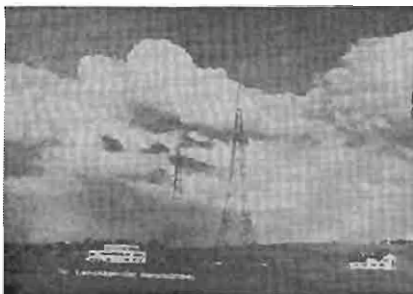
Unsatisfactory Veries

Many DXers have been complaining in recent years that the stations are issuing verifications which are decidedly inferior in quality as well as quantity. Typical complanit is that made by J. W. Brauner, 17 E.

Spring St., Williamsville, N. Y.

"The replies received today do not compare with those of a few years ago," he writes. "I find that at least two reports are required before you get any kind of a reply, and half the time that reply will be but a few words typed on a post card. Eight or ten years ago, a report usually brought a personal letter. I know that I, for one, am about ready to discontinue reporting to stations on the broadcast band. In fact, if I didn't have a large collection of Ekko stamps, and desired to keep it up to date, I would have stopped already. A verie is needed to get a stamp, so I spend hours writing out my reports (usually a full page of data), enclose a three-cent stamp, and then wait in hopes of a reply. As a typical example—in April I reported to WGAU, in May to WBRK, KWOC and KFAM, in June to WGIL, and in July to KPAB. To date, KWOC has verified with a typed post card and WGIL with a nice letter. The others have not as yet replied."

It is true that many stations today all but ignore the DXer in search of a verification. In some cases, the fault lies with the DX fraternity as a whole, because of the many listeners who persist in violating all the rules of the game. Instead of intelligent reports with an enclosure of stamps for a reply, the stations are receiving blunt demands for a verie, frequently written on post cards with no provision for return postage and containing little information which can be used by the stations. When broadcasters do not have the facilities for prompt handling of the DX mail, as is usually the case with many of



Radio station Beromunster, in Switzerland. Using 100 kilowatts, this powerful station works on 556. kcs. and has been heard in the United States.

the small hundred-watters, the original reports are followed up by insulting letters with all manner of threats in case the verie is not forthcoming immediately. Small wonder that existing stations frequently become disgusted with the high-handed tactics of some night owls.

Furthermore, many new stations go on the air with engineers and office staff recruited from other broadcasters. If the personnel had unfavorable opinions of DXers from previous contacts, it is likely that listeners will receive small consideration from the new station. And so it is that a few unfortunate experiences with DXers at one station can sour an official to the extent that he will carry the prejudice to other broadcasters and create a definitely cool attitude.

It is really too bad that the actions of a few inconsiderate night owls can bring the whole DX fraternity into disrepute, yet such has been the case time and again. When stations become lax with their replies and even ignore DX mail, it is up to organized DXing to bend over backward in an

attempt to re-establish friendly relations. This requires missionary work of the highest caliber, one which is perhaps best suited to a special committee of a radio club.

While it is true that a typed post card is not nearly as satisfactory a verification as a personal letter on a station letterhead, DXers have no real kick. After all many stations must keep expenses down to a minimum and it is a real concession when they take the time and money to issue even a post card verie.

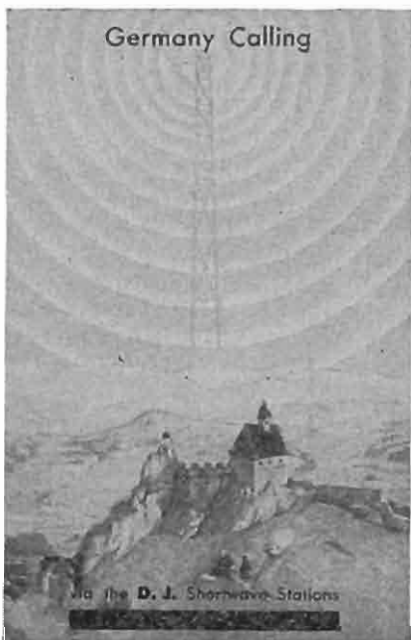
In this connection, however, it is worthwhile to suggest a bait to which not a few stations respond. The enclosure of a stamped, addressed envelope with a report frequently brings a personal letter on a letterhead, whereas mere postage would bring a card.

Gets His Veries

One listener who has had really remarkable success in verifying his catches is Joseph J. Becker, Sr., 415 S. 11th St., Hamilton, Ohio.

"It has been a long time since I wrote in to you folks," he admits, but the old Hamilton Night Owl is still in the DX game and I consider it my No. 1 hobby. I have been at the game since March of 1930 and on the broadcast band I have heard 1152 stations, of which 1148 are verified. Only KYSM, WHLS, KDNT and KXOK have reports still out, so there is a swell chance to make it one hundred per cent verified.

"I am still using my Model 318 8-tube Atwater Kent receiver, my aerial is the same inverted-L that I put up eight years ago, 90 feet long and 35 feet high.



This pretty card verifies reception of the German shortwave stations. The aerial is dark green, and the radiations light green. This picture in the foreground is in natural color—purple mountains in the distance, and green slopes surmounted by a red-roofed castle. (Courtesy of J. R. Hahn).

‘The new season will soon be going full tilt and I’m hoping that we DX hounds will get a break from the weather and atmospheric conditions. Can’t help but wonder if any more all-nighters will come on the air during the fall and winter. They certainly drive us to distraction and I wish something could be done about them.

‘About two years ago there were only 12 active BCB stations in the United States which I hadn’t verified. However, since the FCC got busy and handed out so many construction per-

mits, I now need 64 stations to complete the country. Of course, some of these are not as yet on the air.’

‘The old fingers are starting to itch for the dials once more,’ observes Fred Burleigh, 142 Converse Ave., Meriden, Conn., ‘and it won’t be long before the stations start to roll in again. Was tuning near the top of the dial at 8:12 p. m. tonight and ZNS, Nassau, was coming through R6-7.’

‘Well, I soon will have the old cans on my ears once more,’ promises John J. Oskay, R. D. 1, Box 179, Piscatawaytown, New Brunswick, N. J. ‘At present I am getting ready for the new season and will be starting right on time. I expect to have a new antenna soon—a V-type with the apex pointing North, the lead-in taken from one leg at the South end, and a total of about 125 feet of wire. A new ground was installed recently, and I have a base plug arrangement for a plug-in aerial and ground system. I am planning to get a new receiver soon—perhaps an RCA 155 9-tube communications job. I will then have three sets in use in case of a break-down—two A. C. sets and a battery model in case the power should fail some time.

‘I think we are going to have an exceptionally good DX year. In June and July of this summer, there were several occasions when the West Coast stations came in very well. In the middle of August, I found one Sunday morning when DX weather was just about perfect and practically everything on the air was coming in. KFI, KNX, KSL, KOA, KFVD and KFAC were pounding in mid-winter style—the first four being R9 and the

latter two R6-7. The Mexicans have been knocking the phones off my ears and the Cubans are knocking off the locals as early as 8 p. m. Looks good to me!"

Radexers Report

"I have just lately settled down to real DXing," advises Stanley S. Troth, Box 182, Phillips, Texas. "My first entry in the log was made on July 28th of this year, and since then I have heard 69 stations on the broadcast band. One of my best catches is XEAO at Mexicali, B. Cfa."

"At present I am attending Rensselaer Polytechnic Institute," writes Robert Koppelon, Hearne 24, Ave. B, Troy, N. Y. "I am using a four-tube Philco which isn't very selective, but is quite sensitive. An aerial 150 feet long is necessary to receive the New York stations, the three locals here not providing satisfactory day-time programs. I can receive any of the larger New York stations during the day, as well as the more powerful stations in Connecticut and Massachusetts. These come in with local volume. Stations such as WNEW and WINS are close behind. Stations as far West as WHO have been heard at noon, while WLW is regularly received. The best before-sundown catch so far is WAIR behind WNEW, while stations such as WBRB, WJTN, WEBR, WKAV, WNBF, WMEX, WFAS, WCAM, WTNJ, CJCB, WGNY, WTHI and WIBX are heard frequently. During the evening, I can hear stations at every point on the dial. Not bad for a four-tuber!"

"I started DXing in 1936," submits Nicholas R. Evangelista, Box 96, West Hamburg, Pa., "and my log

now shows more than 600 stations heard, with 320 of them verified. Some of my better catches are KLS, KHJ, KVOD, KID, KANS, KOH, KLAH, KDLR, KWJJ and KWSC in the United States, and KGMB, KGU, LRI, JOSK, CMGE, TGW and ZNS in other countries. All of these listed catches have been verified with a six-tube 1935 Silvertone battery receiver."

"DX hasn't been so bad after all," admits Edward Hirsch, St. Albans, L. I., N. Y. "I checked over the verifications received up to date, and they number well over 40 to bring the total up to 268. The greatest thrill of the past year was to receive cards from Spain and Switzerland the same morning. Reception has been fair, with KNX, KSL, WAAB, WWL, WHO and others roaring through a terrific bombardment of static. I am looking forward to a gala season soon."

"Although I started DXing more than two years ago," offers Robert Craddock, 1207 Idylwild St., Houston, Texas, "my log is still comparatively small—only 142 stations heard and about 33 veries. Some of the best catches includes TGW, XEMO, WCAU, WBZ, KFI, KSTP, XEFO, WJSV, WTIC, WJR, WBAL, KDKA, WCCO, WISN, WRVA, CKLW, WHAM and KNX. My receiver is a four-tube midget, so this record isn't so bad.

"Recently I listened for half an hour to a station which announced as KICE in Kansas City. It came in where I usually hear KXBY. Also, a friend who recently visited Houston from Oklahoma City said that there was a new station in that city, although I can find none listed. Can

you help me identify either of these?"

The station in Kansas City actually was KITE, the new call for KXBY. We have no record of a new station in Oklahoma City.

"I have been DXing since the beginning of radio broadcasting," reminds Joseph T. Lippincott, Box 2, Tufts College, Mass. "I built simple crystal sets, and then up to three-tubers, between 1920 and 1927. I never verified stations then. However, in 1935, I started listening on a five-tube set, and then in the fall I got a Hallicrafters seven-tube model on which I really started to DX. My first foreign catch was Fecamp, but I didn't try for other TA's at first. Since then, I have been more active and have learned much. My log now includes 41 TA's (most of them heard last winter), about 12 or 15 SA's, and a like number of TP's. Among the better veries are Klagenfurt, Rennes, Paris, 3YA, LRI, LR5, PRF3 and TIPG. Fifty-two of my veries are more than 2000 miles distant, while the total stands at 379 verified. Many reports are still out and I have hopes for the best."

Latin Americans Lax

"I don't believe it best for DXers to send reports to Latin American stations," states Clifford Drain, 617 Camden St., Parkersburg, W. Va. "At best, they are unreliable. Some of them verify and they sure put gray hairs in your head. I have reports out to about thirty of them and don't expect confirmations from more than half—and that is a rather high estimate. It certainly is disappointing that stations such as HJ1ABJ and HJN failed to verify for me. They would have made new additions to a

verified log which included LR1, LR3, LR4, LR5, LR6, LS2, YV1RC, CP4, CX26, 1YA, 4YA, 2BL, KGU, KGMB, Berlin, Frankfort, Leipzig, Trieste, Turin, Milan, Bordeaux, Poste Parisien, Rennes, Radio Normandie and CT1GL."

Failure of foreign stations to verify reports undoubtedly will remain a thorn in many a DXer's side, and the Latin American stations seem to have a reputation for their disregard of letters from DXers. Apparently there is little to do about the situation, and the listener's one resort is the "try and try again" formula.

"My BCB log now stands at 802 stations heard, about 725 verified, and reports out to several," advises Jim Walker, Box 206, Romney, W. Va. "The best DX so far is the 50-watter KRKO as well as KHBC, KGU, KGMB and several Europeans. No TP's as yet! The old RCA is about worn out after four and a half years of steady DXing. Veries finally came in from WHJB, WIP, KFAB, WFBG and WLVA, but none from KSOO, WPG, WSAY or WHN."

"Some of the stations heard on my five-tube set," postcards Bob Vernon, 1125 34th St., Sacramento, Calif., "are WSB, WOR, WJR, WGN, KTHS, CJRM and KFYZ."

"Heard KOH in Reno the other day to complete the list of states heard," mentions Richard Wright, 5762 Harper Ave., Chicago, Ill. "A card from WDEL leaves but two states for me to have at least one varie—Maine and Nevada."

"Since August 1st I have been doing quite well on the broadcast band," reports Leon Grossman, 52 O.K. Terrace, Rochester, N. Y. "Despite heavy static and interference, I have logged WDAF, WMC, WSPR, WBRK, KANS, XEBG, WIBW,, WEBQ, KGFJ and KGHI. This raised my total heard to 259."

"Reception here this summer has been nearly as good as in the past couple of winters," asserts John D. Chamberlain, 190 Gregory Hill Rd., Rochester, N. Y. "This makes me believe that we have a real DX season ahead of us. TGW on 1520 has been coming in quite frequently during the summer months. WSAY in this city has been using 250 watts daytime, 100 watts nights, and is now on a regular schedule until 12:30 a.m., EST, daily."

Logging Stations

DXers have used many methods in increasing their total of stations heard. They have logged everything within range during daytime hours. They have combed early-evening frequencies, roamed the midnight airlines for special DX and test programs. But a new wrinkle is brought forward by H. E. Ziegler, Jr., 2 Cedar Lane, Merion Sta., Pa., who has had no little success by concentrating on election reports from states where primaries have been run.

"The recent elections in Illinois and Arkansas have been good for several new catches," he reports. "I found several stations broadcasting late returns and have logged, among others, WDWS, KLRA and WROK in this manner. WSFA has been heard almost every night with a description of a ball game.

"Before last season started, my BCB log stood at about 200 verified. Now

it shows 470 out of the 700-odd stations in the United States, which is a pretty fair increase. My best verie to date was in the form of a beautifully engraved letter from CKTB, St. Catharines, Ont. The West Coast stations have been better than the previous year, with several such as KEX, KGER, KMO, KFPY, KGA and KHQ coming in very well."

The erection of the new station at Kenora, Ont. has commenced. It will have the call letters CKCA on 1420 kcs. Studios will be in the Hotel Kenricia.



Believing in preparedness, Lucille Wall, NBC dramatic actress on the "Your Family and Mine" program on the NBC-Red Network, has already selected her first Fall hat. It has the newest of high crowns and is made of homespun wool in bright red, yellow, gray and white.

Questions from Puzzled Readers

● ● ● By THE TECHNICAL EDITOR

Dial Is Off

I HAVE A 116 PHILCO. WHEN THE SET IS HOT, THE DIAL IS OFF 5 POINTS, BUT THIS HAS GRADUALLY INCREASED IN 5 MONTHS UP TO ABOUT 8 POINTS. FOR INSTANCE, 15.20 NOW COMES IN AT 15.28 ON THE DIAL. A RADIO SERVICEMAN SAYS HE CAN FIX IT AT \$1.50 PER HOUR FOR SEVERAL HOURS. BUT ANOTHER MAN SAYS ITS NO USE TO ADJUST THE DIAL, AND THAT THE TROUBLE MAY CORRECT ITSELF WHEN WINTER COMES.—G. S.

Answer. We think that you are fortunate that your set has not drifted off its stated dial readings more than 8 points, for from your interpretation, it seems that the reading is just 8 kilocycles off. However, a set has no reason to leave its fixed tuning position gradually through the months unless something is wrong, either mechanically or electrically.

In some cases we might suspect the dial. All-wave dials are complicated, and the tuning is so sharp on the short waves that a very tiny slippage of the dial on its shaft will turn out to be many kilocycles off the regular tuning. Perhaps the dial set-screw is not firmly screwed in place, or the dial has become forced against the stop at the end of its movement and causes strain.

Trouble in the oscillator, or failure to "track" properly, is electrical. If this is the case, we suggest that you take the receiver to a competent service man. As to the charges made, we can not say whether they are too high, since there are often certain circumstances which govern these cases. We suggest however that you take the set

to the shop and have the work done there rather than in your home.

Set Fell Down

MY PHILCO 630X WAS ACCIDENTALLY PUSHED OFF A TABLE ONTO THE FLOOR. ALL THAT SEEMED NECESSARY WAS TO REPLACE THE SLOW MOTION KNOB FOR SHORT WAVE TUNING. BUT MORE RECENTLY I HAVE REPLACED THE VOLUME CONTROL WITH A NEW ONE. NOW, WHEN THE CONTROL IS SET TO THE MINIMUM POSITION THE VOLUME IN THE SPEAKER IS STILL AUDIBLE. THEN, WHEN THE CONTROL IS IN THE MAXIMUM POSITION THE VOLUME FROM THE SPEAKER IS NOT NEARLY AS LOUD AS IT USED TO BE. THE SPEAKER CONE WAS ALSO REPLACED RECENTLY.—H. G. F.

Answer. It appears that the severe jolt this set received when it fell either damaged or bent some part or opened a circuit. This could be in the volume control circuit. Since you replaced the control it is assumed that the proper value was used. A Yaxley TRP608 control of 1 megohm tapped at 200,000 ohms is suitable if you cannot get a factory replacement easily. One terminal must be grounded to the chassis.

Damage to the speaker cone would not account for the control not silencing the set entirely when on the minimum position, and it looks as if your new replacement was not of sufficient resistance. We suggest that this be examined by a competent serviceman who can check all the voltages at the tube sockets, speaker and control. If damage has been done to a transformer or the speaker it will be

indicated, but if damage was done to the tuning circuits such would be noticed at once in the tuning of the set.

Shortwave Adapter

I AM INTERESTED IN OBTAINING INFORMATION ABOUT THE FLEWELLING SHORT WAVE ADAPTER, AND HOPE YOU CAN GIVE ME DATA ABOUT IT AND HOW IT IS USED. IF YOU CAN SUPPLY THE CIRCUIT, IT WILL BE APPRECIATED.—R. W.

Answer. The Flewelling short-wave adapter, like most of those earlier types, consists of a small short-wave receiver.

Shortwave adapters are seldom used today. If a person owns a broadcast receiver having only the one dial and band, the short waves can be picked up more satisfactorily by means of the short-wave converter. This is a short-wave receiver, too, like the adapter, but it has an additional oscillator tube so that the high frequencies of the short waves can be heterodyned with the oscillator and reduced in frequency to some wave length that falls within the tuning range of the broadcast set. Frequently this output frequency of the converter is approximately 600 kcs. We regret that we do not have specific data on the Flewelling circuit and adapter. Information about short-wave converters can be found in these columns in preceding issues.

Charging Storage Cells

WE HAVE A 250 VOLT DIRECT CURRENT LINE AT OUR PLACE AND I WOULD LIKE TO KNOW HOW TO CHARGE STORAGE BATTERIES FROM IT. IF YOU CAN TELL ME IT WILL BE A BIG HELP.—B. J.

Answer. Charging storage batteries from high voltage direct current lines is a relatively simple matter. Of course, a storage battery, as usually assembled in three cells, has a potential of 6 volts. If this were connected to the 250-volt line, it would be almost a dead circuit, and must not be done. Now, the charging current for a storage battery can vary between 1 and 5 amperes an hour, the lower rate require many more hours for charging. A 100-ampere battery will require about 100 hours or more to charge it fully.

We suggest that you obtain sufficient light bulbs so that when in series the total 250 volts, or you can procure a 250-volt bulb from the larger electrical supply houses. If these bulbs equal 250 watts that means they will pass a current of one ampere. Connect the bulb in series with the storage battery, and when the power is turned on a current of one ampere will pass through the battery to reach the lamps. If more current is needed to charge the battery, then you must connect a second set of similar lights in parallel to the first lamps, and this will double the amperage flowing through the circuit. Be sure the positive and negative terminals of the lighting circuit are attached to the same posts of the storage battery.

Set Plays Without Tube

I HAVE A MIDWEST RADIO WITH 18 TUBES. I CANNOT GET A SOUND ON THE ULTRA SHORT WAVE BAND, AND WHEN I LEAVE A TUBE OUT OF IT THE SET PLAYS JUST THE SAME AS IF THE TUBE WAS IN THE PROPER PLACE. WHAT PART DOES THIS SERVE IN THIS RADIO AND IS IT NECESSARY?—M. P.

Answer. You have failed to mention the function of the tube which you have removed, but in this set there are four power tubes, two pairs in push-pull. If one of the parallel pair is removed it will have little effect on the performance of the set unless great volume is being used on high notes. The purpose of the pair in parallel is to double the current-carrying capacity to the speaker. Many sets now use this arrangement in order to get high fidelity and perfect reproduction at great volume. It is very likely that you have removed one of these tubes.

The fact that the set does not respond to the ultra short waves does not mean that the receiver is failing properly to work. The very short wave bands are erratic, and it frequently is difficult to pick up signals. If you are concerned with the 5-meter band and lower, it is useless to try it unless some transmitting station is near by. As a rule, these very short waves travel in straight lines, and have the same range as the human vision, but there have been some strange exceptions. We do not, however, expect very much on the very short waves on ordinary radio sets. On the 10-meter and higher bands, of course, your receiver should prove quite effective. The lack of signals on the 10 and 20 meter bands, and other slightly higher, may be due to the failure of the oscillator tube to generate frequencies high enough to bring in these signals. Try a new oscillator tube. Other than that, expert examination of the coils and tuning will be in order.

Television

CAN YOU TELL ME SOMETHING

ABOUT TELEVISION APPARATUS WHICH TRANSMITS SOUND TO A PERSON AND ALSO REFLECTS WHAT A PERSON SEES? I WANT TO KNOW IF THE BEAM IS PLACED ON THE INDIVIDUAL AT A DISTANT POINT SO THE PERSON CAN SEE HIM. THIS IS NEEDED FOR SOME EXPERIMENTAL WORK I WISH TO DO.—
E. O. E.

Answer. So much is being done on television at the present time that in order to go into it one would need to write a book. We suggest, therefore, that you inform yourself of what has been published and make a study of these texts for your guidance. However, we think the best publication you can get just now, which covers recent developments, is the book "Television," published by the RCA Institutes Technical Press, 75 Varick Street, New York, N. Y. It is in two parts, No. 1 and 2, and perhaps part 3 is soon forthcoming. Inquiry to the above address will bring you information about costs.

Rebuilding Old Set

I HAVE A GENERAL MOTORS MODEL 140A RECEIVER WHICH I WISH TO REPAIR OR REBUILD INTO A SUPER-HETERODYNE SET. IT NOW HAS A TERRIFIC HOWLING AND THE VOLUME CAN NOT BE TURNED UP ON ANY DISTANT STATION. WITH LOW VOLUME LOCALS CAN BE HEARD BUT WHEN TRYING TO GET DISTANCE IT STARTS OSCILLATING. WHERE CAN I GET A DIAGRAM OF THIS CIRCUIT?—
A. T. S.

Answer. In the first place we suggest that you forget the idea of rebuilding this set into a modern super-heterodyne. It would be difficult, require many replacement parts, and

still give certain troubles. It would not be worth the labor and expense. However, the set could be put into first class condition so it can be used as it is.

Oscillation or howling in these sets has been characteristic. Perhaps if you were to install a 25,000 ohm resistor, small size, between the screen lead or socket contact of the third radio-frequency tube and the chassis, this oscillation would be checked. Bad contacts, of course, always start noise in these sets. Look for dirty or imperfect contacts in the rotating unit of the condenser-gang. Tight, clean contacts are urgently necessary. Look for loose screws and fastening in and around the tuning condenser gang. Clean all parts. Check all joints and re-solder any that may seem worn or loose. For the poor control of volume it might be well to replace one or all type 24 tubes in the r-f stages with the more efficient type 35, providing, of course, that the volume control is good. You can replace this control with a new "Yaxley", type DRP309, which is a dual control, carbon type, having 12,000 ohms in one section and 65,000 ohms in the second section. Sometimes, an entire new set of resistors in a noisy set has effected a cure. We are sorry, but a circuit diagram of this receiver is not available, and the present address of the "Day-Fan" makers is unknown.

Crescentyne Radio

I HAVE A CRESCENTYNE RADIO THAT WAS VERY EXPENSIVE WHEN ORIGINALLY PURCHASED. CAN YOU SEND ME A WIRING DIAGRAM SO IT CAN BE OVERHAULED AND PUT BACK INTO THE SHAPE IT USED TO BE? IF

YOU CAN GIVE ANY ADVICE ABOUT REPAIRING THIS SET, IT WILL BE WELCOMED.—W. M.

Answer. You might try writing the Crescent Radio Mfg. Co., 3026 32nd Avenue S, Minneapolis, Minn. This is the only record we can find of the makers of a set with name similar to yours. Years ago there were many manufactures of radios in local areas, and data records of their products did not reach the files of radio associations. Therefore, we are unable to furnish you with a circuit diagram. If the set is as good as it appears, a good cleaning and testing of the voltages on the tube sockets to discover whether defects exist in the transformers, tubes, coils, resistors and condensers, will get it in shape to have a new alignment and adjustment made by a competent service man.

Power Consumption

I WOULD LIKE TO KNOW THE POWER CONSUMPTION OF MY VICTOR R52 RECEIVER. I BELIEVE THAT THE POWER OUTPUT IS ABOUT 3.2 WATTS, BUT AM NOT SURE.—C. E. S.

Answer. This receiver has ten tubes; six of which are 26s, one is a 27, two are 45s, and one is a type 80 rectifier. The power needed to operate these tubes at normal consumption is actually 28 watts. In addition, each tube, in its plate circuit, consumes a certain number of watts. These added together give us about 12 watts, and this includes an output in the power or audio circuit of about 3 watts. Altogether, we have about 40 watts. Losses, due to inefficiency of transformers, heat dissipation from resistors, tubes, etc., will

(Please turn to page 42)

Across The EDITOR'S DESK

IN response to popular demand, we are listing, in this issue, all the broadcasting stations of the world. This is a departure from our usual custom of indexing the stations of only one continent each month, but we believe that this complete directory will prove even more useful than the continental rosters. While the list shows only those stations which use one kilowatt or more of power, we do not believe its value has been lessened by the omission of the smaller stations. All the smaller stations are shown, or will be shown, in the continental lists.

Although the foreign broadcasting station index this month is world-wide in scope, the accent in November is on Europe. Articles by Mr. Lord and Count de Veries point out the Europeans which are most likely to be heard, and give pointers on how to hear and identify some of them. All of our readers who are provided with a radio set in good condition, and a decent aerial, should hear at least one overseas broadcaster during this season if Mr. Lord's instructions are carefully followed. Readers who missed our October issue should be sure to get one, and read Count de Veries column, which explains in great detail, the major points of the Art of Tuning.

Return Postage Bureau °

From a monetary standpoint, we believe that DXing is the least expensive of all hobbies. Nevertheless, for some DXers at least, the cost of verifying stations is a considerable item when one invests in 5 cents for foreign postage, and 9 cents for an International Reply Coupon, for each confirmation requested. For this reason, the Return Postage Bureau was formed, to save

radio fans as much as possible on their postage bills.

The Bureau offers unused postage stamps from many of the foreign countries, at prices but slightly above the face value. These postage stamps can be sent, instead of International Reply Coupons, when requesting verifications. The prices are shown below:

- 3 cents each: Canada, Cuba, Dominican Republic, Mexico.
- 4 cents each: Belgium, Chile, England, Irish Free State, Northern Ireland, Switzerland, Peru.
- 5 cents each: Antigua, Barbados, Colombia, Costa Rica, Netherland, East Indies, Egypt, Haiti, Jamaica, Panama, Newfoundland, Philippines, San Salvador, Trinidad, Uruguay.
- 6 cents each: Australia, British Honduras, British Guiana, Algeria, French Morocco, France, Denmark, New Zealand, Poland, Roumania, India, Bahamas, Northern Rhodesia, Bermuda, Southern Rhodesia, Argentina.
- 7 cents each: Union of South Africa, South West Africa, Sweden.

The Bureau will pay the postage on orders in excess of 50 cents. Their address is the Return Postage Bureau, 85 Francisco Ave., Rutherford, N. J.

Radio Clubs

Radio Clubs are invited to send us information about special programs which they arrange in advance. This information will be printed, and fully credited to the proper clubs, in our DX Calendar. Data on special programs can be included in our calendar up to the tenth of the month preceding date of publication. That is, information for the December issue can be used if



Station KWG of Stockton, Calif. uses this card to verify reception of their station. KWG transmits on 1200 kcs., and employs 100 watts of power. (Card by courtesy of A. C. Tarr).

received by November 10th, which is the date on which our December issue will go to press.

Going to press on the tenth of the month, and in the mail on the 20th, RADEX is only ten days in the hands of the printers and binders. This, compared with thirty days for most magazines, makes RADEX the first with the news, every month.

Television

Talk about television comes in cycles, like the sun spots. When the National Broadcasting Company ceased their experimental transmissions, thoughts of television ebbed away and we almost forgot there was such a thing. But now, with the NBC resuming their regular experimental broadcasts from the Empire State Building, and the announcement of a new television set, comes further word of a new invention by Vladimir Zworykin, an invention which promises to do away with the need for the expensive coaxial cables, now necessary for transmission of picture over large areas. This new development, it is reported, allows the transmission of ultra-high

frecuencie over distances beyond the range of normal vision; at the present time it is not considered possible to transmit television beyond twenty-five or thirty miles, or about as far as a person can see from a high point, such as a mountain top, or a tall building.

International Communications

A Division of International Communications has been formed, as a part of the State Department. This Division will have the task, among other things, of drafting treaties with foreign nations on aviation, shipping, radio, movies, telegraphs, telephones and cables. We naturally have cause to wonder how much this new division is going to effect the Federal Communications Commission, particularly as regards international broadcasting. We hope that the present short wave set-up in this country will be allowed to remain unchanged.

Keeping Awake

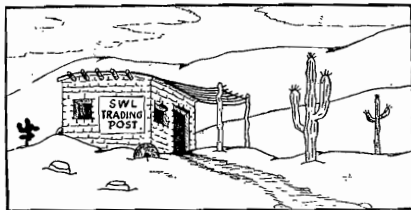
How do you keep awake when tuning for elusive DX in the wee hours of the morning? Some of us drink coffee—lots of coffee—in our endeavor to keep our eyes open between station announcements. Some DXers read, others write letters, and some are lucky enough to hear a parade of new stations that is interesting enough to make them forget about sleep. If you have any "pet" scheme for staying awake while the DX is dull, we should like to hear about it.

Thanks

For photographs used in RADEX this month, we thank the following contributors:

Jerry Hahn, A. C. Tarr, Landes-sender Beromunster, Radio Rennes, Arthur M. Hankins, Ray Sahlbach, Amando Cespedes Marin, Reichssender Frankfurt, Station WGY, and the Helsinki radio station.

Everyone who submits a photograph which is used receives a free copy of the issue in which the picture appears, or if he is a subscriber, his subscription is extended an additional copy.



Leo Sobeleski, 406 N. Second St., Minersville, Pa. (SWL cards).

J. I. Vaught, Box 1424, New Orleans, La. (SWL cards).

Merton M. Hiatt, Box 7, Dryden, Wash. (SWL cards).

Jack Wells, 1000 14th St., Phoenix City, Ala. (Exchange cards and newspapers with foreign listeners).

Joseph J. Becker, Sr., 415 S. 11th St., Hamilton, Ohio (SWL cards).

Ivan Witty, 18 Park St., Lynn, Mass. (SWL cards).

Wm. Gillman, 717 Melvin Ave., Cuyahoga Falls, Ohio (SWL cards).

Roy DeMent, Box 206, Plainview, Texas (SWL cards).

David Hill, 1516 Varnum St., N. W., Washington, D. C. (SWL cards).

Gordon Myles, Court House, Water St., Kenora, Ont. (correspondence).

George Poulain, 67 Mt. Pleasant St., Sydney, N. S., Canada (SWL cards).

Denison Champlain, 7 Washington Ave., Westerly, R. I. (correspondence).

Kenneth F. Murphy, 3 Harvey St., St. Johnsbury, Vt. (correspondence).

Amateur Calls Heard

The names and addresses of persons reporting stations shown in this list are indicated by small letters following the call signs. Key to the small letters is given at the end of the column. Stations are listed only if reported by more than one listener.

TEN METERS

CO2KL (*u*); G2KU (*u*); G6BW (*u*); HI7G (*ru*); HR5C (*r*); K4EJF (*r*); K4ENT (*u*); K4FAB (*r*); K4EZR (*u*); K4SA (*gu*); K4EIL (*g*); K4EMG (*g*); LU1DJ (*ru*); LU4AD (*r*); TI2FG (*r*); TI3AV (*u*); VK2GU (*r*); YN3DG (*ru*); YV1AP (*ru*); YV5ABY (*u*);

TWENTY METERS

CN1AF (*bgssu*); CN8AM (*nur*); CN8MU (*nst*); CO2HS (*fgl*); CO2LY (*bf*); CO2WM (*efu*); CO6OM (*fk*); CO7VP (*fgu*); 608BC (*fu*); CO8RQ (*gpu*); CT1AY (*nr*); CT1ZA (*rt*); C.2AK (*fr*); EA9AH (*bcou*); EI2L (*cglistu*); EI6G (*fgm*); FA3HC (*st*); F3DI (*st*); F3LW (*pt*); F3MF (*nr*); F3OX (*stt*); F8UE (*bnt*); GM6RC (*bmr*); GM6WD (*ru*); GM8MN (*bcmr*); GM8RG (*lm*); GM5TJ (*mu*); G2AI (*amru*); G2HK (*bmu*); G2MF (*fm*); G2PU (*mru*); G2TR (*grt*); G2UT (*aru*); G2XV (*ptu*); G3BM (*br*); G3FA (*mru*); G5BJ (*efmru*); G5BM (*bmtu*); G5LU (*ru*); G5LW (*ru*); G5ML (*afgmu*); G5NI (*jmp*); G5QN (*ptu*); G6BW (*bu*); G6GF (*bm*); G8CL (*bm*); G8IX (*bru*); G8UJ (*gru*);

HC1FG (*kprru*); HC1JW (*adu*); HC1PZ (*fu*); HC2HP (*crs*); HH2PB (*pr*); HH4AS (*su*); HH5PA (*bfpru*); HI3N (*fbu*); HI5X (*fbpru*); HI7G (*eflopr*); HK3LC (*brsu*); HK4AG (*fb*); HR2A (*ru*); HR5C (*gr*); KA1ME (*dkt*); KA1MG (*ad*); KA2OV (*ast*); K4FAY (*ru*); K6FKN (*su*); G6GAS (*acq*); K6MTE (*ar*); LU4BC (*dmru*); LU4BH (*apu*); LU7AC (*fk*); LU8AB (*bnsru*); LU8AC (*fr*); NY2AE (*cfopu*); ON4AM (*kmmrt*); ON4NW (*nstu*); ON4VK (*ps*); PAOMZ (*bglm*); PK6XX (*drt*); PY1FR (*fbmsu*); PY2CK (*rsu*); PY2ER (*ru*); PY5AQ (*ur*);

SV1KE (*rt*); TG5 (*gru*); TG9AA (*fr*); TI2AV (*dgr*); TI2LR (*gbu*); TI2RC (*apu*); TI2AV (*pru*); VE5ACN (*dq*); VE5KC (*dq*); VE5VP (*dq*); VK2ABD (*ak*); VK2AGU (*ans*); VK2BQ (*adk*); VK2NS (*defrru*); VK2VV (*etu*); VK3EH (*as*); VK3WA (*adn*); VK4JP (*fsu*); VK4JU (*ads*); VK4VD (*aefst*); VP1BA (*gmr*); VP7NS (*su*); VP9R (*fb*); VR6AY (*dfint*); XE1CQ (*fu*); XE1GE (*adf*); XE1GF (*dg*); VJ3AA (*ctu*); VP6FO (*fnu*); VP6YB (*ru*); XE1GK (*du*); XE1LK (*adb*); XE1Q (*cfgru*); XE2IK (*fru*); YV1AP (*hpr*); YV1AP (*hpr*); YV1AQ (*bablu*); YV4AB (*pr*); YV4AE (*fu*); YV5ABA (*su*); YV5ABQ (*ru*); YV5ABY (*mru*); ZS1AK (*ast*); ZS5AW (*as*); ZS5BZ (*as*).

THE REPORTERS

- (a) Elwin H. Covey, Route 2, Box 3540-A, Napa, Calif.
- (b) Robert Davidson, 187 Woodside Ave., Newark, N. J.
- (c) John B. Ewing, 8 Clinton Ave., Montclair, N. J.

- (d) C. J. Fern, Jr., Lihue, Kauai, Hawaii
- (e) Sam Graham, Panhandle, Texas
- (f) A. N. Hankins, 1006 Ligonier St., Latrobe, Pa.
- (g) Robert Hatcher, 3221 Fifth Ave., Richmond, Va.
- (h) Lewis R. Hill, 2138 S. 16th Ave., Maywood, Ill.
- (i) J. Herbert Hyde, Elmwood, Conn.
- (j) E. A. Knoff, 412 Monroe Ave., N. E., Canton, Ohio
- (k) Stanley B. LaRue, 309 So. Bedford Drive, Beverly Hills, Calif.
- (l) Kenneth Morey, 14 Lawndale St., Easthampton, Mass.
- (m) F. J. Morris, 18 Firstbrook Road, Toronto, Ont.
- (n) Geo. Nahas, 147 Seeley St., Brooklyn, N. Y.
- (o) William Scott, 313 W. Halston Ave., Johnson City, Tenn.
- (p) Leo Sobeleski, 406 N. 2nd St., Minersville, Pa.
- (q) Stanley S. Troth, Box 182, Phillips, Texas
- (r) Walter E. Welch, 46 Parkland Ave., Lynn, Mass.
- (s) Jack Welsh, Kingston, Ill.
- (t) Jack Wells, 100—14th St., Phoenix City, Ala.
- (u) Cyrus Will, 651 Brier St., Kenilworth, Ill.



WGY's new building at Schenectady, N. Y. Built in the modernistic style, with decorations in chromium, it is one of Schenectady's most attractive buildings.

Hollywood Studios

The ultra-modern studios of the National Broadcasting Company in

Hollywood opened on October 17. This building is the final link in a chain of new NBC studios stretching from coast to coast. The new building replaces studios on Melrose Avenue which were outgrown in three years.

The new headquarters is a classical modern structure standing at Sunset and Vine. It is three stories high, and eight individual studies comprise this Hollywood Radio City. Because of its flowing lines and ethereal green exterior, it has been called Hollywood's most distinctive building. The green color was chosen, after months of research, because it represented a perfect transition between the green of the surrounding lawns and shrubbery, and the tropical blue of the California sky.

Turkey in November

The new Turkish shortwave station is heard with ease in England, we learn from D. H. Dussek of Alton, Hants., who has heard many of their experimental broadcasts. "Radio Ankara," as it is called, with the call letters TAQ, is expected to begin regular transmissions during the first week in November. It will have a power of twenty kilowatts, and will operate on one of three frequencies—the frequencies used during the tests being 15180, 14770, and 9670 kcs. TAQ has been heard in English with an R8 signal, at 4 to 7 am, EST. There is a woman announcer who uses several European languages for identification, but appears to use only Turkish during the test transmissions. Programs have consisted of recordings.

Mr. Dussek also reports a new Soviet station, RWG on 14720 kcs.

The Monthly Frequency Checks

FOR the purpose of checking the frequencies of small stations which cannot be heard satisfactorily on their regular daily transmissions, the Federal Communications Commission requires monthly monitoring broadcasts from a selected group of stations. Following is the latest available schedule of the test transmissions. All time is am., Eastern Standard.

The Second Monday

3:00-3:15	WABY	1370	Albany, N. Y.
3:05-3:20	WMAS	1420	Springfield, Mass.
3:10-3:25	WCAX	1200	Burlington, Vt.
3:15-3:30	WRDO	1370	Augusta, Maine
3:20-3:35	WAGM	1420	Presque Isle, Maine
3:30-3:45	WQDM	1390	St. Albans, Vt.
3:35-3:50	WMFF	1310	Plattsburg, N. Y.
3:45-4:00	WCAD	1220	Canton, Ohio
3:50-4:05	WLNH	1310	Laconia, N. H.
3:55-4:10	WIBX	1200	Utica, N. Y.
4:00-4:15	WWRL	1500	Woodside, N. Y.
4:05-4:20	WMBO	1310	Auburn, N. Y.
4:10-4:25	KDNT	1420	Denton, Texas
	WBRB	1210	Red Bank, N. J.
4:15-4:30	KPAB	1500	Laredo, Texas
4:20-4:35	KVOX	1310	Moorhead, Minn.
4:25-4:40	KFPW	1210	Fort Smith, Ark.
4:30-4:45	WMIN	1370	St. Paul, Minn.
4:35-4:50	KNBT	1420	Palestine, Tex.
4:40-4:55	WBBZ	1200	Ponca City, Okla.
4:45-5:00	WFGO	1370	Boone, Iowa
4:50-5:05	KRBC	1420	Abilene, Tex.
4:55-5:10	KGHI	1200	Little Rock, Ark.
5:00-5:15	KTEM	1370	Temple, Tex.
5:05-5:20	KABR	1390	Aberdeen, S. Dak.
5:10-5:25	KGEK	1200	Sterling, Colo.
5:15-5:30	KFJZ	1370	Fort Worth, Tex.
5:20-5:35	WMBH	1420	Joplin, Mo.
5:25-5:40	WIL	1200	St. Louis, Mo.
5:30-5:45	WOC	1370	Davenport, Iowa
5:35-5:50	KABC	1420	San Antonio, Tex.
5:40-5:55	KADA	1200	Ada, Okla.
5:45-6:00	KLUF	1370	Galveston, Tex.
5:55-6:10	KHBC	1400	Hilo, T. H.
6:00-6:15	KRE	1370	Berkeley, Calif.
6:05-6:20	KXO	1500	El Centre, Calif.
6:10-6:25	KWG	1200	Stockton, Calif.
6:15-6:30	KERN	1370	Bakersfield, Calif.
6:20-6:35	KUMA	1420	Yuma, Ariz.
6:25-6:40	KVCV	1200	Redding, Calif.
6:30-6:45	KLS	1280	Oakland, Calif.
6:35-6:50	KYOS	1040	Merced, Calif.
6:40-6:55	KSUN	1200	Lowell, Ariz.
6:45-7:00	KGDM	1100	Stockton, Calif.
6:50-7:05	KIEM	1450	Eureka, Calif.
6:55-7:10	KVEB	1200	San Luis Obispo, Cal.
7:00-7:15	KARM	1310	Fresno, Calif.
7:05-7:20	KGLU	1420	Safford, Ariz.

The Second Tuesday

3:00-3:15	WSJS	1310	Winston-Salem, N. C.
3:05-3:20	WMFJ	1420	Daytona Beach, Fla.
3:10-3:25	WAIM	1200	Anderson, S. C.
3:15-3:30	WMFD	1370	Wilmington, N. C.
3:20-3:35	WEED	1420	Rocky Mt., N. C.
3:25-3:40	WJNC	1200	West Palm Beach, Fla.
3:30-3:45	WRDW	1500	Augusta, Ga.
3:35-3:50	WICA	940	Ashtabula, Ohio
	WIOD	610	Miami, Fla.

3:40-3:55	WAYX	1200	Waycross, Ga.
	WBLY	1210	Lima, Ohio
3:45-4:00	WDNC	1500	Durham, N. C.
	WPAY	1370	Portsmouth, Ohio
3:50-4:05	WAIR	1250	Winston-Salem, N. C.
	WMBC	1420	Detroit, Mich.
3:55-4:10	KWOC	1310	Poplar Bluff, Mo.
	WALR	1210	Zanesville, Ohio
	WMFR	1200	High Point, N. C.
4:00-4:15	WHBB	1500	Selma, Ala.
	WKRC	550	Cincinnati, Ohio
4:05-4:20	WFAM	1420	St. Cloud, Minn.
	WGLE	610	Cleveland, Ohio
4:10-4:25	KALB	1210	Alexandria, La.
	WLBC	1310	Muncie, Ind.
4:15-4:30	KELD	1370	El Dorado, Ark.
	WOPI	1500	Bristol, Tenn.
	WWAE	1200	Hammond, Ind.
4:20-4:35	WACO	1420	Waco, Tex.
	WBCM	1410	Bay City, Mich.
4:25-4:40	KXYZ	1440	Houston, Tex.
	WCMI	1310	Ashland, Ky.
4:30-4:45	WSIX	1210	Nashville, Tenn.
	KGKL	1370	San Angelo, Tex.
	WHBY	1200	Green Bay, Wisc.
	WHEF	1500	Kosciusko, Miss.
4:35-4:50	KCMC	1420	Texarkana, Tex.
	WHK	1390	Cleveland, Ohio
	WSGN	1310	Birmingham, Ala.
4:40-4:55	KRGV	1260	Weslaco, Tex.
	WADC	1320	Akron, Ohio
4:45-5:00	KTOK	1370	Oklahoma City, Okla.
	WJBK	1500	Detroit, Mich.
4:50-5:05	KGFF	1420	Shawnee, Okla.
4:55-5:10	KFVS	1210	Cape Girardeau, Mo.
5:00-5:15	KMAC	1370	San Antonio, Tex.
5:05-5:20	KAND	1310	Corsicana, Tex.
5:10-5:25	KLAH	1210	Carlsbad, N. Mex.
5:15-5:30	KIUP	1370	Durango, Colo.
5:20-5:35	KFXR	1310	Okla. City, Okla.
5:25-5:40	KDLR	1210	Devils Lake, N. Dak.
5:30-5:45	KICA	1370	Clovis, N. Mex.
5:35-5:50	KGMB	1320	Honolulu, T. H.
5:40-5:55	KBTM	1200	Jonesboro, Ark.
5:45-6:00	KRMC	1370	Jamestown, N. Dak.
6:00-6:20	KORE	1420	Eugene, Ore.
6:10-6:25	KOOS	1200	Marshfield, Ore.
6:15-6:30	KAST	1370	Astoria, Ore.
6:20-6:35	KPO	1500	Wentachee, Wash.
6:25-6:40	KFXD	1200	Nampa, Idaho
6:30-6:45	KUJ	1370	Walla Walla, Wash.
6:35-6:50	KRNR	1500	Roseburg, Ore.
6:40-6:45	KVOS	1200	Bellingham, Wash.
6:45-7:00	KEEN	1370	Seattle, Wash.
6:50-7:05	KMED	1410	Medford, Ore.
6:55-7:10	KWLK	780	Longview, Wash.
7:00-7:15	KRKO	1370	Everett, Wash.

The Second Wednesday

3:00-3:15	WTEL	1310	Philadelphia, Pa.
3:05-3:20	WNBFB	1500	Binghamton, N. Y.
3:10-3:25	WLVA	1200	Lynchburg, Va.
3:15-3:30	WSAJ	1310	Grove City, Pa.
3:20-3:35	WWSW	1500	Pittsburgh, Pa.
3:25-3:40	WBAX	1210	Wilkes-Barre, Pa.
3:30-3:45	WHAT	1310	Philadelphia, Pa.
3:35-3:50	WRTD	1500	Richmond, Va.
3:40-3:55	WBBL	1210	Richmond, Va.
3:45-4:00	WBNY	1370	Buffalo, N. Y.
3:50-4:05	KWEW	1500	Hobbs, N. Mex.
	WHIS	1410	Bluefield, W. Va.
3:55-4:10	WKOK	1210	Sunbury, Pa.
4:00-4:15	WFBG	1310	Altona, Pa.
4:05-4:20	KRIC	1420	Beaumont, Tex.
	WGIL	1500	Galesburg, Ill.

4:10-4:25 WQAN 880 Scranton, Pa.
 KWNO 1200 Winona, Minn.
 WHDL 1400 Olean, N. Y.
 4:15-4:30 KRIS 1330 Corpus Christi, Tex.
 WEBR 1310 Buffalo, N. Y.
 WIBM 1370 Jackson, Mich.
 4:20-4:35 KBST 1500 Big Spring, Tex.
 WPAR 1420 Parkersburg, W. Va.
 4:25-4:40 KSO 1430 Des Moines, Iowa
 WCLO 1200 Evansville, Wis.
 4:30-4:45 KROC 1310 Rochester, Minn.
 WEOA 1370 Evansville, Ind.
 4:35-4:50 KDAL 1500 Duluth, Minn.
 WELL 1420 Battle Creek, Mich.
 4:40-4:55 WHBC 1200 Canton, Ohio
 WTAW 1120 College Sta., Tex.
 4:45-5:00 KRMD 1310 Shreveport, La.
 WSAU 1370 Wausau, Wis.
 4:50-5:05 KNEL 1500 Brady, Tex.
 WLAP 1420 Lexington, Ky.
 4:55-5:10 KFDM 560 Beaumont, Tex.
 WFAM 1200 South Bend, Ind.
 5:00-5:15 KPDN 1310 Pampa, Tex.
 WHLS 1370 Port Huron, Mich.
 5:05-5:20 KPLT 1500 Paris, Tex.
 5:05-5:20 WCBS 1420 Springfield, Ill.
 5:10-5:25 KGKO 570 Forth Worth, Tex.
 5:15-5:30 KPFL 1310 Dublin, Tex.
 WDWS 1370 Champaign, Ill.
 5:20-5:35 KAWM 1500 Gallup, New Mex.
 WPAD 1420 Paducah, Ky.
 5:25-5:40 KGLO 1210 Mason City, Iowa
 WJBC 1200 Bloomington, Ills.
 5:30-5:45 KRRV 1310 Sherman, Tex.
 WGL 1370 Fort Wayne, Ind.
 5:35-5:50 KGKY 1500 Scottsbluff, Neb.
 5:40-5:55 WIBU 1210 Poynette, Wis.
 5:45-6:00 KRBA 1310 Lufkin, Tex.

The Second Thursday

3:00-3:15 WKAT 1500 Miami Beach, Fla.
 3:05-5:20 WJRD 1200 Tuscaloosa, Ala.
 3:10-3:25 WSOC 1210 Charlotte, N. C.
 3:15-3:30 WAML 1310 Laurel, Miss.
 3:20-3:35 WPRR 1370 Mayaguez, P. R.
 3:25-3:40 WPAJ 1210 Thomasville, Ga.
 3:30-3:45 WQAM 560 Miami, Fla.
 3:35-3:50 WPRP 1420 Ponce, P. R.
 3:40-3:55 WFTC 1200 Kinston, N. C.
 3:45-4:00 WKAQ 1240 San Juan, P. R.
 3:50-4:05 WBIG 1440 Greensboro, N. C.
 3:55-4:10 WFOY 1210 St. Augustine, Fla.
 4:00-4:15 WAGF 1370 Dothan, Ala.
 4:05-4:20 KPLC 1500 Lake Charles, La.
 WFDF 1310 Flint, Mich.
 4:10-4:25 WGRM 1210 Grenada, Miss.
 WSPD 1340 Toledo, Ohio
 4:15-4:30 WCOP 1200 Cincinnati, Ohio
 WMFO 1370 Decatur, Ala.
 4:20-4:35 KFIZ 1420 Fond du Lac, Wis.
 WKUE 1500 Griffin, Ga.
 4:25-4:40 WGBF 630 Evansville, Ind.
 WGCM 1210 Miss. City, Miss.
 4:30-4:45 KFYO 1310 Lubbock, Tex.
 WAVE 940 Louisville, Ky.
 WFOR 1370 Hattiesburg, Miss.
 4:35-4:50 KFJM 1410 Grand Forks, N. Dak.
 WMP5 1430 Memphis, Tenn.
 WTMV 1500 E. St. Louis, Ills.
 4:40-4:55 KGCU 1240 Mandan, N. Dak.
 KQV 1380 Pittsburh, Pa.
 WBHP 1200 Huntsville, Ala.
 4:45-5:00 KWOS 1310 Jefferson City, Mo.
 WCOC 880 Meridan, Miss.

WGRC 1370 New Albany, Ind.
 4:50-5:05 KOTN 1500 Pine Bluff, Ark.
 4:55-5:10 WEW 760 St. Louis, Mo.
 WJMS 1420 Ironwood, Mich.
 5:00-5:15 KGHF 1320 Pueblo, Colo.
 WHDF 1370 Calumet, Mich.
 5:05-5:20 KGFI 1500 Brownsville, Tex.
 WTRC 1310 Elkhart, Ind.
 5:10-5:25 KHBG 1210 Okmulgee, Okla.
 5:15-5:30 KONO 1370 San Antonio, Tex.
 5:20-5:35 KGKB 1500 Tyler, Tex.
 5:25-5:40 KASA 1210 Elk City, Okla.
 5:30-5:45 KFRO 1370 Longview, Tex.
 5:35-5:50 KNOW 1500 Austin, Tex.
 5:40-5:55 WMFG 1210 Hibbing, Minn.
 5:45-6:00 KRLH 1420 Midland, Tex.
 5:50-6:06 KCRJ 1310 Jerome, Ariz.
 5:55-6:10 KIUL 1210 Garden City, Kans.
 KVOA 1260 Tucson, Ariz.
 6:06-6:20 KHUB 1310 Watsonville, Calif.
 6:10-6:25 KSNAN 1420 San Francisco, Calif.
 6:15-6:30 KGAR 1370 Tucson, Ariz.
 6:20-6:35 KSRO 1310 Santa Rosa, Calif.
 6:25-6:40 KTRB 740 Modesto, Calif.
 6:30-6:45 KJBS 1070 San Francisco, Calif.
 6:35-6:50 KSUB 1310 Cedar City, Utah
 6:40-6:55 KDON 1210 Monterey, Calif.
 6:45-7:00 KGU 750 Honolulu, T. H.
 6:50-7:05 KHSL 1260 Chico, Calif.
 6:55-7:10 KROY 1210 Sacramento, Calif.

The Second Friday

3:00-3:15 WSVS 1370 Buffalo, N. Y.
 3:05-3:20 WJAC 1310 Johnstown, Pa.
 3:10-3:25 WJTN 1210 Jamestown, N. Y.
 3:15-3:30 WBLK 1370 Clarksburg, W. Va.
 3:20-3:35 WLEU 1420 Erie, Pa.
 3:25-3:40 WCAP 1280 Asbury Park, N. J.
 WSAV 1210 Rochester, N. Y.
 3:30-3:45 WDEV 550 Waterbury, Vt.
 WGH 1310 Newport News, Va.
 3:35-3:50 WCNW 1500 Brooklyn, N. Y.
 WMBS 1420 Uniontown, Pa.
 3:40-3:55 WFAS 1210 White Plains, N. Y.
 WMBG 1350 Richmond, Va.
 3:45-4:00 WOKO 1430 Albany, N. Y.
 WRAW 1310 Reading, Pa.
 3:50-4:05 WDAS 1370 Philadelphia, Pa.
 WSYB 1500 Rutland, Vt.
 3:55-4:10 WNBZ 1290 Saranac Lake, N. Y.
 WSYR 570 Syracuse, N. Y.
 4:00-4:15 WBRE 1310 Wilkes-Barre, Pa.
 4:05-4:20 WBTM 1370 Danville, Va.
 4:10-4:25 WGBB 1500 New London, Conn.
 WHEC 1210 Freeport, N. Y.
 4:15-4:30 WAZL 1420 Rochester, N. Y.
 WHTT 1420 Hazelton, Pa.
 4:20-4:35 WMBO 1500 Hartford, Conn.
 WRAK 1370 Brooklyn, N. Y.
 WILLIAMSPORT, Pa.

NINETEEN - RADEX

4:25-4:40 WBOW 1310 Terre Haute, Ind.
 WGNV 1210 Newburgh, N. Y.
 4:30-4:45 WJBL 1200 Decatur, Ills.
 4:35-4:50 KATE 1420 Albert Lea, Minn.
 WKBB 1500 Dubuque, Iowa
 4:40-4:55 KARK 890 Little Rock, Ark.
 WJIM 1210 Lansing, Mich.
 4:45-5:00 WEXI 1310 Royal Oak, Mich.
 WHLB 1370 Virginia, Minn.
 4:50-5:05 KIUN 1420 Pecos, Tex.
 WOMJ 1500 Owensboro, Ky.
 4:55-5:10 KFJB 1200 Marshalltown, Iowa
 5:00-5:15 KGGM 1230 Albuquerque, N. Mex.

	WBEO	1310	Marquette, Mich.
5:05-5:20	KGIW	1420	Alamosa, Colo.
	WKBV	1500	Richmond, Ind.
5:10-5:25	KGDE	1200	Fergus Falls, Minn.
	WHBF	1210	Rock Island, Ills.
5:15-5:30	KGFL	1370	Roswell, N. Mex.
	WEMP	1310	Milwaukee, Wis.
5:20-5:35	KEUB	1420	Price, Utah
5:25-5:40	WCAT	1200	Rapid City, S. Dak.
	WEBQ	1210	Harrisburg, Ills.
5:30-5:45	KWYO	1370	Sheridan, Wyo.
5:35-5:50	KIDW	1420	Lamar, Colo.
5:40-5:55	KFXJ	1200	Grand Junction, Colo.
5:45-6:00	KGBX	1230	Springfield, Mo.
5:50-6:05	KRQA	1310	Santa Fe, N. Mex.
5:55-6:10	KTSM	1310	El Paso, Texas
	KOKO	1370	La Junta, Colo.

The Second Saturday

3:30-3:45	WTOL	1200	Toledo, Ohio
3:35-3:50	WKBZ	1500	Muskegon, Mich.
3:40-3:55	WJW	1210	Akron, Ohio
3:45-4:00	WBNS	1430	Columbus, Ohio
3:50-4:05	WGAR	1450	Cleveland, Ohio
	WOLS	1200	Florence, S. C.
3:55-4:10	WCOL	1210	Columbus, Ohio
	WLAK	1310	Lakeland, Fla.
4:00-4:15	WCAZ	1070	Carthage, Ills.
	WQBC	1360	Vicksburg, Miss.
4:05-4:20	WJBO	1120	Baton Rouge, La.
	WSMK	1380	Dayton, Ohio
4:10-4:25	WOMT	1210	Manitowoc, Wis.
	WTAL	1310	Tallahassee, Fla.
4:15-4:33	WNEL	1290	Sun Juan, P. R.
	WOSU	570	Columbus, Ohio
4:20-4:35	WDZ	1020	Tuscola, Ills.
	WMSD	1420	Muscle Shoals, Ala.
4:25-4:40	WGTM	1310	Wilson, N. C.
	WHBU	1210	Anderson, Ind.
4:30-4:45	KCMO	1370	Kansas City, Mo.
	WJBW	1200	New Orleans, La.
	WKBN	570	Youngstown, Ohio
5:35-4:50	WGPC	1420	Albany, Ga.
	WNAD	1010	Norman, Okla.
	WXYZ	1240	Detroit, Mich.
4:40-4:55	KOVC	1500	Valley City, N. Dak.
	WTAX	1210	Springfield, Ills.
	WTJS	1310	Jackson, Tenn.
4:45-5:00	KLCN	1290	Blytheville, Ark.
	WMBR	1370	Jacksonville, Fla.
	WMPC	1200	Lapeer, Mich.
4:50-5:05	KGCA	1270	Decorah, Iowa.
4:55-5:10	KOCA	1210	Kilgore, Tex.
	KVOL	1310	Lafayette, La.
5:00-5:15	KBIX	1500	Muskogee, Okla.
	WBNO	1200	New Orleans, La.
5:05-5:20	KPAC	1260	Port Arthur, Texas
	WHBQ	1370	Memphis, Tenn.
5:10-5:25	KANS	1210	Wichita, Kans.
	WROL	1310	Knoxville, Tenn.
5:15-5:30	KMLB	1200	Monteic, La.
	KTRH	1290	Houston, Texas
5:20-5:35	KLPM	1360	Minot, N. D.
5:25-5:40	KVSO	1210	Ardmore, Okla.
5:30-5:45	KWLC	1270	Decorah, Iowa
5:35-5:50	KTSM	1310	El Paso, Texas
5:40-5:55	KWTN	1210	Watertown, S. D.
5:45-6:00	WLB	760	Minneapolis, Minn.
5:50-6:05	KOBH	1370	Rapid City, S. D.
5:55-6:10	KPFA	1210	Helena, Mont.
6:00-6:15	KIT	1250	Yakima, Wash.
6:05-6:20	KGBU	900	Ketchikan, Alaska
6:10-6:25	KEJI	1210	Klamath Falls, Ore.
6:15-6:30	KGEZ	1310	Kalispell, Mont.

6:25-6:40	KGy	1210	Olympia, Wash.
6:30-6:45	KXRO	1310	Aberdeen, Wash.
6:35-6:50	KGCX	1450	Wolf Point, Mont.
6:40-6:55	KFIO	1120	Spokane, Wash.
6:45-7:00	KINY	1430	Juneau, Alaska
6:50-7:05	KFQD	780	Anchorage, Alaska
6:55-7:10	KRLC	1390	Lewistown, Idaho

SCRAPBOOK

(Continued from page 8)

cation, although important, are not the only essentials for successful overseas dialing. In the hands of the skilled listener, an ancient t.r.f. or regenerative receiver will show results comparable to those recorded by a modern, multi-tube super-dreadnaught.

And in the last analysis, the listener with the biggest total of foreign veries frequently is the one who has had to work hardest to overcome deficiencies of equipment and location, and so has developed his tuning ability to a high degree.

(To Be Concluded)

QUESTIONS

(Continued from page 35)

amount to 50 percent or more. The total power consumption, then, will be approximately 60 watts or more. Your guess as to the audio output in watts is very close.

Change To Batteries

IS IT PRACTICABLE TO CHANGE A SCOTT 10 RECEIVER OVER SO THAT IT CAN BE USED WITH BATTERIES IN A PLACE WHERE LIGHTING ELECTRICITY IS NOT AVAILABLE? ARE THERE ANY TUBES THAT CAN BE SUBSTITUTED FOR THE 24S, 45S AND 27S IN THIS SET?—F. M. L.

Answer. Any set, of course, can be changed over for battery operation. However, the work involved is considerable and the change in character-

(Continued on page 51)

CLASSIFIED INDEX TO CHAIN PROGRAMS

WC indicates West Coast programs.

Comedy

- Sun, 5:30 pm, Lew Lehr, CBS
- 6:30 pm, Billy House, CBS
- 11 pm, Lew Lehr, CBS (WC)
- Mon, 7:30, Eddie Cantor, CBS
- 8:00, Henry Youngman, CBS
- 10:30, Eddie Cantor, CBS (WC)
- Tues, 8:30, Parkyakarus, CBS
- 12:00, Parkyakarkus, CBS (WC)
- Thur, 7:30, Joe Penner, CBS
- 9:00, Forank Morggn, Fannie Brice, Red
- 10:00, Bob Burns, Red
- Fri, 7:30, Jack Haley, CBS
- Sat, 7:30, Joe E. Brown, CBS
- 11:00, Joe E. Brown, CBS (WC)

Concerts

- Sun, 12:30, Radio City Music Hall, Red
- 3:00, N. Y. Philharmonic, CBS
- 9:00, Ford Sunday Evening Hour, CBS
- Mon, 8:30, Alfred Wallenstein, Red
- Fri, 8:00, Frank Black, Red

Dance Bands

- Sun, 5:30, Ben Bernie, CBS
- 6:30, Carl Hohengarten, CBS
- 7:00, Harry Salter, Red
- 7:30, Oscar Bradley, CBS
- 8:00, Robert Armbruster, Red
- 9:00, Don Donie, Red
- 9:30, Gus Haenschen, Red
- 10:00, Horace Heidt, Red
- 11:00, Ben Bernie, CBS (WC)
- 11:30, Harry Salter, Red (WC)
- Mon, 8:00, Richard Himber, CBS
- 8:00, B. A. Rolfe, Red
- 8:30, Benny Kreuger, CBS
- 9:30, Eddie Duchin, Red
- 10:00, Guy Lombardo, CBS
- 10:30, B. A. Rolfe, Red (WC)
- 11:30, Benny Kreuger, CBS (WC)
- Tues, 8:00, Russ Morgan, Red
- 8:30, Lud Gluskin, CBS
- 9:30, Benny Goodman, CBS
- 12:00, Lud Gluskin, CBS (WC)
- Wed, 8:30, Paul Whiteman, CBS
- 8:30, Tommy Dorsey, Red
- 9:30, Peter Van Steeden, Red
- 10:00, Kay Kyser, Red
- 10:30, Frankie Masters, CBS
- 10:30, Harry Kogen, Blue
- 11:30, Paul Whiteman, CBS (WC)
- Thur, 7:30, Ben Pollack, CBS
- 8:00, Jack Miller, CBS
- 8:00, Rudy Vallee, Red
- 9:00, Meredith Willson, Red
- 10:00, Johnny Trotter, Red
- 11:30, Jack Miller, CBS (WC)
- Fri, 7:30, Ted Fio Rito, CBS
- 8:30, Ray Noble, CBS
- 9:00, Victor Young, CBS
- 9:00, Abe Lyman, Red
- 10:00, Wayne King, Red

- Sat, 11:30, Ray Noble, CBS (WC)
- 7:00, Saturday Night Swing Club, CBS
- 7:30, Harry Sosnik, CCBS
- 8:00, Russ Morgan, CBS
- 9:00, America Dances, Red
- 9:30, Gus Haenschen, CBS
- 10:00, Hit Parade, CBS
- 11:00, Harry Sosnik, CBS (WC)

Dialog

- Sun, 8:00, Edgar Bergen, Charlie McCarthy, Red
- 8:00, Stroud Twins, Red
- Mon, 7:00, Amos 'n' Andy, Red
- 7:15, Lum and Abner, CBS
- 8:30, Pick and Pat, CBS
- 11:00, Amos 'n' Andy, Red (WC)
- 11:15, Lum and Abner, CBS (WC)
- 11:30, Pick and Pat, CBS (WC)
- Tues, 7:00, Easy Aces, Blue
- 7:00, Amos 'n' Andy, Red
- 9:30, Fibber McGee and Molly, Red
- 11:00, Amos n Andy, Red (WC)
- Wed, 7:00, Amos 'n' Andy, Red
- 7:00, Easy Aces, Blue
- 7:15, Lum and Abner, CBS
- 11:00, Amos 'n' Andy, Red (WC)
- 11:15, Lum and Abner, CBS (WC)
- Thur, 7:00, Amos 'n' Andy, Red
- 7:00, Easy Aces, Blue
- 11:00, Amos 'n' Andy, Red (WC)
- Fri, 7:00, Amos 'n' Andy, Red
- 7:15, Lum and Abner, CBS
- 8:30, Burns and Allen, CBS
- 11:00, Amos 'n' Andy, Red (WC)
- 11:15, Lum and Abner, CBS (WC)
- 11:30, Burns and Allen, CBS (WC)

Drama

- Sun, 6:00, Siler Theater, CBS
- 6:30, Tale of Today, Red
- 8:00, Orson Welles, CBS
- 9:45, Irene Rich, Blue
- 10:30, "Win Your Lady" (Jim Ameche), Blue
- 11:15, Irene Rich, Blue (WC)
- Mon, 7:00, Alias Jimmy Valentine, Blue
- 8:30, Those We Loe, Blue
- 9:00, Lux Radio Theater, CBS
- Tues, Tracer of Lost Persons, Blue
- 7:30, Helen Menken, Red
- 8:00, Edward Robinson, Claire Treor, CBS
- 10:00, Jean Hersholt, CBS
- 11:30, Edward Robinson, Claire Trevor, CBS (WC)
- Wed, 7:15, Tracer of Lost Persons, Blue
- 8:00, Gang Buster (Phil Lord), CBS
- 8:00, One Man's Family, Red
- Thur, 7:15, Tracer of Lost Persons, Blue
- 10:00, Columbia Workshop, CBS
- Fri, 8:00, First Nighter, CBS
- 9:00, Hollywood Hotel, CBS
- 9:30, Death Valley Days, Red
- 10:00, Grand Central Station, CBS
- 12:00, First Nighter, CBS (WC)

News

Sun, 11:00, Press Radio, Red and Blue
 Fri, 9:30, March of Time, Blue
 Daily except Sunday, 6:00, Press Radio, CBS
 6:25, Press Radio, Red
 Daily except Saturday and Sunday, 6:45, Lowell
 Thomas, Blue

Popular Programs

Sun, 11:30 am, Major Bowes Family, CBS
 12:30 pm, Salt Lake Tabernacle, CBS
 1:00, Church of the Air, CBS
 2:00, RCA Magic Key, Blue
 6:30, The Laugh Liner, CBS
 7:00, Hobby Lobby, Red
 7:30, Passing Parade, CBS
 7:30, Fitch Bandwagon, Red
 8:00, Chase and Sanborn Program, Red
 9:00, Manhattan Merry-Go-Round, Red
 9:30, Album of Familiar Music, Red
 10:00, Horace Heidt's Brigadiers, Red
 11:30, Hobby Lobby, Red (WC)
 Mon, 8:00, Monday Night Show, CBS
 8:00, Believe It or Not, Red
 8:30, Voice of Firestone, Red
 10:00, Contented Program, Red
 10:00, True or False, Blue
 10:30, Believe It or Not, Red (WC)
 11:30, Voice of Firestone, Red (WC)
 12:30, Vox Pop, Red (WC)
 Tues, 7:15, Hollywood Screenscoops, CBS
 8:00, Johnny Presents, Red
 9:00, We, The People, CBS
 9:00, Vox Pop, Red (WC)
 Wed, 7:30, Ask-It Basket, CBS
 9:30, For Men Only, Red
 10:30, It Can Be Done, CBS
 10:30, NBC Minstrel Show, Blue
 Thur, 7:15, Hollywood Screenscope, CBS
 9:00, Major Bowes' Amateurs, CBS
 9:00, Good New of 1939, Red
 10:00, Kraft Music Hall, Red
 Fri, 8:00, Cities Serice Concert, Red
 9:00, Waltz Time, Red
 9:30, Death Valley Days, Red
 9:30, March of Time, Blue
 Sat, 7:30, Uncle Jim's Question Bee, Blue
 8:00, Johnny Presents, CBS
 8:30, Professor Quiz, CBS
 9:00, National Barn Dance, Blue
 9:30, Saturday Night Serenade
 11:00, National Barn Dance, Blue (WC)

Singers

Sun, 5:00, Marion Talley, Red
 6:30, Jack Fulton, CBS
 8:00, Nelson Eddy, Red
 8:00, Dorothy Lamour, Red
 9:00, Rachel Carlay, Red
 9:00, Pierre Le Kreeun, Red
 9:30, Frank Munn, Red
 9:30, Jean Dickenson, Red
 9:30, Elizabeth Lennox, Red
 Mon, 8:00, Linda Lee, Red
 8:30, Edward Roecker, CBS
 8:30, Margaret Speaks, Red
 10:00, The Lullaby Lady, Red
 10:30, Linda Lee, Red (WC)

Tues, 8:30, Al Jolson, CBS
 8:30, Martha Raye, CBS
 9:30, Donald Nois, Red
 12:00, Al Jolson, CBS (WC)
 12:00, Martha Raye, CBS (WC)
 Wed, 10:00, Virginia Sims, Red
 10:30, Marion Francis, CBS
 Thur, 8:00, Kate Smith, CBS
 11:30, Kate Smith, CBS (WC)
 Fri, 7:30, Jack Haley, CBS
 7:30, Virginia Verrill, CBS
 8:00, Lucille Manners, Red
 8:30, Tony Martin, CBS
 9:00, Frances Langford, CBS
 9:00, Jean Sablon, CBS
 9:00, Frank Munn, Red
 11:30, Tony Martin, CBS (WC)
 Sat, 9:00, Henry Burr, Blue
 9:30, Mary Eastman, CBS
 9:30, Bill Perry, CBS
 10:00, Freda Gibson, Buddy Clark, CBS
 11:00, Henry Burr, Blue (WC)

Talks

Sun, 9:30, Walter Winchell, Blue
 11:00, Walter Winchell, Blue (WC)
 Tues, 9:00, Gabriel Heatter, CBS
 10:30, Jimmy Fidler, Red
 Wed, 10:30, Edgar A. Guest, CBS
 Fri, 7:15, Jimmy Fidler, Red
 10:30, Jimmy Fidler, Red (WC)

West Coast Special

KGY, in Washington's Capitol City, Olympia, will broadcast a special DX program on the morning of November 19, from 3 am until 6 or 6:30 am, EST. This program will be dedicated to the Newark News Radio Club.

Mr. Otto Renninger, Jr., of the Technical Staff, advises us that the program will consist mostly of live talent. KGY transmits on 1210 kcs. with 100 watts power.

Reports of reception of this program will be appreciated by the station.

WICA HEARD IN NEW ZEALAND

A clipping from the Ashtabula Star-Beacon of September 8, sent to us by Robert Shepard of 1228 W. 48th St., Ashtabula, Ohio, tells of reception of this 250 watt station in New Zealand. The New Zealanders who heard WICA are G. E. Moris and G. F. Dalefield, both of Palmerston North.

"While New Zealand is the farthest flung point to report WICA reception," the newspaper states, "there have been other faraway points to report accurately that they did hear the friendly voice of northeastern Ohio."

There follows a list of distant reporters which looks almost like The Radex Club membership roster. Most of the reporters mentioned in the Star-Beacon article are known to all our readers—Ed. M. Vickers of Coral Gables, Fla. is there, and Raymond Sahlach of St. Louis, Mo. Harry F. Hawkins of Manchester, N. H., Carroll Weyrich of Parkville, Md., Floyd Biss of Brittmount, Minn., and Donald F. Hill of Broken Bow, Nebr. are all mentioned, along with James A. Dunigan of New Britain, Conn., Carl Sylvester* of Yale, Mich., Martin J. Olthoff of Independence, Kans., Carl Horton of Athol, Mass., O. R. Spittler of Chicago, J. W. DeRosa of E. St. Louis, Ill. and Carl Forestieri of the Bronx, N. Y., all of them loyal Radexers.

The December issue of RADEX will be an Asiatic Number, with pictures of stations and verification cards from Asia. Look for it on your news stand.

Sr. Amando Cespedes Marin, of Heredia, Costa Rica, owner and op-



erator of T14NRH in that city, is now enjoying a vacation in the United States. Arriving in New York City on the S. S. Quirigua, on September 11, he plans to remain here for about six weeks, during which time he will be the guest of his radio fans in several cities.

Sr. Cespedes travelled first to Bristol, Connecticut, where he spent a week at the home of Mr. and Mrs. J. B. Sessions. Mr. Sessions is the only listener who has reported continuously on reception of T14NRH during its ten years of broadcasting. From Bristol, Sr. Cespedes plans to journey to Hartford, Boston, Buffalo, and Chicago, and on returning to New York to meet the ship which will return him to his homeland, he will be the guest of the Editor of Radex.

The Radio Networks

On behalf of a Committee appointed by the Federal Communications Commission to supervise the Commission's investigation of chain and network broadcasting, monopoly in the broadcasting industry and related matters, Chairman McNinch announced that a public hearing would commence on October 24.

The three national networks, as well as some fifteen regional networks, were directed to appear and present evidence covering their corporate and financial history, all phases of network operations, including relations with affiliates and with each other, as well as facts as to their ownership and control. The makers of electrical transcriptions and recordings were also requested to appear and present evidence in respect to their relations with broadcast stations and networks. The quality of such transcriptions, from both the technical and program standpoint will also be investigated.

The Commission's Engineering Department has made a survey of the problem of duplication of programs involved in network operation. At a given location, the same program may be received from several other stations. The extent of instances of such duplication, and the necessity of it, will be fully investigated.

The list of network groups which have been requested to appear may be of interest to DXers. The twenty-one networks, with their addresses, are:

Columbia Broadcasting System, Inc.
485 Madison Ave.
New York, N. Y.



A picture of the Main Terrace and Front of the League of Nations Building at Geneva, Switzerland, sent as a verification of reception of one of the League stations.

National Broadcasting Company, Inc.
RCA Building
30 Rockefeller Plaza
New York, N. Y.

Mutual Broadcasting System, Inc.
1440 Broadway
New York, N. Y.

Arrowhead Network
c70 Station WEBC
Duluth, Minn.

California Radio System
c/o McClatchey Broadcasting Co.
Radio Station KFBK
Sacramento, Calif.

Colonial Network
21 Brookline Ave.
Boston, Mass.

Don Lee Broadcasting System
7th and Bixel St.
Los Angeles, Calif.

Hearst Radio, Inc.
20 E. 57th St.
New York, N. Y.

Inter-City Broadcasting System
Station WMCA
1657 Broadway
New York, N. Y.

- | | |
|---|---|
| King-Trendle Broadcasting Corp.
Michigan Radio Network
17th Floor Stroh Bldg.
Detroit, Mich. | Quaker Network
Mr. Roger W. Clipp
Widener Bldg.
Philadelphia, Pa. |
| North Central Broadcasting System
Empire Bank Bldg.
St. Paul, Minn. | Texas State Network
Trinity Life Bldg.
Fort Worth, Texas |
| New York Broadcasting System, Inc.
110 E. 58th St.
New York, N. Y. | Virginia Broadcasting System
c/o Radio Station WRNL
323 E. Grace St.
Richmond, Va. |
| Oklahoma Network
c/o Station KTOK
Oklahoma City, Okla. | WLW Line Group
c/o Crosley Radio Corp.
1329 Arlington St.
Cincinnati, Ohio |
| Pennsylvania Broadcasters
c/o Station WKBO
Penn Harris Hotel
Harrisburg, Pa. | Wisconsin Radio Network
c/o Radio Station KFIZ
Fond-du-Lac, Wis. |
| Pennsylvania Network
c/o WCAU Broadcasting Co.
1622 Chestnut St.
Philadelphia, Pa. | Yankee Network
21 Brookline Ave.
Boston, Mass. |

The DX Calendar

EST	STATIONS	PST
Nov. 6 to 12, 3-4 am	PRG2, 1040 kcs. Sao Paulo, Brazil (IDA)	Nov. 6-12, 12:01 am
Nov. 11, 1:30 to 2 am	WJAG, 1060 kcs., Norfolk, Nebr.	Nov. 10, 10:30-11 pm
Nov. 22, 9-11 pm	HC2RL, 6635 kcs., Guayaquil, Ecuador (IDA)	Nov. 22, 6-8 pm
Nov. 24, 9-10 pm	TI4NRH, 9670 kcs., Heredia, Costa Rica (NRC)	Nov. 24, 6-7 pm
Dec. 4, ?	HJ7ABD, 9630 kcs., Bucaramanga, Colombia (IDA)	Dec. 4, ?
Dec. 9, 1:30-2 am	WJAG, 1060 kcs., Norfolk, Nebr.	Dec. 8, 10:30-11 pm
Dec. 18, 1-2 am	EAJ7, 1095 kcs., Madrid, Spain. (IDA)	Dec. 17, 10-11 pm
Jan. 8, 1-2 am	"Radio Strasbourg," 859 kcs., Strasbourg, France (IDA)	Jan. 7, 10-11 pm
Jan. 8, ?	DJC, 6020 kcs., Berlin, Germany (IDA)	Jan. 8, ?
Jan. 13, 1:30-2 am	WJAG, 1060 kcs., Norfolk, Nebr.	Jan. 12, 10:30-11 pm
Jan. 22, 3-4 am.	TG1, 1310 kcs., Guatamala City, Guat. (IDA)	Jan. 22, 12:01-1 am
Mar. 20, 1-2 am	YSD, 7894 kcs., San Salvador, E. S. (IDA)	Mar. 19, 10-11 pm.

Twenty Stentors

LISTED below are the twenty shortwave stations which possessed the loudest voices last month. Arranged according to the number of reports received, this chart can be used by new listeners as a guide to the stations which they are most apt to receive in their own localities. Beginners should not attempt to tune for difficult catches until they become familiar enough with their receivers to bring in these easy-to-get stations regularly.

By All Readers	Best in EST	Best in CST	Best in MST	Best in PST
Tokyo	London	Tokyo	VK3ME	Tokyo
London	Berlin	VK3ME	Tokyo	Rome
Rome	Rome	HJ1ABP	HJ7ABD	Paris
Paris	Praha	VUD3	SPW	TGWA
Berlin	SPW	HJ7ABD	VK2ME	LRX
VUD3	RKI	TGWA	HP5G	ZRK
RKI	VUD3	XVJ	VUD3	London
HP5G	Tokyo	VK6ME	COCX	XVJ
Huizen	SPD	VK2ME	XETA	XEWW
TGWA	Huizen	T14NRH	HP5A	ZBW3
SPW	HP5G	TILS	RAN	TGWB
LRX	Paris	PLP	EAR	Martinique
VK3ME	COCX	Rome	XEWI	CB1180
Praha	XETA	London	TGWB	HP5G
HJ7ABD	HP5A	HP5J	ZIK2	Huizen
HJ1ABP	RAN	COGF	XEWW	ZIK2
XEWW	EAR	COCO	VUD3	VK3ME
VLR	HBH	COCM	*	VLR
SPD	XEWI	VLR		VUD3
ZRK	VLR	Paris		ZGE

*No others reported

Berlin. Deutscher Kurzwellensender, Haus des Bundfunks, Berlin, Charlottenburg 9. Transmitters are at Zeesen. Can be identified by a tune on a music box which precedes each transmission. These stations verify by card for an IRC.

DJA, 9560, 12:05-11 am (A); 6-10:50 pm (CA).

DJB, 15200 kcs, 12:05-11 am (A); 4:50-10:50 pm (NA); Sunday only 11:10 am-12:25 pm (NA).

DJC, 6020, 11:30 am-4:25 pm (Af).

DJD, 11770, 10:30 am-4:25 pm (Af); 4:50-10:50 pm (NA).

DJE, 17760, 12:05-5:50 am (A);

6-7:50 am (SA); 8-10 am (A); 4:50-10:50 pm (SA); Sunday only, 11:10 am-12:25 pm (SA).

DJL, 15110, 12:05-2 am (Af); 8-9

DJN, 9540, 4:50-10:50 pm (SA).

DJP, 11855, 7:15-10:50 pm (NA).

DJQ, 15280, 12:05-11 am (A); 4:50-10:50 pm (SA).

DJR, 15340, 8-9 am (CA); 4:50-10:50 pm (CA).

DJS, 21450, 12:05-11 am (A).

The directions in which the programs are radiated are shown in parentheses: A, Asia; Af, Africa; CA, Central America; NA, North America; SA, South America.

Eindhoven: N. V. Philips' Radio, Eindhoven, Netherlands. Philips' Holland-India Broadcasting Station (PHOHI).

PCJ, 9590, Sun 3:20-4:20 pm; 7:15-8:15 pm; 8:25-9:25 pm; Tues, 1:45-2 pm; 2:10-3:40 pm; 7:15-8:45 pm; 9-10:30 pm; Wed, 7:15-8:30 pm; Fri, 8-9 pm.

PCJ2, 15220, daiy exc. Sat, 6:15-6:45 pm; Sat, 7:15-7:45 pm; Tues, 2-3:30 am; Wed, 9:30-11:30 am.

PHI2, 17770, daily exc. Sun, 7:25-8:25 am; Sun, 6:25-9:40 am.

Lahti: "Radio Lahti," in Lahti and Helsinki, Finland.

OFD, 9500, Lahti, noon to 5 pm.

OFE, 11780, Lahti, 1:05-1:45 am; 5-6:15 am; 10 am to noon.

..., 6120, Helsinki, 1:05-1:45 am; 5-6:15 am; 10 am-5 pm.

London: British Broadcasting Corp., London, W1, England. Big Ben strikes the hours. Reports are acknowledged but not positively verified. Transmitters are at Daventry.

GSB, 9510, 2-4:15 am; 12:20-4 pm; 4:15-6 pm; 6-8:30 pm; 9:20-11:20 pm.

GSC, 9580, 9:20-11:20 pm.

GSD, 11750, 2-4:15 am; 12:20-4 pm; 6-8:30 pm; 9:20-11:20 pm.

GSE, 11860, 2-4:15 am.

GSF, 15140, 5:45-8:50 am; 9 am to noon; 4:15-6 pm.

GSG, 17790, 5:45-8:50 am; 9 am to noon; 12:20-4 pm; 4:15-6 pm; 6-8:30 pm; Sun, 5-5:55 pm (I); 5:55-8:55 pm (II).
am (NA); 10:35 am-4:25 pm (Af); Sunday only 6-8 am (Af).

GSH, 21470, 5:45-8:50 am; 9 am to noon.

GSI, 15260, 2-4:15 am; 12:20-4 pm; 9:20-11:20 pm.

GSJ, 21530, 5:45-8:50 am; 9 am to noon.

GSO, 15180, 2-4:15 am; 4:15-6 pm; 6-8:30 pm.

GSP, 15310, 4:15-6 pm; 6-8:30 pm; 12:17-1:15 pm (Arabic Program).

Martinique: "Radio Martinique," Fort de France, Martinique, 9700 kcs. Sign off with Marseillaise. Address, Poste Seri, Boite 136. 6-7:45 pm.

Paris: "Paris Mondial," Ministry of Haussmann, Paris VIIIe.

TPA2, 15243, 5-10 am.

Posts and Telephones, 98 bis, Blvd.

TPA3, 11885, 1-4 am; 10:15 am-5 pm.

TPA4, 11718, 6-8:15 pm; 8:30-11 pm.

TPB3, 17810, 8:30-10 am.

TPB6, 15130, 6-8:15 pm.

TPB7, 11885, 8:30-11 pm.

TPB11, 9550, 1-4 am; 10:15 am-5 pm.

Praha: The Czechoslovak Shortwave Station, Fochova Tr. 16. There are three transmissions; No. I for North America, announced in English and Czech; No. II for South America, announced in Spanish and Czech; No. III for Europe, in German, French, English and Czech.

OK1MPT, 5145, Fri, 4:40-5:10 pm (III).

OLR2A, 6010, Wed, Thur, 4:40-5:10 pm (III)

OLR2B, 6030, Wed, Thur, 4:40-5:10 pm (III).

OLR3A, 9550, Mon, Tues, 4:40-5:10 pm (III).

OLR4A, 11840, Daily 1:55-4:30 pm (III); Mon through Fri 7:55-10:55 pm (I); Sun, 5:55-8:55 pm (II).

OLR4B, 11760, same as OLR4A.

OLR5A, 15230, daily 1:55-4:30 pm (III); Mon through Fri 7:55-10:55 pm (I).

OLR5B, 15320, same as OLR4A.

Rome: E.I.A.R., 5 Via Montello, Rome, Italy.

ICC, 6355, 5-30 pm (news in Russian).

IQY, 11676, 2:15-2:35 pm (French); 3-3:30 pm (Russian).

IRF, 9830, 12:10-1 pm (Arabic); 3-3:30 pm (Russian); 6-9 pm (Latin and North America).

2RO, 11810, 4:40 am to 9 pm.

Tokyo: Broadcasting Corp. of Japan, Hibiya Park, Tokyo.

JZJ, 11800, 7-7:30 am; 8-9:30 am; 2:30-4 pm; 4:30-5:30 pm.

JZK, 15160, 12:30-1:30 am; 2:30-4 pm; 4:30-5:30 pm.

JZL, 17785, 6-6:30 pm.

CB1180, 11800, Santiago, Chile. 6-8:30 pm.

- CCCM**, 9833, Havana, Cuba. Trans-radio Columbia, 23 No. 1113, Vedado. 8 am to 10:30 pm.
- COCO**, 6010, Havana, Cuba. Relays CMCK. Luis Casas R., Aptdo 98. 8 am-10 pm.
- COCX**, 11650, Havana, Cuba. Casa Lavin, Box 32. Sun, 6-9 pm; Weekdays, 8 am to midnight.
- COGF**, 11800, Matanzas, Cuba. noon to midnight.
- EAR**, 9860, The Voice of Republican Spain, Box 951, Madrid, Spain. Daily transmissions at 3:30, 6:30 and 7:40 pm.
- HJ1ABP**, 9618, Cartagena, Colombia. Aptdo. 37. Daily 6-10 pm.
- HJ7ABD**, 9630, Bucaramanga, Colombia. Aptdo. 47. Weekdays 6-11 pm. HP5A, 11700, Panama City, Panama. Radio-Tatro Estrella de Panama, Aptdo. 054. Weekdays 6-10 pm.
- HP5G**, 11780, Janana City, Panama. "Ron Dalley," Box 1121. Daily 6-10 pm.
- HP5I**, 11895, Aguadulce, Panama. "La Voz del Interior," verifies free. Daily 7:30-9:30 pm.
- JDY**, 9925, Dairen, Kwangtung. Relays JQAK. Daily 7-8 am.
- LRX**, 9660, Buenos Aires, Argentina. "Radio El Mundo" Call's Maipu 555. Daily 10:30 am-12:30 am.
- PLP**, 11000, Bandoeng, Java, N.E.I. Weekdays, 4:30-10 am.
- RAN**, 9595, Moscow, U.S.S.R. Radio Centre, Soliakka 12. Daily 7-9:15 pm.
- RKI**, 7520, Moscow, U.S.R. Radio Centre, Soliakka 12. Daily 7-9:15 pm.
- SPD**, 11535, Warsaw, Poland, 6-9 pm.
- SPW**, 13635, Warsaw, Poland, 6-9 pm.
- TGWA**, 9685, Guatemala City, Guat. Radiodifusora Nacional. Verifies free. Sun, 7-10:45 pm. Weekdays, 10-11:30 pm.
- TGWA**, 15170, Guatemala City, Guat. Same as above.
- TGWB**, 6500, Guatemala City, Guat. 10-11:30 pm.
- TILS**, 5905, San Jose, Costa Rica. Aptdo. 3. 6-11 pm.
- T14NRH**, 9670, Heredia, Costa Rica. Aptdo. 40. Tues, Thur, Sat, 9-10 pm.
- VK2ME**, 9690, Sydney, Australia. Am? amalgated Wireless, 47 York St. Sun, 1-3 am; 5-11 am.
- VK3ME**, 9510, Melbourne, Australia. Amalgated Wireless, 167 King St. Weekdays 4-7 am.
- VK6ME**, 9590, Perth, Australia. Amalgated Wireless. Weekdays 4-6 am.
- VLR**, 9580, Melbourne, Australia. 1-9:45 am.
- VDU3**, 9590, Delhi, India. All-India Radio. 1:30-3:30 am; 8:30-10:30 pm.
- W2XE**, New York, N. Y. Columbia Broadcasting Sys., 485 Madison Ave. 6120 kcs: 11:30 pm to 12:30 am. 11830 kcs: Sat and Sun, 6:30-11 pm; Mon through Fri, 6-11 pm. 2120 kcs: Sat and Sun, 8 am to 1 pm; Mon through Fri 7:30 am.
- W3XAL**, New York, N. Y. (Bound Brook, N. J.). National Broadcasting Co., Rockefeller Plaza. 6100 kcs: 9 pm to 1 am. 17780 kcs: 9 am to 9 pm.
- W3XAU**, Philadelphia, Pa. 1622 Chestnut St. 6060 kcs: Tues, Fri, Sun, 1 pm to midnight; Wed, 1-10 pm. 9590 kcs: Mon, Thur, Sat, 1 pm to 1 am; Tues, Fri, Sun, midnight to 1 am; Wed, 10 pm to 1 am.
- XETA**, 11760, Monterrey, N. J., Mexico. Aptdo. 203. Daily 1:30-3:30 pm.
- XEWI**, 11900, Mexico City, D. F. 9 pm to midnight.
- XEWW**, 15160, Mexico City, D. F. Aptdo. 2516. 8 pm to 12:30 am.
- XVJ**, 11690, Hankow China. 7:05-7:35 am.
- YUA**, 6100, Belgrade, Yugoslavia. "Radio Beograd." noon to 5 pm.
- YV5RC**, 5970, Caracas, Venezuela. Aptdo. 2009. Sun, 8:30 am to 9:30 pm; Weekdays, 7 am to 10 pm.
- ZBW3**, 9525, Hong Kong, Box 200. Sun midnight to 1 am; 3-9:30 am. Weekdays 4-10 am.
- ZIK2**, 10600, Belize, British Honduras. Tues, Thur, Sat, 7:30-8 pm.
- ZGE**, 6200, Kuala Lumpur, Fed. Malay States. Sun, Tues, Fri, 6:40-8:40 am.
- ZRK**, 9606, Cape Town, U. of South Africa. P. O. Box 4559, Johannesburg. Sun, 3:30-4:30 am; 8-11:40 am. Weekdays, 11:45 pm to 12:45 am.

QUESTIONS

(Continued from page 42)

istics may be such that the general efficiency of the set may be impaired. If you have a fairly large supply of storage battery power, the set can be used as it is simply by removing the power transformer, and connecting the tube heaters directly to the proper battery voltages. The amperage draw of the tubes you now have is, however, quite heavy. The proper B battery can be connected across the present high-voltage output of the transformer after the type 80 tube and soon!"

The December RADEX will show the Sunday time on the air of the North American broadcasting stations.

WPIC on the Air

Program tests of the new WPIC in Sharon, Pa| commenced on October 15. This station is authorized to operate on 780 kcs. with 250 watts, daytime only. The transmitter is a Western Electric, and a 250 foot Blaw-Knox vertical radiator will be employed. The transmitter is situated between Sharon and Farrell, Pa. Correct reports will be verified if return postage is sent.

The BROADCASTING Stations of the WORLD

All the world's broadcasting stations which use at least 1000 watts of power, are shown in this list. Frequencies are given in the first column, the power in kilowatts in the second column, Complete lists, showing all the stations, regardless of power used, are printed by Continents, from month to month. The South Americans were listed in the October issue, and the stations of Oceania in the September issue.

153	5	....	Ankara, Turkey	375	50	....	Sverdlovsk, U.S.S.R.
155	7	....	Kaunas, Lithuania	392	30	....	Banska Bystrica, Czechoslovakia
160	10	....	Hilversum, Netherlands	401	1 1/4	....	Geneva, Switzerland
160	150	....	Brasov, Roumania	413	10	....	Voronezh, U.S.S.R.
166	220	....	Lahti, Finland	510	50	....	Baranowicz, Poland
172	500	....	Moscow, U.S.S.R.	510	1	....	Innsbruck, Germany
180	100	....	Shinkyo, Manchukuo	527	6.3	....	Ljubljana, Jugoslavia
182	80	....	Paris, France	527	10	....	Viipuri, Finland
185	5	....	Istanbul, Turkey	530	10	....	Bolzano, Italy
191	60	....	Berlin, Germany	536	50	....	Wilno, Poland
200	20	....	Irkutsk, C.S.S.R.	546	120	....	Budapest, Hungary
200	150	....	Droitwich, Gt. Britain	550	100	....	Beromunster, Switzerland
208	35	....	Minsk, U.S.S.R.	550	10	2CR	Cumnock, Australia
208	16	....	Reykjavik, Iceland	560	10	MTCY1	Shinkyo, Manchukuo
216	150	....	Motala, Sweden	560	10	XGOG	Chengtou, China
218	100	....	Novosibirsk, U.S.S.R.	560	10	ZUG	Grahamstown, U. S. Africa
224	120	....	Warsaw, Poland	560	10	6WA	Minding, Australia
232	150	....	Luxembourg	565	100	....	Athlone, Irish Free State
232	100	....	Moscow, U.S.S.R.	565	10	....	Memel, Lithuania
240	60	....	Kalundborg, Denmark	565	3	....	Palermo, Italy
248	100	....	Kiev, U.S.S.R.	570	5	CB57	Santiago, Chile
256	25	....	Tashkent, U.S.S.R.	570	60	2YA	Wellington, New Zealand
260	60	....	Oslo, Norway	570	100	....	Stuttgart, Germany
260	1	....	Bergen, Norway	580	1	JFCK	Taichu, Formosa
260	10	....	Vigra, Norway	580	10	3WV	Horsbm, Australia
271	100	....	Leningrad, U.S.S.R.	583	20	....	Alpes-Grenobles, France
283	35	....	Tiflis, U.S.S.R.	583	50	....	Madona, Latvia
300	100	....	Moscow, U.S.S.R.	590	6	LS10	Buenos Aires, Argentina
340	20	....	Saratov, U.S.S.R.	590	150	JOAK1	Tokyo, Japan
347	10	....	Finnmark, Norway	592	100	....	Vienna, Germany
350	10	....	Archangel, U.S.S.R.	600	25	CNR	Rabat, Morocco
355	20	....	Boston-on-Don, U.S.S.R.	600	25	PRH2	Porto Alegre, Brazil
360	20	HAL 2	Budapest, Hungary				

600	10	SBD	Sundsvall, Sweden	750	2.5	KGU	Honolulu, Hawaii
600	10	ZTC	Cape Town, U.S. Africa	750	10	LRA	Buenos Aires, Argentina
600	1	7ZL	Hobart, Australia	750	1	XGOK	Canton, China
601	15	....	Athens, Greece	750	1.5	ZTD	Durban, U.S. Africa
610	1	CX4	Montevideo, Uruguay	750	12	....	Katowice, Poland
610	20	....	Florence, Italy	750	10	....	Maritzburg, U.S. Africa
610	3	JOJK	Kanazawa, Japan	760	10	CB76	Valparaíso, Chile
610	50	KZRM	Manila, Philippines	760	1	JQAK1	Diren, Manchukuo
610	3.5	2FC	Sydney, Australia	760	10	PRA6	Sao Paulo, Brazil
620	1	CB62	Santiago, Chile	760	1	XMHD	Shanghai, China
620	2	LV3	Cordoba, Argentina	767	60	....	Burghead, Gt. Britain
620	4.5	3AR	Melbourne, Australia	767	70	....	Falkirk, Gt. Britain
620	15	....	Brussels, Belgium	770	1	CX12	Montevideo, Uruguay
620	20	....	Cairo, Egypt	770	10	JOHK	Sendai, Japan
629	20	CT1AA	Lisbon, Portugal	770	3.5	3LO	Melbourne, Australia
629	20	....	Kristiansand, Norway	770	10	....	Stalino, U.S.S.R.
630	5	LS3	Buenos Aires, Argentina	776	120	....	Toulouse, France
630	7	4QN	Clevedon, Australia	780	1	....	Santiago, Chile
638	120	....	Praha, Czechoslovakia	780	1	KZEG	Manila, Philippines
640	10	ZTJ	Johannesburg, U.S. Africa	780	5	LT1	Rosaria, Argentina
640	7.5	5CK	Crystal Brook, Australia	780	120	....	Leipzig, Germany
640	1	CB64	Vina del Mar, Chile	790	7.5	EAJ1	Barcelona, Spain
648	100	....	Lyons-la-Doua, France	790	10	JOJK	Kumamoto, Japan
648	10	....	Petrozavodsk, U.S.S.R.	790	11	LR10	Buenos Aires, Argentina
650	2	CX6	Montevideo, Uruguay	790	10	XGOV	Changsha, China
650	10	1YA	Auckland, New Zealand	790	10	4YA	Dunedin, New Zealand
658	100	....	Cologne, Germany	795	50	....	Lwow, Poland
660	10	XGZ	Nanking, China	800	1.5	PRA3	Rio de Janeiro, Brazil
668	20	....	Jerusalem, Palestine	800	2.5	4QG	Brisbane, Australia
668	70	NR	Manchester, Gt. Britain	804	70	....	Cardiff, Gt. Britain
670	7	LS4	Buenos Aires, Argentina	804	5	....	Penmon, Gt. Britain
670	2	PRC5	Belem, Brazil	810	10	JOJK	Sapporo, Japan
670	7.5	2CO	Corowa, Australia	810	3	VUC	Calcutta, India
674	3	MTFY	Harbin, Manchukuo	810	1	CX14	Montevideo, Uruguay
677	100	....	Sottens, Switzerland	814	50	....	Milan, Italy
680	1	CB68	Valparaíso, Chile	820	1	CB82	Santiago, Chile
680	5	PRC2	Porto Alegre, Brazil	820	1	LV7	Tucuman, Argentina
680	5	4YZ	Invercargill, New Zealand	820	12	....	Bucharest, Roumania
686	20	....	Belgrade, Jugoslavia	823	10	....	Bodo, Norway
690	10	JOBK1	Osaka, Japan	830	10	JOJK	Hiroshima, Japan
690	3.5	6WF	Perth, Australia	830	20	LR5	Buenos Aires, Argentina
695	120	....	Paris, France	830	7	3GI	Longford, Australia
700	5	VPB	Colombo, Ceylon	832	1.5	....	Agen, France
700	7	2NR	Grafton, Australia	832	35	....	Kiev, U.S.S.R.
700	55	....	Stockholm, Sweden	832	10	....	Stavanger, Norway
710	10	JODK2	Keijo, Korea	840	1	....	Valparaíso, Chile
710	5	LS1	Buenos Aires, Argentina	840	5	PRH9	Sao Paulo, Brazil
710	7	7NT	Kelso, Australia	840	5	2YC	Wellington, New Zealand
710	1	XGOS	Chunking, China	841	100	....	Berlin, Germany
713	120	....	Rome, Italy	845	2	ZBW	Hong Kong
720	1	JFBK	Taiwan, Formosa	850	2	CX16	Montevideo, Uruguay
720	25	PRA8	Pernambuco, Brazil	850	3	EAJ3	Valencia, Spain
720	10	3YA	Christchurch, New Zealand	850	10	JBCK	Seishin, Korea
720	2	6GF	Kalgoorlie, Australia	850	10	OAX4A	Lima, Peru
722	1	....	Fredrikstad, Norway	850	1	5RM	Renmark, Australia
722	17	....	Lopikerkapel, Netherlands	850	....	....	Porsgrund, Norway
722	10	....	Kharkov, U.S.S.R.	850	10	....	Simferopol, U.S.S.R.
730	1	CB73	Santiago, Chile	850	100	....	Sofia, Bulgaria
730	3	EAJ2	Madrid, Spain	855	2.5	HSP1	Bangkok, Siam
730	5.5	EAJ5	Seville, Spain	855	3	VUB	Bombay, India
730	10	JOCK1	Nagoya, Japan	859	100	....	Strasbourg, France
730	1	LV1	San Juan, Argentina	860	2.5	PRA3	Rio de Janeiro, Brazil
730	4	5CL	Adelaide, Australia	868	50	....	Poznan, Poland
730	20	....	Tallin, Estonia	870	150	JOAK2	Tokyo, Japan
740	1	JOSK	Kokura, Japan	870	26	LR6	Buenos Aires, Argentina
740	10	PRA4	San Salvador, Brazil	870	1	2GB	Sydney, Australia
740	3	2BL	Sydney, Australia	877	70	....	London, Gt. Britain
740	100	....	Munich, Germany	880	22	PR13	Bello Horizonte, Brazil
740	1	....	Pori, Finland	880	15	....	Linz, Germany
749	120	....	Marseille, France	882	20	VUD	New Delhi, India
750	15	HS7PJ	Bangkok, Siam	885	15	....	Graz, Germany
750	10	JFAK	Taihoku, Formosa	890	1	CB89	Santiago, Chile

890	1.5	CX18	Montevideo, Uruguay	1065	1	JQAK2	Dairen, Manchukuo
890	1	MTBY	Hoten, Manchukuo	1068	2	....	Paris, France
890	1.5	ZP9	Asuncion, Paraguay	1068	10	....	Tiraspol, U.S.S.R.
890	10	....	Helsinki, Finland	1070	50	LR1	Buenos Aires, Argentina
895	1.5	....	Limoges, France	1070	2	6WB	Katanning, Australia
900	1	CB90	Valparaiso, Chile	1077	13	....	Bordeaux, France
900	1	KZIB	Manila, P. I.	1080	4.5	LT3	Rosaria, Arg.
900	2	LU2	Bahia Blanca, Arg.	1080	2	SCC	Falun, Sweden
900	5	PRB7	Rio de Janeiro, Brazil	1080	10	....	Poa Pessoa, Brazil
910	12	LR2	Buenos Aires, Arg.	1090	1.05	CX28	Montevideo, Uruguay
910	2	4RK	Rockhampton, Australia	1090	2	3LK	Lubeck, Australia
913	60	....	Toulouse, France	1095	10	....	Vinnitsa, U.S.S.R.
920	1	....	Shanghai, China	1100	50	PRG9	Sao Paulo, Brazil
920	32	....	Brno, Czechoslovakia	1104	25	....	Kuldiga, Latvia
930	2.5	CB93	Santiago, Chile	1104	10	....	Naples, Italy
930	1	CX20	Montevideo, Uruguay	1110	1	CB111	Vina del Mar, Chile
932	15	....	Brussels, Belgium	1110	5	LS5	Buenos Aires, Arg.
940	10	JOBK2	Osaka, Japan	1113	100	....	Melnik, Czechoslovakia
940	10	PRF4	Rio de Janeiro, Brazil	1120	5	LV5	San Juan, Arg.
940	10	SBB	Goteborg, Sweden	1120	5	PRH8	Rio de Janeiro, Brazil
940	1	XHHE	Shanghai, China	1120	1	YV1RF	Maracaiba, Venezuela
940	12	....	Algiers, Algeria	1120	1	4BC	Brisbane, Australia
950	31	LR3	Buenos Aires, Argentina	1122	6	....	Nyregyhaza, Hungary
950	1	2UE	Sydney, Australia	1122	60	....	Stagshaw, Gt. Britain
950	100	....	Breslau, Germany	1130	1	CX30	Montevideo, Uruguay
959	60	....	Paris, France	1130	1	ZP1	Asuncion, Paraguay
960	2	LV2	Cordoba, Arg.	1130	1	2ZB	Wellington, New Zealand
960	5	PRF3	Sao Paulo, Brazil	1131	100	SBH	Horby, Sweden
960	10	RW13	Odessa, U.S.S.R.	1140	5	CB114	Santiago, Chile
960	1	XHHF	Shanghai, China	1140	10	....	Genoa, Italy
960	5	YV5RA	Caracas, Venezuela	1140	10	....	Trieste, Italy
968	30	....	Bordeaux, France	1140	7	....	Turin, Italy
970	1	CB97	Santiago, Chile	1149	50	....	Cardiff, Gr. Britain
970	50	JODK1	Keijo, Korea	1149	20	....	London, Gt. Britain
974	1	HCJB	Quito, Ecuador	1149	20	....	Manchester, Gt. Britain
977	100	....	Belfast, Gt. Britain	1150	7	LR8	Buenos Aires, Arg.
980	20	PRE8	Rio de Janeiro, Brazil	1150	1	XGOZ	Chinkiang, China
980	1	YV1RB	San Cristobal, Venez.	1150	2	2WG	Wagga, Australia
980	2	6AM	Northam, Australia	1158	10	....	Kosice, Poland
980	24	....	Torun, Poland	1160	1	CB116	Valparaiso, Chile
986	50	....	Bologna, Italy	1160	5	PRH3	Sao Paulo, Brazil
990	10	JOCK2	Nagoya, Japan	1167	15	....	Monte Ceneri, Switzerland
990	16	LR4	Buenos Aires, Arg.	1170	2	2NZ	Inverell, Australia
990	2	XGOD	Hangchow, China	1176	10	....	Copenhagen, Denmark
990	2	2GZ	Orange, Australia	1180	5	CB118	Santiago, Chile
995	60	....	Hilversum, Netherlands	1185	60	....	Nice-Corse, France
1000	2	HJ3ABH	Bogota, Colombia	1190	30	LS2	Buenos Aires, Arg.
1000	10	PRB9	Sao Paulo, Brazil	1190	1	2CH	Sydney, Australia
1000	14	....	Bratislava, Czechoslovakia	1190	2	....	Coblentz, Germany
1010	1	CB101	Santiago, Chile	1190	2	....	Trier, Germany
1010	1	CX24	Montevideo, Uruguay	1190	2	....	Frankfurt-am-Main, Germany
1010	5	XGOW	Hangkow, China	1195	25	....	Frankfurt-am-Main, Germany
1013	4	....	Chernigov, U.S.S.R.	1195	5	....	Freiburg-im-Breisgau, Germany
1913	70	....	Davertry, Gt. Britain	1200	1	CB120	Valparaiso, Chile
1020	3	EAJ15	Barcelona, Spain	1200	1	HJ3ABE	Bogota, Colombia
1020	1	2KY	Sydney, Australia	1200	1	PRB6	Sao Paulo, Brazil
1020	2	....	Cracow, Poland	1200	1	....	Moravska-Ostrava, Czechoslovakia
1030	5	CT1GL	Paredo, Portugal	1204	5	....	Lille, France
1030	5	LR9	Buenos Aires, Arg.	1213	60	....	Rio de Janeiro, Brazil
1030	1	XGOL	Foochow, China	1220	25	PRA9	Oakey, Australia
1031	100	....	Konigsberg, Germany	1220	2	4AK	Dunedin, New Zealand
1040	10	CP4	La Paz, Bolivia	1220	1	4ZB	Rome, Italy
1040	10	PRG2	Sao Paulo, Brazil	1222	60	....	Buenos Aires, Arg.
1040	2	5PI	Crystal Broo, Australia	1230	15	LS8	Newcastle, Australia
1040	10	....	Leningrad, U.S.S.R.	1230	2	2NC	Gleiwitz, Germany
1040	120	....	Rennes-Bretagne, France	1230	5	....	Gorlitz, Germany
1050	1.5	CX26	Montevideo, Uruguay	1231	5	....	Cork, I.F.S.
1050	2	2CA	Canberra, Australia	1235	1	6CK	Bahia Blanca, Arg.
1050	50	....	Kalkirk, Gt. Britain	1240	2	LU7	Sale, Australia
1059	20	....	Bari, Italy	1240	1	3TR	Saarbrucken, Germany
1060	5	CB106	Santiago, Chile	1240	17	....	Santiago, Chile
1060	5	PRD2	Rio de Janeiro, Brazil	1250	1	CB125	

1250	1	CX36	Montevideo, Uruguay	1348	2	....	Konigsberg, Germany
1258	1	....	Bilbao, Spain	1348	2	....	Salzburg, Germany
1258	15	....	Riga, Latvia	1350	6	LS6	Buenos Aires, Argentina
1258	1	....	Rome, Italy	1350	1	XGOE	Nanning, China
1258	1	....	Salamanca, Spain	1357	2	....	Bari, Italy
1260	5	PRA5	Sao Paulo, Brazil	1357	5	....	Genoa, Italy
1260	2	3SR	Shepparton, Australia	1357	4	....	Milan, Italy
1260	2	....	Nurnberg, Germany	1357	1	....	Rome, Italy
1270	6	LS9	Buenos Aires, Arg.	1360	5	PRC8	Rio de Janeiro, Brazil
1270	1	2SM	Sydney, Australia	1360	5	....	Warsaw, Poland
1276	27	....	Juan-les-Pins, France	1380	5	CB138	Santiago, Chile
1276	2	....	Varna, Bulgaria	1380	1	4BH	Brisbane, Australia
1280	25	PRG3	Rio de Janeiro, Brazil	1384	7	....	Warsaw, Poland
1280	1	....	Aberdeen, Gt. Britain	1390	1	CB139	Valparaiso, Chile
1294	5	....	Klagenfurt, Germany	1393	25	....	Lyons, France
1294	5	....	Vorarlberg, Germany	1400	5	PRD5	Rio de Janeiro, Brazil
1300	1	CB130	Santiago, Chile	1402	2	....	Stara-Zagora, Bulgaria
1300	5	CPX	La Paz, Bolivia	1410	1	CW37	Colonia, Uruguay
1300	3	PRH6	Bello Horizonte, Brazil	1410	5	PRE7	Sao Paulo, Brazil
1300	2	XQH6	Shanghai, China	1411	15	....	Fecamp, France
1300	2	2TM	Tamworth, Australia	1420	2	PRB2	Curitiba, Brazil
1310	10	LS11	La Plata, Arg.	1420	2	....	Kaiserlautern, Germany
1312	2.5	....	Malmö, Sweden	1430	5	PRE2	Rio de Janeiro, Brazil
1320	1	CB132	Valparaiso, Chile	1430	1	3ZB	Christchurch, New Zealand
1320	1	HAE2	Magyarovar, Hungary	1438	1.2	....	Miskolo, Hungary
1320	1	KGMB	Honolulu, Hawaii	1440	10	LS7	Buenos Aires, Arg.
1320	1	PRD8	Nichteroy, Brazil	1440	3	PRF9	Porto Alegre, Brazil
1320	2	PRE9	Fortaleza, Brazil	1450	1	PRB4	Santos, Brazil
1320	2	PRH4	Sao Paulo, Brazil	1456	5	....	Paris, France
1330	2	....	Bremen, Germany	1460	5	....	Dresden, Germany
1330	2	....	Hanover, Germany	1465	1.2	....	Pecs, Hungary
1330	2	....	Kiel, Germany	1470	1	PRE6	Nichteroy, Brazil
1330	2	....	Stettin, Germany	1474	1	....	Bournemouth, Gt. Britain
1339	2	....	Lodz, Poland	1480	1	PRD3	Petropolis, Brazil
1339	5	....	Montpellier, France	1500	10	CB150	Santiago, Chile
1340	1	CB134	Santiago, Chile	1500	2	VUP	Peshawar, India
1340	5	PRE4	Sao Paulo, Brazil				

Applications To The FCC

(Only applications which are set for hearing are shown in this list).

- KEX, Portland, Ore., change freq. to 1160 (E).
 KFBB, Gt. Falls, Mont., mod. of lic. change freq. to 900, pwr. to 5 kw. unlt. (E).
 KRKO, Everett, Wash., CP 100 (.25), unlt. (E).
 KRSC, Seattle, Wash., CP increase pwr. to 500 w. (E).
 WAZL, Hazelton, Pa., mod. lic. 1420 kcs, 100 w. unlt. (E).
 WDEL, Wilmington, Del., mod. of CP to increase day pwr. to 1000. (E).
 WGRC, New Albany, Ind., CP 880 kcs., 250 w. unlt. (E).
 WIP, Philadelphia, Pa., CP new xmitter, increase pwr. to 5 kw, move xmitter o Brooklawn, N. J. (E).
 WIRE, Indianapolis, Ind., mod. of CP to increase pwr. to 5 kw. (E).
 WIS, Columbia, S. C., applied for special exp. authority for new satellite station at Sumter, S. S., same freq. as WIS, 560 kcs, 10 to 100 w. from LS to sunrise (E).
 WJRD, Tuscaloosa, Ala., mod. of lic. for 100

(.25) unlt. (E).

WMBC, Detroit, Mich., CP change freq. to 600, pwr. to 250 unlt. (E).

WMBR, Jacksonville, Fla., CP 1120 kcs, 1 kw unlt. (E).

WPG, Atlantic City, N. J., CP to change hrs. from specified to unlt. Move studio from Atlantic City to 132 W. 43rd St., New York, and xmitter to Kearney, N. J., requesting facilities of WBIL and WOY. (E).

WRAW, Reading, Pa., CP increase pwr. to 250. (E).

WSJS, Winston Salem, N. C., CP increase pwr to 100 (.25) (E).

WTEL, Philadelphia, Pa., mod. of lic. change freq. to 1500, hrs. to unlt. (E).

WTMV, E. St. Louis, Ill., mod. of lic. to increase pwr. to 250. (E).

New, Ashland, Wis., WJMS, Inc., CP 1200 kcs., 100 (.25) unlt. (E).

New, Cleveland, Ohio, Cuyahoga Valley Brcdstg. Co., CP 1500 kcs, 100 w. days (E).

New, Ely, Wyo., Eastern Nevada Brcdstg. Co., CP 1500 kcs., 100 w. days (E).

New, Everett, Wash., Cascade Brcdstg. Co., Inc., 1420 kcs., 100 (.25) unlt. (E).

New, Hastings, Nebr., South Nebr. Brcdstg. Co., CP 920 kcs., 1000 (5) unlt. (E).

(E) indicates the application is set for hearing before an Examiner. (C) indicates it is set for hearing before the Commission, freq. (Frequency); mod. (modification); lic. (license); pwr. (power); unlt. (unlimited time); ltd. (limited time); CP (construction permit); hrs. (hours); xmitter (transmitter); exp. (experimental); LS (local sunset).

New, Metuchen, N. J., Bernard Goldsmith, CP 1420 kcs., 100 w. days (E).
 New, Ocala, Fla., John T. Alsop, Jr., CP 1500 kcs., 100 w. unlt'd. (E).
 New, Phoenix, Ariz., M. C. Reese, CP 1200 kcs., 100 (.25) unlt'd. (E).
 New, Rockville, Md., Monocacy Brdctg. Co., 1140 kcs., 250 w. days (E).
 New, San Juan, P. R., Enrique Abarca Sanfeliz, CP 580 kcs., 1 kw. unlt'd. (E).
 New, Sedalia, Mo., CP 1500 kcs., 100 (.25) unlt'd. (E).
 New, Springfield, Ohio, Springfield Brdctg. Corp., CP 1310 kcs., 100 w. unlt'd. (E).
 New, Sumter, S. C., J. Samuel Brody, CP 1310 kcs., 100 (.25) Unlt'd. (E).

Recommendations of Fcc Examiners

KATE, Albert Lea, Minn., rec. grant of mod. of lic. to increase pwr. to 100 (.25) unlt'd. (C).
 KEEN, Seattle, Wash., grant of CP change freq. to 1420, pwr. to 100 (.25) unlt'd.
 WDAE, Tampa, Fla., mod. of lic. change freq. to 780.
 WGNV, Newburgh, N. Y., grant of CP change freq. to 1220, pwr. to 250 days.
 WHP, Harrisburg, Pa., grant CP to increase pwr. to 1000 (5).
 WPRA, Mayaguez, P. R., grant of CP to change freq. to 780, pwr. to 1000 (2.5). unlt'd.
 WRBL, Columbus, Ga., mod. of CP to change freq. to 1330, pwr. to 1 kw.
 WTAQ, Green Bay, Wis., grant of CP to increase pwr. to 1000 (5).
 New, Atlantic City, N. J., Press Union Pub. Co., CP 1200 kcs., 100 (.25) unlt'd.
 New, Denver, Colo., F. W. Meyer, CP 1310 kcs., 100 (.25).
 New, Emporia, Kans., Emporia Brdctg. Co., CP 1370 kcs., 100 w. days.
 New, Lihue, Hawaii, Garden Island Pub. Co., CP 1500 kcs., 100 (.25).
 New, Goldsboro, N. C., CP 1370 kcs., 100 w. unlt'd.
 New, New Bern, N. C., Nathan Frank, CP 1500 kcs., 100 w. unlt'd.
 New, Rock Hill, S. C., CP -500 kcs., 100 w. days.
 New, St. Petersburg, Fla., Pinellas Brdctg. Co., CP 1370 kcs. 100 (.25) unlt'd.
 New, Vancouver, Wash., Vancouver Brdctg. Corp., CP 880 kcs., 250 w. days.
 New, Wallace, Idaho, CP new station 1420 kcs., 100 (.25) unlt'd.
 New, Washington, D. C., Lawrence J. Heller, CP 1310 kcs., 100 (.25) (Recommended dismissal of application).

The Month's Changes In Station Data

New

710 XEQ Mexico City, D. F.
 950 Troy, N. Y.
 1210 Charleston, S. C.
 1210 Petersburg, Va.
 1250 WMRO Aurora, Ill.
 1340 WFNC Fayetteville, N. C.
 1420 CKCA Kenora, Ont.

1420 WGNC Gastonia, N. C.
 1420 WHMA Anniston, Ala.
 1430 CMKZ Palma Soriano, Cuba
 1490 CMKQ Santiago, Cuba
 1500 KVWC Vernon, Texas
 1540 CM9RT Guines, Cuba

Frequency
 1500 CMCG Havana, Cuba, from 680

Call
 1050 WIBC Indianapolis, Ind., from WGVA
 1310 KOMO Tulsa, Okla., from KTFL
 1420 KSAN San Francisco, Calif., from KGGC

Location
 950 KFVB Los Angeles, Calif., from Hollywood.
 1420 WMSD Muscle Shoals City, Ala., from Sheffield.

Reinstated
 1440 CMBG Havana, Cuba

Network
 1260 KRGV Weslaco, Texas, new MBS
 1310 KAND Corsicana, Texas, New MBS
 1310 KFYO Lubbock, Texas, new MBS
 1330 KRIS Corpus Christi, Texas, new MBS
 1370 KFJZ Fort Worth, Texas, new MBS
 1370 KFRO Longview, Texas, new MBS
 1370 KLUF Galveston, Texas, new MBS
 1370 KTEM Temple, Texas, new MBS
 1410 KGNC Amarillo, Texas, new MBS
 1420 KABC San Antonio, Texas, new MBS
 1420 KCMC Texarkana, Texas, new MBS
 1420 KRBC Abilene, Texas, new MBS
 1420 KRIC Beaumont, Texas, new MBS
 1420 WACO Waco, Texas, new MBS
 1440 KXYZ Houston, Texas, new MBS
 1500 KBST Big Spring, Texas, new MBS
 1500 KGKB Tyler, Texas, new MBS
 1500 KNOW Austin, Texas, new MBS
 1500 KPLT Paris, Texas, new MBS.

Permit to Change Frequency
 770 KFAB Lincoln, Nebr., to 1080
 980 XEFE Nueve Laredo, Tams.
 1190 WATR Waterbury, Conn., to 1290
 1240 KLPN Minot, N. Dak., to 160
 1310 KINY Juneau, Alaska, to 1430
 1310 WOL Washington, D. C., to 1230
 1370 KAST Astoria, Ore., to 1200
 1370 KSLM Salem, Ore., to 1360

Permit to Change Power
 650 WFIL Philadelphia, Pa., to 1000
 580 WJL Urbana, Ill., to 5000
 590 WKZO Kalamazoo, Mich., to 250 (1)
 760 KXA Seattle, Wash., to 1000
 770 KFAB Lincoln, Nebr., to 50000
 850 WKAR E. Lansing, Mich., to 5000
 850 WWL New Orleans, La., to 50000
 880 CMW Havana, Cuba, to 5000
 880 WRNL Richmond, Va., to 1000
 890 KFNF Shenandoah, Iowa, to 1000 (5)
 900 KGBU Ketchikan, Alaska, to 1000
 920 CMX Havana, Cuba, to 10000
 1000 CMBZ Havana, Cuba, to 5000
 1040 KRLD Dallas, Texas, to 50000
 1110 CMCJ Havana, Cuba, to 5000
 1110 WRVA Richmond, Va., to 5000
 1170 CMBS Havana, Cuba, to 5000
 1190 WATR Waterbury, Conn., to 250
 1240 KLPN Minot, N. Dak., to 500 (1)
 1250 KIT Yakima, Wash., to 500 (1)
 1260 CMBD Havana, Cuba, to 5000

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KEY TO SYMBOLS

As shown in the Index by Frequencies

Frequencies are given in kilocycles per second, and wavelengths in meters. Night power is shown in watts in third column. Daytime power is shown in parentheses in fourth column, in kilowatts. Thus: (.25) indicates 250 watts. Exact frequencies, when not multiples of ten, are shown in the fourth column.

Second Column Symbols

- a Verifies for return postage.
- b Verifies only occasionally.
- c Does not verify.
- d Verifies—no postage required.
- e Verifies for International Reply Coupon
- z No information available.

Fourth Column Symbols

- A Status in doubt—in Court.
- B National "Blue" Network.
- C Columbia Network.
- D Daytime only.
- P Canadian Network.

- G Assigned this frequency but using another under Special Authorization.
- H Assigned another frequency—using this one under Special Authorization.
- J Assigned lower power but using this power under Special Authorization.
- K Licensed for facsimile.
- L Limited time.
- M Mutual Network.
- N National "Red" and "Blue" Networks.
- P Has Construction Permit only.

- Q Station not in use.
 - R National "Red" Network.
 - S Sundays only.
 - Sy Synchronized.
 - X Has Permit to change power.
 - Y Has Permit to change location.
 - Z Has Permit to change frequency.
- a-b-c Small letters show stations using same transmitter.
1-2-3 Figures denote stations sharing time.
... No information.

540 kcs. (555.2 m.)

CJRM	a	1000	F
ZNS	d	400	....

Regina, Sask.
Nassau, Bahamas

J. Richardsons Son
Superintendent of Telegraphs

550 kcs. (545.1 m.)

CFNB	a	500	F(1)
KFUO	a	500	2(1)
KFYR	a	1000	N(5)
KOAC	a	1000	....
KSD	a	1000	2R(5)
KTSA	a	1000	C(5)
WDEV	a	500	D
WGR	a	1000	C(5)
WKRC	a	1000	C(5)
WSVA	a	500	D
XEFC	a	100	....

Fredericton, N. B.
St. Louis, Mo.
Bismarck, N. Dak.
Corvallis, Ore.
St. Louis, Mo.
San Antonio, Tex.
Waterbury, Vt.
Buffalo, N. Y.
Cincinnati, Ohio
Harrisonburg, Va.
Merda, Yuc.

James S. Neill & Sons
Evangelical Lutheran Synod
Meyer Brcdstg. Co.
State Agricultural Col.
Pulitzer Pub. Co.
KTSA Brcdstg. Co.
Chas. B. Adams, Adm.
Buffalo Brcdstg. Corp.
Columbia Brcdstg. Sys.
Shenandoah Valley Brcdstg. Corp.
Julio Molina Font.

560 kcs. (535.4 m.)

KFDM	a	500	N(1)
KLZ	a	1000	C(5)
KSFO	a	1000	C(5)
KWTO	a	500	D
WFIL	a	1000	BMX
WIND	a	1000	(5)
WIS	a	1000	N(5)
WQAM	a	1000	C

Beaumont, Texas
Denver, Colo.
San Francisco, Calif.
Springfield, Mo.
Philadelphia, Pa.
Gary, Ind.
Columbia, S. C.
Miami, Fla.

Sabine Brcdstg. Co., Inc.
KLZO Brcdstg. Co.
Associated Broadcasters, Inc.
Ozarks Brcdstg. Co.
638 Pub. Ledger Bldg.
Johnson-Kennedy Radio Corp.
Station WIS, Inc.
Miami Brcdstg. Co.

570 kcs. (526 m.)

CMCY	a	10000	....
KGKO	a	1000	B(5)
KMTR	a	1000	....
KVI	a	1000	C(5)
WKBN	a	500	1C
WMCA	a	1000	....
WNAX	a	1000	C(5)
WOSU	a	750	1(1)
WSYR	a	1000	Ba
WSYU	a	1000	Qa
WWNC	a	1000	N

Havana, Cuba
Ft. Worth, Texas
Los Angeles, Calif.
Tacoma, Wash.
Youngstown, Ohio
New York, N. Y.
Yankton, S. Dak.
Columbus, Ohio
Syracuse, N. Y.
Syracuse, N. Y.
Asheville, N. C.

Manuel D. Outran y Cia.
KGKO Brcdstg. Co.
KMTR Radio Corp.
Puget Sound Brcdstg. Co., Inc.
WKBN Brcdstg. Corp.
Knickerbocker Brcdstg. Co.
WNAX Brcdstg. Co.
Ohio State University
Central N. Y. Brcdstg. Corp.
Central N. Y. Brcdstg. Corp.
Citizen-Times Co., Inc.

580 kcs. (516.9 m.)

CFPR	a	50	....
CHRC	a	100	....

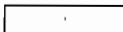
Prince Rupert, B. C.
Quebec, P. Q.

Felix E. Bat
CHRC, Ltd.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

CKCL	a	100	F	Toronto, Ont.	Dominion Battery Co., Ltd.
CKUA	a	500	....	Edmonton, Alta.	University, Alberta.
KMJ	a	1000	KN	Fresno, Calif.	McClatchey Brdctsg. Co.
KSAC	a	500	2(1)	Manhattan, Kans.	State College
WCHS	a	500	C(1)	Charleston, W. Va.	Charleston Brdctsg. Co.
WDBO	a	1000	C(5)	Orlando, Fla.	Orlando Brdctsg. Co., Inc.
WIBW	a	1000	C2(5)	Topeka, Kans.	Topeka Brdctsg. Assn.
WILL	a	1000	DX	Urbana, Ill.	University of Ill.
WTAG	a	1000	R	Worcester, Mass.	Worcester Telegram Pub. Co.
XELO	a	10000	....	Tijuana, B. Cfa.	Radiodifusora de Piedras Negras
XEMU	z	250	....	Piedras Negras, Coah.	Radiodifusora de Piedras Negras

590 kcs. (508.2 m.)



KHQ	a	1000	R(5)	Spokane, Wash.	Louis Wasmer, Inc.
WEEI	a	1000	C(5)	Boston, Mass.	CBS, Inc.
WKZO	a	1000	BDX	Kalamazoo, Mich.	WKZO, Inc.
WOW	a	1000	R(5)	Omaha, Nebr.	Woodmen of the World

600 kcs. (499.7 m.)



CFCF	a	500	BF	Montreal, P. Q.	Canadian Marconi Co.
CJOR	a	500	....	Vancouver, B. C.	G. C. Chandler
CMQ	a	25000	....	Havana, Cuba	Del Jabon Candado
FQJ	a	250	609	St. Pierre, Miquelon	Radio Club St. Pierrais
KFSD	a	1000	B	San Diego, Calif.	Airfan Radio Corp., Ltd.
WCAO	a	1000	CJ	Baltimore, Md.	Monumental Radio Co.
WICC	a	500	BM(1)	Bridgeport, Conn.	Yankee Network, Inc.
WMT	a	1000	BM(5)	Cedar Rapids, Iowa	Iowa Brdctsg. Co.
WREC	a	1000	C(5)	Memphis, Tenn.	WREC, Inc.

610 kcs. (491.5 m.)



KFAR	z	1000	P	Fairbanks, Alaska	Midnight Sun Brdctsg. Co.
KFRK	c	1000	M(5)	San Francisco, Calif.	Don Lee Network, Inc.
WCLF	a	500	DM	Cleveland, Ohio	Cleveland Radio Brdctsg. Corp.
WDAF	a	1000	R(5)	Kansas City, Mo.	Kansas City Star Co.
WIOD	a	1000	Na	Miami, Fla.	Isle of Dreams Brdctsg. Corp.
WIP	a	1000	....	Philadelphia, Pa.	Pennsylvania Brdctsg. Co.
WMBF	a	1000	Qa	Miami, Fla.	Isle of Dreams Brdctsg. Corp.
XEXM	z	500	.2	Mexico City, D. F.	Secretaria de Education Publica
XEYO	z	500	.2	Mexico City, D. F.	Partido Nacional Revolucionaria

620 kcs. (483.6 m.)



KGW	a	1000	R(5)	Portland, Ore.	Oregonian Pub. Co.
KTAR	a	1000	N	Phoenix, Ariz.	KTAR Brdctsg. Co.
KWFT	z	250	(1)P	Wichita Falls, Tex.	Wichita Brdctsg. Co.
TIPG	z	2000	625	San Jose, Costa Rica	La Voz de la Victor
WFLA	a	1000	Na(5)	Tampa, Fla.	Fla. West Coast Brdctsg. Co.
WHJB	a	250	CD	Greensburg, Pa.	Pittsburgh Radio Supply House
WLBZ	a	500	CM(1)	Bangor, Maine	Maine Brdctsg. Co., Inc.
WSUN	a	1000	Na(5)	St. Petersburg, Fla.	Chamber of Commerce
WTMJ	a	1000	N(5)	Milwaukee, Wis.	The Journal Co.

630 kcs. (475.9 m.)



CFCO	a	100	F	Chatham, Ont.	John Beardall
CFCY	a	1000	F	Charlottetown, P.E.I.	Island Radio Brdctsg. Co.
CJRC	a	500	F(1)	Winnipeg, Man.	James Richardsons & Sons, Ltd.
CKOV	a	100	F	Kelowna, B. C.	Okanagan Broadcasters, Ltd.
CMCD	a	250	....	Havana, Cuba	La Voz del Aire
KFRU	a	500	1(1)	Columbia, Mo.	KFRU, Inc.
KGFX	a	200	D	Pierre, S. Dak.	Mrs. Ida A. McNeil
WGBF	a	500	NE(1)	Evansville, Ind.	Evansville on the Air, Inc.
WMAL	a	250	B(5)	Washington, D. C.	National Brdctsg. Co.
WPRO	a	500	C(1)	Providence, R. I.	Cherry & Webb Brdctsg. Co.
XEZ	z	500	....	Merida, Yuc.	Jorge L. Palomeque

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

640 kcs. (468.5 m.)

KFI	a	50000	R	Los Angeles, Calif.	Earle C. Anthony, Inc.
WGAN	z	500	DP	Portland, Me.	Portland Brdcstg. Sys., Inc.
WHKC	a	500	ML	Columbus, Ohio	Associated Radiocasting Corp.
WOI	a	5000	D	Ames, Iowa	College of Agriculture
XEBX	z	250	....	Sabinas, Coah.	Benito Garza Ortegon
YSS	a	500	....	San Salvador, E. S.	Republic of San Salvador

650 kcs. (461.3 m.)

KIRO	z	250	GQ	Seattle, Wash.	Queen City Brdcstg. Co.
TIX	z	1000	....	San Jose, Costa Rica	.....
WSM	a	50000	KMN	Nashville, Tenn.	Natl. Life & Accident Insurance Co.

660 kcs. (454.3 m.)

WAAW	a	500	D	Omaha, Nebr.	Omaha's Grain Exchange
WEAF	a	50000	R	New York, N. Y.	National Brdcstg. Co., Inc.
XEAL	z	1000	....	Mexico City, D. F.	Cia. Pan-Americana de Radio
XEAO	a	250	Mexicali, B. Cfa.	Chavezzy Castro

670 kcs. (447.5 m.)

WMAQ	a	50000	R	Chicago, Ill.	National Brdcstg. Co., Inc.
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680 kcs. (440.9 m.)

CMBQ	z	5000	P	Havana, Cuba	Rufino Pazos Hernandez
KFEQ	a	2500	D	St. Joseph, Mo.	KFEQ, Inc.
KPO	a	50000	R	San Francisco, Calif.	National Brdcstg. Co., Inc.
VAS	a	2000	685	Glance Bay, N. S.	Canadian Marconi Co.
VOWR	c	500	681	St. John's, Nfld.	Wesley United Church
WLAW	a	1000	D	Lawrence, Mass.	Hildreth & Rogers, Co.
WPTF	a	5000	N	Raleigh, N. C.	WPTF Radio Co.

690 kcs. (434.5 m.)

CFRB	a	10000	C	Toronto, Ont.	Rogers Radio Brdcstg. Co.
CJ CJ	a	100	F	Calgary, Alta.	Albertan Publishers, Ltd.
XET	a	5000	Monterrey, N. L.	El Pregonero del Norte

700 kcs. (428.3 m.)

WLW	a	500000	JKMN	Cincinnati, Ohio	Crosley Radio Corp.
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710 kcs. (422.3 m.)

KIRO	a	1000	CHJ	Seattle, Wash.	Queen City Brdcstg. Co.
KMPC	a	500	L	Beverly Hills, Calif.	The Station of the Stars, Inc.
WOR	a	50000	KM	Newark, N. J.	Bamburger Brdcstg. Service
XEQ	a	50000	....	Mexico City, D. F.	Radio Panamerica, S. A.

720 kcs. (416.4 m.)

CMK	a	250	....	Havana, Cuba	Radiodifusora O'Shea
WGN	a	50000	KM	Chicago, Ill.	WGN, Inc.
XEH	a	250	....	Monterrey, N. L.	Constantino de Ternava

730 kcs. (410.7 m.)

CFPL	a	100	F	London, Ont.	London Free Press
CJCA	a	1000	F	Edmonton, Alta.	North Western Publishers, Ltd.
CKAC	a	5000	C	Montreal, P. Q.	La Presse Publishing Co., Ltd.
CKPR	a	100	F	Fort William, Ont.	Dougall Motor Car Co.
CMCL	z	10000	P	Havana, Cuba	Radio City
XEPN	a	100000	....	Piedras Negras, Coah.	Piedras Negras Brdcstg. Co.
XERB	a	100000	....	Rosarito Beach, B. C.	.....

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

740 kcs. (405.2 m.)

KMMJ	a	1000	D	Clay Center, Nebr.
KTRB	a	250	D	Modesto, Calif.
WHBB	a	250	D	Portsmouth, N. H.
WSB	a	50000	R	Atlanta, Ga.
				KMMJ, Inc. McTammany & Bates Granite State Brdctg. Corp. Atlanta Journal Co.

750 kcs. (399.8 m.)

CMBL	z	500	....	Havana, Cuba
KGU	a	2500	LN	Honolulu, Hawaii
WJR	a	50000	C	Detroit, Mich.
XEAA	a	200	....	Mexicali, B. Cfa.
XEAM	z	25	....	Matamoros, Tams.
				Radio Cadena Suaritos Advertiser Pub. Co., Ltd. WJR, The Goodwill Station Rosando Herrera Manuel Salinas

760 kcs. (394.5 m.)

KXA	a	250	(.5)X	Seattle, Wash.
WBAL	a	2500	BMSy	Baltimore, Md.
WCAL	a	1000	2(5)	Northfield, Minn.
WEW	a	1000	D	St. Louis, Mo.
WJZ	a	50000	BSy	New York, N. Y.
WLB	a	1000	2(5)	Minneapolis, Minn.
XEOK	a	2500	....	Tijuana, B. Cfa.
				American Radio Tel. Co. WBAL Brdctsb. Co. St. Olaf College St. Louis University National Brdctg. Co. University of Minn. Carlos de la Sierra

770 kcs. (389.4 m.)

CMBF	z	5000	....	Havana, Cuba
KFAB	a	10000	CSyXXZ	Lincoln, Nebr.
WBBM	a	50000	CSy	Chicago, Ill.
				Cia. Cubana de Radio y Television KFAB Brdctg. Co. Columbia Brdctg. Sys., Inc.

780 kcs. (384.4 m.)

CHWK	b	100	F	Chilliwack, B. C.
CKSO	a	1000	F	Sudbury, Ont.
KEHE	a	1000	(5)	Los Angeles, Calif.
KFDY	a	1000	D	Brookings, S. Dak.
KFQD	c	250	....	Anchorage, Alaska
KGHL	a	1000	N(5)	Billings, Mont.
KWLK	z	250	DP	Longview, Wash.
WEAN	a	1000	BM(5)	Providence, R. I.
WMC	a	1000	R(5)	Memphis, Tenn.
WPIC	z	250	DP	Sharon, Pa.
WTAR	a	1000	N	Norfolk, Va.
XEN	a	1000	....	Mexico City, D. F.
				Chilliwack Brdctg. Co., Ltd. Sudbury Star Hearst Radio, Inc. S. Dak. State College Anchorage Radio Club Northwestern Auto Supply Co. Twin City Brdctg. Corp. Yankee Network, Inc. Memphis Commercial Appeal Sharon Herald Pub. Co. WTAR Radio Corp. "Radio Mundial"

790 kcs. (379.5 m.)

CMGH	a	250	....	Matanzas, Cuba
KGO	a	7500	B	San Francisco, Calif.
KOAM	z	1000	DN	Pittsburg, Kans.
WGY	a	50000	R	Schenectady, N. Y.
				Radio Rialto National Brdctg. Co., Inc. Pittsburg Brdctg. Co., Inc. General Electric Co.

800 kcs. (374.8 m.)

HIX	a	800	....	Ciudad Trujillo, D. R.
WBAP	a	50000	Na	Fort Worth, Tex.
WFAA	a	50000	Na	Dallas, Texas
WTBO	a	250	D	Cumberland, Md.
				J. R. Saladin Carter Publications, Inc. A. H. Belo Corp. Associated Brdctg. Corp.

310 kcs. (370.2 m.)

CMCF	a	5000		Havana, Cuba
WCCO	a	50000	C	Minneapolis, Minn.
WNYC	a	1000	D	New York, N. Y.
XBBZ	a	100	....	Mexico City, D. F.
XEDF	a	100	....	Nuevo Laredo, Tams.
				General Electric of Cuba Columbia Brdctg. Sys. City of New York Refugio Esperza Vda. de Valezzi El Pregonero del Bravo

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

820 kcs. (365.6 m.)

CMJX	a	500	....	Santa Clara, Cuba	Guillermo Domenech Galisch
WHAS	a	50000	C	Louisville, Ky.	Louisville Times Co.
XEBG	z	1000	....	Tijuana, B. Cfa.	Angel B. Fernandez

830 kcs. (361.2 m.)

CMJX	a	150	....	Camaguey, Cuba	Rodolfo Gonzales Solis
KOA	a	50000	R	Denver, Colo.	National Brdcstg. Co., Inc.
WEEU	a	1000	D	Reading, Pa.	Berks Brdcstg. Co.
WHDH	a	1000	L	Boston, Mass.	Matheson Radio Co., Inc.
WRUF	a	5000	L	Gainesville, Fla.	University of Fla.

840 kcs. (356.9 m.)

CBL	a	50000	F	Toronto, Ont.	Canadian Brdcstg. Corp.
CFQC	a	1000	F	Saskatoon, Sask.	A. A. Murphy & Sons, Ltd.
VOGY	a	400	....	St. Johns, Nfld.	Newfoundland Hotel
XERA	a	250000	....	Villa Acuna, Coah.	Cia. Mexicana Radiodifusora Fronteriza

850 kcs. (352.7 m.)

CMCM	a	250	....	Havana, Cuba	Transradio Columbia
KIEV	a	250	D	Glendale, Calif.	Cannon System, Ltd.
KWKH	z	1000	GQ	Shreveport, La.	International Brdcstg. Corp.
WESG	a	1000	CDH	Elmira, N. Y.	Cornell University
WKAR	a	1000	DX	E. Lansing, Mich.	Mich. State College
WWL	a	10000	CX	New Orleans, La.	Loyola University

860 kcs. (348.6 m.)

WABC	a	50000	Ca	New York, N. Y.	Columbia Brdcstg. Sys.
WBOQ	a	50000	Qa	New York, N. Y.	Columbia Brdcstg. Sys.
WHB	a	1000	DM	Kansas City, Mo.	WHB Brdcstg. Co.
XEMO	a	5000	....	Tijuana, B. Cfa.	Fernando Federico Ferreira
XENC	z	50	....	Mexico City, D. F.	C. de T. de la Industria Electrica

870 kcs. (344.6 m.)

WENR	a	50000	Ba	Chicago, Ill.	National Brdcstg. Co., Inc.
WLS	a	50000	Ba	Chicago, Ill.	Agricultural Brdcstg. Co.
XEFB	a	200	....	Monterrey, N. L.	Jesus Quintanilla
XEJW	z	500	....	Mexico City, D. F.	Dr. Jose Luis Garza G.

880 kcs. (340.7 m.)

CBO	a	1000	F	Ottawa, Ont.	Canadian Brdcstg. Corp.
CFJC	a	1000	F	Kamloops, B. C.	Kamloops Sentinel, Ltd.
CMW	a	1400	X	Havana, Cuba	Troncoso y Gil
KFKA	a	500	2M(1)	Greeley, Colo.	Mid-Western Radio Corp.
KLX	a	1000	....	Oakland, Calif.	Tribune Bldg. Co.
KPOF	a	1000	2	Denver, Colo.	Pillar of Fire
WCOG	a	1000	C	Meridian, Miss.	Mississippi Brdcstg. Co.
WGBI	a	500	C1(1)	Scranton, Pa.	Scranton Broadcasters, Inc.
WQAN	a	500	1(X)	Scranton, Pa.	Scranton Times
WRNL	a	500	DX	Richmond, Va.	WLBG, Inc.
WSUI	a	500	(1)	Iowa City, Iowa	University of Iowa

890 kcs. (336.9 m.)

KARK	a	500	N(1)	Little Rock, Ark.	Ark. Radio & Equipment Co.
KFNF	a	500	2X(1)	Shenandoah, Iowa	KFNF, Inc.
KFPY	a	1000	C(5)	Spokane, Wash.	Symons Brdcstg. Co.
KUSD	a	500	2	Vermillion, S. Dak.	University of S. Dak.
WBAA	a	500	(1)	W. Lafayette, Ind.	Purdue University
WGST	a	1000	C(5)	Atlanta, Ga.	Ga. School of Technology
WJAR	a	1000	R(5)	Providence, R. I.	The Outlet Co.
WMMN	a	500	CX(1)	Fairmont, W. Va.	Monongahela Valley Brdcstg. Co.
XEK	a	100	....	Mexico City, D. F.	Arturo Martinez
XEW	a	50000	....	Mexico City, D. F.	Cadena Radiodifusora Mexicana

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

900 kcs. (333.1 m.)

KGBU	a	500	X	Ketchikan, Alaska	Alaska Radio & Service Co.
KHJ	a	1000	M(5)	Los Angeles, Calif.	Don Lee Brdcastg. Sys.
KSEI	a	250	N(1)	Pocatello, Idaho	Radio Service Corp.
WBEN	a	1000	R(5)	Buffalo, N. Y.	WBEN, Inc.
WELI	a	500	D	New Haven, Conn.	City Brdcastg. Corp.
WFMD	a	500	D	Frederick, Md.	Monocacy Brdcastg. Co.
WJAX	a	1000	N(5)	Jacksonville, Fla.	City of Jacksonville
WKY	a	1000	N(5)	Oklahoma City, Okla.	WKY Radiophone Co.
WLBL	a	5000	D	Stevens Point, Wis.	Dept. of Agriculture & Markets
WTAD	a	1000	D	Quincy, Ill.	Illinois Brdcastg. Corp.

910 kcs. (329.6 m.)

CBF	a	50000	FN	Montreal, P. Q.	Canadian Brdcastg. Corp.
CJAT	a	1000	F	Trail, B. C.	Kootenay Brdcastg. Co., Ltd.
CKY	a	15000	F	Winnipeg, Man.	Manitoba Telephone Sys.
XENT	a	150000	....	Nuevo Laredo, Tams.	Cia. Industrial Universal, S. A.

920 kcs. (325.9.)

CMX	a	1000	X	Havana, Cuba	Casa Lavin
KFEL	a	500	Ma	Denver, Colo.	Eugene P. OFallon, Inc.
KOMO	a	1000	R(5)	Seattle, Wash.	Fishers Blend Station, Inc.
KPRC	a	1000	R(5)	Houston, Texas	Houston Printing Corp.
KVOD	a	500	Ba	Denver, Colo.	Colorado Radio Corp.
WAAF	a	1000	D	Chicago, Ill.	Drovers Journal Pub. Co.
WORL	a	500	D	Boston, Mass.	Brdcastg. Service Organization
WPEN	a	1000	....	Philadelphia, Pa.	Wm. Penn Brdcastg. Co.
WRAX	a	1000	Q	Philadelphia, Pa.	WRAX Brdcastg. Co.
WSPA	a	1000	D	Spartanburg, S. C.	Voice of S. Carolina
WWJ	a	5000	R	Detroit, Mich.	Evening News Assn.

930 kcs. (322.4 m.)

CFAC	a	1000	F	Calgary, Alta.	South Western Publishers, Ltd.
CFCH	a	100	F	North Bay, Ont.	Northern Brdcd. Co.
CFLC	a	100	....	Prescott, Ont.	Radio Ass'n. of Prescott
CHNS	a	1000	F	Halifax, N. S.	Maritime Brdcastg. Co., Ltd.
CKPC	a	100	F	Brantford, Ont.	Telephone City Brdcastg. Ltd.
KMA	a	1000	B(5)	Shenandoah, Iowa	Earl E. May Co.
KROW	a	1000	....	Oakland, Calif.	Educational Brdcastg. Co'rp.
WBRC	a	1000	R(5)	Birmingham, Ala.	Birmingham Brdcastg. Co.
WDBI	a	1000	C(5)	Roanoke, Va.	Times World Corp.
XEBH	a	500	....	Hermosillo, Son.	Carlos Balderrama

940 kcs. (319 m.)

KOIN	a	1000	C(5)	Portland, Ore.	KOIN, Inc.
WAAT	a	500	D	Jersey City, N. J.	Bremer Brdcastg. Corp.
WAVE	a	1000	N	Louisville, Ky.	WAVE, Inc.
WCSH	a	1000	R(2.5)	Portland, Me.	Congress Sq. Hotel Co.
WDAY	a	1000	N(5)	Fargo, N. Dak.	WDAY, Inc.
WHA	a	5000	D	Madison, Wis.	University of Wis.
WICA	a	250	D	Ashtabula, Ohio	WICA, Inc.
XEFO	a	5000	....	Mexico City, D. F.	

950 kcs. (315.6 m.)

CJOC	a	100	F	Lethridge, Alta.	H. R. Carson, Ltd.
CMBC	z	150	....	Havana, Cuba	El Progreso Cubano
CRCK	a	1000	F	Quebec, P. Q.	Canadian Brdcastg. Corp.
KFWB	a	1000	(5)	Los Angeles, Calif.	Warner Bros. Brdcastg. Corp.
KMBC	a	1000	C(5)	Kansas City, Mo.	Midland Brdcastg. Co.
WHAL	z	500	DP	Saginaw, Mich.	Gross & Shields
WRC	a	1000	R(5)	Washington, D. C.	National Brdcastg. Co., Inc.
	z	1000	DP	Troy, N. Y.	Troy Brdcastg. Co.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

960 kcs. (312.3 m.)

CFRN	a	100	F	Edmonton, Alta.	G. R. A. Rice
CHNC	a	1000	F	New Carlisle, P. Q.	Gaspesian Radio Co., Ltd.
CMKS	z	60	....	Guantanamo, Cuba	Candido Savon Suarez
CRCY	c	100	F	Toronto, Ont.	Canadian Brdcstg. Corp.
XEAW	c	100000	....	Reynosa, Tams.	Cia. Int. Difusora Reynosa

970 kcs. (309.1 m.)

CMBY	z	200	....	Havana, Cuba	Callejas y Estefani
KJR	a	5000	B	Seattle, Wash.	Fishers Blend Station, Inc.
WCFL	a	5000	N	Chicago, Ill.	Chicago Federation of Labor
WIBG	a	100	D	Glenside, Pa.	Seaboard Brdcstg. Corp.

980 kcs. (306 m.)

KDKA	b	50000	B	Pittsburgh, Pa.	Westinghouse Elec. & Mfg. Co.
XEAC	a	1000	....	Tijuana, B. Cfa.	Jorge I. Rivera
XEFE	z	250	Z	Nuevo Laredo, Tams.	Rafael T. Carranza

990 kcs. (302.8 m.)

CMKL	z	200	....	Bayamo, Cuba	Alberto Alvarez Ferrera
WBZ	a	50000	BSy	Boston, Mass.	Westinghouse Elec. & Mfg. Co.
WBZA	a	1000	BSy	Springfield, Mass.	Westinghouse Elec. & Mfg. Co.
XEAF	a	750	....	Nogales, Son.	Francisco G. Elias
XES	a	250	....	Tampico, Tams.	Fernando Sada

1000 kcs. (299.8 m.)

CMBZ	a	500	X(1)	Havana, Cuba	Radio Salas
KFVD	a	1000	L	Los Angeles, Calif.	Standard Brdcstg. Co.
VOCM	z	200	1006	St. John's Nfld.	St. John's Eve. Telegram
WHO	a	50000	KR	Des Moines, Iowa	Central Brdcstg. Co.
XEBI	a	25	....	Aguascalientes, Ags.	Pedro C. Rivas

1010 kcs. (296.9 m.)

CHML	a	100	F	Hamilton, Ont.	Maple Leaf Radio Co.
CKCD	a	100	1	Vancouver, B. C.	Vancouver Daily Province
CKCK	a	1000	F	Regina, Sask.	Leader-Post, Ltd.
CKCO	a	100	F	Ottawa, Ont.	Dr. G. M. Geldert
CKIC	a	50	....	Wolfville, N. S.	Acadia University
CKWX	a	100	1	Vancouver, B. C.	Western Brdcstg. Co., Ltd.
CMJA	a	250	....	Camaguey, Cuba	Rafael Valdes
KGGF	a	1000	2M	Coffeyville, Kans.	Powell & Platz
KQW	a	1000	M	San Jose, Calif.	Pacific Agricultural Foundation
WHN	a	1000	(5)	New York, N. Y.	Marcus Loew Booking Agency
WNAD	a	1000	2	Norman, Okla.	University of Okla.
WNXX	a	1000	C(5)	Knoxville, Tenn.	Scripps-Howard Radio, Inc.
XFFQ	a	50	....	Cananea, Son.	Pedro L. Diaz
XEU	a	250	....	Veracruz, Ver.	Fernando Pazos S.

1020 kcs. (293.9 m.)

KYW	a	10000	R	Philadelphia, Pa.	Westinghouse Elec. & Mfg. Co.
WDZ	a	250	D	Tuscola, Ill.	WDZ Brdcstg. Co.
XEJ	a	1000	....	Juarez, Chih.	Pedro Meneses, Jr.

1030 kcs. (291.1 m.)

CFCN	a	10000	....	Calgary, Alta.	Voice of the Prairies, Ltd.
CJBR	z	1000	F	Rimouski, P. Q.	J. A. Brilliant
CKLW	a	5000	FM	Windsor, Ont.	Western Ont. Brdcstg. Co.
CMCK	a	5000	....	Havana, Cuba	Luis Casas R.
XEB	a	10000	....	Mexico City, D. F.	El Buen Tono, S. A.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

1040 kcs. (288.3 m.)

KRLD	a	10000	CX
KTHS	a	1000	GQ
KWJJ	a	500	D
KYOS	b	250	H
WESG	z	1000	GQ
WTIC	a	50000	R

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 Dallas, Texas
 Hot Springs, Ark.
 Merced, Calif.
 Portland, Ore.
 Elmira, N. Y.
 Hartford, Conn.

KRLD Radio Corp.
 Chamber of Commerce
 KWJJ Broadcast Co.
 Merced Star Pub. Co.
 Cornell University
 Travelers Brdctsg. Service Corp.

1050 kcs. (285.5 m.)

CBM	a	5000	FR
CMKD	a	1000	....
HIT	z	50	....
KFBI	a	5000	L
KNX	a	50000	C
WEAU	z	1000	D
WIBC	z	1000	D

[]
 Montreal, P. Q.
 Santiago, Cuba
 Ciudad Trujillo, D. R.
 Abilene, Kans.
 Los Angeles, Calif.
 Eau Claire, Wis.
 Indianapolis, Ind.

Canadian Brdctsg. Corp.
 Radioemisora Oriental
 A. L. Pichardo
 Farmers and Bankers Brdctsg. Corp.
 CBS, Inc.
 Central Brdctsg. Co.
 Indiana Brdctsg. Corp.

1060 kcs. (282.8 m.)

KTHS	z	1000	HN
KWJJ	z	500	GQ
VOAC	z	40	1065
WBAL	a	10000	BHM
WJAG	a	1000	DH
W3XJ	z	100	P

[]
 Hot Springs, Ark.
 Portland, Ore.
 St. John's, Nfld.
 Baltimore, Md.
 Norfolk, Nebr.
 College Park, Md.

Chamber of Commerce
 KWJJ Broadcast Co., Inc.

 WBAL Brdctsg. Co.
 Norfolk Daily News
 McNary & Chambers

1070 kcs. (280.2 m.)

GMBX	a	150	....
CMHA	z	50	....
KJBS	a	500	L
WCAZ	a	100	D
WTAM	a	50000	R

[]
 Havana, Cuba
 Sagua la Grande, Cuba
 San Francisco, Calif.
 Carthage, Ill.
 Cleveland, Ohio

Vicente Espinosa
 Abelardo Menocal
 Julius Brunton & Sons
 Superior Brdctsg. Service., Inc.
 National Brdctsg. Co., Inc.

1080 kcs. (277.6 m.)

WBT	a	50000	C
WCBD	a	5000	1L
WMBI	a	5000	1L
XEBA	z	20	....
XEBK	a	100	....
XEDP	a	500	....

[]
 Charlotte, N. C.
 Chicago, Ill.
 Chicago, Ill.
 Guzman, Jal.
 Nuevo Laredo, Tams.
 Mexico City, D. F.

Columbia Brdctsg. Sys.
 WCBD, Inc.
 Moody Bible Institute
 Javier Velasco
 Indo Latin Voice
 Dpto. de Publicidad y Propaganda

1090 kcs. (275.1 m.)

HIN	a	740	....
KMOX	a	50000	C

[]
 Ciudad Trujillo, D. R.
 St. Louis, Mo.

Frank Hatton
 Columbia Brdctsg. Sys.

1100 kcs. (272.6 m.)

CBR	a	5000	F
KGDM	a	1000	DM
KWKH	a	10000	CH
WBIL	a	5000	1
WPG	a	5000	C1
XEL	z	250	....

[]
 Vancouver, B. C.
 Stockton, Calif.
 Shreveport, La.
 New York, N. Y.
 Atlantic City, N. J.
 Mexico City, D. F.

Canadian Brdctsg. Corp.
 E. F. Peffer
 International Brdctsg. Corp.
 Arde Bulova
 City of Atlantic City
 Financiera de Inversiones, S. A.

1110 kcs. (270.1 m.)

CMCJ	a	500	X
KSOO	a	5000	LN
WRVA	a	50000	CM

[]
 Havana, Cuba
 Sioux Falls, S. Dak.
 Richmond, Va.

Radio Emisora Comercial
 Sioux Falls Broadcast Assn.
 Larus & Bros. Co., Inc.

1120 kcs. (267.7 m.)

CHLP	a	100	F
CHSJ	a	500	F(1)

[]
 Montreal, P. Q.
 St. John, N. B.

La Patrie Pub. Co.
 N. B. Brdctsg. Co.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

CKOC	a	500	F(1)	Hamilton, Ont.	Wentworth Radio Brdctsg. Co.
CKX	a	1000	F	Brandon, Man.	Manitoba Telephone Sys.
CMGF	a	75	....	Matanzas, Cuba	Bernabe R. de la Torre
CMKM	a	100	....	Manzanillo, Cuba	Raimundo Comas Soler
CRCS	a	100	F	Chicoutimi, P. Q.	Canadian Brdctsg. Corp.
KFIO	a	100	D	Spokane, Wash.	Spokane Brdctsg. Corp.
KFSG	a	500	a(2.5)	Los Angeles, Calif.	Echo Park Evangelistic Assn.
KRKD	a	500	a(2.5)	Los Angeles, Calif.	Radio Broadcasters, Inc.
KRSC	a	250	....	Seattle, Wash.	Radio Sales Corp.
KTBC	z	1000	DP	Austin, Texas	State Capitol Brdc. Assn.
WCOP	a	500	D	Boston, Mass.	Mass. Brdctsg. Corp.
WDEL	a	250	R(.5)	Wilmington, Del.	WDEL, Inc.
WISN	a	250	C(1)	Milwaukee, Wis.	Hearst Radio, Inc.
WJBO	a	500	B	Baton Rouge, La.	Baton Rouge Brdct. Co.
WTAW	a	500	L	College Station, Tex.	Agricultural and Mechanical College

1130 kcs. (265.3 m.)

CMJI	a	150	....	Ciego de Avila, Cuba	Gilberto Gesse Lopez
KSL	a	50000	C	Salt Lake City, Utah	Radio Service Corp.
WJJD	a	20000	L	Chicago, Ill.	WJJD, Inc.
WVOV	a	1000	D	New York, N. Y.	International Brdctsg. Corp.
XEJP	z	100	....	Mexico City, D. F.	Salvador Monterrubio R.

1140 kcs. (263 m.)

CMCW	b	150	....	Havana, Cuba	J. Vilarino y Cia.
KVOO	a	25000	N	Tulsa, Okla.	Southwestern Sales Corp.
WAPI	a	5000	C	Birmingham, Ala.	University of Ala. State College
WSPR	a	500	DM	Springfield, Mass.	Conn. Valley Brdctsg. Co.

1150 kcs. (260.7 m.)

CMJF	z	200	....	Camaguey, Cuba	John L. Stowers
WHAM	a	50000	B	Rochester, N. Y.	Stromberg-Carlson Mfg. Co.
XEBP	z	250	....	Durango, Dgo.	Manuel Canc Maldonado
XEC	a	100	....	Tijuana, B. Cfa.	Luis F. Encisco
XEDW	z	20	....	Minatitlan, Ver.	Hector Silva Canto

1160 kcs. (258.5 m.)

CMHJ	a	100	....	Cienfuegos, Cuba	Romualdo Ugalde
CMKG	z	....	....	Santiago, Cuba	Emilio Grau Medina
WOWO	a	10000	1B	Fort Wayne, Ind.	Westinghouse Station
WWVA	a	5000	1C	Wheeling, W. Va.	W. Va. Brdctsg. Corp.
XEAS	a	100	....	Saltillo Coah.	La Voz del Comercio en Saltillo
XED	a	2500	....	Guadalajara, Jal.	Cia. Radliefonografica
XEFM	z	20	....	Leon, Gto.	Raul Ortis
XEP	a	500	....	Juarez, Chih.	Esteban Perra

1170 kcs. (256.3 m.)

CMBS	a	150	X	Havana, Cuba	Enrique Artalejo
WCAU	a	50000	C	Philadelphia, Pa.	WCAU Brdctsg. Co.
KEXX	z	1000	....	Mexico City, D. F.	

1180 kcs. (254.1 m.)

CMJO	a	50	....	Ciego de Avila, Cuba	Bonifacio Ildefonso
KEX	a	5000	2B	Portland, Ore.	Oregonian Pub. Co.
KOB	a	10000	2N	Albuquerque, N. Mex.	Albuquerque Brdctsg. Co.
WDGY	a	1000	....	Minneapolis, Min.	Dr. Geo. W. Young
WINS	a	1000	....	New York, N. Y.	Hearst Radio, Inc.
WMAZ	a	1000	C(5)	Macon, Ga.	Southeastern Brdctsg. Co.
XEFA	z	500	....	Tavuba, D. F.	Eduardo Limon Segui

1190 kcs. (252 m.)

CMXX	z	75	....	Santiago, Cuba	Oscar Vidal Benitez
KTKC	a	250	D	Visalia, Calif.	Tulare-Kings Counties Radio Ass'n.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

VONF	a	500	1195	St. John's Nfld.	Dominion Brdcstg. Co., Ltd.
WATR	a	100	DXZ	Waterbury, Conn.	WATR Co., Inc.
WOAI	a	50000	N	San Antonio, Tex.	Southland Industries, Inc.
WSAZ	a	1000.	L	Huntington, W. Va.	WSAZ, Inc.

1200 kcs. (249.9 m.)



CFGP	z	100	....	Grande Prairie, Alta.	Northern Brdcstg. Corp.
CHAB	a	100	F	Moose Jaw, Sask.	CHAB, Ltd.
CKNX	b	100	....	Wingham, Ont.	Wingham Radio Club.
CKTB	a	100	F	St. Catharines, Ont.	E. T. Sandell
CMCO	a	150	....	Havana, Cuba	Enrique Lasanta
KADA	a	100	M	Ada, Okla.	C. C. Morris
KBTM	a	100	D	Jonesboro, Ark.	Regional Brdcstg. Co.
KDNC	z	100	(.25)P	Lewistown, Mont.	Democrat-News Co.
KELO	z	100	N	Sioux Falls, S. Dak.	S. F. Broadcast Ass'n.
KFJB	a	100	(.25)	Marshalltown, Iowa	Marshall Electric Co.
KFXD	a	100	(.25)	Nampa, Idaho	Frank E. Hurt
KFXJ	a	100	(.25)	Grand Junction, Colo.	Western Slope Brdcstg. Co.
KGCI	z	100	DP	Coeur d'Alene, Idaho	C. A. Berger and S. S. Freeman
KGDE	c	100	(.25)	Fergus Falls, Minn.	Charles L. Jaren
KGEK	a	100	L	Sterling, Colo.	Elmer G. Beehler
KGFJ	a	100	....	Los Angeles, Calif.	Ben S. McGlashen
KGHI	a	100	(.25)	Little Rock, Ark.	Arkansas Brdcstg. Co.
KGVL	z	100	DP	Greenville, Tex.	Hunt Brdcstg. Ass'n.
KMLB	a	100	(.25)	Monroe, La.	Liner's Brdcstg. Station, Inc.
KOOS	a	100	(.25)	Marshfield, Ore.	KOOS, Inc.
KSUN	a	100	(.25)	Lowell, Ariz.	Copper Electric Co., Inc.
KVCV	a	100	....	Redding, Calif.	Golden Empire Brd. Co.
KVEC	a	100	(.25)	San Luis Obispo, Calif.	Valley Elec. Co.
KVOS	b	100	M	Bellingham, Wash.	KVOS, Inc.
KWG	a	100	N	Stockton, Calif.	McClatchy Brdcstg. Co.
KWNO	z	250	D	Winona, Minn.	Winona Radio Service
WABI	a	100	(.25)	Bangor, Maine	Community Brdcstg. Service
WAIM	a	100	C	Anderson, S. C.	Anderson College
WAYX	a	100	(.25)	Waycross, Ga.	Waycross Brdcstg. Co.
WBBZ	a	100	M(.25)	Ponca City, Okla	Adelaide L. Carrell
WBHP	a	100	....	Huntsville, Alta.	Wilton H. Pollard
WBNO	a	100	2	New Orleans, La.	Coliseum Place Baptist Church
WCAT	a	100	D	Rapid City, S. Dak.	School of Mines
WCAX	a	100	(.25)	Burlington, Vt.	Burlington Daily News, Inc.
WCLO	a	100	(.25)	Janesville, Wis.	Gazette Printing Co.
WCPO	a	100	(.25)	Cincinnati, Ohio	Scripps-Howard Radio
WDSDM	z	100	P	Superior, Wis.	Fred A. Baxter
WENY	z	250	DP	Elmira, N. Y.	Elmira Star-Gazette
WEST	a	100	3(.25)	Easton, Pa.	Associated Broadcasters, Inc.
WFAM	a	100	4	South Bend, Ind.	South Bend Tribune
WFTC	a	100	(.25)	iKinston, N. C.	Jonas Weiland
WHBC	a	100	(.25)	Canton, Ohio	Ohio Brdcstg. Co.
WHBY	a	100	(.25)	Green Bay, Wis.	WHBY, Inc.
WIBX	a	100	C(.25)	Utica, N. Y.	WIBX, Inc.
WIL	a	100	(.25)	St. Louis, Mo.	Missouri Brdcstg. Corp.
WJBC	a	100	5(.25)	Bloomington, Ill.	Kaskaskia Brdcstg. Co.
WJBL	a	100	5	Decatur, Ill.	Commodore Brdcstg. Co.
WJBW	a	100	2	New Orleans, La.	Charles C. Carlson
WJHL	z	100	(.25)P	Johnson City, Tenn.	Johnson City Brdcstg. Co.
WJNO	a	100	C(.25)	W. Palm Beach, Fla.	WJNO, Inc.
WJRD	a	250	D	Tuscaloosa, Ala.	
WKBO	a	100	3(.25)	Harrisburg, Pa.	Keystone Brdcstg. Corp.
WLVA	a	100	(.25)	Lynchburg, Va.	Lynchburg Brdcstg. Corp.
WMFR	a	100	D	High Point, N. C.	Radio Station WMFR, Inc.
WMPC	a	100	(.25)	Lapeer, Mich.	First Methodist Church
WOLS	z	100	D	Florence, S. C.	O. Lee Stone
WRBL	a	100	(.25)	Columbus, Ga.	Columbus Brdcstg. Co.
WSAL	z	250	D	Salisbury, Md.	Frank M. Stearns
WTHT	a	100	M	Hartford, Conn.	Hartford Times, Inc.
WTOL	a	100	D	Toledo, Ohio	Community Brdcstg. Co.
WWAE	a	100	4	Hammond, Ind.	Hammond-Calumet Corp.
XEBU	z	50	....	Chihuahua, Chih.	Feliciano Lopez Islas

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

1210 kcs. (247.8 m.)

CHLT	z	100	....	Sherbrooke, P. Q.	La Tribune, Ltd.
CJCS	a	50	....	Stratford, Ont.	Frank M. Squires
CJCU	z	50	....	Aklavik, N. W. T.	Dr. J. A. Urquhart
CKBI	a	100	F	Prince Albert, Sask.	Prince Albert Radio Club
CKCH	a	100	F	Hull, P. Q.	CKCH Radio Brdctsg. Co.
CKMC	a	50	....	Cobalt, Ont.	R. L. MacAdam
CMHI	a	250	....	Santa Clara, Cuba	Lavis y Paz
KALB	a	100	(.25)	Alexandria, La.	Alexandria Brdctsg. Co.
KANS	a	100	N	Wichita, Kans.	KANS Brdctsg. Co.
KASA	c	100	....	Elk City, Okla.	E. M. Woody
KDLR	a	100	....	Devils Lake, N. Dak.	KDLR, Inc.
KDON	z	100	M	Monterey, Calif.	Monterey Peninsula Brdctsg. Co.
KFJI	a	100	....	Klamath Falls, Ore.	KFJI Broadcasters, Inc.
KFOR	a	100	CM(.25)	Lincoln, Nebr.	Cornbelt Brdctsg. Corp.
KFPW	a	100	....	Fort Smith, Ark.	Southwestern Hotel Co.
KFVS	a	100	5(.25)	.....	Radio Station KFVS
KFXM	a	100	2M	San Bernardino, Calif.	Lee Brothers Brdctsg. Co.
KGLO	a	100	C(.25)	Mason City, Iowa	Mason City Globe Gazette
KGY	a	100	M	Olympia, Wash.	KGy, Inc.
KHBG	z	100	D	Okmulgee, Okla.	Okmulgee Brdc. Corp.
KIUL	a	100	....	Garden City, Kans.	Garden City Brdc. Co.
KLAH	a	100	(.25)	Carlsbad, N. Mex.	Carlsbad Brdctsg. Co.
KOCA	a	100	(.25)	Kilgore, Texas	Oil Capital Brdc. Ass'n.
KPFA	a	100	N(.25)	Helena, Mont.	Peoples Forum of the Air
KPPC	a	100	2	Pasadena, Calif.	Pasadena Presbyterian Church
KROY	a	100	CD	Sacramento, Calif.	Royal Miller
KVSO	a	100	M(.25)	Ardmore, Okla.	Ardmoreite Pub. Co.
KWJB	z	100	P(.25)	Globe, Ariz.	Sims Brdctsg. Co.
WALR	a	100	....	Zanesville, Ohio	WALR Brdctsg. Corp.
WBAX	a	100	M	Wilkes-Barre, Pa.	John H. Stenger, Jr.
WBBL	a	100	S	Richmond, Va.	Grace Presbyterian Church
WBLY	a	100	D	Lima, Ohio	Herbert Lee Bly
WBRB	a	100	3	Red Bank, N. J.	Monmouth Brdctsg. Co.
WCOL	a	100	N	Columbus, Ohio	WCOL, Inc.
WCOU	a	100	....	Lewiston, Maine	Twin City Brdctsg. Co., Inc.
WCOV	z	100	DP	Montgomery, Ala.	Allen & Covington
WCRW	a	100	4	Chicago, Ill.	Clinton R. White
WEBQ	a	100	5(.25)	Harrisburg, Ill.	Harrisburg Brdctsg. Co.
WEDC	a	100	4	Chicago, Ill.	Emil Denmark
WFAS	a	100	3	White Plains, N. Y.	Westchester Brdctsg. Corp.
WFOY	a	100	(.25)	St. Augustine, Fla.	Fountain of Youth Properties
WGBB	a	100	3	Freeport, N. Y.	Harry H. Carman
WGCM	a	100	(.25)	Gulfport, Miss.	WGGM, Inc.
WGNY	a	100	3	Newburgh, N. Y.	Peter Goelet
WGRM	a	100	....	Grenada, Miss.	P. K. Ewing
WHAI	z	250	DP	Greenfield, Mass.	John W. Haigis
WHBF	a	100	(.25)	Rock Island, Ill.	Rock Island Brdctsg. Co.
WHBU	a	100	(.25)	Anderson, Ind.	Anderson Brdctsg. Corp.
WIBU	a	100	(.25)	Poynette, Wis.	Wm. C. Forrest
WJBY	a	100	(.25)	Gadsden, Ala.	Gadsden Brdctsg. Co.
WJEL	a	100	....	Hagerstown, Md.	Hagerstown Brdctsg. Co.
WJIM	z	100	(.25)	Lansing, Mich.	Harold F. Gross
WJMC	z	250	DP	Rice Lake, Wis.	Walter H. McGenty
WJTN	a	100	B(.25)	Jamestown, N. Y.	James Brdctsg. Co., Inc.
WJW	a	100	(.25)	Akron, Ohio	WJW, Inc.
WKOK	a	100	L	Sunbury, Pa.	Sunbury Brdctsg. Corp.
WMFG	a	100	(.25)	Hibbing, Minn.	Head of the Lakes Brdctsg. Co.
WOCB	z	100	(.25)P	Cape Cod, Mass.	Cape Cod Brdctsg. Co.
WOMT	a	100	....	Manitowoc, Wis.	Francis M. Kadow
WPAX	a	100	D	Thomasville, Ga.	H. Wimpy
WRAL	z	100	(.25)P	Raleigh, N. C.	Capitol Brdctsg. Co., Inc.
WSAY	z	100	(.25)	Rochester, N. Y.	Brown Radio Service
WSBC	a	100	4(.25)	Chicago, Ill.	WSBC, Inc.
WSIX	a	100	(.25)	Nashville, Tenn.	WSIX, Inc.
WSNJ	z	100	D	Bridgeton, N. J.	Eastern States Brdc. Corp.
WSOC	a	100	N(.25)	Charlotte, N. C.	WSOC, Inc.
WTAX	a	100	....	Springfield, Ill.	WTAX, Inc.
XEAT	a	250	....	Parral, Chih.	David G. Cervantes

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

XEE	a	50	....	Durango, Dgo.	Alejandro O. Stevenson, Jr.
XEFV	a	100	....	Juarez, Chih.	Dario Cordoba
XETH	a	100	....	Puebla, Pue.	Ramon Huerta G.
....	z	100	(.25)P	Charleston, S. C.	Scarborough and Orvin
....	z	100	(.25)P	Petersburg, Va.	Petersburg Newspaper Corp.

1220 kcs. (245.8 m.)

CMJE	z	50	....	Camaguey, Cuba	Primo Alfonso Casares
KFKU	a	1000	a(5)	Lawrence, Kans.	University of Kans.
KTMS	z	500	B	Santa Barbara, Calif.	News Press Pub. Co.
KTW	a	1000	2S	Seattle, Wash.	First Presbyterian Church
KWSC	a	1000	2(5)	Pullman, Wash.	State College
WCAD	a	500	D	Canton, N. Y.	St. Lawrence University
WCAE	a	1000	MR(5)	Pittsburgh, Pa.	WCAE, Inc.
WDAE	a	1000	C(5)	Tampa, Fla.	Tampa Times Co.
WREN	a	1000	Ba(5)	Lawrence, Kans.	WREN Brcdstg. Co.
XEBL	a	50	....	Mazatlan, Sin.	Ignacio L. Saiz
XEDA	z	200	....	Gral. Anaya, D. F.	Pedro Reistra Diaz
XETF	a	12	....	Veracruz, Ver.	Jose Rodriguez Lopez

1230 kcs. (243.8 m.)

CMBC	z	150	....	Havana, Cuba	La Metropolitana
KGBX	a	500	N	Springfield, Mo.	Springfield Brcdstg. Co.
KGBB	a	1000	....	Albuquerque, N. Mex.	New Mex. Brcdstg. Co.
KYA	a	1000	(5)	San Francisco, Calif.	Hearst Radio, Inc.
WFBM	a	1000	C(5)	Indianapolis, Ind.	Ind. Power & Light Co.
WNAC	a	1000	R(5)	Boston, Mass.	Yankee Network, Inc.
XEAZ	z	200	....	Zacatecas, Zac.	.....
XEG	z	250	....	Monterrey, N. L.	Rodolfo Junco de la Vega

1240 kcs. (241.8 m.)

CJCB	a	1000	F	Sydney, N. S.	Eastern Brcdcasters, Lt.
CMHB	z	50	....	Sancti Spiritus, Cuba	V. E. Weiss y Cia.
KGCU	a	250	....	Mandan, N. Dak.	Mandan Radio Assn.
KLPM	a	250	1XZ	Minot, N. Dak.	John P. Cooley
KTAT	a	1000	M	Fort Worth, Tex.	Tarrant Brcdstg. Co.
KTFI	a	1000	N	Twin Falls, Idaho	Radio Brcdstg. Corp.
WKAQ	a	1000	....	San Juan, P. R.	Radio Corp. of Puerto Rico.
WXYZ	a	1000	B	Detroit, Mich.	King-Trendle Brd. Corp.
XEKL	z	500	....	Leon, Gto.	Hemmer y Romero
XELA	z	50	....	Saltillo, Coah.	Enrique Gomez
XEME	z	50	....	Merida, Yuc.	Jerfecto Villmil Cisero

1250 kcs. (239.9 m.)

CMKC	a	150	....	Santiago, Cuba	Pinol Batele y Cia.
HRN	c	50	....	Tegucigalpa, Hond.	Star-Times Pub. Co.
KFOX	a	1000	....	Long Beach, Calif.	Nichols & Warinner, Inc.
KIT	a	250	MX(.5)	Yakima, Wash.	Carl E. Haymond
KXOK	z	1000	P	St. Louis, Mo.	Paul John
WAIR	a	250	D	Winston-Salem, N. C.	Radio Station WAIR
WDSU	a	1000	B	New Orleans, La.	WDSU, Inc.
WHBI	a	1000	(2.5)	Newark, N. J.	May Radio Brcdstg. Corp.
WKST	z	250	DP	New Castle, Pa.	Keystone Brcdstg. Co.
WMRO	z	250	DP	Aurora, Ill.	Martin R. O'Brien
WNEW	a	1000	(2.5)	New York, N. Y.	Wodaam Corp.
WTCN	a	1000	B(5)	Minneapolis, Minn.	Minnesota Brcdstg. Corp.
XEAI	z	500	....	Mexico City, D. F.	Carmen Gutierrez
XEXH	z	250	....	San Luis Potosi, S.L.P.	H. Ayuntamiento S.L.P.

1260 kcs. (238 m.)

CMBD	a	500	2X	Havana, Cuba	Luiz Perez Garcia
CMC	z	150	2	Havana, Cuba	La Voz del Transporte
KGVO	a	1000	C(5)	Missoula, Mont.	Mosby's, Inc.
KHSL	a	250	....	Chico, Calif.	Golden Empire Brd. Co.
KOIL	a	1000	BM(5)	Omaha, Nebr.	Central States Brd. Co.
KPAC	a	500	D	Port Arthur, Tex.	Port Arthur College

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KRGV	a	1000	MN	Weslaco, Texas	KRGV, Inc.
KUOA	a	5000	D	Siloam Springs, Ark.	KUOA, Inc.
KVOA	a	1000	....	Tucson, Ariz.	Arizona Brdcstg. Co., Inc.
WHIO	a	1000	C(5)	Dayton, Ohio	Miami Valley Brdcstg. Corp.
WNBX	a	500	CMJX(1)	Springfield, Vt.	Twin State Brdcstg. Corp.
WTOC	a	1000	C	Savannah, Ga.	Savannah Brdcst. Corp.

1270 kcs. (236.1 m.)

CMHD	b	250	....	Caibarien, Cuba	Manuel Alvarez M.
KGCA	a	100	2D	Decorah, Iowa	Charles W. Greeneley
KOL	a	1000	M(5)	Seattle, Wash.	Seattle Brdcstg. Co., Inc.
KVOR	a	1000	C	Colorado Springs, C.	Out West Brdcstg. Co.
KWLC	a	100	2D	Decorah, Iowa	Luther College
WASH	a	500	DNA	Grand Rapids, Mich.	King-Trendle Brdcstg. Corp.
WFBR	a	500	R(1)	Baltimore, Md.	Baltimore Radio Show, Inc.
WJDX	a	1000	R(5)	Jackson, Miss.	Lamar Life Ins. Co.
WOOD	a	500	Na	Grand Rapids, Mich.	King-Trendle Brdcstg. Corp.
XEBB	a	250	....	Jalapa, Ver.	Gobierno del E. de Ver.
XEBE	z	17	....	Texcoco, D. F.	H. Ayuntamiento de Tex.

1280 kcs. (234.2 m.)

CMKO	z	200	....	Holguin, Cuba	Manuel Angulo Farran
KFBB	a	1000	C(5)	Great Falls, Mont.	Buttrey Brdcstg. Co.
KLS	a	250	....	Oakland, Calif.	Warner Brothers
WCAM	a	500	1	Camden, N. J.	City of Camden
WCAP	a	500	1	Asbury Park, N. J.	Radio Industries Broadcast Co.
WDOD	a	1000	C(5)	Chattanooga, Tenn.	WDOD Brdcst. Corp.
WIBA	a	1000	N(5)	Madison, Wis.	Badger Brdcstg. Co., Inc.
WORC	a	500	C	Worcester, Mass.	Alf. Frank Kleindienst
WRR	a	500	M	Dallas, Texas	City of Dallas
WTNJ	a	500	1	Trenton, N. J.	WOAX, Inc.
XEMX	z	100	....	Mexico City, D. F.	Alfonso Traslosheros Avalos

1290 kcs. (232.4 m.)

CMCU	a	150	....	Havana, Cuba	Jorge Garcia Serra
CMJK	a	200	....	Camaguey, Cuba	Feliciano Isaac
KDYL	a	1000	RX	Salt Lake City, Utah	Intermountain Brd. Corp.
KLCN	a	100	D	Blytheville, Ark.	C. L. Lintzenich
KTRH	a	1000	C(5)	Houston, Texas	KTRH Brdcstg. Co.
WEBC	a	1000	N(5)	Duluth, Minn.	Head of the Lakes Brdcstg. Co.
WJAS	a	1000	C(5)	Pittsburgh, Pa.	Pittsburgh Radio Supply House
WNBZ	a	100	D	Saranac Lake, N. Y.	Up-State Brdcstg. Corp.
WNEL	a	1000	(2.5)	San Juan, P. R.	Juan Piza

1300 kcs. (230.6 m.)

CMHX	a	200	....	Cienfuegos, Cuba	J. Garcia R.
KALE	a	1000	M	Portland, Ore.	KALE, Inc.
KFAC	a	1000	....	Los Angeles, Calif.	Los Angeles Brdcstg. Co.
KFH	a	1000	C(5)	Wichita, Kans.	Radio Station WFH Co.
WBRR	a	1000	1	Brooklyn, N. Y.	People's Pulpit Ass'n.
WEVD	a	1000	1	New York, N. Y.	Debs Memorial Radio Fund, Inc.
WFAB	a	1000	1	New York, N. Y.	Fifth Ave. Brdcstg. Corp.
WFBV	a	1000	N(5)	Greenville, S. C.	Greenville News-Piedmont Co.
WHAZ	a	1000	1	Troy, N. Y.	Fensselaer Polytechnic Institute
WHBL	a	250	....	Shebovgan, Wis.	Press Publishing Co.

1310 kcs. 228.9 m.)

CHCK	a	50	....	Charlottetown, P.E.I.	J. A. Gesner
CJKL	a	100	F	North Bay, Ont.	Northern Brdcstg. Co.
CJLS	a	100	F	Yarmouth, N. S.	Laurie L. Smith
CKCV	a	100	F	Quebec, P. O.	CKCV, Ltd.
KAND	z	100	DM	Corsicana, Tex.	Navarro Brdcstg. Ass'n.
KARM	a	100	C	Fresno, Calif.	George Harm
KBND	z	100	(.25)P	Bend, Ore.	The Bend Bulletin
KCKN	a	100	....	Kansas City, Kans.	KCKN Brdcstg. Co.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KCRJ	a	100	(.25)	Jerome, Ariz.	Charles C. Robinson
KFPL	b	100	(.25)	Dublin, Texas	KFPL Brdcastg. Station
KGFY	a	100	M(.25)	Lubbock, Texas	Plains Radio Brdcastg. Co.
KGEZ	a	100	....	Kalispell, Mont.	Donald C. Treloar
KGFV	a	100	....	Kearney, Nebr.	Central Nebr. Brdcastg. Corp.
KHUB	a	250	D	Watsonville, Calif.	John P. Scripps
KINY	a	100	XZ	Juneau, Alaska	Edwin A. Kraft
KOCY	a	100	(.25)	Oklahoma City, Okla.	Plaza Court Brdc. Co.
KOME	z	250	DP	Tulsa, Okla.	Harry Schwartz
KPDN	a	100	D	Pampa, Texas	R. C. Hoiles
KRBA	z	100	D	Lufkin, Texas	Red Lands Brdcastg. Ass'n.
KRMD	a	100	(.25)	Shreveport, La.	KRMD, Inc.
KROC	a	100	(.25)	Rochster, Minn.	Southern Minn. Brdcastg. Co.
KROA	a	100	....	Santa Fe, N. Mex.	L. Laurence Martin
KRRV	z	250	D	Sherman, Texas	Red River Valley Corp.
KSRO	a	100	(.25)	Santa Rosa, Calif.	Press-Democrat Pub. Co.
KSUB	a	100	....	Cedar City, Utah	Johnson & Perry
KTSM	a	100	N(.25)	El Paso, Texas	Tri-State Brdcastg. Co.
KVIC	z	100	P	Victoria, Texas	.....
KVOL	a	100	....	Lafayette, La.	Evangeline Brdcastg. Co.
KVOX	z	100	(.25)	Moorhead, Minn.	KVOX Brdcastg. Co.
KWOC	z	100	D	Poplar Bluff, Mo.	Fields McCarthy Co.
KWOS	z	100	D	Jefferson City, Mo.	Tribune Printing Co.
KXRO	a	100	M(.25)	Aberdeen, Wash.	KXRO, Inc.
WAMBL	a	100	(.25)	Laurel, Miss.	New Laurel Radio Station
WBEF	a	100	D	Marquette, Mich.	Lake Superior Brdcastg. Co.
WBOW	a	100	N(.25)	Terre Haute, Ind.	Banks of the Wabash, Inc.
WBRE	a	100	N(.25)	Wilkes-Barre, Pa.	Louis G. Baltimore
WBRK	z	100	C(.25)	Pittsfield, Mass.	Voice of the Berkshires
WCLS	a	100	L	oliet, Ill.	WCLS, Inc.
WCMI	a	100	(.25)	Ashland, Ky.	Ashland Brdcastg. Co.
WDAH	a	100	S(.25)	El Paso, Tex.	Tri-State Brdcastg. Co.
WEBR	a	100	B(.25)	Buffalo, N. Y.	WEBR, Inc.
WEMP	a	100	D	Milwaukee, Wis.	Milwaukee, Brdcastg. Co.
WEXL	a	50	....	Royal Oak, Mich.	Royal Oak Brdcastg. Co.
WFBG	a	100	3	Altoona, Pa.	Gable Brdcastg. Co.
WFDG	a	100	....	Flint, Mich.	Flint Brdcastg. Co.
WGAU	z	100	P(.25)	Athens, Ga.	J. K. Patrick & Co.
WGH	a	100	(.25)	Newport News, Va.	Hampton Roads Brdcastg. Corp.
WGTM	z	100	D	Wilson, N. C.	WGTM, Inc.
WHAT	a	100	4	Philadelphia, Pa.	Independence Brdcastg. Co.
WJAC	a	100	3(.25)	ohnstown, Pa.	WJAC, Inc.
WLAK	z	100	....	Lakeland, Fla.	Lake Region Brdc. Co.
WLBC	a	100	(.25)	Muncie, Ind.	Donald A. Burton
WLNH	a	100	M	Laconia, N. H.	Northern Brdcastg. Co.
WMBO	a	100	....	Auburn, N. Y.	WMBO, Inc.
WMFF	a	100	B(.25)	Plattsburgh, N. Y.	Plattsburgh Brdcastg. Corp.
WNBH	a	100	M(.25)	New Bedford, Mass.	E. Anthony & Sons, Inc.
WOL	a	100	MZ	Washington, D. C.	American Brdcastg. Co.
WRAW	a	100	....	Reading, Pa.	Reading Brdcastg. Co.
WROL	a	100	N(.25)	Knoxville, Tenn.	Stuart Brdcastg. Corp.
WSAJ	a	100	....	Grove City, Pa.	Grove City College
WSAV	z	100	P	Savannah, Ga.	Arthur Lucas
WSGN	a	100	B(.25)	Birmingham, Ala.	Birmingham News Co.
WSJS	a	100	C	Winston-Salem, N. C.	Piedmont Publishing Co.
WTAL	a	100	(.25)	Tallahassee, Fla.	Fla. Capitol Brdcasters.
WTEL	a	100	4	Philadelphia, Pa.	Foulkrod Radio Eng. Co.
WTJS	a	100	(.25)	ackson, Tenn.	Sun Publishing Co., Inc.
WTRC	a	100	(.25)	Elkhart, Ind.	Truth Publishing Co.
XEAG	z	10	....	Cordoba, Ver.	Diodoro Zuniga
XEBO	z	25	....	Irapuato, Gto.	Alfonso Martinez
XEFW	a	300	....	Tampico, Tams	Flores y Martinez
XETB	a	125	....	Torreón, Coah.	Arelio G. Zaragoza
XEX	a	125	....	Monterrey, N. L.	Luis F. Petit Jean
XEXS	z	100	....	Mexico City, D. F.	Dpto. de Salubridad Publica

1320 kcs. (227.1 m.)

CMOX	a	200	....	Havana, Cuba	Perez y Chisholm
KGHF	a	500	B	Pueblo, Colo.	Curtis P. Ritchie

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KGMB	a	1000	CM	Honolulu, Hawaii	Honolulu Brdcstg. Co., Ltd.
KID	a	500	(1)	Idaho Falls, Idaho	KID Brdcstg. Co.
KRNT	a	1000	C(5)	Des Moines, Iowa	Iowa Brdcstg. Co.
TGI	d	....	....	Guademaal City, uat.	.....
WADC	a	1000	C(5)	Akron, Ohio	Allen T. Simmons
WORK	a	1000	N	York, Pa.	York Brdcstg. Co.
WSMB	a	1000	R(5)	New Orleans, La.	WSMB, Inc.
XEAU	z	....	....	Tijuana, B. Cfa.	

1330 kcs. (225.4 m.)

CMHK	z	250	....	Cruces, Cuba	Virgilio Villanueva
KGB	a	1000	M	San Diego, Calif.	Don Lee Brdcstg. Sys.
KMO	a	1000	M	Tacoma, Wash.	KMO, Ins.
KRIS	z	500	NM	Corpus Christi, Tex.	Gulf Coast Brdcstg. Co.
KSCJ	a	1000	C(5)	Sioux City, Iowa	Sioux City Journal
WDRC	a	1000	C	Hartford, Conn.	WDRC, Inc.
WSAI	a	1000	MN(5)	Cincinnati, Ohio	Crosley Radio Corp.
WTAQ	a	1000	C	reen Bay, Wis.	WHBY, Inc.

1340 kcs. (223.7 m.)

CMAB	z	100	....	Pinar del Rio, Cuba	Francisco Martinez
CMJW	z	300	....	Camaguey, Cuba	La Voz del Pueblo
KDTH	z	500	ADP	Dubuque, Iowa	Telegraph Herald Co.
KGIR	a	1000	N(5)	Butte, Mont.	KGIR, Inc.
KGNO	a	250	....	Dodge City, Kans.	Dodge City Brdcstg. Co.
WCOA	a	500	C(1)	Pensacola, Fla.	Pensacola Brdcstg. Co.
WFEA	a	500	MN(1)	Manchester, N. H.	N. H. Brdcstg. Co.
WFNC	z	250	DP	Fayetteville, N. C.	Cumberland Brdcstg. Co.
WSPD	a	1000	B(5)	Toledo, Ohio	The Fort Industry Co.
XEAP	z	50	....	Obregon, Son.	Emilio Manzanilla
XEB5	z	200	....	Mexico City, D. F.	Maria Remedios Delgado
XEDH	z	200	....	Villa Acuna, Coah.	Vicente Hernandez
XEXD	z	350	....	alapa, Ver.	Gobierno del E. De Ver.

1350 kcs. (222.1 m.)

CMCA	a	450	....	Havana, Cuba	Tester y Gonzales
CMKW	z	....	....	Santiago, Cuba	Claudio Alvarez Soriano
KIDO	a	1000	N(2.5)	Boise, Idaho	Boise Brdcstg. Station
KWK	a	1000	XBM(5)	St. Louis, Mo.	Thomas Patrick, Inc.
WAWZ	a	500	1(1)	Zarephath, N.	Pillar of Fire
WBNX	a	1000	1	New York, N. Y.	WBNX Brdcstg. Co.
WMBG	a	500	R	Richmond, Va.	Havens & Martin

1360 kcs. (220.4 m.)

CMJH	b	200	....	Ciego de Avila, Cuba	Luis Marauri H.
KCRC	a	250	M	Enid, Okla.	Enid Radiophone Co.
KGER	a	1000	....	Long Beach, Calif.	Consolidated Brdcstg. Corp.
WCSC	a	500	N(1)	Charleston, S. C.	S. C. Brdcstg. Co.
WFBL	a	1000	C(5)	Syracuse, N. Y.	Onondaga Radio Brdcstg. Corp.
WGES	a	500	1(1)	Chicago, Ill.	Oak Leaves Brdcstg. Station, Inc.
WQBC	a	1000	D	Vicksburg, Miss.	Delta Brdcstg. Co., Inc.
WSBT	a	500	1	South Bend, Ind.	South Bend Tribune

1370 kcs. (218.8 m.)

CFAR	z	100	....	Flin Flon, Man.	Arctic Radio Corp.
KCCW	a	100	F	Moncton, N. B.	Moncton Brdcstg. Co., Ltd.
CMGE	a	200	....	Cardenas, Cuba	Genaro Sebater
KAST	a	100	DXZ	Astoria, Ore.	Astoria Brdcstg. Co.
KCMO	a	100	....	Kansas City, Mo.	KCMO Brdcstg. Co.
KEEN	a	100	3	Seattle, Wash.	KVL, Inc.
KELD	z	100	....	El Dorado, Ark.	Radio Enterprises, Inc.
KERN	a	100	N	Bakersfield, Calif.	McClatchey Brdcstg. Co.
KFGQ	a	100	D	Boone, Iowa	Boone Biblical College
KFJZ	a	100	M(.25)	Fort Worth, Texas	Ft. Worth Broadcasters, Inc.
KFRO	a	250	DM	Longview, Texas	Voice of Longview

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KGAR	a	100	C(.25)	Tucson, Ariz.	Tucson Motor Service Co.
KGFL	a	100	4	Roswell, N. Mex.	KGFL, Inc.
KGKL	a	100	(.25)	San Angelo, Texas	KGKL, Inc.
KICA	a	100	4	Clovis, N. Mex.	Western Broadcasters, Inc.
KIUP	a	100	....	Durango, Colo.	San Juan Brdctsg. Co.
KLUF	a	100	M	alveston, Tex.	KLUF Brdctsg. Co., Inc.
KMAC	a	100	5(.25)	San Antonio, Tex.	W. W. McAllister
KOHB	a	100	(.25)	Rapid City, S. Dak.	Black Hills Broadcast Co.
KOKO	a	100	....	La Junta, Colo.	Southwest Brdctsg. Co.
KONO	a	100	5	San Antonio, Tex.	Mission Brdctsg. Co.
KRE	a	100	(.25)	Berkeley, Calif.	Central Calif. Broadcasters, Inc.
KRKO	a	50	3	Everett, Wash.	Lee Mudgett
KRMC	z	100	(.25)	Jamestown, N. Dak.	Roberts McNab Co.
KSLM	a	100	MXZ	Salem, Ore.	Oregon Radio, Inc.
KTEM	a	250	DM	Temple, Texas	Bell Brdctsg. Co.
KTOK	a	100	MN	Oklahoma City, Okla.	Oklahoma Brdctsg. Co.
KUJ	a	100	....	Walla Walla, Wash.	KUJ, Inc.
KVGB	z	100	....	Great Bend, Kans.	Ernest Edward Ruehlen
KVRS	z	100	P(.25)	Rock Springs, Wyo.	Wyo. Brdctsg. Co.
KWYO	a	100	(.25)	Sheridan, Wyo.	Big Horn Brdctsg. Co.
WABY	a	100	N(.25)	Albany, N. Y.	Adirondack Brdctsg. Co.
WAGF	a	250	D	Dothan, Ala.	Dothan Brdctsg. Co.
WATL	a	100	(.25)	Atlanta, Ga.	Atlanta Brdctsg. Co.
WBLK	a	100	....	Clarksburg, W. Va.	The Exponent Co.
WBNY	a	100	2(.25)	Buffalo, N. Y.	Roy L. Albertson
WBTM	a	100	(.25)	Danville, Va.	Piedmont Brdctsg. Corp.
WCBM	a	100	(.25)	Baltimore, Md.	Baltimore Brdctsg. Corp.
WDWS	a	100	(.25)	Philadelphia, Pa.	WDAS Brdctsg. Station, Inc.
WDA5	a	100	(.25)	Champaign, Ill.	Champaign News-Gazette, Inc.
WEOA	a	100	C(.25)	Evansville, Ind.	Evansv. on the Air, Inc.
WFOR	a	100	....	Hattiesburg, Miss.	Forrest Brdctsg. Co.
WGL	a	100	N(.25)	Fort Wayne, Ind.	Westinghouse Stations
WGRC	a	250	D	New Albany, Ind.	North Side Brd. Corp.
WHBQ	a	100	....	Memphis, Tenn.	WHBQ, Inc.
WHDF	a	100	(.25)	Calumet, Mich.	Upper Michigan Brdctsg. Co.
WHLB	a	100	C(.25)	Virginia, Minn.	Head of the Lakes Brdctsg. Co.
WHIS	z	250	D	Port Huron, Mich.	Port Huron, Brdctsg. Co.
WIBM	a	100	(.25)	Jackson, Mich.	WIBM, Inc.
WLLH	a	100	Sy	Lawrence, Mass.	Merrimac Brdctsg. Co.
WLLH	a	100	MSy(.25)	Lowell, Mass.	Merrimac Brdctsg. Co.
WMBR	a	100	C(.25)	Jacksonville, Fla.	Fla. Brdctsg. Co.
WMFD	a	100	D	Wilmington, N. C.	Richard A. Dunlea
WMFO	a	100	D	Decatur, Ala.	James R. Doss, Jr.
WMIN	a	100	(.25)	St. Paul, Minn.	WMIM Brdctsg. Co.
WOC	a	100	C(.25)	Davenport, Iowa	Tri-City Brdctsg. Co.
WPAY	a	100	....	Portsmouth, Ohio	Vee Bee Corp.
WPRA	a	100	(.25)	Mayaguez, P. R.	P. R. Advertising Co.
WRAK	a	100	(.25)	Williamsport, Pa.	WRAK, Inc.
WRDO	a	100	M	Augusta, Maine	WRDO, Inc.
WRJN	a	100	(.25)	Racine, Wis.	Racine Brdctsg. Corp.
WSAU	a	100	(.25)	Wausau, Wis.	Northern Brdctsg. Co.
WSVS	a	50	2D	Buffalo, N. Y.	Seneca Vocational High School
XECZ	z	100	....	San Luis Potosi, S.L.P.	Zeferino Z. Jimenez
XEI	a	125	....	Morelia, Mich.	Carlos Gutierrez M.
XELZ	z	100	....	Mexico City, D. F.	Maria Gardena de Zetina
....	z	100	....	Owen Sound, Ont.	Owen Sound Sun-Times

CMCR	z	150	2	Havana, Cuba
CMCX	z	150	2	Havana, Cuba
KOH	a	500	C	Reno, Nev.
KQV	a	500	1C	Pittsburgh, Pa.
WALA	a	500	C(1)	Mobile, Ala.
WKBH	a	1000	C	La Crosse, Wis.
WNBC	a	250	DX	New Britain, Conn.
WSMK	a	200	1CLX	Dayton, Ohio

La Traviata
La Onda Popula
The Bee, Inc.
KQV Brdctsg. Co.
Pape Brdctsg. Co.
WKBH, Inc.
State Brdctsg. Corp.
WEMK, Inc.

1390 kcs. (215.7 m.)

CMJC	z	200	F	Yorkton, Sask.
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J. Richardson & Sons, Ltd.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

CMJC	z	150	Camaguey, Cuba	Miguel Guillen Perez
KABR	a	500	(1)	Aberdeen, S. Dak.	Aberdeen Broadcast Co.
KLRA	a	1000	C(5)	Little Rock, Ark.	Ark. Brdcstg. Co.
KOY	a	1000	C	Phoenix, Ariz.	Salt River Val. Brdc. Co.
KRLC	a	250	....	Lewiston, Idaho	H. E. Studebaker
WHK	a	1000	BM(.25)	Cleveland, Ohio	Radio Air Service Corp.
WQDM	a	1000	D	St. Albans, Vt.	Regan and Bostwick

1400 kcs. (214.2 m.)

GMGC	a	150	....	Matanzas, Cuba	Oscar Mechoso
CMKR	z	100	....	Santiago, Cuba	Jaime Nadal
KHBC	a	250	CM	Hilo, Hawaii	Honolulu Brdcstg. Co., Ltd.
KLO	a	500	B	Ogden, Utah	Interstate Brdcstg. Corp.
KTUL	a	1000	C(5)	Tulsa, Okla.	Tulsa Brdcstg. Co., Inc.
TGX	d	....	....	Guatemala City, Guat.	Partido Liberal Progresista
WARD	a	500	2	Brooklyn, N. Y.	U. S. Brdcstg. Corp.
WBBC	a	500	P	Brooklyn, N. Y.	Brooklyn Brdcstg. Corp.
WEGE	z	500	2(1)	Brooklyn, N. Y.	Brooklyn Daily Eagle
WHDL	a	250	....	Olean, N. Y.	WHDL, Inc.
WIRE	a	1000	MR(5)	Indianapolis, Ind.	Indianapolis Brdcstg. Inc.
WLTH	a	500	2	Brooklyn, N. Y.	Voice of Brooklyn
WCFW	a	500	2	Brooklyn, N. Y.	Paramount Brdcstg. Co.

1410 kcs. (212.6 m.)

CKFC	a	50	5	Vancouver, B. C.	Standard Brdcstg. Sys.
CKMO	a	100	5	Vancouver, B. C.	British Columbia Brdcstg. Sys.
CMCQ	a	5000	....	Havana, Cuba	La Voz de Cuba
KFJM	a	500	(1)	Grand Forks, N. Dak.	University of N. Dak.
KGNC	a	1000	MN(2.5)	Amarillo, Texas	Plains Radio Brdc. Co.
KMED	c	250	N	Medford, Ore.	Mrs. W. J. Cirgin
WAAB	a	500	M(1)	Boston, Mass.	Yankee Network, Inc.
WBCM	a	500	(1)	Bay City, Mich.	Bay Brdcstg. Co., Inc.
WHIS	a	500	(1)	Bluefield, W. Va.	Daily Telegraph Ptg. Co.
WROK	a	500	(1)	Rockford, Ill.	Aockford Broadcasters, Inc.
WSFA	a	500	C(1)	Montgomery, Ala.	Montgomery Brdcstg. Co.

1420 kcs. (211.1 m.)

CHLN	z	100	....	Three Rivers, P. Q.	Le Nouvelliste
CKCA	z	100	....	Kenora, Ont.	Kenora Brdcstg. Co.
CKGB	a	100	F	North Bay, Ont.	R. H. Thompson
KABC	a	100	M(.25)	San Antonio, Tex.	Alamo Brdcstg. Co., Inc.
KATE	a	250	D	Albert Lea, Minn.	Albert Lea Brdcstg. Co.
KBPS	a	100	4	Portland, Ore.	Benson Polytechnic School
KCMC	a	100	M(.25)	Texarkana, Tex.	KCMC, Inc.
KDNT	z	100	D	Denton, Texas	Harwell V. Shepard
KEUB	a	100	....	Price, Utah	Eastern Utah Brdc. Co.
KFAM	z	100	(.25)	St. Cloud, Minn.	Times Pub. Co.
KFIZ	a	100	....	Fond du Lac, Wis.	Reporter Printing Co.
KGFF	a	100	M(.25)	Shawnee, Okla.	KGFF Brdcstg. Co.
KGIW	a	100	1	Alamosa, Colo.	Leonard E. Wilson
KGLU	z	100	(.25)	Safford, Ariz.	Gila Brdcstg. Co.
KIDW	a	100	1	Lamar, Colo.	Southwest Brdcstg. Co.
KIUN	a	100	....	Pecos, Texas	Hawkins & Tubbs
KLBM	z	100	P(.25)	La Grande, Ore.	H. Finley & Mrs. Eloise Finley
KNET	a	100	D	Palestine, Texas	Palestine Brdcstg. Assn.
KORE	a	100	M	Eugene, Ore.	Eugene Brdcstg. Station
KRBC	a	100	M(.25)	Abilene, Tex.	Reporter Brdcstg. Co.
KRBM	z	100	P(.25)	Bozeman, Mont.	Roberts McNab Co.
KRIC	z	100	M(.25)	Beaumont, Texas	Beaumont Brdcstg. Assn.
KRLH	a	100	D	Midland, Texas	Clarence Scharbaur
KSAN	a	100	....	San Francisco, Calif.	Golden Gate Grdcstg. Co.
KTRI	z	100	(.25)	Sioux City, Iowa	Sioux City Brdcstg. Co.
KUMA	a	100	D	Yuma, Ariz.	Dr. A. H. Schermann
KVAK	z	100	DP	Atchison, Kans.	Carl Latenser
KWBG	a	100	....	Hutchinson, Kans.	W. N. Greenwald
KXL	a	100	1(.25)	Portland, Ore.	KXL Broadcasters
WACO	a	100	CM(.25)	Waco, Texas	KTSA Brdcstg. Co.

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NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

WAGM	a	100	Presque Isle, Me.	Aroostook Brcdstg. Corp.
WAPQ	a	100	(.25)	Chattanooga, Tenn.	W. A. Petterson
WAZL	a	100	2	Hazleton, Pa.	Hazleton Brcdstg. Co.
WCBS	a	100	(.25)	Springfield, Ill.	WCBS, Inc.
WCHV	a	100	3(.25)	Charlottesville, Va.	Community Brcdstg. Corp.
WEED	a	100	3(.25)	Rocky Mount, N. C.	Wm. Avera Wynne
WELL	a	100	....	Battle Creek, Mich.	Enquirer News Co.
WFMJ	z	100	DP	Youngstown, Ohio	Wm. F. Maag, Jr.
WGNC	z	100	(.25)P	Gastonia, N. C.	F. C. Todd
WGPC	a	100	....	Albany, Ga.	Americus Brcdstg. Corp.
WHFC	a	100	(.25)	Cicero, Ill.	WHFC, Inc.
WHMA	z	100	DP	Anniston, Ala.	Harry M. Ayers
WILM	a	100	2	Wilmington, Del.	Delaware Brcdstg. Corp.
WJMS	a	100	....	Ironwood, Mich.	WJMS, Inc.
WLAP	a	100	(.25)	Lexington, Ky.	American Brcdstg. Corp.
WLEU	a	100	B(.25)	Eric, Pa.	Leo J. Omelian
WMAS	a	100	C(.25)	Springfield, Mass.	WMAS, Inc.
WBMC	a	100	(.25)	Detroit, Mich.	Michigan Brcdstg. Co.
WMBH	a	100	(.25)	Joplin, Mo.	Joplin Brcdstg. Co.
WBMS	a	250	D	Uniontown, Pa.	Fayette Brcdstg. Corp.
WMFJ	a	100	....	Daytona Beach, Fla.	W. W. Esch
WMSD	a	100	....	Muscle Shoals City, Ala.	Muscle Shoals Brcdstg. Corp.
WPAD	a	100	(.25)	Paducah, Ky.	Paducah Brcdstg. Co.
WPAR	a	100	C	Parkersburg, W. Va.	Ohio Valley Brcdstg. Corp.
WPRP	z	100	(.25)	Ponce, P. R.	Julio M. Canesa
WSLI	z	100	P(.25)	Jackson, Miss.	Stand. Life Ins. Co.

1430 kcs. (209.7 m.)

CMIP	a	75	....	Moron, Cuba	Cesar Canals
CMKZ	z	125	....	Palm Soriano, Cuba	Joaquin Venero Obregon
KECA	a	1000	B(5)	Los Angeles, Calif.	Earl C. Anthony, Inc.
KGNF	a	1000	D	North Platte, Nebr.	Great Plains Brcdstg. Co.
KSO	a	500	BM(2.5)	Des Moines, Iowa	Iowa Brcdstg. Co.
WBNS	a	1000	C(5)	Columbus, Ohio	WBNS, Inc.
WHEC	a	500	C(1)	Rochester, N. Y.	WHEC, Inc.
WHP	a	500	C(1)	Harrisburg, Pa.	WHP, Inc.
WMPS	a	500	B(1)	Memphis, Tenn.	Memphis Commercial Appea
WOKO	a	500	C(1)	Albany, N. Y.	WOKO, Inc.

1440 kcs. (208.2 m.)

CMBG	a	225	....	Havana, Cuba	John L. Stowers
CMOA	z	150	....	Havana, Cuba	Juan Fernandez Duran
HPSO	z	....	....	Colon, Panama	La Voz de Victor
KDFN	a	500	....	Casper, Wyo.	Donald L. Hathaway
KELA	a	500	M	Centralia, Wash.	Central Brcdstg. Corp.
KXYZ	a	1000	BM	Houston, Texas	Harris County Brcdstg. Co.
WBIG	a	1000	C	Greensboro, N. C.	N. C. Brcdstg. Co.
WCBA	a	500	a	Allentown, Pa.	B. B. Musselman
WMBD	a	1000	C(5)	Peoria, Ill.	Peoria Brcdstg. Co.
WSAN	a	500	Na	Allentown, Pa.	WSAN, Inc.
XEFI	a	250	....	Chihuahua, Chih.	Feliciano Lopez Isla

1450 kcs. (206.8 m.)

CFCT	a	500	....	Victoria, B. C.	Victoria Brcdstg. Assn.
GHGS	a	50	F	Summerside, P. E. I.	R. T. Holman, Ltd.
CMHMM	z	150	....	Cienfuegos, Cuba	Jose R. Feminias
KGCX	a	1000	....	Wolf Point, Mont.	E. E. Krebsbach
KIEM	a	500	M(1)	Eureka, Calif.	Redwood Brcdstg. Co.
KTBS	a	1000	N	Shreveport, La.	Tri-State Brcdstg. Sys.
TGO	d	200	....	Quezaltenango, Guat.	Dir. of Elec. Comm.
WAGA	a	500	B(1)	Atlanta, Ga.	Liberty Brcdstg. Co.
WGAR	a	500	CX(1)	Cleveland, Ohio	WGAR Brcdstg. Co.
WHOM	a	250	....	Jersey City, N. J.	New Jersey Brcdstg. Corp.
WSAR	a	1000	M	Fall River, Mass.	Doughty & Welch Elec. Co.
XEF	a	100	....	Juarez, Chih.	Gilberto Gil

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

1460 kcs. (205.4 m.)

CMKF	z	250	....	Holguin, Cuba	Manuel J. De Gongora
KSTP	a	10000	R(.25)	St. Paul, Minn.	National Battery Brdctg. Co.
WJSV	a	10000	C	Washington, D. C.	Columbia Brdctg. Sys.

1470 kcs. (204 m.)

KGA	a	5000	BM	Spokane, Wash.	Louis Wasmer
WLAC	a	5000	C	Nashville, Tenn.	WLAC Brdctg. Service

1480 kcs. (202.6 m.)

KOMA	a	5000	C	Oklahoma City, Okla.	Hearst Radio, Inc.
WHIP	z	5000	D	Hammond, Ind.	Hammond-Calumet Brdctg. Corp.
WKBW	a	5000	C	Buffalo, N. Y.	Buffalo Brdctg. Corp.

1490 kcs. (201.2 m.)

CMKQ	z	200	....	Santiago, Cuba	Mario Abril Dumois
KFBK	a	10000	N	Sacramento, Calif.	McClatchey Brdctg. Co.
WCKY	a	10000	N	Covington, Ky.	L. B. Wilson, Inc.

1500 kcs. (199.9 m.)

CJIC	a	100	F	Sault Ste. Marie, Ont.	Whitby and Hyland
CMCG	a	150	....	Havana, Cuba	La Onda, S. A.
KAWM	z	100	....	Gallup, N. Mex.	A. W. Mills
KBIX	a	100	M	Muskogee, Okla.	Okla. Pres. Pub. Co.
KBKR	z	100	(.25)P	Baker, Ore.	Louis P. Thornton
KBST	z	100	M	Big Spring, Tex.	Big Spring Herald Brdctg. Co.
KDAL	a	100	C	Duluth, Minn.	Red River Brdc. Co.
KDB	a	100	M(.25)	Santa Barbara, Calif.	S. B. Brdcasters, Ltd.
KGFI	a	100	(.25)	Brownsville, Tex.	Eagle Brdctg. Co., Inc.
KGKB	a	100	M(.25)	Tyler, Texas	East Texas Brdctg. Co.
KGKY	a	100	(.25)	Scottsbluff, Nebr.	Hillard Co., Inc.
KNEL	a	250	D	Brady, Texas	G. L. Burns
KNOW	a	100	CM	Austin, Texas	KUT Brdctg. Corp.
KOTN	a	100	D	Pine Bluff, Ark.	Universal Brdctg. Corp.
KOVC	a	100	(.25)	Valley City, N. Dak.	KOVC, Inc.
KPAB	z	100	(.25)	Laredo, Tex.	Mervel M. Valentine
KPLC	a	100	(.25)	Lake Charles, La.	Calcasieu Brdctg. Co.
KPLT	z	250	DM	Paris, Texas	North Texas Brdctg. Co.
KPO	a	100	M(.25)	Wenatchee, Wash.	Wescoast Brdctg. Co.
KRNR	a	100	M(.25)	Roseburg, Ore.	News-Review Co.
KROD	z	100	P	El Paso, Texas	Dorrance D. Roderick
KSAL	a	100	(.25)	Salina, Kans.	R. J. Laubengayer
KSAM	z	100	DP	Huntsville, Texas	Sam Houston Brd. Co.
KUTA	z	100	N	Salt Lake City, Utah	Utah Brdctg. Co.
KVNU	z	100	P	Logan, Utah	Cache Valley Brd. Co.
KVOE	a	100	M	Santa Ana, Calif.	Voice of Orange Empire
KVWC	z	100	P	Vernon, Texas	.....
KWEW	z	100	D	Hobbs, N. Mex.	W. E. Whitmore
KXO	a	100	....	El Centro, Calif.	Irey and Bowles
KYCA	z	100	(.25)P	Prescott, Ariz.	Southwest Brdctg. Co.
KYSM	z	100	P(.25)	Mankato, Minn.	F. B. Clement & Co.
WCNW	a	100	1(.25)	Brooklyn, N. Y.	Arthur Fiske
WDAN	z	250	DP	Daanville, Ill.	Northwestern Pub. Co.
WDNC	a	100	C	Durhm, N. C.	Durham Radio Corp.
WGAL	a	100	(.25)	Lancaster, Pa.	WGAL, Inc.
WGIL	z	250	DP	Galesburg, Ill.	Galesburg Brdc. Co.
WGKV	z	100	P	Charleston, W. Pa.	Kanawha Valley Brd. Co.
WHBB	a	100	....	Selma, Ala.	Selma Brdctg. Co.
WHEF	a	100	(.25)	Kosciusko, Miss.	Attala Brdctg. Corp.
WJBK	a	100	(.25)	Detroit, Mich.	James F. Hopkins, Inc.
WKAT	a	100	....	Miami Beach, Fla.	A. Frank Katzentine
WKBW	a	100	YC(.25)	E. Dubuque, Ill.	Sanders Brothers
WKBV	a	100	(.25)	Richmond, Ind.	Knox Radio Corp.
WKBZ	a	100	(.25)	Muskegon, Mich.	Ashbacker Radio Corp.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

WKEU	a	100	D	Griffin, Ga.	Station WKEU
WMEX	a	100	(.25)	Boston, Mass.	Northern Corp.
WNBF	a	100	C(.25)	Binghamton, N. Y.	Howitt-Wood Radio Co.
WNLC	a	100	DM	New London, Conn.	Thames Brdcstg. Corp.
WOMI	a	100	(.25)	Owensboro, Ky.	Owensboro Brdc. Co.
WOPI	a	100	....	Bristol, Tenn.	Radiophone Station WOPI
WRDW	a	100	C(.25)	Augusta, Ga.	Augusta Brdcstg. Co.
WRGA	a	100	(.25)	Rome, Ga.	Rome Brdcstg. Corp.
WRTD	a	100	B	Richmond, Va.	Times Dispatch Radio Corp.
WSTP	z	100	(.25)P	Salisbury, N. C.	Piedmont Brdcstg. Corp.
WSYB	a	100	....	Rutland, Vt.	Philip Weiss Music Co.
WSMV	a	100	(.25)	E. St. Louis, Ill.	Miss. Val. Brdc. Co.
WWRL	a	100	1(.25)	Woodside, N. Y.	Long Island Brdcstg. Corp.
WWSW	a	100	(.25)	Pittsburgh, Pa.	Walker & Downing Radio Corp.

1510 kcs. (198.6 m.)

CFRC	a	100	F	Kingston, Ont.	Queen's University
CKCR	a	100	Waterloo, Ont.	Mitchell & Liddle

1520 kcs. (197.3 m.)

TGW	d	1000	Guatemala City, Guat.	Ministerio de Fomento
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1530 kcs. (196 m.)

KITE	a	1000	Kansas City, Mo.	First Natl. Television, Inc.
WBRY	a	1000	M	Waterbury, Conn.	American Republican, Inc.

1540 kcs. (194.7 m.)

CM9RT	z	200	Guines, Cuba	Raul Torres Padal
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1550 kcs. (193.4 m.)

KPMC	a	1000	M	Bakersfield, Calif.	Pioneer Mercantile Co.
WQXR	a	1000	New York, N. Y.	Interstate Brdcstg. Co.

Music Hall Concerts

The Radio City Music Hall of the Air Sunday concerts, the oldest and longest sustained series of its kind in radio, is now heard a half hour earlier over the NBC-Blue Network. The new schedule brings the program to listeners each week from noon to 1 pm, EST.

For more than five years these broadcasts, under the direction of Erno Rapee, have presented the world's greatest music to radio listeners in North and South America through the NBC coast to coast network, the

Canadian Broadcasting Corporation's system, and the NBC shortwave facilities.

Uruguayan Special

Radio station CX26, 1050 kcs., at Montevideo, Uruguay, will broadcast a special DX program on November 5 and 6, from 3 to 5 am, EST. This program is dedicated to the National Radio Club. Verifications will be sent for ten cents, or for thirty cents, they will send a selection of pictures taken during the time the programs are in progress.

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, M Mutual.

ALABAMA		Little Rock	KJBS	1070	500	WDEL	1120	250 R	
Anniston		KARK 890	500 N	KPO	680	50000 R	WILM	1420	100 R
WHMA	1420	KGHI	1200	100	KSAN	1420	100		
Birmingham		KLRA	1390	1000 C	KSFO	560	1000 C		
WAPI	1140	Pine Bluff		KYA	1230	1000			
WBRC	930	KOTN	1500	100	San Jose				
WSGN	1310	Siloam Springs		KQW	1010	1000M			
Decatur		KUOA	1260	5000	San Luis Obispo				
WMFO	1370	CALIFORNIA			KVEC	1200	100		
Dothan		Bakersfield		Santa Ana					
WAGF	1370	KERN	1370	100 N	KVOE	1500	100M		
Gadsden		KPMC	1550	1000M	Santa Barbara				
WJBY	1210	Berkeley		KDB	1500	100M			
Huntsville		KRE	1370	100	KTMS	1220	500 B		
WBHP	1200	Beverly Hills		KSRO	1310	100			
Mobile		KMPC	710	500	Stockton				
WALA	1380	Chico		KGDM	1100	1000M			
Montgomery		KHSL	1260	250	KWGC	1200	100 N		
WCOV	1210	El Centro		Visalia					
WSFA	1410	KXO	1500	100	KTCK	1190	250		
Selma		Eureka		Watsonville					
WHBB	1500	KIEM	1450	500M	KHUB	1310	250		
Muscle Shoals City		Fresno		COLORADO					
WMSD	1420	KARM	1310	100 C	Alamosa				
Tuscaloosa		KMJ	580	1000 N	KGIW	1420	100		
WJRD	1200	Glendale		Colorado Springs					
ALASKA		KIEV	850	250	KVOR	1270	1000 C		
Anchorage		Long Beach		Denver					
KFOD	780	KFOX	1250	1000	KFEL	920	500M		
Fairbanks		KGER	1360	1000	KLZ	560	1000 C		
KFAR	610	Los Angeles		KOA	830	50000 R			
Juneau		KECA	1430	1000 B	KPOF	880	1000		
KINY	1310	KEHE	780	1000	KVOD	920	500 B		
Ketchikan		KFAC	1300	1000	Durango				
KGBU	900	KFI	640	50000 R	KIUP	1370	100		
ARIZONA		KFSG	1120	500	Grand Junction				
Globe		KFVD	1000	1000	KFKJ	1200	100		
KWJB	1210	KFWB	950	1000	Greeley				
Jerome		KGfJ	1200	100	KFKA	880	500M		
KCRJ	1310	KHJ	900	1000M	La Junta				
Lowell		KMTR	570	1000	KOKO	1370	100		
KSUN	1200	KNX	1050	50000 C	Lamar				
Phoenix		KRDK	1120	500	KIDW	1420	100		
KOY	1390	Merced			Pueblo				
KTAR	620	KYOS	1040	250	KGHF	1320	500 B		
Prescott		Modesto			Sterling				
KYCA	1500	KTRB	740	250	KGEK	1200	100		
Safford		Monterey			CONNECTICUT				
KGLU	1420	KDON	1210	100M	Bridgeport				
Tucson		Oakland			WICC	600	500M		
KGAR	1370	KLS	1280	250	Hartford				
KVOA	1260	KLX	880	1000	WDRG	1330	1000 C		
Yuma		KROW	930	1000	WTIC	1040	50000 R		
KUMA	1420	Pasadena			WTHT	1200	100M		
ARKANSAS		Redding			New Britain				
Blytheville		KVCV	1200	100	WNBC	1380	250		
KLCN	1290	Sacramento			New Haven				
El Dorado		KFBK	1490	10000 N	WELI	900	500		
KELD	1370	KROY	1210	100 C	New London				
Port Smith		San Bernardino			WNLC	1500	100M		
KFPW	1210	KFXM	1210	100M	Waterbury				
Hot Springs		San Diego			WATR	1190	100		
KTHS	1060	KFSW	600	1000 B	WBRY	1530	1000M		
Jonesboro		KGB	1330	1000M	DELAWARE				
KBTM	1200	San Francisco			Wilmington				
		KFRC	610	1000M					
		KGO	790	7500 B					

DISTRICT OF COLUMBIA

Washington

WJSV	1460	10000 C
WMAL	630	250 B
WOL	1310	1000M
WRC	950	1000 R

FLORIDA

Daytona Beach		
WMFJ	1420	100
Gainesville		
WRUF	830	5000
Jacksonville		
WJAX	900	1000 N
WMBR	1370	100 C
Lakeland		
WLAK	1310	100
Miami		
WIOD	610	1000 N
WMBF	610	1000
WQAM	560	1000 C
Miami Beach		
WKAT	1500	100
Orlando		
WDBO	580	1000 C
Pensacola		
WCOA	1340	500 C
St. Augustine		
WFOY	1210	100
St. Petersburg		
WSUN	620	1000 N
Tallahassee		
WTAL	1310	100
Tampa		
WDAE	1220	1000 C
WFLA	620	1000 N
West Palm Beach		
WJNO	1200	100 C

GEORGIA

Albany		
WGPC	1420	100
Athens		
WGAU	1310	100
Atlanta		
WAGA	1450	500 B
WATL	1370	100
WGST	890	1000 C
WSB	740	50000 R
Augusta		
WRDW	1500	100 C
Columbus		
WRBL	1200	100
Griffin		
WKUE	1500	100
Macon		
WMAZ	1180	1000 C
Rome		
WRGA	1500	100
Savannah		
WSAV	1310	100
WTOC	1260	1000 C

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Thomasville
WPAX 1210 100
Waycross
WAYX 1200 100

HAWAII

Hilo
KHBC 1400 250M
Honolulu
KGMB 1320 1000 C
KGU 750 2500 N

IDAHO

Boise
KIDO 1350 1000 N
Coeur d'Alene
KGCI 1200 100
Idaho Falls
KID 1320 500
Lewiston
KRLC 1390 250
Nampa
KFXX 1200 100
Pocatello
KSEI 900 250 N
Twin Falls
KTFF 1240 1000 N

ILLINOIS

Aurora
WMRO 1250 250
Bloomington
WJBC 1200 100
Carthage
WCAZ 1070 100
Champaign
WDWS 1370 100
Chicago
WAAF 920 1000
WBBM 770 50000 C
WCBF 1080 5000
WCFL 970 5000 N
WCRW 1210 100
WEDC 1210 100
WENR 870 50000 B
WGES 1360 500
WGN 720 50000M
WJJD 1130 20000
WLS 870 50000 B
WMAQ 670 50000 R
WMBI 1080 5000
WSBC 1210 100
Cicero
WHFC 1420 100
Danville
WDAN 1500 250
Decatur
WJBL 1200 100
East Dubuque
WKBB 1500 100 C
East St. Louis
WTMV 1500 100
Galesburg
WGIL 1500 250
Harrisburg
WEBQ 1210 100
Joliet
WCLS 1310 100
Peoria
WMBD 1440 1000 C

Quincy
WTAD 900 1000
Rockford
WROK 1410 500
Rock Island
WHBF 1210 100
Springfield
WCBS 1420 100
WTAX 1210 100
Tuscola
WDZ 1020 250
Urbana
WILL 580 1000

INDIANA

Anderson
WHBU 1210 100
Elkhart
WTRC 1310 100
Evansville
WEOA 1370 100 C
WGBF 630 500 N
Fort Wayne
WGL 1370 100 N
WOWO 1160 10000 B
Gary
WIND 560 1000
Hammond
WHIP 1480 5000
WWAE 1200 100
Indianapolis
WFMB 1230 1000 C
WIBC 1050 1000
WIRE 1400 1000 R
Muncie
WLBC 1310 100
New Albany
WGRC 1370 250
Richmond
WKBV 1500 100
South Bend
WFAM 1200 100
WSBT 1360 500
Terre Haute
WBOW 1310 100 N
West Lafayette
WBAA 890 500

IOWA

Ames
WOI 640 5000
Boone
KFGQ 1370 100
Cedar Rapids
WMT 600 1000 B
Davenport
WOC 1370 100 C
Decorah
KGA 1270 100
KWLK 1270 100
Des Moines
KRNT 1320 1000 C
KSO 1430 500 B
WHO 1000 50000 R
Dubuque
KDTH 1340 500
Iowa City
WSUI 880 500
Marshalltown
KFJB 1200 100

Mason City
KGLO 1210 100 C
Shenandoah
KFNF 890 500
KMA 930 1000 B
Sioux City
KSCJ 1330 1000 C
KTRI 1420 100

KANSAS

Abilene
KFBI 1050 5000
Atchison
KVAK 1420 100
Coffeyville
KGGF 1010 1000M
Dodge City
KGNO 1340 250
Garden City
KIUL 1210 100
Great Bend
KVGB 1370 100
Hutchinson
KWBG 1420 100
Kansas City
KCKN 1310 100
Lawrence
KFKU 1220 1000
WREN 1220 1000 B
Manhattan
KSAC 580 500
Pittsburg
KOAM 790 1000 N
Salina
KSAL 1500 100
Topeka
WIBW 580 1000 C
Wichita
KANS 1210 100 B
KFH 1300 1000 C

KENTUCKY

Ashland
WCMI 1310 100
Covington
WCKY 1490 10000 N
Lexington
WLAP 1420 100
Louisville
WAVE 940 1000 N
WHAS 820 50000 C
Owensboro
WOMI 1500 100
Paducah
WPAD 1420 100

LOUISIANA

Alexandria
KALB 1210 100
Baton Rouge
WJBO 1120 500 B
Lafayette
KVOL 1310 100
Lake Charles
KPLC 1500 100

Monroe
KMLB 1200 100
New Orleans
WBNO 1200 100
WDSU 1250 1000 B
WJBW 1200 100
WSMB 1320 1000 R
WWL 850 10000 C
Shreveport
KRMD 1310 100
KTBS 1450 1000 N
KWKH 1100 10000 C

MAINE

Augusta
WRDO 1370 100M
Bangor
WABI 1200 100
WLBZ 620 500 C
Lewister
WCOV 1210 100
Portland
WCSH 940 1000 R
WGAN 640 500
Presque Isle
WAGM 1420 100

MARYLAND

Baltimore
WBAL 760 2500 B
WBAL 1060 10000 B
WCAO 600 1000 C
WCBM 1370 100
WFBR 1270 500 R
College Park
W3XJ 1060 100
Cumberland
WTBO 800 250
Frederick
WFMD 900 500
Hagerstown
WJEJ 1210 100
Salisbury
WSAL 1200 250

MASSACHUSETTS

Boston
WAAB 1410 500M
WBZ 990 50000 B
WCOP 1120 500
WEEI 590 1000 C
WHDH 830 1000
WMEX 1500 100
WNCN 1230 1000 R
WORL 920 500
Cape Cod
WOCB 1210 100
Fall River
WSAR 1450 1000M
Greenfield
WHAI 1210 250
Lawrence
WLAW 680 1000
WLLH 1370 100
Lowell
New Bedford
WNLH 1310 100M
WLLH 1370 100M

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Pittsfield	
WBRK 1310	100 C
Springfield	
WBZA 990	1000 B
WMAS 1420	100 C
WSPR 1140	500M
Worcester	
WORC 1280	500 C
WTAG 580	1000 R

MICHIGAN

Battle Creek	
WELL 1420	100
Bay City	
WBCM 1410	500
Calumet	
WHDF 1370	100
Detroit	
WJBK 1500	100
WJR 750	50000 C
WBMC 1420	100
WWJ 920	5000 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	
WBEO 1310	100
Muskegon	
WKBZ 1500	100
Port Huron	
WHLS 1370	250
Royal Oak	
WEXL 1310	50
Saginaw	
WHAL 950	500

MINNESOTA

Albert Lea	
KATE 1420	250
Duluth	
KDAL 1500	100 C
WEBC 1290	1000 N
Fergus Falls	
KGDE 1200	100
Hibbing	
WMFG 1210	100
Mankato	
KYSM 1500	100
Minneapolis	
WCCO 810	50000 C
WDGY 1180	1000 C
WLB 760	1000
WTCN 1250	1000 B
Moorhead	
KVOX 1310	100

Northfield	
WCAL 760	1000
Rochester	
KROC 1310	100
St. Cloud	
KFAM 1420	100
St. Paul	
KSTP 1460	10000 R
WMIN 1370	100
Virginia	
WHLB 1370	100 C
Winona	
KWNO 1200	250

MISSISSIPPI

Grenada	
WGRM 1210	100
Gulfport	
WGCM 1210	100
Hattiesburg	
WFOR 1370	100
Jackson	
WJDX 1270	1000 R
WSLI 1420	100
Kosciusko	
WHEF 1500	100
Laurel	
WAML 1310	100
Meridian	
WCOC 880	1000 C
Vicksburg	
WQBC 1360	1000

MISSOURI

Cape Girardeau	
KFVS 1210	100
Columbia	
KFRU 630	500
Jefferson City	
KWOS 1310	100
Joplin	
WMBH 1420	100
Kansas City	
KCMO 1370	100
KJTE 1530	1000
KMBC 950	1000 C
WDAF 610	1000 R
WHB 860	1000M
Poplar Bluff	
KWOC 1310	100
St. Joseph	
KFEQ 680	2500
St. Louis	
KFUO 550	500
KMOX 1090	50000 C
KSD 550	1000 R
KWK 1350	1000 B
KXOK 1250	1000
WEW 760	1000
WIL 1200	100
Springfield	
KGBX 1230	500 N
KWTO 560	5000

MONTANA

Billings	
KGHL 780	1000 N

Bozeman	
KRBM 1420	100
Butte	
KGIR 1340	1000 N
Great Falls	
KFBB 1280	1000 C
Helena	
KPFA 1210	100 N
Kalispell	
KGEZ 1310	100
Lewistown	
KDNC 1200	100
Missoula	
KGVO 1260	1000 C
Wolf Point	
KGCX 1450	1000

NEBRASKA

Clay Center	
KMMJ 740	1000
Kearney	
KGFV 1310	100
Lincoln	
KFAB 770	10000 C
KFOR 1210	100 C
Norfolk	
WJAG 1060	1000
North Platte	
KGNF 1430	1000
Omaha	
KOIL 1260	1000 B
WAAW 660	500
WOW 590	1000 R
Scottsbluff	
KGKY 1500	100

NEVADA

Reno	
KOH 1380	500 C

NEW HAMPSHIRE

Laconia	
WLNH 1310	100M
Manchester	
WFEA 1340	500 N
Portsmouth	
WHEB 740	250

NEW JERSEY

Asbury Park	
WCAP 1280	500
Atlantic City	
WPG 1100	5000 C
Bridgeton	
WSNJ 1210	100
Camden	
WCAM 1280	500
Jersey City	
WAAZ 940	500
WHOM 1450	250
Newark	
WHBI 1250	1000
WOR 710	50000M
Red Bank	
WBRB 1210	100
Trenton	
WTNJ 1280	500

Whippany	
W3XDD ...	50000
Zarephath	
WAWZ 1350	500

NEW MEXICO

Albuquerque	
KGGM 1230	1000
KOB 1180	10000 N
Carlsbad	
KLAH 1210	100
Clovis	
KICA 1370	100
Gallup	
KAWM 1500	100
Hobbs	
KWEV 1500	100
Roswell	
KGFL 1370	100
Santa Fe	
KRQA 1310	100

NEW YORK

Albany	
WABY 1370	100 N
WOKO 1430	500 C
Auburn	
WMOB 1310	100
Binghamton	
WBNF 1500	100 C
Brooklyn	
WARD 1400	500
WBBC 1400	500
WBBR 1300	1000
WCWN 1500	100
WLTH 1400	500
WVFW 1400	500
Buffalo	
WBEN 900	1000 F
WBNY 1370	100
WBRB 1310	100 B
WGR 550	1000 C
WKBW 1480	5000 C
WWSV 1370	50
Canton	
WCAD 1220	500
Elmira	
WENY 1200	250
WESG 850	1000 C
Freeport	
WGBB 1210	100
Jamestown	
WJTN 1210	100 B
Newburgh	
WGNV 1210	100
New York	
WABC 860	50000 C
WBIL 1100	5000
WBNX 1350	1000
WBOQ 860	50000
WEAF 660	50000 B
WEVD 1300	1000
WFAJ 1300	1000
WHN 1010	1000
WINS 1180	1000
WJZ 760	50000 B
WMCA 570	1000
WNEW 1250	1000
WNYC 810	1000

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

WOV	1130	1000
WOXR	1550	1000
Olean		
WHDL	1400	250
Plattsburg		
WMFF	1310	100 B
Rochester		
WHAM	1150	50000 B
WHEC	1430	500 C
WSAY	1210	100
Saranac Lake		
WNBZ	1290	100
Schenectady		
WGY	790	50000 R
Syracuse		
WFBL	1360	1000 C
WSYR	570	1000 B
WSYU	570	1000
Troy		
WHAZ	1300	1000
....	950	1000
Utica		
WIBX	1200	100 C
White Plains		
WEAS	1210	100
Woodside		
WWRL	1500	100

NORTH CAROLINA

Asheville		
WWNC	570	1000 N
Charlotte		
WBT	1080	50000 C
WSOC	1210	100 N
Durham		
WDNC	1500	100 C
Fayetteville		
WFNC	1340	250
Gastonia		
WGNC	1420	100
Greensboro		
WBIG	1440	1000 C
High Point		
WMFR	1200	100
Kinston		
WFTC	1200	100
Raleigh		
WPTF	680	5000 N
WRAL	1210	100
Rocky Mount		
WEED	1420	100
Salisbury		
WSTP	1500	100
Wilmington		
WMFD	1370	100
Wilson		
WGTM	1310	100
Winston-Salem		
WAIR	1250	250
WSJS	1310	100 C

NORTH DAKOTA

Bismarck		
KFYR	550	1000 N
Devils Lake		
KDLR	1210	100
Fargo		
WDAY	940	1000 N
Grand Forks		
KFJM	1410	500
Jamestown		
KRMC	1370	100

Mandan		
KGCU	1240	250
Minot		
KLPM	1240	250
Valley City		
KOVC	1500	100

OHIO

Akron		
WADC	1320	1000 C
WJW	1210	100
Ashtabula		
WICA	940	250
Canton		
WHBC	1200	100
Cincinnati		
WCPC	1200	100
WKRC	550	1000 C
WLW	700	500000N
WSAI	1330	1000 N
Cleveland		
WCLE	610	500M
WGAR	1450	500 C
WHK	1390	1000 B
WTAM	1070	50000 R
Columbus		
WBNS	1430	1000 C
WCOL	1210	100 N
WHKC	640	500M
WOSU	570	750
Dayton		
WHIO	1260	1000 C
WSMK	1380	200 C
Lima		
WBLY	1210	100
Portsmouth		
WPAV	1370	100
Toledo		
WSPD	1340	1000 B
WTOL	1200	100
Youngstown		
WFMJ	1420	100
WKBN	570	500 C
Zanesville		
WALR	1210	100

OKLAHOMA

Ada		
KADA	1200	100M
Ardmore		
KVSO	1210	100M
Elk City		
KASA	1210	100
Enid		
KCRC	1360	250M
Muskogee		
KBIX	1500	100M
Norman		
WNAD	1010	1000
Oklahoma City		
KOCY	1310	100
KOMA	1480	5000 C
KTKO	1370	100M
WKY	900	1000 N
Okmulgee		
KHBG	1210	100
Ponca City		
WBBZ	1200	100M
Shawnee		
KGFF	1420	100M

Tulsa		
KOME	1310	250
KTUL	1400	1000 C
KVOO	1140	25000 N

OREGON

Astoria		
KAST	1370	100
Baker		
KBKR	1500	100
Bend		
KBND	1310	100
Corvallis		
KOAC	550	1000
Eugene		
KORE	1420	100M
Klamath Falls		
KFJI	1210	100
La Grande		
KLBM	1420	100
Marshfield		
KOOS	1200	100
Medford		
KMED	1410	250 N
Portland		
KALE	1300	1000M
KBPS	1420	100
KEX	1180	5000 B
KGW	620	1000 R
KOIN	940	1000 C
KWJJ	1040	500
KXL	1420	100
Roseburg		
KRNR	1500	100M
Salem		
KSLM	1370	100M

PENNSYLVANIA

Allentown		
WCBA	1440	500
WSAN	1440	500 N
Altoona		
WFBG	1310	100
Easton		
WEST	1200	100
Erie		
WLEU	1420	100 B
Glenside		
WIBG	970	100
Greensburg		
WHJB	620	250 C
Grove City		
WSAJ	1310	100
Harrisburg		
WHP	1430	500 C
WKBO	1200	100
Hazelton		
WAZL	1420	100
Johnstown		
WJAC	1310	100
Lancaster		
WGAL	1500	100 N
New Castle		
WKST	1250	250
Philadelphia		
KYW	1020	10000 R
WCAU	1170	50000 C
WDAS	1370	100
WFIL	560	1000 B
WHAT	1310	100
WIP	610	1000

WPEN	920	1000
WRAX	920	1000
WTEL	1310	100
Pittsburgh		
KDKA	980	50000B
KQV	1380	500 C
WCAE	1220	1000 R
WJAS	1290	1000 C
WWSW	1500	100

Reading		
WEEU	830	1000
WRAW	1310	100
Scranton		
WGBI	880	500 C
WQAN	880	500
Sharon		
WPIC	780	250
Sunbury		
WKOK	1210	100
Uniontown		
WMBS	1420	250
Wilkes-Barre		
WBAX	1210	100M
WBRE	1310	100 N
Williamsport		
WRAC	1370	100
York		
WORK	1320	1000 N

PUERTO RICO

Mayaguez		
WPRa	1370	100
Ponce		
WPRP	1420	100
San Juan		
WKAQ	1240	1000
WNEL	1290	1000

RHODE ISLAND

Providence		
WEAN	780	1000M
WJAR	890	1000 R
WPRO	630	500 C

SOUTH CAROLINA

Anderson		
WAIM	1200	100 C
Charleston		
WCSC	1360	500 N
....	1210	100
Columbia		
WIS	560	1000 N
Florence		
WOLS	1200	100
Greenville		
WFBC	1300	1000 N
Spartanburg		
WSPA	920	1000

SOUTH DAKOTA

Aberdeen		
KABR	1390	500
Brookings		
KFDY	780	1000
Pierre		
KGFX	630	200
Rapid City		
KOBH	1370	100
WCAT	1200	100
Sioux Falls		
KELO	1200	100 N
KSOO	1110	5000 N

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Vermillion		KPRC 920	1000 R	St. Albans		WGKV 1500	100
KUSD 890	500	KTRH 1290	1000 C	WODM 1390	1000	Clarksburg	
Yankton		KXYZ 1440	1000 B	Springfield		WBLK 1370	100
WNAX 570	1000 C	Huntsville		WNBX 1260	500 C	Fairmont	
TENNESSEE				Waterbury		WMMN 890	500 C
Bristol		KSAM 1500	100	WDEV 550	500	Huntington	
WOPI 1500	100	Kilgore		VIRGINIA			
Chattanooga		KOCA 1210	100	Charlottesville		WPAZ 1420	100 C
WAPQ 1420	100	Laredo		WCHV 1420	100	Wheeling	
WDOD 1280	1000 C	KPAB 1500	100	Danville		WWVA 1160	5000 C
Jackson		Longview		WBTM 1370	100	WISCONSIN	
WTJS 1310	100	KFRO 1370	250M	Harrisonburg		Eau Claire	
Johnson City		Lubbock		WSVA 550	500	WEAU 1050	1000
WJHL 1200	100	KFYO 1310	100M	Lynchburg		Fond du Lac	
Knoxville		Lufkin		WLVA 1200	100	KFIZ 1420	100
WNOX 1010	1000 C	KRBA 1310	100	Newport News		Green Bay	
WROL 1310	100 N	Midland		WGHN 1310	100	WHBY 1200	100
Memphis		KRLH 1420	100	Norfolk		WTAQ 1330	1000 C
WHBQ 1370	100	Palestine		WTAR 780	1000 N	Janesville	
WMC 780	1000 R	KNET 1420	100	Petersburg		WCLO 1200	100
WMPS 1430	500 B	Pampa		Richmond		LaCrosse	
WREC 600	1000 C	KPDN 1310	100	WBBL 1210	100	WKBH 1380	1000 C
Nashville		Paris		WMBG 1350	500 R	Madison	
WLAC 1470	5000 C	KPLT 1500	250M	WRNL 880	500	WHA 940	5000
WSIX 1210	100	Pecos		WRD 1500	100 B	WIBA 1280	1000 N
WSM 650	50000 N	KIUN 1420	100	WRVA 1110	5000 C	Manitowoc	
TEXAS				Roanoke		WOMT 1210	100
Abilene		San Angelo		WDBJ 930	1000 C	Milwaukee	
KRBR 1420	100M	KGKL 1370	100	WASHINGTON			
Amarillo		San Antonio		Aberdeen		WEMP 1310	100
KGNC 1410	1000 N	KABC 1420	100M	KXRO 1310	100M	WISN 1120	250 C
Austin		KMAC 1370	100	Bellingham		WTMJ 620	1000 N
KNOW 1500	100 C	KONO 1370	100	KVOS 1200	100M	Poynette	
KTBC 1120	1000	KTSA 550	1000 C	Centralia		WIBU 1210	100
Beaumont		WOAI 1190	50000 N	KELA 1440	500M	Racine	
KFDM 560	500 N	Sherman		Everett		WRJN 1370	100
KRIC 1410	100M	KRRV 1310	250	KRKO 1370	50	Rice Lake	
Big Spring		Temple		Longview		WJMC 1210	250
KBST 1500	100M	KTEM 1370	250M	KWLK 780	250	Sheboygan	
Brady		Texasarkana		Olympia		WHBJ 1300	250
KNEL 1500	250	KGKB 1500	100M	K6Y 1210	100 M	Stevens Point	
Brownsville		Vernon		Pullman		WLBL 900	5000
KGFI 1500	100	KVWC 1500	100	KWSC 1220	1000	Superior	
College Station		Victoria		Seattle		WDSM 1200	100
WTAW 1120	500	KVIC 1310	100	KEEN 1370	100	Wausau	
Corpus Christi		Waco		KIRO 710	1000 C	WSAU 1370	100
KRIS 1330	500 N	WACO 1420	100 C	KJR 970	5000 B	WYOMING	
Corsicana		Weslaco		KOL 1270	1000 M	Casper	
KAND 1310	100M	KRGV 1260	1000 N	KOMO 920	1000 R	KDFN 1440	500
Dallas		Wichita Falls		KRSC 1120	250	Rock Springs	
KRLD 1040	10000 C	KWFT 620	250	KTW 1220	1000	KVRS 1370	100
WFAA 800	50000 N	UTAH		KXA 760	250	Sheridan	
WRR 1280	500M	Cedar City		Spokane		KWYO 1370	100
Denton		KSUB 1310	100	KFIO 1120	100	BAHAMAS	
KDNT 1420	100	Logan		KFPY 890	1000 C	Nassau	
Dublin		KVNU 1500	100	KGA 1470	5000 B	ZNS 540	400
KFPL 1310	100	Ogden		KHQ 590	1000 R	CANADA	
El Paso		KLO 1400	500 B	Tacoma		ALBERTA	
KROD 1500	100	Price		KMO 1330	1800M	Calgary	
KTSM 1310	100 N	KEUB 1420	100	KVI 570	1000 C	CFAC 930	1000 F
WDAH 1310	100	Salt Lake City		Walla Walla		CFCN 1030	10000
Port Worth		KDYL 1290	1000 R	KUJ 1370	100	CJCJ 690	100 F
KFJZ 1370	100M	KSL 1130	50000 C	Wenatchee		Edmonton	
KGKO 570	1000 B	KUTA 1500	100 N	KIT 1250	250M	CFRN 960	100 F
KTAT 1240	1000M	VERMONT		WEST VIRGINIA			
WBAP 809	50000 N	Burlington		Bluefield		CJCA 730	1000 F
Galveston		WCAAX 1200	100	Charleston		CKUA 580	500
KLUF 1370	100M	Rutland		WCHS 580	500 C		
Greenville		WSYB 1500	100				
KGVL 1200	100						
Houston							

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Grande Prairie
 CPGP 1200 100
 Lethbridge
 CJOC 950 100 F

BRIT. COLUMBIA

Chilliwack
 CHWK 780 100 F
 Kamloops
 CFJC 880 1000 F
 Kelowna
 CKOV 630 100 F
 Prince Rupert
 CFPR 580 50
 Trail
 CJAT 910 1000 F
 Vancouver
 CBR 1100 5000 F
 CJOR 600 500
 CKCD 1010 100
 CKFC 1410 50
 CKMO 1410 100
 CKWX 1010 100
 Victoria
 CFCT 1450 500

MANITOBA

Brandon
 CKX 1120 1000 F
 Flin Flon
 CFAR 1370 100
 Winnipeg
 CJRC 630 500 F
 CKY 910 15000 F

NEW BRUNSWICK

Fredericton
 CFNB 550 500 F
 Moncton
 CKCW 1370 100 F
 Sackville
 CBA 50000
 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
 CKIC 1010 50
 Yarmouth
 CJLS 1310 100 F

ONTARIO

Brantford
 CKPC 930 100 F
 Chatham
 CFCO 630 100 F

Cobalt
 CKMC 1210 50
 Fort William
 CKPR 730 100 F
 Hamilton
 CHML 1010 100 F
 CKOC 1120 500 F

Kenora
 CKCA 1420 100
 Kingston
 CFRC 1510 100 F
 London
 CFPL 730 100 F
 North Bay
 CFCH 930 100 F
 CKJL 1310 100 F
 CKGB 1420 100 F
 Ottawa
 CBO 880 1000 F
 CKCO 1010 100 F
 Owen Sound
 1370 100
 Prescott
 CFCL 930 100

St. Catharines
 CKTB 1200 100 F
 Sault Ste. Marie
 CJIC 1500 100 F
 Stratford
 CJCS 1210 50

Sudbury
 CKSO 780 1000 F
 Toronto
 CBL 840 50000 F
 CFRB 690 10000 C
 CKCL 580 100 F
 CRCY 960 100 F

Waterloo
 CKCR 1510 100
 Windsor
 CKLW 1030 5000 F
 Wingham
 CKNX 1200 100

PRINCE EDWARD ISLAND

Charlottetown
 CFCY 630 1000 F
 CHCK 1310 50
 Summerside
 CHGS 1450 50 F

QUEBEC

Chicoutimi
 CRCB 1120 100 F
 Hull
 CKKH 1210 100 F
 Montreal
 CBF 910 50000 N
 CBM 1050 5000 F
 CFCF 600 500 B
 CHLP 1120 100 F
 CKAC 730 5000 C
 New Carlisle
 CHNC 960 1000 F
 Quebec
 CHRC 580 100
 CKCV 1310 100 F

CRCK 950 1000 F
 Rimouski
 CJBR 1030 1000 F
 Sherbrooke
 CHLT 1210 100
 Three Rivers
 CHLN 1420 100

SASKATCHEWAN

Moose Jaw
 CHAB 1200 100 F
 Prince Albert
 CKBI 1210 100 F
 Regina
 CJRM 540 1000 F
 CKCK 1010 1000 F
 Saskatoon
 CFQC 840 1000 F
 Yorkton
 CJGX 1390 100 F

COSTA RICA

San Jose
 TIPG 625 2000
 TIX 650 1000

CUBA

Bayamo
 CMKL 990 200
 Caibarien
 CMHD 1270 250
 Camaguey
 CMJA 1010 250
 CMJC 1390 200
 CMJE 1220 50
 CMJF 1150 200
 CMJK 1290 200
 CMJW 1340 300
 CMJX 830 150

Cardenas
 CMGE 1370 200
 Ciego de Avila
 CMJH 1360 200
 CMJI 1130 150
 CMJO 1180 50
 Cienfuegos
 CMHJ 1160 100
 CMHM 1450 150
 CMHX 1300 200
 Cruces
 CMHK 1330 250
 Guantanamo
 CMKS 960 60

Havana
 CMBC 950 150
 CMBD 1260 500
 CMBF 770 5000
 CMBG 1440 225
 CMBL 750 500
 CMBQ 680 5000
 CMBR 1170 150
 CMBX 1070 150
 CMBY 970 200
 CMBZ 1000 500
 CM C 1260 150
 CMCA 1350 450
 CMCB 1230 150
 CMCD 630 250

CMCF 810 5000
 CMCG 1500 150
 CM CJ 1110 500
 CMCK 1030 5000
 CMCL 730 10000
 CMC M 850 250
 CMCO 1200 150
 CMCO 1200 150
 CMCR 1380 150
 CMCU 1290 150
 CMCW 1140 150
 CM CX 1380 150
 CM CY 570 10000
 CMK 720 250
 CMOA 1440 250
 CMOX 1320 200
 CMQ 600 25000
 CMW 880 1400
 CMX 920 1000

Holguin
 CMKF 1460 250
 CMKO 1280 200
 Manzanillo
 CMKM 1120 100
 Matanzas
 CMGC 1400 200
 CMGF 1120 75
 CMGH 790 250

Morón
 CMJP 1430 75
 Palma Soriano
 CMKZ 1430 125
 Pinar del Rio
 CMAB 1340 100
 Sagua la Grande
 CMHA 1070 50
 Sancti Spiritus
 CMHB 1240 50
 Santa Clara
 CMHI 1210 250
 CMHW 820 500

Santiago
 CMKC 1250 150
 CMKD 1050 1000
 CMKG 1160
 CMKQ 1490 200
 CMKR 1400 250
 CMKW 1350
 CMKX 1190 75

DOMINICAN REPUBLIC

Ciudad Trujillo
 HIN 1090 740
 HIT 1050 50
 HIX 800 800

EL SALVADOR

San Salvador
 YSS 640 500

GUATEMALA

Guatemala City
 TGW 1520 1000
 TGX 1400
 TGI 1320
 Quezaltenango
 TGO 1450 200

HONDURAS

Tegucigalpa
 HRN 1250 50

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

MEXICO
AGUASCALIENTES

Aguascalientes
XEBI 1000 25

BAJA CALIFORNIA

Mexicali
XEAA 750 200
XEAO 660 250
Rosarito Beach
XERB 730 100000
Tijuana
XEAC 980 1000
XEAU 1320
XEBG 820 1000
XEC 1150 100
XELO 580 10000
XEMO 860 5000
XEOK 760 2500

CHIHUAHUA

Chihuahua
XEBU 1200 50
XEFI 1440 250
Juarez
XEF 1450 100
XEFV 1210 100
XEJ 1020 1000
XEP 1160 500
Parral
XEAT 1210 250

COAHUILA

Piedras Negras
XFM 580 250
XEPN 730 100000
Sabinas
XEBX 640 250
Saltillo
XEAS 1160 100
XELA 1240 50
Torreón
XETB 1310 125

Villa Acuna
XEDH 1340 200
XERA 840 250000

D. F.

Gral. Anaya
XEDA 1220 200
Mexico City
XEAI 1250 500
XEAL 660 1000
XEB 1030 10000
XEBS 1340 200
XEBZ 810 100
XEDP 1080 500
XEFO 940 5000
XEJP 1130 100
XEJW 870 500
XEK 890 100
XEL 1100 250
XELZ 1370 100
XEM X 1280 100
XEN 780 1000
XENC 860 50
XEO 710 50000
Mexico City, D. F.
XEW 890 50000
XEXM 610 500
XEXS 1310 100
XEXX 1170 1000
XEYO 610 500
Tacuba
XEFA 1180 500
Texcoco
XEXE 1270 17

DURANGO

Durango
XEBP 1150 250
XEE 1210 50

GUANAJUATO

Irapuato
XFRO 1310 25
Leon
XEFM 1160 20
XFKL 1240 500

JALISCO

Guadalajara
XED 1160 2500
Guzman
XEBA 1080 20

MICHOACAN

Morelia
XEI 1370 125

NUEVO LEON

Monterrey
XEFB 870 200
XEG 1230 250
XEH 720 250
XET 690 5000
XEX 1310 125

PUEBLA

Puebla
XETH 1210 100

SAN LUIS POTOSI

San Luis Potosi
XECZ 1370 100
XEXH 1250 250

SINALOA

Mazatlan
XEBL 1220 50

SONORA

Cananea
XEFQ 1010 50
Hermosillo
XEBH 930 500
Nogales
XEAF 990 750
Obregon
XEAP 1340 50

TAMAULIPAS

Matamoros
XEAM 750 25

Nuevo Laredo

XEBK 1080 100
XEDF 810 100
XEFE 980 250
XENT 910 150000
Reynosa
XEAW 960 100000
Tampico
XEFW 1310 300
XES 990 250

VERACRUZ

Cordoba
XEAG 1310 10
Jalapa
XEXB 1270 250
XEDD 1340 350
Minatitlan
XEDW 1150 20
Veracruz
XETF 1220 12
XEU 1010 250

YUCATAN

Merida
XEFC 550 100
XEME 1240 50
XEZ 630 500

ZACATECAS

Zacatecas
XEAZ 1230 200

MIQUELON

St. Pierre
FQN 609 250

NEWFOUNDLAND

St. John's
VOAC 1065 40
VOCM 1006 200
VOGY 840 400
VONF 1195 500
VOWR 681 500

QSA AND R CODES

The R code describes the volume with which a signal is heard.

- R1 is a signal that is barely perceptible.
- R2 is a very weak signal.
- R3 is a weak signal.
- R4 are signals of fair volume.
- R5 are fairly good signals.
- R6 are good signals.
- R7 are moderately strong signals.
- R8 are strong signals.

R9 are extremely strong signals.

The QSA Code is used to describe the understandability of a station's signal.

QSA1 is a signal that is unreadable.

QSA2 is one that is barely perceptible. A word can be understood now and then.

QSA3 is understandable with difficulty.

QSA4 is a signal that can be understood with practically no difficulty.

QSA5 is perfectly understandable.

NORTH AMERICAN B. C. STATIONS BY CALLS

CBA	50000	CHWK	780	100	CKOV	630	100
Sackville, N. B.		Chilliwack, B. C.			Kelowna, B. C.		
CBF	910	CJAT	910	1000	CKPC	930	160
Montreal, P. Q.		Trail, B. C.			Brantford, Ont.		
CBK	50000	CJBR	1030	1000	CKPR	730	100
.....		Rimouski, P. Q.			Fort William, Ont.		
CBL	840	CJCA	730	1000	CKSO	780	1000
Toronto, Ont.		Edmonton, Alta.			Sudbury, Ont.		
CBM	1050	CJCB	1240	1000	CKTB	1200	100
Montreal, P. Q.		Sydney, N. S.			St. Catharines, Ont.		
CBO	880	CJCJ	690	100	CKUA	580	500
Ottawa, Ont.		Calgary, Alta.			Edmonton, Alta.		
CBR	1100	CJCS	1210	50	CKWX	1010	100
Vancouver, B. C.		Stratford, Ont.			Vancouver, B. C.		
CFAC	930	CJCU	1210	50	CKX	1120	1000
Calgary, Alta.		Aklavik, N. W. T.			Brandon, Man.		
CFAR	1370	CJGX	1390	100	CKY	910	15000
Flin Flon, Man.		Yorkton, Sask.			Winnipeg, Man.		
CFCF	600	CJIC	1500	100	CMAB	1340	100
Montreal, Que.		S. Ste. Marie, Ont.			Pinar del Rio, Cuba		
CFCH	930	CJKL	1310	100	CMBC	950	150
North Bay, Ont.		North Bay, Ont.			Havana, Cuba		
CFCN	1030	CJLS	1310	100	CMBD	1260	500
Calgary, Alta.		Yarmouth, N. S.			Havana, Cuba		
CFCO	630	CJOC	950	100	CMBF	770	5000
Chatham, Ont.		Lethbridge, Alta.			Havana, Cuba		
CFCT	1450	CJOR	600	500	CMBG	1440	225
Victoria, B. C.		Vancouver, B. C.			Havana, Cuba		
CFCY	630	CJRC	630	500	CMBL	750	500
Charlottetown, P.E.I.		Winnipeg, Man.			Havana, Cuba		
CFGP	1200	CJRM	540	1000	CMBQ	680	5000
Grande Prairie, Alta.		Regina, Sask.			Havana, Cuba		
CFJC	880	CKAC	730	5000	CMBS	1170	150
Kamloops, B. C.		Montreal, Que.			Havana, Cuba		
CFLC	930	CKBI	1210	100	CMBX	1070	150
Prescott, Ont.		Prince Albert, Sask.			Havana, Cuba		
CFNB	550	CKCA	1420	50000	CMBY	970	200
Fredericton, N. B.		Kenora, Ont.			Havana, Cuba		
CFPL	730	CKCD	1010	100	CMCZ	1000	500
London, Ont.		Vancouver, B. C.			Havana, Cuba		
CFPR	580	CKCH	1210	100	CMC	1260	150
Prince Rupert, B. C.		Hull, Que.			Havana, Cuba		
CFQC	840	CKCK	1010	1000	CMCA	1350	450
Saskatoon, Sask.		Regina, Sask.			Havana, Cuba		
CFRB	690	CKCL	580	100	CMCB	1230	150
Toronto, Ont.		Toronto, Ont.			Havana, Cuba		
CFRC	1510	CKCO	1010	100	CMCD	630	250
Kingston, Ont.		Ottawa, Ont.			Havana, Cuba		
CFRN	960	CKCR	1510	100	CMCF	810	5000
Edmonton, Alta.		Waterloo, Ont.			Havana, Cuba		
CHAB	1200	CKCV	1310	100	CMCG	1500	150
Moose Jaw, Sask.		Quebec, Que.			Havana, Cuba		
CHCK	1310	CKCW	1370	100	CMCJ	1110	500
Charlottetown, P.E.I.		Moncton, N. B.			Havana, Cuba		
CHGS	1450	CKFC	1410	50	CMCK	1030	5000
Summerside, P.E.I.		Vancouver, B. C.			Havana, Cuba		
CHLN	1420	CKGB	1420	100	CMCL	730	10000
Three Rivers, P. Q.		North Bay, Ont.			Havana, Cuba		
CHLP	1120	CKIC	1010	50	CMCM	850	250
Montreal, Que.		Wolfville, N. S.			Havana, Cuba		
CHLT	1210	CKLW	1030	5000	CMCO	1200	150
Sherbrooke, P. Q.		Windsor, Ont.			Havana, Cuba		
CHML	1010	CKMC	1210	50	CMCQ	1410	5000
Hamilton, Ont.		Cobalt, Ont.			Havana, Cuba		
CHNC	960	CKMO	1410	100	CMCR	1380	150
New Carlisle, Que.		Vancouver, B. C.			Havana, Cuba		
CHNS	930	CKNX	1200	100	CMCU	1290	150
Halifax, N. S.		Wingham, Ont.			Havana, Cuba		
CHRC	580	CKOC	1120	500	CMCW	1140	150
Quebec, P. Q.		Hamilton, Ont.			Havana, Cuba		
CHSJ	1120						
St. John, N. B.							

NORTH AMERICAN B. C. STATIONS BY CALLS

CMCX 1380 150	CMKR 1400 250	KBPS 1420 100
Havana, Cuba	Santiago, Cuba	Portland, Ore.
CMCY 570 10000	CMKS 960 60	KBST 1500 100
Havana, Cuba	Guantanamo, Cuba	Big Spring, Texas
CMGC 1400 200	CMKW 1350	KBTM 1200 100
Matanzas, Cuba	Santiago, Cuba	Jonesboro, Ark.
CMGE 1370 200	CMKX 1190 75	KCKN 1310 100
Cardenas, Cuba	Santiago, Cuba	Kansas City, Kans.
CMGF 1120 75	CMKZ 1430 125	KCMC 1420 100
Matanzas, Cuba	Palma Soriano, Cuba	Texasarkana, Texas
CMGH 790 250	CMOA 1440 150	KCMO 1370 100
Matanzas, Cuba	Havana, Cuba	Kansas City, Mo.
CMHA 1070 50	CMOX 1320 200	KCRC 1360 250
Sagua la Grande, Cuba	Havana, Cuba	Enid, Okla.
CMHB 1240 50	CMQ 600 25000	KCRJ 1310 100
Sancti Spiritus, Cuba	Havana, Cuba	Jerome, Ariz.
CMHD 1270 250	CMW 880 1400	KDAL 1500 100
Caibarien, Cuba	Havana, Cuba	Duluth, Minn.
CMHI 1210 250	CMX 920 1000	KDB 1500 100
Santa Clara, Cuba	Havana, Cuba	Santa Barbara, Calif.
CMHJ 1160 100	CRCK 950 1000	KDFN 1440 500
Cienfuegos, Cuba	Quebec, Que.	Casper, Wyo.
CMHK 1330 250	CRCS 1120 100	KDKA 980 50000
Cruces, Cuba	Chicoutimi, Que.	Pittsburgh, Pa.
CHHM 1450 500	CRCY 960 100	KDLR 1210 100
Cienfuegos, Cuba	Toronto, Ont.	Devils Lake, N. D.
CMHW 820 100	FQN 609 250	KDNC 1200 100
Santa Clara, Cuba	St. Pierre, Miquelon	Lewistown, Mont.
CMHX 1300 200	HIN 1090 740	KDNT 1420 100
Cienfuegos, Cuba	Ciudad Trujillo, D. R.	Denton, Texas
CMJA 1010 250	HIT 1050 50	KDON 1210 100
Camaguey, Cuba	Ciudad Trujillo, D. R.	Monterey, Calif.
CMJC 1390 200	HIX 800 800	KDTH 1340 500
Camaguey, Cuba	Ciudad Trujillo, D. R.	Dubuque, Iowa
CMJE 1220 50	HP50 1440	KDYL 1290 1000
Camaguey, Cuba	Panama City, Panama	SLT Lake City, Utah
CMJF 1150 200	HRN 1250 50	KECA 1430 1000
Camaguey, Cuba	Tegucigalpa, Hon.	Los Angeles, Calif.
CMJH 1360 200	KABC 1420 100	KEEN 1370 100
Ciego de Avila, Cuba	San Antonio, Texas	Seattle, Wash.
CMJI 1130 150	KABR 1390 500	KEHE 780 1000
Ciego de Avila, Cuba	Aberdeen, S. Dak.	Los Angeles, Calif.
CMJK 1290 200	KADA 1200 100	KELA 1440 500
Camaguey, Cuba	Ada, Okla.	Centralia, Wash.
CMJO 1180 50	KALB 1210 100	KELD 1370 100
Ciego de Avila, Cuba	Alexandria, La.	El Dorado, Ark.
CMJP 1430 75	KALE 1300 1000	KELO 1200 100
Camaguey, Cuba	Portland, Ore.	Sioux Falls, S. Dak.
CMJW 1340 300	KAND 1310 100	KERN 1370 100
Camaguey, Cuba	Corsicana, Texas	Bakersfield, Calif.
CMJX 830 150	KANS 1210 100	KEUB 1420 100
Camaguey, Cuba	Wichita, Kans	Price, Utah
CMK 720 250	KARK 890 500	KEX 1180 5000
Havana, Cuba	Little Rock, Ark.	Portland, Ore.
CMKC 1250 150	KARM 1310 100	KFAB 770 10000
Santiago, Cuba	Fresno, Calif.	Lincoln, Neb.
CMKD 1050 1000	KASA 1210 100	KFAC 1300 1000
Santiago, Cuba	Elk City, Okla.	Los Angeles, Calif.
CMKF 1460 250	KAST 1370 100	KFAM 1420 100
Holguin, Cuba	Astoria, Ore.	St. Cloud, Minn.
CMKG 1160	KATE 1420 250	KFAR 610 1000
Santiago, Cuba	Albert Lea, Minn.	Fairbanks, Alaska
CMKL 990 200	KAWM 1500 100	KFBB 1280 1000
Bayamo, Cuba	Gallup, N. Mex.	Great Falls, Mont.
CMKM 1120 100	KBIX 1500 100	KFBI 1050 5000
Manzanillo, Cuba	Muskogee, Okla.	Ablene, Kans.
CMKO 1280 200	KBKR 1500 100	KFBK 1490 10000
Holguin, Cuba	Baker, Ore.	Sacramento, Calif.
CMKQ 1490 200	KBND 1310 100	KCFM 560 500
Santiago, Cuba	Bend, Ore.	Beaumont, Texas

NORTH AMERICAN B. C. STATIONS BY CALLS

KLCN 1290	100	KOMA 1480	5000	KRMD 1310	100
Blytheville, Ark.		Oklahoma City, Okla.		Shreveport, La.	
KLO 1400	500	KOME 1310	250	KRRR 1500	100
Ogden, Utah		Tulsa, Okla.		Roseburg, Ore.	
KLPM 1240	250	KOMO 920	1000	KRNT 1320	1000
Minot, N. D.		Seattle, Wash.		Des Moines, Iowa	
KLRA 1390	1000	KONO 1370	100	KROC 1310	100
Little Rock, Ark.		San Antonio, Texas		Rochester, Minn.	
KLS 1280	250	KOOS 1200	100	KROD 1500	100
Oakland, Calif.		Marshfield, Ore.		El Paso, Texas	
KLUF 1370	100	KORE 1420	100	KROW 930	1000
Galveston, Texas		Eugene, Ore.		Oakland, Calif.	
KLX 880	1000	KOTN 1500	100	KROY 1210	100
Oakland, Calif.		Pine Bluff, Ark.		Sacramento, Calif.	
KLZ 560	1000	KOVC 1500	100	KRQA 1310	100
Denver, Colo.		Valley City, N. Dak.		Santa Fe, N. Mex.	
KMA 930	1000	KOY 1390	1000	KRRV 1310	250
Shenandoah, Iowa		Phoenix, Ariz.		Sherman, Texas	
KMAC 1370	100	KPAB 1500	100	KRSC 1120	250
San Antonio, Texas		Laredo, Texas		Seattle, Wash.	
KMBC 950	1000	KPAC 1260	500	KSAC 580	500
Kansas City, Mo.		Port Arthur, Texas		Manhattan, Kans.	
KMED 1410	250	KPDN 1310	100	KSAL 1500	100
Medford, Ore.		Pampa, Texas		Salina, Kans.	
KMJ 580	1000	KPFA 1210	100	KSAM 1500	100
Fresno, Calif.		Helena, Mont.		Huntsville, Texas	
KMLB 1200	100	KPLC 1500	100	KSAN 1420	100
Monroe, La.		Lake Charles, La.		San Francisco, Calif.	
KMMJ 740	1000	KPLT 1500	250	KSCJ 1330	1000
Clay Center, Neb.		Paris, Texas		Sioux City, Iowa	
KMO 1330	1000	KPMC 1550	1000	KSD 550	1000
Tacoma, Wash.		Bakersfield, Calif.		St. Louis, Mo.	
KMOX 1090	50000	KPO 680	50000	KSEI 900	250
St. Louis, Mo.		San Francisco, Calif.		Pocatello, Idaho	
KMPC 710	500	KPOF 880	1000	KSCO 560	1000
Beverly Hills, Calif.		Denver, Colo.		San Francisco, Calif.	
KMTR 570	1000	KPPC 1210	100	KSL 1130	50000
Los Angeles, Calif.		Pasadena, Calif.		Salt Lake City, Utah	
KNEL 1500	250	KPQ 1500	100	KSLM 1370	100
Brady, Texas		Wenatchee, Wash.		Salem, Ore.	
KNET 1420	100	KPRC 920	1000	KSO 1430	500
Palestine, Texas		Houston, Texas		Des Moines, Iowa	
KNOW 1500	100	KQV 1380	500	KSOO 1110	5000
Austin, Texas		Pittsburgh, Pa.		Sioux Falls, S. Dak.	
KNX 1050	50000	KQW 1010	1000	KSRO 1310	100
Los Angeles, Calif.		San Jose, Calif.		Santa Rosa, Calif.	
KOA 830	50000	KRBA 1310	100	KSTP 1460	10000
Denver, Colo.		Lufkin, Texas		St. Paul, Minn.	
KOAC 550	1000	KRBC 1420	100	KSUB 1310	100
Corvallis, Ore.		Abilene, Texas		Cedar City, Utah	
KOAM 790	1000	KRBM 1420	100	KSUN 1200	100
Pittsburg, Kans.		Bozeman, Mont.		Lowell, Ariz.	
KOB 1180	10000	KRE 1370	100	KTAR 620	1000
Albuquerque, N. M.		Berkeley, Calif.		Phoenix, Ariz.	
KOBH 1370	100	KRGV 1260	1000	KTAT 1240	1000
Rapid City, S. Dak.		Weslaco, Texas		Fort Worth, Texas	
KOCA 1210	100	KRIC 1420	100	KTBC 1120	1000
Kilgore, Texas		Beaumont, Texas		Austin, Texas	
KOCY 1310	100	KRIS 1330	500	KTBS 1450	1000
Oklahoma City, Okla.		Corpus Christi, Tex.		Shreveport, La.	
KOH 1380	500	KRKD 1120	500	KTEM 1370	250
Reno, Nev.		Los Angeles, Calif.		Temple, Texas	
KOIL 1260	1000	KRKO 1370	50	KTFI 1240	1000
Omaha, Neb.		Everett, Wash.		Twin Falls, Idaho	
KOIN 940	1000	KRLC 1390	250	KTHS 1060	10000
Portland, Ore.		Lewiston, Idaho		Hot Springs, Ark.	
KOKO 1370	100	KRLD 1040	10000	KTKC 1190	250
La Junta, Colo.		Dallas, Texas		Visalia, Calif.	
KOL 1270	1000	KRLH 1420	100	KTMS 1220	500
Seattle, Wash.		Midland, Texas		Santa Barbara, Calif.	
		KRMC 1370	100		
		Jamestown, N. Dak.			

NORTH AMERICAN B. C. STATIONS BY CALLS

KTKO 1370	100	KWJJ 1040	500	WAAT 940	500
Oklahoma City, Okla.		Portland, Ore.		Jersey City, N. J.	
KTRB 740	250	KWK 1350	1000	WAAW 660	500
Modesto, Calif.		St. Louis, Mo.		Omaha, Neb.	
KTRH 1290	1000	KWKH 1100	10000	WABC 860	50000
Houston, Texas		Shreveport, La.		New York, N. Y.	
KTRI 1420	100	KWLC 1270	100	WABI 1200	100
Sioux City, Iowa		Decorah, Iowa		Bangor, Maine	
KTSA 550	1000	KWLK 780	250	WABY 1370	100
San Antonio, Texas		Longview, Wash.		Albany, N. Y.	
KTSM 1310	100	KWNO 1200	250	WACO 1420	100
El Paso, Texas		Winona, Minn.		Waco, Texas	
KTUL 1400	1000	KWOC 1310	100	WADC 1320	1000
Tulsa, Okla.		Poplar Bluff, Mo.		Akron, Ohio	
KTW 1220	1000	KWOS 1310	100	WAGA 1450	500
Seattle, Wash.		Jefferson City, Mo.		Atlanta, Ga.	
KUJ 1370	100	KWSC 1220	1000	WAGF 1370	250
Walla Walla, Wash.		Pullman, Wash.		Dothan, Ala.	
KUMA 1420	100	KWTO 560	5000	WAGM 1420	100
Yuma, Ariz.		Springfield, Mo.		Presque Isle, Me.	
KUOA 1260	5000	KWYO 1370	100	WAIM 1200	100
Siloam Springs, Ark.		Sheridan, Wyo.		Anderson, S. C.	
KUSD 890	500	KXA 760	250	WAIR 1250	250
Vermillion, S. Dak.		Seattle, Wash.		Winston-Salem, N. C.	
KUTA 1500	100	KXL 1420	100	WALA 1380	500
Salt Lake City, Utah		Portland, Ore.		Mobile, Ala.	
KVAK 1420	100	KXO 1500	100	WALR 1210	100
Atchison, Kans.		El Centro, Calif.		Zanesville, Ohio	
KVCV 1200	100	KXOK 1250	1000	WAML 1310	100
Redding, Calif.		St. Louis, Mo.		Laurel, Miss.	
KVEC 1200	100	KXRO 1310	100	WAPI 1140	5000
San Luis Obispo, Cal.		Aberdeen, Wash.		Birmingham, Ala.	
KVGB 1370	100	KXYZ 1440	1000	WAPO 1420	100
Great Bend, Kans.		Houston, Texas		Chartanoga, Tenn.	
KVI 570	1000	KYA 1230	1000	WARD 1400	500
Tacoma, Wash.		San Francisco, Calif.		Brooklyn, N. Y.	
KVIC 1310	100	KYCA 1500	100	WASH 1270	500
Victoria, Texas		Prescott, Ariz.		Grand Rapids, Mich.	
KVNU 1500	100	KYOS 1040	250	WATL 1370	100
Logan, Utah		Merced, Calif.		Atlanta, Ga.	
KVOA 1260	1000	KYSM 1500	100	WATR 1190	100
Tucson, Ariz.		Mankato, Minn.		Waterbury, Conn.	
KVOD 920	500	KYW 1020	10000	WAVE 940	1000
Denver, Colo.		Philadelphia, Pa.		Louisville, Ky.	
KVOE 1500	100	TGQ 1450	200	WAWZ 1350	500
Santa Ana, Calif.		Quezaltenango, Guat.		Zarephath, N. J.	
KVOL 1310	100	TGW 1520	1000	WAYX 1200	100
Lafayette, La.		Guatemala City, Guat.		Waycross, Ga.	
KVOO 1140	25000	TGX 1400	....	WAZL 1420	100
Tulsa, Okla.		Guatemala City, Guat.		Hazleton, Pa.	
KVOR 1270	1000	TG1 1320	....	WBAA 890	500
Colo. Springs, Colo.		Guatemala City, Guat.		West Lafayette, Ind.	
KVOS 1200	100	TIX 650	1000	WBAL 760	2500
Bellingham, Wash.		San Jose, Costa Rica		Baltimore, Md.	
KVOX 1310	100	VAS 685	2000	WBAL 1060	10000
Moorhead, Minn.		Glace Bay, N.S.		Baltimore, Md.	
KVRS 1370	100	VOAC 1065	40	WBAP 800	50000
Rock Springs, Wyo.		St. John's Nfld.		Fort Worth, Texas	
KVSO 1210	100	VOCM 1006	200	WBAX 1210	100
Ardmore, Okla.		St. John's Nfld.		Wilkes Barre, Pa.	
KVWC 1500	100	VOGY 840	400	WBC 1400	500
Vernon, Texas		St. John's Nfld.		Brooklyn, N. Y.	
KWBG 1420	100	VONF 1195	500	WBEL 1210	100
Hutchinson, Kans.		St. John's Nfld.		Richmond, Va.	
KWEW 1500	100	VOWR 681	500	WBBM 770	50000
Hobbs, N. Mex.		St. John's Nfld.		Chicago, Ill.	
KWFT 620	250	WAAB 1410	500	WBBR 1300	1000
Wichita Falls, Texas		Boston, Mass.		Brooklyn, N. Y.	
KWG 1200	100	WAAF 920	1000	WBBZ 1200	100
Stockton, Calif.		Chicago, Ill.		Ponca City, Okla.	
KWJB 1210	100				
Globe, Ariz.					

NORTH AMERICAN B. C. STATIONS BY CALLS

WBCM 1410	500	WBCM 1370	100	WDRG 1330	1000
Bay City, Mich.		Baltimore, Md.		Hartford, Conn.	
WBEN 900	1000	WCBS 1420	100	WDSM 1200	100
Buffalo, N. Y.		Springfield, Ill.		Superior, Wis.	
WBEO 1310	100	WCCO 810	50000	WDSU 1250	1000
Marquette, Mich.		Minneapolis, Minn.		New Orleans, La.	
WBHP 1200	100	WCFL 970	5000	WDWS 1370	100
Huntsville, Ala.		Chicago, Ill.		Champaign, Ill.	
WBIG 1440	1000	WCHS 580	500	WDZ 1020	250
Greensboro, N. C.		Charleston, W. Va.		Tuscola, Ill.	
WBIL 1100	5000	WCHV 1420	100	WEAF 660	50000
New York, N. Y.		Charlottesville, Va.		New York, N. Y.	
WBLK 1370	100	WCKY 1490	10000	WEAN 780	1000
Clarksburg, W. Va.		Covington, Ky.		Providence, R. I.	
WBLY 1210	100	WCLE 610	500	WEAU 1050	1000
Lima, Ohio		Cleveland, Ohio		Eau Claire, Wis.	
WBNO 1200	100	WCLO 1200	100	WEBC 1290	1000
New Orleans, La.		Janesville, Wis.		Duluth, Minn.	
WBNS 1430	1000	WCLS 1310	100	WBEQ 1210	100
Columbus, Ohio		Joliet, Ill.		Harrisburg, Ill.	
WBNX 1350	1000	WCMI 1310	100	WEBR 1310	100
New York, N. Y.		Ashland, Ky.		Buffalo, N. Y.	
WBNY 1370	100	WCNW 1500	100	WEDC 1210	100
Buffalo, N. Y.		Brooklyn, N. Y.		Chicago, Ill.	
WBOQ 860	50000	WCOA 1340	500	WEED 1420	100
New York, N. Y.		Pensacola, Fla.		Rocky Mount, N. C.	
WBOW 1310	100	WCOC 880	1000	WEEL 590	1000
Terre Haute, Ind.		Meridien, Miss.		Boston, Mass.	
WBRB 1210	100	WCOL 1210	100	WEEU 830	1000
Red Bank, N. J.		Columbus, Ohio		Reading, Pa.	
WBRC 930	1000	WCOP 1120	500	WELI 900	500
Birmingham, Ala.		Boston, Mass.		New Haven, Conn.	
WBRE 1310	100	WCOU 1210	100	WELL 1420	100
Wilkes-Barre, Pa.		Lewiston, Maine		Battle Creek, Mich.	
WBRK 1310	100	WCOV 1210	100	WEMP 1310	100
Pittsfield, Mass.		Montgomery, Ala.		Milwaukee, Wis.	
WBRY 1530	1000	WCPO 1200	100	WENR 870	50000
Waterbury, Conn.		Cincinnati, Ohio		Chicago, Ill.	
WBT 1080	50000	WCRW 1210	100	WENY 1200	250
Charlotte, N. C.		Chicago, Ill.		Elmira, N. Y.	
WBTM 1370	100	WCSC 1360	500	WEOA 1370	100
Danville, Va.		Charleston, S. C.		Evansville, Ind.	
WBZ 990	50000	WCSH 940	1000	WESG 850	1000
Boston, Mass.		Portland, Me.		Elmira, N. Y.	
WBZA 990	1000	WDAE 1220	1000	WEST 1200	100
Springfield, Mass.		Tampa, Fla.		Easton, Pa.	
WCAD 1220	500	WDAF 610	1000	WEVD 1300	1000
Canton, N. Y.		Kansas City, Mo.		New York, N. Y.	
WCAE 1220	1000	WDAH 1310	100	WEW 760	1000
Pittsburgh, Pa.		El Paso, Texas		St. Louis, Mo.	
WCAL 760	1000	WDAN 1500	250	WEXL 1310	50
Northfield, Minn.		Danville, Ill.		Royal Oak, Mich.	
WCAM 1280	500	WDAS 1370	100	WFAA 800	50000
Camden, N. J.		Philadelphia, Pa.		Dallas, Texas	
WCAO 600	1000	WDAY 940	1000	WFAB 1300	1000
Baltimore, Md.		Fargo, N. Dak.		New York, N. Y.	
WCAP 1280	500	WDBJ 930	1000	WFAM 1200	100
Ashbury Park, N. J.		Roanoke, Va.		South Bend, Ind.	
WCAT 1200	100	WDBO 580	1000	WFAS 1210	100
Rapid City, S. Dak.		Orlando, Fla.		White Plains, N. Y.	
WCAU 1170	50000	WDEL 1120	250	WFBC 1300	1000
Philadelphia, Pa.		Wilmington, Del.		Greenville, S. C.	
WCAX 1200	100	WDEV 550	500	WFBG 1310	100
Burlington, Vt.		Waterbury, Vt.		Altoona, Pa.	
WCAZ 1070	100	WDGY 1180	1000	WFBL 1360	1000
Carthage, Ill.		Minneapolis, Minn.		Syracuse, N. Y.	
WCBA 1440	500	WDNC 1500	100	WFEM 1230	1000
Allentown, Pa.		Durham, N. C.		Indianapolis, Ind.	
WCBD 1080	5000	WDOD 1280	1000	WFBR 1270	500
Chicago, Ill.		Chattanooga, Tenn.		Baltimore, Md.	

NORTH AMERICAN B. C. STATIONS BY CALLS

WFDF 1310 Flint, Mich.	100	WHAM 1150 Rochester, N. Y.	50000	WIBM 1370 Jackson, Mich.	100
WFEA 1340 Manchester, N. H.	500	WHAS 820 Louisville, Ky.	50000	WIBU 1210 Poynette, Wis.	100
WFIL 560 Philadelphia, Pa.	1000	WHAT 1310 Philadelphia, Pa.	100	WIBW 580 Topeka, Kans.	1000
WFLA 620 Tampa, Fla.	1000	WHAZ 1300 Troy, N. Y.	1000	WIBX 1200 Utica, N. Y.	100
WFMD 900 Frederick, Md.	500	WHB 860 Kansas City, Mo.	1000	WICA 940 Ashtabula, Ohio	250
WFMJ 1420 Youngstown, Ohio	100	WHBB 1500 Selma, Ala.	100	WICC 600 Bridgeport, Conn.	500
WFNC 1340 Fayetteville, N. C.	250	WHBC 1200 Canton, Ohio	100	WIL 1200 St. Louis, Mo.	100
WFOR 1370 Hattiesburg, Miss.	100	WHBF 1210 Rock Island, Ill.	100	WILL 580 Urbana, Ill.	1000
WFOY 1210 St. Augustine, Fla.	100	WHBI 1250 Newark, N. J.	1000	WILM 1420 Wilmington, Del.	100
WFTC 1200 Kinston, N. C.	100	WHBL 1300 Sheboygan, Wis.	250	WIND 560 Gary, Ind.	1000
WGAL 1500 Lancaster, Pa.	100	WHBQ 1370 Memphis, Tenn.	100	WINS 1180 New York, N. Y.	1000
WGAN 640 Portland, Me.	500	WHBU 1210 Anderson, Ind.	100	WIOD 610 Miami, Fla.	1000
WGAR 1450 Cleveland, Ohio	500	WHBY 1200 Green Bay, Wis.	100	WIP 610 Philadelphia, Pa.	1000
WGAU 1310 Athens, Ga.	100	WHDF 1370 Calumet, Mich.	100	WIRE 1400 Indianapolis, Ind.	1000
WGBB 1210 Freeport, N. Y.	100	WHDH 830 Boston, Mass.	1000	WIS 560 Columbia, S. C.	1000
WGBF 630 Evansville, Ind.	500	WHDL 1400 Olean, N. Y.	250	WISN 1120 Milwaukee, Wis.	250
WGBI 880 Scranton, Pa.	500	WHEB 740 Portsmouth, N. H.	250	WJAC 1310 Johnstown, Pa.	100
WGCM 1210 Gulfport, Miss.	100	WHEC 1430 Rochester, N. Y.	500	WJAG 1060 Norfolk, Neb.	1000
WGES 1360 Chicago, Ill.	500	WHEF 1500 Kosciusko, Miss.	100	WJAR 890 Providence, R. I.	1000
WGH 1310 Newport News, Va.	100	WHFC 1420 Cicero, Ill.	100	WJAS 1290 Pittsburgh, Pa.	1000
WGIL 1500 Galesburg, Ill.	250	WHIO 1260 Dayton, Ohio	1000	WJAX 900 Jacksonville, Fla.	1000
WGL 1370 Fort Wayne, Ind.	100	WHIP 1480 Hammond, Ind.	5000	WJBC 1200 Bloomington, Ill.	100
WGKV 1500 Charleston, W. Va.	100	WHIS 1410 Bluefield, W. Va.	500	WJBK 1500 Detroit, Mich.	100
WGN 720 Chicago, Ill.	50000	WHJB 620 Greensburg, Pa.	250	WJBL 1200 Decatur, Ill.	100
WGNC 1420 Castonia, N. C.	100	WHK 1390 Cleveland, Ohio	1000	WJBO 1120 Baton Rouge, La.	500
WGNV 1210 Newburgh, N. Y.	100	WHKC 640 Columbus, Ohio	500	WJBW 1200 New Orleans, La.	100
WGPC 1420 Albany, Ga.	100	WHLB 1370 Virginia, Minn.	100	WJBY 1210 Gadsden, Ala.	100
WGR 550 Buffalo, N. Y.	1000	WHLS 1370 Port Huron, Mich.	250	WJDX 1270 Jackson, Miss.	1000
WGRC 1370 New Albany, Ind.	250	WHMA 1420 Anniston, Ala.	100	WJEJ 1210 Hagerstown, Md.	100
WGRM 1210 Grenada, Miss.	100	WHN 1010 New York, N. Y.	1000	WJHL 1200 Johnson City, Tenn.	100
WGST 890 Atlanta, Ga.	1000	WHO 1000 Des Moines, Iowa	50000	WJIM 1210 Lansing, Mich.	100
WGTM 1310 Wilson, N. C.	100	WHOM 1450 Jersey City, N. J.	250	WJJD 1130 Chicago, Ill.	20000
WGY 790 Schenectady, N. Y.	50000	WHP 1430 Harrisburg, Pa.	500	WJMC 1210 Rice Lake, Wis.	250
WHA 940 Madison, Wis.	5000	WIBA 1280 Madison, Wis.	1000	WJMS 1420 Ironwood, Mich.	100
WHA1 1210 Greenfield, Mass.	250	WIBC 1050 Indianapolis, Ind.	1000	WJNO 1200 W. Palm Beach, Fla.	100
WHAL 950 Saginaw, Mich.	500	WIBG 970 Glenside, Pa.	100		

NORTH AMERICAN B. C. STATIONS BY CALLS

WJR 750 50000	WLNH 1310 100	WNAD 1010 1000
Detroit, Mich.	Laconia, N. H.	Norman, Okla.
WJRD 1200 250	WLS 870 50000	WNAX 570 1000
Tuscaloosa, Ala.	Chicago, Ill.	Yankton, S. D.
WJSV 1460 10000	WLTH 1400 500	WNBC 1380 250
Washington, D. C.	Brooklyn, N. Y.	New Britain, Conn.
WJTN 1210 100	WLVA 1200 100	WNEF 1500 100
Jamestown, N. Y.	Lynchburg, Va.	Binghamton, N. Y.
WJW 1210 100	WLW 700 500000	WNBH 1310 100
Akron, Ohio	Cincinnati, Ohio	New Bedford, Mass.
WJZ 760 50000	WMAL 630 250	WNBX 1260 500
New York, N. Y.	Washington, D. C.	Springfield, Vt.
WKAQ 1240 1000	WMAQ 670 50000	WNBZ 1290 100
San Juan, P. R.	Chicago, Ill.	Saranac Lake, N. Y.
WKAR 850 1000	WMAS 1420 100	WNEL 1290 1000
East Lansing, Mich.	Springfield, Mass.	San Juan, P. R.
WKAT 1500 100	WMAZ 1180 1000	WNEW 1250 1000
Miami Beach, Fla.	Macon, Ga.	New York, N. Y.
WKBB 1500 100	WMBC 1420 100	WNLC 1500 100
East Dubuque, Ill.	Detroit, Mich.	New London, Conn.
WKBH 1380 1000	WMBD 1440 1000	WNOX 1010 1000
LaCrosse, Wis.	Peoria, Ill.	Knoxville, Tenn.
WKBN 570 500	WMBF 610 1000	WNYC 810 1000
Youngstown, Ohio	Miami, Fla.	New York, N. Y.
WKBO 1200 100	WMBG 1350 500	WOAI 1190 50000
Harrisburg, Pa.	Richmond, Va.	San Antonio, Texas
WKBV 1500 100	WMBH 1420 100	WOC 1370 100
Richmond, Ind.	Joplin, Mo.	Davenport, Iowa
WKBW 1480 5000	WMBI 1080 5000	WOCB 1210 100
Buffalo, N. Y.	Chicago, Ill.	Cape Cod, Mass.
WKBZ 1500 100	WMBO 1310 100	WOI 640 5000
Muskegon, Mich.	Auburn, N. Y.	Ames, Iowa
WKEU 1500 100	WMBR 1370 100	WOKO 1430 500
Griffin, Ga.	Jacksonville, Fla.	Albany, N. Y.
WKOK 1210 100	WMBS 1420 250	WOL 1310 1000
Sunbury, Pa.	Uniontown, Pa.	Washington, D. C.
WKRC 550 1000	WMC 780 1000	WOLS 1200 100
Cincinnati, Ohio	Memphis, Tenn.	Florence, S. C.
WKST 1250 250	WMCA 570 1000	WOMI 1500 100
New Castle, Pa.	New York, N. Y.	Owensboro, Ky.
WKY 900 1000	WMEX 1500 100	WOMT 1210 100
Oklahoma City, Okla.	Boston, Mass.	Manitowoc, Wis.
WKZO 590 1000	WMFD 1370 100	WOOD 1270 500
Kalamazoo, Mich.	Wilmington, N. C.	Grand Rapids, Mich.
WLAC 1470 5000	WMFF 1310 100	WOPI 1500 100
Nashville, Tenn.	Plattsburg, N. Y.	Bristol, Tenn.
WLAK 1310 100	WMFG 1210 100	WOR 710 50000
Lakeland, Fla.	Hibbing, Minn.	Newark, N. J.
WLAP 1420 100	WMFJ 1420 100	WORC 1280 500
Lexington, Ky.	Dayton Beach, Fla.	Worcester, Mass.
WLAW 680 1000	WMFO 1370 100	WORK 1320 1000
Lawrence, Mass.	Decatur, Ala.	York, Pa.
WLB 760 1000	WMFR 1200 100	WORL 920 500
Minneapolis, Minn.	High Point, N. C.	Boston, Mass.
WLBC 1310 100	WMIN 1370 100	WOSU 570 750
Muncie, Ind.	St. Paul, Minn.	Columbus, Ohio
WLBL 900 5000	WMMN 890 500	WOV 1130 1000
Stevens Point, Wis.	Fairmont, W. Va.	New York, N. Y.
WLBZ 620 500	WMPC 1200 100	WOW 590 1000
Bangor, Me.	Lapeer, Mich.	Omaha, Neb.
WLEU 1420 100	WMPS 1430 500	WOWO 1160 10000
Erie, Pa.	Memphis, Tenn.	Fort Wayne, Ind.
WLLH 1370 100	WMRO 1250 250	WPAD 1420 100
Lawrence, Mass.	Aurora, Ill.	Paducah, Ky.
WLLH 1370 100	WMSD 1420 100	WPAR 1420 100
Lowell, Mass.	Muscle Shoals C., Ala.	Parkersburg, W. Va.
	WMT 600 1000	WPAX 1210 100
	Cedar Rapids, Iowa	Thomasville, Ga.
	WNAC 1230 1000	
	Boston, Mass.	

NORTH AMERICAN B. C. STATIONS BY CALLS

WPAY 1370 100 Portsmouth, Ohio	WSAN 1440 500 Allentown, Pa.	WTAR 780 1000 Norfolk, Va.
WPEN 920 1000 Philadelphia, Pa.	WSAR 1450 1000 Fall River, Mass.	WTAW 1120 500 College Station, Tex.
WPG 1100 5000 Atlantic City, N. J.	WSAU 1370 100 Wausau, Wis.	WTAX 1210 100 Springfield, Ill.
WPIC 780 250 Sharon, Pa.	WSAV 1310 100 Savannah, Ga.	WTBO 800 250 Cumberland, Md.
WPR 1370 100 Mayaguez, P. R.	WSAY 1210 100 Rochester, N. Y.	WTCN 1250 1000 Minneapolis, Minn.
WPRO 630 500 Providence, R. I.	WSAZ 1190 1000 Huntington, W. Va.	WTEL 1310 100 Philadelphia, Pa.
WPRP 1420 100 Ponce, P. R.	WSE 740 50000 Atlanta, Ga.	WTHT 1200 100 Hartford, Conn.
WPTF 680 5000 Raleigh, N. C.	WSBC 1210 100 Chicago, Ill.	WTIC 1040 50000 Hartford, Conn.
WQAM 560 1000 Miami, Fla.	WSET 1360 500 South Bend, Ind.	WTJS 1310 100 Jackson, Tenn.
WQAN 880 500 Scranton, Pa.	WSFA 1410 500 Montgomery, Ala.	WTMJ 620 1000 Milwaukee, Wis.
WQBC 1360 1000 Vicksburg, Miss.	WSGN 1310 100 Birmingham, Ala.	WTMV 1500 100 East St. Louis, Ill.
WQDM 1390 1000 St. Albans, Vt.	WSIX 1210 100 Nashville, Tenn.	WTNJ 1280 500 Trenton, N. J.
WQXR 1550 1000 New York, N. Y.	WSJS 1310 100 Winston-Salem, N. C.	WTOC 1260 1000 Savannah, Ga.
WRAK 1370 100 Williamsport, Pa.	WSLI 1420 100 Jackson, Miss.	WTOL 1200 100 Toledo, Ohio
WRAL 1210 100 Raleigh, N. C.	WSM 650 50000 Nashville, Tenn.	WTRC 1310 100 Elkhart, Ind.
WRAW 1310 100 Reading, Pa.	WSMB 1320 1000 New Orleans, La.	WVFW 1400 500 Brooklyn, N. Y.
WRAX 920 1000 Philadelphia, Pa.	WSMK 1380 200 Dayton, Ohio	WWAE 1200 100 Hammond, Ind.
WRBL 1200 100 Columbus, Ga.	WSNJ 1210 100 Bridgeport, N. J.	WWJ 920 5000 Detroit, Mich.
WRC 950 1000 Washington, D. C.	WSOC 1210 100 Charlotte, N. C.	WWL 850 10000 New Orleans, La.
WRDO 1370 100 Augusta, Me.	WSPA 920 1000 Spartanburg, S. C.	WWNC 570 1000 Asheville, N. C.
WRDW 1500 100 Augusta, Ga.	WSPD 1340 1000 Toledo, Ohio	WWRL 1500 100 Woodside, N. Y.
WREC 600 1000 Memphis, Tenn.	WSPR 1140 500 Springfield, Mass.	WWSW 1500 100 Pittsburgh, Pa.
WREN 1220 1000 Lawrence, Kans.	WSTP 1500 100 Salisbury, N. C.	WWVA 1160 5000 Wheeling, W. Va.
WRGA 1500 100 Rome, Ga.	WSUI 880 500 Iowa City, Iowa	WXYZ 1240 1000 Detroit, Mich.
WRJN 1370 100 Racine, Wis.	WSUN 620 1000 St. Petersburg, Fla.	W3XDD ... 50000 Whippany, N. J.
WRNL 880 500 Richmond, Va.	WSVA 550 500 Harrisonburg, Va.	W3XJ 1060 100 College Park, Md.
WROK 1410 500 Rockford, Ill.	WSVS 1370 50 Buffalo, N. Y.	XEAA 750 200 Mexicali, B. C.
WROL 1310 100 Knoxville, Tenn.	WSYB 1500 100 Rutland, Vt.	XEAC 980 1000 Guana, L. C.
WRR 1280 500 Dallas, Texas	WSYR 570 1000 Syracuse, N. Y.	XEAF 990 750 Nogales, Son.
WRTD 1500 100 Richmond, Va.	WSYU 570 1000 Syracuse, N. Y.	XEAG 1310 10 Cordoba, Ver.
WRUF 830 5000 Gainesville, Fla.	WTAD 900 1000 Quincy, Ill.	XEAI 1250 500 Mexico City, D. F.
WRVA 1110 5000 Richmond, Va.	WTAG 580 1000 Worcester, Mass.	XEAL 660 1000 Mexico City, D. F.
WSAI 1330 1000 Cincinnati, Ohio	WTAL 1310 100 Tallahassee, Fla.	XEAM 750 25 Matamoros, Tams.
WSAJ 1310 100 Grove City, Pa.	WTAM 1070 50000 Cleveland, Ohio	XEAO 660 250 Mexicali, B. C.
WSAL 1200 250 Salisbury, Md.	WTAQ 1330 1000 Green Bay, Wis.	

Broadcasting Stations of NORTH AMERICA

This supplementary call letter index began in the September, 1938 issue of RAdEX, and will appear on these pages every month until completed.

The abbreviations used throughout this list are familiar to all our readers, except perhaps "CP" for Construction Permit, "LS" for Local Sunset, and "ss" for sunset.

- KFPW, Fort Smith, Ark., 1210 kcs., 100 w. unlt'd. *Aerial*: 2 towers, 120 ft. *Manager*: Dorothy A. Gibson. *Owners* Southwestern Hotel Co., Goldman Hotel.
- KFPY, Spokane, Wash., 890 kcs., 1000 w. nights, 5 kw. to LS, unlt'd. *Network*: CBS and Pacific. *Aerials* vertical, 468 ft. *Manager*: T. W. Symons, Jr. *Licensee*: Symons Broadcasting Co., Symons Bldg.
- KFQD, Anchorage, Alaska, 780 kcs., 250 watts, specified hours. *Aerial*: 2 towers, 120 ft. *Manager*: R. E. McDonald. *Licensees* Anchorage Radio Club, Inc., 411 Fourth Ave.
- KFRC, San Francisco, Calif. 610 kcs., 100 w. nights, 5 kw. to LS, unlt'd. *Network*: Mutual. *Aerial*: 2 towers, 125 ft. *Licensee*: Don Lee Broadcasting System, 100 Van Ness Ave.
- KFRO, Longview, Texas, 1370 kcs., 250 w. days. *Network*: Mutual. *Transmitter*: S. Green at Radio St. *Aerial*: vertical 185 ft. *Manager*: Harold S. Johnson. *Licensee*: Voice of Longview, Glover-Crim Blvd. (P. O. Box 616).
- KFRU, Columbia, Mo., 630 kcs., 500 w. nights, 1 kw. days to LS. Simultaneous days, shares nights with WGBF. *Network*: Cornebelt. *Aerial*. 2 towers, 165 ft. *Manager*: C. L. Thomas. *Licensee*: KFRU, Inc., 9th and Elm Sts.
- KFSD, San Diego, Calif., 600 kcs., 1000 w. unlt'd. *Network*: NBC Blue. *Aerial*: 2 towers, 231 ft. *Manager*: T. E. Sharp. *Licensee*: Airfan Radio Corp., Ltd., U. S. Grand Hotel.....
- KFSG, Los Angeles, Calif., 1120 kcs., 500 w. nights, 2500 w. days to LS, shares with KRKD. *Aerial*: 1 tower, 250 ft. *Manager*: Dr. Giles Knight. *Licensee*: Echo Park Evangelistic Association, 1100 Glendale Blvd.
- KFUO, St. Louis, Mo., 550 kcs., 500 w. nights, 1 kw. to LS, shares with KSD. *Transmitter*: Clayton *Aerial*: 2 towers, 200 ft. *Manager*: Herman H. Hohenstein. *Licensee*: Evangelical Lutheran Synod, 801 DeMun St.
- KFVD, Los Angeles, Calif., 100 kcs., 100 w., limited time. *Transmitter*: 8300 Cattaraugus St., Culver City. *Aerial*: vertical, 250 ft. *Manager*: Frank Burke. *Licensee*: Standard Broadcasting Co., 338 So. Western Ave.
- KFVS, Cape Girardeau, Mo., 1210 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Aerial*: vertical, 254 ft. *Manager*: Oscar Hirsh. *Licensee*: Radio Station KFVS, Hotel Marquette (P. O. Box 275).
- KFWB, Los Angeles (Hollywood) Calif., 950 kcs., 1000 w. nights, 5 kw. to LS, Unlt'd. *Network*: California *Transmitter*: 3531 Moynier Lane. *Aerial*: vertical, 465 ft. *Manager*: Harry Maizlish. *Licensee*: Warner Brothers Broadcasting Corp., 583 Fernwood Ave. 3
- KFXD, Nampa, Idaho, 1200 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Aerial*: vertical, 230 ft. *Manager*: Edward Hurt. *Licensee*: Frank E. Hurt, 1024 12th Ave., S. (P. O. Box 891).
- KFXJ, Grand Junction, Colo., 1200 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Transmitter*: Hillcrest Manor. *Aerial*: 2 towers, 85 ft. *Manager*: Rex Howell. *Licensee*: Western Slope Broadcasting Co., Hillcrest Manor.
- KFXM, San Bernardino, Calif., 1210 kcs., 100 w., shares with KPCC. *Network*: Mutual. *Transmitter*: 512-5th St. *Aerial*: 2 towers, 107 and 155 ft. *Manager*: J. C. Lee. *Licensee*: Lee Brothers Broadcasting Co., California Hotel.
- KFYO, Lubbock, Texas, 1310 kcs., 100 w. nights, 250 w. days to LS, unlt'd. *Network*: Mutual. *Aerial*: vertical, 145 ft. *Manager*: DeWitt Landis. *Licensee*: Plains Radio Broadcasting Co., 914 Avenue J. (P. O. Box 1448).
- KFYR, ismarck, N. Dak., 550 kcs., 100 w. nights, 5 kw. to LS. *Networks*: National. *Transmitter*: near Menoken. *Aerial*: vertical, 700 ft. *Photo*: Radex No. 99. *Manager*: F. E. Fitzsimonds. *Licensee*: Meyer Broadcasting Co., 320 Broadway.
- KGA, Spokane, Wash., 1470 kcs., 5000 w. unlt'd. *Network*: NBC Blue Mutual and Northwest Triangle. *Aerial*: vertical, 225 ft. *Manager*: A. L. Smith, *Licensee*: Louis Wasmer, 1023 W. Riverside Ave.
- KGAR, Tucson, Ariz., 1370 kcs., 100 w. nights, 250 w. days to LS, unlt'd. *Network*: Columbia. *Aerial*: vertical, 80 ft. *Manager*: Frank Z. Howe. *Licensee*: Tucson Motor Service Co., S. Sixth Ave. and 12th St.
- KGB, San Diego, Calif., 1350 kcs., 1000 w. unlt'd. *Network*: Mutual. *Aerial*: 2 towers, 190 ft. *Manager*: S. W. Fuller. *Licensee*: Don Lee Broadcasting System, 1012 First Ave.
- KGBU, Ketchikan, Alaska, 900 kcs., 500 w. unlt'd. *Aerial*: vertical, 280 ft. *Permit*: Has CP to use 1000 watts. *Manager*: James A. Britton. *Licensee*: Alaska Radio and Service Co., nc., KGBU Bldg., East and Stedman Sts.
- KGBX, Springfield, Mo., 1230 kcs., 500 w., unlt'd. *Network*: ational. *Aerial*: Directional at night; 2 towers, 179 ft. *Manager*: R. D. Foster. *Licensee*: Springfield Broadcasting Co., 508 St. Louis St.
- KGCA, Decorah, Iowa, 1270 kcs., 100 watts days, shares with KWLC. *Transmitter*: 201 Water St. *Aerial*: 2 towers, 55 ft. *Licensee*: Charles W. Greenley, 211 Winnebago St.
- KGCI, Coeur d'Alene, Idaho, 1200 kcs., 100 w. days. *Aerial*: vertical, 215 ft. *Manager*: Edward Hurt. *Licensee*: Clarence A. Berget and Saul S. Freeman, 2nd and Sherman.

- KGCU, Mandan, N. Dak., 1240 kcs., 250 w. unlt'd. *Transmitter*: 111-1st Ave., N. W. *Aerial*: vertical, 70 ft. *Licensee*: Mandan Radio Association, 404 W. Main St.
- KGCCX, Wolf Point, Mont., 1450 kcs., 1000 w. unlt'd. *Aerial*: vertical, 183 ft. *Manager*: Milton J. Severson. *Licensee*: E. E. Krebsbach, Main and 4th.
- KGDE, Fergus Falls, Minn., 1200 kcs., 100 w. nights, 250 watts to LS, unlt'd. *Aerial*: 2 towers, 90 ft. *Manager*: C. L. Jaren. *Licensee*: Charles L. Jaren.
- KGDM, Stockton, Calif., 1100 kcs., 1000 w. days. *Network*: Mutual. *Aerial*: vertical, 224 ft. *Licensee*: E. F. Peffer, 42 S. California St.
- KGEK, Sterling, Colo., 1200 kcs., 100 w., specified hours. *Aerial*: 2 towers, 82 ft. *Licensee*: Elmer G. Beehler, Fleming Road.
- KGER, Long Beach, Calif., 1360 kcs., 100 w. unlt'd. *Aerial*: vertical, 186 ft. *Manager*: C. Merwin Dobyns. *Licensee*: Consolidated Broadcasting Corp., Ltd., 435 Pine Ave.
- KGEZ, Kalispell, Mont., 1310 kcs., 100 w. unlt'd. *Aerial*: vertical, 250 ft. 2 in. *Licensee*: Donald C. Treloar, 203 First Ave., E. (P. O. Box 1).
- KGFF, Shawnee, Okla., 1420 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Network*: Mutual. *Transmitter*: Shawnee Country Club. *Aerial*: vertical, 300 ft. *Manager*: Ross Porter. *Licensee*: KGFF Broadcasting Co., Inc., Aldridge Hotel.
- KGFI, Brownsville, Texas, 1500 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Aerial*: vertical, 160 ft. *Manager*: F. R. Wilson. *Licensee*: Eagle Broadcasting Co., Inc.
- KGFI, Los Angeles, Calif., 1200 kcs., 100 w. unlt'd. *Transmitter*: 1828 Oak St. *Aerial*: vertical, 200 ft. *Program Director*: Thelma Kirchner. *Licensee*: Ben S. McGlashen, 1417 S. Figueroa St.
- KGFL, Roswell, N. Mex., 1370 kcs., 100 w., shares with KICA. *Transmitter*: 511 W. 16th St. *Aerial*: vertical, 179 ft. *Manager*: W. E. Whitmore. *Licensee*: KGFL, Inc., 502 W. Second St.
- KGFW, Kearney, Nebr., 1310 kcs., 100 w. unlt'd. *Aerial*: 2 towers, 65 ft. *Permit*: has CP for 250 w. days. *Manager*: Clark Standiford. *Licensee*: Central Nebraska Broadcasting Corp., 919 W. 27th St.
- KGFX, Pierre, S. Dak., 630 kcs., 200 w. days, specified hours. *Aerial*: 2 towers, 60 ft. *Licensee*: Dana McNeil Estate (Mrs. Ida A. McNeil, Adm.) 203 W. Summit Ave., (P. O. Box 573).
- KGGF, Coffeyville, Kans., 1010 kcs., 1000 w., shares with WNAD. *Network*: Mutual. *Transmitter*: S. Coffeyville, Okla. *Aerial*: 2 towers, 200 ft. *Manager*: Hugh J. Powell. *Licensee*: Powell & Platz, Coffeyville Journal Bldg.
- KGGM, Albuquerque, N. Mex., 1230 kcs., 1000 w. unlt'd. *Aerial*: vertical, 239 ft. *Manager*: Mike Hollander. *Licensee*: New Mexico Broadcasting Co., KiMo Theater Bldg.
- KGHF, Pueblo, Colo., 1320 kcs., 500 w. unlt'd. *Network*: NBC Blue. *Aerial*: 2 towers, 90 ft. *Manager*: J. H. McGill. *Licensee*: Curtis P. Ritchie, 113 Broadway.
- KGHI, Little Rock, Ark., 1200 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Aerial*: vertical, 171 ft. *Manager*: R. G. Terrill. *Licensee*: Arkansas Broadcasting Co., Ark. Gazette Bldg.
- KGHL, Billings, Mont., 780 kcs., 100 w. nights, 5 kw. days to LS, unlt'd. *Network*: National. *Transmitter*: west of Billings. *Aerial*: vertical, 558½ ft. *Manager*: Ed Yocum. *Licensee*: Northwestern Auto Supply Co., Inc., 5th Ave. and N. Broadway.
- KGIR, Butte, Mont., 1340 kcs., 1000 w. nights, 5 kw. days to LS, unlt'd. *Network*: National, Z-Bar, and Pacific Northwest. *Aerial*: vertical, 224 ft. *Manager*: E. B. Craney. *Licensee*: KGIR, Inc., 121 W. Broadway.
- KGIW, Alamosa, Colo., 1420 kcs., 100 w., shares with KIDW. *Transmitter*: Laveta Highway. *Aerial*: 2 towers, 71 ft. *Licensee*: Leonard E. Wilson, Box 26.
- KGKB, Tyler, Texas, 1500 kcs., 100 w. nights, 250 w. days, unlt'd. *Network*: Mutual. *Aerial*: vertical, 167 ft. *Manager*: Roy G. Terry. *Licensee*: East Texas Broadcasting Co., Tyler Commercial College Bldg.
- KGKL, San Angelo, Texas, 1370 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Network*: Mutual. *Transmitter*: 50 S. Milton St. *Aerial*: vertical, 171 ft. *Manager*: Earle Yates. *Licensee*: KGKL, Inc., St. Angelus Hotel.
- KGKO, Fort Worth, Texas, 570 kcs., 100 w. nights, 5 kw. to LS, unlt'd. *Network*: National. *Transmitter*: Arlington. *Aerial*: directional at night. *Manager*: Harold V. Hough. *Licensee*: KGKO Broadcasting Co.
- KGKY, Scottsbluff, Nebr., 1500 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Aerial*: 2 towers, 93 ft. *Manager*: L. L. Hillard. *Licensee*: Hillard Co., Inc., 1517½ Broadway.
- KGLO, Mason City, Iowa., 1210 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Network*: Columbia. *Aerial*: vertical, 290 ft. *Manager*: F. C. Eighmey. *Licensee*: Mason City Globe Gazette Co., Hotel Hanford.
- KGLU, Safford, Ariz., 1420 kcs., 100 w. nights, 250 w. to LS, unlt'd. *Licensee*: Gila Broadcasting Co., 6th Ave. and Relation St.
- KGMB, Honolulu, Hawaii, 1320 kcs., 1000 w. unlt'd. *Network*: Columbia, Mutual. *Aerial*: vertical, 179 ft. *Manager*: Webley Edwards. *Licensee*: Honolulu Broadcasting Co., Ltd., 1129 Kapiolani Blvd. (P. O. Box 581).
- KGNC, Amarillo, Texas, 1410 kcs., 100 w. nights, 2500 w. to LS, unlt'd. *Network*: National. *Aerial*: vertical, 224 ft. *Manager*: O. L. Taylor. *Licensee*: Plains Radio Broadcasting Co., Radio Bldg.
- KGNF, North Platte, Nebr., 1430 kcs., 1000 w. days. *Aerial*: vertical, 190 ft. *Manager*: W. I. Le Barron. *Licensee*: Great Plains Broadcasting Co., 1521 W. 12th St.
- KGNO, Dodge City, Kans., 1340 kcs., 250 w. unlt'd. *Aerial*: 2 towers, 105 ft. *Manager*: N. C. Petersen. *Licensee*: Dodge City Broadcasting Co., Inc., First National Bank Bldg.

(To be continued next month)

TUBES Need to be Replaced

(Continued from page 21)

"Tubes," answered Wood. "Everybody seems to have tube trouble. One fellow came in and said his set developed a bad hum after it had been turned on for some time. I looked up his circuit and then advised him to take a new 47 for the power output, but he kicked like anything. Said he knew the tubes were good 'cause they all lighted. But I sold him one against his wishes, and he grumbled a lot." And Bill Wood looked to his Boss for his customary nod of approval.

He got it. But he also was puzzled to hear Turner say, as if to himself: "Hope the White's radio goes haywire again, and I don't care how soon."



The Radex Club now numbers members in 40 states, in Hawaii, Alaska, Canada, England, Mexico, Honduras and New Zealand. Membership in our club is extended to everyone who has subscribed to our magazine since August 15 of this year. The entire family of RADEX readers, including all subscribers, however, resides in every state and province, and in 22 different nations.

We are now prepared to receive re-

quests for membership in the Verified All Continents group for the broadcast band and the amateur bands. To qualify for the Verified All Continents rating on the standard broadcast band (540 to 1600 kcs) Radex Club members must send at least one verification from a broadcasting station located on each one of the six continents. To qualify for this rating on the amateur bands, members must send at least two verifications from bona fide amateur stations located on each one of the six continents.

"In recognition of the Good Will demonstrated" towards his station T14NKH, Sr. Amando Cespedes Marin has named several persons as Caballeros de la NRH, and given them honorary membership in the NRH Fraternal Order. The Editor of RADEX is one of those so honored, as attested by a diploma and a medal, suitably inscribed, and bedecked with ribbons in the Costa Rican national colors.

The Editor had the pleasure of being one of a party of Sr. Cespedes' friends, to meet him at the pier when the ship which brought him from Puerto Limon docked at New York City.

David Thomas of Proctorville, Ohio, founder of the International DX'ers Society, wonders how many RADEX readers are eligible for membership in his society. He enumerates the requirements:

I: Applicant must have 1,000 broadcast band stations verified, over a distance of 1000 miles.

II: Applicant must have 1,000 shore-wave stations verified, 500 miles or more distant.

III: He must have ten long wave stations verified, at least three of them being broadcast, 1000 or more miles distant.

(Continued on page 96)

Among The Clubs

(Continued from page 95)

IV: Must have 1,000 amateur stations verified, over 2000 miles distant.

V: Must have three verifications from each amateur band.

Vla: Verification from 150 countries and islands.

Vib: 100 verifications from each continent.

Any of our readers who can fulfill these requirements are urged to correspond with Mr. Thomas for further details.

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NEXT MONTH in RADEX

In the December issue of RADEX we shall show the time on the air of all the North American Broadcasting Stations. Pacific Coast readers will be pleased to learn that the time will be shown in Pacific Standard as well as Eastern Standard.

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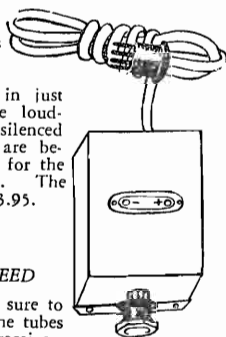
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