

MAY 1939

RADIO IN DEX

The All-Wave Radio Log Authority



25¢

Television From Europe
How To Get Verifications
The Shortwave Stations
DXers' Picture Gallery

No. 129

A GLOBE FOR \$4.00!

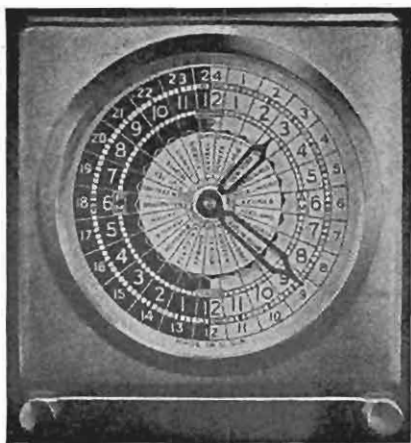
A BIG GLOBE
AT
A LITTLE PRICE!

This is a full 12 inch globe, beautifully made, and as up-to-date as the Worlds Fair! The new streamlined semi-meridian is made of hammered-metal, and the base is a Duncan Phyfe of walnut finished wood.

Orders are filled on the day of receipt, and we pay the shipping charges.

RADEX

362 Cedar Lane Teaneck, N. J.



THE CLOCK THAT CAN BE SET AT ANY OF THE WORLD'S 24 TIME ZONES

Tells time like an ordinary clock and automatically shows authentic time in every other zone around the world.

Actual size is 5 1/4 inches high by 4 3/4 inches wide.

Modernistic Design of Brushed Brass.

Just plug it in and set it for the correct time. No further adjustment nor calculation is required.

For AC 110-120 volts, 60 cycles.
Also available in same style case in spring-driven model at \$4.95. We pay the postage.

\$5.95

What DXers Have Always
Wished For!

THE ELECTRIC WORLD-
TIME CLOCK

RADEX, 362 Cedar Lane, Teaneck, N. J.

I believe . . .

that a fair and square deal, **every time**, is the only way to keep up a successful business. That must be right, because since 1925 more and more men have been buying their radio equipment from me.

You, too, will find it to your advantage to deal with me whenever you want to buy a new receiver, transmitter, or any other equipment.

My **personal attention** to your wishes, fair trade-in allowances, reasonable terms for your convenience, prompt safe delivery, and above all—a **sincere desire to give you full co-operation**—is your assurance of complete and lasting satisfaction.

Be sure to write to me.

73

Bill Harrison, W2AVA

TIME PAYMENTS?

Check these easy terms—

Receiver	Cash Price	Down Payment	Monthly Payments 8 OR 12	
NC-101-X, HQ-120-X	\$129.00	\$19.96	\$14.21	\$9.66
NC-100A	120.00	18.48	13.22	9.00
S-16, Breting 49, NC-81-X, NC-80-X	99.00	15.34	10.90	7.41
SX-23, Speaker	127.50	19.40	14.08	9.58
SX-16, speaker	123.00	19.60	13.47	9.16
SX-17, speaker	149.50	22.60	16.53	11.25
RME-69	152.88	24.10	16.78	11.41
RME-70	138.60	21.10	15.31	10.41

I can change these terms to suit your convenience.

Also terms on all Hallicrafters, Hammerlund, National, RME, Howard, Sargent, Breting, Patterson, Temco, RCA, Thordarson, Utah, etc., Receivers, Transmitters and Kits.

HARRISON RADIO CO.

14 WEST BROADWAY NEW YORK CITY

Telephone
WOrth 2-6276

Export Cable Address—
"HARRISORAD" NEW YORK

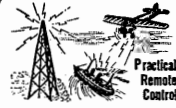
FAST EFFICIENT SERVICE



Learn How To Build Model Radio Controlled Boats & Planes

Operate Planes, Boats, Etc., by Wireless

Build Model Radio Controlled Boats and Airplanes! We have developed a simplified plan for constructing the mechanism that will operate boats and planes by remote control. It's fun to build—and it's fun to operate. With a completely built, you can control boat or plane by means of a telegraph key. There are 16 different signals that can be transmitted so you can control as many different contrivances—lights, rudder, motor, etc. These plans are the result of research by U. S. Government engineers, etc. Simplified, comprehensive plans for the radio control unit are given. There are no wires or connections. Control is by wireless radio. Description and interpretation of plans accompanies drawings. Give in and enjoy this new field in model building. First it was model planes, then came Gas Engines, and NOW RADIO CONTROLLED PLANES! COMPLETE SET OF PLANS, POSTPAID ONLY. **25c**



BROADCAST thru your radio TALK - SING - PLAY

BROADCAST your voice on programs coming through your own radio set—make announcements from any part of the house—injunct wise cranks, Josh and myrtle friends. Imitate radio star, practice crooning, singing, radio acting, etc. Do a Bing Crosby, Charlie McCarthy, Jack Benny, Benny Goodman, etc.

World Mike
Made especially for home use, attached in a jiffy without tools. Not a toy. Put on your own programs at home, parties, club affairs, etc. Barrels of fun! Easy to operate.
Price Only 25c

DELUXE MIKE
Large, substantial, all-metal mike. Practices radio singing, broadcasting, crooning, etc. Reproduces voice in little or no distortion. Beautifully finished. Can be held in hand.
Price Postpaid \$1.00



PRINTING PRESS

\$2.98 POSTPAID

Does Real Job Work!

ELECTRIC BASEBALL GAME

The New Baseball Game Sensation!
The player can "pitch" a "Slow Ball," "Fast Ball," or "Curve Ball" with apparatus, wiring, a ball. Works on one principle. Doeses all different plays. Strikes, swinging and hitting. Includes: Double, Slings, Home Runs, Errors, Base-runner hits by batted ball, Out at first, etc. Game is constructed. Thrills, excitement, Shut Out Victories, Fishers' Home Runs, etc. Operates on flashlight batteries (not included). Thrill! Lots of Action! Lightning Play! **Price Postpaid..... \$1.00**



Fits in Watch Pocket

\$1.25



World's Smallest CANDID CAMERA

Although in size this camera can fit into your watch pocket, vest pocket or palm of hand, it will take some of the finest pictures you have ever seen. Accurately ground lens. Precision built shutter and direct vision view finder insure you of good shots with little difficulty. Takes 8 pictures, size 3 1/2 x 4 1/4. In upon each roll. Can be set for time and instantaneous snapshots, and locks so that no pictures can be taken. Pictures may be enlarged up to 8x10" still retaining an amount of detail. Uses fine grain film that insures good snapshots even under adverse weather conditions. Film easily removed and inserted. **1.25** and marked Price. **10c** Film for above camera. **25c** Exp. (Add 3c for Postage). Complete outfit consisting **\$1.90**



BLANK CARTRIDGE PISTOL

Revolver Style **\$1.00** 50c

Well made and effective. Patented after latest type of revolver. Approximate weight will secure a bumper. Takes 22 C & L Blank Cartridges, obtainable everywhere. Great protection against burglars, tramps, dogs. Here it hangs around without the danger attached to other revolvers. It is a handy, reliable, safe, two place work saving pistol, etc. Two place work saving pistol, etc. Two place work saving pistol, etc. **\$1.00**. Blank cartridges 50c per 100. **50c**. Shipped express collect.

MIDGET RACER

Complete diagrams for 3 different racers. The illustrations are treated can be built very cheaply. All about racer construction, wiring, etc. Includes: 1-Passenger Plane, Bicycle Motor, etc. **25c** ILLUSTRATED with over 75 pictures **PRICE POSTPAID ONLY** and plans. **25c**

Lives of Hotcha Chorus Girls
Secrets of How Chorus Girls Live Reveals the intimate secrets and fascinating pastimes in the lives of famous chorus girls. 11 thrilling chapters. Facts from the lives of famous chorus girls. Author takes you behind the scenes and gives you intimate glimpses into their secrets. Read and profit. Know what it's all about. **Price 10c**. Confessions of a Hotcha Chorus Girl. 10c. Confessions of a Hotcha Chorus Girl. All 2 books in a big volume, **25c**

Naughty Nudies Glass Transfers

From the outside of the glass, these beautiful little lassies are shown in modest poses... but turn the glass around, and lo! their costume drops away leaving them in nature's own! Fill the glass with a liquid and silk becomes "lively," revealing every curve. A suggestion? Try one on the windshield of your car. Transfers are illustrated in five beautiful process colors, so that the girls look startlingly life-like and natural. They can be applied easily, in a few seconds. Figures are 3 1/2 inches high. **25c** Complete Set of 8 Different Nudies Transfers. **59c** Set of 6 glasses with Transfers already on. **Price Only... \$2.00**

Radio Noise Filter

Plus filter into socket before you plug in radio and you have a high quality filter that eliminates almost all types of electrical disturbances from washing, machinery, etc. **25c** Actual Eliminator & Filter Only **50c**

Student's Microscope Set

Here's a sensational bargain! A complete student's microscope at only 39c! Focuses, slides, microscope, adjustable table and mirror, complete with slides. Examine the wonders of the world. Study insects, cloth, food, etc. Scientific, interesting. **Price Postpaid Only... 39c**

576 PAGE CATALOG FOR 3c!

★ 6000 AMAZING, SENSATIONAL NOVELTIES ★
Rush 3c for this mammoth catalog of unusual novelties. Radio, cameras, optical goods, novelty jewelry, unusual books & seeds, airplane & hobby kits, live animals, punchboards, rifles, guns, fireworks, musical supplies, juke boxes, outdoor & sport items, household labor-saving devices, musical instruments, puzzles, knives, watches, rubber stamps, etc. Send for this MAMMOTH CATALOG now. Order any of above items direct from this ad, and add 3c for our big complete catalog. Our Motto: "Satisfaction Guaranteed."
Johnson Smith & Co. Dept. 758 Detroit Mich.
 Reg. Catalog, 3c. Cloth Bound Edition, 25c.

Name _____
Address _____

MAY 1, 1939



RAD^{IO} IN D^EX

Reg. U. S. Patent Office



FIFTEENTH YEAR

NUMBER 129

PAGE TAYLOR
Editor

B. FRANCIS DASHIELL
Technical

ASSOCIATE EDITORS
CARLETON LORD
Broadcast

RAY LAROCQUE
Shortwave

CONTENTS

Cover—Ozzie Nelson and Harriet Hilliard

LEAVES FROM A DXER'S SCRAPBOOK, <i>by Count De Veries</i>	4
TELEVISION FROM EUROPE	12
THE PRF3 BROADCAST	13
FACSIMILE IN CLEVELAND SCHOOLS	13
DXER'S PICTURE GALLERY	14
THE SWL TRADING POST	15
DOINGS OF THE RADEXERS, <i>by Carleton Lord</i>	16
THE NEW CANADIAN STATIONS	26
TALKS WITH THE TECHNICAL EDITOR, <i>by B. Francis Dashiell</i>	27
MAJOR LEAGUE BASEBALL GAMES	31
AMATEUR CALLS HEARD	31
HAM HOUNDING, <i>by Hugh Huntem</i>	32
AMONG THE CLUBS	37
HIGH FREQUENCY GLOBE TROTTING, <i>by Ray LaRocque</i>	38
THE SHORTWAVE STATIONS	48
THE MONTH'S CHANGES IN STATION DATA	54
RADIO'S PART IN THRILLING RESCUE	93
THE SHORTWAVE "SCOOP-BOX"	94
THE RADEX CLUB	95

See Subscription Blank on Page 96.

Published monthly except July and August by

THE RADEX PUBLISHING CO.

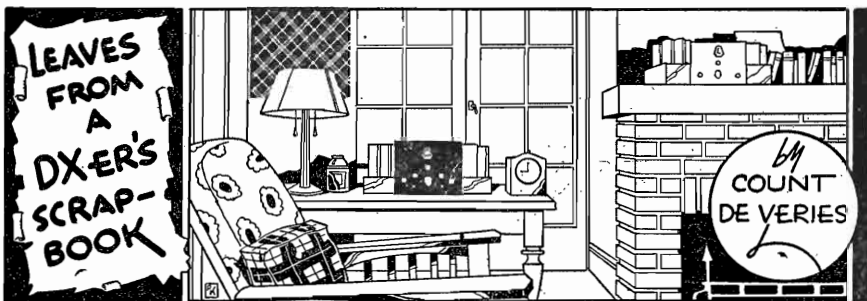
362 Cedar Lane

Teaneck, New Jersey

Subscriptions in the United States and Possessions and in Canada, \$1.75 per year; all other countries, \$2.25 per year. Single copies, 25 cents. Entered as second-class matter Aug. 30, 1938, at the Post Office at Teaneck, N. J., under the Act of March 3, 1879; additional entry as second-class matter at Passaic, N. J. All manuscripts submitted are at the authors' risk, and will not be returned unless accompanied by sufficient postage. Copyright 1939, by the Radex Publishing Co., 362 Cedar Lane, Teaneck, N. J.

PRINTED IN THE U.S.A.

FOR SALE AT YOUR NEWSSTAND



● For some time it has been evident to many observers that the members of the DX fraternity were not receiving all the benefits which their hobby had to offer. True, they were supplied with tips and station news by their radio clubs and magazines, and most of them were getting their share of stations, but something was definitely lacking.

Of course, a large percentage of DXers in this country and Canada belong to one or more of the radio clubs, and most of them subscribe to RADEX, but even there the *personal contact* is missing in all but a few cases. While the columns of RADEX and the club bulletins provided a means for reporting catches and swapping tips, there was still no real personal contact between the majority of the midnight marauders.

Occasionally, a few DXers are able to travel around a bit and meet some of their fellow listeners. They drop in at club headquarters and get acquainted with the officials who were

formerly only names to them. They stop in at the RADEX offices and pass the time of day with the editors discussing radio matters. They visit the homes of DX correspondents and spend hours checking logs and swapping tips. They get a real thrill out of these personal contacts and DXing suddenly has become a far more interesting hobby to them, but pretty soon their trip is over and they go home to "solo" their pastime once more.

When the Newark News Radio Club was formed nearly twelve years ago, they got off on the right foot. Fifty-five enthusiastic listeners came to the first organization meeting, and a constantly-growing group of members have been attending the monthly meetings ever since. Perhaps without being aware of it, the members in and around Newark were getting a real break. Regularly they were able to get together for an evening to discuss mutual problems, compare their records and get to know each other. And the result was the solid foundation upon which the present great organization has been built.

But it was still the same old story for DXers out in the hinterlands. They got their news and tips by mail, but they had little or no personal contact with other DXers. When a problem peculiar to their own location

CUT ME OUT

Cut me out, paste me on a postal card with your name and address, and mail to RADEX, 362 Cedar Lane, Teaneck, N. J. I'll bring you complete supplies and instructions on how to earn one of our advertised globes, clocks, headphones or phone adapters, in a few minutes of your time.



The Toledo Radio Club shack.

arose, they were obliged to solve it themselves. They had no means of learning what other DXers in their own locality were hearing, and the personal swapping of tips and kinks was quite impossible. But worst of all, there was no way to sit down for a few hours and discuss their hobby with sympathetic listeners.

The obvious answer to this problem was the formation of local groups of DXers throughout the country, making possible regular meetings for the sole purpose of adding to the pleasures of participating in the DX hobby, and yet it is surprising that so little attention has been paid to this angle of the pastime.

It is not just certain when the first



RADIO

A HUSKY BABY!

● The radio industry is still in its infancy! As it grows, there will be countless opportunities — for the trained man! I. C. S. Radio Courses (with Experimental Television) are prepared by men who know theory and practice. Hundreds of I. C. S. graduates already hold well-paid jobs in radio. There's plenty of room for you! Send coupon for full details.

INTERNATIONAL CORRESPONDENCE SCHOOLS

Box 8449, Scranton, Penna.

Explain fully about your course in the subject marked X:

- Radio Sound Technicians
 Experimental Television
 Aviation Section of Radio Operating

Name _____ Age _____

Address _____



A group of Minnesota DXers. Top row, from left to right: H. V. Gribble, Richard Brian, Ray Carlson, Ken Skoog and Roy Schuckhart. Bottom row: Larry Lundberg, Irene Brian, Ann and Carl Eder.

local group came into being. For years, NNRC members in some of the larger cities have more or less come together on various occasions to discuss DX matters. Probably the first official establishment of a local NNRC chapter took place in Baltimore in 1933, and since then NNRCers in Indianapolis, Chicago, Brooklyn, Hartford, Toronto and Montreal have further enhanced their DXing pleasure through mutual contacts.

Early in 1933 a small group of Toledo, Ohio, radio enthusiasts began meeting informally in each other's homes to discuss DXing and radio in general. This was the foundation of the now-famous Toledo Radio Club, a purely local organization whose membership is limited to 25 charter and 25 associate members. Since then, the club has taken tremendous strides, both in doing for themselves and doing for others, and is today an ideal example of what a local group can become.

Since its inception in 1933, the International DXer's Alliance has probably been the most active of all clubs in sponsoring local chapters in this country—where there are prominent

groups in Brooklyn, Detroit, Lansing, Philadelphia, Minneapolis, Chicago, Los Angeles, San Francisco, Regina and Calgary—as well as abroad.

While there are a few other groups largely local in nature, a once-over of the activities of a few of the chapters mentioned will serve to illustrate what a local organization can do for its members.

A classic example is furnished by the Toledo Radio Club, and its president and founder, S. Raymond Lewis, 1733 Kensington Rd., Toledo, Ohio, is well qualified to discuss its operations.

"After a few informal meetings back in 1933," he writes, "we decided to form a regular club and hold meetings at stated intervals. With nearly all of our members being affiliated with some national radio organization, it was an easy matter to keep everyone informed of radio happenings. It wasn't long before new members were attracted into our group, and soon we had an active gang which included broadcast band DXers, short wave fans, radio servicemen and amateur operators. Such a well rounded organization had its advantages, for each member was able to instruct the others in the field in which he specialized and there was no phase of radio in which we could not obtain information.

"The turning point in the history of our organization came with the Ohio River flood in 1937. One of our members, amateur operator W8ESN, had been appointed as the local official Red Cross station to handle traffic. Most of us were in service in ESN's basement for the better part of a week—monitoring his contacts with other amateurs, handling incoming and outgoing messages, and seeing that flood relief work went

without a hitch. (A more complete account of this emergency work is told by Mr. Lewis in an article which appeared in the April 1937 RADEX—Ed.) Naturally, the club got reams of publicity for its assistance during the crisis.

"It was during that week, however, that we got the idea of having our own building where we could spread out a bit, instead of being cramped in someone's basement.

"We have since built our clubhouse, completely furnished it and accomplished our purpose 100 per cent. Our shack, which is situated at the rear of W8ESN's home, is about 22x27 feet and has a seating capacity of nearly fifty. Our equipment includes uniform chairs, a custom-built receiver, heating plant, public address system, and emergency mobile transmitters and receivers. We also have the use of W8ESN's large transmitter which operates on all bands with phone and CW.

"Our meetings are held regularly and we function, not as a listener's club nor an amateur club, but as an organization dedicated to the development of radio and those mutually interested in it. We have sponsored several important local radio events, such as amateur meeting and 5-meter field tests, and at present we are conducting classes in code and theory for those who desire to become hams."

The Baltimore Chapter of the NNRC has long been famous among DXers for the extent of its activities. Comprising some of the most rabid enthusiasts in the DX games, it has been particularly active in sponsoring special DX programs of quality which are highlights of any morning's listening. But let its guiding light,

Old Line Legal Reserve LIFE INSURANCE

Only **77c** PER MONTH PER \$1000 OF INSURANCE (AT AGE 21)*

HERE ARE LOW RATES AT YOUR AGE

(Rates shown are one-half permanent rates beginning fifth year.)

MONTHLY PREMIUM LESS THE 9½% GUARANTEED DIVIDEND (at age nearest birthday), per \$1,000

Age	Rate	Age	Rate	Age	Rate	Age	Rate
21	\$.77	30	\$.97	39	\$1.29	48	\$1.87
22	.79	31	1.00	40	1.35	49	1.95
23	.81	32	1.03	41	1.39	50	2.04
24	.83	33	1.06	42	1.45	51	2.15
25	.85	34	1.09	43	1.51	52	2.27
26	.87	35	1.13	44	1.57	53	2.39
27	.90	36	1.16	45	1.64	54	2.53
28	.92	37	1.21	46	1.70	55	2.66
29	.95	38	1.25	47	1.79		

A further saving is made by paying premium annually or semi-annually.

*Owing to low rates at which this policy is offered, the minimum amounts issued are: ages 21 to 45, \$1,500; 46 to 55, \$1,000.

POSTAL'S FAMOUS "MODIFIED '4'" POLICY. Cash and loan values; guarantee 9½% dividends; automatic premium payment clause and all standard provisions.

OVER \$50,000,000.00 PAID OUT by POSTAL LIFE OF NEW YORK to its policy holders and beneficiaries during thirty-three successful years.

Send coupon for full details.

Postal Life Insurance Company
511 Fifth Ave., Dept. M-532
New York, N. Y.

Send me without obligation complete information about your low-cost Modified "4" policy at my age.



Date of Birth

Occupation

Name

Street

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

Lloyd Hahn, 2810 Ellicott Driveway, Baltimore, Md., tell us more!

"The motivating influence behind the formation of the chapter," he confesses, "was the desire to exchange views, swap yarns and compare notes and veries with other DX enthusiasts in our locality. From the original group of six, the chapter has grown until its membership is now close to 40.

"Our meetings are held at the home of a member on the third Friday evening for about ten months of the year, and I am convinced that these meetings are the real reason why we have remained such a well-organized chapter. Once each month we are able to discuss the various phases of DXing take cognizance of the changes which are rapidly taking place, and suggest ways and means of increasing interest in the hobby. It is really surprising what a vast amount of constructive criticism can be spilled when a group meets to air its views on a subject so close to its heart.

"A more concrete reason for our existence was a mutual desire to meet upon a common ground, with the resultant life-long friendships which were the natural and ultimate results of our friendly get-togethers. I know that I have created friendships which will continue to exist even though the parent club might fold up tomorrow. From our association, we are reaping the benefit of our own local meetings, the DX programs which we have arranged, our visits to club entertainments and conventions, trips to see friends in nearby as well as distant states, and friendships made with DX correspondents and with the personnel of different stations. All these have meant, and will continue

to mean, so much more than mere individual achievements of getting a lot of DX catches."

The Detroit *Auto City Chapter* of the International DXers' Alliance came into existence when local IDA members realized that, although the city was large, it contained no organization which catered to the radio enthusiast. Having no way to meet others with similar tastes and to compare equipment and the results obtained, they were obliged to indulge in their hobby by themselves. And so the formation of a radio listeners club seemed to be the practical thing. Thus was the *Auto City Chapter* organized in November 1936 with an initial membership of four.

When the chapter was first founded, the monthly meetings were held at the homes of members. However, with a gradual increase in membership, it became evident that there was some inconvenience in running across town to strange neighborhoods, and it was decided to obtain a central meeting place. The Detroit News offered the use of its conference room for the meetings, where they are now held at 8 p.m. on the third Tuesday of each month.

One of the most important activities of the chapter can best be described by its Secretary-Treasurer, Richard Verbrugge, Jr., 10904 E. Warren Ave., Detroit, and it may well be a lesson to other radio groups.

"During the latter part of 1937," he writes, "the chapter became interested in the question of man-made interference. The city had an ordinance for the suppression of such noise, but it was not being enforced. We had interviews with those responsible for the ordinance, as well as those in

charge of its enforcement, and it was brought out that the ordinance itself was too broad in character and too indefinite when it came to specific details. Thus, it was completely useless and could not be enforced. All these facts were brought out at a public hearing brought about by the *Auto City Chapter*. At this hearing, we brought radio station engineers, radio interference engineers, representatives of the Servicemen's organization, the Federal Radio Inspector, and so on. A committee with a representative of each of these interested bodies, plus technical advisers from the power, telephone and street railway companies was formed. This committee then went to work and re-built the old ordinance, putting it into a form which was more or less workable, and at the same time being fair to all, without creating undue hardships on anyone coming under its scope or creating conditions impossible to meet. Thus, the *Auto City Chapter* of the IDA was principally responsible for the creation of a new ordinance which could and is being enforced.

"Among its other activities, the chapter participated for more than a year in a DX program over Detroit's ultra high frequency station W8XWJ. When a hobby show was scheduled for Convention Hall, to acquaint Detroiters with various hobbies and to enable those without a hobby to select one which appealed to them, the chapter had a booth with a vast display of colorful and, in many cases, rare verification cards."

A typical meeting of the Chicago *Windy City Chapter* of the IDA, held at the Central YMCA at 8 p.m. on the second Wednesday of each month except July and August, is de-

ITS BARGAIN WEEK



You'll agree it is when you read the contents of this ad. We want new applicants for our superb low priced approval selections and we've made up this offer, which we believe is without parallel. *First* is undoubtedly one of the most interesting and picturesque sets ever issued—the famous ethnographical issue of Russia, extremely large stamps showing the races of the Soviet Union: Cossacks; Lesghians; Crimean Tatars; Jews; Biro-Bidjans; Tungusians; Buryats; Tchetchens; Abkazes; Georgians; Nientzians; Yakuts; Koryaks; Bashkirs & Chuvashes; and Constituent States, namely: Great Russia; Tadjik Republic; Transcaucasian Federation; Turkmenistan; Ukraina; Uzbekistan; and White Russia; all scarce values included, 21 different complete. The exact set sells for over \$1.00 (check it yourself).



SECOND is a splendid collection of 1100 all different, all guaranteed genuine stamps from the four corners of the earth. A wonderful collection everyone should have. To serious new approval applicants, we offer the magnificent ethnographical set of 21 different PLUS the collection of 1100 all different stamps for only \$1.00. We refuse to sell any to dealers!

Frasek Company

Dept. 528 White Plains, New York

scribed by Secretary Gail T. Beyer, 3226 Sunnyside Ave., Chicago: "The first part of these meetings, of course, is taken up by the formalities of reading the minutes, discussing official business and so on. Then the members have a chance to tell about new aeriels or receivers which they have tried. Questions of a semi-technical nature are answered by members who are able to supply the information sought. Next there is a discussion of the latest IDA *Globe Circler* by Director Charles Trezise, and the various special programs are gone over in detail. Next comes what is termed a reception discussion, conducted by Thomas G. Gray, in which each member reports what stations he has heard during the past month, the time of each catch and the frequency on which it was heard.

"We also hold a special meeting each month at the home of the various members, and in this way the members are acquainted with the various types of receivers used by fellow-members. These receivers, by the way, run from the smallest "blooper" to the mighty Scott Philharmonic 30."

The *Southern California Chapter* of the IDA was formed by August Balbi in February 1938 and stresses continued activity on the part of its members, who are subject to dismissal in the event they miss two consecutive meetings without good cause.

A typical meeting is described by Secretary Harold Clein, 1821 Santa Ynez St., Los Angeles, Calif.: "At 8 p.m. on the last Saturday of each month, most of the members have assembled and there is a general discussion of all the things of greatest interest to the dyed-in-the-wool DX

fan, while the latest cherished QSL cards are passed around for inspection. The meeting is usually called to order around nine o'clock and the business of the chapter settled for the month. Suggestions for improvement are made, latest contest standings are given, and the latest developments in suppressing man-made interference are talked over. Right after the formal meeting is adjourned, refreshments are served, and right here is where DXers prove that they are adept at matters other than radio. Following the eats, members usually form into little groups and half a dozen gab-fests will be in full swing at the same time. By the time we start home around midnight, we each agree that 'this time was better than the last.'"

Several other IDA chapters have forwarded details of their organization and activities, and it is evident that these groups are really getting a lot out of their hobby. Up in Lansing, Mich., Chairman Chas. J. Williams, 1109 Hapeman St., of the *Delta Chapter* emphasizes regular discussions of the best DX catches, verifications, antenna installations, receivers, interference elimination and other everyday problems, and points with pride to the chapter's two outstanding DXers, John DeMeyer and Howard Eck. President Lemuel Cavileer, 1223 Keswick Ave., Haddon Heights, N. J., of the *South Jersey Chapter* likes to tell about the visits which chapter members have made to the Brooklyn *Beta Chapter* and to the NNRC conventions at Lansdale, Pa., not forgetting the first Eastern IDA convention at Haddon Heights last September, and feels that these personal contacts add much to the pleasure of DXing. According to

Secretary-Treasurer G. L. Young, 815 21st Ave. S. E., Calgary, Alta., of the *Calgary Foothills Chapter*, the chapter was established "to bring together DXers and all radio fans, to exchange tips and information on radio, to clear up man-made QRM, and to improve radio reception in general." Our old friend Paul Sampson, 1820 College Ave., Regina, Sask., Secretary-Treasurer of the *Regina Jubilee Chapter*, reports that his group "has been successful in eliminating street car interference in most places and sharply reducing the interference in the remaining places on Regina's trolley car system" and points with pride to the chapter's recent DX program from CHWC, during which a recording of the station announcement in several foreign languages was played every 15 minutes. Larry Lundberg, 1020 Lowry Ave. No., Minneapolis, Minn. is particularly proud of the stellar DXers who make up the *Land of 10,000 Lakes Chapter* in Minneapolis, pointing to Carl and Anne Eder, Irene and Richard Brian, H. V. Gribble, Gerald Anderson, Roy Schuckhart and Ray Carlson as evidence of what can happen when a gang of enthusiastic midnight marauders decide to group together and exchange tips.

Space would hardly permit a complete account of all the activities and benefits of the local groups which today are banded together for the mutual improvement of their DX pleasure, and yet these observations provide definite testimony of how scores of listeners are getting added enjoyment from their hobby.

DXers who want to get a little extra pleasure from their pastime, would do well to consider the possibility of joining one of the local

groups already in existence. Those who reside near one of the chapters or clubs mentioned in this article, can obtain full details by writing the officials mentioned.

Or if there is no club within easy commuting distance, it only takes a couple of DXers with similar tastes to start a club of their own. Whether they operate as a strictly local group or become affiliated with RADEX or some other national organization, they will find that their mutual interests

(Please turn to page 75)

CZECHOSLOVAKIA

Born Oct. 28, 1918 — Died Mar. 15, 1939
From the moment it became clear that Czechoslovakia was a part of Germany, collectors throughout the world began a mad rush for Czech stamps! All issues, regardless of value or appearance, are being snapped up. Once again the situation that followed Saar and Austria arises when supplies were exhausted and prices shot skyward. All Czech stamps are in terrific demand and, you can bet on it, their prices will rise tremendously!



We offer, for this time only, the beautiful 1937 Carrier Pigeon set of 9 values complete unused, together with the complete set of 6 values of the spectacular Czech Legion issues, 15 stamps in all, for the record smashing price of only 10¢ to serious new approval applicants. Send for it today, for we cannot guarantee against a price rise for more than a week!

HARRISON STAMP COMPANY

Dept. Q-4

Harrison, New York

Television from EUROPE

● Reproduced on this page is a photograph of an image received *via* television from the British Broadcasting Corporation station at Alexandra Palace in London, England. The reception was accomplished by the RCA Receiving Station at Riverhead, Long Island. Needless to say, this image is not to be compared with images received in local transmissions, and it should be remembered that this picture as reproduced is not as clear as the original picture as seen on the television tube. The photograph will appear more "life-like" if observed from a distance of four or five feet.

In January of 1937, a program of observations was initiated at the Riverhead Laboratories of the RCA Communications, Inc., to study long distance propagation characteristics of signals using carrier frequencies in the neighborhood of 40 to 45 megacycles per second (40,000 to 45,000 kcs).

On January 21, 1937, a faint signal was received from the London transmitters, over a distance of 3,400 miles. These transmitters radiated a sound channel on 41.5 megacycles and a picture channel on 45 megacycles.

Between that date and about the middle of March, 1937, these transmissions were received on numerous occasions. The sound channel signals were received with excellent brilliance and fidelity, but recognizable pictures were not received.

In the Fall of 1937, RCA engineers were prepared for another try at London's television signals. A special television receiver was built, incorporating two stages of radio frequency and other refinements. A rhombic antenna 800 feet long and 150 feet wide was made available, and provided with adjusting means. With the aid of this equipment it was possible occasionally to get a glimpse of an image on the screen of the kinescope. Great difficulty was experienced due to the television signal arriving in Riverhead over several paths of slightly different lengths. This caused the subject matter of a picture to appear several times on the screen, making one person look like several people standing side by side. Once more, when spring came, the signals became weaker, and disappeared.

With the approach of Fall, 1938, ob-



This remarkable photograph, printed from a frame of motion picture film, shows a blurred television image broadcast from London and received at Riverhead, Long Island. Some detail is lost through the use of motion picture equipment. (Courtesy of RCA Laboratories).

servation schedules were resumed, and the London pictures were first received in October. A motion picture camera was set up and portions of the received programs were photographed by this means. The picture shown herewith was selected from one of these motion picture films, exposed last December. During this winter, recognizable pictures were also received from an experimental television station in Rome, Italy.

It is expected that with the increasing sun spot activity, scheduled to start this year, long distance reception will be somewhat more difficult. It is hoped, however, that the rapid progress in the television art may make it possible to receive better pictures over greater lengths of time. It is entirely within the realm of possibility that a rebroadcast of European happenings may some day be viewed by thousands within their homes just as today's European events are picked up on shortwaves and rebroadcast for the benefit of the great American radio audience.

Television Symposium

We have asked all the television stations of the United States, and a few abroad, to write us their opinions of the possibilities of DXing on the television bands. These letters, and other interesting articles on television, will appear in the Midsummer issue of RADEX.

The PRF3 Broadcast

● Ninety-six correct reports were received from North American listeners, by radio station PRF3 of Sao Paulo, Brazil, following their recent special broadcast. Mr. Jair Vasconcellos, the DX announcer at PRF3, has informed W. B. Goff of Rutherford, N. J. that he is very pleased with the fine response to their broadcast, and that verifications will be sent out as soon as they can obtain a special booklet which they intend to send with them. Any listener who may wish to learn if his report was correct, can send a postal card to W. B. Goff, 14 Nevins St., Rutherford, N. J., who has a list of the correct reports.

While all our regular readers know that reception of foreign broadcast band stations is possible, some new readers may not be aware of it. If any doubts exist, they should be quickly dispelled on learning that PRF3, transmitting on 960 kcs., was heard by 96 listeners in North America, scattered over the continent as follows:

In Pennsylvania, 18 listeners; in New Jersey, 14, and 14 also in New York; 8 in Ohio; 5 in Ontario; 4 in Illinois and Massachusetts; 3 in Connecticut; 2 in California, Maryland, Missouri, Kansas, Michigan, Oregon and West Virginia; and 1 in North Dakota, Indiana, Alabama, Texas, Minnesota, New Hampshire, Nebraska, Iowa, Virginia, Florida, Saskatchewan and British Columbia.

Cleveland Educators Try Radio Facsimile System

● One of the most unique demonstrations in the history of education was conducted by Cleveland school authorities as they flashed lesson instructions, assignments, bulletins, maps and drawings into four city

AMATEUR RADIO LICENSES

Day and Evening Classes in Code and Theory.

HOME STUDY COURSES

*Reasonable, Efficient and Thorough,
Hundreds of Licensed Students*

Now on the Air

AMERICAN RADIO INSTITUTE

1125 Broadway

New York, N. Y.

schools in a series of experimental radio facsimile transmissions.

Utilizing the Board of Education's ultra-high frequency radio Station WBOE, the city's school authorities demonstrated the educational possibilities of a simplified radio facsimile system, developed in the RCA Victor laboratories, to the educators who attended the convention of the American Association of School Administrators.

Receiver-printers were installed in the Robert Fulton and Louis Agassiz elementary schools, the Thomas Jefferson Junior High School, and the John Hay High School. Another receiver was placed in the Public Auditorium for the convenience of convention delegates, with the sixth, in the Board of Education Building.

A "scanning" device developed under the direction of Charles J. Young, famous RCA research engineer, was installed in the radio studios in the Board of Education building. The receiver-printers pick up the broadcasts like ordinary radios and reproduce the original material in every detail with remarkable clarity on ordinary paper at the rate of three 8½ by 11 sheets per hour.

— And there was a schoolboy who said that Great Britain is entirely surrounded by seas—the Irish Sea, the North Sea and the BBC.—*Tune In*

If you like RADEX why not tell your friends? When an article in this magazine strikes you as being unusually good, please tell your friends to get a copy at the newsstand, and read it.

Dxers' Picture Gallery

The Five DXers

This photograph, taken at Jamestown, N. Y., shows five members of the National Radio Club. In the usual order from left to right, they are Edward Feichtner of Erie, Joe "Pat" Reilly of Jamestown, Max Demuling of Erie, John Kalmbach, Jr. of Williamsville, and Ted Matson of Jamestown. The first three (Feichtner, Reilly and Demuling) have over 3000 verifications in their collections.



Five well-known DXers.



J. EDWARD DIEHM, JR.



ENRIQUE HIDALGO.



LLOYD REES.



*Mr. and Mrs. E. W. Law of Edmon-
ton, Alta.*

J. Edward Diehm, Jr.

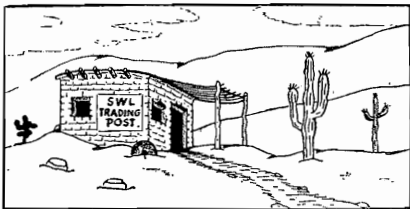
A DXer for eight years, a member of The Radex Club, the URDXC, and a successful tuner with European catches to his credit, is Mr. Diehm of Pottstown, Pa. He has 687 verifications, which is a very good record when one considers he tunes only four months each year. Some of the better veries are Rennes, HIX and Radio Normandie.

Lloyd Rees

Some time ago, in another magazine, we read about a station executive who could give the location of any radio station in the United States if the call letters were mentioned. A good feat, but many DXers can do much better. Lloyd Rees is one of many DXers who know the location and call letters of all North American stations, and in addition, he can name off-hand, the frequency, power and network affiliations of them all.

Enrique Hidalgo

The Caribbean DXer from Cienfuegos, Cuba, he styles himself an ardent Night Owl, and chief of the DX Department of station CMHJ in his city. He has long been a reader of RADEX, and is one of the Cuban members of The Radex Club.



Larry Lundberg, 1020 Lowry Ave. N., Minneapolis, Minn. (SWL cards and photos).

Edgar W. Keller, 2621 N. Fairfield Ave., Chicago, Ill. (Correspond).

Blaine E. Engle, 5019 Lincoln Ave., Detroit, Mich. (SWL cards).

Mrs. Aldea Beauchemin, 231 Henry St., New York, N. Y. (SWL cards).

Robert Chase, 231 Henry St., Apt. 6, New York, N. Y. (SWL cards).

Frank Billingsley, Jr., Box 206, Ellenboro, N. C. (SWL cards).

Charles A. Spielman, Jr., 413½ S. Barstow St., Eau Claire, Wis. (Correspond with SWL's interested in ham radio).

Robert G. Rowe, 615 Groesbeck Ave., Lufkin, Texas (SWL cards).

Wallace G. Howe, 1279 Springfield Ave., Irvington, N. J. (Correspond about ham radio with New England States, and foreign listeners; swap stamps, match covers, post cards and banners).

Gene Kosolapoff, 461 Allwin Drive, Dayton, Ohio (Correspond with owners of Scott Philharmonic, Hammarlund Super Pro, Hallicrafters Diversity and SX17).

Frank C. Allgood, 453 W. Kyger St., Frankfort, Ind. (SWL cards).

Richard Henders, 186 Marion St., Toronto, Ont. (Correspond).

Charles E. Roach, 816 N. 7th St., Camden, N. J. (SWL cards).

Richard Airhart, 149 W. 4th Ave., Roselle, N. J. (SWL and post cards).

Geo. G. Canapp, 2023 Booth St., Baltimore, Md. (Correspond with owners of RCA-Victor).

Murray Anagnost, 624 W. 207th St., New York, N. Y. (Correspond with DXers in N. Mex., Colo., Utah, Ariz., Canada and Mexico).

Arthur E. Blick, 125 Lappin Ave., Toronto, Ont. (Correspond with users of 5-tube sets).

"For the past four years I have been DXing," informs Robert R. Shellard, Brantford, Ont., "and I find RADEX a wonderful help in logging stations. My log consists of 625 broadcast band stations, eight of which are foreign. I have a splendid location in the country and use an eight-tube 1936 Philco receiver. I belong to one DX club, the CDXR."

● Morris Davidson of Chicago announces that membership in the Sunset DX Club is now open to all DXers. Using RADEX as its official magazine, this club outlines its aims in its slogan, which states that it is the only DX club for beginners. The officers are Morris Davidson, president, Martin Shecter, vice-president, Eugene Evans, secretary, Leo Kruss, treasurer, and León Teper, business manager. Further information concerning the Sunset DX Club can be obtained from the secretary, 1148 Independence Blvd., Chicago, Ill.

Doings of the Radexers

• • • By CARLETON LORD

● While Count de Veries is getting ready to go overboard on the question of what to do with verifications once they are received, it might not be a bad idea to consider the process of getting them in the first place.

Perhaps the most widely accepted and generally understood rule in collecting veries is that all reports to a station shall be accompanied by return postage. This point has been stressed many times.

Good Reports

Much has already been written about the proper method of reporting to stations, and as long as DXers want to collect veries, reams of copy will probably be written on the subject in the future.

Actually, a good report will cover three essential points of interest to the station—details of the program heard, with at least three selections if possible; reception data, to include strength of signal, degree of fading, possible interference from other stations and comments on quality; and information about the receiving equipment used. The report will bring these points to the attention of the station management, make a courteous request for confirmation, and enclose return postage.

As for the matter of postage, a stamped, self-addressed envelope is probably best when writing to stations in the United States. At the very least, a three-cent stamp should be used if just the postage is enclosed. Some listeners like to enclose a prepared verification form on a post card, ready for signature, and there is no objection to this. For foreign stations, it is usually best to enclose an

International Reply Coupon, unless it is possible to buy the unused foreign stamps. Some DXers argue in favor of sending ten cents in coin, which would give the station a small margin after buying a stamp, but experience has shown that few stations are inclined to pocket the coin, whereas the IRC coupon can be redeemed only for stamps.

The form of the report is really of little consequence, as long as it is neat and readable. The use of a typewriter is recommended whenever possible, although there is no objection to a carefully-written letter in ink. Many listeners have gone to considerable expense in preparing printed forms for their reports. While these certainly make an impressive appearance, it is not unlikely that many stations appreciate the personal touch of an individually-prepared letter.

One of the neatest report forms to reach us in many a moon was submitted by J. Harry Scott of Knoxville, Tenn. Printed on the stationery of the International DXers' Alliance, it is brief, neat and to the point. With name and address printed in the upper right hand corner, the body of the report commences with the salutation to the station, followed by a statement of the date and time (local as well as GMT), the program heard, reception data, mention of receiver and antenna installation, short description of location, and spaces for noting local weather and temperature. Following a space for program details, the report ends with: "If this report is correct, I would greatly appreciate a QSL, and am enclosing an Interna-

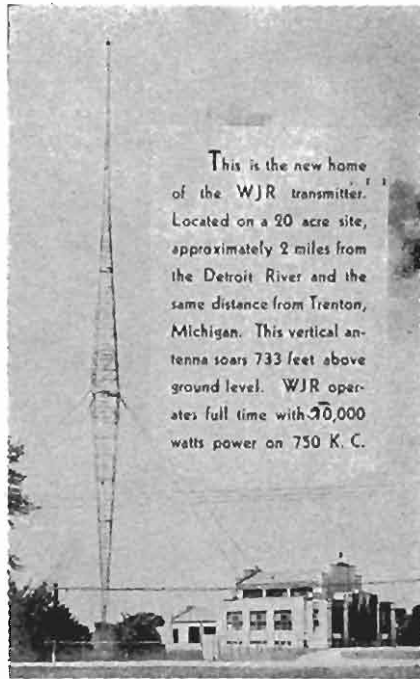
tional Reply Coupon to defray postage costs. Thanking you for this courtesy, I remain" Attached to the form is one of a series of stamps showing scenes in the Great Smoky Mountains National Park.

Commenting on these report forms, Mr. Scott writes: "While I am only starting my second year of tracking down the stations, I am able to report almost 100% results. My reports have brought several nice notes of appreciation from station personnel. You will notice the attractive stamp which I attach to all reports. I secured several of these from my Chamber of Commerce. There are 16 different stamps in the series, so I am able to put some variety in subsequent reports to a station. Not only am I able to send out reports which are attractive enough to get favorable results, but I can also make this section of the country better known. In this way, I feel that I am doing my 'bit' as a DXer and as a citizen."

The idea of adding some bit of local color or information to a report is unique, and it is likely that it might strike a sympathetic vein in an otherwise indifferent engineer or station manager.

But whether the DXer uses an elaborate printed form or a simple letter, the principal purpose is to give the station information which it can use—not just a mere notation of what has been heard, but an accurate account of the entire reception. If the listener will remember that he is asking a favor and couch his requests accordingly, not forgetting the postage item, he will find that his response will be much higher than in the past.

Occasionally, of course, even the best of reports are not verified



This is the new home of the WJR transmitter. Located on a 20 acre site, approximately 2 miles from the Detroit River and the same distance from Trenton, Michigan. This vertical antenna soars 733 feet above ground level. WJR operates full time with 50,000 watts power on 750 K. C.

This verification card from WJR shows the transmitter building and aerial, which are situated near Trenton, Mich. The aerial is 733 feet high. (Courtesy of James Walker).

promptly by the stations. The natural tendency of an impetuous DXer is to classify them as non-verifier and commence a series of belligerent letters. Sometimes a station belongs in that classification, but more often other factors must be taken into consideration.

As J. W. Brauner, Williamsville, N. Y., points out: "I agree that DXers are often at fault, as we all err at times. Many factors enter the verification problem, and until a station has ignored several reports, it is best not to condemn them too harshly. A letter or report can be lost en route

to the station or it can be mislaid in the office. New stations frequently get swamped with mail, often are not prepared to handle the huge volume, and it may take weeks and even months for them to catch up. And, finally, even the verifications may get lost on their way to the DXers."

News of the Stations

For the first time in several months, there is a dearth of news concerning station activity. With the exception of one item of particular interest in the United States, most of this month's news comes from Canada, where the Canadian Broadcasting Corporation has been quite active in shuffling frequencies and adding new outlets.

Of interest to all American listeners is the FCC's recent denial of WLW's application for an extension of its authority to operate with 500 KW power. In the opinion of the Commission, "the applicant had failed to sustain the burden of showing that the special authorization requested is necessary in order to accomplish a proposed program of experimentation which will offer promise of substantial contribution to the radio art." And so WLW, once America's most powerful voice, goes back to 50 KW and its 500-KW plant will be used only experimentally under the old call of W8XO. Besides muffling WLW, the commission's decision kills the hopes of nearly a dozen other stations who had hoped to boost their power to 500 kilowatts.

Gladstone Murray, General Manager of the Canadian Broadcasting Corporation, kindly forwards several items concerning CBC stations: "Station CBK on 540 kcs., is located at Watrous, Sask., and not Saskatoon.

This station will commence operations on or about the first of June. Station CBY, Toronto, which was formerly on 960 kcs., is now operating on 1420 kcs. with 100 watts from noon to midnight daily. Station CBM, Montreal, formerly on 1050 kcs., is now broadcasting on 960 kcs. from 8 a.m. to midnight daily. The new CBA at Sackville, N. B., will be on the air April 1st from 7 a.m. to midnight, EST. All of our stations will be only too pleased to verify listeners' reports on request."

According to William W. Flynn, Dummer, Sask., CFQC at Saskatoon has moved from 840 to 600 kcs. and is providing better service away from XERA's interference. Paul Sampson, Regina, Sask., advises that CJGX, Yorkton, moved from 1390 to 1430 kcs. early in February. For a few days, the station was heard on 1410, but is now on 1430.

Bill Cunningham, Pasadena, Calif., forwards several notes on the Canadians. Upon the completion of CBK, CJRM will move to 950 and CJOC will switch to 1210. CKOV and CFNB are now reported to be using 1000 watts power, while CKCA and CHAB have boosted their day power to 250 watts.

With the Cuban and Mexican stations still jumping around from one frequency to another, and little official data available, listeners are obliged to do considerable sleuthing to identify the signals coming up from the South. Harold Tear, Roanoke, Va., reports consistent R9 signals from a sextette of Havana stations—CMBQ on 1330, CMCD on 630, CMW on 880, CMCK on 970, CMQ on 1010 and CMBX on 1080. Samuel A. Meyer, Rochester, N. Y., maintains that

CMQ is on 780, not 1010, and further advises of two new stations in Mexico City: XEQK, 1470 kcs., 100 watts, and XERH, whose power and frequency are unknown.

Radexers Report

As the 1938-39 winter season draws to a close, DXers are able to look back on several months of listening and judge whether the results have been worthwhile. Although early-season predictions pointed to a better than average season for the midnight marauders, the final judgment rests in the hands of those who did their share of dial twisting. And while many of us found reception to be quite satisfactory, with a few seasoned night owls praising conditions to the high heavens, the ultimate verdict on the past season rests with the mass of DXers.

Let's see what the Radexers report!

"After reading over your article in the March RADEX," writes Harry M. Gordon, President of the National Radio Club, Erie, Pa., "I was quite interested in the remarks about what DXers have been missing simply because they didn't bother to tune for the stations. I have made up a summary of reports from NRC members and find that general reception conditions were very good this past winter, not only for the domestic stations, but for the foreign broadcasters as well.

"Take South America for an example. Here are a few of the stations which NRC members have reported: LRA, LS11, LT1, LR10, LR5, OAX4A, YV5RQ, LRF4, PRF3, LR3, LRG2, YV1RF, HJ1ABN, HJ3ABE, LR1, HJ3ABZ, CX18, YV1RS and HJ3ABD. From Costa Rica, members heard TIPG and TIXD; from Guatamala, TGW, TGX, TG1 and TGQ; from the

Antipodes, 2CR, 6WA, 2YA, 3WA, 3AR, 4QN, 5CK, 1YA, 2CO, 2NR, 7NT, 3YA, 5CL, 2BL, 3LO, 4YA, 4QG, 3GI, 2YC, 4RK, 2GZ, 3SR and 4AK; from Japan, JOAK1, JOBK1, JOHK, JOIK, JOBK2 and JOAK2. This list, while not large, is taken from just a few issues of our bulletin, and a more complete report would be much larger. Most of those stations were reported by members in Eastern states, which goes to show that the stations were there if DXers took the trouble to look for them.

"On this continent, it has been years since the 100-watters from the Pacific Coast have shown the strength that they did this year. We know of one stations—KTSW, Emporia, Kans.—which received 500 reports from 83 cities after a six-day test. And of course most of our members heard the 50-odd new stations which came on the air during the winter.

"As for the Europeans, members have reported virtually every station on the continent which could be received, and a list of those catches would occupy a whole page in itself."

"Broadcast band DX has definitely improved this season," asserts James W. Newman, New Toronto, Ont., "with signals from the South showing exceptional strength. On December 25th, for example, I heard TIPG, YV5RQ and HJ1ABN. Other foreign stations heard this year include ZNS, TGW, YV1RF, KGU, LR1, LR3, LRA and Radio Paris. All of these have been verified, with the exception of the latter two, to whom reports are still out."

"Although I didn't get started with my DXing until January, it didn't take long to get into the swing," reports Clifford Drain, Parkersburg, W. Va. "From the ways conditions have

improved this year, it looks as though the 1939-40 season will be about the best ever. It sure gives a person a real thrill to see the 100-watters on the Pacific Coast coming in so nicely. Many's the time I have heard KDB and KVOE drown out the 24-hour WJBK. KSAN has put R6-7 signals all the way from San Francisco, while KERN and KRE have had a real battle for possession of their channel. KFXM is another 100-watter which has put through a real signal."

"Starting just before Christmas with a new 8-tube General Electric receiver, I have built up a log of 334 BCB stations," writes M. H. Brown, Wilmington, Del. "Only a few nights after receiving the set, I was tickled pink to pull in LRA on a special test, and I have subsequently found South American reception to be very good. One night early in February, I found no less than 10 SA's booming through the locals, and to date I have logged 10 stations in Argentina, five in Brazil, and one each in Bolivia and Peru. My list in the United States stands at 250, with only Montana, Nevada, South Dakota and Wyoming missing among the states."

Joseph T. Lippincott, East Vassalboro, Maine, has been enjoying very decent reception with his 11-tube GE receiver. On March 14th, for example, between 4:00 and 5:29 a.m., EST, he was able to hear, in succession, 1YA on 650, 2NR on 700, 2CY on 850, 2YC on 840, 3GI on 830, 4YA on 790, 2YH on 760, 2BL on 740, 3YA on 720, 2FC on 610, 2GB on 870, 2GZ on 990, 2CA on 1050, 2ZB on 1130, 5HD on 1140, 2NZ on 1170, 4AK on 1220, 2CR on 550, 2YA on 570, 3WV on 580, an unknown station on 590, and 2NC on

1230, with all signals ranging from R3 to R5. Such European long-wavers as Hilversum, Paris, Deutschlandsender, Iceland, Moscow and Droitwich were frequently reported on his day-by-day log.

"The good old days of 1932-33 seemed to be back last night," exclaims Lloyd Rees, Easton, Pa. "I have never seen such a splendid night for reception. Using only a 5-tube Zenith midget and a bedspring for an aerial, I logged KFI, KNX, KPO and KGO as stand-bys, and then went on to pull in KFPY, CBR, KEX, KJR, KGB, KFAC, KECA, KFBK and KQW. With no static and such generally ideal conditions, I only wish that I could have used a larger set."

Old-Timers Return

Besides bringing a taste of better reception conditions, the past season has brought reports from many old-timers who had been more or less inactive for some time.

Latest of the strayed sheep to return to the fold is R. A. Butts, Easton, Wash., who is getting help with his DX work from his bride of a year. "My wife and I have been doing quite a bit of DXing this winter," he writes, "and we have a fair log so far. The winter has brought us 355 broadcast band stations to date, and we expect to hit the 400 mark before the end of the season. We are located in the town of Hubner, three and a half miles southwest of Easton, which is high up on a flat, entirely surrounded by the Cascade Mountains. When it rains or snows, it is almost impossible to hear any stations, even those in Seattle. I am using a 7-tube Stromberg Carlson A. C. receiver and an 8-tube RCA 2-volt battery set. The lumber company has a Diesel power

plant and we have light until 11 or 12 o'clock at night, so the two receivers work in very nicely."

"DXing and I reluctantly parted company during the first week in January two years ago," admits T. R. Grosvenor, Wichita, Kans., "and I have been unable to do any listening since that time. However, I got started again last fall and, so far this season, I have boosted my log from 932 to 1012 stations heard. Have been using a receiver which I built myself. Operating an amateur station, I had to have an efficient set, and so I built a 12-tube all-wave job which has been working rather well."

"It's been four years since I sent in my last report," confesses A. G. Schleiter, Rochester, Pa., "but I want you to know that I am still a station hunter. During 1938, I was able to log 893 stations, including practically all of those in Canada and most of the Cubans and Mexicans. Started another log the first of this year and have some 700 stations to show for two months of listening on an average of eight and a half hours nightly. In 1935, I had heard all but 11 of the active stations in this country. - That jumped to 27 in 1936, 34 in 1937 and 46 in 1938. This year, I still need 63 stations, but 25 of these are in the three Pacific Coast states and 12 are in Texas, and they will be hard to get."

"Reception of the smaller West Coast stations has been sensational!" postcards Al Rozzando, Fayette City, Pa. "They have been pouring through the past few nights, and it was no trick to get new catches such as KLBW, KTMS, CBR, KIRO, XEM and XEC. All the other Pacific Coast stations, large and small, have



K Q V

1360 KILOCYCLES
PITTSBURGH, PA.

THANK YOU FOR YOUR REPORT OF
RECEPTION OF OUR STATION.

DATE January 28th 1939

John L. Tate
KQV BROADCASTING CO.

KQV has been reported as a non-verifier, but this card (issued in January of this year) proves that reports are acknowledged. (Courtesy of Bernard Duffy).

been coming through in great shape!"

"With the season drawing to a close, I want to report how it has treated me," states John L. Tate, Petersburg, Va. "Over 130 new stations have been logged to bring the total to 722 on the broadcast band. The better catches include TIPG, LR6, LR3, PRF3, LR1, HJ1ABN, KXRO, KPPC, KRSC, XEME, KLS and KCRJ. With the exception of the easy TGW, the foreign stations listed are the only overseas catches in my log. LR1 is verified, TIPG is long overdue with its veries, and HJ1ABN is still out. I got interested in foreign reception last season, but there were so many domestic broadcasters to be logged that I spent most of my time searching out the small, elusive stations in this country."

Notes on ZNS

One of the most interesting stations to be heard in the United States is ZNS at Nassau, Bahamas. First reported about a year ago on 540 kcs., the station showed excellent signal strength and was heard by a majority of American DXers. A frequency switch to 785 kcs. last fall brought ZNS right under the nose of the powerful WGY, but it still managed to

push through the interference and make itself heard throughout the eastern part of the United States.

"At present, ZNS broadcasts from 6:20 until about 9:30 p.m.," observes Peter Straton of Nassau. "Later on in the evening, they broadcast programs by the American orchestras which play at the larger hotels. The first part of the evening's program consists of a re-broadcast of the Daventry programs for the benefit of the Out-Island listeners who do not have short wave receivers. At eight o'clock the local program begins, usually with recordings of dance music. This continues until 8:30, unless there is a recital by a local artist, and then we have the weather report and the day's news. Other programs follow at 8:45.

"The new studios in the Telecommunications Building, under construction since last spring, were opened recently, and at the same time a new transmitter, capable of 1000 watts output, was put into operation. The announcer is an Englishman and he is always willing to verify correct reports."

Club Affairs

"I have noticed with interest the demise of different DX doings," remarks Paul Sampson, Regina, Sask., "such as the quality of CPC programs, the decreasing number of clubs and the end of the Inter-Club Co-operation Plan. The mad rush each season for special programs was bad for the DX game. It's too bad there wasn't an emphasis on quality before now, but I guess we live and learn.

"This season alone has seen the disappearance of three well known clubs. The CDXR folded up last August or September, and I under-

stand that the Globe Circlers DX Club quit at about the same time. The Universal Club of New Jersey merged with the NNRC, and unless I miss my guess, others will drop out of sight within the next year or two."

In the UDXC's Corner of the October RADEX, there appeared a letter from Merton H. Hiatt, Dryden, Wash., in which he, as Secretary of the International Listeners' Association, advocated the merger of existing clubs on the West Coast into a Consolidated DX Club for the Pacific Coast.

The consolidation idea—whether it be of Courtesy Programs Committees or of entire clubs—is not new. From the days when a handful of listeners composed a club, through the heyday of societies in every town and hamlet, and down to the present, there has been a constant evolution of clubs and societies, a succession of mergers and consolidations.

February Poor Month

"The month of February was very poor for trans-Atlantic reception," reports Frank B. Lee, Wildwood, N. J., "as I was only able to log a few Europeans that month. However, I have added 141 stations to my log since my last report to you, and this brings the old total up to 562 stations on the broadcast band. I started out after verifications on January 15th, and since then I have verified stations in 24 states and one province in Canada. Of course, quite a few reports are still out, and they will help build up my total of veries here in the states."

"The DX season has brought me quite a few good catches," supplies Samuel A. Meyer, Rochester, N. Y., "including HJ1ABN (1190 kcs. at Barranquilla), CMGE, CMHJ,

CMHX, XEM, XEDH, XEAC, PRF3, Rennes, WPRA, WPRP, CX18 and numerous small stations in the United States. This season has seen the log grow to about 650 stations heard, with some 500 verified. For the past four years, my main interest has been with the Latin American stations, and I have put most of my effort into logging these Hispanic broadcasters. The new 1500-1600 kcs. Cuban band won't be much good until the U. S. police stations are cleaned out of there. CMC on 1520 and CMBG on 1560 are heard nightly R5-7 on their clear channels. TGW and CMC often interfere with each other. There was a very weak Cuban on 1570 for about a week, but they never got above the QRM level and I wasn't able to identify them. Does any Radexer know who they were?"

Some rather remarkable reception is reported by Edgar W. Keller, Chicago, who has had three reports collecting during the past couple of months. A report dated January 31st advised that he had received 987 veries from BCB stations. When his next report was written on March 10th, the total of veries had jumped an even 160 to 1147, and on March 17th, the date of his most recent report, 40 more veries had come in and the total stood at 1187. Troubled by the delinquency of KPLC, KGFL, WLVA and WLEU, to each of whom three reports have been sent in the past 14 months, he is also anxious for tips on how to receive the 100-watt Pacific Coast stations which are scheduled on the frequency checks after 6 a.m., EST.

It really is unfortunate that so many rare catches for Eastern listeners hit the frequency checks too late to be heard. About the only way we know



Not very impressive architecturally, but almost lost in the lush tropical vegetation, is the studio and transmitter building of XEU and short-waver XEUW. These stations are located in Veracruz, Mexico, (Courtesy of Leonard Sprain and Bernard Duffy).

of logging them is trying for them on their regular schedules. Many of them can be heard around 3 a.m. on the frequency check mornings, at which times their channels are relatively clear of interference and they can be heard prior to their sign-off. There will always be a number of small, distant stations which can be heard neither on the regular schedules nor on the frequency checks. In these cases, DXers either have to wait for a chance test broadcast or depend upon their radio club to arrange a special courtesy program.

"Since the first of September I have logged 46 new stations," adds up Peter A. Clarius, Port Richmond, N. Y., "of which all but two have been verified. Some of the better veries are from XEL, KDNT, KPAB, KVOX, KNET, KRBC, KFGQ, KFAM, CMCK, CMBQ, CJBR, LRA, KFEL, KFYR, CKCV, PRF3, KYSM, KFAB, KLAH, and KRIC. This brings my total up to 657 heard, with 581 verified. At present, I am using a 7-tube Lafayette and a 5-tube Sparton. The Lafayette is hooked on a doublet antenna, while the Sparton

uses a single wire aerial."

New DXers

Every year, scores of ordinary radio listeners learn about the fascinating hobby which we call DXing. They are intrigued by the thought of reaching out for stations in the distant corners of their country and of listening in on the other half of the world across the seas. After a short period of "getting the feel" of DXing, they are on the constant search for new stations. Sometimes their progress is slow, perhaps because of inferior equipment, but more often they make rapid strides and are soon able to boast of really excellent logs.

The past season has found an unusually large turn-out of recruit DXers. Some have modestly kept their records to themselves, perhaps because they were afraid that they would suffer by comparison with the logs of the old-timers. A few have shyly written in to ask for information on the finer points of tuning, the while expressing no small amount of pride in their modest achievements. Still others have let their records speak for themselves, realizing that their DX hours have been well spent.

"I have received 183 stations since I started DX work last November," relates Edward Guidatas, Cleveland, Ohio. "Some of my better catches are LR10, CMBF, CMBH, CMBO, CMCF, CMCK, CMCL, XEW, XEAW, CKSO, CKY, CBL, CBM, CKAC, KFI, KMA, KMBC, KFH, KITE, WTNC, WBNO, WMBR, WJAX, WJBO, WIL and WOAM. During November, the Southern stations were far the best here in downtown Cleveland, but in January and February the Eastern and Western stations began to show more pep. I

am using a 7-tube RCA Victor receiver, with a 10-foot automobile antenna and a radiator for a ground."

"I got delivery of an RCA Victor 813-K receiver last September," informs H. W. Bistorius, Milwaukee, Wis., "and since then I have been interested in DXing. On the broadcast band, I have logged 441 stations in the United States, one in Guatamala, two in Puerto Rico, six in Mexico, 16 in Canada and six in Cuba, for a total of 522. Without the help of RADEX during these months, I couldn't have come close to this record."

"On the broadcast band I have heard 733 stations in the United States, Puerto Rico, Cuba and Mexico," adds up Peter Danko, Mingo Junction, Ohio. "Included in this total are a lot of 100-watters on the Pacific Coast and in the Latin American countries. I don't bother to verify stations in this country, as I consider them as locals. Outside of this continent, I have veries from Poste Parisien, LRA, LR1 and YV5RA, and have also heard KGU, LR6, LR4, LR9, LS2 and HJ1ABR. My best catch for a little station is the 50-watt XEBU at Chihuahua."

"My log now stands at 669 active BCB stations," advises Caleb Cope, Philadelphia, "with 564 of these in the United States. Best catches are XEBG, LR6, CFAC, LR3, PRF3, LR1, CBR, XEL, KOB, KGFJ, KOOS, KGGM, XEMX, KCRI, KXRO, KIUP, KRKO, KRMC, KUJ, KWYO, KRLC and KRNR. While at one time or another, I had completed 22 states, there are now only nine which remain completed."

"Station CHSJ was heard testing on March 23rd from 2 to about 3:30 a.m., EST," reports Desmond Callan,

Readville, Mass. "WBOW had a test on March 25th from 4 to 4:30 a.m., EST, and right in back of them there was a W— station in the South. Couldn't get their identity. WQDM had a swell broadcast during the March frequency checks, with a talk on how to make ham radio safer. WMEX is about the toughest station to verify that I have struck. I've written and phoned them innumerable times, and only recently did they promise to confirm an old report. As yet I haven't been able to get a rise out of WJAR."

"Here is a bit of news from the DX front," offers Merlin N. Steen, Decorah, Ia. "WJLS, Beckley, W. Va., went on a regular schedule on March 5th, while WJMC, Rice Lake, Wis., was heard testing on March 7th. XEAU is a new station at Tijuana, B. Cfa., using a frequency of 1310 kcs. I began DXing on January 5, 1935 and to date have heard 796 stations, of which 434 are verified. Some of my best catches are 1YA, 2YA, LRA, KGY, WLM, KPQ, CKMO, CFAR, XEM, TGW, TGI, CMKE, CMGE, WCOU, CKCV, KXO, KRE, KPPC, KVEC, WPRP, WNEL, KHBC, KVNU, KELA, CKX, CKOV, CKBI, CMHJ, CMKM, CMX, XEC, XEP, XEJ, XEFC and KSUB."

"Recently I wrote to WGRM, Grenada, Miss., after a frequency check asking for a verie and mentioning that I was a member of the National Radio Club and The RADEX Club," postcards Ernest R. Cooper, Brooklyn, N. Y. "In their reply, they stated that they would be glad to dedicate a program to the National club or the RADEX Club. They are on the air with their frequency check on the

second Thursday from 4:10 to 4:25 a.m., EST., so perhaps their next check will be dedicated to all the Radexers."

RADEX is naturally grateful to WGRM for its courtesy in offering to dedicate a program to the Radexers. It would be well for all members to check WGRM's May monitoring broadcast and write a letter of thanks.

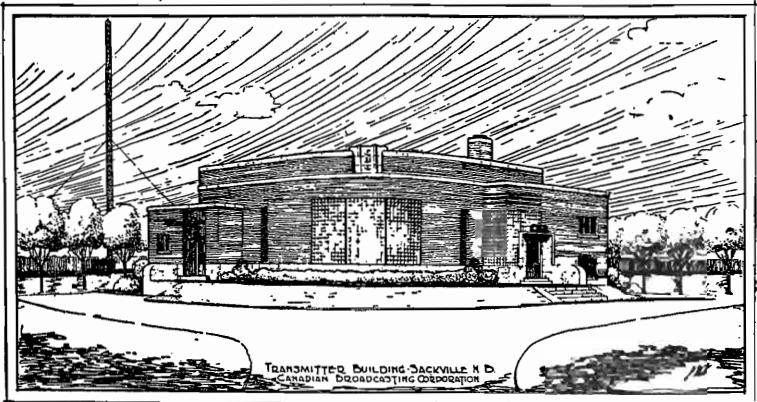
Good Idea

Radexers have liked the recently-proposed plan to make a list of officials who sign the verification cards for the various stations. Letters by the score have been coming in, each listing from five to fifty names for as many stations.

The resulting list is so large that we have felt that it would be unwise to print it separately. Accordingly, it has been incorporated with the index by frequencies in this issue, and we believe that Radexers will find it a valuable reference to be saved for use during the next season.

Thanks are due the following Radexers who have helped in making up the complete list: Billy Donovan, Weston Richards, George C. Canapp, William Scott, Everett Murphy, Hylton R. Brown, Jr., William C. France, William Scott, H. A. Whittier, Frank W. Hoxie, John Varga, Clarence Lee Mustoe, Desmond Callahan, James C. MacKay, George W. Haskell, Chester Teklinski, Jack H. Willard, Clarence Wakefield, F. T. Coradetti, Raymond Sahlbach, J. Reid Juvinall, Bob Taglauer, George Craddock, Jr., Grace L. and Frank Simpson, Frank B. Lee, Myron Ksenich, Lawrence C. Reed, James O. Taylor and Donald M. Wheatley.

New Canadian Stations

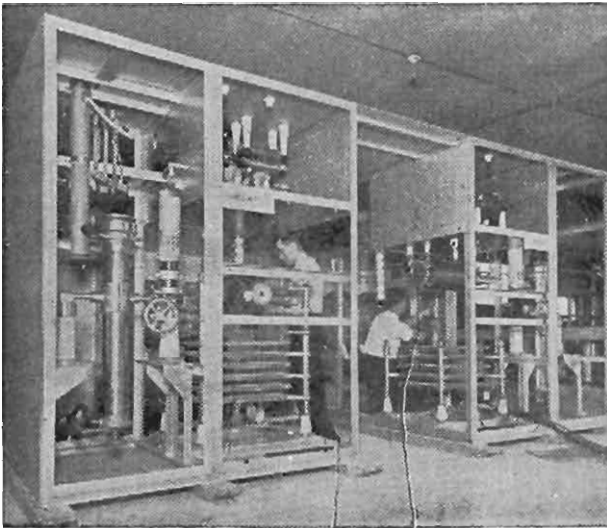


This drawing gives an architect's view of the tower and transmitter building of the new 50 kilowatt station at Sackville, N. B. It was officially opened early in April, and serves the Maritime provinces under the call letters CBA.

● The completion of the Canadian Broadcasting Corporation's new radio stations, CBA at Sackville, N. B., and CBK at Watrous, Sask., marks the fulfillment of CBC's second installment of national high-power coverage. The new plants, which make a total of four erected during the

last two years, takes care of a long-needed service in the Maritime and Prairie provinces.

The Sackville station is now on the air, and it is expected that the Watrous transmitter will be sufficiently advanced to permit testing about the end of May.



The new Maritime station is located on a site about two miles east of Sackville, N. B., close to the border between Nova Scotia and New Brunswick.

The transmitter equipment of CBC's new radio stations, CBA and CBK, was manufactured in Canada by the RCA-Victor Co., Ltd. It represents the last word in modern construction. The photograph above shows the transmitters under construction in Montreal.

Talks With The Technical Editor

• • • By B. FRANCIS DASHIELL

● The Technical Editor's mail is always interesting. It contains letters that show considerable knowledge of the art of radio and an intelligent understanding of how to apply the information that is sought. On rare occasions some writer exhibits a woe-ful lack of anything pertaining to radio, and obviously he should turn to the nearest serviceman for full assistance. And this now brings us to the question of radio service.

This problem seems to creep into every communication received by the Technical Editor from the many readers of RADEX. Reading between the lines it is easy to see that radio service sometimes fails to give complete satisfaction, and set owners, in a great many cases, lack the confidence in servicemen that they should have. It is a little difficult to understand just why this situation exists, unless, of course, these readers have been victimized by incompetent workmen. Most people have at some time been mistreated at the hands of indifferent mechanics, and this impression has made it hard for the great majority of service people who are experts in their trade. The automobile, household appliances, and now the radio, have all had their share of unskilled servicing. But, today, the serviceman, no matter whether he works in radio or automobiles, can not last unless he produces quick, skillful, inexpensive and courteous service. The person who happens to wander into the shop of an inexperienced and clumsy workman in search of cheap radio aid is unfortunate, and should not judge all servicemen by this unhappy experience.

It might be hard, it is true, to judge a good serviceman. It is not always the big "front" that he puts up or the fine appearance of his truck and tool kit that determines the radio serviceman's ability. But, if he is good, that fact is not long in getting about, and when customers give a man a good name, then he must be good indeed. However, a good serviceman is not obviously cheap in his charges or inspection. He must make every minute of the day pay for itself, and he cannot give something away for nothing. As a rule, he will be allied with some organization, such as the Radio Servicemen of America. And, most important of all, he will be an authorized dealer or serviceman appointed by certain makers and the Radio Manufacturers Association. If one is uncertain as to his serviceman, he will do well to write or call the distributor of his particular radio receiver for this information. Good servicemen are not hard to find; they remain in business a long time, for it is only the indifferent type that soon are weeded out.

All of which brings us to the little radio tip of the month. Practically every radio in use today has one or more tubes in it that have small metal grid-caps on the top. Little metal clips press down on these caps, and are connected by thin, flexible leads to some part of the circuit. Remove these tubes and polish up the grid caps and make sure the clips fit tight enough to grasp firmly. Look over the leads to make sure they have not worn, and place them so they do not come in contact with the metal shields or other parts of the chassis or circuit.

These grid contacts carry weak but important radio-frequency currents, and any losses due to poor or dirty contacts, as well as induction and shorting, may spell the difference between strong or weak short-wave signals from afar and excessive noise in the set.

Of the many letters reaching the Technical Editor's desk during March, a number were of considerable general interest. One question, which frequently appears at regular intervals from bewildered readers, is: "What is the difference between 25-cycle and 60-cycle lighting current? Will it hurt to use a 60-cycle receiver on 25-cycle current?" To A. E. B., and all the others who are interested, we wish to state that the number of cycles in the current represents its frequency. It seems, for no real reason other than the fact that the first machines were built that way, that 60 cycles is the standard frequency for all alternating currents. When the frequency is held exactly at 60 cycles a second for all time we can use electric clocks throughout a city and all will never vary a fraction of a second, or we can move about from one city to another and still use our clocks without trouble. But, in some places, especially smaller towns, a standard of 25 cycles has been adopted. The generating apparatus in this case might be less expensive, but it upsets things a bit from the viewpoint of standardization. However, it is a difficult matter to change an established current because that would mean that everyone using that current would have to change their appliances to operate on the new frequency.

Now it is possible to send either 60- or 25-cycle current through alter-

nating-current motors and transformers and both will operate as they should. But, because of the inductive reactance in a coil of wire, a smaller coil is used for 60-cycle current and a larger one for 25-cycle current. The 60-cycle motor or transformer coil, if connected to a 25-cycle current, will immediately become seriously overloaded and perhaps burn out with a partial short circuit. But, on the other hand, if a 25-cycle current coil, which is larger, is connected to a 60-cycle current, it will not become overloaded or be damaged. But, because the 25-cycle transformer coil is not proportioned properly to the frequency of the current used (60-cycle), it will not develop its correct voltage and amperage, and be insufficient for its purpose. Therefore, if a 25-cycle radio set is operated on 60-cycle current, it may not perform as it should. And, if a 60-cycle radio is operated on 25-cycle alternating current it is likely to become seriously damaged. The only way to use a 60-cycle radio on 25-cycle current is to replace the transformer with a new one and make such changes in the filter system and hum eliminators in the tube circuits, as may be necessary.

From Kansas City, Mo., P. B., writes: "How can I operate a speaker from a tiny crystal set that I have?" Well, you need an audio transformer, costing about one dollar, with a ratio of 6 to 1. Connect the terminals of your set marked "Phones" to the primary terminals B and P of the transformer. Get a type 30 tube. Connect terminal of the secondary marked G to the grid of the tube, and attach F of the transformer to the "A" terminal of the tube. Get another transformer, but of 3 to 1 ratio. Connect

the plate of the tube to the P of the transformer, and run B of the primary to the 90-volt terminal of a "B" battery. Run G of this transformer to the grid of a type 31 tube, and connect F of the secondary to a $-22\frac{1}{2}$ volt "C" battery. The plate of this tube connects to the primary of an audio output transformer, and thence to the 135-volt terminal of the "B" battery. The secondary of the output transformer connects to the voice coil terminals of a small 4 to 6-inch permanent-magnet dynamic speaker. The negative terminal of the "B" battery; the positive end of the "C" battery; and the "A" negative terminal; are all connected together. Place a switch and small rheostat in the plus "A" lead to the filaments of the two tubes, and use the control for volume. A crystal set, with audio amplification of this kind, sounds very clear and pure, and is amazing to those who have experimented in this manner. Also, weak stations can be heard. The only drawback is the fact that a crystal set tunes broadly and in this age of many nearby powerful stations exhibits serious interference.

The query from S. S., of New York, is typical of many. He asks: "How can I connect an electric record player to my midget receiver?" If you already own a record player with pickup device, we suggest you procure an adapter which fits under one of the tubes in your set—usually the first audio. Or you can get a phonograph oscillator and feed the recorded music into your receiver through the antenna terminal. And, also, you can get a wireless phono-oscillator. If you have no phonograph record player and pickup, the newest scheme is to utilize a wireless record player; it

needs no connections to the receiver, and is complete in itself. The adapters sell for less than one dollar; the oscillators from 5 to 6 dollars; and the players approximately 15 dollars.

Another not uncommon complaint comes from H. W. A., of Fayette, Ind. "The local stations," he writes, "come in too loud because the volume control will not work over its entire range and does not turn down enough." Well, H. W. A., this sounds to us like volume control trouble. A new one is your best bet unless the circuit is at fault. It may be necessary to check the series resistor and leads to the suppressor grids of the i-f tube. A larger bypass condenser in the cathode circuit of the 2nd detector tube might help.

From P. D., at Mingo Jct., Ohio, comes a request, "Is it better to use insulated or bare antenna, leadin, and ground, wires? Also, why is it that static is so bad after 1 and 2 a. m., when the local radio stations are off the air?" Since an antenna receives its signals by induction from passing electromagnetic waves, it is of little importance whether the wire is bare or insulated. However, the leadin, especially if the twisted-pair type, must be insulated. All insulation must be carefully removed and the wire scraped where joints are to be made. Most of us seem to like a nice bare wire, stranded, about No. 12 to 14, for the main antenna.

Static after midnight is not a natural thing. As a rule, static does pick up somewhat as daylight approaches, unless bad weather is coming after a bright and clear evening. Any unusual trouble that begins around 1 and 2 a.m. must be due to some local conditions where certain machinery is

operated after the normal radio hours have passed. You know, there are some drastic rules about doing certain things during the evening hours when people wish to listen to their radios.

And here is the case of G. H. M., of Chicago, Ill. "My Philco 630 has hummed ever since the house current was increased in voltage from 110 to 120. The set was tested perfectly and nothing wrong." We think that 120 volts is a bit too high for an ordinary radio set. Since it also is inducing higher potentials in the secondary of the power transformer, there may be some lack of normal filtering and a slightly higher voltage on the filaments of the tubes. All these things can cause some hum. You can drop the voltage a bit by inserting a small resistance in the power line to cut the potential down to the original 110 volts. This type of hum would be constant. Any intermittent hum is due to trouble in the set and we suggest that a competent Philco serviceman examine your set.

Hard luck is the story from F. P., in Grand Haven, Mich. He states: "In hooking up my new radio we mistook the antenna for the electric contact and plugged into the house lighting circuit. Everything went bad. Had it fixed, and now it hums." We have known many cases where set owners learned that instructions which accompany new radios were printed to be read and studied. So F. P. has learned by experience never to stick an antenna wire into an electric socket. It's pretty hard to say what is causing that hum. Some resistor or condenser or coil just wasn't able to take it. Everything must be tested again, and a good service shop is the place to do it. Be sure to check the antenna leads

inside the chassis. They may be burned and short circuiting the chassis.

Auto radio troubles are besetting H. G. S., of Clinton, Ohio. "My Majestic 110 can be heard but it is so faint that it is almost inaudible. I notice that its actual circuit does not agree in detail with that given in the manual." The fact that this set does not agree with the manufacturer's manual is nothing to worry about. Set makers like to make little changes every few days, and there may be several series of a certain model which vary slightly. Sometimes these variations do not show on the diagram. Servicemen know this all too well! But, weak reception is something else. A good antenna system and perfect grounding is essential. Or the antenna "trimmer" in the set may require setting, to get maximum reception. A run-down battery in the car, too, can cause weak signals. Bad tubes, particularly the oscillator, should be suspected. Poor contacts in the tube sockets and elsewhere might be the cause. Defects in the circuit units, switches and controls, or partially grounded wires, leads or coils, cause weak signals. The set may be a bit out of alignment; moisture may be present; I-F transformers may be defective; or the speaker and its magnet may be weak.

H. M. G., of Erie, Penna., wishes to make a loop antenna for broadcast reception. "I use a Scott 12-tube set," he adds. Loop antennas tune broadly at the maximum setting and sharply in the minimum position. But, when they tune sharply, the signal strength is greatly reduced. However, a loop about 4 feet square, wound with 6 to 10 turns of No. 20 wire

spaced one-half inch apart around the outer edge, will work nicely. It must be mounted so that it can be rotated through 360 degrees and back again, and, of course, supported vertically.

Our discussions about pre-selectors bring many letters. S. C. K., of Riverside, Ill., writes: "I have a 1931 RCA Victor R-50 receiver. Does it have a pre-selector built in it?" The Victor R-50 receiver has one stage of radio-frequency amplification ahead of the first detector, and also a tuned antenna circuit consisting of the antenna coil and a link coil. All of this provides a good pre-selector stage. The entire coil assembly is located at the rear of the chassis, to the right when looking down from the front. The R-F amplifier tube is a type 35.

Major League Baseball Games

American League

Yankees—WABC, home games and some out-of-town games. No Sunday home games.

Athletics—WCAU. Home games.

Nationals—WJSV. Home and out-of-town games, except home games on Sundays and holidays.

White Sox—WBBM. Home games.

Indians—WCLE. All games, except home games on Sundays and holidays.

Tigers—WWJ, and Michigan Radio Network, consisting of WBCM, WJIM, WELL, WDFD, WOOD, WKZO and WIBM. All games, except home games on Sundays and holidays.

Browns—KMOX. Home games, except Sundays and holidays.

National League

Giants—WABC. Home games and some out-of-town games. No Sunday games.

IN JUNE

"When Radios Get The Jitters," a Turner Dial story explaining intermittent reception, and what you can do to prevent it.

A big Television article, with letters from broadcasters telling what they are doing in television, will also appear in the Midsummer issue.

Dodgers—WOR and WHN. All games
Philllys—WCAU. Home games.

Pirates—KDKA and WWSW. Home and road games except Sundays and holidays.

Cubs—WBBM. Home games.

Reds—WSAI, synchronized with WHIO, and WCPO. All games except home games on Sundays, and night games.

Cardinals—KMOX. Home games, except Sundays and holidays.

Amateur Calls Heard

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

10 Meters

All reported by Walter E. Welch: EI2L; EI9J; F8KI; f8nx; F8QD; F8RR; F8RV; F8UE; GM6RG; GM8RG; GW6JW; G2CG; G2IS; G2KO; G2MI; G2PU; G2SD; G2VG; G5BJ; G5BM; G5KH; G5LU; G5PP; G5QA; G5QI; G5RV; G5SA; G5WP; G5ZG; G5BW; G6DH; G6GS; G6JK; G6TL; G6US; G6WT; G6WU; G6WX; G8CV; G8JQ; G8KD; G8KT; K8MX; G8OO; G8SA; G8TD; HI7G; K4DDH; K4EZR; K4FAB; K4FAY; K4FDC; K4FSP; K5AN; K6MVX; ON4AA; ON4DI; ON4JN; ON4NO; ON4PA; PAOAD; PAODR; PAOFB; PAOWT; SU1GP; SU1MW; SV1CA; VP3AA; VP6MR; ZS2AF; ZS*DW; ZS6EG; ZS6W.

20 Meters

CEBX (hm); CN8MI (c); CT1AY (co); CT1PM (c); CT1QG (o); CT1ZA (co); CX2CO (d); EA7BA (c); EA9AH (cm); EI2L (c); EI3J (co); EI4L (c); FA3QV (e); FB8AH (d); F3OO (co); F8BM (c); F8DC (k); F8GP (c); F8JX (e); F8MX (c); F8NT (co); F8NX (o); F8QD (ckno); F8UE (o); F8VP (o); F8VZ (o); F8YZ (c); F8ZO (o); GI2CC (co); GI3IA (o); GM2WL (c);

GM6RG (o); GM6WA (b); GM6WD (co); GM6MN (cko); GW3AX (c); GW5PH (c); GW6JW (o).

G2AV (ce); G2DG (k); G2DV (co); G2HF (c); G2IW (co); G2MF (c); G2PU (ce); G2XN (c); G3BM (ce); G3BX (k); G3MF (o); G3PN (c); G3QR (co); G4AS (co); G5BJ (co); G5BM (co); G5BX (k); G5CW (c); G5DR (co); G5DT (c); G5HK (c); G5JO (co); G5KH (c); G5ML (co); G5QI (co); G5QN (co); G5QY (n); G5TB (c); G5TP (c); G5YV (co); G5ZG (ce); G6CL (c); G6JL (o); G6JQ (c); G6ML (co); G6NO (c); G6OS (c); G6VX (co); G6WT (o); G6WU (c); G6WX (co); G6XR (co); G6YV (c); G8CL (c); G8IG (c); G8MA (o); G8NK (c); G8OG (c); G8TX (c); G8UR (o); G8WS (o).

HC2HP (g); HC2PF (d); HH2B (abcegkino); HH2PB (k); HH5PA (ano); HI2K (e); HI3N (cikno); HI5C (n); HI5X (eko); HI7G (cko); HI7I (eo); HI9I (k); HK1AG (co); HK3CC (o); HK3CG (fn); HK3CL (cekma); HK3CO (ch); HK3CR (n); HK3CW (g); HK3VP (k); HK3VW (k); HK4DF (g); HK5AR (o); HK5EH (k); HP1A (egm); HR5C (cegn); J3FK (d); KA1AX (d); KA1PI (m); KA2OV (d); KF6DHW (dm); K4DSE (m); K4EJF (cm); K4EMG (e); K4FAY (abcgno); K5AF (kl); K5AH (k); K5AS (k); K6BLI (j); K6BNR (cghjo); K6CMC (c); K6GAS (g); K6IQN (cgm); K6KGA (fh); K6KKP (c); K6KMB (j); K6LEJ (j); K6NYD (n); GNZQ (hn); K6OJI (gjn); K6OOE (c); K6PPR (ghm); LU1BA (d); LU1DA (acdegn); LU4AH (g); LU4AW (c); LU4CZ (gkn); LU4DJ (d); LU5CZ (amn); LU7BK (cdk); LU8AB (k); LU8EC (cd); OA4AW (g); OA4C (g); ON4DI (o); PAOEH (c); PAOMZ (co); PAOWF (o); PK6XX (dm); PY2BH (c); PY2DV (c); PY2LM (m); PY7AI (c); PY8AG (g); SU1MW (n); TG9AA (agko); TG9BA (acdgnk); TI2AC (ce); TI2AV (c); TI2HP (k); TI2LR (cd); TI2RC (k); TI5JJ (c); TI7JG (c).

VK2ABT (d); VK2ADK (dm); VK2ADT (d); VK2ADU (m); VK2AEC (d); VK2AFA (d); VK2AIU (d); VK2AJK (d); VK2AJP (d); VK2DK (m); VK2EQ (d); VK2KS (i); VK2MH (d); VK2MQ (d); VK2NQ (d); VK2QT (d); VK2SK (d); VK2VA (d); VK2YO (dm); VK2ZF (i); VK3BM (m); VK3DH (d); VK3EK (m); VK3EN (m); VK3EP (i); VK3HG (k); VK3MX (m); VK3NS (d); VK3NX (k); VK3OI (m); VK3PK (m); VK3QK (d); VK3QR (d); (d); VK3WI (m); VK3XG (m); VK3XJ (m); VK3XN (d); VK3XS (im); VK3ZB (d); VK4EL (i); VK4GG (m); VK4GS (m); VK4HN (d); VK4JP (m); VK4JT (m); VK4KH (d); VK4SD (i); VK4TH (m); VK4WS (m); VK5BG (i); VK5CS (i); VK5RN (m); VK9CL (dm); VK9BG (d); VO1B (k); VO2N (gk); VP1BA (cdko); VP1WB (m); VP3AA (cegn); VP4TH (acemo); VP5IS (mo); VP6FO (b); VP6LN (beck); VP6MR (k); VP6TR (k); VP6YB (ck); VP7NR (k); VP7NS (cek); VP7NW (k); VP9G (ghkn); VP9L (acegkn); VP9R (ckl); VR6AY (j).

XE1AA (d); XE1GE (d); XE2IY (d); YV1AA (a); YV1AQ (bcgkno); YV2GL (n); YV4ABG (celno); YV4AD (b); YV4AE (acekno); YV4AN (ck); YV5ABF (ceo);

YV5ABQ (k); YV5ABY (bcgko); YV5AC (e); YV5AD (g); ZE1JS (d); ZE1JX (cm); ZE1JZ (m); ZL2GW (i); ZL2MR (i); ZStAK (m); ZS1BV (o); ZS2AF (g); ZS2AZ (cmo); ZS2X (cmo); ZS3F (c); ZS4H (cdjmo); ZS4L (m); ZS5BE (m); ZS5BZ (d); ZS5CA (m); ZS5CL (cjm); ZS5CO (c); ZS5EB (c); ZS5J (c); ZS6A (j); ZS6AC (cdjm); ZS6AS (o); ZS6BB (c); ZS6BY (c); ZS6CN (m); ZS6D (m); ZS6DK (d); ZS6DL (dj); ZS6DV (d); ZS6DWW (djo); ZS6DY (cjm); ZS6ED (d); ZS6EF (d); ZS6EI (j); ZS6EZ (d); ZS6PK (j); ZS6PY (j); ZS6S (cdo).

The Reporters

- (a) Frank C. Allgood, Frankfort, Ind.
- (b) A. E. Blick, Toronto, Ont.
- (c) George J. Eder, Philadelphia, Pa.
- (d) C. J. Fern, Jr., Lihue, Hawaii.
- (e) Donald Hall, Boulevard Heights, Md.
- (f) A. M. Hankins, Latrobe, Pa.
- (g) Lewis R. Hill, Maybrook, Ill.
- (h) John Macrae, Winnipeg, Man.
- (i) Martin J. Olthoff, Independence, Kans.
- (j) Bertram Podall, Gilman, Vt.
- (k) Walter V. Scholz, Webster Groves, Mo.
- (l) Carl Sylvester, Columbiaville, Mich.
- (m) Cliff Tavener, Rosenberg, Texas.
- (n) Harold Tear, Roanoke, Va.
- (o) Walter Welch, Lynn, Mass.

HAM HOUNDING

● "It's truly a pity!" Yes, lads and lassies, we are really disappointed with the way 20 meters has been behaving, of late. In years past 20 has been excellent during the Spring of the year, but 1939 has really let us down. We have logged a few fair catches but, on the whole, we feel as though we haven't gotten to first base.

We had fully anticipated knocking 'em off, right and left, during the DX contest; however, no more than a dozen reports left our QTH. The one good feature of the contest was the loud signals exhibited by the KA's and PK's around 8:00 am. During the afternoons, the Europeans and South Africans were fair, but after midnite, virtually nothing could be logged. During the contest of 1938, the band was usually wide open until as late as 4:00 am. The last mentioned period of time has always been our favorite time to tune; hence our disappointment.

It has always been said that "misery loves company" and judging by reports received from some readers, we feel that plenty of other ham hounders met with the same apparent lack of success. So,



In red and blue ink, this card from HJ1ABE verifies reception, and does a little local advertising as well. "Cartagena is the most beautiful, and most important port in Colombia," and "Colombia produces the best coffee in the world." HJ1ABE is frequently heard on 9500 kcs. (Courtesy of Edward Bader).

● ● ● **By HUGH HUNTEM**

maybe we shouldn't feel so badly, after all.

FCC Dope

The Federal Communications Commission recently announced that the number of licensed amateurs in the United States had passed the 50,000 mark, the precise number being slightly over 51,000. The commission also pointed out that the total number of amateur stations is even greater than this, as numerous operators own more than one station. Some amateurs, as a matter of fact, have as many as five transmitters, using a different one on each band.

In making public the figures on the number of operators in the country, the FCC announced that there are more than a thousand "shut-in" operators. Often these individuals find their chief contact with the outside world in their radio telephone and telegraph QSO's with other operators. The "shut-in" list not only includes cripples and bed-ridden folks, but blind persons as well. The blind operators, estimated to number more than a hundred, frequently take their license tests in Braille. The tests are sent to the Library of Congress where they are translated and sent

to the Commission for rating. The blind operators take the same speed test as other amateurs, demonstrating their ability to send and receive international Morse Code signals at the rate of thirteen words per minute.

The FCC goes on to say that the importance of amateur stations and operators has been publicly demonstrated, repeatedly, in times of emergencies, such as floods, storms, shipwrecks and other disasters, yet the value of this small army of men and women to the Army and Navy is little understood. A large number of amateurs are affiliated with the Naval Communications Reserve and the Army Amateur Reserve System. These organizations offer training which provides practice drills and instruction to enable operators to develop accuracy and speed, in communication, as well as to improve their technique in the operation of amateur stations.

Anent Return Postage

Many have been the arguments concerning the sending of return postage, to amateur stations, when confirmation is desired. The majority of listeners claim that the SWL's who don't send return postage, spoil it for those who do. However, we're inclined to disagree with this common theory. We feel that an amateur, who has a tendency to QSL, will pick out the reports which include return postage and QSL the reporters, whereas if every report was accompanied with an IRC, he would quite likely disregard all of them, figuring that he couldn't bother answering so many reporters. Some time ago we read of a listener who sent two IRC's with each report. We figure that the amateur might be inclined to expect this of other listeners and only QSL when two IRC's are sent. Certainly, to our way of thinking, the SWL who sends two IRC's is doing more harm to the hobby than is the listener who sends none.

All of us are undoubtedly familiar with HR5C, the unlicensed amateur in Honduras. Some time ago, virtually every radio publication stated that all QSL's sent to HR5C should be enclosed in a plain envelope. However, according to HR5C, many DXers are sending cards through the mail. We do hope that none of our readers are guilty of



One of the most frequently heard Japanese amateurs is J2MI, who acknowledges correct reports with this black and white card.

such an unforgiveable stunt. Reports of this type, sent openly through the mail, caused several Yugoslavia amateurs to be forced off the air, and we trust that HR5C and other amateurs, operating under cover, will not suffer a similar fate.

Forecast

During the month of May we suggest that all of you tune whenever you are in the mood and don't be surprised at anything you might hear. A peculiar forecast, we'll admit, but we're becoming a bit tired of missing our shots because of unprecedented conditions.

It's about time for a little dope on stations being heard, so here's what our reporters have sent us during the past month.

AFGHANISTAN—YA2EU is the call and we are pretty sure that very few of you will hear this one; in case he is heard, send reports to VU2EU, c/o R5GB, 53 Victoria Street, London, S.W.1, England. YA2EU is supposed to be operating near 14.05.

BANKA—Again we mention PK4KS, the strongest PK station on the air. He is now using an additional frequency on the low end of the band. During the DX contest, PK4KS was heard as late as 11:00 am, on the East coast.

BILLITON—PK4JD is the only station on this island which has been reported during the past several months. Normally, he operates on 14.09 and puts a fair signal into the U. S.

BRITISH GUIANA—There are two active phones on 20 meters; one is VP3CO and the other is VP3LF. According to

James Newman of Toronto, Ont., VP3CO operates on the LF end of the band and that reports should be sent to P. O. Box 241, Georgetown. VP3LF, also LF, is merely a change of call for VP3AA. We advise that you take your chances with VP3CO as VP3AA was very poor at QSLing.

BRITISH HONDURAS—If you still need a confirmation from British Honduras, try for VP1WB on 14.06. Ernie Baber, Box 80, Belize, QSL'd in less than a month's time which is pretty snappy. Ernie, doesn't worry much about cards as his XYL does most of his QSLing.

BULGARIA—A swell catch and a new country for most of you at which to shoot is LZ1DD who has been heard on about 14.36 during the afternoons. The only trouble is that we do not have his QTH and no QSL bureau is known to exist in Bulgaria. If anyone should chance to log LZ1DD, be sure and save your log as we hope to find this station's QRA before long.

CHANNEL IS.—In addition to the oft-mentioned G8MF, who has become a bit slow at verifying, we suggest you be on the lookout for G3GS who is very anxious to receive reports from the States. G3GS operates on 14.1, and the QTH is A. G. Cole, 6 Greve Dazette Gardens, St. Clements, Jersey.

CHOSEN (KOREA)—From latest reports, J8CA is quite active on the following frequencies, 14, 14.25 and 14.4. Chosen, of course, can be counted as a country, apart from Japan. Reports should be addressed, Shigetoshi Matsunaga, Todaimon Primary School, Keijo.

COLOMBIA—For the benefit of those who like to report the HK's, please note that the numeral in the station's call always corresponds to the first letter following the numeral; for example, HK1A, HK2B, HK3C, etc. In other words, the letter also indicates the district, as does the numeral.

COOK IS.—If you desire a QSL from this rarely heard country, look for ZK1AA on the very low frequency end of the band and, if you are successful, rush your report to J. D. S. Fahey, c/o Radio Station ZKR, Rarotonga.

DANZIC—YM4AA has been reported, operating, on about 14.1. If you haven't logged this one, as yet, you'd

better make it snappy, 'cause with "Der Führer," on the march, Danzig may soon be erased from the map of Europe.

EGYPT—The most frequently reported SU's are SU1AX, SU1CR, SU1MW and one of those rare SU2's, SU2JR, all operating on the LF end of the band. SU1CR's signal was well heard during the DX contest. Not knowing SU1CR's QTH, we were compelled to send our report via SU1SG, who is the SU QSL manager.

FAEROES IS.—Those who receive cards from W1OXDA, the Schooner Morrissey, should check their cards closely, as several listeners heard W1OXDA when he was, at anchor, off the Faeroes. This reception may be counted as a new country.

FIJI IS.—The VPD2 on 14.248 a couple of month's ago, QSL's with the regular VPD2 broadcast card. This station frequently tests on 20 meters but is difficult to log because of QRM from W stations.

GREECE—As SV1KE may now be classed as virtually a non-QSLer, keep your ears set for SV1CA, who has been heard on both ends of the band. Reports should be sent to Agi Cazazis, 25a Tenedou St., Athens.

GREENLAND—In addition to OX7OU, 14.35, the Oxford Expedition, mentioned in the January RADEX, look for OX7ZL on 14.02. All reports for OX7ZL should be mailed in c/o the E. D. R., Box 79, Copenhagen, Denmark.

HONG KONG—VS6AB, on approximately 14.08, has been logged on the East coast at around 9:00 am. This station's QTH is, J. W. M. Brown, c/o Import & Export Office, Kowloon, Hong Kong.

ICELAND—The only TF station we have had reported is TF3C who is occasionally heard on 14.36. TF3C appreciates listener's reports and they should be sent to Thorhallur, Box 117, Akureyri.

IRAQ—YI2BA has been quite active, of late, on 14.33. We understand that the new operator QSL's all correct reports which include return postage; in fact, he has been answering all of the old reports which the former operator overlooked.

LITHUANIA—The most frequently reported LY stations are LY1HB, LY1J and LY1S. The last mentioned has been especially active on both ends of the

band. Reports for LY1S should be addressed, J. Satas, Kapsu 8-A, Kaunas.

LUXEMBOURG—This country has several stations which have been heard in the U. S., the most active are LX1AI, LX1AP, LX1RB, LX1SI and LX1TW. The latest Call Book, contains the QTH's of all of these stations.

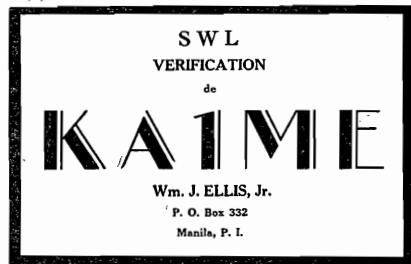
MACAO—One listener reports reception of a station whose call sounded like CR9AB. This station was calling CQ in broken English and was on the extreme LF end of the band. No QTH is known but as Macao is but a very small country, the postal service might be able to locate CR9AB.

MOLUCCAS—PK6CI is the only station reported from this island group, and has been heard on 14.13 and 14.29. The QTH is E. R. Illing, Ambon, Moluccas, N. E. I.

NEW CALEDONIA—Two listeners have reported hearing FK8AB on the HF end of the band. No QTH is known but it is quite possible that the station is located in Noumea, the island's chief city.

NEW GUINEA (BRITISH)—Mike Fern, Hawaii, states that the two best VK9's are VK9CL, 14.06, and VK9VG, 14.27. The former, however, has "lousy" modulation, according to Mike. VK9VG is good at QSLing so here's his QTH: V. Gilchrist, Bulolo Power House, Bulolo.

NEW HEBRIDES—Several SWL's in the West report hearing FU8AA on the LF side of the band. We are glad to say that FU8AA verifies his phone, despite his being the only active FU8. Reports should be mailed to R. Thevinen, Norsup, Malekula.



This Philippine amateur station appreciates reports from short wave listeners, and this is the special card which he uses to verify SWL's reports. It is printed in red and black.

NICARAGUA—YN1IP was very active during the contest and we trust that he is one YN who will QSL. He operates on the LF end of the band and his QTH, in case you're interested, is Herman Tomas, Instituto Pedagogico, Managua.

PALESTINE—The following ZC6 phones are reported, ZC6AC, ZC6EC and ZC6RL, all on the HF end of the band. As there is supposed to be a ban on amateur stations in Palestine, the QTH's are unknown. The Call Book, however, does list ZC6 stations so, possibly, the addresses of these stations may be made public before long.

PAPUA—Mike Fern has been hearing VK4HN on about 14.005, as have other listeners. VK4HN is quite active over the week-ends and puts a fair signal into the States. The QTH is H. G. Nicholson, Paga Hill, Port Moresby.

PHILIPPINES—L. M. Jensen, Wyoming, informs us that KA1PI, 14.14, is no longer on the air. This station was located at the Philippine Islands Exposition grounds and only remained on the air for a period of ten days.

PITCAIRN IS.—It may be some time before VR6AY is again heard. This station has been inactive for several months because of transmitter difficulties, and Andy Young, the operator, is hopeful that some ship's radio op will stop by and help him out.

SIBERIA (USSR)—K7FST, 14.24, occasionally operates portable from East Cape. A veri under these circumstances could be counted as a new country; ship your reports to Charles W. Deremer, Kotzebue, Alaska.

SPAIN—Look for EA7BA on 14.29 if you wish to hear Spain on 20 meters. Address reports, Radioemisora EA7BA, Cadiz, Espana, and they will reach him OK. We reported this station on 40 meters several months ago but never received confirmation, so you may be risking an IRC if you report. Anyhow, it's your IRC!

ST. LUCIA—We understand that Miss Devaux, attractive op of VP2LC, is growing a bit weary of answering SWL's and, as a result, intends to cease QSLing. We suggest that our readers write her a mighty sweet letter if her QSL is desired.

TAIWAN (FORMOSA)—In last month's RADEX we stated that no J9's were active; however, we stand corrected as J9CA has been reported operating on the extreme LF side of the band. Letters should be addressed, Kosuke Akune, 1 Suido-cho, Taihoku.

TANGANYIKA—VQ3TOM is the call and a FB catch, to say the least. Look for this one on about 14.18, in the American phone band. This station's QTH is, T. W. M. Millar, Wireless Station, Moshi.

TANGIER ZONE—In case you're trying to figure where EK1AF is located, we inform you that CN1AF has merely had his prefix changed. The QTH remains the same, Jose M. Sierra, 19, rue Sources.

TRINIDAD—VP4TH has been frequently heard, of late, on the LF end of 20. Apparently, VP4TH and VP4TK are the only active phones in Trinidad. VP4TH QSL's and his QTH is Ethelbert Gibbs, 52 Duke St., Port of Spain.

Texas Reports

Bireley Ross of Austin, Texas tells us that he heard 70 countries during the DX



A very neat amateur card from Lismore, Australia. The call letters are red, the map is green, and the background is yellow.

Contest, with FB8AH and LX1SI netting him new countries. Bireley also states that reception was not nearly as good as it was during the contest of 1938. Some of his most unusual QSL's are CR7AK, CT3AB, FU3AB, FU8AA, LY1J, VQ4KTB, VR6AY, YL2CD and YU7UU. On 10 meters he receives the Americas and Oceania very well, with Europeans and Africans, occasionally, breaking through, but he has yet to hear an Asian. The

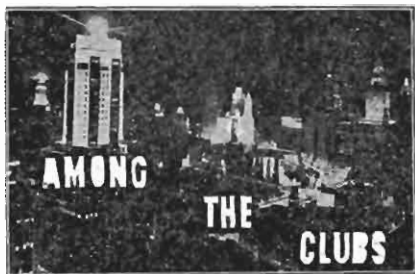
equipment used consists of a Pierson De-Lane PR15 communications receiver and a W8JK beam antenna directed towards Africa and the East Indies, for 20 meters. To conclude his letter, Bireley says that he has very little difficulty in obtaining QSL's from ham stations and that many of them send pictures of their rigs and postviews of their cities. Bireley would like to see reports from other Texas tuners.

Well, Bireley, it so happens that Cliff Tavener of Rosenberg, Texas dropped us a few lines. Cliff lists some of his latest catches as EA9AH, PK6XX, HP1A, CE2BX, KF6DHW, ZE1JX, ZE1JZ, VK9CL, KA1PI plus numerous Australians and South Africans.

Our K6 observer, Mike Fern, also reports some nice loggings, such as CX2CO, FB8AH, J3FK, PK6XX, ZE1JS, KF6DHW and a flock of VK's and ZS's. Mike is wondering what a certain W9 listener thought would happen when he sent his brother's station QSL card to K6PLZ!! K6PLZ, incidently, is out of QSL's but is having some printed, so those who have reported his signals may expect cards at an early date.

Elmer Wokaty, of Fairview Village, Ohio, another consistent reporter, lists some of his better QSL's as LA8C, OH2OI, HA7P, CN8AM, CN8AV, CN8MU, EA9AI, FA3HC, FA3QV, FA8BG, CN1AF, VR6AY etc. Elmer warns our readers that YR5AA, SV1KE, HA8Q, CN8MA, FO8AA and FB8AE are poor at answering reports.

Again, we find that we have exhausted our allotted space so we'll have to close down for the month. As all of you know, the next RADEX will be the Mid-summer Edition, after which we will hibernate until September. In this next issue we hope to give you a bit more dope as 20 meters will continue to hold up well throughout the Summer, whereas, BCB, 49 meters, 10 meters etc. will not be quite as good. However, the length of the Midsummer article depends upon the generosity of "Ye Editor". (The Editor will be generous—ED). So, until next month, we bid you 73 and adieu.



● In January, 1933, the New Zealand DX Radio Association came into being when the DXers of Canterbury and Otago combined to improve the information service regarding reception of overseas stations. An incorporated society was formed with headquarters at Christchurch, and with offices at Dunedin for the publication of "Tune In." Sometime later a call book, "Radio Calls of the World" was made available to members every six months.

Since the formation of this club the membership has grown to over 1550 members, with active branches in each main center in New Zealand.

The proud slogan of this organization is "For DXers, By DXers," since all the officers are DXers and no one in the organization has a commercial interest in radio.

The cost of membership in this most active club is only 2/6, and the subscription price of "Tune In" is 3/ per year. Membership in this club is open to American DXers, and we are pleased to announce that we will receive applications and forward them to New Zealand, for anyone who wishes to join. The fees are equal to \$1.37 for the first year, and seventy-five cents per year thereafter. Readers wishing further information about the club may write us, or write direct to them, at P. O. Box 437, Dunedin, New Zealand.

● A change has been made in the meeting place for the convention of the National Radio Club. This Eastern Get-Together will be held on Saturday and Sunday, July 1 and 2, at Hershey, Pa., which is about 15 miles east of Harrisburg. All DXers who wish to attend this get-together should write to Bob Botzum, 633 Moss St., Reading, Pa. All DXers who can attend are invited.

HIGH FREQUENCY GLOBE TROTTING

●●● By RAY LA ROCQUE

Report-O-Meter

Robert Skyten	100%
John J. Oskay	93%
A. A. Jolin	60%
G. R. Jewell, Jr.	57%
Bob Sawado	57%

● Having emerged from his "slump" (if we may call it a slump), Bob Skyten volted to the top of the Report-o-meter again this month by virtue of some prompt reporting on several very new stations. Second place evidently had a "reserved" sign tacked upon it as John Oskay slid under the wire at the last minute with a flock of new ones unreported by anyone during the month. Friend Jolin attained his high spot with some excellent information on "Spanish War" stations. Though Alabama is minus the name of Jack Wells in the list this month, it still is represented by G. R. Jewell, Jr., who dropped a notch below his last month's listing. Bob Sawado, from out California way, managed to tie friend Jewell for fourth place by means of constant reporting via the post card route. All set for a spot in the meter until friend Oskay's avalanche of reports reached us on the last day was Matthew Leshner who has come close often, but has yet to register in the meter. Better luck next time, Matty. Others who deserve honorable mention are Martin Olthoff, Gilbert Harris, William Snook, and M. F. Williams.

In case you're a newcomer, and you'd like to know how this "Meter contraption" of ours works, we pause for a few remarks. Your Chief Globe Trotter has complete authority in

handing out meter credits and bases his credits on a system of his own. There are no rigid rules, but usually one point is given for every report used in our Shortwaves in Review department. On new stations, the first fellow reporting each of the following facts is given one credit per fact: Call, location, frequency, schedule, identification signal, program peculiarities, and address, so that seven points are possible if a perfect report is received on a NEW station, as yet unreported by anyone. On changes, one credit per change is awarded the reporter. When two or more report a new one at the same time—all are given equal credit. We use our own judgment in many cases where some reports are considered of more value than others. So if you want to see your name in the meter next month, get busy now and get some reports to us following the above suggestions.

ASK US ANOTHER

Answering Robert Skyten, G. R. Jewell says, "The Norway stations he asks about are as follows: On 11735 kcs. (not 11730) is LKQ operating from 2 a.m. to 6:40 a.m. and 10 a.m. to 3 p.m. and on 9610 kcs. LLG operates from 3-6, 8-9 p.m. and 11 p.m. to midnight. Both are in Oslo . . . For A. M. Hankins: "The Spanish speaking station on 11920 kcs. is "Radio Pilot" TI2XD whose QRA is P. O. Box 1729, San Jose, Costa Rica." This latter also from G. R. Jewell. . . . Can someone inform Alfred H. Bacon (R119, B. C.2) of New Westminster, B. C., as to whether OZF will verify. He has sent them three reports for 45 minute periods since November 1938 and two were registered letters. No answer

has yet been received.

Two mysterious calls are the worry of Wm. W. Flynn, of Dummer, Saskatchewan. He heard the tail end of a conversation between W9XEI and W-10XJF. No QRA's were given. The time heard was from 11:25-11:30 p.m. A Mr. Tucker was at W9XEI. A Mr. Danley of W-10XJF was ashore at the time of the QSO. Frequency was about 6430 kcs. Also for friend Flynn (R937) identification is wanted of a station on about 5770 kcs. heard on March 7. The program consisted of male vocal selections in Spanish and English. Announcements were in Spanish only. The letters CEX were heard but were said quickly and may be far from correct. Program was heard from 11:30-11:52 p.m.

Robert Trubee of Brentwood, N. Y. would like to know the following: "W8XYR on 4797 relaying ice skating races from Lake Placid from 11:10 to 11:59 p.m. on Feb. 4. Who are they?" . . . "Where is ZNC-ZNF heard working duplex on 5900 kcs?" is the query of C. R. Wilson of Portland, Me. (See Bahama Islands and report of John Oskay in Shortwaves in Review on another page—RL)

After submitting a nice bunch of reports, John J. Oskay of New Brunswick, N. J. asks a few questions. A station on 9588 kcs. in either Venezuela or Colombia will require identification. . . More would like to be known about the station on 15120 kcs. at 7 a.m. with clock striking 12 (noon). . . An HJ on 4753 kcs. heard at 9 p.m., and a couple of others speaking Spanish on 7300, and 7320 kcs. about the same hour. Another HJ on 4890 kcs. is heard around 9:45 p.m. (An HJ4CAP, "Emisora Clari-

dad" in Medellin, is supposed to be on 4885 kcs.—RL). Others as yet not identified by our New Brunswick, N. J. inquirer are: A Spanish speaking station on 9600 at 5 a.m., another using Spanish on 15170 kcs. at 9:30 p.m., and a station, seemingly French, on 6065 kcs. at 9:30 p.m.

ULTRA HIGH

The bands "way up on the dial" have been more or less silent during the past month, with only an occasional signal heard.

W5XGB on 31690 kcs. can be reached at the following QRA: Houston Lighting and Power Co., North Pasadena, Texas. (Gilbert Harris, North Adams, Mass.)

W8XNU on 25950 kcs. is on the air daily from 7 a.m. and they an-



EA9AH of Tetuan, Spanish Morocco, was the first of the Franco stations. This is the most recent card used by 9AH. It is in three colors, red, yellow and black. (Courtesy of J. E. Gardner).

nounce that they are owned by Crosley Radio Corporation of Cincinnati, Ohio. It is the only consistently heard station in this section at present. (Picard (R174, Mont.1), and Sawado—Calif.)

W9XTA on 26500 kcs. heard testing irregularly near 1 p.m. relaying programs of WEOA and WEBQ,

Harrisburg, Ill. (Fern—R211, T. H.2)

NOT SO SHORT WAVES

TGWC on 2320 kcs. at Guatamala City is heard in parallel with TGW and TGWA and TGWB—on the same schedule as B! (Jones—Texas)

American Ship Frequencies:

- 2110 ships calling KLH WOU
- 2118 ships calling WDR WAY
- 2126 ships calling WAQ KOW
- 2138 ships calling WGB
- 2150 ships calling WMI
- 2174 ships calling KOU
- 2198 ships calling WOX
- 2506 KLH San Rafael, Calif.
- WOU Green Harbor, Mass.
- 2514 WDR Miami, Fla.
- WAY Lake Bluff, Ill.
- 2522 KOVV Edmunds, Wash.
- WAQ
- 2538 WGB Norfolk, Va.
- 2550 WMI Lorain, Ohio
- 2566 KOU Wilmington, Cal.
- 2598 WOX New York, N. Y.
- 2738 Inter ship freq. (ships work ships)

(Charles McCormick—Md.)

NMC a coast guard station in California heard at 10:24 p.m. (Carter, R694, Mich.)

VE9AL on 3852 kcs. verifies for Chester Roman and states that both VE9AL and VE3AL are portable stations authorized to operate within the amateur bands. (RX)

WANA on 2726 kcs. at Homerille, Ga. is owned by the Consolidated Timber Organization and uses 100 watts. This from a verification issued to Chester Roman. (RX)

SHORTWAVES IN REVIEW

Angola

CR7BH on 11722 kcs. at Lobito is heard now in the morning at 6 a.m. with not too strong a signal. (Oskey—N. J.)

Argentina

LS-2 on 9570 kcs. (approximately) "Radio Prieto" heard at 6:30 p.m. with an R9 signal though there was slight QRM from W1XK. LS-2 is supposed to be a broadcast band station on 1190 kcs. (Skyten—R786, Mass.)

Australia

VK3ME on 9510 kcs. heard with an R5-6 signal from 4:20-4:40 a.m. on March 3. (Flynn—R937, Sask.)

VK8SK reported in RADEX of a past month is located at Broken Hill, N.S.W. The station is a base station of Australian Aerial Medical services. Around 7 a.m., Many VK8's are heard here in Melbourne about 56 meters. These xmtrs are of very low power and mostly "pedal operated transceivers." Located in Central, Northern, and Northwestern, Australia, they rarely give their call signs, but use the names of homesteads or settlements where located, i.e. "The Twins" or "Wyndham" etc. (Hutchins, Australia)

Azores

CT2AJ on 4005 kcs. at Ponta Delgada was heard once again at 6:20 p.m. (Oskey—N. J.) (This is one that you shouldn't expect to hear on the first attempt—RL)

Bahama Islands

ZNF on 6090 kcs. a new one at Nassau relays ZNS on 790 kcs. They were heard at 9 p.m. on sign off with God Save The King! Severe QRM from XEBF. (Oskey—N. J.)

British Guiana

VP3BG on 6130 kcs. at Georgetown, broadcasts daily from 10:30-11:30 a.m. and from 4-8 p.m. Reports are greatly appreciated and should be sent to British Guiana United Broadcasting Co., Ltd., P. O. Box 11, Georgetown, B. C. (Jewell—R834, Ala.)

Canada

CHNX on 6130 kcs. relays the broadcast station CHNS from the Lord Nelson Hotel at Halifax. CHNX broadcasts a mail bag program one of those rare SU2's, SU2!R, all operated in Noumea, the island's chief city.

twice every Sunday, at 4 and again at 9 p.m. (Jewell—R834, Ala.)

China

XGOY on 9500 kcs. at Chungking is heard at 6:25 a.m. with good signal. Program consists of Oriental music and march selections. Interludes of speech by man and woman announcers. Announcements are thus: "XGOY, XGOY!" (Olthoff—Kansas)

XPSA near 7000 kcs. is the station heard from 4-5 p.m. in this locality. (Harris—Mass.)

Costa Rica

TIEP on 6690 kcs. at San Jose heard from 7 p.m. to midnight. Announces as the "Voice of the Tropics." Chimes heard at 10 p.m. (Harris—Mass.)

TIPG on 9695 kcs. heard mornings coming on the air at 7 a.m. with very strong signal. Also reported on same frequency from 9:30-10:30 p.m. (Skyten—R786, Mass.; Snook—R620, N. S.2; and Leshner—R757, Mass.)

Cuba

COCE on 12230 kcs. at Havana is heard relaying the programs of radio station CMC daily. (RL—Mass.)

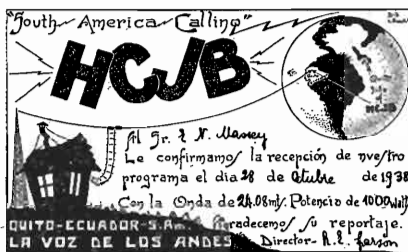
Denmark

OZF on 9520 kcs. with 6000 watts power has transmitter at Skamlebak, 50 miles West Northwest of Copenhagen. (Hankins—R7, Pa.1)

Dominican Republic

HI-1L on 6480 kcs. gives address as Radio Emisora Nacional "El Diaro" Calle Presidente Trujillo No. 97 (altos), Santiago de los Caballeros, D. R. (Lang—R21, Pa.3)

HI-1X on 6340 kcs. has a power of 900 watts. They operate on the following schedule: Tuesdays and Fridays from 8:30-10:30 p.m., and Sunday from 8-10:30 a.m. (Picard—R174, Mont.1)



Very close to the equator is this station in Quito, Ecuador. HCJB uses several different frequencies, and is heard often. This card reproduced by courtesy of Dick Anderson and Capt. E. N. Massey.

HI-4X on 17410 kcs. at Trujillo City heard Sunday morning at 11 a.m. relaying a program to NBC. (Skyten—R786, Mass.)

Ecuador

HC1GQ on 9180 kcs. at Quito signs off nightly at 9:55 p.m. (Olthoff, Kansas)

HC2JB on 12460 kcs. reported by many as a harmonic, heard here at 9:50 p.m., R7, no harmonic from 6230. The 6 mc. station was silent. (Oskey—N. J.)

Ireland

"Athlone" on 17840 kcs., 15120 kcs. and 9595 kcs. has been reported by many. Schedule on 9595 kcs. seems to be daily from 5:30-6 p.m. when they relay the broadcast band station at Athlone. On the higher frequencies, they have been reported coming on at 8:30 a.m. and using both frequencies in parallel. Programs seem to be in English and reports are requested. They sign off with, "Good Night, Everybody, Goodnight and God Bless You All" by a lady after which a man announces that it was the Irish Shortwave Transmitter at Athlone.

Ethiopia

IABA on 9653 kcs. at Addis Ababa is the actual frequency of this station heard at 2:50 p.m. (Oskay—N. J.)

France

FYR on 13000 kcs. at Paris was heard on a Sunday from 11:25-11:35 a.m. (Harris—Mass.)

"Paris Mondial" on 7280 kcs. reported by many. The schedule seems to be afternoons till about 6 p.m. and in the evening from 9:30 p.m. to midnight. They work in parallel with TPB7 on 11885 kcs. on both transmissions. News in English in the afternoon at 3 p.m. (Skyten—R786, Mass.; Snook—R620, N. S.2; C. Podall—R927, Vt.; B. Podall—R946, Vt.; Yocom—R770, Ohio; Trubee—R671, N. Y.; and Weaver—Penna.)

Germany

DJB on 15200 kcs. at Berlin heard at 11:45 a.m. calling NBC at New York City. They had a special program for NBC. Had time checks with NBC now and then. (Harris—Mass.)

DJH on 17845 kcs. and DJL on 15110 kcs. are now used on the 8-9 a.m. transmission to North and Central America. DJH replaces DJB on 15200 kcs. (Skyten—R786, Mass.)

Great Britain

GSV on 17810 kcs., the newest BBC wavelength, comes in R7-9 after 1 p.m. For some reason they can't be heard before that time. (Scholz—Mo.)

Guadeloupe

"Radio Guadeloupe" on 7435 kcs. is heard nightly with a strong signal after 6 p.m. (Skyten—R786, Mass.)

Guatemala

TGWA on 15170 kcs. and 9685

kcs. has just tried their new directional antenna aimed at Los Angeles to the North and at Buenos Aires to the South. This location being much off the beam, it is not possible to judge how their signals are received at directed points, but their signal has increased 50% in this location. They are very anxious to have all listener report on reception of the signals, stating any improvements noted. (Jewell—R834, Ala.)

TGS on 5740 kcs. seems to be the call of the station carrying the same programs as TGWB and signing at the same time. Would appreciate knowing whether this is correct call. (Flynn—R937, Sask)

TGWB on 6490 kcs. with 800 watts has the following schedule: Daily from 7:45 a.m. to 9 a.m. and 12:45 p.m. to 3:45 p.m., 7:30 p.m. to 12:15 a.m. Sunday 10:30 a.m. to midnight. (Billy Jones—Texas)

Haiti

HH3W on 9750 kcs. was heard here from 7:45 p.m. to 10:47 p.m. with a special program to Panama. Still announces as 9645 kcs. They gave schedule as 1 p.m. to 2 p.m. and 7-9 p.m. (Harris—Mass.)

Hungary

HAT-4 is only 5 kw. I have been a regular HAT-4 listener for over a year sending them reports on about 25% of their transmissions. I have over a dozen cards from them, each stating the power as ONLY 5 kilowatts! (Sekach—Mich.)

India

VUD-4 on 15290 kcs. at New Delhi heard coming on the air at 9:30

p.m. The call has not been positively identified. VUD-3 on 15160 kcs. has not been heard lately. (Skyten—R786, Mass.)

Italy

12RO-3 on 9635 kcs., 12RO-4 on 11810 kcs., 12RO-6 on 15300 kcs., IRF on 9830 kcs. and the new 12RO-13 on 11900 kcs. all carry the American Hour from Rome daily 7:30-9 p.m. (Skyten—R786, Mass., and RL—Mass.)

12RO-12 on 15100 kcs. is heard with a good signal mornings around 7 a.m. (Skyten—R786, Mass.; and Oskay—N. J.)

IQA on 14730 kcs. "Italo Radio" was heard around 11:15 a.m. relaying a program from Rome to the NBC. (Skyten—R786, Mass.)

Japan

JIE on 7260 kcs. at Taihoku, Taiwan heard relaying JIB from 9:10:20 a.m. and requesting reports. (Sawado—R592, Calif.)

JLK on 6189 kcs. at Tokyo heard R9 at 8:25 a.m. giving news in English with QRM from VIS (CW) in Sydney, N. S. (Olthoff—Kansas)

JVW-3 on 11725 kcs. is a new station heard from 1:50-2:30 a.m. with news in Japanese at 2 p.m. They are heard daily here. (Sawado—R592, Calif.)

JZJ on 11800 kcs. announces that overseas broadcast to Pacific Coast will be shifted to JZK on 15160 kcs. from April 1. This broadcast is from 12:30 a.m. to 1:30 a.m. (Sawado—R592, Calif.)

Netherlands

PCJ-2 on 15220 kcs. is heard from 9:30-11:30 a.m. with an R7 signal. (Blanchard—R485, N. Y.)

Nicaragua

YNLG on 6610 kcs. signs off with Goodnight Melody at 9:14 p.m. daily.

(Olthoff—Kansas)

YNRF on 7660 kcs. and YNPR on 8580 kcs. both at Managua have the same programs. Heard from 7 p.m. to 11 p.m. very loud and clearly announcing as "Radio Pilot." (Harris—Mass.)

Norway

LLG on 9610 kcs. at Oslo heard at 11:50 p.m. broadcasting music and announcements partly in English. They mentioned that the program was directed to North America. There was a severe heterodyne caused by ZRK! Station reported working in parallel with another Oslo station on 8025 kcs. (Podall—R946, Vt.; Podall—R927, Vt., and Kosolapoff—Ohio)

Complete schedule of all Norwegian stations:

LL? on 10750 kcs. from 8-9 p.m. and 11 p.m. to midnight.

LKQ on 11735 kcs. from 2-6:40 a.m. and 3:6 p.m.

LKV on 15170 kcs. from 6:40-10 a.m.

LLG on 9610 kcs. from 3-6, 7-8 p.m. and 11 p.m. to midnight.

LKJ on 6130 kcs. at Jeloy (all others at Oslo) with only one kilowatt from noon to 6 p.m. (This is a temporary schedule.)

The two stations on 10750 kcs. and 9610 kcs., broadcast simultaneously for North America in English asking listeners to please send exact reports on their transmissions. QRA is Norwegian state Short Wave Station, Administration of Telegraphs, Radio Dept., Oslo, Norway. (Jewell—R834, Ala.)

Peru

OAX4T on 9562 kcs. from 11:30 a.m. to 1:30 p.m.

OAX4Z on 6082 kcs. from 7 p.m.

to 11:30 p.m. Power of these stations is 10 kw. (Picard—R174. Mont.1)

Poland

SP-19 on 15100 kcs. heard broadcasting at 8 p.m. mentioning several calls with SPW and SPD mentioned very frequently. (Kosolopoff—Ohio)

Portugal

CSW-4 on 11840 kcs. at Lisbon was heard in the morning, signing off at 11:30 a.m. (Skyten—R786, Mass.)

A few reports have come in on EAR and EAQ, but since the Franco regime is now in complete control in Spain, these stations will undergo some kind of a change. We have below a list of all Franco stations heard during the war by a couple of readers. There are so many that we solicit the aid of readers to keep us posted as to what changes, if any, will now occur in Spain!

EA9AI on 7184 kcs. at Port Almina, Ceuta, Spanish Morocco. A new station, this one of the most powerful Spanish stations at present. Saturdays only from 9 p.m. to 10:30 p.m. English spoken.

EAJ-43 on 7500 kcs. at Teneriffe, Canary Islands. "Radio Club Teneriffe" announce in English at 9 and 9:30 p.m. only. Schedule is from 7-9:30 p.m. daily.

RR-6 "Radio Requete" at Vitoria, Spain on 11990 kcs. daily at 4:30 p.m. and 7 p.m. at which time both men and women announcers give call letters frequently in Spanish. From approx. 5 p.m. it relays Radio Nacional at Burgos.

Radio Nacional A. Z. or as they sometimes announce "Radio A. Z." on 6755 kcs. at the Madrid front. This station operates irregularly from 2-8 p.m. News in English from 3:20-3:40 p.m.

FET-1 on 7000 kcs. at Valladolid, Spain—a new station with weak signals. Relays Radio Nacional from 5 p.m. to 6:30 p.m. Station may be heard at 3 a.m. when it comes on the air.

"Radio Espana" at Madrid Front on 7240 kcs. relays "Radio A Z" until 5 p.m. at which time both stations relay "Radio Nacional. This station operates from 2:15-8 p.m.

"Radio Malaga" on 7220 kcs. at Malaga, Spain heard from 3:30 until about 6:30 p.m.

EA9AH on 7010 kcs. at Tetuan, Spanish Morocco now on this frequency when it comes on daily from 4-5 p.m. Some language other than Spanish is used but announcements are in Spanish also.

"Radio Madrid" at Madrid on 7015 kcs. comes on the air at 3:15 p.m. and 6:30 p.m. Relays EA4R most of the time.

EA4R on 7025 kcs. "Radio Norte" at Madrid. Broadcast irregularly from 3:45-7 p.m. Relays EAR often.

"Radio Valencia" on 7120 kcs. at Valencia. Comes on the air at 3 p.m. and 7 p.m. Relays EA4R.

FET-5 on 7350 kcs. at Burgos on at 2 p.m. and 5 p.m. relaying "Radio Nacional."

"Radio Transmissions Regiment" at the Madrid Front on 7370 kcs. 3:30 to 4:30 p.m. daily. Comes on the air with a series of chimes, gong, and trumpet and drum taps in succession. Good signal.

"Radio Transmissions ?" on 7620 kcs. is a new one from 4-5:10 p.m. Comes on the air with "Boola Boola".

"Radio ?" at Gigon, Spain on 6190 kcs. from 3-3:20 p.m. Station identification is at 3, 3:15, and 3:20 p.m.

Gongs sounding announce the station on the air.

EA9J "Radio ?" on 7050 kcs. from 4:15-4:40 p.m. very irregularly.

Valencia on 7680 or 6880 kcs. No identification except "Aqui Valencia". Poor modulation. Schedule from 5:30-7 p.m.

Others which have never been identified are all Franco stations on 6670, 6880, 7035, 7070, 7100, 7115, 7150, 7270, 7330 (A pirate location unknown) 7720 kcs. (All of the above by Jollin—Mass.)

Strait Settlements

ZHP on 9690 kcs. (as announced) in Singapore is heard daily until 9:45 a.m. when they sign with "Good-night, goodnight, everybody." (Sawado—R592, Calif.)

Switzerland

HBO on 11402 kcs. replaces HBL on 9345 kcs. starting April 2, on the transmission to North America at 7 p.m. on Sunday according to announcement heard over HBL. (Skyten—R786, Mass.)

Complete list of Swiss stations:

HBH on 18480 kcs.	HBL on 9345 kcs.
HBF on 18450 kcs.	HBL on 9345 kcs.
HBJ on 14535 kcs.	HBP on 7797 kcs.
HBO on 11402 kcs.	HBQ on 6675 kcs.

Address is "Radio Nations" 12 Quai de la Poste, Geneva, Switzerland.

Union of South Africa

ZRK (ZRL now!) on 9606 kcs. at Capetown (Actually near 9615) is a nightly catch for almost everyone who tries and for this district ZRK has been putting in a much stronger signal lately than ever before. From R5-6 to an easy R8. (Jewell—R834, Ala.)

Complete list (revised) and schedule of South African Shortwave Stations. Note the changes in call letters:

ZRG on 9523 kcs. at Pretoria from 5-7:30 a.m. daily. Sun. from 5:30-7 a.m.

ZRH on 6007 kcs. at Pretoria from 11:45 a.m. to 12:50 a.m. and 9:30 a.m. to 3:30 p.m. daily. Sun. from 9 a.m. to noon and 12:15-3:15 p.m.

ZRJ on 6097.5 kcs. at Johannesburg from 11:45 p.m. to 12:50 a.m. and 3:15-7:30 a.m., and 9-11:30 a.m. daily. Sun. 3:30-4:30, 5:30-7, and 9-11:30 a.m.

ZRK on 6097.5 kcs. at Capetown from noon to 4 p.m. daily. Sun. from noon to 3:20 p.m.

ZRL on 9606 kcs. at Capetown from 11:45 p.m. to 12:50 a.m., 3:20-7:20 a.m. and 9-11:45 a.m. daily. Sun. 3:30-4:30, 5:30-7, 9-11:45 a.m.

ZRO on 9752.5 kcs. at Durban from 11:45 p.m. to 12:50 a.m., 3:30-7:30 and 9-11:45 a.m. daily. Sun. from 5:30-7, and 9-11:30 a.m.

ZTD on 4876.5 kcs. at Durban from noon to 3:45 p.m. daily. Sun. from noon to 3:20 p.m. (Pretoria uses 5 kw., Capetown 5 kw., Durban 300 w., and Johannesburg 200 w.) (RX)



A telegraph station that broadcasts, and a commercial station that verifies, is the unusual record of W9XDH the Press Wireless station at Elgin, Ill. This card shows the transmitting buildings of another Press Wireless station, W2XGB, at Hicksville, N. Y. (Courtesy of A. D. Jordan).

U. S. A.

W3XAU on 15270 kcs. at Philadelphia, was heard at 6 p.m. (Skyten—R786, Mass.)

W4XB on 6040 kcs. at Miami, Florida is back on the air again regularly relaying WIOD. W4XB is now putting an R9 signal into this locality with no QRM as was the case last fall. W4XB is now verifying by card and are asking for all listener reports. (Jewell—R834, Ala.)

W6XBE on 15330 kcs. on Treasure Island in San Francisco Bay, California is now on the air from the Golden Gate Exposition Grounds. Schedule is from 7-10 a.m. on the Asiatic beam and from 6:30-10 p.m. on the South American beam. During the Exposition all programs will be broadcast from the transmitter and studios on Treasure Island. After the closing of the Exposition the transmitter will be moved to Belmont and a permanent station erected. They relay KGO, but the S. F. station does not charter them or pay them for it. They also are connected by land line with NBC at New York. Any special events at the Fair are broadcast in full from W6XBE. The xmtr. is located just across the isle from the studios and so situated that the public can see it from front, side, and back views, with no keep out signs or ropes. (Child—Calif.; Jensen—R997, Wyo.2; Sawado—R592, Calif.; Hodgden—R976, Ohio; Jones—Texas; Podall—R946, Vt.; Nice—Penna.; Trubee—R671, N. Y.; Jewell—R834, Ala.; Skyten—R786, Mass.; and Robertson—R984, Manitoba.)

W1XAR a new call for the World Wide Broadcasting Foundation on 11740 kcs. in Boston. They verified with the usual W1XAL card, inserting the new call.

U. S. S. R.

RAN on 9600 kcs. is on the air daily for North America from 4-9:15 p.m. with an English program. (Jewell—R834, Ala.)

RNE on 11980 kcs. broadcasts in English on Sunday, Monday, and Friday at 4 p.m. The signal is very good. Another station has been heard several mornings on 15400 kcs. which sounds like a Soviet broadcaster, but has not been identified as yet. (Skyten—R786, Mass.)

RV96 on 15160 kcs. at Moscow heard from 8-8:50 p.m. with a program in English. RV96 also reported on 9520 kcs. signing off at 6:52 p.m. (Flynn—R937, Sask.; and Olthoff—Kansas)

Vatican City

HVJ on 15120 kcs. heard at 10:30 a.m. with program for India. (Oskey—N. J.)

RADEX REPORTERS

- RL: Your Shortwave Editor, Worcester, Mass.
 RX: Official.
 R7, Pa.1: A. M. Hankins, Latrobe, Penna.
 R9, Mo.1: W. V. Scholz, St. Louis, Mo.
 R21, Pa.3: Edward Lang, Philadelphia, Penna.
 R24, Ill.5: Wm. J. Wood, Oak Park, Ill.
 R36, Mich.1: Carl Sylvester, Columbiaville, Mich.
 R119, B.C.2: Alfred H. Bacon, New Westminster, B. C.
 R133: Carl Forestieri, New York City.
 R174, Mont.1: John Picard, Butte, Mont.
 R211, T. H.2: C. J. Fern, Lihue, Hawaii.
 R220: Albert Pickering, West Medway, Mass.
 R274: Anthony C. Tarr, Seattle, Wash.
 R450: Howard W. Sieger, Pittsburgh, Pa.
 R485: Robert L. Blanchard, Brooklyn, N. Y.
 R552: M. F. Williams, Newark, N. J.
 R592: Bob Sawado, Isleton, California.
 R620, N. S.2: William Snook, Middle Musquodoboit, N. S.
 R622, La.3: A. V. Deterly, Baton Rouge, La.
 R671: Robert Trubee, Brentwood, N. Y.
 R702: A. D. Jordan, Philadelphia, Penna.
 R757: Matthew E. Leshner, Lawrence, Mass.
 R770: Don R. Yocum, Bettsville, Ohio.
 R786: Bob Skyten, East Brookfield, Mass.
 R834: G. R. Jewell, Jr., Montgomery, Ala.
 R892: Ray H. Beals, Cedar Rapids, Iowa.
 R927: C. A. Podall, Gilman, Vt.
 R937: William W. Flynn, Wagner School, Dummer, Sask.
 R946: Bertram Podall, Gilman, Vt.
 R956: Everett Murphy, Topeka, Kans.
 R976: James Hodgden, Waterville, Ohio.
 R984: George Robertson, Winnipeg, Manitoba.
 R986: Arthur Child, San Francisco, Calif.
 R997, Wyo.2: L. M. Jensen, Cowley, Wyoming.

R1001: Charles Black, York, Penna.
 R1018: A. W. Jollin, Worcester, Mass.
 W. H. Bell, Titusville, Florida.
 Al Bartholomew, Bradford, N. Y.
 Warren Dame, Saxonville, Mass.
 Forest W. Fisher, Battle Creek, Mich.
 Graham D. Hutchins, Melbourne, Australia.
 Carl Horton, Athol, Mass.
 Gilbert Harris, North Adams, Mass.
 Billy Jones, Dallas, Texas.
 Gene Kosolapoff, Dayton, Ohio.
 Francis Lendzioszek, Easthampton, Mass.
 George A. McDermott, Staten Island, N. Y.
 Charles E. McCormick, Baltimore, Md.
 Leroy F. Nice, Souderton, Penna.
 John J. Oskay, New Brunswick, N. J.
 Martin J. Olthoff, Independence, Kansas.
 Frank Sekach, Detroit, Michigan.
 George W. Weaver, Saxton, Penna.
 C. R. Wilson, Portland, Me.

NOTE: This is a complete listing of everyone who has been kind enough to drop us a line or two during the past month. Due to the tremendous amount of mail now received we cannot attempt to acknowledge personally every letter, so we do the next best thing, and announce them publicly in this column. Please use your RADEX Club indicia with every report you write.

GUATEMALAN SPECIALS

● From Sr. L. Schlesinger Carrera, Director of the Radiodifusora Nacional de Guatemala, we have been informed that they will broadcast special DX Concerts on the first and third Saturday of each month, from 12 midnight until 2:30 am, Central Standard Time, or from 1 to 3:30 am Sundays, EST. Marimba music will be featured, and announcements will be in Spanish and English.

These programs will be transmitted through four stations, viz: TGW, on 1520 kcs; TGWA on 9685 kcs; TGWB on 6490 kcs, and TGWC on 2320 kcs. Reports from all listeners will be highly appreciated, and will be acknowledged by the beautiful full-color verification card which is illustrated on this page. This card shows the Guatemalan national bird, the quetzal. Return postage or International Reply Coupons are not necessary.



Special For Radex

Mr. Schlesinger has kindly offered to dedicate the DX Concert of May 20th to The Radex Club. A very fine program has been promised for members of this club, and we trust that our members, over a thousand strong, will show their appreciation by sending their reports on the May 20th broadcast.

"I have made DXing a hobby whenever possible," writes R. MacKenzie, Dartmouth, N. S., "and since my purchase last year of a 5-tube Westinghouse receiver, I have logged, without steady listening, some 150 stations. Although some older DXers may not consider this real DX, last week I heard three Californians—KJBS, KLX and one other—which I think is pretty good for this eastern location."

TIME CONVERTER

The RADEX Map of the World with Time Converting Dial is the most useful accessory any radio fan could have around. Just a twirl of the dial shows the correct time at any location in the world. No calculation is necessary; the dial does all the work. The price is only

25c

You Can't Get Along Without It.

The Radex Publishing Co., 362 Cedar Lane, Teaneck, N. J.

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.

- | | |
|---|---|
| <p>1734 Liepaja, Latvia.. 1 kw.. Latvijas Radiofons.</p> <p>2437 HRN Tegucigalpa, Honduras. 500 w. Noon-1:30 pm; 7-10:30 pm. "L Voz de Honduras."</p> <p>3480 2ZB Wellington, New Zealand. 200 w. At 7 am.</p> <p>4107 HCJB Quito, Ecuador. 7-8:15 am; 11:30 am-2:30 pm; 2:45-10:15 pm. "Broadcasting Provincial," Clarence W. Jones, Casilla 691.</p> <p>4300 4ZB Dunedin, New Zealand. 30 w. At 6 am.</p> <p>4775 HJ7GABBucaramanga, Colombia. 750 w. 6-10:45 pm. "Radio Santandar."</p> <p>4785 HJ1ABB Barranquilla, Colombia. 600 w. Relays HJ1ABA, "La Voz de Barranquilla," Apartado 715. Interval signal, 3 chimes.</p> <p>4845 HJ3CAD Bogota, Colombia. 720 w. Voz de Bogota."</p> <p style="padding-left: 2em;">HJ6FAI Ibague, Colombia, 501 w. "Ecos de Combeima."</p> <p>4805 HJ6FAB Manizales, Colombia. 501 w. "Radio Manizales."</p> <p>4815 HJ2BAB Cucuta, Colombia, 600 w. Relays HJ2BAC, "La Voz de Cucuta."</p> <p>4825 HJ5EAD Cali, Colombia, 720 w. "La Voz del Valle."</p> <p>4835 HJ1ABE Cartagena, Colombia, 525 w. Relays HJ1ABF. "La Voz de los Labs. Fuentes." Aptdo. 31.</p> <p>4840 VUC2 Calcutta, India. 10 kw. 7 am-12:30 pm. All-India Radio.</p> <p>485 HJ3CAD Bogota, Colombia, 720 w. "Nueva Granada."</p> <p>4865 HJ2BAJ Santa Marta, Colombia. 751 w. 10:30 am-2 pm; 5-11 pm. "La Voz de Santa Marta."</p> <p>4875 HJ6FAH Armenia, Colombia, 600 w. "La Voz de Armenia."</p> <p>4880 VUB2 Bombay, India. 10 kw. 8 am 1 pm. All-India Radio.</p> <p>4885 HJ4DAP Medellin, Colombia. 501 w. Relays HJ4DAQ, "Emisora Claridad."</p> | <p>4895 HJ3CAH Bogota, Colombia. 720 w. "La Voz de la Victor." Relays HJ3CAI. Almacenes Victor, Aptdo 565.</p> <p>4920 VUM2 Madras, India. 10 kw. 7 am-12:30 pm. All-India Radio.</p> <p>4960 VUD2 Delhi, India. 10 kw. 8am-1 pm. All-India Radio.</p> <p>5835 YV5RR Caracas, Venezuela. 4:30-10 pm.</p> <p>5850 YV1RB Maracaibo, Venezuela. 300 w. 5:45-9:45 am; 3:30-10:45 pm. "Ecos del Zulia," Apartado 37. Relays YV1RA; interval, gong and xylophone, and signs off with "Strike Up The Band."</p> <p>5970 YV5RC Caracas, Venezuela. 1 kw. (Reported on 5910, 5900 and 5973). W eekdays, 7 am-10 pm; Sun, 8:30 am-9:30 pm. "Radio Caracas," Apartado 2009. Relays YV5RA, and signs off with "March 1BC."</p> <p>5984 HJ4DAG Quibdo, Colombia. 150 w. "La Voz del Choco."</p> <p>6005 CFCX Montreal, P. Q. 75 w. Relays CFCF. Canadian Marconi Co., Ltd., Box 1690.</p> <p>6010 CJCX Sydney, N. S. 1 kw. Relays CJCB. Eastern Broadcasters, Ltd., Radio Bldg.</p> <p style="padding-left: 2em;">VK9MI M. V. "Kanimbla," 50 w. McIlwraith & McEacharn, Ltd., Melbourne, Vic., Australia.</p> <p>6020 DJC Berlin, Germany. 50 kw. 1-4:25 pm. See "Berlin" at end of list.</p> <p>6030 CFVP Calgary, Alta. 100 w. Voice of th Prairies, Ltd., Toronto General Trusts Bldg.</p> <p>6040 W1XAL Boston, Mass. 20 kw. See "W1XAL".</p> <p style="padding-left: 2em;">W4XB Miami, Fla. 5 kw. 10 pm-1 am. Relays WIOD. Ruth Richardson, Isle of Dreams Broadcasting Corp.</p> |
|---|---|

- 6042 HJ1ABG Barranquilla, Colombia. 600 w. Relays HJ1ABH. "Emisora Atlantico," Aptdo. 445.
- 6054 HJ6FAB Pereira, Colombia, 501 w. "La Voz de Pereira."
- 6050 GSA London, Gt. Britain. 20 kw. 10:45 am-noon; 4:15-6 pm. See "London" at end of list.
- 6060 W3XAU Philadelphia; Pa. 10 kw. Su, Tu, W, F, 7:30-11 pm; Su, W, F, 11:30 pm-1 am; M, Tu, Th, midnight-1 am; Sat, 11 pm-2 am. See "W3XAU" at end of list.
- W8XAL Cincinnati, Ohio. 10 kw. See W8XAL.
- 6065 SBO Stockholm, Sweden. 500 w. 4:15-5 pm. Telegrafverket Tjanstebrev 5.
- 6070 CFRX Toronto, Ont. 1 kw. Sun, 10:30 am-midnight. Weekdays 7:30 am-midnight. Relays CFRB. Rogers Radio Broadcasting Co., 37 Bloor St. W.
- 6079 DJM Berlin, Germany. 50 kw. 4:50 10:50 pm. See "Berlin" at end of list.
- 6080 CKFX Vancouver, B. C. 10 w. 2 pm-midnight. Relays CKFC. Standark Broadcasting System, 1504 Sun Bldg.
- W9XAA Chicago, Ill. 500 w. See W9XAA.
- XEWV Mexico City, D. F. 10 kw.
- 6100 W3XL New York, N. Y. 35 kw. See W3XL.
- YUA Belgrade, Yugoslavia. 1 kw. 12:45 am-5:30 pm. "Radio Beograd." Bureau Central de Presse, Poste Emetteur a Ondes Courtes. Announce in Serbian, Italian, English, German, Turkish, Hungarian, Albanian, and Greek.
- 6120 W2XE London, Gt. Britain.
- 6110 GSL New York, N. Y. 10 kw. See W2XE.
- 6122 HJ3CAX Bogota, Colombia. 750 w. Relays HJ3CAZ, La Voz de Colombia, Aptdo 772.
- TGWB Guatemala City, Guat. 1 kw. Sun, 10:30 am-5:15 pm; 7 pm-midnight. Weekdays 7:45-9 am; 12:45-3:45 pm; 7:30 pm-12:15 pm. See TGWA.
- 6130 CHNX Halifax, N. S. 500 w. Sat, 8 am-11:30 pm; Sun, noon-11:15 pm; other days, 7 am-11:15 pm. Maritime Broadcasting Co., Lord Nelson Hotel.
- COCD Havana, Cuba. 250 w. Relays CMCD. "La Voz del Aire," S. A., Sr. J. Benitez, Aptdo. 2294.
- LKJ Oslo, Norway, 5 kw. See "Oslo."
- 6132 VP3BG Georgetown, British Guiana.
- XEXA Mexico City, D. F. 100 w. Depto. de Publicidad y Propaganda, Sr. Jose Rivera.
- 6140 W8XK Pittsburgh, Pa. 40 kw. See W8XK.
- 6145 HJ4DAE Medellin, Colombia. 700 w. "La Voz de la Antioquia."
- 6150 CJRO Winnipeg, Man. 2 kw. James Richardson & Sons, Ltd., 157 Royal Alexandra Hotel. New York, N. Y. Sat, Sun, 11:30 pm-1 am; other days, midnight-1 am. See "W2XE" at end of list.
- W2XAF Schenectady, N. Y. 40 kw. See "W2XAD."
- W6XBE San Francisco, Calif. 20 kw. See "W6XBE."
- 6190 HVJ Vatican City. 15 kw. Mon, Thur, Sat, 2-3:30 pm; Tues, Fri, 2-3 pm; Wed, 2-2:30 pm; 3-3:30 pm. See NVJ.
- 6235 HRD2 La Ceiba, Honduras. 250 w. 10-11 pm. "La Voz de Atlantida."
- 6243 HIN Trujillo, D. R. 740 w. Weekdays, noon-2:30 pm; 5:45 10 pm. Sign off National Anthem. Frank Hatton, Dominican Government, Carle Arzobispo Merino 79.
- 6330 COCW Havana, Cuba. 7 am-midnight. Relays CMW. "La Voz de las Antillas," Apartado 130.
- 6351 HRP1 San Pedro Sula, Honduras. 100 w. 12:30 pm-12:30 am. "El Eco de Honduras."
- 6380 ZIZ Basseterre, St. Kitts. (Reported on 6384). Daily 4-5 pm; Wed, 7-7:30 pm.
- 6425 W4XD Gainesville, Fla.
- 6490 TGWB Guatemala City, Guat. 1 kw. (Reported on 6495). See TGWA.
- 6690 TIEP San Jose, Costa Rica. 4-11 pm. (Reported on 6695). "La Voz de Isthmo," Eduardo Pinto H., Aptdo. 257.
- VK8SK Broken Hill, Australia. At 2:30 am. Australian Aerial Medical Service.
- 6966 2ZB Wellington, New Zealand. 200 w.
- 7006 FETI Valladolid, Spain. 7:30 am-5:30 pm.
- 7020 X6SA Kweiyang, China. 8-11:15 am; 8-9 pm.
- 7088 PI1J Dordrecht, Netherlands. 50 w. Sat, 10 am-12:50 pm. Technical College.
- 7220 I2ROII Rome, Italy. 100 kw. See 2RO.
- 7300 VIG Port Moresby Papua. Relays 4 pm.
- 7450 FG8AA Pointe a Pitre, Guadeloupe. (Reported on 7050, 7435). 6-7 pm. "Radio Guadeloupe," Box 125.
- 7510 JVP Tokyo, Japan. 50 kw. 6-9:30 am. See "Tokyo" at end of list.
- 8650 HJ4DAJ Medellin, Colombia. 250 w. Universidad Antioquia.
- 8664 COJK Camaguey, Cuba. 1 kw. 11:30 am-12:30 pm; 8-10 pm. (Reported on 8660 and 8680). Relays CMJK, "Radio Zenith," Jones Castillon y Cie., Finlay #3.
- 8820 HCJB Quito, Ecuador. 1 kw.
- 9100 COCA Havana, Cuba. Relays CMCA. Testar y Gonzales, Box 3488.

- 9125 HATA Budapest, Hungary. 20 kw. Sun, Wed, 7-8 pm; Sat, 6-7 pm. Radiolabor, Kiserleti Allomasa, Gyali-ut 22, Budapest IX.
- 9234 Bucuresti, Romania. 2 kw. "Radio Experimental." Societatea Romana de Radiodifuziune, Str. Yral. Berthelot 60.
- 9460 TAP Ankara, Turkey. 20 kw. 11:30 am-5 pm.
- 9480 EAR Madrid, Spain. 20 kw. 7:40-8 pm; 8:30-9 pm. "La Voz de Espana," Medinaceli 6.
- 9500 XEWW Mexico City, D. F. 10 kw. 8:55 am-midnight. "La Voz de la America Latina desde Mexico." Aptdo. 2516. Relays XEW, Cadena Radiodifusora Mexicana.
- 9510 GSB London, Gt. Britain. 20 kw. 10:30 am-noon; 1:30-4 pm; 4:15-8:30 pm; 9:20-11:25 pm. See "London" at end of list.
- VK3ME, Melbourne, Australia. 5 kw. Weekdays, 4-7 am. Amalgamated Wireless, (A/sia), Ltd., 167 King St.
- 9520 OZF Copenhagen, Denmark. 6 kw. 2-6 pm; 10-11 pm. Statsradiofonieu, Heibergsgade 7.
- 9525 ZBW3 Hong Kong. 2500 w. Hong Kong Broadcasting Committee, Box 200.
- 9530 LKC Oslo, Norway. 5 kw. See "Oslo."
- VUC2 Calcutta, India. 10 kw. 2:30-4:30 am. All-India Radio.
- W2XAF Schenectady, N. Y. 40 kw. See W2XAD.
- W6XBE San Francisco, Calif. 20 kw.
- 9535 JZI Tokyo, Japan. 20 kw. 4:30-5:30 pm. See "Tokyo" at end of list.
- 9540 DJN Berlin, Germany. 50 kw. 12:05-11 am; 4:50-10:50 pm. See "Berlin" at end of list.
- 9550 HVJ Vatican City. 15 kw. Wed, 2-30-3 pm; Sun, 5-5:30 am. See HVJ.
- 9550 TPB11 Paris, France. 25 kw. 11:15 pm-6 pm. See "Paris" at end of list.
- 9550 VUB2 Bombay, India. 10 kw. 12:30-4 am; 5-7:30 am; 10-11 pm. All India Radio.
- W2XAD Schenectady, N. Y. 25 kw. See W2XAD.
- 9560 DJA Berlin, Germany. 50 kw. 12:05-11 am; 4:50-10:50 pm. See "Berlin" at end of list.
- 9570 W1XK Springfield, Mass. 10 kw. Relays NBC-WBZ-WMZA. Westinghouse Electric & Mfg. Co.
- W8XK Pittsburgh, Pa. 40 kw. See W8XK.
- 9580 GSC London, Gt. Britain. 20 kw. 4:15-6 pm; 6-8:30 pm; 9:20-11:25 pm. See "London" at end of list.
- VLR Melbourne, Vic., Australia. 500 w. 3:15-9:45 am. See VLR.
- 9590 HP5J Panama City, Panama. 1 kw. (Reported on 9610). 6:30-11 pm. "La Voz de Panama." Apartado 867.
- PCJ Huizen, Netherlands. 60 kw. Sun, 2-3 pm; Mon, 7:15-8:15 pm; 8:25-9:25 pm; Tu, 1:45-3:30 pm; W, Th, 7-9:30 pm; F, 8-9 pm. See Hilversum.
- VK2ME Sydney, Australia. 20 kw. Sun, 1-3 am; 5-11 am. Signature, laughing notes of kookaburra. Amalgamated Wireless, (A/sia), Ltd., 47 York St.
- VK6ME Perth, Australia. 5 kw. Weekdays, 6-8 am. Amalgamated Wireless, (A/sia), Ltd.
- VUD2 Delhi, India. 10 kw. 2-4:15 am; 8 am-1 pm; 10 pm-midnight. All-India Radio.
- VUD3 Delhi, India. 5 kw. 8 am-1 pm. All India Radio.
- W3XAU Philadelphia, Pa. 10 kw. M, Th, 7:30-11:30 pm; Sat, 7:30-10:45 pm. See "W3XAU" at end of list.
- W8XAL Cincinnati, Ohio. 10 kw. See W8XAL.
- 9606 ZRK Cape Town, U. of South Africa. 5 kw. Weekdays. W8XAL. 11:45 pm-12:45 am. Programs open with bugle call, and announcement is "Johannesburg Calling." South African Broadcasting Corp., Box 4559. Johannesburg.
- 9616 HJ1ABP Cartagena, Colombia. 608 w. 4:30-10:30 pm. "Radio Cartagena," Aptado 37.
- 9630 H7GAD JBucaramanga, Colombia. 650 w. Relays HJ7GAE. "Radio Bucaramanga."
- 9630 2RO3 Rome, Italy. 25 kw. 12:10-10 pm. See 2RO.
- 9645 HH3W Port-au-Prince, Haiti. 30 w. 1-2 and 7-8 pm. C. Ricardo Widmaier, Box A-117.
- 9650 1ABA Addis Ababa, Ethiopia. 1 kw. E. I. A. R.
- W2XE New York, N. Y. Mon thru Fri, 10:30-11:30 pm. See "W2XE" at end of list.
- 9660 HVJ Vatican City. 15 kw. Wed. 2:30-3 pm; Sun, 5-5:30 am. See HVJ.
- 9670 I2RO9 Rome, Italy. 100 kw. See 2RO.
- W3XAL New York, N. Y. 35 kw. See W3XL.
- 9675 DJX Berlin, Germany. 10:35 am-4:25 pm. See "Berlin" at end of list.
- 9685 TGWA Guatemala City, Guat. 10 kw. Sun, 12:45-5:15 pm; 7 pm-midnight; weekday, 12:45-1:45 pm; 10-11:30 pm. See TGWA.
- 9692 TI4NRH Heredia, Costa Rica. 500 w. Sun, 7-8 am; Tu, Th, Sat, 9-10 pm. Amando Cespedes Marin, Apartado 40.
- 9700 "Radio Martinique," Fort de France, Martinique. 1500 w. 1:15-2:45 pm; 6-10 pm. Sign off with Marseillaise. Poste Seri, Boite 136.

9715 COCQ	Havana, Cuba. 1 kw. "de la RCA Victor," Calle 25 No. 225.	11750 GSD	London, Gt. Britain. 20 kw. 3-5:25 am; 9-10:15 am; 12:20-4 :pm; 4:15-8:30 pm; 9:20-11:25 pm. See "London."
9730 CB970	Valparaiso, Chile. (Reported on 9710). 6:30-11 pm.	11760 TGWA	Guatemala City, Guat. 10 kw. Sun, 12:45-5:15 pm; Weekdays, 12:45-1:45 pm. See TGWA.
9830 IRF	Rome, Italy. 20 kw. 12:40-1 pm; 1:37-3:30 pm; 6-9 pm. See "Rome" at end of list.	11770 DJD	Berlin, Germany. 50 kw. 11:30 am-4:25 pm; 4:50-10:50 pm. See "Berlin."
9833 COCM	Havana, Cuba. 1 kw. (Reported on 9805 and 9840). 8 am-10:30 pm. "Trans Radio Columbia," 23 No. 1113, Vedado.	11790 W1XAL	Boston, Mass. 20 kw. See W1XAL.
9860 EAQ	Madrid, Spain. "The Voice of Republican Spain," Apartado 951.	11800 JZJ	Tokyo, Japan. 50 kw. 12:30-1:30 am; 7-9:30 am; 2:30-4 pm; 4:30-5:30 pm; 8-8:30 pm. See "Tokyo."
9925 JDY	Dairen, Kwantung. 10 kw. 7-8 am. Manchuria Telephone and Telegraph Co.	11810 2RO4	Rome, Italy. 25 kw. 4:40-8:45 am; 11 am-1:09 pm. See 2RO.
9940 CSW	Lisbon, Portugal. 5 kw. (Reported on 9735).	11820 GSN	London, Gt. Britain.
9960 COBC	Havana, Cuba. (Reported on 9980). 6:55 am-midnight. "El Progreso Cubano." Aptdo 132.	11830 W2XE	New York, N. Y. 10 kw. Sat, Sun, 6:30-11 pm; Other days, 6:30-10 pm. See "W2XE."
10042 DZB	Berlin, Germany.	W9XAA	Chicago, Ill. 500 w. See W9XAA.
10050 TIEMC	San Jose, Costa Rica. Relays TIEH. Apartado 1049.	11860 GSE	London, Gt. Britain. 20 kw 3-5:25 am; 5:45-8:50 am; 9-10:30 am. See "London."
10220 PSH	Rio de Janeiro, Brazil. 12 kw. Mon, 6-9 pm. Relays PRF4, signs off with Brazilian National Hymn. Cia. Radio Internacional do Brasil, Caixa Postal 709.	11870 VUM2	Madras, India. 10 kw. 4-4:30 am. All-India Radio.
10330 ORK	Brussels, Belgium. 11 kw. 1:30-3 pm.	11880 VLR3	Melbourne, Australia. 1-3 am. See VLR.
10660 IVN	Tokyo, Japan.	11885 TPA3	Paris, France. 25 kw. 2-5 am; 11:15 am-6 pm. See "Paris."
10740 IVM	Tokyo, Japan.	TPB7	Paris, France. 25 kw. 9:30 pm-midnight. See "Paris."
11040 CSW	Lisbon, Portugal. 5 kw. 2-5:30 pm. "Emisora Nacional".	11900 I2RO13	Rome Italy. 100 kw. See 2RO.
11280 HIN	Trujillo, D. R. 750 w. Aptdo 604.	12235 TFJ	Reykjavik, Iceland. 7500 w. Sun, 1:45-2:30 pm. Icelandic State Broadcasting Service, Box 547.
11402 HBO	Geneva, Switzerland. "Radio Nations." Sun, 7-7:45 pm.	12450 HCJB	Quito, Ecuador. Daily exc. Mon, 7:15-10:30 pm.
11650 COCX	Havana, Cuba. 1 kw. (Reported on 11740). Sun, 6-9 pm; Weekdays, 8 am-midnight. Relays CMX, "Casa Lavin," Box 32.	15100 I2RO12	Rome, Italy. 100 kw. See 2RO.
11660 JVL	Tokyo, Japan.	15110 DJL	Berlin, Germany. 50 kw. 12:05-2 am; 8-9 am; 10:35 am-4:25 pm. See "Berlin."
11700 HP5A	Panama City. 300 w. Sun, 9 am-1 pm; 6-10 pm. Weekdays, 11:45 am-1 pm; 6-10 pm. "Radio Teatro Estrella de Panama." Sign off with "Anvil Chorus." Radio Teatro, Aptdo. 954.	15120 HVJ	Vatican City. 15 kw. Tues, 10:30-11 am; Sun, 1-1:30 pm. See HVJ.
11705 SBP	Stockholm, Sweden. 500 w. Sun, 1:15-4:15 pm; Wed, Sat, 8-9 pm; Daily 1-4:15 pm. Telegrafuerket Tjanstebrev 5.	15130 TPB11	Paris, France. 25 kw. 2-5 am. See "Paris."
11718 TPB6	Paris, France. 7-9:15 pm. See "Paris."	W1XAL	Boston, Mass. 20 kw. See W1XAL.
TPA4	Paris, France. 7-9:15 pm; 9:30 pm-midnight. See "Paris."	15140 GSF	London, Gt. Britain. 15 kw. 3-5:25 am; 5:45-8:50 am; 9 am-non. See "London."
11720 CJRX	Winnipeg, Man. 2 kw. James Richardson & Sons, 157 Royal Alexandra Hotel.	15160 JZK	Tokyo, Japan. 50 kw.
11730 PHI	Huizen Netherlands. 23.6 kw. See Hilversum.	VUD3	Delhi, India. 5 kw. 2-4:15 am; 10 pm-midnight. All-India Radio.
W1XAL	Boston, Mass. 20 kw. See W1XAL.	XEWW	Mexico City, D. F. 10 kw. "La Voz de la America Latina desde Mexico," Aptdo. 2516.
11735 LKQ	Oslo, Norway. 5 kw. See "Oslo."	15170 LKV	Oslo, Norway. 5 kw. See Oslo.
11740 HVJ	Vatican City. 15 kw. Tues, 8:30-9 am. See HVJ.	15170 TGWA	Guatemala City, Guat. 10 kw. Sun, 12:45-5:15 pm. Weekdays 12:45-1:45 pm. See TGWA.
		15180 GSO	London, Gt. Britain. 3-5:25 am; 4:15-8:30 pm. See "London."
		TAQ	Ankara, Turkey. 20 kw. 9:30-11 am.

- 13200 DJB Berlin, Germany. 8 kw. 8-9 am; 4:50-10:50 pm; Sun only, 11:10 am-12:25 pm. See "Berlin."
- 15210 W8XK Pittsburgh, Pa. 40 kw. See W8XK.
- 15220 PCJ2 Huizen, Netherlands. 60 kw. Tues, 3-4:30 am; Wed, 9:30-11:30 am. See Hilversum.
- 15243 TPA2 Paris, France. 25 kw. 6-11 am. See "Paris."
- 15250 W1XAL Boston, Mass. 20 kw. See W1XAL.
- 15260 GSI London, Gt. Britain. 3-5:25 am 12:20-1:30 pm
- 15268 H13X Ciudad Trujillo, D. R. 300 w. Tues., Fri, 8:10-10:10 pm; Sun, 7:40-9:40 pm. Relays HIX. Secretaria de Comunicaciones y obras Publicas.
- 15270 W2XE New York, N. Y.
W3XAU Philadelphia, Pa. 10 kw. 3-7 pm See "W3XAU"
- W8XAL Cincinnati, Ohio. 50 kw. See "W8XAL."
- 15280 DJQ Berlin, Germany. 50 kw. Sun, 11:10 am-12:25 pm; Daily, 12:05-11 am; 4:50-10:50 pm. See "Berlin."
- LRU Buenos Aires, Argentina. 5 kw. 8 am-1 am. "Radio El Mundo," Calle Maipu 555.
- 15310 GSP London, Gt. Britain. 1:45-4 pm. See "London."
- 15330 W2XAD Schenectady, N. Y. 25 kw. See W2XAD
- W6XBE San Francisco, Calif. 20 kw. 1-4 am to the Orient; 12:30-4 pm to CA and SA. See "W6XBE."
- 15340 DJR Berlin, Germany. 50 kw. 12:05-11 am. See "Berlin."
- 17760 DJE Berlin, Germany. 50 kw. 12:05-5:50 am; 6-7:50 am. See "Berlin"
- W8XAL Cincinnati, Ohio. 50 kw. See "W8XAL."
- 17770 PHI2 Huizen, Netherlands. 23.6 kw. Sun, 6:25-9:40 am; M, Th, 7:40-8:40 am. See Hilversum.
- 17780 W3XL New York, N. Y. 35 kw. See "W3XL."
- W8XK Pittsburgh, Pa. 40 kw. See "W8XK."
- W9XAA Chicago, Ill. 500 w. See "W9XAA."
- 17790 GSG London, Gt. Britain. 5:45-8:50 am; 9 am-noon; 12:20-4 pm. See "London."
- 17800 TGWA Guatemala City, Guat. 10 kw. See "TGWA."
- 17810 GSV London, Gt. Britain. 5:45-8:50 am; 12:20-4 pm. See "London."
- 17830 W2XE New York, N. Y.
- 21470 GSH London, Gt. Britain. 5:45-8:50 am; 9 am-noon. See "London."
- 21520 W3XAU Philadelphia, Pa. 10 kw. 1:2-3:30 pm. See "W3XAU."
- 21530 GSJ London, Gt. Britain. 5:45-8:50 am. See "London."
- 21540 W8XK Pittsburgh, Pa. 40 kw. See "W8XK."
- 21550 GST London, Gt. Britain.
- 21565 DJJ Berlin, Germany. 6-7:50 am.
- See "Berlin."
- 25725 W3XAU Philadelphia, Pa. 10 kw. See W3XAU.
- 25950 W4XH Spartanburg, S. C. WSPA.
W6XKG Los Angeles, Calif. KGFJ.
- 26050 W3XEX Norfolk, Va. WTAR.
W9XH South Bend, Ind.
W9XTC Minneapolis, Minn. WTCN.
- 26100 GSK London, Great Britain. See London.
W9XJL Superior, Wis. WEBG.
26150 W9XUP St. Paul, Minn. KSTP.
26400 W9XAZ Milwaukee, Wis. WTMJ.
26450 W9XA Kansas City, Mo. 1 kw. Evrett L. Dillard, Commercial Radio Equipment Co.
- 26500 W9XTA Harrisburg, Ill. Schenert Radio Service.
- 26550 W2XQO Flushing, N. Y. WMCA.
31100 W3XIW Reading, Pa.
31600 W1XEQ Fairhaven, Mass. WNBH.
W1XER Boston, Mass. The Yankee Network.
- W1XKA Boston, Mass. WBZ.
W1XKB Springfield, Mass. WBZA.
W1XOE Boston, Mass. CBS.
W2XDG New York, N. Y. WEAJ-WJG.
W2XDV New York, N. Y. WABC.
W2XHG Bound Brook, N. J. WJZ.
W3XES Baltimore, Md. WCAO.
W3XEX Norfolk, Va. WTAR.
W3XEY Baltimore, Md. WFBR.
W3XIR Philadelphia, Pa. WCAU.
W3XKA Philadelphia, Pa. KYW.
W4XBW Chattanooga, Tenn. WDDO.
W4XCA Memphis, Tenn. WMCA.
W5XAU Oklahoma City, Okla. WKY.
W5XD Dallas, Texas.
W5XGB Pasadena, Texas. Houston Lighting & Power Co.
W5XGC Humble, Texas. Houston Lighting & Power Co.
- W6XAS San Francisco, Calif. KJBS.
W6XXT Portable. Press Wireless, Ltd.
W8XAI Rochester, N. Y. WHAM.
W8XH Buffalo, N. Y. WBEN.
W8XKA Pittsburgh, Pa. KDKA.
W8XNT Cleveland, Ohio. WGAR.
W8XOY Akron, Ohio. WADC.
W8XWJ Detroit, Mich. WJWJ.
W9XBS Chicago, Ill. WENR.
W9XER Kansas City, Mo. KMBC.
W9XHW Minneapolis, Minn. WCCO.
W9XLA Denver, Colo. KLZ.
W9XOK St. Louis, Mo.
W9XPD St. Louis, Mo. KSD.
W9XUY Omaha, Nebr.
- 42000 to 56000 Television
W1XG Boston, Mass. General Television Corp.
W2XAX New York, N. Y. Columbia Brdcastg. System.
W2XBS New York, N. Y. NBC, Inc.
W2XD Schenectady, N. Y. 40 w. General Elec. Co.
W2XDR Long Island City, N. Y. Radio Pictures, Inc.
W2XH Schenectady, N. Y. 40 w. General Elec. Co.
W2XVT Passaic, N. J. Allen B. DuMont Labs, Inc.
W3XE Philadelphia, Pa. Philco Radio & Television Corp.
W3XEP Camden, N. J. RCA Mfg. Co.

- W3XPF Springfield, Pa. Farnsworth Television, Inc.
 W6XAO Los Angeles, Calif. Don Lee Brdcstg. System.
 W8XAN Jackson, Mich. Sparks-Withington Co.
 W9XAL Kansas City, Mo. First National Television, Inc.
 W9XAT Minneapolis, Minn. Dr. George W. Young.
 W9XD Milwaukee, Wis. The Journal Co.
 W9XUI Iowa City, Iowa. University of Iowa.
- 42260 W2XBF New York, N. Y. Wm. G. H. Finch.
 42800 W2XMN Alpine, N. I. Major Armstrong
 43000 W1XOJ Paxton, Mass. Yankee Network, 21 Brookline Ave., Boston, Mass.
 50000 to 55000 Television
 W2XAX New York, N. Y. CBS.
 60000 to 86000 Television
 W1XA Bridgeport, Conn. 40 w. Gen. Elec. Co.
 W2XB Albany, N. Y. 40 w. Gen. Elec. Co.
 W6XAO Los Angeles, Calif. Don Lee Brdcstg. System.
- 86000 to 40000.0:
 W1XSL Hartford, Conn. 100 w. Relay from WDRC to W1XPW.
 401000 and above:
 W1XSL Hartford, Conn. 100 w.

Addresses

- 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 national anthems, "Horst Wessel Lied" and "Deutschlandlied". Address is Reichs-Rundfunk G. m. b. H., Haus des Rundfunk, Masurenallee, Berlin-Charlottenberg 9.
- Hilversum—Transmitters a Huizen. PCJ is "The Happy Station." Announcements in Dutch, German, French, English, Spanish, Portuguese. Sign off with National Anthem. N. V. Philips' Radio, Eindhoven.
- Johannesburg—All programs originate in J/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.
- Oslo—Norsk Rikskringkasting, Shortingsgaten 28, Oslo, Norway.
- Tokyo—Transmitters are at Nazaki. Sign off with national anthem, "Kimagayo." Broadcasting Corp. of Japan, Overseas Section, Atago-Yama, Tokyo
- Paris—Transmitters at Essarts-le-Roi. Announce as "Paris Mondial." (Paris Embracing The World), and sign off with "La Marseillaise." Minister of Posts, Telegraphs and Telephones, 98 bis Blvd. Haussmann.
- Rome—Stations sign off with "Giovinezza" and "Marcha Reale." E. I. A. R., 5 Via Montello.
- 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.
- 2RO—"Radio Roma-Napoli." Transmitter at Prato-Smeraldo. Interval signal, chirping of bird. Announcements usually by a lady. Sign off with 2 anthems, "Giovinezza" and "Marcha Reale." Ente Italiano per le Audizioni Radiofoniche, Via Montello 5.
- 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.
- W1XAL—"Dedicated to Enlightenment." World Wide Broadcasting Corp., Educational Director, University Club, Boston, Mass.
- W2XAD—Transmitter at South Schenectady. Relays NBC-WGY. Programs commence with discharge of man-made lightening. General Elec. Co., 1 River Road.
- W2XE—Transmitters at Wayne Township, N. J. Relay programs of CBS-WABC, and sign off with "Star Spangled Banner." Columbia Broadcasting System, 485 Madison Ave., New York, N. Y.
- W3XAU—Transmitters at Newton Square. Relay CBS-WCAU. WCAU Broadcasting Co., 1622 Chestnut St.
- W3XL—Transmitter at Bound Brook, N. J. Relays NBC-WJZ. Sign off with "Star Spangled Banner." NBC, Inc., 30 Rockefeller Plaza, New York, N. Y.
- W6XBE—Transmitter Treasure Island. General Electric Co., 235 Montgomery St., San Francisco.
- W8XAL—Transmitter a Mason. Relays NBC-WLW. Crosley Corp., 1329 Arlington St., Cincinnati, Ohio.
- W8XK—Transmitter at Saxonburg. Relays NBC-KDKA. Westinghouse Electric & Mfg. Co., Grant Bldg., Pittsburgh, Pa.
- W9XAA—"The Voice of Labor." Transmitter, York Township. Relays NBC-WCFL. Sign off in English, French, German, Norwegian, Polish, Russian and Spanish. Chicago Federation of Labor, 666 Lake Shore Drive, Chicago, Ill.

The Month's Changes in Station Data

New	
640 VONF	St. John's, Newfoundland.
1200	Atlantic City, N. J.
Frequency	
600 CFQC	Saskatoon, Sask., from 840.
Location	
1210 WOCB	Hyannis, Mass., from Barnstable.
Call Letters	
1370 KTUC	Tucson, Ariz., from KGAR.
Power	
550 CFNB	Fredericton, N. B., 1000 from 500.
780 WMC	Memphis, Tenn., 5000 from 1000 (SA).
780 WTAR	Norfolk, Va., 5000 from 1000 (SA).
1100 KWKH	Shreveport, La., 50000 from 10000 (SA).
1440 KELA	Centralia, Wash., 1000 from 500.
1500 W DAN	Danville, Ill., 100 (.25) from 250.
Network	
570 WWNC	Asheville, N. C., delete NBC.
1260 KOIL	Omaha, Nebr., delete NBC.
1310 KROC	Rochester, Minn., new NBC.
1340 WCOA	Pensacola, Fla., NBC from CBS.
1420 KFAM	St. Cloud, Minn., new NBC.
1500 KYSM	Mankata, Minn., new NBC.
Owner	
600 CJOR	CJOR, Ltd., Vancouver, B. C.
660 WAAW	World Publishing Co., Omaha, Nebr.
1200 WDSM	WDSM, Inc., Superior, Wis.
1210 WTMA	Atlantic Coast Brdcstg. Co., Charleston, S. C.
1310 CHCK	CHCK Radio Brdcstg. Co., Ltd., Charlottetown, P. E. I.
1420 KIDW	Lamar Brdcstg. Co., Lamar, Colo.
1480 KOMA	KOMA, Inc., Oklahoma City, Okla.
Delete	
1200 KGCI	Coeur d'Alene, Idaho.
Permit to Change Power	
590 WKZO	Kalamazoo, Mich., to 250 (1).
760 KXA	Seattle, Wash., to 1000.
770 KFAB	Lincoln, Nebr., to 50000.
850 WKAR	E. Lansing, Mich., to 5000.
850 WWL	New Orleans, La., to 50000.
880 WRNL	Richmond, Va., to 1000.
890 KARK	Little Rock, Ark., to 1000.
890 KFNF	Shenandoah, Iowa, to 1000 (5).
900 WELI	New Haven, to 250 (5).
900 KGBU	Ketchikan, T. A., to 1000.
920 KFEL	Denver, Colo., to 1000.
920 KVOD	Denver, Colo., to 1000.
1020 WDZ	Tuscola, Ill., to 1000.
1040 KRLD	Dallas, Texas, to 50000.
1190 WATR	Waterbury, Conn., to 250.
1250 KIT	Yakima, Wash., to 500 (1).
1350 KWK	St. Louis, Mo., to 5000.
1370 KAST	Astoria, Ore., to 100 (.25).
1370 KSLM	Salem, Ore., to 500.
1370 W PRA	Mayaguez, P. R., to 1000.
1400 KLO	Ogden, Utah, to 1000 (5).
1430 WHP	Harrisburg, Pa., to 1000 (5).
1460 KSTP	St. Paul, Minn., to 50000.
1460 WJSV	Washington, D. C., to 50000.
1490 WCKY	Covington, Ky., to 50000.

Permit to Change Frequency

770 KFAB	Lincoln, Nebr., to 1080.
920 KVOD	Denver, Colo., to 630.
1190 WATR	Waterbury, Conn., to 1290.
1370 KAST	Astoria, Ore., to 1200.
1370 KSLM	Salem, Ore., to 1360.
1370 W PRA	Mayaguez, P. R., to 780.

Permit to Change Location

1200 WHBY	Green Bay, Wis., to Appleton.
-----------	-------------------------------

Stations Using Special Frequencies

Call	City	Assigned	Using
KIRO	Seattle	650	710
KTHS	Hot Springs	1040	1060
KWKH	Shreveport	850	1100
WESG	Elmira	1040	850
WTIC	Hartford	1060	1040

Applications to the FCC

KECA,	Los Angeles, CP move to San Diego (E).
KEEN,	Seattle, CP 1420 kcs, 100 (.25) unlt'd (E).
KERN,	Bakersfield, CP 1380 kcs, 1 kw. (C).
KFX,	Portland, CP 1160 kcs, unlt'd. (E).
KFAB,	Lincoln, CP DA night, 1080 kcs, 50 unlt'd.
KFIO,	Spokane, CP 950 kcs, 1 kw unlt'd, from 1120 kcs, 100 w.
KFJZ,	Fort Worth, CP 930 kcs, 500 w. unlt'd, DA night (F).
KFRU,	Columbia, CP 1370 kcs, 100 (.25) from 630 kcs.
KGLO,	Mason City, CP 1270 kcs, 1 kw unlt'd.
KINY,	Juneau, CP 740 kcs, 1000 w. unlt'd.
KMA,	Shenandoah, CP move to Council Bluffs, Iowa.
KOH,	Renov, CP changes freq. to 630, pwr. to 1 kw.
KOVC,	Valley City, CP 1340 kcs, 500 (1) (E). DA night (C).
KOY,	Phoenix, mod. of lic. for 550 kcs. (C).
KPAC,	Pt. Arthur, CP 1220 kcs, 500 w. unlt'd DA night (E).
KROC,	Rochester, CP 920 kcs, 500 (1) unlt'd.
KRRV,	Sherman, CP 880 kcs, 1 kw unlt'd, DA. (E).
KSAL,	Salina, CP 1120 kcs, 500 (1). (C).
KSEI,	Pocatello, CP 600 kcs, 1 kw. unlt'd. (C).
KTAT,	Ft. W. orth. CP 1000 (5), and move to Wichita Falls. (E).
KTBS,	Shreveport, CP 620 kcs, 1000 (5) unlt'd. (C).
KTCK,	Visalia, CP 890 kcs, 1 kw unlt'd, DA nite (C).
KUTA,	Salt Lake City, CP 570 kcs, 1 kw.
KXOK,	St. Louis, CP 630 kcs., 1000 (5).
WAZL,	Hazelton, mod. lic. 1320 kcs, 100 w. unlt'd. (E).
WBOW,	Terre Haute, CP 1200 kcs. (C).
WDAE,	Tampa, mod. lic. 780 kcs. (E. rec. denial). (C).
WEBQ,	Harrisburg, mod. lic. 1310 kcs. 100 (.25) unlt'd. (C).
WELI,	New Haven, CP 930 kcs, 250 (.5) unlt'd.
WGBF,	Evansville, CP 1250 kcs., 1000 (5) unlt'd.
WGRC,	New Albany, CP 880 kcs, 250 w. unlt'd, DA nite (E).
WGRM,	Grenada, CP move to Greenwood, Miss.
WGTM,	Wilson, CP 1240 kcs, 500 w. (E).
WHA,	Madison, CP 670 kcs, 50 kw. (facilities of WMAQ) (E).
WIS,	Columbia, spec. exp. authority for new (Please turn to page 73)

**NORTH AMERICAN B. C. STATIONS BY FREQUENCIES
WITH NAMES OF 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 fourth column. Daytime power is shown in parentheses in second column, in kilowatts. Thus: (.25) indicates 250 watts. Exact frequencies, when not multiples of ten are shown in the second column.

Third Column Symbols

- a—Verifies for return postage.
- b—Verifies only occasionally.
- c—Does not verify.
- d—Verifies—no postage required.
- e—Verifies for International Reply Coupon.
- f—Verifies for 10 cents.
- g—Card for postage; verify stamp for 10c.
- z—No information available.

Second Column Symbols

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

- F—Canadian Network.
- G—Assigned this frequency but using another under Special Authorization.
- H—Assigned another frequency—using this one under Special Authorization.
- J—Assigned lower power but using this power under Special Authorization.
- K—Licensed for facsimile.
- L—Limited time.
- M—Mutual Network.
- N—National "Red" and "Blue" Networks.
- P—Has Construction Permit only.
- Q—Station not in use.

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

540 kcs. (552.2 m.)

CBK	P z	50000
CJRM	F a	1000

Watrous, Sask.
Regina, Sask.

Harry C. Dane

550 kcs. (545.1 m.)

CFNB	F a	1000
CMW	... e	1400
KFUO	2(1) a	500
KFYR	N(5) a	1000
KOAC	... a	1000
KSD	2R(5) a	1000
KTSA	C(5) a	1000
WDEV	D a	500
WGR	C(5) a	1000
WKRC	C(5) a	1000
WSVA	D a	500

Fredericton, N. B.
Havana, Cuba
St. Louis, Mo.
Bismarck, N. D.
Corvallis, Ore.
St. Louis, Mo.
San Antonio, Tex.
Waterbury, Vt.
Buffalo, N. Y.
Cincinnati, Ohio
Harrisonburg, Va.

T. B. Young, Ch. Eng.
Carl H. Meyer, Ch. Eng.
W. R. Griffin, DX Ann'r.
Grant S. Feikert, Ch. Eng.
Robert L. Coe, Ch. Eng.
W. G. Egerton, Cr. Eng.
William G. Ricker
K. B. Hoffman, Ch. Eng.
Vera Tyson.
U. L. Lynch, Ch. Eng.

560 kcs. (535.4 m.)

KFDM	N(1) a	500
KLZ	C(5) a	1000
KSFO	C(5) a	1000
KWTO	D	5000
WFIL	BM a	1000
WIND	(5) a	1000
WIS	N(5) a	1000
WQAM	C a	1000

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

Bernice Anderson, Sec'y.
T. G. McClelland, Ch. Eng.
R. V. Howard, Ch. Eng.
Fritz Bauer, Ch. Eng.
Donald Withycomb, Gen. Mgr.
Kenneth Shirk, Ch. Eng.
Floyd D. Rogers
Ralph Nulsen, Ch. Eng.

570 kcs. (526 m.)

KGKO	B(5) a	1000
KMTR	... a	1000
KVI	C(5) a	1000
T15CV	575 z	100
WKBN	1C a	500
WMCA	'a	1000
WNAX	C(5) a	1000
WOSU	1(1) a	750
WSYR	Ba a	1000
WSYU	Qa a	1000
WWNC	a	1000

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

C. B. Locke, Ch. Eng.
Carroll Hauser, Ch. Eng.
J. W. Wallace, Ch. Eng.
C. L. Lindberg; A. O. Hardy
Miss F. Hapton
Clifton Todd, Ch. Eng.
A. H. Hammerschmidt, Ch. Eng.
Armand G. Belle Isle, Ch. Eng.
Armand G. Belle Isle, Ch. Eng.
C. B. Hoskins, Ch. Eng.

580 kcs. (516.9 m.)

CFPR	....	a	100
CHRC	....	a	100
CKCL	F	a	100
CKPR	F	a	1000
CKUA	F	c	500
KMJ	KN	a	1000
KSAC	2(1)	a	500
WCHS	C(1)	a	500
WDBO	C(5)	a	1000
WIBW	C2(5)	a	1000
WILL	D	a	5000
WTAG	R	a	1000
XEMU	....	z	.250

Prince Rupert, B. C.
Quebec, P. Q.
Toronto, Ont.
Fort William, Ont.
Edmonton, Alta.
Fresno, Calif.
Manhattan, Kans.
Charlestown, W. Va.
Orlando, Fla.
Topeka, Kans.
Urbana, Ill.
Worcester, Mass.
Piedra Negras, Coah.

Ralph H. Parker
Oscar Marcoux, Ch. Eng.
E. O. Swan, Ch. Eng.
Tom Ross, Ch. Eng.
.....
J. E. Dickinson, Ch. Eng.
R. L. Meisenheimer, Ch. Eng.
Odes E. Robinson, Ch. Eng.
James E. Yarbrough, Ch. Eng.
Karl Troeglen, Ch. Eng.
E. Hansen, Sec'y.
Hobart H. Newell, Ch. Eng.
.....

590 kcs. (508.2 m.)

CMCY	....	a	15000
CHQ	R(5)	a	1000
WEEI	C(5)	a	1000
WKZO	BDX	a	1000
WOW	R(5)	a	1000

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

M. Vogel
Margaret Crady; H. E. Fellows.
Erwin Rector, Ch. Eng.
William J. Kotera, Ch. Eng.

600 kcs. (499.7 m.)

CFCF	BF	a	500
CFQC	F	a	1000
CJOR	....	a	500
FON	609	a	250
KFSD	B	a	1000
WCAO	C(1)	g	500
WICC	BM(1)	f	500
WMT	BM(5)	a	1000
WREC	C(5)	a	1000

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

Kenneth R. Paul, Ch. Eng.
Stan Clifton
H. B. Seabrook, Ch. Eng.
.....
Leah McMamahon, Prog. Dir.
M. W. Lewis, Radio Dept.
Garoy Ray, Ch. Eng.
C. F. Quentin, Ch. Eng.
Mildred Allen.

610 kcs. (491.5 m.)

CHNC	F	a	1000
KFAR	P	z	1000
KFRC	M(5)	b	1000
WCLE	DM	a	500
WDAF	R(5)	a	1000
WIOD	Na	a	1000
WIP	....	a	1000
WMBF	Qa	a	1000

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

J. R. McGough, Ch. Eng.
.....
Ernest G. Underwood, Ch. Eng.
E. V. Gove, Tech. Sup'r.
J. A. Flaherty, Ch. Eng.
Luth Henderson
James Allen, Prog. Dir.
.....

620 kcs. (483.6 m.)

KGW	R(5)	a	1000
KTAR	N	a	1000
KWFT	(1)P	z	250
TIPG	625	b	5000
WFLA	Na(5)	a	1000
WHJB	CD	a	250
WLBZ	MN(1)	a	500
WSUN	Na(5)	a	1000
WTMJ	N(5)	a	1000

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

Orvie Stecte; H. C. Singleton
Arthur C. Anderson, Ch. Eng.
.....
Joe Mitchell, Ch. Eng.
R. H. Verret, Mgr.
Lucille C. Weeks
Louis J. Link, Ch. Eng.
D. W. Gellerup, Ch. Eng.

630 kcs. (475.9 m.)

CFCO	F	a	100
CFCY	F	a	1000
CJRC	F	a	1000
CKOV	F	a	100
CMCD	....	a	15000
KFRU	1(1)	a	500
KGFX	D	a	200
WGBF	N(1)	a	500
WMAL	B(5)	a	250
WPRO	C(1)	a	500
XEZ	....	a	500

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

Gordon Brooks, Ch. Eng.
John Q. Adams, Ch. Eng.
H. R. McLaughlin, Ch. Eng.
James Browne, Jr., Ch. Eng.
.....
Robert Haigh, Ch. Eng.
Robert H. Dye, Ch. Eng.
Fay A. Gehres, Ch. Eng.
A. E. Johnson, Ch. Eng.
Margaret M. O'Rourke.
.....

640 kcs. (468.5 m.)

KFI	R	f	50000
VONF	...	a	12500
WGAN	L	a	500
WHKC	ML	a	500
WOI	D	a	5000
XEBX	...	z	250
YSS	...	a	500

Los Angeles, Calif.
St. John's, Nfld.
Portland, Me.
Columbus, Ohio
Ames, Iowa
Sabinas, Coah.
San Salvador, E. S.

Dorothy Roe
.....
C. E. Gatchell, Mgr.
J. E. Anderson, Ch. Eng.
W. E. Stewart, Ch. Eng.
.....
.....

650 kcs. (461.3 m.)

TIX	....	b	1000
WSM	KMN	a	50000

San Jose, Costa Rica
Nashville, Tenn.

.....
Harry Stone, Gen. Mgr.

660 kcs. (454.3 m.)

CMCR	....	z	200
KOWH	D	a	500
WEAF	R	a	50000
XEAL	A	z	1000
XEAO	....	a	250

Havana, Cuba
Omaha, Nebr.
New York, N. Y.
Mexico City, D. F.
Mexicali, B. Cfa.

.....
F. E. Shopen
Audience Mail Dept.
.....
.....

670 kcs. (447.5 m.)

WMAQ	R	c	50000
------	---	---	-------

Chicago, Ill.

Audience Mail Dept.

680 kcs. (440.9 m.)

CMHW	....	f	200
KFEQ	D	a	2500
KPO	R	a	50000
VAS	685	f	2000
VOWR	681	c	500
WLAW	D	a	1000
WPTF	JN	a	5000

Santa Clara, Cuba
St. Joseph, Mo.
San Francisco, Calif.
Glace Bay, N. S.
St. John's, Nfld.
Lawrence, Mass.
Raleigh, N. C.

.....
J. Wesley Kock, Ch. Eng.
S. Jalbert
.....
George R. Lackey, Ch. Eng.
Henry Hulick, Jr., Ch. Eng.

690 kcs. (434.5 m.)

CMBG	....	a	200
CFRB	C	a	10000
CJCJ	F	a	100
XET	....	a	5000

Havana, Cuba
Toronto, Ont.
Calgary, Atla.
Monterey, N. L.

.....
H. Sedgewick, Managing Dir.
R. H. Henderson, Ch. Eng.
.....

700 kcs. (428.3 m.)

WLW	KMN	a	50000
W8XO	....	a	500000

Cincinnati, Ohio
Cincinnati, Ohio

R. J. Rockwell, Tech. Sup'r.
R. J. Rockwell, Tech. Sup'r.

710 kcs. (422.3 m.)

CMKS	....	a	200
KIRO	CHJ	a	1000
KMPC	L	a	500
WOR	KM	a	50000

Guantanamo, Cuba.
Seattle, Wash.
Beverly Hills, Calif.
Newark, N. J.

.....
H. J. Quilliam, Gen. Mgr.
Roger Love, Ch. Eng.
J. R. Popelle, Ch. Eng.

720 kcs. (416.4 m.)

CMK	....	a	200
TIGH	725	z	600
WGN	KM	c	50000
XEH	....	a	250

Havana, Cuba
San Jose, Costa Rica
Chicago, Ill.
Monterrey, N. L.

.....
.....
Carl J. Meyers, Ch. Eng.
.....

730 kcs. (410.7 m.)

CFPL	F	a	100
CJCA	F	a	1000
CKAC	C	a	5000
XELO	....	a	50000
KEPN	QA	a	100000
XEQ	....	a	50000

London, Ont.
Edmonton, Atla.
Montreal, P. Q.
Tijuana, B. Cfa.
Piedras Negras, Coah.
Mexico City, D. F.

L. J. Yorke, Ch. Eng.
Hastings McMahon, Ch. Eng.
Leonard Spencer, Ch. Eng.
.....
.....
.....

740 kcs. (405.2 m.)

CMJX z 200
 KMMJ D a 1000
 KTRB D a 250
 WHEB D a 250
 WSB R a 50000

Camaguey, Cuba
 Grand Island, Nebr.
 Modesto, Calif.
 Portsmouth, N. H.
 Atlanta, Ga.

.....
 Randall Ryan, Gen. Mgr.
 Margery Van Loon, Prog. Dir.
 Don R. Stevens.
 C. F. Daugherty

750 kcs. (399.8 m.)

CMBL a 200
 KGU LN. a 2500
 TIRM z 500
 WJR C a 50000
 XEAA a 200
 XEAM z 25

Havana, Cuba
 Honolulu, Hawaii
 San Jose, Costa Rica
 Detroit, Mich.
 Mexicali, B. Cfa.
 Matamoros, Tams.

.....
 John Signer, Ch. Eng.

 M. R. Mitchell, Ch. Eng.

760 kcs. (394.5 m.)

KXA (5)X a 250
 WBAL BHMSy. a 2500
 WCAL 2D a 5000
 WEW D a 1000
 WJZ BSv a 50000
 WLB 2D a 5000

Seattle, Wash.
 Baltimore, Md.
 Northfield, Minn.
 St. Louis, Mo.
 New York, N. Y.
 Minneapolis, Minn.

Maurice M. McMullen, Ch. Eng.
 Gerald Cooke, Ch. Eng.
 Milford Jensen, Ch. Eng.
 George E. Rueppel, Ch. Eng.
 Audience Mail Dept.
 Waldemar Klima, Ch. Eng.

770 kcs. (389.4 m.)

CMKW z 200
 KFAB CSyXZ a 10000
 TILJ 775 z 450
 WBBM CSy a 50000

Santiago, Cuba
 Lincoln, Nebr.
 San Jose, Costa Rica
 Chicago, Ill.

.....
 Mark W. Bullock, Tech. Dir.

 A. Boyes

780 kcs. (384.4 m.)

CHWK F f 100
 CKSO F a 1000
 CMCU a 200
 KEHE (5) a 1000
 KFDY D a 1000
 KFQD c 250
 KGHL N(5) a 1000
 KWLK D a 250
 WEAN BM(5) a 1000
 WMC JR(5) a 5000
 WPIC D a 250

Chilliwack, B. C.
 Sudbury, Ont.
 Havana, Cuba
 Los Angeles, Calif.
 Brookings, S. Dak.
 Anchorage, Alaska
 Billings, Mont.
 Longview, Wash.
 Providence, R. I.
 Memphis, Tenn.
 Sharon, Pa.

Jack Pilling, Ch. Eng.
 L. Parkes, Ch. Eng.

 Fred Ragsdale, Ch. Eng.
 Jack Towers, Eng.
 William J. Wagner, Ch. Eng.
 J. A. Kiichli, Ch. Eng.
 Kenneth Lite, Ch. Eng.
 Rose M. Powers.
 H. W. Slavick
 John McDonald; W. P. Good-
 rick
 Lee Chadwick

WTAR JN g 5000
 XEN a 1000
 ZNS 780 d 1000

Norfolk, Va.
 Mexico City, D. F.
 Nassau, Bahamas

790 kcs. (379.5 m.)

CMGH a 200
 KGO B a 7500
 KOAM DN a 1000
 WGY R a 50000

Matanzas, Cuba
 San Francisco, Calif.
 Pittsburg, Kans.
 Schenectady, N. Y.

.....
 A. E. Evans, Ch. Eng.
 W. L. Brown, Ch. Eng.
 A. O. Coggeshall, Prog. Dir.

800 kcs. (374.8 m.)

HIX a 800
 TIXD z 1000
 WBAP Na a 50000
 WFAA Na a 50000
 WTBO D a 250

Ciudad Trujillo, D. R.
 San Jose, Costa Rica
 Fort Worth, Tex.
 Dallas, Texas
 Cumberland, Md.

.....

 Ellen Flake, Sec'y.
 Adams Calhoun
 George R. Lenhart, Ch. Eng.

810 kcs. (370.2 m.)

CMCF a 5000
 WCCO C g 50000
 WNYC D a 1000
 XEBZ a 100
 XEDF a 100

Havana, Cuba
 Minneapolis, Minn.
 New York, N. Y.
 Mexico City, D. F.
 Nuevo Laredo, Tams.

.....
 Hugh S. McCartney, Ch. Eng.
 Isaac Brimberg, Ch. Eng.

820 kcs. (365.6 m.)



WHAS C a 50000
XEBG z 1000

Louisville, Ky.
Tijuana, B. Cfa.

Credo Fitch Harris
.....

830 kcs. (361.2 m.)



KOA R a 50000
TIEP e 3000
WEEU DR a 1000
WHDH L a 1000
WRUF L a 5000

Denver, Colo.
San Jose, Costa Rica
Reading, Pa.
Boston, Mass.
Gainesville, Fla.

E. A. Sproul
.....
H. O. Landis, Ch. Eng.
Watson Kownaski, Ch. Eng.
Joseph Weil, Ch. Eng.

840 kcs. (356.9 m.)



CBL F a 50000
VOGY a 400
XERA a 250000

Toronto, Ont.
St. Johns, Nfld.
Villa Acuna, Coah.

W. C. Little, Eng.
.....
Jules Andolon

850 kcs. (352.7 m.)

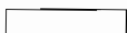


CMCM a 200
KIEV D a 250
WESG CDH a 1000
WKAR DX a 1000
WWL CJX a 50000

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

.....
George Ness, Ch. Eng.
True McLean, Ch. Eng.
Ronald Coleman, Prog. Dir.
J. D. Bloom, Jr., Ch. Eng.

860 kcs. (348.6 m.)



CMJA a 200
WABC Ca a 50000
WBOQ Qa a 50000
WHB DM a 1000
XEMO a 5000

Camaguay, Cuba.
New York, N. Y.
New York, N. Y.
Kansas City, Mo.
Tijuana, B. Cfa.

.....
Henry Grossman, Ch. Eng.
Henry Grossman, Ch. Eng.
Henry E. Goldenberg, Ch. Eng.
.....

870 kcs. (344.6 m.)



WENR Ba c 50000
WLS Ba a 50000
XEFB a 200
XERC A z 500

Chicago, Ill.
Chicago, Ill.
Monterrey, N. L.
Mexico City, D. F.

Audience Mail Dept.
T. L. Rowe, Ch. Eng.
.....
.....

880 kcs. (340.7 m.)



CBO F a 1000
CFJC F a 1000
CMX e 20000
KFKA 2M(1) a 500
KLX a 1000
KPOF 2 a 1000
KVAN DP z 250
TILS b 500
WCOC C a 1000
WGBI C1(1) f 500
WQAN 1(1) a 500
WRNL DX a 500
WSUI (1) a 500

Ottawa, Ont.
Kamloops, B. C.
Havana, Cuba
Greeley, Colo.
Oakland, Calif.
Denver, Colo.
Vancouver, Wash.
San Jose, Costa Rica
Meridian, Miss.
Scranton, Pa.
Scranton, Pa.
Richmond, Va.
Iowa City, Iowa

Lillian E. de Olloqui
L. Irwine, Ch. Eng.
.....
Patricia Murphy, Prog. Dr.
Charles Lloyd
Wesley O. Lomlin, Ann.
Paul W. Spargo, Ch. Eng.
.....
D. W. Gavin, Ch. Eng.
K. R. Cook, Eng.
.....
W. C. Hamilton
Sylvanus J. Ebert, Ch. Eng.

890 kcs. (336.9 m.)



KARK N(1) a 500
KFNF 2X(1) a 500
KFPY C(5) a 1000
KUSD 2 a 500
WBAA (1) a 500
WGST C(5) a 1000
WIAR R(5) a 1000
WMMN C(5) a 1000
XEW a 100000

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

Dan L. Winn, Ch. Eng.
W. E. McDonald, Comm. Mgr.
Geo. E. Langford, Ch. Eng.
LeRoy Johnson
Ralph R. Townsley, Ch. Eng.
Ben Akerman, Ch. Eng.
Thomas Prior, Ch. Eng.
W. J. Barnes
.....

900 kcs. (333.1 m.)



KGBU X a 500
KHJ M(5) a 1000

Ketchikan, Alaska
Los Angeles, Calif.

James A. Britton, Ch. Eng
Frank Kennedy, Ch. Eng.

KSEI N(1) a 250
 WBEN KR(5) a 1000
 WELI DX a 500
 WFMD D a 500
 WJAX N(5) a 1000
 WKY N(5) a 1000
 WLBL D a 5000
 WTAD D a 1000

Pocatello, Idaho
 Buffalo, N. Y.
 New Haven, Conn.
 Frederick, Md.
 Jacksonville, Fla.
 Oklahoma City, Okla.
 Stevens Point, Wis.
 Quincy, Ill.

R. A. Fletcher, Prog. Dir.
 Ralph J. Kingley, Ch. Eng.
 J. Gordon Keyworth, Ch. Eng.
 John A. Fels, Ch. Eng.
 John T. Hopkins, III
 Earl C. Hull, Ch. Eng.
 F. R. Calvert, Mgr.
 Paul E. Miller, Ch. Eng.

910 kcs. (329.6 m.)

CBF FN a 50000
 CJAT F a 1000
 CKY F a 15000
 CMKD a 1000
 CMOA z 200
 TIRS 915 z 250
 XENT A a 150000

Montreal, P. Q.
 Trail, B. C.
 Winnipeg, Man.
 Havana, Cuba
 Havana, Cuba
 San Jose, Costa Rica
 Nuevo Laredo, Tams.

G. E. Sarault, Ch. Eng.
 Eric C. Aylen, Ch. Eng.
 G. H. Mills, Ch. Eng.

 N. Baker

920 kcs. (325.9)

CMHT z 200
 KFEL Mx a 500
 KOMO R(5) a 1000
 KPRC R(5) a 1000
 KVOD BaXZ a 500
 WAAF D a 1000
 WORL D a 500
 WPEN a 1000
 WSPA D a 1000
 WWJ R(5) a 1000

Trinidad, Cuba.
 Denver, Colo.
 Seattle, Wash.
 Houston, Texas
 Denver, Colo.
 Chicago, Ill.
 Boston, Mass.
 Philadelphia, Pa.
 Spartanburg, S. C.
 Detroit, Mich.

.....
 J. P. Veatch, Ch. Eng.
 Lee Barnes
 J. F. DeBardeleben, Test Eng.
 W. D. Pyle, Eng.
 Carl Ulrich, Ch. Eng.
 George Luckey, Ch. Eng.
 Charles W. Curtis, Ch. Eng.
 E. S. Long, Ch. Eng.
 Ty Tyson

930 kcs. (322.4 m.)

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

Calgary, Atla.
 North Bay, Ont.
 Prescott, Ont.
 Halifax, N. S.
 Brantford, Ont.
 Camaguey, Cuba
 Shenandoah, Iowa
 Oakland, Calif.
 Birmingham, Ala.
 Roanoke, Va.
 Hermosillo, Son.

Ken Hughes
 Allan K. Taylor, Ch. Eng.

 A. W. Grieg, Ch. Eng.
 Hugh Clarke, Ch. Eng.

 Ray Schroeder, Ch. Eng.
 C. E. Downey, Ch. Eng.
 J. C. Bell, Ch. Eng.
 R. P. Jordan, Mgr.

940 kcs. (319 m.)

CMBZ a 200
 KOIN C(5) a 1000
 WAAT D a 500
 WAVE N a 1000
 WCSH R(2.5) a 1000
 WDAY N(5) a 1000
 WHA D a 5000
 WICA D a 250
 XEFO a 5000

Havana, Cuba
 Portland, Ore.
 Jersey City, N. J.
 Louisville, Ky.
 Portland, Me.
 Fargo, N. Dak.
 Madison, Wis.
 Ashtabula, Ohio
 Mexico City, D. F.

.....
 Johnny Walker, Prod. Mgr.
 Anthony Castellani, Ch. Eng.
 W. E. Hudson, Ch. Eng.
 G. Fred Crandon, Ch. Eng.
 Julius Hetland, Ch. Eng.
 Mary A. Sands, Sec'y.
 G. E. Gautney, Ch. Eng.

950 kcs. (315.6 m.)

CBV F a 1000
 CJOC F a 100
 CMKL z 200
 KFWB (5) a 1000
 KMBC C(5) a 1000
 TIRH b 2000
 WRC R(5) a 1000
 WTRY DP z 1000

Quebec, P. Q.
 Lethbridge, Atla.
 Bayamo, Cuba
 Los Angeles, Calif.
 Kansas City, Mo.
 San Jose, Costa Rica
 Washington, D. C.
 Troy, N. Y.

Charles Frenette, Ch. Eng.
 Robert Reagh, Ch. Eng.

 Harry Myers, Ch. Eng.
 A. R. Moler, Ch. Eng.

 A. E. Johnson, Ch. Eng.
 W. F. Moore, Ch. Eng.

960 kcs. (312.3 m.)

CBM FR a 5000
 CFRN F a 100
 XEAW a 100000
 XECL z 1000

Montreal, P. Q.
 Edmonton, Alta.
 Reynosa, Tams.
 Mexicali, B. Cfa.

G. E. Sarault, Ch. Eng.
 F. G. Makeplace, Ch. Eng.

970 kcs. (309.1 m.)

CMCK a 5000
 KJR B a 5000
 WCFL N a 5000
 WIBG D a 100

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

.....
 Lee Barnes
 Maynard Marquardt, Ch. Eng.
 James A. Nasau

980 kcs. (306 m.)

KDKA B b 50000
 XEAC a 5000
 XEFE z 250

Pittsburgh, Pa.
 Tijuana, B. Cfa.
 Nuevo Laredo, Tams.

J. E. Baudino, Ch: Eng.
 Fred Ingraham; George Riviera

990 kcs. (302.8 m.)

WBZ Bsy a 50000
 WBZA Bsy a 1000
 XEFE z 250
 XEK a 100
 XES a 250

Boston, Mass.
 Springfield, Mass.
 Nogales, Son.
 Mexico City, D. F.
 Tampico, Tams.

Dwight A, Myer, Ch. Eng.
 H. E. Randel, Mgr.

1000 kcs. (299.8 m.)

KFVD L a 1000
 TIFA z 250
 VOCM 1006 z 200
 WHO KR a 50000
 XEBI a 250

Los Angeles, Calif.
 San Jose, Costa Rica
 St. John's, Nfld.
 Des Moines, Iowa
 Aguascalientes, Ags.

John Smithson, Ch. Eng.

 Paul A. Loyet, Ch. Eng.

1010 kcs. (296.9 m.)

CHML F a 100
 CKCD I a 100
 CKCK F a 1000
 CKCO F a 100
 CKIC a 50
 CKWX 1F a 100
 CMQ N a 25000
 KGGF 2M a 1000
 KQW M a 1000
 WHN (5) a 1000
 WNAD 2 a 1000
 WNOX C(5) a 1000
 XEFQ a 50
 XEU a 250

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

C. R. Snelgrove, Ch. Eng.
 W. G. Hassell, Gen. Mgr.
 E. A. Strong, Ch. Eng.
 Ian R. Henderson, Ch. Eng.
 E. Ross Mac Intyre, Ch. Eng.

 H. J. Powell, Mgr.
 Van Connors
 Gordon Windham, Ch. Eng.
 T. M. Beard, Prog. Dir.
 R. B. Westergaard, Gen. Mgr.

1020 kcs. (293.9 m.)

KYW R c 10000
 WDZ DX a 250
 XEJ a 1000

Philadelphia, Pa.
 Tuscola, Ill.
 Juarez, Chih.

Ernest H. Gager, Ch. Eng.
 Mark C. Spies, Ch. Eng.

1030 kcs. (291.1 m.)

CFCN a 10000
 CJBR F a 1000
 CKLW FM a 5000
 XEB a 10000

Calgary, Alta.
 Rimouski, P. Q.
 Windsor, Ont.
 Mexico City, D. F.

P. B. McCafferly, Ch. Eng.
 Raymond Laine, Ch. Eng.
 William J. Carter, Ch. Eng.

1040 kcs. (288.3 m.)

KRLD CX a 10000
 KWJJ H a 500
 KYOS D a 250
 WTIC HR a 50000

Dallas, Texas
 Portland, Ore.
 Merced, Calif.
 Hartford, Conn.

Roy M. Flynn, Ch. Eng.
 Sammy Taylor; Art. Morey.
 Morton Wiebers, Ch. Eng.
 T. C. McCray

1050 kcs. (285.5 m.)

CBA a 50000
 CMCP z 200
 HIT z 50
 KFBI L a 5000
 KNIX C c 50000
 WEAU (5)L a 1000
 WIBC D a 1000

Sackville, N. B.
 Havana, Cuba
 Ciudad Trujillo, D. R.
 Abilene, Kans.
 Los Angeles, Calif.
 Eau Claire, Wis.
 Indianapolis, Ind.

J. Carlisle, Ch. Eng.

 K. W. Pyle
 Lester H. Bowman, Ch. Eng.
 Charles B. Persons, Ch. Eng.
 Harry Adams

1060 kcs. (282.8 m.)

CMHI	....	a	200
KTHS	HN	a	10000
VOAC	1065	z	40
WBAL	BM	a	10000
WJAG	L	a	1000

Santa Clara, Cuba
Hot Springs, Ark.
St. John's, Nfld.
Baltimore, Md.
Norfolk, Nebr.

.....
Mary T. Grayson
.....
G. W. Cook
Art Thomas, Mgr.

1070 kcs. (280.2 m.)

CMJW	....	z	200
KJBS	L	a	500
WCAZ	D	a	100
WTAM	R	a	50000

Camaguey, Cuba
San Francisco, Calif.
Carthage, Ill.
Cleveland, Ohio

.....
Miriam Ford
Byrle Shreve, Eng.
May Draxell

1080 kcs. (277.6 m.)

CMBX	....	a	200
CMKM	....	a	200
WBT	C	a	50000
WCBD	1L	a	5000
WMBI	1L	g	5000
XEBA	....	z	20
XEBK	....	a	100
XEDP	....	a	500

Havana, Cuba
Manzanillo, Cuba
Charlotte, N. C.
Chicago, Ill.
Chicago, Ill.
Guzman, Jal.
Nuevo Laredo, Tams.
Mexico City, D. F.

.....
.....
J. J. Beloungy, Ch. Eng.
E. Jacker, Ch. Eng.
A. P. Frye, Ch. Eng.
.....
.....

1090 kcs. (275.1 m.)

CMHA	....	z	200
HIN	....	a	740
KMOX	C	a	50000
XERB	....	a	150000

Sagua la Grande, Cuba
Ciudad Trujillo, D. R.
St. Louis, Mo.
Rosarito Beach, B. Cfa.

.....
.....
G. L. Tevis, Ch. Eng.
.....

1100 kcs. (272.6 m.)

CBR	F	a	5000
CMHP	....	z	200
KGDM	DM	f	1000
KWKH	CHJ	a	50000
WBIL	1	a	5000
WPG	C1	a	5000
XECL	?	z	1000

Vancouver, B. C.
Piacetas, Cuba
Stockton, Calif.
Shreveport, La.
New York, N. Y.
Atlantic City, N. J.
Mexicali, B. Cfa.

N. R. Olding, Ch. Eng.
.....
A. H. Green, Mgr.
M. Estes
Robert E. Study, Ch. Eng.
Earle Godfrey, Ch. Eng.
.....

1110 kcs. (270.1 m.)

CMCJ	....	a	200
KSOO	LN	a	5000
WRVA	CM	a	50000

Havana, Cuba
Southern Falls, S. Dak.
Richmond, Va.

.....
Les Frake
M. D. Roddenburg

1120 kcs. (267.7 m.)

CBJ	F	a	100
CHLP	F	a	100
CHSJ	F	a	100
CKOC	F(1)	a	500
CKX	F	a	1000
CMGF	....	a	200
KFIO	D	a	100
KFSG	a(2.5)	a	500
KRKD	a(2.5)	a	500
KRSC	....	a	250
KTBC	DP	z	1000
WCOP	D	a	500
WDEL	R(.5)	a	250
WISN	C(1)	a	250
WJBO	B	a	500
WTAW	L	a	500

Chicoutimi, P. Q.
Montreal, P. Q.
St. John, N. B.
Hamilton, Ont.
Brandon, Man.
Matanzas, Cuba
Spokane, Wash.
Los Angeles, Calif.
Los Angeles, Calif.
Seattle, Wash.
Austin, Texas
Boston, Mass.
Wilmington, Del.
Milwaukee, Wis.
Baton Rouge, La.
College Station, Tex.

J. E. Roberts, Ch. Eng.
F. F. Tambling, Ch. Eng.
J. G. Bishop, Ch. Eng.
Gordon Anderson, Gen. Mgr.
C. E. R. Collins, Ch. Eng.
.....
Curtis T. Strong, Ch. Eng.
Myron E. Kluge, Ch. Eng.
Ruth Pritchard
George Freeman, Ch. Eng.
.....
Whitman Hall
J. E. Mathiot, Ch. Eng.
D. A. Weller, Ch. Eng.
Wilbur T. Golson
H. C. Dillingham, Ch. Eng.

1130 kcs. (265.3 m.)

CMJI	....	a	200
KSL	C	a	50000
WJJD	L	a	20000
WOV	D	a	1000
XEJP	....	z	100

Ciego de Avila, Cuba
Salt Lake City, Utah
Chicago, Ill.
New York, N. Y.
Mexico City, D. F.

.....
Eugene G. Pack, Ch. Eng.
W. Gunther, Ch. Eng.
Robert E. Study, Ch. Eng.
.....

1140 kcs. (263 m.)

CMBC a 200
 KVOO N a 25000
 WAPI C a 5000
 WSPR DM a 500

Havana, Cuba
 Tulsa, Okla.
 Birmingham, Ala.
 Springfield, Mass.

W. B. Way
 N. McFarland
 Hillis W. Holt

1150 kcs. (260.7 m.)

CMKG ... z 200
 WHAM B a 50000
 XEBP ... z 250
 XEC ... a 100
 XEDW ... z 300
 XEL ... z 250

Santiago, Cuba
 Rochester, N. Y.
 Durango, Dgo.
 Tijuana, B. Cfa.
 Minatitlan, Ver.
 Mexico City, D. F.

John J. Long, Jr., Ch. Eng.

1160 kcs. (258.5 m.)

CMHJ a 200
 WOWO 1B a 10000
 WWVA 1C a 5000
 XEAS ... a 100
 XED ... c 2500
 XEP ... a 500

Cienfuegos, Cuba
 Fort Wayne, Ind.
 Wheeling, W. Va.
 Saltillo, Coah.
 Guadalajara, Jal.
 Juarez, Chih.

Fred W. Fischer, Ch. Eng.
 E. A. Hadden

1170 kcs. (256.3 m.)

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

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

J. G. Leitch

1180 kcs. (254.1 m.)

KEX 2B a 5000
 KOB N a 10000
 WDGY CM(5) a 1000
 WINS ... a 1000
 WMAZ C(5) a 1000

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

Orvie Stecte
 George S. Johnson, Ch. Eng.
 George W. Young
 Geo. Q. Herrick, Ch. Eng.
 E. K. Cargill

1190 kcs. (252 m.)

CMKX z 200
 KTKC DM f 250
 WATR DXZ a 100
 WOAI N a 50000
 WSAZ L a 1000

Santiago, Cuba
 Visalia, Calif.
 Waterbury, Conn.
 San Antonio, Tex.
 Huntington, W. Va.

Charles P. Scott, Mar.
 Carl Stromwell, Ch. Eng.
 Fred Sterling, Ch. Eng.
 Glenn E. Chase, Ch. Eng.

1200 kcs. (249.9 m.)

CFGP a 100
 CHAB F(.25) a 100
 CHGB FP z 100
 CKNX ... b 100
 CKTB F a 100
 CMCO ... a 200
 KADA M a 100
 KBTM D a 100
 KELO N(.25) a 100
 KFJB (.25) a 100
 KFXD (.25) a 100
 KFXJ (.25) a 100
 KGDE (.25) b 100
 KGEK L f 100
 KGFJ ... a 100
 KGHJ (.25) a 100
 KGLV DP z 100
 KMLB (.25) a 100
 KOOS (.25)M a 100
 KSUN (.25) a 100
 KVCV ... a 100
 KVEC (.25) a 100
 KVNU z 100
 KVOS M b 100
 KWG N a 100

Grande Prairie, Alta.
 Moose Jaw, Sask.
 St. Anne de Pocatiere, P. Q.
 Wingham, Ont.
 St. Catharines, Ont.
 Havana, Cuba
 Ada, Okla.
 Jonesboro, Ark.
 Sioux Falls, S. Dak.
 Marshalltown, Iowa
 Nampa, Idaho
 Grand Junction, Colo.
 Fergus Falls, Minn.
 Sterling, Colo.
 Los Angeles, Calif.
 Little Rock, Ark.
 Greenville, Tex.
 Monroe, La.
 Marshfield, Ore.
 Lowell, Ariz.
 Redding, Calif.
 San Luis, Obispo, Calif.
 Logan, Utah
 Bellingham, Wash.
 Stockton, Calif.

George Sinclair, Ch. Eng.
 A. E. Jacobson, Ch. Eng.
 G. T. Desjardins, Ch. Eng.
 Scott Ried, Ch. Eng.
 W. H. Allen, Ch. Eng.
 Leiland Seay, Ch. Eng.
 J. C. Warren
 Les Frake
 Warren Bailey, Ch. Eng.
 Edward Hurt, Ch. Eng.
 Fred Mendenhall, Ch. Eng.
 Matt E. Wackz, Ch. Eng.
 E. G. Berhler
 H. Duke Hancock, Ch. Eng.
 Timmy Speer
 O. L. Morgan, Ch. Eng.
 Roger L. Spaugh, Ch. Eng.
 David C. Karbach, Ch. Eng.
 Charles Sherburne, Ch. Eng.
 Earl Travis, Ch. Eng.
 J. M. Reeder, Ch. Eng.
 Joe Ernst, Ch. Eng.
 Russell Bennett, Ch. Eng.

KWNO	D	a	250	Winona, Minn.
WABI	(.25)	a	100	Bangor, Maine
WAIM	C	a	100	Anderson, S. C.
WAYX	(.25)	a	100	Waycross, Ga.
WBBZ	M(.25)	a	100	Ponca City, Okla.
WBHP	....	a	100	Huntsville, Ala.
WCAT	D	a	100	Rapid City, S. Dak.
WCAX	(.25)	a	100	Burlington, Vt.
WCLO	(.25)	a	100	Janesville, Wis.
WCPO	(.25)	a	100	Cincinnati, Ohio
WDSM	P	z	100	Superior, Wis.
WENY	DP	z	250	Elmira, N. Y.
WEST	(.25)	a	100	Easton, Pa.
WFAM	4	a	100	South Bend, Ind.
WFTC	(.25)	a	100	Kinston, N. C.
WHBC	(.25)	a	100	Canton, Ohio
WHBY	Y(.25)	a	100	Green Bay, Wis.
WIBX	C(.25)	a	100	Utica, N. Y.
WIL	(.25)	a	100	St. Louis, Mo.
WJBC	5(.25)	a	100	Bloomington, Ill
WJBL	5	a	100	Decatur, Ill.
WJBW	....	a	100	New Orleans, La.
WJHL	(.25)	a	100	Johnson City, Tenn.
WJNO	C(.25)	a	100	W. Palm Beach, Fla.
WJRD	D	a	250	Tuscaloosa, Ala.
WKBO	(.25)	a	100	Harrisburg, Pa.
WLVA	(.25)	a	100	Lynchburg, Va.
WMFR	....	a	100	High Point, N. C.
WMOB	DP	z	100	Mobile, Ala.
WMPC	(.25)	a	100	Lapeer, Mich.
WOLS	D	a	100	Florence, S. C.
WRBL	(.25)	a	100	Columbus, Ga.
WSAL	D	z	250	Salisbury, Md.
WTHT	M	a	100	Hartford, Conn.
WTOL	D	a	100	Toledo, Ohio
WWAE	4	a	100	Hammond, Ind.
....	(.25)P	z	100	Atlantic City, N. J.

1210 kcs. (247.8 m.)

CHLT	....	z	100	Sherbrooke, P. Q.
CJCS	....	a	50	Stratford, Ont.
CJCU	....	z	50	Aklavik, N. W. T.
CKBI	F	a	100	Prince Albert, Sask.
CKCH	F	a	100	Hull, P. Q.
CKMC	....	a	50	Cobalt, Ont.
CMHK	....	z	200	Cruces, Cuba
KALB	(.25)	a	100	Alexandria La.
KANS	N	a	100	Wichita, Kans.
KASA	M	b	100	Elk City, Okla.
KDLR	(.25)	a	100	Deviils, Lake, N. Dak.
KDON	M	a	100	Monterey, Calif.
KFJI	....	a	100	Klamath Falls, Ore.
KFOR	CM(.25)	a	100	Lincoln, Nebr.
KFPW	....	a	100	Fort Smith, Ark.
KFVS	5(.25)	a	100	Cape Girardeau, Mo.
KFXM	7M	a	100	San Bernardino, Calif.
KGLO	C(.25)	a	100	Mason City, Iowa
KGY	M	a	100	Olympia, Wash.
KHBG	D	a	100	Okmulgee, Okla.
KIUL	....	a	100	Garden City, Kans.
KLAH	(.25)	a	100	Carlsbad, N. Mex.
KOCA	(.25)	a	100	Kilgore, Texas
KPFA	N(.25)	a	100	Helena, Mont.
KPPC	2	a	100	Pasadena, Calif.
KROY	CD	a	100	Sacramento, Calif.
KVSO	M(.25)	a	100	Ardmore, Okla.
KWJB	(.25)	a	100	Globe, Ariz.
KWTN	A	z	100	Watertown, S. Dak.
WALR	....	a	100	Zanesville, Ohio
WBAX	M	a	100	Wikes-Barre, Pa.
WBRL	S	a	100	Richmond, Va.
WBRB	3	a	100	Red Bank, N. J.
WCOL	N	a	100	Columbus, Ohio
WCOU	M	a	100	Lewiston, Maine

Maurice Reutter, Ch. Eng.
Nelson H. Lawson, Ch. Eng.
John Peoples, Ch. Eng.
John Tobola, Ch. Eng.
Wheeler F. Frye, Ch. Eng.
Milton Hazel, Ch. Eng.
E. E. Clark, Ch. Eng.
James Tierney, Ch. Eng.
Charles ... Ch. Eng.
Glen A. Davis, Ch. Eng.
.....
True McLean, Ch. Eng.
.....
H. G. Gole, Eng.
Jonas G. Wetlan
Kenneth Giles, Ch. Eng.
W. J. Stangel, Ch. Eng.
David Foote, Ch. Eng.
L. A. Benson
A. M. McGregor
G. Becker, Ch. Eng.
C. E. Davidson, Ch. Eng.
O. K. Garland, Ch. Eng.
Reginald B. Martin
James R. Doss
C. G. Moss, Mgr.
Albert E. Heiser, Ch. Eng.
E. J. Day, Ch. Eng.
.....
F. S. Hemingway, Mgr.
R. M. Wallace, Ch. Eng.
Oliver Heeley, Ch. Eng.
Richard W. Bullers, Ch. Eng.
Richard K. Blackburn
Frank Ridgeway, Ch. Eng.
Elmer Herkner
.....

Marcel Provost
W. J. Stauffer, Ch. Eng.
Dr. Urquardt
Gerald Prest
J. L. Champagne, Ch. Eng.
.....
T. L. Stanley, Ch. Eng.
Glenn Ritter, Ch. Eng.
G. W. Patterson, Eng.
Al Arnold
Howard V. Walters, Mgr.
Joe Carroll, Ch. Eng.
Mark W. Rullock, Ch. Eng.
Dorothy Gilson
R. L. Hirsch, Ch. Eng.
Richard F. Lewis, Ch. Eng.
Milo Knutsen
Jack Thatcher, Ch. Eng.
A. F. Schultz, Ch. Eng.
Dallas Stallard, Prog. Dir.
Lucille Neilson
Orvin Franklin, Ch. Eng.
Ernest A. Neath
N. Vincent Parsons
Milton Cooper, Ch. Eng.
Paul W. Ross
E. W. Henderson, Mgr.
E. A. Blackburn, Ch. Eng.
Arthur L. Martin
John H. Stenger, Jr., Ch. Eng.
M. A. Sitton; Bert Child
Robert Johnson, Ch. Eng.
J. E. Lowe, Ch. Eng.
Leslie R. Hall

WCOV	D	z	100	Montgomery, Ala.
WCRW	4	a	100	Chicago, Ill.
WEBQ	5 (.25)	a	100	Harrisburg, Ill.
WEDC	4	a	100	Chicago, Ill.
WFAS	3	a	100	White Plains, N. Y.
WFOY	(.25)	a	100	St. Augustine, Fla.
WGBB	3	a	100	Freeport, N. Y.
WGCM	(.25)	a	100	Gulfport, Miss.
WGRM	(.25)	a	100	Grenada, Miss.
WHAI	M	a	250	Greenfield, Mass.
WHBU	(.25)	a	100	Anderson, Ind.
WIBU	(.25)	a	100	Poynette, Wis.
WJNN	P (.25)	z	100	Louisville, Ky.
WJBY	(.25)	a	100	Gadsden, Ala.
WJEJ	....	a	100	Hagerstown, Md.
WJIM	B (.25)	z	100	Lansing, Mich.
WJLS	(.25)	z	100	Beckley, W. Va.
WJMC	DP	z	250	Rice Lake, Wis.
WJTN	B (.25)	a	100	Jamestown, N. Y.
WJW	(.25)	a	100	Akron, Ohio
WKOK	L	a	100	Sunbury, Pa.
WLOK	D	a	100	Lima, Ohio.
WMFG	(.25)	a	100	Hibbing, Minn.
WOCB	(.25)P	z	100	Hyannis, Mass.
WOMT	....	a	100	Manitowoc, Wis.
WPAX	(.25)	a	100	Thomasville, Ga.
WPIV	(.25)P	z	100	Petersburg, Va.
WRAL	(.25)P	z	100	Raleigh, N. C.
WSAY	(.25)	a	100	Rochester, N. Y.
WSBC	4 (.25)	a	100	Chicago, Ill.
WSIX	(.25)	a	100	Nashville, Tenn.
WSNJ	D	a	100	Bridgeton, N. J.
WSOC	N (.25)	a	100	Charlotte, N. C.
WTAX	....	a	100	Springfield, Ill.
WTMA	(.25)P	z	100	Charleston, S. C.
XEAT	....	a	250	Parral, Chih.
XEE	....	a	50	Durango, Dgo.
XEFV	....	a	50	Juarez, Chih.
XETH	....	a	100	Puebla, Pue.

1220 kcs. (245.8 m.)

KFKU	a (5)	a	1000	Lawrence, Kans.
KTMS	B	z	500	Santa Barbara, Calif.
KTW	2S	a	1000	Seattle, Wash.
KWSC	2 (5)	a	1000	Pullman, Wash.
WCAD	D	a	500	Canton, N. Y.
WCAE	MR (5)	a	1000	Pittsburgh, Pa.
WDAF	C (5)	a	1000	Tampa, Fla.
WGNY	D	a	250	Newburgh, N. Y.
WREN	Ba (5)	a	1000	Lawrence, Kans.
XEBL	....	a	50	Mazatlan, Sin.
XEDA	....	z	200	Gral. Anaya, D. F.
XETF	....	a	12	Veracruz, Ver.

1230 kcs. (243.8 m.)

CMCB	....	a	200	Havana, Cuba
KGBX	N	a	500	Springfield, Mo.
KGGM	....	a	100	Albuquerque, N. Mex.
KYA	(5)	a	1000	San Francisco, Calif.
WFBM	C (5)	a	1000	Indianapolis, Ind.
WNAC	R (5)	a	1000	Boston, Mass.
WOL	M	a	1000	Washington, D. C.
XECA	....	z	250	Tampico, Tamps.
XEG	....	z	250	Monterey, N. L.

1240 kcs. (241.8 m.)

CICB	F	a	1000	Sydney, N. S.
CMAB	....	z	200	Pinar del Rio, Cuba
CMHB	....	z	200	Santci Spiritus, Cuba
KGCU	....	a	250	Mandan, N. Dak.
KTAT	M	a	1000	Fort Worth, Tex.
KTFI	N	a	1000	Twin Falls, Idaho

Al Thompson, Ch. Eng.
J. A. White, Gen. Mgr.
J. R. Tate, Ch. Eng.
Caleb Frisk, Ch. Eng.
Harry C. Laubenstein, Ch. Eng.
Bradley Overton, Ch. Eng.
A. E. Granbacka, Ch. Eng.
C. H. Dyess, Ch. Eng.
C. A. Perkins, Ch. Eng.
James L. Spates, Mgr.
R. F. Fulwider, Ch. Eng.
Leonard Doese, Ch. Eng.
.....
Vernon Storey, Ch. Eng.
Grover C. Crilley, Gen. Mgr.
Leo J. Ylha, Ch. Eng.
James L. Cox, Prog. Dir.
Arthur F. Johnson, Ch. Eng.
Harold J. Kratzert, Ch. Eng.
G. G. Roberts, Ch. Eng.
Paul L. Miller, Eng.
S. L. Gladfelter, Ch. Eng.
Charles Persons, Ch. Eng.
Helen W. MacLellan, Gen. Mgr.
W. C. Dubin, Ch. Eng.
J. W. Poole
Campbell Arnoux, Gen. Mgr.
Geo. T. Case, Gen. Mgr.
Thurlow A. Greene
Ed Jacker Ch. Eng.
Bascom E. Porter, Ch. Eng.
Russell Ely, Ch. Eng.
L. L. Caudle, Ch. Eng.
Jay A. Johnson, Mgr.
.....
.....
.....
.....
.....
.....

R. P. Stringham, Ch. Eng.
Mary K. Hagan, Sec'y.
James S. Ross, Ch. Eng.
Kenneth Yeend, Prog. Dir.
Dr. Ward C. Priest, Ch. Eng.
James Schultz, Ch. Eng.
William P. Moore
Irwin Moison, Ch. Eng.
Vern Omer, Ch. Eng.
.....
.....
.....

.....
Fritz Bauer, Ch. Eng.
Leonard Dodds, Ch. Eng.
Frances Pike; Paul C. Schulz
F. O. Sharp
Paul de Mars, Ch. Eng.
H. H. Lyon, Ch. Eng.
.....
.....

Charles Atkinson, Ch. Eng.
.....
.....
J. A. Kennelly
H. Suttton, Ch. Eng.
F. V. Cox, Ch. Eng.

WHBF	(.25)	a	1000
WKAQ	....	a	1000
WXYZ	B	a	1000
XEBU	....	z	50
XEKL	A	b	500
XEME	....	z	50

Rock Island, Ill.
San Juan, P. R.
Detroit, Mich.
Chihuahua, Chih.
Leon, Gto.
Merida, Yuc.

Robert J. Sinnett
J. Dizney
Russell Neff, Mgr.
.....
.....
.....

1250 kcs. (239.9 m.)



CMKC	....	a	200
KFOX	....	a	1000
KIT	MX(.5)	a	250
CXOK	....	z	1000
WAIR	D	a	250
WDSU	B	a	1000
WHBI	2(2.5)	a	1000
WKST	D	a	250
WMRO	D	z	250
WNEW	2(5)	a	1000
WTCN	B(5)	a	1000
XEAI	....	z	500

Santiago, Cuba
Long Beach, Calif.
Yakima, Wash.
St. Louis, Mo.
Winston-Salem, N. C.
New Orleans, La.
Newark, N. J.
New Castle, Pa.
Aurora, Ill.
New York, N. Y.
Minneapolis, Minn.
Mexico City, D. F.

.....
Lawrence W. McDonald
J. A. Murphy, Mgr.
Arthur F. Rekart, Ch. Eng.
Earl F. Downley, Ch. Eng.
Fred Fabre, Ch. Eng.
Erwin R. Wolfe, Ch. Eng.
A. W. Graham
Martin R. O'Brien
M. J. Weiner
John M. Sherman, Ch. Eng.
.....

1260 kcs. (238 m.)

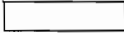


CMBD	....	z	200
CMJO	....	a	200
KGVO	C(5)	a	1000
KHSL	....	a	250
KOIL	M(5)	a	1000
KPAC	D	a	500
KRGV	MN	a	1000
KUOA	D	a	5000
KVOA	....	a	1000
WHIO	C(5)	a	1000
WNBX	CM	a	1000
WTOC	C	a	1000

Havana, Cuba
Ciego de Avila, Cuba
Missoula, Mont.
Chico, Calif.
Omaha, Nebr.
Port Arthur, Tex.
Weslaco, Texas
Siloam Springs, Ark.
Tucson, Ariz.
Dayton, Ohio
Springfield, Vt.
Savannah, Ga.

.....
Thos. A. Atherstone, Ch. Eng.
Robert Songstad, Ch. Eng.
Mark Bullock, Ch. Eng.
Joe Walters, Ch. Eng.
Neal McNaughton, Ch. Eng.
Storm Whaley, Mgr.
L. L. Nalley, Ch. Eng.
Ernest L. Adams, Ch. Eng.
William Moore, Ch. Eng.
James R. Donovan, Ch. Eng.

1270 kcs. (236.1 m.)

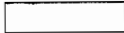


CMHD	....	b	200
KGCA	2D	a	100
KOL	M(5)	a	1000
KVOR	C	a	1000
KWLC	2D	a	100
WASH	DNa	a	500
WFBR	R(1)	a	500
WJDX	R(5)	a	1000
WOOD	Na	a	500
XEXB	A	a	250
XEXE	....	z	17

Caibarien, Cuba
Decorah, Iowa
Seattle, Wash.
Colorado Springs, Colo.
Decorah, Iowa
Grand Rapids, Mich.
Baltimore, Md.
Jackson, Miss.
Grand Rapids, Mich.
Jalapa, Ver.
Texcoco, Mex.

.....
.....
Otto Renninger, Jr.
Hugh Terry, Mgr.
.....
Fred Russell
Wm. Q. Ranft, Ch. Eng.
Percy G. Root, Ch. Eng.
Fred Russell, Ch. Eng.
.....
.....

1280 kcs. (234.2 m.)



CMKO	....	z	200
KFBB	C(5)	a	1000
KLS	....	a	250
WCAM	1	a	500
WCAP	1	a	500
WDOD	C(5)	c	1000
WIBA	N(5)	a	1000
WORC	C	a	500
WRR	M	a	500
WTNJ	1	a	500
XEMX	....	z	100

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.
Mexico City, D. F.

.....
.....
J. Jacobson, Mgr.
Russell Butler, Ch. Eng.
R. L. Horn
Ernest G. Ruckle, Ch. Eng.
Frank Lane, Gen. Mgr.
M. Chapin, Ch. Eng.
A. F. Kleindienst, Ch. Eng.
Durward Tucker, Ch. Eng.
E. P. Knowles, Ch. Eng.
.....
.....

1290 kcs. (232.4 m.)



CMCG	....	a	200
CMJK	....	a	200
KDYL	R(5)	a	1000
KLCN	D	a	100
KTRH	C(5)	a	1000
WEBC	N(5)	a	1000

Havana, Cuba
Camaguey, Cuba
Salt Lake City, Utah
Blytheville, Ark.
Houston, Texas
Duluth, Minn.

.....
.....
John M. Baldwin, Ch. Eng.
Algie Bishop, Prog. Dir.
K. H. Robbins, Ch. Eng.
Charles Persons, Ch. Eng.

WJAS	C(5)	a	1000	Pittsburgh, Pa.
WJHP	P	z	250	Jacksonville, Fla.
WNBZ	D	a	100	Saranac Lake, N. Y.
WNEL	(2.5)	a	1000	San Juan, P. R.

W. W. McCoy
Beecher Hayford, Ch. Eng.
John Dowdell, Ch. Eng.
Wm. Greer, Ch. Eng.

1300 kcs. (230.6 m.)



KALE	M	a	1000	Portland, Ore.
KFAC	(.5)	a	1000	Los Angeles, Calif.
KFH	C(5)	a	1000	Wichita, Kans.
WBBR	1	a	1000	Brooklyn, N. Y.
WEVD	1	a	1000	New York, N. Y.
WFBC	N(5)	a	1000	Greenville, S. C.
WHAZ	1	a	1000	Troy, N. Y.
WHBL	(1)	a	250	Sheboygan, Wis.

L. S. Bookwalter, Ch. Eng.
C. J. Smith, Mgr.
Leila Hull
.....
Gene King
Frank Blair, Prog. Dir.
H. D. Harris, Ch. Eng.
Herbert Mayer, Ch. Eng.

1310 kcs. (228.9 m.)



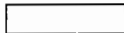
CHCK	...	a	50	Charlottetown, P. E. I.
CJKL	F	a	100	North Bay, Ont.
CJLS	F	a	100	Yarmouth, N. S.
CKCV	F	a	100	Quebec, P. Q.
CMKE	?	a	.....	Manzanillo, Cuba
KAND	DM	z	100	Corsicana, Tex.
KARM	C	a	100	Fresno, Calif.
KBND	(.25)	z	100	Bend, Ore.
KCKN		a	100	Kansas City, Kans.
KCRJ	(.25)	a	100	Jerome, Ariz.
KFPL	(.25)	f	100	Dublin, Texas
KFYO	M(.25)	a	100	Lubbock, Texas
KGEZ	(.25)	a	100	Kalispell, Mont.
KGFV	(.25)	a	100	Kearney, Nebr.
KHUB	D	a	250	Watsonville, Calif.
KOCY	(.25)	a	100	Oklahoma City, Okla.
KOME	D	z	250	Tulsa, Okla.
KPDN	D	a	100	Pampa, Texas
KRBA	D	a	100	Lufkin, Texas
KRMD	(.25)	a	100	Shreveport, La.
KROC	N(.25)	a	100	Rochester, Minn.
KRQA	...	a	100	Santa Fe N. Mex.
KRRV	DM	a	250	Sherman, Texas
KSRO	(.25)	a	100	Santa Rosa, Calif.
KSUB	...	a	100	Cedar City, Utah
KTSM	N(.25)	a	100	El Paso, Texas
KVOL	(.25)	a	100	Lafayette, La.
KVOX	(.25)	a	100	Moorhead, Minn.
KWOC	D	a	100	Poplar Bluff, Mo.
KWOS	(.25)	a	100	Jefferson City, Mo.
KXRO	M(.25)	a	100	Aberdeen, Wash.
TG1	...	d	.....	Guatemala, C., Guat.
WAML	(.25)	a	100	Laurel, Miss.
WBEO	(.25)	a	100	Marquette, Mich.
WBOW	N(.25)	a	100	Terre Haute, Ind.
WBRE	N(.25)	a	100	Wilkes-Barre, Pa.
WBRK	C(.25)	a	100	Pittsfield, Mass.
WCLS	L	a	100	Joliet, Ill.
WCMI	(.25)	a	100	Ashland, Ky.
WDAH	S(.25)	a	100	El Paso, Tex.
WEBR	B(.25)	a	100	Buffalo, N. Y.
WEMP	(.25)	a	100	Milwaukee, Wis.
WEXL	...	a	50	Royal Oak, Mich.
WFBG	3	a	100	Altoona, Pa.
WFDF	B	a	100	Flint, Mich.
WGAU	(.25)	a	100	Athens, Ga.
WGH	(.25)	a	100	Newport News, Va.
WGTM	D	a	100	Wilson, N. C.
WHAT	4	a	100	Philadelphia, Pa.
WJAC	3(.25)	a	100	Johnstown, Pa.
WLAK	N	z	100	Lakeland, Fla.
WLBC	(.25)	a	100	Muncie, Ind.
WLNH	M	a	100	Laconia, N. H.
WMBO	(.25)	a	100	Auburn, N. Y.
WMFF	B(.25)	a	100	Plattsburgh, N. Y.
WNBH	M(.25)	a	100	New Bedford, Mass.

M. H. F. Young, Gen. Mgr.
William Marks, Ch. Eng.
Laurie Smith, Gen. Mgr.
Charles Frenette, Ch. Eng.
.....
Burton Boatright, Ch. Eng.
Milton Cook, DX Mgr.
Stanton Bennett, Ch. Eng.
Evans A. Frye, Prog. Dir.
Irvin L. Faulkner, Chief Op.
C. B. Baxter, Ch. Eng.
DeWitt Landis
Donald Gorman, Ch. Eng.
Walter Ely, Ch. Eng.
Harold Platt, Ch. Eng.
M. H. Bonebrake, Mgr.
James Manship
Herman Kreiger, Ch. Eng.
Darell E. Yates
W. J. Wilkinson, Ch. Eng.
F. C. Clarke, Ch. Eng.
J. L. Martin, Ch. Eng.
Tom Spellman, Ch. Eng.
W. R. Nicholas, Ch. Eng.
Wayne Booth, Op-Ann.
E. L. Gemoets, Ch. Eng.
J. C. Cooper, Ch. Eng.
Robert Schulz, Ch. Eng.
John Lee Milster, Ch. Eng.
J. C. Haynes, Ch. Eng.
Wm. McCoffin, Ch. Eng.
.....
A. A. Touchstone, Ch. Eng.
Gordon Brozek, Ch. Eng.
Stokes Graham, Ch. Eng.
Chas. Sakoski, Ch. Eng.
N. H. Blake, Ch. Eng.
G. M. Ives, Jr., Ch. Eng.
Paul W. Holton, Eng.
E. L. Gemoets, Ch. Eng.
L. C. Bailey
Ray H. Host, Ch. Eng.
Garnet G. Sparks
Roy Thompson, Eng.
Frank D. Fallain, Ch. Eng.
A. L. Brannen, Ch. Eng.
R. Pl Aylor, Ch. Eng.
H. W. Wilson
J. C. Geise, Ch. Eng.
A. J. Reid, Ch. Eng.
Powell Hunter, Ch. Eng.
M. M. Crain, Ch. Eng.
Kenneth Taylor, Ch. Eng.
Herbert House, Ch. Eng.
John Nazak, Ch. Eng.
I. Vermilya

WRAW	....	a	100	Reading, Pa.
WROL	N(.25)	a	100	Knoxville, Tenn.
WSAJ	....	a	100	Grove City, Pa.
WSAV	P	z	100	Savannah, Ga.
WSGN	B(.25)	a	100	Birmingham, Ala.
WSJS	C	a	100	Winston-Salem, N. C.
WTAL	(.25)	a	100	Tallahassee, Fla.
WTEL	4	a	100	Philadelphia, Pa.
WTJS	(.25)	a	100	Jackson, Tenn.
WTRC	(.25)	a	100	Elkhart, Ind.
XEAG	....	z	10	Cordoba, Ver.
XEBO	....	z	25	Irapuato, Gto.
XEFW	....	a	300	Tampico, Tams.
XETB	....	a	500	Torreón, Coah.
XEX	....	a	500	Monterrey, N. L.

H. O. Landis, Ch. Eng.
L. Strunk,
Albert Valente, Ch. Eng.
.....
Paul Cram, Ch. Eng.
Phil Hedrick, Ch. Eng.
Wm. A. Snowden, Ch. Eng.
.....
M. Stone
K. Singleton, Ch. Eng.
.....
.....
.....
.....
.....
.....

1320 kcs. (227.1 m.)



CMBQ		a	5000	Havana, Cuba
KGHF	B	a	500	Pueblo, Colo.
KGMB	CM	a	1000	Honolulu, Hawaii
KID	(1)	a	500	Idaho Falls, Idaho
KRNT	C(5)	a	1000	Des Moines, Iowa
WADC	C(5)	a	1000	Akron, Ohio
WORK	N	a	1000	York, Pa.
WSMB	R(5)	a	1000	New Orleans, La.

R. Pazos
J. H. McGill
E. T. Goldrup, Ch. Eng.
J. W. Duckworth
Edmund Linehan, Prog. Dir.
Bob Wilson
J. E. Mathiot, Ch. Eng.
H. G. Nebe, Ch. Eng.

1330 kcs. (225.4 m.)



KGB	M	a	1000	San Diego, Calif.
KMO	M	a	1000	Tacoma, Wash.
KRIS	NM	a	500	Corpus Christi, Tex.
KSCJ	C(5)	a	1000	Sioux City, Iowa
WDRC	C(5)	g	1000	Hartford, Conn.
WSAI	MN(5)	a	1000	Cincinnati, Ohio
WTAQ	C	a	1000	Green Bay, Wis.

David R. Young, Prog. Dir.
Joe Kolesar, Ch. Eng.
H. B. Lockhart, Ch. Eng.
C. W. Corkhill, Mgr.
Italo Martino, Ch. Eng.
R. J. Rockwell, Ch. Eng.
W. J. Stangel, Ch. Eng.

1340 kcs. (223.7 m.)



KDTH	DP	z	500	Dubuque, Iowa
KGIR	N(5)	a	1000	Butte, Mont.
KGNO	....	c	250	Dodge City, Kans.
WCOA	N(1)	a	500	Pensacola, Fla.
WFEE	MN(1)	a	500	Manchester, N. H.
WFNC	DP	z	250	Fayetteville, N. C.
WSPD	B(5)	a	1000	Toledo, Ohio
XEAP	....	z	50	Obregon, Son.
XEBS	....	z	200	Mexico City, D. F.
XEBW	....	a	250	Chihuahua, Chih.
XEDH	....	z	200	Villa Acuna, Coah.
XEFC	....	a	100	Merida, Yuc.
XEXD	A	z	350	Orizaba, Ver.

.....
M. L. Owen, Eng.
J. E. Doane, Ch. Eng.
B. Hayford, Ch. Eng.
V. H. Chandler, Ch. Eng.
.....
Judith Tom
.....
.....
.....
.....
.....
.....
.....

1350 kcs. (222.1 m.)



CMCA	....	a	200	Havana, Cuba
CMKW	....	z	....	Santiago, Cuba
KIDO	N(2.5)	a	1000	Boise, Idaho
KWK	XBM(5)	a	1000	St. Louis, Mo.
WAWZ	1	a	1000	Zarephath, N. J.
WBNX	1	a	1000	New York, N. Y.
WMBG	R	a	500	Richmond, Va.

.....
.....
H. W. Toedtmeier, Ch. Eng.
Clarence Crosby, Gen. Mgr.
N. L. Wilson, Ch. Eng.
Sue Royal

1360 kcs. (220.4 m.)



CMJH	....	b	200	Ciego de Avila, Cuba
KCRC	M	a	250	Enid, Okla.
KGER	....	a	1000	Long Beach, Calif.
KLPM	(1)	a	500	Minot, N. Dak.
WCSC	N(1)	a	500	Charleston, S. C.
WFBL	C(5)	a	1000	Syracuse, N. Y.
WGES	1(1)	a	500	Chicago, Ill.
WQBC	D	a	1000	Vicksburg, Miss.
WSBT	1	a	500	South Bend, Ind.

Baxter E. Burris, Eng.
Jay Tapp, Ch. Eng.
K. McGath
J. B. Fugua
A. R. Marcy, Ch. Eng.
Ed Jacker, Ch. Eng.
C. E. Drake, Ch. Eng.
H. G. Cole, Eng.

1370 kcs. (218.8 m.)

CFAR	....	a	100	Flin Flon, Man.	Monty Bridgman, Ch. Eng.
CFOS	....	a	100	Owen Sound, Ont.	.....
CKCW	F	a	100	Moncton, N. B.	J. A. White, Ch. Eng.
CKRN	P	z	100	Rouyn, P. Q.	.....
CMGE	....	a	200	Cardenas, Cuba	G. Sabater
KAST	DXZ	a	100	Astoria, Ore	Lawrence King, Chief Tech.
KCMO	....	a	100	Kansas City, Mo.	L. C. Sigmon, Ch. Eng.
KEEN	3	a	100	Seattle, Wash.	R. N. Nicholes, Ch. Eng.
KELD	....	z	100	El Dorado, Ark.	Chas. Mathis Ch. Eng.
KERN	N	a	100	Bakersfield, Calif.	Luverne Shatto, Ch. Eng.
KFGQ	D	a	100	Boone, Iowa	Lois Crawford
KFJZ	M(.25)	a	100	Fort Worth, Texas	E. L. Starness, Ch. Eng.
KFRO	DM	a	250	Longview, Texas	Morris Ming, Ch. Eng.
KGFL	4	a	100	Roswell, N. Mex.	George Farmer, Ch. Eng.
KGKL	(.25)	a	100	San Angelo, Texas	Frank Jones, Eng.
KICA	4	a	100	Clovis, N. Mex.	Charles Alsup, Eng.
KIUN	....	a	100	Pecos, Texas	T. W. Hubbard, Ch. Eng.
KIUP	....	a	100	Durango, Colo.	G. L. Schmehl, Ch. Eng.
KLUF	M(.25)	a	100	Galveston, Tex.	J. K. Taylor, Ch. Eng.
KMAC	5(.25)	a	100	San Antonio, Tex.	R. R. Hayes, Ch. Eng.
KOBH	(.25)	a	100	Rapid City, S. Dak.	Casey Jones
KOKO	....	a	100	La Junta, Colo.	Jack Lund, Ch. Eng.
KONO	5	a	100	San Antonio, Tex.	Geo. W. Ing., Ch. Eng.
KRE	(.25)	a	100	Berkeley, Calif.	Ralph Kennedy, Ch. Eng.
KRKO	3M	a	50	Everett, Wash.	Floyd E. Steele, Ch. Eng.
KRMC	(.25)	a	100	Jamestown, N. Dak.	Frank Gillespie
KSLM	MXZ	a	100	Salem, Ore.	Clyde Wiegand, Ch. Eng.
KTEM	DM	a	250	Temple, Texas	Wm. Carmean, Ch. Eng.
KTOK	MN	a	100	Oklahoma Citv. Okla.	Bernard Tullius, Ch. Eng.
KTSW	D	a	100	Emporia, Kansas	K. W. Trimble, Gen. Mgr.
KTUC	C(.25)	a	100	Tucson, Ariz.	Clifford Livingstone
KUJ	....	a	100	Walla Walla, Wash.	M. McLafferty, Ch. Eng.
KVGB	....	z	100	Great Bend, Kans.	Leo Legleiter, Ch. Eng.
KVRS	(.25)	z	100	Rock Springs, Wyo.	Donald M. Young
KWYO	(.25)	a	100	Sheridan, Wyo.	Robert Crosswaight, Ch. Eng.
WABY	N(.25)	a	100	Albany, N. Y.	James Corey, Ch. Eng.
WAGF	D	a	250	Dothan, Ala.	Julian C. Smith
WATL	(.25)	a	100	Atlanta, Ga.	J. M. Comer, Ch. Eng.
WBLK	....	a	100	Clarksburg, W. Va.	W. P. Heitzman, Ch. Eng.
WBNY	2(.25)	a	100	Buffalo, N. Y.	T. L. Vines, Ch. Eng.
WBTM	(.25)	a	100	Danville, Va.	Phil Briggs, Ch. Eng.
WBTH	DP	z	100	Williamson, W. Va.	S. W. Wagner, Ch. Eng.
WCBM	(.25)	a	100	Baltimore, Md.	G. P. Houston, Ch. Eng.
WCOS	P	z	100	Columbia, S. C.	.....
WDAS	(.25)	a	100	Philadelphia, Pa.	Harold Davis, Prog. Dir.
WDWS	(.25)	a	100	Champaign, Ill.	J. M. Wainscott, Ch. Eng.
WEOA	C(.25)	a	100	Evansville, Ind.	J. B. Caraway, Ch. Eng.
WFOR	....	a	100	Hattiesburg Miss.	G. W. Wilson, Ch. Eng.
WGBR	P	z	100	Goldsboro, N. C.	.....
WGL	N(.25)	a	100	Fort Wayne, Ind.	F. W. Fischer, Ch. Eng.
WGRC	D	a	250	New Albany, Ind.	Jack Gardner, Ch. Eng.
WHBQ	....	a	100	Memphis, Tenn.	Weldon Roy, Ch. Eng.
WHDF	(.25)	a	100	Calumet, Mich.	Wm. Jackson, Ch. Eng.
WHLB	C(.25)	a	100	Virginia, Minn.	Vernon Baumgartner, Op.
WHLS	D	a	250	Port Huron, Mich.	W. F. McDonnell, Ch. Eng.
WIBM	(.25)B	a	100	Jackson, Mich.	Chas. Wirtanen, Ch. Eng.
WLLH	Sy	a	100	Lawrence, Mass.	Robert Donahue, Mgr.
WLLH	MSy(.25)	a	100	Lowell, Mass.	Anthony Michaels, Ch. Eng.
WMBR	C(.25)	a	100	Jacksonville, Fla.	H. B. Greene, Ch. Eng.
WMFD	(.25)	a	100	Wilmington, N. C.	R. A. Plank, Ch. Eng.
WMFO	D	a	100	Decatur, Ala.	F. L. James, Jr., Ch. Eng.
WMIN	(.25)	a	100	St. Paul, Minn.	Mat Walz, Ch. Eng.
WOC	C(.25)	a	100	Davenport, Iowa	Harold Higby, Ch. Eng.
WPAY	....	a	100	Portsmouth, Ohio	Maurice L. Myers, Ch. Eng.
WPRA	XZ(.25)	a	100	Mayaguez, P. R.	Ralph P. Perry, Ch. Eng.
WRAK	(.25)	a	100	Williamsport, Pa.	Louis Persio, Ch. Eng.
WRDO	MN	a	100	Augusta, Maine	J. Mitchell
WRJN	(.25)	a	100	Racine, Wis.	F. L. Dechant, Ch. Eng.
WSAU	(.25)	a	100	Wausau, Wis.	Roland Reichardt, Ch. Eng.
WSVS	2D	a	50	Buffalo, N. Y.	.....
XECZ	....	z	100	San Luis Potosi, S. L. P.	.....
XEI	....	a	125	Morelia, Micho.	.....
XELZ	....	z	100	Mexico City, D. F.	.....

1380 kcs. (217.3 m.)

CMCW	....	b	200	Havana, Cuba
KOH	C	a	500	Reno, Nev.
KQV	C(1)	c	500	Pittsburgh, Pa.
WALA	C(1)	a	500	Mobile, Ala.
WKBH	C	a	1000	La Crosse, Wis.
WNBC	R(1)	a	250	New Britain, Conn.
WSMK	C(.5)	a	250	Dayton, Ohio
XEM	....	z	500	Chihuahua, Chih.

.....
Merle Snider, Prog. Dir.
Walter McCoy, Ch. Eng.
R. M. Cole, Ch. Eng.
Al Leeman, Ch. Eng.
Roger B. Holt, Ch. Eng.
Stanley Krohn
.....

1390 kcs. (215.7 m.)

CJGX	F	a	100	Yorkton, Sask.
CMJC	....	z	150	Camaguey, Cuba
KABR	(1)	a	500	Aberdeen, S. Dak.
KLRA	C(5)	a	1000	Little Rock, Ark.
KOY	C	g	1000	Phoenix, Ariz.
KRLC	....	a	250	Lewiston, Idaho
WHK	BM(.25)	a	1000	Cleveland, Ohio
WQDM	D	f	1000	St. Albans, Vt.

H. R. McLaughlin, Ch. Eng.
.....
Delbert T. Hunt, Ch. Eng.
K. F. Tracy, Ch. Eng.
E. E. Alden, Ch. Eng.
Donald A. Wike, Gen. Mgr.
E. L. Gove, Tech. Sup'r.
E. J. Regan, Ch. Eng.

1400 kcs. (214.2 m.)

CMKR	....	z	200	Santiago, Cuba
KHBC	CM	a	250	Hilo, Hawaii
KLO	BX	a	500	Ogden, Utah
KTUL	C(5)	a	1000	Tulsa, Okla.
TX	....	d	....	Guatemala City, Guat.
WARD	2	a	500	Brooklyn, N. Y.
WBBC	2	a	500	Brooklyn, N. Y.
WHDL	....	a	250	Olean, N. Y.
WIRE	MR(5)	a	1000	Indianapolis, Ind.
WLTH	2	a	500	New York, N. Y.
WVFW	2	a	500	Brooklyn, N. Y.

.....
Webley Edwards, Gen. Mgr.
W. D'Orr Cozzens, Ch. Eng.
Helen Lewis
.....

Abraham Haas, Ch. Eng.
Peter Testan, Ch. Eng.
W. E. McDowell, Ch. Eng.
E. Lewis
Ben Marcus
Hermann Florez, Ch. Eng.

1410 kcs. (212.6 m.)

CKFC	5	a	50	Vancouver, B. C.
CKMO	5	a	100	Vancouver, B. C.
CMCQ	....	a	200	Havana, Cuba
KFJM	(1)	a	500	Grand Forks, N. Dak.
KGNC	MN(2.5)	a	1000	Amarillo Texas
KMED	N	b	250	Medford, Ore.
WAAB	M(1)	a	500	Boston, Mass.
WBCM	(1)	a	500	Bay City, Mich.
WHIS	(1)	a	500	Bluefield, W. Va.
WROK	(1)	a	500	Rockford, Ill.
WSFA	C(1)	a	500	Montgomery, Ala.

A. L. Porter, Ch. Eng.
E. G. Rose, Ch. Eng.
.....

Edwin O'Brien, Ch. Eng.
W. S. Bledsoe, Ch. Eng.
D. H. Rees, Ch. Eng.
E. A. Donaher
R. H. Carpenter, Ch. Eng.
Edward L. Kitts
John C. McCloy
P. B. Duncan, Ch. Eng.

1420 kcs. (211.1 b.)

CBY	F	a	100	Toronto, Ont.
CHLN	....	z	100	Three Rivers, P. Q.
CKCA	....	a	100	Kenora, Ont.
CKGB	F	a	100	North Bay, Ont.
CMJP	....	a	200	Moron, Cuba
KABC	M(.25)	a	100	San Antonio, Tex.
KATE	(.25)	a	100	Albert Lea, Minn.
KBPS	4	a	100	Portland, Ore.
KCMC	M(.25)	a	100	Texarkana, Tex.
KDNT	D	a	100	Denton, Texas
KEUB	....	a	100	Price, Utah
KFAM	N(.25)	a	100	St. Cloud, Minn.
KFIZ	....	a	100	Fond du Lac, Wis.
KGFF	M(.25)	a	100	Shawnee, Okla.
KGIW	1	a	100	Alamosa, Colo.
KGLU	(.25)	z	100	Safford, Ariz.
KIDW	1	a	100	Lamar, Colo.
KLBM	(.25)	z	100	La Grande, Ore.
KNET	D	a	100	Palestine, Texas
KORE	M	a	100	Eugene, Ore.
KRBC	M(.25)	a	100	Abilene, Tex.

Wm. Little, Ch. Eng.
Leon Trepanier, Ch. Eng.
Edmund Tompkins, Ch. Eng.
Ed Ryan, Ch. Eng.
.....

Kenneth Hyman, Ch. Eng.
Geo. H. Church, Ch. Eng.
Fred E. Miller, Ch. Eng.
Harvey Roberston, Ch. Eng.
Bob Douglas, Eng.
Carl E. Busart, Ch. Eng.
Robert Witschen, Ch. Eng.
Wendell S. Meyers, Ch. Eng.
John Molloy, Ch. Eng.
Joe Brite, Ch. Eng.
Paul Merrill, Ch. Eng.
Jack E. Phillips, Ch. Eng.
Paul E. Walden, Ch. Eng.
.....

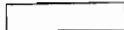
Frank L. Hill, Mgr.
W. W. Roberston, Ch. Eng.

KRBM	P (.25)	z	100
KRIC	M (.25)	z	100
KRLH	D	a	100
KSAN	....	a	100
KTRI	(.25)	f	100
KVAK	DP	z	100
KWAL	(.25)P	z	100
KWBG	....	a	100
KXL	(.25)	c	100
WAGO	CM (.25)	c	100
WAGM	....	a	100
WAPQ	N (.25)	a	100
WAZL	2	a	100
WBNO	(.25)	a	100
WCBS	(.25)	a	100
WCHV	(.25)	a	100
WEED	(.25)	a	100
WELL	B	a	100
WFMJ	DP	z	100
WGNC	(.25)P	z	100
WGPC	....	a	100
WHFC	(.25)	a	100
WHMA	D	a	100
WILM	2	a	100
WJMS	....	a	100
WLAP	(.25)	a	100
WLEU	B (.25)	a	100
WMAS	C (.25)	a	100
WMBC	(.25)	a	100
WMBH	(.25)	a	100
WMBS	(.25)	a	100
WMFJ	....	a	100
WMSD	....	a	100
WPAD	(.25)	a	100
WPAR	C	a	100
WPRP	(.25)	a	100
WSLI	(.25)	a	100

Bozeman, Mont.
Beaumont, Texas
Midland, Texas
San Francisco, Calif.
Sioux City, Iowa
Atchison, Kans.
Wallace, Idaho
Hutchinson, Kans.
Portland, Ore.
Waco, Texas
Presque Isle, Me.
Chattanooga, Tenn.
Hazleton, Pa.
New Orleans, La.
Springfield, Ill.
Charlottesville, Va.
Rocky Mount, N. C.
Battle Creek, Mich.
Youngstown, Ohio
Gastonia, N. C.
Albany, Ga.
Cicero, Ill.
Anniston, Ala.
Wilmington, Del.
Ironwood, Mich.
Lexington, Ky.
Erie, Pa.
Springfield, Mass.
Detroit, Mich.
Joplin, Mo.
Uniontown, Pa.
Daytona Beach, Fla.
Muscle Shoals City, Ala.
Paducah, Ky.
Parkersburg, W. V.
Ponce, P. R.
Jackson, Miss.

E. B. Craney, Gen. Mgr
Don Mitchell, Ch. Eng.
Robert Harmon, Ch. Eng.
Will C. Grove, Ch. Eng.
Dietrich Dirks
Chas. Weiseman, Ch. Eng.
.....
Harold Bourell, Ch. Eng.
Ralph Mifflin, Ch. Eng.
L. H. Appleman, Ch. Eng.
A. C. Hughes, Ch. Eng.
M. E. Thompson, Ch. Eng.
Edward Beisel, Prog. Dir.
W. F. Williams, Gen. Mgr.
Dick Ashenfelter, Ch. Eng.
Walter Gray, Ch. Eng.
I. G. Murphrey, Ch. Eng.
Raymond Roof, Ch. Eng.
.....
R. C. Hallett, Ch. Eng.
David Mearns, Ch. Eng.
E. Mullinax
J. E. Mathiot, Ch. Eng.
N. C. Ruddell, Mgr.
Winston L. Clark, Mgr.
Don Trow, Eng
E. G. Hewinson, Ch. Eng.
E. H. Clark, Ch. Eng.
J. C. Murphy
Charles McClane, Eng.
W. K. Ellenwood, Ch. Eng.
J. V. Sanderson, Ch. Eng.
C. G. Sims, Ch. Eng.
H. H. Lance, Ch. Eng.
.....

1430 kcs. (209.7 m.)



CMKZ	....	z	200
KECA	B (5)	a	1000
KGNF	D	a	1000
KINY	....	a	250
KSO	BM (5)	a	1000
WBNS	C (5)	a	1000
WHEC	C (1)	a	500
WHP	C (1)	a	500
WMPS	B (1)	a	500
WOKO	C (1)	a	500
XERH	P	z	500

Palma Soriano, Cuba
Los Angeles, Calif.
North Platte, Nebr.
Juneau, Alaska
De Moines, Iowa
Columbus, Ohio
Rochester, N. Y.
Harrisburg, Pa.
Memphis, Tenn.
Albany, N. Y.
Mexico, City, D. F.

Dorothy Roe
J. B. Eaves, Eng.
C. F. Heister, Ch. Eng.
Edmund Linehan
Lester Nafzger, Ch. Eng.
Maurice H. Clarke, Ch. Eng.
R. S. Duncan, Ch. Eng.
J. B. Epperson, Ch. Eng.
.....

1440 kcs. (208.2 m.)



CMBY	....	a	200
HP50	....	z	....
KDFN	....	a	500
KELA	M	a	1000
KXYZ	BM	a	1000
WBIG	C	a	1000
WCBA	a a	a	500
WMBD	C (5)	a	1000
WSAN	Na	a	500
XEFI	....	a	250

Havana, Cuba
Colon, Panama
Casper, Wyo.
Centralia, Wash.
Houston, Tex.
Greensboro, N. C.
Allentown, Pa.
Peoria, Ill.
Allentown, Pa.
Chihuahua, Chih.

.....
.....
Floyd Wickencamp, Ch. Eng.
Samuel Norin, Ch. Eng.
Gerald R. Chinski, Ch. Eng.
Earl Allison, Ch. Eng.
W. A. McCutcheon, Ch. Eng.
T. A. Giles, Tech. Dir.
George V. Snyder, Prog. Dir.
.....

1450 kcs. (206.8 m.)



CFCT	....	a	500
CHGS	F	f	50
CMHM	....	z	200
KGCX	....	a	1000
HRN	....	b	500
KIEM	M (1)	a	500
KTBS	N	a	1000

Victoria, B. C.
Summerside, P. E. I.
Cienfuegos, Cuba
Wolf Point, Mont.
Tegucigalpa, Honduras
Eureka, Calif.
Shreveport, La.

Don Horne, Ch. Eng.
W. R. Cannon, Ch. Eng.
.....
Harold Klimpel, Ch. Eng.
.....
Åivor Olson, Eng.
C. H. Maddox, Ch. Eng.

TGQ d 200
 WAGA B(1) a 500
 WGAR C(5) a 1000
 WHOM a 250
 WWSR M f 1000
 XEF a 100

Quezaltenango, Guat.
 Atlanta, Ga.
 Cleveland, Ohio
 Jersey City, N. J.
 Fall River, Mass.
 Juarez, Chih.

Cliff Hanson, Ch. Eng.
 R. M. Pierce, Eng.
 Allison Burnham, Ch. Eng.
 J. C. Pavao, Ch. Eng.

1460 kcs. (205.4 m.)

CMKF z 250
 KSTP R(25)X a 10000
 WJSV CX a 10000

Holguin, Cuba
 St. Paul, Minn.
 Washington, D. C.

Hector Skiter, Ch. Eng.
 Harry R. Crow

1470 kcs. (204 m.)

CMCX z 200
 KGA BM a 5000
 WLAC C a 5000

Havana, Cuba
 Spokane, Wash.
 Nashville, Tenn.

A. G. Sparling, Ch. Eng.
 F. D. Binns, Ch. Eng.

1480 kcs. (202.6 m.)

CMHX a 200
 KOMA C a 5000
 WHIP D z 5000
 WKBW C a 5000

Cienfuegos, Cuba
 Oklahoma City, Okla.
 Hammond, Ind.
 Buffalo, N. Y.

Raymond Ramsey
 Elmer Herkner
 K. B. Hoffman, Ch. Eng.

1490 kcs. (201.2 m.)

CMKQ z 200
 KFBK N a 10000
 WCKY NX a 10000
 XECH ? z 250
 XEDR z 100

Santiago, Cuba
 Sacramento, Calif.
 Covington, Ky.
 Toluca, Mex.
 Guaymas, Son.

N. D. Webster, Ch. Eng.
 C. H. Topmiller, Ch. Eng.

1500 kcs. (199.9 m.)

CJIC F a 100
 CMOX a 200
 KAWM a 100
 KBIX M a 100
 KBKR (.25)P z 100
 KBST M a 100
 KDAL C a 100
 KDB M(.25) a 100
 KFDA P z 100
 KGFI (.25) a 100
 KGKB M(.25) a 100
 KGKY (.25) a 100
 KNEL D a 250
 KNOW CM a 100
 KOTN D a 100
 KOVC (.25) a 100
 KPAB (.25) a 100
 KPLC (.25) a 100
 KPLT DM a 250
 KPQ M(.25) a 100
 KRNR M(.25) a 100
 KR0D AP z 100
 KSAL (.25) a 100
 KSAM D z 100
 KTOH (.25)P z 100
 KUTA N a 100
 KVOE M a 100
 KVWC P z 100
 KWEW D z 100
 KXO M a 100
 KYCA PA(.25) z 100
 KYSM (.25)N a 100
 WCNW 1(.25) a 100
 WDNV (.25) a 100
 WDNC C a 100
 WGAL (.25) a 100
 WGIL D a 250

Sault Ste. Marie, Ont.
 Havana, Cuba
 Gallup, N. Mex.
 Muskogee, Okla.
 Baker, Ore.
 Big Spring, Tex.
 Duluth, Minn.
 Santa Barbara, Calif.
 Amarillo, Texas
 Brownsville, Tex.
 Tyler, Texas
 Scottsbluff, Nebr.
 Brady, Texas
 Austin, Texas
 Pine Bluff, Ark.
 Valley City, N. Dak.
 Laredo, Tex.
 Lake Charles, La.
 Paris, Texas
 Wrenatchee, Wash.
 Roseburg, Ore.
 El Paso, Texas
 Salina, Kans.
 Huntsville, Texas
 Lihue, Hawaii
 Salt Lake City, Utah
 Santa Ana, Calif.
 Vernon, Texas
 Hobbs, N. Mex.
 El Centro, Calif.
 Prescott, Ariz.
 Mankato, Minn.
 Brooklyn, N. Y.
 Danville, Ill.
 Durham, N. C.
 Lancaster, Pa.
 Galesburg, Ill.

S. C. Cusack, Ch. Eng.
 J. D. Eubank, Ch. Eng.
 Lester Harlow, Ch. Eng.
 John Casey, Ch. Eng.
 R. A. Dettman, Ch. Eng.
 R. E. Arne, Ch. Eng.
 R. E. Cannon, Ch. Eng.
 W. A. Wilson, Ch. Eng.
 J. B. Sheppard, Ch. Eng.
 Harlan Morrison, Ch. Eng.
 Marion Crawford, Ch. Eng.
 T. E. Daniels, Ch. Eng.
 J. R. Whitworth, Ch. Eng.
 Bey Greene, Ch. Eng.
 M. M. Valentine, Gen. Mgr.
 E. C. Moses, Ch. Eng.
 Weldon Jeffus, Ch. Eng.
 P. G. Richards, Eng.
 Justin B. Toles, Ch. Eng.
 E. P. Talbot, Ch. Eng.
 N. E. Vance, Ch. Eng.
 Paul Wolf, Ch. Eng.
 C. J. Fern, Jr.
 Lyle Wahlquist, Ch. Eng.
 Wallace Wiggins, Prog. Dir.
 Floyd Emanuel, Ch. Eng.
 E. R. Irey, Ch. Eng.
 Helen Nelson
 Arthur Faske, Ch. Eng.
 Perry W. Esten, Ch. Eng.
 K. A. Dalton
 Ernest Stanziola, Prog. Dir.
 Paul Kalfleisch, Ch. Eng.

WGKV	P	z	100	Charleston, W. Va.	
WHBB	....	a	100	Selma, Ala.	Hamerk Johnson, Eng.
WJBK	(.25)	a	100	Detroit, Mich.	Winifred Powers
WKAT	(.25)	a	100	Miami Beach, Fla.	Russell Bennett, Ch. Eng.
WKBB	YC(.25)	a	100	E. Dubuque, Ill.	L. Carlson
WKBV	(.25)	a	100	Richmond, Ind.	Wm. O. Knox, Ch. Eng.
WKBZ	(.25)	a	100	Muskegon, Mich.	Grant Ashbacher, Mgr.
WKEU	D	a	100	Griffin, Ga.	James Wilder, Ch. Eng.
WMEX	(.25)	a	100	Boston, Mass.	Alfred J. Pote, Ch. Eng.
WNBF	C(.25)	a	100	Binghamton, N. Y.	L. H. Gilbert, Ch. Eng.
WNLC	M	a	100	New London, Conn.	Neil Spencer, Ch. Eng.
WOMI	(.25)	a	100	Owensboro, Ky.	R. E. Jagoe, Ch. Eng.
WOPJ	....	a	100	Bristol Tenn.	R. H. Smith
WRDW	C(.25)	a	100	Augusta, Ga.	Harvey Aderhold, Ch. Eng.
WRGA	(.25)	a	100	Rome, Ga.	R. L. Starr, Ch. Eng.
WRKL	DP	z	100	Rock Hill, S. C.	.....
WRTD	B	a	100	Richmond, Va.	David Bain, Ch. Eng.
WSTP	(.25)	a	100	Salisbury, N. C.	James R. Yost, Ch. Eng.
WSYB	....	a	100	Rutland, Vt.	J. A. Houser, Ch. Eng.
WTMV	(.25)	a	100	E. St. Louis, Ill.	F. S. Liggett, Ch. Eng.
WWRL	1(.25)	a	100	Woodside, N. Y.	Percy Meade, Ch. Eng.
WWSW	(.25)	a	100	Pittsburgh, Pa.	Ancil Lewis, Ch. Eng.
.....	P	z	100	Ocala, Fla.	.....

1510 kcs. (198.6 m.)



CFRC	F	a	100	Kingston, Ont.	H. H. Stewart, Ch. Eng.
CKCR	....	a	100	Kitchener, Ont.	Ion Hartman, Ch. Eng.

1520 kcs. (197.3 m.)



TGW	d	5000	Guatemala City, Guat.
-----	------	---	------	-----------------------	-------

1530 kcs. (196 m.)



CMC	....	z	200	Havana, Cuba	.....
KITE	....	a	1000	Kansas City, Mo.	J. D. Hollis
WBRY	M	a	1000	Waterbury, Conn.	S. E. Warner, Ch. Eng.

1550 kcs. (193.4 m.)



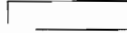
KPMC	M	a	1000	Bakersfield, Calif.	L. A. Schamblin, Mgr.
WOXR	....	a	1000	New York, N. Y.	R. D. Valentine, Ch. Eng.

1560 kcs. (192.2 m.)



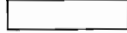
CMBF	z	5000	Havana, Cuba
------	------	---	------	--------------	-------

1580 kcs. (189.8 m.)



CM9RT	z	200	Guines, Cuba
-------	------	---	-----	--------------	-------

1600 kcs. (187.4 m.)



CMBH	z	5000	Havana, Cuba
------	------	---	------	--------------	-------

(Continued from page 54)

satellite station at Sumter, S. C., 560 kcs, 10 to 100 w. from LS to sunrise (E).
 WJAC, Johnstown, mod of lic. 1370 kcs, 100 (.25) unlt'd (E).
 WJBL, Decatur, CP 1310 kcs, 100 (.25) unlt'd. (C).
 WJMS, Ashland, CP 1370 kcs, 100 w. unlt'd. (E).
 WLAC, Nashville, CP 50kw. (E).
 WLAW, CP DA nite, 1 kw to ss at San Francisco (C).
 WMBC, Detroit, CP 600 kcs, 250 w. unlt'd. (E).
 WMBR, Jacksonville, CP 1120 kcs, 500 (1). (E).
 WMFF, Plattsburg, CP 1240 kcs, DA, 1 kw. (E).

WOC, Davenport, CP 1390 kcs. 1 kw. unlt'd. (E).
 WOMI, Owensboro, mod. lic. 1200 kcs. (C).
 WPG, Atlantic City, CP unlt'd, move studio to New York, trans. to Kearney, N. J., requesting facilities of WBIL and WOV. CP change owner to Greater N. Y. Brdcstg. Corp. (E).
 WREN, Lawrence, CP move to Kansas City. (E).
 WSEFA, Montgomery, CP 1410 kcs, 1 kw unlt'd. (E).
 WSIS, Winston Salem, CP 100 (.25) (E).
 WSPA, Spartanburg, Mod. lic. 1120 kcs., 500 (1).
 WTAQ, Green Bay, Wis. CP 1000 (5). (C).
 WTEL, Philadelphia, mod. of lic. to share with WHAT (E).

Applications For New Stations

- Akron, Ohio, Summit Radio Corp., 1530 kcs, 1 kw unlt'd. (E).
- Ashland, Wis., WJMS, Inc., 1370 kcs, 100 w. unlt'd. (C).
- Asheville, N. C., Asheville Daily News, 1370 kcs, 100 w. unlt'd. (C).
- Asheville, N. C., Publix Bamford Theaters, 1430 kcs, 500 (1). (E).
- Atlantic City, N. J., Neptune Brdctg. Co., 1420 kcs., 100 (.25) unlt'd.
- Bellingham, Wash., Bell Brdctg. Co., 1200 kcs, 100 (.25). (E).
- Birmingham, Ala., Birm. News Co., 590 kcs, 1 kw. (C).
- Bowling Green, Ky., B. G. Brdctg. Co., 1310 kcs, 100 (.25). (C).
- Brown City, Mich., Thumb Brdctg. Co., 880 kcs, 1 kw. days (E).
- Brownsville, Tex., Brown County Brdctg. Co., 990 kcs., 1 kw days.
- Brunswick, Ga., Coastal Brdctg. Co., 1500 kcs., 100 (.25) unlt'd. (E).
- Cedar Rapids, Iowa, The Gazette Co., 1420 kcs., 100 w. unlt'd.
- Cheyenne, Wyo., Western Brdctg. Co., 1210 kcs., 100 (.25).
- Cleveland, Ohio, Cuyahoga Valley Brdctg. Co., 1500 kcs, 100 w. days. (E).
- Columbus, Miss., Birney Imes, 1370 kcs, 100 (.25) unlt'd. (E).
- Concord, N. C., Cabarrus Brdctg. Co., 1370 kcs. 100 (.25) unlt'd. (E).
- Cookeville, Tenn., M. L. Medley, 1370 kcs., 100 (.25) unlt'd.
- Elizabeth City, N. C., 1370 kcs, 100 (.25) (E).
- Elv. Wyo., Eastern Nev. Brdctg. Co., 1500 kcs, 100 w. days (E).
- Erie, Pa., Presque Isle Brdctg. Co., 1500 kcs, 100 (.25) (E).
- Everett, Wash., Cascade Brdctg. Co., 1420 kcs, 100 (.25) (E).
- Florence, S. C., Pee Dee Brdctg. Co., 1200 kcs, 100 (.25) (requests facilities of WOLS) (E).
- Fort Dodge, Iowa, Northwest Brdctg. Co., 1370 kcs., 100 (.25).
- Fort Lauderdale, Fla., Tom. M. Bryan, 1370 kcs., 100 (.25).
- Fremont, Nebr., Nebr. Brdctg. Corp., 1370 kcs, 100 (.25) (E).
- Grants Pass, Ore., Southern Ore. Brdctg. Co., 1310 kcs, 100 w. unlt'd. (C).
- Grants Pass, Ore., Ore. Brdctg. System, 1370 kcs., 100 (.25).
- Greenville, Miss., John R. Pepper, 1310 kcs., 100 (.25).
- Hancock, Mich., Copper Country Brdctg. Co., 1370 kcs., 100 (.25) S.H. (E).
- Hastings, Nebr., South Nebr. Brdctg. Co., 920 kcs, 1000 (5) (E).
- Herrin, Ill., Orville W. Lyerla, 1310 kcs., 100 (.25) unlt'd. (C).
- Hickory, N. C., Catawba Valley Brdctg. Co., kcs., 100 (.25).
- Kingston, N. Y., Kingston Brdctg. Corp., 1500 kcs, 100 w. days.
- Logan, W. Va., Frey and Greevver, 1200 kcs., 100 w. days.
- Louisville, Ky., Gateway Brdctg. Co., 880 kcs, 500 w. (C).
- Marinette, Wis., M & M Brdctg. Co., 570 kcs, 250 w. days (C).
- Martinsville, Va., Mart'le Brdctg. Co., 1420 kcs, 100 (.25) (C).
- Marysville, Calif., Yuba-Sutter Broadcasters, 1320 kcs, 250 w. (C).
- Marysville, Calif., Calaway and Hooper, 1420 kcs, 100 (.15) unlt'd. (E).
- McComb, Miss., McComb Brdctg. Corp., 1200 kcs, 100 w. days (E).
- Montebello, Calif., Bureau of Education, 1420 kcs, 100 w. days (contingent upon KECA's move to San Diago). (C).
- Niagara Falls, N. Y., 1260 kcs, 1 kw. (C).
- Norfolk, Va., Colonial Brdctg. Corp., 1370 kcs, 100 (.25) (C).
- Martinsville, Va., Patrick Henry Brdctg. Co., 1420 kcs., 100 (.25).
- North Sacramento, Calif., Grant Union High School, 1370 kcs, 100 w. days S. (C).
- Ogdensburg, N. Y., St. Lawrence Br. Corp., 1310 kcs, 100 (.25) (C).
- Olney, Ill., Olney Br. Co., 1210 kcs, 100 (.25) (E).
- Palm Springs, Calif., Mollin Investment Co., 1200 kcs., 100 w. days.
- Panama City, Fla., Panama City Brdctg. Co., 1200 kcs, 100 (.25) unlt'd. (E).
- Phoenix, Ariz., M. C. Reese, 1200 kcs, 100 (.25) (E).
- Pontiac, Mich., King-Trendle Brdc. Corp., 1440 kcs, 250 w. (C).
- Pontiac, Mich., Pontiac Br. Co., 1100 kcs, 1 kw days. (C).
- Pontiac, Mich., Geo. B. Storer, 600 kcs, 500 (1). (C).
- Providence, R. J., Peter J. Calderone, 1270 kcs, 250 w. days. (E. rec. denial). (C).
- Provo, Utah, Citizens Voice and Air Show, 1210 kcs. 100 (.25). unlt'd. (C).
- Provo, Utah, Provo Brdctg. Co., 1210 kcs. 100 (.25) unlt'd. (C).
- Rochester, N. Y., Edward J. Doyle, 1270 kcs, 500 w. days. (E).
- Rockville, Md., Monocacy Br. Co., 1140 kcs, 250 w. days (C).
- Saginaw, Mich., Saginaw Br. Co. Co., 950 kcs. (C).
- St. Petersburg, Fla., Pinellas Brdctg. Co., 1370 kcs., 100 (.25).
- Salem, Mass., North Shore Brdctg. Co., 1300 kcs., 100 w.
- Sandusky, Mich., Thumb Br. Co., 880 kcs, 1 kw days. (E).
- San Juan, P. R., United Theaters, Inc., 580 kcs, 1000 w. (C).
- San Juan, P. R., E. R. Sanfeliz, 580 kcs., 1 kw. (C).
- Santa Monica, Calif., A. E. Austin, 1160 kcs, 100 (.25). (C).
- Sedalia, Mo., Drohlich Bros., 1500 kcs, 100 (.25) (E).
- Shelby, N. C., Joseph A. Lattimore, 1370 kcs., 100 (.25).
- Spartanburg, S. C., Spartanburg Advertising Co., 1370 kcs. 100 (.25) unlt'd. (E).
- Springfield, Ohio, S. Br. Corp., 1310 kcs, 100 w. (E).
- Suffolk, Va., S. Br. Corp., 1420 kcs, 100 (.25). (C).
- Sumter, S. C., J. Samuel Brody, 1310 kcs, 100 (.25) (E).
- Sweetwater, Tex., 1210 kcs, 250 w. days (E).
- Tacoma, Tacoma Br. Co., 1420 kcs, 100 (.25) (C).
- Tacoma, Michael J. Mingo, 1400 kcs, 250 w. (C).
- Topeka, Kans., W. B. Greenwald, 1370 kcs, 100 (.25) unlt'd. (E).

- Valdosta, Ga., J. F. Arrington, 1230 kcs., 250 w. unltld.
- Vincennes, Ind., Vin. Newspapers, Inc., 1420 kcs., 100 w. (C).
- Washington, D. C., Lawrence J. Heller, 1310 kcs, 100 (.25) (Facilities of WOL) (C).
- Washington, D. C., Lawrence J. Heller, synchronous station on 1310 kcs, 10 to 100 w. unltld, to be used with above station if application is granted (C).
- Worcester, Mass., Central Br. Corp., 1500 kcs, 100 (.25) (C).
- Worcester, Mass., C. T. Sherer Co., 1200 kcs., 100 (.25). (E).
100v (.25) (C).
- Elgin, Ill., Elgin Brdctg. Ass'n., 1170 kcs, 100 w. days (E).
- Evanston, Ill., Northwestern Brdctg. Assn., 1310 kcs, 100w. (E).
- Modesto, Calif., Thomas McTammany, 1340 kcs, 500 w. (C).
- Modesto, Calif., Wm. H. Bates, 740 kcs, 250 w. days (facilities of KTRB) (E).
- Proctorville, Ohio, David F. Thomas, CP spec. em. station, 2726 kcs, 5 w., in addition to anyone of 3 freqs. 31420, 39660, 39860 kcs, 15 w.

SCRAPBOOK

(Continued from page 11)

will benefit from an association of this nature.

No discussion of this nature could be complete without mention of the national conventions which some of the clubs have sponsored. The annual NNRC conventions at Lansdale, Pa., have attracted members from California, Indiana, Connecticut, Maryland and nearby states, and "correspondence friendships" have been sealed by personal meeting. Lemuel Cavileer has referred to the Eastern convention of the IDA, and it is understood that the NRC is planning two get-togethers for this summer, one at Hershey, Pa., and the other at Erie. Other organizations probably have similar plans.

By supplementing local activities with attendance at one or more of the national conventions, listeners cannot help but get the maximum enjoyment which their hobby has to offer.

CALLING ALL DXERS!

DXers across the Nation will be looking forward to the Super-Special DX broadcast to go on the air over station WKRC, 550 kcs., on May 21, from 3 to 5 am EST.. This broadcast has attracted the attention of Eddie Cantor, who has asked that his theme song be played as a dedication to him, and a composer of several late song hits has offered to introduce his latest, "Talking To The Moon," on this broadcast.

There will be a minstrel show, comedy sketches, and prizes for listeners. Some of the prizes to be offered for reports are a Crosley radio, electric razors, pen and pencil sets, and other attractive items. An operator will be on duty to take telephone and telegraph calls and the public across the Nation is invited to call or wire in and take part in the broadcast.

WKRC will use 5000 watts power on this program, which has been arranged by the Cincinnati Chapter of the Newark News Radio Club, of which George H. Jacobs is the chairman.

"Since the first of this year, I have received 114 stations," notes John Francis, Inkster, Mich., "which I don't think is so bad for a year-old, twelve-dollar radio. Among the outstanding stations are WJR, WWJ, CKLW, KOA, KSL, WHAM, WCAU, WSPD, WOAI, WLW, WGN, WWL, KXYZ, XENT, XERA, WAPI, WNEL, KPO, KFI and CJRC. As yet I have no verifications."

Radio Amateur Call Book

LATEST EDITION

Lists over 40,000 amateurs in every country in the world, and complete lists of all the high frequency commercial stations. Every listener interested in amateur stations should have one. 292 pages.



We pay the postage.

RADEX
362 Cedar Lane,
TEANECK, N. J.

\$1.25

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

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

ALABAMA			Jonesboro			KGB			New London		
Anniston			KBTM	1200	100	San Francisco	1330	1000M	WNLC	1500	100M
WHMA	1420	100	Little Rock			KFRC	610	1000M	Waterbury		
WBRC			KARK	890	500 N	KGO	790	7500 B	WATR	1190	100
Birmingham			KGHI	1200	100	KJBS	1070	500	WBRY	1530	1000M
WAPI	1140	5000 C	KLRA	1390	1000 C	KPO	680	50000 R	DELAWARE		
WBOB	930	1000 B	Pine Bluff			KSAN	1420	100	Wilmington		
WSGN	1310	100 B	KOTN	1500	100	KSFO	560	1000 C	WDEL	1120	250 R
Decatur			Siloam Springs			KYA	1230	1000	WILM	1420	100 B
WMFO	1370	100	KUOA	1260	5000	San Jose			DISTRICT OF COLUMBIA		
Dothan			CALIFORNIA			KQW	1010	1000M	Washington		
WAGF	1370	250	Bakersfield			San Luis Obispo			WJVS	1460	10000 C
Gadsden			KERN	1370	100 N	KVEC	1200	100	WMAL	630	250 B
WJBY	1210	100	KPMC	1550	1000M	Santa Ana			WOL	1230	1000M
Huntsville			Berkeley			KVOE	1500	100M	WRC	950	1000 R
WBHP	1200	100	KRE	1370	100	Santa Barbara			FLORIDA		
Mobile			Beverly Hills			KDB	1500	100M	Daytona Beach		
WALA	1380	500 C	KMPK	710	500	KTMS	1220	500 B	WMFJ	1420	100
WMOB	1200	100 C	Chico			Santa Rosa			Gainesville		
Montgomery			KHSL	1260	250	KSRO	1310	100	WRUF	830	5000
WCOV	1210	100	El Centro			Stoekton			Jacksonville		
WSFA	1410	500 C	KXO	1500	100M	KGDM	1100	1000M	WJAX	900	1000 N
Selma			Eureka			KWG	1200	100 N	WJHP	1290	250
WHBB	1500	100	KIEM	1450	500M	Visalla			WMBR	1370	100 C
Muscle Shoals City			Fresno			KTCC	1190	250M	Lakeland		
WMSD	1420	100	KARM	1310	100 C	Watsonville			WLAJ	1310	100 N
Tuscaloosa			KMJ	580	1000 N	KHUB	1310	250	Miami		
WJRD	1200	250	Glendale			COLORADO			WIOD	610	1000 N
ALASKA			KIEV	850	250	Alamosa			WMBF	610	1000
Anchorage			Long Beach			KGIW	1420	100	WQAM	560	1000 C
KFQD	780	250	KFOX	1250	1000	Colorado Springs			Miami Beach		
Fairbanks			KGFR	1360	1000	KVOR	1270	1000 C	WKAT	1500	100
KFAR	610	1000	Los Angeles			Denver			Ocala		
Juneau			KECA	1430	1000 B	KFEL	920	500M	Orlando		
KINY	1430	250	KEHE	780	1000	KLZ	560	1000 C	WDBO	580	1000 C
Ketehikan			KFAC	1300	1000	KOA	830	50000 R	Pensacola		
KGBU	900	500	KFI	640	50000 R	KPOF	880	1000	WCOA	1340	500
ARIZONA			KFSG	1120	500	KVOD	920	500 B	St. Augustine		
Globe			KFVD	1000	1000	Durango			WFOY	1210	100
KWJB	1210	100	KFWB	950	1000	KIUP	1370	100	St. Petersburg		
Jerome			KGfJ	1200	100	Grand Junction			WSUN	620	1000 N
KCRJ	1310	100	KHJ	900	1000M	KFKJ	1200	100	Tallahassee		
Lowell			KMTR	570	1000	Greeley			WTAL	1310	100
KSUN	1200	100	KNX	1050	50000 C	KFKA	880	500M	Tampa		
Phoenix			KRDK	1120	500	La Junta			WDAE	1220	1000 C
KOY	1390	1000 C	Merced			KOKO	1370	100	WFLA	620	1000 N
KTAR	620	1000 N	KYOS	1040	250	Lamar			West Palm Beach		
Prescott			Modesto			KIDW	1420	100	WJNO	1200	100 C
KYCA	1500	100	KTRB	740	250	Pueblo			GEORGIA		
Safford			Monterey			KGHF	1320	500 B	Albany		
KGLU	1420	100	KDON	1210	100M	Sterling			WGPC	1420	100
Tucson			Oakland			KGEK	1200	100	Athens		
KGAR	1370	100 C	KLS	1280	250	CONNECTICUT			WGAT	1310	100
KVOA	1260	1000	KLX	880	1000	Bridgeport			Atlanta		
ARKANSAS			KROW	930	1000	WICC	600	500M	WAGA	1450	500 B
Blytheville			Pasadena			Hartford			WATL	1370	100
KLCN	1290	100	KPPC	1210	100	WDRG	1330	1000 C	WGST	890	1000 C
El Dorado			Redding			WTIC	1040	50000 R	WSB	740	50000 R
KELD	1370	100	KVCV	1200	100	WTHT	1200	100M	Augusta		
Fort Smith			Sacramento			New Britain			WRDW	1500	100 C
KFPW	1210	100	KFBK	1490	10000 N	WNBC	1380	250 R	CONNECTICUT		
Hot Springs			KROY	1210	100 C	New Haven			WELI		
KTHS	1060	10000 N	San Bernardino			WELI	900	500	WELI		
			KFXM	1210	100M				WELI		
			San Diego						WELI		
			KFSD	600	1000 B				WELI		

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Columbus		
WRBL	1200	100
Griffin		
WKUE	1500	100
Macon		
WMAZ	1180	1000 C
Rome		
WRGA	1500	100
Savannah		
WSAV	1310	100
WTOC	1260	1000 C
Thomasville		
WPAX	1210	100
Waycross		
WATX	1200	100

HAWAII

Hilo		
KHBC	1400	250 M
Honolulu		
KGMB	1320	1000 C
KGU	750	2500 N
Lihue		
KTOH	1500	100

IDAHO

Boise		
KIDO	1350	1000 N
Idaho Falls		
KID	1320	500
Lewiston		
KRLC	1390	250
Nampa		
KFXD	1200	100
Pocatello		
KSEI	900	250 N
Twin Falls		
KTFI	1240	1000 N
Wallace		
KWAL	1420	100

ILLINOIS

Aurora		
WMRO	1250	250
Bloomington		
WJBC	1200	100
Carthage		
WCAZ	1070	100
Champaign		
WDWS	1370	100
Chicago		
WAAF	920	1000
WBBM	770	50000 C
WCBH	1080	5000
WCFL	970	5000 N
WCRW	1210	100
WBDC	1210	100
WENR	870	50000 B
WGES	1360	500
WGN	720	50000 M
WJDD	1130	20000
WLS	870	50000 B
WMAQ	670	50000 R
WMBI	1080	5000
WIBC	1210	100

Cicero		
WHFC	1420	100
Danville		
WDAN	1500	100
Decatur		
WJBL	1200	100
East Dubuque		
WKBB	1500	100 C
East St. Louis		
WTMV	1500	100
Galesburg		
WGIL	1500	250
Harrisburg		
WEBQ	1210	100
Joliet		
WCLS	1310	100
Peoria		
WMBD	1440	1000 C
Quincy		
WTAD	900	1000
Rockford		
WROK	1410	500
Rock Island		
WBBF	1240	1000
Springfield		
WCBS	1420	100
WTAX	1210	100
Tuscola		
WDZ	1020	250
Urbana		
WILL	580	5000

INDIANA

Anderson		
WHBU	1210	100
Eikhart		
WTRC	1310	100
Evansville		
WEOA	1370	100 C
WGBF	630	500 N
Fort Wayne		
WGL	1370	100 N
WOWO	1160	10000 B
Gary		
WIND	560	1000
Hammond		
WHIP	1480	5000
WWAE	1200	100
Indianapolis		
WFEM	1230	1000 C
WIBC	1050	1000
WIRE	1490	1000 B
Muncie		
WLBC	1310	100
New Albany		
WGRC	1370	250
Richmond		
WKEV	1500	100
South Bend		
WFAM	1200	100
WSBT	1360	500
Terre Haute		
WBOW	1310	100 N
West Lafayette		
WBAA	890	500

IOWA

Ames		
WOI	640	5000

Boone		
KFGQ	1370	100
Cedar Rapids		
WMT	600	1000 B
Davenport		
WOC	1370	100 C
Decorah		
KGCA	1270	100
KWLC	1270	100
Des Moines		
KRNT	1320	1000 C
KSO	1430	1000 B
WHO	1000	50000 R
Dubuque		
KDTH	1340	500
Iowa City		
WSUI	880	500
Marshalltown		
KPFB	1200	100
Mason City		
KGLO	1210	100 C
Shenandoah		
KPNF	890	500
KMA	930	1000 B
Sioux City		
KSCJ	1330	1000 C
KTRI	1420	100

KANSAS

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

KENTUCKY

Ashland		
WCMI	1310	100
Covington		
WKCY	1480	10000 N
Lovington		
WLAP	1420	100

Louisville		
WAVE	940	1000 N
WHAS	820	50000 C
WYNN	1210	10a
Owensboro		
WOMI	1500	100
Paduoaah		
WPAD	1420	100

LOUISIANA

Alexandria		
KALB	1210	100
Baton Rouge		
WJBO	1120	500 B
Lafayette		
KVOL	1310	100
Lake Charles		
KPLC	1500	100
Monroe		
KMLB	1200	100
New Orleans		
WBNO	1420	100
WDSU	1250	1000 B
WJBW	1200	100
WSMB	1320	1000 R
WWL	850	50000 C
Shreveport		
KRMD	1310	100
KTRB	1450	1000 N
KWKH	1100	50000 C

MAINE

Augusta		
WRDO	1370	100 M
Bangor		
WABI	1200	100
WLBZ	620	500 N
Lewiston		
WCOU	1210	100 M
Portland		
WCSH	940	1000 R
WGAN	640	500
Presque Isle		
WAGM	1420	100

MARYLAND

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

MASSACHUSETTS

Boston		
WAAB	1410	500 M

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

WBZ	980	50000 B
WCOP	1120	500
WEEI	590	1000 C
WHDH	830	1000
WMEK	1500	100
WNAC	1230	1000 R
WORL	920	500
Fall River		
WSAR	1450	1000M
Greenfield		
WHAI	1210	250M
Hyannis		
WOCB	1210	100
Lawrence		
WLAW	680	1000
WLLH	1370	100M
Lowell		
WLLH	1370	100
New Bedford		
WLLH	1370	100M
Pittsfield		
WBRK	1310	100 C
Springfield		
WBZA	990	1000 B
WMAS	1420	100 C
WSPR	1140	500M
Worcester		
WORC	1280	500 C
WTAG	580	1000 R

MICHIGAN

Battle Creek		
WBLL	1420	100 B
Bay City		
WBCM	1410	500
Calumet		
WBDF	1370	100
Detroit		
WJBK	1500	100
WJL	750	50000 C
WMBC	1420	100
WWJ	920	1000 R
WXYZ	1240	1000 B
East Lansing		
WKAR	850	1000
Flint		
WFDF	1310	100 B
Grand Rapids		
WASH	1270	500 N
WOOD	1270	500 N
Ironwood		
WJMS	1420	100
Jackson		
WIBM	1370	100 B
Kalamazoo		
WKZO	590	1000 B
Lansing		
WJTM	1210	100 B
Lapeer		
WMPC	1200	100
Marquette		
WBEO	1310	100
Muskegon		
WKBZ	1500	100
Port Huron		
WHLS	1370	250
Royal Oak		
WEXL	1310	50

MINNESOTA

Albert Lea		
KATE	1420	100
Duluth		
KDAL	1500	100 C
WEBC	1290	1000 N
Fergus Falls		
KGDE	1200	100
Hibbing		
WMFG	1210	100
Mankato		
KYSM	1500	100
Minneapolis		
WCCO	810	50000 C
WDGY	1180	1000 C
WLB	790	5000
WTCN	1250	1000 B
Moorhead		
KVOX	1310	100
Northfield		
WCAL	760	5000
Rochester		
KROC	1310	100
St. Cloud		
KFAM	1420	100
St. Paul		
KSTP	1460	10000 R
WMIN	1370	100
Virginia		
WHLB	1370	100 C
Winona		
KWNO	1200	250

MISSISSIPPI

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

MISSOURI

Cape Girardeau		
KFVS	1210	100
Columbia		
KFRU	630	500
Jefferson City		
KWOS	1310	100
Joplin		
WMBH	1420	100
Kansas City		
KCMO	1370	100
KTFE	1530	1000
KMBC	950	1000 C
WDAF	610	1000 R
WHB	860	1000M
Poplar Bluff		
KWOC	1310	100

St. Joseph

KFEQ	680	2500
St. Louis		
KFVO	550	500
KMOX	1090	50000 C
KSD	550	1000 R
KWK	1350	1000 B
KXOK	1250	1000
WEW	780	1000
WLL	1200	100
Springfield		
KGBX	1230	500 N
KWTO	560	5000

MONTANA

Billings		
KGHL	780	1000 N
Bozeman		
KRBM	1420	100
Butte		
KGIR	1340	1000 N
Great Falls		
KFBB	1280	1000 C
Helena		
KPFA	1210	100 N
Kalispell		
KGEZ	1310	100
Missoula		
KGVO	1260	1000 C
Wolf Point		
KGCX	1450	1000

NEBRASKA

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

NEVADA

Reno		
KOH	1380	500 C

NEW HAMPSHIRE

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

NEW JERSEY

Asbury Park		
-------------	--	--

WCAP	1280	500
Atlantic City		
WPG	1100	5000 C
Bridgeton		
WSNJ	1210	100
Camden		
WCAM	1280	500
Jersey City		
WAAT	940	500
WHOM	1450	250
Newark		
WBBI	1250	1000
WOR	710	50000M
Red Bank		
WBRB	1210	100
Trenton		
WTNJ	1280	500
Whippany		
WEXDD	...	50000
Zarephath		
WAWZ	1350	1000

NEW MEXICO

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

NEW YORK

Albany		
WABY	1370	100 N
WOKO	1430	500 C
Auburn		
WMOB	1310	100
Binghamton		
WNBF	1500	100 C
Brooklyn		
WARD	1400	500
WBBC	1400	500
WBRR	1300	1000
WCNW	1500	100
WVFW	1400	500
Buffalo		
WBEN	900	1000 R
WBNY	1370	100
WEBR	1310	100 B
WGR	550	1000 C
WKBW	1480	5000 C
WWSV	1370	50
Canton		
WCAD	1220	500
Elmira		
WENY	1200	250
WESG	850	1000 C
Freeport		
WGBB	1210	100

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Jamestown			Rocky Mount			OKLAHOMA			Easton		
WJTN	1210	100 B	WEED	1420	100	Ada			WEST	1200	100
Newburgh			Salisbury			KADA	1200	100M	Erie		
WGNV	1220	250	WSTP	1500	100	Ardmore			WLEU	1420	100 B
New York			Wilmington			KVSO	1210	100M	Glenside		
WABC	860	50000 C	WMFD	1370	100	Elk City			WIBG	970	100
WBIL	1100	5000	Wilson			KASA	1210	100 M	Greensburg		
WBNX	1350	1000	WGTM	1310	100	Enid			WHJB	620	250 C
WBOQ	860	50000	Winston-Salem			KCRC	1360	250M	Grove City		
WEAF	660	50000 R	WAIR	1250	250	Muskogee			WSAJ	1310	100
WEVD	1300	1000	WSJS	1310	100 C	KBIX	1500	100M	Harrisburg		
WHN	1010	1000				Norman			WHP	1430	500 C
WINS	1180	1000				WNAD	1010	1000	WKBO	1200	100 N
WJZ	760	50000 B				Oklahoma City			Hazleton		
WLTH	1400	500				KOCY	1310	100	WAZL	1420	100
WMCA	570	1000	Bismarck			KOMA	1480	5000 C	Johnstown		
WNEW	1250	1000	KFYR	550	1000 N	KTOK	1370	100M	WJAC	1310	100
WNYC	810	1000	Devils Lake			WKY	900	1000 N	Lancaster		
WOV	1130	1000	KDLR	1210	100	Oklmulgee			WGAL	1500	100 N
WQXR	1550	1000	Fargo			KHBB	1210	100	New Castle		
Olean			WDAY	940	1000 N	Ponca City			WKST	1250	250
WHDL	1400	250	Grand Forks			WBBZ	1200	100M	Philadelphia		
Pattsburg			KFJM	1410	500	Shawnee			KYW	1020	10000 R
WMFF	1310	100 B	Jamestown			KGFF	1420	100M	WCAU	1170	50000 C
Rochester			KRMC	1370	100	Tulsa			WDAS	1370	100
WHAM	1150	50000 B	Mandan			KOME	1310	250	WFIL	560	1000 B
WHBC	1430	500 C	KGCU	1240	250	KTUL	1400	1000 C	WHAT	1310	100
WSAY	1210	100	Minot			KVOO	1140	25000 N	WIP	610	1000
Saranac Lake			KLPM	1360	500				WPEN	920	1000
WNBZ	1290	100	Valley City						WTEL	1310	100
Schenectady			KOVC	1500	100				Pittsburgh		
WGY	790	50000 R							KDKA	980	50000 B
Syracuse									KQV	1380	500 C
WFBL	1360	1000 C	OHIO			Astoria			WCAE	1220	1000 R
WSYR	570	1000 B	Akron			KAST	1370	100	WJAS	1290	1000 C
WSYU	570	1000	WADC	1320	1000 C	Baker			WWSW	1500	100
Troy			WJW	1210	100	Bend			Reading		
WHAZ	1300	1000	Ashtabula			KBND	1310	100	WEUW	830	1000 R
WTRY	950	1000	WICA	940	250	Corvallis			WRAW	1310	100
Utica			Canton			KOAC	550	1000	Soranton		
WIBX	1200	100 C	WBBC	1200	100	Eugene			WGBI	880	500 C
White Plains			Cincinnati			KORE	1420	100M	WQAN	880	500
WFAS	1210	100	WCPO	1200	100	Klamath Falls			WSharon		
Woodside			WKRC	550	1000 C	KFJI	1210	100	WPIC	780	250
WWRL	1500	100	WLW	700	50000 N	La Grande			Sunbury		
			WSAI	1330	1000 N	KLBM	1420	100	WKOK	1210	100
			WSSO	700	500000	Marshfield			Uniontown		
			Cleveland			KOOS	1200	100M	WMBS	1420	100
NORTH CAROLINA			WCLE	610	500M	Medford			Wilkes-Barre		
Asheville			WGAR	1450	1000 C	KMED	1410	250 N	WBAX	1210	100M
WWNC	570	1000 N	WHK	1390	1000 B	Portland			WBRE	1310	100 N
Charlotte			WTAM	1070	50000 R	KALE	1300	1000M	Williamsport		
WBT	1080	50000 C	Columbus			KBPS	1420	100	WRAK	1370	100
WSOC	1210	100 N	WBNS	1430	1000 C	KEX	1180	5000-B	York		
Durham			WCOL	1210	100 N	KGW	620	1000 R	WORK	1320	1000 N
WDNC	1500	100 C	WHKC	640	500M	KOIN	940	1000 C			
Fayetteville			WOSU	570	750	KWJJ	1040	500			
WFNC	1340	250	Dayton			KXL	1420	100			
Gastonia			WHIO	1260	1000 C	Roseburg			PUERTO RICO		
WGNC	1420	100	WSMK	1380	250 C	KRNE	1500	100M	Mayaguez		
Goldsboro			Lima			Salem			WPRP	1420	100
WGBR	1370	100	WLOK	1210	100	KSLM	1370	100M	San Juan		
Greensboro			Portsmouth						WKAQ	1240	1000
WBIG	1440	1000 C	WPAY	1370	100				WNEL	1290	1000
High Point			Toledo			PENNSYLVANIA			RHODE ISLAND		
WMFR	1200	100	WSPD	1340	1000 B	Allentown			Providence		
Kinston			WTOL	1200	100	WCBA	1440	500	WEAN	780	1000M
WPTC	1200	100	Youngstown			WSAN	1440	500 N			
Raleigh			WFMJ	1420	100	Altoona					
WPTF	680	5000 N	WKBN	570	500 C	WFBG	1310	100			
WRAL	1210	100	Zanesville								
			WALR	1210	100						

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

WJAR 980 1000 R
WPRO 630 500 C

SOUTH CAROLINA

Anderson
WAIM 1200 100 C
Charleston
WCSC 1360 500 N
WTMA 1210 100
Columbia
WCOS 1370 100
WIS 560 1000 N
Florence
WOLS 1200 100
Greenville
WFBC 1300 1000 N
Rock Hill
WRKL 1500 100
Spartanburg
WSPA 920 1000

SOUTH DAKOTA

Aberdeen
KABR 1390 500
Brookings
KFJY 780 1000
Pierre
KGFZ 630 200
Rapid City
KOBH 1370 100
WCAT 1200 100
Sioux Falls
KELO 1200 100 N
KSOO 1110 5000 N
Vermillion
KUSD 890 500
Yankton
WNAX 570 1000 C

TENNESSEE

Bristol
WOPI 1500 100
Chattanooga
WAPO 1420 100 N
WDOD 1280 1000 C
Jackson
WJIS 1310 100
Johnson City
WJHL 1200 100
Knoxville
WNOX 1010 1000 C
WROL 1310 100 N
Memphis
WHBQ 1370 100
WMC 780 5000 R
WMPB 1430 500 B
WREC 600 1000 C
Nashville
WLAC 1470 5000 C
WSIX 1210 100
WSM 650 50000 N

TEXAS

Abilene
KRBC 1420 100M

Amarillo
KFDM 1500 100
KGNC 1410 1000 N
Austin
KNOV 1500 100 C
KTBC 1120 1000
Beaumont
KFDM 560 500 N
KRIC 1410 100M
Big Spring
KBST 1500 100M
Brady
KNEL 1500 250
Brownsville
KGFI 1500 100
College Station
WTAW 1120 500
Corpus Christi
KRIS 1330 500 N
Corsicana
KAND 1310 100M
Dallas
KRLD 1040 10000 C
WFAA 800 50000 N
WRR 1280 500M

Denton
KDNT 1420 100
Dublin
KFPL 1310 100
El Paso
KRQD 1500 100
KTSM 1310 100 N
WDAH 1310 100
Fort Worth
KFJZ 1370 100M
KGKO 570 1000 B
KTAT 1240 1000M
WBAP 800 50000 N
Galveston
KLUF 1370 100M
Greenville
KGVJ 1200 100
Houston

KPRC 920 1000 R
KTEH 1290 1000 C
KXYZ 1440 1000 B
Huntsville
KSAM 1500 100
Kilgore
KOC A 1210 100
Larado
KPAB 1500 100
Longview
KFRO 1370 250M
Lubbock
KFYO 1310 100M
Lufkin
KRBA 1310 100
Midland
KRLH 1420 100
Palestine
KNET 1420 100
Pampa
KPDN 1310 100
Paris
KPLT 1500 250M
Pecos
KIUN 1370 100
Port Arthur
KPAC 1280 500

San Angelo
KGKL 1370 100
San Antonio
KABC 1420 100M
KMCC 1370 100
KONO 1370 100
KTSA 550 1000 C
WOAI 1190 50000 N
Sherman
KRRV 1310 250M
Temple
KTEM 1370 250M
Texarkana
KCMC 1420 100M
Tyler
KGKB 1500 100M
Vernon
KVVC 1500 100
Waco
WACO 1420 100 C
Westaco
KRGV 1260 1000 N
Wichita Falls
KWFT 620 250

UTAH

Cedar City
KSUB 1310 100
Logan
KVN U 1200 100
Ogden
KLO 1400 500 B
Price
KEUB 1420 100
Salt Lake City
KDYL 1290 1000 R
KSL 1130 50000 C
KUTA 1500 100 N

VERMONT

Burlington
WCAX 1200 100
Rutland
WSYB 1500 100
St. Albans
WQDM 1390 1000
Springfield
WNEX 1260 1000 C
Waterbury
WDEV 550 500

VIRGINIA

Charlottesville
WCHV 1420 100
Danville
WBTM 1370 100
Harrisonburg
WSVA 550 500
Lynchburg
WLVA 1200 100
Newport News
WGH 1310 100
Norfolk
WTAR 780 5000 N
Petersburg
WPIV 1210 100

Richmond
WBBL 1210 100
WMBG 1350 500 R
WRNL 890 500
WRD T 1500 100 B
WRVA 1110 5000 C
Roanoke
WDBJ 930 1000 C

WASHINGTON

Aberdeen
KKRO 1310 100M
Bellingham
KVOS 1200 100M
Centralia
KELA 1440 500M
Everett
KRKO 1370 50M
Longview
KWJK 780 250
Olympia
KGY 1210 100M
Pullman
KWSC 1220 1000
Seattle
KREK 1370 100
KIRO 710 1000 C
KJR 970 5000 B
KOL 1270 1000M
KOMO 920 1000 R
KRSC 1120 250
KTW 1220 1000
KXA 760 250
Spokane
KFIO 1120 100
KFPY 890 1000 C
KGA 1470 5000 B
KHQ 590 1000 R
Tacoma
KMO 1330 1000M
KVI 570 1000 C
Vancouver
KVAN 880 250
Walla Walla
KUJ 1370 100
Wenatchee
KIT 1250 250M
Yakima
KPQ 1500 100

WEST VIRGINIA

Beckley
WJLS 1210 100
Bluefield
WHIS 1410 500
Charleston
WCHS 580 500 C
WGKV 1500 100
Clarksburg
WBLK 1370 100
Fairmont
WMMN 890 1000 C
Huntington
WSAZ 1190 1000
Parkersburg
WPAB 1420 100 C
Wheeling
WVVA 1160 5000 C

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Williamson WBTH	1370	100
--------------------	------	-----

WISCONSIN

Eau Claire WEAU	1050	1000
Fond du Lac KFIZ	1420	100
Green Bay WBHY	1200	100
WTAQ	1330	1000 C
Janesville WCLO	1200	100
LaCrosse WKBB	1380	1000 C
Madison WHA	940	5000
WIBA	1280	1000 N
Manitowoc WOMT	1210	100
Milwaukee WEMP	1310	100
WISN	1120	250 C
WTMJ	620	1000 N
Peynette WIBU	1210	100
Racine WRJN	1370	100
Rice Lake WJMC	1210	250
Sheboygan WHBL	1300	250
Stevens Point WLBL	900	5000
Superior WDSM	1200	100
Wausau WSAU	1370	100

WYOMING

Casper KDFN	1440	500
Rock Springs KVRS	1370	100
Sheridan KWYO	1370	100

BAHAMAS

Nassau ZNS	785	400
---------------	-----	-----

CANADA
ALBERTA

Calgary CFAC	930	1000 F
CFCN	1030	10000
CJGJ	690	100 F
Edmonton CFRN	960	100 F
CJCA	730	1000 F
CKUA	580	500 F
Grande Prairie CFGP	1200	100
Lethbridge CFOC	950	100 F

BRIT. COLUMBIA

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

MANITOBA

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

NEW BRUNSWICK

Fredericton CFNB	550	500 F
Moncton CKCV	1370	100 F
Sackville CBA	1050	50000
St. John CHSJ	1120	100 F

N. W. TERRITORY

Aklavik CJCU	1210	50
-----------------	------	----

NOVA SCOTIA

Glace Bay VAS	685	2000
Halifax CHNS	930	1000 F
Sydney CJGB	1240	1000 F
Wolfville CKIC	1010	50
Yarmouth CJLS	1310	100 F

ONTARIO

Brantford CKPC	930	100
Chatham CFCO	630	100 F
Cobalt CKMK	1210	50
Fort William CKPR	580	100 F

Hamilton

CHML	1010	100 F
CKOC	1120	500 F
Kenora CKCA	1420	100
Kingston CFRC	1510	100 F
Kitchener CKCR	1510	100
London CFPL	730	100 F
North Bay CFCH	930	100 F
CJKL	1310	100 F
CKGB	1420	100 F
Ottawa CBO	880	1000 F
CKCO	1010	100 F
Owen Sound CFOS	1370	100
Prescott CFLC	930	100
St. Catharines CKTB	1200	100 F
Sault Ste. Marie CJIC	1500	100 F
Stratford CJCS	1210	50
Sudbury CKSO	780	1000 F
Toronto CBL	840	50000 F
CBY	1420	100 F
CFRB	690	10000 C
CKCL	580	100 F
Windsor CKLW	1030	5000 F
Wingham CKNX	1200	100

PRINCE EDWARD
ISLAND

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

QUEBEC

Chicoutimi CBJ	1120	100 F
Hull CKCH	1210	100 F
Montreal CBF	910	50000 N
CBM	960	5000 F
CFCF	600	500 B
CHLP	1120	100 F
CKAC	730	5000 C
New Carlisle CHNC	610	1000 F
Quebec CHRC	580	100
CKCV	1310	100 F
CBV	960	1000 F
Rimouski CJBR	1030	1000 F
Rouyn CKRN	1370	100

St. Anne de la Pocatiere

CHGB	1200	100
Sherbrooke CHLT	1210	100
Three Rivers CHLN	1420	100

SASKATCHEWAN

Moose Jaw CHAB	1200	100 F
Prince Albert CKBI	1210	100 F
Regina CJRM	540	1000 F
CKCK	1010	1000 F
Saskatoon CFQC	840	1000 F
Watrous CBK	540	50000
Yorkton CJGJ	1390	100 F

COSTA RICA

TIBCV	575	100
Alajuela San Jose TIEP	830	3000
TIRA	1000	250
TIGH	725	600
TILJ	775	450
TILS	830	500
TIPG	625	5000
TIRH	950	2000
TIRM	750	500
TIRS	915	250
ITX	650	1000
TIXD	800	1000

CUBA

Bayamo CMKL	950	200
Caibarien CMED	1270	200
Camaguey CMGA	860	200
CMJC	1390	200
CMJE	1250	200
CMJF	930	200
CMJK	1290	200
CMJW	1070	200
CMJX	740	200
Cardenas CMGE	1370	200
Ciego de Avila CMJH	1360	200
CMJI	1130	200
CMJO	1260	200
Cienfuegos CMEJ	1160	200
CMEH	1450	200
CMEX	1480	200
Cruces CMHK	1210	200
Guantanamo CMRS	710	200
Guines CM9RT	1580	200
Havana CMBC	1140	200
CMBD	1260	200

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

CMBF	1560	5000
CMBG	690	200
CMBH	1600	5000
CMBL	750	200
CMBQ	1320	5000
CMB5	1170	200
CMBX	1080	200
CMBY	1440	200
CMBZ	940	200
CMC	1530	200
CMCA	1350	200
CMCB	1230	200
CMCD	630	15000
CMCF	810	5000
CMCG	1290	200
CMCH	1110	200
CMCK	970	5000
CMCL	730	10000
CMCM	850	200
CMCO	1200	200
CMCP	1050	200
CMCQ	1410	200
CMCR	660	200
CMCU	780	200
CMCW	1380	800
CMCX	1470	200
CMCY	570	15000
CMK	720	200
CMOA	910	200
CMOX	1500	200
CMQ	1010	25000 N
CMW	550	1400
CMX	880	20000
Holguin		
CMKF	1460	250
CMKO	1280	200
Manzanillo		
CMKE	1310	...
CMKM	1080	200
Matanzas		
CMGF	1120	200
CMGH	790	200
Moron		
CMJP	1420	200
Palma Soriano		
CMKZ	1430	200
Pinar del Rio		
CMAB	1240	200
Plaetas		
CMHP	1100	200
Sagua la Grande		
CMHA	1090	200
Sancti Spiritus		
CMHB	1240	200
Santa Clara		
CMHI	1060	200
CMHW	680	200
Santiago		
CMKC	1250	200
CMKD	910	1000
CMKG	1150	200
CMKH	1490	200
CMKI	1400	200
CMKW	750	200
CMKX	1190	200
Trinidad		
CMHT	920	200

DOMINICAN REPUBLIC

Ciudad Trujillo		
HIN	1090	740
HIX	800	800
HIT	1050	50

' EL SALVADOR

San Salvador		
YSS	640	500

GUATEMALA

Guatemala City		
TGW	1520	5000
TGX	1400	...
TGI	1310	...
Quezaltenango		
TGQ	1450	200

HONDURAS

Tegucigalpa		
TRF	1450	50

MEXICO**AGUASCALIENTES**

Aguascalientes		
XEBI	1000	250

BAJA CALIFORNIA

Mexicali		
XEAA	750	200
XEAO	660	250
XECL	960	1000
Rosarito Beach		
XERB	1090	150000
Tijuana		
XEBG	820	1000
XEAC	980	5000
XEC	1150	100
XELO	730	50000
XEMO	860	5000

CHIHUAHUA

Chihuahua		
XEBU	1240	50
XEBW	1340	250
XEPI	1440	250
XEM	1380	500
Juarez		
XEF	1450	100
XEFV	1210	50
XEJ	1020	1000
XEP	1160	500
Parral		
XEAT	1210	250

COAHUILA

Piedras Negras		
XEMU	580	250
XEPN	730	100000
Sabinas		
XEBX	640	250
Saltillo		
XEAS	1160	100
Torreón		

XETB	1310	500
Villa Acuña		
XEDH	1340	200
XERA	840	250000

DISTRITO FEDERAL

Gral. Anaya		
XEDA	1220	200
Mexico City		
XEAI	1250	500
XEAL	660	1000
XEB	1030	10000
XEBS	1340	200
XEBZ	810	100
XEDP	1080	500
XEFO	940	5000
XEJP	1130	100
XEK	990	100
XEL	1150	250
XELZ	1370	100
XEN	780	1000
XEQ	730	50000
XERC	870	500
XERH	1430	500
XEW	890	100000
XEXX	1170	1000

DURANGO

Durango		
XEBP	1150	250
XEE	1210	50

GUANAJUATO

Irapuato		
XEBO	1310	25
Leon		
XEKL	1240	500

JALISCO

Guadalajara		
XED	1160	2500
Guzman		
XEBA	1080	20

MEXICO

Texcoco		
XEXE	1270	17
Toluca		
XECH	1490	250

MICHOACAN

Morelia		
XEI	1370	125

NUEVO LEON

Monterrey		
XEFB	870	200
XEG	1230	250
XEH	720	250
XET	690	5000
XEX	1310	500

PUEBLA

Puebla		
XETH	1210	100

SAN LUIS POTOSI

San Luis Potosi		
XECZ	1370	100

SINALOA

Mazatlan		
XEBL	1220	50

SONORA

Cananea		
XEFQ	1010	50
Guaymas		
XEDR	1490	100
Hermosillo		
XEBH	930	500
Nogales		
XEAF	990	750
Obregon		
XEAP	1340	50

TAMAULIPAS

Matamoros		
XEAM	750	25
Nuevo Laredo		
XEBK	1080	100
XEDF	810	100
XEFE	980	250
XENT	910	150000
Reynosa		
XEAW	960	100000
Tampico		
XECA	1230	250
XEFW	1310	300
XES	990	250

VERACRUZ

Cordoba		
XEAG	1310	10
Jalapa		
XEBX	1270	250
Minatitlan		
XEDW	1150	20
Orizaba		
XEDX	1340	350
Veracruz		
XETF	1220	12
XEU	1010	250

YUCATAN

Merida		
XEPC	1340	100
XEMB	1240	50
XEZ	630	500

MIQUELON

St. Pierre		
FQN	609	250

NEWFOUNDLAND

St. John's		
VOAC	1065	40
VOCM	1006	200
VOGY	840	400
VONF	640	12500
VOWR	681	500

NORTH AMERICAN B. C. STATIONS BY CALLS

CBA	1050	50000	CHLT	1210	100	CKIC	1010	50
Sackville, N. B.			Sherbrooke, P. Q.			Wolfville, N. S.		
CBF	910	50000	CHML	1010	100	CKLW	1030	5000
Montreal, P. Q.			Hamilton, Ont.			Windsor, Ont.		
CBJ	1120	100	CHNC	610	1000	CKMC	1210	50
Chicoutimi, P. Q.			New Carlisle, P. Q.			Cobalt, Ont.		
CBK	540	50000	CHNS	930	1000	CKMO	1410	100
Watrous, Sask.			Hallfax, N. S.			Vancouver, B. C.		
CBL	840	50000	CHRC	580	100	CKNX	1200	100
Toronto, Ont.			Quebec, P. Q.			Wingham, Ont.		
CBM	960	5000	CHSJ	1120	100	CKOC	1120	500
Montreal, P. Q.			St. John, N. B.			Hamilton, Ont.		
CBO	880	1000	CHWK	780	100	CKOV	630	100
Ottawa, Ont.			Chilliwack, B. C.			Kelowna, B. C.		
CBR	1100	5000	CJAT	910	1000	CKPC	930	100
Vancouver, B. C.			Trail, B. C.			Brantford, Ont.		
CBV	950	1000	CJBR	1030	1000	CKPR	580	100
Quebec, P. Q.			Rimouski, P. Q.			Fort William, Ont.		
CBY	1420	100	CJCA	730	1000	CKRN	1370	100
Toronto, Ont.			Edmonton, Alta.			Rouyn, P. Q.		
CFAC	930	1000	CJCB	1240	1000	CKSO	780	1000
Calgary, Alta.			Sydney, N. S.			Sudbury, Ont.		
CFAR	1370	100	CJ CJ	690	100	CKTB	1200	100
Flin Flon, Man.			Calgary, Alta.			St. Catharines, Ont.		
CFCF	600	500	CJCS	1210	50	CKUA	580	500
Montreal, P. Q.			Stratford, Ont.			Edmonton, Alta.		
CFCH	930	100	CJCU	1210	50	CKWX	1010	100
North Bay, Ont.			Aklavik, N. W. T.			Vancouver, B. C.		
CFCN	1030	10000	CJGX	1390	100	CKX	1120	1000
Calgary, Alta.			Yorkton, Sask.			Brandon, Man.		
CFCO	630	100	CJIC	1500	100	CKY	910	15000
Chatham, Ont.			S. Ste. Marie, Ont.			Winnipeg, Man.		
CFCT	1450	500	CJKL	1310	100	CMAB	1240	200
Victoria, B. C.			North Bay, Ont.			Pinar del Rio, Cuba		
CFCY	630	1000	CJLS	1310	100	CMBC	1140	200
Charlottetown, P.E.I.			Yarmouth, N. S.			Havana, Cuba		
CFGP	1200	100	CJOC	950	100	CMBD	1260	500
Grande Prairie, Alta.			Lethbridge, Alta.			Havana, Cuba		
CFJC	880	1000	CJOR	600	500	CMBF	1560	5000
Kamloops, B. C.			Vancouver, B. C.			Havana, Cuba		
CFLC	930	100	CJRC	630	1000	CMBG	690	200
Prescott, Ont.			Winnipeg, Man.			Havana, Cuba		
CFNB	550	500	CJRM	540	1000	CMBH	1600	5000
Fredericton, N. B.			Regina, Sask.			Havana, Cuba		
CFOS	1370	100	CKAC	730	5000	CMBL	750	200
Owen Sound, Ont.			Montreal, P. Q.			Havana, Cuba		
CFPL	730	100	CKBI	1210	100	CMBQ	1320	5000
London, Ont.			Prince Albert, Sask.			Havana, Cuba		
CFPR	580	50	CKCA	1420	100	CMBS	1170	200
Prince Rupert, B. C.			Kenora, Ont.			Havana, Cuba		
CFQC	840	1000	CKCD	1010	100	CMBX	1080	200
Saskatoon, Sask.			Vancouver, B. C.			Havana, Cuba		
CFRB	690	10000	CKCH	1210	100	CMBY	1440	200
Toronto, Ont.			Hull, P. Q.			Havana, Cuba		
CFRC	1510	100	CKCK	1010	1000	CMCZ	940	200
Kingston, Ont.			Regina, Sask.			Havana, Cuba		
CFRN	960	100	CKCL	580	100	CMC	1530	200
Edmonton, Alta.			Toronto, Ont.			Havana, Cuba		
CHAB	1200	100	CKCO	1010	100	CMCA	1350	200
Moose Jaw, Sask.			Ottawa, Ont.			Havana, Cuba		
CHCK	1310	50	CKCR	1510	100	CMCB	1230	200
Charlottetown, P.E.I.			Kitchener, Ont.			Havana, Cuba		
CHGB	1200	100	CKCV	1310	100	CMCD	630	15000
St. Ann, P. Q.			Quebec, P. Q.			Havana, Cuba		
CHGS	1450	50	CKCW	1370	100	CMCF	810	5000
Summerside, P.E.I.			Moncton, N. B.			Havana, Cuba		
CHLN	1420	100	CKFC	1410	50	CMCG	1290	200
Three Rivers, P. Q.			Vancouver, B. C.			Havana, Cuba		
CHLP	1120	100	CKGB	1420	100	CMCJ	1110	200
Montreal, P. Q.			North Bay, Ont.			Havana, Cuba		

NORTH AMERICAN B. C. STATIONS BY CALLS

	CMCK	970	5000		CMJX	740	200		KARK	890	500
	Havana, Cuba				Camaguey, Cuba				Little Rock, Ark.		
	CMCL	730	10000		CMK	720	200		KARM	1310	100
	Havana, Cuba				Havana, Cuba				Fresno, Calif.		
	CMCM	850	200		CMKC	1250	200		KASA	1210	100
	Havana, Cuba				Santiago, Cuba				Elk Cty, Okla.		
	CMCO	1200	200		CMKD	910	1000		KAST	1370	100
	Havana, Cuba				Santiago, Cuba				Astoria, Ore.		
	CMCP	1050	200		CMKE	1310	....		KATE	1420	250
	Havana, Cuba				Manzanillo, Cuba				Albert Lea, Minn.		
	CMCQ	1410	200		CMKF	1460	250		KAWM	1500	100
	Havana, Cuba				Holguin, Cuba				Gallup, N. Mex.		
	CMCR	660	200		CMKG	1150	200		KBIX	1500	100
	Havana, Cuba				Santiago, Cuba				Muskogee, Okla.		
	CMCU	780	200		CMKL	950	200		KBKR	1500	100
	Havana, Cuba				Bayamo, Cuba				Baker, Ore.		
	CMCW	1380	200		CMKM	1060	200		KBND	1310	100
	Havana, Cuba				Manzanillo, Cuba				Bend, Ore.		
	CMCX	1470	200		CMKO	1280	200		KBPS	1420	100
	Havana, Cuba				Holguin, Cuba				Portland, Ore.		
	CMCY	590	15000		CMKQ	1490	200		KBST	1500	100
	Havana, Cuba				Santiago, Cuba				Big Spring, Texas		
	CMGE	1370	200		CMKR	1400	200		KBTM	1200	100
	Cardenas, Cuba				Santiago, Cuba				Jonesboro, Ark.		
	CMGF	1120	200		CMKS	710	200		KCKN	1310	100
	Matanzas, Cuba				Guantanamo, Cuba				Kansas City, Kans.		
	CMGH	790	200		CMKW	770	200		KCMC	1420	100
	Matanzas, Cuba				Santiago, Cuba				Texarkana, Texas		
	CMHA	1090	200		CMKX	1190	200		KCMO	1370	100
	Sagua la Grande, Cuba				Santiago, Cuba				Kansas City, Mo.		
	CMHB	1240	200		CMKZ	1430	200		KCRC	1360	250
	Sancti Spiritus, Cuba				Palma Sorlano, Cuba				Enid, Okla.		
	CMHD	1270	200		CMOA	910	200		KCRJ	1310	100
	Caibarien, Cuba				Havana, Cuba				Jerome, Ariz.		
	CMHI	1060	200		CMOX	1500	200		KDAL	1500	100
	Santa Clara, Cuba				Havana, Cuba				Duluth, Minn.		
	CMHJ	1160	200		CMQ	1010	25000		KDB	1500	100
	Cienfuegos, Cuba				Havana, Cuba				Santa Barbara, Calif.		
	CMHK	1210	200		CMW	550	1400		KDFN	1440	500
	Crues, Cuba				Havana, Cuba				Casper, Wyo.		
	CMHM	1450	200		CMX	880	20000		KDKA	980	50000
	Cienfuegos, Cuba				Havana, Cuba				Pittsburgh, Pa.		
	CMHP	1100	200		CM9RT	1580	200		KDLR	1210	100
	Placetas, Cuba				Guines, Cuba				Devils Lake, N. D.		
	CMHT	920	200		FQN	609	250		KDNT	1420	100
	Trinidad, Cuba				St. Pierre, Miquelon				Denton, Texas		
	CMHW	680	200		HIN	1090	740		KDON	1210	100
	Santa Clara, Cuba				Ciudad Trujillo, D. R.				Monterey, Calif.		
	CMHX	1480	200		HIT	1050	50		KDTH	1340	500
	Cienfuegos, Cuba				Ciudad Trujillo, D. R.				Dubuque, Iowa		
	CMJA	860	200		HIX	800	800		KDYL	1290	1000
	Camaguey, Cuba				Ciudad Trujillo, D. R.				Salt Lake City, Utah		
	CMJC	1390	200		HP50	1440	....		KECA	1430	1000
	Camaguey, Cuba				Panama City, Panama				Los Angeles, Calif.		
	CMJE	1230	200		HRN	1450	500		KEEN	1370	100
	Camaguey, Cuba				Tegucigalpa, Hon.				Seattle, Wash.		
	CMJF	930	200		KABC	1420	100		KEHE	780	1000
	Camaguey, Cuba				San Antonio, Texas				Los Angeles, Calif.		
	CMJH	1360	200		KABR	1390	500		KELA	1440	500
	Ciego de Avila, Cuba				Aberdeen, S. Dak.				Centralla, Wash.		
	CMJI	1130	200		KADA	1200	100		KELD	1370	100
	Ciego de Avila, Cuba				Ada, Okla.				El Dorado, Ark.		
	CMJK	1290	200		KALB	1210	100		KELO	1200	100
	Camaguey, Cuba				Alexandria, La.				Siox Falls, S. Dak.		
	CMJO	1260	200		KALE	1300	1000		KERN	1370	100
	Ciego de Avila, Cuba				Portland, Ore.				Bakerfield, Calif.		
	CMJP	1420	200		KAND	1310	100		KEUB	1420	100
	Camaguey, Cuba				Corsicana, Texas				Price, Utah		
	CMJW	1070	200		KANS	1210	100		KEX	1180	5000
	Camaguey, Cuba				Wichita, Kans.				Portland, Ore.		

NORTH AMERICAN B. C. STATIONS BY CALLS

KFAB	770	10000	KFUO	550	500	KGIW	1420	100
Lincoln, Neb.			St. Louis, Mo.			Alamosa, Colo.		
KFAC	1300	1000	KFVD	1000	1000	KGKB	1500	100
Los Angeles, Calif.			Los Angeles, Calif.			Tyler, Texas		
KFAM	1420	100	KFVS	1210	100	KGKL	1370	100
St. Cloud, Minn.			Cape Girardeau, Mo.			San Angelo, Texas		
KFAR	610	1000	KFWB	950	1000	KGKO	570	1000
Fairbanks, Alaska			Los Angeles, Calif.			Port Worth, Texas		
KFBB	1280	1000	KFXD	1200	100	KGKY	1500	100
Great Falls, Mont.			Nampa, Idaho			Scottsbluff, Neb.		
KFBI	1050	5000	KFXJ	1200	100	KGLO	1210	100
Abilene, Kans.			Grand Junction, Colo.			Mason City, Iowa		
KFBK	1490	10000	KFXM	1210	100	KGLU	1420	100
Sacramento, Calif.			San Bernardino, Calif.			Safford, Ariz.		
KFDA	1500	100	KFYO	1310	100	KGMB	1320	1000
Amarillo, Texas			Lubbock, Texas			Honolulu, T. H.		
KFDM	560	500	KFYR	550	1000	KGNC	1410	1000
Beaumont, Texas			Bismarck, N. D.			Amarillo, Texas		
KFDY	780	1000	KGA	1470	5000	KGNF	1430	1000
Brookings, S. D.			Spokane, Wash.			North Platte, Neb.		
KFEL	920	500	KGAR	1370	100	KGNO	1340	250
Denver, Colo.			Tucson, Ariz.			Dodge City, Kans.		
KFEQ	680	2500	KGB	1330	1000	KGO	790	7500
St. Joseph, Mo.			San Diego, Calif.			San Francisco, Calif.		
KFGQ	1370	100	KGBU	900	500	KGU	750	2500
Boone, Iowa			Ketchikan, Alaska			Honolulu, T. H.		
KFH	1300	1000	KGBX	1230	500	KGVL	1200	100
Wichita, Kans.			Springfield, Mo.			Greenville, Texas		
KFI	640	50000	KGCA	1270	100	KGVO	1260	1000
Los Angeles, Calif.			Decorah, Iowa			Missoula, Mont.		
KFIO	1120	100	KGCU	1240	250	KGW	620	1000
Spokane, Wash.			Mandan, N. D.			Portland, Ore.		
KFIZ	1420	100	KGCC	1450	1000	KGY	1210	100
Fond du Lac, Wls.			Wolf Point, Mont.			Olympia, Wash.		
KFJB	1200	100	KGDE	1200	100	KHBC	1400	250
Marshalltown, Iowa			Fergus Falls, Minn.			Hilo, T. H.		
KFJI	1100	100	KGDM	1100	1000	KHBB	1210	100
Klamath Falls, Ore.			Stockton, Calif.			Oklmulgee, Okla.		
KFJM	1410	500	KGEK	1200	100	KHJ	900	1000
Grand Forks, N. D.			Sterling, Colo.			Los Angeles, Calif.		
KFJZ	1370	100	KGER	1360	1000	KHQ	590	1000
Fort Worth, Texas			Long Beach, Calif.			Spokane, Wash.		
KFKA	880	500	KGEZ	1310	100	KHSL	1260	250
Greeley, Colo.			Kallspell, Mont.			Chico, Calif.		
KFKU	1220	1000	KGFF	1420	100	KHUB	1310	250
Lawrence, Kans.			Shawnee, Okla.			Watsonville, Calif.		
KFNF	890	500	KGFI	1500	100	KICA	1370	100
Shenandoah, Iowa			Brownsville, Tex.			Clovis, N. M.		
KFOR	1210	100	KGFI	1200	100	KID	1320	500
Lincoln, Neb.			Los Angeles, Calif.			Idaho Falls, Idaho		
KFOX	1250	1000	KGFL	1370	100	KIDO	1350	1000
Long Beach, Calif.			Roswell, N. Mex.			Boise, Idaho		
KFPL	1310	100	KGFW	1310	100	KIDW	1420	100
Dublin, Texas			Kearney, Neb.			Lamar, Colo.		
KFPW	1210	100	KGFX	630	200	KIEM	1450	500
Fort Smith, Ark.			Pierre, S. D.			Eureka, Calif.		
KFPY	890	1000	KGGF	1010	1000	KIEV	850	250
Spokane, Wash.			Coffeyville, Kans.			Glendale, Calif.		
KFQD	780	250	KGGM	1230	1000	KINY	1430	250
Anchorage, Alaska			Albuquerque, N. M.			Juneau, Alaska		
KFRC	610	1000	KGHF	1320	500	KIRO	710	1000
San Francisco, Calif.			Pueblo, Colo.			Seattle, Wash.		
KFRO	1370	250	KGHI	1200	100	KIT	1250	250
Longview, Texas			Little Rock, Ark.			Yakima, Wash.		
KFRU	630	500	KGHL	780	1000	KITE	1530	1000
Columbia, Mo.			Billings, Mont.			Kansas City, Mo.		
KFSD	600	1000	KGIR	1340	1000	KIUL	1210	100
San Diego, Calif.			Butte, Mont.			Garden City, Kans.		
KFSG	1120	500				KIUN	1370	100
Los Angeles, Calif.						Pecos, Texas		

NORTH AMERICAN B. C. STATIONS BY CALLS

	KIUP	1370	100		KOH	1380	500		KRKD	1120	500
	Durango, Colo.				Reno, Nev.				Los Angeles, Calif.		
	KJBS	1070	500		KOIL	1260	1000		KRKO	1370	50
	San Francisco, Calif.				Omaha, Neb.				Everett, Wash.		
	KJR	970	5000		KOIN	940	1000		KRCL	1390	250
	Seattle, Wash.				Portland, Ore.				Lewiston, Idaho		
	KLAH	1210	100		KOKO	1370	100		KRDL	1040	10000
	Carlsbad, N. Mex.				La Junta, Colo.				Dallas, Texas		
	KLBM	1420	100		KOL	1270	1000		KRLH	1420	100
	La Grande, Ore.				Seattle, Wash.				Midland, Texas		
	KLCN	1290	100		KOMA	1480	5000		KRMC	1370	100
	Blytheville, Ark.				Oklahoma City, Okla.				Jamestown, N. Dak.		
	KLO	1400	500		KOME	1310	250		KRMD	1310	100
	Ogden, Utah				Tulsa, Okla.				Shreveport, La.		
	KLPM	1360	500		KOMO	920	1000		KRNR	1500	100
	Minot, N. D.				Seattle, Wash.				Roseburg, Ore.		
	KLRA	1390	1000		KONO	1370	100		KRNT	1320	1000
	Little Rock, Ark.				San Antonio, Texas				Des Moines, Iowa		
	KLS	1280	250		KOOS	1200	100		KROC	1310	100
	Oakland, Calif.				Marshfield, Ore.				Rochester, Minn.		
	KLUF	1370	100		KORE	1420	100		KROD	1500	100
	Galveston, Texas				Eugene, Ore.				El Paso, Texas		
	KLX	880	1000		KOTN	1500	100		KROW	930	1000
	Oakland, Calif.				Pine Bluff, Ark.				Oakland, Calif.		
	KLZ	560	1000		KOVC	1500	100		KROY	1210	100
	Denver, Colo.				Valley City, N. Dak.				Sacramento, Calif.		
	KMA	930	1000		KOY	1390	1000		KRQA	1310	100
	Shenandoah, Iowa				Phoenix, Ariz.				Santa Fe, N. Mex.		
	KMAC	1370	100		KPAB	1500	100		KRRV	1310	250
	San Antonio, Texas				Laredo, Texas				Sherman, Texas		
	KMBC	950	1000		KPAC	1260	500		KRSC	1120	250
	Kansas City, Mo.				Port Arthur, Texas				Seattle, Wash.		
	KMED	1410	250		KPDN	1310	100		KSAC	580	500
	Medford, Ore.				Pampa, Texas				Manhattan, Kans.		
	KMJ	580	1000		KPFA	1210	100		KSAL	1500	100
	Fresno, Calif.				Helena, Mont.				Salina, Kans.		
	KMLB	1200	100		KPLC	1500	100		KSAM	1500	100
	Monroe, La.				Lake Charles, La.				Huntsville, Texas		
	KMMJ	740	1000		KPLT	1500	250		KSAN	1420	100
	Grand Island, Neb.				Paris, Texas				San Francisco, Calif.		
	KMO	1330	1000		KPMC	1550	1000		KSCJ	1330	1000
	Tacoma, Wash.				Bakerfield, Calif.				Sioux City, Iowa		
	KMOX	1090	50000		KPO	680	50000		KSD	550	1000
	St. Louis, Mo.				San Francisco, Calif.				St. Louis, Mo.		
	KMPC	710	500		KPOF	880	1000		KSEI	900	250
	Beverly Hills, Calif.				Denver, Colo.				Pocatello, Idaho		
	KMTR	570	1000		KPPC	1210	100		KSFO	560	1000
	Los Angeles, Calif.				Pasadena, Calif.				San Francisco, Calif. #		
	KNEL	1500	250		KPQ	1500	100		KSL	1130	50000
	Brady, Texas				Wenatchee, Wash.				Salt Lake City, Utah		
	KNET	1420	100		KPRC	920	1000		KSLM	1370	100
	Palestine, Texas				Houston, Texas				Salem, Ore.		
	KNOW	1500	100		KQV	1380	500		KSO	1430	1000
	Austin, Texas				Pittsburgh, Pa.				Des Moines, Iowa		
	KNX	1050	50000		KQW	1010	1000		KS00	1110	5000
	Los Angeles, Calif.				San Jose, Calif.				Sioux Falls, S. Dak.		
	KOA	830	50000		KRBA	1310	100		KSRO	1310	100
	Denver, Colo.				Lufkin, Texas				Santa Rosa, Calif.		
	KOAC	550	1000		KRBC	1420	100		KSTP	1460	10000
	Corvallis, Ore.				Ablene, Texas				St. Paul, Minn.		
	KOAM	790	1000		KRBM	1420	100		KSUB	1310	100
	Pittsburg, Kans.				Bozeman, Mont.				Cedar City, Utah		
	KOB	1180	10000		KRE	1370	100		KSUN	1200	100
	Albuquerque, N. M.				Berkeley, Calif.				Lowell, Ariz.		
	KOBH	1370	100		KRGV	1260	1000		KTAR	620	1000
	Rapid City, S. Dak.				Weslaco, Texas				Phoenix, Ariz.		
	KOCA	1210	100		KRIC	1420	100		KTAT	1240	1000
	Kilgore, Texas				Beaumont, Texas				Fort Worth, Texas		
	KOCY	1310	100		KRIS	1330	500		KTBC	1120	1000
	Oklahoma City, Okla.				Corpus Christi, Tex.				Austin, Texas		

NORTH AMERICAN B. C. STATIONS BY CALLS

KTBS	1450	1000	KVSO	1210	100	TIGH	725	600
Shreveport, La.			Ardmore, Okla.			San Jose, Costa Rica		
KTEM	1370	250	KVWC	1500	100	TILJ	775	450
Temple, Texas			Vernon, Texas			San Jose, Costa Rica		
KTFI	1240	1000	KWAL	1420	100	TILS	880	500
Twin Falls, Idaho			Wallace, Idaho			San Jose, Costa Rica		
KTHS	1060	10000	KWBG	1420	100	TIPG	625	5000
Hot Springs, Ark.			Hutchinson, Kans.			San Jose, Costa Rica		
KTKC	1190	250	KWEW	1500	100	TIRH	950	2000
Visalia, Calif.			Hobbs, N. Mex.			San Jose, Costa Rica		
KTMS	1220	500	KWFT	620	250	TIRM	750	500
Santa Barbara, Calif.			Wichita Falls, Texas			San Jose, Costa Rica		
KTOH	1500	100	KWG	1200	100	TIRS	915	250
Lihue, Hawaii			Stockton, Calif.			San Jose, Costa Rica		
KTOK	1370	100	KWJB	1210	100	TIX	650	1000
Oklahoma City, Okla.			Globe, Ariz.			San Jose, Costa Rica		
KTRB	740	250	KWJJ	1040	500	TIXD	800	1000
Modesto, Calif.			Portland, Ore.			San Jose, Costa Rica		
KTRH	1290	1000	KWK	1350	1000	T15CV	575	100
Houston, Texas			St. Louis, Mo.			Alajuela, Costa Rica		
KTRI	1420	100	KWKH	1100	50000	VAS	685	2000
Sioux City, Iowa			Shreveport, La.			Glance Bay, N. S.		
KTSA	550	1000	KWLC	1270	100	VOAC	1065	40
San Antonio, Texas			Decorah, Iowa			St. John's Nfld.		
KTSM	1310	100	KWLK	780	250	VOCM	1006	200
El Paso, Texas			Longview, Wash.			St. John's Nfld.		
KTSW	1370	100	KWNO	1200	250	VOGY	840	400
Emporia, Kans.			Winona, Minn.			St. John's Nfld.		
KTUL	1400	1000	KWOC	1310	100	VONF	640	12500
Tulsa, Okla.			Poplar Bluff, Mo.			St. John's Nfld.		
KTW	1220	1000	KWOS	1310	100	VOWR	681	500
Seattle, Wash.			Jefferson City, Mo.			St. John's Nfld.		
KUJ	1370	100	KWSC	1220	1000	WAAB	1410	500
Walla Walla, Wash.			Pullman, Wash.			Boston, Mass.		
KUOA	1260	5000	KWTO	560	5000	WAAF	920	1000
Siloam Springs, Ark.			Springfield, Mo.			Chicago, Ill.		
KUSD	890	500	KWYO	1370	100	WAAT	940	500
Vermillion, S. Dak.			Sheridan, Wyo.			Jersey City, N. J.		
KUTA	1500	100	KXA	760	250	WAAW	660	500
Salt Lake City, Utah			Seattle, Wash.			Omaha, Neb.		
KVAK	1420	100	KXL	1420	100	WABC	860	50000
Atchison, Kans.			Portland, Ore.			New York, N. Y.		
KVAN	880	250	KXO	1500	100	WABI	1200	100
Vancouver, Wash.			El Centro, Calif.			Bangor, Maine		
KVCV	1200	100	KXOK	1250	1000	WABY	1370	100
Redding, Calif.			St. Louis, Mo.			Albany, N. Y.		
KVEC	1200	100	KXRO	1310	100	WACO	1420	100
San Luis Obispo, Cal.			Aberdeen, Wash.			Waco, Texas		
KVGB	1370	100	KXYZ	1440	1000	WADC	1320	1000
Great Bend, Kans.			Houston, Texas			Akron, Ohio		
KVI	570	1000	KYA	1230	1000	WAGA	1450	500
Tacoma, Wash.			San Francisco, Calif.			Atlanta, Ga.		
KVNU	1200	100	KYCA	1500	100	WAGF	1370	250
Logan, Utah			Prescott, Ariz.			Dothan, Ala.		
KVOA	1260	1000	KYOS	1040	250	WAGM	1420	100
Tucson, Ariz.			Merced, Calif.			Presque Isle, Me.		
KVOD	920	500	KYSM	1500	100	WAIM	1200	100
Denver, Colo.			Mankato, Minn.			Anderson, S. C.		
KVOE	1500	100	KYW	1020	10000	WAIR	1250	250
Santa Ana, Calif.			Philadelphia, Pa.			Winston-Salem, N. C.		
KVOL	1310	100	TGQ	1450	200	WALA	1380	500
Lafayette, La.			Quezaltenango, Guat.			Mobile, Ala.		
KVOO	1140	25000	TGW	1520	5000	WALR	1210	100
Tulsa, Okla.			Guatemala City, Guat.			Zanesville, Ohio		
KVOR	1270	1000	TGX	1400	....	WAML	1310	100
Colo. Springs, Colo.			Guatemala City, Guat.			Laurel, Miss.		
KVOS	1200	100	TGI	1310	....	WAPI	1140	5000
Bellingham, Wash.			Guatemala City, Guat.			Birmingham, Ala.		
KVOX	1310	100	TIEP	830	300	WAPQ	1420	100
Moorhead, Minn.			San Jose, Costa Rica			Chattanooga, Tenn.		
KVRS	1370	100	TIFA	1000	250			
Rock Springs, Wyo.			San Jose, Costa Rica					

NORTH AMERICAN B. C. STATIONS BY CALLS

	WARD	1400	500		WBRY	1530	1000		WCOU	1210	100
	Brooklyn, N. Y.				Waterbury, Conn.				Lewiston, Maine		
	WASH	1270	500		WBT	1080	50000		WCOV	1210	100
	Grand Rapids, Mich.				Charlotte, N. C.				Montgomery, Ala.		
	WATL	1370	100		WBTH	1370	100		WCPO	1200	100
	Atlanta, Ga.				Williamson, W. Va.				Cincinnati, Ohio		
	WATR	1190	100		WBTM	1370	100		WCRW	1210	100
	Waterbury, Conn.				Danville, Va.				Chicago, Ill.		
	WAVE	940	1000		WBZ	990	50000		WCSC	1360	500
	Louisville, Ky.				Boston, Mass.				Charleston, S. C.		
	WAWZ	1350	1000		WBZA	990	1000		WCSS	940	1000
	Zephath, N. J.				Springfield, Mass.				Portland, Me.		
	WAYX	1200	100		WCAD	1220	500		WDAE	1220	1000
	Waycross, Ga.				Canton, N. Y.				Tampa, Fla.		
	WAZL	1420	100		WCAE	1220	1000		WDAF	610	1000
	Hazleton, Pa.				Pittsburgh, Pa.				Kansas City, Mo.		
	WBAA	890	500		WCAL	760	5000		WDAH	1310	100
	West Lafayette, Ind.				Northfield, Minn.				El Paso, Texas		
	WBAL	760	2500		WCAM	1280	500		WDAN	1500	100
	Baltimore, Md.				Camden, N. J.				Danville, Ill.		
	WBAL	1060	10000		WCAO	600	500		WDAS	1370	100
	Baltimore, Md.				Baltimore, Md.				Philadelphia, Pa.		
	WBAP	800	50000		WCAP	1280	500		WDAY	940	1000
	Fort Worth, Texas				Asbury Park, N. J.				Fargo, N. Dak.		
	WBAX	1210	100		WCAT	1200	100		WDBJ	930	1000
	Wilkes-Barre, Pa.				Rapid City, S. Dak.				Roanoke, Va.		
	WBBC	1400	500		WCAU	1170	50000		WDBO	580	1000
	Brooklyn, N. Y.				Philadelphia, Pa.				Orlando, Fla.		
	WBBL	1210	100		WCAX	1200	100		WDEL	1120	250
	Richmond, Va.				Burlington, Vt.				Wilmington, Del.		
	WBBM	770	50000		WCAZ	1070	100		WDEV	550	500
	Chicago, Ill.				Carthage, Ill.				Waterbury, Vt.		
	WBBR	1300	1000		WCBA	1440	500		WDGY	1180	1000
	Brooklyn, N. Y.				Allentown, Pa.				Minneapolis, Minn.		
	WBBZ	1200	100		WCBZ	1080	5000		WDNC	1500	100
	Ponca City, Okla.				Chicago, Ill.				Durham, N. C.		
	WBCM	1410	500		WGBM	1370	100		WDOO	1280	1000
	Bay City, Mich.				Baltimore, Md.				Chattanooga, Tenn.		
	WBEN	900	1000		WCBS	1420	100		WDRG	1330	1000
	Buffalo, N. Y.				Springfield, Ill.				Hartford, Conn.		
	WBEO	1310	100		WCCO	810	50000		WDSD	1200	100
	Marquette, Mich.				Minneapolis, Minn.				Superior, Wis.		
	WBHP	1200	100		WCFL	970	5000		WDSU	1250	1000
	Huntsville, Ala.				Chicago, Ill.				New Orleans, La.		
	WBIG	1440	1000		WCHS	580	500		WDWS	1370	100
	Greensboro, N. C.				Charleston, W. Va.				Champaign, Ill.		
	WBIL	1100	5000		WCHV	1420	100		WDZ	1020	250
	New York, N. Y.				Charlottesville, Va.				Tuscola, Ill.		
	WBLK	1370	100		WCKY	1490	10000		WEAF	660	50000
	Clarksburg, W. Va.				Covington, Ky.				New York, N. Y.		
	WBNO	1420	100		WCLE	610	500		WEAN	780	1000
	New Orleans, La.				Cleveland, Ohio				Providence, R. I.		
	WBNS	1430	1000		WCLO	1200	100		WEAU	1050	1000
	Columbus, Ohio				Janesville, Wis.				Eau Claire, Wis.		
	WBNX	1350	1000		WCLS	1310	100		WEBC	1290	1000
	New York, N. Y.				Joliet, Ill.				Duluth, Minn.		
	WBNY	1370	100		WCMI	1310	100		WBBQ	1210	100
	Buffalo, N. Y.				Ashland, Ky.				Harrisburg, Ill.		
	WBOQ	860	50000		WCNW	1500	100		WBER	1310	100
	New York, N. Y.				Brooklyn, N. Y.				Buffalo, N. Y.		
	WBOW	1310	100		WCOA	1340	500		WDEC	1210	100
	Terre Haute, Ind.				Pensacola, Fla.				Chicago, Ill.		
	WBRB	1270	100		WCOC	880	1000		WEED	1420	100
	Red Bank, N. J.				Meridan, Miss.				Rocky Mount, N. C.		
	WBRC	930	1000		WCOL	1210	100		WEEI	590	1000
	Birmingham, Ala.				Columbus, Ohio				Boston, Mass.		
	WBRE	1310	100		WCOP	1120	500		WEEU	830	1000
	Wilkes-Barre, Pa.				Boston, Mass.				Reading, Pa.		
	WBRK	1310	100		WCOS	1370	100		WELI	900	500
	Pittsfield, Mass.				Columbus, S. C.				New Haven, Conn.		

NORTH AMERICAN B. C. STATIONS BY CALLS

WELL 1420	100	WGCM 1210	100	WHEC 1436	500
Battle Creek, Mich.		Gulfport, Miss.		Rochester, N. Y.	
WEMP 1310	100	WGES 1360	500	WHFC 1420	100
Milwaukee, Wis.		Chicago, Ill.		Cleora, Ill.	
WENR 870	50000	WGH 1310	100	WHIO 1260	1000
Chicago, Ill.		Newport News, Va.		Dayton, Ohio	
WENY 1200	250	WGIL 1500	250	WHIP 1480	5000
Elmira, N. Y.		Galesburg, Ill.		Hammond, Ind.	
WEOA 1370	100	WGL 1370	100	WHIS 1410	500
Evansville, Ind.		Fort Wayne, Ind.		Bluefield, W. Va.	
WESG 850	1000	WGKV 1500	100	WHJB 620	250
Elmira, N. Y.		Charleston, W. Va.		Greensburg, Pa.	
WEST 1200	100	WGN 720	50000	WHK 1390	1000
Easton, Pa.		Chicago, Ill.		WHLB 1370	100
WEVD 1300	1000	WGNC 1420	100	WHKC 640	500
New York, N. Y.		Gastonia, N. C.		Columbus, Ohio	
WEW 760	1000	WGNV 1220	250	WHLS 1370	250
St. Louis, Mo.		Newburgh, N. Y.		Port Huron, Mich.	
WEXL 1310	50	WGPC 1420	100	WHMA 1420	100
Royal Oak, Mich.		Albany, Ga.		Anniston, Ala.	
WFAA 800	50000	WGR 550	1000	WHN 1010	1000
Dallas, Texas		Buffalo, N. Y.		New York, N. Y.	
WFAM 1200	100	WGRC 1370	250	WHO 1000	50000
South Bend, Ind.		New Albany, Ind.		Des Moines, Iowa	
WFAS 1210	100	WGRM 1210	100	WHOM 1450	250
White Plains, N. Y.		Grenada, Miss.		Jersey City, N. J.	
WFBC 1300	1000	WGST 890	1000	WHP 1430	500
Greenville, S. C.		Atlanta, Ga.		Harrisburg, Pa.	
WFBG 1310	100	WGTM 1310	100	WIBA 1280	1000
Altoona, Pa.		Wilson, N. C.		Madison, Wis.	
WFBL 1360	1000	WGY 790	50000	WIBC 1050	1000
Syracuse, N. Y.		Schenectady, N. Y.		Indianapolis, Ind.	
WFBM 1230	1000	WHA 940	5000	WIBG 970	100
Indianapolis, Ind.		Madison, Wis.		Glenside, Pa.	
WFBR 1270	500	WHA1 1210	250	WIBM 1370	100
Baltimore, Md.		Greenfield, Mass.		Jackson, Mich.	
WDFD 1310	100	WHAM 1150	50000	WIBU 1210	100
Flint, Mich.		Rochester, N. Y.		Poynette, Wis.	
WFEA 1340	500	WHAS 820	50000	WIBW 580	1000
Manchester, N. H.		Louisville, Ky.		Topeka, Kans.	
WFIL 560	1000	WHAT 1310	100	WIBX 1200	100
Philadelphia, Pa.		Philadelphia, Pa.		Utica, N. Y.	
WFLA 620	1000	WHAZ 1300	1000	WICA 940	250
Tampa, Fla.		Troy, N. Y.		Ashtabula, Ohio	
WFMD 900	500	WHB 860	1000	WICC 600	500
Frederick, Md.		Kansas City, Mo.		Bridgeport, Conn.	
WFMJ 1420	100	WHBB 1500	100	WIL 1200	100
Youngstown, Ohio		Selma, Ala.		WILL 580	5000
WFNC 1340	250	WHBC 1200	100	WILM 1420	100
Fayetteville, N. C.		Canton, Ohio		Wilmington, Del.	
WFOR 1370	100	WHBF 1240	1000	WIND 560	1000
Hattiesburg, Miss.		Rock Island, Ill.		Gary, Ind.	
WFOY 1210	100	WHBI 1250	1000	WINN 1210	100
St. Augustine, Fla.		Newark, N. J.		Louisville, Ky.	
WFTC 1200	100	WHBL 1300	250	WINS 1180	1000
Kinston, N. C.		Sheboygan, Wis.		New York, N. Y.	
WGAL 1500	100	WHBQ 1370	100	WIOD 610	1000
Lancaster, Pa.		Memphis, Tenn.		Miami, Fla.	
WGAN 640	500	WHBU 1210	100	WIP 610	1000
Portland, Me.		Anderson, Ind.		Philadelphia, Pa.	
WGAR 1450	1000	WHBY 1200	100	WIRE 1400	1000
Cleveland, Ohio		Green Bay, Wis.		Indianapolis, Ind.	
WGAU 1310	100	WHDF 1370	100	WIS 560	1000
Athens, Ga.		Calumet, Mich.		Columbia, S. C.	
WGBB 1210	100	WHDH 830	1000	WISN 1120	250
Freeport, N. Y.		Boston, Mass.		Milwaukee, Wis.	
WGBF 630	500	WHDL 1400	250	WJAG 1310	100
Evansville, Ind.		Olean, N. Y.		Johnstown, Pa.	
WGBI 880	500	WHEB 740	250		
Scranton, Pa.		Portsmouth, N. H.			
WGBR 1370	100				
Goldsboro, N. C.					

NORTH AMERICAN B. C. STATIONS BY CALLS

WJAG	1060	1000	WKBB	1500	100	WMBS	1420	100
Norfolk, Neb.			Muskegon, Mich.			Uniontown, Pa.		
WJAR	890	1000	WKEU	1500	100	WMC	780	5000
Providence, R. I.			Griffin, Ga.			Memphis, Tenn.		
WJAS	1290	1000	WKOK	1210	100	WMCA	570	1000
Pittsburgh, Pa.			Sunbury, Pa.			New York, N.Y.		
WJAX	900	1000	WKRC	550	1000	WMEX	1500	100
Jacksonville, Fla.			Cincinnati, Ohio			Boston, Mass.		
WJBC	1200	100	WKST	1250	250	WMFD	1370	100
Bloomington, Ill.			New Castle, Pa.			Wilmington, N. C.		
WJBK	1500	100	WKY	900	1000	WMFF	1310	100
Detroit, Mich.			Oklahoma City, Okla.			Plattsburg, N. Y.		
WJBL	1200	100	WKZO	590	1000	WMFG	1210	100
Decatur, Ill.			Kalamazoo, Mich.			Hibbing, Minn.		
WJBO	1120	500	WLAC	1470	5000	WMFJ	1420	100
Baton Rouge, La.			Nashville, Tenn.			Daytona Beach, Fla.		
WJBW	1200	100	WLAK	1310	100	WMFO	1370	100
New Orleans, La.			Lakeland, Fla.			Decatur, Ala.		
WJBY	1210	100	WLAP	1420	100	WMFR	1200	100
Gadsden, Ala.			Lexington, Ky.			High Point, N. C.		
WJDX	1270	1000	WLAW	680	1000	WMIN	1370	100
Jackson, Miss.			Lawrence, Mass.			St. Paul, Minn.		
WJEJ	1210	100	WLB	760	5000	WMNN	890	500
Hagerstown, Md.			Minneapolis, Minn.			Fairmont, W. Va.		
WJHL	1200	100	WLBC	1310	100	WMOB	1200	100
Johnson City, Tenn.			Muncie, Ind.			Mobile, Ala.		
WJHP	1290	250	WLBL	900	5000	WMPC	1200	100
Jacksonville, Fla.			Stevens Point, Wis.			Lapeer, Mich.		
WJIM	1210	100	WLBZ	620	500	WMPS	1430	500
Lansing, Mich.			Bangor, Me.			Memphis, Tenn.		
WJJD	1130	2000	WLEU	1420	100	WMRO	1250	250
Chicago, Ill.			Erie, Pa.			Aurora, Ill.		
WJLS	1210	100	WLLH	1370	100	WMSD	1420	100
Beckley, W. Va.			Lawrence, Mass.			Muscle Shoals C., Ala.		
WJMC	1210	250	WLLH	1370	100	WMT	600	1000
Rice Lake, Wis.			Lowell, Mass.			Cedar Rapids, Iowa		
WJMS	1420	100	WLNH	1310	100	WNAC	1230	1000
Ironwood, Mich.			Laconia, N. H.			Boston, Mass.		
WJNO	1200	100	WLOK	1210	100	WNAD	1010	1000
W. Palm Beach, Fla.			Lima, Ohio			Norman, Okla.		
WJR	750	50000	WLS	870	50000	WNAX	570	1000
Detroit, Mich.			Chicago, Ill.			Yankton, S. D.		
WJRD	1200	250	WLTH	1400	500	WNBC	1380	250
Tuscaloosa, Ala.			New York, N. Y.			New Britain, Conn.		
WJSV	1460	10000	WLVA	1200	100	WNBF	1500	100
Washington, D. C.			Lynchburg, Va.			Binghamton, N. Y.		
WJTN	1210	100	WLW	700	50000	WNBH	1310	100
Jamestown, N. Y.			Cincinnati, Ohio			New Bedford, Mass.		
WJW	1210	100	WMAL	630	250	WNBX	1260	1000
Akron, Ohio			Washington, D. C.			Springfield, Vt.		
WJZ	760	50000	WMAQ	670	50000	WNBZ	1290	100
New York, N. Y.			Chicago, Ill.			Saranac Lake, N. Y.		
WKAQ	1240	1000	WMAS	1420	100	WNEI	1290	1000
San Juan, P. R.			Springfield, Mass.			San Juan, P. R.		
WKKR	850	1000	WMAZ	1180	1000	WNEW	1250	1000
East Lansing, Mich.			Macon, Ga.			New York, N. Y.		
WKAT	1500	100	WMBC	1420	100	WNLC	1500	100
Miami Beach, Fla.			Detroit, Mich.			New London, Conn.		
WKB	1500	100	WMBD	1440	1000	WNOX	1010	1000
East Dubuque, Ill.			Peoria, Ill.			Knoxville, Tenn.		
WKBH	1380	1000	WMBF	618	1000	WNYC	810	1000
LaCrosse, Wis.			Miami, Fla.			New York, N. Y.		
WKB	570	500	WMBG	1350	500	WOAI	1190	50000
Youngstown, Ohio			Richmond, Va.			San Antonio, Texas		
WKB	1200	100	WMBH	1420	100	WOC	1370	100
Harrisburg, Pa.			Joplin, Mo.			Davenport, Iowa		
WKB	1500	100	WMBI	1080	5000	WOCB	1210	100
Richmond, Ind.			Chicago, Ill.			Hyannis, Mass.		
WKB	1480	5000	WMB	1310	100	WOI	640	5000
Buffalo, N. Y.			Auburn, N. Y.			Ames, Iowa		
			WMB	1370	100	WOKO	1430	500
			Jacksonville, Fla.			Albany, N. Y.		

NORTH AMERICAN B. C. STATIONS BY CALLS

WOL 1230 1000	Washington, D. C.	WRBL 1200 100	Columbus, Ga.	WSMK 1380 250	Dayton, Ohio
WOLS 1200 100	Florence, S. C.	WRC 950 1000	Washington, D. C.	WSNJ 1210 100	Bridgeton, N. J.
WOMI 1500 100	Owensboro, Ky.	WRDO 1370 100	Augusta, Me.	WSOC 1210 100	Charlotte, N. C.
WOMT 1210 100	Manitowoc, Wis.	WRDW 1500 100	Augusta, Ga.	WSPA 920 1000	Spartanburg, S. C.
WOOD 1270 500	Grand Rapids, Mich.	WREC 600 1000	Memphis, Tenn.	WSPD 1340 1000	Toledo, Ohio
WOPI 1500 100	Bristol, Tenn.	WREN 1220 1000	Lawrence, Kans.	WSPR 1140 500	Springfield, Mass.
WOR 710 50000	Newark, N. J.	WRGA 1500 100	Rome, Ga.	WSTP 1500 100	Salisbury, N.C.
WORC 1280 500	Worcester, Mass.	WRJN 1370 100	Racine, Wis.	WSUI 880 500	Iowa City, Iowa
WORK 1320 1000	York, Pa.	WRKL 1500 100	Rock Hill, S. C.	WSUN 620 1000	St. Petersburg, Fla.
WORL 920 500	Boston, Mass.	WRNL 880 500	Richmond, Va.	WSVA 550 500	Harrisonburg, Va.
WOSU 570 750	Columbus, Ohio	WROK 1410 500	Rockford, Ill.	WSVS 1370 50	Buffalo, N. Y.
WOV 1130 1000	New York, N. Y.	WROL 1310 100	Knoxville, Tenn.	WSYB 1500 100	Rutland, Vt.
WOW 590 1000	Omaha, Neb.	WRR 1280 500	Dallas, Texas	WSYR 570 1000	Syracuse, N. Y.
WOWO 1160 10000	Fort Wayne, Ind.	WRTD 1500 100	Richmond, Va.	WSYU 570 1000	Syracuse, N. Y.
WPAD 1420 100	Paducah, Ky.	WRUF 830 5000	Gainesville, Fla.	WTAD 900 1000	Quincy, Ill.
WPAR 1420 100	Parkersburg, W. Va.	WRVA 1110 5000	Richmond, Va.	WTAG 580 1000	Worcester, Mass.
WPAX 1210 100	Thomasville, Ga.	WSAI 1330 1000	Cincinnati, Ohio	WTAL 1310 100	Tallahassee, Fla.
WPAY 1370 100	Portsmouth, Ohio	WSAJ 1310 100	Grove City, Pa.	WTAM 1070 50000	Cleveland, Ohio
WPEN 920 1000	Philadelphia, Pa.	WSAL 1200 250	Salisbury, Md.	WTAQ 1330 1000	Green Bay, Wis.
WPG 1100 5000	Atlantic City, N. J.	WSAN 1440 500	Allentown, Pa.	WTAR 780 5000	Norfolk, Va.
WPIC 780 250	Sharon, Pa.	WSAR 1450 1000	Fall River, Mass.	WTAW 1120 500	College Station, Tex.
WPIV 1210 100	Petersburg, Va.	WSAU 1370 100	Wausau, Wis.	WTAX 1210 100	Springfield, Ill.
WPRA 1370 100	Mayaguez, P. R.	WSAV 1310 100	Savannah, Ga.	WTBO 800 250	Cumberland, Md.
WPRO 630 500	Providence, R. I.	WSAY 1210 100	Rochester, N. Y.	WTCN 1250 1000	Minneapolis, Minn.
WPRP 1420 100	Ponce, P. R.	WSAZ 1190 1000	Huntington, W. Va.	WTEL 1310 100	Philadelphia, Pa.
WPTF 680 5000	Raleigh, N. C.	WSB 740 50000	Atlanta, Ga.	WTHH 1200 100	Hartford, Conn.
WQAM 560 1000	Miami, Fla.	WSBC 1210 100	Chicago, Ill.	WTIC 1040 50000	Hartford, Conn.
WQAN 880 500	Seranton, Pa.	WSBT 1360 500	South Bend, Ind.	WTJS 1310 100	Jackson, Tenn.
WQBC 1360 1000	Vicksburg, Miss.	WSFA 1410 500	Montgomery, Ala.	WTMA 1210 100	Charleston, S. C.
WQDM 1390 1000	St. Albans, Vt.	WSGN 1310 100	Birmingham, Ala.	WTMJ 620 1000	Milwaukee, Wis.
WQXR 1550 1000	New York, N. Y.	WSIX 1210 100	Nashville, Tenn.	WTMV 1500 100	East St. Louis, Ill.
WRAK 1370 100	Williamsport, Pa.	WSJS 1310 100	Winston-Salem, N. C.	WTNJ 1280 500	Trenton, N. J.
WRAL 1210 100	Raleigh, N. C.	WSLI 1420 100	Jackson, Miss.	WTOC 1260 1000	Savannah, Ga.
WRAW 1310 100	Reading, Pa.	WSM 650 50000	Nashville, Tenn.	WTOL 1200 100	Toledo, Ohio
		WSMB 1320 1000	New Orleans, La.	WTRC 1310 100	Elkhart, Ind.

NORTH AMERICAN B. C. STATIONS BY CALLS

WTRY	950	1000	XEBP	1150	250	XEK	990	100
Troy, N. Y.			Durango, Dgo.			Mexico City, D. F.		
WVFW	1400	500	XEBS	1340	200	XEKL	1240	500
Brooklyn, N. Y.			Mexico City, D. F.			Leon, Guan.		
WWAE	1200	100	XEBU	1240	50	XEL	1150	250
Hammond, Ind.			Chihuahua, Chih.			Mexico City, D. F.		
WWJ	920	1000	XEBW	1340	250	XELO	730	5000c
Detroit, Mich.			Chihuahua, Chih.			Tijuana, B. Cfa.		
WWL	850	50000	XEBX	640	250	XELZ	1370	100
New Orleans, La.			Sabinas, Coah.			Mexico City, D. F.		
WWNC	570	1000	XEBZ	810	100	XEM	1380	50c
Asheville, N. C.			Mexico City, D. F.			Chihuahua, Chih.		
WWRL	1500	100	XEC	1150	100	XEME	1240	50
Woodside, N. Y.			Tijuana, L. C.			Merida, Yuc.		
WWSW	1500	100	XECA	1230	250	XEMO	860	5000
Pittsburgh, Pa.			Tampico, Tam.			Tijuana, L. C.		
WWVA	1160	5000	XECH	1490	250	XEMU	580	250
Wheeling, W. Va.			Toluca, Mex.			Piedras Negras, Coah.		
WXYZ	1240	1000	XECL	960	1000	XEMX	1280	100
Detroit, Mich.			Mexicali, B. Cfa.			Mexico City, D. F.		
W3XDD	....	50000	XECZ	1370	100	XEN	780	1000
Whippany, N. J.			San Luis Potosi, S.L.P.			Mexico City, D. F.		
W8XO	700	500000	XED	1160	2500	XENT	910	150000
Cincinnati, Ohio			Guadalajara, Jal.			Nuevo Laredo, Tams.		
XEAA	750	200	XEDA	1220	200	XEP	1160	500
Mexicali, B. C.			Gral. Anaya, D. F.			Juarez, Chih.		
XEAC	980	5000	XEDF	810	100	XEPN	730	100000
Tijuana, B. Cfa.			Nuevo Laredo, Tams.			Piedras Negras, Coah.		
XEAF	990	750	XEDH	1340	200	XEQ	730	50000
Nogales, Son.			Villa Acuna, Coah.			Mexico City, D. F.		
XEAG	1310	10	XEDP	1080	500	XERA	840	250000
Cordoba, Ver.			Mexico City, D. F.			Villa Acuna, Coah.		
XEAI	1250	500	XEDR	1490	100	XERB	1090	150000
Mexico City, D. F.			Guaymas, Son.			Rosario Beach, B. Cfa.		
XEAL	660	1000	XEDW	1150	300	XERC	870	500
Mexico City, D. F.			Minatitlan, Ver.			Mexico City, D. F.		
XEAM	750	25	XEE	1210	50	XERH	1430	500
Matamoros, Tams.			Durango, Dgo.			Mexico City, D. F.		
XEAO	660	250	XEF	1450	100	XES	990	250
Mexicali, B. C.			Juarez, Chih.			Tampico, Tams.		
XEAP	1340	50	XEFB	870	200	XET	690	5000
Obregon, Son.			Monterrey, N. L.			Monterrey, N. L.		
XEAS	1160	100	XEFC	1340	100	XETB	1310	500
Saltillo, Coah.			Merida, Yuc.			Torreón, Coah.		
XEAT	1210	250	XEFE	980	250	XETH	1210	100
Parral, Chih.			Nuevo Laredo, Tams.			Puebla, Pue.		
XEAW	960	100000	XEFI	1440	250	XEU	1010	250
Reynosa, Tams.			Chihuahua, Chih.			Veracruz, Ver.		
XEB	1030	10000	XEFO	940	5000	XEW	890	100000
Mexico City, D. F.			Mexico City, D. F.			Mexico City, D. F.		
XEBA	1080	20	XEFQ	1010	50	XEX	1310	500
Guzman, Jal.			Cananea, Son.			Monterrey, N. L.		
XEBG	820	1000	XEFV	1210	50	XEXB	1270	250
Tijuana, B. Cfa.			Juarez, Chih.			Jalapa, Ver.		
XEBH	930	500	XEFW	1310	300	XEXD	1340	350
Hermosillo, Sonora			Tampico, Tams.			Orizaba, Ver.		
XEBI	1000	250	XEG	1230	250	XEXE	1270	17
Aguascalientes, Ags.			Monterrey, N. L.			Texcoco, Mex.		
XEBK	1080	100	XEH	720	250	XEXX	1170	1000
Nevo Laredo, Tams.			Monterrey, N. L.			Mexico City, D. F.		
XEBL	1220	50	XEI	1370	125	XEZ	630	500
Mazatlan, Sin.			Morelia, Mich.			Merida, Yuc.		
XEBO	1310	25	XEJ	1020	1000	YSS	640	500
Irapuato, Guan.			Juarez, Chih.			San Salvador, E. S.		
			XEJP	1130	100	ZNS	785	400
			Mexico City, D. F.			Nassau, Bahamas		

RADIO'S PART IN RESCUE

The Federal Communications Commission has issued a report on the part which radio played in the rescue of the ten persons saved from the British Seaplane CAVALIER when it sank with the loss of three lives in the Atlantic Ocean on January 21st. The report also contained excerpts from a hitherto unpublished statement of a hero of the disaster, H. W. P. Chapman, radio operator aboard the Aircraft CAVALIER.

While radio plays a daily role in the safety of life at sea and in the air, the rescue work in the CAVALIER disaster was of outstanding significance in that it proved the value of auto alarms which the Commission in 1937 ordered placed on all cargo vessels over 1600 gross tons, navigating the ocean. It was this auto alarm, sounding off like a fire gong, which attracted the attention of A. R. Hamilton, radio operator aboard the S. S. ESSO BAYTOWN, and thus set in motion the events which led to this ship's rescue of the ten survivors. Hamilton, the only operator on the vessel, was not on watch and was busy elsewhere on the ship at the time the alarm bell responded to the international auto alarm signal transmitted by a powerful coastal station on Long Island.

The auto alarm consists of a radio receiver, selector mechanism, and two sets of bells, one of which is located in the operator's sleeping quarters and one on the bridge; and when actuated by the auto alarm signal summons the operator to the radio room in time to intercept a distress message. The CAVALIER had maintained constant contact with the Pan American Airways radio station at Port Washington, Long Island. When two motors on the big four motored seaplane cut out Captain Alderson ordered Radio Operator Harry Chapman to send out the signal PAN, which is the international emergency signal for aircraft. Immediately after this the other two motors quit and Chapman radioed an SOS giving his position. Both of these messages were picked up by the Pan American Airways station at Port Washington and this station immediately notified the coastal stations in the New York area, which at once broadcast the auto alarm signal, the SOS and the posi-

tion of the ship. Coastal station, WSL, at Amagansett, Long Island, was the first station to get this information on the air. WSL immediately cleared the air of all messages and kept it clear until the seaplane was found.

Exactly twelve minutes elapsed from the time Chapman radioed, "Sinking, Sinking, Sinking", until the auto alarm signal as transmitted by station WSL actuated the auto alarm receiver on the S.S. ESSO BAYTOWN.

The story of the disaster and rescue is graphically told in the words of Chapman who gave the following account of the disaster and rescue to a Radio Inspector of the Commission, who boarded the ESSO BAYTOWN from a Coast Guard Cutter before it reached New York.

Chapman's account follows: "On January 21, 1939, at 12:30 P.M. I was in contact with Pan American Airways at Port Washington (WAQI) at which time I sent a message, 'Bad weather ahead. May have to land.' The weather was very bad at this time with hail and freezing temperatures.

"At about 12:50 Captain Alderson instructed me to send PAN (international emergency aircraft signal). At this time two engines were running. Immediately thereafter these two motors failed. An SOS was then transmitted at 12:58. This was followed by the message, 'Motors failing due to icing and forced to land. Position about 120 miles southeast of 12:00 position.'

"On landing, the ship bounced once and immediately started to fill. I sent, 'Sink-

The index by call letters that usually appears on this page has been omitted this month, since the names of verification signers are given in the list of North American Broadcasting Stations by Frequencies, commencing on page 55.

The "Turner Dial" story will be printed in the Midsummer issue.

ing, Sinking, Sinking' to WAQI, it being my idea that the ship would not float long and that rescue might come sooner if searching planes were looking for bobbing heads in the water rather than the ship itself. After the above transmission, the transmitter failed, and on turning around I found that the water had risen in the battery compartment aft, flooding the power supply.

"There was a heavy swell running at the time with a rain squall. The passengers were immediately evacuated through the two emergency hatches in the top of the cabin, and the crew followed. The fuselage filled in about two minutes. Shortly thereafter—within a few minutes—the ship broke in two with a loud cracking noise like a falling tree, and went down bow and stern first. Up to this time one motor was still ticking over and I was busy aiding Miss Smith in keeping clear of the propeller.

"About 7 P.M. a ship came near us sweeping its searchlight fanwise. I am certain I saw it fire a single red rocket. Although we all shouted, the ship either changed its course away from us, or the rain squall which came up about that time reduced visibility. Shortly thereafter I noticed at least one shark in the vicinity. I found out later that several other persons saw sharks also.

"Up to a time estimated to be about 10:45 P.M., all survivors had stayed together. However at this time another ship was seen to be approaching, using its searchlight. It approached very slowly and we were certain we had not been seen. I therefore left the remainder of the party and swam in the general direction of the ship, shouting and holding up an arm every time the searchlight beam came near me. A boat was lowered and I was the first to be picked up. Mr. Richardson (co-pilot) was the next since he had apparently followed me swimming. The remainder of the survivors were picked up together.

In his report to the Federal Communications Commissions, the Inspector in Charge of the New York district cites both Mr. Chapman of the CAVALIER and Mr. Hamilton, of the S. S. ESSO BAYTOWN for exceptionally commendable conduct. In this report the Inspector says, "It appears that Chapman's estimate of the ac-

tual position of the disaster was so accurate that the ESSO BAYTOWN picked up the survivors at the exact spot designated. His conduct following the disaster was such that he is almost certainly responsible for the eventual rescue of Captain M. R. Alderson of the CAVALIER, who would probably have drowned during the last three hours had it not been for the operator's aid in keeping his head above the water during that period."

The need of such protection as a device like the auto alarm signal can give has been recognized since the sinking of the TITANIC in April, 1912. At that time the S. S. CARPATHIA sailed within a few miles of the stricken ship but did not hear the SOS calls because the wireless operator aboard was asleep.

SHORTWAVE SCOOP BOX

● W6XDA at Los Angeles, California (CBS station) granted permit for a new ultra high frequency broadcast station on 35600 kcs., 31600 kcs., 38600 kcs., and 41000 kcs. . . . W1XAR at Norwood, Mass. is a new station owned by World Wide Broadcasting Corp. (W1XAL) and will operate on 11730 and 15130 kcs. to be used for Latin American transmissions. . . . W2XDA is a new General Electric ultra high station to use 41800 kcs. at Schenectady. . . . WHB in Kansas City, Mo. will have an ultra high relay on 26100 kcs. . . . New Chinese station being heard, on 9500 kcs. till 11:30 p.m. EST on the west coast. . . . Frequency of VK2MA in April Radex should have been 6.7 meters instead of 6.7 megacycles. So list them as an ultra high station on 42860 kcs. . . . W2XMN on 42800 kcs. is now testing with recordings in the afternoon. . . .

NEWSSTAND BUYERS

If your newsdealer is unable to supply you with your copy of RADEX you may obtain the issue you want by using the order form on page 96 of your last copy.



● Members of The Radex Club will be honored on May 20th by a special program to be broadcast by TGW 1520 kcs, TGWA 9085 kcs, TGWB 6490 kcs and TGWQ 2320 kcs. Verifications will be sent, free of charge, to all members who report on the broadcasts.

● Two Chapters of the RADEX Club have already been formed, and a third one will be announced in this column next month. Meanwhile, any or all DXers in Brooklyn who wish to assist in the formation of a Brooklyn Chapter, are requested to write to George Nahas, 6637 Ovington Court, Brooklyn, N. Y., or to RADEX.

The members of the QRM Chapter (Napa, Calif.) met at the home of Elwin Covey, the president, and enjoyed table tennis, Chinese checkers, and refreshments, in addition to a tour of inspection of the host's laboratory, and particularly, his swimming pool. Needless to say, radio was also discussed. The QRM Chapter is made up of students of the Napa High School.

Mr. Covey sent a fine photograph of some of the members of his Chapter, and we shall print it in the Midsummer issue.

The first meeting of the Irvington Chapter was held on April 3, at the home of Margaret and Catherine Bossett. Warren Carpenter of Newark was chosen Chairman *pro tem*, a regular election of officers being deferred for six months. Meetings of the Irvington Chapter will be on the first Monday of every month. The next meeting, May 1, will be held at the home of Miss Bossett, 870 Sanford Ave., Irvington. An enjoyable time is promised to all DXers who wish to attend these meetings. While radio will be a big topic of con-

versation, it is not the only one, as opportunities for displaying ping pong, bowling, or photographic abilities will also be presented.

The Radex Club, numbering over a thousand members, is represented in every state in the Union except Nevada, and in nineteen countries, as follows: Canada, Newfoundland, Cuba, Mexico, Great Britain, Guatemala, Honduras, Haiti, New Zealand, Bahrain, South Africa, Venezuela, Australia, Bahamas, Dominican Republic, Italy, Costa Rica, France and Chile. On the map which heads this column, the states which contain at least five members of the club are shown in black.

Verified All Continents

Radex Club members who have verified all continents and have obtained the six plaques certifying their accomplishment, are listed below:

Broadcast Band:

A. Mervyn Branks, New Zealand.

Shortwaves:

Mrs. Geo. E. Allen, Lafayette, R. I.

D. H. Dussek, Alton, England.

J. R. Hahn, Akron, Ohio.

J. Herbert Hyde, Elmwood, Conn.

G. R. Jewell, Montgomery, Ala.

Edward Lang, Philadelphia, Pa.

William Pieper, Los Angeles, Calif.

J. E. Gardner, Cleveland, Ohio.

L. C. Reed, Wilmington, Del.

The VAC awards, and the requirements for getting them, were fully explained in the April issue of RADEX. The plaques, a different one for each continent, cost only ten cents each, and one verification from each continent must be sent to us to prove reception. Three verifications, each from a different country, are required from the continent on which the applicant lives. Members may, if they wish, send a certified or notarized list of their verifications in lieu of the veries themselves.

● Membership in The Radex Club is available to anyone who is interested in DXing. There is no charge, and no obligation. Whether you are a subscriber or a newsstand reader, you can become a member of this club simply by making application on a postal card,

QUICK INDEX TO STATION DATA

North American Broadcast	Foreign Broadcast
By Frequencies May '39, p. 56	Time On The Air Apr. '39, p. 55
By Location May '39, p. 76	By Frequencies Feb. '39, p. 46
By Calls May '39, p. 83	By Locations Dec. '36, p. 52
Verification Signers May '39, p. 55	By Calls Dec. '36, p. 57
Frequency Checks Feb. '39, p. 49	Asia Feb. '38, p. 46
Names of Owners Nov. '38, p. 56	South America Oct. '38, p. 52
Owners' Address Oct. '38, p. 56	Europe June '37, p. 49

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.

INSURE YOUR RADIO ENJOYMENT

SEND THIS BLANK TODAY

The Radex Publishing Co.,

362 Cedar Lane,

Teaneck, N. J.

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

- One Radio World Map and Time Converter 25c
- One copy of the next RADEX 25c
- One year's subscription to RADEX, 10 issues..... \$1.75
- Two years.....\$3.25 Three years..... \$4.75

(ADD 50c PER YEAR FOR FOREIGN SUBSCRIPTIONS, EXCEPT CANADA)

Print Name Plainly

Street and Number

City and State

129

"I have found DXing very interesting since I started it in January," maintains John Kezer, Washington, D. C. "Some of my best catches are CMHW, KBTM, KDLR, KFI, KFJM, KFAM, KGKL, KIUP, KICA, KTFI, WEXL, WNEL, XEN and XERB. I am using an Emerson 5-tube receiver with a 60-foot aerial."

"Recently I logged WKAQ at 8:30 p.m., EST," supplies Earl McDonald, Portland, Me., "and HJ1ABN at 7:15 p.m. Both came in about R6-7. The Cuban stations have been coming in very well lately, with CMCF, CMCU and CMQ about the best of the lot. I am using a Philco receiver and all-wave aerial."

THE DX CALENDAR

Time Is Eastern Standard

Special Programs

- Apr. 23, 2-3 am, TG1 on 1310 and TG2 on 6190 kcs., Guatemala City, Guat. (Spatari).
 Apr. 30, 5-6 am, WAZL, 1420 kcs., Hazleton, Pa. (NNRC).
 May 7, 3-3:30 am, WLAP, 1420 kcs., Lexington, Ky. (NNRC).
 May 9, 5:05-6:05 am, CKCA, 1420 kcs., Kenora, Ont. (URDXC).
 June 30, 7-8 pm, OAX4J on 9330 and OAX4I on 1100 kcs., Lima, Peru. (IDA).

Regular DX Programs

Every Sunday:

2-2:30 am, TG1 on 1310 and TG2 on 6190 kcs., Guatemala City, Guat.

10:15-10:45 am, CFCO, 630 kcs, Chatham, Ont. 3-5 am, XEAC, 980 kcs., Tijuana, B. Cfa.

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).

Every Saturday:

2:30-2:45 am, KLS, 1280 kcs., Oakland, Calif.

10:15-10:30 am, WEEU, 830 kcs, Reading, Pa.

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.

"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.

GET MORE DX WITH HEADPHONES

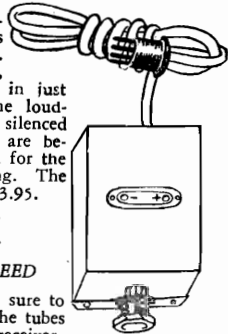


WE recommend the famous Trimm line of headphones for DX success. They are precision-built, and combine ultra-sensitivity with rugged construction.

- The Trimm "Featherweights" weigh but 4¼ ounces complete. 24,000 ohms. **\$8.50**
- Trimm "Professional." 4000 ohms. **4.00**
- Trimm "Dependable." 2000 ohms. **3.25**

THE PERFECT PHONE ADAPTER

MAKES it easy to attach headphones to any radio set. Easily installed, without tools, in just a minute. The loudspeaker can be silenced while phones are being used. Ideal for the hard-of-hearing. The price is only \$3.95.



FULLY
GUARANTEED

In ordering, be sure to give a list of the tubes used in the receiver.

THE RADEX PUBLISHING CO.

362 Cedar Lane
TEANECK, N. J.



J. E. SMITH, President
National Radio Institute
Established 1914

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

*Here's
Proof*

Picked up
\$1800 while
Learning



"I picked up \$1800 while studying and I call that easy money—the time I gave my Radio work did not interfere with my other business." OTIS DENTON, 14105 Lorain Ave., Cleveland, Ohio

Own Business
Pays \$300 a
Month



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



Get My LESSON on Radio
Servicing Tips FREE

I want to prove my Training is just what you need to master Radio. My sample lesson text, "Radio Receiver Troubles—Their Cause and Remedy" covers a long list of Radio receiver troubles in A.C., D.C. battery, universal, auto, T.R.F., super-heterodyne, all-wave, and other types of sets, cross-indexed for quick reference. Special section on receiver checkup, alignment, balancing, neutralizing, testing. Get this lesson Free. Mail the Coupon.

The world-wide use of Radio has made many opportunities for you to have a spare time or full time Radio service business of your own. Four out of every five homes in the United States have Radio sets which regularly need repairs, new tubes, etc. Servicemen can earn good commissions selling new sets to owners of old models. Even if you have no knowledge of Radio or electricity, I will train you at home in your spare time to sell, install, fix, all types of Radio sets to start your own Radio business and build it up on money you make in your spare time while learning. Mail coupon for my 64-page book. It's Free—it shows what I have done for others—what I am ready to do for you.

Many Make \$5, \$10, \$15 a Week Extra
in Spare Time While Learning

The day you enroll I start sending Extra Money Job Sheets; show you how to do Radio repair jobs. Throughout your training I send plans and directions that made good spare time money—\$200 to \$500—for hundreds, while learning. I send you special Radio equipment to conduct experiments and build circuits. This 50-50 method of training makes learning at home interesting, fascinating, practical. I ALSO GIVE YOU A MODERN PROFESSIONAL, ALL-WAVE, ALL-PURPOSE RADIO SET SERVICING INSTRUMENT to help you make good money fixing Radios while learning and equip you for full time jobs after graduation.

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

Radio broadcasting stations employ engineers, operators, station managers and

pay up to \$5,000 a year. Fixing Radio sets in spare time pays many \$200 to \$500 a year—full time jobs with Radio jobbers, manufacturers and dealers as much as \$30, \$50, \$75 a week. Many Radio Experts open full or part time Radio sales and repair businesses. Radio manufacturers and jobbers employ testers, inspectors, foremen, engineers, servicemen, and pay up to \$6,000 a year. Automobile, police, aviation, commercial Radio, loud speaker systems are newer fields offering good opportunities now and for the future. Television promises to open many good jobs soon. Men I trained have good jobs in these branches of Radio. Read how they got their jobs. Mail Coupon.

Find Out What Radio Offers You

Act Today. Mail the coupon now for Sample Lesson and 64 page book. They're free to any fellow over 16 years old. They point out Radio's spare time and full time opportunities and those coming in Television; tell about my training in Radio and Television; show you letters from men I trained, telling what they are doing and earning. Find out what Radio offers YOU! MAIL COUPON in an envelope, or paste on a postcard—NOW!

J. E. SMITH,
President
Dept. 9E0
National Radio
Institute,
Washington,
D. C.



**GOOD FOR BOTH 64 PAGE BOOK
SAMPLE LESSON FREE**

J. E. SMITH, President, Dept. 9E0
National Radio Institute, Washington, D. C.

Dear Mr. Smith: Without obligating me, send your sample lesson and the book which tells about spare time and full time Radio opportunities, and how I can train for them at home in spare time.

(Please write plainly.)

Name..... Age.....

Address

City State.....