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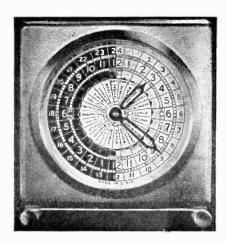
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FIFTEENTH YEAR

PAGE TAYLOR

B. FRANCIS DASHIELL

Technical

Editor
ASSOCIATE EDITORS
CARLETON LORD

RAY LAROCQUE Shortwave

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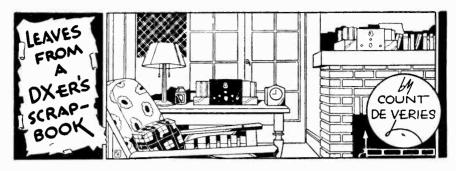
362 Cedar Lane

Teaneck, New Jersey

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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

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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 Regularly they were able to break. 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



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



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

local group came into being. 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 Baltisince 1933, and more NNRCers in Indianapolis, Chicago, Brooklyn, Hartford, Toronto Montreal have further enhanced their DXing pleasure through mutual con-

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 radio servicemen and wave fans, Such a well operators. amateur 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 operator members, amateur our 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,

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25	.85	34	1.09	43	1.51	52	2.27
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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. 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. 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 International DXers' came into existence when local IDA members realized that, although the city was large, it contained no organization which catered to the radio en-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 Verbrugghe, 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-

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ik Republic: Transcaucasian Federation: Turkmenistan: Ukrainia: Uzbekistan: and White Russia: all scarce values included, 21 different complete. The exact set sells for over \$1.00 (check it

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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 aerials 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 gabfests 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, ceivers, interference elimination and other everyday problems, and points with pride to the chapter's two out standing 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 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 Larry Lundberg, minutes. 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)

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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

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schools in a series of experimental radio facsimile transmissions.

Utilizing the Board of Education's ultrahigh 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.



J. EDWARD DIEHM, JR.



LLOYD REES.



Five well-known DXers.



ENRIQUE HIDALGO.



Mr. and Mrs. E. W. Law of Edmonton, 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 Potts-He has 687 verifications, town, Pa. 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., 4131/2 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 5tube 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 eighttube 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 Leon 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 typerecommended whenever writer is 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.

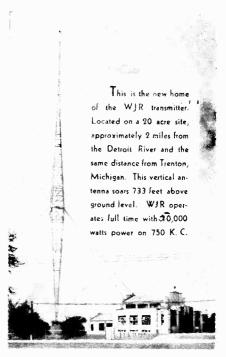
One of the neatest report forms to reach us in many a moon was submitted by J. Harry Scott of Knoxville, Tenn. Printed on the stationery of the International DXers' Alliance, it is brief, neat and to the point. With name and address printed in the upper right hand corner, the body of the report commences 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 International 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 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 tendancy 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

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: LS11, LT1, LR10, LRA, YV5RQ, LRF4, OAX4A, PRF3. LRG2, YV1RF, HJ1ABN, HJ3ABE, LR1, HJ3ABZ, CX18, YV1RS and HJ3ABD. From Costa TIPG Rica. members heard 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 oldtimers 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 8tube RCA 2-volt battery set. 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. 1935, I had heard all but 11 of the active stations in this country. 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 KLBM, KTMS, CBR, KIRO, XEM and XEC. All the other Pacific Coast stations, large and small, have



K Q V

THANK YOU FOR YOUR REPORT OF RECEPTION OF OUR STATION.

JAL January 28th 1939

KQV has been reported as a nonverifier, 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 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. 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 understand 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 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. 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 Some of the better veries verified. from XEL. KDNT, KPAB, KVOX. KNET, KRBC, KFAM, CMCK, CMBQ, CJBR, LRA, KFEL, KFYR, CKCV, PRF3, KYSM, KFAB, KLAH, and KRIC. brings my total up to 657 heard, with 581 verified. At present, I am using a 7-tube Lafayette and a 5-tube Spar-The Lafayette is hooked to 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. are intrigued by the thought 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 sta-Sometimes their progress is tions. 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 unrecruit usually large turn-out of 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 CMBF. CMBH. CMBO, LR1O. CMCK, XEW. CMCF. CMCL. XEAW, CKSO, CKY, CBL, CBM, CKAC, KFI, KMA, KMBC, KFH, WTNC, WBNO. WMBR, KITE, WIAX, WIBO, 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 50watt 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, KOB, XEL, KGFJ, LR1, CBR, KOOS. KGGM. XEMX. KCR1. KIUP, KRKO. KXRO, 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, CMHI, 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.

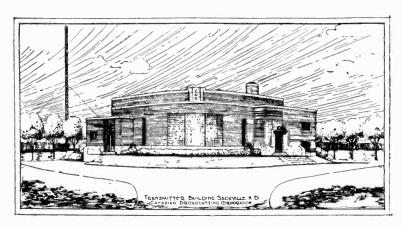
Good Idea

Radexers have liked the recentlyproposed 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.

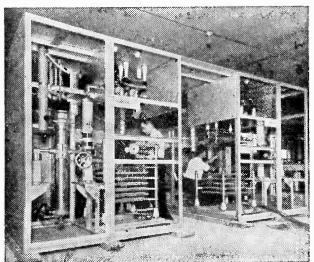
New Canadian Stations



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 highpower coverage. The new plants, which make a total of four erected during the last two years, takes care of a longneeded 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 woeful 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. 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 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 gen-One question, which eral interest. 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 25cycle 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 25cycle 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 -221/2 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: 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. 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, "The local stations," he writes, "come in too loud because the volume control will not work over its entire and does not turn 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 A larger bypass conthe i-f tube. denser 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 This type of hum would be volts. Any intermittent hum is constant. 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. Majestic 110 can be heard but it is so faint that it is almost inaudiable. notice that its actual circuit does not agree in detail with that given in the manual." The fact that this set does 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. particularly the oscillator, tubes, 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. must be mounted so that it can be rotated through 360 degrees and back again, and, of course, supported verti-

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-oftown 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, WFDF, 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

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 Philivs—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; E191; F8KI; f8nx; F8QD; F8RR; F8RV; F8VE; 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; K8MX; G8OO; G8SA; G8TD; H17G; 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. EI2L; All reported by Walter E. Welch: 20 Meters

CEBX (hm); CN8MI (c); CT1AY (co);
CT1PM (c); CT1QG (o); CT1ZA (co);
CX2CO (d); EA7BA (c); EA9AH (cm);
E12L (c); E13J (co); E14L (c); FA3QV (e);
FB8AH (d); F3OO (co); F8BM (c; F8DC
(k); F8GP (c); F8JX (e); F8MX (c); F8NT
(ceo); F8NX (o); F8QD (ckno; F8UE (o;
F8VP (o); F8VZ (o); F8YZ (c); F8ZO (o);
G12CC (co): G13IA (o): GM2WL (c);

GI2CC (co); GI3IA (o); GM2WL (c);

GM6RG (o); GM6WA (b); GM6WD (co); GM8MN (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 (c); G3BN (c); G3BN (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); G5QV (co); G5TB (c); G (c); G5YV (co); G5ZG (cca); G6CL (c); G6JL (o); G6JQ (c); G6ML (co); G6NO (c); G6OX (c); G6WX (co); G6WX (c); G6WX (c); G6WX (c); G6WX (c); G6YV (c); G8CL (c); G8IG (c); G8TX (c); G8DG (c); G8TX (c); G8UR (o); G8WS (o).

HC2HP (g); HC2PF (d); HH2B (abcegkino); HH2PB (k); HH5PA (ano); HI2K (e); HI3N (cikno); HH5C (n); HI5X (eko); HI7G (cko); HI7I (eo); HI9I (k); HK1AG (co; HK3CC (o); HK3CG (in); HK3CU (ckmn); HK3CO (ch); HK3CR (n); HK3CW (g); HK3VP (k); HK3VB (k); HK4DF (g); HK5AR (o); HK5EH (k); HP1A (egm); HR5CC (cgn); J3FK (d); KA1AX (d); KA1PI (m); KA2OV (d); KF6DHW (dm); K4DSE (m); K4EJF (cm); K4EMG (e); K4FAY (abcgno); K4EJF (cm); K4EMG (c); K6FAY (abcgno); K6CMC (c); K6BLI (j); K6BNR (cghjo); K6CMC (c); K6GAS (g; K6IQN (cgm); K6KGA (fh); K6KKP (c); K6KMB (j); K6LEJ (j); K6NYD (n); K6PQP (ghm); LU4AW (c); LU4CZ (gkn); LU4AU (c); LU4CZ (gkn); LU4DJ (d); LU1DA (acdgn); LU4DJ (d); LU1DA (acdgn); LU4DJ (d); LU1DCC (dkn); LU4DJ (d); LU1DCC (dkn); LU4DJ (d); LU1DCC (dkn); LU4DD (d); LU1DCC (dkn); LU1DCC (dkn); LU4DD (d); LU1DCC (dkn); LU4DD (d); LU1DCC (dkn); LU1DCC (dkn); LU1DCC (dkn); LU4DD (d); LU1DCC (dkn); LU4DD (d); LU1DCC (dkn); LU4DD (d); LU1DCC (dkn); LU4DD (d); LU1DCC (dkn); LU1DCC (dk HC2HP (g); HC2PF (d); HH2B (abcegkino) KOPPR (ghm); LU1BA (d); LU1DA (acdegn); LU4AH (g); LU4AW (c); LU4CZ (gkn); LU4DJ (d); LU5CZ (amn); LU7BK (cdk); LU8AB (ck); LU8EC (cd); OA4AW (g); OA4C (g); ON4DI (o); PAOEH (c); PAOMZ (co); PY2DV (c); PY2LM (m); PY7AI (c); PY2DV (c); PY2LM (m); PY7AI (c); PY8AG (g); SU1MW (n); TG9AA (agko); TG9BA (acdgklno); T12AC (ce); T12AV (c); T12HP (k); T12LR (cd); T12RC (k); T15JJ (c); T17JG (c). (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); VK2OU (d); V (dm); VK2ZF (d); VK3EK VK2ZF VK2YO (C. VK3DH (d); VK3HG (i); VK3HG VK3BM (i); (m); (m); VK3MX (m) (m): VK3NX (k); VK3OI VK3NS (d); VK3PK VK3QK VK3QR (d) (m); (d); (d); VK3VK (m); VK3XG (d); VK3VG (m); VK3XG (d); VK4SXS (d); VK4EL (i); VK4GG (m); VK4HN (d); VK4JP VK3X (m); (m); VK3XN (d); VK3XS (im); VK3ZB (d); VK4EL (i); VK4GG (m); VK4GS (m); VK4GG (m); VK4GS (m); VK4HN (d); VK4HP (m); VK4JT (m); VK4HH (d); VK4SD (i); VK4TH (m); VK5KS (m); VK5CS (i); VK5KN (m); VK9CL (dm); VK9BG (d); VO1B (k); VO2N (gk); VP1BA (cdko); VP1WB (m); VP3AA (ccgln); VP4TH (acemo); VP5IS (mo); VP6FO (b); VP6LN (bcek); VP6MR (k); VP6TR (k); VP6WB (ck); VP7NR (k); VP7NS (cek); VP7NW (k); VP9G (ghkln); VP9L (acegkn); VP9R (ckl); VR6AY (j).

XE1AA (d); XE1GE (d); XE2IY (d); YV1ABG (celno); YV4AD (b); YV4AE (acekno); YV4AN (ck); YV5ABF (cco); (im); VK3ZB

YV5ABQ (k); YV5ABY (bcegko): YV5AC (c); YV5AD (g); ZE1JS (d); ZE1JX (cm); ZE1JZ (m); ZL2GW (i); ZL2MR (i); ZS1AK (m); ZS1BV (o); ZS2AF (g), ZS2AZ (cmo); ZS3F (c); ZS3H (cdjmo); ZS4L (m); Z55BE (m); ZS5BZ (d); ZS5CA (m); ZS5CO (c): ZS5EB (c); ZS5G (c); ZS6A (j); ZS6AJ (cdjm); ZS6AS (o): ZS6BB (c); ZS6BY (c); ZS6CN (m); ZS6DW (d); ZS6DK (d); ZS6DW (d);

The Reporters

Frank C. Allgood, Frankfort, Ind. A. E. Blick, Toronto, Ont. (a)

(b) (c)

George J. Eder, Philadelphia, Pa. C. J. Fern, Ir., Lihue, Hawaii. Donald Hall, Boulevard Heights, Md. (d)

(e)

(f) A. M. Hankins, Latrobe, Pa (g)

Lewis R. Hill, Mayywood, Ill. John Macrae, Winnipeg, Man. (h)

(i) Martin J. Olthoff, Independence, Kans.

Bertram Podall, Gilman, Vt. Walter V. Scholz, Webster Groves, Mo.

(k)

Carl Sylvester, Columbiaville, Mich. Cliff Tavener, Rosenberg, Texas. Harold Tear, Roanoke, Va. (1)(m)

(n) Walter Welch, Lynn, Mass. (o)

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 beard 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 bedridden folks, but blind persons as well. The blind operators, estimated to number more than a hundred, frequently take their license tests in Braille. 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 RSGB, 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 OSLing.

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 oftmentioned 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 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.

DANZIG—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.

ECYPT—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 W10XDA, the Schooner Morrissey, should check their cards closely, as several listeners heard W10XDA 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 SVIKE may now be classed as virtually a non-QSLer, keep your ears set for SVICA, 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 LX1A1, LX1AP, LX1RB, LX1SI and LX1TW. The latest Call Book, contains the QTH's of all of these stations.

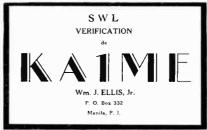
MACAO On Tintage

MACA0—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 GUINE A 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—YNIIP 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 KA1P1, 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 EKIAF is located, we inform you that CNIAF 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, ZEIJS, 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, FA8BC, 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	١						. 1	100%
John J. Oskay					,			93%
A. A. Jolin								60%
G. R. Jewell,								57%
Bob Sawado	í					×		57%

A Having emerged from his "slump" (if we may call it a slump), Bob Skyten volted to the top of the Reporto-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 meter until friend 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 Others who deserve rime, Matty. 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 This latter also from G. R. lewell... Can someone inform Alfred H. Bacon (R119, B. C.2) New Westminster, B. C., as 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-tOXJF. 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-1OXJF 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. 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 WDR WAY 2126 ships calling WDR WAY 2126 ships calling WGR WOW 2138 ships calling WGB 2150 ships calling WMI 2174 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 Homerville, Ga. is owned by the Consolidated Timber Organization and uses This from a verification 100 watts. issued to Chester Roman.

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. (Oskay

-N. I.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 (Oskay—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. were heard at 9 p.m. on sign off with God Save The King! Severe QRM from XEBF. (Oskay—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. are greatly appreciated ports should be sent to British Guiana United Broadcasting Co., Ltd., P. O. Box 11, Georgetown, B. C. -R834, Ala.)

Canada

CHNX on 6130 kcs. relays the broadcast station CHNS from Lord Nelson Hotel CHNX broadcasts a mail bag program one of those rare SU2's, SU2IR, all opercated 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 Northewst 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. HC]B 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. (Oskay—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.)

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

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

LKJ on 6430 kcs. at Jeloy (all others at Oslo) with only one kilowatt from noon to 6 p.m. (This is a tem-

porary 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 man and women announcers give call letters frequently in Spanish. From approx. 5 p.m. it relays Radio Nacional at Burgos.

Radio National 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 National 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 National. 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 National."

"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 "Goodnight, 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.

HBE on 9595 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 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.)

WIXAR 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

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

RADEX REPORTERS

RL: Your Shortwave Editor, Worcester, Mass. 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, III.5: Wm. J. Wood, Oak Park, III. R36, Mich. 1: Carl Svivester, 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. RX: Official.

R757: Matthew E. Leshner, Lawrence, Mass. Don R. Yocom, Bettsville, Ohio. R770: R786: R834:

Bob Skyten, East Brookfield, Mass.
G. R. Jewell, Jr., Montgomery, Ala.
Ray H. Beals, Cedar Rapids, Iowa.
C. A. Podall, Gilman, Vt.
William W. Flynn, Wagner School, R892: R927:

R937: Dummer, Sask. R946:

Bertram Podall, Gilman, Vt. Everett Murphy, Topeka, Kans. James Hodgden, Waterville, Ohio. R956: R976: George Robertson, Winnipeg, Manitoba. R984:

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 Kosolapotf, 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

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 utnil 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. Mac-Kenzie, 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. I.

Time is Eastern Standard. Subtract 1 hour for Central, 2 hours for Mountain and 3 hours for Pacific.

	Wious	itain and 3 nours for Pacific.		
1734	· · · ·	Liepaja, Latvia 1 kw Latvijas Radiofons.	4895 HJ3CAH	H. Bogota, Colombia. 720 w. "La Voz de la Victor." Relays
2437	HRN	Tegucigalpa, Honduras. 500 w. Noon-1:30 pm; 7-10:30 pm.		HJ3CAI. Almacenes Victor, Aptdo 565.
3480	2ZB	"L Voz de Honduras." Wellington, New Zealand. 200	4920 VUM2	Madras, India. 10 kw. 7 am- 12:30 pm. All-India Radio.
4107	НСЈВ	w. At 7 am. Quito, Ecuador. 7-8:15 am; 11:30 am-2:30 pm; 2:45-10:15		Delhi, India. 10 kw. 8am-1 pm. All-India Radio. Caracas, Venezuela. 4:30-10 pm.
		pm. "Broadcasting Provincial," Clarence W. Jones, Casilla 691.	5850 YV1RB	Maracaibo, Venezuela. 300 w.
	4ZB	Dunedin, New Zealand. 30 w. At 6 am.		5:45-9:45 am; 3:30-10:45 pm. "Ecos del Zulia," Apartado 37.
		Bucaramanga, Colombia. 750 w. 6-10:45 pm. "Radio Santandar."		Relays YV1RA; interval, gong and xylophone, and signs off with "Strike Up The Band."
4/8)	нлічвв	Barranquilla, Colombia. 600 w. Relays HJ1ABA, "La Voz de Barranquilla," Apartado 715.	5970 YV5RC	
4845]	HJ3CAD	Interval signal, 3 chimes. Bogota, Colombia, 720 w.		5973). W eekdays, 7 am-10 pm; Sun, 8:30 am-9:30 pm. "Radio
	нј6 г аі	Voz de Bogota." Ibague, Colombia, 501 w. "Ecos de Combeima."		Caracas," Apartado 2009. Re- lays YV5RA, and signs off with "March 1BC."
4805	HJ6FAB	Manizales, Colombia. 501 w. "Radio Manizales."	5984 HJ4DAG	Quibdo, Colombia. 150 w. "La Voz del Choco.
4815	HJ2BAB	Cucuta, Colombia, 600 w. Re- lays HJ2BAC, "La Voz de Cu- cuta."	6005 CFCX	Montreal, P. Q. 75 w. Relays CFCF. Canadian Marconi Co., Ltd., Box 1690.
	-	Cali, Colombia. 720 w. "La Voz del Valle."	6010 CJCX	Sydney, N. S. 1 kw. Relays CJCB. Eastern Broadcasters.
4835	HJ1ABE	Cartagena, Colombia, 525 w. Relays HJ1ABF. "La Voz de los Labs. Fuentes." Aptdo. 31.	VK9MI	Ltd., Radio Bldg. M. V. "Kanimbla," 50 w.
4840	VUC2	Calcutta, India. 10 kw. 7 am- 12:30 pm. All-India Radio.		McIlwraith & McEacharn, Ltd., Melbourne, Vic., Australia.
		Bogota, Colombia, 720 w. "Nueva Granada."	6020 DJC	Berlin, Germany. 50 kw. 1-4:25 pm. See "Berlin" at end of list.
4865	нј2ВАЈ	Santa Marta, Colombia. 751 w. 10:30 am-2 pm; 5-11 pm. "La Voz de Santa Marta."	6030 CFVP	Calgary, Alta. 100 w. Voice of th Prairies, Ltd., Toronto
4875	НЈ6FAН	Armenia, Colombia. 600 "La Voz de Armenia."	6040 W1XAL	General Trusts Bldg.
4880		Bombay, India. 10 kw. 8 am i pm. All-India Radio.	W4XB	"W1XAL".
4885	HJ4DAF	Medellin, Colombia. 501 w. Relays HJ4DAQ, "Emisora	WAND	Miami, Fla. 5 kw. 10 pm-1 am. Relays WIOD. Ruth Richardson, Isle of Dreams
		Claridad."	B	roadcasting Corp.

		Barranquilla, Colombia. 600 w. Relays HJ1ABH. 'Emisora At-	6170 W2XE	Richardson & Sons, Ltd., 157 Royal Alexandra Hotel. New York, N. Y. Sat, Sun, 11:30 pm-1 am; other days.
6054 H	IJ6FAB	lantico," Aptdo. 445. Pereira, Colombia, 501 w. "La Voz de Pereira."	0170 WZXE	11:30 pm-1 am; other davs, midnight-1 am. See "W2XE at end of list
6050 G	SA	London, Gt. Britain. 20 km.	W2XAF	Schenectady, N. Y. 40 kw. See
6060 W	73 XAU	"London" at end of list. Philadelphia, Pa. 10 kw. Su, Tu, W, F, 7:30-11 pm; Su, W,	W6XBE	"W2XAD." San Francisco, Calif. 20 kw. See "W6XBE."
		F, 11:30 pm-1 am; M, Tu, Th, midnight-1 am; Sat, 11 pm-2 am. See "W3XAU" at end of list.	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.
4	78XAL	Cincinnati, Ohio. 10 kw. See W8XAL.	6235 HRD2	La Ceiba, Honduras. 250 w. 10-11 pm. "La Voz de Atlan-
6065 SI	во	Stockholm, Sweden. 500 w. 4:15-5 pm. Telegrafverket Tjan-	6243 HIN	tida." Trujillo, D. R. 740 w. Week-days, noon-2:30 pm; 5:45 10
6070 C	FRX	stebrev 5. Toronto, Ont. 1 kw. Sun, 10:30 am-midnight. Weekdays 7:30 am-midnight. Relays CFRB. Rogers Radio Broad-		pm. Sign off National Anthem. Frank Hatton, Dominican Government, Carle Arzobispo Merino 79.
6079 D	JM	CFRB. Rogers Radio Broad- casting Co., 37 Bloor St W Berlin, Germany. 50 kw. 4:50 10:50 pm. See "Berlin" at end	6330 COCW	Havana, Cuba. 7 am-midnight. Relays CMW. "La Voz de las Antillas," Apartado 130 San Pedro Sula, Honduras. 100
60 8 0 C	KFX	of list. Vancouver, B. C. 10 w. 2	6351 HRP1	
		pm-midnight. Relays CKFC. Standark Broadcasting System, 1504 Sun Bldg.	6380 ZIZ	Eco de Honduras." Basseterre, St. Kitts. (Reported on 6384). Daily 4-5 pm; Wed,
		Chicago, III. 500 w. See W9XAA.	6425 W4XD 6490 TGWB	7-7:30 pm. Gainesville, Fla. Guatemala City, Guat. 1 kw.
6100 W	EWW 3XL	Mexico City, D. F. 10 kw. New York, N. Y. 35 kw. See W3XL.	0.40 IGWB	(Reported on 6495). See TGWA.
Y	UA	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	66% TIEP VK8SK	San Iose, Costa Rica, 4-11 pm. (Reported on 6695). "La Voz de Isthmo," Eduardo Pinto H., Aptdo. 257. Broken Hill, Australia. At 2:30 am. Australian Aerial Medical Service.
6120 W	2VE	Greek.	6966 2ZB	Wellington, New Zealand. 200
6110 GS	SL	London, Gt. Britain New York, N. Y. 10 kw. See W2XE.	7006 FETI	Valladolid, Spain. 7:30 am- 5:30 pm.
6122 H	J3CAX	WZAE. Bogota, Colombia. 750 w. Relays HJ3CAZ, La Voz de Co- lombia. Aptdo 772.	7020 X6SA	Kweiyang, China. 8-11:15 am; 8-9 pm.
	wB (Iombia, Aptdo 772. Guatemala City, Guat. 1 kw.	7088 PI1J	Dortrecht, Netherlands. 50 w. Sat. 10 am-12:50 pm. Technical College.
		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	7220 I2ROII	Rome, Italy. 100 kw. See 2RO.
6130 C		Halifax, N. S. 500 w. Sat. 8	7300 VIG	Port Moresby Papua. Relays 4 pm.
		am-11:30 pm; Sun, noon-11:15 pm; other days, 7 am-11:15 pm. Maritime Broadcasting Co., Lord Nelson Hotel.	7450 FG8AA	Pointe a Pitre, Guadeloupe. (Reported on 7050, 7435). 6-7 pm. "Radio Guadeloupe," Box 125.
C	OCD	Havana, Cuba. 250 w. Relays CMCD. "La Voz del Aire," S. A., Sr. J. Benitez, Aptdo.	7510 JVP	Tokyo, Japan. 50 kw. 6-9:30 am. See "Tokyo" at end of list.
L	ĸj	2294. Oslo, Norway, 5 kw. See "Oslo."		J Medellin, Colombia. 250 w. Universidad Antioquia.
6132 V X	P3BG EXA	Mexico City, D. F. 100 w. Depto. de Publicidad y Propiganda, Sr. Jose Rivera.	8664 COJK	Camaguev, Cuba. 1 kw. 11:30 am·12:30 pm; 8-10 pm. (Re- ported on 8660 and 8680). Re- lays CMJK, "Radio Zenith."
61 40 W	8XK	Pittsburgh, Pa. 40 kw. Ser- W8XK.		Jones Castillon y Cie., Finlay #3.
		Medellin, Colombia. 700 w. "La Voz de la Antioquia."	8820 HCJB 9100 COCA	Quito, Ecuador. 1 kw. Havana, Cuba. Relays CMCA.
6150 C	IRO	Winnipeg, Man. 2 kw. James		Testar y Gonzales, Box 3488.

9125 HAT4	Budapest, Hungary. 20 kw. Sun, Wed, 7-8 pm; Sat, 6-7 pm. Radiolabor, Kiserleti Allomasa, Gyali-ut 22, Budapest IX. Bucuresti, Romania. 2 kw. "Badio Experimental." Socie	PCI	pm. "La Voz de Panama." Apartado 867. Huizen, Netherlands. 60 kw.
9234	Gyali-ut 22, Budapest IX. Bucuresti, Romania. 2 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;
	Bucuresti, Romania. 2 kw. "Radio Experimental." Societatea Romana de Radiodifuziune, Str. Yral. Berthelot 60.	VK2ME	F, 8-9 pm. See Hilversum. Sydney, Australia. 20 kw. Sun,
9460 TAP	Ankara, Turkey. 20 kw. 11:30 am-5 pm.		laughing notes of kookahurra.
9480 EAR	Madrid, Spain. 20 kw. 7:30-8 pm; 8:30-9 pm. 'La Voz de	VK6ME	Amalgamated Wireless, (A/sia), Ltd., 47 York St. Perth, Australia. 5 kw. Week-
9500 XEWW	Espana," Medinaceli 6. Mexico City, D. F. 10 kw. 8:55 am-midnight. "La Voz de	VICONIE	days, 6-8 am. Amalgamated Wireless, (A/sia), Ltd.
	la America Latina desde Mexico." Aptdo. 2516. Relays	VUD2	Delhi, India. 10 kw. 2-4:15 am; 8 am-1 pm; 10 pm-mid-
	XEW, Cadena Radiodifusora	VUD3	night. All-India Radio. Delhi, India. 5 kw. 8 am-1
9510 GSB	Mexicana. London, Gt. Britain. 20 kw. 10:30 am-noon; 1:30-4 pm;	W3XAU	pm. All India Radio.
	4:15-8:30 pm; 9:20-11:25 pm. See "London" at end of list.		Th, 7:30-11:30 pm; Sat, 7:30- 10:45 pm. See "W3XAU" at end of list.
VK3ME,	Melbourne, Australia. 5 kw.		end of list.
	Melbourne, Australia. 5 kw. Weekdays, 4-7 am. Amalgam- ated Wireless, (A/sia), Ltd.,	W8XAL 9606 ZRK	W8XAL.
9520 OZF	167 King St. Copenhagen, Denmark. 6 kw	9000 ZIN	Cape Town, U, of South Africa. 5 kw. Weekdays.
7720 OZI	2-6 pm: 10-11 pm. Statsradio-		W8XAL.
	fonieu, Heibergsgade 7. Hong Kong. 2500 w. Hong Kong Broadcasting Committee,		11:45 pm-12:45 am. Programs
9525 ZBW3	Hong Kong. 2500 w. Hong		open with bugle call, and announcement is "Johannesburg
	Box 200.		Calling." South African Broad-
9530 LKC	Oslo, Norway. 5 kw. See		Calling." South African Broad- casting Corp., Box 4559. Johannesburg.
VUC2	Calcutta, India. 10 kw. 2:30-4:30 am. All-India Radio.	9616 HJ1ABP	Cartagena, Colombia. 608 w. 4:30-10:30 pm. ''Radio Car- tagena,'' Aptado 37.
W2XAF	Schenectady, N. Y. 40 kw. See W2XAD.	9630 H7GAD	JBucaramanga, Colombia. 650
	San Francisco, Calif. 20 kw.		w. Relays HJ7GAE. "Radio Bucaramanga."
9535 JZI	Tokyo, Japan. 20 kw. 4:30-5:30 pm. See "Tokyo" at end of list.	9630 2RO3	Rome, Italy. 25 kw. 12:10-10 pm. See 2RO.
9540 DJN	Berlin, Germany. 50 kw.	9645 HH3W	Port-au-Prince, Haiti. 30 w. 1-2 and 7-8 pm. C. Ricardo
	12:05-11 am; 4:50-10:50 pm. See "Berlin" at end of list.		Widmaier, Box A-117.
9550 HVJ	Vatican City. 15 kw. Wed, See W6XBE.	9650 1ABA	Addis Ababa, Ethiopia. 1 kw. E. I. A. R.
	2-30-3 pm; Sun, 5-530 am. See HVI.	W2XE	E. I. A. R. New York, N. Y. Mon thru Fri, 10:30-11:30 pm. See
9550 TPB11	Paris, France. 25 kw. 11:15 pm-6 pm. See "Paris" at end	0660 11371	"W2XE" at end of list. Vatican City. 15 kw. Wed.
9550 VUB2	of list.	9660 HVJ	Vatican City. 15 kw. Wed. 2:30-3 pm; Sun, 5-5:30 am. See HVJ.
,,,,o · OD2	Bombay, India. 10 kw. 12:30-4 am; 5-7:30 am; 10-11 pm	9670 I2RO9	
W2XAI	All India Radio.) Schenectady, N. Y. 25 kw. See W2XAD.	W3XAL	Rome, Italy. 100 kw. See 2RO. New York, N. Y. 35 kw. See W3XL.
9560 DIA	Berlin, Germany. 50 kw.	9675 DJX	Berlin, Germany. 10:35 am- 4:25 pm. See "Berlin" at end
	12:05-11 am; 4:50-10:50 pm. See "Berlin" at end of list.		of list.
9570 W1XK	Springfield, Mass. 10 kw. Relays NBC-WBZ-WMZA. West-	9685 TGWA	Guatemala City, Guat. 10 kw. Sun. 12:45-5:15 pm; 7 pm-mid-
W8XK	inghouse Electric & Mfg. Co. Pittsburgh, Pa. 40 kw. See		Sun, 12:45-5:15 pm; 7 pm-mid- night; weekday, 12:45-1:45 pm; 10-11:30 pm. See TGWA.
	W8XK.	9692 TI4NRF	Heredia, Costa Rica. 500 w.
9580 GSC	London, Gt. Britain. 20 kw. 4:15-6 pm; 6-8:30 pm; 9:20- 11:25 pm. See "London" at		Sun, 7-8 am; Tu, Th, Sat, 9-10 pm. Amando Cespedes Marin, Apartado 40.
	end of list.	9700	
VLR	Melbourne, Vic., Australia. 500 w. 3:15-9:45 am. See VLR.	7700	"Radio Martinique," Fort de France, Martinique. 1500 w. 1:15-2:45 pm; 6-10 pm. Sign off with Marseillaise. Poste Seri,
9590 HP5J	Panama City, Panama. 1 kw.		off with Marseillaise. Poste Seri, Boite 136.
	(Reported on 9610). 6:30-11		Date 190.

9715	coco	Havana, Cuba. 1 kw. "de la	11750 GSD	London, Gt. Britain. 20 kw.
	CB970	RCA Victor, "Calle 25 No. 225. Valparaiso, Chile. (Reported		3.5:25 am: 9.10:15 am: 12:20-
9830		on 9710). 6:30-11 pm. Rome, Italy. 20 kw. 12:40-1	11760 TGWA	4 pm; 4:15-8:30 pm; 9:20- 11:25 pm. See "London." Guatemala City, Guat. 10 kw.
90,00	IKI	pm; 1:37-3:30 pm; 6-9 pm. See	11700 10 111	Sun, 12:45-5:15 pm; Weekdays, 12:45-1:45 pm. See TGWA. Berlin, Germany. 50 kw. 11:30
9833	СОСМ	pm; 1:37-3:30 pm; 6-9 pm. See "Rome" at end of list. Havana, Cuba. 1 kw. (Re-	11770 DJD	Berlin, Germany. 50 kw. 11:30
		ported on 9805 and 9840). 8 am-10:30 pm. "Trans Radio Columbia," 23 No. 1113,		See "Berlin."
		Columbia.'' 23 No. 1113, Vedado.	11790 W1XA	L Boston, Mass. 20 kw. See W1XAL.
9860	EAQ	Madrid, Spain. "The Voice of Republican Spain," Apartado 951.	11 800 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
9925	JDY	Dairen, Kwantung. 10 kw. 7-8 am. Manchuria Telephone and	11810 2RO4	pm; 4:30-5:30 pm; 8-8:30 pm. See "Tokyo." Rome, Italy. 25 kw. 4:40-
		Telegraph Co.	11810 2104	8:45 am; 11 am-1:09 pm. See
9940		Lisbon, Portugal. 5 kw. (Reported on 9735).	11820 G S N	2RO. London, Gt. Britain.
9960	COBC	Havana, Cuba. (Reported on 9980). 6:55 am-midnight. El	11830 W2XE	New York, N. Y. 10 kw. Sat, Sun, 6:30-11 pm; Other days,
10042	D7B	Progreso Cubano." Aptdo 132. Berlin, Germany.	Woxa	Sun, 6:30-11 pm; Other days, 6:30-10 pm. See "W2XE." A Chicago, Ill. 500 w. See
	TIEMC	San Jose, Costa Rica. Relays		Wox AA.
10220	PSH	TIEH. Apartado 1049. Rio de Janeiro, Brazil. 12 kw.	11860 GSE	London, Gt. Britain. 20 kw 3-5:25 am; 5:45-8:50 am; 9-
		Mon, 6-9 pm. Relays PRF4; signs off with Brazilian Nation	118 70 V UM2	10:30 am. See "London." Madras, India. 10 kw. 4-430
		al Hymn. Cia. Radio Interna cional do Brasil, Caixa Postal	11880 VLR3	am. All-India Radio. Melbourne, Australia. 1-3 am.
10330	ORK	709.	11885 TPA3	See VLR. Paris, France. 25 kw. 2-5
		1:30-3 pm.		am; 11:15 am-6 pm. See "Paris."
10660	IVM	Tokyo, Japan. Tokyo, Japan. Lisbon, Portugal. 5 kw. 2-	TPB7	Paris, France. 25 kw. 9:30 pm-midnight. See "Paris."
11040	CSW	5:30 pm "Emisora Nacional"	11900 I2RO13	Rome Italy. 100 kw. See 2RO.
11280	HIN	Trujillo, D. R. 750 w. Aptdo	12235 TFJ	Reykjavik, Iceland. 7500 w. Sun, 1:45-2:30 pm. Icelandic
11402	нво	Geneva, Swizzerland. "Radio		State Broadcasting Service, Box 547.
11650	cocx	Havana, Cuba. 1 kw. (Re-	12450 HCJB	Quito, Ecuador. Daily exc.
		ported on 11740). Sun, 6-9 pm; Weekdays, 8 am-midnight. Relays CMX, "Casa Lavin,"	15100 I2RO12	Mon, 7:15-10:30 pm. Rome, Italy. 100 kw. See 2RO.
		Relays CMX, "Casa Lavin," Box 32.	15110 DJL	Berlin, Germany. 50 kw. 12:05- 2 am; 8-9 am; 10:35 am-4:25 pm. See "Berlin."
11660	JVL HP5A	Tokyo, Japan. Panama City. 300 w. Sun, 9	15120 HVJ	pm. See "Berlin." Vatican City 15 km. Tues
11700	111 /11	am-1 pm; 6-10 pm. Weekdays, 11:45 am-1 pm; 6-10 pm.	17120 111)	Vatican City. 15 kw. Tues, 10:30-11 am; Sun, 1-1:30 pm.
		Radio leatro Estrella de Pan-	15130 TPB11	See HVJ. Paris, France. 25 kw. 2-5 am. See "Paris."
		ama." Sign off with "Anvil Chorus." Radio Teatro, Aptdo.	WixA	L Boston, Mass. 20 kw. See
11705	SBP	954. Stockholm, Sweden. 500 w.	15140 GSF	W1XAL. London, Gt. Britain. 15 kw.
		Sun, 1:15-4:15 pm; Wed, Sat, 8-9 pm; Daily 1-4:15 pm.		3-5:25 am; 5:45-8:50 am; 9 am-non. See "London."
11710	TDD	Telegrafuerket Tjanstebrev 5.	15160 JZK	Tokyo, Japan. 50 kw.
11718		Paris, France. 7-9:15 pm. See "Paris."	VUD3	Delhi, India. 5 kw. 2-4:15 am; 10 pm-midnight. All-India
	TPA4	Paris, France. 7-9:15 pm; 9:30 pm-midnight. See "Paris."	XEWW	Radio. Mexico City, D. F. 10 kw.
11720	CJRX	Winnipeg, Man. 2 kw. James Richardson & Sons, 157 Royal Alexandra Hotel.		"La Voz de la America Latina desde Mexico," Aptdo. 2516.
11730	PHI	Huizen Netherlands, 23.6 kw.	15170 LKV 15170 TGWA	Oslo, Norway. 5 kw. See Oslo. Guatemala City, Guat. 10 kw.
	WIXAL	See Hilversum. Boston, Mass. 20 kw. See W1XAL.		Sun, 12:45-5:15 pm. Weekdays 12:45-1:45 pm. See TGWA.
11735	LKQ	Oslo, Norway. 5 kw. See "Oslo."	15180 GSO	London, Gt. Britain. 3-5:25 am: 4:15-8:30 pm. See "Lon-
11740	HVJ	Vatican City. 15 kw. Tues, 8:30-9 am. See HVJ.	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,	25725	See "Berlin." W3XAU Philadelphia, Pa. 10 kw. See
	11:10 am-12:25 pm. See "Ber-		W3XAŬ.
15210 W8XK	lin." Pittsburgh, Pa. 40 kw. See	25950	W4XH Spartanburg, S. C. WSPA. W6XKG Los Angeles, Calif. KGFJ.
	W8XK.	26050	W3XEX Norfolk, Va. WTAR.
15220 PCJ2	Huizen, Netherlands. 60 kw. Tues, 3-4:30 am: Wed, 9:30-		W9XH South Bend, Ind. W9XTC Minneapolis, Minn. WTCN.
	11:30 am. See Hilversum.	26100	GSK London, Great Britain. See Lon-
15243 TPA2	Paris, France. 25 kw. 6-11 am. See "Paris."		don.
15250 W1XAL	Boston, Mass. 20 kw. See	26150	W9XJL Superior, Wis. WEBC. W9XUP St. Paul, Minn. KSTP.
	W1XAL.	26 400	W9XAZ Milwaukee, Wis. WTM1.
15260 GSI	London, Gt. Britain. 3-5:25 .m 12:20-1-30 pm	26450	W9XA Kansas City, Mo. 1 kw. Evrett L. Dillard, Commercial Radio
15268 HI3X	Cindad Trujillo, D. R. 300 w.		Equipment Co.
	Tues., Fri, 8:10-10:10 pm; Sun, 7:40-9:40 pm. Relays HIX.	26500	W9XTA Harrisburg, Ill. Schenert Radio Service.
	Secretaria de Comunicaciones y	26550	W2XOO Flushing N Y WMCA
15270 W2XE	obras Publicas.	31100	W3XIW Reading, Pa.
W3XAU	New York, N. Y. Philadelphia, Pa. 10 kw. 3-7	31000	W1XEQ Fairhaven, Mass. WNBH. W1XER Boston, Mass. The Yankee Net-
W8XAL	Philadelphia, Pa. 10 kw. 3-7 cm See "W3XAU" Cincinnati, Ohio. 50 kw. See "W8XAL."		work.
WOANL	"W8XAL."		W1XKA Boston, Mass. WBZ. W1XKB Springfield, Mass. WBZA.
15280 DJQ	Berlin, Germany. 50 kw. Sun,		W1XKB Springheld, Mass. WBZA. W1XOE Boston, Mass. CBS. W2XDG New York, N. Y. WEAF-WJG. W2XDV New York, N. Y. WABC. W2XHG Bound Brook, N. J. WJZ. W3XES Baltimore, Md. WCAO. W3XEX Norfolk, Va. WTAR. W3XEX Norfolk, Va. WTAR. W3XEX Paltimore, Md. WFBR. W3XIR Philadelphia, Pa. WCAU. W3XKA Philadelphia, Pa. KYW. W4XBW Chattanooga, eTnn. WDOD.
	11:10 am-12:25 pm; Daily,		W2XDG New York, N. Y. WEAF-WJG.
	12:05-11 am; 4:50-10:50 pm. See "Berlin."		W2XDV New York, N. Y. WABC.
LRU	Buenos Aires, Argentina, 5		W3XES Baltimore Md WCAO
	kw. 8 am-1 am. "Radio El		W3XEX Norfolk, Va. WTAR.
Can	Buenos Aires, Argentina. 5 kw. 8 am-1 am. "Radio El Mundo," Calle Maipu 555. London, Gt. Britain. 1:45-4 pm. See "London."		W3XEY Baltimore, Md. WFBR.
15310 GSP	London, Gt. Britain. 1:45-4		W3XIR Philadelphia, Pa. WCAU.
19330 W2XAD	Schenectady, N Y. 25 kw. See		W4XBW Chattanooga, eTnn. WDOD.
	W2XAD		W4XCA Memphis, Tenn. WMCA. W5XAU Oklahoma City, Okla. WKY.
W6XBE	San Francisco, Calif. 20 kw.		W5XAU Oklahoma City, Okla. WKY.
	1-4 am to the Orient; 12:30-4 pm to CA and SA. See "W6XBE."		W5XD Dallas, Texas. W5XGB Pasadena, Texas. Houston Light-
15340 DJR	Berlin, Germany. 50 kw. 12:05- 11 am. See "Berlin."		ing & Power Co
17760 DIE	11 am. See "Berlin." Berlin, Germany, 50 kw. 12:05		W5XGC Humble, Texas. Houston Light-
17760 DJE			ing & Power Co. W6XAS San Francisco, Calif. KJBS.
W7037 4 Y	5:50 am;6 -7:50 am. See		W/6 V V T Postable Dage Windows Tal
W8XAL	Cincinnati, Ohio. 50 kw. See "W8XAL."		W8XAI Foliable. Fress Wifeless, Ed. W8XAI Rochester, N. Y. WHAM. W8XH Buffalo, N. Y. WBEN. W8XKA Pittsburgh, Pa. KDKA. W8XNT Cleveland, Ohio. WGAR. W8XNT Cleveland, Ohio. WADC. W8XWI Datroit Mich. WWI.
17770 PHI2	Huizen, Netherlands. 23.6 kw.		W8XKA Pittsburgh, Pa. KDKA.
	Sun 6 25-9 40 am M Th.		W8XNT Cleveland, Ohio. WGAR.
17780 W3XL	7:40-8:40 am. See Hilversum. New York, N. Y. 35 kw. See "W3XL."		W8X WI Detroit Mich W/WI
17700 W 7212	"W3XL."		W9XBS Chicago, Ill. WENR.
W8XK	Pittsburgh, Pa. 40 kw. See		W9XER Kansas City, Mo. KMBC.
WOV A A	''W8XK. Chicago, Ill. 500 w. See		W9XWJ Detroit, Mich. WWJ. W9XWS Chicago, Ill. WENR. W9XER Kansas City, Mo. KMBC. W9XHW Minneapolis, Minn. WCCO.
WYAAA	Chicago, Ill. 500 w. See		W9XLA Denver, Colo. KLZ. W9XOK St. Louis, Mo. W9XPD St. Louis, Mo. KSD.
17790 GSG	London, Gt. Britain. 5:45-8:50		W9XPD St. Louis, Mo. KSD.
	am; 9 am-noon; 12:20-4 pm. See "London."		WYAUT Omana, Nebr.
17800 TCWA	Guatemala City, Guat. 10 kw.	42000	to 56000 Television W1XG Boston, Mass. General Tele-
17800 1GWA	Guatemala City, Guat. 10 kw. See "TGWA."		vision Corp.
17810 GSV	London, Gt. Britain. 5:45-		vision Corp. W2XAX New York, N. Y. Columbia
	8:50 am; 12:20-4 pm. See "London."		Brdcstg. System. W2XBS New York, N. Y. NBC, Inc.
17830 W2XE	New York, N. Y.		W2XD Schenectady, N. Y. 40 w.
21470 GSH	London, Gt. Britain. 5:45-8:50 am; 9 am-noon. See "London."		General Elec. Co. W2XDR Long Island City, N. Y. Radio
21520 W3XAL	J Philadelphia, Pa. 10 kw. 1- 2:30 pm. See "W3XAU."		Pictures, Inc.
21530 GSJ	2:30 pm. See "W3XAU." London, Gt. Britain. 5:45-8:50 am. See "London."		W2XH Schenectady, N. Y. 40 w. General Elec. Co.
21540 W8XK	am. See "London." Pittsburgh, Pa, 40 kw. See		W2XVT Passaic, N. J. Allen B. DuMont Labs, Inc.
21550 GST	"W8XK." London, Gt. Britain.		W3XE Philadelphia, Pa. Philco Radio & Television Corp.
21565 DJJ	Berlin, Germany. 6-7:50 am.		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. Maior 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.

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. from WDRC to W1XPW. Relay

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 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 Mon-
- 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 Lau-detur Jesus Christus." Pontifica Accademia Della Scienze, 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 "Mar-cia Reale." Ente Italiano per le Audizioni Radiofoniche, Via Montello 5.
- TGWA—Radiodifusora National, "La Voz de Kuatemala." 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., Aus-
- W1XAL-"Dedicated to Enlightenment." World Wide Broadcasting Corp., Educational Director, Unviersity Club, Boston, Mass.
- W2XAD—Transmitter at South Schenectady. Re-lays 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. Re-lays 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,

The Month's Chan	//U KFAB Lincoln, Nebr., to 1060.
in Station Data	920 KVOD Denver, Colo., to 630.
New	1190 WATR Waterbury, Conn., to 1290. 1370 KAST Astoria, Ore., to 1200.
640 VONF St. John's, Newfoundland	l. 1370 KSLM Salem, Ore., to 1360.
1200 Atlantic City, N. J.	1370 WPRA Mayaguez, P. R., to 780.
Frequency 600 CFQC Saskatoon, Sask., from	Permit to Change Location 840. 1200 WHBY Green Bay, Wis., to Appleton.
Location	Stations Using Special Frequencies
1210 WOCB Hyannis, Mass., from	Barnstable. Call City Assigned Using
Call Letters	KIRO Seattle 650 710
1370 KTUC Tucson, Ariz., from KC	GAR. KTHS Hot Springs 1040 1060 1060 1060 1060 1060 1100
Power	V/ESC Elmira 1040 850
550 CFNB Fredericton, N. B., 1000 Memphis, Tenn., 5000 (SA).	from 1000 WTIC Hartford 1060 1040
780 WTAR Norfolk, Va., 5000 f (SA).	Applications to the FCC
1100 KWKH Shreveport, La., 500	00 from KECA, Los Angeles, CP move to San Diego (E)
10000 (SA).	600 from KECA, Los Angeles, CP move to San Diego (E). KEEN, Seattle, CP 1420 kcs, 100 (.25) unltd
1440 KELA Centralia, Wash., 1000 1500 WDAN Danville, Ill., 100 (.	25) from MEDN Palestfold CD 1380 kgs 1 km (C)
250.	KEX, Portland, CP 1160 kcs, unltd. (E)
Network	REAR, Lincoln, CP DA night, 1080 kg, 10
570 WWNC Asheville, N. C., delet	e NBC. KFIO, Spokane, CP 950 kcs, 1 kw unltd, from
1310 KROC Rochester, Minn., new 1340 WCOA Pensacola, Fla., NBC fi	MBC. KFJZ, Fort Worth, CP 930 kcs, 500 w. unltd.
1420 KFAM St. Cloud, Minn., new	MBC. DA night (F) KFRU, Columbia, CP 1370 kcs, 100 (.25) from
1310 KROC 1340 WCOA 1420 KFAM 1500 KYSM Mankata, Minn., new Mankata, Minn., new	NBC. 630 kcs.
Owner	B. C. KGLO, Mason City, CP 1270 kcs, 1 kw unltd. KINY, Juneau, CP 740 kcs, 1000 w. unltd. KMA, Shenandoah, CP move to Council Bluffs,
600 CJOR CJOR, Ltd., Vancouver,	B. C. KINY, Juneau, CP 740 kes, 1000 w. unitd.
660 WAAW World Publishing Co.	Iowa.
Nebr. 1200 WDSM WDSM, Inc., Superior,	Wis. KOH, Reno, CP changes freq. to 630, pwr. to
1210 WTMA Atlantic Coast Brdc Charleston, S. C. 1310 CHCK CHCK Radio Brdcstg.	stg. Co., 1 kw. KOVC, Valley City, CP 1340 kcs, 500 (1) (E).
1310 CHCK CHCK Radio Brdcstg.	Co., Ltd., DA night (C).
Charlottetown, P. E. I.	EDAC De Astron CB 1220 less 500 m united
1420 KIDW Lamar Brdestg. Co., La 1480 KOMA KOMA, Inc., Oklaho	DA night (E).
1480 KOMA KOMA, Inc., Oklaho Okla.	KROC, Rochester, CP 920 kcs, 300 (1) unita.
Delete	KRRV, Sherman, CP 880 kcs, 1 kw unltd, DA.
1200 KGCI Coeur d'Alene, Idaho.	KSAL, Salina, CP 1120 kcs, 500 (1). (C).
Permit to Change Power	
590 WKZO Kalamazoo, Mich., to	Wighita Falls (F)
760 KXA Seattle, Wash., to 1000 770 KFAB Lincoln, Nebr., to 500	KTBS, Shreveport, CP 620 kcs, 1000 (5) unltd.
850 WKAR E. Lansing, Mich., to 5	0000. (C). KTKC, Visalia, CP 890 kcs, 1 kw unltd, DA
850 WWL New Orleans, La., to	-ita (C)
880 WRNL Richmond, Va., to 100 890 KARK Little Rock, Ark., to	
890 KFNF Shenandoah, Iowa, to 1	000 (5). KXOK, St. Louis, CP 630 kcs., 1000 (5).
900 WELL New Haven, to 250 (one unltd. (E).
900 KGBU Ketchikan, T. A., to 1 920 KFEL Denver, Colo., to 1000	WBOW, Terre Haute, CP 1200 kcs. (C).
920 KVOD Denver, Colo., to 1000	WDAE. Tampa, mod. lic. 780 kcs, (E. 1ec.
1020 WDZ Tuscola, III., to 1000.	denial). (C). WEBQ, Harrisburg, mod. lic. 1310 kcs. 100 (.25)
1040 KRLD Dallas, Texas, to 50000 1190 WATR Waterbury, Conn., to 2	50. unita. (C).
1250 KIT Yakima, Wash., to 500	(1). WELL, New Haven, CP 930 kcs, 250 (.5) unitd.
1350 KWK St. Louis, Mo., to 5000	WGBF, Evansville, CP 1250 kcs., 1000 (5) unltd. WGRC, New Albany, CP 880 kcs, 250 w. unitd.
1370 KAST Astoria, Ore., to 100 (1370 KSLM Salem, Ore., to 500. 1370 WPRA Mayaguez, P. R., to	DA nite (E).
1370 WPRA Mayaguez, P. R., to	WGRM, Grenada, CP move to Greenwood, Miss.
1400 KIO Ogden Utah, to 1000 i	5). WOTM, WISSII, CI 1240 KCS, 500 W. (E).
1430 WHP Harrisburg, Pa., to 100 1460 KSTP St. Paul, Minn., to 500	of WMAQ) (E).
1460 WJSV Washington, D. C., to	50000. WIS, Columbia, spec. exp. authority for new
1490 WCKY Covington, Ky., to 500	00. (Please turn to page 73)

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES WITH NAMES OF VERIFICATION SIGNERS

KEY TO SYMBOLS

Third Column Symbols

As shown in the Index by Frequencies

R-National "Red" Network.

C. B. Hoskins, Ch. Eng.

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.

F-Canadian Network.

G-Assigned this frequency but S-Sundays only. a Verifies for return postage. using another under Spec-Sy—Synchronized. b---Verifies only occasionally. ial Authorization -Has Permit Does not verify. to change H-Assigned another frequency power. -Verifies-no postage re-—using this one under quired. Y-Has Permit to change loca-Special Authorization. J—Assigned lower power bu -Verifies for International Reply Coupon. tion Z—Has Permit to change freusing this power under Special Authorization. -Verifies for 10 cents. quency. q—Card for postage: vcri K-Licensed for facsimile. a-b-c-Small letters show stastamp for 10c. -Limited time. tions using same transz-No information available. M-Mutual Network. mitter. Second Column Symbols N-National "Red" and "Blue" 1-2-3-Figures denote stations Networks sharing time. A—Status in doubt. B—National "Blue" Network. C—Columbia Network. P—Has Construction Permit ?-Reported but not officially only. confirmed. D-Daytime only. Q-Station not in use. ... - No information. 540 kcs. (552.2 m.) CBK 50000 Watrous, Sask. F CJRM 1000 Regina, Sask. Harry C. Dane 550 kcs. (545.1 m.) CENB 1000 Fredericton, N. B. T. B. Young, Ch.Eng. CMW 1400 Havana, Cuba e KEUO 2(1) 500 St. Louis, Mo. Bismarck, N. D. Carl H. Meyer, Ch. Eng. W. R. Griffin, DX Ann'r. а KFYR 1000 N(5)а KOAC Grant S. Feikert, Ch. Eng. Robert L. Coe, Ch. Eng. а 1000 Corvallis, Ore. KSD 2R(5) 1000 St. Louis, Mo. San Autonio, Tex. а 1000 KTSA C(5) а W. G. Egerton, Cr. Eng. Waterbury, Vt. Buffalo, N. Y. WDEV D а 50 William G. Ricker K. B. Hoffman, Ch. Eng. Vera Tyson. WGR C(5) 1000 a WKRC C(5) 1000 Cincinnati, Ohio а **WSVA** D 500 Harrisonburg, Va. U. L. Lynch, Ch. Eng. 560 kcs. (535.4 m.) Bernice Anderson, Sec'y. T. G. McClelland, Ch. Eng. R. V. Howard, Ch. Eng. Fritz Bauer, Ch. Eng. Donald Withycomb, Gen. Mgr. KFDM N(1)500 а Beaumont, Texas KLZ C(5) C(5) 1000 Denver, Colo. а KSFO San Francisco, Calif. а **KWTO** D а 5000 Springfieldl Mo. WFIL ВМ 1000 Philadelphia, Pa. а WIND (5) 1000 Gary, Ind. Columbia, S. C. Kenneth Shirk, Ch. Eng. Floyd D. Rogers а WIS N(5)а 1000 Ralph Nulsen, Ch. Eng. WOAM C 1000 Miami, Fla. 570 kcs. (526 m.) C. B. Locke, Ch. Eng. Carroll Hauser, Ch. Eng. J. W. Wallace, Ch. Eng. KGKO B(5) 1000 Ft. Worth, Texas а **KMTR** 1000 Los Angeles, Calif. а KVI C(5) 1000 Tacoma, Wash. а TI5CV 575 Alajuela, Costa Rica 100 z 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. Youngstown, Ohio New York, N. Y. Yankton, S. Dak. ić 500 WKBN а WMCA 1000 а 1000 WNAX C(5)а Columbus, Ohio Syracuse, N. Y. Syracuse, N. Y. WOSU 1(1) 750 а WSYR Ba а 1000 1000 WSYU Qa а

1000

а

WWNC

Asheville, N. C

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 WDB0 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, Atla. Fresno, Calif. Manhattan, Kans. Charletson, W. Va. Orlando, Fla. Topeka, Kans. Urbana, III. 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'ry. Hobart H. Newell, Ch. Eng.
590 kcs. (508.2 m.)		
CMCY a 15000 (HQ 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. Edwin Rector, Ch. Eng. William J. Kotera, Ch. Eng.
600 kcs. (499.7 m.)		
CFCF BF a 500 CFQC F a 1000 CJOR a 500 FQN 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. Garo 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. futh Henderson James Allen, Prog. Dir.
620 kcs. (483.6 m.)		
KGW R(5) a 1000 KTAR N a 1000 KWFT (1) P z 250	Portland, Ore. Phoenix, Ariz. Wichita Falls, Tex. San Jose, Costa Rica	Orvie Stecte; H. C. Singleton Arthur C. Anderson, Ch. Eng.
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	Tampa, Fla. Greensburg, Pa. Bangor, Maine St. Petersburg, Fla. Milwaukee, Wis.	Joe Mitchell, Ch. Eng. R. H. Verret, Mgr. Lucilie C. Weeks Louis J. Link, Ch. Eng. D. W. Gellerup, Ch. Eng.
WFLA Na(5) a 1000 WHJB CD a 250 WLBZ MN(1) a 500 WSUN Na(5) a 1000	Tampa, Fla. Greensburg, Pa. Bangor, Maine St. Petersburg, Fla.	Joe Mitchell, Ch. Eng. R. H. Verret, Mar

640 kcs. (468.	5 m.)		
KFI R f VONF a WGAN L a WHKC ML a WOI D a XEBX z YSS a	50000 12500 500 500 5000 250 500	Los Angeles, Calif. St. John's, Nfld. Portland, Me. Columbus, Ohio Ames, Iowa Sabinas, Coah. San Salvador, E. S.	C. E. Gatchell, Mgr. J. E. Anderson, Ch. Eng. W. E. Stewart, Ch. Eng.
650 kcs. (461.	3 m.)		
TIX b WSM KMN a	1000 50000	San Jose, Costa Rica Nashville, Tenn.	Harry Stone, Gen. Mgr.
660 kcs. (454.	3 m.)		
CMCR z KOWH D a WEAF R a XEAL A z XEAO a	200 500 50000 1000 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, III.	Audience Mail Dept.
CMHW f KFEQ D a KPO R a VAS 685 f VOWR 681 c WLAW D a WPTF JN a	9 m.) 200 2500 50000 2000 500 1000 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
690 kcs. (434.	5 m.)		
CMBG a CFRB C a CJCJ F a XET a	200 10000 100 5000	Havana, Cuba Toronto, Ont. Calgary, Atla. Monterery, N. L.	H. Sedgewick, Managing Dir. R. H. Henderson, Ch. Eng.
700 kcs. (428.	3 m.)		
WLW KMN a W8XO a	50000 500000	Cincinnati, Ohio Cincinnati, Ohio	R. J. Rockwell, Tech. Sup'r. R. J. Rockwell, Tech. Sup'r.
710 kcs. (422.	3 m.)		
CMKS a KIRO CHJ a KMPC L a WOR KM a	200 1000 500 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 TIGH 725 z WGN KM c XEH a	200 600 50000 250	Havana, Cuba San Jose, Costa Rica Chicago, III. Monterrey, N. L.	Carl J. Meyers, Ch. Eng.
730 kcs. (410.			
CFPL F a CJCA F a CKAC C a XELO a KEPN QA a XEQ a	100 1000 5000 50000 100000 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. (40	05.2 m.)		
CMJX KMMJ KTRB WHEB WSB	DDDR	z 200 a 1000 a 250 a 250 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 I	kcs. (39	99.8 m.)		
CMBL KGU TIRM WJR XEAA XEAM	 C	z 500 a 50000	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 I	kcs. (39	4.5 m.)		
KXA WBAL WCAL WEW WJZ WLB	(.5) X BHMSy. 2D D BSv 2D	a 2500 a 5000 a 1000	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 k	cs. (38	9.4 m.)		
CMKW KFAB TILJ WBBM			Santiago, Cuba Lincoln, Nebr. San Jose, Costa Rica Chicago, III.	Mark W. Bullock, Tech. Dir.
780 I	ccs. (38	4.4 m.)		
CHWK CKSO CMCU KEHE KFDY KFOD KGHL KWLK WEAN WMC WPIC	(5) D N(5) D BM(5)	a 200 a 1000 a 1000 c 250 a 1000 a 250 a 1000 a 5000	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. Kiïchli, Ch. Eng. Kenneth Lite, Ch. Eng. Rose M. Powers. H. W. Slavick John McDonald; W. P. Goodrick
WTAR XEN ZNS	JN ©	a 1000	Norfolk, Va. Mexico City, D. F. Nassau, Bahamas	Lee Chadwick
790 k	cs. (37	9.5 m.)		
CMGH KGO KOAM WGY	В	a 200 a 7500 a 1000 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 k	cs. (374	4.8 m.)		
HIX TIXD WBAP WFAA WTBO	Na a Na a Na a	z 1000 a 50000	Ciudad Trujillo, D. R. San Jose, Costa Rica Fort Worth, Tex. Dallas, Texas Cumberland, Md.	Ellen Flake, Sec'y. Adams Calhoun George R. Lenhert, Ch. Eng.
810 k	cs. (37	0.2 m.)		
CMCF WCCO WNYC XEBZ XEDF	C 0	50000 1000 1000	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 WEBU DR a 1000 WHOH 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, III. Chicago, III. 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 CFJC F a 1000 CMX e 20000 KFKA 2M(1) a 500 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.)		Dead Wine Ch. For
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 WBEN WELI WFMD WJAX WKY WLBL WTAD	KR (5) DX D N (5)	a	250 1000 500 500 1000 1000 5000 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 k	cs. (32	29	.6 m.)		
CBF CJAT CKY CMKD CMOA TIRS XENT	FN F F 915 A	a a	50000 1000 15000 1000 200 250 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.
920 k	cs. (3)	25	.9)		
CMHT KFEL KOMO KPRC KVOD WAAF WORL WPEN WSPA WWJ	Mx R (5) R (5) BaXZ D D	a a	200 500 1000 1000 500 1000 500 1000 1000	Trinidad, Cuba. Denver, Colo. Seattle, Wash. Houston, Texas Denver, Colo. Chicago, III. 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 k	cs. (32	22	.4 m.)		
CFAC CFCH CFLC CHNS CKPC CMJF KMA KROW WBRC WDBJ XEBH	F F B(5) R(5) C(5)	a z a a	1000 100 100 1000 100 200 1000 1000 100	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 k	cs. (31	9	m.)		
CMBZ KOIN WAAT WAVE WCSH WDAY WHA WICA XEFO	C(5) D N R(2.5) N(5) D D	a a a a a a a a a a	200 1000 500 1000 1000 1000 5000 250 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 k	cs. (31	15.	.6 m.)		
CBV CJOC CMKL KFWB KMBC TIRH WRC WTRY	(5) C(5) R(5)	a z a a b a z	1000 100 200 1000 1000 2000 1000 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 k	cs. (31	12.	.3 m.)		
CBM CFRN XEAW XECL	F	a a a z	5000 100 100000 1000	Montreal, P. Q. Edmonton, Alta. Reynosa, Tams. Mexicali, B. Cfa.	G. E. Sarault, Ch. Eng. F. G. Makeplace, Ch. Eng.

970 kg	s. (309.	1 m.)		
CMCK KJR WCFL WIBG	a Ba Na Da	5000 5000 5000 100	Havana, Cuba Seattle, Wash. Chicago, III. Glenside, Pa.	Lee Barnes Maynard Marquardt, Ch. Eng. James A. Nasau
980 ka	s. (306	m.)		
KDKA XEAC XEFE	B b a z	50000 5000 250	Pittsburgh, Pa. Tijuana, B. Cfa. Nuevo Laredo, Tams.	J. E. Baudino, Ch. Eng. Fred Ingraham; George Riviera
990 ka	cs. (302.	8 m.)		
WBZ WBZA XEFE XEK XES	Bsy a BSy a z a	50000 1000 250 100 250	Boston, Mass. Springfield, Mass. Nogales, Son. Mexico City, D. F. Tampico, Tams.	Dwight A, Myer, Ch. Eng. H. E. Randel, Mgr.
1000 k	ccs. (299	.8 m.)		
KFVD TIFA VOCM WHO XEBI	L a 1006 z KR a	1000 250 200 50000 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 1	kcs. (296	5.9 m.)		
CHML CKCD CKCK CKCO CKIC CKUX CMQ KGGF KQW WHN WNAD WNAD WNAD XEFQ XEU	F a l a a F a a a a lF a a 2M a a (5) a a C (5) a a a	100 1000 1000 1000 50 1000 25000 1000 10	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. Beaird, Prog. Dir. R. B. Westergaard, Gen. Mgr.
1020 I	kcs. (293	3.9 m.)		
KYW WDZ XEJ	R c DX a	10000 250 1000	Philadelphia, Pa. Tuscola, III. Juarez, Chih.	Ernest H. Gager, Ch. Eng. Mark C. Spies, Ch. Eng.
1030	kcs. (29)	1.1 m.)		
CFCN CJBR CKLW XEB	Fa FMa a	10000 1000 5000 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 I	kcs. (288	3.3 m.)		
KRLD KWJJ KYOS WTIC	CX a H a D a HR a	10000 500 250 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	5.5 m.)		
CBA CMCP HIT KFBI KNX WEAU WIBC	a z z z c c c c c c c c c c D a	50000 200 50 5000 50000 1000 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, III. Cleveland, Ohio	Miriom 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, III. Chicago, III. 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. Placetas, 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 S'oux 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 CKX F a 1000 CKKFIO D a 100 KFIO D a 100 KFSG a(2.5) a 500 KRKD a)2.5) a 500 KRKC a 250 KRSC a 250 WCOP D a 500 WCOP D a 500 WDEL R(.5) 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 Sp.) ane, Wash. Los Angeles, Calif. to A g les, Calif. Scattle, Wash. Aust n, Texas Boston, Mass.	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
WDEL R(.5) a 250 WISN C(1) a 250 WJBO B a 500 WTAW L a 500	Wilm ngton, Del. Milwauken, Wis. Baton Rouge, La. College Station, Tex.	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, III. New York, N. Y. Mex co City, D. F.	Eugene G. Pack, Ch. Eng. W. Gunther, Ch. Eng. Robert E. Study, Ch. Eng.

1140	kcs. (2	63 m.)		
CMBC KVOO WAPI WSPR	Ν	a 5000	Havana, Cuba Tulsa, Okla. Birmingham, Ala. Springfield, Mass.	W. B. Way N. McFarland Hillis W. Holt
1150	kcs. (2	260.7 m.)		
CMKG WHAM XEBP XEC XEDW XEL		z 200 a 50000 z 250 a 100 z 300 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		58.5 m.)		
CMHJ WOWO WWVA XEAS XED XEP	1C	c 2500	Cienfuegos, Cuba Fort Wayne, Ind. Wheeling, W. Va. Saltillo, Coah. Guadalajara, Jal. Juarez, Chih.	Fred W. Fischer, Ch. Eng. E. A. Hadden
1170	kcs. (2	56.3 m.)		
CMBS WCAU XEXX	C	a 200 a 50000 z 100 0	Havana, Cuba Philadelphia, Pa. Mexico City, D. F.	J. G. Leitch
1180	kcs. (2	54.1 m.)		
KEX KOB WDGY WINS WMAZ	N CM (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. (2	252 m.)		
CMKX KTKC WATR WOA! WSAZ	N	z 200 f 250 a 100 a 50000 a 1000	Santiago, Cuba Visalia, Calif. Waterbury, Conn. San Antonio, Tex. Huntington, W. Va.	Charles P. Scott. Mgr. Carl Stromwell, Ch. Eng. Fred Sterling, Ch. Eng. Glenn E. Chase, Ch. Eng.
1200	kcs. (2	249.9 m.)		
CFGPBCCHGNBCCCKGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCGCG	F(.25) FP M M (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25) (.25)	b 10 a 100 a 200 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. J. C. Warren Les Frake Warren Bailey, Ch. Eng. Edward Hurt, Ch. Eng. Fred Mendenhall, Ch. Eng. Matt E. Wakz, 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. J. M. Reeder, Ch. Eng. J. M. Reeder, Ch. Eng. Joe Ernst, Ch. Eng. Russell Bennett, Ch. Eng.

KWNO WABI WAIM WAYX WBBZ WCAT WCAX WCPO WDSM WEST WFAM WFTC WHBC WHBC WHBC WHBC WHBC WHBC WHBC WHB	D (.25) M (.25) M (.25) M (.25) D (.25) (.25) P DP (.25) (.25) (.25) C (.25)	a a a a a a a a a a z z a a a a a a a a	250 100 100 100 100 100 100 100 100 100 1	Winona, Minn. Bangor, Maine Anderson, S. C. Waycross, Ga. Ponca City, Okla. Huntsville, Ala. Rapid City, S. Dak. Burlington, Vt. Janesville, Wis. Cincinnati, Ohio Superior, Wis. Elmira, N. Y. Easton, Pa. South Bend, Ind. Kinston, N. C. Canton, Ohio Green Bay, Wis. Utica, N. Y. St. Louis, Mo. Bloomington, III Decatur, III. New Orleans, La. Johnson City, Tenn. W. Paim Beach, Fla. Tuscaloosa, Ala. Harrisburg, Pa. Lynchburg, Va. High Point, N. C. Mobile, Ala Lapeer, Mich.	E. J. Day, C
WLVA	(.25)	а	100	Lynchburg, Va.	Albert E. He
					E. J. Day, C
					F. S. Hemino
WOLS	(.2 <i>)</i> /		100	Florence, S. C.	R. M. Walla
WRBL	(.25)	a	100	Columbus, Ga.	Oliver Heeley
WSAL	D	z	250	Salisbury, Md.	Richard W. I
WTHT	W	а	100	Hartford, Conn.	Richard K. E
WTOL WWAE	D	a	100	Toledo, Ohio	Frank Ridgev
	(25) D	a	100	Hammond, Ind.	Elmer Herkne
	(.25)P	z	100	Atlantic City, N. J.	
1210	L (247	0 \	7	

1210 kcs. (247.8 m.)

CHLT		z	100	Sherbrooke, P. Q.
CJCS		а	50	Stratford, Ont.
CJCU	1.11	z	50	Aklavik, N. W. T.
CKBI	F	a	100	Prince Albert, Sask.
CKCH	Ė	a	100	Hull, P. Q.
CKMC	171122	a	50	Cobalt, Ont.
CMHK		z	200	Cruces, Cuba
KALB	(.25)	a	100	Alexandria La.
KANS	N.	a	001	Wichita, Kans.
KASA	M	Ь	100	Elk City, Olka.
KDLR	(.25)	a	100	Devils, Lake, N. Dak
KDON	(.2 <i>)</i> / M	a	100	Monterery, Calif.
KFJI	/41	a	100	Klamath Falls, Ore.
KFOR	CM (.25)	a	100	Lincoln, Nebr.
KFPW	ÇIVI (.25)	a	100	Fort Smith, Ark.
KFVS	5 (.25)		100	Cape Girardeau, Mo.
KFXM	2M	a	100	San Bernardino, Calif
KGLO	C(.25)	a a	100	Mason City, Iowa
KGY	C(.237	_	100	Olymp'a. Wash.
KHBG	Ď	a	100	Okmulgee Okla.
KIUL	_	a	100	Garden City, Kans.
KLAH	(.25)	a		
KOCA	(.25)	a	100	Carlsbad, N. Mex.
KPFA	N (.25)	а	100	Kilgore, Texas
KPPC		а	100	Helena, Mont.
KROY	2 CD	а	100	Pasadena Calif.
KVSO	M (.25)	а	100	Sacramento, Calif.
KWJB	(.25)	а	100	Ardmore, Okla.
		а	100	Globe, Ariz.
KWTN WALR	Α	z	100	Watertown, S. Dak.
WBAX		а	001	Zanesville, Ohio
WBAL	W	а	100	W Ikes-Barre, Pa.
	S F	a	100	Richmond, Va.
WBRB		а		Red Bank, N. J.
WCOL	N	а	100	Columbus, Ohio
WCQU	M	a	100	Lewiston, Mai ne

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 Ticrney, 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. Bullock, Ch. Eng. Dorothy Gilson R. L. Hirsch, 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. J. E. Lowe, Ch. Eng.

Leslie R. Hall

WCOV WCRW WEBO WFOY WGBB WGCM WHAI WHBU WINN WJEJ WJIM WJEJ WJIM WJEJ WJIM WJEJ WJEJ WJEJ WJEJ WJES WJES WJES WJES	D z 4 a a 5 (.25) a (.25) a a (.25) a a (.25) a a (.25) a c (.25) a c (.25) a (.25) a (.25) a (.25) a (.25) p z (.25	100 100 100 100 100 100 100 100 100 100	Montgomery, Ala. Chicago, III. Harrisburg, III. Chicago, III. White Plains, N. Y. St. Augustine, Fla. Freeport, N. Y. Gulfport, Miss. Grenada, Miss. Greenfield, Mass. Anderson, Ind. Poynette, Wis. Louisville, Ky. Gadsden, Ala. Hagerstown, Md. Lansing, Mich. Beckley, W. Va. Rice Lake, Wis. Jamestown, N. Y. Akron, Ohio Sunbury, Pa. Lima, Ohio. Hibbing, Minn. Hyannis, Mass. Manitowoc, Wis. Thomasville, Ga. Petersburg, Va. Raleigh, N. C. Rochester, N. Y. Chicago, III. Nashville, Tenn. Bridgeton, N. J. Charlotte, N. C. Springfield, III. Charleston, S. C. Parral, Chih. Durango, Dgo. Juarez, Chih. Puebla, Pue.	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. Yilha, 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. Russel! Ely, Ch. Eng. L. L. Caudle, Ch. Eng. Jay A. Johnson, Mgr.
KFKU	kcs. (245 a(5) a	1000	Lawrence, Kans.	R. P. Stringham, Ch. Eng.
KTMS KTW KWSC WCAD WCAE WGNY WREN XEBL XEDA XETF	B z 2S a 2(5) a D a AC(5) a C(5) a D a Ba(5) a z a	500 1000 1000 500 1000 250 1000 50 200 12	Santa Barbara, Calif. Seattle, Wash. Pullman; Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Newburgh, N. Y. Lawrence, Kans. Mazatlan, Sin. Gral. Anaya, D. F. Veracruz, Ver.	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.
1230	kcs. (243	3.8 m.)		
CMCB KGBX KGGM KYA WFBM WNAC WOL XECA XEG	N a a (5) a C(5) a R(5) a M a z	200 500 100 1000 1000 1000 1000 250 250	Havana, Cuba Springfield, Mo. Albuquerque, N. Mex. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Washington, D. C. Tampico, Tamps. Monterery, N. L.	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.
1240	kcs. (241	.8 m.)		
CICB CMAB CMHB KGCU KTAT KTFI	Faz	1000 200 200 250 1000 1000	Sydney, N. S. Pinar del Rio, Cuba Santci Spiritus, Cuba Mandan, N. Dak. Fort Worth, Tex. Twin Falls, Idaho	Charles Atkinson, Ch. Eng. J. A. Kennelly H. Sutton, Ch. Eng. F. V. Cox, Ch. Eng.

WHBF (.25) a WKAQ a WXYZ B a XEBU z XEKL A b XEME z	1000 1000 100 0 50 500	Rock Island, III. San Juan, P. R. Detroit, Mich. Chihuahua, Chih. Leon, Gto. Merida, Yuc.	Robert J. Sinnett J. Dizney Russell Neff, Mgr
1250 kcs. (23	9.9 m.)		
CMKC a KFOX a KIT MX(.5) a CXOK D a WOSU B a WHBI 2(2.5) a WKST D a WKST D a WKST D a WKST D z WNEW 2(5) a XTEAI z	200 1000 250 1000 250 1000 1000 250 250 1000 100	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. (23			
CMBD z CMJO a KGVO C(5) a KHSL a KOIL M(5) a KPAC D a KRGV MN a KUOA D a KVOA a WVOA a WNBX CM a WTOC C a	200 200 1000 250 1000 500 1000 5000 1000 1	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. (23	5.1 m.)		
CMHD b KGCA 2D a KOL M(5) a KVOR C a KWLC 2D a WSH DNa a WFBR R(1) a WJDX R(5) a WOOD Na a XEXB A a XEXE z	200 1000 1000 1000 1000 500 500 1000 500 250	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. (28			
CMKO z KFBB C(5) a KLS a WCAM 1 a WCAP 1 a WDOD C(5) c WIBA N(5) a WORC C a WRR M a WTNJ 1 a XEMX z	200 1000 250 500 500 1000 500 500 500 100	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. Enq. A. F. Kleindienst, Ch. Eng. Durward Tucker, Ch. Eng. E. P. Knowles, Ch. Eng.
1290 kcs. (23	2.4 m.)		
CMCG a CMJK a KDYL R(5) a KLCN D a KTRH C(5) a WEBC N(5) a	200 200 1000 100 1000 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.

KRBA D a 100 Lukfin, Texas Darrell E. Yafes KRMD (.25) a 100 Shreveport, La. W. J. Wilkinson, Ch. Eng. KRQA a 100 Sonta Fe N. Mex. F. C. Clarke, Ch. Eng. KRRV DM a 250 Sherman, Texas Tom Spellman, Ch. Eng. KSRO (.25) a 100 Santa Rosa, Calif. W. R. Nicholas, Ch. Eng. KSUB a 100 El Paso, Texas E. L. Gemoets, Ch. Eng. KVOL (.25) a 100 Lafayette, La. J. C. Cooper, Ch. Eng. KVOX (.25) a 100 Poplar Bluff, Mo. John Lee Milster, Ch. Eng. KWOS (.25) a 100 Aberdeen, Wash. J. C. Cooper, Ch. Eng. KXRO M.25) a 100 Aberdeen, Wash. John Lee Milster, Ch. Eng. WBEO (.25) a 100 Aberdeen, Wash. John Lee Milster, Ch. Eng. WBEO (.25) a	RADEX	<			6
KALE	WJAS WJHP WNBZ WNEL	C(5) a P z D a (2.5) a	1000 250 100 1000	Indianovillo Ela	Beecher Hayford, Ch. Eng. John Dowdell, Ch. Eng.
KALE	1300	kcs. (230).6 m.)		
CHCK CJKL F a 100 North Bay, Ont. CJKS F a 100 Varmouth, N. S. CKCV F a 100 Quebec, P. Q. Manzanillo, Cuba Corsicana, Tex. KAND MC KARM C a 100 Korse, Calif. KCRJ (.25) CASS KGFV MC KOME D D D D D D D D D D D D D				Los Angeles, Calif. Wichita, Kans. Brooklyn, N. Y. New York, N. Y. Greenville, S. C. Troy, N. Y.	Gene King Frank Blair, Prog. Dir. H. D. Harris, Ch. Eng.
CHCK a 50					
WMBO (.25) a 100 Auburn, N. Y. Herbert House, Ch. Eng. WMFF B(.25) a 100 Plattsburgh, N. Y. John Nazak, Ch. Eng. WNBH M(.25) a 100 New Bedford, Mass. I. Vermilya	CHKL CJLS CKMKND KARD KARD KKBKN KFPLO KKFPL KFFEZ KGFW KKFPL KFFEZ KGFW KKPDA KKRAN	F a F a F a P A P A P A P A P A P A P A P A P A P	100 100 100 100 100 100 100 100 100 100	North Bay, Ont. Yarmouth, N. S. Quebec, P. Q. Manzanillo, Cuba Corsicana, Tex. Fresno, Calif. Bend, Ore. Kansas City, Kans. Jerome, Ariz. Dublin, Texas Lubbock, Texas Kalispell, Mont. Kearney, Nebr. Watsonville, Calif. Oklahoma City, Okla. Tulsa, Okla. Pampa, Texas Lukfin, Texas Shreveport, La. Rochester, Minn. Santa Fe N. Mex. Sherman, Texas Santa Rosa, Calif. Cedar City, Utah El Paso, Texas Lafayette, La. Moorhead, Minn. Poplar Bluff, Mo. Jefferson City, Mo. Aberdeen, Wash. Guatemala, C., Guat. Laurel, Miss. Marquette, Mich. Terre Haute, Ind. Wilkes-Barre, Pa. Pittsfield, Mass. Joliet, Ill.	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. Darrell E. Yates W. J. Wilkinson, Ch. Eng. F. C. Clarke, Ch. Eng. J. L. Martin, Ch. Eng. W. R. Nicholas, Ch. Eng. W. R. Nicholas, Ch. Eng. J. C. Gooper, Ch. Eng. J. C. Cooper, Ch. Eng. J. C. Haynes, Ch. Eng. Mm. McCoffin, Ch. Eng. Chas. Sakoski, Ch. Eng. N. H. Blake, Ch. Eng. Robert Schulz, Ch. Eng. Chas. Sakoski, Ch. Eng. Chas. Sakoski, Ch. Eng. Chas. Sakoski, Ch. Eng. R. Holton, Eng. Ch. Eng. R. Holton, Eng. L. C. Bailey Ray H. Holton, Eng. E. L. Gemoets, Ch. Eng. Ray H. Host, Ch. Eng. Garnet G. Sparks Roy Thompson, Eng. Frank D. Fallain, Ch. Eng. R. Pl Aylor, Ch. Eng. A. L. Brannen, Ch. Eng. R. Pl Aylor, Ch. Eng. A. J. Reid, 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.

	a P z	100 100 100 100 100 100 100 100 100 100	Reading, Pa. Knoxville, Tenn. Grove City, Pa. Savannah, Ga. Birmingham, Ala. Winston-Salem, N. C. Tallahassee, Fla. Philadelphia, Pa. Jackson, Tenn. Elkhart, Ind. Cordoba, Ver. Irapuato, Gto. Tampico, Tams. Torreon, Coan. 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 KGHF KGMB KID KRNT WADC WORK WSMB	B a CM a (1) a C(5) a C(5)—a N a R(5) a	5000 500 1000 500 1000 1000 1000	Havana, Cuba Pueblo, Colo. Honolulu, Hawaii Idaho Falls, Idaho Des Moines, Iowa Akron, Ohio York, Pa. 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	5.4 m.)		
KGB KMO KRIS KSCJ WDRC WSAI WTAQ	M a M a NM a C(5) a C(5) g MN(5) a C a	1000 1000 500 1000 1000 1000	San Diego, Calif. Tacoma, Wash. Corpus Christi, Tex. Sioux, City, Iowa Hartford, Conn. Cincinnati, Ohio 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 KGIR KGNO WCOA WFEA WFNC WSPD XEAP XEBS XEBW XEDH XEFC XEXD	DP z B(5) a z z	500 1000 250 500 500 250 1000 50 200 250 200 100 350	Dubuque, Iowa Butte, Mont. Dodge City, Kans. Pensacola, Fla. Manchester, N. H. Fayetteville, N. C. Toledo, Ohio Obregon, Son. Mexico City, D. F. Chihuahua, Chih. Villa Acuna, Coah. Merida, Yuc. 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	2.1 m.)		
CMCA CMKW KIDO KWK WAWZ WBNX WMBG	N(2.5) a XBM(5) a l a R a	200 1000 1000 1000 1000 500	Havana, Cuba Santiago, Cuba Boise, Idaho St. Louis, Mo. Zarephath, N. J. New York, N. Y. Richmond, Va.	H. W. Toedtemeier, Ch. Eng. Clarence Crosby, Gen. Mgr. N. L. Wilson, Ch. Eng. Sue Royal
1360	kcs. (220.	4 m.)		
CMJH KCRC KGER KLPM WCSC WFBL WGES WQBC WSBT	b M a a (1) a N(1) a C(5) a 1(1) a D a 1 a	200 250 1000 500 500 1000 500 1000 500	Ciego de Avila, Cuba Enid, Okla. Long Beach, Calif. Minot, N. Dak. Charleston, S. C. Syracuse, N. Y. Chicago, III. Vicksburg, Miss. 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.

RADEX				
1370 kcs. (218.	8 m.)		
CFAR	a	100	Flin Flon, Man.	Monty
CFOS F	a	100	Owen Sound, Ont. Moncton, N. B. Rouvn, P. Q. Cardenas, Cuba Astoria, Ore Kansas City, Mo. Seattle, Wash.	J. A. V
CKCW F	a z	100	ROLLIN P. O.	
CMGE	a	200	Cardenas, Cuba	G. Saba
KAST DXZ	a	200 100 100 100	Astoria, Ore	Lawrence
KCMO	a	100	Kansas City, Mo.	L. C. S R. N. I
	a z	100	El Dorado, Ark.	Chas. A
KERN N	ā	100	Bakersfield, Calif.	Luverne
KFGQ D	a	100 100 100 100 100 100 250 100	Boone, Iowa	Lois Cr
KEIZ MICZSI	a	750	Fort Worth, Texas	E. L. S Morris
KGEL 4	a	100	Longview, Texas Roswell, N. Mex.	George
KGKL (.25) KICA 4	а	100	San Angelo, Texas	George Frank Charles
		100	Clovis, N. Mex. Pecos, Texas	Charles
KIUN	a a	100	Durango, Colo.	G. L. S
MILIE MA(25)	2	100	Galveston Tex	J. K . 1
KLUF M(.25) KMAC 5(.25)	a a	100 100	San Antonio, Tex.	R. R. I
KOSH (.25)		100	San Antonio, Tex. Rapid City, S. Dak. La Junta, Colo.	Casey .
KOKO5	a a	100	San Antonio, Tex.	Charles T. W. G. L. S J. K. 1 R. R. H Casey Jack Lu Geo. W
KRE (25)	а	100	Berkeley, Calif. Everett, Wash.	Ralph k
KRKO 3M KRMC (.25) KSLM MXZ	а	50 100	Everett, Wash.	Floyd E
KRMC 1.251	a	100	Jamestown, N. Dak. Salom, Ore.	Clyde \
KTEM DM	a	250	Temple, Texas	Ralph & Floyd E Frank (Clyde \ Wm. C.
KTEM DM KTOK MN KTSW D KTUC C(.25)	a	100	Oklahoma City, Okla.	Bernard K. W.
KISW D	a	100	Tucson Ariz	Clifford
KUJ	a	100	Walla Walla, Wash.	M. McI
KVGB	z	100	Temple, Texas Oklahoma Citv. Okla. Emporia, Kansas Tucson, Ariz. Walla Walla, Wash. Great Bend, Kans. Rock Springs, Wyo.	Leo Leo Donald
KVGB (.25) KVRS (.25) KWYO (.25) WABY N(.25) WAGF D WATL (.25) WBLK	z	100 250 100 100 100 100 100 100 100 100	Sheridan Wyo	Robert
WABY N (.25)	a	100	Sheridan, Wyo. Albany, N. Y.	James Julian J. M. W. P. T. L. \
WAGF D	a	250 100	Dothan Ala	Julian I
WBLK	a a	100	Clarksburg W. Va.	W. P.
WRNY 2(.25)	a	100	Buffalo, N. Y.	T. L. \
44 D 1144 1125	а	100 100	Atlanta, Ga. Clarksburg, W. Va. Buffalo, N. Y. Danville, Va.	Phil Br
WBIH DP	z a	100	Williamson, W. Va. Baltimore, Md. Columbia, S. C.	S. W. G. P. I
WCOC P	7	100	Columbia, S. C.	
WDAS (.25)	а	100	Philadelphia, Pa.	Harold
WDAS (.25) WDWS (.25) WEOA C(.25)	a	100 100	Philadelphia, Pa. Champaign, III. Evansville, Ind.	J. M. V J. B. C G. W.
WEOD	2	100	Hattiesburg Miss.	G. W.
WFOR	_	100	Hattiesburg M.ss. Goldsboro, N. C.	
WGBR P WGL N(.25) WGRC D	a	100 250 100	Fort Wayne, Ind. New Albany, Ind.	F. W Jack G
WHRO	а	100	Memphis, Tenn.	Weldon
WHDF (.25)	a	100 100	Memphis, Tenn. Calumet, Mich. Virginia, Minn.	Wm. Ja
WHBQ (.25) WHDF (.25) WHLB C(.25) WHLS D	а	100	Virginia, Minn.	Vernon W F
WHLS D	a	250 100	Port Huron, Mich. Jackson, Mich.	W. F. Chas. \
WLLH Sy	a	201	Lawrence, Mass.	Robert
WLLH MSy (.25)	а	100	Lowell, Mass.	Anthon
WHLB C(.25) WHLS D WIBM (.25) B WLLH Sy WLLH MSy (.25) WMBR C(.25) WMFD (.25) WMFO D WMIN (.25) WOC C(.25) WPAY	a	100 100	Jacksonville, Fla. Wilmington, N. C.	H. B. R. A. I F. L. J. Mat W
WMFO D	a	100	Decatur, Ala.	F. L. J.
WMIN (.25)	а	100 100	Decatur, Ala. St. Paul, Minn.	Mat W Harold
WOC C(.25)	a	100 100	Portsmouth Ohio	Maurice
WPRA XZ (.25)	a	100	Mavaguez, P. R.	Ralph F Louis F
WRAK (.25)	а	100	Davenport, Iowa Portsmouth, Ohio Mavaguez, P. R. Williamsport, Pa.	Louis P
WMIN (.25) WOC C(.25) WPAY WPRA XZ(.25) WRAK (.25) WRDO MN WRJN (.25)	a	100 100	Augusta, Maine Pacina, Wis	J. Mita F. L.
WRDO MN WRJN (.25) WSAU (.25) WSVS 2D	a	100	Augusta, Maine Racine, Wis. Wausau, W.s. Buffalo, N. Y.	Roland
WSVS 2D	a	50	Buffalo, N. Y.	
YEC 7	7	100	San Luis Potosi, S. L. P.	

100

100

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Morelia, Micho. Mexico City, D. F.

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Bridgman, Ch. Eng. White, Ch. Eng. ater ice King, Chief Tech. Sigmon, Ch. Eng. Nicholes, Ch. Eng. Mathis Ch. Eng. e Shatto, Ch. Eng. awford Starness, Ch. Eng. Ming, Ch. Eng. Farmer, Ch. Eng. Jones, Eng. Alsup, Eng. Hubbard, Ch. Eng. Schmehl, Ch. Eng. Taylor, Ch. Eng. Hayes, Ch. Eng. Hayes, Ch. Eng. Jones Lund, Ch. Eng. V. Ing., Ch. Eng. Kennedy, Ch. Eng. E. Steele, Ch. Eng. Gillespie Gillespie Wiegand, Ch. Eng. Jarmean, Ch. Eng. d Tullius, Ch. Eng. Trimble, Gen. Mgr. d Livingstone Lafferty, Ch. Eng. gleiter, Ch. Eng. Crosswaight, Ch. Eng. Corey, Ch. Eng. C. Smith Comer, Ch. Eng. Comer, Ch. Eng. Heitzman, Ch. Eng. Vines, Ch. Eng. Iriggs, Ch. Eng. Wagner, Ch. Eng. Houston, Ch. Eng. Davis, Prog. Dir. Wainscott, Ch. Eng. Caraway, Ch. Eng. Wilson, Ch. Eng. Fischer, Ch. Eng. Bardner, Ch. Eng. n Roy, Ch. Eng. Jackson, Ch. Eng. n Baumgartner, Op. McDonnell, Ch. Eng. Wirtanen, Ch. Eng. Donahue, Mgr. Donahue, Mgr.
ny Michaels, Ch. Eng.
Greene, Ch. Eng.
Plank, Ch. Eng.
James, Jr., Ch. Eng.
Valz, Ch. Eng.
I Higby, Ch. Eng.
P. Perry, Ch. Eng.
P. Perry, Ch. Eng.
Persio, Ch. Eng. chell Dechant, Ch. Eng. nd Reichardt, Ch. Eng.

1380 kcs. (217.3 m.)		
CMCW b 200 K0H C a 500 KQV C(1) c 500 WALA C(1) a 500 WKBH C a 1000 WNBC R(1) a 250 WSMK C(.5) a 250 XEM z 500	Havana, Cuba Reno, Nev. Pittsburgh, Pa. Mobile, Ala. La Crosse, Wis. New Britain, Conn. Dayton, Ohio 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 CMJC z 150 KABR (11) a 500 KLRA C(5) a 1000 KOY C g 1000 KNCY a 250 WHK BM(.25) a 1000 WQDM D f 1000	Yorkton, Sask. Camaguey, Cuba Aberdeen, S. Dak. Little Rock, Ark, Phoenix, Ariz. Lewiston, Idaho Cleveland, Ohio 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 KHBC CM a 250 KLO BX a 500 KTUL C(5) a 1000 TGX d WARD 2 a 500 WBBC 2 a 500 WHDL a 250 WIRE MR(5) a 1000 WLTH 2 a 500 WVFW 2 a 500	Santiago, Cuba Hilo, Hawaii Ogden, Utah Tulsa, Okla. Guatemala City, Guat. Brooklyn, N. Y. Brooklyn, N. Y. Olean, N. Y. Indianapolis, Ind. New York, N. Y. 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 CKMO 5 a 100 CMCQ a 200 KFJM (1) a 500 KGNC MN (2.5) a 1000 KMED N b 250 WAAB M(1) a 500 WBCM (1) a 500 WHIS (1) a 500 WROK (1) a 500 WSFA C(1) a 500	Vancouver, B. C. Vancouver, B. C. Havana, Cuba Grand Forks, N. Dak. Amarillo Texas Medford, Ore. Boston, Mass. Bay City, Mich. Bluefield, W. Va. Rockford, III. 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 CHLN z 100 CKCA a 100 CKGB F a 100 CKGB F a 100 KABC M(.25) a 100 KATE (.25) a 100 KATE (.25) a 100 KCMC M(.25) a 100 KCMC M(.25) a 100 KEUB a 100 KFAM N(.25) a 100 KFAM N(.25) a 100 KFIZ a 100 KGFF M(.25) a 100 KGIW 1 a 100 KGIW 1 a 100 KGIW 1 a 100 KIDW 1 a 100 KIDW 1 a 100 KIDW 1 a 100 KIDW 1 a 100 KIBM (.25) z 100 KIDW 1 a 100 KIBM (.25) z 100 KIDW 1 a 100 KIBM (.25) z 100 KNET D a 100 KORE M a 100 KORE M a 100 KORE M a 100	Toronto, Ont. Three Rivers, P. Q. Kenora, Ont. North Bay, Ont. Moron, Cuba San Antonio, Tex. Albert Lea, Minn. Portland, Ore. Texarkana, Tex. Denton, Texas Price, Utah St. Cloud, Minn. Fond du Lac, Wis. Shawnee, Okla. Alamosa, Colo. Safford, Ariz. Lamar, Colo. La Grande, Ore. Palestine, Texas Eugene, Ore. Abilene, Tex.	Wm. Little, Ch. Eng. Leon Trepanier, Ch. Eng. Edmund Tompkins, Ch. Eng. Ed Ryan, Ch. Eng. Ed Ryan, Ch. Eng. Kenneth Hyman, Ch. Eng. Geo. H. Church, 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. Paul E. Walden, Ch. Eng. Paul E. Walden, Ch. Eng. Paul E. Walden, Ch. Eng. Frank L. Hill, Mgr. W. W. Roberston, Ch. Eng.

KADEA			
KRBM P (.25) KRIC M (.25) KRIC M (.25) KSAN KTRI (.25) KVAK DP KWAL (.25)P KWACO CM (.25)P WAGO CM (.25) WAGM WAPO N (.25) WAGM WAPO N (.25) WAGM WAPO (.25) WCBS (.25) WCHV (.25) WELL B WFMJ DP WGNC (.25) WHABA C (.25) WHABA C (.25) WHABA C (.25) WMBS (.25) WMBS (.25) WMBS (.25) WMBS (.25) WMBS (.25) WMBS (.25) WMBPJ C (.25) WMAS C (.25) WMAS C (.25) WMBPJ C (.25) WMAS C (.25)	z 100 a 100 f 100 z 100 c 100 c 100 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. Hazelton, Pa. New Orleans, La. Springfield, III. Charlottesville, Va. Rocky Mount, N. C. Battle Creek, Mich. Youngstown, Ohio Gastonia, N. C. Albany, Ga. Cicero, III. 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. Ralph Mifflin, Ch. Eng. L. H. Appleman, Ch. Eng. A. C. Hughes, Ch. Eng. M. E. Thompson, Ch. Eng. M. E. Thompson, Ch. Eng. W. F. Williams, Gen. Mgr. Dick Ashenfelter, Ch. Eng. U. G. Murphrey, Ch. Eng. Raymond Roof, Ch. Eng. R. C. Hallett, Ch. Eng. E. Mullinax J. E. Mathiot, Ch. Eng. N. C. Ruddell, Mgr. Winston L. Clark, Mgr. Don Trow, Eng E. H. Clark, Ch. Eng. J. C. Murphy Charles McClane, Eng. W. K. Ellenwood, Ch. Eng. J. V. Sanderson, Ch. Eng. J. H. Lance, Ch. Eng.
1430 kcs. (2 CMKZ KECA B(5) KGNF D KINY KSO BM(5) WBNS C(5)	209.7 m.) z 200 1000	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 HP50 KDFN KELA KXYZ BM KXYZ BM WBIG C WCBA WMBD C(5) WSAN Na XEFI	a 500 a 1000 a 1000 a 1000 a 500 a 1000	Havana, Cuba Colon, Panama Casper, Wyo. Centralia, Wash. Houston, Tex. Greensboro, N. C. Allentown, Pa. Peoria, III. 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 CHGS F CMHM KGCX HRN KIEM M(1) KTBS N	z 200 a 1000 b 500 a 500	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. Alvor Olson, Eng. C. H. Maddox, Ch. Eng.

TGQ d 200 WAGA B(1) a 500 WGAR C(5) a 1000 WHOM a 250 WSAR M f 1009 XEF a 100 1460 kcs. (205.4 m.) CMKF z 250 KSTP R(25)X a 10000 WJSV CX a 10000 1470 kcs. (204 m.)	Quezaltenango, Guat. Atlanta, Ga. Cleveland, Ohio Jersey City, N. J. Fall River, Mass. Juarez, Chih. Holguin, Cuba St. Paul, Minn. Washington, D. C.	Cliff Hanson, Ch. Eng. R. M. Pierce, Eng. Allison Burnham, Ch. Eng. J. C. Pavao, Ch. Eng. Hector Skiter, Ch. Eng. Harry R. Crow
CMCX z 200 KGA BM a 5000	Havana, Cuba Spokane, Wash. Nashville, Tenn.	A. G. Sparling, Ch. Eng.
WLAC C a 5000	Nashville, Tenn.	F. D. Binns, Ch. Eng.
1480 kcs. (202.6 m.)	Ciantuaga Cuba	
CMHX a 200 KOMA C a 5000 WHIP D z 5000 WKBW C a 5000	Cienfuegos, Cuba Oklahoma City, Olka. 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 CMOX a 200 KAWM a 100 KBIX M a 100 KBIX M a 100 KBST M a 100 KDAL C a 100 KDAL C a 100 KFDA P Z 100 KFDA P Z 100 KGFI (.25) a 100 KGKY (.25) — a 100 KGKY (.25) — a 100 KOTN D a 100 KPAB (.25) a 100 KPAT DM a 250 KPO M(.25) a 100 KSAL (.25) a 100 KSAL (.25) b 100 KSAL (.25) b 100 KSAL C.25) b	Sault Ste. Marie, Ont. Havana, Cuba Galiup, 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 Wenatchee, 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, III. Durham, N. C. Lancaster, Pa. Galesburg, III.	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. Harlan Morrison, 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. P. G. Richards, Eng. Justin B. Toles, Ch. Eng. N. E. Vance, 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. Perry W. Esten, Ch. Eng. Freys Stanziola, Prog. Dir. Paul Kalfleisch, Ch. Eng.

CFRC F a 100 Kingston, Ont. H. H. Stewart, Ch. Eng. Ion Hartman, Ch. Eng. 1520 kcs. (197.3 m.) TGW d 5000 Guatemala City, Guat. 1530 kcs. (196 m.) CMC z 200 Havana, Cuba Kansas City, Mo. Waterbury, Conn. 1550 kcs. (193.4 m.) KPMC M a 1000 Bakersfield, Calif. New York, N. Y. KPMC M a 1000 New York, N. Y. CMBF z 5000 Havana, Cuba 1580 kcs. (189.8 m.) CMBRT z 200 Guines, Cuba 1600 kcs. (187.4 m.) CMBH z 5000 Havana, Cuba	WGKV P Z 100 WHBB a 100 WJBK (.25) a 100 WKAT (.25) a 100 WKBB YC (.25) a 100 WKBB YC (.25) a 100 WKBU (.25) a 100 WKEU D a 100 WMEX (.25) a 100 WNBF C (.25) a 100 WNLC M a 100 WNLC M a 100 WOMI (.25) a 100 WOPI a 100 WRDW C (.25) a 100 WRDW C (.25) a 100 WRTD B 100 WRTD B 100 WSTP (.25) a 100 WSTP (.25) a 100 WSYB a 100 WSYB a 100 WYRL 1 (.25) a 100 WWRL 1 (.25) a 100 WWRL 1 (.25) a 100 WWSW (.25) a 100 WWSW (.25) a 100	Charleston, W. Va. Selma, Ala. Detroit, Mich. Miami Beach, Fla. E. Dubuque, III. Richmond, Ind. Muskegon, Mich. Griffin, Ga. Boston, Mass. Binghamton, N. Y. New London, Conn. Owensboro, Ky. Bristol Tenn. Augusta, Ga. Rock, Hill, S. C. Richmond, Va. Salisbury, N. C. Rutland, Vt. E. St. Louis, III. Woodside, N. Y. Pittsburgh, Pa. Ocala, Fla.	Hamerk Johnson, Eng. Winifred Powers Russell Bennett, Ch. Eng. L. Carlson Wm. O. Knox, Ch. Eng. Grant Ashbacker, Mgr. James Wilder, Ch. Eng. L. H. Gilbert, Ch. Eng. Neil Spencer, Ch. Eng. R. E. Jagoe, Ch. Eng. R. H. Smith Harvey Aderhold, Ch. Eng. R. L. Starr, Ch. Eng. James R. Yost, Ch. Eng. J. A. Houser, Ch. Eng. F. S. Liggett, Ch. Eng. Percy Meade, Ch. Eng. Ancil Lewis, 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. WBRY M a 1000 Waterbury, Conn. S. E. Warner, Ch. Eng. KPMC M a 1000 Bakersfield, Calif. New York, N. Y. KPMC M a 1000 Bakersfield, Calif. New York, N. Y. CMBF z 5000 Havana, Cuba 1580 kcs. (192.2 m.) CMBF z 5000 Guines, Cuba 1600 kcs. (187.4 m.)	1510 kcs. (198.6 m.)		
TGW d 5000 Guatemala City, Guat. 1530 kcs. (196 m.) CMC			H. H. Stewart, Ch. Eng. Ion Hartman, Ch. Eng.
1530 kcs. (196 m.) CMC	1520 kcs. (197.3 m.)		
CMC	TGW d 5000	Guatemala City, Guat.	
Name	1530 kcs. (196 m.)		
KPMC WQXR M a 1000 a 1000 Bakersfield, Calif. New York, N. Y. L. A. Schamblin, Mgr. 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.) CM9RT CM9RT CM9RT	KITE a 1000	Havana, Cuba Kansas City, Mo. Waterbury, Conn.	
WQXR 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.)	1550 kcs. (193.4 m.)		
CMBF z 5000 Havana, Cuba 1580 kcs. (189.8 m.) CM9RT z 200 Guines, Cuba 1600 kcs. (187.4 m.)			
1580 kcs. (189.8 m.) CM9RT z 200 Guines, Cuba 1600 kcs. (187.4 m.)	1560 kcs. (192.2 m.)		
CM9RT z 200 Guines, Cuba	CMBF z 5000	Havana, Cuba	
1600 kcs. (187.4 m.)	1580 kcs. (189.8 m.)		
	CM9RT z 200	Guines, Cuba	· · · · · · · · · · · · · · · · · · ·
CMBH z 5000 Havana, 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) unltd (E).
WJBL, Decatur, CP 1310 kcs, 100 (.25) unltd. (C).

WIMS, Ashland, CP 1370 kcs, 100 w. unltd.

WIMS, Asiman, (E).

WLAC. Nashville, CP 50kw. (E).

WLAW, CP DA nite, 1 kw to ss at San Fransisco (C).

WMBC, Detroit, CP 600 kcs, 250 w. unltd. (E).

WMBR, Jacksonville, CP 1120 kcs, 500 (1). (E).

WMFF, Plattsburg, CP 1240 kcs, DA, 1 kw.

WOC, Davenport, CP 1390 kcs. 1 kw. unltd. (E).

WOMI, Owensboro, mod. lic. 1200 kcs. (C).

WPG, Atlantic City, CP unltd, move studio to New York, trans. to Kearney, N. J., request-ing facilities of WBIL and wOV. CP change owner to Greater N. Y. Brdcstg. Corp. (F). WREN, Lawrence, CP move to Kansas City. (E).

(E).
WSIS. Winston Salem, CP 100 (.25) (E).
WSIS. Minston 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 unltd. (E).
Ashland, Wis., WJMS, Inc., 1370 kcs, 100 w. unltd. (C). Asheville, N. C., Asheville Daily News, 1370 kcs, 100 w. unltd. (C). Asheville, N. C., Publix Bamford Theaters, 1430 kcs, 500 (1). (E).
Atlantic City, N. J., Neptune Brdcstg. Co., 1420 kcs., 100 (.25) unltd.
Bellingham, Wash., Bell Brdcstg. Co., 1200 kcs, 100 (.25). (E). Birmingham, Ala., Birm. News Co., 590 kcs, 1 kw. (C). Bowling Green, Ky., B. G. Brdcstg. Co., 1310 kcs, 100 (.25). (C).
Brown City, Mich., Thumb Brdcstg. Co., 880 kcs, 100 (.29). (C).
Brown City, Mich., Thumb Brdcstg. Co., 880 kcs, 1 kw. days (E).
Brownsville, Tex., Brown County Brdcstg. Co., 990 kcs., 1 kw days.
Brunswick, Ga., Coastal Brdcstg. Co., 1500 kcs., 100 (.25) unltd. (E). Cedar Rapids, Iowa, The Gazette Co., 1420 kcs., 100 w. unitd. Cheyenne, Wyo., Western Brdcstg. Co., 1210 kcs., 100 (.25) Cleveland, Ohio, Cuvahoga Valley Brdcstg. Co., 1500 kcs, 100 w. days. (E). Columbus. Miss.. Birney Imes. 1370 kcs. 100 (.25) unltd. (E). Concord, N. C., Cabarrus Brdestg. Co., 1370 kcs. 100 (.25) unltd. (E). Cookeville, Tenn., M. L. Medley, 1370 kcs., 100 (.25) unitd. Flizabeth City, N. C., 1370 kcs, 100 (.25) (E). Elv. Wyo., Eastern Nev. Brdcstg. Co., 1500 kcs, 100 w. days (E). Erie, Pa., Presque Isle Brdcstg. Co., 1500 kcs, 100 (.25) (E). Everett, Wash.. Cascade Brdcstg. Co., 1420 kcs, 100 (.25) (E). Florence, S. C., Pee Dee Brdcstg. Co., 1200 kcs, 100 (.25) (requests facilities of WOLS) (E). Fort Dodge, Iowa, Northwest Brdcstg. Co., 1370 kcs., 200 (.25) Fort Lauderdale, Fla., Tom. M. Bryan, 1370 kcs., 100 (.25) Fremont, Nebr., Nebr. Brdcstg. Corp., 1370 kcs, 100 (.25) (E). Grants Pass, Ore., Southern Ore. Brdcstg. Co., 1310 kcs, 100 w. unltd. (C). Grants Pass, Ore., Ore. Brdcstg. System, 1370 kcs., 100 (.25). kcs., 100 (.25). Greenville, Miss., John R. Pepper, 1310 kcs., 100 (.25).
Hancock, Mich., Copper Country Brdcstg. Co., 1370 kcs., 100 (.25) S.H. (E).
Hastings, Nebr., South Nebr. Brdcstg. Co., 920 kcs. 1000 (5) (E).
Herrin, Ill., Orville W. Lyerla, 1310 kcs., 100 (.25). (.25) unltd. (C). Hickory, N. C., Catawba Valley Brdcstg. Co., kcs., 100 (.25). Kingston, N. Y., Kingston Brdcstg. Corp., 1500 kcs. 100 w. davs. Logan, W. Va., Frey and Greevver, 1200 kcs., 100 w. days.
Louisville, Ky., Gateway Brdcstg.Co., 880 kcs. 500 w. (C). Marinette, Wis., M & M Brdcstg. Co., 570 kcs, 250 w. days (C).
Martinsville, Va., Mart'lle Brdcstg. Co., 1420 kcs, 100 (.25) (C).

kcs, 250 w. (C). Marysville, Calif., Calaway and Hooper, 1420 kcs, 100 (.15) unltd. (E).
McComb, Miss., McComb Brdcstg. 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 Brdcstg. Corp., 1370 kcs, 100 (.25) (C). Martinsville, Va., Patrick Henry Brdcstg. Co., 1420 kcs., 100 (.25). North Sacramento, Calif., Grant Union High School, 1370 kcs, 100 w. days S. (C). Ogdensburg, N. Y., St. Lowrence Brc. Corp., 1310 kcs, 100 (.25) (C). Olney, Ill., Olney Brc. Co., 1210 kcs, 100 (.25) (E). Palm Springs, Calif., Mollin Investment Co., 1200 kcs., 100 w. days.

Panama City, Fla., Panama City Brdcstg. Co.,
1200 kcs., 100 (.25) unltd. (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 Brc. 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). unltd. (C). Provo, Utah, Provo Brdcstg. Co., 1210 kcs. 100 (.25) unltd. (C).
Rochester, N. Y., Edward J. Doyle, 1270 kcs, 500 w. days. (E). Rockville, Md., Monocacy Brc. Co., 1140 kcs, 250 w. days (C). Saginaw, Mich., Saginaw Brc. Co. Co., 950 kcs. (C). St. Petersburg, Fla., Pinellas Brdcstg. Co., 1370 kcs., 100 (.25) Salem, Mass., North Shore Brdcstg. Co., 1300 kcs., 100 w. Sandusky, Mich., Thumb Brc. Co., 880 kcs, 1 kw davs. (E). San Juan, P. R., United Theaters, Inc., 580 kcs. 1000 w. (C). SanJuan, P. R., E. R. Sanfeliz, 580 kcs., 1 kw. (C). Santa Monica, Calif., A. E. Austin, 1160 kcs. 100 (.25). (C). Sedalia, Mo Mo., Drohlich Bros., 1500 kcs, 100 Shelby, N. C., Joseph A. Lattimore, 1370 kcs., 100 (.25). Spartanburg, S. C., Spartanburg Advertising Co., 1370 kcs. 100 (.25) unitd. (E). Springfield, Ohio, S. Brc. Corp., 1310 kcs, 100 w. (E) Suffolk, Va., S. Brc. 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 Brc. Co., 1420 kcs, 100 (.25) (C). Tacoma, Michael J. Mingo, 1400 kcs, 250 w. (C). Topeka, Kans., W. B. Greenwald, 1370 kcs, 100 (.25) unltd. (E).

Marysville, Calif., Yuba-Sutter Broadcasters, 1320

Valdosta, Ga., J. F. Arrington, 1230 kcs., 250 w. unltd.

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. unltd, to be used with above station if application is granted (C).

Worcester, Mass., Central Brc. Corp., 1500 kcs, 100 (.25) (C).

Worcester, Mass., C. T. Sherer Co., 1200 kcs., 100 (.25). (E). 100 (.25) (C).

Elgin, Ill., Elgin Brdcstg. Ass'n., 1170 kcs, 100 w. days (E).

Evanston, Ill., Northwestern Brdcstg. 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 specem. 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 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, twelvedollar radio. Among the outstanding stations are WJR, WWJ, CKLW, WHAM. WCAU. KOA. KSL, WGN, WSPD, WOAI, WLW. WWL. KXYZ, XENT. XERA. WNEL, KFI WAPI. KPO, and CIRC. 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.

			ie, iv ivalional i		1			New Lor	ndon	
AL	ABAM	A	Jonesboro	***	KGB	1330	1000 M	WNLC	1500	100 M
Auniotou			KBTM 1200 Little Rock	100	KFRC	rancisco 610	1000 M	Waterbu		
Anniston	1420	100	KARK 890	500 N	KGO	790	7500 B		1190	100
Birmingi		100	KGHI 1200	100	KBS	1070	500	WBRY	1530	1000 M
WAPI	1140	5000 C	KLRA 1390	1000 C	кро	680	50000 R	DEL	AWAI	R.F.
WBRC	930	1000 R	Pine Bluff		KSAN	1420	100		A 11 A 1	
WSGN	1310	100 B	KOTN 1500	100	KSFO	560	1000 C	Wilming		
Decatur		100	Siloam Spring	5000	KYA	1230	1000		1120	250 R
WMFO Dothan	1370	100	KUOA 1260	9000	San Jo KQW	1010	1000 M	WILM	1420	100
WAGF	1370	250	0.115004			uls Ohist		DIST	RICT	OF
Gadsden			CALIFOR	IIA	KVEC	1200	100		UMBI	
WJBY	1210	100	Bakersfleld		Santa	Апа				
Huntsvil			KERN 1370	100 N	KVOE	1500	100 M	Washing		
WBHP	1200	100	KPMC 1550	1000M		Barbara		WISV		10000 C
Mobile WALA	1380	500 C	Berkeley		KDB KTMS	1500 1220	100 M 500 B	WMAL WOL	630 1230	250 B 1000 M
WMOB	1200	100	KRE 1370	100	Santa		500 13	wrc	950	1000 R
Montgon		100	Beverly Hills		KSRO	1310	100	***************************************	200	1000 1
wcov	1210	100	KMPC 710	500	Stockto			FL	ORIDA	A
WSFA	1410	500 €	Chico KHSL 1260	250	KGDM	1100	1000 M	_		
Selma		4.0	El Centro	2011	KWG	1200	100 N	Daytona		
WIIBB	1500	100	KXO 1500	100M	Visalla			WMFJ	1420	100
Muscle WMSD	1420	100	Eureka		KTKC	1190	250 M	Gainesvil WRUF	830	5000
Tuscaloo		100	KIEM 1450	500M	Watso		250	Jacksonv		5000
	1200	250	Fresno		KHUB	1310	2011	WJAX	900	1000 N
			KARM 1310 KMJ 580	100 C 1000 N	-			WJHP	1290	250
Al	LASKA	١	KMJ 580 Glendale	1000 N	C	DLORAD	0	WMBR	1370	100 C
A b			KIEV 850	250				Lakeland		100 37
Anchoraç KFQD	780	250	Long Beach		Alamos	3a 1420	100	WLAK Miami	1310	100 N
Fairbank		200	KFOX 1250	1000	KGIW	do Sprin		WIOD	610	1000 N
KFAR	610	1000	KGER 1360	1000	KVOR	1270	1000 C	WMBF	610	1000
Juneau			Los Angeles	*****	Denver			WQAM	580	1000 C
KINY	1430	250	KECA 1430 KEHE 780	1000 B 1000	KFEL	920	500 M	Miami I		
Ketchika	900	***	KFAC 1300	1000	KLZ	560	1000 C	WKAT	1500	100
KGBU	900	500	KFI 640	50000 R	KOA		50000 R	Ocala	1500	100
AR	IZONA		KFSG 1120	500	KPOF KVOD	880 920	1000 500 B	Orlando	1300	100
			KFVD 1000	1000	Duran		500 13	WDBO	580	1000 C
Globe			KFWB 950	1000	KIUP	1370	100	Pensacol	a	
KWJB	1210	100	KGFJ 1200 KHJ 900	100 1000 M		Junction		WCOA	1340	500
Jerome KCRJ	1310	100	KMTR 570	1000 M	KFXJ	1200	100	St. Augi		100
Lowell	1310	100	KNX 1050	50000 C	Greele			WFOY St. Peter	1210	100
KSUN	1200	100	KRKD 1120	500	KFKA	880	500 M	WSUN	620	1000 N
Phoenix			Merced		La Jui KOKO	1370	100	Tallahas		1000 14
KOY	1390	1000 C	KYOS 1040	250	Lamar		100	WTAL	1310	100
KTAR	620	1000 N	Modesto KTRB 740	250	KIDW	1420	100	Tampa		
Prescott KYCA	1500	100	Monterey	200	Pueblo			WDAE	1220	1000 C
Safford	1500	100	KDON 1210	100 M	KGHF	1320	500 B	WFLA West Palm	620	1000 N
KGLU	1420	100	Oakland	2001	Sterlin			West Paim	1200	n 100 C
Tueson			KLS 1280	250	KGEK	1200	100	***************************************	1200	100 €
KGAR	1370	100 C	KLX 880	1000	804	INECTIC	117	GE	ORGIA	A
KVOA	1260	1000	KROW 930	1000		INECTIO	,01			
ADI	KANSA		Pasadena KPPC 1210	100	Bridge	nort		Albany	1420	100
Ant	MINISA		Redding	100	WICC	600	500 M	WGPC Athens	1420	100
Blythevil	lle		KVCV 1200	100	Hartfo			WGAU	1310	100
	1290	100	Sacramento		WDRC	1330	1000 €	Atlanta	3023	
El Dora	do		KFBK 1490	10000 N	WTIC		50000 R	WAGA	1450	500 B
KELD	1370	100	KROY 1210	100 C	WTHT	1200	100 M	WATL	1370	100
Fort Sm	iith 1210	100	San Bernardir KFXM 1210		New E		050.75	WGST	890	1000 C
Hot Spri		100	KFXM 1210 San Diego	100 M	WNBC New F	1380	250 R	WSB	740	50000 R
KTHS		10000 N		1000 B	WELI	900	500	Augusta WRDW	1500	100 C
						300		.,	1000	100 €

Columbu	8		Cicero			Boone			Louisvil	ile	
WRBL	1200	100	WHFC	1420	100	KFGQ	1370	100	WAVE	940	1000 1
Griffin			Danvii	lle		Cedar F	Rapids		WHAS	820	50000 (
WKEU	1500	100	WDAN	1500	100	WMT	600	1000 B	WINN	1210	100
Macon			Decati	ur		Davenpo	rt.		Owensb		
WMAZ	1180	1000 C	WJBL	1200	100	WOC	1370	100 C	WOMI	1500	100
Rome	2.00		East	Dubuque		Decorah			Paduca		2
WRGA	1500	100	WKBB	1500	100 C	KGCA	1270	100	WPAD	1420	100
Savanna		100		St. Louis		KWLC	1270	100			100
WSAV	1310	100	WTMV	1500	100	Des Mo		200			
WTOC	1260	1000 C	Galesb			KRNT	1320	1000 C	LO	UISIAN	ΔV
Thomasy		1000 €	WGIL	1500	250	KSO	1430	1000 B		0.014,	• • • • • • • • • • • • • • • • • • • •
	1210	100	Harris		200	WHO	1000	50000 R	Alexand	iria.	
		100	WEBQ	1210	100			30000 I	KALB	1210	100
Waycross			Jollet	1210	100	Dubuqu		500	Baton		100
WAYX	1200	100	WCLS	1310	100	KDTH	1340	900	WIBO		F00.7
			Peoria		100	lowa Ci		F.110		1120	500 1
H	AWAII				1000 0	wsui	880	500	Lafayet		
			WMBD		1000 C	Marshall			KVOL	1310	100
Hilo			Quinc		1000	KEJB	1200	100	Lake C		
KHBC	1400	250 M	WTAD	900	1000	Mason C			KPLC	1500	100
Honoluli		200.71	Rockfe		=0.0	KGLO	1210	100 C	Monroe		
	1320	1000 C	WROK	1410	500	Shenand			KMLB	1200	100
KGMB	750	2500 N		Island		KENE	890	500	New Or		
Lihue	100	2000 11	WHBF	1240	1000	KMA	930	1000 B	WBNO	1420	100
KTOH	1500	100	Spring			Sioux C			WDSU	1250	1000 1
NI OH	1900	100	WCBS	1420	100	KSCJ	1330	1000 C	WJBW	1200	100
			WTAX	1210	100	KTRI	1420	100	WSMB	1320	1000 1
11	DAHO		Tusco						WWL	850	50000 (
			WDZ	1020	250	K	ANSAS	S	Shrevep		
Boise			Urban						KRMD	1310	100
KIDO	1350	1000 N	WILL	580	5000	Abilene			KTBS	1450	1000 N
Idaho F						KFBI	1050	5000	KWKH	1100	50000 C
KID	1320	500	1	INDIANA		Atchison	1				
Lewiston						KVAK	1420	100			
KRLC	1390	250	Ander	son		Coffeyvil	le		1	MAINE	
Nampa				1210	100	KGGF	1010	1000 M			
KFXD	1200	100	Elkha		200	Dodge C	ity		Augusta		
Pocatello)		WTRC	1310	100	KGNO	1340	250	WRDO	1370	100 M
KSEI	900	250 N	Evans		100	Emporia			Bangor		
Twin Fa	alls		WEOA	1370	100 C	KTSW		100	WABI	1200	100
KTFI	1240	1000 N	WGBF	630	500 N	Garden			WLBZ	620	500 N
Wallace				Wayne	000 14	KIUL	1210	100	Lewiston	n	
KWAL	1420	100	WGL	1370	100 N	Great B			wcou	1210	100N
			wowo	1160	10000 B	KVGB	1370	100	Portiani	đ	
	LINOI		Gary	1100	10000 15	Hutchins			WCSH	940	1000 1
	LINUI		WIND	560	1000	KWBG	1420	100	WGAN	640	500
Ангога			Hamm		1000	Kansas		100	Presque	Isle	
WMRO	1250	250	WHIP	1480	****	KCKN	1310	100	WAGM	1420	100
Blooming		200	WWAE	1200	5000	Lawrence		100			
WJBC	1200	100		napolis	100		1220	1000			
Carthage		100	WFBM	1230	1000 0	WREN	1220 1220	1000 B	MA	RYLAN	ND
WCAZ	1070	100	WIBC	1050	1000 C	Manhatt		1000 13	D-141		
Champai		100	WIRE		1000	KSAC	580	500	Baltimo		
	1370	100		1400	1000 R			000	WBAL	760	2500 I
WDWS	1910	100	Munci		• • • •	Pittsbur	790	1000 37	WBAL	1060	10000 I
Chicago	920	1000	WLBC	1310	100	KOAM	100	1000 N	WCAO	600	500 (
WAAF				Albany	0.50	Salina	1500	100	WCBM	1370	100
WBBM	770	50000 C	WGRC	1370	250	KSAL	1500	100	WFBR	1270	500 1
WCBD	1080	5000 5000 N	Richn		***	Topeka	F00	1000 0	Cumber		
WCFL	970		WKBV	1500	100	WIBW	580	1000 C	WTBO	800	250
WCRW	1210	100		Bend		Wichita			Frederic		
WEDC	1210	100	WFAM	1200	100	KANS	1210	100 B	WFMD	900	500
WENR	870	50000 B	WSBT	1360	500	KFII	1300	1000 C	Hagerst		
WGES	1360	500		Haute				-	WJEJ	1210	100
WGN	720	50000 M	WBOW	1310	100 N	I KE	NTUC	KY	Salisbu		
	1130	20000		Lafayette	8				WSAL	1200	250
WJJD	870	50000 B	WBAA	890	500	Ashland					
WJJD WLS		50000 IR				WCMI	1310	100	MACC	404110	
WJJD WLS WMAQ	670					Covingto	n		MASS	ACHUS	E118
WJJD WLS WMAQ WMBI	1080	5000		IOWA							
WJJD WLS WMAQ		5000 100	-	IUWA		WCKY	1490	10000 N	-		
WJJD WLS WMAQ WMBI	1080		Ames	640	5000		1490	10000 N 100	Boston WAAB	1410	500 N

	110	
WBZ	990	
WCOP		500
WEEI	590	
WHDH	830	1000
WARY	1500	100
WNAC	1230	1000 16
WORL	920	500
Fall Ri	ver	
WSAR	1450	1000 M
Greenfle	1d	
WHAI		250M
Hyannis	3	
WOCB	1210	100
Lawrene	26	
WLAW	680	1000
WLLH	1370	100 M
Lowell		
WLLH	1370	100
New Be	dford	
WLLH	1370	100M
Pittsfiel	d	
WBRK	1310	100 C
Springfi	eld	
TYTT) 77 A	000	1000 B
WMAS	1420	100 C
WSPR	1140	500 M
Worcest		
WORC	1280	500 C
WTAG		1000 R

84	CH	CAN
M	CH	IGAN

Battle	Creek	
WELL	1420	100 B
Bay C	ity	
WBCM	1410	500
Calume		
WHDF	1370	100
Detroit		
WJBK	1500	100
WJR		50000 C
WMBC	1420	100
wwj	920	
WXYZ	1240	1000 B
East L	ansing	
WKAR	850	1000
Flint		
WFDF	1310	100 B
Grand	Rapids	
WASH	1270	500 N
WOOD	1270	500 N
ironwo	od	
WJMS	1420	100
Jackson		
WIBM	1370	100 B
Kalama	20 0	
wkzo	590	1000 B
Lansin		
WJIM	1210	100 B
Lapeer	1200	100
WMPC		100
Marque		
WBEO	1310	100
Muskeg	on	
WKBZ	1500	100
Port I	luron	
WHLS	1370	250
		200
Royal		
WEXL	1310	50

MINNESOTA

	THESU	- A
Albert	Lea	
KATE	1420	100
Duluth		
KDAL WEBC	1500	100 C
WEBC	1290	1000 N
Fergus	Falls	
KGDE		100
Hibbing	9	
WMFG	1210	100
Mankat	to	
KYSM	1500	100
Minnea		
WCCO WDGY	810	50000 C
WDGY	1180	1000 C
WLB	760	5000
WTCN	1250	1000 B
Moorhe	ad	
KVOX	1310	100
Northfi		
WCAL	760	5000
Rochest		
KROC		100
St. Clo		
KFAM	1420	100
St. Pa		
KSTP WMIN	1460	10000 R
		100
Virgini		
WHLB		100 C
Winona		
KWNO	1200	25 0

MISSISSIPPI

Grenad	a	
WGRM	1210	100
Gulfpor	t	
WGCM	1210	100
Hatties	burg	
WFOR	1370	100
Jackson		
WJDX	1270	1000 R
WSLI	1420	100
Laurel		
WAML	1310	100
Meridia	ın	
WCOC	880	1000 C
Vicksbu	ırg	
WQBC	1360	1000

MISSOURI

Cape	Girardeau	
KFVS	1210	100
Colum	bia	
KFRU	630	500
Jeffers	on City	
KWOS	1310	100
Joplin		
WMBH		100
Kansa	s City	
KCMO	1370	100
KITE	1530	1000
KMBC	950	1000 C
WDAF	610	1000 R
WHB	860	1000M
Poplar	Bluff	
KWOC	1310	100

St. Jos	eph	
KFEQ	680	2500
St. Lo	uis	
KFUO	550	500
KMOX	1090	50000 C
KSD	5 50	1000 R
KWK	1350	1000 B
KXOK	1250	1000
WEW	760	1000
WIL	1200	100
Springf	blei	
KGBX	1230	500 N
KWTO	560	5000

Billings KGHL 780 1000 N Bozeman KRBM 1420 100 Butte 1000 N KGIR 1349 Great Falls KFBB 1280 1000 C Helena KPFA 1210 100 N Kalispell KGEZ 1310 100 Missoula 1260 10**00 C** KGVO

MONTANA

1450 NEBRASKA

1000

Wolf Paint KGCX

Grand	Island	
KMMJ	740	1000
Kearne	y	
KGFW	1310	100
Lincoln	1	
KFAB	770	10000 C
KFOR	1210	100 C
Norfoli	(
WJAG	1060	1000
North	Platte	
KGNF	1430	1000
Omaha		
KOIL	1260	1000 B
WAAW		500
wow	590	1000 R
Scottsh	luff	
KGKY	1500	100

NEVADA Reno 1380

500 C

кон

NEW	HAMPS	HIRE
Laconi	a	-
WLNH	1310	100 M
Manch	ester	
WFEA	1340	500 N
Portsm	outh	
WHEB	740	250

NEW	JERSEY

WCAP	1280	500
Atlantic	City	
WPG	1100	5000 C
Bridgeto	n	
WSNJ	1210	100
Camden		
WCAM	1280	500
Jersey C	ity	
WAAT	940	500
WHOM	1450	250
Newark		
WHBI	1250	1000
WOR		
Red Bai	nk	
WBRB	1210	100
Trenton		
WTNJ	1280	500
Whippan	У	
W3XDD		50000
Zarephat	h	
WAWZ	1350	1000

NEW MEXICO

Albuque	erque	
KGGM	1230	1000
KOB	1180	10000 N
Carlsba	d	
KLAH	1210	100
Clovis		
KICA	1370	100
Gallup		
KAWM	1500	100
Hobbs		
KWEW	150 0	100
Roswell		
KGFL	1370	100
Santa	Fe	•
KROA	1310	100

NEW YORK

-		
Albany		
WABY	1370	100 N
woko	1430	500 C
Auburn		
WMBO	1310	100
Bingha	mton	
WNBF	1500	100 C
Brookiy	'n	
WARD	1400	500
WBBC	1400	500
WBBR	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
wsvs	1370	50
Canton		
WCAD	1220	500
Elmira		
WENY	1200	250
WESG	850	1000 C
Freepor	t	-
WGBB	1210	100

WINDQ	
Newburgh	
WGNY 1220 250 New York Wilmington Wilford	00 100
Ward New York New York	
WARC S60 50000 C WMFD 1370 100 WVBG 1210 100 M Elk City City WHG S60 S60 S60 S60 S60 WMISO WAIR 1350 250 M WHISO S60 WHISO WAIR 1250 250 WRISO WAIR 1250 250 WRISO WAIR 1310 100 C WRISO WAIR 1250 250 WRISO WAIR 1310 100 C WRISO WAIR 1250 250 WRISO WAIR 130 100 C WRISO WAIR 1250 250 WRISO WAIR 130 100 C WRISO WAIR 130 100 C WRISO WAIR 1250 250 M WRISO WRISO WAIR 1250 100 C WRISO WRISO	20 100 B
WBIL 1100 5000 WGYM 1310 100 WGYM 1310 WGYM 1310 100 WGYM 13	70 100
WRNX 1350 1000 WGTM 1310 100 KASA 1210 100 M MINSTON-Salem WEAF 660 50000 R WAIR 1250 250 KCRC 1360 250 M WSAJ 1310 100 C WSJS 1	100
WEAF 660 50000 R WAIR 1250 250 WSAJ 1360 250 M WSAJ 130 100 C WSJS 1310 100 C	20 250 C
WEVD 1300 1000 WSIS 1310 100 C Muskoge Harrisburg WHP 14 WKBS 1310 100 C WSIS 1500 100 M WKBS 1500 1000 M WKBS 1500 1000 M WKBS 1500 1000 M WKBS 1500 1000 M WKBS	
With 1010 1000 With 1010 1000 With 1180 1000 With 1180 1000 With 1180 1000 With 1400 500 With 1250 1000 With 1	10 100
WINS 1180 1000 WJZ 760 50000 B WILTH 1400 500 WMCA 570 1000 WMCA 570 1000 WMCA 570 1000 WMCA 570 1000 WMCA 130 WMCA	
WIZ 760 50000 B WLTH 1400 500 WKFYR 550 1000 N WKOCY 1310 100 WNAD 1001 1000 N WNEW 1250 1000 Devils Lake KOMA 1480 5000 C WNYC 810 1000 KDLR 1210 100 KTOK 1370 1000 N WJAC 13 WNAD 1000 N WKY 900 1000 N WMAD 1400 WKY 900 1000 N WMAD 1400 WKY 900 1000 N WMAD 1400 WKY WKY WKY WMAD 1000 N WKOMA 1480 5000 C MARCH 1370 1000 N WKY 900 1000 N WMAD 1300 N WKY 900 1000 N WMAD 1300 N WMAD 1000 N WMAD 1300 N WMAD 1000 N WMAD	
WITH 1400 500 Bismarck Oklahoma City WMCA 570 1000 KFYR 550 1000 N WNEW 1250 1000 MD4 1250 1000 MOY 130 1000 MOY 130 1000 MOY 130 1000 MOY MOY 130 1000 MOY MO	00 100 N
WMCA 570 1000 KFYR 550 1000 N KOCY 1310 100 Johnstown WNYC 810 1000 KDLR 1210 100 KTOK 1370 100 M WJAC 13 WQX 1550 1000 WDAY 940 1000 N WKY 900 1000 N MGAL 15 WHDL 1400 250 KFJM 1410 500 Ponca 1100 WKST 1001 New Castle WHDL 1400 250 KFJM 1410 500 Ponca 1100 Philadelphi	20 100
WNEW 1250 1000 Devils Lake KOMA 1480 5000 C WJAC 13 WNYC 810 1000 KDLR 1213 100 KTOK 1370 1000 N WKY 900 1000 N Qkan 1550 1000 WDAY 940 1000 N Qkan WKY 900 1000 N Qkan WKY 900 1000 N WKY 900 1000 N Qkan 150 Wilder Wi	20 100
WOV 1130 1000 Fargo WKY 900 1000 N WGAL 15 WQXR 1550 1000 WDAY 940 1000 N Okmulgee WGAL 15 Olean Grand Forks KHBG 1210 100 New Castle WHDL 1400 250 KFIM 1410 500 Ponca City 1001 New ST 12 Philadelphi:	10 100
WQXR 1550 1000 WDAY 940 1000 N Okmulgee New Castle Olean WHDL 1400 250 KFJM 1410 500 Ponca 1210 100 WKST 12 WHDL 1400 250 KFJM 1410 500 Ponca 1200 1004 Philadelphi	
Olean Grand Forks KHBG 1210 100 New Carrier WHDL 1400 250 KFIM 1410 500 Ponca City Philadelphi	00 100 N
WHDL 1400 250 KFJM 1410 500 Ponca City WKST 12	
Inmentation 1990 1994 Philadelphi	
	a 20 10000 R
WMFF 1310 100 B KRMC 1370 100 Shawnee WCAU 11	70 50000 R
Rochester Mandan RGFF 1420 100M WDAS 13	
WHAM 1150 50000 B KGCU 1240 250 Tulsa WFIL 5	60 1000 B
WHAT 130 100 KINK 1200 500 KINK 1400 1000 C WHAT 13	
Valley City KYOO 1140 25000 N WIP	10 1000
WENT 1900 100 KOVC 1500 100	20 1000
Schenectady	100
TYCES TOO KOOO D OHIO	80 50000 B
Syracuse Astoria KOV 13	80 500 C
WFBL 1360 1000 C Akron KAST 1370 100 WCAE 12	20 1000 R
WAS 120 1000 WIN 1010 100 TENED 100 100 WAS 12	90 1000 C
Tassi Ashtabula WWSW 15	100 100
TITLE 1900 1000 TITLE 040 SEO TITLE 100 HOUSE	30 1000 R
WTRY 950 1000 Canton Corvalis WPAW 19	1000 K
Utica WHBC 1200 100 KOAC 550 1000 Scranton	100
WIBX 1200 100 C Cincinnati Eugene WORT C	80 500 C
White Plains WCPO 1200 100 KORE 1420 100M WQAN WFAS 1210 100 WKRC 550 1000 C Klamath Fails WQAN Shares	80 500
Mondaldo Snaron Snaron	
WPIC 2	80 250
W8XO 700 500000 KLBM 1420 100 WKOK 16	210 100
Cieveland Marshfield Unionfown	.10
WCDE 610 500M KOOS 1200 100M WMBS 14	20 100
WGAR 1450 1000 C Medford Wilkes-Bar	
Asheville WBAX 12	210 100 M
WWINC 510 1000 IV Columbus	10 100 N
WRNS 1490 1000 C Types 1490 100 Williamsper	rt 370 100
WSOC 1210 100 N WCOL 1210 100 N KEX 1180 5000 B WORK	110 100
Durham WHKC 640 500M KGW 620 1000 R WORK 13	20 1000 N
WDNC 1500 100 C WOSC 570 750 KOIN 940 1000 C	
Fayetteville Dayton KWJJ 1040 500 WHIO 1260 1000 C KXL 1420 100 PHERTO	
WINC 1340 200 POENIC	RICO
WOVO 1490 100 Lima KBNR 1500 100M	
WLOK 1210 100 Salam Mayaguez	
WGBR 1370 100 Portsmouth KSLM 1370 100M WPRA 13	370 1 00
Greensboro WPAT 1310 130 WPRP 14	120 1 00
WBIG 1440 1000 C Toledo P PENNSYLVANIA Sen tuen	120
High Point WSFD 1350 1000 WKAO 15	240 100 0
WMFR 1200 100 WILL 1200 Allentown WNEL 13	290 1000
WENT 1200 100 WEMI 1420 100 WCBA 1440 500 RHODE	ISLAND
Raleigh WKBN 570 500 C WSAN 1440 500 N	
WPTF 680 5000 N Zanesville Altoona 1210 100 WFAN	
WRAL 1210 100 WALR 1210 100 WFBG 1310 100 WEAN	780 1000 M

	590	1000 B	Amarill	0		San An	naic		Richmon		
WJAR	630	500 C	KFDA	1500	100	KGKL	1370	100	WMBG	1210 1350	10 50
WPRO	630	000 €	KGNC	1410	1000 N	San An		100	WRNL	880	50
			Austin			KABC	1420	100 M	WRTD	1500	10
SOUTH	CAR	OLINA	KNOW	1500	100 C	KMAC	1370	100	WRVA	1110	500
			KTBC	1120	1000	KONO	1370	100	Roanoke		000
Anderso			Beaumo	nt		KTSA	550	1000 C	WDBJ	930	100
WAIM	1200	100 C	KFDM	560	500 N	WOAI	1190	50000 N			
Charlest			KRIC	1410	100 M	Shermai	n		WAS	HINGT	ON
WCSC	1360	500 N	Big Sp	ring		KRRV	1310	$250\mathrm{M}$			011
WTMA	1210	100	KBST	1500	100 M	Temple			43-4-4		
Columbia			Brady			KTEM	1370	250 M	Aberdee		
wcos	1370	100	KNEL	1500	250	Texarka	na		KXRO	1310	10
WIS	560	1000 N	Browns	ville		KCMC	1420	100 M	Beilingh		•
Florence			KGFI	1500	100	Tyler			KVOS	1200	10
WOLS	1200	100	College	Station	n -	KGKB	1500	100 M	Centrall		
Greenvill			WTAW	1120	500	Vernon			KELA	1440	50
WFBC	1300	1000 N	Corpus	Christi		KVWC	1500	100	Everett		
Rock Hi			KRIS	1330	500 N	Waco			KRKO	1370	1
WRKL	1500	100	Corsical	na .		WACO	1420	100 C	Longvies		
Spartanbur			KAND	1310	100 M	Weslaco			KWLK	780	25
WSPA	920	1000	Dallas		100.11	KRGV	1260	1000 N	Olympia		
, DI A	720		KRLD	1040	10000 C	Wichita			KGY	1210	10
SOUTH	DA	KOTA	WFAA	800	50000 N	KWFT	620	250	Pullman		
00011			WRR	1280	500M				KWSC	1220	100
Aberdeer	,		Denton	1 2011	000 141		17		Seattle		
KABR	1390	500	KDNT	1420	100	l '	JTAH		KEEN	1370	10
Brooking			Dublin	1420	100				KIRO	710	100
KFDY	780	1000	KFPL	1310	100	Cedar C			KJR	970	500
Pierre			El Paso		100	KSUB	1310	100	KOL	1270	100
KGF3	630	200	KROD	1500	100	Logan			комо	920	100
Rapid C			KTSM			KVNU	1200	100	KRSC	1120	25
OBH	1370	100	WDAH	1310	100 N	Ogden			KTW	1220	100
VCAT	1200	100	Fort W	1310	100	KLO	1400	500 13	KXA	760	25
Sioux Fa		100			والمما	Price			Spokane		
ELO	1200	100 N	KFJZ	1370	100 M	KEUB	1420	100	KFIO	1120	10
(S00	1110	5000 N	KGKO	570	1000 B	Salt La			KFPY	890	100
Vermillio		0000 14	KTAT	1240	1000 M	KDYL	1290	1000 R	KGA	1470	500
KUSD	890	500	WBAP	800	50000 N	KSL	1130	50000 C	KHQ	590	100
Yankton	990	000	Galvesto			KUTA	1500	100 N	Tacoma		
VNAX	570	1000 C	KLUF	1370	100 M				KMO	1330	100
IIIAA	070	1000 €	Greenvil	-		VF	RMON	T	KVI	570	100
TEN	NESS	F F	KGVL	1200	100				Vancouv		
(EN	4E22	E E	Houston			Bunti			KVAN	880	25
Bristol		_	KPRC	920	1000 R	Burlingt		***	Walla V		
	1500	100	KTRH	1290	1000 C	WCAX	1200	100	KUJ	1370	10
VOPI	1500	100	KXYZ	1440	1000 B	Rutland	1 200		Wenatch		
Chattano		100 37	Huntsvi			WSYB	1500	100	KIT	1250	25
VAPO	1420	100 N	KSAM	1500	100	St. Alb		100-	Yakima		
VDOD	1280	1000 C	Kilgore			WQDM	1390	1000	KPQ	1500	10
Jackson			KOCA	1210	100	Springfle				2000	20
VTJS	1310	100	Laredo			WNBX	1260	1000 C			
Johnson		100	KPAB	1500	100	Waterbu			WEST	VIRGI	NIA
VJHL	1200	100	Longvie			WDEV	550	200			_
Knoxville		1000	KFRO	1370	$250 \mathrm{M}$				Beckley		
VNOX	1010		Lubbock			l 1	RGINIA	٩.	WJLS	1210	10
VROL	1310	100 N	KFYO	1310	$100\mathrm{M}$				Bluefleid		
Memphis	10=0		Lufkin			Charlotte	esville		WHIS	1410	50
VHBQ	1370	100	KRBA	1310	100	WCHV	1420	100	Charleste	n	
VMC	780	5000 R	Midland			Danville			WCHS	580	50
VMPS	1430	500 B	KRLH	1420	100	WBTM	1370	100	WGKV	1500	10
VREC	600	1000 C	Palestin	e		Harrison	burg		Clarksbu	rg	
Nashville			KNET	1420	100	WSVA	550	500	WBLK	1370	10
VLAC	1470	2000 C	Pampa			Lynchbu			Fairmon		
VSIX	1210	100	KPDN	1310	100	WLVA	1200	100	WMMN	890	100
VSM	650	50000 N	Paris			Newport			Huntingt		
			KPLT	1500	250 M	WGH	1310	100	WSAZ	1190	100
TI	EXAS		Pacos			Norfolk			Parkersb		
			KIUN	1370	100	WTAR	780	5000 N	WPAR	1420	10
Abilene			Port Ar			Petersbu			Wheeling		
	* 400	100 M	KPAC	1260	500	WPIV	1210	100	WWVA	1160	500
RBC	1420	100 141		1400	000	I WPIV				1100	

William		100	BRIT.	COLU	МВІА	Hamili CHML	ton 1010	100 F	St. Ann CHGB	e de la 1200	Pocatier 100
WBTH	1370	100	Chilliwa	ıck		CKOC	1120		Sherbro		100
wı	SCONS	I N	CHWK	780	100 F	Kenora		000 1	CHLT	1210	100
	000110	,,,,	Kamloo			CKCA	1420	100	Three		100
			CFJC	880	1000 F	Kingst			CHLN	1420	100
Eau C			Kelowna	ì		CFRC	1510	100 F			
WEAU Fond d	1050	1000	CKOV	630	100 F	Kitche			SASK	ATCHE	WAN
rona a KFIZ	1420	100	Prince	Rupert		CKCR	1510	100	Moose	Jaw	
Green		100	CFPR	580	50	Londor			CHAB	1200	100 1
WHBY	1200	100	Trail			CFPL	730	100 F	Prince	Albert	
WTAQ	1330	1000 C	CJAT	910	1000 F	North			CKBI	1210	100 1
Janesvil		1000 C	Vancouv CBR	ег 1100	5000 F	CFCIL	930 1310	100 F 100 F	Regina		
WCLO	1200	100	CJOR	600	500 Ir	CKGB	1420	100 F	CJRM	540	1000 1
LaCross			CKCD	1010	100	Ottawa		100 F	CKCK	1010	1000 I
WKBH	1380	1000 C	CKFC	1410	50	СВО	880	1000 F	Saskato		
Madiso	n		СКМО	1410	100	CKCO	1010	100 F	CFQC Watrous	840	1000
WHA	940	5000	CKWX	1010	100 I	Owen		2002	CBK	54 0	50000
WIBA	1280	1000 N	Victoria			CFOS	1370	100	Yorkton		511000
Manitov			CFCT	1450	500	Prescot	t		CJGX	1390	100 F
WOMT	1210	100				CFLC	930	100			
Milwaul		100	MA.	NITOB	A		tharines			ΓA R	ICA
WEMP WISN	1310 1120	100 250 C	D4			CKTB	1200	100 1	TI5CV	575	100
WISN	620	250 C 1000 N	Brandon CKX	1120	1000 F		Ste. Ma		Alajuela		
Poynette		1000 11	Flin Flo		1000 F	CJIC Stratfor	1500	100 F	_ San Jos		
WIBU	1210	100	CFAR	1370	100	CJCS	1210	50	TIEP	830	3000
Racine		200	Winnipe		100	Sudbury		50	TIFA	1000	250
WRJN	1370	100	CIRC	630	1000 F	ckso	780	1000 F	TILI	725	600
Rice La	ike		CKY	910	15000 F	Toronto		1000 1	TILS	775 880	450 500
WJMC	1210	250				CBL	840	50000 F	TIPG	625	5000
Sheboyg			NEW B	RUNS	WICK	CBY	1420	100 F	TIRH	950	2000
WHBL	1300	250	-		_	CFRB	690	10000 C	TIRM	750	500
Stevens		# 0.44	Frederics		F00 -	CKCL	58 0	100 €	TIRS	915	250
WLBL	900	5 000	CFNB Moneton	550	500 F	Windson			TIX	650	1000
Superior WDSM	1200	100	CKCW	1370	100 F	CKLW	1030	5000 F	TIXD	800	1000
Waysau		100	Sackville		100 F	Wingha		100	ہ ا	1104	
VSAU	1370	100	CBA		50000	CKNX	1200	100		UBA	
			St. John			PRINC	E EDW	ARD	Bayamo		
WY	OMINE	G	CHSJ	1120	100 F		SLAND		CMKL	950	200
			-						Calbarie		
Casper			N. W.	ERRI	TORY	Charlott			CMHD	1270	200
KDFN	1440	500	***			CFCY	630	1000 F	Camague		000
Rock S	prings		Aklavik CJCU	1010	**	CHCK	1310	50	CMJA CMJC	860 1390	200 200
KVRS	1370	100	CICO	1210	50	Summer		50 F	CMJE	1390	200
Sheridar	1		NOVA	SCOT	1.4	CHGS	1450	20 It.	CMJF	930	200
KWYO	1370	100				0	UEBEC		CMJK	1290	200
			Glace Ba	y					CMJW	1070	200
BAH	HAMA	AS I	VAS	685	2000	Chicouti	mi		CMJX	740	200
Nassau			Halifax			СВЈ	1120	100 F	Cardenas		
ZNS	785	400	CHNS	930	1000 F	Hull			CMGE	1370	200
			Sydney			СКСИ	1210	100 F	Ciego de		
CA	NAD	Α	CJCB	1240	1000 F	Montrea			CMJH	1360	200
AL	BERTA		Wolfville	1010	F 0	CBF		50000 N	CMJI	1130	200
		-	CKIC Yarmouth	1010	50	CBM CFCF	960 600	5000 F 500 B	CMJO Cienfuego	1260	200
Calgary	000	1000 7		1310	100 F	CHLP	600 1120	100 B	CMILI	9 5 11 6 0	200
FAC	930	1000 F 10000	CHINA	~U+U	100 1	CKAC	730	5000 C	CMHM	1450	200
FCN	1030 690	10000 F	ON	TARIO		New Ca		5000 C	CMHX	1480	200
CJCJ		100 1				CHNC	610	1000 F	Cruces	1-50	
Edmonto		100 73	Brantford			Quebec			CMHK	1210	200
	960 730	100 F 1000 F	CKPC	930	100	CHRC	580	100	Guantana		
	730 580	500 F	Chatham			CKCV	1310	100 F	CMKS	710	200
CICA	000	000 F	CFCO	630	100 F	CBV	950	1000 F	Guines		
EFRN EICA EKUA			Cobalt			Rimousk	.i		CM9RT	1580	200
ICA KUA Grande I		100									
ICA KUA Grande I FGP	1200	100	CKMC	1210	50	CJBR	1030	1000 F	Havana	1110	000
ICA KUA	1200	100 100 F			50 100 F	CJBR Rouyn CKRN	1030 1370	1000 F 100	Havana CMBC CMBD	1140 1260	200 200

	NOR	тп	4
CMBF	1560	5000	
CMBG	690	200	
CMBH	1600	5000	
CMBL	750	200	
CMBQ	$1320 \\ 1170$	5000 200	
CMBS	1080	200	
CMBX	1440	200	
CMBZ	940	200	
CMC	1530	200	
CMCA	1350	200	
CMCB	1230	200	
CMCD	630	15000	
CMCF	810	5000	
CMCG	1290	200	
CMCJ	1110 970	200 5000	
CMCK	730	10000	
CMCL	850	200	
CMCO	1200	200	
CMCP	1050	200	
CMCQ	1410	200	
CMCR	660	200	
CMCU	780	200	
CMCW	1380	200	
CMCX	1470	200	
CMCY	570	15000 200	
CMK	720 910	200	
CMOA CMOX	1500	200	
CMQ	1010	25000	N
CMW	550	1400	
CMX	880	20000	
_			
Halguit	1460	250	
CMKF CMKO	1280	200	
CMINO	1280	200	
Manzai	nillo		
CMKE	1310		
CMKM	1080	200	
Matanz	as		
CMGF	1120	200	
CMGH	790	200	
Moron			
CMJP	1420	200	
Palma	Soriano		
CMKZ	1430	200	
Pinar	del Rio		
CMAB	1240	20 0	
Placeta	ıs		
CMHP	1100	200	
Sagua	la Grand	ie	
CMHA	1090	200	
Sancti	Spiritus		
CMHB	1240	200	
Santa	Clara		
CMHI	1060	200	
CMHW	680	200	
Cantin			
Santia		000	
CMKC	1250	200	
CMKD CMKG	910 1150	1000 200	
CMKQ	1490	200	
CMKR	1400	200	
CMKW	750	200	
CMKX	1190	200	
Trinida			
CMHT	920	200	

	714	D. O. ,	J 1 1
DOM REP	UBL		x
Cinded	Y (21)		X
Ciudad H1N	Trujill 1090	740	-
HIX	800	800	1
HIT	1050	50	-
EL SA			x
			x
San Sai YSS	vador 640	500	X X
GUA ⁻	ГЕМ	ALA	X
Guatema	laCity		X
TGW	1520	5000	x
TGX	1400		X
TG1	1310		x
Quezalte	nango		X
TGQ	1450	200	X
	IDUR	AS	X
Teguciga			X
TRF	1450	50	X X
		_	1 ^
AGUAS	EXIC CALIE		
Aguasca	lionéas		_
XEBI	1000	250	x
Y17DI	1000	250	x
BAJA C	ALIE	DRNIA	_
		JANIA	
Mexicati			_
XEAA	750	200	1
XEAO	660	250	X
XECL	960	1000	
Rosarito			X
XERB	1090	150000	I -
Tijuana			
XEBG	820 980	1000	-
XEAC	980		1
XEC	1150	100	X
XELO	730		1
XEMO	860	5000	X
CHI	HUAH	UA	1 -
Chihuah			1 -
XEBU	1240	50	
XEBW	1340	250	X
XEFI	1440	250	
XEM	1380	500	X
Juarez	1000	000	1 -
XEF	1450	100	
XEFV	1210	50	-
XEJ	1020		x
XEP	1160	500	<u> </u>
Parral			1
XEAT	1210	250	-
CO	AHUIL	Α	X
Piedras	Negra	35	X X
XEMU	580	250	l x
XEPN		100000	l â
Sabinas	. 03		1 -
XEBX	640	250	-
Saltillo			1 -
VELO	1100	100	1

1160

XEAS Torreon 100

Puebia

1210

100

XETH

XETB	1310	500	SAN
Villa Ae	una		
KEDH	1340	200	San
XERA	840	2500 00	XECZ
DISTRIT	0 FEI	DERAL	
Gral. A			Mazat
XEDA	1220	200	XEBL
Mexico (2	-
XEAL	1250	500	
XEAL	600	1000	1
XEB	1030	10000	Canai
XEBS	1340	200	XEFQ
XEBZ	810	100	Guayi XEDR
XEDP	1080	500	Herm
XEFO	940	5000	XEBH
XEJP	1130	100	Nogal
XEK	990 1150	100 250	XEAF
XELZ XELZ	1370	100	Obreg
XEN	780	1000	XEAP
XEQ	730	50000	
XERC	870	500	TA
XERH	1430	500	1
XEW		100000	Mata
XEXX	1170	1000	XEAM
			Nuevo
טם	RANG	0	XEBK
			XEDF
Durango			XEFE
XEBP	1150	250	Reyno
XEE	1210	5 0	XEAW
01141	NAJUA	70	Tamp
GUA	NAJUA	110	XECA
Irapuato			XEFW
XEBO	1310	25	XES
Leon	1010		
XEKL	1240	500	١ ١
			Cordo
JA	LISCO)	XEAG
Guadala	lara.		Jalap
XED	1160	2500	XEXB
Guzman			Mina
XEBA	1080	20	XEDW
			Oriza XEXD
	EXICO		Verac
Texcoco			XETF
XEXE	1270	17	XEU
Toluca			
XECH	1490	250	
			Merid
MIC	HOAC	AN	I MIGUIL
	HOAC	AN	XEFC
Morelia			XEFC XEME
	1370	125	XEFC
Morelia XEI		125	XEFC XEME
Morelia XEI NUE	1370 /O LE	125	XEFC XEME XEZ
Morelia XEI	1370 /O LE	125	XEFC XEME XEZ M
Morelia XEI NUEV Monterre XEFB	1370 /O LE	125 EON	XEFC XEME XEZ
Morelia XEI NUEV Monterre XEFB XEG XEH	1370 /O LE y 870 1230 720	125 EON 200 250 250	XEFC XEME XEZ M St. P
Morelia XEI NUE Monterre XEFB XEG XEH XET	1370 /O LE 9y 870 1230 720 690	125 EON 200 250 250 5000	XEFC XEME XEZ M St. F FQN
Morelia XEI NUEV Monterre XEFB XEG XEH	1370 /O LE y 870 1230 720	125 EON 200 250 250	XEFC XEME XEZ M St. F FQN NEW
Morelia XEI NUEV Monterre XEFB XEG XEH XET XEX	1370 /O LE 870 1230 720 690 1310	125 EON 200 250 250 250 5000 500	XEFC XEME XEZ M St. F FQN NEW St. J VOAC
Morelia XEI NUEV Monterre XEFB XEG XEH XET XEX	1370 /O LE 9y 870 1230 720 690	125 EON 200 250 250 250 5000 500	XEFC XEME XEZ M St. F FQN NEW

SAN LI	JIS P	OTOSI			
San Lui XECZ	1370	08 i 100			
SI	NALOA	١.			
Mazatla: XEBL	n 1220	50			
so	NORA				
Cananea					
XEFQ Guayma	1010	50			
XEDR Hermosi	1490	100			
XEBH	930	5 00			
Nogales XEAF	990	750			
Obregon XEAP	1340	50			
	AULIF				
Matamoi XEAM	750	25			
Nuevo L					
XEBK	1080	100			
XEDF	810	100			
XEFE	980	250			
XENT	910	150000			
Reynosa					
XEAW Tampico	960	100000			
XECA	1230	250			
XEFW	1310	300			
XES	990	250			
VE	RACRU	IZ			
Cordoba					
	1310	10			
XEAG Jalapa	1310	10			
XEXB	1070	050			
	1270	25 0			
Minatiti XEDW		20			
Orizaba	1150	20			
XEXD	1340	350			
Veracru		330			
XETE	1220	12			
XEU	1010	250			
YL	CATA	N			
Merida					
XEFC	1340	100			
XEME	1240	50			
XEZ	630	500			
MIQUELON					
St. Pler	гв				
FQN	609	250			
NEWFO	UND	LAND			
St. John	n's				
VOAC	1065	40			
VOCM	1006	200			
VOGY	840	400			

681

VONF

VOWR

500

640 12500

			•		
	CBA 1050 50000		CHLT 1210 100		CKIC 1010 =0
	Sackville, N. B. CBF 910 50000		Sherbrooke, P. Q.		Wolfville, N. S. CKLW 1030 5000
	Montreal, P. Q.	1	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.	-	Halifax, N. S.		Vancouver, B. C.
	CBL 840 50000		CHRC 580 100	l 1	CKNX 1200 100 Wingham, Ont.
	Toronto, Ont.		Quebec, P. Q. CHSJ 1120 100		CKOC 1120 500
	CBM 960 5000		St. John, N. B.		Hamilton, Ont.
-	Montreal, P. Q. CBO 880 1000		CHWK 780 100		CKOV 630 100
	Ottawa, Ont.		Chilliwack, B. C.	1	Kelowna, B. C.
	CBR 1100 5000		CJAT 910 1000		CKPC 930 100
ł	Vancouver, B. C.		Trail, B. C.		Brantford, Ont. CKPR 580 100
	CBV 950 1000		CJBR 1030 1000		CKPR 580 100 Fort William, Ont.
	Quebec, P. Q.		Rimouski, P. Q. CJCA 730 1000		CKRN 1370 100
	CBY 1420 100 Toronto, Ont.		Edmonton, Alta.	1	Rouyn, P. Q.
	CFAC 930 1000		CJCB 1240 1000		CKSO 780 1000
	Calgary, Alta.		Sydney, N. S.		Sudbury, Ont.
	CFAR 1370 100		C1C1 680 100		CKTB 1200 100
1.	Flin Flon, Man.		Calgary, Alta.		St. Catharines, Ont. CKUA 580 500
	CFCF 600 500		CJCS 1210 50		CKUA 580 500 Edmonton, Alta.
	Montreal, P. Q. CFCH 930 100		Stratford, Ont. CJCU 1210 50		CKWX 1010 100
	North Bay, Ont.		Aklavik, N. W. T.		Vancouver, B. C.
	CFCN 1030 10000		C1GX 1390 100		CKX 1120 1000
l .	Calgary, Alta.		Yorkton, Sask.		Brandon, Man.
	CFCO 630 100		CJ1C 1500 100		CKY 910 15000
	Chatham, Ont.	_	S. Ste. Marie, Ont. CJKL 1310 100		Winnipeg, Man. CMAB 1240 200
1	CFCT 1450 500 Victoria, B. C.		North Bay, Ont.	1 1	Pinar del Rio, Cuba
	CFCY 630 1000		CJLS 1310 100		CMBC 1140 200
1	Charlottetown, P.E.I.		Yarmouth, N. S.		Havana, Cuba
	CFGP 1200 100		CJOC 950 100		CMBD 1260 590
L	Grande Prairie, Alta.		Lethbridge, Alta.		Havana, Cuba CMBF 1560 5000
	CFJC 880 1000		CJOR 600 500 Vancouver, B. C.	1	CMBF 1560 5000 Havana, Cuba
ļ	Kamloops, B. C. CFLC 930 100	_	CJRC 630 1000		CMBG 690 200
	Prescott. Ont.		Winnipeg, Man.		Havana, Cuba
<u></u>	CFNB 550 500		CJRM 540 1000		CMBH 1600 5000
1	Fredericton, N. B.		Regina, Sask.	1 1	Havana, Cuba
	CFOS 1370 100		CKAC 730 5000		CMBL 750 200 Hayana, Cuba
L	Owen Sound, Ont.		Montreal, P. Q. CKBl 1210 100		CMBQ 1320 5000
}	CFPL 730 100 London, Ont.	1	Prince Albert, Sask.		Havana, Cuba
ļ	CFPR 580 50		CKCA 1420 100		CMBS 1170 200
1	Prince Rupert, B. C.		Kenora, Ont.		Havana, Cuba
-	CFQC 840 1000		CKCD 1010 100		CMBX 1080 200
L	Saskatoon, Sask.		Vancouver, B. C.		MBY 1440 200
	CFRB 690 10000		CKCH 1210 100 Hull, P. Q.		Havana, Cuba
	Toronto, Ont. CFRC 1510 100		Hull, P. Q. CKCK 1010 1000		CMBZ 940 200
1	Kingston, Ont.		Regina, Sask.		Havana, Cuba
-	CFRN 960 100	1	CKCL 580 100		CMC 1530 200
	Edmonton, Alta.		Toronto, Ont.		Havana, Cuba
	CHAB 1200 100		CKCO 1010 100		CMCA 1350 200 Havana, Cuba
	Moose Jaw, Sask.		Ottawa, Ont. CKCR 1510 100		CMCB 1230 200
	CHCK 1310 50 Charlottetown, P.E.I.	1	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 Havana, Cuba
	Summerside, P.E.I.	\Box	Moncton, N. B.		CMCG 1290 200
	CHLN 1420 100 Three Rivers, P. Q.		CKFC 1410 50		Havana, Cuba
	CHLP 1120 100	S = 1	Vancouver, B. C. CKGB 1420 100		CMCJ 1110 200
	Montreal, P. Q.		North Bay, Ont.		Havana, Cuba
	-				

	NOKIII AME	11(10/1)	. D. C. C		
	CMCK 970 5000		CM1X 740 200		KARK 890 500 Eartle Rock, Ark.
	Havana, Cuba		Camaguey, Cuba		KARM 1310 100
	CMCL 730 +0000 Havana, Cuba		CMK 720 200 Havana, Cuba		Fresno, Callf.
-	CMCM 850 200		CMKC 1250 200		KASA 1210 100
	Havana, Cuba		Santiago, Cuba		Etk Cty, Okla. KAST 1370 100
	CMCO 1200 200 Hayana, Cuba		CMKD 910 1000 Santiago, Cuba		Astoria, Ore.
	CMCP 1050 200		CMKE 1310		KATE 1420 250
	Havana, Cuba		Manzanillo, Cuba	<u> </u>	Albert Lea, Minn. KAWM 1500 100
	CMCQ 1410 200 Havana, Cuba		CMKF 1460 250 Holguin, Cuba		KAWM 1500 100 Gallup, N. Mex.
	CMCR 660 200		CMKG 1150 200		KBIX 1500 100
	Havana, Cuba		Santiago, Cuba		Muskogee, Okla. KBKR 1500 100
	CMCU 780 200 Havana, Cuba		CMKL 950 200 Bayamo, Cuba		Baker, Ore:
	CMCW 1380 200		CMKM 1080 200		KBND 1310 100
	Havana, Cuba		Manzanillo, Cuba		Bend, Ore. KBPS 1420 100
	CMCX 1470 200 Havana, Cuba		CMKO 1280 200 Holguin, Cuba		Portland, Ore.
	CMCY 590 15000	-	CMKQ 1490 200		KBST 1500 100
	Hayana, Cuba CMGE 1370 200		Santiago, Cuba CMICR 1400 200	-	Big Spring, Texas KBTM 1200 100
	CMGE 1370 289		Santiago, Cuba		Jonesboro, Ark.
	CMGF 1120 200		CMKS 710 200		KCKN 1310 100
	Matanzas, Cuba CMGH 790 200		Guantanamo, Cuba CMKW 770 200	_	Kansas City, Kans. KCMC 1420 100
	Matanzas, Cuba		Santiago, Cuba		Texarkana, Texas
	CMHA 1090 200		CM KX 1190 200		KCMO 1370 100
	Sagua la Grande, Cuba CMHB 1240 200		Nantiago, Cuba CMKZ 1430 200	-	Kansas City, Mo.
	Sancti Spiritus, Cuba		Palma Soriano, Cuba		Enid, Okla.
	CMHD 1270 200		CMOA 910 200		KCRJ 1310 100
	Calbarien, Culia		Havana, Cuba CMOX 1500 209		Jerome, Ariz. KDAL 1500 100
	Santa Clara, Cuba		Havana, Cuba		Duluth, Minn.
	CMHJ 1160 200		CMQ 1010 25000		KDB 1500 100
	Clenfuegos, Cuba CMHK 1210 200	-	Havana, Cuba CMW 550 1400		Santa Barbara, Calif. KDFN 1440 500
1	Cruces, Cuba		Havana, Cuba		Casper, Wyo.
	CMHM 1450 200		CMX 880 20000		KDKA 980 50000
	CMHP 1100 200	-	Havana, Cuba CM9RT 1580 200		Pittsburgh, Pa. KDLR 1210 100
	Placetas. Cuba		Guines, Cuba		Devils Lake, N. D.
	CMHT 920 200		FQN 609 250		KDNT 1420 100
	Trinidad, Cuba CMHW 680 200	-	St. Pierre, Miquelon HIN 1090 740	-	Denton, Texas KDON 1210 100
	Santa Clara, Cuba		Cindad Truillo, D. R.		Monterey, Calif.
	CMHX 1480 200		HIT 1050 50		KDTH 1340 500
	Cienfuegos, Cuba CMJA 860 200	-	Ciudad Trujillo, D. R. HIX 800 800	-	Dubuque, Iowa KDYL 1290 1000
	Camagney, Cuba	1	Ciudad Trujillo, D. R.		Salt Lake City, Utah
1	CMJC 1390 200		HP50 1440		KECA 1430 1000
-	Camagney, Cuba CMJE 1230 200		Panama City, Panama HRN 1450 500		Los Angeles, Calif, KEEN 1370 100
	Camaguey, Cuba		Tegucigalpa, Hon.		Seattle, Wash.
	CMJF 930 200		KABC 1420 100	1	KEHE 780 1000 Los Angeles, Calif.
	Camaguey, Cuba CMJH 1360 200		San Antonio, Texas KABR 1390 500	A-1	KELA 1440 500
	t'iego de Avila, Cuba		Aberdeen, S. Dak.		Centralia, Wash.
	CMJI 1130 200		KADA 1200 100 Ada, Okla.		KELD 1370 100 El Dorado, Ark.
	Cliego de Avila, Cuba CMJK 1290 200		KALB 1210 100		KELO 1200 100
	Camaguey, Cuba		Alexandria, La.		Sioux Falls, S. Dak. KERN 1370 100
	CMJO 1260 208 Ciego de Avila, Cuba		KALE 1300 1000 Portland, Ore.		KERN 1370 100 Bakersfleid, Calif.
	CMJP 1420 200		KAND 1310 100		KEUB 1420 100
	Camaguey, Cuba		Corsicana, Texas KANS 1210 100		Price, Utah KEX 1480 5000
	CMJW 1070 200 lamaguey, Cuba		KANS 1210 100 Wichita, Kans.		Portland, Ore.

11.1	KFAB 770 10000		7 KFUO 550 500		7 KGIW 1420 100
	Lincoln, Neb.		St. Louis, Mo.		Alamosa, Colo.
1	Los Angeles, Calif.		Los Angeles, Calif.)	Tyler, Texas
100	KFAM 1420 100		KFVS 1210 100	, 	J 4041
	St. Cloud, Minn.	4	Cape Girardeau, Mo.	´1	San Angelo, Texas
	KFAR 610 1000		KFWB 950 1000		KGKO 570 1000
	Fairbanks, Alaska KFBB 1280 1000	<u> </u>	Los Angeles, Calif.		Fort Worth, Texas
	KFBB 1280 1000 Great Falls, Mont.		KFXD 1200 100 Nampa, Idaho		KGKY 1500 100 Scottsbluff, Neb.
	KFBI 1050 5000	\vdash	KFXJ 1200 100	-	T KCIO
00	Abilene, Kans.		Grand Junction, Colo.	'	Mason City, Iowa
	KFBK 1490 10000		KFXM 1210 ton		KGLU 1420 100
-	Sacramento, Calif. KFDA 1500 100		San Bernardine, Calif		Safford, Ariz.
	Amarillo, Texas		Lubbock, Texas		KGMB 1320 1000
	KFDM 560 500		KFYR 550 1000		KGNC 1410 too
1	Resumont, Texas	-	Bismarck, N. D.		Amarillo, Texas
	RFDY 780 1000 Brookings, S. D.		KGA 1470 5000 Spokane, Wash,		KGNF 1430 1000
	KFEL 920 500		KGAR 1370 100	-	North Platte, Neb. KGND 1340 250
	Denver, Colo.		Tucson, Ariz.		Dodge City, Kans.
	KFEQ 680 2500		KGB 1330 1000		KGO 700
	St. Joseph, Mo. KFGQ 1370 100		San Diego, Calif.		San Francisco, Calif.
1	Boone, Iowa		KGBU 900 509 Vetchikan, Alaska		KGU 750 2500
	KFH 1300 1000		KGBX 1230 500		KGVL 1200
	Wichita, Kans. KFI 640 50000		Springfield, Mo. KGCA 1270 100		Greenville, Texas
	Los Angeles, Calif.		Decorah, Iowa		KGVD 1260 1000
	KF10 1120 100		KGCU 1240 250		Missoula, Mont.
	Spokane, Wash.		Mandan, N. D.		Fortland, Ore.
	KFIZ 1420 100 Fond du Lac, Wis,		KGCX 1450 tono		KGY 1316
	KFJB 1200 100		Wolf Point, Mon. KGDE 1200 100		Olympia, Wash
	Marshalltown, Iowa		Fergus Falls, Minn.		KHBC 1400 250
	1 KFJI 1210 100	-	KGDM 1100 1000		KHBG 1210 too
	Klamath Falls, Ore.		Stockton, Calif. KGEK 1200 100		Okmulgee, Okla
	Grand Forks, N. D.	h 1	KGEK 1200 100 Sterling, Colo.		KHJ 900 1000
	KFJZ 1370 100		KGER 1360 1000	-	Los Angeles, Calif.
L	Fort Worth, Texas KFKA 880 500		Long Beach, Calif.		Spokane, Wash.
	Greeley, Colo.		KGEZ 1310 100 Kalispell, Mont.		KHSL 1260 250
	KFKU 1220 1000	2.5	KGFF 1420 100		Unico, Calif.
	Lawrence, Kans.		Shawnee, Okla.		Watsonville, Calif.
	KFNF 890 500		KGFI 1500 100		KICA 1370 100
-	Shenandoah, Iowa KFOR 1210 100		Brownsville, Tex. KGFJ 1200 100		Clovis, N. M.
	Lincoln, Neb.		Los Angeles, Calif.		KID 1320 500
	KFOX 1250 1000		KGFL 1370 100		Idaho Falls, Idaho KIDD 1350 1000
	Long Beach, Calif. KFPL 1310 100		Roswell, N. Mex. KGFW 1310 100		Boise, Idaho
	Dublin, Texas		KGFW 1310 100 Kearney, Neb.		KIDW 1420 100
	KFPW 1210 100		KGFX 630 200		Lamar, Colo. KIEM 1450 500
	Fort Smith, Ark.		Pierre, S. D.		Eureka, Calif
	KFPY 890 1000 Spokane, Wash.		KGGF 1010 1000 Coffeyville, Kans.		KIEV 850 250
	KFQD 780 250		KGGM 1230 1000		Glendale, Calif. KINY 1430 250
	Anchorage, Alaska		Albuquerque, N. M.		Juneau, Alaska
	KFRC 610 1000		KGHF 1320 500		KIRO 710 1000
	San Francisco, Calif. KFRO 1370 250		Pueblo, Colo. KGHI 1200 100		Scattle, Wash.
	Longview, Texas		Little Rock, Ark,		KIT 1250 250 Yakima, Wash.
	KFRU 630 500	-	KGHL 780 1000		KITE 1530 1000
	Columbia, Mo. KFSD 600 1000		Billings, Mont.		Kansas City, Mo.
	San Diego, Calif.		KGIR 1340 1000 Butte, Mont.		KIUL 1210 100
	KFSG 1120 500		TENTELLE		Garden City, Kans. KIUN 1370 100
	Los Angeles, Calif.				Pecos, Texas
	l				

	100	КОН 1380 500	KRKD 1120 500
	KIUP 1370 100 Durango, Colo.	Reno. Nev.	Los Angeles, Calif.
	KJBS 1070 500	KOIL 1260 1000	KRKO 1370 50 Everett, Wash.
1 1	San Francisco, Calif.	Omaha, Neb.	KRLC 1390 250
	KJR 970 5000	KOIN 940 1000 Portland, Ore.	Lewiston, Idaho
	Seattle, Wash. KLAH 1210 100	KOKO 1370 100	KRLD 1040 10000
	Carlsbad, N. Mex.	La Junta, Colo.	Dallas, Texas KRLH 1420 100
	KLBM 1420 100	KOL 1270 1000	Midland, Texas
	La Grande, Ore.	Seattle, Wash.	
1 1	Blytheville, Ark.	Oblahoma City, Okla.	Jamestown, N. Dak.
	KLO 1400 500	KOME 1310 250	KRMD 1310 100 Shreveport, La.
	Ogden, Utah KIPM 1360 500	Tulsa, Okla.	KRNR 1500 100
	KLPM 1360 500 Minot, N. D.	Guettle Wash.	Roseburg, Ore.
1	KLRA 1390 1000	1370 IVO	KRNT 1320 1000 Des Moines, Iowa
1	Little Rock, Ark.	San Antonio, Texas	KROC 1310 100
	KLS 1280 250	KOOS 1200 100 Marshfield, Ore.	Rochester, Minn.
	Oakland, Calif. KLUF 1370 100	KORE 1420 100	KROD 1500 100
i 1	Galveston, Texas	tengene, Ore.	El Paso, Texas KROW 930 1000
	KLX 880 1000	I LUNTA 1500	Onitiond, Calif.
	Oakland, Calif. KLZ 560 1000	Pine Bluff, Ark. KOVC 1500 100	KROY 1210 100
1 !	Denver, Colo.	Valley City, N. Dak.	Sacramento, Calif.
	KMA 930 1000	KOY 1390	Santa Fe. N. Mex.
	Shenandosh, Iowa KMAC 1370 100	Phoenix, Ariz.	KRRV 1310 250
1	San Antonio, Texas	Laredo, Texas	Sherman, Texas
	KMBC 950 1000	1 14540 1209	gentle Wash.
	Kansas City, Mo.	Port Arthur, Texas	KSAC 580 300
	KMED 1410 250 Medford, Ore.	Totas	Manhattan, Kans.
	KMJ 580 1000	KPFA (210	KSAL 1500 100 Salina, Kans.
Į	Fresno, Callf.	Helena, Mont.	1/ SAM 1500 100
	Monroe La.	Take Charles, La.	Huntsville, Texas
 	KMMJ 740 1000	KELT 1500 250	KSAN 1420 100 San Francisco, Calif.
	Grand Island, Neb.	Paris, Texas	KSC1 1330 1000
	Tacoma, Wash.	KPMC 1330	Sioux City, Iowa
 	KMOX 1090 50000		KSD 550 1000
	St. Louis, Mo.	San Francisco, Calif.	St. Louis, Mo. KSEI 900 250
	KMPC 710 500 Beverly Hills, Calif,	I KPOF 000	Pountello, Idaho
	KMTR 570 1000	Denver, Colo. KPPC 1210 100	KSEU 260 1000
	ins Angeles, Calif.	Pasadena, Calif.	San Francisco, Calif.
	KNEL 1500 250		KSL 1130 50000 Salt Lake City, Utah
	Brady, Texas KNET 1420 100	Wenatchee, Wash. KPRC 920 1000	KSLM 1370 100
1	Palestine, Texas	Houston, Texas	Salem, Ore. 1430 1000
	KNOW 1500 100	KQV 1380 500	Des Moines, Iowa
	Austin, Texas KNX 1050 50000	Pittsburgh, Pa. KQW 1010 1000	KS00 1110 5000
1	Los Angeles, Calif.	tion loss Calif.	Sioux Falls, S. Dak.
<u> </u>	KOA 830 30000	KRRA 1310 100	KSRO 1310 100 Santa Rosa, Calif.
	Denver, Colo.	Lufkin, Texas KRBC 1420 100	KSTP 1460 10000
1	Corvallis, Ore.	Abilene Texas	St. Paul, Minn.
	1 KOAM 790 1000	KRBM 1420 100	KSUB 1310 100 Cedar City, Utah
	Pittsburg, Kans.	Bozeman, Mont.	KSUN 1200 100
	Albuquerque, N. M.	Porkeley Calif.	Lowell, Ariz.
-] ковн 1370 ^{тоо}	KRGV 1260 1000	KTAR 620 1000
	Rapid City, S. Dak.	Weslaco, Texas	Phoenix, Ariz. KTAT 1240 1000
	KOCA 1210 100 Kilgore, Texas	Resument, Texas	Fort Worth, Texas
	KOCY 1310 100	KRIS 1330 500	KTBC 1120 1000
	Oklahoma City, Okla.	Corpus Christi, Tex.	Austin, Texas
	J		

			-		_
	KTBS 1450 1000	1	KVSO 1210 100	1	TIGH 725 600
	Shreveport, La.	1	Ardmore, Okla.	1	San Jose, Costa Rica
	KTEM 1370 250		KVWC 1500 100		
1		1			
	Temple, Texas		Vernon, Texas		San Jose, Costa Rica
1 1	KTFI 1240 1000		KWAL 1420 100		TILS 880 500
	Twin Falls, Idaho	1	Wallace, Idaho	1	San Jose, Costa Rica
_	KTHS 1060 10000		4		
		1		1	TIPG 625 5000
i	Hot Springs, Ark.	1	Hutchinson, Kans.		San Jose, Costa Rica
	KTKC 1190 250		KWEW 1500 100		TIRH 950 2000
1 :	Visalia, Calif.	1	Hobbs, N. Mex.		
		<u> </u>			San Jose, Costa Rica
	KTMS 1220 500	1	KWFT 620 250		TIRM 750 500
1	Santa Barbara, Calif.		Wichita Falls, Texas	1	San Jose, Costa Rica
	KTOH 1500 100				
[]					
	Lihue, Hawaii		Stockton, Calif.		San Jose, Costa Rica
	KTOK 1370 100	1	KWJB 1210 100		TIX 650 1000
1	Oklahoma City, Okla.	1	Globe, Ariz.		San Jose, Costa Rica
_	KTRB 740 250		1 (4) (4)		
1 1		1			
L	Modesto, Calif.	ļ .	Portland, Ore.		San Jose, Costa Rica
	KTRH 1290 1000		KWK 1350 1000		TI5CV 575 100
1 }	Houston, Texas	1	St. Louis, Mo.		
\vdash					Alajuela, Costa Rica
1 1	KTRI 1420 100	į .	KWKH 1100 50000		VAS 685 2000
	Sioux City, Iowa	1	Shreveport, La.		Glace Bay, N. S.
	KTSA 550 1000		1 1/11/10	-	
1 1	San Antonio, Texas	J			
			Decorah, Iowa		St. John's Nfld.
1 !	KTSM 1310 100		KWLK 780 250		VOCM 1006 200
1 1	El Paso, Texas		Longview, Wash.		St. John's Nfld.
-					
1 1		1			
	Emporia, Kans.		Winona, Minn.		St. John's Nfld.
1 1	KTUL 1400 1000		KWOC 1310 100		VONF 640 12500
	Tulsa, Okla,		Poplar Bluff, Mo.	1 1	St. John's Nfld.
-	KTW 1220 1000				
1 1	Seattle, Wash.	1			
		<u> </u>	Jefferson City, Mo.		St. John's Nfld,
1 1	KUJ 1370 100	l	KWSC 1220 1000		WAAB 1410 500
1 1	Walla Walla, Wash.	l	Pullman, Wash.		Boston, Mass.
	KUOA 1260 5000		KWTO 560 5000		WAAF
1 1	Siloam Springs, Ark.	l	Springfield, Mo.		Chileses 920 1000
\vdash					Chicago, Ill.
1 1			KWYD 1370 100		WAAT 940 500
1 1	Vermillion, S. Dak.		Sheridan, Wyo.		Jersey City, N. J.
	KUTA 1500 100		KXA 760 250		
1 1	Salt Lake City, Utah		Scattle, Wash.		Omaha, Neb. 500
			1/1/1		WADO
1 1				N.	WABC 860 50000
	Atchison, Kans.		Portland, Ore.		New York, N. Y.
1 !	KVAN 880 250		KXD 1500 100		WABI 1200 100
1 1	Vancouver, Wash.		El Centro, Calif.		Bangor, Maine
\vdash					WADY
1 1					WABY 1370 100
	Redding, Calif.		St. Louis, Mo.	1	Albany, N. Y.
	KVEC 1200 100		KXRO 1310 100		WACO 1420 100
t I	San Luis Obispo, Cal.	1	Aherdeen, Wash.	l 1	Waco, Texas
			46.563.6-		WADD .
1 1					
	Great Bend, Kans.	l l	Houston, Texas		Akren, Ohio
1	KVI 570 1000		KYA 1230 1000		WAGA 1450 500
1 1	Tacoma, Wash.		San Francisco, Calif.	1	Atlanta, Ga.
					WACE
1					
	Logan, Utah		Prescott, Ariz.		Dothan, Ala.
	KVOA 1260 1000		KYDS 1040 250		WAGM 1420 100
	Tucson, Ariz.		Merced, Calif.		Presque Isle, Me.
1	KVOD 920 500				
	Denver, Colo.	4	Mankato, Minn.		Anderson, S. C.
\Box	KVOE 1500 100		KYW 1020 10000		WAIR 1250 250
	Santa Ana, Calif.		Philadelphia, Pa.		Wington C.1
\vdash					
	KVOL 1310 100				
	Lafayette, La.		Quezaltenango, Guat.		Mobile, Ala.
	KV00 1140 25000		TGW 1520 5000		WALR 1210 100
1 1	Tulsa, Okla.		Guatemala City, Guat.		Zanesville, Ohio
\vdash			TGX 1400		
,			1400		
	Colo. Springs, Colo.		Guatemala City, Guat.		Laurel, Miss.
	KVOS 1200 100		TG1 1310		WAPI 1140 5000
	Bellingham, Wash.		Guatemala City, Guat	l l	Birmingham, Ala.
	KVOX 1310 100				
			555 000		
	Moorhead, Minn.		San Jose, Costa Rica		Chattanooga, Tenn.
	KVRS 1370 100		T1FA 1000 250		
	Rock Springs, Wyo.		San Jose, Costa Rica		
			and the state of t		

				;	Lucan 1010 100
	WARD 1400 500		WBRY 1530 1000 Waterbury, Conn.		WCOU 1210 100 Lewiston, Maine
	Brooklyn, N. Y. 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
1	Atlanta, Ga.		Williamson, W. Va.		Cincinnati, Ohio
	WATR 1190 100		WBTM 1370 100	i	WCRW 1210 100
	Waterbury, Conn. WAVE 940 1000		Danville, Va. WBZ 990 50000	——	Chicago, Ill. WCSC 1360 500
1	Louisville, Ky.	1	Boston, Mass.	1	Charleston, S. C.
	WAWZ 1350 1000		WBZA 990 1000		WCSH 940 1000
	Zarephath, N. J.		Springfield, Mass.	ļ	Portland, Me.
	WAYX 1200 100		WCAD 1220 500 Canton, N. Y.		WDAE 1220 1000 Tampa, Fla.
<u> </u>	Wayeross, Ga. WAZL 1420 100		WCAE 1220 1000		WDAF 610 1000
i l	Hazelton, Pa.		Pittsburgh, Pa-	1	Kansas City, Mo.
—	WBAA 890 500		WCAL 760 5000		WDAH 1310 100
	West Lafayette, Ind.		Northfield, Minn.	L	El Paso, Texas
	WBAL 760 2500		WCAM 1280 500 Camden, N. J.	1	WDAN 1500 100 Danville, Ill.
	Baltimore, Md. WBAL 1060 10000		WCAO 600 500		WDAS 1370 100
	Baltimore, Md.		Baltimore, Md.	l	Philadelphia, Pa.
	WBAP 800 50000		WCAP 1280 500		WDAY 940 1000
	Fort Worth, Texas		Ashury Park, N. J. WCAT 1200 100		Fargo, N. Dak. WDBI 930 1000
	WDAA		Rapid City, S. Dak.	ļ	WDBJ 930 1000 Roanoke, Va.
<u> </u>	Wilkes-Barre, Pa. 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. WDEV 550 500
	WBBM 770 50000		WCAZ 1070 100 Carthage, Ill.		WDEV 550 500 Waterbury, Vt.
<u> </u>	Chicago, Ill. WBBR 1300 1000	1	WCBA 1440 500		WDGY 1180 1000
	Brooklyn, N. Y.		Allentown, Pa.		Minneapolis, Minn.
	WBBZ 1200 100		WCBD 1080 5000		WDNC 1500 100
	Ponca City, Okla.		Chicago, Ill. WCBM 1370 100		Durham, N. C. WDOD 1280 1000
1 .	M DOM 1110		WCBM 1370 100 Baltimore, Md.		WDOD 1280 1000 Chattanooga, Tenn.
\vdash	Bay City, Mich. WBEN 900 1000	-	WCBS 1420 100	· · · · · · · · · · · · · · · · · · ·	WDRC 1330 1000
	Buffalo, N. Y.	1	Springfield, Ill.		Hartford, Conn.
	WBE0 1310 100		WCCO 810 50000		WDSM 1200 100
	Marquette, Mich.		Minneapolis, Minn.		Superior, Wis.
	M DUI	1	WCFL 970 5000 Chicago, Ill.		WDSU 1250 1000 New Orleans, La.
	Huntsville, Ala. WBIG 1440 1000	-	WCHS 580 500		WDWS 1370 100
	Greensboro, N. C.	1	Charleston, W. Va.		Champaign, Ill.
	WBIL 1100 5000		WCHV 1420 100		WDZ 1020 250
<u> </u>	New York, N. Y. WBLK 1370 100		Charlottesville, Va.		Tuscola, Ill. WEAF 660 50000
1	WBLK 1370 100 Clarksburg, W. Va.		Covington, Ky.		WEAF 660 50000 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	1	WEAU 1050 1000
	Columbus, Ohio WBNX 1350 1000		Janesville, Wis.		Eau Claire, Wis. WEBC 1290 1000
	New York, N. Y.		Jollet, Ill.		Duluth, Minn.
	WBNY 1370 100		WCMI 1310 100		WEBQ 1210 100
	Buffalo, N. Y.		Ashland, Ky.		Harrisburg, Ill.
	WBOQ 860 50000 New York, N. Y.		WCNW 1500 100	i	WEBR 1310 100 Buffalo, N. Y.
	New York, N. 1. WBOW 1310 100		Brooklyn, N. Y.		WEDC 1210 100
	Terre Haute, Ind.		Pensacola, Fla.		Chicago, Ill.
	WBRB 1210 100		WCOC 880 1000		WEED 1420 100
	Red Bank, N. J.		Meridan, Miss. WCOL 1210 100		Rocky Mount, N. C. WEEL 590 1000
	WBRC 930 1000		WCOL 1210 100 Columbus, Ohio		WEEI 590 1000 Boston, Mass.
	Birmingham, Ala. 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.
				I	
L		L	l		

	WELL 1420 100		WGCM 1210 100		WHEC 1436	500
	Battle Creek, Mich.		Gulfport, Miss.		Rochester, N. Y. WHFC 1420	100
	WEMP 1310 100 Milwaukee, Wis.		WGES 1360 500 Chleago, Ill.		Cicero, Ill.	100
	Milwaukee, Wis. WENR 870 50000	\vdash	WGH 1310 100		WH10 1260	1000
1	Chicago, Ill.		Newport News, Va.	1 1	Dayton, Ohlo	
H	WENY 1200 250	\vdash	WGIL 1500 250		WHIP 1480	5000
	Elmira, N. Y.	l !	Galesburg, Ill.		Hammond, Ind.	
	WEOA 1370 100		WGL 1370 100		WHIS 1410	50 0
	Evansville, Ind.	L	Fort Wayne, Ind.		Bluefield, W. Va. WHJB 620	250
1 1	WESG 850 1000		WGKV 1500 100 Charleston, W. Va.		Greensburg, Pa.	230
H	Elmira, N. Y. WEST 1200 100	\vdash	WGN 720 50000		WHK 1390	1000
1	WEST 1200 100 Easton, Pa.	1	Chicago, Ill.	1 1	Cleveland, Ohio	
	WEVD 1300 1000	$\overline{}$	WGNC 1420 100		WHKC 640	500
	New York, N. Y.	i l	Gastonia, N. C.		Columbus, Ohio	
	WEW 760 1000		WGNY 1220 250		WHLB 1370	100
	St. Louis, Mo.		Newburgh, N. Y. WGPC 1420 100		Virginia, Minn. WHLS 1370	250
1	WEXL 1310 50	i I	WGPC 1420 100 Albany, Ga.		Port Huron, Mich.	250
	Royal Oak, Mich.		WGR 550 1000	-	WHMA 1420	100
	WFAA 800 50000		Buffalo, N. Y.	I	Anniston, Ala.	,,,,
	Dallas, Texas WFAM 1200 100		WGRC 1370 250		WHN 1010	1000
1 1	South Bend, Ind.		New Albany, Ind.		New York, N. Y.	
	WFAS 1210 100		WGRM 1210 100		WHO 1000	50000
	White Plains, N. Y.	igwdown	Grenada, Miss.		Des Moines, Iowa	
	WFBC 1300 1000		WGST 890 1000 Atlanta, Ga.		WHOM 1450 Jersey City, N. J.	250
<u></u>	Greenville, S. C.		WGTM 1310 100		WHP 1430	500
	WFBG 1310 100	1	Wilson, N. C.		Harrisburg, Pa.	-
—	Altoona, Pa. WFBL 1360 1000		WGY 790 50000		WIBA 1280	1000
<u> </u>	Syracuse, N. Y.		Schenectady, N. Y.		Madison, Wis.	
	WFBM 1230 1000		WHA 940 5000		WIBC 1050	1000
	Indianapolis, Ind.		Madison, Wis. WHAI 1210 250		Indianapolis, Ind. WIBG 970	100
	WFBR 1270 500	1	Greenfield, Mass.		Glenside, Pa.	100
	Baltimore, Md. WFDF 1310 100		WHAM 1150 50000		WIBM 1370	100
	Flint, Mich.	L l	Rochester, N. Y.		Jackson, Mich.	
	WFEA 1340 500		WHAS 820 50000		WIBU 1210	100
<u> </u>	Manchester, N. H.		Louisville, Ky. WHAT 1310 100		Poynette, Wis.	
1	WFIL 560 1000		WHAT 1310 100 Philadelphia, Pa.		WIBW 580 Topeka, Kans.	1000
<u> </u>	Philadelphia, Pa. WFLA 620 1000	\vdash	WHAZ 1300 1000		WIBX 1200	100
i .	Tampa, Fla.	L I	Troy, N. Y.		Utica, N. Y.	
	WFMD 900 500		WHB 860 1000		WICA 940	250
	Frederick, Md.		Kansas City, Mo.		Ashtabula, Ohio	
	WFMJ 1420 100	l	WHBB 1500 100 Selma, Ala.		WICC 600	500
<u> </u>	Youngstown, Ohio	 	WHBC 1200 100		Bridgeport, Conn. WIL 1200	100
1	WFNC 1340 250 Fayetteville, N. C.	•	Canton, Ohio		St. Louis, Mo.	100
	WFOR 1370 100		WHBF 1240 1000		WILL 580	500 0
	Hattlesburg, Miss.		Rock Island, Ill.		Urbana, Ill.	
	WFOY 1210 100		WHB1 1250 1000		WILM 1420	100
	St. Augustine, Fla.		Newark, N. J. WHBL 1300 250		Wilmington, Del. WIND 560	1000
1	WFTC 1200 100 Kinston, N. C.	l I	Sheboygan, Wis.		Garv. Ind.	1000
	WGAL 1500 100		WHBQ 1370 100		WINN 1210	160
i	Lancaster, Pa.		Memphis, Tenn.		Louisville, Ky.	
	WGAN 640 500		WHBU 1210 100		WINS 1180	1000
	Portland, Me.	<u> </u>	Anderson, Ind.		New York, N.Y. WIOD 610	1000
1	WGAR 1450 1000		WHBY 1200 100 Green Bay, Wis.		Miami, Fla.	1000
 	Cleveland, Ohio WGAU 1310 100		WHDF 1370 100		WIP 610	0001
	Athens, Ga.		Calumet, Mich.		Philadelphia, Pa.	
-	WGBB 1210 100		WHDH 830 1000		WIRE 1400	1000
	Freeport, N. Y.	<u> </u>	Boston, Mass.		Indianapolis, Ind.	1000
	WGBF 630 500		WHDL 1400 250		WIS 560 Columbia, S. C.	1000
	Evansville, Ind.	-	Olean, N. Y. WHEB 740 250		WISN 1120	250
	WGBI 880 500 Scranton, Pa.		Portsmouth, N. H.		Milwaukee, Wis.	
	WGBR 1370 100				WJAC 1310	100
	Goldsboro, N. C.	L			Johnstown, Pa.	

	NORTH AME	RICAN	B. C. STATIONS	SBY	CALLS
	WJAG 1060 1000		WKBZ 1500 100		WMBS 1420 100
	Norfolk, Neb. WJAR 890 1000	-	Muskegon, Mich.	├	Uniontown, Pa. WMC 780 5000
	Providence, R. I.		Griffin, Ga.		Memphis, Tenn.
	WJAS 1290 1000		WKOK 1210 100		WMCA 570 1000 New York, N.Y.
	Pittsburgh, Pa. WJAX 900 1000	<u> </u>	Sunbury, Pa. WKRC 550 1000		WMEX 1500 100
L	Jacksonville, Fla.		Cincinnati, Ohio		Boston, Mass.
	WJBC 1200 100 Bloomington, Ill.		WKST 1250 250 New Castle, Pa.	ļ	WMFD 1370 100 Wilmington, N. C.
-	WJBK 1500 100		WKY 900 1000	——	WMFF 1310 100
<u> </u>	Detroit, Mich.		Oklahoma City, Okla. WKZO 590 1000	<u></u>	Plattsburg, N. Y. WMFG 1210 100
i	Decatur, Ill.		Kalamazoo, Mich.		Hibbing, Minn.
	WJBO 1120 500 Raton Rouge, La.		WLAC 1470 5000 Nashville, Tenn.		WMFJ 1420 100 Daytona Beach, Fla.
-	WJBW 1200 100		WLAK 1310 100	<u> </u>	WMFO 1370 100
	New Orleans, La.	<u></u>	Lakeland, Fla.	L	Decatur, Ala. WMFR 1200 100
	WJBY 1210 100 Gadsden, Ala.	ì	WLAP 1420 100 Lexington, Ky.	1	High Point, N. C.
	WJDX 1270 1000		WLAW 680 1000		WMIN 1370 100
<u> </u>	Jackson, Miss. WJEJ 1210 100	<u> </u>	Lawrence, Mass. WLB 760 5000	-	St. Paul, Minn. WMMN 890 500
	Hagerstown, Md.	1	Minneapolis, Minn.		Fairmont, W. Va.
	WJHL 1200 100 Johnson City, Tenn.		WLBC 1310 100 Muncie, Ind.	1	WMOB 1200 100 Mobile, Ala.
<u> </u>	WJHP 1290 250		WLBL 900 5000		WMPC 1200 100
	Jacksonville, Fla.		Stevens Point, Wis.		Lapeer, Mich. WMPS 1430 500
	WJIM 1210 100 Lansing, Mich.	1	WLBZ 620 500 Bangor, Me.	1	Memphis, Tenn.
	M11D 1130 50000		WLEU 1420 100		WMRO 1250 250
ļ	Chicago, 111. WJLS 1210 100		Erie, Pa. WLLH 1370 100	<u> </u>	Aurora, Ill. WMSD 1420 100
	Beckley, W. Va.		Lawrence, Mass.		Muscle Shoals C., Ala.
	WJMC 1210 250 Rice Lake, Wis.	-	WLLH 1370 100 Lowell, Mass.	1	WMT 600 1000 Cedar Rapids, Iowa
—	WJMS 1420 100		WLNH 1310 100		WNAC 1230 1000
	Ironwood, Mich.		Laconia, N. H.		Boston, Mass.
	WJNO 1200 100 W. Palm Beach, Fla.		WLOK 1210 100 Lima, Ohio		Norman, Okla.
	WJR 750 50000		WLS 870 50000		WNAX 570 1000
	Detroit, Mich. WJRD 1200 250	<u> </u>	Chicago, Ill. WLTH 1400 500		Yankton, S. D. WNBC 1380 250
	Tuscaloosa, Ala.	<u>L</u>	New York, N. Y.		New Britain, Conn.
	WJSV 1460 10000 Washington, D. C.	1	WLVA 1200 100 Lynchburg, Va.	ł	WNBF 1500 100 Binghamton, N. Y.
	WJTN 1210 100		WLW 700 50000		WNBH 1310 100
	Jamestown, N. Y.		Cincinnati, Ohio WMAL 630 250		New Bedford, Mass. WNBX 1260 1000
	WJW 1210 100 Akron, Ohio		Washington, D. C.		Springfield, Vt.
	WJZ 760 50000		WMAQ 670 50000		WNBZ 1290 100 Saranac Lake, N. Y.
	New York, N. Y. WKAQ 1240 1000		Chicago, Ill. WMAS 1420 100		WNEL 1290 1000
ļ	San Juan, P. R.		Springfield, Mass.	<u> </u>	San Juan, P. R. WNEW 1250 1000
	WKAR 850 1000 East Lansing, Mich.	l i	WMAZ 1180 1000 Macon, Ga.		New York, N. Y.
	WKAT 1500 100		WMBC 1420 100		WNLC 1500 100
	Miami Beach, Fla.		Detroit, Mich. WMBD 1440 1000		New London, Conn. WNOX 1010 1000
	East Duhuque, III.		Peoria, Ill.	<u> </u>	Knoxville, Tenn.
	WKBH 1380 1000 La Crosse, Wis.		WMBF 616 1000 Miami.Fla.	1	WNYC 810 1000 New York, N. Y.
	WKBN 570 500		WMBG 1350 500		WOAI 1190 50000
	Youngstown, Ohio		Richmond, Va. WMBH 1420 100	ļ	San Antonio, Texas
L	Harrisburg, Pa.		Joplin, Mo.		Davenport, Jowa
	WKBV 1500 100		WMBI 1080 5000 Chicago, Ill.		WOCB 1210 100 Hyannis, Mass.
	Richmond, Ind. WKBW 1480 5000		WMBO 1310 100		WOI 640 5000
	Buffalo, N. Y.		Auburn, N. Y. WMBR 1370 100	ļ	Ames, Iowa WOKO 1430 500
			WMBR 1370 100 Jacksonville, Fla.		Albany, N. Y.
-					

	WOL 1230 1000		WRBL 1200 I	00	WSMK 1380 250
	Washington, D. C.		Columbus, Ga.		Dayton, Ohlo
	WOLS 1200 100			100	WSNJ 1210 100
	Florence, S. C.		Washington, D. C.	00	Bridgeton, N. J. WSOC 1210 100
1 !	WOMI 1500 100 Owensboro, Ky.		WRDO 1370 I Augusta, Me.	00	Charlotte, N. C.
 	WOMT 1210 100			00	WSPA 920 1000
	Manitowoc, Wis.		Augusta, Ga.		Spartanburg, S. C.
	WOOD 1270 500			100	WSPD 1340 1000
	Grand Rapids, Mich.	H	Memphis, Tenn. WREN 1220 10	006	Toledo, Ohio WSPR 1140 500
!	WOPI 1500 100 Bristol, Tenn.		Lawrence, Kans.	706	Springfield, Mass.
-	WOR 710 50000			00	WSTP 1500 100
ł	Newark, N. J.		Rome, Ga.		Salisbury, N.C.
	WORC 1280 500		WRJN 1370 I Racine, Wis.	100	WSUI 880 500 Iowa City, Iowa
	Worcester, Mass. WORK 1320 1000		WRKL 1500	100	WSUN 620 1000
	York, Pa.		Rock Hill, S. C.	ł	St. Petersburg, Fla.
	WORL 920 500			500	WSVA 550 500
	Boston, Mass.		Richmond, Va. WROK 1410 5	500	Harrisonburg, Va. WSVS 1370 50
1	WOSU 570 750 Columbus, Ohio		Rockford, Ill.	,,,,	Buffalo, N. Y.
	WOV 1130 1000			100	WSYB 1500 100
	New York, N. Y.		Knoxville, Tenn.		Rutland, Vt. WSYR 570 1000
	WOW 590 1000		WRR 1280 5 Dallas, Texas	500	Syracuse, N. Y.
	Omaha, Neb.	\vdash		100	WSYU 570 1000
	WOWO 1160 10090 Fort Wayne, Ind.		Richmond, Va.		Syracuse, N. Y.
	WPAD 1420 100			000	WTAD 900 1000 Quincy, Ill.
	Paducah, Ky.		Gainesville, Fla.	000	WTAG 580 1000
	WPAR 1420 100		Richmond, Va.		Worcester, Mass.
	Parkersburg, W. Va.			000	WTAL 1310 100
	WPAX 1210 100 Thomasville, Ga		Cincinnati, Ohio		Tallahassee, Fla.
	WPAY 1370 100			100	WTAM 1070 50000 Cleveland, Ohio
	Portsmouth, Ohio		Grove City, Pa. WSAL 1200	250	WTAQ 1330 1000
	WPEN 920 1000	1	Salisbury, Md.		Green Bay, Wis.
	Philadelphia, Pa. WPG 1100 5000			500	WTAR 780 5000 Norfolk, Va.
	Atlantic City, N. J.		Allentown, Pa.	000	WTAW 1120 500
	WPIC 780 250		WSAR 1450 II Fall River, Mass.	000	College Station, Tex.
 	Sharon, Pa. WPIV 1210 100			100	WTAX 1210 100
İ	WPIV 1210 100 Petersburg, Va.		Wausau, Wis.		Springfield, Ill. WTBO 800 250
	WPRA 1370 100	1 1	- '	100	Sumberland, Md.
	Mayaguez, P. R.		Savannah, Ga. WSAY 1210	100	WTCN 1250 1000
1	WPRO 630 500 Providence, R. I.		Rochester, N. Y.		Minneapolis, Minn. WTEL 1310 100
	WPRP 1420 100		WSAZ 1190 I	000	WTEL 1310 100 Philadelphia, Pa.
	Ponce, P. R.		Huntington, W. Va.		WTHT 1200 100
	WPTF 680 5000		WSB 740 50 Atlanta, Ga.	000	Hartford, Conn.
+	Raleigh, N. C. WQAM 560 1000			100	WTIC 1040 50000 Hartford, Conn.
	Miami, Fla.		Chicago, Ill.		WTJS 1310 100
	WQAN 880 500			500	Jackson, Tenn.
	Scranton, Pa.	-	South Bend, Ind. WSFA 4410	500	WTMA 1210 100
	WQBC 1360 1000 Vicksburg, Miss.		Montgomery, Ala.		Charleston, S. C. WTMJ 620 1000
	WQDM 1390 1000		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	100	Milwaukee, Wis.
	St. Albans, Vt.	-	Birmingham, Ala. WSIX 1210	100	WTMV 1500 100
	WQXR 1550 1000		Nashville, Tenn.	100	East St. Louis, Ill.
	New York, N. Y. WRAK 1370 100		WSJS 1310	100	WTNJ 1280 500 Trenton, N. J.
	Williamsport, Pa.		Winston-Salem, N. C		WTOC 1260 1000
	WRAL 1210 100		WSLI 1420 Jackson, Miss.	100	Savannah, Ga.
	Raleigh, N. C. WRAW 1310 100			0000	WTOL 1200 100 Toledo, Ohio
	Reading, Pa.		Nashville, Tenn.		WTRC 1310 100
				000	Elkhart, Ind.
	4		New Orleans, La.		1
	4				-

	WTRY 950	000	XEBP 1150 250		XEK 990 100
	Froy, N. Y.	i	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.
		1000	XEBW 1340 250		XELO 730 5000€
	Detroit, Mich.		Chihuahua, Chih.]	Tijuana, B. Cfa.
1		0000	XEBX 640 250		XELZ 1370 100
	New Orleans, La.		Sabinas, Coah.]	Mexico City, D. F.
		1000	XEBZ 810 100		XEM 1380 500
	Asheville, N. C.	100	Mexico City, D. F. XEC 1150 100		Chihuahua, Chih.
1.	Woodside, N. Y.	100	XEC 1150 100		XEME 1240 50
	WWSW 1500	100	XECA 1230 250		Merida, Yuc. XEMO 860 5000
	Pittsburgh, Pa.	,,,	Tampico, Tam.	i	Tijuana, L. C.
	WWVA 1160	5000	XECH 1490 250		XEMU 580 250
	Wheeling, W. Va.		Toluca, Mex.		Piedras Negras, Coah.
		1000	XECL 960 1000		XEMX 1280 100
	Detroit, Mich.		Mexicali, B. Cfa.		Mexico City, D. F.
		0000	XECZ 1370 100		XEN 780 1000
	Whippany, N. J.		San Luis Potosi, S.L.P.		Mexico City, D. F.
		0000	XED 1160 2500		XENT 910 150000
-	Cincinnati, Ohio	200	Guadalajara, Jal.		Nuevo Laredo, Tams.
	XEAA 750 Mexicali, B. C.	200	XEDA 1220 200		XEP 1160 500
		5000	Gral. Anaya, D. F. XEDF 810 100		Juarez, Chih,
1	Tijuana, B. Cfa.	3000	Nuevo Laredo, Tams.]	XEPN 730 100000
	XEAF 990	750	XEDH 1340 200		Piedras Negras, Coah. XEQ 730 50000
	Nogales, Son.	, , ,	Villa Acuna, Coah.		Mexico City, D. F.
-	XEAG 1310	10	XEDP 1080 500		XERA 840 250000
	Cordoba, Ver.	i	Mexico City, D. F.		Villa Acuna, Coah.
	XEA1 1250	500	XEDR 1490 100		XERB 1090 150000
	Mexico City, D. F.		Guaymas, Son.	i	RosaritoBeach, B. Cfa.
		1000	XEDW 1150 300		XERC 870 500
	Mexico City, D. F. XEAM 750	25	Minatitlan, Ver.		Mexico City, D. F.
	Matamoros, Tams.	23	XEE 1210 50 Durango, Dgo.		XERH 1430 500 Mexico City, D. F.
	XEAO 660	250	XEF 1450 100		XES 990 250
	Mexicali, B. C.		Juarez, Chih.	ş	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, Conh. XEAT 1210	~~	Merida, Yuc.		Torreon, Coah.
	XEAT 1210 Parrat, Chih.	250	XEFE 980 250		XETH 1210 100
		1000	Nuevo Laredo, Tams. XEFI 1440 250		Puebla, Pue. XEU 1010 250
	Reynosa, Tams.		XEFI 1440 250 Chihuahua, Chih.		Veracruz, Ver.
	XEB 1030 10	000	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. I
1		000	XEFV 1210 50		XEXB 1270 250
	Tijuana, B. Cfa. XEBH 930	500	Juarez, Chih.		Jalapa, Ver.
	Hermosillo, Sonora	5.,5	XEFW 1310 300		XEXD 1340 350 Orizaba, Ver.
		250	Tampico, Tams. XEG 1230 250		XEXE 1270 17
	Aguascallentes, Ags,	1	Monterrey, N. L.	i	Texcoco, Mex.
	XEBK 1080	100	XEH 720 250		XEXX 1170 1000
	Neuvo Laredo, Tams.		Monterrey, N. L.		Mexico City, D. F.
	XEBL 1220	50	XEI 1370 125		XEZ 630 500
	Mazatlan, Sin. XEBO 1310	25	Morelia, Mich.	i	Merida, Yuc.
	XEBO 1310 Irapuato, Guan.	25	XEJ 1020 1000	i	YSS 640 500
-	raphan, Guan,	_	Juarez, Chih.		San Salvador, E. S. ZNS 785 400
			XEJP 1130 100	1	Nassau, Bahamas
-			Mexico City, D. F.		Tanad, Daudings
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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 position 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 his 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

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 actual 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 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., and 41000 kcs. . . . 38600 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 9.685 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

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By Location	By FrequenciesFeb. '39, p. 46
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Frequency Checks Feb. '39, p. 49	Asia
Names of OwnersNov. '38, p. 56	South AmericaOct. '38, p. 52
Owners' Address Oct. '38, p. 56	Europe

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 ... One year's subscription to RADEX, 10 issues..... ☐ Two years......\$3.25 ☐ Three years...... \$4.75 (ADD 50c PER YEAR FOR FOREIGN SUBSCRIPTIONS, EXCEPT CANADA) Print Name Plainly Street and Number ...

"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."

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"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 allwave 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 OAX41 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 verifiactions, 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



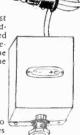
WE recommend the famous Trimm line of headphones for DX success. They are precision-built, and combine ultrasensitivity with rugged construc-

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