

RADIO IN DEX

The All-Wave Radio Log Authority

NSE

No. 139

SEPTEMBER-OCTOBER, 1940

Contents

On The West Coast, <i>by Melvin Fisher</i>	3
High Frequency Globe Trotting, <i>by Ray LaRocque</i>	8
Amateur Calls Heard	21
The Radex Club	23
The QSA and R Codes	25
This Hobby Called DXing	26
The International Prefixes	30
Radexing With the Radexers, <i>by Ray LaRocque</i>	31
Among the Clubs	38
Television Notes	39
The Shortwave Broadcasting Stations	41
The World's Radio Stations	48
The Frequency Modulated Stations	49
The Television Stations	50
Ham Hounding, <i>by Owen P. Callin</i>	52
A New Science, <i>by C. J. Fern, Jr.</i>	58
The SWL Trading Post	59
The Month's Changes in Station Data	60
North American Broadcasting Stations by Frequencies	61
Same Stations, by Locations	83
Same Stations, by Call Letters	89

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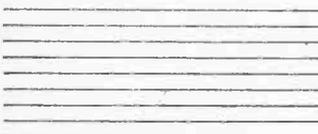


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RADIO INDEX



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SEVENTEENTH YEAR

SEPTEMBER 1, 1940

NO. 139

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PRINTED IN THE U.S.A.

FOR SALE AT YOUR NEWSSTAND

ON THE WEST COAST

By MELVIN FISHER

Reporters living in the Mountain Standard and Pacific Standard Time Zones may send their reports direct to

Melvin Fisher
1401 Bancroft Way
Berkeley, Calif.

The writer wishes to extend a warm greeting to each and every RADEXER within the scope of this column, and an invitation to continue sending in those fine reports that contributed so much to the success of the column under the leadership of Anthony Tarr. With your continued support, we hope to maintain the high standard established while he was the editor.

May we repeat the request which

appeared in the March-April issue: By listing broadcast band and short-wave reports on separate sheets of paper, and sub-dividing the latter into countries, the work of compiling the material for inclusion in the column will be simplified quite a bit. Needless to say, your co-operation in this respect will be sincerely appreciated. Pacific Standard Time will be used in all schedules just as it has been in the past.

Quite naturally, the seriousness of the situation in Europe has affected radio broadcasting just as it has everything else. Except for a comparatively few "old faithfuls", schedules and frequencies are subject to enough changes as to give even DXers a headache. As a result of all this, we on the West Coast are

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in a better position than ever before to be of help to our comrades in the East, by coming up with information on DX "catches" from the Far East and "Down Under," . . . information that stands a good chance of still being authentic by the time it's off the press and in the readers' hands.

Interest in South American DX will probably increase also. Geographically, reception of that continent favors the eastern DXer to a slight extent, and this contention seems to be borne out by the reports of results obtained. However, this presents the challenge to kindle a friendly spirit of competition, and "get in there and pitch."

So let's go, fellows, get your receivers tuned up and your dial finger in good condition, and we'll see what we can do.

BROADCAST BAND

By the time you are reading these words, we will be embarking upon the start of a new season, and it won't be long before RADEXERS can start looking for the TPs again, especially from Australia and New Zealand.

We'd like to know who happened to be the first RADEXER in the United States to verify the new 4QS. It would be appreciated if those of you who have done so would drop us a card giving the date your verification was received, and in this way our question can easily be answered.

Closely allied to the above query is that of D. C. Morrison, Oakland, Calif., who would like information on 2YH, also on 760 kilocycles, supposedly, but which has never been reported as interfering with 4QS.

May we insert a note for our sports-minded DXers? For those of you who wish to follow your favorites around the circuit in the Pacific Coast Baseball League, broadcasts are aired as follows:

Seattle	KJR ..	970
Portland	KEX ..	1160
San Francisco .	KGO ..	790
Oakland	KROW ..	930

Sacramento	KFBK ..	1490
Los Angeles ...	KFAC ..	1300
Hollywood	KFAC ..	1300

No information is available about San Diego, and it is our belief that they do not broadcast their games.

KTOH, 1500 k/c, the new station in Lihue, Hawaii, was heard on May 19th from 12:15-12:30 a.m. with fine signal. Verification was received promptly, signed by C. J. Fern, Jr. Schedule was given as follows: 8:30 a.m.-12:30 a.m. on weekdays, and 10:30 a.m.-midnight on Sundays, PST.

KINY has a dancing party from 11-12 each night, and FCC check is at 2 a.m. on the first Saturday of the month. RCA modulation check is held at 3:45 a.m. on the second Saturday morning.

D. C. MORRISON, OAKLAND, CALIF., emphasizes he is making no predictions, but gave us some TP information on results he had in 1939.

Japanese stations were very good at certain times during September, and best period of their reception seemed to be October and November. Reception of Chinese stations at any time was practically "nil". Best heard stations on the Asiatic mainland were JODK1, 970 k/c, and JBCK, 850 k/c. English was heard from JOAK1 and JOIK at 2 a.m., lasting about 5-10 minutes, and consisting of war news and stock market reports.

He also heard XEAU testing on 1400 k/c on April 25th, and KWAL, 1420 k/c, testing on April 10th.

EUGENE S. ALLEN, BERKELEY, CALIF., has just recently moved from Vallejo, and has not had time to put up a suitable antenna as yet. He says he will try to have a report in for the next issue. Thanks, OM.

WM. CUNNINGHAM, PASADENA, CALIF., comes through with some late information on Canadian stations: New stations are CHNB, 1420 k/c, North Battleford, Sask., and CJHC, Halifax, N. S.,

1290 k/c, 1000 watts. CFOS, Val d'Or, Quebec, is now on the air. CJKL is now on 560 k/c, and CKWX on 950 k/c. Both are powered at 1000 watts. Others stations operating at 1000 watts power are CKGB, CJOR, CHSJ, and CKCL. CKBI has C. P. to operate with 1000 watts . . . no frequency assigned as yet. CKOC now uses 1000 watts full time.

He also tells us that XEBO has increased power to 1000 watts instead of 500 watts, and has changed frequency to 1330 k/c. XEK is on 1000 k/c with 200 watts power, and XEAF is also on 1000 k/c.

SHORTWAVE BAND

BRAZIL—PSH verified with a letter and card, both signed by Julio Barata, manager of Radio Division. Literature on Brazil was enclosed. "The Brazilian Hour" is now transmitted through PSH, 10,220 k/c, from 3-4 p.m.

CUBA—COK, 11,750 k/c, P O Box 625, Havana, heard signing off at 7:30 p.m. with English announcements. Signal only fair.

ECUADOR—HCJB, 12,460 k/c, heard with powerful signal from 5:30-6:30 p.m. on Sunday with all announcements in English.

EGYPT—SUX, 7865 k/c, broadcasts Arabic program until 12:30 p.m. (IRM) SUZ, 13,820 k/c, contacts London at 8 a.m. (IRM)

ENGLAND—Latest BBC schedule of programs especially directed to North America is as follows (RX):

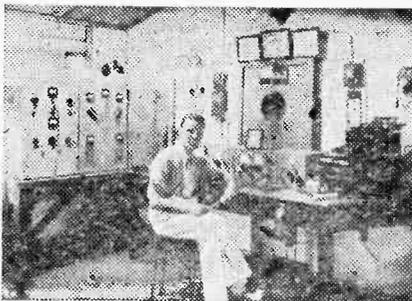
Transmission II: 2:40 a.m.-5:45 a.m.
(after 4:15 a.m.) GSV 17,810 k/c
(until 4 a.m.) GSP 15,310 k/c

Transmission III: 6:00 a.m.-8:30 a.m.
GSV 17,810 k/c

Transmission IV: 8:52 a.m.-12:30 p.m.
GSV 17,810 k/c

Transmission IV: 12:50-3:00 p.m.
GSP 15,310 k/c
GSD 11,750 k/c

Transmission V: 3:24 p.m.-6:15 p.m.
GSD 11,750 k/c
GSC 9,580 k/c



The very FB station of KA1LZ, in Manila, Philippines. The operator is Luigi Zazattero.

Transmission VI: 6:40 p.m.-8:30 p.m.
GSD 11,750 k/c
GSC 9,580 k/c

GSD was heard with fairly good signal around 11 p.m. on Transmission I broadcast to Australia.

FRANCE—TPC, 9520 k/c, heard with strong signal with news in English 8:30-8:45 p.m. Readability difficult, however.

FRENCH-INDO CHINA—Radio Saigon is still being heard with good signal until sign-off around 8:10 a.m. (from 7:30 a.m.) Music and news are heard on this English program.

HONG-KONG—ZBW2, 6090 k/c, is a new station with news in English at 4 a.m. (IRM).

JAPAN—The Broadcasting Corporation of Japan celebrated its fifth anniversary in June by inaugurating two new transmissions. The first, directed to Hawaii, is from 11:00 p.m.-midnight, on JZK, 15,160 k/c. The second, also broadcast over JZK, is to the Near East from 7-8 a.m. The transmission to Hawaii should be heard easily on the Pacific Coast, but we venture no predictions on the latter transmission.

MANCHUKUO—MTCY, 11,770 k/c, Hsingking, heard on 10:30-11:20 p.m. program for North America with signal ranging from fair to good. Readability on the average was difficult but understandable. MTCY also

broadcasts on 6130 k/c from 1-5 a.m. (IRM).

UNITED STATES—Around the first of July WPIT was heard to announce the following as their latest schedule:

5:00-7:00 a.m. 15,210 k/c.

7:00 a.m.-7:55 p.m. 11,870 k/c.

8:00-9:00 p.m. 6,140 k/c.

KGEL, San Francisco, started using their new frequency of 9670 k/c in June. (IRM).

"THE PIGEON-HOLE"

In answer to Eugene Francis, Bronx, N. Y.: Don Morrison of Oakland had KGFL verified. He sent a self-addressed postcard, filled out and ready to sign, which did the trick.

Attention Hylton R. Brown, Jr., Silver Spring, Md.-PSH verified for yours truly in two months with a registered packet containing card, letter and literature.

Anthony C. Tarr's friends will be interested to know he now operates ham station W7CID.

Lawrence E. Yarnes, West Linn, Ore., writes us that he is moving to Berkeley this summer and will attend the University of California. If DXers continue to move to Berkeley, we may have a chapter here some day, eh what?



Eric A. Brown, operator of station ZL4GY. He is now a Master Telegrapher in the New Zealand Navy. This is his latest picture, taken in his brand new uniform.

THE RADEX DX CONTEST

The Radex Publishing Co.,
12 Locust Ave.,
Emerson, N. J.

Gentlemen:

I wish to enter the RADEX DX Contest, in the Divisions checked below.

All Wave	<input type="checkbox"/>	Broadcast Band	<input type="checkbox"/>
Shortwave	<input type="checkbox"/>	Amateur	<input type="checkbox"/>

I agree to abide by the rules of the Contest, and I understand that the opinion of the judges will be final.

Name

Address

City and State

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FOUR BIG CONTESTS.

RULES

1. The object of this Contest is to determine the DX Champion for the 1940-1941 Season, in each of the four divisions of DXing: All Wave, Shortwave, Broadcast Band and Amateur.

2. This Contest will begin on October 1, 1940, and will end on September 30, 1941. All verifications entered in the Contest must verify stations heard during this period. Contestants will be allowed two months after the close of the Contest, until December 1, 1941, to receive verifications from distant stations heard prior to the official closing date of the Contest.

3. A coupon will be printed in each issue of RADEX which contestants will be required to fill out and mail to us as soon as possible. Only those contestants sending six consecutive coupons will be eligible for prizes.

The coupon printed in this issue will not be accepted for the Contest, but it will be appreciated if all those who intend to enter would send it to us to indicate their desire to compete.

4. There will be four divisions, and each contestant may enter as many divisions as he wishes. Scoring will be by points.

Points will be computed by multiplying your total number of verifications by the number of countries. If

All Wave Champion	\$30
BCB Champion	\$15
Shortwave Champion	\$15
Amateur Champion	\$15

you have 700 verifications from 20 different countries, your score would be 700 times 20, or 14,000. Only verifications will count, and they must verify stations heard during the Contest period.

5. The Shortwave Broadcast Division. This will include all broadcasting stations transmitting programs of entertainment, between 1600 and 500,000 kilocycles. The person who has the greatest number of points in this division will be declared the Shortwave Champion.

6. The Amateur Division. This will include all amateur stations transmitting within the recognized amateur bands. The person having the greatest number of points in this division will be declared the Amateur Champion.

7. The Broadcast Band Division. This will include all broadcasting stations in the world, broadcasting between 500 and 1600 kilocycles. The person having the greatest number of points in this division will be declared the Broadcast Band Champion.

8. The All Wave Division. This will include all radio stations using voice, from 500 to 500,000 kilocycles: broadcasting stations, amateurs, commercials, ships, police, etc., but no stations using code. The person having the greatest number of points in this division will be declared the All Wave Champion.

This Contest does not replace those now being conducted in Mr. LaRocque's and Mr. Callin's columns. The Amateur Contest, the Report-o-Meter and the Supremacy Listings will be continued.

Do not send us your verifications, but all contestants should be willing to submit them to us for our examination should we ask them to do so.

CUT OUT COUPON ON OPPOSITE PAGE

HIGH FREQUENCY GLOBE TROTTING

By RAY La Rocque

Edward Laudansky	100%
G. R. Jewell, Jr.	73%
Robert Skyten	49%
William McMahon	45%
M. F. Williams	29%

By virtue of consistent reporting throughout the month Edward Laudansky finally achieved the goal of all reporters—top honor in the “Report-o-Meter”. The name of William McMahon is also a new one to the meter. The others are consistent reporters whose names have become familiar to the first five positions.

Honorable mention is awarded this month to Pat Webb, C. R. Bender, Ralph Kastner, and Bill Taylor.

Some of our shortwave readers have been asking for a Supremacy Competition similar to the one being conducted on the broadcast band department — Radexing With The Radexers. Of course, such a competition would mean the elimination of the Report-O-Meter which has long been popular with reporters. It would be impossible for us to continue to run both contests simultaneously. So we'll leave the matter up to our readers. Do you want the “Report-O-Meter” continued or do you favor a Supremacy Competition? A post-card with your opinion will be appreciated.

As you know, this department is intended principally for the shortwave fans residing in the Eastern and Central time belts. As its editor, we will naturally be interested in how our own readers will fare in the Radex Championship DX Contest. From time to time, we will attempt to show, or to review the activities of our own contributors in the contest. So when you report, again, include your score in the contest and we'll do the rest.



The QSL card from Radio Guadeloupe of Point-a-Pitre, in the French West Indies. The card is printed in black, and the French national colors, blue, white and red, are shown diagonally across the card. (Courtesy of Myron Ksenich, Lorain, Ohio).

ASK US ANOTHER

“I wonder,” says George J. Grunert, 1523 24th St., Detroit, Mich., “if anyone of the readers has received their verification from CR7BE of Mozambique. I have sent several reports but have no answer. They request reeports!” . . . Information on stations WTHW and WTHX on 748 kcs. is desired by Ralph Kastner, P. O. Box 134, New Braunfels, Texas.

An answer to Charles Meyers of Chicago regarding his query on the oriental station on 15190 kcs. The station is TAQ in Ankara, Turkey—they broadcast on 15195 kcs. every day from 6-8 a. m. This question answered jointly by Meredith M. Stroh, 172 Queen St., North., Kitchener, Ontario and Robert Skyten, Podunk Rd. East Brookfield, Mass. . . . Bob also goes on to answer still another query. This one for Radexer Bendes of Pittsburgh. Bob thinks the station he heard below GSU was OIE in Lahti, Finland on 17800 kcs.

George H. Auffort, R144, 133 Summerfield Ave., Collingswood, N. J. wants to know, when, if ever, do the Latin American stations announce in

English? How can they be identified is his second query! . . . Well, most of the stations can be depended upon for English announcements at opening and closing of their daily schedule. Then, too a lot of the Cubans and Mexicans and a few others have English announcements periodically on the half hour and on the hour. Some of the stations have entire programs in English on regular schedule—daily or weekly. You'll find these English program times mentioned in various reports of the DXers in the Shortwaves In Review section of this department . . . Still another, and the best way is to learn the Spanish equivalents to the English alphabet—a simple task if you set your mind to it. All one has to do is to listen to familiar stations until you have learned to identify the sounds of the Spanish letters. It may take a little time, but it will be well worth the while.

Three puzzling stations submitted by William McMahon, R1757, Glen Cove, N. Y. The first is heard on 11400 kcs. during the evening with only fair signal. Another is heard daily from 5-7 p.m. on 11970 kcs. with oriental music. The third station sounds like Fort De France and is heard on about 9900 kcs. with good signals. Speech is French. Can anyone help Radexer McMahon on these stations?

Allan B. Cadorath, R1769, 1825 Princess Ave., Brandon, Manitoba would like more information on a station on approximately 11500 kcs. in Havana. The station announces as COK followed by a few more letters that he hasn't been able to identify. (The station is COK, which announces COK, "OK Batista". The slogan is to boost the Batista for president campaign—RL)

QUOTE AND UNQUOTE

Ralph Kastner, New Braunfels, Texas: "I would like to correspond with DXers who tune the second

band around 2738 kcs.—the frequency on which the ships are operating."

Arthur H. Stevens, Jr., Shepherdsville, Ky.: "I would like information on the French announcing station just above EAQ that broadcasts programs of Latin American music. Four chimes precede station announcements. The station signed at 9:00 p.m. with English announcement but static prevented my identifying it."

William McMahon, R1757, 6 Central Ave., Glen Cove, N. Y.: "I have a 17 tube Midwest receiver whose range is from 125 kcs. to 350 kcs. and 550 to 30000 kcs. During the last winter I had a doublet antenna with 17 and 41 ft. legs which gave me good results. Having just moved to my present address, I haven't put it up yet. My present house is in excellent position for reception and I believe that this winter I will get the best reception I have ever had. I listen chiefly to the shortwaves, and medium waves, and occasionally I try the long waves."

Clyde Pauley, Owens, West Virginia: "I have built a crystal set that will tune down to almost 25 meters on shortwave and I have heard England and Germany in one night. It will also tune the entire broadcast band. I will send a diagram of this receiver to all who send a dime for postage and mailing. Please do not send stamps."

Arthur Stevens, R. R. 2, Box 135, Shepherdsville, Ky.: "I would like to ask a question about a peculiar problem. CSW-7, Lisbon, has failed to verify after two very good reports and a polite letter. To give some idea of the completeness of my last report to this station, I included a detailed account of the program by giving the exact time to the minute, at which different parts of the program began and ended. I sent the usual IRC with each report. TGWA is another station to whom I've sent two reports and have failed to re-

ceive a reply . . . I started DXing about one year ago—last July to be specific. RADEX has been an invaluable aid in verifying stations since that time. I nearly worry my local news dealer to death rushing in every few days to see if the new RADEX is out.”

NOT SO SHORT WAVES

The Yacht Mako was heard several times working W9XEI . . . WMI was heard working several lake steamers. WAY, WJD, and WPQ gave weather reports simultaneously. Can anyone tell me where these stations are located? (C. R. Bender, Pittsburgh, Pennia.)

Galveston Radio from Aransas station heard on 2670 kcs. with weather reports at 7:30 a.m. (Ralph Kastner, New Braunsfels, Tex.)

The Commercial Radio Round-Table has been formed by Chester Roman, 1907 No. Kedzie Ave., Chicago and a group of ten other DXers. Anyone wishing to join in the round-table can do so by merely sending a report of reception of a commercial station—no dues or fees are asked.

WBC—Mackinac Island, Mich., a new coastal harbor station is on 2182, 2514 and 55 kcs. with 440 watts. . . . WAGI—Shanrock, Fla. forestry station on 2212 kcs. is heard with good signal . . . Ships are now being heard on 226 kcs.—both U. S. A. and Canadian . . . WCT—San Juan, P. R. on 2530 kcs. is another coast harbor station heard here. (Chester Roman, Chicago, Ill.)

WAUD—Norfolk, Va. on 2726 kcs., WRPX and WRPY portable in Penna., are special emergency stations heard . . . Relay station WBGN—Champaign, Ill. logged on 2758 kcs. evenings . . . New aero station is WMAP—Mobile, Ala. for the National Airlines. (Chester Roman, Chicago, Ill.)

ULTRA HIGH

WELV on 32600 kcs. was heard testing. Can anyone supply information on this station? (Frank J. Kasik, R1724, Chicago, Ill.)

WQJF on about 32000 kcs. is a high frequency police radio. It comes in R9, and must be a Chicago or State local (Frank J. Kasik, R1724, Chicago, Ill.)

HC1JB in Quito Ecuador heard testing with R8-9 signal on 28370 kcs. They will QSL if properly reported. No return postage needd (Frank J. Kasik, R1724, Chicago, Ill.)

W4XA on 26150 kcs. in Nashville, Tenn. was heard at 6:30 p.m. with dinner music. Signal was R8. (Ralph Kastner, R1088, New Braunfels, Tex.)

W8XNU on 25950 kcs. in Cincinnati, Ohio was heard at 7:15 p.m. with R7 signal (Ralph Kastner, R1088, New Braunfels, Tex.)

W9XPD on 25900 kcs. in St. Louis, Mo. was heard at 5:30 p.m. with R8 signal. (Kastner—Tex.)

FM DEVELOPMENTS

The rules governing the operation of Frequency Modulation broadcasting have been issued by the F. C. C. and everything is now in readiness for the flood of applications which are expected for this new type of service. The new service will be known as “high frequency broadcast” to distinguish it from “standard broadcast.”

Highlands of the new rulings: FM stations will be required to maintain a schedule of at least three hours during the day and three hours at night, with at least one hour during each period devoted to programs not duplicated by a standard broadcast station. . . . Unlike standard broadcast stations, FM stations will be licensed to serve a specified area in square miles. . . . In places where one or more FM stations are located, their service radius will be made as comparable as possible. . . . FM stations serving the same area will not be assigned adjacent channels. On

the band between 43000 and 50000 kcs., the 200 kc. wide channels will be divided thusly: For cities and towns with a total population of less than 25000 these channels are assigned—48900, 49100, 49300, 49500, 49700, 49900 kcs

For populations of 25000 or more within an area of 3000 square miles or less these channels are available: 44500, 44700, 44900, 45100, 45300, 45500, 45700, 45900, 46100, 46100, 46300, 46500, 46700, 46900, 47100, 47300, 47500, 47700, 47900, 48100, 48300, 48500, and 48700 kcs. In this class, the applicant must specify a service area which shall comprise either a metropolitan district, a city, or a particular district having common cultural, economic, geographical or other characteristics to justify service to the area as a unit.

For areas in excess of 3000 square miles, the channel assignments are 43100, 43300, 43500, 43700, 43900, 44100, 44300 kcs. Here the applicant can serve two or more large cities or metropolitan districts and a large adjacent rural area.

Call letters assigned to future FM stations will consist of four letters to distinguish them from the experimental calls being used by experimental FM stations.

W1XOJ on 43000 kcs. in Paxton, Mass. using 50 kw. is heard regularly with a very powerful R9 signal (RL-Mass.)

W1XTG on 43400 kcs. in Holden, Mass. using 1000 watts is heard daily until midnight with signal reaching R9 in strength. (RL-Mass.)

W2XMN on 42800 kc. is heard between 4-11 p.m. from Monday to Friday and from 3-6 p.m. on Saturday. (Williams—N. J.)

W2XOR on 43400 kcs. is heard between noon and midnight. (Williams—N. J.)

W2XQR on 43200 kcs. is heard between 5-11 p.m. (Williams—N. J.)

W2XWF on 42180 kcs. is heard

from 10 a.m. to 1:00 a.m. (Williams—N. J.)

W8XWJ is temporarily off the air preparing for its change-over to frequency modulated type of broadcasting. (F. Grant—Mich.)

SHORTWAVES IN REVIEW

Argentina

LRA-1 on 9688 kcs. is heard nightly from 5-12 p.m. with program of Argentine Dance music. (Jewell—Calif., Mc Mahon—N. Y.)

LRA-5 on 17830 kcs. is heard on a special program commemorating Argentine Independence Day from 7-7:30 p.m. Programs was in English. . . . YRA-5 broadcasts every Friday at 4 p.m. (Webb—Tex., Laudansky—Mass.)

LRU on 15290 kcs. broadcasts from 6:15-7:15 a.m. Opening and closing announcements is in English. (Skyten—Mass., Jewell—Calif.)

LRX on 9660 kc. at Buenos Aires is heard nightly from 5-12 p.m. with program of typical music. (Jewell—Calif.)

Australia

VLQ on 9615 kcs. at Sydney heard with weak signals as compared to their R9 signals in May-June. They were heard 1:30-2 a.m. (Jewell—Calif.)

VLQ-2 on 11870 kcs. at Sydney is heard from 2:30-3:30 a.m. with R4-6 signals. (Jewell—Calif.)

VLQ-5 on 9680 kcs. is being heard from 7:15-8 a.m. with news at 7:30 a.m. on a program for the Eastern States of North America. (Mc Mahon—N. Y., Kastner—Tex., and Jewell—Calif., Skyten—Mass., Taylor—Mo.)

VLQ-7 on 17800 kcs. (approximately) is a new Sydney station heard testing once at 8 p.m. with very good signal. They signed off the air at 8:01 announcing that they would again be on the air at 0300 GMT. (Skyten—Mass.)

VLR-3 on 11850 kcs. at Melbourne is being from 1-3 a.m. (Taylor—Mo., Jewell—Calif.)

VLW-2 on 9650 kcs. at Perth its being heard with R7 signals every morning until 10:30 a.m. with sign off including "God Save The King." This station is often heard rebroadcasting B. B. C. news bulletins. (Taylor—Mo., Jewell—Calif.)

VLW-3 on 11830 kcs. at Perth is heard every night from midnight to 3 a.m. News from London is heard at 12:30 a.m. They announce: "The A. B. C. Station." (Jewell—Calif.)

Bolivia

CP-43 on 15162 kcs. "Radio Cotagaita" at Cotagaita is being heard irregularly between 2:30-5 p.m. and 8-9:15 p.m. (Skyten—Mass., Williams—N. J.)

Brazil

PPQ on 11670 kcs. heard testing with WEQ in New York. They were heard carrying the second Toscanini concert within the period of a month. (Laudansky—Mass., Bender—Penna.)

PRF-5 on 10220 kc. in Rio de Janeiro has been heard in parallel with PSH but with a lot of QRM. PRF-5 signs off at 7 p.m. with National Anthem. (Laudansky—Mass., Jewell—Calif.)

PSH on 10220 kc. is heard every Monday with English program from 8-8:30 p.m. (Stroh—Ont., Mc Mahon—N. Y., Laudansky—Mass., Taylor—Mo., and Jewell—Calif.)

Official schedule of the broadcasts of the Department of Press and Propaganda of Brazil:

PSH on 10220 kcs. in Portuguese daily except Sunday from 6-7 p.m. In English on Mondays from 8-8:30 p.m., and in Spanish on Fridays from 7-7:30 p.m.

PSE on 14935 kcs. in German on Wednesdays from 4-4:30 p.m. In Italian on Thursdays from 3-3:30 p.m. In French on Saturdays from 3-3:30 p.m.

PSA on 21080 kcs. is not being used at present. (This schedule by Laudansky—Mass., Lind—Ohio, and Herwig—Iowa)

British Honduras

ZIK-2 on 10600 kcs. in Belize can be heard between 1:30-4 p.m. and 8:30-9 p.m. on Tuesdays, Thursdays, and Saturdays. (Williams—N. J.)

Canada

CFRX on 6070 kcs. at Toronto heard with R5 signals from 10-12 p.m. with program of dance music.

CJRX on 11720 kcs. at Winnipeg heard with R8 signals on two transmissions daily 7-8 p.m. and 12-1:30 a.m. (Jewell—Calif.)

Chile

CB970 kcs. on 9710 kcs. heard around 7 p.m. and again at 10 p.m. with best signal at the latter mentioned time. They verify promptly. Address is "La Voz Chile Para Toda America" Casilla 37-V, Valparaiso, Chile. (Laudansky—Mass., Jewell—Calif., Mc Mahon—N. Y.)

CB-1180 on approximately 11960 kcs. was heard from 8:30-9:30 p.m. on Saturday with piano and orchestral music. (Laudansky—Mass.)

China

XGOA on 11900 kcs. at Chungking is heard with R5 signals at 2:00 a.m. Announcements by both male and female announcers in English.

XGOY on 11900 kcs. also at Chungking is now being heard with R6 signals from 9-10:30 a.m. News in English is heard from 9-9:10 a.m. Reports are requested to be sent to the "Voice of China," Chungking.

XPSA on 7010 kcs. at Kweiyang was heard with weak signals. News of the war was heard in English at 9 a.m. Both male and female announcers are used.

XTC on 9295 kcs. at Shanghai has been heard signing off at 9 a.m. with fair signal. (Jewell—Calif.)

Colombia

HJAB on 4905 kcs. at Barranquilla is heard with program of Classical and Colombian popular music from 8-10:30 p.m. with strong signals. (Jewell—Calif.)

HJAG on 9810 kcs. at Barranquilla is heard testing around 10 p.m. (Williams—N. J.)

HJBB on 4815 kcs. at Cucuta verifies with a photographic card showing a road lined with high palm trees and showing the International bridge between Colombia and Venezuela. (Stephenson—Okla.)

HJCF on 4855 kcs. at Bogota heard at sign off at midnight with R7 signal. No English announcement was heard. (Jewell—Calif.)

HJCT on 9630 kcs. at Bogota is being heard from 7-11 p.m. with dance music. Verification card is white with the words "Radiofusora Nacional" printed in heavy at top of card—other type is thin outlined lettering. (Jewell—Calif., Stephenson—Okla.)

HJXC on 6018 kcs. at Bogota is heard nightly with fair signals signing off at 11 p.m. (Jewell—Calif.)

H—FK on 9730 kcs. in Barranquilla is heard between 8-11 a.m. (Williams—N. J.)

Costa Rica

TIEM on 10065 kcs. in San Jose is broadcasting nightly from 5:30-9 p.m. They badly QRM the signals of CHNX and often blot out the latter entirely. (Laudansky—Mass., Jewell—Calif., Williams—N. J.)

TIPG broadcasts daily from 7-9:30 a.m., Noon to 2 p.m. and 7-11:30 p.m. (Williams—N. J., McMahon—N. Y.)

Cuba

COBX on 9100 kcs. heard broadcasting popular and Spanish music at 8:30 p.m. on Saturday. (Laudansky—Mass.)

COBZ on 9630 kcs. can be identified at 8 p.m. by a gong striking nine o'clock in Havana. (Laudansky—Mass.)

COCW on 6330 kc. heard with an English Tourist program daily at 9 p.m. Reports are requested. (Laudansky—Mass.)

COGF on 11800 kcs. at Matanzas is giving 2RO-4 on 11810 kcs. plenty of QRM of late. However, COGF comes in with R8 signal at times. (Jewell—Calif.)

COK on 11570 kcs. operates daily from 7:30-11:30 p.m. Slogan is "OK Batista" and they are campaigning for the election of Batista. Something new in the way of cards is a card sent to many DXers by the station soliciting their reports. The cards are attractive—but are not QSL's as they merely ask for a report and promise to verify. They must have secured some DXers mailing list for the purpose. Meanwhile the station is perhaps reported more often than any other station this month. Veri is a by letter accompanied by six picture postal views and a booklet on the platform of Fulgencio Batista! (Stephenson—Okla., Shirley—N. Y., Bender—Penna., Laudansky—Mass., McMahon—N. Y., Kastner—Tex., and Jewell—Calif.)

COKG on 8960 kcs. comes in R9 plus at 6:15 p.m. daily. (Laudansky—Mass.)

COX-7 on 8830 kcs. at Havana is heard with typical Cuban music from 8-10:30 p.m. with R7 signals. (Jewell—Calif.)

Dominican Republic

HIH on 6819 kcs. at San Pedro de Macoris is heard with popular records from 7:30-8 p.m. (Laudansky—Mass.)

HI-1G on 6280 kcs. heard in parallel with HI-2G but with much weaker signals. (Laudansky—Mass.)

HI-1N on 12490 kcs. in Trujillo City is one the air from 11:40 a.m. to 1:40 p.m. and from 7:10-10:00 p.m. (Williams—N. J.)

Ecuador

HCJB on 12460 kcs. is being heard with very good signals daily except Monday from 6-7 p.m. with "Ecuadorian Echoes", from 7-9 p.m. with Spanish programs and from 9-10 p.m. the English "Friendship Hour." HCJB uses 10000 watts and a rotary beam. The English programs are conducted by American Missionaries and are well worth listening to during these troubled times. (Laudansky—Mass., Jewell—Calif., Bender—Penna., Taylor—Mo., McMaho—N. Y., Stroh—Ont., and Koik—Ill.)

HC2CW on 9120 kcs. in Guayaquil is heard between Noon and 2 p.m. and 8 p.m. to midnight. (Williams—N. J.)

HC2JSB on 7854 kcs. broadcasts daily from Noon to 3 p.m. and 5 p.m. to midnight. They were heard broadcasting a basketball game in Spanish from 7:30-8:45 p.m. on a Friday. (Williams—N. J., Laudansky—Mass.)

France

The French station on 15240 kcs. broadcasts daily from 1:15 to 3 p.m. They have some music but mostly news in several languages, including English. This is a rebroadcast of some German station as static crashes can be heard in the background. DJA, Bremen, Luxemburg and other stations are mentioned by the announcer, but the French station is not. Immediately after terminating the rebroadcast, they sign off without making any announcement. The other French transmitters have probably been destroyed since they have not been heard since the fall of Paris. (Webb—Texas)

French Indo China

"Radio Saigon" on 11780 kcs. at Saigon is still being heard here on the morning transmission with strong signals. Since France fell into Germany's hands, "Radio Saigon" no longer relays the Paris news bulletins. Only this morning the announ-

cer said that the news from Paris was very limited. "Radio Saigon" still has their English program but this comes at the end of the transmission just before sign off at 10:30 a.m. (Jewell—Calif.)

Fiji Islands

VPD-2 on 9535 kcs. at Suva is being heard here with popular American recordings from 5-5:30 a.m. (Jewell—Calif.)

Finland

OIE on 15190 kcs. at Lahti has been heard coming on the air at 12:30 a.m. with a program of dance music. A lady announcer is used. (Skyten—Mass.)

Germany

The "New British Broadcasting Station" on an announced frequency of 11960 kcs. is a pro-Nazi station probably in Germany which broadcasts so-called "uncensored news" weekdays from 3:40-4 and 4:30-5 p.m. and Sundays from 11:30 a.m. to 3:30 p.m. Interval signal is one stroke of the gong. Programs close with "God Save The King." The station usually has a strong signal. (Skyten—Mass.) "Deutscher Freiheitssender" on about 10100 kcs. was heard here with R6 signals at 7:30 p.m. on July 5. No location of city was announced. (Jewell—Calif.)

A new powerful German transmitter has been operating on the same frequency as GSW of London (7230 kcs.). The call is supposed to be DXJ on 7240 kcs., but of late they have been heard on 7230 kcs. at 8 p.m. (Jewell—Calif.)

DJB on 15200 kcs. is heard from 4:50-10:50 p.m. with a program for Latin America. Also heard from 6:30 a.m. in English along with DJQ and DJL. (Skyten—Mass., Jewell—Calif.)

DJD on 11770 kcs. comes on the air at 7 p.m., replacing DJZ for North America, simultaneously with DJL and DXE. (Skyten—Mass.)

DJL on 15110 kcs. carry the 4:50-11 p.m. program directed to North America, joining with DJZ on 11790 kcs. and replacing DJB on this transmission. (Skyten — Mass., Webb—Texas)

DXB on 9610 kcs. is being heard here with news in English at midnight with R8 signals. (Jewell—Calif.)

DXD-2 on 11740 kcs. was announced as operating in parallel with DJL on 15110 kcs. at 7 a.m., directed to North America. DXD-2 was not heard here. DXD-2 may be the German call for the former LKQ on 11735 kcs. at Oslo, Norway¹ (Skyten—Mass.)

DZC on 10290 kcs. heard in the afternoon usually with a program in Arabic. (Skyten—Mass.)

DZD on 10543 kcs. was heard at 5:15 p.m. with talk to England by Lord Haw Haw! (Skyten—Mass., Laudansky—Mass.)

DZG on 15300 kcs. still broadcasts daily in Arabic from 11:30 a.m. to 12:30 p.m. (Skyten—Mass.)

DZH on 14460 kc. broadcasts from 4:50-10:50 p.m. directed toward Latin America. (Skyten—Mass.)

Still another angle on the new interval signal of the German Short-wave Stations. Pat Webb of Texas insists there is a new one. It is used only preceding news bulletins and is usually followed by a message in code—possibly denoting the language that is to follow. The new signal consists of four tones sounding like a bass chord on the piano.

Great Britain

The same "New British Broadcasting Co." station as reported by Bob Skyten under Germany is reported herewith under Great Britain. The station is heard on 11960 kcs. from 4:30-5 p.m. with good signal. Programs last about ½ hour, the last five minutes of which are used to tell listeners that all other war news is

censored—but this station is the only one presenting completely uncensored war news. They also stated that if the station should be suppressed that there were others ready to be put into use. (McMahon—N. Y.)

GRX on 9690 kcs., GRY on 9600 kcs., GSB on 9510 kcs., GSD on 11750 kcs. are all being heard with musical programs along with 30 minutes of news and talks at 11 p.m. (Jewell—Calif.)

GSF on 15140 kcs., GSO on 15180 kcs., GSI on 15260 kcs., and GSP on 15310 kcs. are all heard in parallel at 6 a.m. with music and news in English. (Jewell—Calif.)

GSN on 11820 kcs. at Daventry is a new one heard at 6:25-9:15 p.m., and from 9:37 to 11:30 p.m. They are also heard in the morning around 7 a.m. (Skyten—Mass., Stroh—Ont., Webb—Texas)

Guadeloupe

FG-8-AH at Pointe-a-pitre on 7440 kcs. heard coming on at 6 p.m. with English and French announcements and signing off at 7:00 p.m. Reports are requested. (Laudansky—Mass.)

Guatemala

TG-2X on 5945 kcs. heard from 7:30-8 p.m. with a program of Spanish ad popular music on Wednesdays. They are badly QRM'd and have an R5 signal. Only announcement is at 15-minute intervals. (Laudansky—Mass.)

TGWA on 9685 kc. is heard daily from 10-11:30 p.m. with announcements in English between each item. Saturday and Sunday from 6-12 p.m. (Jewell—Calif.)

TGWA on 15170 kcs. is heard daily with poor signals here but are on from 12:45-1:45 p.m. Sunday from 12:45-5:20 p.m. (Jewell—Calif., Bender—Penna., Taylor—Mo.)

TGWB on 6457 kcs. is the best heard Guatemala station here with

R8-9 signals. (Jewell—Calif.)

TGWC on 2320 kcs. is also heard in parallel with TGWA and TKWB, but with very poor signals at this end. (Jewell—Calif.)

Haiti

HH3W on 9890 kcs. (new frequency) is being heard with stronger signals from noon to 2:15 p.m. and 6:30-9:30 p.m. or later. (Skyten—Mass., Laudansky—Mass.)

Hawaii

KHE on 17970 kcs. can be heard Saturdays from 8-8:30 p.m. and from 4:30-5 p.m. on Sundays relaying programs to the mainland. (Skyten—Mass., Jewell—Calif., McMahan—N. Y.)

Honduras

HRD-2 on 6235 kcs. at La Ceiba is heard with Spanish and Light Classical Music late Saturday evenings. (Laudansky—Mass.)

Hungary

HAT-4 on 9125 kc. at Budapest is again being heard, replacing HAT-5 on 9625 kcs. They are on daily from 6 p.m. (or earlier) to 9 p.m. with strong signals. News in English is around 8 p.m. Verification card is in three colors. A white card with two heavy green lines across top and bottom—HAT-4 across the bottom in red between the two green lines. A red square in center in which is pasted a snapshot of various scenes. Address: Radiolabor, Budapest, Hungary. (Carroll—N. J., Skyten—Mass., Laudansky—Mass., McMahan—N. Y.)

Iceland

TFJ on 12235 kcs. at Reykjavik was heard here on Sunday, July 11 with R4 signals with a musical program by a choir from 2-2:30 p.m. (Jewell—Calif.)

India

VUB-2 on 4880 kcs. at Bombay is heard a 8-8:30 a.m. with R7 signals. (Jewell—Calif.)

VUC-2 on 4840 kcs. at Calcutta is

well heard here a 8-8:30 a.m. (Jewell—Calif.)

VUD-2 on 4960 kcs. at Delhi is heard with native program from 8-8:30 a.m.

VUM-2 on 4920 kcs. at Madras is heard daily from 8-8:30 a.m. (Jewell—Calif.)

Ireland

New "Radio Eiran" on 6190 kcs. at Athlone broadcasts from 12:30-1:30 p.m. according to an announcement heard over 17840 kcs. They were heard on 17840 kcs. with strong signals from noon until 12:30 p.m. when they signed off, announcing they would switch over to 48.47 meters or 6190 kcs. until 1:30 p.m. when they would again be on the air on 17840 kcs. (Skyten—Mass.)

Italy

"American Hour" from Rome is carried over 2RO-8 on 17820 kcs., 2RO-14 on 15230 kcs., 2RO-15 on 11760 kcs., 2RO-4 on 11810 kcs., 2RO-3 on 9630 kcs. from 8:15-10:10 p.m. They announce only s 2RO-3, 2RO-4, and 2RO-8. (Skyten—Mass., Bender—Penna., Laudansky—Mass., Webb—Texas, Taylor—Mo., Jewell—Mo.)

12RO-11 on 7220 kcs. has been heard from 5:30 p.m. (Laudansky—Mass.)

12RO-12 on 15100 kcs. heard weakly in the afternoon and evening until 7 p.m. (Skyten—Mass.)

Java

PLP on 11000 kcs. at Bandoeng is heard well every morning along with PMN on 10260 kcs. from 9:30-10:15 a.m. Classical and popular music are featured. (Jewell—Calif.)

Japan

The latest official schedule of the Overseas broadcasts of the Broadcasting corp. of Japan:

To Southwestern Asia: JZK on 15160 kcs. from 10-11 a.m.

To Europe: JZK on 15160 kcs. and JZJ on 11800 kcs. from 2-4 p.m.

To South America: JLS-2 on 17845 kcs. and JZK on 15160 kcs. from 4:30-5:230 p.m.

To Eastern Districts of North America: JLS- on 17845 kcs. from 8-9 p.m.

To Pacific Coast of North America: JZK on 15160 kcs. from midnight to 1:30 a.m.

To Hawaii: JZK on 15160 kcs. from. 2-3 a.m.

To China and South Seas: JZK on 15160 kcs., and JZJ on 11800 kcs. from 7-9:30 a.m. (Official via Skyten—Mass.)

Reepports: JLS-2 on 17845 kcs. is heard with very strong signals from 4:30-5:30 p.m. directed to South America. JLS-2 is usually quite poor from 8-9 p.m. directed to Eastern North America. Reports should be addressed to the Foreign Dept., Broadcasting Corp. of Japan, Tokyo. Verification arrived in less than a month with a photo card in light yellow and sepia. View is that of buildings, showing contrasts between old and new. (Skyten—Mass., Laudansky—Mass.)

JLG-3 on 11705 kcs. is being heard with all Japanese program from 12:30-2:30 a.m. with strong signals. (Jewell—Calif.)

2 JLT- on 645 kcs. is heard daily with weak signals from 8:30 a.m. (Jewell—Calif.)

Lithuania

LYR in Kaunas is broadcasting on 9290 kcs. and being heard here from 3:30-4:15 p.m. (Williams—N. J.)

Manchukuo

MTCY on 11775 kcs. is heard well night from 1:30-2:20 a.m. with English program of news at 2:00 a.m. and native and American recordings until sign off. National Anthem followed by a series of gongs is used at sign off. MTCY on the early morning transmission has added another frequency to their present two. A new

one on the 31 meter band—9535 kcs., working in parallel with 11975 kcs. and 6125 kcs. (Jewell—Calif., Kosik—Ill.)

Mexico

XEXK on 11780 kcs. at Chapingo, XERS on 15100 kcs. at Tiajuana, XEXL on 11740 kcs. at Cananea, and XEXB on 2520 kcs. at Tuxtla Gutierrez are new shortwave stations (of low power) under construction in Mexico. (Cunningham—Calif.)

XEBR on 11826 kcs. at Hermosillo is heard signing off at 10:30 p.m. (Jewell—Calif.)

XETW on 6045 kcs. at Tampico was heard at 7:10 a.m. with R8 signal. (Kastner—Texas)

XEWW on 9500 kcs. is heard nightly until midnight. (Jewell—Calif., Bender—Penna., McMahon—N. Y., Webb—Texas).

XEYU on 9600 kcs. is heard with fair signals up to 10:30 p.m. (Jewell—Calif.)

Mozambique

CR-7-BE on 9710 kcs. now after a change in frequency. They are heard with good signal from 2-4 p.m. with news in English at about 2:55 p.m. English is used from 2-3 p.m. and Portuguese from 3-4 p.m. CR7BE is best heard at 4 p.m. when they sign off with Portuguese National Anthem. CR7BE would like reports from U. S. A. listeners as to the best hours for reception over here. (Skyten—Mass., Carroll—N. J.)

Netherlands

PCJ-2 on 15220 kcs. at Huizen is again being heard under German control on the same schedule as before—but with weaker signal. Evidently they are using lower power. (Skyten—Mass.)

Newfoundland

VONG verification card is in three colors on white card. VONF in blue on left side and VONG on the right side in same color. A map of New-

foundland in the center is light blue and large yellow letters across entire card are B. C. N. (Carroll—N. J.)

Nicaragua

YNLG on a recent veri states that power is 1000 watts. Though it is listed at 6610 kcs., I heard them broadcasting a basketball game on 6750 kcs. Address: Cesar Guerra, Radio Emisora Nacional, YNLG, "Ruben Dario", Managua, Nicaragua. (Laudansky—Mass.)

YNRF on 6760 kcs. at Managua is heard with R6 signals in parallel with YNPR on 8580 kcs. with popular music from 9-10 p.m. (Jewell—Calif.)

YN-1-IP on 7284 kcs. in Managua is heard Sundays between 11 a.m. and noon. (Williams—N. J.)

Norway

LKQ on 11735 kcs. at Oslo broadcasts daily 4:30-5:30 p.m. to North America, intended for Norwegians in America. They are heard with a weak signal. (Skyten—Mass.)

A very strong station, probably in Germany, relays LKQ on 15170 kcs. They come on the air at 4:25 p.m. with music box tune and announcement by a man in English—"Oslo calling on 25.56 meters and 11735 kcs. with a special program for Norwegians in America—", repeated until 4:30 p.m. when the broadcast opens with a march. (Skyten—Mass., Webb—Texas)

Panama

HP5A on 11700 kcs. operates from 7-10:40 a.m., 5-10:45 p.m. between Monday and Saturday. On Sunday schedule is from 6-10:45 p.m. (Williams—N. J., Kastner—Tex., Stroh—Ont.)

HP5G on 11780 kcs. verification is a white card with the word Panama across the top, a world globe in center with a radio tower rising out of the Panama Canal. HP5G is across the bottom in black. A stone bridge

and an old castle are pictured on each side. Mr. George Williams signs all veries and asks that any DXer having trouble verifying Latin Americans get in touch with him. He promises to see that you do get your veri. (Jewell—Calif., Carroll—N. J., Laudansky—Mass.)

HP5J on 9610 kcs. at Panama City was heard with strong signals nightly from 7:30-10:30 p.m. English announcement and news are a feature of this station. (Jewell—Calif.)

HP5K on 6005 kcs. at Colon was heard with R5 signal from 7-11 p.m. with dance music. Verifies promptly by card. (Jewell—Calif.)

Paraguay

ZP-7 on 11705 kcs. at Asuncion is heard with R6 signals at 7:30 p.m. (Jewell—Calif.)

ZP-14 on 11721 kcs. at Villarica heard announcing as "Radio Cultura" from 7:30-8:30 p.m. (Jewell—Calif.)

Peru

OAX4J on 9340 kcs. at Lima is now being heard again with strong signals after an absence of several months. Schedule 5 p.m. to midnight. (Jewell—Calif.)

OAX4T on 9562 kcs. at Lima is heard daily with strong signals between 7-8 a.m. (Jewell—Calif.)

OAX4Z on 6080 kcs. "Radio Delecar" is heard with popular music evenings from 7:15-7:30 p.m. (Laudansky—Mass.)

OAX5C on 9440 kcs. at Ica was heard here for the first time July 14 at 8:30 p.m. with program of American recordings. They signed off at midnight with organ music. (Jewell—Calif.)

Philippines

KZIB on 9490 kcs. is being heard in the early morning with R6 signals before XEWW signs on, at which time QRM over-rides their signal. (Jewell—Calif., Kastner—Tex.)

KZRH on 640 kcs. at Manila is heard every morning from 8-30 a.m. with dance music, news, and sports talks. (Jewell—Calif.)

Portugal

CSW on 11040 kcs. at Lisbon is heard with fair signals from 3-4:30 p.m. (Jewell—Calif.)

CSW-7 on 740 kcs. has been coming in R plus in the early evening and was believed to be a powerful South American. They are heard best at 6 p.m. An English program is heard every Saturday from 3-3:30 p.m. and reports are requested. (Laudansky—Mass., Jewell—Calif.)

Salvador

YSD on 7880 kcs. is sometimes heard in parallel with YSP on 10400 kcs. nightly from 8-10 p.m.

YSM on 11710 kcs. is also heard nightly. They some times are heard testing after regular transmissions. (Jewell—Calif.)

Spain

EAQ on 9855 kcs. (not 9860 kcs.) nightly with musical program from 9-10:30 p.m. (Stroh—Ont., Jewell—Calif.)

FET-1 on 7006 kcs. at Valladolid is still heard with fair signal from 8-8:30 a.m. with recorded music. (Jewell—Calif.)

Straits Settlements

ZHP on 9690 kcs. at Singapore is heard of late with weak signals from 8-9:30 a.m. Popular music, news, and stock market reports are featured. (Jewell—Calif.)

Switzerland

"Radio Switzerland" heard on 14538 kcs. from 10-10:30 p.m., announced in English. They verified by letter in less than month and enclosed program sheet. Reports should be addressed to: Le Chef des Programmes Neuengasse 30, Berne. (Bender—Penna.)

HBO on 11402 kcs. at Geneva was heard on a Monday from 9-10 p.m. with an English program. (Jewell—Calif.)

.. HET-6 on 19590 kcs. was understood as the call of a new Swiss station said to have opened telephone service to N. Y. They are on daily from 8 to (a.m. or p.m.?) HTE-5 on 15520 kcs. and HET-4 on 10395 kcs. were also tested. (Webb—Tex.)

Tahiti

FO-8AA on 7090 kcs. at Papeete has been heard on Fridays from 11-11:30 p.m. with R5 signal. (Jewell—Calif.)

Turkey

TAP on 9465 kcs. at Ankara heard relaying to New York an English News period from 6:25-6:30 p.m. After the news was over, the announcer stated that they would like to receive reports and that all correct ones would be verified. (Laudansky—Mass.)

Union of South Africa

ZRL on 9606 kcs. at Cape Town was heard here for the first time in several months on July 13th with R6 signals until sign off at 1:52 a.m. (Jewell—Calif.)

Uruguay

CXA-8 on 9640 kcs. at Colonia is heard with a program of popular records at 6:15 p.m. on Wednesdays. Both Colonia and Buenos Aires are mentioned freely on the program. (Laudansky—Mass.)

CXA-19 on 11710 kcs. "Difusora El Espectador" at Montevideo was heard approximately 5 or 6 p.m. until 9 p.m. with the best signal around 6 p.m. CXA-19 relays "Radio Prieto" of Buenos Aires. (Skyten—Mass.) New CXA-5 on 9485 kcs. has also been heard several evenings to sign off at 8:30 p.m. (Skyten—Mass.)

U. S. A.

Six months will be allowed the United States International Broadcast stations not already using 50 kilowatts or more, in order that they may comply with the ruling that all such stations have a minimum power of 50 kw.

WPIT, WRUL, WCBX, KGEI, WGEA, WNBI, WRCA, and WRUW have construction permits to increase to 50 kw., while WLWO, and WGEO are already using a power higher than the minimum requirement. WCAB, WDJM, and WBOS have not yet made application for increase in power to the minimum limit.

Recent FCC rulings on international stations: WRUL gets full time on 6040 kcs. as WDIM has been deleted by the FCC. The latter station sold its equipment to WRUL. WPIT in Pittsburg is to move to Hull, Mass., present site of the new WBZ transmitter.

KGEI has changed its early morning frequency from 9530 kcs. to 9670 kcs. with much increase in signal strength. (Jewell—Calif., Bender—Penna.)

WBOS on 9570 kcs. verified with a postal type card, printed in black with call in red across the middle. They operate daily from 3 p.m. to 2 a.m. (Stephenson—Okla.)

WRUL on 15250 kcs. have been broadcasting every morning this week to the Orient from 8-9 o'clock. Announcements are in English and in some Oriental language. (Webb—Texas)

U. S. S. R.

2 RAN on 960 kcs. is heard at 6 p.m. with an English program. QRM is bad at times. (Jewell—Calif.)

RIA on 11705 kcs. is a new station at Moscow heard with news in English at 3 p.m. in parallel with RV-96 on 15182 kcs. (Skyten—Mass.)

RKI on 15040 kcs. is heard nightly with English broadcasts from 7-8 p.m. in parallel with RV-96 on 15180 kcs. and RNE on 120000 kcs. (Laudansky—Mass., Stroh—Ont., Taylor—Mo., and McMahon—N. Y.) RKI is heard from 11:45 a.m. to 1:30 p.m. in Swedish. (Skyten—Mass.)

RV-96 on 15180 kcs. can be heard at almost any hour of the day or night. However, most of the programs are weak except for the English program at 7 o'clock. Can anyone tell me if this station has two calls? I heard them announce as RW96 on a program relay to New York, and I find them listed as RV96. (Webb—Texas) RW96 on 15182 kcs. and RV96 on 15410 kcs. are heard simultaneously with program in Spanish at 8:15 p.m. (Skyten—Mass.) The latter report ought to partially answer Webb's question (RL).

RV-15 on 4273 kcs. at Khabarovsk heard at 8 a.m. with program in English by a female announcer. (Jewell—Calif.)

RWG on 14720 kcs. at Moscow is a new station being heard from 7:30-8 a.m. with a program in Finnish. A woman announces usually. (Skyten—Mass.)

Another new (but unidentified) Moscow is being heard on 15690 kcs. daily 1:30-4:30 p.m. and irregularly at other times. News in English is given at 1:30 p.m. This station usually is in parallel with RW96.

Another new (unidentified) Soviet station on about 10170 kcs. is heard several times from 5:30-6 p.m. with program in English simultaneously with RV-96. It may be RIO, a phone station, at Baku relaying Moscow. (Skyten—Mass.)

Vatican City

HVJ on 11740 kcs. now radiates programs for North America on Sundays and Thursdays from 8:30-9 p.m. (Williams—N. J., McMahon, N. J.)

Venezuela

YVQ on 13337 kcs. at Maracay heard testing at 5:05 p.m. (Kastner—Texas)

YV1RO on 4780 kcs. at Trujillo heard signing off at 10 p.m. (Jewell—Calif.)

YV5RA on 4830 kcs. in Caracas heard with recordings until sign off at 10:30 p.m. (Jewell—Calif.)

YV5RM on 5010 kcs. also operates YV5RB on 1200 kcs. Veri is a white card with red call letters and black printing. (Laudansky—Mass.)

YV5RW on 3400 kcs. at Caracas was heard signing off announcing as "Radio Tropical". (Jewell—Calif.)

YV5RU on 5835 kcs. "Estudios Universo" verified as YV5RR relaying YV5RS on 1320 kcs. This conflicts with Radex listing. Is this an old veri or a new call. (Laudansky—Mass.)

Yugoslavia

YUG on 15240 kcs. at Belgrade has been the only station from Belgrade heard here in several months. YUG is strong from 8-9:30 p.m. (Jewell—Calif.)

YUE verification is a postcard with verification message. (Carroll—N. J.)

Radex Reporters

- R552: M. F. Williams, Newark, N. J.
 R615: Edward F. Shirley, Jamestown, N. Y.
 R786: Bob Skyten, East Brookfield, Mass.
 R834: G. R. Jewell, Jr., San Diego, Cal.
 R1088: Ralh Kastner, New Braunsfels, Texas.
 R1132: C. R. Bender, Pittsburgh, Pa.
 R1412: Mrs. Helen Lind, Lakewood, Ohio.
 R1470: 2Jack Stephenson, Oklahoma iCity, Okla.
 R1497: Cyril J. Herwig, Muscatine, Iowa.
 R1683: Charles L. Carroll, Rahway, N. J.
 R1724: Frank J. Kosik, Chicago, Ill.
 R1757: Wm. McMahon, Glen Cove, N. Y.
 Wm. Cunningham, Holywood, Cal.
 Fred W. Grant, Detroit, Mich.
 Edward Laudansky, Dorchester, Mass.
 Meredith Stroh, Kitchener, Ont.
 Bill Taylor, Kansas City, Mo.
 Pat Webb, San Antonio, Texas.

Amateur Calls Heard

The names and addresses of persons reporting the stations are indicated by small letters following the call signs. Key to the small letters is given at the end of the column.

Ten Meters

CE2BX (c); CE3AA (d); CO2AM (d); HC1JB (d); HI5G (d); HK1AT (c); HR5C (d); K4FC (d); K4FC (d); K4FOW (cd); K4GIG (BD); K4GPS (c); K5AT (c); K6LKN (c); K6MVV (cd); K6MXM (c); K6NYD (c); K6OQM (c); K6OTH (c); K6PAS (c); K6PIR (c); K6PLZ (c); K6PPS (c); K6PRR (c); K6PTW (c); K6PUL (c); K6REF (c); K6SHG (c); LU1BA (d); LU5AN (d); LU7BU (d); NY4AD (cd); OQ5AB (c); OQ5IN (d); TI3AV (c); XE1GG (d); XE2AF (bd); XE2IK (d).

Twenty Meters

CE1AB (bcgh); CE1AC (bc); CE1AD (ab); CE1AL (b); CE1AM (ghi); CE1AO (i); CE1AP (c); CE1AR (abcdfg); CE1AS (abcgi); CE1AX (d); CE1BC (abcdh); CE1DW (h); CE2BG (d); CE2BV (b); CE2LR (h); CE3AJ (c); CE3AW (h); CE3BC (a); CE3BK (c); CE3BW (a); CE3BX (d); CE3CA (h); CE3CB (d); CE3CE (d); CE3CG (d); CE3CK (c); CE3CO (a); CE3CW (b); CE3CZ (abgi); CE3DW (abcghi); CE3EE (d); CE3WW (h); CE2AR (b); CO2AW (a); CO2BA (cfi); CO2BG (i); CO2BL (aci); CO2CC (ci); CO2CO (abhi); CO2DA (f); CO2DR (bh); CO2GL (abci); CO2GO (ac); CO2VG (b); CO2GY (acfi); CO2HY (i); CO2JJ (bghi); CO2JM (i); CO2KP (i); CO2LA (bi); CO2LG (c); CO2LY (cfgi); CO2MA (b); CO2MG (aghi); CO2MV (h); CO2RO (b); CO2RR (bc); CO2RS (h); CO2RZ (ch); CO2SV (bci); CO2UF (bh); CO2VG (h); CO2VK (bchi); CO2WM (i); CO2WX (c); CO2XF (bc); CO2XY (b); CO2YN (f); CO2YW (bc); CO5AS (a);

CO6OM (bcgi); CO7AB (c); CO7AS (bhi); CO7CX (b); CO7VP (bcgi); CO8JK (bci); CO8MP (bh); CO8VZ (i); CP1BA (c); CP1XA (g); CP2AC (c); CR6AF (b); CX2AC (cg); CX2BK (c); CX2CO (bdgi); CX2CR (a).

EA7BA (bcdei); EA9AH (e); EA9AI (eg); EA9EI (b); EK1AF (bde); ES5D (bd); F8GO (deg).

HA3B (b); HA6T (e); HA7P (eg); HA9Q (h); HC1FG (d); HC2CC (bc); HC2HC (d); HC2HP (bcd); HH2AB (f); HH2B (abci); HH2H (a); HH2HB (abegi); HH2X (c); HH4AS (bcgi); HH5PA (bfi); HI2L (a); HI3L (a); HI3N (bfi); HI5X (hc); HI6Q (bcgh); HK1AC (bd); HK1AT (bd); HK1AW (bd); HK1PAA (cdi); HK3CC (bd); HK3CI (cd); HK3CK (c); HK3CV (b); HK3CY (i); HK4AF (b); HK5DF (c); HK4DJ (bcdi); HK4DK (dgi); HK4WA (b); HP1A (i).

J2CR (a); J2XA (a); J5CW (e); KA1AZ (a); KA1BB (cdg); KA1CW (g); KA1ER (c); KA1FH (cdg); KA1HG (a); KA1HQ (ac); KA1HR (a); KA1JB (gh); KA1JH (cd); KA1LB (b); KA1ME (bcdg); KA1OZ (g); KA1RB (g); KA1RV (b); KA3KK (cg); KA4LH (bcdgh); KA7EF (c); KA7FS (ch); KB6ILT (h); KC4USA (dfi); KE6FRA (a); KF6JEG (abeg); K4DDS (g); K4DSE (bfhi); K4EGP (f); K4EMG (b); K4ENP (a); K4ENT (bi); K4FAB (i); K4FCG (bci); K4FKC (ahi); K4FKZ (a); K4FSP (ai); K4GSG (i); K5AP (fi); K5AT (bc); K6BNR (abd); K6CIB (b); K6FRZ (h); K6FVL (d); K6GAS (ab); K6ILW (bd); K6IQN (abg); K6KGA (adg); K6KQK (a); K6KRG (h); K6LCV (cgh); K6LEJ (abc); K6LKN (cd); K6LVV (c); K6LAB (a); K6MV (a); K6MVA (abdghi); K6MXM (bi); K6NBA (d); K6NYD (acdf); K6OJI (gi); K6OQE (abgh); K6OTH (d); K6PAS (adg); K6PLZ (adi); K6PMG (d); K6QHU (bcdi); K6QUE (b); K6QYI (h); K6RLY

(f); K6SIZ (h); K6SPS (ch); K6SRZ (bh); K6SVF (b); K7AZS (b); (b); K7BUB (eh); K7CBF (d); K7GNS (a); K7GNU (a); K7GTH (a); K7GZH (a); K7HCX (h); K7HAR (a); K7HCX (a); K7ZTT (a).

LU1AC (a); LU1BA (d); LU1HB (c); LU1JC (di); LU1QA (ci); LU1SA (h); LU2BA (a); LU2BE (b); LU2BG (adg); LU2CK (g); LU2MA (h); LU4BA (g); LU4BC (abd); LU4BH (abghi); LU4DJ (b); LU4HE (h); LU4HK (d); LU4KA (bdi); LU5AN (d); LU5CK (d); LU5CZ (bg); LU5DD (g); LU5DN (d); LU5MB (c); LU6OL (a); LU7BH (b); LU7BK (adg); LU7HE (c); LU8AB (acgi); LU8DP (h); LU8HB (a); LU8JT (h); LY1AA (g); LY1J (dg); LY1S (gi); OA3B (h); OA4AI (d); OA4AL (dg); OA4AW (h); OA4C (ad); OA4L (c); OA4R (abd); OA4RE (d); OA7A (a); ON4A (d).

PK1OG (de); PY1AG (d); PY1IM (bdhi); PY1MA (g); PY2AC (abgi); PY2AR (a); PY2CK (bi); PY2ER (i); PY2ET (c); PY2FO (g); PY2IT (bcgh); PY2JK (h); PY4BK (hi); PY4EJ (c); PY5AQ (di); PY7AD (h); PY7AI (bcgi); PY7AO (d); PY8AE (b).

TG9BA (bcfgi); TI2AB (i); TI2AC (bc); TI2AD (h); TI2AO (c); TI2AV (g); TI2CH (h); TI2EV (h); TI2FG (i); TI2LR (ach); TI2RC (b); TI2RX (g); TI4JG (a); TI5JRS (ch); TI6HP (c).

XE1AC (acgi); XE1AM (ch); XE1BP (h); XE1BY (h); XE1CA (h); XE1CH (ch); XE1FT (abh); XE1GG (bgh); XE1IZ (a); XE1JJ (h); XE1JW (h); EX1LK (abchi); EX1LL (h); XE1MF (c); XE1O (c); XE1Q (h); XE2AF (bc); XE2AN (h); XE2AQ (a); XE2AS (b); XE2AY (a); XE2BQ (f); XE2CN (ah); XE2DQ (b); XE2FK (h); XE2FT (h); XE2FX (h); XE2GO (h); XE2GS (acfh); XE2HB (af); XE2HY (c); XE2IK (b); XE2IZ (h); XE2KA (abh); XE2ZZ

(b); XE3AX (b); XE3BK (ah); XE3F (cfh); XE3X (h); XUoA (a); XU8AN (a); XU8RA (a).

YF1MF (a); YNU1 (abc); YNI1P (i); YN1MS (g); YS1BJ (e); YS1JGM (h); YS1MS (c); YS1OI (h); YS1S (a); YS3PL (h); YU1JG (a); YVAA9 (g); YV1AD (c); YV1AG (i); YV1AP (c); YV1AQ (bc); YV1AV (bc); YV4AB (i); YV4AE (abcg); YV4AY (g); YV5ABE (c); YV5ACA (d); YV5AVE (b); YV5AGG (hi); YV5ACH (ch); YV5AE (b); YZ1AZ (a).

The Reporters

- (a) George Boscawen, San Francisco, Calif.
- (b) Sterling Fisher, N. Tarreytown, N. Y.
- (c) Ralph Kastner, New Braunfels, Texas
- (d) James Kavanaugh, Ft. Wayne, Ind.
- (e) W. J. Knouff, Columbus, Ohio
- (f) Frank Kosik, Chicago, Ill.
- (g) James Reilly, Bayside, N. Y.
- (h) Weston Richards, Zion, Ill.
- (i) Walter E. Welch, Lynn, Mass.

The Radex Club

At the present moment The Radex Club boasts a membership of 1788 DXers, from every state in the Union, all the territories, every Canadian province except Prince Edward Island, and twenty-six different countries. There are at least five members in forty of the forty-eight states; the only states with less than five members are Arkansas (3), Idaho (3), Mississippi (4), Nevada (1), North Dakota (4), South Carolina (3), South Dakota (3) and Utah (4). Alaska and Hawaii have more than five members; there are four in the Canal Zone, two in the Philippines, and one each in Puerto Rico and the Virgin Islands.

In addition to Canada and the United States, members of The Radex Club are found in Newfoundland, Australia, Bahamas, Bahrian Island, Chile, Costa Rica, Cuba Dominican Republic, France, Great Britain, Guatemala, Haiti, Honduras, Italy, Mexico, New Zealand, the Union of South Africa, Venezuela, Bermuda, Netherland Antilles, Colombia, Hong Kong, Spain, Jamaica, Brazil and Sweden.

Anyone who is interested in DXing may join the Radex Club. There are no obligations and no fees. Just send your request for membership on a postal card and we will send your membership card.

V. A. C.

The VAC awards of The Radex Club are "different." A series of six plaques each different, suitable to hang on the wall of the radio den, is awarded to listeners who verify all continents. But (and herein they are different from other awards), the plaques may be obtained one at a time. If you have verified only one continent, you may get a plaque for that continent. Any DXer who hears a radio station can qualify for at least one of these awards, and they are available whether you tune the broadcast band, the shortwave bands or the amateur bands. And the nominal charge of ten cents each just covers the cost of mailing them to members and returning the verifications which are submitted as required.

To get these VAC plaques, one verification from each continent is required, except that three veries from the continent on which you live are required for your own continent's plaque. Thus, members living in North America can send one verification for Europe, Asia, Africa, South America or Oceania, and three for North America. The three veries from your own continent must be from three different countries.

QUESTION:

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The Continents

NORTH AMERICA: Includes the countries of Canada, Newfoundland, Greenland, The United States, the Territory of Alaska and all the Aleutian Islands, the countries of Central America, Bermuda, all the countries of the West Indies, i. e., the Bahamas, the Greater Antilles, the Lesser Antilles, the French West Indies, the British West Indies, but not the Netherland Antilles. In the Pacific Ocean, the Cocos and Clipperton Islands are included in the continent. Through the Bering Sea to the North Pole the continental boundary follows the International Date Line.

SOUTH AMERICA: Includes the entire mainland, and the Netherland

Antilles to the north. In the Atlantic Ocean the several islands belonging to Brazil are included, as are the Falkland Islands. In the Pacific Ocean, the Galapagos and the several islands belonging to Chile are included.

EUROPE: Includes, to the north, Novaya Zembla, Spitzbergen and Iceland. In the Atlantic Ocean, the Azores are included. In the Mediterranean Sea, the following islands are considered as European: Sardinia, Balearics, Corsica, Malta and Crete. The eastern boundary of Europe starts in Kara Bay, continues southward, through the Obdorsk Mountains, the Ural Mountains and the Ural River, to the Caspian Sea, then through the Caucasus Mountains to the Black Sea.

AFRICA: Includes none of the Mediterranean Islands. In the Atlantic Ocean, it includes the Madeiras, the Canaries, the Cape Verdes, Ascension and St. Helena. In the Indian Ocean, Madagascar, the Seychelles, Reunion, Mauritius, and Rodriguez. Africa's eastern boundary goes through the Suez Canal the Red Sea and the Gulf of Aden.

ASIA: The western boundary of Asia is the same as the eastern boundaries of Europe and Africa. All the islands in the Arabian Sea are included in Asia, as well as those in the Bay of Bengal. Asia's eastern frontier includes all of Japan, the island of Taiwan and Hong Kong Island. From Taiwan the boundary passes through the South China Sea to Singapore, then through the Malacca Straits to the Bay of Bengal.

OCEANIA: Includes Australia and New Zealand, and the so-called Islands of the Pacific, extending as far north as the Hawaiian Islands, which are included. The Philippines and all the Netherland East Indies are considered as part of Oceania.

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.

Some persons describe radio signals further by employing the S and X symbols, S to indicate fading and X to indicate static, in this manner:

S is slight fading.

SS is deep fading.

SSS is a complete fadeout.

R is rapid fading (fluttering).

X is slight static.

XX is bad static.

XXX is very heavy static.

The letter N indicates that either fading or static was not present.

These symbols are written like this:

(a) QSA5, R7/S/XX

(b) QSA4, R7/N/N

Example (a) means that the station had a perfectly understandable signal at moderately strong volume, with slight fading and bad static. Example (b) means the station was easily understandable at quite strong volume, no fading and no static being present.

The Right Seasons

In general, listeners find reception of South Americans best during Octo-

ber, November, February and March. Most frequently heard are stations in Argentina, Brazil, Colombia and Venezuela.

During these months, DXers can usually start dialing for South Americans at sundown, and for the next couple hours reception is at its peak.

The Australian and New Zealand stations are heard during the same months as the South Americans—namely, October, November, February and March. On the west coast they are heard during the mid-winter months as well.

The European stations start to come through during November and continue through December and January. These signals are not as strong as South Americans, but they do make a good showing along the Atlantic seaboard, particularly in the Middle Atlantic and New England states, and in the Maritime Provinces.

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This Hobby Called DXing

An outline of The Art of Tuning and The Art of Hearing, wherein the new tuner for distance will find many facts which will aid him in the enjoyment of the full possibilities of his radio receiver. In short, we present herewith "The Art of Tuning in a Nutshell".

DXing, like many other hobbies, has many subdivisions. There are some who tune only the broadcast band, others who tune the short-waves, some who prefer the amateurs, and many who tune on all the bands, but regardless of whatever art of the vast radio spectrum has aroused your interest, there are thrills galore awaiting you. Let us learn how to cash in on this fun.

The modern radio receiver is designed so that no previous experience or special skill is required to operate it successfully, but its full possibilities can be enjoyed only if one is reasonably familiar with the general characteristics of transmission on the high frequencies.

Shortwave transmission and reception is not governed by fixed laws of nature, but by many flexible conditions over which man has no control. The sun and sun spots, as well as layers of ionized particles in the earth's outer atmosphere have their effects, as well as the differences in seasons and the times of day.

Operators of broadcasting stations are familiar with most of the vagaries of reception, and broadcasts are planned on frequencies and with directional aerials which assure dependable reception regardless of the season. A study of the schedules of the British Broadcasting Corporation stations, for example, will show that their higher frequencies are used in the summer time, and as winter comes the higher frequencies are discontinued and lower ones substituted.

This is because it has been found that reception near six megacycles (a comparatively low frequency) is best in the winter time, when darkness covers the entire path between transmitter and receiver. Fifteen megacycles, on the other hand, being a high frequency, is exceptionally good in the summer and comparatively poor in the winter.

It has also been found that the higher frequencies are better in the day time, and that lower frequencies have to be employed at night for good reception.

Skip Distance

Transmitted signals of any frequency are known to divide into two components, the "ground" wave and the "sky" wave. The former remains close to the earth's surface and provides reliable service only over short distances from the station. The sky wave, however, travels into the higher layers of the atmosphere and is reflected to the earth's surface at a considerable distance from the station. The sky wave does not return within the area covered by the ground wave, and the region between the area covered by the ground wave and that covered by the sky wave is known as the "skip distance," a dead-spot region within which reception is impossible or unsatisfactory.

The length of the skip distance varies with the frequency of the broadcasting station. Thus it has been learned that reception on six megacycles is most reliable when the station is at last 300 miles or more

away, and good reception is enjoyed on this band from great distances when a large part or all of the path of the transmission lies in darkness.

Stations near nine or ten megacycles in frequency are most reliable when heard over distances greater than 800 miles. Good reception in this band, from distant stations, is possible both in the daytime and at night.

For favorable reception on eleven megacycles the stations should be at least a thousand miles away. This band is best during the daytime but distant stations can be heard until midnight, especially in the summer time.

A distance of 1500 miles between transmitter and receiver is most satisfactory for reception on fifteen megacycles. Daytime is most favorable for their transmission.

The Units

The units of measurement of frequencies, wavelengths, and power are frequently used in RADEX, and a knowledge of these units is indispensable.

Radio waves travel with the speed of light, which is 186,000 miles per second, or 299,820,000 meters per second. By the "frequency" of a station we mean the number of pulsations which that station produces within one second. The speed of radio is so great, however, that "cycles" are produced by the millions and it is more convenient for us to use terms which are multiples of a cycle. These terms are the "kilocycle," which is equal to 1000 cycles, and the "megacycle," which is equal to 1,000,000 cycles, or 1000 kilocycles. A frequency of 1,000,000 cycles can therefore be expressed as 1000 kilocycles or 1 megacycle.

The correct abbreviation for the kilocycle is kc-s, which really means "kilocycles per second." A unit called the Hertz is sometimes used (usually

in Europe) which includes the time element; a kilohertz (abbreviated kHz) is a kilocycle per second.

The abbreviation for megacycles is megs. When megacycles are shown, they can be converted into kilocycles by changing the decimal point to a comma. Ex: 5.900 megs. — 5,900 kcs.

The wavelength of a station is the length, in meters, of each cycle. The use of the term "wavelength" and its measurement, "meters," is nearly obsolete, especially in this country, and is avoided in RADEX.

The amount of power that a station uses is expressed in watt, and 1000 wats is a kilowatt.

Call Letters

All the countries in the world use call letters which consist of certain groups of letters which have been allotted to them by international agreements. Thus the country in which a radio station is located can always be known by the initial letters of the call sign.

The Spanish Alphabet

A knowledge of the Spanish alphabet is very helpful in identifying the many Spanish-speaking stations which are heard. It may look difficult, but it is really very easy to understand the letters when pronounced in Spanish, and many shortwave listeners agree that, many times, the call letters are more easy to understand accurately in Spanish than in English.

Requesting Verifications

Nearly all radio stations welcome reports of reception from their listeners, and usually acknowledge these reports with verifications, which may be letters or cards. This practice started years ago when listeners had to have something tangible from a radio station in order to prove to their skeptical friends that the broadcaster had actually been heard.

Now-a-days one's friends are not as skeptical as they used to be, because the possibilities of long distance reception are fairly well known to most persons, but the practice of collecting cards has continued, and this hobby in itself is considered by many to be as interesting as the actual logging of the stations.

Among radio fans verifications are known by many names, such as "veries," "confirmations," or "QSL's." Amateurs frequently call them "wall-paper" because they are used to decorate the walls of the radio den.

It should not be necessary to state that DXers should never request a verification from a station until the station has been positively identified.

When writing to radio stations, it is necessary to give two different kind of information. First, the report should include enough information about the program heard to enable the station to recognize its program, and second, as much technical information as possible should be submitted so that the report will be of some value to the station operators. Data on weather conditions, signal strength and interference, to mention only a few things, are important to engineers, as through such information they are able to study their transmission effects. Many times such

information has been very helpful in pointing out how transmission may be improved.

In fulfilling the first requirement (program details) listeners are cautioned to be as accurate as possible in reporting time. The time should be correct to the half minute, or even the quarter minute, if possible. When reporting to stations in the United States, it is always a good idea to convert the time to the standard time used at the stations. When reporting to stations in South America, Eastern Standard Time, is generally understood. Regardless of what time is used in the report, however, the reporter should be sure to mention it.

When sending reports to countries overseas, the listener should convert his time to the time used at the transmitter, or if that is not possible, he should convert to Greenwich Mean Time.

Greenwich Mean Time is the time system in which noon occurs at the time the sun passes over the meridian of Greenwich, England, and the standard times of nearly every locality in the world are calculated to agree with Greenwich in minutes and seconds, and to differ in hours only by whole hours. While the true sun time of New York City, for example, is 4 hours and 56 minutes slower

A--ah	H--ah-chay	O--oh	U--oo
B--bay	I--ee	P--pay	V--vay
C--say	J--ho-tah	Q--koo	W--doo-ble-vay
D--day	K--kah	R--air-ray	X--ck-key
E--ay	L--el-lay	S--ess-say	Y--yay
F--ef-fay	M--em-may	T--tay	Z--zed
G--hay	N--en-nay		

The Spanish numerals, also very important, are:

1--oo-no	4--koo-ah-tro	7--say-tay	10--dee-ayth
2--dose	5--theeng-ko	8--oh-cho	
3--trace	6--sase	9--noo-ay-ve	

than Greenwich, the standard time (EST) is exactly five hours slower than GMT. Since Greenwich has been adopted as the standard international time, it is universally understood, and your report expressed in GMT will be comprehended, regardless of the country to which it might be sent.

The names of all musical numbers recognized should be given, and unfamiliar musical items can be described, as "fox trot," "tenor solo," "stringed instruments," etc. Whenever possible the names of advertisers sponsoring programs should be mentioned, and all announcements should be transcribed, as nearly verbatim as possible.

The Signal Data

That the report may be of some value to the station it is necessary that the writer mention, truthfully, how well the station is heard, describing volume by the R Code, quality by the QSA Code, and hazards, such as interference, static or fading, by the S, X and N symbols.

Prepaid Postage

When writing to overseas stations it is customary to enclose return postage in the form of International Reply Coupons. These can be procured for nine cents each from any post office, and can be exchanged in any country which is a member of the International Postal Union for postage stamps sufficient to mail a first class letter to this country.

When buying Reply Coupons, be sure that they are correctly postmarked in the circle on the left side of the coupon.

For the convenience of DXers, there has recently been inaugurated a return postage bureau, from which unused postage stamps of many foreign countries may be purchased. Those who are interested can obtain more information by writing to the

Return Postage Bureau, 85 Francisco Ave., Rutherford, N. J.

The Broadcast Band

The reception of a foreign station on the standard broadcast band is undoubtedly the greatest of all radio thrills. It is an achievement comparable to a hole in one on the golf course or a homer with the bases loaded, on the diamond. While foreign reception is admittedly difficult, it IS possible, and nearly all listeners have a few potential South Americans, trans-Pacifics or trans-Atlantics playing on their aerials during the course of a winter season.

It goes without saying that highly efficient equipment is a primary requisite for foreign reception. The average set of eight, ten or twelve tubes can do wonders if it is properly aligned, if its tubes are in perfect condition and if it is fed by a good aerial. Of course, if the best possible results are expected and the expense is of no moment, the highly sensitive laboratory-built receivers offer the best possibilities for real DX reception.

A signal from a foreign station is very insignificant and unobtrusive after it has travelled a few thousand miles. As a rule the DXer has to fight quite a battle before capturing his station. He has to be the personification of patience and perseverance. He must know how, where and when to tune.

For a more complete discussion on the Art of Tuning and the Art of Hearing, readers are referred to the October, 1938, issue of this magazine.

The International Prefixes

Afghanistan	YAA-YAZ	Dominican Republic	Netherlands	PAA-PIZ
Alaska	K7		HIA-HIZ	Netherland East Indies
Albania	ZAA-ZAZ	Ecuador	HCA-HCZ	PKA-POZ; YBA-YHZ
Algeria	F	Egypt	HCA-HCZ	Newfoundland VOA-VOZ
Andorra	PX	Ethiopia	I	New Hebrides YJA-YJZ
Angola	CR6	Fiji Islands	VPA-VSZ	New Zealand ZKA-ZMZ
Antigua	VP2	Finland	QFA-OHZ	Nicaragua YNA-YNZ
Argentina	LOA-LWZ	France	F; TKA-TZZ	Norway LAA-LNZ
Ascension	ZD8	French Indo-China	F	Panama HPA-HPZ
Australia	VHA-VMZ	Germany	D	Paraguay ZPA-ZPZ
Azores	CT2	Great Britain	G; M	Persia EPA-EQZ
Bahamas	VPA-VSZ	Greece	SVZ-SZZ	Peru OAA-OCZ
Bahrian Island	VS8	Guatemala	TGA-TGZ	Philippines KA
Belgium	ONA-OTZ	Haiti	HHA-HHZ	Poland SOA-SRZ
Bolivia	CPA-CPZ	Hawaii	K6	Puerto Rico W
Brazil	PPA-PYZ	Honduras	HRA-HRZ	Portugal CSA-CUZ
British Guiana	VPA-VSZ	Hedjaz	HZA-HZZ	Roumania YOA-YRZ
British India		Hong Kong		Salvador YSA-YSZ
	VTA-VWZ; XYA-XZZ		VPA-VSZ; ZBA-ZJZ	Siam HSA-HSZ
British Malaya		Hungary	HAA-HAZ	Spain EAA-EHZ
	VPA-VSZ; ZBA-ZJZ	Iceland	TFA-TFZ	Surinam PZA-PZZ
Bulgaria	LZA-LZZ	India	VTA-VWZ	Sweden SAA-SMZ
Canada	CFA-CKZ; CYA-CZZ; VAA-VGZ; VXA-VYZ	Iraq	YIA-YIZ	Switzerland HBA-HBZ
		Irish Free State	EIA-EIZ	Turkey TAA-TCZ
		Italy	I	Union of South Africa
Ceylon	VTA-VWZ	Japan	J	
Chile	CAA-CEZ	Kenya	VPA-VSZ	
China	XGA-XUZ	Latvia	YLA-YLZ	ZSA-ZUZ
Costa Rica	TIA-TIZ	Liberia	EIA-ELZ	U. S. S. R. R; U
Cuba	CLA-CMZ; COA-COZ	Lithuania	LYA-LYZ	United States K; N; W
Curacao	PJA-PJZ	Luxembourg	LXA-LXZ	Uruguay CVA-CXZ
Czechoslovakia	OKA-OLZ	Madagascar	F	Vatican State HVA-HVZ
Danzig	YMA-YMZ	Mexico	XAA-XFZ	Venezuela YVA-YWZ
Denmark	OUA-OZZ	Morocco	CNA-CNZ	Yugoslavia YTA-YUZ

Radexing with the Radexers

By Ray La Racque

First, a word in behalf of the **prize** contest being conducted by the publishers of RADEX, in order to determine the DX Champion of the 1940-41 DX season. We want you, the standard broadcast fans in the Central and Eastern time belt to make a very good showing in the contest. To stimulate such sectional interest we will be glad to publish the scores of the DXers in this group each issue, while the grand scoring will appear bi-monthly in another department of RADEX.

Now to get back to the Supremacy ratings. As a reminder, may we again state that supremacy listings are for verifications received by the DXers, and are not merely totals of stations heard. Several entries this month could not be accepted because they gave their totals in stations logged and not stations verified.

SUPREME SUPREMACY: For the total number of stations verified—not heard:

Becker—Ohio	1309
Botzum—Penna.	1165
Forestieri—N. Y.	1028
Horton—Mass.	981
Barnes—Ill.	968

BEGINNER'S SUPREMACY:
Total number of stations verified by DXers who have been DXing two years or less.

Richards—Ill.	14 mo.	286
Metclaf—Ohio	6 mo.	269
F. Lee—N. J.	16 mo.	223
T. Lee—Ga.	7 mo.	127
Grannes—Calif.	11 mo.	116

OLD TIMER'S SUPREMACY:
For the oldest dated verification.

Podall—Vt.	Nov. 1916
Barnhart—Penna.	Feb. 1923
Jordan—Penna.	Aug. 1924
Causse—Penna.	Mar. 1925
Balt—Ill.	Sept. 1927

COUNTRIES VERIFIED SUPREMACY: For the highest total of

Readers living in the Eastern and Central Standard Time ones may send their reports direct to

Ray LaRocque
4 Wachusett St.,
Worcester, Mass.

countries verified.
operating station has been verified.

Reichardt—Mass.	55
Botzum—Penna.	39
Jordan—Penna.	32
Lippincott—Me.	27
Becker—Ohio	27

U. S. SUPREMACY: For the highest total of states in which every

Botzum—Penna.	41
Becker—Ohio	40
Walker—W. Va.	29
Barnes—Ill.	22
Lippincott—Me.	7

SUPREMACY FOR NORTH AMERICA: For the most states of the U. S., provinces of Canada, states of Mexico, and other individual countries in North America—each small country to be classed as a state.

Botzum—Penna.	81
Becker—Ohio	77
Barnes—Ill.	73
Daneker—Penna.	72
Lippincott—Me.	71
Walker—W. Va.	71

Due to a misinterpretation of his letter, Bob Botzum's score in the Supreme Supremacy last month was incorrectly listed. It should have been 1160 and not 825.

THIS 'N' DATA

Ramon Beteta, Mexican Under-Secretary of State, has announced that licenses of all high power border stations, as a result of the Havana Conference, will expire when this pact becomes effective. It would seem, from the above, that we will no longer be irked by the speeches of Brinkleys, Bakers, etc., over

XERA, XENT, XEAW etc. It is to be determined just how many stations this ruling will effect, for there are many others of smaller power which may get the axe under this ruling, too. Credit this little item to Jack Stephenson of Oklahoma City. . . . Listeners desiring to log Wyoming will soon have a new target. The Frontier Company will operate the station on 1420 kcs. with 100 watts night, 250 watts daytime, in the city of Cheyenne. . . .

Eugene Francis wonders—where else in this country can five broadcasting station transmitters be seen at one time. He speaks of Carlstadt, New Jersey where are visible WNEW's majestic single tower, WIN's twin towers, the new triple towers of WBNX. Far to the South, can be seen those of WOV and WOR. . . . Well, not far from our own listening post there are four transmitters visible. North of here are the triple towers of WTAG along side of FM station WXTG. Then high atop Mt. Asucumskit in Paxton can be seen the single tower of the Yankee Network's WIXOJ, another FM broadcaster. Then to the South, WORC's twin towers are easily visible.

For A. G. Schleiter, of Rochester, Penna., in answer to a query about the proposed shift in frequency of broadcasting stations in accordance with the Havana Conference, December 1, 1940 has been set as the date for the change. . . . Some stations still send Ekko stamps for return postage, for instance K M B C, WQDM, WQBH, WJY, KGB, KFH, WQAN, and WAAB. This from Eugene Francis of the Bronx.

The old question of how to count a station in your log book comes up again. Here's still another version. Phil Potter of Washington, R. I. says the changes in call letters should be counted as two stations. "For instance" says Phil, "WREN and

KFFU" in Lawrence, Kansas. Both use the same power, transmitter, and network, yet wouldn't you verify them as two stations? They really are the same in technicalities, however, and would be the same station except for call letters, so if and when WJKS changed to WIND it really amounted to the same as the former explanation. . . . The revival of this old problem causes us to begin to wonder. Will DXers ever have a uniform system of logging stations? We believe such a situation is possible and can be easily become a fact if—and it's a big IF—if all important clubs of the country were banded together into a powerful organization which would set the standards for DXers and protect the rights and ideals of the DXer. Only by combination of all minor groups into one large group can such a "utopia" for DXers become a reality.

Eugene Francis of the Bronx thinks that New England stations are the most courteous to the DXer. He has found that most of them verify. The same day that the report is received, they usually reply with a personal letter. Examples are WCSH, WCOP, WHAI, WLAW, WNBH, WNAC. Also promptly received were verifies from WHEB, WLNH, WFEA, WQDM, and WCAX—all of which answered by card. . . . D. S. Barnes of Chicago recalls some old timers as he reveals the contents of a log book kept by his father in 1922. Among them were WWS—Pella, Iowa; AVCAS—Minneapolis, Minn.; WLLM—Cedar Rapids, Iowa; WAAC—New Orleans; WLK—Indianapolis, Ind.; WIAH—Newton, Iowa; WGM—Atlanta, Ga.; WDAJ—College Park, Ga.; and WIAR—Paducah, Kentucky.

Moe Luff, 626 E. 179 Street, Bronx, N. Y. wants to know why he hasn't received his CMBS veri yet—it's five months in the mail! All we can say is that for some unknown reason a lot of Cubans do not verify all of the

time. Your letter has to reach them when they're in the mood, so to speak. We suggest you try again. Make out another copy of your report.

Vernon Lee Gibbs, R1767, Jeffersonville, Ky. is puzzled about veries from XEAW and XENT. Some DXers have received them, many more have not. We suppose the same rule outlined above applies here. . . . Also on Radexer Gibb's questionnaire are a mystery Cuban station on 1590 kcs., a Spanish speaking station on 1150 kcs., and a station relaying WWL on about 1760 kcs. . . . Our thanks for additional veri signers go to Radexer George G. Canapp, R907, Baltimore, Md.; and Philippe Bates, R1231, Philadelphia, Penna.

Gerald Harris of Kansas City (R739—Kans. 5) has heard of a WKNE in Keane, N. H. and wants to know if it is WNBX in a new location. . . . David H. Wing-Scobie, Moore Park, Mich. wants help in identifying the member stations of the Central States Broadcasting System, The Illinois-Missouri Broadcasting System, and the Iowa State Broadcasting System, P. O. BOX R9.

SPRINGFIELD, MASS.—Hal Robie, 30 Merritt Street: "Here's just a line or so to tell you of a rather odd experience which I had last winter. As I have mentioned before, I have a small Monarch receiver (six tubes) designed to tune the broadcast band only. In addition to standard broadcast stations I have also heard a number of police, amateurs, coastal harbor stations and a few American shortwave stations. I don't know how it happens that I am able to pick up these signals on my radio, but I heard them frequently all last winter. I once sent a report to WCAB for verification. In their reply their Engineering Department could not understand how it was possible for me to have heard their stations on 1150 kcs., when they were operating on 6060 kcs. They no

doubt felt that I was listening to WCAU on 1170 kcs., but I distinctly heard WCAB announced in several languages—not once but several times!"

EAST VASSALBORO, MAINE—Joseph T. Lippincott: "Latest veries received here are "Radio Alger, YVIRD, YVIRK, Rome I and Rome II." (Joe's friends will be interested to know that he has announced his intentions to marry a very sweet yf from Philadelphia, Joe's home town—RL)

JEFFERSONVILLE, KENTUCKY—Vernon Lee Gibbs: "I have been a RADEX reader for three years so I thought I would write a few lines to you. I think it is the best magazine on the market as I'm a broadcast band DXer—have been listening for five months and like the hobby very much. My log is nearly 700 stations with 25 verifications. I'll gladly correspond with anyone and exchange SWL cards."

BROOKLYN, NEW YORK—Ed Medric, 1302 Troy Avenue: "I thought for a time that my receiver was out of alignment or that my coils were not matched, because WOR which is quite strong in this locality, came in on WJZ, which is of equal power. It also came in almost up to 840 kcs. I thought I was being troubled with images or harmonics, until I found out it was caused by an absorption circuit. My receiver, which has a built in loop, is about five feet away from my bed. The spring is in resonance with WOR—whose signal was being absorbed by the loop. I grounded the spring and it is working normally again!"

LAKEWOOD, OHIO—Alan C. Metcalf: "A correction for your "Time On The Air" listings. WTAM signs off at 1:00 a. m. and not midnight. WGAR is on the air until 2:00 a. m. The best verification I've ever received came from WICC."

HAMILTON, OHIO—Joseph J. Becker, Sr., 415 South 11th Street—

"The Hamilton Nite Owl": "KWFC and WFNC are the only two U. S. A. stations out for verification, and the following eight Spanish speaking stations I have placed on my black list: TIXD, XEAI, CKMZ, XEBZ, CMKH, XEBP, and YSS. All of them received excellent reports and severall follow up letters and all of them asked for reports and promised to verify."

MOBERLY, MISSOURI—Everette B. De Kigne, 318 Allen Street: "I have been somewhat of a radio enthusiast in years gone by. I used to be on the lookout for new stations and distant stations, as well as weak stations in the daytime. I now have a Westinghouse Model 366 using 8 tubes. I hope to be able to secure a communications receiver someday."

COVERING THE CONTINENTS

Domestic Dialings

"K" Calls In The West: KYW is located in Whitmarsh Township, Montgomery County, Penna. The transmitter was built by Westinghouse Electric and Manufacturing Co., and incorporates the most recent developments in transmitter design. (Connie Sidceris, R1740, Oswego, N. Y.)

KFI has been heard after regular sign off time broadcasting Hollywood baseball games. (C. R. Bendes, R1132, Pittsburgh, Penna.)

KVOX, KGDE, KATE, KWNO, KRMC, KDLR, KABR, comprising the North Central Broadcasting System, have joined the Mutual Broadcasting Company. (Gerald Harris, R739-Kans. 5, Kansas City)

KGLU in Safford, Arizona has become the 6th affiliate of the Arizona Broadcasting Co. KVCA is the only station listed as being owned by A. B. C., so I imagine the others, including KGLU, must form a sort of Arizona hook-up or something. Does anyone know who the other four or

five stations are. (David Wing-Scobie, Moore Park, Mich.)

KALB stands for Know Alexandria Louisiana Better, while KLUF stands for the name of the owner, Mr. Clough. . . WNOE contains the last name of the owner—Jimmy Noe. WACO, of course, for the city of Waco, Texas. (Albert Clyde Houtz, R1431, Alexandria, La.)

KFPW was on 1370 kcs. for the F. C. C. check this morning, July 8. . . KFVD was testing on 1370 kcs. this morning, too—at 3:45. Between 4-4:08 a. m. KWK had a quality test. (Sterling Fisher, R1246, N. Tarrytown, N. Y.)

KSAL is now on 1120 kcs. from 1500 kcs. . . KFBI, formerly in Abilene is now in Wichita, Kansas. . . KHBC, through error, was listed in my last report in RADEX as being on 1300 kcs. There was some error as it should have been 1200 kcs. (Merlin Steen, R814, Decorah, Iowa)

KRRV in Sherman, Texas is now on the air full time with Texas State and MBS prgorams. Their new frequency is 880 kcs. with 1000 watts. (Pat Webb, San Antonio, Texas).

"W" Calls In The East: WESG has moved its studios to Ithaca, N. Y. since the Elmira Star Gazette now has its own station. . . WHLD in Niagara Falls, N. Y. operates from 7 a. m. to 8:30 p. m. daily and from 9 a. m. to 9 p. m. on Sunday. . . WTRY in Troy, N. Y. is now on the air. . . WOLF in Syracuse is now on the kilocycles at 1500, with 100 watts, but is not very audible because of interference from WNRB. . . (Charles Garrison-Tioga Center, New York)

WCAE is testing a new 5000 watt ransmitter preparatory to raising their night power. . . WJEJ can be heard from 12:30-1:30 a. m. when 1210 kcs. is practically clear in this vicinity. . . WILM was heard at 11 p. m. but their signal was QRM'd by many stations. . . WARD was heard

at midnight with Irish recordings. . . . WBRY and WQXR can be heard almost every night with strong signals. . . . WBCM was heard signing off at 1:30 a. m. . . . WIRE signs off at the same time as KQV and WJAS—11:30 p. m. . . . When is WHBI used? WNEW seems to be heard every night! (C. R. Bendes, R1132, Pittsburgh, Penna.)

WHN ests its 5 kw. transmitter almost every morning (since the first of the year). No music is played. (Eugene Francis, Bronx, N. Y.)

WPID commenced operations on June 5 at 6 p. m. Schedule will be 7 a. m. to 10:30 p. m. (John L. Tate, Petersburg, Va.)

WSMB in New Orleans becomes the first station on 1320 kcs. kilocycles with a construction permit for 5000 watts, unlimited time. (Gerald Harris, R739, Kans. 5, Kansas City)

WHMA now has 250 watts and full time privileged. They will verify all correct reports by card for return postage. (Vernon Lee Gibbs, R1767, Jeffersonville, Ky.)

WHCU (formerly WESG) began broadcasting on June 3rd. WHCU stands for Home Of Cornell University. . . . WENL in Elmira broadcasts from 7:30 a. m. to midnight via its 400 ft. vertical antenna. The station is a MBS affiliate. (Harold Hancock, Endicott, N. Y.)

WKAR in East Lansing, Michigan has jumped its power to 5000 watts. They were heard in the early morning testing with the increased power, but no noticeable increase was in evidence here. . . . WSAM on 1200 kcs. with 250 watts daytime, 100 watts night are now operating. "The Voice Of Saginaw" or "Saginaw's Own Station" are the slogans generally used for identification. Their schedule is from 8-10 a. m., 2-3:30 p. m., 6-7 p. m. and 10:30 p. m. to midnight on Sundays; 6-10 a. m., 2-3:30 p. m., 6-7 p. m. and 10:30 p. m. to midnight on Mondays, Tuesdays, Wednesdays, and Fridays; 6-10 a. m., 2-3:30 p. m.

and 6 p. m. to midnight on Thursday; and 6 a. m. to midnight on Saturday. (Carl E. Sylvester, R36-Mich. 1, Columbiaville, Mich.)

WJHP, in Jacksonville, will begin operating in about two months. It will be located in South Jacksonville, with studios in the Jacksonville Journal building. (Lawrence Mansfield, 2336 Forbes St., Jacksonville, Fla.)

WBML, the proposed new station in Macon, Ga. will be a member of the Middle Georgia Broadcasting System. (Gerald Harris, R739-Kans. 5, Kansas City)

WAKR will definitely be on the air some time in the fall. F. Bernard Berk of the Summit Radio Corp. announced that it will operate on 1530 kcs. with 1000 watts day and night. The studios will be in downtown Akron with the transmitter south of that city. (Bill Gabriel, Jr., Lakewood, Ohio)

WMBO surely sends a nifty post card. (S. Tellis, R1271, Philadelphia, Penna.)

WSAM heard on a test program, sent a nice letter of verification. . . . WMT became a CBS member on April 28. . . . WKBB is now relaying NBC instead of CBS programs. . . . WLEU, Erie, Penna. have a new verification card which is very nice. . . . KUIN at Grants Pass, Oreg. also have a nice green verification card. (Merlin Steen, R814, Decorah, Iowa)

WSAM's verification is signed by William Siegman, Chief Engineer. (William McGrail)

WBTH states that they are very glad to have reports from listeners. They verify with a letter form. . . . WTOL was heard testing on the second Saturday of the month from 3:30-3:45 a. m. Reports were requested. (Vernon Lee Gibbs, R1767, Jeffersonville, Ky.)

WTRY in Troy is under the same management as WSYR in Syracuse. William A. Ripple is Commercial Manager. (David Wing-Scobie, Moore Park, Mich.)

WLOL in Minneapolis, Minn. is a new station on the MBS Network. (Gerald Harris, Kansas City, Kans.)

WTIJ, WHK, WDBJ, WHAS, WPRO, WJSV, WHEC, WBNX, WJBK, WRC, WJJD, KDKA, and KMOX reply by letter for verification. (Connie Sideris, R1740, Oswego, N. Y.)

WKAT at Miami Beach has joined the NBC blue network—using as a plug announcement, "The Kat Goes Blue"! . . . WKAT is slated to move to 1330 kcs and to increase power to 1000 watts. . . . WIOD has permission for an increase to 5 kw. The change is expected to be completed in the fall. . . . A new 300 ft. tower replacing the present 196 ft. structure is part of the new equipment. WIOD will no longer carry red and blue network programs but will now stick to red programs only. . . . WTMC in Ocala on 1500 kcs. with 100 watts joined the NBC blue network the same time as the Miami Beach station did. . . . WKAT was probably the station heard by T. E. Smith as that station rebroadcasts British news programs. (J. M. Wood, Jr., Miami Beach, Fla.)

WTAG in Worcester has increased to 5000 watts, daytime. . . . Gov. Francis P. Murphy of New Hampshire along with two others has formed the "Radio Voice of N. H., Inc." to operate on 610 kcs. with 1000 watts unlimited time. The Governor owns 90% of the stock. . . . WBZ is moving its transmitter to Hull, Mass. (Roger F. Scott, Whitinsville, Mass.)

WMSD sends a photograph of their new vertical antenna in Sheffield, Alabama. . . . WNLC sends a neat black and white card with call letters in red. (Hal Robie, Springfield, Mass.)

WESG has moved to Ithaca and changed to WHCU on 850 kcs. . . . WOLF is now operating daytime only on 1500 kcs. . . . WHLD is now operating until about 8:30 p. m. evenings. (Roy Woollacott, R1566, Ro-

chester, N. Y.)

WLOG in Logan signs on the air at 7:00 a. m., WHKY at 6:30 a. m., WFNC at 7:00 a. m., WKPT at 6:00 a. m., WARM is off at 1:00 a. m. (Jim Walker, R575, Cass, W. Va.)

WARM in Scranton, Penna. is heard here throughout the day and at night with an R8 signal, with interference occasionally from WRAK. WARM announces as "Your High Fidelity Station, located in the Heart Of The Anthracite Region". . . . WBAB in Atlantic City, N. J. is a member of the Columbia Broadcasting System as was WPG. . . . WLOK in Lima, Ohio is now a member of the NBC Network as are WFMJ and WHIZ. . . . WEST, WAZL, WKBO, WILM and WJEJ are all members of the Mutual Broadcasting System. . . . WHJB on 620 kcs. in Greensburg, Penna. is often heard carry the CBC programs. It is not known whether they are a member of the system. . . . WIP also carries many MBS programs, as heard here. . . . WIBX was heard on a frequency check program, on July 8. In the background was another unidentified station which failed to announce. They played part of the Singing Sam program and many recordings by leading bands. The time was from 3:40-4:05 a. m. Can any other Radexer help identify this station? (Charles Garrison, R1651, Tioga Centre, N. Y.)

WBZ's transmitter at Hull (Near Nantasket Beach) is now in use. . . . WOCB at Hyannis, Mass., on the cape will be ready for operation in October. . . . (RL*—Mas.)

Canada: CKIC is now deleted. . . . CKMX at Vancouver is now using 1000 watts on 950 kcs. (Canadian Dept. Of Transport)

CJCB sends their veri in an envelope on which there are views of the most easterly broadcasting stations on the continent—CJCB and CJCX. The veri is in card form. (Hal Robie, R1691, Springfield, Mass.)

Newfoundland: VONF uses 12000 watts (Eugene Francis, Bronx, N. Y.)

Latin America

CMHI verifies all correct reports with a nice personal letter. . . . CMQ comes in R9 every evening after 7 o'clock. They will verify all correct reports promptly if return postage is enclosed. (Vernon Lee Gibbs, Jeffersonville, Ky.)

CMCH AND CMCX on 7050 kcs. announce as one station. . . . CMGH has changed from 710 kcs. to a frequency of 1170 kcs. . . . CMRT in Guines has not been heard lately and CMBH has moved to take their place on 1580 kcs. (George Burnham, R511, Tampa, Fla.)

Guatemala: TGW verified my report with a beautiful card. The card is in dark colors and a picture of a large bird is shown on it. They are anxious to receive correct reports. (Vernon Lee Gibbs, R1767, Jeffersonville, Ky.)

Mexico: XEAW on 1020 kcs. verifies with a United States government post card, printed in red with no signature. (Jack Stephenson, R1470 Oklahoma City, Okla.)

XEAW is on 1020 kcs. They are requesting reports. (Vernon Lee Gibbs, Jeffersonville, Ky.)

New stations in Mexico now operating are: XECD in Puebla, Pue. on 1340 kcs. with 350 watts; XEHV on 1420 kcs. at Veracruz with 1 kw.; XEHR—Puebla, Pue. on 1230 kcs. with 250 watts; XELK—Zacatecas, Zac. on 1320 kcs. with 100 watts; XEXT—Topic, Nay. on 1240 kcs. with 1000 watts XEPP—ORIZBA, Ver. on 1400 kcs. with 150 watts; XEDJ—Magdalena, Son. on 1450 kcs. with 100 watts; XEFK—Merida, Yuc. on 1450 kcs. with 100 watts; XEJR—Parral, Chih. on 1490 kcs. with 100 watts; XEFZ—Coatzacoalcos, Ver. on 1340 kcs. with 300 watts; XEON—Tiajuana, B. Cfa. on 750 kcs. with 2000 watts; XEOX—Los Mochis, Sin. on 1230 kcs. with 50 watts; XEJS—Cananea, Son. on 1230 kcs. with 100

watts; XEOA—Oaxaca, Oax. on 1240 kcs. with 450 watts; XERK—Tepic, Nay. on 1450 kcs. with 100 watts; XEY—San Luis Rio Colorado, Son. on 1450 kcs. with 250 watts; XEAZ—Reynosa, Tam. on 1490 kcs. with 250 watts; and XEDK—Guadalajara, Jal. on 1490 kcs. with 250 watts.

New stations in Mexico under construction: XEO—Matamoros, Tam. on 1400 kcs. with 250 watts; XEBM—San Luis Potosi, S. L. P. on 1230 kcs. with 150 watts; XEBQ—Torreon, Coah. on 1240 kcs. with 100 watts; XECF—Los Mochis, Sin. on 1310 kcs. with 150 watts; XEGC—Zamora, Micho. on 1450 kcs. with 100 watts; XEGM—Tiajuana, B. Cfa. on 950 kcs. with 2500 watts; XEHZ—Aguascalientes, Ags. on 1450 kcs. with 150 watts; XEJK—Chihuahua, Chih. on 1230 kcs. with 100 watts; XEKF—Orizaba, Ver. on 1450 kcs. with 100 watts; XELA—Mexico, D. F. on 850 kcs. with 1000 watts; XEXS—Toluca, Mex. on 1340 kcs. with 75 watts; XEMH—Merida, Yuc. on 1400 kcs. with 100 watts; XEMR—Monterrey, N. L. on 1400 kcs. with 250 watts; XERJ—Mazatlan, Sin. on 790 kcs. with 600 watts; XERT—Tiajuana, B. Cfa. on 1340 kcs. with 100 watts; XEXF—Veracruz, Ver. on 660 kcs. with 25 watts; XEXI—Mexico, D. F. on 1280 kcs. with 100 watts; XEXJ—Tuxtla Gutierrez, Chia. on 1260 kcs. with 100 watts;— XEXN—Guadalajara, Jal. on 1400 kcs. with 200 watts; XEXP—Matamoros, Tams. on 1240 kcs. with 50 watts; XEXQ—San Luis Potosi, S. L. P. on 1250 kcs. with 50 watts; XEXU—Saltillo, Coah. on 630 kcs. with 7½ watts.

Mexican Notes: XEXJ is the first station ever constructed in Chiapas. Owned by the state it is believed they will eventually increase power. . . . New state listed is Nayarit (Tepic—XERK, XEXT). . . . XEJS is now on 1230 kcs., not 1240 kcs. . . . XEON has moved from 920 to 750 kcs. . . . XEXB, XEXD, XEAS, XEKR, are

all deleted—so is XEKL. . . . XEJ has moved to 970 kcs. . . . XERA has moved to 960 kcs. with instructions to decrease power to 500 kw. from 850 kw. (Station actually uses only 180 kw.). . . . XEDF shifts to 250 watts on 1240 kcs., XEME to 400 watts, XEBO to 1000 watts on 1330 kcs., XEQK to 1310 kcs., XEBZ to 800 kcs., XEK to 200 watts, XELZ to 250 watts, XEDL, XESM to 500 watts, XEFQ also to 500 watts, XETF to 500 watts, XEG to 500 watts on 1050 kcs., (XEG has a C. P. for 50 kw. on this frequency). . . . XEBP moves to Torreon, Coah. from Durango, XEAD on 1240 kcs. from Aguascalientes to Guadalajara and to 1310 kcs. . . . XEAT has a C. P. for 1000 watts, XEBW is back again to 250 watts after a few weeks at 50 watts. . . . XEI to 250 watts, XEDS is 500 watts and not 250 watts. The city is Mazatlan, Sin. . . . XEBH increases to 1000 watts. (The above information is official from the Mexican Government relayed to us through the kind courtesy and efforts of William Cunningham of Hollywood, Calif.—RL)

Tuning The TA's

Of course reception from across Atlantic on the broadcast band is nil at this time of year. And to top this off, nothing in the way of news from across ha reached our desk since Germany's invasion of Holland—at which time letters from Anton Jansen (Our chief source of European Radio Information) ceased to arrive here. Our last letter to friend Anton remains unanswered, and needless to say we are over-anxious for word from him or of his welfare. If anyone of his many correspondents has heard from him of late, we will be glad to know any facts pertaining to him.

TP Topics

These stations are also not being heard at the moment of writing but are expected to begin to begin to break through ere long. Information from New Zealand and Australia via

Readers living in the Eastern and Central Standard Time ones may send their reports direct to

Ray LaRocque
4 Wachusett St.,
Worcester, Mass.

the mails is also a little a a premium at the moment, but it expected that mail will come from the various stations as soon as the local DXers start reporting their radio stations in the fall.

Before saying so-long for another month, just another reminder, Radexers of the East and Central time belts, to enter the RADEX Contest now and clip all the coupons. You may be the champion, who knows, and ya' know your ole Radexer In Chief would like nothing better than to have the winner among his group of contributors!

Among The Clubs

The Grand National SWL Club, P. O. Box 141, Station V., Cincinnati, Ohio, is a new and growing organization headed by several well-known DXers, and devoted to the interests of SWL card swappers. The club distributes a bulletin every other month at present, but plans to produce a monthly bulletin soon. Inquiries concerning this new club can be obtained by addressing George H. Jacob at the address given herewith.

The World DX Alliance is arranging a series of DX programs from broadcast band stations throughout the USA, Canada, Cuba and Central America, to be known as the Continental DX Parade. A complete list of schedules can be had by addressing a letter or card to the World DX Alliance, P. O. Box 422, Perth Amboy, N. J. Many valuable prizes are offered to WDXA members. Anyone wishing a sample copy of the bulletin or information on how to join the club may communicate with the secretary at Perth Amboy.

TELEVISION STATION FOR SAN FRANCISCO SPEEDED

Television experimentation tending to develop uniform transmission standards of acceptable technical quality, plus equipment tests and training of technicians, in addition to experimental programs which the public may enjoy, are assured by the National Broadcasting Company, through its station W2XBS at New York, and the Don Lee Broadcasting System, through W6XAO at Los Angeles and a proposed station to be located in San Francisco.

Besides confirming its previous tentative approval of construction of the San Francisco station, the Federal Communications Commission authorizes the other stations mentioned to use the new television channel No. 1 (50,000-56,000 kilocycles). This is in conformity with the Commission's announcement of June 18 encouraging the widespread distribution of experimental facilities to promote advancement of television.

Stations W2XBS and W6XAO operated on the former television channel No. 1 (44,000-50,000 kilocycles) which, on May 22, was removed from the television band. The Commission's approval of the use of the new television channel No. 1 was conditioned upon showing of acceptable programs of research and development.

National Broadcasting Company reported that its New York station will continue to use the RMA standard but will increase the number of frame lines from 441 to 507. In collaboration with RCA, it will review the various types of transmission standards under laboratory conditions and, if necessary, undertake full scale field testing. Change in polarization of W2XBS transmission would interfere with reception by receivers in the area served, since antennas there are for horizontal polarized signals. However, polarization studies will be

conducted by RCA subsidiaries. NBC hopes to make the necessary equipment change for utilizing the new channel during the summer when audience interest is at a minimum. The work will require about two months.

Both Don Lee stations will experiment with television transmission using 525 lines, 3 frames interlaced, or 441 lines, 30 frames interlaced, and possibly television signals of other composition. These stations will make tests to determine the effect of the different power supply systems on reception of television images, and propagation characteristics and signal-to-noise ratios will be compared with vertical and horizontal polarization. Studies will also be made of co-channel interference between the Los Angeles and San Francisco stations.

Stations W2XBS operates with 12 kilowatts visual and 15 kilowatts aural power, and W6XAO with 100 watts visual power and 150 watts aural power. The proposed San Francisco station will have 100 watts visual power.

ADDITIONAL TELEVISION AUTHORIZATIONS

Additional television grants under its promotional experimental rules have been announced by the FCC. Opening additional television facilities throughout the country is made possible by the Commission's new rules encouraging experimental operation to promote the art. Approvals in all cases are contingent upon programs to foster research and development.

A new station in Washington, D. C., for example, will inquire into the advantages of various types of film projectors, experiment with mobile pickup, and will seek public cooperation on various types of program material. Coaxial cable will be used in transmitting programs between Washington and New York, and the Washing-

ton station will test the practicability of providing satisfactory service to Washington and Baltimore from a single transmitter. The station, owned by the Allen DuMont Laboratories, Inc., will operate on new television channel No. 1 (50,000 to 56,000 kcs.) with 1000 watts power for aural and visual transmission.

The same program of research will be carried on by DuMont's new station to be built in New York City. This station will use channel No. 4 (78,000 to 84,000 kcs.) with 1000 watts.

DuMont's present station, W2XVT at Passaic, N. J., is enabled to increase power to 5 kilowatts, aural and visual, and to transmit on channel No. 4. Their program will embrace tests of various antenna systems utilizing both vertical and horizontal radiators, experiments with systems other than RMA and DuMont, and investigating the effects of noise, field patterns, etc.; ultimate experiments in the possible use of frequency modulation on ultra-high frequencies.

Columbia Broadcasting System station W2XAB in New York can use channel No. 2 (60,000 to 66,000 kcs.) with 7500 watts power, aural and visual.

In seeking to develop uniform transmission standards of acceptable technical quality, This station proposes to make comparable investigation of all synchronizing pulses for which generating equipment is available, make comparative study of different combinations of lines and frames, investigate the effect on allocations of using different polarizations in certain adjacent areas, and work with the general public in determining reaction to various changes in program technique.

A new Philadelphia station to be operated by the WCAU Broadcasting Co. on television channel No. 5 (84,000 to 90,000) with 1000 watts power, proposes to experiment with 441 to 729 lines, and 15 to 30 frames; and to

compare frequency modulation and amplitude modulation.

A construction permit has been granted to Purdue University to operate its television station W9XG, at West Lafayette, Ind., on channel 3 (66,000 to 72,000 kcs.) with 750 watts.

Purdue University contemplates experimenting with transmission standards, development of new types of pick-up tubes or iconoscopes, research into the design and construction of side-band filters, development of the transmission line or impedance modulation system research into new methods of background control, and improvements in wide-band amplifiers, plus possible further experimentation with lines and frames, polarization, and new forms of synchronizing signals.

Kite Aerials Unsafe

The flying of kites with wires for ultra shortwave reception has been suggested to radio experimenters who wish to have the longest possible vertical aerials.

Mr. R. L. Forney, Director of the Industrial Division of the National Safety Council, informs us that this practice is contrary to all the efforts the Council has made in the past in the matter of using metallic substances in connection with flying kites. There is a considerable hazard of electric shock, due to the possibility of contact with electric wires or the sudden appearance of an electrical storm.

Former articles on kite flying in RADEX have mentioned that such experiments should be carried on in only wide open spaces. Although radio experimenters cannot comply with warning of the National Safety Council concerning metallic kite strings, they can be and should be extremely careful about flying their kites in the open, away from wires or transmission lines.

The SHORTWAVE STATIONS

● The shortwave list, arranged by frequencies in kilocycles, gives the schedules of the shortwave broadcasting stations. When requesting verifications from radio stations, return postage should always be sent. Return postage to foreign countries can be sent in the form of an International Reply Coupon, available at any post office at 9c each. Unused postage stamps from many foreign countries, which can be sent instead of Reply Coupons, are available from the Return Postage Bureau, 85 Francisco Ave., Rutherford, N. J.

Time is Eastern Standard.

Subtract 1 hour for Central, 2 hours for Mountain and 3 hours for Pacific.

4820 YV9RN	Barquisimeto, Venezuela. 11:30 am-1:30 pm; 5:30-9:30 pm.	5460 YNOP	Managua, Nicaragua. 8:30-9:30 pm; Sun. 2-3 pm.
4825 HJED	Cali, Colombia. 7 am-1 pm; 7-10:30 pm.	5725 HC1PM	Quito, Ecuador. Mon, Tues, Thurs. 8-10 pm.
4825 HJAE	Cartagena, Colombia. 7 am-6 pm; 7-11 pm.	5820 TIGPH2	San Jose, Costa Rica. Noon-2pm; 7-11 pm.
4840 YV4RX VUC2	Maracay, Venez. 7-10 pm. Calcutta, India. 6:30 am-12 noon; Sunday, 7:30 am.	5830 TIGPH	San Jose, Costa Rica. 7-10 pm.
4845 HJCD	Bogota, Colombia. 6-11 pm.	TIX	San Jose, Costa Rica. 10 pm-midnight.
4850 YV1RZ	Valera, Venez. 11:30 am-1 pm; 5:45-8:45 pm.	5875 HRN	Tegucigalpa, Honduras. 6-11 pm.
4855 HJCF	Bogota, Colombia. Weekdays, 7 pm-midnight.	5885 TGXI	Guatemala City, Guat. 8-11:30 pm.
4860 YV1RL	Maracaibo, Venez. 11 am-1 pm; 4:30-10:30 pm.	HI9B	Santiago, Dominican Rep. 6-11 pm.
4865 HJFK	Pereira, Colombia. 6-10:30 pm.	5900 ZNB	Mafeking, British Bechuana-land. 6-7 am; 1-2:30 pm.
4875 HJFH	Armenia, Colombia. 8-11 am; 6-10 pm.	5936 PJCI	Curacao, N. W. I. Sun. 10:36 am-12:36 pm; week-days 6:36-8:36 pm.
4880 YVIRM VUB2	Maracaibo, Venez. 7-9:30 pm. Bombay, India. 6:30 am-noon.	5940 OAX2A	Trujillo, Peru. Tues, Thur, Sat, Sun, 7-10 pm.
YV6RU	Bolivar, Venez. Weekdays 6:30-9:30 pm.	5960 HI1J	San Pedro de Macoris, Dominican Rep. 11:40 am-1:40 pm; 6-8:30 pm.
4885 HJDP	Medellin, Colombia. 8 am-2 pm; 6-11 pm.	5968 HVI	Vatican City.
4890 HJGD	Bucaramanga, Colombia. 5:30-6:30 am; 11:30 am-1 pm; 6-11 pm.	5975 VONG	St. John's Newfoundland. 4:30-9:30 pm.
YV1RX	Maracaibo, Venez. 10:30 am-1:30 pm; 4:30-10:30 pm.	OAX4P	Huancayo, Peru. 9-11 pm.
4895 HJCH	Bogota, Colombia. 11:30 am-2 pm; 6-11 pm.	5977 CS2WD	Lisbon, Portugal. 3:30-6 pm.
4900 YDA YV6RT	Batavia, Java. 5:30 am. Bolivar, Venez. 5:30-9:30 pm.	5985 HH2S	Port-au-Prince, Haiti. 6:30-9 pm.
4905 HJAB	Barranquilla, Colombia. 11 am-11 pm; Sun. 11 am-8 pm.	5990 ZEA	Salisbury, Southern Rhodesia. Sunday 3:30-5 am.
4910 YV1RY	Coro, Venez. 6:30-10 pm weekdays.	6000 HP5K	Colon Panama. 7-9 am; 11:30 am-1 pm; 6-11 pm.
4920 VUM2	Madras, India. 5:30 am-noon.	....	Moscow, U. S. S. R. 3:30-4 pm.
4940 YV5RO	Caracas, Venez. 7-10 pm.	6005 XEBT	Mexico City, D. F. 10 am-1:45 am.
4945 HJCO	Barranquilla, Colombia. 7:30-10 pm.	VE9DN	Montreal P. Q.
4950 YV4RD	Valencia, Venez. Noon-1 pm; 6-9:30 pm.	XYZ	Rangoon, Burma. Sat. 9:30-11:30 pm; Weekdays 6:30-10 am; 9-11 pm.
4955 YV5RH	Caracas, Venez. 6:30-7:30 am; 3:30-10 pm.	ZRH	Capetown, Union of S. Africa. 10:45 am-3 pm.
4960 VUD2 YV5RS	Delhi, India. 6:30 am-noon. Caracas, Venez. 4:30-9:30 pm.	6010 CFCX	Montreal, P. Q. 7:45 am-1 am; Sunday 9 am-11:15 pm.
4975 YV1RJ	Coro, Venez. 5:30-10:30 pm.	CJCX	Sydney N. S. 7 am-1:30 pm; 4-8:30 pm.
4990 YV3RX	Barquisimeto, Venez. 10 am-9:30 pm.	OLR2A	Prague, Bohemia.
5010 YV5RM	Caracas, Venez. 3:30-10:15 pm; Sunday 8 am-10:30 pm.	PRAS	Recife Brazil. 4-9 pm.
5020 YV4RQ	Puerto Cabello, Venez. 7-8:30 pm.	6017 III3U	Santiago, Dom. Rep. Sun. 12:30-2 pm; 5-6 pm; Weekdays 7:10-8:55 am; 11:40 am-1:40 pm; 4:40-6:40 pm.
5035 YV5RN	Caracas, Venez. 4-11:30 pm; Sunday 8-11:30 am; 3:30-10:30 pm.	HJCN	Bogota Colombia. 9-11:30 pm.
5145 PMY	Bandoeng, Java, N. E. I. 5:30 am-noon.	6020 DJC	Berlin, Germany. 11:30 am-4:25 pm.
OK1MPT	Prague, Bohemia.	6023 XEUW	Vera Cruz, Ver. C. 10 pm-1 am.
		6030 CFVJ RV96	Calgary, Alta. 10 am-2 pm. Moscow, U. S. S. R. 1-7 pm; 8:30-9 pm.
		6033 HP5B	Panama City Panama. 10:30 am-2 pm; 6-10 pm.

- 6040 WRUL Boston, Mass. Sun, 2-9 pm; Weekdays 5:30-8:30 pm.
- 6045 XETW Tampico, Tams. 7 pm-1 am.
- 6050 GSA London, Gt. Britain. 12:25-5 am; 5:40-11:30 am; 11:45 am-6 pm; 6:30-8 pm.
- HP5F Colon, Panama. 7-9 pm.
- 6055 HJFA Pereira, Colombia. 9 am-noon; 6:30-10 pm.
- VK9MI S. S. "Kanimbia." Sun, Wed, Thurs, 7-7:30 am.
- 6060 WCAB Philadelphia, Pa. Sun, Tues. Fri. 6:30-11 pm; Wed. 6:30-8:30 pm.
- WLWO Cincinnati, Ohio. Sun. 8 am-6:30 pm; Weekdays 5:45 am-Bandoeng, Java, N. E. I. 5:30 am.
- 6070 CFRX Toronto Ont. 7 am-12:30 am; Sun. 10 am-11 pm.
- 6090 CRCX Toronto, Ont. Sun. 9:30 am-11 pm; Other days 6:45 am-4 pm.
- KZRH Manila, Philippines. 4-11 am.
- XEBF Jalapa, Ver. C. 8-9:30 pm.
- ZBW2 Hong Kong.
- ZNS2 Nassau, Bahamas. 8-9 am; 3-4 pm; 7-9 pm.
- 6095 JZH Tokyo, Japan.
- 6097 ZRJ Johannesburg, Union of S. Africa. 3-7 am.
- 6100 WNBI Bound Brook, N. J. 8:45 pm-1 am.
- YUA Belgrade, Jugoslavia. 12:45-2 pm; 2:20-4:20 pm.
- 6105 HJFB Manizales, Colombia. Sat. 5:30-11 pm; Sun. 2:30-5 pm; pm; Other days 5:30-10 pm.
- 6110 XEGW Mexico City, D. F. 11 pm-1 am.
- 6112 HI6H Trujillo, Dom. Rep. 5-8:30 pm.
- 6116 Saigon, French Indo-China. 12:15-12:45 am; 6-10:15 am.
- 6117 XEUZ Mexico City, D. F. 9 am-1 pm; 7 pm-2 am.
- 6120 WCBX New York, N. Y. Midnight until 2 am.
- 6122 HP5H Panama City, Panama. 6-10:30 pm.
- 6125 MTCY Hsingking, Manchukuo. 8:30-9:30 am.
- 6130 CHNX Halifax, N. S. Sat. 8 am-11:30 pm; Sun. Noon-11 pm; Other days 6:45 am-11:15 pm.
- HS4PJ Bangkok, Thailand. 8-10 am.
- TIEM San Jose, Costa Rica. Sun. 10 am-p pm; Weekdays 11 am-11 pm.
- VLW Perth, Australia.
- 6132 COCD Havana, Cuba. Sun. 5:30-8 pm. Weekdays 9 am-10:30 pm.
- 6135 FK8AA Noumea, New Caledonia. 2:30-3:30 am.
- 6137 CR7AA Lourenco Marques, Mozambique. Sun. 5-7 am; 10 am-1:15 pm; Weekdays Midnight to 1 am; 4:30-6:30 am.
- 6140 OQ2AA Leopoldville, Belgian Congo. Sunday 5:30-7 am.
- KZRF Manila, Philippines. 4:30-11 am.
- WPIT Pittsburgh, Pa. 9-10 pm; 11 pm-1 am.
- 6148 ZTD Durban, Union of S. Africa. Sun. 11:55 pm-3 am; Other days 11:45 pm-3:15 am.
- HIJDE Medellin, Colombia. 9:30 am-1 pm; 5-11:30 pm.
- YSW San Salvador, E. S. 7-9:15 pm.
- 6152 HI5N Moca, Dominican Rep. 6:40-9:10 pm.
- 6150 CJRO Winnipeg, Man. 3:30 pm-1:30
- 6160 HJCD Nueva Granada, Colombia. 11:30 pm.
- 6170 WCBX New York N. Y. Midnight to 2 am.
- 6175 XEXA Mexico City, D. F. 8-11 am; 2:30-4 pm; 7:30 pm-12:45 am.
- 6180 LRA2 Buenos Aires, Argentina. Sat, Sun, 7-9 pm. Other days 6-9 pm.
- 6185 TIRCC San Jose, Costa Rica. Tues, Thur, Sat, 6-7 pm; Sun. 8-10 pm.
- 6190 HI1A Santiago, Dom. Rep. 10:40 am-1:40 pm; 6:40-9:40 pm.
- HVJ Vatican City. Sun. 8:30-9 pm; 9-9:30 pm; Sun, Wed, 9:30-10 pm.
- KGEI San Francisco, Calif. Midnight-3 am.
- 6193 TG2 Guatemala City, Guat. 7:30-10 am; 6-11:30 pm.
- 6195 HI2D Trujillo, Dom. Rep. 5:10-7:10 pm.
- 6200 CP5 La Paz, Bolivia. 6:30-11 pm.
- HI8Q Trujillo, Dom. Rep.
- 6215 Saigon, French Indo-China. 7:30-9:45 am; 11:45 pm-1 am.
- 6235 HRD La Ceiba, Honduras. 8-11 pm.; Sat. 8 pm-1 am; Sun. 4-6 pm.
- 6245 HIIN Ciudad Trujillo, D. R., 5:10-9:40 or 10:10 pm.
- 6255 CPI2 La Paz, Bolivia. 7-9 pm.
- 6280 HI1G Trujillo City, D. R., 6:40-8:40 am., 11:40 am.-2:10 pm., 3:40-9:40 pm.
- 6300 OAX+G Lima, Peru. Daily 6-12 mid.
- 6310 HI1Z Ciudad Trujillo, D. R., Daily except Sun. 11:40 am.12:40 pm., 5:10-7:40 pm.
- 6330 COCW Havana, Cuba, 7:55 am-12:15 am.; un. 9:55 am.12:15 pm.
- 6335 OAXIA Ica, Peru. 8-11 pm.
- 6340 HIIX Ciudad Trujillo, D. R., Sun. 7:40-9:40 am., daily 8:10-10:10 pm.
- 6345 HH3W Port-Au-Prince, Haiti, -2, 7-9 pm. Sun. 5-8 pm.
- 6357 HRPI San Pedro Sula, Honduras. 6-7:30 am., 2-4 pm.
- 6375 COCQ Havana Cub. 6:50 am.1 am.
- 6380 TIWS Puntarenas, C. R., 5-7, 7:30-10 pm.; Sun. 5-6 pm.
- 6384 ZIZ Basseterre, St. Kitts, 4-4:45 pm., Wed. 7-7:30 pm.
- 6395 HI9B Santiago, D. R., 7:40-8:40 pm.
- 6396 COX7 Havana, Cuba. 2-3, 6-10:30 pm.
- Fri. 8-11 pm. Sat. 8 pm-1 am.; Sun. 7:30 am.-3 pm.
- 6400 TGQA Quezaltenango, Guat. Mon.-Santiago, D. R., 5:40 9:10 pm. Ex. Sun.
- 6430 HIIS

HI4V	San Francisco De Macoris, D. R., 11:40 am-1:40 pm, 5:10-9:40 pm.	7250 YDA	Tandjonkpriok, Java, N. E. I. Sat. :30 pm-2 am; other days 10:30 pm-2 am.
6455 COHI	Santa Clara, Cuba. 6:42 am-12:15 am.	7258 JVW	Tokyo, Japan. 2-4 pm.
6457 TGWB	Guatemala City, Guat. Daily 7:45-9 am. 12:45-3:45 pm, 7:30 pm. 12:15 am. Sun. 10:30 am-5:15 pm, 7 pm-12 pm.	7260 CSW8	Lisbon, Portugal. Tues. Thurs. Sat. 5-6 pm. London, Gt. Britain. Berlin, Germany.
6500 HIIL	Santiago De Los Caballeros, D. R., 5:30-9:30 pm. ex. Sun. Managua, Nicaragua, 1-2:30, 8-10 pm. Except Sun.	7270 DXM	Paris, France. 1-4 am; 10:15 am-4:15 pm.
6540 YNIGG	TIRCC	7280 TPB25	Managua, Nicaragua. Sun. 10-11 am.
	San Jose Costa Rica. Sun. 11 am-2 pm., 6-7, 8-9 pm. Daily 12 noon-2 pm., 6-7 pm., Thurs. 6-11 pm.	7284 YN11P	Berlin, Germany. 5-5:15 am. Tawan, 9-10:30 am. Port Moresby, Papua. Sat. 3-5 am.
6550 XBC	Vera Cruz, Ver. C. 8:15-9 am.	7290 DJI	Mexico City, D. F. Sun. 6-7 pm.
6558 HI4D	Ciudad Trujillo, D. R., 12:30-2, 6-8 or 9 pm. Except Sun.	7295 JIE	Quito, Ecuador. 7-9:30 pm. Pointe-a-Pitre, Guadeloupe. Sun. 9:30-11 am; Daily 6-7 pm.
6565 HI5P	Puerto Plata, D. R., 5:40-7:40, 9:40-11:40 pm.	7310 VIG	San Jose, Cost Rica. 7-11 pm. Tenerife, Canary Islands. 7-8 pm.
6610 YNLG	Managua, Nicaragua. 1:30-2:30, 6:10:15 pm.	7380 XECR	Kahuku, Hawaii. Sat. Sun. 8:30-9 pm.
6625 PRADO	Rio Bamba, Ecuador. Thur. 9-11:45 pm.	7410 HCJB4	Lobito, Port. West Africa. Mon. Wed. Sat. 2:30-4:30 pm.
6630 HIT	Ciudad Trujillo, D. R., Daily exc. Sun. 12:40-1:40 pm., 4:40-8:40 pm; also Sat. 10:40 pm-12:40 am.	7440 FG8AH	Leon, Nicaragua. Weekdays 8:30-9:30 pm.
6635 HC2RL	Guayaquil, Ecuador. Sun. 5:45-7:45 pm., Tues. 9:15-11:15 pm.	7450 TI2RS	Geneva, Switzerland.
6675 HBQ	Geneva, Switzerland. Sun. 1:45-2:45 pm.	7490 EAJ43	Guayaquil, Ecuador. 11 am-2 pm; 4-11 pm.
6695 TIEP	San Jose, Costa Rica, 7-Midnight.	7520 KKH	Quito, Ecuador. 3:30-11:30 pm.
6720 PMH	Bandoeng, Java, N. E. I. 4:30-11 or 11:30 am. Also Sat. 8:30 pm-1:30 am.	7614 CR6AA	San Salvador, El Salvador. 7-10:30 pm.
6730 TI3C	La Romana, Dom. Rep., 4:55-8 pm.	7660 YNDG	Bangkok, Thailand. 7-11 am.
6760 YNRF	Managua, Nicaragua. 6:40-10:40 pm.	7797 HBP	Rio de Janeiro, Brazil. 5:45-7 pm.
6760 HI7P	Ciudad Trujillo, Dom. Rep., 7:10-8:40 pm. Sun. 9:40-10:40 pm.	7854 HC2JSB	Maagua, Nicaragua. 12:45-2:15 pm; 6:45-10:15 pm. Hicksville, N. Y. 9 am and 5 pm.
6800 PZH	Paramaribo, Surinam. Sun. 8:40-10:40 am. Tues. & Fri. 5:40-8:40 pm. 1st & 3rd Thurs. monthly 6:40-8:40 pm.	7870 HC1RB	Havana, Cuba. 7:50 am-12:50 am.
6810 HIH	San Pedro De Macoris, Dom. Rep., 7-9:40 pm. Sun. 5:20-6:40 pm.	7894 YSD	Bogota, Colombia. Tues. Fri. 7-7:20 pm.
6847 YNOP	Managua, Nicaragua. 8-9:30 pm.; Sun. 2-3 pm.	7968 HSP6	Havana, Cuba. 7:30 am-midnight.
6850 XOJD	Hankow, China 6-8:35 am.	8200 PSK	Algiers, Algeria. Tues. 12:30-1:30 pm.
6900 HI6H	Trujillo City, D. R., 7:40-8:40 pm.	8580 YPR	Santiago, Cuba. 5-9:50 pm. Havana, Cuba. 7:45 am.12 mid. Sun. 7:45 am-1 am.
6960 2ZB	Wellington, N. Z., Mid-7 am.	8665 W2XGB	Buadpest, Hungary. Daily 7-8:30 pm. Sat. 6-7:30 pm.
6977 XBA	Tacubaya, D. F., 9:30 am-1 pm., 7-8:30 pm.	8700 COCO	Guayaquil, Ecuador. 11 am-1, 7-11 pm.
7010 XPSA	Kweiyang, China. 5:30, or 6-11 am. 5-6 pm.	HKV	Quito, Ecuador. Mon. Wed. Sat. 9-10:30 pm.
7100 FO8AA	Papeete, Tahiti. Tues. and Fri. 11 pm-12 mid.	8830 COCQ	Guayaquil, Ecuador. 8-10 pm. Sun. 8:30-10:30 pm.
7177 CR6AA	Lobito, Portuguese West Africa. Mon. Wed. Sat. 2:45-4:30 pm.	8960 COKG	Havana, Cuba. 8 am.12 mid. Sunday Island. 1:45-2:15 am. Irreg.
7210 2RO	Rome, Italy. 6-7:55 pm.	9030 COBZ	Rio De Janeiro, Brazil. 5-6 pm.
7220 EAJ9	Malaga, Spain. 4-6 pm.	9125 HAT4	Havana, Cuba. 8 am-12 mid. Sun. 8 am-10 pm.
HAD	Bodapest, Hungary. 9 pm-midnight.	9130 HC2W	Havana, Cuba. 12 noon-12 midnite.
YDX	Medan, Sumatra, N. E. I. Sat. 7:30 pm-1:30 am; Other days 10:30 pm-2 am; 6-10:30 am.	9175 HCIGO	Bucharest, Roumania. 12:02-7 pm.
		9190 HC2ET	Cuidad Trujillo, D. R. 6:40-8:40 am., 11:40 am.2:10 pm, 3:40-4:40 pm.
		9200 COCX	
		9200 ZMEF	
		9205 PYA2	
		9225 COCY	
		9230 COCY	
		9234	
		9295 HI2G	

- 9340 OAX4J Lima, Peru. 12 noon-3 pm., 5 pm.-12 midnight.
- 9345 HBL Geneva, Switzerland. Mon., Wed., 8:45-10:15 pm.
- 9375 COBC Havana, Cuba. 7 am. to 12 mid. Sun 7 am.-10:30 pm.
- 9440 OAX5C Ica, Peru. 7-11:30 pm.
- 9440 COCH Havana, Cuba. 6:40 am.-10:15 pm., exc. Sun.
- 9465 HCODA Guayaquil, Ecuador. 8:15-10:15 pm., exc. Sun.
- 9465 TAP Ankara, Turkey. Daily 10:30 am.-4:30 pm.
- 9475 VONG St. Johns, Newfoundland. 8:30 am.1:30 pm. 4:30-9:30 pm.
- 9492 KZIB Manila, Philippines. 10 am. and 6-11 pm.
- 9501 PRF5 Rio De Janeiro, Brazil. 4:45-5:55 pm.
- 9503 XEW5W Mexico City. 7:45 am.-12:30 am.
- 9505 YUD Belgrade, Yugoslavia. 11:20 am.4:20 pm., 8-9 pm.
- 9510 Hanoi, French Indo-China. 12 m.-2 am., 6-10 am.
- 9510 HS8HJ Bangkok, Thailand. Daily Ex. Mon. 7-10 am.
- 9510 GSB Daventry, Gt. Britain. 12:57-3:15 am., 3:50-6; 6:24-9:15; 9:37 pm.-12:30 am.
- 9517 XEDQ Guadalajara, Jal. No-4:30 4:30 pm., 1pm-midnight.
- 9520 RV96 Moscow, U. S. S. R. 1-6 pm.
- 9520 TPC Paris, France, 4:30-7:45 pm. 8 pm.-1:45 am.
- 9523 ZRG Roberts Heights, S. Africa. Daily 5:15-9, 11 am.-noon. Sun. 6-9, 10:40 am-1:30 pm.
- 9525 ZBW3 Hongkong. 5-10 am., 11:30 pm.1:15 am. Sun 5-9:30 am.
- 9528 VUC2 Calcutta, India. 10-11 pm., 12 m.-1 am., 2-4 am. Sat. 10 pm.-2 am.
- 9530 WGEO Schenectady, N. Y. 3-6 pm. 6-11:45 pm.
- 9535 JZI Tokyo, Japan. 7-9:30 am.
- 9535 SCU Motala, Sweden. 4:35-5:05 pm. 8-9 pm.
- 9538 VPD2 Suva, Fiji. 5:30-7 am., exc. Sun.
- 9540 DJN Berlin, Germany. 12:05-2:30; 9:30-11 am., 4:55-10:50 pm.
- 9550 OLR3A Prague, Bohemia. Irreg. 4:40-5:10 pm.
- 9550 WGEA Schenectady, N. Y. 6:15-9:15 pm.
- 9550HVJ Vatican City. Sun. 5-5:30 am., 8:30-9:45 pm. Wed. 2:30-3 pm. Thur. 8:30-9:45 pm.
- 9550 TPBII Paris, France. 11:15 am-7 pm., 9:30 pm.-mid.
- 9556 OAX4T Lima, Peru. 7-8, 11:30 am.-1:30 pm.
- 9550 YDB Soerabaja, Java, N. E. I. Daily exc. Sat. 6-9 pm., 10:30 pm.-2 am.-4:30-10:30 am. Sat. 7 pm. 2 am.
- 9556 XEFT Vera Cruz, Ver C. 7:30 pm.-Midnight.
- 9560 XEFA Monterrey, 10 am. Midnite.
- 9560 XGAP Peiping, China. 4-9 am.
- 9570 WBOS Boston, Mass. 6-9 am. 3 pm.-1 am.
- 9570 KZRM Manila, P. I. Weekdays 4:30-6 pm. Sat. 5-10 am., Sun. 4-10 am.
- 9570 CXA2 Montevideo, Uruguay. 11 am.-4, 4:30-9:30 pm.
- 9570 VUM2 Madras, India. 9-10:30 pm., 2:30-4 am.
- 9580 VLR Melbourne, Australia. 2:30-9, 9-9:30 am.
- 9590 VK2ME Sydney, Australia. Sundays only, m-2 am., 5-8:30 am.
- 9590 WCAB Philadelphia, Pa. Mon., Thurs. & Sat. 6:30 pm.2 am., Wed. 9 pm.-2 am.
- 9590 VUD2 Delhi, India. 6:30 am.-12:05 pm. 5pm.12 m., Mon., Tues., 1-4:10 am. Wed. 2-4 am. Thur., Fri., Sat. 1-3:30 am. Sat. 5 pm.-3:30 am.
- 9595 Athlone, Ireland. 12:30-4:30, 5-6 pm.
- 9600 CB960 Santiago, Chile. 8-11:30 pm.
- 9600 RAN Moscow, U. S. S. R. 3-7, 7-3:30 pm. 8:30-9 pm.
- 9607 HP5J Panama City, Panama. 7-8 am., 12 noon to 1:30 pm., 6:30-10:30 pm.
- 9610 DXB Berlin, Germany. 4:50 pm., 7 pm.-1 am.
- 9615 ZRL Klipheuvell, South Africa. Daily, exc. Sat. 11:45 pm. 2:50 am. Daily exc. Sun. 3:20-7:20, 9-11:45 am., Sun. 3:30-4:30 or 4-5, 5:30-7, 9-11:45 am.
- 9620 TIPG San Jose, Costa Rica. 7-9:30 am., 12-2, 6-11:30 pm.
- 9625 HAD Budapest, Hungary. 6-9 pm.
- 9625 CXA6 Montevideo, Uruguay. 10:30 am.-12:30, 3:30-9:30 pm.
- 9630 HJCT Bogota, Colombia. 6-11 pm.
- 9630 JFO Taihoku, Taiwan. 4-10:30 am.
- 9630 I2R03 Rome, Italy. 1-2 am. 12:07-2:35, 4:15-4:45 pm., 6-9 pm.
- 9635 KZRH Manila, Philippines. 4-11 am.
- 9640 CXA8 Colonia, Uruguay. 5 am.-10:45 pm. Sat. to 1 am.
- 9645 VLW2 Perth, W. Aust. 6-11 am.
- 9645 XGOY Szechwan, China. 1-3, 8-9:30 am.
- 9650 CR7BE Lourenco Marques, Mozambique. 7-8 am. 2-4 pm.
- 9650 DJV Berlin, Germany. Irreg. 4:50 pm.-1 am.
- 9650 I2AA Addis Abea, Ethiopia. 3:30-5:30 am. Sun. 2:30-5:30 am. 8 am.-2:30 pm.
- 9650 WCBX New York City. 10:30-11:30 pm.
- 9650 HVJ Vatican City. Sun. 5-5:30 am., 8:30-9:45 pm.; 1 hrs. 8:30-9:45 pm.
- 9660 LRX Buenos Aires, Arg. 5:30-6:45 am., 10:15 am.-11 pm.
- 9665 Rome, Italy. 1-6:30, 7:30-9 pm.
- 9760 WRCA Pound Brook, N. J. 4 pm.-1 am.
- 9675 DJX Vienna, Germany. 10:40 am.-4:25 pm.
- 9675 Saigon, Indo-China. 7:30-9:45 am.
- 9680 VLQ Sydney, Australia. 2-4, 6:30-7, 7-8, 8:15-8:45, 10:30-11:30 am.
- 9680 TPC23 Paris, France. 6-7:45 pm. 8 pm.-12:30 am.
- 9680 XEQQ Mexico, D. F. 5 pm.-1 am.
- 9680 GSC Daventry, Gt. Britain. 12:57-1:45, 11:52 am.-3:30; 3:50-6 pm., 6:25-9:15; 9:37 pm.-12:30 am.
- 9685 TGWA Guatemala City, Guat. Near 12:30 am.

9690 LRA1	Buenos Aires, Arg. 10:30 am-1 pm; 2:30-3:30 pm; 4-9 pm.	11710 YSM	San Salvador, El Salvador. 1-2, 7-9:30 pm.
9692 TI4NHR	Heredia, Costa Rica. Tues. Thurs. Sat. 9-10 pm; Sun. 7-8 am.	11710	Saigon French Indo-China. 7:30-9:45 am.
9690 CRX	London, Gt. Britain. 12:25-5 am; 11:50 am-8 pm.	11718 CR7BH	Laurenco Marques, Portuguese E. Africa. Daily 12:05-1, 4:30-6:30, 9:30-11 am., 12:05-4 pm., Sun. 4-7 am., 10 am.-2 pm.
9695 JIE3 9703	Tyureki, Taiwan. 9-10:20 am. Fort de France, Martinique. 6-8:10 pm.	11718 TPA4	Paris, France. 1-5:15 pm. 6:7:45, 8 pm.-12m.
9710 HJCF	Bogota, Colombia. 7-11 pm.	11720 ZPI4	Villarica, Paraguay. Mon. to Fri. 4-8 pm.; Sat.-Sun. 11 am.-6 pm.
9730 CB970	Valparaiso, Chile. 7 am-11:30 pm.	11725 JVW3	Tokyo, Japan. 1-7 am.
HJFK	Pereira, Colombia. 7-9 am.	11730 WRUW- WRUL	Boston, Mass. Sun. 2-8 pm.; 5:2018:30, 8:45-10:30 pm.
9740 CSW7	Lisbon, Portugal. Tues. Thurs. Sat. 3:40-4 pm. Daily 4-5:30 pm; 5:45-9 pm.	11735 YUE	Belgrade, Yugoslavia. 7-9:05 pm.
9750 HJ6FAH	Armenia, Colombia. 8-10:30 am; 5-10:30 pm.	11740 HVJ	Vatican City. 2-5:55 m., Weds. -9:30 pm.
9780 HH3W	Port-au-Prince, Haiti. Sun. 1-2 pm; 5-8 pm; Other days 1-2 pm; 7-9 pm.	11740 CBII74	Santiago, Chile. 6-11 pm. Sun. 6-10:30 pm.
9815 IRF	Rome, Italy. 5:20-5:40 am; Noon-12:25 pm; 1:50-2:30 pm; 6-7:25 pm.	11740 CR6RC	Loanda, Angola. 6:30-7:45 am. Tues., Wed., Sat. 3:30- pm., Sun. :30 am.-1 pm.
9825 COCM	Havana, Cuba. 8 am-midnight.	11750 GSD	Daventry, England. 12:57-5, 9-1-1:30 am. 11:52 am.3:30, to N A. 3:50-6, 6:24-9:15 9:15 pm, 9:37 pm.-12:30 am.
9840 XGSE	Somewhere in China. At 7 am.	11760 2RO15	Rome, Italy. 11:40 am.-2:40 pm., 3-3:30, 5:30-6 pm.
9855 EAQ	Madrid, Spain. 5-7:30 pm; 7:45-8:50 pm; 8:50-11:30 pm.	11760 TGWA	Guatemala City, Guat. 10-11:30 pm, Sun. 6-11:30 pm.
9892 CP1	Sucre, Bolivia. 11 am to noon; 7-9 pm.	11760 OLR4B	Prague, Bohemia. Daily exc. Sun. 8:25-10:05 am.
9925 JDY	Dairen, Manchukuo. 7-8 am.	11770 DJD	Berlin, Germany. 10:45 am.-4:25 pm., 4:50 pm.-1 am.
9985 COBC	Havana, Cuba. 6 am-midnight. e	11770 ZTE	Durban, So Africa. 3:30-11:45 am. exc. Sun. Sun. 3:55-11:45 am. Also, 11:45 pm.-2 am.
10060 TIEM	San Jose, Costa Rica. 4:30-8 pm.	11775 MTCY	Hsinking, Manchukuo. 1:30-2:20 to N. A. Also 9:50-10:55 am, 4-4:50 pm.
10070	Deutsche Freiheitssender. Somewhere in Germany (?). 4-5 pm.	11780	Saigon, Indo-China. 10:30-11 am.
10220 PSH	Rio de Janeiro, Brazil Mon. 8-8:30 pm; Fri 7-7:30 pm; Other days 6-7 pm.	11780 HP5G	Panama City, Panama. Noon-1 pm., 6-10 pm.
10290 DZC	Berlin, Germany. 3-3:10 pm; 6:30-9 pm.	11790 WRUL	Boston, Mass. 2-5 pm. Sat. 3-5 pm. Sun. 10 am. 12 noon.
10350 LSX	Buenos Aires, Arg.	11800 XGOK	Canton, China. 6-8:35 am.
10360 EAJ43	Tenerife, Canary Islands. 3-4:30 pm; 5-7 pm; 7:45-8:45 pm; 9-10 pm.	11801 DJZ	Berlin, Germany. 4:50-10:50 pm.
10400 YSP	San Salvador, E. E. 6:30-11 pm.	11810 2RO4	Rome, Italy. 4:30-9, 10 am.-2:30 pm., 6-7:25, 7:30-9 pm. to N. A.
10660 JVN	Nazaki, Japan. 1:50-7:40 am.	11825 CXA14	Colonia, Uruguay. 3:30-9:20 pm.
10660 ZIK2	Belize, Br. Honduras. Tues., Thurs., Sat. 1:30-2, :30-9 pm.	11826 XEBR	Hermosillo, Son. 10 am.-4 4 pm., 8-10:30 pm.
10950 FIQA	Tananrive, Madagascar. 12:30-45, 10-11 am., 2:30-4 am.	11830 VLW3	Perth W. Australia. 1-5 am.
11000 PLP	Bandoeng, Java. 6-9 pm. 10:30 pm.-2 am., 4:30-10:30 or 11 am. Sat. until 11:30 am.	11830 WCBX	New York City. 1-6 pm. 6:30-10 pm.
11040 CSW5	Lisbon, Portugal. 12-3:30 pm. Sun. 10 am.-3:30 pm.	11840 OLR4A	Prague, Bohemia. 6:55-10:15 pm.
11400 CJRX	Winnipeg, Canada. 4 to 8:30 pm.	11840 CSW	Lisbon Port. 11:30 am.-1:30 pm.
11402 HBO	Geneva, Switzerland. Mon., 12:45-2:15 pm. Sat. to 2 pm.	11845 TPC8	Paris, France. 10:30 am.-5 pm.
11650 XGOK	Canton, China 7-9 am. Wed. 6:45-8:15 pm. Tues. Santiago Chile. 10 am.-2 pm., 3:30-Midnight.	11850 VLR3	Melbourne, Australia. 3:30 pm.-2:15 am. Also 6:35-7 am.
11700 CBII70	Santiago Chile. 10 am.-2 pm., 3:30-Midnight.	11850 HAD	Budapest, Hungary. 3-6 pm.
11700 HP5A	Panama City, Panama. 7-10:40 am. 3-10:45 pm. Sun. 6-10:45.	11850 CBII85	Santiago, Chile. Sat. 6-11 pm.
11700 IQY	Rome, Italy. 5:20-5:40 am. 1:50-2:30 pm.	11855 XMHA	Shanghai, China. Wkdys. 11 pm.-1 am., 5-11 am. Sat. 10 pm.-Sun. 11 am.
		11855 DJP	Berlin, Germany. 12:05-2 am., 4:50-10:50 pm.

11860 GSE	Daventry, England. 5:40-11:30 am. 6:25-9:15 pm.	15150 YPC	Bandoeng, Java. 6-9 pm. ex. Sat, 10:30 pm.-2 am., Sat. 7:30 pm.-2 am., daily 4:30-10:30 am.
11870 WPIT	Pittsburgh, Pa. 3-9, 10-11 pm.	15155 SBT	Motala, Sweden 1-4:30 pm.
11870 VUM	Madras, India. 8:45 am.	15160 JZK	Tokyo, Japan. 4:30-5:30, 8-9 pm.
11870 VLQ2	Sydney, Australia. 2:30-3:30 am.	15160 XEWW	Mexico City, Mexico. 12 n-12 m., irregular.
11880 JZJ	Tokyo, Japan. 12:1:30 am. 7-9:30 am., 2-4 pm.	15170 TGWA	Guatemala City, Guat. 12:45-1:45 pm.; Sun. 1:45-5:15 pm.
11880COGF	Matanzas, Cuba. 9 am.-11:30 pm.	15180 RV96	Moscow, U. S. S. R. 3-3:45 am.
11880 TPB7	Paris, France. 4:45-7:45 pm. 8 pm-12 m.	15190XGOX	Szechwan, China. 830-9:30, 10-11:05 pm.
11885 TPA3	Paris, France. 1-4, 10:15 am-5:15.	15200 DJB	Berlin, Germany. 12:05-6:30-9, 9:15-9:30 am.; 11:10-11:40 am., 4:50-10:45 pm.
11895	Moscow, U. S. S. R. 6:30-7 am., 4-6 pm.	15210 WPIT	Pittsburgh, Pa. 8 am.-3 pm.
11900 XEWI	Mexico City, Mexico. Mon., Wed., Fri. 3-4 pm., 9 pm.-12 m. Sat. 9 pm.-12 m., Sun. 12:30-2 pm.	15240 YUF	Belgrade, Yugoslavia. 7-8 pm.
11900 XGOY	Szechwan, China. 5:30-7:35, 7:40-9, 9:40-11, 11:10-11:50 am. 2-4:20, 4:30-6:20 pm.	15240 CR7BD	Lourenco Marques, Mozambique, 4:30-6:30, 9:30-11 am., noon-4 pm.
11910 CDII90	Valdivia, Chile. 10 am.-1 pm., 5-10:30 pm.	15245 TPA2	Paris, France. 5-10 am.
11940 TI2XD	San Jose, Costa. 7:30 am.-noon, 4-10 pm.	15250 WRUL	Boston, Mass. Daily exc. Sat. and Sun. 10 am.-11 am. Daventry, England. 12:57-5 am., 11:52 am.-3:30 pm.
11945 CBII80	Santiago, Chile. 7-8 am., 4:50-11 pm.	15260 GSI	New York City. Daily exc. Sat. and Sun. 1-3:30 pm., Sun. 1-2:30 pm.
11970 HI2X	Ciudad Trujillo, D. R. Tues. and Fri. 8-10-10:10 pm. Sun. 7:40-9:40 am.	15270 WCBX	Ciudad Trujillo, D. R. Sun. 8:10-10:10 pm. Tues. and Fri. 7:40-9:40 am. Tues. and Fri. Phila., Pa. 12 n.6 pm.
12000RNE	Moscow, U. S. S. R. 7-9 pm. 9-11 am.	15270 WCAB	Berlin, Germany. 12:05-11:10 am.
12310 VOFB	St. Johns, Newfoundland. 5:30-7:30 pm.	15280 DJQ	Delhi, India. 8-10:30 am., 11:30 am.-2:30 pm., 9:20 pm.12 m.; Mon. 1-4 am.; Tues. Thurs., Fri., Sat., 3:30 am.; Wed. 2-4 am.; Sat. 9:30 am.-3:30 am.
12450 HCJB	Quito, Ecuador. 7-8:15, 11:30 am.-2:30, 5-10:30 pm.	15290 VUD3	Buenos Aires, Arg. 8-10 am. 10:10 pm.
12862 W9XDH	Elgin, Ill. Press Wireless, Tests 2-5 pm.	15295 TPB4	Paris, France. 5-5:30, 7:30-8 am.
13486 HIIN	Trujillo City, Dom. Rep. 6:40-10:40 am., 5:10-9:40 pm.	15300 2RO6	Rome, Italy. 4:10-4:55 am.; 10 am.-12:06 pm.; 1-2:15, 5-9:25 am., 11 am.-6 pm. 8:15-Daventry, England. 2-5 am., 11:52 am.-1:25 pm. 1:30-3:30, 3:50-6 pm.
13900 YNDG	Leon, Nicaragua. Sun. 12:30-1.	15310 GSP	Soerabaja, Java, N. E. I. 10:30 pm.2 am., Sat. 7:30 pm.-2 am.
14420 HCIJB	Quito, Ecuador. 7-8:15, 11:30 am.-2:30, 4-4:45 pm.-10:15 pm. Exc. Mon.	15310 PDB	Tokyo, Japan. 9-10:30 pm.
14460 DZH	Berlin Germany. 7-10:50 pm.	15325 JLT3	San Francisco, Calif. 6:30-11:15 pm.
14600 JVH	Nazaki, Japan. 4-8 am.	15330 KGEI	Schenectady, N. Y. 8 am-6 6 pm.
14635 HBJ	Geneva Switzerland. Wed. 6:45-8:15; 8:40-10:15 pm.	15330 WGEO	Budapest, Hungary. Sun. 9-10:30 am.
14795 IQA	Rome, Italy. 4:30-5 am.	15370 HAS3	Moscow, U. S. S. R. 5-7:30 am., 8-5:5-10:30 pm.
14920 KQH	Kahuku, Hawaii. Sats. 8:30-9 pm. Sun. 9-9:30 pm.	15430 DJR	Berlin, Germany. 12:05-11 am., 4:55-10:50 pm.
14940 PSE	Rio De Janeiro, Brazil. 6-7 pm., Thurs. 3-3:30 pm.	17280 FZE8	Djibouti, French Somaliland. Thurs. 8-8:30 pm.
15040 RKI	Moscow, U. S. S. R. 7-8:30 pm. 8:30-9 pm.	17310 W2XGB	Hicksville, L. I., N. Y. Tests 9:30-11:30 am. except Sat. and Sun.
15100 2RO12	Rome, Italy. 4-5:30, 6-7:25, 7:30-9 pm.	17760 DJE	Berlin, Germany. 12:05-11 am.
15110 DJL	Berlin, Germany. 12:05-2 am., 10:40 am.-4:25 pm.	17765 TPB3	Paris France. 5-10 am.
15120 CSW4	Lisbon, Portugal. 7-9 am.	17780 WNBI	Bound Brook, N. J. 9 am.-4:15 pm. 4-8:15 pm.
15120 HVJ	Vatican City. Tues. 8:30-9, 10-10:30 am., Sun. 1-1:30 pm. Wed. 8:30-9 pm.	17810 GSV	Daventry, England. 7-8:45,
15130 TPB	Paris, France. 11:30 am.-12:30 pm.		
15130 WRUW-	Boston, Mass. 2-5, 8:45-10:30 pm.; Sat. 3-5 pm., Sun. 10 am.-noon.		
15135 JLU3	Tokyo, Japan. 8-9:30 am.		
15140 GSF	Daventry, England 2:18-5, 5:40-8:45, 9-11:30 am., 3:50-6 pm.		

17820 2RO8 Rome, Italy. 4:30-7:15 am., 9:30-10:55am., 6-7:55 pm.
 17830 LRA5 Buenos Aires, Arg. Fri., 5-5:30 pm.
 17830 WCBX New York City. 8 am.-12:30 pm
 17840 HVJ Vatican City, 12 n. on Wednesday.
 17845 DJH Berlin, Germany. 12:05-7:50, 8-11 am.
 17970 GSG Daventry, England. 5:40-8:45; 9-10:15 am.
 17970 KHE Kahuku, Hawaii Sats. Suns. 8:30-9 pm.
 18480 HBF Geneva, Switzerland. Fri 8:45-10:15 am
 19020 HS6PJ Bangkok, Thai. Mondays 8-10 am.
 21450 DJS Berlin, Germany. 12:05-7:55 am.
 21460 WRUL Boston, Mass. 10 am.-noon.
 21470 GSH Daventry, England. 5:40-8:45 am.
 21500 WGEA Schenectady, N. Y. 8-11 am.
 21510 2RO16 Rome, Italy. 9:9:55 am.
 21520 WCAB Phila., Pa. 12 n. to 3:45 pm. exc. Sat. & Sun. 12 n. to 2:30 pm.
 21530 GSJ Daventry, England. 5:40-8:45 am.
 21540 WPIT Pittsburgh, Pa. 6:30-8 am.
 21550 GST Daventry, England 5:40-8:45, 9-9:15, 9:20-11:30 am.
 21570 WCBX New York City. 8 am.-12:30 pm.
 21630 WRCA Bound Brook, N. J. Noon-3:30 pm.
 25250 W2XUP New York City. 4-6 pm.
 25300 W2XJI New York, N. Y. 11:30 am.-3:45, 5-6 pm.
 25300 W5XD Dallas, Texas. 12:30-2:30 pm.
 25400 W9XLA Denver, Colo. 10 am.-12 mid.
 25900 W9XPD St. Louis Mo. 10 am.-1, 4-8 pm.
 26000 W9XA Kansas City. Mo. 12 noon-3 pm.
 26000 W8XUJ Cincinnati Ohio. 2-4 pm.
 26050 W9XH South Bend, Ind. 2:30-6:30 pm., exc. Sat. and Sun. and Thurs.
 26050 W9XTC Minneapolis, Minn. 10 am.-8 pm.
 26100 W9XJL Superior Wis. 11 am-3 pm.
 26125 W5XAU Oklahoma City, Okla. 7 am.-11 pm.
 26150 W4XA Nashville, Tenn. Noon-1, 6:30-10 pm.
 26150 W9XUP St. Paul, Minn. 8 am-1 am.
 26400 W9XAZ Milwaukee, Wis. 1 pm. to midnight.
 26550 W2XQO New York City. Noon-9 pm.
 26500 WXTA Harrisburg, Ill. 1-4 pm.

Addresses

Ankara—Radio Ankara." Ann: Turkish, Eng, Fr, Ger. Sign off, National anthem. Turkish Brdcstg. System, Correspondence Dept.

Berlin—These transmitters are located at Zeesen, near Berlin. Interval signal is the tune, repeated several times, "Ever Be True and Honest," and sign off theme, two na-

tional anthems, "Horst Wessel Lied" and "Deutschlandlied". Address is Reichs-Rundfunk G. m. b. H., Haus des Rundfunk, Masurenallee, Berlin-Charlottenberg 9.

Johannesburg—All programs originate in I/B. Announce "Johannesburg Calling." English and Afrikaans. Open with bugle call. South African Broadcasting Corp., Box 4559, Johannesburg.

London—Transmitters are at Daventry. Interval signals are Bow Bells; Greenwich time signal on even hours; and, irregularly, Big Ben, preceded by Westminster Chimes, strikes the hours. Sign off with "God Save The King." British Broadcasting Corp., London W1.

Paris—Transmitters at Essarts-le-Roi. Announce as "ParisMondial," (Paris Embracing The World), and sign off with "La Marseillaise." Minister of Posts, Telegraphs and Telephones, 98 bis Blvd. Hausmann.

Rome—"Radio Roma-Napoli." Transmitter at Prato-Smeraldo. Interval signal, chirping of bird. Announcements usually by a lady. Sign off with 2 anthems, "Giovinezza" and "Marcia Reale." Ente Italiano per le Audizioni Radiofoniche, Via Montello 5.

Tokyo—Transmitters are at Nazaki. Sign off with national anthem, "Kimagayo." Nippon Hoso Kyokai, 2-Chome, Uchisaiwaicho, Kojimachi-ku.

HVJ—Announcements in Dutch, Italian, Polish, English, German, French, Spanish, Russian. A clock or metronome ticks seconds during 5 minutes preceding broadcasts. Bells of St. Peters strike hour. Open and close with Laudetur Jesus Christus." Pontifica Accademia Della Scienza, Roma-Castina Pio IV.

KGEI—Transmitter at Treasur Island, General Elec. Co., 235 Montgomery St., San Francisco, Calif.

TGWA—Radiodifusora National, "La Voz de Guatemala." Relay TGW. Return postage is not necessary for verifications.

VLR—Transmitter at Lyndhurst. Australian Broadcasting Commission Victorian Division), P. O. Box 1686, GPO, Melbourne, Vic., Australia.

WCAI—Trans. at New Town Square. Relays CBS-WCAU. WCAU Brdcstg. Co., 1622 Chestnut St., Philadelphia, Pa.

WCBX—Transmitter at Wayne Twp., N. J. Relays CBS-WABC. Sign off, "Star Spangled Banner." Columbia Broadcasting Sys., 485 Madison Ave., New York City.

WGEA—Transmitter at South Schenectady. Relays NBC-WGY. Programs commence with discharge of mn-mad lightning. General Elec. Co., 1 River Road.

WLWO—Transmitter at Mason. Relays NBC-WLW. Crosley Corp., 1320 Arlington St., Cincinnati, Ohio.

WNBI—Transmitter at Bound Brook, N. J. Relays NBC-WJZ. Sign off with "Star Spangled Banner." NBC, Inc., 30 Rockefeller Plaza, New York, N. Y.

WPIT—Transmitter at Saxonburg. Relays NBC-KDKA. Westinghouse Electric & Mfg. Co, Grant Bldg., Pittsburgh, Pa.

The WORLD'S Radio Stations

(Continued from July-August Issue)

A complete listing of the radio stations of
the world, from 500 kcs to 500,000 kcs.

The addresses of the shortwave broadcasting stations are not shown in this list. Readers are referred to The Shortwave Broadcasting Station List for this information.

39380	KBPD	MP	....	Butte, Mont. (units - 5 w).
	KQAA	MP	....	Mankato, Minn. (8 units - 15 w).
	KQDR	MP	....	Modesto, Calif. (1 unit - 2 w).
	WRYY	MY	....	Birmingham, Mich. (1 unit - 12 w).
	WRIZ	MP	....	Berkeley, Mich. (1 unit - 12 w).
	WRJA	MP	12	Clawson, Mich.
	WRJD	MP	12	Pleasant Ridge, Mich.
39400	WRJZ	MP	15	Belmont, Mass. (3 units - 15 w).
39420	WIVA	F	50	Roscommon, Mich. State of Mich. Dept of Conservation
	WIAB	F	2	Harrisburg, Pa. Commonwealth of Pa.
	WQVC	F	15	Blue Anchor, N. J. State of N. J. Dept of Conservation (Forest Fire Service).
	WQVK	F	15	Mt. Holly, N. J. Same as WQVC
	WQVL	F	15	Mays Landing, N. J. Same as WQVC
	WQVM	F	15	Farmingdale, N. J. Same as WQVC
	WQVN	F	15	Bass River, N. J. Same as WQVC
	WQVO	F	15	Retreat, N. J. Same as WQVC
	WQVQ	F	15	Lakehurst, N. J. Same as WQVC
	WQVR	F	15	Batsto, N. J. Same as WQVC
	WQVS	F	15	Velle Plain, N. J. Same as WQVC
	WQVT	F	15	Millville, N. J. Same as WQVC
	WQVU	F	15	McKeetown, N. J. Same as WQVC
	WRAI	F	15	Portable. State of N. Y.
	WRHU	F	15	Maple Shade, N. J. Same as WQVC
	WRLF	F	15	Shiloh, Md. Md. State Dept. of Forestry
	WRWK	F	20	Portable. State of N. Y.
	WRWL	F	....	Portable. (3 units - 15 w). State of N. Y.
39500	WPHB	MP	25	Nashua, N. H. (4 units - 5 w).
	WQHI	MP	50	Natick, Mass. (3 units - 10 w).
	WQJS	MP	25	North Plainfield, N. J. (units - 25 w).
	WQNB	MY	8	Lansdowne, Pa.
	WRBJ	MP	25	Haddonfield, N. J. (1 unit - 12 w).
	W9XEA	RB	40	Paducah, Ky. P. Brdcast. Co.
39540	W9XA9R	E1	....	Portable. Wallace & Tiernan Products
39620	WALF	RB	25	Chicago, Ill. WGN, Inc.
	WAIG	RB	1	Chicago, Ill. WGN, Inc.
39660	WAUG	SEM	15	South Bend, Ind. Ind. & Mich. Elec. Co.
	WFIA	SEM	50	Ft. Wayne, Ind. Ind. Serv. Corp. (1 unit - 25 w).
39860	WAUG	SEM	15	South Bend, Ind. See 39600.
	WFIA	SEM	50	Ft. Wayne, Ind. See 39660.
39900	WQRX	MP	15	Summit, N. J. (3 units - 12 w).
	WRAG	MP	10	Bourne, Mass.
	WRAQ	MP	100	Barnstable, Mass.
	WRAR	MP	10	Barnstable, Mass.
	WRGI	MP	15	Tenafly, N. J. (2 units - 10 w).
	WRGN	MY	15	Hawthorne, N. J. (1 unit - 10 w).
	W9XUG	RB	8	Denver, Colo. Eugene P. O'Fallon, Inc.
40100	KQCN	MP	25	Pueblo, Colo.
	WQRP	MP	....	Quincy, Mass.
	WQRY	MP	100	Madison Co., Ill.
	WQYG	MP	5	Rahway, N. J.
	WQYK	NP	100	Hammond, Ind.
	WRAB	MP	75	Gary, Ind.
	WRGY	MY	25	Hickory, N. C.
40300	W1XYW	FMB	100	Meriden, Conn. WDRC, Inc.
	W2XGD	FMB	....	New York City. NBC, Inc.
	W3NO	FMB	1000	Washington, D. C. Jansky & Bailey
40600	W1NPZ	RB	10	Lawrence, Mass. Hildreth & Rogers Co.
41000	W1ZEQ	B	100	Fairhaven, Mass. E. Anthony & Sons.
	W1XKA	B	50	Boston, Mass.

	W1XKB	B	500	E. Springfield, Mass.
	W1XMX	FAC	5000	Boston, Mass.
	W2XOY	...	....	Albany, N. Y.
41100	WCNY	NCE	500	Brooklyn, N. Y. Board of Education, N. Y. C.
41500	WBOE	NCE	500	Cleveland, Ohio. Board of Education
	W2XDA	TA	....	London, Gt. Britain. BBC. Elexandra Palace
41800	W2XDA	B	50	Schenectady, N. Y. Gen. Elec. Co.
41990	W2XDA	TA	25000	Paris, France.
61020	KNJG	G	....	Glacier N. P., Mont. Nat'l Park Serv., Dept. of Interior
64700	W1XFW	E	5	Milton, Mass. Blue Hill Meteorological Observatory, Harvard U. (station installed on free balloon).
	W9XOF	E	2	Aboard a free balloon. For developing aerological sounding equipment. Univ. of Minn.
140000	W1XOK	RB	250	Boston, Mass. Yankee Network, Inc.
145000	W1XOK	RB	250	Boston, Mass. Yankee Network, Inc.
162000	to 168000			
	W3XAB	E	....	Camden, N. J. RCA Mfg. Co., Inc.
	W3XAM	E	....	Camden, N. J. RCA Mfg. Co., Inc.
	W10XCP	E	....	Camden, N. J. RCA Mfg. Co., Inc.
164000	W1XOE	B	100	Boston, Mass. CBS, Inc.
200000	W3XPN	RB	1/2	Harrisburg, Pa. WHP, Inc.
	W5XFW	RB	7 1/2	Siloam Springs, Ark. KUOA, Inc.
	W5XFW	RB	....	Siloam Springs, Ark. (3/10th watt).
	W6XDJ	RB	2	Hollywood, Calif. KMTR
	W9XXU	B	1/2	Kansas City, Mo. KCMO Brdcastg Co.
205000	W1XOE	B	100	Boston, Mass. CBS, Inc.
210000	W9XAR	E1	....	Portable. Wallace and Tiernan Products
210000	to 216000			
	W3XAR	E	....	Camden, N. J. RCA Mfg. Co., Inc.
	W3XAM	E	....	Camden, N. J. RCA Mfg. Co., Inc.
	W10XCP	E	....	Camden, N. J. RCA Mfg. Co., Inc.
216000	W9XAR	E1	....	Portable. Wallace and Tiernan Products
240000	W3XPN	RB	1/2	Harrisburg, Pa. WHP, Inc.
264000	to 270000			
	W3XAB	E	....	Camden, N. J. RCA Mfg. Co.
	W3XAM	E	....	Camden, N. J. RCA Mfg. Co.
				Harrisburg, Pa. WHP, Inc.
				Camden, N. J. RCA Mfg. Co.
280000	W3XPN	RB	1/2	Nashville, Tenn. Nat'l Life & Accident Ins. Co. (To send program from WSM studio to transmitter, 11 miles, in case of failure of transmission Lines).
300000	W3XRA	E	200	Siloam Springs, Ark.
	W4XFM	B	....	Siloam Springs, Ark. (3/10th watt).
	W5XFW	RB	7 1/2	Camden, N. J. RCA Mfg. Co.
	W5XFM	RB	....
400000	W3XRA	E	200	
401000	and above			
	W1XSL	FMB	100	Hartford, Conn. WDRC, Inc.
	W2XCR	GE	5000	Yonkers, N. Y. Carman R. Runyon, Jr.
500000	W5XFW	RB	7 1/2	Siloam Springs, Ark.
	W9XXU	B	1/2	Kansas City, Mo. KCMO Brdcastg Co.
66500	to 69500			
	WNL	E	....	Rocky Point, N. Y. American Tel & Teleg. Co. (To conduct tests with system of twin channels, single side band operation).
75000	W8XPE	SE	10	Portable. Link Aviation Devices, Inc. (for research, radio beams for blind landings). Same as above.
	W8XPF	SE	10	
86000	to 4000,000			
	W1XSL	B	100	Hartford, Conn. WDRC, Inc. For relay from WDRC to W1XPW
	W2XCR	GE	5000	Yonkers, N. Y. Carman R. Runyon, Jr.
	W3XEY	GE	15	Portable. General Elec. Co.
	W2XRZ	GE	50	Portable. Gen. Elec. Co.
	W2NRZ	GE	50	Portable. Aerovoive, Inc.
	W2XTP	GE	10	Portable. Press Wireless, Inc.
	W6XNS	GE	75	Portable. Press Wireless, Inc.
	W6XNT	GE	75	Portable. Western Union Teleg. Co.
	W10XIA	GE	15	Portable. Western Union Teleg. Co.
	W10XIB	GE	15	Boston, Mass. CBS, Inc.
88000	W1XOE	B	100	Hollywood, Calif. KMTR, Inc.
	W6XDJ	RB	2	Newark, N. J. City of N. Municipal Airport. (Instrument landing for aircraft)
93900	W2XVR	E2	....	Burbank, Calif. United Airports of Calif., Ltd.
	W6XCX	SE	400	Cleveland, Ohio. Cleveland Airport. To establish an instrument landing system).
	W8XTZ	E2	400	

100000	W5XFV	RB	7 $\frac{1}{2}$	Siloam Springs, Ark. KUOA, Inc.
	W9XXU	B	$\frac{1}{2}$	Kansas City, Mo. KCMO Brcdstg Co.
103800	W6XWJ	RB	2	Hollywood, Calif. KMTR, Inc.
120000	W3XPN	RB	$\frac{1}{2}$	Harrisburg, Pa. WHP, Inc.
123000	W1XOE	B	100	Boston, Mass. CBS, Inc.
123000-142000	W3XDM	..	....	Camden N. J. RCA Mfg. Co., Inc.
125000	W3XRA	E	....	Camden N. J. RCA Mfg. Co., Inc.
130000	W1XOK	RB	250	Botonn, Mass. Yankee Network, Inc.
130300	W3XPR	GE	90	Portable, Aeronautical Radio, Inc.
	W3XRA	..	200	Camden, N. J. RCA Mfg. Co., Inc.
131840	W3XRA	..	200	Camden, N. J. RCA Mfg. Co., Inc.
132120	W5XUG	C	50	Shrewsbury, La. Tropical Radio Telegraph Co., Hingham, Mass.
133030	W1XOK	RB	250	Boston, Mass. Yankee Network, Inc.
134850	W1XOO	RB	250	Boston, Mass. Yankee Network, Inc.
135000	W1XOK	RB	250	Boston, Mass. Yankee Network, Inc.
136810	W1XOK	RB	250	Boston, Mass. Yankee Network, Inc.
138630	W1XOK	RB	250	Boston, Mass. Yankee Network, Inc.
138960	W3XAB	E	....	Camden, N. J. RCA Mfg. Co.

TELEVISION STATIONS

W2XAB	42,000- 56,000	Columbia Broadcasting System, Inc.
	60,000- 86,000	New York, N. Y.
W2XCB	336,000-348,000	Columbia Broadcasting System, Inc.
		Portable-Mobile, New York, N. Y.
W2XWV	60,000- 86,000	Allen B. DuMont Laboratories, Inc.
		New York, N. Y. (C. P.)
W1OXKT	156,000-162,000	Allen B. Du Mont Laboratories, Inc.
		Area of New York, N. Y. (C. P.)
W2XVT	42,000- 56,000	Allen B. Du Mont Laboratories, Inc.
		Passaic, N. J.
W9XAL	42,000- 56,000	First National Television, Inc.
	60,000- 86,000	Kansas City, Mo.
W1XA	60,000- 86,000	General Electric Company
		Bridgeport, Conn. (C. P.)
W2XB	60,000- 86,000	General Electric Company
		Albany, N. Y.
W2XD	156,000-162,000	General Electric Company
		Schenectady, N. Y. (C. P.)
W2XI	156,000-162,000	General Electric Company
		New Scotland, N. Y. (C. P.)
W2XH	288,000-294,000	General Electric Company
		Schenectady, N. Y.
W1XG	42,000- 56,000	General Television Corporation
	60,000- 86,000	Boston, Mass.
W2XBS	42,000- 56,000	Don Lee Broadcasting System
	60,000- 86,000	Los Angeles, Calif.
	44,000- 50,000	C. P.—Hollywood, Calif.
W6XAO	42,000- 56,000	Don Lee Broadcasting System
		Area of Los Angeles, Calif.
W2XBS	42,000- 56,000	National Broadcasting Co., Inc.
		New York, N. Y.
W2XBT	92,000 and 156,000-162,000	National Broadcasting Co., Inc.
		Portable (Camden, N. J. and New York, N. Y.)
W2XBU	312,000-324,000	National Broadcasting Co., Inc.

	282,000-294,000	Portable-Mobile, New York, N. Y. (C. P.)
W3XE	42,000- 56,000 60,000- 86,000	Philco Radio & Television Corpora- tion Philadelphia, Pa.
W3XP	204,000-210,000	Philco Radio & Television Corpora- tion Philadelphia, Pa.
W9XG	2,000- 2,100	Purdue University West Lafayette, Ind.
W2XDR	42,000- 56,000 60,000- 86,000	Radio Pictures, Inc. Long Island City, N. Y.
W3XAD	321,000-327,000	RCA Manufacturing Company, Inc. Portable (Camden, N. J.)
W3XEP	42,000- 56,000 60,000- 86,000	RCA Manufacturing Company, Inc. Camden, N. J.
W9XK	2,000- 2,100	State University of Iowa Iowa City, Iowa
W9XUI	42,000- 56,000 60,000- 86,000	State University of Iowa Iowa City, Iowa
W9XZV	42,000- 56,000 60,000- 86,000	Zenith Radio Corporation Chicago, Ill.

Frequency Modulated Stations

	Frequency	Power
W1XK (C. P.)	Westinghouse Electric & Mfg. Co., Hull, Mass.	
W1XOJ	The Yankee Network, Inc., Paxton, Mass.	42,600 1,000
W1XPW	WDRC, Inc., Meriden, Conn. (Rebroadcast W2XMN on a regular basis)	43,000 50,000
W1XSN	Westinghouse Electric & Mfg. Co., East Spring- field, Mass.	43,400 1,000
W1XSO	Travelers Broadcasting Service Corp., Avon, Conn.	43,200 1,000
W1XTG	Worcester Telegram Pub. Co., Inc., Holden, Mass. (C. P.)	43,400 1,000
W2XAG	Garman R. Runyan, Jr., Yonkers, N. Y.	117,190 5,000
W2XDA	General Electric Co., Schenectady, N. Y.	43,200
W2XMN	Edwin H. Armstrong, Alpine, N. J.	43,000, 42,800, 117,430 40 000
W2XOR	Bamberger Broadcasting Service, Inc., Carteret, N. J.	43,400 1,000
W2XOY	General Electric Co., Albany, N. Y. (C. P.) New Scotland, N. Y., 1,000 W.)	43,200 150
W2XQR	John V. L. Hogan, New York, N. Y.	43,200 1,000
W2XWG	National Broadcasting Co., Inc., New York, N. Y.	42,600 1,000
W3XMC	McNary & Chambers, Bethesda, Md.	42,600 100
W3XO	Jansky & Bailey, Georgetown, D. C.	43,400 1,000
W8XAD	WHEC, Inc., Rochester, N. Y.	43,200 1,000
W8XFM	The Crosley Corp., Cincinnati, Ohio (C. P.)	43,200 1,000
W8XVB	Stromberg-Carlson Telephone Mfg. Co., Rochester, N. Y.	42,600 1,000
W8XVH	WBNS, Inc., Columbus, Ohio	43,000 250

HAM HOUNDING

... By OWEN CALLIN

Send your reports for Ham Hounding direct to

Owen P. Callin
61 W. California Ave.,
Columbus, Ohio

The best news of the month is too to keep—and if you haven't read about the new contest yet, turn to it and learn how you DXers—BCB, Shortwave, or Ham Band—can earn real money by twisting the dials.

Since details of the new contest are described elsewhere, we'll say only that our Class A contest is still on and will go for a year, but that those who ordinarily would enter the Class B may as well transfer their results to the new race.

So that's the story—no more Class B in Ham Hounding, but you old-timers get your results in for the Class A contest. Remember, the winners will get their pictures and descriptions of their rigs in Ham Hounding.

See if you can better the scores of 17,544 points turned in by Jack Wells of Phenix, Ala., or 15,105 points made so far by George J. Eder* (R811) of Philadelphia.

We are expecting more of Ralph Kastner, (R1088) too, although his score is only 627 as yet.

For rules of the Class A contest, which we'll refer to now as the Ham Band Contest, since it is the only part now open, read the last issue of Ham Hounding. Questions from readers cause us to explain a bit more for those already started. Veris from the United States count, of course, with the U. S. counted as one country. Veris from CW stations count just as much as from fone stations. Reports may be sent in from time to time—

it would be better, in fact, so we can see how the various scores are lining up.

We learn from the VK's that Australia has banned such technical publications as Q. S. T., Electronics, Radio, etc. Perhaps Radex is included in that list. An editorial in Amateur Radio, ham publication of the VK's, says, in part "These overseas technical magazines are one of the few things that an intelligent community must have if it is to advance in radio and electricity."

VK4CG has written a poem which we're going to "lift" from the same publication. It's pretty good. It is called "The Ham's Lament"—you'll see why when you read it.

George Boscawen (R1576) still needs that 13 w. p. m. before he can get his license. He's got his receiving speed up to 10 w. p. m., however. Wonder if his excellent reports for Ham Hounding will drop off after he gets on the air! ! ! !

He passes along an antenna selection system for the newcomers to DX and to the old-timers who need one. He has built a panel like a phone switchboard and uses small phone jacks to plug into several different antennas. Another small phone plug in the bottom hole of any antenna leads to the set.

Other reports from the West Coast (remember, George is the lad running the shooting gallery at the San Francisco Fair): Pacific Island stations are well-heard these days and South America is fine but rest of the world is dead.

W5's are moaning because K6's contact W6's and skip the southern district. That's because when a K6 calls CQ the answers are loudest from the W6's, says George. He ad-

THE HAM'S LAMENT—1940

By VK4CG

"Ain't it painful for to 'ear the Yankees call CQ,
 And just for us to sit and know there's nothink we can do!
 The band is empty—full of space—wiv lots of room for all,
 And now becoz the sigs is there we ain't allowed to call.
 The rack and panel's thick wiv dust, there's not a tube in sight;
 Still is the key in the junkbox now, still is the blinkin' night.
 Gorn is them happy days of yore when 809's would glow
 And meters on the rigs would wave their little hands—"Let's go!"
 Oh, happy days! Oh, careless days! Where have youse gorn to now?
 I turns me dials; I 'ear the sigs; ain't it a blinkin' cow!
 Me old antenny's got a sag; the spacers all is broke,
 The lead-in's twisted like a rope; I fail to see the joke.
 One mast is leanin' to the North, the other to the States;
 The Dickey-birds is usin' them for waitin' for their mates!
 It hurts to look behind the rack, where all the trannies set,
 And see a homely little scene—four kittens and a cat!
 Oh! Blimey, blimey, wring me 'ands! Oh! Blimey, wring me neck!
 There's blinkin' sumpin' must be done, but what's to do, by hec?
 Fondle the old tubes one by one, give each a tender kiss
 And tell 'em as I shut the box, "Now don't blame me for this!"
 I'd love to stick each in its place and switch the current on,
 Then call a long CQ or two—but if I do, I'm gone!
 The crystals all is in the tin, each polished up and nice;
 For all the good they durn-well are, they might be slabs of ice.
 Oh! strike a light! Oh! strike me pink! What future 'ave I got?
 I must find somethin' else to do—I think I'll have a pot!"

vises the W5's to try the high end of the 20-meter band if they want Hawaiian contacts.

Since we informed all and sundry where George was located he has had so many visitors he's thinking of turning his home into a radio sales room. He has plenty of listening equipment—three or four receivers, all kinds of antennas.

Various news came from the American Radio Relay League during the past few weeks. Hams throughout the nation had a fine time the last week of June when the ARRL Field Day was held.

The popularity of amateur radio literature in Braille for the blind prompted the New York chapter of the American Red Cross to add to its list of Braille transcriptions a publication of the ARRL, "How to Become a Radio Amateur."

Dawkins Espy of New Orleans, La., W5CXH, was awarded the annual Maxim Memorial Trophy Award for 1939, for "all around activity in the many phases of amateur radio." Young Espy was issued his amateur license in 1932 at the age of 13.

Wonder if you amateur aspirants know that a series of lessons in code is being transmitted by the Official, ARRL ham station, W1AW? One schedule per month is being broadcast, with certificates awarded those making "solid copy."

We received a letter from Bob and Frank Hennig (The Wicked Brothers), G8SW, in answer to the Radex we sent them in which was the story of the pen, the two. Frank, wielding the pen, says:

"Dear O. M.

Many thanks for sending along the May and June RADIO IN-

DEX with the nice "write-up."

As you mention, war has of course put all G hams off the air—in fact it seems to have paralyzed amateur radio all over Europe. Nevertheless, I do occasionally find time to listen down on the high frequencies so as not to completely lose the art of "knob twiddling."

You will know that just now the military position is not all that we could hope for and, in consequence, radio has to take a back seat; but there are few people who do not believe that things will turn out successfully in the end and it is said, you know, that "it is always darkest before the dawn." So we're hoping that dawn won't be too long in breaking and when it does you can be sure we will lose no time in getting back to the mike!

Thanks again for the copy of RADEX and if at any time you feel I can give you any information on "ham happenings" in this part of the world drop me a line and I'll be only too pleased to co-operate. Incidentally (if I've been successful in bomb dodging!!) I shall certainly let you know when we get back on the air and perhaps get a report or two on that beam antenna we threatened!

Best of 73's and D. X. for now—
—and that goes for all the RADEXERS.

Yours sincerely

(Signed)

Frank and Bob Hennig (G8SW)"

We'll be looking for that report, won't we, fellows?

Now for the QRA situations. For Phil Craig, especially, here are the QRA's for the following: CO8MP, J. A. Pepper, Central Jobabo, Oriente, Cuba! PK1OG, Malabar Radio, Bandoeng, Java, N. E. I.; ES4G, Erik Anderson, Uus Kalamaja 14-11, Tal-

linn, Estonia; HA9Q, Tibor Kamaras, 5 Tatra Utca, Pestujhely, Hungary—thank Cliff Tavener for those.

We're still looking for the QRA of PY1MS. If you have it, send it to Meredith M. Stroh, 172 Queen St. North, Kitchener, Ontario, Canada. Moe Luff, 626 E. 179 St., Bronx, N. Y., wants the QRA of W2MXW.

George Eder and Roger Crabill add these to the list of non-QSLers, although even these have been known to verify occasionally:

K4XENT, YV1AQ, XE1CQ, XE1CJ, TO2RC, H13N, XE2LK, H17G, XE1GE, CO7VP, HP1A, HI6Q, TG9BA, LU1CA, PY2AK, TG5GJ, YV1AP, YN11P, K4DSE, PY21G, LU5HE, HH5PA, K4FKC, H15X, PY2BH, OA4AK, LA1F, CN8AM, K6CMC, CO2XX, K4EJF, HB9DE, CT1OY, H17I, YS1MS, T12FG, K5AP, 11ME, YR5AA, YR5CF, H14F, K4UG, CN8AV, PY1FR, PY11M, VP1BA, K6NZQ, K6OFW, SM5SV, CT1AY, CE2BR, VP3BG, YV5AE, YV5AZ, CO2JJ, VP6MR and VP9G.

Our personality parade this time deals with just one member of the amateur fraternity—a woman, familiar to almost every vet DXer—K4FOW, Jennie L. Ramirez, of San-
turce, Puerto Rico.

She is one of those rare characters in ham radio whose experience reads like a saga. She's from New Orleans, La., 37 years old, and a ham since Aug. 16, 1938. She's married to Santos G. Ramirez, K4FAB. She has a daughter, 17, who wants to be a doctor. Jennie has lived in Puerto Rico since 1914 and has been back home only twice.

Here's her story:

One of her first contacts when she went on the air was with W9FFB in St. Louis, Mo., Roy Allison. 9FFB asked Jennie to call up his married daughter, Elizabeth, who was on the island. Soon Elizabeth was talking to her dad every day through K4FOW.

When Elizabeth had her baby, it was Jennie who flashed the news first to the proud grandparents back in St. Louis, and it was Jennie who described the baby's progress as the days went on.

But the tot grew ill soon after birth. He grew worse and finally his parents decided to fly him back to the States for hospitalization. Jennie fixed everything up via K4FOW and when the parents left with the baby, they were met in St. Louis by the grandfather, and the sick tot was rushed to a hospital.

Its condition was broadcast to Jennie every day and she kept the family's island friends informed. The St. Louis newspapers even heard of the story and printed it. And the baby began to recover.

The father finally left St. Louis and came back to the island, where he talked daily to his wife and grandparents via K4FOW. Every day the baby kept getting better and it was a great day for everyone when it was brought to the grandfather's home from the hospital. And when those in Puerto Rico heard the little tot cry over the mike at 9FFB it was really something.

When the mother finally came back to the island with the baby, who was with her but 9FFB himself, and there was a great time at the home of K4FOW.

Time magazine in the March 11 issue of 1939 carried a full account of the story, but Jennie said that this was the first time she had ever given out an account of the story herself.

So if any of you DXers happen to stop in Santurce, stop at K4FOW's and ask her how the baby and the family are. Could any baby have a better godmother?

A veri asked from WCOV, BCB station in Montgomery, Ala., brings a card from Chief Engineer R. V. Robinson, W4GCR (ex-W8LPZ, ex-W3LOT), who used to be a ham in



The heroine of K4FOW, who really is not a "Funny Old Woman," her identification. She is Jennie Ramirez, mother of a 17-year-old girl who wants to be a doctor!

Urbana, Ohio, and also in Bristol, Tenn., when he was with BCB station WOPI.

The list of countries is necessarily short this issue because of the lack of reports. As most of you put it, there just isn't much DX now—especially in the middle of the summer season. Heres what we have:

ALASKA—K7GSC verified promptly with a card on which was outlined a map of the country.

ALEUTIAN ISLANDS—W6EXE, portable K7, was heard on 14.200 skedding W6TT so that the op could talk to his wife in Oakland, Calif. He was on a ship at Dutch Harbor and was operating a 500-watt rig. He advises not to send cards direct but to the home address of W6EXE—F. J. Bird, 3488 Davis St., Oakland,

Calif.

AMERICAN SAMOA—A friend of K6PLZ's, a W3, will be leaving soon for a government tour of Pacific Islands belong to the U. S. He now is in Kauai, Hawaii. He expects to have a 200-watt rig on the air late in the summer and will be heard signing a KH6 call from American Samoa. Other places to be visited include Baker, Palmyra, Midway, and Howland Islands.

ANGOLA—CR6AF, 14.060, is once again on the air with an improved transmitter running 75 watts. Since W's were forbidden to work foreign hams, he may be heard in QSO's with PY's in Portuguese near 4:30 p. m. He is having trouble with his modulation.

BRITISH HONDURAS—Although off the air, VP1 stations get a play this month through J. W. Cunningham (R1328), who wants everyone to know that VP1WB OSLED for him with a black and white card. Incidentally, listen for Cunningham himself, who took the exam seven weeks ago and expects to be on 40-meter cw at any time now.

BRAZIL—Correct QRA for PY2IT, according to Stan Sosnowski (R1698), is Major Carlos Villaca, Rua Turiassu 278, Sao Paulo, Brazil.

CANTON ISLAND—KF6JEG, 14.220, heard irregularly in the mornings with good signals, was one of a score of workers on the island engaged in establishing the Pan-American Airways base used on the new San Francisco-New Zealand route. By this time he probably has a new QRA since he asked for a transfer to Jarvis Island.

EL SALVADOR—YS1OI, 14.245, QSLed in less than a month for Bill Jones of Dallas, Tex. New YS fones are: 3PL, 14.150; Prudencin Lach, San Salvador, El Salvador; 1JA, 14.305; 1AR, and 1JGM.

GUAM—KB6BMI is the new phone one 20 meters. KB6CBN, 14.250, is

ex-W6CBN. His QRA is Roy C. Henning, c/o Commercial Pacific Cablbe Co., Sumay, Guam. W's say he consistently as failed to QSL so it would be wise to send him a self-addressed, prepared QSL card.

HAWAII—K6NYD does QSL, according to our Detroit DXer, Stan Sosnowski, who also has cards from K6OJI, 6PLZ, and 6PTW.

JAPAN—J2XA, 14.030, runs 600 watts on fone, 800 cw. He QSLs with a plain, blue-lettered card, but makes up for the plainness by issuing it in uch a friendly, obliging spirit. He sends a picture of himself and a copy of a Japanese picture magazine. The op is a doctor who appreciates SWL reports.

JAVA—PK1OG QSLs promptly with a buff card and blue call. He uses 50 watts and has three different antennas, beamed on the U. S., Europe and Africa.

MIDWAY ISLAND—Credit for being the first KD6 and for being the first station in U. S. hamdom to legally use just the prefix goes to KD6, 14.150. The op, a California boy, received special permission to use just the KD6 until the FCC issues him a six-letter call. This dispensation is possible since there are no other KD6's on the air. He uses 25 watts into an 807 in the final, and may be heard from midnight to 8 a. m. Although his QTH is not exactly known, KD6, Midway Island, should reach him. He has promised to QSL.

NICARAGUA—YN1FF was heard asking for SWL reports. The QRA is Dr. Fernando J. Fuentes, 1-A Calle Sur Este 404, Managua.

PALMYRA ISLAND—KG6MV, ex-K6MV of Honolulu, has been heard on 14.240, and on 14.180, on this island of the Johnson group since power is derived from a generator, he will be difficult to log.

PHILIPPINE ISLANDS—W's can no longer QSO KA's who are

not American citizens, which lets out quite a few well-known stations such as KA1LZ, 1AP, 1FH, 1AG, etc., the ops of which are citizens of the Philippine commonwealth. Still QSOable are KA1ME, 1BB, 7FS, 1GC, 1HQ, 1JH, 1HR, and 1ZL. Two new KA's heard are 1XS on 14.140 and 1HQ on 14.090.

SPANISH MOROCCO — EA9AI, 14.060, powerful 500-watt fone station of Dr. Angel Mora of the Spanish Colonial Army, has been silent for weeks due to military action in Spanish Morocco and the International Zone. However, the station may be on the air soon broadcasting propaganda to Latin America, and look for it on 20 meters since 40 is unsuitable for DX in the summertime. For Meredith Stroh, a veri from Spanish Morocco will be OK for Africa.

TANGIER—The famous EK1AF may be taken over by Spanish authorities and used also for the dissemination of propaganda. Jose has not been heard for quite some time.

UNITED STATES—Does anyone know the QHT in Arizona of the famous and defunct PK6XX? He is supposed to be in that state. Here's two hams who will QSL for postage: W3ADI, Allan R. Muncey, 104 Wesley Ave., Collingswood, N. J.; and W3EOZ, Thomas A. Consalvi, Bryn Mawr, Pa.

WAKE ISLAND—KC6OKS, ex-W6OKS, is the first fone station on this wee island in the Pacific Ocean. Power is low because of a generator. The op says to QSL either direct or to the home address of W6OKS. He may be heard on 14.170 or 14.120.

That winds up the station list. How about some reports on the 40, 80 and 160 meter bands, you DXers.

CHATTER—The VIC stands at 90 even on shortwave and 88 on the ham bands for Cliff Tavener (R716) . . . F. J. Kosik has a new Super-Defiant S25 Hallicrafter . . . Radex issues VAC certificates with a

notarized report (you don't have to send the veris to the office)—this for Meredith M. Stroh. . . Weston Richards, one of our best and most ardent DXers, is only 14 years old.

. . . Sterling Fisher uses a switch to select either a 132-ft. north-south antenna, or one 81-ft. long running east-west. . . Ralph Kastner has received cards from LU8AB, CX2CO, K6BNR, K7GZH, XU1B, PK3BD, K5AM, and XE1Q. . . W. F. Knouff of Columbus, O., has logged 72 countries on his National NC-44 a little over a year old. . . James Reilly of Bayside, Long Island, New York, sends his first report—a fine one. . . Walter E. Welch comes through with a good list of calls heard. . . Roger Crabill offers to send a monthly report—for same we will be very appreciative, Rog.

And that, members of the radio audienc, is all for this time. You have been very obliging with your reports in the middle of a dull summer season made doubly duller by stringent FCC regulations and the absence from the air of stations of war-torn countries. We want to thank especially our standbys, Cliff Tavener, Jack Wells—and our new reporter, Meredith Stroh. Don't forget to send in your scores for the Ham Band Contest.

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Emerson, N. J.

\$1.25

Introduction To A Nameless Science

By C. J. Fern, Jr.

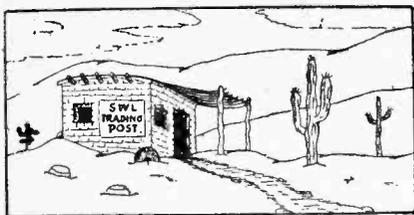
Outer space—that space between the planets, stars, and such—has been thought of by the average man as nothing—nothing but a cold void through which the planets, stars, and such,—have spun, swung, and turned. Scientists were inclined to agree with them, until recently. Recent investigations in various fields have definitely prove this idea false. Scientists engaged in certain fields now believe outer space to be filled with scattered electrically charged particles. As yet, very few scientists have entered the new field which has been opened up by this discovery. Dr. Harlan Stetson, former director of the Perkins Observatory and now head of the Cosmic-Terrestrial Research Department at M. I. T., has named this new science **cosmecology**; **cosmecology** equals **cosmos**—or **space**—plus **ecology**—the study of environmental influences—or the study of the effects of outer space on our environment. (Note: **Cosmecology** is not to be confused with **cosmetology**, the science of making y!s more beautiful.)

I stated above that very few scientists had ventured into this new field. That is because entry into this field necessitates knowledge of many other sciences, and in this respect it resembles whiskey—it is a lot of sciences blended into one which is not all like the original components. Geophysicists are interested in variations of the earth's magnetic field. Astronomers prefer to cruise out among the galaxies rather than investigate things so close to home. The weather man is also interested for there are hints of some connection between these goings-on in the upper atmosphere and whether we boil or freeze tomorrow; but he has not the means to get at this zone where air pressure gives way to ion-density per cubic centimeter. The physicist

has contributed much to this new science but it is not his province any more than it is the astronomer's although he does leave his laboratory for field strength measurements of cosmic rays and atmospheric electricity. The radio engineer is interested because of several things; the action of the Heaviside, Appleton, and other ionized layers in the upper atmosphere; reflection of radio waves by other ionized layers millions of miles out in space; the effects of the sun, moon, and planets on radio transmission, with their tidal action on signal paths.

Which last is why this article appears in this publication. When I read the original article—in the June 1940 issue of **Astounding Science Fiction**—I remembered two articles that appeared in **Radex** several years ago. The two articles, published in 1936 or 1937, concerned just those radio phenomena mentioned above. One, by a Mr. Ralph Stranger, dealt with the reflections of radio waves (of wavelength less than 30 meters) from points more than 25,000 miles away. The article mentioned tests by stations GSB and HBJ, in collaboration with a listeners' organization, which, among other things, resulted in the observation of a signal reflected from a point 67 million miles away, representing an elapsed time between transmission and reception of over even minutes. The other article, by a Mr. Homer Gosney of Redondo Beach, California, dealt with the author's experience in dxing on the broadcast band, and stated the author's belief that the Sun had certain tidal effects upon radio signals. According to the article in **Astounding**, Harvard University recently made a series of signal measurements of the signal of WBBM, Chicago, to determine what effects the moon might have on the signal path. After running a series of cards with signal data punched in them (the way the

(Please turn to page 95)



Everette Allen, Jr., Lovejoy, Ill. SWL Cards).

Stanley Sonowski, 6615 Horatio St., Detroit, Mich. (SWL cards).

N. E. Lank, 932 Wilder Ave., Montreal, P. Q. (SWL cards).

Luis Tauramendoza, G. de Quesada 1-L, Camaguey, Cuba. (SWL cards).

John E. Leavitt, 478 Post St., San Francisco, Calif. (SWL cards).

O. Barneson, 2838 Moss Ave., Los Angeles, Calif. (SWL cards).

George J. Grunert, 1523-24th St., Detroit, Mich. (SWL cards).

Roger Crabill, 1116 Staples St., N. E., Washington, D. C. (SWL cards).

Vernon Lee Gibbs Jeffersonville, Ky. (Exchange SWL cards and correspond with users of Skyrider Defiant SX-4).

Julius J. Krupp, 3849 W. Grand Ave., Chicago, Ill. (SWL cards and nautical correspondence).

Frank Kosik, 1816 Allport St., Chicago, Ill. (Correspond with owners of Hallicrafters SX25 Super-Defiant).

Henry Bennett, 644 Atlantic Ave., Collingswood, N. J. (SWL cards and correspondence).

Willis Richardson, 80 W. South St., Painesville, Ohio (Correspond with owners of Howard 430 and Sky Buddy receivers; swap SWL cards).

Application to the FCC

CP—Construction permit.
mod.—modification.
lic.—license.
ltd.—limited time.
unltd.—unlimited time.
S. H.—specified hours.

- KDON, Monterey, CP 500(1), 1440 kcs.
- KEEN, Seattle, CP 1370 kcs. to 1420 kcs.
- KFBB, Great Falls, mod. of lic. for 900 kcs., 5 kw.
- KFIO, Spokane, CP 950 kcs., 1 kw. unltd.
- KFNF, Shenandoah, mod. of CP to move to Council Bluffs.
- KFPW, Ft. Smith, CP 1370 kcs.
- KFRU, Columbia, to 1370 kcs., 250 w. unltd.
- KFYO, Lubbock, to 1380 kcs., 500(i).
- KGDM, Stockton, 1530 kcs., 1 kw. unltd.
- KMAC, San Antonio, CP 930 kcs., 1000 w. unltd.
- KOVC, Valley City, CP 1340 kcs., 500(1).
- KOY Phoenix, mod. of lic. for 550 kcs.
- KRBC, Abilene, CP 940 from 1420; 1 kw.
- KRMC, Jamestown, CP 900 kcs., 1 kw.
- KRRV, Sherman, CP 880 kcs., 1 kw. unltd.
- KSD, St. Louis, CP 630 kcs.
- KSEL, Pocatello, CP 600 kcs., 1 kw. unltd.
- KTBS, Shreveport, CP 620 kcs., 1000(5) unltd.
- KWK, St. Louis, CP 630 kcs.
- KXL, Portland, CP 730 kcs., 10 kw. unltd.
- KXOK, St. Louis, CP 630 kcs., 1000(5).
- KXYZ, Houston, CP 710 kcs; 10 kw.
- KYOS, Merced, CP 1390 from 1040; 500(1) unltd.
- WAPI, Birmingham, CP 1050 kcs., kw.
- WCAD, Canton, CP Watertown, N. Y.
- WCOL, Columbus, to 1200 kcs., 250 w. unltd.
- WGBF, Evansville, CP 1250 kcs., 1000(5) unltd.
- WGRC, New Abany, CP 880 kcs., 250 w. unltd.
- WHIA, Madison, CP 670 kcs. 50 kw. unltd. (facilities of WMAQ).
- WIBC, Indianapolis, mod. lic. 1130 from 1050; 1 kw.
- WIJD, Chicago, CP 1040 from 1130; 100000(25) unltd.
- WKAQ, San Juan, CP 620 kcs. 5 kw.
- WLAP, Lexington, CP 1270 kcs. 1 kw. unltd.
- WMBC, Detroit, CP 600 kcs.
- WREN, Lawrence, CP Kansas City.
- WROL, Knoxville, CP 620 kcs. 500(1).
- WSBT, South Bend, CP 930 kcs. 500 w. unltd.
- WSFA, Montgomery, CP 1410 kcs. 1 kw. unltd.
- WSFR, Springfield, CP 1240 from 1140; 500 w unltd.
- WTJS, Jackson, CP 1380 from 1310; 1 kw.; mod. lic. 250 unltd.
- WWVA, Wheeling, CP 1140 from 1160; 50 kw.

Applications for New Stations

Albemarle, N. C., Albemarle Brcdstg. Station, 1370 kcs. 100 w. days.
 Arlington, Va., Arlington Brcdstg. Corp., 1420 kcs. 250 unlt.
 Asheville, N. C., Publix-Bamford Theaters, Inc., 1430 kcs. 1 kw. unlt.
 Atlantic City, N. J., Atl. City Brcdstg. Co., 1100 kcs. 5 kw. sharing with WBIL.
 Atlantic City, N. J., Neptune Brcdstg. Corp., 1420 kcs. 100(.25).
 Bainbridge, Ga., Post Search Light Co., 1500 kcs., 100(.25).
 Bellington, Wash., Bell Brcdstg. Co., Inc., 1200 kcs. 100(.25).
 Birmingham, Ala., B. News Co., 590 kcs. 1 kw. unlt.
 Boston, Mass., Mayflower Brcdstg. Corp., 1410 kcs. 500(1).
 Bridgeport, Conn., Chas. Greenblatt, 1190 kcs. 250 w. ltd.
 Bridgeport, Conn., Harold Thomas, 1420 kcs. 250 unlt.
 Brownwood, Tex., Brown County Brcdstg. Co., 990 kcs. 1 kw. days.
 Burlington, Iowa, Burlington Brcdstg. Co.
 Burlington, N. C., Burlington Brcdstg. Co., 1420 kcs., 100 D.
 Burlington, N. C., Central Carolina Brcdstg. Co., 1420 kcs., 250 unlt.
 Cedar Rapids, Iowa, The Gazette Co., 1420 kcs. 100 w. unlt.
 Cheyenne, Wyo., Western Brcdstg. Co., 1210 kcs. 100(.25).
 Cleveland, Ohio, Cuyahoga Valley Brcdstg. Co., 1500 kcs. 100 w. days.
 Clinton, Iowa, Clinton Brcdstg. Corp.
 Columbus, Miss., Birney Ines, 1370 kcs. 100(.25) unlt.
 Ely, Nev., Eastern Nev. Brcdstg. Co., 1500 kcs. 100 days.
 Everett, Wash., Cascade Brcdstg. Co., 1420 kcs. 100(.25) unlt.
 Ft. Myers, Fla., Palm Radio Co., 1210 kcs., 250 unlt.
 Greenville, Tex., Hunt Brcdstg. Assn., 940 kcs., 1 kw. D.
 Hannibal, Mo., Courier Post Pub. Co.
 High Point, N. C., High Point Brcdstg. Co., 1120 kcs., 250 unlt.
 Jacksonville, Ill., Stephenson, Edge & Kormeyer, 1370 kcs., 250 unlt.
 Kosciusko, Miss., P. K. Ewing, 1500 kcs., 100(.25) unlt.
 Las Vegas, Nev., Las Vegas Brcdstg. Co., 1420 kcs. 100(.25).
 Las Vegas, Nev., Nev. Brcdstg. Co., 1370 kcs. 100(.25) unlt.
 Lookout Mt., Ga., Lookout Mt. Corp., of Ga., 1370 kcs., 100(.25).
 Louisville, Ky., Gateway Brcdstg. Co., 880 kcs. 500 unlt.
 Miles City, Mont., E. E. Krebsbach, 1310 kcs., 100(.25).
 Miles City, Mont., Star Printing Co., 1310 kcs., 250 unlt.
 Norfolk, Va., Colonial Brcdstg. Corp., 1370 kcs. 100(.26).
 North Sacramento, Calif., Grant Union High School District, 1530 kcs., 1 kw.
 Pawtucket, R. I., Pawtucket Brcdstg. Co., 1390 kcs. 1 kw. unlt.
 Pontiac, Mich., King-Trendle Brcdstg. Corp., 1440 kcs. 250 unlt.
 Riverside, Calif., Brcdstg. Corp. of America, 1390 kcs. 1 kw.

Riverside, Calif., Richard T. Sampson, 1390 kcs. 250 days.
 Salina, N. Y., Sentinel Brcdstg. Corp., 620 kcs. 1 kw. unlt.
 Sandusky, Mich., Thumb Brcdstg. Co., 880 kcs. 1 kw. days.
 San Diego, Calif., Jack Hazard, 1430 kcs., 500 w. unlt.
 San Juan, P. R., Enrique Aberca Sanfeliz, 580 kcs. 1 kw. unlt.
 San Juan, P. R., United Theaters, Inc., 580 kcs. 1 kw. unlt.
 Santa Monica, Calif., A. E. Austin, 1160 kcs. 100(.25).
 Shelby, N. C., Jos. A. Lattimore, 1370 kcs. 100(.25) unlt.
 Springfield, Ohio, Radio Voice of Springfield, 1310 kcs. 100 unlt.
 Springfield, Ohio, S. Radio Corp., 1310 kcs. 100 unlt.
 Springfield, Ohio, S. Radio Service, 780 kcs. 250 days.
 Steubenville, Ohio, Valley Brcdstg. Co., 930 kcs., 1 kw. D.
 Tacoma, Wash., Tacoma Brcdstg. Co., 1420 kcs. 100(.25).
 Tacoma, Wash., Michael J. Mingo, 1400 kcs. 250 unlt.
 Traverse City, Mich., Northern Brcdstg. Co., 570 kcs. 500 days.
 Valdosta, Ga., John F. Arrington, Jr., 1230 kcs. 250 unlt.
 Watertown, N. Y., Black River Valley Brcdstg. Co.
 Watertown, N. Y., Watertown Brcdstg. Corp. 1210 kcs., 100(.25).
 Watertown, S. Dak., Midland Brcdstg. Co., kcs. 250 days.
 Wisconsin Rapids, Wis., Wm. F. Huffman, 1310 kcs., 100(.25).
 Worcester, Mass., Winfield A. Schuster, 1200 kcs. 100 unlt.
 Worcester, Mass., C. T. Sherer Co., Inc., 1200 kcs. 100(.25).

Stations Using Special Frequencies

Call	City	Assigned	Using
KTHS	Hot Springs	1040	1060
WTIC	Hartford	1060	1040

The Month Changes in Station Data New

920	XEON Tijuana, B. Cfa.
1120	WKPA New Kensington, Pa.
1200	KODL The Dalles, Oreg.
1200	WAJR Morgantown, W. Va.
1200	WCED Du Bois, Pa.
1200	WGRB Grand Rapids, Mich.
1210	WGGM Gainesville, Ga.
1230	WHPC Albany, Ga.
1310	KWLM Willmar, Minn.
1310	WBRW Welch, W. Va.
1310	WDAK West Point, Ga.
1310	WFHR Wisconsin Rapids, Wis.
1310	WIZE Springfield, Ohio
1310	WLAV Grand Rapids, Mich.

- | | | | | | |
|------|-------|--------------------------------------|------|------|--------------------------------------|
| 1310 | WSTV | Steubenville, Ohio | 1200 | WSKB | McComb, 250 from 100 |
| 1370 | KENO | Las Vegas, Nevada | 1210 | KYUM | Yuma, 250 from
100(.25) |
| 1370 | KYAN | Cheyenne, Wyoming | 1220 | WDAE | Tampa, 5000 from
1000(5) |
| 1370 | WCBI | Columbus, Miss. | 1230 | WFBM | Indianapolis, 5000 from
1000(5) |
| 1370 | WJHO | Opelika, Ala. | 1310 | WJPF | Herrin, 250 from
100(.25) |
| 1370 | WKPT | Kingsport, Tenn. | 1310 | WSAV | Savannah, 250 from 100 |
| 1390 | | Pawtucket, R. I. | 1310 | WSOY | Decatur, 250 from
100(.25) |
| 1420 | KFUN | Las Vegas, Nevada | 1350 | WBNX | New York, 5000 from
1000 |
| 1420 | WBML | Macon, Georgia | 1360 | KSLM | Salem, 1000 from
500(1) |
| 1420 | WFPG | Atlantic City, N. J. | 1370 | KFPW | Ft. Smith, 250 from 100 |
| 1500 | WERC | Erie, Pa. | 1370 | KORN | Fremont, 250 from
100(.25) |
| 1500 | WMRC | Greenville, S. C. | 1370 | WARM | Scranton, 250 from
100(.25) |
| 1500 | WSSJ | San Juan, Puerto Rico | 1370 | WFTL | Ft. Lauderdale, 250
from 100(.25) |
| | | Frequency | 1420 | WHMA | Anniston, 250 from 100 |
| 780 | WPRA | Mayaguez, from 1370 | 1420 | WLAP | Lexington, 250 from
100(.25) |
| 830 | KFUO | Clayton, from 550 | 1420 | WMSD | Daytona Beach, 250
from 100 |
| 1200 | WCOL | Columbus, from 1210 | 1420 | WSPB | Sarasota, 250 from
100(.25) |
| 1370 | KFPW | Ft. Smith, from 1210 | 1460 | WJSV | Washington, 50,000
from 10,000 |
| 1420 | WHDL | Olean, from 1400 | 1500 | KBKR | Baker, 250 from
100(.25) |
| | | Location | 1500 | KDAL | Duluth, 250 from
100(.25) |
| 830 | KFUO | Clayton, Mo., from St.
Louis | 1500 | KDB | Santa Barbara, 250
from 100(.25) |
| 1050 | KFBI | Wichita, Kans., from
Abilene | 1500 | KTOH | Lihue, 250 from
100(.25) |
| 1210 | WGRM | Greenwood, Miss., from
Grenada | 1500 | KYCA | Prescott, 250 from
100(.25) |
| | | Call Letters | 1500 | WKNY | Kingston, 250 from 100 |
| 1370 | KEVR | Seattle, from KEEN | 1500 | WWRL | Woodside, 250 from
100(.25) |
| | | Power | | | Network |
| 570 | KVI | Tacoma, 5000 from
1000(5) | 1310 | WSJS | Winston-Salem, NBC
from CBS |
| 580 | KMJ | Fresno, 5000 from 1000 | 1420 | KRBM | Bozeman, new NBC |
| 610 | KFRC | San Francisco, 5000
from 1000(5) | 1500 | WKBB | Dubuque, new NBC |
| 630 | WPRO | Providence, 5000 from
1000(5) | | | Delete |
| 760 | KXA | Seattle, 1000 from
250(.5) | 570 | WSYU | Syracuse, N. Y. |
| 780 | WPRA | Mayaguez, 1000(2.5)
from 100(.25) | 610 | WMBF | Miami, Florida |
| 830 | KFUO | Clayton, 1000 from
500(1) | | | |
| 880 | WSUI | Iowa City, 1000(5)
from 500(1) | | | |
| 950 | KMBC | Kansas City, 5000 from
1000(5) | | | |
| 1200 | WBAB | Atlantic City, 250 from
100(.25) | | | |
| 1200 | WCOL | Columbus, 250 from 100 | | | |
| 1200 | WJBW | New Orleans, 250
from 100 | | | |
| 1200 | WJRD | Tuscaloosa, 250 from
100(.25) | | | |

860	WBOQ	New York City	1370	KTUC	Tucson Broadcasting Co., Inc., Tucson, Ariz.
1200	KWBD	Plainview, Texas	1370	WHUB	WHUB, Inc., Cookeville, Tenn.
1500	KGFI	Brownsville, Texas	1370	WISE	Station WISE, Inc., Asheville, N. C.
		Owner	1370	WSVS	Board of Education, Buffalo, N. Y.
550	WKRC	Cincinnati Times-Star Co., Cincinnati, Ohio	1400	WLTH	WLTH-New York, Inc., New York City
620	WSUN	City of St. Petersburg, Fla.	14200	CKLN	News Publishing Co., Ltd., Nelson, B. C.
630	CJRC	Transcanada Communications, Ltd., Winnipeg, Man.	1420	WELL	Federated Publications, Inc., Battle Creek, Mich.
740	KTRB	KTRB Broadcasting Co., Inc., Modesto, Calif.	1420	WNOE	WNOE, Inc., New Orleans, La.
740	XEH	Radio Tarneva, S. de R. L., Padre Mier 215, Monterrey, N. L.	1420	WSLI	Standard Life Broadcasting Co., Jackson, Miss.
820	WHAS	Courier-Journal and Louisville, Times Co., Louisville, Ky.	1440	WMBD	WMBD Broadcasting Co., Peoria, Ill.
920	WSPA	Spartanburg Advertising Co., Spartanburg, S. C.	1460	KSTP	KSTP, Inc., St. Paul, Minn.
930	KMA	May Broadcasting Co., Shenandoah, Iowa			Permit to Change Power
950	CJRM	Transcanada Communications, Ltd., Regina, Sask.	550	WSVA	Harrisonburg, 500 to 1000
1200	WWAE	O. E. Richardson and Fred L. Adair, Hammond, Ind.	560	KLZ	Denver, 1000 to 5000
1210	WFOY	Fountain of Youth Broadcasting Co., St. Augustine, Fla.	600	KFSD	San Diego, to 5000
1220	WGNY	WGNY Broadcasting Co., Inc., Newburgh, N. Y.	610	WIOD	Miami, 1000 to 5000
1250	WKST	WKST, Inc., New Castle, Pa.	610	WIP	Philadelphia, 1000 to 5000
1290	KLCN	Fred O. Grimwood, Blytheville, Ark.	620	KTAR	Phoenix, 1000 to 5000
1310	KARM	Gilbert H. Jertberg, Executor, Fresno, Calif.	630	KFRU	Columbia, 500(1) to 250
1310	KSRO	Ernest L. Finley, Santa Rosa, Calif.	630	WGBF	Evansville, 500(1) to 1000(5)
1310	KSUB	Southern Utah Broadcasting Co., Cedar City, Utah	630	WMAL	Washington, 250(.5) to 5000
1370	KEVR	Evergreen Broadcasting Corp., Seattle, Wash.	710	KIRO	Seattle, 1000 to 10,000
1370	KMAC	The Wolmac Co., San Antonio, Texas	710	KMPC	Beverly Hills, 1000(5) to 5000
			740	WHEB	Portsmouth, 250 to 1000
			770	KFAB	Lincoln, 10,000 to 50,000
			850	WKAR	E. Lansing, 1000 to 5000
			880	WRNL	Richmond, 500 to 1000
			890	KARK	Little Rock, 1000(5) to 5000
			900	KGBU	Ketchikan, 500 to 1000

940	KOIN Portland, 1000(5) to 5000	1370	KERN Bakersfield, 100 to 1000
940	WAAT Jersey City, 500 to 1000	1370	KFRO Longview, 250 to 1000
940	WAVE Louisville, 1000 to 5000	1370	WMSL Decatur, 100 to 250
940	WCSH Portland, 1000 to 5000	1380	KOH Reno, 500 to 1000
940	WDAY Fargo, 1000 to 5000	1380	WALA Mobile, 500(1) to 1000
940	WICA Ashtabula, 500 to 1000	1390	KABR Aberdeen, 500(1) to 5000
950	WRC Washington, 1000(5) to 5000	1390	KLRA Little Rock, 1000(5) to 5000
1120	KRSC Seattle, 250 to 1000	1390	WHK Cleveland, 1000(5) to 5000
1180	KOB Albuquerque, 10,000 to 50,000	1420	KEUB Price, 100 to 250
1200	WTHT Hartford, 100 to 250	1420	KWBG Hutchison, 100 to 250
1210	KFXM San Bernardino, 100 to 250	1420	WAPO Chattanooga, Tenn., 250 to 500(1)
1210	WFAS White Plains, 100 to 250	1420	WELL Battle Creek, 100 to 250
1210	WHIZ Zanesville, 100 to 250	1420	WGPC Albany, 100 to 250
1220	WCAE Pittsburgh, 1000(5) to 5000	1420	WPRP Ponce, 250 to 1000(5)
1230	KGBX Springfield, 500 to 5000	1450	WHOM Jersey City, 250 to 500(1)
1250	KXOK St. Louis, 1000 to 5000	1460	KSTP St. Paul, 10,000 to 50,000
1290	WNEL San Juan, 1000(2.5) to 5000	1500	KOTN Pine Bluff, 100 to 250
1300	KFH Wichita, 1000(5) to 5000	1500	WKAT Miami Beach, 250 to 1000
1300	WFBC Greenville, 1000(5) to 5000	1500	WMEX Boston, 250 to 5000
1310	KRRV Sherman, 250 to 1000	1500	WNLC New London, 100 to 250
1310	KTSM El Paso, 250 to 500	1500	WRTD Richmond, 100 to 1000
1310	KUIN Grants Pass, 100 to 250	1550	WQXR New York, 1000 to 5000
1310	WNBH New Bedford, 100(.25) to 250		Permit to Change Location
1310	WRAW Reading, 100 to 250	1260	WNBX Springfield, Vt., to Keene, N. H.
1310	WSGN Birmingham, 100(.25) to 250		Permit to Change Frequency
1320	KGMB Honolulu, 1000 to 5000	630	KFRU Columbia, to 1370
1320	WADC Tallmadge, 1000(5) to 5000	630	WGBF Evansville, to 1250
1330	KSCJ Sioux City, 1000(5) to 5000	770	KFAB Lincoln, to 1080
1330	WDRG Hartford, 1000(5) to 5000	1250	KXOK St. Louis, to 630
1330	WSAI Cincinnati, 1000(5) to 5000	1310	KRRV Sherman, to 880
1330	WTAQ Green Bay, 1000(5) to 5000	1310	KTSM El Paso, to 1350
1340	WSPD Toledo, 1000(5) to 5000	1320	KGMB Honolulu, to 590
1350	KWK St. Louis, 1000(5) to 5000	1370	KERN Bakersfield, to 1380
1360	WFBL Syracuse, 1000(5) to 5000	1370	KFRO Longview, to 1340
		1380	KOH Reno, to 630
		1420	WAPO Chattanooga, to 1120
		1420	WPRP Ponce, to 1480
		1450	KTBS Shreveport, to 620
		1500	WKAT Miami Beach, to 1330
		1500	WMEX Boston, to 1470
		1500	WRTD Richmond, to 590

NORTH AMERICAN BROADCASTING STATIONS BY FREQUENCIES WITH VERIFICATION SIGNERS

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 and daytime power is shown in parentheses in kilowatts. Thus: (.25) indicates 250 watts. Exact frequencies, when not multiples of ten are shown in the second column.

Second Column Symbols

- A—Status in doubt.
- B—National "Blue" Network.
- C—Columbia Network.
- D—Daytime only.
- E—Minor Network.
- F—Canadian Network.
- G—Specified Hours.
- 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—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.
- ?—Reported but not officially confirmed.
- ...—No information.
- a—Verifies for return postage.
- b—Verifies only occasionally.
- d—Verifies for government postal card.
- e—Verifies free.
- f—Verifies for 10 cents.
- g—Card for postage; verify stamp for 10c.
- z—No information available.

540 kcs. (552.2 m.)

CBK F 50000

a Watrous, Sask.

550 kcs. (545.1 m.)

CFNB F 1000
 CMW ... 2500
 KFYZ N 1000(5)
 KOAC ... 1000
 KOY C 1000
 KSD R 1000(5)
 KTSA C 1000(5)
 WDEV D 1000
 WGR CM 1000(5)
 WKRC 1000(5)
 WSVA DX 500

a Fredericton, N. B.
 a Havana, Cuba
 a Bismarck, N. Dak.
 a Corvallis, Ore.
 g Phoenix, Ariz.
 a St. Louis, Mo.
 a San Antonio, Texas
 a Waterbury, Vt.
 a Buffalo, N. Y.
 a Cincinnati, Ohio
 a Harrisonburg, Va.

W. R. Griffin, DX Ann'cr.
 Luke L. Roberts, Mgr.
 Geo. Burbach, Mgr.
 G. W. Johnson, Mgr.
 Melvin Stickles, Ch. Eng.
 I. R. Lounsbury, Gen. Mgr.
 Vera Tyson
 Wendell Siler, Prog. Dir.

560 kcs. (535.4 m.)

KFDM N 1000
 KLZ CX 1000(5)
 KSFO C 1000(5)
 KWTO D 5000
 WFIL BM 1000
 WIND C 1000(5)
 WIS N 1000(5)
 WQAM C 1000

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

Bernice Anderson, Sec'y.
 G. W. Meyer, Mgr.
 Philip G. Lasky, Mgr.
 Ralph D. Foster, Mgr.
 Roger W. Clipp, Gen. Mgr.
 Kenneth Shirk, Ch. Eng.
 Floyd Rodgers, Prog. Dir.
 Norman MacKay, Prog. Dir.

570 kcs. (526 m.)

KGKO N 1000(5)
 KMTR ... 1000
 KVI C 5000
 TI5CV 575 100
 WKBN CI 500(1)
 WMAM D 250
 WMCA ... 1000
 WNAX C 1000(5)
 WOSU GI 1000
 WSYR B 1000
 WWNC C 1000
 P 1000

a Fort Worth, Tex.
 a Los Angeles, Calif.
 a Tacoma, Wash.
 z Alajuela, Costa Rica
 a Youngstown, Ohio
 z Marinette, Wis.
 a New York, N. Y.
 a Yankton, S. Dak.
 a Columbus, Ohio
 a Syracuse, N. Y.
 a Asheville, N. C.
 z Santa Clara, Cuba

Harold V. Hough, Mgr.
 Kenneth Tinkham, Mgr.
 J. W. Wallace, Ch. Eng.
 Carlos Vidache A.
 C. L. Lindberg
 F. Hapton
 Clifton Todd, Ch. Eng.
 A. Hammerschmidt, Ch. Eng.
 Armand G. Belle Isle, Ch. Eng.
 G. B. Hoskins, Ch. Eng.

580 kcs. (516.9 m.)

CFPR ... 50
 CHRC ... 100
 CKCL F 100
 CKPR F 1000

a Prince Rupert, B. C.
 a Quebec, P. Q.
 a Toronto, Ont.
 a Fort William, Ont.

Felix E. Batt

CKUA	F	500
KMJ	EN	5000
KSAC	Z	500(1)
WCHS	C	500(5)
WDRO	C	1000(5)
WIBW	CZ	1000(5)
WILL	D	5000
WTAG	R	1000(5)
XEMU	...	250

- b Edmonton, Alta.
- a Fresno, Calif.
- a Manhattan, Kans.
- a Charleston, W. Va.
- a Oriando, Fla.
- a Topeka, Kans.
- a Urbana, Ill.
- a Worcester, Mass.
- z Piedras Negras, Coah.

....
 I. E. Dickinson, Ch. Eng.
 L. L. Longsdorf, Prog. Dir.
 Odes Robinson, Ch. Eng.
 G. Burnett
 Ben Ludy, Gen. Mgr.
 A. James Ebel, Ch. Eng.
 Lillian Murphy, Prog Dir.

590 kcs. (508.2 m.)



CMCY	...	15000
KHQ	ER	5000
WEEI	C	5000
WKZO	B	1000
WOW	R	5000

- a Havana, Cuba
- a Spokane, Wash.
- a Boston, Mass.
- a Kalamazoo, Mich.
- a Omaha, Nebr.

A. Valdes, Gen. Mgr.
 Harvey Wixson, Mgr.
 Margaret Grady
 John Fetzer, Gen. Mgr.
 Wm. Koterka, Ch. Eng.

600 kcs. (499.7 m.)



CFCF	BF	500
CFOC	F	1000
CJOR	...	500
FON	609	250
KFSD	BX	1000
TIGPH	605	1000
WCAO	C	500(1)
WICC	BM	500(1)
WMT	BM	1000(5)
WREC	C	1000(5)

- a Montreal, P. Q.
- a Saskatoon, Sask.
- a Vancouver, B. C.
- a St. Pierre, Miquelon
- a San Diego, Calif.
- a San Jose, Costa Rica
- a Baltimore, Md.
- f Bridgeport, Conn.
- a Cedar Rapids, Iowa
- a Memphis, Tenn.

Kenneth Paul, Ch. Eng.
 A. A. Murphy, Gen. Mgr.
 D. E. Laws, Mgr.
 G. Salomon
 Leah McMahon, Prog. Dir.
 Gonzalo Pinto H.
 Mary Lewis
 Caro Ray
 C. F. Quentin, Ch. Eng.
 S. D. Wooten Jr., Ch. Eng.

610 kcs. (491.5 m.)



CHNC	F	1000
KFAR	...	1000
KPRC	M	5000
WCLE	DM	500
WDAF	R	5000
WIOD	NX	1000
WIP	X	1000

- a New Carlisle, P. Q.
- z Fairbanks, Alaska
- b San Francisco, Calif.
- a Cleveland, Ohio
- a Kansas City, Mo.
- a Miami, Fla.
- a Philadelphia, Pa.

Dr. Charles Houde, owner
 A. E. Lathrop, owner
 Ward Ingrim, Mgr.
 E. L. Gove, Tech. Sup.
 A. Curl
 Ruth Richardson
 James Allen, Prog. Dir.

620 kcs. (483.6 m.)



KGW	R	1000(5)
KTAR	NX	1000
KWFT	C	250(1)
TIPG	625	5000
WFLA	Na	1000(5)
WHJB	D	250
WLBZ	MN	500(1)
WSUN	Na	1000(5)
WTMJ	N	1000(5)

- a Portland, Ore.
- a Phoenix, Ariz.
- z Wichita Falls, Tex.
- b San Jose Costa Rica
- a Tampa, Fla.
- a Greensburg, Pa.
- a Bangor, Maine
- a St. Petersburg, Fla.
- a Milwaukee, Wis.

H. C. Singleton, Ch. Eng.
 Richard Lewis, Mgr.
 D. A. Kahn, Mgr.
 Claudia Hartinos
 W. Walter Tison, Mgr.
 Walter McCoy, Ch. Eng.
 Lucille Weeks
 Louis Link, Ch. Eng.
 Don Abert, Mgr.

630 kcs. (475.9 m.)



CFCO	F	100
CFCY	F	1000
CJRC	F	1000
CKOV	F	1000
CMCD	...	15000
KFRU	1NXZ	500(1)
KGFX	D	200
KVOD	B	1000
WGBF	1NXZ	500(1)
WMAJ	BX	250(5)
WPRO	C	5000
XEZ	...	2000

- a Chatham, Ont.
- a Charlottetown, P. E. I.
- a Winnipeg, Man.
- a Kelona, B. C.
- a Havana, Cuba
- a Columbia, Mo.
- a Pierre, S. Dak.
- a Denver, Colo.
- a Evansville, Ind.
- a Washington, D. C.
- a Providence, R. I.
- a Merida, Yuc.

John Beardall
 John Q. Adams, Ch. Eng.
 G. A. Titus, Mgr.
 James Browne, Ch. Eng.
 J. Benitez, Mgr.
 Robert Haigh, Ch. Eng.
 Robt. Dye, Ch. Eng.
 T. C. Ekrem, Mgr.
 Pat Roper, Prog Dir.
 A. E. Johnson, Ch. Eng.
 Margaret O'Rourke
 Jorge Palomeque

640 kcs. (468.5 m.)



HOK	...	...
KFI	R	50000
VONF	...	12500
WGAN	CL	500
WHKC	LM	500
WOI	D	5000
XEBX	...	250
YSS	...	500

- z Colon, Panama
- f Los Angeles, Calif.
- a St. John's, Nfld.
- a Portland, Maine
- a Columbus, Ohio
- a Ames, Iowa
- z Sabinas, Cosh.
- a San Salvador, E. S.

....
 Dorothy Roe

 C. E. Gatchell
 J. E. Anderson, Ch. Eng.
 W. E. Stewart, Ch. Eng.
 Benito Garzo O.

650 kcs. (461.3 m.)

TIGPH P
WSM KN 50000

z San Jose, C. R.
a Nashville, Tenn.

Gonzalo Pinto H.
Harry Stone, Gen. Mgr.

660 kcs. (454.3 m.)

CMJX ... 200
CMOA ... 200
KOWH BD 500
WEAF R 50000
XEAO ... 250

z Camaguey, Cuba
z Havana, Cuba
a Omaha, Nebr.
a New York, N. Y.
a Mexicali, B. Cfa.

Rodolfo Gonzales S.
Juan Fernandez D.
W. F. Myers, Mgr.
Audience Mail Dept.
....

670 kcs. (447.5 m.)

WMAQ R 50000
XELO ... 50000
.... P 1000

b Chicago, Ill.
a Tijuana, B. Cfa.
z Jovellanos, Cuba

Audience Mail Dept.
....
....

680 kcs. (440.9 m.)

CMHW ... 200
KFEQ ... 500 (2.5)
KPO R 50000
VAS 685 2000
WLAW D 1000
WPTF N 5000

f Santa Clara, Cuba
a St. Joseph, Mo.
a San Francisco, Calif.
f Glace Bay, N. S.
a Lawrence, Mass.
a Raleigh, N. C.

Guillermo Domenech G.
J. Wesley Koch, Ch. Eng.
Audience Mail Supervisor
....
Geo. R. Leckley, Ch. Eng.
Graham Poyner, Prog. Dir.

690 kcs. (434.5 m.)

CFRB C 10000
CJCJ F 100
CMBC ... 5000
TIGH ... 1000
XET ... 5000

a Toronto, Ont.
a Calgary, Alta.
z Havana, Cuba
b San Jose, Costa Rica
a Monterrey, N. L.

H. Sedgwick, Man. Dir.
R. H. Henderson, Ch. Eng.
O. Fernandez
Gonzalo Garcia
....

700 kcs. (428.3 m.)

VOWR ... 500
WLW KN 50000
WBXO Exp 500000

b St. John's, Nfld.
a Cincinnati, Ohio
a Cincinnati, Ohio

....
Wilfred Guenther, Mgr.
Wilfred Guenther, Mgr.

710 kcs. (422.3 m.)

CMGH ... 200
CMKS ... 200
KIRO CX 1000
KMPC CX 1000 (5)
WOR KM 50000
.... P 1000

a Matanzas, Cuba
a Guantanamo, Cuba
a Seattle, Wash.
a Beverly Hills, Calif.
a Newark, N. J.
z Camaguey, Cuba

....
H. J. Quittiam, Mgr.
L. A. Schambin, Mgr.
J. R. Poppele, Ch. Eng.
....

720 kcs. (416.4 m.)

CMK ... 200
TI4NRH 725 750
WGN KM 50000
XEWE ... 20

a Havana, Cuba
f Heredia, Costa Rica
b Chicago, Ill.
z Silao, Gto.

Fausto Mentiel
Amando Cespedes Marin
Quinn A. Ryan, Gen. Mgr.
....

730 kcs. (410.7 m.)

CFPL F 100
CJCA F 1000
CKAC C 5000
XEQ ... 50000
.... P 1000

a London, Ont.
a Edmonton, Alta.
a Montreal, P. Q.
a Mexico City, D. F.
z Victoria Tunas, Cuba

L. J. Yorke, Ch. Eng.
W. T. Cranston, Mgr.
Leonard Spencer Ch. Eng.
J. M. Marroqui
....

740 kcs. (405.2 m.)

KMMJ L 1000
KTRB C 250
WHEP D 250
WSB R 50000
XFH ... 250
XEPN AQ 50000
.... P 1000

a Grand Island, Nebr.
a Modesto, Calif.
a Portsmouth, N. H.
a Atlanta, Ga.
a Monterrey, N. L.
z Piedras Negras, Coah.
z Guantanamo, Cuba

Randall R. Mgr.
Don R. S.
T. R. M. any, Mgr.
C. F. Ch. Eng.
Con. Ternava
....

750 kcs. (399.8 m.)

CMBL	...	5000
KGU	LN	2500
TING	...	375
WJR	C	50000
XEAA	...	200
XEAM	...	25

- a Havana, Cuba
- a Honolulu, Hawaii
- z San Jose, Costa Rica
- a Detroit, Mich.
- a Mexicali, B. Cfa.
- z Matamoros, Tam.

Laureano Suarez
 Marion A. Mulrony, Mgr.
 Narciso Garcia
 Geraldine Elliott, Prog. Dir.
 Alberto Gonzalez
 Manuel L. Salinas

760 kcs. (394.5 m.)

KXA	L	1000
WBAL	BHMS	2500
WCAL	D2	5000
WEW	D	1000
WJZ	BS	50000
WLB	D2	5000

- a Seattle, Wash. *4:30a*
- a Baltimore, Md.
- a Northfield, Minn.
- a St. Louis, Mo.
- a New York, N. Y.
- a Minneapolis, Minn.

Florence Wallace, Mgr. *9.18.40*
 Gerald Cooke, Ch. Eng.
 Milford Jensen, Ch. Eng.
 Geo. Rueppel, Ch. Eng.
 Audience Mail Dept.
 Waldemar Klima, Ch. Eng.

770 kcs. (389.4 m.)

KFAB	CSXZ	10000
TILJ	775	450
WBBM	CS	50000

- a Lincoln, Nebr.
- z San Jose, C. Rica
- a Chicago, Ill.

Mark W. Bullock, Tech. Dir.
 Lola Monje Peralta
 A. Boyes

780 kcs. (384.4 m.)

CHWK	F	100
CKSO	F	1000
CMQ	N	25000
KECA	...	1000(5)
KFDY	D	1000
KFQD	...	250
KGHL	N	1000(5)
WEAN	BM	1000(5)
WMC	JR	5000
WPC	D	250
WPRA	...	1000(2.5)
WTAR	N	1000(5)
XEN	...	1000

- f Chilliwack, B. C.
- a Sudbury, Ont.
- a Havana, Cuba
- a Los Angeles, Calif.
- a Brookings, S. Dak.
- b Anchorage, Alaska
- a Billings, Mont.
- a Providence, R. I.
- a Memphis, Tenn.
- a Sharon, Pa.
- a Mayague, P. R.
- g Norfolk, Va.
- a Mexico City, D. F.

Jack Pilling, Ch. Eng.
 W. E. Mason
 Miquel Gabriel, Adm.
 Jack Gross, Mgr.
 S. W. Jones, Mgr.
 R. E. McDonald, Mgr.
 Ed Yocum, Mgr.
 Rose M. Powers
 J. C. Eggleston, Mgr.
 John MacDonald, Eng.
 ...
 Lee Chadwick, DX
 Correspondent
 Guillermine de del Cande

790 kcs. (379.5 m.)

KGO	B	7500
KOAM	DN	1000
WGY	R	50000
ZNS	...	1000

- a San Francisco, Calif.
- a Pittsburg, Kans.
- a Schenectady, N. Y.
- d Nassau, Bahamas

Lloyd E. Yoder, Mgr.
 R. L. Jones, Eng.
 W. J. Purcell, Ch. Eng.
 K. P. Brown, Sec'y. *8-20 p.m. 9/29/40*

800 kcs. (374.8 m.)

HIX	...	800
TIXD	...	1000
WBAP	ENa	50000
WFAA	ENa	50000
WTBO	D	250

- a Trujillo, D. R.
- z San Jose, Costa R.
- a Fort Worth, Texas
- a Dallas, Texas
- a Cumberland, Md.

J. R. Saladin
 Andrea Venegas
 Ellen Flake, Sec'y.
 Adams Calhoun
 Geo. R. Lenhart, Ch. Eng.

810 kcs. (370.2 m.)

CMCF	...	5000
WCCO	C	50000
WNYC	D	1000
XEBZ	...	100
XEDF	...	100

- a Havana, Cuba
- g Minneapolis, Minn.
- a New York, N. Y.
- a Mexico City, D. F.
- a Nuevo Laredo, Tam.

Oscar Gutierrez
 Hugh McCartney, Ch. Eng.
 Issac Brimberg, Ch. Eng.
 ...
 Ruperto Villarreal

820 kcs. (365.6 m.)

WHAS	C	50000
XEBG	...	1000

- a Louisville, Ky.
- z Tijuana, B. Cfa.

Credo Fitch Harris, Dir.
 Angel B. Fernandez

830 kcs. (361.2 m.)

CMHI	E	1000
KFUO	...	1000
KOA	R	50000
TIEP	...	3000
WEEU	DR	1000
WHDH	L	1000
WRUF	L	5000
XERC	...	500

- a Santa Clara, Cuba
- a Clayton, Mo.
- a Denver, Colo.
- a San Jose, C. Rica
- a Reading, Pa.
- a Boston, Mass.
- a Gainesville, Fla.
- z Mexico City, D. F.

...
 ...
 T. E. Stepp
 Eduardo Pinto H.
 M. Leonard Savage, Eng.
 M. Bresnahan
 Joseph Weil, Ch. Eng.
 Carlos Dragome Narro

840 kcs. (356.9 m.)



CBL F 50000
VOGY ... 400
XERA ... 250000

a Toronto, Ont.
a St. John's, Nfld.
a Villa Acuna, Coah.

W. C. Little, Ch. Eng.
....
Don Howard

850 kcs. (352.7 m.)



CMCM ... 200
KIEV D 250
WESG CD 1000
WKAR DX 1000
WWL C 50000

a Havana, Cuba
a Glendale, Calif.
a Elmira, N. Y.
a E. Lansing, Mich.
a New Orleans, La.

V. Montes
David H. Cannon
True McLean, Ch. Eng.
Norris Grover, Ch. Eng.
J. D. Bloom, Ch. Eng.

860 kcs. (348.6 m.)



CMJA ... 200
TIEMC ... 250
WABC C 50000
WHB DM 1000
XEMO ... 5000

a Camaguey, Cuba
z San Jose, C. Rica
a New York, N. Y.
a Kansas City, Mo.
a Tijuana, B. Cfa.

Rafael Valdes
Rafael Hine Ch.
....
M. H. Straight, Mgr.
Fernando Federico Ferreira

870 kcs. (344.6 m.)



WENR Ba 50000
WLS Ba 50000
XEFB ... 200
.... P 1000

b Chicago, Ill.
a Chicago, Ill.
a Monterrey, N. L.
z Ciego de Avila, Cuba

....
T. L. Rowe, Ch. Eng.
Jesus Quintanilla
....

880 kcs. (340.7 m.)



CBO F 1000
CFJC F 1000
CMX ... 15000
KFKA M2 500(1)
KLX ... 1000
KPOF ... 2 1000
KVAN D 250
TILS ... 500
WCDC C 1000
WGBI CI 500(1)
WQAN 1 500(1)
WRNL DX 500
WSUI ... 1000(5)

a Ottawa, Ont.
a Kamloops, B. C.
a Havana, Cuba
a Greeley, Colo.
a Oakland, Calif.
a Denver, Colo.
z Vancouver, Wash.
b San Jose, C. Rica
a Meridan, Miss.
f Scranton, Pa.
a Scranton, Pa.
a Richmond, Va.
a Iowa City, Iowa

Lillian E. de Olloqui
L. Irwine, Ch. Eng.
Raul Karman, Dir.
H. E. Green, Mgr.
P. D. Allen, Mgr.
Wesley O. Lomlin, Annc'r.
Paul W. Spargo, Ch. Eng.
Luis Saenz Mata
John B. Rogers, Ch. Eng.
K. R. Cooke, Ch. Eng.
....
Walter R. Selden, Ch. Eng.
Sylvanus Ebert, Ch. Eng.

890 kcs. (336.9 m.)



KARK NX 1000
KFNF Z 500(1)
KFPY C 5000
KTCC M 1000
KUSD Z 500
WBAA ... 500(1)
WGST C 1000(5)
WJAR R 1000(5)
WMMN C 1000(5)
XEW ... 10000

a Little Rock, Ark.
a Shenandoah, Iowa
a Spokane, Wash.
f Visalia, Calif.
a Vermillion, S. Dak.
a W. Lafayette, Ind.
a Atlanta, Ga.
a Providence, R. I.
a Fairmont, W. Va.
a Mexico City, D. F.

Jack Lewis, Prog. Dir.
Wm. MacDonald, Com. Mgr.
T. W. Symons, Mgr.
Chas. P. Scott, Mgr.
B. B. Brockett, Mgr.
Ralph R. Townsley, Ch. Eng.
Ben Akerman, Ch. Eng.
Thomas Prior, Ch. Eng.
J. R. Heck, Ch. Eng.
....

900 kcs. (333.1 m.)



HIG ... 250
KGBU X 500
KHJ M 1000(5)
KSEI N 250(1)
TIAFB ... 600
WBEN R 1000(5)
WFMD D 500
WJAX N 1000(5)
WKY N 1000(5)
WLBL D 5000
WTAD D 1000

z Trujillo, D. R.
a Ketchikan, Alaska
a Los Angeles, Calif.
a Pocatello, Idaho
z San Jose, C. Rica
a Buffalo, N. Y.
a Frederick, Md.
a Jacksonville, Fla.
a Oklahoma City, Okla.
a Stevens Point, Wis.
a Quincy, Ill.

Andres Cordero Puello
James A. Britton, Mgr.
Lewis Allen Weiss, Mgr.
R. A. Fletcher, Prog. Dir.
Mayid Borzuna
Ralph Kingsley, Ch. Eng.
John A. Fels, Ch. Eng.
Harry Cole, Mgr.
Earl C. Hull, Ch. Eng.
F. R. Calvert, Mgr.
Paul E. Miller, Ch. Eng.

910 kcs. (329.6 m.)



CBF FN 50000
CJAT F 1000
CKY F 15000
CMBO ... 5000

a Montreal, P. Q.
a Trail, B. C.
a Winnipeg, Man.
a Havana, Cuba

....
....
....
....

CMKD ... 1000
XENT Q 5000

a Santiago de Cuba
a Nuevo Laredo, Tam.

Francisco Meneau
T. Yount, Mgr.

920 kcs. (325.9 m.)

CMHT ... 200
CMZ ... 5000
KFEL ... M 1000
KOMO ... R 1000(5)
KPRC ... ER 1000(5)
TIRS 925 200
WAAF ... D 1000
WORL ... D 500
WPEN ... 1000
WSPA ... D 1000
WWJ ... R 1000(5)
XEON ... 2000

z Trinidad, Cuba
z Havana, Cuba
a Denver, Colo.
a Seattle, Wash.
a Houston, Texas
z San Jose, C. Rica
a Chicago, Ill.
a Boston, Mass.
a Philadelphia, Pa.
a Spartanburg, S. C.
a Detroit, Mich.
z Tijuana, B. Cfa.

F. E. Soto del Valle
...
Gene O'Fallon, Mgr.
Lee Barnes, Aud. Mail Dept.
Kery Tips, Mgr.
Rogelio Sotela B.
Wm. E. Hutchinson, Mgr.
...
E. S. Long, Ch. Eng.
Ty Tyson
...

930 kcs. (322.4 m.)

CFAC ... F 1000
CFCH ... F 100
CFLC ... 100
CHNS ... F 1000
CKPC ... 100
CMJF ... 200
KMA ... B 1000(5)
KROW ... 1000
WBRC ... R 1000(5)
WDBJ ... C 1000(5)
WELI ... 250(5)
XEBH ... 500

a Calgary, Alta.
a North Bay, Ont.
a Prescott, Ont.
a Halifax, N. S.
a Brantford, Ont.
z Camaguey, Cuba
a Shenandoah, Iowa
a Oakland, Calif.
a Birmingham, Ala.
a Roanoke, Va.
a New Haven, Conn.
a Hermosillo, Son.

...
R. H. Thomson
...
Vincente Salgado
J. Rapp, Mgr.
H. P. Drey, Mgr.
...
James T. Milne, Mgr.
Carlos Balderrama

940 kcs. (319 m.)

CMBZ ... 200
KOIN ... CX 1000(5)
TIOS ... 500
WAAT ... DX 500
WAVE ... NX 1000
WCSH ... RX 1000(2.5)
WDAY ... NX 1000(5)
WHA ... D 5000
WICA ... DX 250
XEFO ... 5000

a Havana, Cuba
a Portland, Ore.
z San Jose, C. Rica
a Jersey City, N. J.
a Louisville, Ky.
a Portland, Maine
a Fargo, N. Dak.
a Madison, Wis.
a Ashtabula, Ohio
a Mexico City, D. F.

Manuel Salas
B. J. Parrish, Mgr.
Guillermo Castro S.
Paul H. LaStayo, Mgr.
...
G. Fred Crandon, Ch. Eng.
Julius Hetland, Ch. Eng.
...
C. A. Rowley
...

950 kcs. (315.6 m.)

CBV ... F 1000
CJRM ... F 1000
CMKL ... 200
KFWB ... 5000
KMBC ... C 5000
VOAR ... 25
WHAL ... DP 500
WRC ... RX 1000(5)
WTRY ... D 1000

a Quebec, P. Q.
a Regina, Sask.
z Bayamo, Cuba
a Los Angeles, Calif.
a Kansas City, Mo.
z St. John's, Nfld.
a Saginaw, Mich.
z Washington, D. C.
a Troy, N. Y.

...
...
Alberto Alvarez Ferrera
Harry Maizlish, Mgr.
Arthur B. Church, Mgr.
...
K. H. Berkeley
...

960 kcs. (312.3 m.)

CBM ... FR 5000
CFRN ... F 100
CMKY ... 5000
XEAW ... 100000

a Montreal, P. Q.
a Edmonton, Alta.
z Santiago de Cuba
a Reynosa, Tam.

...
...
H. D. Munal

970 kcs. (309.1 m.)

-CMCK ... 5000
KJR ... B 5000
WCFL ... N 5000
WIBG ... D 100

z Havana, Cuba
a Seattle, Wash.
a Chicago, Ill.
a Glenside, Pa.

Luis Casas R. *8:20 p.m. - 9:20 p.m.*
Audience Mail Dept.
Maynard Marquardt, Ch. Eng.
...

980 kcs. (306 m.)

KDKA ... B 50000
XEAC ... 5000
XEFE ... 250

b Pittsburgh, Pa.
a Tijuana, B. Cfa.
z Nuevo Laredo, Tam.

A. E. Nelson Mgr.
Jorge I. Revera
Rafael T. Carranza

990 kcs. (302.8 m.)

WBZ ... BS 50000
WBZA ... BS 1000

a Boston, Mass.
a Springfield, Mass.

Dwight Myer, Ch. Eng.
H. E. Randol, Mgr.

XEAF ... 750
 XEK ... 200
 XES ... 250
 P 1000

a Nogales, Son.
 a Mexico City, D. F.
 a Tampico, Tam.
 z Pinar del Rio, Cuba

....
 Fernando Sada
 Arturo Martinez

1000 kcs. (299.8 m.)

CMKG ... 10000
 KFVD L 1000
 TIFA ... 250
 WHO KR 50000
 XEBI ... 250

z Santiago de Cuba
 a Los Angeles, Calif.
 z San Jose, C. Rica
 a Des Moines, Iowa
 a Aguascalientes, Aqs.

....
 Frank Burke, Mgr.
 Francisco Ariel
 Paul A. Loyat, Ch. Eng.
 Pedro C. Rivas

1010 kcs. (296.9 m.)

CHML F 100
 CKCK F 1000
 CKCO F 100
 CKIC ... 50
 CKWX FI 100
 CMCU ... 200
 KGGF M2 1000
 KOW M 1000(5)
 WHN ... 1000(5)
 WNAD 2 1000
 WNOX C 1000(5)
 XEFU ... 500
 XEU ... 500

a Hamilton, Ont.
 a Regina, Sask.
 a Ottawa, Ont.
 a Wolfville, N. S.
 a Vancouver, B. C.
 a Havana, Cuba
 a Coffeyville, Kans.
 a San Jose, Calif.
 a New York, N. Y.
 a Norman, Okla.
 a Knoxville, Tenn.
 a Cananea, Son.
 a Veracruz, Ver. C.

....
 Dr. G. H. Geldert

 Jorge Garcia Serra
 Hugh J. Powell
 C. S. Harper, Mgr.

 T. M. Beaird, Prog. Dir.
 Pedro L. Diaz

 Fernando Pazos S.

1020 kcs. (293.9 m.)

CMHO ... 200
 CMJK ... 10000
 KYW R 10000
 WZD D 1000
 XEJ ... 1000

z Segua la Grande, Cuba
 a Camaguey, Cuba
 b Philadelphia, Pa.
 a Tuscola, Ill.
 a Juarez, Chih.

....
 Leslie W. Joy, Mgr.
 Mark C. Spies, Ch. Eng.
 Pedro Meneses, Jr.

1030 kcs. (291.1 m.)

CFCN F 10000
 CJBW F 1000
 CKLW FM 5000
 CMKW ... 1000
 TIHO ... 500
 XEB ... 20000
 P 1000

a Calgary, Alta.
 a Rimouski, P. Q.
 a Windsor, Ont.
 z Santiago de Cuba
 z San Jose, C. Rica
 a Mexico City, D. F.
 z Santiago de Cuba

E. Marshall
 J. A. Brilliant

 Claudio Alvarez Soriano
 Guillermo Zuniga R.

1040 kcs. (288.3 m.)

KRLD C 50000
 KWJJ HL 500
 KYOS DM 250
 VOAM ... 100
 WTIC HR 50000
 P 1000

a Dallas, Texas
 a Portland, Ore.
 a Merced, Calif.
 z St. John's, Nfld.
 a Hartford, Conn.
 z Matanzas, Cuba

Given Boyd
 Art Morey, Ann'cr.
 John W. Crews, Mgr.

 T. C. McCray

1050 kcs. (285.5 m.)

CBA F 50000
 CMCH ... 50
 HIT ... 5000
 KFBI L2 5000
 KNX C 50000
 WEAU L2 1000(5)
 WIBC D 1000

a Sackville, N. B.
 z Havana, Cuba
 z Trujillo, D. R.
 a Wichita, Kans.
 a Los Angeles, Calif.
 a Eau Claire, Wis.
 a Indianapolis, Ind.

....
 A. L. Pichardo
 Donald Thornburgh, Mgr.

1060 kcs. (282.8 m.)

KTHS HN 10000
 VOAC 1065 40
 WBAL BM 10000
 WJAG L 1000

a Hot Springs, Ark.
 z St. John's, Nfld.
 a Baltimore, Md.
 a Norfolk, Nebr.

Mary F. Loyd, Sec'y.

 Gerald Cooke, Ch. Eng.
 Art Thomas, Mgr.

1070 kcs. (280.2 m.)

CMJW ... 200
 KJBS L 500
 TINBC P 5000
 WCAZ D 100
 WTAM R 50000

z Camaguey, Cuba
 a San Francisco, Calif.
 z San Jose, C. Rica
 a Carthage, Ill.
 a Cleveland, Ohio

M. Caymares Silva
 Miriom Ford, Traffic Dept.
 Oscar Martinez N.

 May Draxell

1080 kcs. (277.6 m.)

CMBX	...	200
CMKM	...	200
WBT	C	50000
WCBD	LI	5000
WMBI	LI	5000
XEBA	...	20
XEBK	...	100
XEDP	...	500

- a Havana, Cuba
- a Manzanillo, Cuba
- a Charlotte, N. C.
- a Chicago, Ill.
- g Chicago, Ill.
- z Guzman, Jal.
- z Nuevo Laredo, Tam.
- a Mexico City, D. F.

Alberto Alvarez
 Jesus Armesto

 A. P. Frye, Ch. Eng
 Javier Velasco
 J. M. Cortes

1090 kcs. (275.1 m.)

CMHA	...	200
HIN	...	100
KMOX	C	50000
XERB	...	50000

- z Sagua la Grande, Cuba
- z Trujillo, D. R.
- a St. Louis, Mo.
- a Tijuana, B. Cfa.

Abelardo Menocal
 J. M. Bonetti
 G. L. Tevis, Ch. Eng.

1100 kcs. (272.6 m.)

CBR	F	5000
CMHP	...	200
KGDM	DM	1000
KWKH	C	50000
WCAR	DP	1000
WOV	...	5000

- a Vancouver, B. C.
- z Piacetas, Cuba
- f Stockton, Calif.
- a Shreveport La.
- z Pontiac, Mich.
- a New York, N. Y.

....

 A. H. Green, Mgr.
 John McCormack, Mgr.

 S. H. Alper

1110 kcs. (270.1 m.)

CMCJ	...	200
KSOO	LN	5000
WRVA	CM	50000
XECL	...	1000

- a Havana, Cuba
- a Sioux Falls, S. Dak.
- a Richmond, Va.
- z Mexicali, B. Cfa.

Rafael Rodriguez

 Les Frake
 Alfonso A. Lacarra

1120 kcs. (267.7 m.)

CBJ	F	100
CHLP	F	100
CHSJ	F	100
CKOC	F	500(11)
CKX	F	1000
CMGF	...	200
KFIO	D	100
KFSG	a	1000(.5)
KRKD	a	1000(.5)
KSAL	...	500(1)
KRSC	EX	250
KTBC	DG2	1000
WCOP	D	500
WDEL	R	250(1)
WISN	C	250(1)
WJBO	BX	500
WKPA	DP	250
WTAW	G2	500

- a Chicoutimi, P. Q.
- a Montreal, P. Q.
- a St. John, N. B.
- a Hamilton, Ont.
- a Brandon, Man.
- a Matanzas, Cuba
- a Spokane, Wash.
- a Los Angeles, Calif.
- a Los Angeles, Calif.
- a Salina, Kans.
- a Seattle, Wash.
- z Austin, Texas
- a Boston, Mass.
- a Wilmington, Del.
- a Milwaukee, Wis.
- a Baton Rouge La.
- z New Kensington, Pa.
- a College Station, Texas

....

 Bernabe de la Torre
 Arthur L. Smith, Mgr.
 Ruth Pritchard
 Dr. Giles N. Knight, Mgr.

1130 kcs. (265.3 m.)

CMJI	...	200
KSL	C	50000
WJJD	L	20000
XEJP	...	100

- a Ciego de Avila, Cuba
- a Salt Lake City, Utah
- a Chicago, Ill.
- z Mexico City, D. F.

Gilberto Gesse Lopez
 E. G. Pack; Earl J. Glade
 J. L. Allabough
 Salvador Monterrubio R.

1140 kcs. (263 m.)

CMBG	...	200
KVOC	N	25000
WAPI	C	5000
WSPR	LM	500

- z Havana, Cuba
- a Tulsa, Okla.
- a Birmingham, Ala.
- a Springfield, Mo.

John J. Stowers
 Wm. B. Way, Mgr.
 N. McFarland
 Hillis W. Holt

1150 kcs. (260.7 m.)

WHAM	N	50000
XEBP	...	250
XEC	...	100
XEDW	...	300
XEL	...	250
XEXH	...	400
....	P	1000

- a Rochester, N. Y.
- z Durango, Dgo.
- a Tijuana, B. Cfa.
- a Minatitlan, Ver. C.
- z Mexico City, D. F.
- z Oaxaca, Oax.
- z Holguin, Cuba

Manuel Cano M.
 Luis F. Encisco
 Hector Silva Canto

1160 kcs. (258.5 m.)

CMHJ	...	200
KEX	B	5000
WOWO	B1	10000
WWVA	C1	5000
XEAS	...	100
XED	...	2500
XEFM	...	...
KEP	...	500

a Cienfuegos, Cuba
 a Portland, Oreg.
 a Fort Wayne, Ind.
 a Wheeling, W. Va.
 a Saltillo, Coah.
 a Guadalajara, Jal.
 z Leon, Gto.
 a Juarez, Chih.

Richardo Ugalde
 H. C. Singleton, Ch. Eng.

 E. A. Hadden, Eng.
 Manuel R. Rodriguez

 Estaban Perra

1170 kcs. (256.3 m.)

CMBS	...	200
WCAU	C	50000
XEXX	...	1000

a Havana, Cuba
 a Philadelphia, Pa.
 z Mexico City, D. F.

Enrique Artalejo
 J. G. Leitch

1180 kcs. (254.1 m.)

KOB	NX	10000
WDGJ	LM	1000(5)
WINS	L	1000
WMAZ	CL	1000(5)

a Albuquerque, N. Mex.
 a Minneapolis, Minn.
 a New York, N. Y.
 a Macon, Ga.

T. M. Pepperday, Mgr.
 Dr. Geo. W. Young

1190 kcs. (252 m.)

CMKX	...	200
WOAI	EN	50000
WSAZ	L	1000

z Banes, Cuba
 a San Antonio, Texas
 a Huntington, W. Va.

Oscar Vidal Benitez

 Glenn E. Chase, Ch. Eng.

1200 kcs. (249.9 m.)

CHAB	F	100(.25)
CHGB	F	100

z Moose Jaw, Sask.
 z St. Anne de la Pocatierrre,
 P. Q.

A. E. Jacobson, Ch. Eng.
 G. Thomas Desjardins

CKNX	...	100
CKTB	F	100
CKVD	...	100
CMCO	...	200
KADA	EM	250
KAST	...	250
KBTM	...	100(.25)
KELO	N	250
KFJB	...	250
KFXD	...	250
KFXJ	...	250
KGDE	...	100(.25)
KGKJ	...	100
KGFI	...	100
KGH!	...	250
KHAS	P	250
KHBC	CM	250
KMLB	...	250
KODL	P	100(.25)
KOOS	M	250
KPHO	P	100(.25)
KSUN	E	250
KVCV	M	250
KVEC	M	250
KVNU	...	250
KVOS	M	250
KWG	BE	100
KWNO	E	250
TIRCC	...	500
WABI	C	250
WAIM	C	100
WAJR	P	250
WAYX	...	250
WBAB	...	250
WBBZ	M	250
WBHP	...	100
WBOW	N	250
WCAT	D	100
WCAX	C	250
WCBT	P	250
WCED	P	250
WCLO	...	250
WCOL	N	250
WCPO	...	250
WDLP	...	100(.25)
WDSM	M	100
WENY	M	250
WEST	...	250

a Wingham, Ont.
 a St. Catharines, Ont.
 z Val d'Or, P. Q.
 a Havana, Cuba
 a Ada, Okla.
 a Astoria, Ore.
 a Jonesboro, Ark.
 a Sioux Falls, S. Dak.
 a Marshalltown, Iowa
 a Nampa, Idaho
 a Grand Junction, Colo.
 b Fergus Falls, Minn.
 f Sterling, Colo.
 a Los Angeles, Calif.
 a Little Rock, Ark.
 z Hastings, Nebr.
 a Hilo, Hawaii
 a Monroe, La.
 z The Dalles, Oreg.
 a Marshfield, Ore.
 z Phoenix, Ariz.
 a Lowell, Ariz.
 a Redding, Calif.
 a San Luis Obispo, Calif.
 z Logan, Utah
 d Bellingham, Wash.
 a Stockton, Calif.
 a Winona, Minn.
 z San Jose, C. Rica
 a Bangor, Maine
 a Anderson, S. C.
 z Morgantown, W. Va.
 a Waycross, Ga.
 a Atlantic City, N. J.
 a Ponca City, Okla.
 a Huntsville, Ala.
 a Terre Haute, Ind.
 a Rapid City, S. Dak.
 a Burlington, Vt.
 z Roanoke Rapids, N. C.
 z Du Bois, Pa.
 a Janesville, Wis.
 a Columbus, Ohio
 a Cincinnati, Ohio
 a Panama City, Fla.
 z Superior, Wis.
 d Elmira, N. Y.
 a Easton, Pa.

B. Howard Bedford, Asst. Mgr.
 E. T. Sandell

 Enrique Lasanta
 Warren Moore, Prog. Dir.
 Lawrence King, Ch. Eng.
 Jay P. Beard, Mgr.
 Joseph Henkin, Mgr.
 Homer Griffith, Mgr.
 Edward Hurf, Mgr.
 Rex Howell, Mgr.
 Mat E. Wakz, Ch. Eng.
 Elmer G. Beehler
 Thelma Kirchner, Prog. Dir.
 R. G. Terrill, Mgr.

 Webley Edwards, Mgr.
 J. C. Liner, Jr., Mgr.

 Roger L. Spaugh, Ch. Eng.

 Carleton W. Morris, Mgr.
 Harold Smithson, Mgr.
 Earl Travis, Ch. Eng.
 J. M. Reeder, Ch. Eng.

 George Ross, Mgr.
 A. E. Mickel, Mgr.
 Carlos Borge
 Ralph Wallace, Mgr.
 Ennis Bray, Mgr.

 Jack Williams

 Don Mitchell, Ch. Eng.

 C. M. Rowe, Prog. Dir.
 James Tierney, Ch. Eng.

 Charles Brannen, Ch. Eng.

 Glen A. Davis, Ch. Eng.

 Fred A. Baxter

 J. E. Mathiot, Ch. Eng.

WFCY	100
WFAM	4
WFTC	250
WGRB	250
WHBC	250
WHBY	250
WHOP	250
WIBX	250
WIL	250
WJBC	250
WJBW	250
WJHL	250
WJNO	250
WJRD	250
WKBO	100 (.25)
WLOF	250
WLOG	100
WLVA	250
WMFR	250
WMOB	100
WMPC	250
WOLS	250
WRBL	250
WSAM	100 (.25)
WSKB	250
WSOO	100 (.25)
WTHT	100
WTOL	250
WWAE	100

1210 kcs. (247.8 m.)

CHLT	100
CJCS	50
CKBI	250
CKCH	100
CKMC	50
CKNB	100
CMHK	200
KALB	250
KANS	250
KASA	100
KDLR	250
KDON	100
KFJI	100
KFOR	100 (.25)
KFXM	100
KGLO	250
KGY	100
KHBG	250
KIUL	100
KLAH	250
KOCA	250
KOVO	250
KPFA	250
KPPC	100
KROY	100
KVSO	100 (.25)
KWAT	250
KWJB	250
KXOX	250
KYUM	250
WBAX	100
WBBL	100
WBRB	100
WCOU	250
WCOV	100
WCRW	100
WEBO	250
WEDC	250
WFAS	100
WFOY	250
WFTM	250
WGBB	100
WGCM	100 (.25)
WGMG	250
WGRM	250
WHA1	250
WHBU	100 (.25)
WHIZ	100
WIBU	250

z	Salern, Mass
a	South Bend, Ind.
a	Kinston, N. C.
z	Grand Rapids, Mich.
a	Canton, Ohio
a	Appleton, Wis.
a	Hopkinsville, Ky.
a	Utica, N. Y.
a	St. Louis, Mo.
a	Bloomington, Ill.
a	New Orleans, La.
a	Johnson City, Tenn.
a	W. Palm Beach, Fla.
a	Tuscaloosa, Ala.
a	Harrisburg, Pa.
z	Orlando, Fla.
z	Logan, W. Va.
a	Lynchburg, Va.
a	High Point, N. C.
a	Mobile, Ala.
a	Lapeer, Mich.
a	Florence, S. C.
a	Columbus, Ga.
a	Saginaw, Mich.
a	McComb, Miss.
z	Saul Ste. Marie, Mich.
a	Hartford, Conn.
a	Toledo, Ohio
a	Hammond, Ind.

....
Al Todd; Paul Mangus
Jonas Weiland
....
Kenneth Sliker, Ch. Eng.
W. J. Stangel, Ch. Eng.
....
David Foote, Ch. Eng.
C. H. Stoup, Ch. Eng.
A. M. McGregor
Charles C. Carlson
O. K. Garland, Ch. Eng.
Reginald B. Martin
James R. Doss, Jr.
Charles Myers, Ch. Eng.
....
J. T. Orch, Eng.
E. J. Day, Ch. Eng.
A. B. Quigley
Hollis F. Hayes, Ch. Eng.
O. Lee Stone
Oliver Hely, Ch. Eng.
....
....
Richard K. Blackburn
Michael Kent, Mgr.
Robert Myers, Ch. Eng.

z	Sherbrooke, P. Q.
a	Stratford, Ont.
a	Prince Albert, Sask.
a	Hull, P. Q.
a	Cobalt, Ont.
z	Campbellton, N. B.
z	Cruces, Cuba
a	Alexandria, La.
a	Wichita, Kans.
a	Elk City, Okla.
a	Devils Lake, N. Dak.
a	Monterey, Calif.
a	Klamath Falls, Ore.
a	Lincoln, Nebr.
a	San Bernardino, Calif.
z	Mason City, Iowa
a	Olympia, Wash.
a	Oklmulgee, Okla.
a	Garden City, Kans.
a	Carlsbad, N. Mex.
a	Kilgore, Texas
a	Provo, Utah
a	Helena, Mont.
a	Pasadena, Calif.
a	Sacramento, Calif.
a	Ardmore, Okla.
a	Watertown, S. Dak.
a	Globe, Ariz.
z	Sweetwater, Tex.
a	Yuma, Ariz.
a	Wilkes-Barre, Pa.
a	Richmond, Va.
a	Red Bank, N. J.
a	Lewiston, Maine
z	Montgomery, Ala.
a	Chicago, Ill.
a	Harrisburg, Ill.
a	Chicago, Ill.
a	White Plains, N. Y.
a	St. Augustine, Fla.
a	Ft. Myers, Fla.
a	Freeport, N. Y.
z	Gulfport, Miss.
z	Gainesville, Ga.
a	Greenwood, Miss.
a	Greenfield, Mass.
a	Anderson, Ind.
a	Zanesville, Ohio
a	Povnette, Wis.

Marcel Provst, Mgr.
Frank M. Squires
Gerald Prest
....
R. L. MacAdam
C. S. Chapman, Mgr.
R. G. Gonzalez
Virgil Evans, Prog. Dir.
Herbert Hollister, Mgr.
Lyman Brown, Prog. Dir.
Merle Bjork, Ch. Anncr
Howard Walters, Mgr.
Geo. Kincaid, Mgr.
Don Searle, Mgr.
J. C. Lee, Mgr.
F. C. Eighmey, Mgr.
W. R. Taft, Mgr.
A. F. Schultz, Ch. Eng.
F. D. Conard, Mgr.
Jack Hawkins, Mgr.
H. A. Degner, Mgr.
....
E. B. Craney, Mgr.
David Black, Mgr.
Milton Cooper, Ch. Eng.
Paul W. Ross, Ch. Eng.
....
Bartley Sims, Mgr.
....
Drury Lenington, Prog. Dir.
....
....
Leslie Hall, Ch. Eng.
Al Thompson, Ch. Eng.
Clinton R. White
J. R. Tate, Ch. Eng.
Caleb Frisk, Ch. Eng.
Selma Seitz, Prog. Dir.
Bradley Overton, Ch. Eng.
....
Harry H. Carman
C. H. Dyess, Ch. Eng.
....
C. A. Perkins, Ch. Eng.
James L. Spates, Mgr.
R. F. Fulwider, Ch. Eng.
Ronald Woodyard, Mgr.
Mary Thiessen

1250 kcs. (239.9 m.)



CMKC	...	200
KFOX	...	1000
KIT	FM	1000
KXOK	XZ	1000
WAIR	DM	250
WDSU	B	1000
WBBI	Z	1000(2.5)
WKST	D	1000
WMRO	D	250
WNEW	Z	1000(5)
WTCN	B	1000(5)
XEAI	...	500

- Santiago, Cuba
- Long Beach, Calif.
- Yakima, Wash.
- z St. Louis, Mo.
- Winston-Salem, N. C.
- New Orleans, La.
- Newark, N. J.
- New Castle, Pa.
- z Aurora, Ill.
- New York, N. Y.
- Minneapolis, Minn.
- z Mexico City, D. F.

- Ramon Duran
- Hal G. Nichols, Mgr.
- James A. Murphy, Mgr.
- Allen Franklin, Prog. Dir.
- Geo. D. Walker, Mgr.
- Fred Fabre, Ch. Eng.
- Irwin R. Wolfe, Ch. Eng.
- A. W. Graham
- Leo S. Burch, Ch. Eng.
- Max Weiner, Ch. Eng.
-
- Carmen Gutierrez

1260 kcs. (238 m.)



CMBD	...	200
CMJO	...	200
KGVO	C	1000(5)
KHSL	M	500(1)
KOIL	CEM	1000(5)
KRGV	N	1000
KUGA	D	5000
KVOA	EN	1000
WFVA	D	250
WHIO	C	1000(5)
WHLD	D	1000
WNBX	CMY	1000
WTOC	C	1000(5)

- z Havana, Cuba
- Ciego de Avila, Cuba
- Missoula, Mont.
- Chico, Calif.
- Omaha, Nebr.
- Weslaco, Texas
- Siloam Springs, Ark.
- Tucson, Ariz.
- z Fredericksburg, Va.
- Dayton, Ohio
- Niagara Falls, N. Y.
- Springfield, Vt.
- Savannah, Ga.

- Luiz Perez Garcia
- Bonifacio Idefonso
- A. J. Mosby, Mgr.
- Harold Smithson, Mgr.
- Don Searle, Mgr.
- Ken L. Gibson, Mgr.
- C. M. Books, Mgr.
- Gil Maynier, Prog. Dir.
-
- Ernest Adams, Ch. Eng.
-
- Wm. Moore, Ch. Eng.
- Wm. B. Smart, Prog. Dir.

1270 kcs. (236.1 m.)



CMHD	...	200
KGCA	DQZ	100
KOL	M	1000(5)
KVOR	C	1000
KWLC	D2	100
WASH	•DN	500
WFBR	R	1000(5)
WJDX	R	1000(5)
WOOD	•N	500
XESM	...	100
XEXB	A	250
XEXE	...	17

- d Caibarien, Cuba
- Decorah, Iowa
- Seattle, Wash.
- Colorado Springs, Colo.
- Decorah, Iowa
- Grand Rapids, Mich.
- Baltimore, Md.
- Jackson, Miss.
- Grand Rapids, Mich.
- z Mexico City, D. F.
- Jalapa, Ver. C.
- z Texcoco, D. F.

- Manuel Alvarez M.
- Elmer Pederson, Mgr.
- Charles Greenley
- Hugh Terry, Mgr.
- Dr. O. J. H. Preuss
- Sandy Mek, Prog. Dir.
- Wm. Q. Ranft, Ch. Eng.
- Percy Root, Ch. Eng.
- Sandy Meek, Prog. Dir.
-
-
-

1280 kcs. (234.2 m.)



CMKO	...	200
KFBB	C	1000(5)
KLS	...	250
WCAM	Z	500
WCAP	Z	500
WDOD	C	1000(5)
WIBA	N	1000(5)
WORC	C	500
WRR	M	500
WTNJ	Z	500
XEKR	...	100
XEMX	A	100

- z Holguin, Cuba
- Great Falls, Mont.
- Oakland, Calif.
- Camden, N. J.
- Asbury Park, N. J.
- Chattanooga, Tenn.
- Madison, Wis.
- Worcester, Mass.
- Dallas, Texas
- Trenton, N. J.
- z Mexico City, D. F.
- z Mexico City, D. F.

- Manuel Angulo Faran
- Jessie Jacobson, Mgr.
- S. W. Warner, Mgr.
- R. L. Horn, Prog. Dir.
-
- Frank S. Lane, Mgr.
- M. F. Chapin, Ch. Eng.
-
- Chas Jordan, Prog Dir
- E. P. Knowles, Ch. Eng.
-
- Alfonso Avalos

1290 kcs. (232.4 m.)



CMCG	...	200
KDYL	R	1000(5)
KLCN	D	100
KTRH	C	1000(5)
WATR	...	250
WEBC	N	1000(5)
WJAS	C	1000(5)
WJHP	P	250
WNRZ	D	1000
WNEL	X	1000(2.5)

- Havana, Cuba
- Salt Lake City, Utah
- Blytheville, Ark.
- Houston, Texas
- Waterbury, Conn.
- Duluth, Minn.
- Pittsburgh, Pa.
- z Jacksonville, Fla.
- Saranac Lake, N. Y.
- San Juan, Puerto Rico

- O. Montenegro
- S. S. Fox, Mgr.
- C. L. Lintzenich, Mgr.
- B. F. Orr, Mgr.
-
- Chas. Persons, Ch. Eng.
- Walter McCoy, Ch. Eng.
- Carlyle Wright, Mgr.
-
- Juan Piza

1300 kcs. (230.6 m.)



KALE	M	1000(5)
KFAC	...	1000
KFH	CX	1000(5)
WBRR	Z	1000

- Portland, Ore.
- Los Angeles, Calif.
- Wichita, Kans.
- Brooklyn, N. Y.

- Dick Rand, Prog. Dir.
- E. Tyler, Log Dept.
- Russell L. Lowe, Mgr.
-

WEVD 2 1000
 WFBC NX 1000(5)
 WHAZ 2 1000
 WHRI ... 250(11)
 WLWL ... 1000

a New York, N. Y.
 a Greenville, S. C.
 a Troy, N. Y.
 G Sheboygan Wis.
 a Minneapolis, Minn.

Frank Blair, Prog. Dir.
 H. D. Harris, Ch. Eng.
 Herbert Mayer, Ch. Eng.

1310 kcs. (228.9 m.)

CFGP ... 100
 CHCK ... 50
 CJKL F 100
 CJLS F 100
 CKCV F 100
 CMKE ?
 KARM C 250
 KBND ... 250
 KCKN E 250
 KCRJ E 250
 KFPL ... 100(.25)
 KFYO M 100(.25)
 KGEZ ... 100
 KGFV ... 250
 KHUB ... 250
 KMYR P 100(.25)
 KOCY ... 250
 KOMA EM 250
 KPDN 100
 KRMD 250
 KRQC EN 250
 KRRV DMXZ 250
 KRSO ... 250
 KSUB 100
 KTSM N2XZ 250
 KUIN X 100
 KVIC ... 100(.25)
 KVOL ... 250
 KVOX E 250
 KVSF C 100
 KWFC P 100(.25)
 KWLM P 100
 KWOC ... 250
 KWOS ... 250
 KXRO M 250
 TGI ...
 WAML ... 250
 WBRE N 250
 WRRK M 250
 WBRW P 250
 WCLS L 100
 WCMI M 250
 WDAH Z 250
 WDAK P 250
 WDMJ ... 250
 WEBR B 250
 WEMP ... 250
 WEXL ... 50
 WFBG R 100
 WFFB R 100
 WFHR P 100(.25)
 WFIG ... 100(.25)
 WGAU ... 250
 WGH K 250
 WGTM ... 250
 WHAT 4 100
 WINX P 250
 WIZE P 100
 WJPF P 250
 WJPR ... 250
 WLAK N 250
 WLAV P 250
 WLBC ... 250
 WLBJ P 250
 WLNH M 250
 WMBO ... 250
 WMFF P 250
 WNBH MX 100(.25)
 WRAW X 100
 WROL N 250
 WSAJ G3 100
 WSAV N 250

a Grande Prairie, Alta.
 a Charlottetown, P. E. I.
 a Kirkland Lake, Ont.
 a Yarmouth, N. S.
 a Quebec, P. Q.
 z Manzanillo, Cuba
 a Fresno, Calif.
 z Bend, Ore.
 a Kansas City, Kans.
 a Jerome, Ariz.
 f Dublin, Texas
 a Lubbock, Texas
 a Kalispell, Mont.
 a Kearney, Nebr.
 a Watsonville, Calif.
 a Denver, Colo.
 a Oklahoma City, Okla.
 z Tulsa, Okla.
 a Pampa, Texas
 a Shreveport, La.
 a Rochester, Minn.
 a Sherman, Texas
 a Santa Rosa, Calif.
 a Cedar City, Utah
 a El Paso, Texas
 a Grants Pass, Ore.
 a Victoria, Texas
 a Lafayette, La.
 a Moorhead, Minn.
 a Santa Fe, N. Mex.
 z Hot Springs, Ark.
 z Willmar, Minn.
 a Poplar Bluff, Mo.
 a Jefferson City, Mo.
 a Aberdeen, Wash.
 d Guatemala City, Guat.
 a Laurel, Miss.
 a Wilkes Barre, Pa.
 a Dittfield, Mass.
 z Welch, W. Va.
 a Joliet, Ill.
 a Ashland, Ky.
 a El Paso, Texas
 z West Point, Ga.
 a Marquette, Mich.
 a Buffalo, N. Y.
 a Milwaukee, Wis.
 a Royal Oak, Mich.
 a Altoona, Pa.
 a Flint, Mich.
 z Wisconsin Rapids, Mich.
 a Sumter, S. C.
 a Athens, Ga.
 a Newport News, Va.
 a Wilson, N. C.
 a Philadelphia, Pa.
 z Washington, D. C.
 z Springfield, Ohio
 z Herrin, Ill.
 z Greenville, Miss.
 z Lakeland, Fla.
 z Grand Rapids, Mich.
 a Muncie, Ind.
 z Bowling Green, Ky.
 a Laconia, N. H.
 a Auburn, N. Y.
 a Plattsburg, N. Y.
 a New Bedford, Mass.
 a Reading, Pa.
 a Knoxville, Tenn.
 a Grove City, Pa.
 a Savannah, Ga.

....

 Laurie L. Smith

 Lou Keplinger, Mgr.

 Ralph Nelson, Prog. Dir.
 Irvin Faulkner, Ch. Op.
 C. B. Baxter, Mgr.
 De Witt Landis, Mgr.
 Donald Treloar
 Clark Standiford, Mgr.
 John Bennett, Mgr.
 F. W. Meyer
 M. H. Bonebrake, Mgr.

 S. L. Patterson, Mgr.
 G. V. Wilson, Mgr.
 F. C. Clarke, Ch. Eng.
 Tom Spellman, Ch. Eng.
 W. R. Nichols, Ch. Eng.
 Wayne Boothe, Ann'cr.
 Karl O. Wyler, Mgr.

 Geo. H. Thomas, Mgr.
 M. M. Marget, Mgr.

 Randall Jessee, Mgr.
 R. L. Rose, Mgr.
 Harry R. Spence, Mgr.
 Col. Eduardo Perez F.
 R. V. DeGruy, Mgr.
 Louis G. Baltimore
 Norman H. Blake, Ch. Eng.

 E. Hayes, Ch. Eng.
 Paul W. Holton, Eng.

 Albert Zink, Mgr.
 Roy Host, Ch. Eng.
 Kirk Knight, Prog. Dir.
 Roy Thompson, Eng.
 F. S. Loeb, Mgr.

 J. Samuel Brody
 A. Lynne Brannen
 Gene Stratton, Prog. Dir.
 H. W. Wilson, Eng.
 Julius Geise, Ch. Eng.

 Powell Hunter, Ch. Eng.
 John R. Pepper

 Donald A. Burton

 Kenneth Taylor, Ch. Eng.
 Herbert House, Ch. Eng.
 John Nazak, Ch. Eng.
 I. Vermilya

 L. Strunk
 Herbert Harmon, Mgr.

WSGN	BEX	100(.25)
WSJS	MN	250
WSOY	...	250
WSTV	GP3	250
WTAL	...	100(.25)
WTEL	4	100
WTJS	...	250
WTRC	...	250
XFAG	...	250
XEBO	...	500
XEFW	...	300
XETB	...	500
XEX	...	500
....	P	250

a	Birmingham, Ala.
a	Winston-Salem, N. C.
a	Decatur, Ill.
z	Steubenville, Ohio
a	Tallahassee, Fla.
a	Philadelphia, Pa.
a	Jackson, Tenn.
a	Elkhart, Ind.
z	Cordoba, Ver. C.
z	Irapuato, Gto.
a	Tampico, Tam.
a	Torreon, Coah.
a	Monterrey, N. L.
z	Washington, D. C.

....

 Richard Kingston, Prog. Dir.

 B. C. Rummell, Ch. Eng.
 R. R. Baker, Mgr.
 Diodoro Zuniga
 Alfonso Martinez

 Aurelio G. Zaragoza

1320 kcs. (227.1 m.)

CMCR	...	200
KGHF	B	500
KGM BCMZX	...	1000
KID	...	500(1)
KRNT	C	1000(5)
WADC	CX	1000(5)
WORK	N	1000
WSMB	R	5000

z	Havana, Cuba
a	Pueblo, Colo.
a	Honolulu, Hawaii
a	Idaho Falls, Idaho
a	Des Moines, Iowa
a	Akron, Ohio
a	York, Pa.
a	New Orleans, La.

....
 J. H. McGill, Pub. Dir.
 Webley Edwards, Mgr.
 Jack Duckworth, Mgr.
 Edmund Linehan, Prog. Dir.
 Robert Wilson
 J. E. Mathiot, Ch. Eng.
 H. G. Nebe, Ch. Eng.

1330 kcs. (225.4 m.)

KGB	M	1 000
KMO	M	1000
KRIS	N	500
KSCJ	NX	1000(5)
WDRG	CX	1000(5)
WSAI	MNX	1000(5)
WTAQ	CX	1000(5)

a	San Diego, Calif.
a	Tacoma, Wash.
a	Corpus Christi, Tex.
a	Sioux City, Iowa
g	Hartford, Conn.
a	Cincinnati, Ohio
a	Green Bay, Wis.

David R. Young, Prog. Dir.
 Carl E. Haymond
 T. Frank Smith, Mgr.
 C. W. Corkhill, Mgr.
 Italo Martino, Ch. Eng.
 Bill Bailey, Pub. Dir.

1340 kcs. (223.7 m.)

KDTH	DP	500
KGIR	EN	5000
KGNO	...	250(1)
WCOA	N	500(1)
WFEA	MN	500(1)
WFNC	DP	250
WSPD	RX	1000(5)
WPAB	P	1000
XEAP	...	50
XEBJ	...	100
XEBS	...	200
XEBW	...	250
XEDH	...	200
XEFC	...	100
XELW	...	250

z	Dubuque, Iowa
a	Butte, Mont.
b	Dodge City, Kans.
a	Pensacola, Fla.
a	Manchester, N. H.
z	Fayetteville, N. C.
a	Toledo, Ohio
z	Ponce, Puerto Rico
z	Oregon, Son.
a	Victoria, Tam.
z	Mexico City, D. F.
a	Chihuahua, Chih.
z	Villa Acuna, Coah.
a	Merida, Yuc.
z	Guadalaajara, Jal.

....
 E. B. Craney, Mgr.
 N. C. Peterson, Mgr.

 Emilio Manzanilla
 Fernando Elizalde
 Maria Remedios Delgado

 Vincente Hernandez
 Julio Molina Font

1350 kcs. (222.1 m.)

CMCA	...	200
KFIO	N	1000(2.5)
KWK	BM	1000(5)
WAWZ	2	1000
WBNX	2	5000
WMBG	R	1000(5)

a	Havana, Cuba
a	Boise, Idaho
a	St. Louis, Mo.
a	Zarephath, N. J.
a	New York, N. Y.
a	Richmond, Va.

J. M. Gonzalez, Dir.
 C. G. Phillips, Mgr.
 Clarence Cosby, Mgr.

 Wifred H. Wood

1360 kcs. (220.4 m.)

CMJH	...	200
KCRC	EM	250
KGER	...	1000
KLPM	...	500(1)
KSLM	M	1000
WCSC	C	500(1)
WFBL	CX	1000(5)
WGES	2	500(1)
WQBC	D	1000
WSBT	C2	500

d	Ciego de Avila, Cuba
a	Enid, Okla.
a	Long Beach, Calif.
a	Minot, N. Dak.
a	Salem, Ore.
a	Charleston, S. C.
a	Syracuse, N. Y.
a	Chicago, Ill.
a	Vicksburg, Miss.
a	South Bend, Ind.

Luis Marauri H.
 Wm. Butterfield, Annc'r.
 Jay Tapp, Ch. Eng.
 Richard Schmidt, Mgr.
 Clyde Wiegand, Ch. Eng.
 M. Wilcox

1370 kcs. (218.8 m.)

CFAR	...	100
CFOS	...	100
CJOC	F	100
CKCW	F	100

a	Flin Flon, Man.
z	Owen Sound, Ont.
a	Lethbridge, Alta.
a	Moncton, N. B.

....

CKRN ... 250
 CMGE ... 200
 HIZ ... 75
 KELD ... 250
 KENO P 100(.25)
 BEXZ 100
 KEVR 3 100
 KFGU D 100
 KFPW ... 250
 KFRO DXZ 250
 KFVS ... 250
 KGFL 4 100
 KGFL 100
 KICA 100
 KIUN ... 100
 KIUP ... 100
 KLUF ... 250
 KMAC 5 250
 KOBH ... 250
 KOH NXZ 500
 KOKO ... 100
 KONO 5 250
 KORN ... 250
 KRE ... 250
 KRKO 3 50
 KRMC ... 250
 KTEM M 250
 KTOK EMN 250
 KTSW M 250
 KTUC CE 250
 KUJ ... 100
 KVFD G 250
 KVGB ... 250
 KVR5 ... 250
 KWLK ... 250
 KWYO ... 250
 KYAN P 250
 WABY BM 100(.25)
 WAGF D 250
 WARM ... 250
 WATL M 250
 WATW ; 100
 WBLK N 250
 WBNY 2 250
 WBTH ... 250
 WBTM ... 100(.25)
 WCB1 P 250
 WCBM ... 250
 WCNC ... 250
 WCOS ... 250
 WDAS ... 250
 WDWS ... 250
 WEOA C 250
 WFOR ... 100
 WFTL ... 250
 WGBR ... 250
 WGL N 250
 WGRC M 250
 WHBO ... 100
 WHDF ... 250
 WHKY P 250
 WHLB C 250
 WHLS ... 250
 WHUB P 250
 WIBM B 250
 WISE N 250
 WIAC R 250
 WJHO ... 100(.25)
 WKPT P 250
 WLLH S 10-100
 WLLH MS 250
 WMAN D 250
 WMBR C 250
 WMFD ... 100(.25)
 WMGA ... 250
 WMIN ... 250
 WMSL DEX 100
 WOC C 250
 WORD P 100(.25)
 WPAY ... 100

z Rouyn, P. Q.
 a Cardenas, Cuba
 z Trujillo, D. R.
 z El Dorado, Ark.
 z Las Vegas, Nev.
 a Bakerfield Calif.
 a Seattle, Wash.
 a Boone Iowa
 a Fort Smith, Ark.
 a Longview, Texas
 a Cape Girardeau, Mo.
 a Roswell, N. Mex.
 a San Angelo, Texas
 a Clovis, N. Mex.
 a Pecos, Texas
 a Durango, Colo.
 a Galveston, Tex.
 a San Antonio, Tex.
 a Rapid City, S. Dak.
 a Reno, Nev.
 a La Junta, Colo.
 a San Antonio, Tex.
 a Fremont, Nebr.
 a Berkeley, Calif.
 a Everett, Wash.
 a Jamestown, N. Dak.
 a Temple, Texas
 a Oklahoma City, Okla.
 a Emporia, Kans.
 a Tucson, Ariz.
 a Walla Walla, Wash.
 a Fort Dodge, Iowa
 a Great Bend, Kans.
 a Rock Springs, Wyo.
 a Longview, Wash.
 a Sheridan, Wyo.
 z Cheyenne, Wyo.
 a Albany, N. Y.
 a Dothan, Ala.
 a Scranton, Pa.
 a Atlanta Ga.
 a Ashland, Wis.
 a Clarksburg, W. Va.
 a Buffalo, N. Y.
 z Williamson, W. Va.
 a Danville, Va.
 z Columbus, Miss.
 a Baltimore, Md.
 z Elizabeth City, N. C.
 a Columbia, S. C.
 a Philadelphia, Pa.
 a Champaign, Ill.
 a Evansville, Ind.
 a Hattiesburg, Miss.
 a Ft. Lauderdale, Fla.
 a Goldsboro, N. C.
 a Fort Wayne, Ind.
 a New Albany, Ind.
 a Memphis, Tenn.
 a Calumet, Mich.
 z Hickory, N. C.
 a Virginia, Minn.
 a Port Huron, Mich.
 z Cookeville, Tenn.
 a Jackson, Mich.
 z Asheville, N. C.
 a Johnstown Pa.
 a Opelika, Ala.
 z Kingsport, Tenn.
 a Lawrence, Mass.
 a Lowell, Mass.
 a Mansfield, Ohio
 a Jacksonville, Fla.
 a Wilmington, N. C.
 z Moultrie, Ga.
 a St. Paul, Minn.
 a Decatur, Ala.
 a Davenport, Iowa
 z Spartanburg, S. C.
 a Portsmouth, Ohio

J. O. Tardif, Mgr.
 Genero Sebater
 Frank Hatton
 F. E. Boiss
 ...
 Robert Stoddard, Mgr.
 Arthur Dailey, Mgr.
 ...
 Harold Johnson, Mgr.
 ...
 E. Whitmore, Mgr.
 Earle Yates, Mgr.
 Chas. C. Alsop, Mgr.
 Jack Hawkins, Mgr.
 Ray Beckne, Mgr.
 Lawrence Yates, Mgr.
 Howard Davis, Mgr.
 Robert Dean, Mgr.
 Merle Snider
 Leonard Wilson
 ugene Roth, Mgr.
 ...
 Arthur Westlund, Mgr.
 Lee Wedgett
 Frank Gillespie Prog. Dept.
 Burton Bishop, Mgr.
 Joseph Lee, Mgr.
 K. W. Trimble, Gen. Mgr
 Frank Howe, Mgr.
 H. E. Studebaker, Mgr.
 ...
 Ken Nielson, Mgr.
 ...
 H. W. Siebert, Mgr.
 ...
 Harold Smith, Mgr.
 Julian Smith, Mgr.
 ...
 Roy Albertson
 ...
 Lewis Hiland, Ch. Eng.
 ...
 Harold Davis, Prog. Dir.
 ...
 Tom M. Bryan
 ...
 Jack Gardner, Ch. Eng.
 ...
 Vernon Baumgartner
 Angus Pfaff, Mgr.
 M. L. Medley
 W. H. Dunn, Prog. Dir.
 Harold H. Shoms
 ...
 Robert Donahue
 ...
 Robert Donahue
 ...
 H. B. Greene, Ch. Eng.
 Richard Dunlea
 Frank R. Pidcock
 ...
 Allen R. Richter
 ...
 Maurice L. Myers

WRAK	...	250
WRDO	MN	100
WRJN	...	250
WSAU	...	250
WSLB	P	250
WSVS	G2	50
WTSP	...	250
XECZ	...	100
XEI	...	125
XELZ	...	100

a	Williamsport, Pa.
a	Augusta, Maine
a	Racine, Wis.
a	Wausau, Wis.
z	Ogdensburg, N. Y.
z	Buffalo, N. Y.
z	St. Peterburg, Fla.
z	San Luis Potosi, S. L. P.
a	Morella, Micho.
z	Mexico City, D. F.

.....
J. Mitchell
.....
.....
.....
H. C. Bieda
.....
Zeferino Z. Jimenez
Carlos Gutierrez
Maria Gardena de Zetina

1380 kcs. (217.3 m.)



CMCW	...	200
KOV	...	1000
WALA	CX	500(1)
WING	N	250(5)
WKBH	C	1000
WNBC	B	1000

d	Havana, Cuba.
a	Pittsburgh, Pa.
a	Mobile, Ala.
a	Dayton, Ohio
a	La Crosse, Wis.
a	New Britain, Conn.

A. Puente
J. J. Laux, Mgr.
W. O. Pape, Mgr.
.....
.....
Rogers B. Holt, Ch. Eng.

1390 kcs. (215.7 m.)



CMIC	...	200
KABR	X	500(1)
KIRA	C	1000(5)
KRLC	X	250
WHK	KBMX	1000(5)
WQDM	AD	1000
XEM	...	500
...	P	1000

z	Camaguey, Cuba
a	Aberdeen, S. Dak.
a	Little Rock, Ark.
a	Lewiston, Idaho
a	Cleveland, Ohio
f	St. Albans, Vt.
z	Chihuahua, Chih.
z	Pawtucket, R. I.

Miguel Guillen Perez
W. L. Dean, Prog. Dir.
S. C. Vinsonhaler, Mgr.
Donald H. Wike, Mgr.
E. L. Gove, Tech. Sup.
.....
.....
.....

1400 kcs. (214.2 m.)



CMAR	...	200
CMKR	...	200
KLO	B	5000
KTUL	C	5000
TXG	...	.....
WARD	2	500
WBBC	2	500
WIRE	MR	5000
WLTH	2	500
WVFW	2	500
XEA	...	250
XFAJ	...	100
XEAU	A	250
XEDE	...	100
XFDS	...	250
XEPP	...	150

z	Pinar del Rio, Cuba
z	Santiago de Cuba
a	Ogden, Utah
a	Tulsa, Okla.
d	Guatemala City, Guat.
a	Brooklyn, N. Y.
a	Brooklyn, N. Y.
a	Indianapolis, Ind.
a	New York, N. Y.
a	Brooklyn, N. Y.
z	Campeche, Cam.
z	Navoioa, Son.
z	Tijuana, B. Cfa.
z	Torreon, Coah
z	Mazatan, Sin.
z	Orizaba, Ver. Ca.

.....
Jaime Nadal
Paul R. Heitmeyer
W. C. Gillespie
.....
Aron Kronenberg
Bert Child, Prog. Dir.
Earl Lewis, Ch. Eng.
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1410 kcs. (212.5 m.)



CKFC	2	50
CKMO	2	100
CMCQ	...	200
KFJM	...	500(1)
KGNC	N	1000(2.5)
KMED	N	250(1)
WAAB	EM	1000
WBGM	...	500(1)
WHIS	...	500(1)
WROK	M	500(1)
WSFA	CE	500(1)

a	Vancouver, B. C.
a	Vancouver, B. C.
a	Havana, Cuba
a	Grand Forks, N. Dak.
a	Amarillo, Texas
b	Medford, Ore.
a	Boston, Mass.
a	Bay City, Mich.
a	Bluefield, W. Va.
a	Rockford, Ill.
a	Montgomery, Ala.

.....
.....
Andres Martinez
Dalton Le Masurier, Mgr.
O. L. Taylor, Mgr.
.....
E. A. Donaher
.....
Edw. L. Ketts
.....
.....

1420 kcs. (211.1 m.)



CBY	F	100
CHLN	...	100
CKCA	F	100(.25)
CKLN	F	100
CMJP	...	200
KABC	M	250
KATE	E	250
KBPS	4	100
KCMC	M	250
KDNT	...	100
KEUB	P	100(.25)
KFAM	EN	250

a	Toronto, Ont.
z	Three Rivers, P. Q.
a	Kenora, Ont.
a	Nelson, B. C.
a	Moron, Cuba
a	San Antonio, Texas
a	Albert Lea, Minn.
a	Portland, Ore.
a	Texarkana, Texas
a	Denton, Texas
a	Price, Utah
a	St. Cloud, Minn.

Leon Trepanier, Ch.Eng.
.....
Hume Lethbridge, Mgr.
Cesar Canals
Chas. Belfi, Prog. Dir.
Geo. Russell, Prog. Dir.
Wm. Allingham, Mgr.
W. T. Casper, Prog. Dir.
Jack Wallace, Prog Dir.
Sam G. Weiss
Geo. Bairey, Mgr.

KFIZ	E	100
KGFF	EM	250
KGIW	3	100
KGLU	...	250
KIDW	3	100
KLBM	...	250
KMYC	P	100
KORE	M	250
KRBC	M	250
KRBM	EN	250
KRIC	...	250
KRLH	...	100
KSAN	...	250
KTRI	...	250
KVAK	...	100
KWAL	...	100(.25)
KWBG	X	100
KXL	4	250
WACO	CM	250
WAGM	...	100
WAOV	P	100
WAO	NXZ	250
WAZL	...	250
WBML	P	250
WCBS	...	250
WCHV	...	250
WEED	...	250
WELL	BX	100
WFMJ	...	250
WFPG	P	100(.25)
WGNB	...	250
WGPC	X	100
WHDL	...	250
WHFC	...	250
WHMA	...	250
WILM	...	250
WIMS	...	250
WKIP	...	250
WLAP	M	250
WLEU	B	250
WLPM	...	100(.25)
WMA5	C	250
WMBC	...	250
WMBH	...	250
WMBS	...	250
WMFJ	...	250
WMSD	X	250
WNOE	...	250
WPAD	...	250
WPAR	C	100
WPRP	XZ	250
WSLI	...	250
WSPB	...	250
....	P	100(.25)
....	P	100(.25)

a	Fond du Lac, Wis.
a	Shawnee, Okla.
a	Alamosa, Colo.
a	Safford, Ariz.
a	Lamar, Colo.
z	La Grande, Ore.
z	Marysville, Calif.
a	Eugene, Ore.
a	Abilene, Texas
a	Bozeman, Mont.
z	Beaumont, Texas
a	Midland, Texas
a	San Francisco, Calif.
f	Sioux City, Iowa
a	Atchison, Kans.
a	Wallace, Idaho
a	Hutchinson, Kans.
b	Portland, Ore.
b	Waco, Texas
a	Presque Isle, Maine
z	Vincennes, Ind.
a	Chattanooga, Tenn.
a	Hazleton, Pa.
z	Macona, La.
a	Springfield, Ill.
a	Charlottesville, Va.
a	Rocky Mount, N. C.
a	Battle Creek, Mich.
a	Youngstown, Ohio
z	Atlantic City, N. J.
z	Gastonia, N. C.
a	Albany, Ga.
a	Olean, N. Y.
a	Cicero, Ill.
a	Anniston, Ala.
a	Wilmington, Del.
a	Ironwood, Mich.
a	Poughkeepsie, N. Y.
a	Lexington, Ky.
a	Erie, Pa.
a	Suffolk, Va.
a	Springfield, Mass.
a	Detroit, Mich.
a	Joplin, Mo.
a	Uniontown, Pa.
a	Daytona Beach, Fla.
a	Muscle Shoals City, Ala.
a	New Orleans, La.
a	Paducah, Ky.
a	Parkersburg, W. Va.
a	Ponce, Puerto Rico
a	Jackson, Miss.
a	Sarasota, Fla.
z	Martinsville, Va.
z	Valdosta, Ga.

Lynn B. Fairbanks, Mgr.
Ross Porter, Mgr.
E. L. Allen
....
Sherrill Ellsworth, Mgr.
Frank E. Walden, Ch. Eng.
....
Frank Hill, Mgr.
Max Bentley, Mgr.
....
Thomas Belzel, Mgr.
S. H. Paterson, Mgr.
Dietrich Dirks, Mgr.
....
W. B. Greenwald, Mgr.
T. W. Symons, Jr. Mgr.
James W. Pate, Mgr.
R. W. MacIntosh Mgr.
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R. G. Patterson, Mgr.
Edward Beisel, Prog. Dir.
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Wm. Avera Wynne
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F. C. Todd, Mgr.
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....
Edwin Mullinax
....
....
Winston L. Clark, Mgr.
....
Jack Siegel
....
E. H. Clark, Ch. Eng.
....
Chas. McClane, Eng.
W. Wright Esch
....
....
....
Julio M. Conesa
G. G. Benson, Ch. Eng.
....
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1430 kcs. (209.7 m.)



CJGX	F	1000
CMKZ	...	200
KGNF	D	1000
KINY	...	1000
KSO	BM	1000(5)
WBNS	C	1000(5)
WHEC	C	500(1)
WHP	C	1000(5)
WMPS	B	500(1)
WOKO	CK	500(1)
XERH	...	500

a	Yorkton, Sask.
z	Palma Soriano, Cuba
a	North Platta, Nebr.
a	Juneau, Alaska
a	Des Moines, Iowa
a	Columbus, Ohio
a	Rochester, N. Y.
a	Harrisburg, Pa.
a	Memphis, Tenn.
a	Albany, N. Y.
z	Mexico City, D. F.

A. L. Garside, Mgr.
Joquin Venero Obregon
J. B. Eaves, Eng.
C. B. Arnold, Mgr.
Edmund Linehan, Prog. Dir.
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....
....
H. E. Smith

1440 kcs. (208.2 m.)



CKGB	F	100
CMBY	...	200
KDFN	...	500
KELA	M	1000
KXYZ	BM	1000
WBIG	C	1000(5)

a	Timmins, Ont.
a	Havana, Cuba
a	Casper, Wyo.
a	Centralia, Wash.
a	Houston, Texas
a	Greensboro, N. C.

R. H. Thomson
Donald Hathaway
Pedro Marti, Ch. Eng.
J. Elroy McCaw, Mgr.
T. Frank Smith, Mgr.
Edney Ridge

WCBA	a	500
WMBD	C	1000(5)
WSAN	aN	500
XEFI	...	1000

a	Allentown, Pa.
a	Peoria, Ill.
a	Allentown, Pa.
a	Chihuahua, Chih.

....
F. A. Giles, Tech. Dir.
Geo. G. Snyder Prog. Dir.
Feliciano Lopez Islas

1450 kcs. (206.8 m.)

CFCT	...	500
CHGS	F	50
CMHM	...	200
HRN	...	500
KCMO	...	1000(5)
KGCX	...	1000
KIEM	M	500(1)
KTBS	NZ	1000
TGO	...	200
WAGA	B	500(1)
WGAR	C	1000(5)
WHOM	X	250
WSAR	M	1000
XEDJ	...	100
XFF	...	100
XERK	...	100

a	Victoria, B. C.
f	Summerside, P. E. I.
z	Cienfuegos, Cuba
b	Tegucigalpa, Hond.
a	Kansas City, Mo.
a	Wolf Point, Mont.
a	Eureka, Calif.
a	Shreveport, La.
a	Quezaltenango, Guat.
a	Atlanta, Ga.
a	Cleveland, Ohio
a	Jersey City, N. J.
f	Fall River, Mass.
z	Magdalena, Son.
s	Quereza, Chih.
z	Tepic, Nay.

....
R. T. Holman
Jose R. Feminias
....
Lee Roberts, Prog. Dir.
Milton J. Severson, Mgr.
Wm. B. Smullin Mgr.
John McCormack, Mgr.
....
Jess Swicegood
R. M. Pierce, Ch. Eng.
....
Gilberto Gil
....

1460 kcs. (205.4 m.)

CMKF	...	250
KSTP	RX	10000(25)
WJSV	C	50000

z	Holguin, Cuba
z	St. Paul, Minn.
a	Washington, D. C.

Manuel J. De Gongora
Stanley Hubbard, Mgr.
Harry R. Crow; Clyde Hunt

1470 kcs. (204 m.)

CMCX	...	200
H18Q	1475	100
KGA	BM	5000
WLAC	...	5000

z	Havana, Cuba
z	Trujillo, D. R.
a	Spokane, Wash.
a	Nashville, Tenn.

L. Sanchez
Julio A. Garcia
A. L. Smith, Mgr.
J. T. Ward

1480 kcs. (202.6 m.)

CMHX	...	200
KOMA	C	5000
WHIP	D	5000
WKBW	CM	5000

a	Cienfuegos, Cuba
a	Oklahoma City, Okla.
z	Hammond, Ind.
a	Buffalo, N. Y.

J. Garcia R.
Haymond Ramsey
Elmer Herkner
....

1490 kcs. (201.2 m.)

CMKQ	E	1000
KFBK	EKN	10000
WCKY	C	50000
XECH	...	250
XEDR	...	100
XEJR	...	100

z	Santiago de Cuba
a	Sacramento, Calif.
a	Cincinnati, Ohio
z	Toluca, Mex.
z	Guaymas Son.
z	Parral, Chih.

Mario Abril Dumois
Howard Lane
C. H. Topmiller, Ch. Eng.
....
Modeste Ortega
....

1500 kcs. (199.9 m.)

CJIC	F	100
CMOX	...	200
KAWM	...	100
KBIX	EM	100
KBKR	...	250
KBST	M	100
KDAL	C	250
KDB	EM	250
KDRO	...	100(25)
KFDA	M	100
KGKY	...	250
KNEL	D	250
KNOW	M	250
KOTN	DX	100
KOVC	...	250
KPAB	...	250
KPLC	...	250
KPLT	...	250
KPO	M	250
KRNR	M	100(25)
KROD	...	250
KTOH	...	250
KUTA	N	250
KVOE	M	100

a	Sault Ste. Marie, Ont.
a	Havana, Cuba
a	Gallup, N. Mex.
a	Muskogee, Okla.
a	Baker, Ore.
a	Big Spring, Texas
a	Duluth, Minn.
a	Santa Barbara, Calif.
z	Sedalia, Mo.
z	Amarillo, Texas
z	Scottsbluff, Nebr.
a	Brady, Texas
a	Austin, Texas
a	Pine Bluff, Ark.
a	Valley City, N. Dak.
a	Laredo, Texas
a	Lake Charles, La.
a	Paris, Texas
a	Wenatchee, Wash.
a	Roseburg, Ore.
a	El Paso, Texas
a	Lihue, Hawaii
a	Salt Lake City, Utah
a	Santa Ana, Calif.

J. C. Whitby
E. Chisholm
A. W. Mills
J. H. Speck, Mgr.
Louis P. Thornton
Mary V. Keneaster, Prog. Dir.
Gilbert Fawcett, Prog. Dir.
Earl Pollock, Mgr.
....
G. L. Burns
....
B. J. Parrish, Mgr.
Mark C. Crandall, Mgr.
Mervel M. Valentine
C. R. Porter, Mgr.
J. Bert Mitchell, Mgr.
Cole E. Wylie, Mgr.
Justin B. Toles, Mgr.
Dorrence D. Roderick
C. J. Fern, Jr.
Frank C. Carman, Mgr.
Ernest L. Spencer, Mgr.

KVWC	...	250
KWEW	...	100
KXO	M	100
KYCA	P	250
KYSM	EN	250
WCNW	2	100 (.25)
WDAN	...	250
WDNC	C	250
WERC	P	100 (.25)
WGAL	N	250
WGIL	...	250
WGKV	N	100
WGTC	...	250
WHBB	...	100
WJBK	...	250
WKAT	...	250
WKBB	N	250
WKBV	...	100 (.25)
WKBZ	...	250
WKEU	D	100
WKNY	...	250
WMEA	XZ	100 25
WMIM	P	100 (.25)
WMOG	...	100 (.25)
WMRC	P	250
WNRF	C	250
WNLC	MX	100
WOLF	...	100
WOMI	...	250
WUPI	...	250
WRDW	C	250
WRGA	...	250
WRTD	BXZ	100
WSSJ	P	250
WSTP	M	250
WSYR	M	250
WTMC	...	100
WTAV	...	250
WWRL	G2	250
WWSW	...	250
XEQK	...	400
....	P	100 (.25)

z	Vernon, Texas
a	Hobbs, N. Mex.
a	El Centro, Calif.
z	Prescott, Ariz.
a	Mankato, Minn.
a	Brooklyn, N. Y.
a	Danville, Ill.
a	Durham, N. C.
z	Erie, Pa.
a	Lancaster, Pa.
a	Galesburg, Ill.
z	Charleston, W. Va.
a	Greenville, N. C.
a	Sema, Ala.
a	Detroit, Mich.
a	Miami Beach, Fla.
a	Dubuque, Iowa
a	Richmond, Ind.
a	Muskegon, Mich.
a	Griffin, Ga.
a	Kingston, N. Y.
a	Boston, Mass. - 1470Kc - 9-22-40 - 7:pm
z	Cordele, Ga.
a	Brunswick, Ga.
z	Greenville, S. C.
a	Binghamton, N. Y.
a	New London, Conn.
a	Syracuse, N. Y.
a	Owensboro, Ky.
a	Bristol, Tenn.
a	Augusta, Ga.
a	Rome, Ga.
a	Richmond, Va.
z	San Juan, P. R.
a	Salisbury, N. C.
a	Rutland, Vt.
z	Ocala, Fla.
a	E. St. Louis, Ill.
a	Woodside, N. Y.
a	Pittsburgh, Pa.
z	Mexico City, D. F.
z	Erie, Pa.

Mrs. C. C. Minyard, Sec'y.
 W. E. Whitmore
 F. M. Bowles, Mgr.
 H. Kimberly, Ch. Eng.
 Arthur Faske
 Perry W. Esten, Ch. Eng.

 Paul Kalbfleisch

 Winifred Powers
 L. Carlson

 David Bain, Ch. Eng.
 James R. Yost, Ch. Eng.
 F. S. Liggett, Ch. Eng.

1510 kcs. (198.6 m.)

CFRC	F	100
CKCR	...	100

a	Kingston, Ont.
a	Waterloo, Ont.

H. H. Stewart, Ch. Eng
 G. Liddle

1520 kcs. (197.3 m.)

TGW	...	5000
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e	Guatemala City, Guat.
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L. Schlesinger Carrera, Dir.

1530 kcs. (196 m.)

CMC	...	200
KITE	...	1000
WBRV	CM	1000
WAKR	P	1000

z	Havana, Cuba
a	Kansas City, Mo.
a	Waterbury, Conn.
z	Akron, Ohio

....
 Pete Houck, Eng.
 S. E. Warner, Ch. Eng.

1550 kcs. (193.4 m.)

KPMC	M	1000
WQXR	X	1000

a	Bakersfield, Calif.
a	New York, N. Y.

L. A. Schamblin, Mgr.
 Russell Valentine, Ch. Eng.

1560 kcs. (112.2 m.)

CMBF	...	5000
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z	Havana, Cuba
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J. P. Malvido, Dir.

1580 kcs. (189.8 m.)

CMRT	...	200
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z	Guines, Cuba
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Raul Torres Parda

1600 kcs. (187.4 m.)

CMBH	...	5000
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e	Havana, Cuba
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Alberto Alvarez Ferrera

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Chicago	
WAAP	920
WBBM	770
WCBD	1080
WCFL	970
WCRW	1210
WEDC	1210
WENR	870
WGES	1360
WGN	720
WJJD	1130
WLS	870
WMAQ	670
WMBI	1080
WSSC	1210
Cicero	
WHFC	1420
Danville	
WDAN	1500
Decatur	
WSOY	1310
East St. Louis	
WTMV	1500
Galesburg	
WGIL	1500
Harrisburg	
WEBQ	1210
Herrin	
WJPF	1310
Joliet	
WCLS	1310
Peoria	
WMBD	1440
Quincy	
WTAD	900
Rockford	
WROK	1410
Rock Island	
WBBF	1240
Springfield	
WCBS	1420
WTAX	1210
Tuscola	
WDZ	1020
Urbana	
WILL	580

INDIANA

Anderson	
WIBU	1210
Eikhart	
WTRC	1310
Evansville	
WEOA	1370
WGBF	880
Fort Wayne	
WGL	1370
WOWO	1160
Gary	
WIND	560
Hammond	
WHIP	1480
WWAE	1200
Indianapolis	
WFBM	1230
WIBC	1050
WIRE	1400
Muncie	
WLBC	1310
New Albany	
WGRC	1370
Richmond	
WKBV	1500
South Bend	
WFAM	1200

WSBT	1360
Terre Haute	
WBOW	1200
Vincennes	
WAOV	1420
West Lafayette	
WBAA	890

IOWA

Ames	
WOI	640
Boone	
KPGQ	1370
Cedar Rapids	
WMT	600
Davenport	
WOC	1370
Decorah	
KGCA	1270
KWLC	1270
Des Moines	
KRNT	1320
KSO	1430
WIO	1000
Dubuque	
KDTH	1340
WKB	1500
Fort Dodge	
KVFD	1370
Iowa City	
WSUI	880
Marshalltown	
KFJB	1200
Mason City	
KGLO	1210
Shenandoah	
KPNP	890
KMA	930
Sioux City	
KSCJ	1330
KTRI	1420

KANSAS

Atehison	
KVAK	1420
Coffeyville	
KGGF	1010
Dodge City	
KGNO	1340
Emporia	
KTSW	1370
Garden City	
KIUL	1210
Great Bend	
KVGB	1370
Hutchinson	
KWVG	1420
Kansas City	
KCKN	1310
Lawrence	
KCKU	1220
WREN	1220
Manhattan	
KSAC	580
Pittsburg	
KOAM	790
Salina	
KSAL	1120
Topeka	
WIBW	580
Wichita	
KANS	1210
KFBI	1050
KFH	1300

KENTUCKY

Ashland	
WCMI	1310
Bowling Green	
WBLJ	1310
Hopkinsville	
WHOP	1200
Lexington	
WLAP	1420
Louisville	
WAVE	940
WIAS	820
WINN	1210
Owensboro	
WOMI	1500
Padueah	
WPAD	1420

LOUISIANA

Alexandria	
KALB	1210
Baton Rouge	
WJBO	1120
Lafayette	
KVOL	1310
Lake Charles	
KPLC	1500
Monroe	
KMLB	1200
New Orleans	
WDSU	1250
WTRW	1200
WNOE	1420
WSMB	1320
WWL	850
Shreveport	
KRMD	1210
KTBS	1450
KWKH	1100

MAINE

Augusta	
WRDO	1370
Bangor	
WABI	1200
WLBZ	620
Lewiston	
WCOU	1210
Portland	
WCSH	940
WGAN	640
Presque Isle	
WAGM	1420

MARYLAND

Baltimore	
WBAL	700
WBAL	1060
WCAO	600
WCBM	1370
WFBZ	1270
WFBR	1270
Cumberland	
WTBO	800
Frederick	
WFMD	900
Hagerstown	
WJEL	1210
Salisbury	
WBOC	1500

MASSACHUSETTS

Boston	
WAAB	1410
WBZ	990
WOP	1120
WEEI	590
WTDH	830
WMEX	1500
WNAC	1230
WORL	920
Fall River	
WSAB	1450
Greenfield	
WHAI	1210
Hyannis	
WOCB	1210
Lawrence	
WLAW	680
WLLH	1370
Lowell	
WLLH	1370
New Bedford	
WNLH	1310
Pittsfield	
WBBK	1310
Salem	
WESX	1200
Springfield	
WJZA	990
WMAS	1420
WSPR	1140
Worcester	
WORC	1280
WTAG	580

MICHIGAN

Battle Creek	
WELL	1420
Bay City	
WBCM	1410
Calumet	
WIDF	1370
Detroit	
WJBK	1500
WJR	750
WMBR	1420
WWJ	920
WXYZ	1240
East Lansing	
WKAR	850
Flint	
WFDF	1310
Grand Rapids	
WASH	1270
WGRB	1200
WLAJ	1310
WOOD	1270
Ironwood	
WJBS	1420
Jackson	
WJBM	1370
Kalamazoo	
WKZO	590
Lansing	
WJIM	1210
Lapeer	
WMPG	1200
Marquette	
WDMJ	1310
Muskegon	
WKIZ	1500
Pontiac	
WCAR	1100

Port Huron	
WHLB	1370
Royal Oak	
WEXL	1310
Saginaw	
WHAL	950
WSAM	1200
Sault Ste. Marie	
WSOO	1200

MINNESOTA

Albert Lea	
KATE	1420
Duluth	
KDAL	1500
WEBC	1290
Fergus Falls	
KGDE	1200
Hibbing	
WMFG	1210
Mankato	
KYSM	1500
Minneapolis	
WCCO	810
WDGY	1180
WLB	760
WLOL	1300
WTCN	1250
Moorhead	
KVOX	1310
Northfield	
WCAL	760
Rochester	
KROC	1310
St. Cloud	
KFAM	1420
St. Paul	
KSTP	1460
WMIN	1370
Virginia	
WHLB	1370
Willmar	
KWLM	1310
Winona	
KWNO	1200

MISSISSIPPI

Columbus	
WCBI	1370
Greenville	
WJPR	1310
Greenwood	
WGRM	3210
Hattiesburg	
WFOR	1370
Jackson	
WDBX	1270
WSLI	1420
Laurel	
WAML	1310
McComb	
WSKB	1200
Meridian	
WCOG	880
Vicksburg	
WQBC	1360

MISSOURI

Cape Girardeau	
KFVS	1370
Clayton	
KFCO	830

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Columbia	
KFRU	630
Jefferson City	
KWOS	1310
Joplin	
WMBH	1420
Kansas City	
KCMO	1450
KITE	1530
KMBC	950
WDAF	610
WHB	860
Poplar Bluff	
KWOC	1310
St. Joseph	
KFEQ	680
St. Louis	
KMOX	1090
KSD	550
KWK	1350
KXOK	1250
WEW	760
WIL	1200
Sedalia	
KDHO	1500
Springfield	
KGBX	1230
KWTO	560

MONTANA	
Billings	
KGHL	780
Bozeman	
KRBM	1420
Butte	
KGIR	1340
Great Falls	
KFBB	1280
Helena	
KPPA	1210
KallsPELL	
KGEZ	1310
Missoula	
KGVO	1260
Wolf Point	
KGCX	1450

NEBRASKA	
Fremont	
KORN	1370
Grand Island	
KMMJ	740
Hastings	
KHAS	1200
Kearney	
KGFW	1210
Lincoln	
KFAB	770
KFOR	1210
Norfolk	
WJAG	1060
North Platte	
KGNF	1430
Omaha	
KOIL	1200
KOWH	660
WOW	590
Scottsbluff	
KGKY	1500

NEVADA	
Las Vegas	
KENO	1370
KFUN	1420
Reno	
KOH	1330

New HAMPSHIRE	
Laconia	
WLNH	1310
Manchester	
WFEA	1340
Perismouth	
WHBB	740

NEW JERSEY	
Asbury Park	
WCAP	1280
Atlantic City	
WTAB	1200
WFPG	1420
Bridgeton	
WSNJ	1210
Camden	
WCAM	1280
Jersey City	
WAAT	940
WHOM	1450
Newark	
WHBI	1250
WOR	710
Red Bank	
WBRB	1210
Trenton	
WTNJ	1230
Zarephath	
WAWZ	1350

NEW MEXICO	
Albuquerque	
KGGM	1230
KOB	1180
Carlsbad	
KLAH	1210
Clovis	
KICA	1370
Gallup	
KAWM	1500
Hobbs	
KWEW	1500
Roswell	
KGFL	1270
Santa Fe	
KVSP	1310

NEW YORK	
Albany	
WABY	1370
WOKO	1430
Auburn	
WMBO	1210
Binghamton	
WNNB	1500
Brooklyn	
WARD	1400
WBBC	1400
WBBR	1300
WCNW	1500
WVTV	1400
Buffalo	
WBEN	900
WBNY	1370
WBRB	1310
WGR	550
WKBW	1480
WBSV	1370
Canton	
WCAD	1220
Elmira	
WENY	1200
WESG	850
Freeport	
WGBB	1210

Jamestown	
WJTN	1210
Newburgh	
WGNV	1220
New York	
WABC	860
WBNX	1350
WFAF	660
WEVD	1300
WHN	1010
WINS	1180
WJZ	760
WLTH	1400
WMCA	570
WNEW	1250
WNYC	810
WOV	1100
WQXR	1550
Niagara Falls	
WILD	1260
Ondesburg	
WSLB	1370
Olean	
WHDL	1420
Plattsburg	
WMPF	1310
Poughkeepsie	
WKIP	1420
Rochester	
WTAM	1150
WHFC	1430
WSAY	1210
Saranac Lake	
WNBZ	1290
Schenectady	
WGY	790
Syracuse	
WFRB	1360
WOLF	1500
WSYR	570
Troy	
WHAZ	1300
WTRY	950
Utica	
WIBX	1200
White Plains	
WPAS	1210
Woodside	
WWRL	1500

NORTH CAROLINA	
Asheville	
WISE	1370
WUNC	570
Charlotte	
WBT	1020
WSOC	1210
Durham	
WDNC	1500
Elizabeth City	
WCNC	1370
Fayetteville	
WFNC	1340
Gastonia	
WGNC	1420
Goldsboro	
WGRR	1370
Greensboro	
WRIG	1440
Greenville	
WGTC	1500
Hickory	
WHKY	1370
High Point	
WMFR	1200
Kinston	

WFTC	
Raleigh	1200
WPTF	680
WRAL	1210
Roanoke Rapids	
WCBT	1200
Rocky Mount	
WEED	1420
Salisbury	
WSTP	1500
Wilmington	
WMFD	1370
Wilson	
WGTM	1310
Winston-Salem	
WAIH	1250
WSJS	1310

NORTH DAKOTA	
Bismarck	
KFYR	550
Devils Lake	
KDLR	1210
Fargo	
WDAY	940
Grand Forks	
KFJM	1410
Jamestown	
KRMC	1370
Mandan	
KGOU	1240
Minot	
KLPM	1360
Valley City	
KOVC	1500

OHIO	
Akron	
WADC	1320
WAKR	1530
WJW	1210
Ashabula	
WASA	940
Canton	
WBBC	1200
Cincinnati	
WCKY	1490
WCPO	1200
WKRC	550
WLW	700
WSAI	1380
WEXO	700
Cleveland	
WCLE	610
WGAR	1450
WHK	1390
WTAM	1070
Columbus	
WBNS	1430
WCOL	1200
WHKC	640
WOSU	570
Dayton	
WHIO	1260
WING	1380
Lima	
WLOK	1210
Mansfield	
WMAN	1370
Portsmouth	
WPAY	1370
Springfield	
WIZE	1310
Stenbenville	
WSTV	1310

Toledo	
WSPD	1340
WTOL	1200
Youngstown	
WFMI	1420
WKBN	570
Zanesville	
WHIZ	1210

OKLAHOMA	
Ada	
KADA	1200
Armore	
KVSO	1210
Elk City	
KASA	1210
Enid	
KCRC	1360
Muskogee	
KBTX	1500
Norman	
WNAD	1010
Oklahoma City	
KOCY	1310
KOMA	1480
KTKO	1370
WKY	900
Okmulgee	
KHGB	1210
Ponca City	
WBBZ	1200
Shawnee	
KGFF	1420
Tulsa	
KOME	1210
KTUL	1400
KVOO	1140

OREGON	
Astoria	
KAST	1200
Baker	
KBKR	1500
Bend	
KBND	1310
Corvallis	
KOAC	580
Eugene	
KORE	1420
Grants Pass	
KUIN	1210
Klamath Falls	
KFJI	1210
La Grande	
KLBM	1420
Marshfield	
KOOS	1200
Medford	
KMED	1410
Portland	
KALE	1200
KBI'S	1420
KEX	1160
KGW	620
KOIN	940
KWJJ	1040
KXL	1420
Roseburg	
KRNR	1500
Salem	
KSLM	1300
The Dalles	
KODL	1200

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Pennsylvania	
Allentown	
WCBA	1440
WSAN	1440
Altoona	
WFBG	1310
Du Bois	
WCED	1200
Easton	
WEST	1200
Erie	
WERC	1500
WLEU	1420
Glenside	
WJBG	970
Greenburg	
WJJB	620
Grove City	
WSAJ	1310
Harrisburg	
WHIP	1430
WKBO	1200
Hazleton	
WAZL	1420
Johnstown	
WJAC	1370
Lancaster	
WGAL	1500
New Castle	
WKST	1250
New Kensington	
WKPA	1120
Philadelphia	
KYW	1020
WCAU	1170
WDAS	1370
WFIL	560
WHAT	1310
WIP	610
WPEN	920
WTEL	1310
Pittsburgh	
KDKA	980
KQV	1380
WCAE	1220
WJAS	1290
WWSW	1500
Reading	
WEEU	830
WRAW	1310
Scranton	
WARM	1370
WGBI	880
WQAN	880
Sharon	
WPIC	780
Sunbury	
WKOK	1210
Uniontown	
WMBE	1420
Wilkes-Barre	
WBAX	1210
WBRE	1310
Williamsport	
WRAK	1370
York	
WORK	1320
PUERTO RICO	
Mayaguez	
WPA	780
Ponoc	
WPAB	1340
WPRP	1420
San Juan	
WKAQ	1240

WNEL	1290
WSSJ	1500
RHODE ISLAND	
Providence	
WEAN	780
WJAR	890
WPRO	630
SOUTH CAROLINA	
Anderson	
WALM	1200
Charleston	
WCSC	1260
WTMA	1210
Columbia	
WCOS	1270
WIS	500
Florence	
WOLS	1200
Greenville	
WFBC	1300
WMRC	1500
Spartanburg	
WORD	1370
WSPA	920
Sumter	
WFIG	1310
SOUTH DAKOTA	
Aberdeen	
KABR	1300
Brookings	
KFDY	780
Pierre	
KGFX	630
Rapid City	
KOBH	1370
WCAT	1200
Sioux Falls	
KELO	1200
KSOO	1110
Vermillion	
KUSD	890
Watertown	
KWAT	1210
Yankton	
WNAX	570
TENNESSEE	
Bristol	
WOPJ	1500
Chattanooga	
WAPO	1420
WDOD	1280
Cookeville	
WHUB	1370
Jackson	
WTJS	1310
Johnson City	
WJHL	1200
Kingsport	
WKPT	1370
Knoxville	
WNOX	1010
WROL	1210
Memphis	
WHBQ	1370
WMC	780
WMPS	1430
WREC	600

Nashville	
WLAC	1470
WSIV	1210
WSM	650
TEXAS	
Abilene	
KRBC	1420
Amarillo	
KFDA	1500
KGNC	1410
Austin	
KNOW	1500
Beaumont	
KFDM	560
KRIC	1420
Big Spring	
KBST	1500
Brady	
KNEL	1500
College Station	
WTAW	1120
Corpus Christi	
KRIS	1320
Dallas	
KRLD	1040
WFAA	800
WBR	1280
Denton	
KDNT	1420
Dublin	
KFPL	1310
El Paso	
KROD	1500
KPSM	1310
WDAH	1210
Fort Worth	
KFJZ	1240
KGKO	870
WHAP	800
Galveston	
KLUF	1370
Houston	
KPRC	920
KTRH	1290
KXYZ	1440
Kilgore	
KOGA	1210
Larado	
KPAB	1500
Longview	
KFRH	1370
Lubbock	
KFYOO	1310
Midland	
KMLH	1420
Pampa	
KPDN	1310
Paris	
KPLT	1500
Pecos	
KIUN	1370
Port Arthur	
KPAC	1220
San Angelo	
KGKL	1370
San Antonio	
KABC	1420
KMAC	1370
KONO	1370
KTSA	550
WOAI	1190
Sherman	
KRRV	1310
Sweetwater	
KXOX	1210

Temple	
KTEM	1370
Texarkana	
KCMC	1420
Vernon	
KVWC	1500
Victoria	
KVIC	1310
Waco	
WACO	1420
Weslaco	
KRGV	1260
Wichita Falls	
KWFT	620
UTAH	
Cedar City	
KSUB	1310
Logan	
KVNU	1200
Ogden	
KLO	1400
Price	
KEUB	1420
Provo	
KOVO	1210
Salt Lake City	
KDYL	1290
KSL	1130
KUTA	1500
VERMONT	
Burlington	
WCAX	1200
Rutland	
WSYB	1500
St. Albans	
WQDM	1390
Springfield	
WNXB	1260
Waterbury	
WDEV	550
VIRGINIA	
Charlottesville	
WCHV	1420
Danville	
WBTD	1370
Fredericksburg	
WFVA	1260
Harrisonburg	
WSVA	550
Lynchburg	
WLVA	1200
Newport News	
WGHI	1310
Norfolk	
WTAR	780
Petersburg	
WPJD	1210
Richmond	
WBBL	1210
WMBG	1350
WBNL	880
WRD	1500
WRVA	1110
Roanoke	
WDRJ	920
Suffolk	
WLPM	1420
WASHINGTON	
Aberdeen	
KXRO	1310

Bellingham	
KVOS	1200
Centralia	
KEBA	1440
Everett	
KRKO	1370
Longview	
KWLK	1370
Olympia	
KGY	1210
Pullman	
KWSC	1220
Seattle	
KEVR	1370
KIRO	710
KJR	970
KOL	1270
KOMO	920
KRSC	1120
KTW	1220
KXA	760
Spokane	
KPIO	1120
KFPY	890
KGA	1470
KHQ	596
Tacoma	
KMO	1330
KVI	570
Vancouver	
KVAN	880
Walla Walla	
KUJ	1370
Wenatchee	
KPO	1500
Yakima	
KIT	1250
WEST VIRGINIA	
Bekley	
WJLS	1210
Bluefield	
WHIS	1410
Charleston	
WCHS	580
WGKY	1500
Clarksburg	
WBLK	1370
Fairmont	
WMMN	890
Huntington	
WSAZ	1190
Logan	
WLOG	1200
Morgantown	
WAJR	1200
Parkersburg	
WPAR	1420
Welch	
WBRW	1310
Wheeling	
WVVA	1160
Williamson	
WBTH	1370
WISCONSIN	
Appleton	
WBTV	1200
Ashland	
WATW	1370
Eau Claire	
WEAU	1050
Fond du Lao	
KFJZ	1420
Green Bay	
WTAQ	1330

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Janesville	
WCLO	1200
LaCrosse	
WKBB	1380
Madison	
WHA	940
WFA	1280
Manitowec	
WOMT	1210
Marinette	
WMAM	570
Milwaukee	
WFMP	1310
WISN	1120
WTMJ	620
Poynette	
WIBU	1210
Racine	
WBJN	1370
Rice Lake	
WJMC	1210
Sheboygan	
WHDL	1300
Stevens Point	
WJBL	900
Superior	
WDSM	1200
Wausan	
WSAU	1370
Wisconsin Rapids	
WFHR	1310

WYOMING	
Casper	
KDFN	1440
Cheyenne	
KYAN	1370
Rock Springs	
KVBS	1370
Sheridan	
KWYO	1370

BAHAMAS

Nassau	
ZNS	790

CANADA ALBERTA

Calgary	
CFAC	930
CFCN	1020
CJGJ	600
Edmonton	
CFRN	960
CJCA	730
CKUL	580
Grande Prairie	
CFGP	1310
Lethbridge	
CJOC	1370

BRITISH COLUMBIA

Chilliwack	
CHWK	780
Kamloops	
CFJC	880
Kelowna	
CKOV	630
Nelson	
CKLN	1420
Prince Rupert	
CFPR	580
Trail	
CJAT	910

Vancouver	
CBR	1100
CJOR	600
CKMO	1410
CKWX	1010
Victoria	
CFCT	1450

MANITOBA

Brandon	
CKX	1120
Flin Flon	
CFAR	1270
Winnipeg	
CFRC	630
CKY	910
GAL. EIGHT	

NEW BRUNSWICK

Cambellton	
CKNB	1210
Fredericton	
CFNB	550
Moncton	
CKCV	1270
Sackville	
CBA	1050
St. John	
CHSJ	1120

NOVA SCOTIA

Glace Bay	
VAS	685
Halifax	
CHNS	230
Sydney	
CJCF	1240
Welfville	
CKIC	1010
Yarmouth	
CJLS	1310

ONTARIO

Brantford	
CKPC	930
Chatham	
CKCO	630
Cobalt	
CKMC	1210
Fort William	
CKPR	580
Hamilton	
SHML	1010
CKOC	1120
Kenora	
CKCA	1420
Kingston	
CFRC	1510
Kirkland Lake	
CKKL	1310
London	
CFPL	730
North Bay	
CFCII	930
Ottawa	
CKO	8820
CKCO	1010
Owen Sound	
CFOS	1370
Prescott	
CFLC	930
St. Catharines	
CKTB	1200
Sault Ste.	

Marie	
CJIC	1500
Stratford	
CJCS	1210
Sudbury	
CKSO	780
Timmins	
CKGH	1440

Toronto	
CBL	840
CBY	1120
CFRB	600
CKCL	580
Wateries	
CKCR	1510
Windsor	
CKLW	1030
Wingham	
CKNX	1200

PRINCE EDWARD ISLAND

Charlottesville	
CFCY	630
CHCK	1310
Summerside	
CHGS	1450

QUEBEC

Chicoutimi	
CBJ	1120
Hull	
CKCH	1210
Montreal	
CFB	910
CBM	960
CFCF	600
CHLP	1120
CKAC	730
New Carlisle	
CHNC	610
Quebec	
CHBC	530
CKCV	1310
Rimeuski	
CJBR	1030
Reuy	
CKRN	1370
St. Anne de la Pectiere	
CHKG	1200
Sherbrooks	
CHLT	1210
Three Rivers	
CHLN	1420
Val d'Or	
CKVD	1200

SASKATCH-EWAN

Moose Jew	
CHAB	1200
Prince Albert	
CBBI	1210
Regina	
CJRM	950
CKCK	1010
Saskatoon	
CKQC	600
Watrous	
CBK	540
Yorkton	
CJGX	1430

COSTA RICA

Alajuela	
TICV	575
San Jose	
TIAPB	900
TIEJC	800
TIEP	830
TIFA	1000
TIGH	690
TIGPH	600
TIGPH2	1225
TILO	1030
TILI	775
TILS	880
TINBC	1070
TING	750
TIOS	940
TIPG	625
TIRFC	1200
TIRS	920
TIKD	800

CUBA

Banes	
CMKX	1190
Bayamo	
CMKL	950
Calbarien	
CMHD	1270
Camaquey	
CMJA	860
CMJC	1390
CMJE	1230
CMJF	930
CMJK	1020
CMJW	1070
CMJX	660
Gardenas	
CMGE	1370
Ciego de Avila	
CMHJ	1360
CMJI	1130
CMJO	1200
Cienfuegos	
CMBJ	1160
CMHM	1450
CMHX	1480
Cruces	
EMHK	1210
Guantanamo	
CMKS	710
Guines	
CM9BT	1530
Havana	
CMBC	690
CMBD	1260
CMBF	1560
CMBG	1140
CMBH	1600
CMBL	750
CMBQ	910
CMBS	1170
CMBX	1089
CMBY	1440
CMBZ	940
CMC	1530
CMCA	1350
CMCR	1230
CMCD	630
CMCF	810
CMCG	1290
CMCH	1050
CMCI	1110
CMCK	970
CMCL	730
CMCM	850
CMCO	1200

CMCQ	
CMCQ	1410
CMCR	1010
CMCW	1320
CMCY	1380
CMK	570
CMK	720
CMOA	660
CMOX	1500
CMQ	730
CMW	550
CMX	880
CMZ	920
Holguin	
CMKF	1400
CMKO	1280
Manzanilla	
CMKE	1310
CMKM	1080
Matanzas	
CMGF	1120
CMGI	710
Moron	
CMJP	1420
Palma Seriano	
CMKZ	1430
Pinar del Rio	
CMAB	1240
CMAR	1400
Piacetas	
CMHP	1100
Sagua la Grande	
CMHA	1090
CMHO	1020
Santai Spiritus	
CMHB	1240
Santa Clara	
CMHI	820
CMHW	680
Santiago	
CMKC	1350
CMKD	910
CMKG	1000
CMKQ	1490
CMKR	1400
CMKW	1030
CMKY	960
Trinidad	
CMHT	920

DOMINICAN REPUBLIC

Ciudad Trujillo	
HIG	900
HN	1090
HIX	900
HIT	1050
HIZ	1370
HISQ	1470

EL SALVADOR

San Salvador	
YSS	640

GUATEMALA

Guatemala City	
TKW	1520
TGX	1400
TGI	1310
Quexatlenango	
TGQ	1450

HONDURAS

Tegucigalpa	
HRN	1445f

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

MEXICO	XEKS 1240 Torreon	XEKL 1240 Silao	SAN LUIS POTOSI	Victoria XEJB 1340
Aguascalientes XPAD 1240 XEBI 1000	XEDE 1400 XETP 1310 Villa Ahuana XEDH 1340 XERA 840	XEWE 720	San Luis Potosi XECZ 1370	VERACRUZ
BAJA CALIFORNIA	DISTRITO FEDERAL	JALISCO	Los Mochis XEOX 1230	Cordoba XEAG 1310 XECW 1240 Jalapa XEXB 1270 Minatitlan XEDW 1150 Orizaba XEPP 1400 Veracruz XETF 1220 XEU 1010
Mexicali XEAA 750 XEAO 660 XECL 1110 Tijuana XEAC 980 XEAU 1400 XEBG 820 XEC 1150 XELO 670 XEMO 860 KEON 920 XHRB 1090	Mexico City XEAI 1250 XEB 1020 XEBS 1340 XEBZ 819 XEDA 1220 XEDF 080 XEFO 940 XEFJ 1130 XEK 990 XEKR 1280 XEL 1150 XELZ 1370 XEN 780 XEQ 780 XEQK 1500 XERC 820 XERH 1430 XESM 1270 XEVV 990 XEXX 1170	Guadalajara XED 1160 XEHR 1130 XELW 1340 Guzman XEBA 1030	Mazatlan XEBL 1220 XEDS 1400	YUCATAN
CAMPECHE	DURANGO	MEXICO	SONORA	Merida XEFC 1340 XEME 1240 XEZ 630
Campecha XEA 1400	Durango XEBP 1150 XEE 1210	Texcoco XEXE 1270 Toluca XECH 1490	Cananea XEFQ 1010 Quaymas XEDR 1490 Hermosillo XEBH 930 Magdalena XEDJ 1450 Navjoa XEAJ 1400 XEDL 1240 Nogales XEAF 890 Obregon XEAP 1340	ZACATECAS
CHIHUAHUA	GUANAJUATO	MICHOAGAN	TAMAULIPAS	Zacatecas XELK 1230 MIQUELON St. Pierre FQN 609
Chihuahua XEBU 1240 XEBW 1340 XEFL 1440 XEM 1390 Juarea XEF 1450 XEFV 1210 XEL 1020 XEP 1160 Parrai XEAT 1210 XELR 740 Sabinas XEHX 640 Saltitue XEAS 1160	Irapuato XEBO 1310 XEFM 1160 Leon XEFM 1160	Morella XEBC 1240 XEJ 1370	Matamoros XEAM 750 Nuevo Larado XEBK 1080 XEDF 810 XEFE 980 XENT 910 Reynosa XEAW 960 Tampico XECA 1230 XEPW 1310 XES 990	St. John's VOAC 1065 VOAR 950 VOCM 1040 VOGY 840 VONF 640 VOVB 700
		NAYARIT		PANAMA
		Tepec XERN 1450		Colon HOAK 640
		NUEVO LEON		
		Monterrey XEFB 870 XEG 1230 XEH 740 XET 690 XEX 1310		
		OAXACA		
		Oaxaca XEXH 1150		
		PUEBLA		
		Puebla XEHR 1230		

"This Hobby Called DXing"

An outline of the Art of Tuning and an explanation of all the things that perplex the new DXer, was given in an article called "This Hobby Called DXing," which appeared in the January, 1939, issue of RADEX. All radio fans who wish to know how and what to write to radio stations, how to get verifications, how to hear distance, and who wish to understand the codes, prefixes and abbreviations used in DXing, should obtain this issue of RADEX. It is still available at the regular price of 25c per copy.

In the Fifth Annual Report of the FCC, released January 15, 1940, the populations of cities having radio sta-

tions are shown. According to the FCC, Hobbs, New Mexico, is the smallest city in the country having a station. The population of Hobbs is given as 598. Other cities with populations under 1000 are Poynette, Wis., with 672, and Clay Center, Nebr., with 933. The population of two cities is not given, Kilgore, Texas, and Zarephath, N. J. The largest city without a station is given as Patterson, N. J., 138,573 population, with Yonkers, N. Y. running a close second, with 134,646. Both cities are in the New York City Metropolitan area.

NORTH AMERICAN B. C. STATION BY CALL LETTERS

For power and network affiliations, see the list of stations by frequencies.

The space under the call letters may be used for logging or checking.

CBA	1050	CHGB	1200	CKCO	1010	CMBQ	910	CMHK	1210	CMBH	1600
CBF	910	CHGS	1450	CKCR	1510	CMBS	1170	CMHM	1450	CMKW	1030
CBJ	1120	CHLN	1420	CKCV	1310	CMBX	1080	CMHO	1020	CMKX	1190
CBK	540	CHLP	1120	CKCW	1370	CMBY	1440	CMHP	1100	CMKY	960
CBL	840	CHLT	1210	CKGB	1440	CMBZ	940	CMHT	920	CMKZ	1430
CBM	960	CHML	1010	CKIC	1010	CMC	1530	CMHW	630	CMOA	660
CBO	880	CHNC	610	CKLN	1420	CMCA	1350	CMHX	1480	CMOX	1500
CBR	1100	CHNS	930	CKLW	1030	CMCB	1230	CMJA	860	CMQ	780
CBV	950	CHRC	580	CKMC	1210	CMCD	630	CMJC	1390	CMW	550
CBY	1420	CHSJ	1120	CKMO	1410	CMCF	810	CMJE	1230	CMX	880
CFAC	930	CHWK	780	CKNB	1210	CMCG	1290	CMJF	930	CMZ	920
CFAR	1370	CJAT	910	CKNX	1200	CMCI	1110	CMJH	860	CMJRT	1580
CFCF	600	CJBR	1030	CKOC	1120	CMCH	1050	CMJI	1130	FQN	609
CFCH	930	CJCA	730	CKOV	630	CMCK	970	CMJK	1020	HIG	900
CFCN	1030	CJCB	1240	CKPC	930	CMCL	730	CMJO	1260	HIN	1090
CFCO	630	CJCJ	690	CKPR	580	CMCM	850	CMJP	1420	HIT	1050
CFCT	1450	CJCS	1210	CKRN	1370	CMCO	1200	CMJW	1070	HIX	800
CFCY	630	CJGX	1430	CKSO	780	CMCQ	1410	CMJX	660	HIZ	1370
CFGP	1310	CJIC	1500	CKTB	1200	CMCR	1320	CMK	720	HIBQ	1470
CFJC	880	CJKL	1310	CKUA	580	CMU	1010	CMKC	1250	HOK	640
CFLC	930	CJLS	1310	CKVD	1200	CMCW	1380	CMKD	910	HRN	1450
CFNB	550	CJOC	1370	CKWX	1010	CMCX	1470	CMKE	1310	KABC	1420
CFOS	1370	CJOR	600	CKX	1120	CMCY	590	CMKF	1460	KABR	1390
CFPL	730	CJRC	630	CKY	910	CMGE	1370	CMKG	1009	KADA	1200
CFPR	580	CJRM	950	CMAB	1240	CMGF	1120	CMKL	950	KALB	1210
CFQC	600	CKAC	730	CMAR	1400	CMGH	710	CMKM	1080	KALE	1300
CFRB	690	CKBI	1210	CMBC	1400	CMHA	1090	CMKO	1280	KANS	1210
CFRC	1510	CKCA	1420	CMBC	690	CMHB	1240	CMKQ	1490	KARK	890
CFRN	960	CKCH	1210	CMBD	1260	CMHD	1270	CMKR	1400	KARM	1310
CHAB	1200	CKCK	1010	CMBF	1560	CMHI	830	CMKS	710	KASA	1210
CHCK	1310	CKCL	580	CMBL	759	CMHJ	1160	CMBG	1140	KAST	1200

KATE	1420	KFAM	1420	KFUO	830	KGKO	570	KJR	970	KOH	1380
KAWM	1500	KFAR	610	KFVD	1000	KGKY	1500	KLAH	1210	KOIL	1260
KBIX	1500	KFBB	1280	KFVS	1370	KGLO	1210	KLBM	1420	KOIN	940
KBKR	1500	KFBI	1050	KFWB	950	KGLU	1420	KLCN	1290	KOKO	1370
KBND	1310	KFBK	1490	KFXD	1200	KGMB	1320	KLO	1400	KOL	1270
KBPS	1420	KFDA	1500	KFXJ	1200	KGNC	1410	KLPM	1360	KOMA	1480
KBST	1500	KFDM	560	KFXM	1210	KGNF	1430	KLRA	1390	KOME	1310
KBTM	1200	KFDY	780	KFYO	1310	KGNO	1340	KLS	1280	KOMO	920
KCKN	1310	KFEL	920	KFYR	550	KGO	790	KLUF	1370	KONB	1500
KCMC	1420	KFEQ	680	KGA	1470	KGU	750	KLX	880	KONO	1370
KCMO	1450	KFGQ	1370	KGB	1330	KGVO	1260	KLZ	560	KOOS	1200
KCRC	1360	KFH	1300	KGBU	900	KGW	620	KMA	930	KORE	1420
KCRJ	1310	KFI	640	KGBX	1230	KGY	1210	KMAC	1370	KORN	1370
KDAL	1500	KFIO	1120	KGCA	1270	KHAS	1200	KMBC	950	KOTN	1500
KDB	1500	KFIX	1420	KGCU	1240	KHBC	1200	KMED	1410	KOVC	1500
KDFN	1440	KFJB	1200	KGCX	1450	KHBG	1210	KMJ	580	KOVO	1210
KDKA	980	KFJI	1210	KGDE	1200	KHJ	900	KMLB	1200	KOWH	660
KDLR	1210	KFJM	1410	KGDM	1100	KHQ	590	KMMJ	740	KOY	550
KDNT	1420	KFJZ	1240	KGEK	1200	KHSL	1260	KMO	1330	KPAB	1500
KDON	1210	KFKA	880	KGER	1360	KHUB	1310	KMOX	1090	KPAC	1220
KDRO	1500	KFKU	1220	KGZE	1310	KICA	1370	KMPC	710	KPDN	1310
KDTH	1340	KFNF	890	KGFF	1420	KID	1320	KMTR	570	KPFA	1210
KDYL	1290	KFOR	1210	KGfJ	1200	KIDO	1350	KMYC	1420	KPFT	1210
KECA	780	KFOX	1250	KGFL	1370	KIDW	1420	KMYR	1310	KPHO	1200
KELA	1440	KFPL	1310	KGFW	1310	KIEM	1450	KNEL	1500	KPLC	1500
KELD	1370	KFPW	1370	KGFX	630	KIEV	850	KNOW	1500	KPLT	1500
KELO	1200	KFPY	890	KGfF	1010	KINY	1450	KNX	1050	KPMC	1550
KENO	1370	KFQD	780	KGGM	1230	KIRO	710	KOA	830	KPO	680
KERN	1370	KFRC	610	KGfH	1320	KIT	1250	KOAC	550	KPOF	880
KEUB	1420	KFRO	1370	KGfI	1200	KITE	1530	KOAM	790	KPPC	1210
KEVR	1370	KFRU	630	KGfL	780	KIUL	1210	KOB	1180	KPQ	1500
KEX	1160	KFSD	600	KGfR	1340	KIUN	1370	KOBH	1370	KPRC	920
KFAB	770	KFSG	1120	KGfW	1420	KIUP	1370	KOCA	1210	KQV	1380
KFAC	1300	KFUN	1420	KGfL	1370	KJBS	1070	KOCY	1310	KQW	1010

KRBC	1420	KSUB	1310	KVOA	1260	KXO	1500	T15CV	575	WAVE	940
KRBM	1420	KSUN	1200	KVOD	630	KXOK	1250	VAS	685	WAWZ	1350
KRE	1370	KTAR	620	KVOE	1500	KXOX	1210	VOCM	1040	WAYX	1200
KRGV	1260	KTBS	1450	KVOL	1310	KXR0	1310	VONF	640	WAZL	1420
KRIC	1420	KTEM	1370	KVOO	1140	KXYZ	1440	VOGY	840	WBAA	890
KRIS	1330	KTFI	1240	KVOR	1270	KYA	1230	VOAC	1065	WBAB	1200
KRKD	1120	KTHS	1060	KVOS	1200	KYAN	1370	VOAR	950	WBAL	760
KRKO	1370	KTKC	890	KVOX	1310	KYCA	1500	VOWR	700	WBAL	1060
KRLC	1390	KTMS	1220	KVRS	1370	KYOS	1040	WAAB	1410	WBAP	800
KRLD	1040	KTOH	1500	KVSF	1310	KYSM	1500	WAAF	920	WBAX	1210
KRLH	1420	KTOK	370	KVSO	1210	KYUM	1210	WAAT	940	WBBC	1400
KRMC	1370	KTRB	740	KVWC	1500	KYW	1020	WABC	860	WBBL	1210
KRMD	1310	KTRH	1290	KWAL	1420	TGQ	1450	WABI	1200	WBBM	770
KRNR	1500	KTRI	1420	KWAT	1210	TGW	1520	WABY	1370	WBBR	1300
KRNT	1320	KTSA	550	KWBG	1420	TGX	400	WACO	1420	WBBZ	1200
KROC	1310	KTSM	1310	KWEW	1500	TGI	1310	WADC	1320	WBCM	1410
KROD	1500	KTSW	1370	KWFC	1310	TIAFB	900	WAGA	1450	WBEN	900
KROW	930	KTUC	1370	KWFT	620	TIEMC	860	WAGF	1370	WBHP	1200
KROY	1210	KTUL	1400	KWVG	1200	TIEP	830	WAGM	1420	WBIG	1440
KRRV	1310	KTW	1220	KWJB	1210	TIFA	1000	WAIM	1200	WBLK	1370
KRSC	1120	KUIN	1310	KWJJ	1040	TIGH	690	VAIR	1250	WBML	1420
KSAC	580	KUJ	1370	KWK	1350	TIGPH	605	WAJR	1200	WBNS	1430
KSAL	1120	KUOA	1260	KWKH	1100	TIGPH2	1225	WAKR	1530	WBNX	1350
KSAN	1420	KUSD	890	KWLC	1270	TIHO	1030	WALA	1380	WBNY	1370
KSCJ	1550	KUTA	1500	KWLK	1370	TILJ	775	WAML	1310	WBOC	1500
KSD	550	KVAK	1420	KWLM	1310	TILS	880	WAOV	1420	WBOW	1200
KSEI	900	KVAN	880	KWNO	1200	TINBC	1070	WAPI	1140	WBRB	1210
KFSO	560	KVCV	1200	KWOC	1310	TING	750	WAPO	1420	WBRC	930
KSL	1130	KVEC	1200	KWOS	1310	TIOS	940	WARD	1400	WBRE	1310
KSLM	1360	KVFD	1370	KWSC	1220	TIPG	625	WARM	1370	WBRK	1310
KSO	1430	KVGB	1370	KWTO	560	TIRCC	1200	WASH	1270	WBRW	1310
KSOO	1110	KVI	570	KWYO	1370	TIRS	920	WATL	1370	WBRY	1530
KSRO	1310	KVIC	1310	KXA	760	TIXD	800	WATR	1290	WBT	1080
KSTP	1460	KVNU	1200	KXL	1420	TI4NRH	725	WATW	1370	WBTH	1370

WBTM	1370	WCOL	1200	WEBQ	1210	WFMJ	1420	WGTM	1310	WHL5	1370
WBZ	990	WDOP	1120	WEBR	1310	WFNC	1340	WGY	790	WHMA	1420
WBZA	990	WCOS	1370	WEDC	1210	WFOR	1370	WHA	940	WHN	1010
WCAD	1220	WCOU	1210	WEED	1420	WFOY	1210	WHAL	950	WHO	1000
WCAE	1220	WCOV	1210	WEEI	590	WFPG	1420	WHA1	1210	WHOM	1450
WCAL	760	WCPO	1200	WEEU	830	WFTC	1200	WHAM	1150	WHOP	1200
WCAM	1280	WCRW	1210	WELI	930	WFTL	1370	WHAS	820	WHP	1430
WCAO	600	WCSC	1360	WELL	1420	WFTM	1210	WHAT	1310	WHUB	1370
WCAP	1280	WCSH	940	WEMP	1310	WFVA	1260	WHAZ	1300	WIBA	1280
WCAR	1100	WDAE	1220	WENR	870	WGAL	1500	WHB	860	WIBC	1050
WCAT	1200	WDAF	610	WENY	1200	WGAN	640	WHBB	1500	WIBG	970
WCAU	1170	WDAH	1310	WEOA	1370	WGAR	1450	WHBC	1200	WIBM	1370
WCAX	1200	WDAK	1310	WERC	1500	WGAU	1310	WHBF	1240	WIBU	1210
WCAZ	1070	WDAN	1500	WESG	850	WGBB	1210	WHBI	1250	WIBW	580
WCBA	1440	WDAS	1370	WEST	1200	WGBF	630	WHBL	1300	WIBX	1200
WCBD	1080	WDAY	940	WESX	1200	WGBI	880	WHBQ	1370	WICA	940
WCBI	1370	WDBJ	930	WEVD	1310	WGBR	1370	WHBU	1210	WICC	600
WCBM	1370	WDBO	580	WEW	760	WGCM	1210	WHBY	1200	WIL	1200
WCBS	1420	WDEL	1120	WEXL	1310	WGES	1360	WHDF	1370	WILL	580
WCBT	1200	WDEV	550	WFAA	800	WGGA	1210	WHDH	830	WILM	1420
WCCO	810	WDGY	1180	WFAM	1200	WGH	1310	WHDL	1420	WIND	560
WCED	1200	WDLP	1200	WFAS	1210	WGIL	1500	WHEB	740	WING	1380
WCFL	970	WDMJ	1310	WFBC	1300	WGKY	1500	WHEC	1430	WINN	1210
WCHS	580	WDNC	1500	WFBG	1310	WGL	1370	WHFC	1420	WINS	1180
WCHV	1420	WDOD	1280	WFBL	1360	WGN	720	WHIO	1260	WINX	1310
WCKY	1490	WDRC	1330	WFBM	1230	WGNC	1420	WHIP	1480	WIOD	610
WCLE	610	WDSM	1200	WFBR	1270	WGNV	1220	WHIS	1410	WIP	610
WCLO	1200	WDSU	1250	WFDL	1310	WGPC	1420	WHIZ	1210	WIRE	1400
WCLS	1310	WDWS	1370	WFEA	1340	WGR	550	WHJB	620	WIS	560
WCMI	1310	WDZ	1020	WFAR	1310	WGRB	1200	WHK	1390	WISE	1370
WCNC	1370	WEAF	660	WFIG	1310	WGRC	1370	WHKC	640	WIISN	1120
WCNW	1500	WEAN	780	WFIL	560	WGRM	1210	WHKY	1370	WIZE	
WCOA	1340	WEAU	1050	WFLA	620	WGST	890	WHLB	1370	WJAC	1370
WCOC	880	WEBC	1290	WFMD	900	WGTC	1500	WHLD	1260	WJAG	1060

WJAR	890	WKBY	1500	WLVA	1200	WMSD	1420	WOV	1100	WRTD	1500
WJAS	1290	WKBW	1480	WLW	700	WMSL	1370	WOW	590	WRUF	830
WJAX	900	WKBZ	1500	WMAL	630	WMT	600	WOWO	1160	WRVA	1110
WJBC	1200	WKEU	1500	WMAM	570	WNAC	1230	WPAB	1340	WSAI	1330
WJBK	1500	WKIP	1420	WMAN	1370	WNAD	1010	WPAD	1420	WSAJ	1310
WJBO	1120	WKNY	1500	WMAQ	670	WNAX	570	WPAR	1420	WSAM	1200
WJBY	1210	WKOK	1210	WMAS	420	WNBC	1380	WPAX	1210	WSAN	1440
WJBW	1200	WKPA	1120	WMAZ	1180	WNBF	1500	WPAY	1370	WSAR	1450
WJDX	1270	WKPT	1370	WMBC	1420	WNBH	1310	WPEN	920	WSAU	1370
WJEJ	1210	WKRC	550	WMBD	1440	WNBX	1260	WPIC	780	WSAV	1310
WJHL	1200	WKST	1250	WMBG	350	WNBZ	1290	WPID	1210	WSAY	1210
WJHO	1370	WKY	900	WMBH	1420	WNEL	1290	WPRA	780	WSAZ	1190
WJHP	1290	WKZO	590	WMBI	1080	WNEW	1250	WPRO	630	WSB	740
WJIM	1210	WLAC	1470	WMBO	1310	WNLC	1500	WPRP	1420	WSBC	1210
WJJD	1130	WLAK	1310	WMBR	1370	WNOE	1420	WPTF	680	WSBT	1360
WJLS	1210	WLAP	1420	WMBS	1420	WNOX	1010	WQAM	560	WSFA	1410
WJMC	1210	WLAV	1310	WMC	780	WNYC	810	WQAN	880	WSGN	1310
WJMS	1420	WLAW	680	WMCA	570	WOAI	1190	WQBC	1360	WSIX	1210
WJNO	1200	WLB	760	WMEX	1500	WOC	3370	WQDM	1390	WSJS	1310
WJPF	1310	WLBC	1310	WMFD	1370	WOCB	1210	WQXR	1550	WSKB	1200
WJPR	1310	WLBJ	1310	WMFF	1310	WOI	640	WRAC	1370	WSLB	1370
WJR	750	WLBL	900	WMFG	1210	WOKO	1430	WRAL	1210	WSLI	1420
WJRD	1200	WLBZ	620	WMFJ	1420	WOL	1230	WRAW	1310	WSM	650
WJSY	1460	WLEU	1420	WMFR	1200	WOLF	1500	WRBL	1200	WSMB	1320
WJTN	1210	WLLH	1370	WMGA	1370	WOLS	1200	WRC	950	WSNJ	1210
WJW	1210	WLLH	1370	WMIN	1370	WOMI	1500	WRDO	1370	WSOC	1210
WJZ	760	WLNH	1310	WMJM	1500	WOMT	1210	WRDW	1500	WSOO	1200
WKAQ	1240	WLOF	1200	WMMN	890	WOPI	1500	WREC	600	WSOY	1310
WKAR	850	WLOG	1200	WMOB	1200	WOR	710	WREN	1220	WSPA	920
WKAT	1500	WLOK	1210	WMOG	1500	WORC	1280	WRGA	1500	WSPB	1420
WKBB	1500	WLOL	1300	WMPC	1200	WORD	1370	WRJN	1370	WSPD	1340
WKBH	1380	WLPM	1420	WMPS	1430	WORK	1320	WRNL	880	WSPR	1140
WKBN	570	WLS	870	WMRC	1500	WORL	920	WROK	1410	WSSJ	1500
WKBO	1200	WLTH	1400	WMRO	1250	WOSU	570	WRR	1280	WSTP	1500

WSTV	1310	WTNJ	1280	XEAO	660	XECL	1110	XEJV	1210	XEP	1160
WSUI	880	WTOC	1260	XEAP	1340	XECW	1240	XEFW	1310	XEPN	740
WSUN	620	WTOL	1200	XEAS	1160	XECZ	1370	XEG	1230	XEPP	1400
WSVA	550	WTRC	1310	XEAT	1210	XED	1160	XEHR	1230	XEQ	730
WSVS	1370	WTRY	950	XEAU	1400	XEDA	1220	XEI	1370	XEQK	1500
WSYB	1500	WTSP	1370	XEAW	960	XEDE	1400	XEJ	1020	XERA	840
WSYR	570	WVFW	1400	XEB	1030	XEDF	810	XEJP	1130	XERB	1090
WTAD	900	WWAE	1200	XEBA	1080	XEDH	1340	XEK	990	XERC	830
WTAG	580	WWJ	920	XEBC	1240	XEDJ	1450	XEKL	1240	XERH	1430
WTAL	1310	WWL	850	XEBG	820	XEDL	1240	XEKR	1280	XERK	1450
WTAM	1070	WWNC	570	XEBH	930	XEDP	1080	XEKS	1240	XES	990
WTAQ	1330	WWRL	1500	XEBI	1000	XEDR	1490	XEL	1150	XESM	1270
WTAR	780	WWSW	1500	XEBJ	1340	XEDS	1400	XELK	1230	XET	690
WTAW	1120	WWVA	1160	XEBK	1080	XEDW	1150	XELO	670	XETB	1310
WTAX	1210	WXYZ	1240	XEBL	1220	XEE	1210	XELW	1340	XEU	1010
WTBO	800	W8XO	700	XEBO	1310	XEF	1450	XELZ	1370	XEW	890
WTCN	1250	XEA	1400	XEBP	1150	XEFB	870	XEM	1390	XEWE	720
WTEL	1310	XEAA	750	XEBS	1340	XEFC	1340	XEME	1240	XEX	1310
WTHT	1200	XEAC	980	XEBU	1240	XEH	740	XEMO	860	XEXB	1270
WTIC	1040	XEAD	1240	XEBW	1340	XEHK	1230	XEMU	580	XEXE	1270
WTJS	1310	XEAF	990	XEBX	640	XEFE	980	XEBX	1280	XEXH	1150
WTMA	1210	XEAG	1310	XEBZ	810	XEFI	1440	KEN	780	XEXX	1170
WTMC	1500	XEAI	1250	XEC	1150	XEFM	1160	EXNT	910	XEY	1450
WTMJ	620	XEAJ	1400	XECA	1230	XEFO	940	XEON	920	XEZ	650
WTMV	1500	XEAM	750	XECH	1490	XEFG	1010	XEOX	1230	YSS	640
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Introduction To A Nameless Science

(Continued From Page 58)

FBI punches cards with information on criminals) through an International Business Machines Co. tabulator, it was definitely proven through interpretation of what came out of the tabulator that the moon had certain effects on the signal path.

Which all leads up to the question: Can dxers help in any way in this new science? I am of the opinion that they can, in cooperation with the right organizations—aiding in determination of planetary and solar effects on signal paths, in observation of high-frequency echoes from outer space, and other ways not mentioned in this or the original article.

Regular DX Programs

- First Day of month, 4-4:30 am, WPAY, 1370 kcs., Portsmouth, Ohio.
- Last day of month, 3-5 am, KWSC, 1220 kcs., Pullman, Wash.
- Every Saturday, 2-3 am, WMBI, Chicago, Ill., 1080 kcs.
- Every Saturday, 2:30-2:45 am, KLS, 1280 kcs., Oakland, Calif.
- Every Saturday, 10:15-10:30 am, WEEU, 880 kcs., Reading, Pa.
- Every Saturday at 10 pm, YN3DG, 13900 kcs., Leon, Nicaragua. (Spatari—10c for veries).
- Every Saturday, 4:15-4:45 pm, W2XJI, 26300 kcs., Newark, N. J. (NNRC tips).
- Every Saturday, 10 pm, YN3DG, 13900 kcs., Leon, Nicaragua. (Spatari program.)
- Every Sunday, 2-2:30 am, TG1 on 1310 and TG2 on 6190 kcs., Guatemala City, Guat.
- Every Sunday, 3-5 am, CKLN, Nelson, B. C., 1420 kcs.
- Every Sunday, 10:15-10:45 am, CFCO, 630 kcs., Chatham, Ont.
- Every Sunday, 3-5 am, XEAC, 980 kcs., Tijuana, B. Cfa.
- Every Sunday, 12:30-1 am, TGQA on 6400 and TGQ on 1450 kcs., Quezaltenango, Guatemala. (Spatari program, all reports verified free).
- First Sunday, at 1 am, YN3DG, 13900 kcs., Leon, Nicaragua. (Spatari program).
- First and Third Sunday, 2-4 am, WJBO, 1120 kcs., Baton Rouge, La.
- Every Tuesday, 11:45 am-noon, W9XA, 26450 kcs., Kansas City, Mo.
- Every Wednesday, 12:30 am, KOY, 1390 kcs., Phoenix, Ariz.
- First and Third Wednesday, 1:45-2 pm, WTAR, 780 kcs., Norfolk, Va.
- Every Thursday, 2:45-3 am, KSL, 1130 kcs., Salt Lake City, Utah. (Spatari announcements).
- 1st to 7th, midnight to 6 am, KPAB, 1500 kcs., Laredo, Tex. (Mexico Tourist Program; Mexican souvenirs sent to reporters).
- 8th to 14th, midnight to 2 am, KPAB, 1500 kcs., Laredo, Tex. (Mexico Tourist Program; Mexican souvenirs sent to reporters).
- 15th to 31st, midnight to 6 am, KPAB, 1500 kcs., Laredo, Tex. (Mexico Tourist Program; Mexican souvenirs sent to reporters).
- Second Friday, 12:30-1 am, WJAG, 1060 kcs., Norfolk, Nebr.

Old Issues Available

Nearly all issues of Radex from 1930 until the present, are available at the new reduced price of ten cents each, sent postpaid.

Following are some selected back numbers:

The Oceania Broadcasting Stations, Sept. '38.

Tuning South Pacific Stations, Tuning South Americans, and a list of South American Broadcasting Stations, Oct. '38.

Dialing the Europeans, Nov. '38.

This Hobby Called DXing, the International Prefixes, the QSA and R Codes, Jan. '39.

Stations of New Zealand, April '39.

Television is Here, list of Television Stations, the stations of Colombia, China and Venezuela, Mid-summer '39.

Stations of Costa Rica and Venezuela, Sept. '39.

The World's Broadcasting Stations, Sept. '39.

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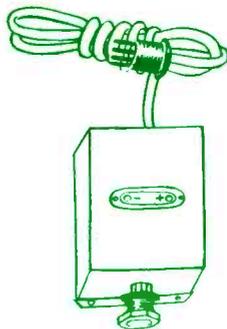
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