

THE DIALIST

NOV.

OFFICIAL PUBLICATION

1934

OF THE
NEWARK NEWS RADIO CLUB



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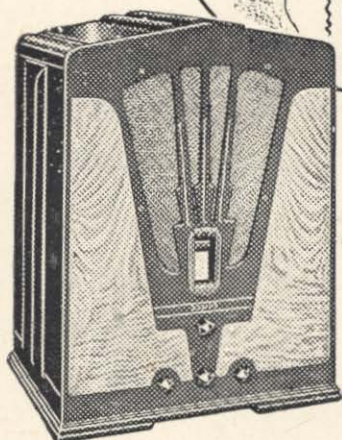
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The Dialist

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Although somewhat early to do any dependable predicting, a good many old timers are convinced that this DX season will be one of the best on record. While static has been severe at times signal strength of distant stations has been unusually good and it is logical to presume that listening conditions will improve as the weather grows colder.

Listeners along the Atlantic seaboard have been amazed to receive almost daily, between 5 and 6 P. M., Poste Parisien, 960 kilocycles, Paris, France with unbelievable volume. The programs, sponsored by an English firm, are announced in French and English and musical selections are familiar enough to make it easy to record more than sufficient verification material. Invariably, Poste Parisien asks its audience to tune to Radio Normandie, Fecamp, France, after it (Poste Parisien) signs off at 6 P. M., EST.

TGW, Guatemala City, has been a consistent visitor to North America, Sunday mornings between 4 and 6 EST. Our Central American friends have become popular with DXers as a result of their excellent programs, featuring marimba bands, and their courteous attention to letters and reports of reception.

SOUTH AMERICANS GOOD

LS2, Buenos Aires, has been heard regularly in all sections of the northern hemisphere. Radio Excelsior LR5, also in Buenos Aires, transmitted a program for The Newark News Radio Club Sunday morning, November 4, from 2.05 to 3.05, EST, and came through in its customary good form. Reception was so good that DXers were able to record every feature of the entire broadcast. LR5 will be on for the NNRC the first Sundays of December, January and February at the time mentioned above.

The Australians seem to be perking up too and the Pacific Coasters are better than ever.

Robert E. Base, 4105 Alto Road, Baltimore, reports reception of his first 50 watt West Coaster, CFCT, Victoria, B. C., the morning of October 28. Other recent catches are WATR, XEFI, KADA, 4BC, 4BH, XEAF and WHJB. Bob says the two Australians were received

the same morning between 4.45 and 5.30, EST. Latest verifications are from CJLS and CJRC.

Submitting his initial report of the season, Donald S. Voorhies, 1717 East 19th Street, Brooklyn, informs us that fifteen additions, WMEX, CKTB, WLNH, WRJN, WEED, WMBR, WAGF, KMLB WHEF WBNO, WGPC, WBNS, WJIM, LS2 and 2BL have increased his log total to 677, while confirmations from WRIN, CKTB, WJAG, WBNS, WJIM, WEED, WHEF, WMBR, WTJS, WAGF and WSJS bring his verifications up to 425. WMEX, which has so far failed to answer so many reports of reception, and WLNH are still outstanding. Don expresses his appreciation of the work of our courtesy programs committee and requests that a fellow-Brooklynite, William Wheatley, be supplied with a membership application.

Lloyd Westmoreland, NNRC member, 2313 McIntyre Street, Regina, Sask., conducts a DX program over CKCK, that city every Saturday morning from 12.15 to 12.30, EST, during which time DX tips submitted by the various clubs are broadcast. Writing to Chairman Louis Hahn of our courtesy programs committee, Lloyd says: "I logged KGU, Honolulu, the morning of October 4 and received their verification the 19th." October 21 was a red letter DX day for Lloyd as he added LR2, LR4, LR8 and LS2.

Charles Martin, 227-11 Burgoyne avenue, Springfield, Long Island, writes that he listened to CJRC's recent NNRC program and enjoyed it immensely. Charlie installed a new antenna system, 200 feet long, a short time ago and used it with excellent results October 24 when he logged 3AR, 3LO, 2UE, all sufficiently good for verification material, and several others nearer home. He adds: "I think that J. W. Brauner, Williamsville, N. Y., has about the most complete log of U. S., stations heard and verified. All J. W. needs are KSUN, KMED and KRKO to complete the roster of active stations."

DXing in Waterbury, Conn., has been pretty fair recently and Howard Kemp has been doing a land office business both on the long and short waves. TGW and KWSC are his best BC bets while on the short waves he has snared RKI, CBX, COH, WON, CM2WZ, JVT, WOF, JVF, OCI, PHI, WKK, YVR, YDA, PCJ and CM6XS. Howard lists WEED and WSGN among his quick verifiers and informs us that W1XBS, 1530 kcs., Waterbury, officially came on the air November 2, with an elaborate inaugural program.

Alec Kinghorn, Apartado 2488, Havana, is DXing with an all-wave Philco and an aerial 200 feet high and expects to report some good ones in the near future. He advises that there is no Cuban station with the call CMCM but that several "pirate" stations are operating in Havana at present. They are not easily identified as they use no call letters.

Although static has been rather heavy out in Redlands, Cal., Barbara Rogers, NNRC representative in that town, has managed to add several good ones to her log including, WWL, KWOY, CMQ, XEAF, XEAW, CKMO and WPTF. Barbara has a boss who is DX minded—when she intends to spend a night at the dial her employer allows her to report at the office later than usual the next morning so she can catch up on sleep.

While on a visit to the South a short time ago, Everett H. Colburn, 273 West Main street, Iliou, N. Y., called at the studios of WBTM, Danville, and WRBX, Roanoke, Va., and received a cordial welcome at both places. Although "Ev" has been a member of the club since 1930 he has never written a DX report but he now tells us that his log includes 564 stations including thirty-nine 2000 milers. LR5 and Poste Parisien are his overseas catches. Like Lester Kraemer, it has never been his experience to receive a 100 watt 2,000 miles distant.

DJC SPECIAL

Through arrangement with Charles O'Brien, 107 Kensington avenue, Jersey City, DJC, Zeesen, Germany, will broadcast a special program for the NNRC November 24 from 9:15 to 10:30 P. M., EST. Our friends across the sea have lined up an exceptionally fine program for the occasion and are anxious for reports from listeners in this country and Canada. Charlie lists WJTL, WAGF, WNEL, WGPC, WBNO, W8BLT and W1XBS as his latest additions—all heard the morning of November 6.

Those DXers who are having trouble securing their verifications from KADA, Ada, Okla., are advised by Ray E. Everly, (The Sun Dodger) 102 West Washington Street, Newton, Ill., to write

to its Chief Engineer, Bob Taylor. Mr. Taylor, formerly operator at WJSV and WBZ and chief operator at WDBJ and WJEJ, is a dyed-in-wool DX fan and is in sympathy with the dial twisters' activities. Incidentally, KADA is on the air almost every morning after 2, EST. Ray reports reception of LR5 and KWOY the morning of November 4 and verifications from CJAT and XEM. He adds: "Those LR5 broadcasts are sure great stuff; more power to our CPC."

The South Norwalk Conn., DXing duo, Robert Musson and Henry Moeller, write that they logged LR5, VE9EK, TGW and KGER November 4.

CHAB, Moose Jaw, Sask., inform Vice President W. H. Applegate, Chicago, of a series of DX tests the first Sunday of each month from 2 to 4 A. M., EST, beginning December 2 and concluding in March. An hour of the December 2 broadcast will be dedicated to the NNRC and the other to the CDXR while the one in January will be for the NNRC; February for the CDXR and the final one in March to both.

Mr. Applegate has completed arrangements with CKGB, CJKL and CFCH for an NNRC series the morning of November 25. To be known as "The Northern Broadcasting Company Frolic for The Newark News Radio Club," it will begin at 2 A. M., EST, with an hour program by CKGB, 1420 kcs., Timmins, Ont., followed by CJKL, 1310 kcs., Kirkland Lake, Ont., at 3, and CFCH, 930 kcs., North Bay Ont., at 4. DXers are indebted to Directors C. W. Wright, CKGB; Brian G. Shellon, CJKL, and to an old friend, Tom Darling of CFCH.

CKOV, Kelowna, B. C., have installed a new 100 watt, 100 per cent modulated Marconi transmitter and are on the air every Sunday morning from 3.30 to 5, EST. A half hour of each program is dedicated to The Newark News Radio Club. Managing Director J. W. B. Browne informs Mr. Applegate that any delay in sending out verifications is due to the fact they have been swamped with reports. Mr. Browne will appreciate hearing from NNRCers.

WNEL, San Juan, Puerto Rico, were on with a frequency check at 4 A. M., EST, November 6. It is quite possible that hereafter they will be testing the first Tuesday at the aforementioned time.

According to Vice President Phil Nichols, XEYZ, Avenue Juarez 48, Mexico City, are anxious for reports of reception and verify promptly.

FLASH LINES

George Burns and Gracie Allen will pack their duds and hurry out to Hollywood about the middle of this month to start a new picture; their program on the 21st will be broadcast from KHJ, Los Angeles. . . . Because Johnny Green bet him he wouldn't dare raise a goatee, Stephen Fox, Columbia leading man, has grown one and since it sprouted he's had to turn down two parts in Broadway productions calling for smooth-faced gents. . . . Myrt and Marge celebrated their third year on the CBS network Friday, November 2, their thousandth performance November 5. . . . Gertrude Niesen, famed in Broadway's night spots for her exotic voice and dress, often gets up at 5 A. M., dons a turtle-neck sweater, rubber boots and old riding jeans to go fishing with her father. . . . There are 102 stations associated with the Columbia Broadcasting System, but by flipping a half-inch switch in its master-control room in New York all outlets can be linked together in 30 seconds. . . . Poley McClintock of the frog-like voice in Fred Waring's band really sings high tenor in the solemn glee club specialties. . . . Despite her avoirdupois, Kate Smith is an aquatic whiz; she swims all strokes speedily, dives from high boards, aquaplanes and holds several life-saving awards. . . . Gracie Allen, who always talks about her little blue hat, has dozens of chapeaux, but not one is blue. . . . Michael Strange, the former Mrs. John Barrymore, played a part in a recent American School of the Air dramatization. . . . On the radio recently Ted Husing picked the winners in sixteen football games and Saturday's results gave him a perfect record. . . . But he didn't bet on 'em! . . . Because Danny Cahill, night elevator operator in the CBS New York studios, knows so many radio celebs by their first name, some autograph-seekers now are asking for his signature. . . . Roxy, head man of the CBS "Roxy and his Gang" broadcasts, can't read a note of music, yet he conducts the large orchestra and chorus on his programs. . . . He has been in the business so long he knows music thoroughly without being able to read the notes. . . . Ronne, one of Little America's canine radio artists, is glad television is still around that corner because numerous battles in "Dog Town" have left his formerly handsome countenance all scarred and scratched. . . . After every microphone announcement Fred Waring unconsciously jerks his head as though he were saying, "So, there." . . . Lud Gluskin not only has a "continental" orchestra but a "continental" home as well, with a Viennese wife who speaks German and a Belgian griffon, named Kiki, that only answers to French. . . . Buddy



Lou Holtz, famous comedian and long a Broadway favorite, is building an extensive radio following through his frequent guest performances on Rudy Vallee's program over a coast-to-coast network Thursday night at 8 P. M. E.S.T.

Rogers of the "Family Theatre" program will go to England soon to make a movie. . . . Charlie of Columbia's Chicago team, Gene and Charlie, has his arm in a sling because he tripped getting out of his car the other day. . . . Art Kassel and his Kassels in the Air Orchestra are making records of a lot of new tunes, including one from Bing Crosby's latest picture, "Here Is My Heart."

All along the line there has been a tightening-up in the issuance of verifications. Many broadcasters are becoming fed up with the DX fan who writes: "I heard your station, the program was fine. Please send me a veri." Announcing that CJAT, Trail, British Columbia, will transmit a special program in honor of the NNRC from 12:01 to 3 A. M., EST., December 9, Manager T. G. Robinson requests Vice-President Applegate to inform DXers they require at least three musical numbers or announcements, and that they do not verify chain program reports. Mr. Robinson's stand will be endorsed by every right-thinking DXer.

GLEANINGS FROM EVERYWHERE

Broadcasts to and from the Byrd Antarctic Expedition which have been heard over a coast-to-coast WABC-Columbia network since November, 1933, will be continued Wednesdays from 10 to 10.30 P. M., E. S. T., under a contract renewal effective Wednesday, November 14. At present five tractor and sledge parties are exploring the interior of the Antarctic. A giant Condor biplane is being prepared for a flight over the South Pole region in the near future. Reports of these adventures will be made during the regular weekly broadcasts.

Radio stations WCOA, Pensacola, Fla., and WOC, Davenport, Iowa, have been added to the Columbia Broadcasting System. There are now 102 outlets associated with the chain. Seven years ago, the original Columbia network consisted of sixteen stations. WCOA is owned and operated by the Pensacola Broadcasting Company in the San Carlos Hotel, has 500 watts power and broadcasts on a frequency of 1340 kilocycles, 233.7 meters. Beginning November 11, WOC will carry Columbia programs on a permanent basis. This station operates on 1420 kilocycles, 211.1 meters, and is owned by the Palmer School of Chiropractic, Davenport, Io.

Roxy, pioneer showman of the air, will observe the 12th anniversary of his radio debut in his broadcast Saturday, November 17, from 8 to 8:45 P. M., E. S. T., over the nationwide WABC-Columbia network. Early in November, 1922, Roxy heard a broadcast for the first time and was highly impressed with radio's future possibilities as an entertainment medium. Two weeks later he stepped to a microphone for the first time to introduce his "gang" to the relatively few listeners, whose possession of crystal sets as a hobby made them objects of neighborhood interest and curiosity. That first broadcast, originating at the Capitol Theatre, New York, of which Roxy was then manager, was the first broadcast from a theatre stage. The occasion also marked the birth of Roxy's now familiar sign-off phrase, "Goodnight, pleasant dreams, God bless you," the words he ad-libbed in confusion when he forgot his carefully prepared closing announcements under stress of emotion.

For twelve years Mr. and Mrs. Clyde Boswell paid Professor Otto Finck to teach their daughters, Connie, Vet and Martha, all he knew about the violin, cello and piano. These fond parents fully expected that their offspring would be one of the foremost string trios in the country, but, as of old, the best laid plans

of mothers and fathers "gang aft agley." Instead, the girls have received top radio billing for the past four years as the hottest of harmonizers and now are heard in contrast to Bing Crosby's crooning each Tuesday over the WABC-Columbia network. It was when Mr. Boswell left their New Orleans home for an extended business trip that these three youngsters, eager to shine in other fields, laid aside their classical trappings. Connie learned to play the sax, Vet strummed a banjo, Martha kept her place at the piano, and before long Brahms had given way to the hottest rhythms. Close upon the heels of this new penchant for jazz came a desire to sing as well, and their latent talent as specialists in vocal harmonies soon came to light. Their distinctive style has brought them far more fame and fortune in radio, screen and stage fields than they could have hoped for as the Boswell String Trio.

Just before signing off every night at midnight, KVI, Tacoma, Wash., an official Newark News Radio Club station, broadcasts its DX tips and news. In addition, KVI's final quarter-hour on the air Thursdays from 11.45 to 12 P.M., PST, is devoted to the club and its activities. H. J. McAllister of KVI's staff and an NNR Cer is in charge of these programs.

VOGY, St. Johns, Newfoundland, have scheduled special DX programs November 11 and 25 from 1 to 5 A.M., EST. R. W. Munro, studio director, informs Vice President W. H. Applegate that parts of these broadcasts will be dedicated to The Newark News Radio Club. Located in the Newfoundland Hotel and operating on 840 kcs., VOGY has a 400 watt, Marconi, crystal controlled transmitter which was installed in February, 1934. Previously, the station broadcast with a home-made transmitter built from old ship transmitters.

Ventura, Calif., is evidently an ideal spot for the location of transmitters for the chamber of commerce of that town, according to a news item, has received three applications to establish broadcasting stations there. One has been filed by KMTR, the 250 watter now in Hollywood; another by a San Bernardino resident, while the third came from a group of interested Texans.

LOOKING AHEAD IN RADIO

By John V. L. Hogan

Past President, Institute of Radio Engineers.

Today we are on the eve of new developments in radio broadcasting. I believe that these forward-reaching applications of modern science and invention will be of interest to you, and I shall try to tell you something about their possibilities.

Since KDKA blazed the famous trail that we all have followed for the past fourteen years, broadcasting has been much the same thing. Station power has generally been on the upward trend, and so there has been some relief from static and other electrical noise. Programs have grown both better and worse, according to one's viewpoint; and the possibility of long distance reception has been favored by the general use of highly selective receiving sets, but definitely set back by the overcrowding of regional and local broadcast channels and by the breakdown of some of our cleared channels. But broadcasting has continued in much the same old way, and, although the technical advances of the past years have been definite and helpful, it would indeed be an optimist who would say that they have been startling.

There are now three new departures in the broadcast field that you should know about. One of them is now with us; the second is about to be realized, and the third is no longer "just around the corner" if my judgment can be considered dependable. I shall tell you a little about all three, taking them up in the reverse order of their availability and therefore beginning with television.

TELEVISION

As you know, television broadcasting is linked to everyday broadcasting of speech and music in the same way that our sense of sight is linked with our sense of hearing. The two should carry on together, television giving you living images of the scenes and persons whom you listen to with the aid of your loud-speakers. When you can see by radio, as well as you now hear, the possibilities of the system for entertainment and for interesting information will be multiplied many-fold.

A natural question is: "Why do we not have a television broadcast service today?" Of course, the fact is that there are television stations in regular operation today, but all of them are operated experimentally and none of them render a true program service for observers. To my mind, the real reason that no such program services are available to broad-



Buddy Rogers, young screen and radio star, is hitting a new high in popularity in the threefold role of maestro, singer and actor. Rogers and his Dance Programs are now an NBC feature.

cast listeners is that so far there has been no coordinated plan incorporating the three essential elements of such a service. These three elements are: first, an adequate television transmitter having good coverage; second, a source of interesting program material to be televised, and third, a supply of television receivers that can be widely distributed at a reasonable price and which will give sufficiently good reproduction of television pictures to satisfy the user's desire for a service rather than merely to appeal to his curiosity. A further essential, not directly a part of the television operations themselves, is that the picture programs shall be accompanied by synchronized sound from a radio transmitter that will provide at least as good coverage as does the picture transmitter.

In the past five years there have been several commercially-inspired attempts to render a popular television service, but none of them has made a substantial success. If you will analyze any of these attempts, I think you will find they were lacking in at least one of the essentials that I have just outlined; and it seems to me that the failure to provide

all of those important elements is exactly what is accountable for whatever dissatisfaction has resulted.

Perhaps the most striking thing about public television in the past is that the receiving apparatus offered for sale has been relatively crude in performance and high in cost. Even the apertured discs and drums that were put on the market were quite costly, and the lens discs have never been manufactured in quantity to sell at a moderate price. The newer types of optical television receivers, and the cathode ray tube receivers, have never been made available to radio users in satisfactory form. From the engineering point of view, there seems to be little reason why useful television apparatus of these types should remain in the laboratory. While it is always dangerous to attempt to be a prophet, I would like to leave with you the thought that television is on the up-grade. It is quite probable that before very long some forward-looking broadcasters and manufacturers will combine their facilities in such a way as to provide you with a useful and interesting television service.

THE RADIO PEN

Turning now to the second of the three topics that I am bringing before you, let me point out that television is not the only way in which our ordinary sound broadcasting may be supplemented to appeal to the sense of sight. Instead of using television to send you fleeting images which leave you nothing but a memory after the program is ended, we may use the Radio Pen facsimile apparatus to deliver to you a series of pictures, diagrams or printed notes that will remain in your hands as tangible records on paper sheets. These records may be illustrations to accompany and explain the talks that you hear by radio, they may be program notes on the music that is played for you, or they may be any of dozens or hundreds of other types of pictorial or printed matter such as news bulletins, weather reports and so on. There seems to be no limit except that of our imaginations as to the vast number of ways in which the visual broadcasting service of the Radio Pen may supplement the audible service of every day broadcasting.

I have told you that this facsimile service is "about to be realized," and I do not think that that is too strong a statement. Of course, there may be many slips between cups and lips, but the fact is that both here in New York and at station WTMJ, Milwaukee, the preliminary work is being done to demonstrate the practical feasibility of broadcasting Radio Pen pictures for direct reproduction on paper in the listeners' homes. Up to date all of our work has been most encouraging, and the difficulties that we have encountered are of the kind that do not seem to be hard to solve. Therefore, I think I can properly say that there is every probability of a home facsimile service being inaugurated, in at least one broadcasting center, within a relatively short time.

HIGH FIDELITY BROADCASTING

The third of the new things in radio to which I have referred, and which I have said is with us today, is high fidelity broadcasting. Our station W2XR is the first to have equipment that will transmit practically the entire range of audible sound frequencies and to be assigned by the Federal Communications Commission to one of the new

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Countess Olga Albani, soloist over the NBC-WJZ network Sunday, at 7 P. M. She is in better voice than ever, having recovered from an illness which hampered her singing last spring.

THE STATION'S VIEW POINT

By A. L. McKee, Manager, WHBU, Anderson, Indiana

How does a DX fan feel towards a broadcasting station and how does the station feel towards the DX fan? Perhaps I am not qualified to answer fully, the first half of that question but I do believe I can present the broadcaster's opinions.

Many, many moons have come and gone since I first read Newark News Radio Club flashes and you may be sure that I have had ample opportunity to witness the hammering of DX fans desiring verifications of reception. Apparently, no station manager has so far, had the nerve or invitation to speak from the other side of the fence but as I have been invited to express my ideas I shall be glad to do so.

Believe it or not, we at the radio stations are human and we want to help DXers in every way possible but there are some things we cannot do. When we receive a letter asking for a dedicatory, DX program we would like to comply and take time out to broadcast for the one who requested it but there are so many such requests that it just cannot be done.

UNDESIRABLE REPORTS

When we do go on with a DX broadcast during the wee small hours of the morning we wonder who is listening in and where. Then we wait prepared to acknowledge and verify reports. In about two days a flock of postal cards roll in. Some of them say: "I heard your program at such and such a time; you played such and such a record. Please verify." Still others say: "Thanks for the program; please verify." Remember, they are postal cards and during our program we suggested that postage should be included for verifications. Yet, we get the cards.

We have had a heck of a time keeping our heads above water what with trying to comply with all the rules and regulations and endeavoring to pay rent, salaries and other expenses. Still, there are the letters and postal cards and the big question is what to do with them. If the previous month has been good and we have \$1.50 in the bank we usually buy postal cards and acknowledge these reports; or perhaps, we used a printed form. Then we feel that we have satisfied the DXers but shortly afterwards we receive some of the hottest letters that Uncle Sam ever let come through the mail. This of course because there has been some delay in our answers but, we have spent the \$1.50 and have to take it.



Vera Van, popular blond singer, is heard Tuesday and Thursday afternoon over WABC. Between broadcasts, the former West Coast dancer is playing vaudeville engagements.

Then the second batch of mail comes in. These reports are generally in the form of return postal cards, nicely printed and all we have to do is sign them if correct. The fellow who invented that postal card system may not know it but you can believe me he is a friend to every radio station manager in America and it tickles us pink to sign those cards and mail them out. Postage is 90 per cent of the cost of our DX programs and this Fall The Newark News Radio Club will have a much easier time persuading stations to put on DX programs if club rules require return postal cards for verifications.

The third class of reports includes letters some of which are just "thank you's" for the program and they include postage. However, the writers do not give us any more information than a hog knows about Sunday but they expect us to verify. It just isn't in the book and of course we see our names again in the columns.

THE CORRECT METHOD

Then there is the DX fan who takes the time to give you the exact title and

(Continued on Page 29)

WHAT'S ON THE AIR

Approximately half a hundred new commercial programs will be heard on NBC networks this Fall; others now being arranged will be announced in the near future. Included in the schedule are:

Grand Hotel, starring Anne Seymour in a half hour dramatic series is on the WJZ coast-to-coast network each Sunday at 6.30 P. M., EST.

The same network presents a series of dramatic dog stories each Sunday from 5.45 to 6 P. M., EST., featuring Albert Payson Terhune.

A series of stamp and adventure talks featuring Captain Tim Healy is a WEA network presentation every Monday, Wednesday and Friday from 5.45 to 6 P. M., EST.

Plantation Echoes, a new musical series, featuring Willard Robinson and his Deep River orchestra with Mildred Bailey as soloist, is heard each Monday, Wednesday and Friday from 7.15 to 7.30 P. M., EST., over the WJZ chain.

BEN AND THE BOYS

Ben Bernie and "All The Lads" are back on the WEA network every Tuesday from 9 to 9.30 P. M., EST, with repeat performances for Pacific Coast listeners at midnight, EST.

Ed Wynn, the Fire Chief and well-known comedian, can be heard each Tuesday over the WJZ network from 9.30 to 10 P. M., EST.

Dangerous Paradise, a dramatic series starring Elsie Hitz and Nick Dawson has returned to the WJZ network. This feature is on the air Monday, Wednesday and Friday evenings from 7.45 to 8, EST.

"The Story Behind The Claim," a new dramatic series based upon true life insurance stories, is heard each Tuesday from 9.15 to 9.30 P. M., over the WJZ network with repeat performances for West Coast listeners at 1.15 A. M., EST.

Lanny Ross's own musical show, with the popular singer and other soloists, is a new WJZ network feature heard each Wednesday from 8.30 to 9 P. M., EST, with repeat performance for Pacific Coast listeners at 11.30 P. M.

The Mystery Chef, popular cooking expert, is on the WEA network every Wednesday and Friday morning from 10 to 10.15 A. M., EST.

Sigmund Romberg, famous composer, and William Lyon Phelps, noted literary critic, in a new full-hour musical program, are on the WEA coast-to-coast network each Saturday at 8 P. M., EST.

"Songs You Love," a new musical program starring Rose Bampton, Metropolitan Opera contralto, Billy Hillpot and Scrappy Lambert, and a large orchestra under the direction of Nathaniel Shilkret, is on the WEA network each Saturday night at 9, EST.



Helen Claire, who last Spring so successfully took the part of Betty Graham in the Civil War series, "Roses and Drums", is again impersonating the daring Southern spy over an NBC-WJZ network Sunday at 5 P. M., E.S.T. Miss Claire is a native of Union Springs, Ala., and the soft inflections of voice, appropriate to the role of Betty, are natural to her.

THE BAKERS RETURN

The Bakers Broadcast returns to the air with a half hour program each Sunday night at 7.30, EST, over the WJZ network and features Joe Penner and Ozzie Nelson's orchestra.

"Gems of Melody" is back again on the WEA network each Sunday from 4 to 4.30 P. M., EST, and on the WJZ chain every Thursday night from 7.15 to 7.45.

The Kansas City Symphony Orchestra is being heard in a new series of half hour concerts over the WJZ chain every Sunday at 4, EST.

A new series featuring the famous comedian, Jack Benny and Mary Livingstone, soloists and an orchestra is on the WEA network every Sunday evening from 7 to 7.30 with repeat performance for Pacific Coast listeners at midnight.

COLUMBIA PROGRAMS

After a Summer's absence from the air, "The Big Show" has returned and is presented by the WABC chain each Monday night from 9.30 to 10, EST, featuring Block and Sully, Gertrude Niesen, torch-songstress, and Lud Gluskin and his continental music.

(Continued on Page 38)

HIGH FREQUENCY

By Ralph I. Cole

To those of our readers who have already experienced the thrill of building their own broadcast receivers and are looking around for more worlds to conquer, we dedicate this column. And to those more advanced who are already in the thick of the fight we offer an engineer service to assist in solving those perplexing problems that have bothered all of us at one time or another. In so doing we hope to debunk the HIGH FREQUENCY radio field and show the similarities existing in all radio phenomena, creating an interest in what has been to all, save old timers, sacred ground.

Many of us have no doubt heard the expression high frequency and have really wondered just where, if any, a line could be drawn. In the earlier days anything of shorter wavelength than our broadcast band was given that identification and restricted entirely to amateur use. As the need for additional channels became apparent, assignments were made in this region in greater and greater numbers until today the amateur transmitters are limited to a relative narrow band at 150, 80, 40, 20, 10 and 5 meters, not to forget the virgin 75 cms. spectrum.

Of these mentioned, perhaps the last three offer more fascination at the moment due to their peculiar properties, differing considerably from the others to which we are more or less accustomed. To explain the basic differences we must digress for the moment and consider the well-known physical fact, that radio signals coming through space and light rays such as those from the sun have a lot in common. Both travel in a wave motion, the difference being merely one of wavelength. Now as we employ shorter and shorter waves for our signaling, the characteristics of light are approached, that is to say its range is restricted at distance known as "line of sight." By this we mean that the maximum distance it would be possible to transmit would be that which is in a

straight line from the transmitter to the receiver. Thus we find that in waves of five meters and below the range of transmission is definitely restricted. Further, we find that it is possible to build apparatus of such a size that we can incorporate it inside a reflector and hence secure a directional ray similar to light. The English Channel Radio Telephone uses such type of equipment operated on the extremely short wavelength of 20 cms. No doubt other uses are going to be found to take advantage of this property. Also, due to the virgin nature of the region around five meters and below, it has been found practical to operate television transmitters without interference from other types of transmission. As a result, the larger broadcast companies already have experimental stations on the air with far more success than ever before.

As a starting point for those new in the game, the building of an experimental 5-10 meter receiver is recommended. Such a receiver will not only receive television signals but also the new two-way police radio telephone nets now in operation. Boston has installed such a system with other cities no doubt considering such a move.

The preferences shown by our readers in the way of questions will govern this column in its entirety. At present we invite all to send us their particular problems so that their progress may be quicker.

Station CFRC of the Queen's University in Kingston, Ontario, is a part of the electrical engineering department of that institution, and is principally experimental. For that reason a definite schedule is not maintained, and the station does very little broadcasting. It is silent from April to October. However, during the Fall session occasional lectures are given for the Canadian Radio Commission—the next to be presented November 15, 9 to 9:15 P. M., EST. After the New Year, CFRC will transmit regularly every Monday, 5 to 6 P. M., EST., throughout the months of January, February and part of March.

CFRC, transmitting on 1510 kcs. with less than 200 watts, on the above dates, will appreciate detailed reports of reception and verification may be had by enclosing ten cents.

VOICES OF THE NNRC

KVI, Tacoma, Wash., recently added to the long list of official Newark News Radio Club stations, devotes a fifteen minute period to the club's tips and news every Thursday evening from 11.45 to midnight, PST. Just previous to signing off every night, KVI is also announcing NNRC programs. The club is to be further publicized for several weeks through newspapers in and around Tacoma and by spot announcements over the station.

This service, especially for West Coast members and listeners, comes to us through the courtesy of H. J. McAllister, KVI's assistant remote engineer and incidentally, a member of the club. Mac, as he is familiarly known, will attempt to have these features duplicated by KPCB, Seattle, which will insure publicity for the NNRC through another major network station and a regional independent. Vice-President Fred W. Janssen, Ventura, Calif., represented the club in the negotiations.

It is expected that WOR's new 50,000 watt transmitter, now under construction at Carteret, N. J., will be ready for testing about the middle of November. The Newark News Radio Club has been advised by Chief Engineer Jack R. Pop-

pele, that several of the tests will be dedicated to its members. It is planned to hold an aerial meeting of the club similar to the one broadcast by WOR last season. In the meantime, it will be appreciated if those NNRCers who have not as yet sent in the WOR questionnaire will do so at once.

WTRC, Elkhart, Ind., besides announcing NNRC tips regularly, is planning to broadcast special programs for the club this season. One will go on the air at 5 A. M., CST, January 19, Saturday, selected to overcome interference with WEXL. Lester Zellmer, WTRC's assistant engineer, is shortly to become a member of the club.

By arrangement with Clermont M. Zimmerman, Sunbury, Pa., WKOK, that city, is now an NNRC station. With studios and offices at 1150 North Front Street, and its transmitter building but a few yards from the junction of the north and west branches of the Susquehanna River, WKOK is ideally situated for DX broadcasting. The transmitter, of modern design, operates on 1210 kilocycles with 100 watts. Two ninety foot towers, 200 feet apart, support the single wire antenna in a southeast and northwest direction. NNRC tips will be broadcast at midnight, EST, each Monday, Wednesday and Friday.

Up at CFCO, Chatham, Ontario, our good friend John Beardall, has for the past ten months been conducting "The Western Ontario Better Radio Club," a period devoted to radio chatter, the reading of fan letters and the discussion of subjects of interest to radio students. CFCO has resumed broadcasting NNRC tips and will present a number of DX specials this Fall and Winter.

Roland Trenchard, director of WHOM, Jersey City, advises that the Bureau of Foreign and Domestic Commerce of the Department of Commerce, has compiled and published a new list of short wave broadcasting stations of the world. The call book is obtainable from the Bureau's Washington office, or from its district offices for 25 cents.

The list has been compiled from information secured from the Berne Bureau, the British Broadcasting Corporation, the Federal Communications Commission, thirty-two commercial and 400 consular offices of the United States Government abroad, and other organizations which co-operate with the Electrical Equipment Division.



Adele Ronson, young dramatic actress, has resumed her role as Lieutenant Wilma Deering in the "Buck Rogers in the 25th Century" program broadcast Monday through Thursday from 6 to 6:15 P. M., E.S.T., over the WABC-Columbia chain.

MICRO CHATS

Jack Denny, celebrated orchestra director, considers his fan mail a pretty accurate barometer of current trends in music. Just at present, states Denny, who is featured with Harry Richman and John B. Kennedy over the NBC-WJZ network each Wednesday at 10.30 P.M., EST, his mail indicates that an unusually large number of boys and girls are learning to play musical instruments. They seek his advice on various matters—how to tune the instruments, how to obtain the music of a certain tune, how long before they can qualify to play with his band, etc. Denny thinks that radio is responsible for whetting the appetite of American youth for self-generated music. They hear music on the air as it should be played and with that incentive, aspire to do the same.

The Pickens Sisters' first complete short, "Good Luck and Best Wishes" is now being shown throughout the country after a successful premiere in New York City. The short was made by Educational Films. Patti Pickens, youngest of the sisters, plays the ingenue lead. This is the girls' first short, though they have appeared in several feature productions.

Kenneth Carpenter, NBC Hollywood announcer now heard each Sunday at 3.30 P.M., EST, over an NBC-WFAF network, was literally thrust into radio. Born in 1900 in Illinois, his father a minister, he graduated from college and became an advertising manager of a department store. During a visit to Los Angeles, he was persuaded by friends to take a voice test at KFI, and later to desert advertising and become an announcer. Carpenter is married, plays tennis and is a voracious reader. He is of medium height with light hair and complexion.

Don Novis says Frances Langford is the first girl he's met who has her football lingo technically correct. On pigskin lore Novis is an authority. He won grid honors out in California before he knew he had a golden tenor voice.

Lou Holtz's secret ambition was to play the traps. At a rehearsal on NBC recently, Lou bribed Vallee's drummer to let him play them. A few minutes later Rudy's sense of rhythm was violently disturbed and he proceeded to roundly scold the disillusioned comedian.

Tony Wons is now domiciled in Evanston, Ill. The radio colony there includes Clara, Lu 'n Em. Clara, (Louise Starkey) is annoyed by women who look as though they had too many facials. Lu, (Isobel Carothers) is very irritable in the morning until she has her coffee. Em, (Helen King) shudders at the mere thought of mathematics. It's a heritage from her school days when she nearly went daft every time she had to solve a problem in arithmetic.

A thought for today contributed by Joey Nash, tenor heard with Richard Humber's orchestra on NBC. People who live in glass houses shouldn't cast reflections.



Edna Odell, the Hoosier songbird, heard frequently over NBC networks, began her singing career as a soprano. An attack of laryngitis changed her voice to contralto and led her to her early radio successes in Fort Wayne, Ind. There is only one thing she doesn't like about radio—she can't go to baseball and football games because she gets so excited she "roots" her voice away.

Beetle, who haunts Phil Baker is really a sentimentalist, else why did he remark the other day when the Jester returned to the NBC air lanes: "I'm glad to see you back because the radio audience hasn't had its Phil of Baker."

Bits about NBC broadcasters: Lowell Thomas is now an adopted brave of the Mohawks. His Indian name, translated into English is "Hot Coal." Sigmund Romberg, composer and conductor, was in the intelligence service of the United States during the World War. Kenneth Raught, script writer for the Landt Trio and White, is the husband of Mildred Landt, sister of the trio.

Did you know that Queena Mario, Metropolitan prima donna frequently heard on NBC, is married to Wilfred Pelletier, the Met conductor who furnishes the musical background for a large motor car manufacturer's program . . . that Dixie Mason, vocalist with the National Barn Dance Company, is the wife of Fleming Allan, producer of that show . . . that Arlene Sohr, singer with Ted Black's orchestra, is Mrs. Ted Black?

When Lawrence Tibbett chose to sing an improvised Russian song consisting of a mess of syllables run hurriedly together (Tibbett knows no Russian) on an NBC-WJZ network, he didn't know that the Soviet Choir, touring this country, was performing at the same moment in a neighboring NBC studio at Radio City.

The 300th performance of the Sinclair Greater Minstrels was celebrated October 22 at 9 P.M., EST, over the NBC-WJZ network. Gene Arnold, writer and interlocutor, and the only member of the cast who has remained with the show since its first performance in March, 1928, has announced that not one new joke was used during 300th presentation. Each week listeners select the best joke of the performance.

Instead of being heard only in Chicago, Uncle Ezra of National Barn Dance fame and his mythical, small-town radio station, EZRA, will go out over an NBC-WEAF each Wednesday and Friday at 7.30 P.M., EST, and each Sunday at 7.15 P.M., EST. Pat Barrett, who created the role of Uncle Ezra more than two years ago out of a wealth of stage, vaudeville and radio experience, will be supported by a large cast of character actors including Cliff Soubier, Carleton Guy and Nora Cunneen. He will also introduce singers and entertainers on the broadcast of poetry and song, philosophy and comedy.

"How can I kill a pet dog humanely? I made a hit in the Epworth League play at my church. Should I attempt a stage career? Is Rudy Vallee an Italian? Is my poetry as good as Eddie Guest's? How shall I go about selling it? Did Shakespeare write Hey Nonny Nonny?" Questions such as these, sent in by radio listeners, explain those furrows which line the brow of Tony Wons who heads the cast of the House By The Side Of The Road program over an NBC-WEAF network Sunday afternoons besides conducting his Scrapbook program five mornings a week over an NBC-WJZ network. Wons has received thousands of these questions and much harder ones too, during his radio career. He lays no claim to omniscience but many of his listeners apparently ascribe that power to him. Many of the questions Tony points out cannot be answered by any mortal man but he sees to it that every writer receives a reply. He attempts to give the correct answers to questions of fact and offers the best advice he knows in problems to which there are no pat answers.

INTERESTING RADIO CALLS

- CFCO—Coming from Chatham, Ontario
- WAGF—Alabama, Georgia, Florida
- WGPC—World's Greatest Pecan Center
- KWTO—Keep Watching the Ozarks
- WRGA—Rome, Georgia
- KVOD—Voice of Denver.
- WBRB—Borough of Red Bank
- WHBI—Hoyt Brothers, Inc.
- WLNH—Laconia, New Hampshire
- WKY—Covington, Kentucky
- WDNC—Durham, North Carolina
- WTJS—The Jackson Sun
- WCFL—Chicago Federation Labor
- KSAC—State Agricultural College
- KUSD—University South Dakota
- KOAC—Oregon Agricultural College
- KPAC—Port Arthur College
- WWVA—Wheeling, West Virginia
- WCSC—Charleston, South Carolina
- WTNJ—Trenton, New Jersey
- KTFI—Twin Falls, Idaho
- WEDC—Emil Denmark Cadillac
- WMBI—Moody Bible Institute
- WABC—Atlantic Broadcasting Corporation
- WOSU—Ohio State University
- WNYC—New York City
- WPG—World's Playground

BROADCASTING STATIONS

HEARD VERIFIED

540 Kilocycles 555.2 Meters

□ □ CJRM Moose Jaw, Sask.

1000 Jas. Richardson & Sons, Ltd.

550 Kilocycles 545.1 Meters

□ □ CFNB Fredericton, N. B.
 KFUD St. Louis, Mo.
 KFVR Bismarck, N. D.
 KOAC Corvallis, Ore.
 KSD St. Louis, Mo.
 KTSB San Antonio, Tex.
 TISO San Jose, Costa Rica
 WDEV Waterbury, Vt.
 WGR Buffalo, N. Y.
 WKRC Cincinnati, Ohio
 WSWA Staunton, Va.

500 Jas. S. Neill & Sons, Ltd.
 500 Evangelical Lutheran Church.
 1000 Mayer Broadcasting Co.
 1000 Oregon State Agr. College.
 500 Pulitzer Publishing Co.
 1000 Southwest Broadcasting Co.
 250 P. F. Saborio.
 500 Harry C. Whitehill.
 1000 Buffalo Broadcasting Corp.
 1000 WKRC, Inc.
 500 Marion K. Gilliam.

560 Kilocycles 535.4 Meters

□ □ KFDM Beaumont, Texas
 KLZ Denver, Colo.
 KTAB San Francisco, Cal.
 KWTO Springfield, Mo.
 TGW Guatemala City, Gua.
 WFI Philadelphia, Pa.
 WIND Gary, Ind.
 WLIT Philadelphia, Pa.
 WNOX Knoxville, Tenn.
 WQAM Miami, Fla.
 XEAO Mexicali, Baja Cal.

500 Sabine Broadcasting Co.
 1000 Reynolds Radio Co., Inc.
 1000 Associated Broadcasters, Ltd.
 1000 KGBX, Inc.
 10000 Radio Nacional de Guatemala
 500 WFI Broadcasting Co.
 1000 Johnson-Kennedy Broadcasting Corp.
 500 Lit Bros. Broadcasting System, Inc.
 1000 WNOX, Inc.
 1000 Miami Broadcasting Co., Inc.
 250 Luis L. Castro.

570 Kilocycles 526.0 Meters

□ □ KGKO Wichita Falls, Texas
 KMTR Hollywood, Cal.
 KVI Tacoma, Wash.
 WKBN Youngstown, Ohio
 WMCA New York, N. Y.
 WNAX Yankton, S. D.
 WOSU Columbus, Ohio
 WSYR Syracuse, N. Y.
 WSYU Syracuse, N. Y.
 WUNC Asheville, N. C.
 2YA Wellington, N. Z.

250 Wichita Falls Broadcasting Co.
 1000 KMTR Radio Corp.
 1000 Puget Sound Broadcasting Co.
 500 WKBN Broadcasting Corp.
 500 Federal Broadcasting Corp.
 1000 The House of Gurney, Inc.
 750 Ohio State University
 250 Central New York Broadcasting Corp.
 250 Syracuse University
 1000 Citizen Broadcasting Co., Inc.
 20000 New Zealand Broadcasting Board.

580 Kilocycles 516.9 Meters

□ □ CHRC Quebec, Que.
 CKCL Toronto, Ont.
 CKUA Edmonton, Alta.
 KMJ Fresno, Cal.
 KSAC Manhattan, Kans.
 WCHS Charleston, W. Va.
 WDBO Orlando, Fla.
 WIBW Topeka, Kans.
 WTAG Worcester, Mass.

100 CHRC, Ltd.
 100 Dominion Battery Co., Ltd.
 500 University of Alberta.
 500 James McClatchy Co.
 500 State College of Agriculture.
 500 Charleston Broadcasting Corp.
 250 Orlando Broadcasting Co., Inc.
 1000 Topeka Broadcasting Assn., Inc.
 500 Worcester Telegram Pub. Co.

590 Kilocycles 508.2 Meters

□ □ KHQ Spokane, Wash.
 LS10 Buenos Aires, Arg.
 WEEI Boston, Mass.
 WKZO Kalamazoo, Mich.
 WOW Omaha, Neb.
 XEPN Piedras Negras, Coah.

1000 Louis Wasmer, Inc.
 3500 Casa America.
 1000 Edison Electric Illuminating Co.
 1000 John E. Fetzer.
 1000 Woodmen of the World.
 50000 Piedras Negras Broadcasting Co.

600 Kilocycles 499.7 Meters

□ □ CFCF Montreal, Que.
 CFCO Chatham, Ont.
 CJOR Vancouver, B. C.
 KFSD San Diego, Cal.
 WCAC Storrs, Conn.
 WCAO Baltimore, Md.
 WICC Bridgeport, Conn.
 WMT Waterloo, Iowa
 WREC Memphis, Tenn.

500 Canadian Marconi Co.
 100 John Beardall.
 500 G. C. Chandler.
 1000 Airfan Radio Corp., Ltd.
 500 Connecticut State College.
 500 Monumental Radio Co.
 500 Southern Connecticut Broadcasting Corp.
 1000 Waterloo Broadcasting Co.
 1000 WREC, Inc.

610 Kilocycles 491.5 Meters

□ □ CMCF Havana, Cuba
 EQN St. Pierre, Miquelon Is.
 CX4 Montevideo, Uruguay
 KFRC San Francisco, Cal.
 KZRM Manila, P. I.
 WDAF Kansas City, Mo.
 WIP Philadelphia, Pa.
 WJAY Cleveland, Ohio
 XFX Mexico City, D. F.
 3AB Melbourne, Australia

250 Raoul Karman.
 250 St. Pierre Radio Club.
 1000 Don Lee, Inc.
 50000 Kansas City Star Co.
 500 Pennsylvania Broadcasting Co.
 500 Cleveland Radio Broadcasting Corp.
 500 Secretaria de Educacion Publica.
 4500 National Broadcasting Service.

HEARD VERIFIED

620 Kilocycles 483.6 Meters

□	□	KGW	Portland, Ore.
□	□	KTAR	Phoenix, Ariz.
□	□	WFLA	Clearwater, Fla.
□	□	WHJB	Greensburg, Pa.
□	□	WLBZ	Bangor, Me.
□	□	WSUN	St. Petersburg, Fla.
□	□	WTMJ	Milwaukee, Wis.

1000	Oregonian Publishing Co.
1000	KTAR Broadcasting Co.
1000	Florida West Coast Broadcasting Co.
250	Pennsylvania Radio Supply House
500	Maine Broadcasting Co., Inc.
1000	Florida West Coast Broadcasting Co.
1000	The Journal Co.

630 Kilocycles 475.9 Meters

□	□	CFCY	Charlottetown, P. E. I.
□	□	CJGX	Vorkton, Sask.
□	□	CKOV	Kelowna, B. C.
□	□	CMRY	Havana, Cuba
□	□	KFRU	Columbia, Mo.
□	□	KGFX	Pierre, S. D.
□	□	LS3	Buenos Aires, Arg.
□	□	WGBF	Evansville, Ind.
□	□	WMAL	Washington, D. C.
□	□	WOS	Jefferson City, Mo.
□	□	WPRO	Providence, R. I.
□	□	5CK	Crystal Brook, Aus.

500	Island Radio Broadcasting Co.
500	Dawson, Richardson Publications, Ltd.
100	Okanagan Broadcasters, Ltd.
250	Callajas-Estafani
500	KFRU, Inc.
200	Dana McNeil.
4500	"Mayo".
500	Evansville On The Air, Inc.
250	National Broadcasting Co., Inc.
500	State Highway Control.
250	Cherry & Webb Broadcasting Co.
7500	National Broadcasting Service.

640 Kilocycles 468.2 Meters

□	□	KFI	Los Angeles, Cal.
□	□	WAIU	Columbus, Ohio
□	□	WOI	Ames, Iowa
□	□	XEOX	Saltillo, Coah.

50000	Earle C. Anthony, Inc.
500	Associated Broadcasting Corp.
5000	Iowa State College.
250	

650 Kilocycles 461.3 Meters

□	□	CX5	Montevideo, Uruguay
□	□	WSM	Nashville, Tenn.
□	□	1YA	Auckland, N. Z.

5000	Ministerio Instruccion Publica.
50000	National Life & Accident Insurance Co.
500	N. Z. Broadcasting Board.

660 Kilocycles 454.3 Meters

□	□	WAAW	Omaha, Neb.
□	□	WEAF	New York, N. Y.
□	□	XEAL	Mexico City, D. F.

500	Omaha Grain Exchange.
50000	National Broadcasting Co., Inc.
1000	Pan American Radio Co.

670 Kilocycles 447.5 Meters

□	□	LS4	Buenos Aires, Arg.
□	□	WMAQ	Chicago, Ill.

6000	Juan G. Gonzales Speroni.
50000	National Broadcasting Co., Inc.

680 Kilocycles 440.9 Meters

□	□	CMAF	Havana, Cuba
□	□	CMCQ	Havana, Cuba
□	□	HJN	Bogota, Colombia
□	□	KFEQ	St. Joseph, Mo.
□	□	KPO	San Francisco, Cal.
□	□	RDN	San Salvador, E. S.
□	□	VOWR	St. Johns' Nfld.
□	□	WPTF	Raleigh, N. C.
□	□	VAS	Glace Bay, N. S.

1000	International Broadcasting Co.
1000	Andres Martinez.
500	Ministry of Posts.
2500	Scroggin & Co. Bank.
50000	National Broadcasting Co., Inc.
500	Republic of El Salvador.
500	Wesley United Church.
1000	Durham Life Insurance Co.
2000	Canadian Marconi Co., Ltd.

690 Kilocycles 434.5 Meters

□	□	CFRB	Toronto, Ont.
□	□	CJCJ	Calgary, Alta.
□	□	NAA	Arlington, Va.
□	□	XET	Monterrey, N. L.

10000	Rogers Majestic Co., Ltd.
100	Albertan Publishing Co., Ltd.
1000	United States Navy.
500	Cadena Radiodifusora Mexicana, S. A.

700 Kilocycles 428.3 Meters

□	□	WLW	Cincinnati, Ohio
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500000	Crosley Radio Corp.
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710 Kilocycles 422.3 Meters

□	□	KMPK	Beverly Hills, Cal.
□	□	LSH	Buenos Aires, Arg.
□	□	KPCB	Seattle, Wash.
□	□	WOR	Newark, N. J.
□	□	XEN	Mexico City, D. F.

500	Beverly Hills Broadcasting Corp.
5000	Municipalidad de Buenos Aires.
250	Queen City Broadcasting Co.
5000	Bamberger Broadcasting Service, Inc.
1000	Cerveceria Modelo, S. A.

720 Kilocycles 416.4 Meters

□	□	KZEG	Manila, P. I.
□	□	WGN	Chicago, Ill.
□	□	3YA	Christchurch, N. Z.

1000	Erlanger & Galinger, Inc.
50000	WGN, Inc.
2500	N. Z. Broadcasting Board.

730 Kilocycles 410.7 Meters

□	□	CFPL	London, Ont.
□	□	CJCA	Edmonton, Alta.
□	□	CKAC	Montreal, Que.
□	□	CMK	Havana, Cuba
□	□	5CL	Adelaide, Australia

100	Free Press & Printing Co.
500	Edmonton Journal, Ltd.
5000	La Presse Publishing Co., Ltd.
3150	National Broadcasting Co. of Cuba
5000	National Broadcasting Service.

HEARD VERIFIED

740 Kilocycles 405.2 Meters

□	KMMJ	Clay Center, Neb.
□	KTRB	Modesto, Cal.
□	WHEB	Portsmouth, N. H.
□	WSB	Atlanta, Ga.

1000	M. M. Johnson Co.
250	T. R. McTammany & W. H. Bates, Jr.
250	Granite State Broadcasting Corp.
50000	Atlanta Journal.

750 Kilocycles 399.8 Meters

□	CMCW	Havana, Cuba
□	KGU	Honolulu, Hawaii
□	WJR	Detroit, Mich.
□	XEAM	Nuevo Laredo, Tams.

150	Vilarino y Cervantes
2500	Advertiser Publishing Co.
10000	WJR, Inc.
50	Edificio Banco Longoria

760 Kilocycles 394.5 Meters

□	KXA	Seattle, Wash.
□	WBAL	Baltimore, Md.
□	WEW	St. Louis, Mo.
□	WJZ	New York, N. Y.
□	4QG	Brisbane, Australia
□	XEBC	Agua Caliente, B. C.

250	American Radio Telephone Co.
10000	WBAL Broadcasting Co.
1000	St. Louis University
50000	National Broadcasting Co., Inc.
5000	National Broadcasting Service.
5000	Agua Caliente Broadcasting Station.

770 Kilocycles 389.4 Meters

□	KFAB	Lincoln, Neb.
□	WBBM	Chicago, Ill.

5000	KFAB Broadcasting Co.
25000	WBBM Broadcasting Corp.

780 Kilocycles 384.4 Meters

□	CHWK	Chilliwack, B. C.
□	CMBS	Havana, Cuba
□	KELW	Burbank, Cal.
□	KFDY	Brookings, S. D.
□	KFQD	Anchorage, Alaska
□	KGHL	Billings, Mont.
□	KTM	Los Angeles, Cal.
□	WEAN	Providence, R. I.
□	WMC	Memphis, Tenn.
□	WTAR	Norfolk, Va.
□	KEYZ	Mexico, D. F.

100	Chilliwack Broadcasting Co., Ltd.
150	Enrique Artalajo
500	Evening Herald Publishing Co.
1000	South Dakota State College.
250	Anchorage Radio Club, Inc.
1000	N. W. Auto Supply Co.
500	Evening Herald Publishing Co.
500	Shepard Broadcasting Service, Inc.
1000	WMC, Inc.
500	WTAR Radio Corp.
10000	Angel M. Diez.

790 Kilocycles 379.5 Meters

□	CMJK	Camaguey, Cuba
□	KGO	San Francisco, Cal.
□	LR10	Buenos Aires, Arg.
□	WGY	Schenectady, N. Y.

150	Comp. Cubana Nacl. de Radio.
7500	National Broadcasting Co., Inc.
8000	"Cultura."
50000	National Broadcasting Co., Inc.

800 Kilocycles 374.8 Meters

□	TIGP	San Jose, Costa Rica
□	WBAP	Fort Worth, Texas
□	WFAA	Dallas, Texas
□	WTBO	Cumberland, Md.
□	3LO	Melbourne, Australia

75	Gonzalo Pinto.
50000	Carter Publications, Inc.
50000	Morning News and Journal.
250	Associated Broadcast Corp.
4500	National Broadcasting Service.

810 Kilocycles 370.2 Meters

□	WCCO	Minneapolis, Minn.
□	WNYC	New York, N. Y.
□	XFC	Aguacalientes, Ags.

50000	N. W. Broadcasting, Inc.
1000	City of New York.
350	

820 Kilocycles 365.6 Meters

□	WHAS	Louisville, Ky.
□	XEP	Mexico, D. F.
□	XETW	Mexico, D. F.

50000	Courier Journal.
500	Cia Difusora de Mexico, S. A.
500	Rafael M. Pena.

830 Kilocycles 361.2 Meters

□	CMC	Havana, Cuba.
□	KOA	Denver, Colo.
□	LR5	Buenos Aires, Arg.
□	WEEU	Reading, Pa.
□	WHDH	Boston, Mass.
□	WRUF	Gainesville, Fla.

500	Radio Corp. of Cuba.
50000	General Electric Co.
27000	A. B. Dougall.
1000	Berks Broadcasting Co.
1000	Matheson Radio Co.
5000	State University.

840 Kilocycles 356.9 Meters

□	CMQ	Havana, Cuba
□	CFQC	Saskatoon, Sask.
□	CRCT	St. Johns', Nfld.
□	VOGY	Toronto, Ont.

5000	Jose Fernandez.
1000	Electric Shop, Ltd.
5000	Canadian Radio Broadcasting Com.
400	Newfoundland Broadcasting Co.

850 Kilocycles 352.7 Meters

□	KIEV	Glendale, Cal.
□	WWL	New Orleans, La.
□	WWPA	Clarion, Pa.
□	XEXX	Mexico, D. F.
□	2BL	Sydney, Australia

250	Cannon System, Ltd.
10000	Loyola University.
250	Clarion Broadcasting Co.
500	
5000	National Broadcasting Service.

860 Kilocycles 348.6 Meters

□	CMCX	Havana, Cuba
□	WABC	New York, N. Y.
□	WBOQ	New York, N. Y.
□	WHB	Kansas City, Mo.
□	XEMO	Tijuana, B. C.

150	New Station.
50000	Atlantic Broadcasting Corp.
50000	Atlantic Broadcasting Co.
500	WHB Broadcasting Co.
2500	Radio Station XEMO.

HEARD VERIFIED

870 Kilocycles 344.6 Meters

WENR Chicago, Ill.
WLS Chicago, Ill.

50000 Great Lakes Broadcasting Co.
50000 Agricultural Broadcasting Co.

880 Kilocycles 340.7 Meters

CFJC Kamloops, B. C.
CRCO Ott. wa, Ont.
KFKA Greeley, Colo.
KLX Oakland, Cal.
KPOF Denver, Colo.
KSEI Pocatello, Idaho
WCOC Meridian, Miss.
WGBI Scranton, Pa.
WPHR Petersburg, Va.
WQAN Scranton, Pa.
WSUI Iowa City, Iowa
YV2RC Caracas, Venezuela

100 Review Publishing Co., Ltd.
1000 Canadian Radio Com.
500 Mid-Western Radio Corp.
1000 Tribune Publishing Co.
500 Pillar of Fire.
250 Radio Service Corp.
500 Mississippi Broadcasting Co., Inc.
500 Scranton Broadcasters, Inc.
500 WLBG, Inc.
250 Scranton Times.
500 State University of Iowa.
100

890 Kilocycles 336.9 Meters

CJTC S. Ste. Marie, Ont.
KARK Little Rock, Ark.
KFNF Shenandoah, Iowa
KUSD Vermillion, S. D.
WBAA West Lafayette, Ind.
WGST Atlanta, Ga.
WILL Urbana, Ill.
WJAR Providence, R. I.
WMMN Fairmont, W. Va.
XEW Mexico City, D. F.

100 J. G. Hyland & J. C. Whitby.
250 Arkansas Radio & Equipment Co.
500 Henry Field Co.
500 University of South Dakota.
1000 Purdue University.
500 Georgia School of Technology.
250 University of Illinois.
500 Outlet Co.
250 A. M. Rowe, Inc.
50000 Cadena Radiodifusora Mexicana.

900 Kilocycles 333.1 Meters

CMX Havana, Cuba
KGA Spokane, Wash.
KGBU Ketchikan, Alaska
KHJ Los Angeles, Cal.
WBEN Buffalo, N. Y.
WJAX Jacksonville, Fla.
WKY Oklahoma City, Okla.
WLBL Stevens Point, Wisc.
Hamburg, Germany

1000 Casa "Lavin."
5000 N. W. Broadcasting Co., Inc.
500 Alaska Radio & Service Corp.
1000 Don Lee Broadcasting System.
1000 Buffalo Evening News.
1000 City of Jacksonville.
1000 Oklahoma Publishing Co.
2500 Wisconsin Dept. of Agriculture & Markets.
100000 Nordischer Rundfunk.

910 Kilocycles 329.6 Meters

CJAT Trail, B. C.
CMHW Cienfuegos, Cuba
CRCM Montreal, Que.
LR2 Buenos Aires, Arg.
4RK Rockhampton, Aus.
TICR San Jose, Costa Rica

250 Kootenay Broadcasting Co., Ltd.
100 Canadian Radio Com.
5000 Alfredo Schroeder.
5000 National Broadcasting Service.
75 Government of Costa Rica.

920 Kilocycles 325.9 Meters

HHK Port-au-Prince, Haiti
KOMO Seattle, Wash.
KPRC Houston, Texas
KVOD Denver, Colo.
WAAF Chicago, Ill.
WRSO Boston, Mass.
WPEN Philadelphia, Pa.
WRAX Philadelphia, Pa.
WSPA Spartanburg
WWJ Detroit, Mich.
XEAA Mexicali, B. C.
XEKL Leon, Guan.

1000 Haitian Government.
1000 Fishers Blend Station.
1000 Houston Printing Co.
500 Colorado Radio Corp.
500 Drovers Journal.
500 Broadcasting Service Organization.
100 Wm. Penn Broadcasting Co.
250 WRAX Broadcasting Co.
1000 Virgil V. Evans.
1000 Evening News Association.
200
500

930 Kilocycles 322.4 Meters

CFAC Calgary, Alta.
CFCH North Bay, Ont.
CFCL Prescott, Ont.
CHNS Halifax, N. S.
CKPC Brantford, Ont.
CKPR Fort William, Ont.
CMJE Camaguey, Cuba
CMW Havana, Cuba
KGBZ York, Neb.
KMA Shenandoah, Iowa
KROW Oakland, Cal.
WBRC Birmingham, Ala.
WDBJ Roanoke, Va.

100 Calgary Herald.
100 Northern Broadcasting Co., Ltd.
100 Radio Association of Prescott.
500 Maritime Broadcasting Co., Ltd.
100 Telephone City Broadcast, Ltd.
50 Dougall Motor Co., Ltd.
200 John L. Stowers.
1400 Troncosa y Gil.
1000 KGBZ Broadcasting Corp.
1000 Earl E. May Seed Co.
500 Educational Broadcasting Corp.
1000 Birmingham Broadcasting Co., Inc.
1000 Times World Corp.

940 Kilocycles 319.0 Meters

CMKM Manzanillo, Cuba
KOIN Portland, Ore.
VOAS St. John's, Nfld.
WAAT Jersey City, N. J.
WAVE Louisville, Ky.
WCSH Portland, Me.
WDAY Fargo, N. D.

100 Jesus Armeste, Merchant y Figuerado.
1000 KOIN, Inc.
100 Ayre & Sons, Ltd.
500 Bremer Broadcasting Corp.
1000 WAVE, Inc.
1000 Congress Square Hotel Co.
1000 WDAY, Inc.

HEARD VERIFIED

WHA Madison, Wisc.
 XEFO Mexico City, D. F.
 950 Kilocycles 315.6 Meters

CMCD Havana, Cuba
 CMHD Calbarien, Cuba
 CRCS Chicoutimi, Que.
 KEWB Hollywood, Cal.
 KMBC Kansas City, Mo.
 LR3 Buenos Aires, Arg.
 VONF St. Johns, Nfld.
 WRC Washington, D. C.
 Breslau, Germany

960 Kilocycles 312.3 Meters
 CKY Winnipeg, Man.
 CMJL Camaguey, Cuba
 YVIRC Caracas, Venez.
 XEAW Reynosa, Tamps.
 Paris, France

970 Kilocycles 309.1 Meters
 CMGF Matanzas, Cuba
 KJR Seattle, Wash.
 WCFL Chicago, Ill.
 WIBG Glenside, Pa.
 XES Tampico, Tams.

980 Kilocycles 305.9 Meters
 KDKA Pittsburgh, Pa.
 XEAE Mexicali, B. C.
 XEU Veracruz, Vera.

990 Kilocycles 302.8 Meters
 LR4 Buenos Aires, Arg.
 WBZ Boston, Mass.
 WBZA Springfield, Mass.
 XEAF Nogales, Son.
 XEK Mexico City, D. F.

1000 Kilocycles 299.8 Meters
 KFVD Los Angeles, Cal.
 WHO Des Moines, Iowa
 CMBZ Havana, Cuba

1010 Kilocycles 296.9 Meters
 CHML Hamilton, Ont.
 CHWC Regina, Sask.
 CKCD Vancouver, B. C.
 CKCK Regina, Sask.
 CKCO Ottawa, Ont.
 CKIC Wolfville, N. S.
 CKWX Vancouver, B. C.
 CMJO Ciego de Avila, Cuba
 KGGF Coffeyville, Kans.
 KQW San Jose, Cal.
 WHN New York, N. Y.
 WIS Columbia, S. C.
 WNAD Norman, Okla.

1020 Kilocycles 293.9 Meters
 KYW Chicago, Ill.
 XEJ Juarez, Chlh.

1030 Kilocycles 291.1 Meters
 CFCN Calgary, Alta.
 CKLW Windsor, Ont.
 CMBC Havana, Cuba
 CMHI Santa Clara, Cuba
 CMKC Santiago, Cuba
 LR9 Buenos Aires, Arg.
 XEB Mexico City, D. F.
 Heilsburg, Germany

1040 Kilocycles 288.3 Meters
 CMGH Matanzas, Cuba
 KRLD Dallas, Tex.
 KWJJ Portland, Ore.
 WKAR East Lansing, Mich.
 WTIC Hartford, Conn.
 Rennes, France

1050 Kilocycles 285.5 Meters
 CX26 Montevideo, Uruguay
 CMJG Camaguey, Cuba
 CRCK Quebec, P. of Q.
 KFBK Abilene, Kans.
 KNX Hollywood, Cal.

1000 University of Wisconsin.
 5000 Partido Nael. Revolucionario.

250
 250 Manuel Alvarez.
 100 Canadian Radio Commission.
 1000 Warner Bros.
 1000 Midland Broadcasting Co.
 12000 "Nacional."
 5000 Dominion Broadcasting Co., Ltd.
 500 National Broadcasting Co., Inc.
 60000 Schlessische Funkstude, A. G.

15000 Manitoba Telephone System.
 50 Enrique Artime.
 5000 Cia Ama Almacen Americana.
 10000 International Broadcasting Co., S. A.
 100000 Poste Parisien.

100 Bernabe R. de la Torre.
 5000 Fishers Blend Station, Inc.
 1500 Chicago Federation of Labor.
 100 WIBG, Inc.
 250 Fernando Sada.

50000 Westinghouse Electric & Mfg. Co.
 200
 250 Fernando Pazos Sosa.

20000 "Radio Splendid."
 50000 Westinghouse Electric & Mfg. Co.
 1000 Westinghouse Electric & Mfg. Co.
 750 Francisco G. Elias
 100 Arturo Martinez.

250 E. L. Cord.
 1000 Canadian Radio Com.
 100 Manuel y G. Salas

50 Maple Leaf Radio Co., Ltd.
 500 R. H. Williams & Sons, Ltd.
 100 Vancouver Dally Province.
 500 Leader-Post, Ltd.
 100 Dr. G. M. Geldert.
 50 Acadia University.
 100 Western Broadcasting Co., Ltd.
 50 Jose M. Rey.
 1000 H. J. Powell & Stanley Platz.
 1000 Pacific Agricultural Foundation.
 1000 Marcus Loew Booking Agency.
 1000 Station WIS, Inc.
 1000 University of Oklahoma.

10000 Westinghouse Electric & Mfg. Co.
 250 Juan G. Buttner.

10000 W. W. Grant & H. G. Love.
 5000 Western Ont. Broadcasting Co., Ltd.
 150 Domingo Fernandez.
 150 Lavis y Paz.
 150 Pinol Batlle y Cia.
 5000 Gregorio Echaverria.
 10000 El Buen Tono, S. A.
 60000 Deutsche Stunde in Bayern.

15 Octavui y Julio Alvarez.
 10000 KRLD Radio Corp.
 500 KWJJ Broadcast Co.
 1000 Michigan State College.
 50000 Travelers Broadcasting Service.
 120000 PTT.

2000 Figuera, Canepa y Cia.
 50 Jose Antonio Lefran.
 1000 Canadian Radio Commission.
 5000 Farmers & Bankers Life Insurance Co.
 50000 Western Broadcast Co., Inc.

HEARD VERIFIED

1060 Kilocycles 282.8 Meters

□	□	CMCB	Havana, Cuba
□	□	KTHS	Hot Springs, Ark.
□	□	WBAL	Baltimore, Md.
□	□	WJAG	Norfolk, Neb.
□	□	XEA	Guadalajara, Jal.

150	Metropolitan Building.
10000	Chamber of Commerce.
10000	WBAL Broadcasting Co.
1000	Norfolk Daily News.
125	Alberto Palos Souza.

1070 Kilocycles 280.2 Meters

□	□	KJBS	San Francisco, Cal.
□	□	WCAZ	Carthage, Ill.
□	□	WDZ	Tuscola, Ill.
□	□	WTAM	Cleveland, Ohio

100	Julius Brunton & Sons Co.
100	Superior Broadcasting Service.
100	James L. Bush.
50000	National Broadcasting Co.

1080 Kilocycles 277.6 Meters

□	□	WBT	Charlotte, N. C.
□	□	WCBF	Waukegan, Ill.
□	□	WMBI	Chicago, Ill.
□	□	XEMA	Tampico, Tams.

50000	Station WBT, Inc.
5000	Wilbur Glenn Voliva.
5000	Moody Bible Institute.
50	Manuel M. Pier

1090 Kilocycles 275.1 Meters

□	□	CMGI	Colon, Cuba
□	□	CX28	Montevideo, Uruguay
□	□	KMOX	St. Louis, Mo.
□	□	WESG	Elmira, N. Y.

30	Armando Linanza.
2000	Miquel Biere.
50000	The Voice of St. Louis, Inc.
1000	Elmira Star Gazette, Inc.

1100 Kilocycles 272.6 Meters

□	□	CMCY	Havana, Cuba
□	□	CMHA	Santiago Grande, Cuba
□	□	CRCV	Vancouver, B. C.
□	□	KGDM	Stockton, Cal.
□	□	KWGH	Shreveport, La.
□	□	TIRCA	San Jose, Costa Rica
□	□	WLWL	New York, N. Y.
□	□	WPG	Atlantic City, N. J.
□	□	XEEG	Mexico City, D. F.

500	M. D. Autran.
50	Abelardo Menocal.
1000	Canadian Radio Com.
250	E. F. Pepper.
10000	International Broadcasting Corp.
500	Perry Girtton.
5000	Society of St. Paul.
5000	Columbia Broadcasting System.
250	Ricardo Gonzales Montero.

1110 Kilocycles 270.1 Meters

□	□	KSOU	Sioux Falls, S. D.
□	□	LS5	Buenos Aires, Arg.
□	□	WRVA	Richmond, Va.
□	□	XENT	Nuevo Laredo, Tamps.

1000	Sioux Falls Broadcasting Association.
5000	Rafael Diaz.
5000	Larus & Bro. Co., Inc.
70000	Cia Industrial Universal, S. A.

1120 Kilocycles 267.7 Meters

□	□	CHLP	Montreal, Que.
□	□	CHSJ	St. John, N. B.
□	□	CKOC	Hamilton, Ont.
□	□	CMCG	Havana, Cuba
□	□	CMHJ	Cienfuegos, Cuba
□	□	KFIO	Spokane, Wash.
□	□	KFSG	Los Angeles, Cal.
□	□	KRKD	Los Angeles, Cal.
□	□	KRSC	Seattle, Wash.
□	□	WDEL	Wilmington, Del.
□	□	WISN	Milwaukee, Wisc.
□	□	WTAU	College Station, Texas

100	La Patrie Publishing Co., Ltd.
100	N. B. Broadcasting Corp., Ltd.
500	Wentworth Radio Broadcasting Co.
150	E. Pareda.
60	Victorino Lopez Hontanon.
100	Spokane Broadcasting Co.
500	Echo Park Evang. Assn.
500	Radio Broadcasters, Inc.
100	Radio Sales Corp.
250	WDEL, Inc.
250	American Radio News Corp.
500	Agric. & Mech. College.

1130 Kilocycles 265.3 Meters

□	□	KSL	Salt Lake City, Utah
□	□	WJJD	Chicago, Ill.
□	□	WVO	New York, N. Y.
□	□	SBH	Horby, Sweden

50000	Radio Service Corp. of Utah.
20000	WJJD, Inc.
1000	International Broadcasting Corp.
10000	Royal Board of Telegraphs.

1140 Kilocycles 263.0 Meters

□	□	KVOO	Tulsa, Okla.
□	□	WAPI	Birmingham, Ala.
□	□	IITO	Turin, Italy

25000	Southwestern Sales Corp.
5000	WAPI Broadcasting Corp.
7000	E. I. A. R.

1150 Kilocycles 260.7 Meters

□	□	CMBG	Havana, Cuba
□	□	CMJH	Ciego de Avila, Cuba
□	□	LR8	Buenos Aires, Arg.
□	□	WHAM	Rochester, N. Y.
□	□	XEH	Monterrey, N. L.
□	□	XEWZ	Mexico, D. F.

225	John L. Stowers.
50	Luis Marauri Mendosa.
5000	C. R. Sherrer y Cia.
50000	Stromberg-Carlson Tel. Mfg. Co.
250	Tarnava y Cia.
100	Medellin e Insurgentes.

1160 Kilocycles 258.5 Meters

□	□	WOWO	Fort Wayne, Ind.
□	□	WWVA	Wheeling, W. Va.
□	□	XED	Guadalajara, Jal.

10000	Main Auto Supply Co.
5000	W. Va. Broadcasting Corp.
500	Radiofonographica de Guadalajara, S. A.

1170 Kilocycles 256.3 Meters

□	□	CMJE	Camaguey, Cuba
□	□	COA	Havana, Cuba
□	□	WCAU	Philadelphia, Pa.

50	Manuel Fernandez.
500	New Station.
50000	WCAU Broadcasting Co.

HEARD VERIFIED

1180 Kilocycles 254.1 Meters

<input type="checkbox"/>	<input type="checkbox"/>	KEX	Portland, Ore.	5000	Western Broadcasting Co.
<input type="checkbox"/>	<input type="checkbox"/>	KOB	Albuquerque, N. M.	10000	Albuquerque Journal.
<input type="checkbox"/>	<input type="checkbox"/>	WDGY	Minneapolis, Minn.	1000	Dr. Geo. W. Young.
<input type="checkbox"/>	<input type="checkbox"/>	WINS	New York, N. Y.	1000	Am. Radio News Corp.
<input type="checkbox"/>	<input type="checkbox"/>	WMAZ	Macon, Ga.	1000	Southeastern Broadcasting Co.
<input type="checkbox"/>	<input type="checkbox"/>	XEFA	Mexico, D. F.	500	Eduardo Limon Segui.

1190 Kilocycles 252.0 Meters

<input type="checkbox"/>	<input type="checkbox"/>	LS2	Buenos Aires, Arg.	50000	Radio Prieto.
<input type="checkbox"/>	<input type="checkbox"/>	WATR	Waterbury, Conn.	100	The WATR Co., Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WOAI	San Antonio, Texas	50000	Southern Industries, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WSAZ	Huntington, W. Va.	1000	WSAZ, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	VE9EK	Montmagny, Que.	10	J. A. Marquis.
			Frankfurt-am-Main, Ger.	17000	

1200 Kilocycles 249.9 Meters

<input type="checkbox"/>	<input type="checkbox"/>	CHAB	Moose Jaw, Sask.	100	Moose Jaw Radio Assn.
<input type="checkbox"/>	<input type="checkbox"/>	CKTB	St. Catharines, Ont.	100	E. T. Sandell.
<input type="checkbox"/>	<input type="checkbox"/>	CMCJ	Havana, Cuba	500	Rafael Rodriguez
<input type="checkbox"/>	<input type="checkbox"/>	KADA	Ada, Okla.	100	C. C. Morris.
<input type="checkbox"/>	<input type="checkbox"/>	KBTM	Jonesboro, Ark.	100	J. P. Beard.
<input type="checkbox"/>	<input type="checkbox"/>	KFJB	Marshalltown, Iowa	100	Marshall Electric Co.
<input type="checkbox"/>	<input type="checkbox"/>	KFXD	Nampa, Idaho	100	Frank E. Hurt.
<input type="checkbox"/>	<input type="checkbox"/>	KFXJ	Grand Junction, Colo.	100	Western Slope Broadcasting Co.
<input type="checkbox"/>	<input type="checkbox"/>	KGDE	Fergus Falls, Minn.	100	C. L. Jaren.
<input type="checkbox"/>	<input type="checkbox"/>	KGEK	Sterling, Colo.	100	Elmer G. Beehler.
<input type="checkbox"/>	<input type="checkbox"/>	KGFJ	Los Angeles, Cal.	100	Ben S. McGlashan.
<input type="checkbox"/>	<input type="checkbox"/>	KGHI	Little Rock, Ark.	100	Lloyd Judd Co.
<input type="checkbox"/>	<input type="checkbox"/>	KGVO	Missoula, Mont.	100	Mosby's Inc.
<input type="checkbox"/>	<input type="checkbox"/>	KMLB	Monroe, La.	100	Liner's Broadcasting Station, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	KOOS	Marshallfield, Ore.	100	H. H. Hanseth
<input type="checkbox"/>	<input type="checkbox"/>	KSUN	Lowell, Ariz.	100	Copper Electric Co., Inc
<input type="checkbox"/>	<input type="checkbox"/>	KVOS	Bellingham, Wash.	100	KVOS, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	KWGS	Stockton, Cal.	100	McClatchy Newspapers, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WABI	Bangor, Me.	100	1st Universalist Society.
<input type="checkbox"/>	<input type="checkbox"/>	WBBZ	Ponca City, Okla.	100	C. L. Carrell.
<input type="checkbox"/>	<input type="checkbox"/>	WBHS	Huntsville, Ala.	100	Radio Station WBHS, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WBNO	New Orleans, La.	100	Samuel D. Reeks.
<input type="checkbox"/>	<input type="checkbox"/>	WCAT	Rapid City, S. D.	100	State School of Mines.
<input type="checkbox"/>	<input type="checkbox"/>	WCAX	Burlington, Vt.	100	Burlington Daily News, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WCLO	Janesville, Wise.	100	Gazette Printing Co., Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WFAM	South Bend, Ind.	100	South Bend Tribune.
<input type="checkbox"/>	<input type="checkbox"/>	WFBE	Cincinnati, Ohio	100	WFBE, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WHBC	Canton, Ohio	100	Edw. P. Graham.
<input type="checkbox"/>	<input type="checkbox"/>	WHBY	Green Bay, Wisc.	100	WHBY, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WIBX	Utica, N. Y.	100	WIBX, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WIL	St. Louis, Mo.	100	Missouri Broadcasting Corp.
<input type="checkbox"/>	<input type="checkbox"/>	WJBC	Bloomington, Ill.	100	
<input type="checkbox"/>	<input type="checkbox"/>	WJEL	Decatur, Ill.	100	Commodore Broadcasting, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WJBW	New Orleans, La.	100	C. C. Carlson.
<input type="checkbox"/>	<input type="checkbox"/>	WKBO	Harrisburg, Pa.	100	Keystone Broadcasting Corp.
<input type="checkbox"/>	<input type="checkbox"/>	WKJC	Lancaster, Pa.	100	Lancaster Broadcasting Service.
<input type="checkbox"/>	<input type="checkbox"/>	WLVA	Lynchburg, Va.	100	Lynchburg Broadcasting Corp.
<input type="checkbox"/>	<input type="checkbox"/>	WMPC	Lapeer, Mich.	100	1st Methodist Protestant Church.
<input type="checkbox"/>	<input type="checkbox"/>	WNBO	Washington, Pa.	100	J. B. Spriggs.
<input type="checkbox"/>	<input type="checkbox"/>	WRBL	Columbus, Ga.	100	WRBL Radio Station, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	WVAE	Hammond, Ind.	100	Hammond Calumet Broadcasting Corp.
<input type="checkbox"/>	<input type="checkbox"/>	YV3RC	Caracas, Venez.	1000	Degwitz & Siblesz
<input type="checkbox"/>	<input type="checkbox"/>	10AK	Stratford, Ont.	15	M. I. Higgins.
<input type="checkbox"/>	<input type="checkbox"/>	10BP	Wingham, Ont.	25	W. T. Cruickshank.
<input type="checkbox"/>	<input type="checkbox"/>	10BQ	Brantford, Ont.	15	
<input type="checkbox"/>	<input type="checkbox"/>	10BU	Canora, Sask.	50	Canora Radio Assoc.

1210 Kilocycles 247.8 Meters

<input type="checkbox"/>	<input type="checkbox"/>	CHNC	New Carlisle, Que.	100	Gaspesian Broadcasting Co.
<input type="checkbox"/>	<input type="checkbox"/>	CKBI	Prince Albert, Sask.	100	Prince Albert Radio Club.
<input type="checkbox"/>	<input type="checkbox"/>	CKCH	Hull, Que.	100	Radio Broadcasting of Hull, Ltd.
<input type="checkbox"/>	<input type="checkbox"/>	CKMC	Cobalt, Ont.	50	R. L. MacAdam.
<input type="checkbox"/>	<input type="checkbox"/>	CMJI	Ciego de Avilla	150	Gilberto Gessa Lopez.
<input type="checkbox"/>	<input type="checkbox"/>	KASA	Elk City, Okla.	100	E. M. Woody.
<input type="checkbox"/>	<input type="checkbox"/>	KDLR	Devil's Lake, N. D.	100	KDLR, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	KFJI	Klamath Falls, Ore.	100	KFJI Broadcasters, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	KFOR	Lincoln, Neb.	100	Howard Shuman.
<input type="checkbox"/>	<input type="checkbox"/>	KFPW	Fort Smith, Ark.	100	Southwestern Hotel Co.
<input type="checkbox"/>	<input type="checkbox"/>	KFVS	Cape Girardeau, Mo.	100	Oscar C. Hirsch.
<input type="checkbox"/>	<input type="checkbox"/>	KFXM	San Bernardino, Cal.	100	Lee Bros. Broadcasting Co.
<input type="checkbox"/>	<input type="checkbox"/>	KGY	Olympia, Wash.	100	KGY, Inc.
<input type="checkbox"/>	<input type="checkbox"/>	KIEM	Eureka, Cal.	100	H. H. Hanseth.
<input type="checkbox"/>	<input type="checkbox"/>	KPPC	Pasadena, Cal.	100	Pasadena Presbyt. Church.
<input type="checkbox"/>	<input type="checkbox"/>	KWEA	Shreveport, La.	100	International Broadcasting Corp.
<input type="checkbox"/>	<input type="checkbox"/>	KWFF	Hilo, T. H.	100	Hilo Broadcasting Co., Ltd.
<input type="checkbox"/>	<input type="checkbox"/>	KWTN	Watertown, S. D.	100	Greater Kampeska Radio Corp.
<input type="checkbox"/>	<input type="checkbox"/>		Hibbing, Minn.	100	Head of Lakes Broadcasting Co.

HEARD VERIFIED

		WALR	Zanesville, Ohio	100	WALR Broadcasting Corp.
		WBAX	Wilkes-Barre, Pa.	100	John H. Stenger, Jr.
		WBBL	Richmond, Va.	100	Grace Covenant Presby. Church.
		WBRE	Red Bank, N. J.	100	Monmouth Broadcasting Co., Inc.
		WCBS	Springfield, Ill.	100	WCBS, Inc.
		WCOL	Columbus, Ohio	100	WCOL, Inc.
		WCRW	Chicago, Ill.	100	Clinton R. White.
		WEBQ	Harrisburg, Ill.	100	Harrisburg Broadcasting Co.
		WEDC	Chicago, Ill.	100	Emil Denmark.
		WFAS	White Plains, N. Y.	100	Westchester Broadcasting Corp.
		WGBB	Freeport, N. Y.	100	H. H. Carman.
		WGCM	Gulfport, Miss.	100	Great Southern Land Co.
		WGNV	Chester, N. Y.	100	Peter Goelet.
		WHBF	Rock Island, Ill.	100	Rock Island Broadcasting Co.
		WHBU	Anderson, Ind.	100	Anderson Broadcasting Corp.
		WIBU	Poynette, Wisc.	100	Wm. C. Forrest.
		WJBY	Gadsden, Ala.	100	Gadsden Broadcasting Co.
		WJEJ	Hagerstown, Md.	100	Hagerstown Broadcasting Co., Inc.
		WJIM	Lansing, Mich.	100	Capitol City Broadcasting Co.
		WJW	Akron, Ohio	100	WJW, Inc.
		WKFI	Greenwood, Miss.	100	J. Pat Scully.
		WKOK	Sunbury, Pa.	100	Sunbury Broadcasting Co.
		WMBG	Richmond, Va.	100	Havens & Martin, Inc.
		WOCL	Jamestown, N. Y.	100	A. B. Newton.
		WOMT	Menitowoc, Wisc.	100	Francis M. Kadow.
		WQDX	Thomasville, Ga.	100	Stevens Luke.
		WSBC	Chicago, Ill.	100	Gene T. Dyer.
		WSIX	Springfield, Tenn.	100	638 Tire & Vulcanizing Co.
		WSOC	Charlotte, N. C.	100	WSOC, Inc.
		WTAX	Springfield, Ill.	100	WTAX, Inc.
		XEC	Toluca, D. F.	50	
		XEE	Durango, Dgo.	50	
		XEFJ	Monterrey, N. L.	100	R. Junco de la Vega
		XEFV	Juarez, Chih.	100	J. Onfre Meza.
		XETH	Puebla, Pue.	100	Ramon Huertag.
		XEMZ	Tijuana, B. C.	30	Adolfo Labsatida, Jr.

1220 Kilocycles 245.8 Meters

		CMCU	Havana, Cuba	150	Jorge Garcia Serra.
		CMHK	Cruces, Cuba	50	Virgilio Villaeuva Fernandez.
		KFKU	Lawrence, Kans.	1000	University of Kansas.
		KTW	Seattle, Wash.	1000	First Presbyterian Church.
		KWSC	Pullman, Wash.	1000	State College of Wash.
		WCAD	Canton, N. Y.	500	St. Lawrence University.
		WCAE	Pittsburgh, Pa.	1000	WCAE, Inc.
		WDAE	Tampa, Fla.	1000	Tampa Times Co.
		WREN	Lawrence, Kans.	1000	Jenny Wren Co.
		ITTR	Trieste, Italy	10000	E. I. A. R.

1230 Kilocycles 243.8 Meters

		CJOC	Lethbridge, Alta.	100	H. R. Carson, Ltd.
		CMCA	Havana, Cuba	150	J. M. Gonzales.
		KGGM	Albuquerque, N. M.	250	New Mex. Broadcasting Co.
		KYA	San Francisco, Cal.	1000	Pacific Broadcasting Corp.
		LS8	Buenos Aires, Arg.	20000	Confed. Esperitista Arg.
		WFEM	Indianapolis, Ind.	1000	Indianapolis Pow & Lt. Co.
		WNAC	Boston, Mass.	1000	Shepard Broadcasting Service, Inc.

1240 Kilocycles 241.8 Meters

		CJCB	Sydney, N. S.	1000	N. Nathanson.
		CMHB	San Spiritus, Cuba	30	
		KGCU	Mandan, N. D.	250	Mandan Radio Assn.
		KLPM	Minot, N. D.	250	John B. Cooley.
		KTAT	Fort Worth, Texas	1000	Southwest Broadcasting Co.
		KTFI	Twin Falls, Idaho	1000	Radio Broadcasting Corp.
		WKAQ	San Juan, P. R.	1000	Radio Corp. of P. R.
		WXYZ	Detroit, Mich.	1000	Kunsky-Trendle Broadcasting Corp.
		XEAI	Mexico, D. F.	100	Carlos Gonzales Caballero.

1250 Kilocycles 239.9 Meters

		KFOX	Long Beach, Cal.	1000	Nicholas & Warinner, Inc.
		WCAL	Northfield, Minn.	1000	St. Olaf College.
		WDSU	New Orleans, La.	1000	Jos. H. Uhalt.
		WHBI	Newark, N. J.	1000	Hoyt Bros., Inc.
		WLB	Minneapolis, Minn.	1000	Univ. of Minnesota.
		WNEW	Newark, N. J.	1000	WODAAM Corp.
		WTCN	Minneapolis, Minn.	1000	Minnesota Broadcasting Corp.

1260 Kilocycles 238.0 Meters

		CFTP	Edmonton, Alta.	100	Taylor & Pearson, Ltd.
		KOIL	Council Bluffs, Iowa	1000	Mona Motor Oil Co.
		KPAC	Port Arthur, Tex.	500	Port Arthur College.
		KRGV	Weslaco, Texas	500	KRGV, Inc.
		KUOA	Fayetteville, Ark.	1000	KUOA, Inc.

HEARD VERIFIED

☐ ☐ KVOA Tucson, Ariz.
☐ ☐ WLBW Erie, Pa.
☐ ☐ WNBX Springfield, Vt.
☐ ☐ WTOG Savannah, Ga.

500 Arizona Broadcasting Co.
 1000 Broadcasters of Pa., Inc.
 1000 WNBX Broadcasting Corp.
 500 Savannah Broadcasting Co., Inc.

1270 Kilocycles 236.1 Meters

☐ ☐ HIX Santo Domingo, D. R.
☐ ☐ KGCA Decorah, Iowa
☐ ☐ KOL Seattle, Wash.
☐ ☐ KVOR Colorado Springs, Col.
☐ ☐ KWLC Decorah, Iowa
☐ ☐ LSH Buenos Aires, Arg.
☐ ☐ WASH Grand Rapids, Mich.
☐ ☐ WFER Baltimore, Md.
☐ ☐ WJDX Jackson, Miss.
☐ ☐ WOOD Grand Rapids, Mich.
☐ ☐ XFB Jalapa, Ver.

1000 Dominica Republic, J. R. Saladin, Director.
 100 Chas. W. Greenley.
 1000 Seattle Broadcasting Co.
 1000 S. H. Patterson.
 100 Luther College.
 5000 Tagliaferro, Raffo y Cia.
 500 Kunskey-Trendle Broadcasting Corp.
 500 Baltimore Radio Show, Inc.
 1000 Lamar Life Ins. Co.
 500 Kunskey-Trendle Broadcasting Corp.
 1000 Gobierno Estado de Veracruz.

1280 Kilocycles 234.2 Meters

☐ ☐ CMCO Havana, Cuba
☐ ☐ KFEB Great Falls, Mont.
☐ ☐ LU7 Bahia Blanca, Arg.
☐ ☐ WCAM Camden, N. J.
☐ ☐ WCAP Asbury Park, N. J.
☐ ☐ WDOO Chattanooga, Tenn.
☐ ☐ WIBA Madison, Wisc.
☐ ☐ WORC Worcester, Mass.
☐ ☐ WRR Dallas, Texas
☐ ☐ WTNJ Trenton, N. J.

150 Assn. Detes Del Comercio.
 1000 Buttrey Broadcasting Co.
 5000
 500 City of Camden.
 500 Radio Industries Broadcasting Co.
 1000 WDOO Broadcasting Corp.
 500 Badger Broadcasting Co., Inc.
 500 A. F. Kleindienst.
 500 City of Dallas.
 500 WOAX, Inc.

1290 Kilocycles 232.4 Meters

☐ ☐ KDYL Salt Lake City, Utah
☐ ☐ KLCN Blytheville, Ark.
☐ ☐ KTSA San Antonio, Texas
☐ ☐ WEEC Superior, Wisc.
☐ ☐ WJAS Pittsburgh, Pa.
☐ ☐ WNBZ Saranac Lake, N. Y.
☐ ☐ WNEL San Juan, P. R.

1000 Intermountain Broadcasting Corp.
 100 C. L. Lintzenich.
 1000 Southwest Broadcasting Co.
 1000 Head of Lakes Broadcasting Co.
 1000 Pitts. Radio Supply House.
 50 Smith & Mace.
 500 Juan Piza.

1300 Kilocycles 230.6 Meters

☐ ☐ CMKJ Guantanamo, Cuba
☐ ☐ KALE Portland, Ore.
☐ ☐ KFAC Los Angeles, Cal.
☐ ☐ KFH Wichita, Kans.
☐ ☐ KFJR Portland, Ore.
☐ ☐ VOAC St. Johns' Nfd.
☐ ☐ WBBR Brooklyn, N. Y.
☐ ☐ WEVD New York, N. Y.
☐ ☐ WFAB New York, N. Y.
☐ ☐ WFBC Greenville, S. C.
☐ ☐ WHAZ Troy, N. Y.
☐ ☐ WIOD Miami, Fla.

20 Luis Morlote.
 500 KALE, Inc.
 1000 Los Angeles Broadcasting Co., Inc.
 1000 Radio Station KFH Co.
 500 Ashley C. Dixon.
 40
 1000 Peoples Pulpit Assn.
 1000 Jewish Daily Forward.
 1000 5th Ave. Broadcasting Corp.
 1000 Greenville News-Piedmont Co.
 500 Rensselaer Poly. Inst.
 1000 Isle of Dreams Broadcasting Corp.

1310 Kilocycles 228.9 Meters

☐ ☐ CHCK Charlottetown, P. E. I.
☐ ☐ CJKL Kirkland Lake, Ont.
☐ ☐ CJLS Yarmouth, N. S.
☐ ☐ CKCV Quebec, Que.
☐ ☐ KCRJ Jerome, Ariz.
☐ ☐ KFBK Sacramento, Cal.
☐ ☐ KFPL Dublin, Texas
☐ ☐ KFPM Greenville, Texas
☐ ☐ KFXR Oklahoma City, Okla.
☐ ☐ KFYO Lubbock, Texas
☐ ☐ KGBX Springfield, Mo.
☐ ☐ KGCX Wolf Point, Mont.
☐ ☐ KGEZ Kalispell, Mont.
☐ ☐ KGFV Kearney, Neb.
☐ ☐ KIT Yakima, Wash.
☐ ☐ KMED Medford, Ore.
☐ ☐ KRMD Shreveport, La.
☐ ☐ KTSM El Paso, Texas
☐ ☐ KXRO Aberdeen, Wash.
☐ ☐ Plattsburg, N. Y.
☐ ☐ WAML Laurel, Miss.
☐ ☐ WBEO Marquette, Mich.
☐ ☐ WBOW Terre Haute, Ind.
☐ ☐ WBRE Wilkes-Barre, Pa.
☐ ☐ WCLS Joliet, Ill.
☐ ☐ WDAH El Paso, Texas
☐ ☐ WEBR Buffalo, N. Y.
☐ ☐ WEXL Royal Oak, Mich.
☐ ☐ WEBG Altoona, Pa.
☐ ☐ WEDF Flint, Mich.
☐ ☐ WGH Newport News, Va.

50 W. E. Burke & J. A. Gesner.
 100 Northern Broadcasting Co., Ltd.
 100 Laurie L. Smith
 50 Vandry, Inc.
 100 Chas. C. Robinson.
 100 Jas. McClatchy Pub. Co.
 100 C. C. Baxter.
 15 New Furniture Co.
 100 Exchange Ave. Baptist Church.
 100 Kirksey Bros.
 100 KGBX, Inc.
 100 E. E. Krebsbach.
 100 Donald C. Treloar.
 100 Cent. Neb. Broadcasting Corp.
 100 Valley Broadcasters, Inc.
 100 Mrs. W. J. Virgin.
 100 Radio Station KRMD, Inc.
 100 Tri-State Broadcasting Co., Inc.
 100 KXRO, Inc.
 100 Plattsburg Broadcasting Corp.
 100 Southland Radio Corp.
 100 Lake Superior Broadcasting Co., Inc.
 100 Banks of Wabash, Inc.
 100 Louis G. Baltimore.
 100 WCLS, Inc.
 100 Tri-State Broadcasting Co., Inc.
 500 Howell Broadcasting Co., Inc.
 50 Royal Oak Broadcasting Co.
 100 Gable Broadcasting Co.
 100 Flint Broadcasting Co.
 100 Hampton Rds. Broadcasting Corp.

HEARD VERIFIED

		WHAT	Philadelphia, Pa.
		WJAC	Johnstown, Pa.
		WLBC	Muncie, Ind.
		WLNH	Laconia, N. H.
		WMBO	Auburn, N. Y.
		WNBH	New Bedford, Mass.
		WOL	Washington, D. C.
		WRAW	Reading, Pa.
		WROL	Knoxville, Tenn.
		WSAJ	Grove City, Pa.
		WSGN	Birmingham, Ala.
		WSJS	Winston-Salem, N. C.
		WTEL	Philadelphia, Pa.
		WTJS	Jackson, Tenn.
		WTRC	Elkhart, Ind.
		XECW	Mexico City, D. F.
		XEFW	Tampico, Tamps.
		XEFC	Merida, Yuc.
		XETB	Torreón, Coah.
		XEX	Monterrey, N. L.
		XFA	Aguascalientes, Ags.

100	Curtis-Martin Newspapers, Inc.
100	WJAC, Inc.
50	D. A. Burton.
100	Northern Broadcasting Co., Inc.
100	WMBO, Inc.
100	E. Anthony & Sons, Inc.
100	American Broadcasting Co.
100	Reading Broadcasting Co.
100	Stuart Broadcasting Corp.
100	Grove City College.
100	R. B. Broyles.
100	Winston-Salem Journal.
100	Foulkrod Radio Eng. Co., Inc.
100	Sun Publishing Co.
50	Truth Radio Corp.
10	Maria Elena Bravo de Cardero.
70	J. Expedito Martinez.
100	J. Molina.
125	Jose A. Berumen.
125	L. F. Petit Jean.
5	

1320 Kilocycles 227.1 Meters

		CMBD	Havana, Cuba
		COX	Havana, Cuba
		KGHF	Pueblo, Colo.
		KGMB	Honolulu, T. H.
		KID	Idaho Falls, Idaho
		KSO	Des Moines, Iowa
		WADC	Akron, Ohio
		WORK	York, Pa.
		WSMB	New Orleans, La.

150	Luis Perez Garcia
200	New Station.
500	C. P. Ritchie.
250	Honolulu Broadcasting Co.
250	KID Broadcasting Co., Inc.
250	Des Moines Register.
1000	Allen T. Simmons.
1000	York Broadcasting Co.
500	WSMB, Inc.

1330 Kilocycles 225.4 Meters

		KGB	San Diego, Cal.
		KMO	Tacoma, Wash.
		KSCJ	Sioux City, Iowa
		KTRH	Houston, Texas
		WDRG	Hartford, Conn.
		WSAI	Cincinnati, Ohio
		WTAQ	Eau Claire, Wisc.

1000	Don Lee, Inc.
250	KMO, Inc.
1000	Perkins Bros. Co.
500	KTRH Broadcasting Co.
1000	WDRG, Inc.
1000	Crosley Radio Corp.
1000	Gillette Rubber Co.

1340 Kilocycles 223.7 Meters

		KFPY	Spokane, Wash.
		KGDY	Huron, S. D.
		KGNO	Dodge City, Kans.
		WCOA	Pensacola, Fla.
		WFEA	Manchester, N. H.
		WSPD	Toledo, Ohio
		XFD	Orizaba, Ver.
			Montpellier, France

1000	Symons Broadcasting Corp.
250	Voice of So. Dakota, Inc.
250	KGNO Broadcasting Station.
500	Pensacola Broadcasting Co.
500	New Hampshire Broadcasting Co.
1000	Toledo Broadcasting Co.
250	Gobierno Estado de Veracruz.
30000	PTT

1350 Kilocycles 222.1 Meters

		KIDO	Boise, Idaho
		KWK	St. Louis, Mo.
		WAWZ	Zarephath, N. J.
		WBNX	New York, N. Y.

1000	C. G. Phillips & F. L. Hill.
1000	Thomas Patrick, Inc.
250	Pillar of Fire.
250	Standard Cahill Co.

1360 Kilocycles 220.4 Meters

		CMJP	Monro, Cuba
		CMKF	Holquin, Cuba
		KGER	Long Beach, Cal.
		KGIR	Butte, Mont.
		WCSC	Charleston, S. C.
		WFBL	Syracuse, N. Y.
		WGES	Chicago, Ill.
		WQBC	Vicksburg, Miss.
		WSBT	South Bend, Ind.

75	Cesar Canall.
30	Libertad Esq. Arias
1000	Consolidated Broadcasting Co.
1000	KGIR, Inc.
500	So. Car. Broadcasting Co., Inc.
1000	Onondaga Radio Broadcasting Corp.
500	Oak Leaves Broadcasting Station, Inc.
500	Delta Broadcasting Co.
500	S. B. Tribune.

1370 Kilocycles 218.8 Meters

		CKCW	Moncton, N. B.
		CMCN	Havana, Cuba
		CMGE	Cardenas, Cuba
		COK	Havana, Cuba
			Longview, Texas
		KCRC	Enid, Okla.
		KERN	Bakersfield, Cal.
		KFGQ	Boone, Iowa
		KFJM	Grand Forks, N. D.
		KFJZ	Forth Worth, Texas
		KGAR	Tucson, Ariz.
		KGFG	Oklahoma City, Okla.
		KGFL	Roswell, N. M.
		KGKL	San Angelo, Texas
		KICA	Clovis, N. M.

100	Moncton Broadcasting Co., Ltd.
250	Aurelio Hernandez.
30	Genaro Sebat.
250	Rafael Valdez.
100	Voice of Longview.
100	Enid Radiophone Co.
100	Bee Bakersfield Broadcasting Co.
100	Boone Biblical College.
100	Univ. of No. Dakota.
100	Ft. Worth Broadcasters, Inc.
100	Tucson Motor Service Co.
100	Oklahoma Broadcasting Co.
100	KGFL, Inc.
100	KGKL, Inc.
100	Southwest Broadcasting Co.

HEARD VERIFIED

		KLUF	Galveston, Texas
		KMAC	San Antonio, Texas
		KONO	San Antonio, Texas
		KRE	Berkeley, Cal.
		KRKO	Everett, Wash.
		KSLM	Salem, Ore.
		KUJ	Walla Walla, Wash.
		KVL	Seattle, Wash.
		KWKC	Kansas City, Mo.
		KWYO	Sheridan, Wyo.
			Wilmington, N. C.
		WAGE	Dothan, Ala.
		WBTM	Danville, Va.
		WCBM	Baltimore, Md.
		WDAS	Philadelphia, Pa.
		WGL	Fort Wayne, Ind.
		WABY	Albany, N. Y.
		WHBD	Mt. Orab, Ohio
		WHBQ	Memphis, Tenn.
		WHDF	Calumet, Mich.
		WIBM	Jackson, Mich.
		WJTL	Atlanta, Ga.
		WLH	Lowell, Mass.
		WMBR	Jacksonville, Fla.
		WOC	Davenport, Ia.
		WPFB	Hattiesburg, Miss.
		WQDM	St. Albans, Vt.
		WRAC	Williamsport, Pa.
		WRDO	Augusta, Me.
		WRJN	Racine, Wisc.
		WSVS	Buffalo, N. Y.
		XEFE	Nuevo Laredo, Tamps.
		XEFZ	Mexico City, D. F.
		XEI	Morelia, Mch.
		XEZZ	San Luis Potosi, Slp.

100	George R. Clough.
100	W. W. McAllister.
100	Mission Broadcasting Co.
100	1st Congregational Church.
50	Lee E. Mudgett.
100	Oregon Radio, Inc.
100	KUJ, Inc.
100	KVL, Inc.
100	Wilson Duncan Broadcasting Co.
100	Big Horn Broadcasting Co.
100	Richard A. Dunles.
100	Dothan Broadcasting Corp.
100	Piedmont Broadcasting Corp.
100	Baltimore Broadcasting Corp.
100	WDAS Broadcasting Co., Inc.
100	F. C. Zieg.
100	WOKO, Inc.
100	Veebee Corp.
100	Broadcasting Station WHBQ, Inc.
100	Upper Mich. Broadcasting Co.
100	WIBM, Inc.
100	Oglethorpe University.
100	Albert S. Moffat.
100	F. J. Reynolds.
100	Palmer School of Chiropractic.
100	Otis Perry Eura.
100	A. J. St. Antoine & E. J. Regan.
100	WRAC, Inc.
100	WRDO, Inc.
100	Racine Broadcasting Corp.
50	Seneca Voca. High School.
100	R. T. Carranza.
100	Manuel Zetina.
125	Carlos Gutierrez.
100	Emilio Delgado.

1380 Kilocycles 217.3 Meters

		CMJC	Camaguey, Cuba
		KOH	Reno, Nev.
		KQV	Pittsburgh, Pa.
		WALA	Mobile, Ala.
		WKBH	La Crosse, Wisc.
		WSMK	Dayton, Ohio
			New Britain, Conn.

150	Feliciano Isaac.
500	The Bee, Inc.
500	KQV Broadcasting Co.
500	Pape Broadcasting Corp.
1000	WKBH, Inc.
200	S. M. Krohn, Jr.
250	William J. Sanders.

1390 Kilocycles 215.7 Meters

		CJRC	Winnipeg, Man.
		HIH	S. Pedro de Macoris, D.R.
		KLRA	Little Rock, Ark.
		KOY	Phoenix, Ariz.
		WHK	Cleveland, Ohio

100	Jas. Richardson & Sons, Ltd.
15	Domingo Dominguez.
1000	Arkansas Broadcasting Co.
500	Nielson Radio, Sptg. Gds. Co.
1000	Radio Air Service Corp.

1400 Kilocycles 214.2 Meters

		CMCR	Havana, Cuba
		KLO	Ogden, Utah
		KTUL	Tulsa, Okla.
		TGX	Guatemala City, Gua.
		WARD	Brooklyn, N. Y.
		WBBC	Brooklyn, N. Y.
		WKBF	Indianapolis, Ind.
		WLTH	Brooklyn, N. Y.
		WVFW	Brooklyn, N. Y.

150	Antonio Ginard.
500	Interstate Broadcasting Co.
250	Tulsa Broadcasting Co., Inc.
150	
500	U. S. Broadcasting Corp.
500	Brooklyn Broadcasting Corp.
500	Indianapolis Broadcasting, Inc.
500	Voice of Brooklyn, N. Y.
500	Paramount Broadcasting Corp.

1410 Kilocycles 212.6 Meters

		CKFC	Vancouver, B. C.
		CKMO	Vancouver, B. C.
		KGRS	Amarillo, Texas
		WAAB	Boston, Mass.
		WBCM	Bay City, Mich.
		WDAG	Amarillo, Texas
		WHBL	Sheboygan, Wisc.
		WHIS	Bluedfield, W. Va.
		WRBX	Roanoke, Va.
		WROK	Rockford, Ill.
		WSFA	Montgomery, Ala.

50	United Church of Canada.
100	Sprott-Shaw Radio Co.
1000	E. B. Gish.
500	Bay State Broadcasting Corp.
500	James E. Davidson.
1000	Natl. Radio & Broadcasting Corp.
500	Press Publishing Co.
250	Daily Telegraph Printing Co.
250	Richmond Development Corp.
500	Rockford Broadcasters, Ltd.
500	Montgomery Broadcasting Co., Inc.

1420 Kilocycles 211.1 Meters

		CKGB	Timmins, Ont.
		CKNC	Toronto, Ont.
		CMEX	Havana, Cuba
		KABC	San Antonio, Texas

100	Northern Broadcasting Co., Ltd.
100	Canadian National Carbon, Ltd.
150	Alberto Alvarez.
100	Alamo Broadcasting Co., Inc.

HEARD VERIFIED

<input type="checkbox"/>	<input type="checkbox"/>	KBPS	Portland, Ore.
<input type="checkbox"/>	<input type="checkbox"/>	KCMC	Texarkana, Ark.
<input type="checkbox"/>	<input type="checkbox"/>	KFIZ	Fond du Lac, Wisc.
<input type="checkbox"/>	<input type="checkbox"/>	KGFF	Shawnee, Okla.
<input type="checkbox"/>	<input type="checkbox"/>	KGGC	San Francisco, Cal.
<input type="checkbox"/>	<input type="checkbox"/>	KGIW	Alamosa, Colo.
<input type="checkbox"/>	<input type="checkbox"/>	KGIX	Las Vegas, Nev.
<input type="checkbox"/>	<input type="checkbox"/>	KIDW	Lamar, Colo.
<input type="checkbox"/>	<input type="checkbox"/>	KORE	Eugene, Ore.
<input type="checkbox"/>	<input type="checkbox"/>	KUMA	Yuma, Ariz.
<input type="checkbox"/>	<input type="checkbox"/>	KXL	Portland, Ore.
<input type="checkbox"/>	<input type="checkbox"/>		Aberdeen, S. D.
<input type="checkbox"/>	<input type="checkbox"/>	WACO	Waco, Texas
<input type="checkbox"/>	<input type="checkbox"/>	WAGM	Presque Isle, Me.
<input type="checkbox"/>	<input type="checkbox"/>	WAZL	Hazleton, Pa.
<input type="checkbox"/>	<input type="checkbox"/>	WEED	Rocky Point, N. C.
<input type="checkbox"/>	<input type="checkbox"/>	WEHC	Charlottesville, Va.
<input type="checkbox"/>	<input type="checkbox"/>	WEHS	Cicero, Ill.
<input type="checkbox"/>	<input type="checkbox"/>	WELL	Battle Creek, Mich.
<input type="checkbox"/>	<input type="checkbox"/>	WGPC	Albany, Ga.
<input type="checkbox"/>	<input type="checkbox"/>	WHDL	Olean, N. Y.
<input type="checkbox"/>	<input type="checkbox"/>	WHFC	Cicero, Ill.
<input type="checkbox"/>	<input type="checkbox"/>	WILM	Wilmington, Del.
<input type="checkbox"/>	<input type="checkbox"/>	WJBO	Baton Rouge, La.
<input type="checkbox"/>	<input type="checkbox"/>	WJMS	Ironwood, Mich.
<input type="checkbox"/>	<input type="checkbox"/>	WKBI	Cicero, Ill.
<input type="checkbox"/>	<input type="checkbox"/>	WLAP	Lexington, Ky.
<input type="checkbox"/>	<input type="checkbox"/>	WLBF	Kansas City, Kans.
<input type="checkbox"/>	<input type="checkbox"/>	WLEU	Eric, Pa.
<input type="checkbox"/>	<input type="checkbox"/>	WMAS	Springfield, Mass.
<input type="checkbox"/>	<input type="checkbox"/>	WMBC	Detroit, Mich.
<input type="checkbox"/>	<input type="checkbox"/>	WMBH	Joplin, Mo.
<input type="checkbox"/>	<input type="checkbox"/>	WNRA	Muscle Shoals, Ala.
<input type="checkbox"/>	<input type="checkbox"/>	WPAD	Paducah, Ky.
<input type="checkbox"/>	<input type="checkbox"/>	XEFB	Monterrey, N. L.

1430 Kilocycles 209.7 Meters

<input type="checkbox"/>	<input type="checkbox"/>	KECA	Los Angeles, Cal.
<input type="checkbox"/>	<input type="checkbox"/>	KGNF	North Platte, Neb.
<input type="checkbox"/>	<input type="checkbox"/>	KWCR	Cedar Rapids, Iowa
<input type="checkbox"/>	<input type="checkbox"/>	WBNS	Columbus, Ohio
<input type="checkbox"/>	<input type="checkbox"/>	WHEC	Rochester, N. Y.
<input type="checkbox"/>	<input type="checkbox"/>	WHP	Harrisburg, Pa.
<input type="checkbox"/>	<input type="checkbox"/>	WNBR	Memphis, Tenn.
<input type="checkbox"/>	<input type="checkbox"/>	WOKO	Albany, N. Y.

1440 Kilocycles 208.2 Meters

<input type="checkbox"/>	<input type="checkbox"/>	KDFN	Casper, Wyo.
<input type="checkbox"/>	<input type="checkbox"/>	KLS	Oakland, Cal.
<input type="checkbox"/>	<input type="checkbox"/>	KXYZ	Houston, Texas
<input type="checkbox"/>	<input type="checkbox"/>	WBIG	Greensboro, N. C.
<input type="checkbox"/>	<input type="checkbox"/>	WCBA	Allentown, Pa.
<input type="checkbox"/>	<input type="checkbox"/>	WMED	Peoria, Ill.
<input type="checkbox"/>	<input type="checkbox"/>	WSAN	Allentown, Pa.
<input type="checkbox"/>	<input type="checkbox"/>	WTAD	Quincy, Ill.
<input type="checkbox"/>	<input type="checkbox"/>	XEFI	Chihuahua, Chih.

1450 Kilocycles 206.8 Meters

<input type="checkbox"/>	<input type="checkbox"/>	CFCT	Victoria, B. C.
<input type="checkbox"/>	<input type="checkbox"/>	KTBS	Shreveport, La.
<input type="checkbox"/>	<input type="checkbox"/>	WGAR	Cleveland, Ohio
<input type="checkbox"/>	<input type="checkbox"/>	WHOM	Jersey, City N. J.
<input type="checkbox"/>	<input type="checkbox"/>	WSAR	Fall River, Mass.
<input type="checkbox"/>	<input type="checkbox"/>	WTFI	Athens, Ga.
<input type="checkbox"/>	<input type="checkbox"/>		Fecamp, France

1460 Kilocycles 205.4 Meters

<input type="checkbox"/>	<input type="checkbox"/>	KSTP	St. Paul-Mpls., Minn.
<input type="checkbox"/>	<input type="checkbox"/>	WJSV	Washington, D. C.

1470 Kilocycles 204.0 Meters

<input type="checkbox"/>	<input type="checkbox"/>	WLAC	Nashville, Tenn.
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1480 Kilocycles 202.6 Meters

<input type="checkbox"/>	<input type="checkbox"/>	KOMA	Oklahoma City, Okla.
<input type="checkbox"/>	<input type="checkbox"/>	WKBW	Buffalo, N. Y.

1490 Kilocycles 201.2 Meters

<input type="checkbox"/>	<input type="checkbox"/>	WCKY	Covington, Ky.
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1500 Kilocycles 199.9 Meters

<input type="checkbox"/>	<input type="checkbox"/>	CHGS	Summerside, P. E. I.
<input type="checkbox"/>	<input type="checkbox"/>	CMCN	Havana, Cuba
<input type="checkbox"/>	<input type="checkbox"/>	KDB	Santa Barbara, Cal.

100	Benson Polytech. School.
100	M. P. Mims.
100	Reporter Printing Co.
100	KGFF Broadcasting Co., Inc.
100	Golden Gate Broadcasting Co.
100	Leonard E. Wilson.
100	J. M. Heaton.
100	Lamar Broadcasting Co.
100	C. G. Phillips & F. L. Hill.
100	Dr. A. H. Schermann.
100	KXL Broadcasters.
100	Aberdeen Broadcasting Co.
100	Southwest Broadcasting Co.
100	Aroostook Broadcasting Corp.
100	Hazleton Broadcasting Service, Inc.
100	Wm. Avera Wynne.
100	Community Broadcasting Corp.
100	WEHS, Inc.
50	Enquirer News Co.
100	Americus Broadcasting Corp.
100	Tupper Lake Broadcasting Co.
100	WHFC, Inc.
100	Delaware Broadcasting Co., Inc.
100	Baton Rouge Broadcasting Co., Inc.
100	WJMS, Inc.
100	WKBI, Inc.
100	Amer. Broadcasting Corp. of Ky.
100	WLBF Broadcasting Co.
100	Leo J. Omelian.
100	WMAS, Inc.
100	Michigan Broadcasting Co.
100	W. M. Robertson.
100	Muscle Shoals Broadcasting Corp.
100	Paducah Broadcasting Co., Inc.
100	Jesus Quantanilla.

1000	Earle C. Anthony, Inc.
500	Great Plains Broadcasting Co.
250	Cedar Rapids Broadcasting Co.
500	Internatl. Bible Students Assn.
500	WHEC, Inc.
500	Harrisburg Telegraph.
500	Memphis Broadcasting Co.
500	WOKO, Inc.

500	D. L. Hathaway.
250	Warner Bros.
250	Harris County Broadcasting Co.
500	No. Car. Broadcasting Co., Inc.
250	Lehigh Valley Broadcasting Co.
500	Peoria Broadcasting Co.
250	WSAN, Inc.
500	Illinois Broadcasting Corp.
250	Feliciano Lopez.

50	Victoria Broadcasting Assn.
1000	Tri-State Broadcasting System.
500	WGAR Broadcasting Co.
250	N. J. Broadcasting Corp.
250	Doughty & Welch Elec. Co., Inc.
500	Liberty Broadcasting Co.
10000	

10000	Natl. Battery Broadcasting Co.
10000	Old Dominion Broadcasting Corp.

5000	Life & Casualty Ins. Co.
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5000	Natl. Radio Mfg. Co.
5000	Buffalo Broadcasting Co.

5000	L. B. Wilson, Inc.
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50	R. T. Holman, Ltd.
250	
100	Santa Barbara Broadcasters.

HEARD VERIFIED

<input type="checkbox"/>	<input type="checkbox"/>	KGFI	Corpus Christi, Texas
<input type="checkbox"/>	<input type="checkbox"/>	KGFK	Moorhead, Minn.
<input type="checkbox"/>	<input type="checkbox"/>	KGKB	Tyler, Texas
<input type="checkbox"/>	<input type="checkbox"/>	KGKY	Scottsbluff, Neb.
<input type="checkbox"/>	<input type="checkbox"/>	KNOW	Austin, Texas
<input type="checkbox"/>	<input type="checkbox"/>	KOTN	Pine Bluff, Ark.
<input type="checkbox"/>	<input type="checkbox"/>	KPJM	Prescott, Ariz.
<input type="checkbox"/>	<input type="checkbox"/>	KPQ	Wenatchee, Wash.
<input type="checkbox"/>	<input type="checkbox"/>	KREG	Santa Ana, Cal.
<input type="checkbox"/>	<input type="checkbox"/>	KXO	El Centro, Cal.
<input type="checkbox"/>	<input type="checkbox"/>	WCNW	Brooklyn, N. Y.
<input type="checkbox"/>	<input type="checkbox"/>	WDNC	Durham, N. C.
<input type="checkbox"/>	<input type="checkbox"/>	WGAL	Lancaster, Pa.
<input type="checkbox"/>	<input type="checkbox"/>	WHEF	Kosciusko, Miss.
<input type="checkbox"/>	<input type="checkbox"/>	WJBK	Detroit, Mich.
<input type="checkbox"/>	<input type="checkbox"/>	WKBB	East Dubuque, Ill.
<input type="checkbox"/>	<input type="checkbox"/>	WKBY	Richmond, Ind.
<input type="checkbox"/>	<input type="checkbox"/>	WKBZ	Muskegon, Mich.
<input type="checkbox"/>	<input type="checkbox"/>	WKEU	La Grange, Ga.
<input type="checkbox"/>	<input type="checkbox"/>	WMBQ	Brooklyn, N. Y.
<input type="checkbox"/>	<input type="checkbox"/>	WMEX	Chelsea, Mass.
<input type="checkbox"/>	<input type="checkbox"/>	WNBK	Binghamton, N. Y.
<input type="checkbox"/>	<input type="checkbox"/>	WOPI	Bristol, Tenn.
<input type="checkbox"/>	<input type="checkbox"/>	WRDW	Augusta, Ga.
<input type="checkbox"/>	<input type="checkbox"/>	WRGA	Rome, Ga.
<input type="checkbox"/>	<input type="checkbox"/>	WSYB	Rutland, Vt.
<input type="checkbox"/>	<input type="checkbox"/>	WWRL	Woodside, N. Y.
<input type="checkbox"/>	<input type="checkbox"/>	WWSW	Pittsburgh, Pa.

1510 Kilocycles 198.6 Meters

<input type="checkbox"/>	<input type="checkbox"/>	CFRC	Kingston, Ont.
<input type="checkbox"/>	<input type="checkbox"/>	CKCR	Waterloo, Ont.

1530 Kilocycles 196.0 Meters

<input type="checkbox"/>	<input type="checkbox"/>	W1XBS	Waterbury, Conn.
<input type="checkbox"/>	<input type="checkbox"/>	W9XBY	Kansas City, Mo.

1550 Kilocycles 193.5 Meters

<input type="checkbox"/>	<input type="checkbox"/>	W2XR	Long Island City, N. Y.
<input type="checkbox"/>	<input type="checkbox"/>	W6XAI	Bakersfield, Cal.

100	Eagle Broadcasting Co., Inc.
100	Red River Broadcasting Co., Inc.
100	East Texas Broadcasting Co.
100	Hilliard Co., Inc.
100	Southwest Broadcasting Co.
100	William F. Chaplin.
100	Frank Mauthe.
100	Westcoast Broadcasting Co.
100	Voice of the Orange Empire.
100	E. R. Irey & F. M. Bowles.
100	Arthur Fiske.
100	Durham Radio Corp.
100	WGAL, Inc.
100	Attala Broadcasting Corp.
100	Sanders Bros. Radio Station.
100	James F. Hopkins, Inc.
100	Wm. O. Knox.
100	K. L. Ashbacher & Sons.
100	Radio Station WKEU.
100	Paul J. Gollhofer.
100	Northern Radio Corp.
100	Howitt-Wood Radio Co., Inc.
100	Radiophone Broadcasting Sta. WOPI.
100	Virgil V. Evans Co.
100	Rome Broadcasting Corp.
100	Philip Weiss Music Co.
100	Long Island Broadcasting Corp.
100	Walker & Downing Radio Corp.

100	Queen's University.
100	W. C. Mitchell & G. Liddle.

1000	Waterbury Republican.
1000	First National Television, Inc.

1000	John V. L. Hogan.
1000	Pioneer Mercantile Co.

John J. Baxter, member of the board of directors of The Newark News Radio Club, London, England, writes that Eiffel Tower is to cease broadcasting... that Lima, Peru, now has what is claimed to be the most powerful short wave station in South America—20 kilowatts on 38.36 meters... that broadcasting in Esthonia is to be nationalized soon; plans have already been prepared for a 40 KW station... that there will be no transmissions from Sottens, (Radio Suisse Romande) for the first few months of 1935 but they are boosting power to 50 KW... that there is talk of introducing licenses for listeners in Holland.... "Pay what you can afford, when you can afford it and if you cannot pay, well, then they will say "forget it", says the London News Chronicle... that British Broadcasting Corp., adult education talks have been reduced to three a week... that Rome's power is going to a new high very soon—150 kilowatts after which listners in North America should be able to receive it... that all New Zealand stations are scheduled to increase power... that the new Lahti transmitter, 150 to 200 KW is going up soon... that Radio-Rennes, France, will be on the air with 40 KW shortly and that Poland has equipped its long distance trains with radio.

A delegation of NNRC hams is forming a chapter in the club and will be pleased to hear from other members possessing "tickets." Headed by Willard W. Pope, 308 Elm Street, Kearny, N. J., (W2HRN), the committee includes Howard Beidleman, (W2FHC), East Orange, N. J.; Sid Kaufman, (W1IFH), West Hartford, Conn.; William E. Mays, (W2CEJ), Linden, N. J.; Charles O'Brien, (W2EQS), Jersey City, N. J.; Clement Van Velsor, (W2HNN), Irvington, N. J., and William Tucker, (W2FXE), also of Irvington, N. J.

The committee desires the following information: 1—A brief description of your rig, giving input power to the final; type of tubes and circuit. 2—When you first went on the air and if previously any other call was assigned to you. 3—Which band or bands do you work most. 4—Whether you go in for DX, traffic or rag chews. 5—Whether you are CW, of one or both. 6—Your recent, outstanding ham activities. 7.—Highlights of your ham career that would be of interest to others. Communications-should be directed to Chairman Pope at the address given above.

MONTHLY FREQUENCY TESTS

(Time is A.M., Eastern Standard; Frequencies in Kilocycles)

FIRST MONDAY

2.00 to 2.20	1500—WCNW, Brooklyn, N. Y.
	1310—WJAC, Johnstown, Pa.
2.10 to 2.30	1210—WFAS, White Plains, N. Y.
	1370—WRAK, Williamsport, Pa.
2.20 to 2.40	1500—WNBZ, Binghamton, N. Y.
	580—WCHS, Charleston, W. Va.
2.30 to 2.50	1420—WAGM, Presque Isle, Me.
	1370—WBTM, Danville, Va.
2.40 to 3.00	1200—WLVA, Lynchburg, Va.
2.50 to 3.10	1420—WHDL, Olean, N. Y.
	1310—WHAT, Philadelphia, Pa.
3.00 to 3.20	1200—WCAK, Burlington, Vt.
3.10 to 3.30	1500—WSYB, Rutland, Vt.
	1310—WTEL, Philadelphia, Pa.
3.20 to 3.40	1200—WIBX, Utica, N. Y.
3.30 to 3.50	1370—WQDM, St. Albans, Vt.
	1210—WKOK, Sunbury, Pa.
3.40 to 4.00	1310—WMBO, Auburn, N. Y.
3.50 to 4.10	1370—WABY, Albany, N. Y.
	1210—WBAX, Wilkes-Barre, Pa.
4.00 to 4.20	1220—WCAD, Canton, N. Y.
	1200—KOOS, Marshfield, Ore.
4.10 to 4.30	1210—WBBL, Richmond, Va.
	900—KGEU, Ketchikan, Alaska.
4.20 to 4.40	1290—WNBZ, Saranac Lake, N. Y.
	1310—WBRE, Wilkes-Barre, Pa.
	1200—KGOV, Missoula, Mont.
4.30 to 4.50	1200—WNBO, Washington, Pa.
	1500—KPQ, Wenatchee, Wash.
4.40 to 5.00	1310—WRAW, Reading, Pa.
	1210—KGY, Olympia, Wash.
4.50 to 5.10	940—WAAT, Jersey City, N. J.
	1370—KRKO, Everett, Wash.
5.00 to 5.20	570—WSYR-WSYU, Syracuse, N.Y.
	1200—KFED, Nampa, Idaho.
5.10 to 5.30	600—WCAC, Storrs, Conn.
	1370—KVL, Seattle, Wash.
5.20 to 5.40	1310—KGEZ, Kallispell, Mont.
5.30 to 5.50	1370—KUJ, Walla Walla, Wash.
5.40 to 6.00	1310—KGCX, Wolf Point, Mont.
5.50 to 6.10	780—KFQD, Anchorage, Alaska.
6.00 to 6.20	880—KSEI, Pocatello, Idaho.
6.10 to 6.30	1200—KVOS, Bellingham, Wash.
6.20 to 6.40	1310—KIT, Yakima, Wash.
6.30 to 6.50	1120—KRSC, Seattle, Wash.
6.40 to 7.00	1310—KXRO, Aberdeen, Wash.
6.50 to 7.10	1120—KFIO, Spokane, Wash.
7.00 to 7.20	1210—KFJI, Klamath Falls, Ore.
7.10 to 7.30	1310—KMED, Medford, Ore.
7.20 to 7.40	1420—KORE, Eugene, Ore.

FIRST TUESDAY

2.00 to 2.20	1210—WQDX, Thomasville, Ga.
2.10 to 2.30	1200—WBHS, Huntsville, Ala.
2.20 to 2.40	1370—WHBQ, Memphis, Tenn.
2.30 to 2.50	1420—WEED, Rocky Mount, N. C.
2.40 to 3.00	1500—WOPI, Bristol, Tenn.
2.50 to 3.10	1320—WSMB, New Orleans, La.
3.00 to 3.20	1370—WMBR, Jacksonville, Fla.
3.10 to 3.30	1420—WNRA, Muscle Shoals, Ala.
3.20 to 3.40	1310—WSJS, Winston-Salem, N. C.
3.30 to 3.50	1500—WHEF, Koscusko, Miss.
3.40 to 4.00	1200—KMLB, Monroe, La.

3.50 to 4.10	1370—WAGE, Dothan, Ala.
4.00 to 4.20	1200—KWG, Stockton, Calif.
4.10 to 4.30	1310—WTJS, Jackson, Tenn.
	1500—KPJM, Prescott, Ariz.
4.20 to 4.40	1370—WPFB, Hattiesburg, Miss.
	1370—KERN, Bakersfield, Calif.
4.30 to 4.50	1420—WGPC, Albany, Ga.
	1500—KXO, El Centro, Calif.
4.40 to 5.00	1200—WBNO, New Orleans, La.
	1210—KIEM, Eureka, Calif.
4.50 to 5.10	1310—WROL, Knoxville, Tenn.
	1440—KLS, Oakland, Calif.
5.00 to 5.20	1500—WDNC, Durham, N. C.
	1420—KGIX, Las Vegas, Nev.
5.10 to 5.30	1200—WJBW, New Orleans, La.
	1320—KGMB, Honolulu, Hawaii.
5.20 to 5.40	1310—WAML, Laurel, Miss.
	1370—KKE, Berkeley, Calif.
5.30 to 5.50	1210—WSIX, Springfield, Tenn.
	750—KGU, Honolulu, Hawaii.
5.40 to 6.00	1370—KGAR, Tucson, Ariz.
5.50 to 6.10	1310—KCRJ, Jerome, Ariz.
6.00 to 6.20	1100—KGDH, Stockton, Calif.
6.10 to 6.30	1200—KSUN, Lowell, Ariz.
6.20 to 6.40	740—KTRB, Modesto, Calif.

FIRST WEDNESDAY

2.00 to 2.20	1310—WEBR, Buffalo, N. Y.
2.10 to 2.30	920—WPEN, Philadelphia, Pa.
2.20 to 2.40	1310—WSAJ, Grove City, Pa.
2.30 to 2.50	1410—WHIS, Bluefield, West Va.
2.40 to 3.00	1310—WFBG, Altoona, Pa.
2.50 to 3.10	1200—WPHR, Petersburg, Va.
3.00 to 3.20	1370—WDSB, Philadelphia, Pa.
	1500—WBBB, East Dubuque, Ill.
3.10 to 3.30	1410—WRBX, Roanoke, Va.
	1200—WHBC, Canton, O.
	1420—KGIW, Trinidad, Colo.
3.20 to 3.40	1210—WMBG, Richmond, Va.
	1310—WTRC, Elkhart, Ind.
	1370—KICA, Clovis, N. M.
3.30 to 3.50	1370—WSVS, Buffalo, N. Y.
	1410—WBCM, Bay City, Mich.
	1200—KGHI, Little Rock, Ark.
3.40 to 4.00	1310—WGH, Newport News, Va.
	630—WGBF, Evansville, Ind.
	1420—KIDW, Lamar, Colo.
3.50 to 4.10	1210—WOCL, Jamestown, N. Y.
	1410—WROK, Rockford, Ill.
	1200—KBTM, Jonesboro, Ark.
4.00 to 4.20	880—WQAN, Scranton, Pa.
	1310—WBOW, Terre Haute, Ind.
	1280—KFBB, Great Falls, Mont.
4.10 to 4.30	1430—WHEC, Rochester, N. Y.
	570—WOSU, Columbus, Ohio.
	1370—KGFL, Roswell, N. M.
4.20 to 4.40	1190—WSAZ, Huntington, W. Va.
	1310—WBEO, Marquette, Mich.
4.30 to 4.50	1500—WGAL, Lancaster, Pa.
	570—WKBN, Youngstown, Ohio.
	1250—WCAL, Northfield, Minn.
4.40 to 5.00	1070—WCAZ, Carthage, Ill.
	1200—KFJB, Marshalltown, Ia.
4.50 to 5.10	1400—WKBF, Indianapolis, Ind.
	1420—WACO, Waco, Tex.

5.00 to 5.20 1070—WDZ, Tuscola, Ill.
1200—KGDE, Fergus, Falls, Minn.
5.10 to 5.30 900—WLBL, Stevens Point, Wis.
1250—WLB, Minneapolis, Minn.
5.20 to 5.40 890—WBAA, West Lafayette, Ind.
1200—WIL, St. Louis, Mo.
5.30 to 5.50 1440—WTAD, Quincy, Ill.
1320—KGHF, Pueblo, Colo.
5.40 to 6.00 1240—WXYZ, Detroit, Mich.

FIRST THURSDAY

2.00 to 2.20 1210—WSOC, Charlotte, N. C.
2.10 to 2.30 920—WSPA, Spartanburg, S. C.
2.30 to 2.50 1310—WSGN, Birmingham, Ala.
2.40 to 3.00 1420—WJBO, Baton Rouge, La.
2.50 to 3.10 1210—WGCM, Gulfport, Miss.
3.00 to 3.20 1500—WRDW, Augusta, Ga.
1200—WHBY, Green Bay, Wis.
1310—WDAH, El Paso, Tex.
3.10 to 3.30 1240—WKAQ, San Juan, P. R.
1420—WJMS, Ironwood, Mich.
1370—KLUF, Galveston, Tex.
3.20 to 3.40 1360—WCSC, Charleston, S. C.
1210—WEDC, Chicago, Ill.
1310—KTSN, El Paso, Tex.
3.30 to 3.50 1440—WBIG, Greensboro, N. C.
1370—KGKL, San Angelo, Tex.
3.40 to 4.00 1340—WCOA, Pensacola, Fla.
1210—WSBC, Chicago, Ill.
1310—KFPM, Greenville, Tex.
3.50 to 4.10 1360—WQBC, Vicksburg, Miss.
1420—KFIZ, Fond du Lac, Wis.
1370—KMAC, San Antonio, Tex.
4.00 to 4.20 580—WBDO, Orlando, Fla.
1210—WEBQ, Harrisburg, Ill.
1310—KFYO, Lubbock, Tex.
4.10 to 4.30 1430—WNBK, Memphis, Tenn.
1200—WMPG, Lapeer, Mich.
1370—KONO, San Antonio, Tex.
4.20 to 4.40 560—WQAM, Miami, Fla.
1210—WHBF, Rock Island, Ill.
4.30 to 4.50 1220—WDAE, Tampa, Fla.
1500—WKBZ, Muskegon, Mich.
1370—KFJM, Grand Forks, N. D.
4.40 to 5.00 1210—WCBS, Springfield, Ill.
4.50 to 5.10 880—WCOC, Meridian, Miss.
1500—WKBY, Richmond, Ind.
5.00 to 5.20 1300—WIOD, Miami, Fla.
1210—WTAX, Springfield, Ill.
1310—KGBX, Springfield, Mo.
5.10 to 5.30 1260—WTOG, Savannah, Ga.
1370—WHBD, Mt. Orab, O.
1420—KCMC, Texarkana, Ark.
5.20 to 5.40 1210—WHBU, Anderson, Ind.
5.30 to 5.50 1370—WIBM, Jackson, Mich.
1420—KGFF, Shawnee, Okla.
5.40 to 6.00 1210—WOMT, Manitowoc, Wis.
1500—KNOW, Austin, Tex.

FIRST FRIDAY

3.00 to 3.20 1210—WJW, Akron, O.
1310—KRMD, Shreveport, La.
3.10 to 3.30 1420—WPAD, Paducah, Ky.
1500—KOTN, Pine Bluff, Ark.
3.20 to 3.40 1210—WCOL, Columbus, O.
1310—KFXR, Oklahoma City, Okla.

3.30 to 3.50 1420—WELL, Battle Creek, Mich.
1200—KGEK, Sterling, Colo.
3.40 to 4.00 1210—WALR, Zanesville, O.
1310—KFPL, Dublin, Tex.
3.50 to 4.10 1420—WMBC, Detroit, Mich.
1200—WCAT, Rapid City, S. D.
4.00 to 4.20 1310—WFDF, Flint, Mich.
1240—KGCU, Mandan, N. D.
4.10 to 4.30 1200—WFBE, Cincinnati, O.
1370—KWYO, Sheridan, Wyo.
4.20 to 4.40 1450—WGAH, Cleveland, O.
1240—KLFM, Minot, N. D.
4.30 to 4.50 1200—WCLO, Janesville, Wis.
1370—KGFQ, Oklahoma City, Okla.
4.40 to 5.00 1310—WCLS, Joliet, Ill.
1420—KABC, San Antonio, Tex.
4.50 to 5.10 1200—WJBL, Decatur, Ill.
1370—KFJZ, Fort Worth, Tex.
5.00 to 5.20 1500—WJBK, Detroit, Mich.
1430—KWCR, Cedar Rapids, Ia.
5.10 to 5.30 1210—WIBU, Poyntette, Wis.
1500—KGFI, Corpus Christi, Tex.
5.20 to 5.40 1370—WHDF, Calumet, Mich.
1420—WLBK, Kansas City, Kan.
5.30 to 5.50 1210—WCRW, Chicago, Ill.
1500—KGKB, Tyler, Tex.
5.40 to 6.00 1330—WTAQ, Eau Claire, Wis.
1420—WMBH, Joplin, Mo.
2.10 to 2.30 1210—WBRB, Red Bank, N. J.

FIRST SATURDAY

2.20 to 2.40 1500—WWRL, Woodside, N. Y.
2.30 to 2.50 1210—WGNV, Chester Twp. N. Y.
2.40 to 3.00 1500—WMBQ, Brooklyn, N. Y.
2.50 to 3.10 1210—WGBB, Freeport, N. Y.
3.00 to 3.20 1430—WOKO, Albany, N. Y.
1200—WJBC, Bloomington, Ill.
1330—KTRH, Houston, Tex.
3.10 to 3.30 1370—WGL, Fort Wayne, Ind.
1210—KFPW, Fort Smith, Ark.
3.20 to 3.40 810—WNYC, New York City.
1200—WWAE, Hammond, Ind.
1120—WTAW, College Station, Tex.
3.30 to 3.50 1130—WOV, New York City.
1310—WLBC, Muncie, Ind.
1210—KASA, Elk City, Okla.
3.40 to 4.00 1180—WINS, New York City.
1200—WFAM, South Bend, Ind.
1270—KWLC, Decorah, Ia.
3.50 to 4.10 1280—WCAP, Asbury Park, N. J.
4.00 to 4.20 610—WJAY, Cleveland, O.
1270—KGCA, Decorah, Ia.
4.10 to 4.30 1280—WTNJ, Trenton, N. J.
1430—WBNS, Columbus, O.
1210—KFVS, Cape Girardeau, Mo.
4.20 to 4.40 920—WWJ, Detroit, Mich.
780—KGHL, Billings, Mont.
4.30 to 4.50 1380—KQV, Pittsburgh, Pa.
1210—KDLR, Devils Lake, N. D.
4.40 to 5.00 1420—WLAP, Lexington, Ky.
4.50 to 5.10 1380—WSMK, Dayton, O.
1200—KFXJ, Grand Junction, Colo.
5.00 to 5.20 940—WAVE, Louisville, Ky.
560—KFDM, Beaumont, Tex.
5.10 to 5.30 1320—WADC, Akron, O.
1210—KWTN, Watertown, S. D.

5.20 to 5.40	1340—WSPD, Toledo, O.
	760—WEW, St. Louis, Mo.
5.30 to 5.50	1210—KWEA, Shreveport, La.
5.40 to 6.00	880—WSUI, Iowa City, Ia.
5.50 to 6.10	1230—KGGM, Albuquerque, N. M.

FIRST SUNDAY

3.00 to 3.20	1290—KLCN, Blytheville, Ark.
3.30 to 3.50	1440—KXYZ, Houston, Tex.
3.50 to 4.10	1400—KTUL, Tulsa, Okla.
4.00 to 4.20	1260—KPAC, Port Arthur, Tex.
4.10 to 4.30	1340—KGDY, Huron, S. D.
4.20 to 4.40	1260—KRGV, Weslaco, Tex.
4.50 to 5.10	890—KARK, Little Rock, Ark.
5.00 to 5.20	570—KGKO, Wichita, Falls, Tex.
5.20 to 5.40	1010—WNAD, Norman, Okla.
5.40 to 6.00	1260—KUOA, Fayetteville, Ark.

CANADIAN FREQUENCY CHECKS

Following is a list of eastern Canadian stations required to transmit special test programs the 19th and 20th of each month for the CRC monitor at Ottawa. Time is A. M., and Eastern Standard:

12.41 to 12.49	CKPC, 930 kcs., Brantford, Ontario
12.51 to 12.59	CHNS, 930 kcs., Halifax, Nova Scotia
1.01 to 1.09	CFCY, 630 kcs., Charlottetown, P. E. I.
1.11 to 1.19	CJLS, 1310 kcs., Yarmouth, Nova Scotia
1.21 to 1.29	CFPL, 730 kcs., London, Ontario
1.31 to 1.39	CJKL, 1310 kcs., Kirkland Lake, Ontario
1.41 to 1.49	CHNC, 1210 kcs., New Carlisle, Quebec
1.51 to 1.59	CFNB, 550 kcs., Fredericton, N. B.
2.01 to 2.09	CHRC, 580 kcs., Quebec City, Quebec
2.11 to 2.19	CFCH, 930 kcs., North Bay, Ontario
2.21 to 2.29	CRCS, 950 kcs., Chicoutimi, Quebec
2.31 to 2.39	CKGB, 1420 kcs., Timmins, Ontario
2.41 to 2.49	CKCL, 580 kcs., Toronto, Ontario
2.51 to 2.59	CKTB, 1200 kcs., St. Catharines, Ontario
3.01 to 3.09	CHSJ, 1120 kcs., St. John, N. B.

Radio Prieto, LS2, Buenos Aires, will transmit a special courtesy program for The Newark News Radio Club November 25, on 1190 kilocycles, from 2.30 to 4 A.M., EST. To consist of popular recording and American songs, typical Argentine orchestras and singers of tangos, and to be announced in English and Spanish, this broadcast should be of especial appeal to distant listeners in all sections of the northern hemisphere. It was arranged by Carl Forestieri, a member of the club, 463 East 185th Street, New York City.

DX CHATTER

DO YOU KNOW . . . that a new station is scheduled to operate on 1380 kcs., 250 watts, daytime, in New Britain, Conn., as is one in Hibbing, Minn., on 1210 kcs., 100 watts, unlimited time (and still they come!) . . . that WGLC, Hudson Falls, N. Y., is definitely moving to Albany with possibly a change of call . . . that WBAA, West Lafayette, Ind., now has 1000 watts on 890 kcs., instead of 500 on 1400 kcs. . . that WALR, Zanesville, O., has been refused permission (so far) to move to Toledo . . . that WEHC, Charlottesville, Va., moves from 1350 to 1420 kcs., with 100 watts night power . . . that New York is to have another new station; this one in Plattsburg, on 1310 kcs., with 100 watts . . . that another new station has been given a construction permit to operate on 1370 kcs., 100 watts, in Longview, Tex. . . . that the Cuban on 955 kcs., is reported as CMCQ, Havana . . . that CMQ, Havana, now on 840 kcs., is using 5000 watts?

THE STATION'S VIEWPOINT

(Continued from Page 8)

time you played a selection—not only one but oftentimes five and even a complete program. That's the kind of a report we like to receive because it contains not only information about the program but weather conditions, strength of our signals, whether we fade and in fact, the entire dope. We receive about four or five such reports every DX program and how our engineering department fights for those letters! This type of fan also encloses return postage or a return postal card. He's a pal!

After DX programs we let our mail accumulate for a few days and then my secretary has the job of acknowledging and is it a mess! Eventually, all of it is taken care of and we feel happy to think that we ran the program. Then some bird writes in about six or eight weeks later and wants a verification. He probably saw one his friend had and wants to get one himself even though he was asleep during the broadcast. So I ask you DX fan what would you do? Well, that's just what we did.

Of course, we are only a small station out here in Indiana but if the trials and tribulations of a DX program are ten times worse than ours on a 10,000 watt station, I certainly sympathize with you 10,000 watters.

Think it over, DXers. Get a return postal card from the post office, fill it out when you want a verification, send it in and 95 per cent of your verification troubles will be permanently over.

TUNING THE SHORT WAVES

It is important that the short wave listener tune very slowly and carefully over the short wave bands. An almost imperceptible movement of the dial is enough to pass by a weak short wave station. In many cases it will be found that short wave stations are spaced less than a hairline apart but by careful tuning each station can be logged separately.

By careful tuning many weak stations may be brought in with good volume. A slight hiss on each side of the frequency indicates a weak station. This is more evident if the tone control is turned to the right. Tune to the quiet point between the hissing sound because this point provides the best reception. This hissing sound is often of assistance in locating stations whose transmitters are on but which are not operating at the moment.

Short wave listeners should not expect dial markings to be 100 per cent correct. For instance, EAQ, Madrid, Spain, operates exactly on 10 megacycles, but on your set it may come in slightly to the right or to the left of that mark. This is true of any short wave station. If you are a DX fan you will find that it helps to jot down the actual dial positions for the various frequencies. This practice will help you in tuning and identifying stations of known frequency.

WHEN TO TUNE

The best time to tune on these four bands is as follows: In early morning and daytime, tune very slowly at the 10, 12, and 15 megacycle bands. In the afternoon and night, tune slowly at the 6 and 10 megacycle bands. Remember the difference in time; when it is 8 P. M., in New York, it is 1 A. M. in London. At this hour most of the European stations have signed off, but numerous South American stations are still operating.

Do not expect to receive a foreign short wave station merely because it is scheduled to be in operation. Reception conditions and local interference are determining factors in deciding which stations you can hear at any particular time.

SKIPPING

Many a short wave listener has undoubtedly been puzzled over his inability to hear a powerful American short wave station located comparatively near when by turning his dial a bit, he can receive a program from a station a thousand miles away clearly and powerfully. The reason is that the ground wave of a short wave transmitter follows the ground only a short distance before it loses its power and cannot be heard while the aerial component shoots off into space, continuing until it hits what is known as the Heaviside layer and is reflected back to earth at some distance from the transmitter. Thus, a listener may be so located that

he is just outside of the range of the ground wave of a station and in an area where the sky wave has not yet returned to earth. Therefore, he does not hear this station which may be fairly close to him yet hear perfectly, other stations hundreds of miles farther away.

STATION IDENTIFICATIONS

Many short wave stations announce in several languages, including English. A good many have characteristic signatures some of which are listed below:

DJA, DJB, etc.—Zeesen, Germany. Signs in English, Spanish and German. Plays characteristic eight-bar chime selection during intermission.

EAQ—Madrid, Spain (10.0 megacycles). Signs in English.

FYA—Pontoise, France (11.705, 11.905, 15.240 megacycles). Plays "Marseillaise" at start and close of program. "Hello, hello, ici Paris, Radio-Coloniale, 103 Rue de Grenelle."

GSA GSB, etc.—Daventry, England. Announces "London calling." Plays "God Save the King," and gives Big Ben chimes on the hour.

HVJ—Vatican City (5.970 and 15.120 megacycles). Announces "Pronto, pronto, Radio Vaticano."

12RO—Rome, Italy (6.200 and 11.810 megacycles). Lady announcer, "Radio Roma" or "Radio Roma Napoli."

OXY—Skamleback, Denmark (6.090 and 9.520 megacycles). Broadcasts midnight chimes at 6 P. M. (EST).

PRADO—Riobamba, Ecuador (6.620 megacycles). Announces "Estacion El Prado, Rio Bamba, Ecuador."

RV59—Moscow, U. S. S. R. (6.0 megacycles). Broadcasts midnight chimes from the Kremlin at 5 P. M. (EST).

SR1—Poznan, Poland (9.49 and 9.57 megacycles). Announces "Hello, hello, Polski Radjo-Poznan."

T14NRH—Heredia, Costa Rica (9.670 and 15.075 megacycles). Bugle call or tic-tac between selections.

VK2ME—Australia (9.590 megacycles). Laughing notes of the Kookaburra bird open and close program.

By special arrangement with the International DXers Alliance, VK2ME, Sydney, Australia, will dedicate three special broadcasts to the Canadian provinces, Alaska, and Yukon. The programs will be transmitted on 28.5 meters December 9 as follows: 2.15 to 3 A.M.: Alaska, Yukon, British Columbia, Alberta, Saskatchewan; 6.30 to 7 A.M.: Manitoba, Ontario; 7 to 7.30 A.M.: Quebec, New Brunswick, Nova Scotia. Time is Eastern Standard. VK2ME desires reports of reception on these broadcasts and will verify promptly.

SHORT WAVE NOTES

THEY SAY . . . that the "mysterious" Spanish speaking station on 6,720 kilocycles is really the harmonic of XENT, Nuevo Laredo, Mexico . . . that quite close to the aforementioned frequency, 6,700 kcs., to be exact, is TIEP, "The Voice of the Tropics," San Jose, Costa Rica, whose present schedule is from 3 to 9 P. M., sometimes as late as 10 P. M., almost daily, in conversation with amateur T12EP, address Apartado 257, San Jose . . . that YV2RC, Caracas, Venezuela, a regular visitor to these parts can be heard on 6,112 kcs. (very close to the frequency of W3XAL) almost every evening from 6 to 9 and 10 . . . that CMPN, the Havana Police station, formerly a BC station, has been relegated to 1,712 kcs., or 175 meters . . . that COC, Havana, is using 6,010 kcs., 49.9 meters

. . . that LSX, Buenos Aires, and W2XAF, Schenectady, N. Y., have arranged a special broadcast for International Rotary Clubs starting 9 P. M., November 15; (members of both cities will hold a two-way conversation) . . . that LSX uses 10,350 kcs. (28.98 meters) and W2XAF 9,530 kcs. (31.48 meters)

. . . that an Indian station on 9,566 kcs., has been identified as VUY, the regular schedule of which is 11:30 A. M. to 12:30 P. M., E.S.T., relaying the programs of VUB, Bombay, India . . . VUY, or as some report it, VWY, is located in Kirkee, India . . . that said stations are very close to WIXAZ, Boston, so have selectivity on your receiver; you'll need it . . . that single, copper enameled wire is judged better for SW reception than stranded . . . that HJIABE, Cartagena, Colombia, 7001 kcs., is on from 8 to 9 P. M., E.S.T., every evening . . . that NJIABB, Baranquilla, Colombia, is on 6,450 kcs., daily from 7 to 10 P. M., . . . that the address of VK2ME, Melbourne, Australia, is G. P. O., Box 1272L . . . that OER2, Vienna, Austria, about 6,070 kcs., (49.4 meters), is considered a rare catch, operates irregularly, and is usually on the air during the early morning hours . . . that PHI, Huizen, Holland, is now being heard on 11,730 kcs., instead of their old 17,770 . . . that HJ13ABD, Colombia, moved from their old frequency to 7,410 kcs., (40.5 meters) . . . that their scheduled time is 7 to 11 P. M., E.S.T., daily.

The International DXers Alliance announces three short wave broadcasts. The first, November 24, is to come from XEBT, Mexico City, at 11 P. M., E.S.T. Operating on 6,010 kcs., or 49.92 meters, XEBT's program will feature Enrique Guerrero, tenor (a member of the club) and the Mexican Variety Hour.

The second, December 16, will be transmitted by HBP, Geneva, Switzerland, 7,800 kcs., 38.47 meters, from 5 to 6 P. M., E.S.T., direct from the League of Nations and will be in the nature of a "surprise program."

Then on December 21, from 1 to 3 A. M., E.S.T., HJN, Bogota, Colombia, 6,079 kcs., 49.35 meters, will broadcast with their new transmitter. Reports should be addressed to HJN Ministerio de Correos y Telegrafos, Bogota.

NNRC COURTESY PROGRAMS COMMITTEE

Louis Hahn, Chairman, 120 West 62nd Street, New York City: 1000, 1010, 1020, 1030, 1040, 1050, 1060 kilocycles, eastern Mexico and foreign programs.

William H. Applegate, Vice Chairman, 447 North Waller Avenue, Chicago: Canadian programs.

Fred W. Janssen, Vice Chairman, 220 South Santa Cruz Street, Ventura, Cal.: 1500 kilocycles and western Mexico.

Alec Kinghorn, Apartado 2488, Havana, Cuba: Cuban programs.

Arthur E. Foerster, 1213 Bosart Avenue, Indianapolis, Ind.: 1320, 1330, 1340, 1350, 1360, 1370 kilocycles.

Philip R. Nichols P. O. Box 82, East Hartford, Conn.: 860, 870, 880, 890, 900, 910, 920 930 kilocycles.

Carroll H. Weyrich 4310 Evans Chapel Road, Baltimore, Md.: 1220, 1230, 1240, 1250, 1260, 1270, 1280, 1290, 1300 kilocycles.

William Vornkahl, Westport, Conn.: 1150, 1160, 1170, 1180, 1190, 1210 kilocycles.

Charles M. Bannerman 518 Boulevard, Shreveport, La.: 940, 950, 960, 970, 980, 990, 1110, 1120, 1130, 1140 kilocycles.

Jack B. Schneider, 17 Center Street, Garwood, N. J.: 540, 550, 560, 570, 580, 590, 600, 610, 620, 660, 670, 680, 690, 700 kilocycles.

J. Kenneth Vetter, 964 Waukegan Road, Deerfield, Ill.: 1420, 1430, 1440, 1450, 1460, 1470, 1480, 1490 kilocycles.

James J. Hart, 617 Grove Street, Irvington, N. J.: 1200, 1380, 1390, 1400, 1410 kilocycles and Central and South American programs.

James E. Good, 33 East 17th Street, Linden, N. J.: 1070, 1080, 1090, 1100, 1310 kilocycles.

Eugene J. Bataille, 78 Franklin Avenue, Maplewood, N. J.: 710, 720, 730, 740, 750, 760, 770, 780, 790, 800 kilocycles.

Robert Musson, 35 Couch Street, South Norwalk, Conn.: 630, 640, 650, 810, 820, 830, 840, 850 kilocycles.

PRINCIPAL SHORT WAVE STATIONS OF THE WORLD

Central Standard Time, Add One Hour For Eastern Standard Time

Call	Kilocycles	Meters	Location	Time
W3XL	6.386	46.96	Bound Brook, N. J.	Experimental Broadcasts
VE9BY	6.426	46.65	London, Ontario, Canada	Wed. 7:30-8:30 p.m.; Sat. 7-10 p.m.
XDA	11.760	25.50	Mexico City, Mexico	Tests XAM, Noon to 5 p.m.
12RO	11.800	25.40	Rome, Italy	10-11:30 a.m.; 1:30-4:30 p.m.
PCK	18.400	16.29	Kootwijk, Holland	Phones Java about 6 a. m.
GSD	11.750	25.51	Daventry, England	To Oceania 3:30-5:30 a. m.
VE9JR	11.710	25.60	Winnipeg, Manitoba	Tues. 5:30-7:30 p.m.; Fri. to 9
YVQ	11.680	25.67	Maracaibo, Venezuela	Tests with Germany 4-6 p.m.
DGT	11.710	25.60	Koenigswusterhausen, Germany	1:30 to 5 p.m.
PPK	11.644	25.75	Rio de Janeiro, Brazil	Tests at 5 p.m.
XAM	11.530	26.00	Merida, Yucatan, Mexico	7:30 p.m.
CT3AQ	11.174	26.83	Funchel, Madeira	Tues. & Thurs. 4 to 5:30 p.m.
KWV	10.830	27.68	Dixon, California	Phones Hawaii irregularly
ORK	10.340	28.99	Brussels, Belgium	Phones OPM, 1-3, 8-10 a.m.; 2-5 p.m.
DJQ	10.285	29.15	Koenigswusterhausen, Germany	1 to 5 p.m.
DIQ	10.246	29.26	Nauen, Germany	Phones 1:30 to 4 p.m.
FSH	10.212	29.35	Rio de Janeiro, Brazil	Tests W2XBJ Evenings
OPM	10.090	29.70	Loeopoldsville, Africa	Phones ORK, 8-10 a. m.; 2-5 p.m.
VRT-ZFA	10.060	29.80	Hamilton, Bermuda	Phones WNB days
GSH	21.470	13.96	Daventry, England	Daily 1 to 6 p.m.
WKK	21.400	14.01	Lawrenceville, N. J.	7 a.m. to 3 p.m.
PSA	21.069	14.23	Rio de Janeiro, Brazil	7 to 8 a.m.
WKA	21.054	14.24	Lawrenceville, N. J.	7 a.m. to 3 p.m.
LSN	21.020	14.27	Buenos Aires, Argentina	7 a.m. and 3 p.m.
LSY	20.820	14.40	Buenos Aires, Argentina	From morning to 1 p.m.
W9XF	20.500	14.63	Chicago, Illinois	3:30-7 p.m.; 8:30 p.m.-1 a. m.
DHO	20.028	14.97	Nauen, Germany	Phones LSG 6-10 a.m. irregularly
LSG	19.895	15.07	Buenos Aires, Argentina	9:30 a.m. to 2:30 p.m.
TGW	6.611	45.35	Guatemala City, Guatemala	Tue., Thur. Fri., 9:30 to 11 p.m.
PRADO	6.618	45.31	Riobamba, Ecuador	Thursdays 8 to 10 p.m.
IAC	6.648	45.10	Caltano, Italy	Testing irregularly
DGK	6.888	43.54	Nauen, Germany	Phones WEJ 8 p.m.
KEQ	6.675	44.91	Kahuku, Hawaii	Phones California nights
HJ4ABB	7.139	42.00	Manizales, Colombia	Saturday 9 p.m. to 11 p.m.
CM5RY	7.312	41.03	Matanzas, Cuba	Saturday 9:45 to 10:30 p.m.
KDK-KKH	7.518	39.89	Kahaku, Hawaii	8 p.m. and 1 a.m.
HJ3ABF	7.610	39.40	Bogota, Colombia	6 p.m. to 10 p.m.
HBP	7.790	38.49	Geneva, Switzerland	Sunday 4 to 4:45 p.m.
PSK	8.180	36.65	Rio de Janeiro, Brazil	Phones WOK irregularly
HJY	9.928	30.20	Bogota, Colombia	Phones OCI Evenings
LSN	9.895	30.30	Buenos Aires, Argentina	5 p.m. and 5 a.m.
JIAA	9.862	30.40	Tokio, Japan	4 to 6:45 a.m.
EAQ	9.862	30.40	Madrid, Spain	5:30 to 7 p.m.
T14NRH	9.670	31.00	Heredia, Costa Rica	Week days 9 to 10 p.m.
CTIAA	9.592	31.25	Lisbon, Portugal	Tues. & Fri. 4 to 6 p.m.
VK2ME	9.585	31.28	Sydney, Australia	Sunday 12-1 a.m., 4-8 a.m.
GSC	9.585	31.28	Daventry, England	Daily, 1 to 6 p. m.
HBL	9.580	31.30	Geneva, Switzerland	Sunday 4 to 4:45 p.m.
SRI	9.570	31.33	Poznan, Poland	Tuesday 5 to 7 a.m.
W1XAZ	9.560	31.36	Springfield, Mass.	3 p.m. to 11:30 p.m.
VE9DR	9.555	31.37	Drummondville, Quebec	4 to 5 p.m.
DJA	9.552	31.38	Zeesen, Germany	1 to 5:30 p.m.
W2XAF	9.530	31.46	Schenectady, N. Y.	4:15 to 10 p.m.
OXY	9.520	31.49	Skamleback, Denmark	1 to 5:30 p.m.
GSB	9.510	31.53	Daventry, England	To Canada, 7 to 9 p.m.
VK3ME	9.503	31.55	Melbourne, Australia	Wed. 4-5:30 a.m.; Sat. 4-6 a.m.
PRBA	9.492	31.58	Rio de Janeiro, Brazil	Broadcasts 5 to 5:15 p.m.
PLW	9.480	31.63	Bandoeng, Java	Phones Australia 2 to 7 a. m.
CNR	9.276	32.32	Rabat, Morocco	Sunday 2 to 5 p.m.
KEJ	9.012	33.27	Bollinas, California	Testing irregularly
TGX	8.950	33.50	Guatemala City, Guatemala	Saturday 9 to 11 p.m.
VE9BY	8.645	34.68	London, Ontario, Canada	Monday 2 to 3 p.m.
ICEJ	8.566	35.00	"Steamship Rex"	
GSE	11.865	25.40	Daventry, England	Phones to India 8:30 to 10:30 a. m.
W8XK	11.872	25.25	Pittsburgh, Pa.	Relays KDKA 3 to 9 p.m.
FYA	11.898	25.20	Paris, France	10:30 a.m. to 1:30 p.m.

Call	Kilocycles	Meters	Location	Time
FZS	12.000	24.98	Saigon, Indo-China	8 to 9 a.m.
DAN	12.490	23.81	Norden, Germany	Talks to Ships
GBC	12.780	23.46	Rugby, England	Phones to Ships irregularly
CNR	12.820	23.38	Rabat, Morocco	Sunday 6:30 to 8 a.m.
JIAA	13.074	22.93	Tokio, Japan	Phones experimental
CGA	13.296	22.55	Drummondville, Que. Can.	8 a.m. to 1 p.m.
GBB	13.500	22.09	Rugby, England	Talks in Daytime to Canada
SUZ	13.816	21.70	Cairo, Egypt	6 a.m. to 2:30 p.m.
GBW	14.450	20.75	Rugby, England	5 a.m. to 5 p.m.
HBJ	14.550	20.60	Geneva, Switzerland	
RXC	14.550	20.60	Panama City	Afternoons
PSS	14.682	20.42	Rio de Janeiro, Brazil	4 to 5 p.m.
HJB	14.760	20.32	Bogota, Colombia	10 a.m. to 4 p.m.
WMB	14.796	20.27	Miami, Florida	12 to 4 p.m.
TI4NRH	15.066	19.90	Heredia, Costa Rica	Sat. & Sun. 10 to 11 a.m.
HVJ	15.190	19.83	Vatican City	4 to 4:15 a.m.
GSF	15.140	19.81	Daventry, England	
DJB	15.190	19.73	Zeesen, Germany	7 to 11 a.m.
W8XX	15.204	19.72	Pittsburgh, Pa.	Relays KDKA, 8 a.m. to 3 p.m.
FYA	15.234	19.68	Paris, France	7 to 11 a.m.
W2XAD	15.320	19.57	Schenectady, N. Y.	Daily 12 to 2 p.m.
KWO	15.410	19.46	Dixon, California	Phones Hawaii—1 to 6 p.m.
EAQ	19.684	15.23	Madrid, Spain	Phones Saturday 12 to 2 p.m.
CEC	19.678	15.24	Santiago, Chile	10 a.m. to 3 p.m.
FTM	19.282	15.55	St. Assise, France	9 a.m. to 1 p.m.
PPU	19.270	15.57	Rio de Janeiro, Brazil	9:30 a.m. and 2:30 p.m.
LSR	18.958	15.82	Buenos Aires, Argentina	10 a.m. and 3 p.m.
PLE	18.820	15.93	Bandoeng, Java	Tues., Fri., 4:40 to 9:40 a.m.
OCI	18.670	16.06	Lima, Peru	1 p.m.
HJV	18.444	16.25	Bogota, Colombia	10 a.m. and 3 p.m.
JIAA	15.760	19.02	Tokio, Japan	Experimental Broadcasts
GBX	16.150	18.56	Rugby, England	3 p.m. and 10 p.m.
GBC	17.080	17.55	Rugby, England	Talks with ships
GSQ	17.770	16.90	Daventry, England	Talks to India—8:30 to 10:30 a.m.
W3XAL	17.772	16.87	Bound Brook, N. J.	7 a.m. to 3 p.m.
PCV	17.830	16.82	Kootwijk, Holland	5 to 8 a.m.
PMC	18.170	16.50	Bandoeng, Java	2:30 to 8:30 a.m.
YVQ	18.296	16.39	Maracaibo, Venezuela	9 a.m.
VE9CI	2.735	109.62	London, Ontario, Canada	Daily 8 to 10 p.m.
HCJB	3.998	75.00	Quito, Ecuador	6:30 to 8:45 a.m.
RV15	4.273	70.65	Kharbaravsk, U. S. S. R.	2 to 8 a.m.
ICEJ	4.283	70.00	"S. S. Rex"	
VE9BY	4.792	62.56	London, Ontario Canada	Saturday 11 to 12 p.m.
GBC	4.975	60.27	Rugby, England	Phones to ships
VRT	5.045	59.42	Hamilton, Bermuda	Phones WNB-GMBJ nights
DIQ	5.144	58.33	Nauen, Germany	7 to 8:30 a.m.
XAM	5.766	52.00	Merida, Yucatan, Mexico	Tests XDA, 9 a.m. & 8 p.m.
XDA	5.879	51.00	Mexico City, Mexico	Tests XAM, 9 a.m. & 8 p.m.
HKO	5.925	50.60	Medellin, Colombia	Tues., Thurs., Sat.—7 to 9 p.m.
HVJ	5.968	50.26	Vatican City	1-1:15 p.m.; Sun. 4-4:30 a.m.
HKD	5.996	50.00	Barranquilla, Colombia	7 to 9 p.m.
VE9DR	6.005	49.93	Drummondville, Que. Can.	6 to 11 p.m.
W4XB	6.036	49.67	Miami, Florida	4 to 10 p.m.
VE9AD	6.335	47.35	Drummondville, Que., Canada	5 to 7 p.m.
W8XK	6.140	48.83	Pittsburgh, Pa.	Relays KDKA, 3 to 10 p.m.
GSA	6.050	49.56	Daventry, England	Phones to Canada 7-9 p.m.
CMCI	6.057	49.50	Havana, Cuba	8 to 10 p.m.
VQ7LO	6.060	49.48	Nairobi, Kenya	10 a.m. to 2:30 p.m.
W8XAL	6.060	49.48	Cincinnati, Ohio	Relays WLW, 5-9:30 a.m.
YVIRC	6.119	49.00	Caracas, Venezuela	Relays 960 kilo—9:30-12 noon
W3XAL	6.096	49.17	Bound Brook, N. J.	Saturday 3:30 p.m. to midnight
W9XF	6.095	49.18	Chicago, Illinois	3:30-7 p.m.; 8:30 to 1 a.m.
VE9CS	6.070	49.39	Vancouver, B. C.	Fri. 11:30 a.m. to 12:45 p.m.
W9XAA	6.076	49.34	Chicago, Illinois	Sunday 10 a.m. to 8 p.m.
VE9BJ	6.090	49.23	St. John, N. B.	4 and 10 p.m.
VE9GW	6.092	49.23	Bowmanville, Ont.	4 to 10 p.m.

GROUND S

By Howard Beidleman

This is an opportune time to thoroughly inspect our ground connections. A loose ground wire is the cause of many a noise similar to static and is worse than no ground at all.

The good old cold water pipe seems to be the most preferred place to attach the ground wire although much experimentation has been done with other types. Dry earth is not a very good conductor of electricity and a good stunt which has been done by many of our members is to drive a pipe into the ground and to keep the pipe full of water into which has been dissolved common, coarse salt. Salt and water increase the conductivity of the ground and make it more effective. If a well is handy, tie several brass or copper plates on the end of the wire and drop them into it.

Broadcast engineers at one time used a counterpoise in connection with their antenna when it was used as part of their radiating systems. This is nothing more than a few wires close together, stretched out under the antenna wire and elevated about a foot from the ground. The ground connection is not used then. This principle can of course, be applied to a receiving set with good results if the ground space is available for erecting it.

Then there is the underground "aerial" little used to-day. It is not very efficient and requires some time and trouble to install it. It consists of a heavily insulated wire which is buried a few inches deep in a trough in the ground. The length is not critical but fifty feet seems to be enough. The leadin should be as near the house as possible making the leadin short and direct. A connection to it is made in the usual way. This type of antenna is very directional and points towards the signals that will be received the strongest. Static is not present with such an antenna but signal strength is also reduced.

WHEN NOT ESSENTIAL

Occasionally, I have seen sets that work better without a ground than with

one. This is a condition of the receiver in which it becomes slightly unstable without a ground and gives greater amplification. If this is true of your receiver, then don't worry about a ground system.

Not long ago someone offered the idea that some harm would come to the receiver if no ground were used at all but this is not true. There may however, some harm come to the receiver if the ground wire is connected to the antenna post. This is not true of all sets but on some where the chassis is connected to the AC line through a small condenser enough current may pass through to burn out the antenna coil. If you are using such an arrangement, that is, picking up the signal on the ground alone without using an aerial, then I would suggest that you flick the wire on the antenna post several times to see if there is any spark between the two. If not, it should be O.K., but if there is an appreciable spark reverse the AC plug in its socket and repeat the procedure. If it still sparks don't use it. It is however, quite safe when connected to the ground post.

I have had numerous requests for diagrams and constructional details for building short wave receivers. I would suggest the American Radio Relay League, 38 La Salle Street, West Hartford, Conn., which publishes a small booklet on "How To Become An Amateur." It contains diagrams of short wave receivers and all the information necessary to build them. The cost is only a quarter and it is well worth it.

NNRCers

The following have been admitted to membership in The Newark News Radio Club: Mrs. Mabel Applegate and Leo Herz, Chicago; Mrs. Martha Foerster, Indianapolis; James D. Randolph, Warren Plains, N. C.; Lloyd Westmoreland, Regina, Sask.; Erwin Beitman, Elyria, O.; Francis Harris, Worcester, Mass.; Walter C. Birch, Lynn, Mass.; William L. Bauer, Baltimore; Charles Lindner, West Reading, Pa.; Gustave Johnson, Great Kills, Staten Island; Leon Hochman nad Charles McGovern, Brooklyn; Philip Rebuella, Sam Kiamie and W. R. Ritayik, New York City, and in New Jersey, George C. Valentine, Dover; Willard K. Jennings, Rahway; William E. Mays, Linden; Mr. and Mrs. V. C. Hurrell, Chatham Township, and Mr. and Mrs. Walter Weber, H. E. Slickerman and Robert Godfrey of Newark.

DX CERTIFICATES AND RULES GOVERNING THEIR ISSUANCE

Effective September 1, 1934

In the early days of THE NEWARK NEWS RADIO CLUB when the membership was confined to the City of Newark and vicinity, it was a simple matter to make rules that were equal and just for the issuance of certificates to members; now, however, when the membership is over 2,000 and scattered all over North America, England, Hawaii and New Zealand, we find these rules obsolete and it becomes necessary to formulate a new set that will be more equitable under present conditions. With this idea in view, THE NEWARK NEWS RADIO CLUB has adopted the following rules and procedure for issuing DX certificates.

Any member desiring a DX certificate will apply either in person or in writing to the Chairman or Vice-Chairman of the DX Qualifications Committee for an APPLICATION FOR CERTIFICATE. This application will be furnished by the Committee, which, at the same time, will mark thereon the number of verified distant stations required for the certificate in question, together with the DISTANCE RATING.

The member will fill out and return the APPLICATION FOR CERTIFICATE with the required fee and return postage (when necessary). When APPLICATION FOR CERTIFICATE, properly filled out, is received by the Committee it will be placed on file and the proper DX certificate issued to the member.

NO VERIFICATIONS ARE TO BE SENT TO THE COMMITTEE. THIS IS TO BE STRICTLY AN HONOR AGREEMENT BETWEEN THE CLUB AND MEMBERS.

Any question as to the authenticity of a member's verifications must be submitted to the Director of the district in which the member is located.

GENERAL REQUIREMENTS

RULE 1. JUNIOR DX CERTIFICATES: The requirements for this certificate are that a member must have logged 100 or more station calls none of which need be verified.

RULE 2. MASTER DX CERTIFICATES: The requirements for this certificate are that a member must have logged 200 or more station calls.

THE NUMBER OF VERIFIED DISTANT STATIONS will vary, depending upon the geographical location of members. The DX Qualifications Committee will inform them of their individual DISTANCE RATINGS and how many verified station calls are required to qualify for this certificate.

Verifications may consist of cards, letters, Ekko stamps or combinations of same. Verifications from DELETED stations count the same as those from active stations.

RULE 3. PAST MASTER CERTIFICATE: The requirements for this certificate are that a member must have logged 300 or more station calls. See also paragraph 2 of Rule 2.

RULE 4. ACE CERTIFICATE: The requirements for this certificate are that a member must have logged 400 or more station calls. See also paragraph 2 of Rule 2.

RULE 5. SUPER ACE CERTIFICATE: The requirements for this certificate are that a member must have LOGGED AND VERIFIED 500 or more station calls. See also paragraph 2 of Rule 2.

RULE 6. HONOR CERTIFICATE: The requirements for this certificate are that a member must have LOGGED AND VERIFIED 800 or more station calls. See also paragraph 2 of Rule 2.

An applicant for this certificate must also possess all of the lower grades of certificates from JUNIOR to and including the SUPER ACE.

FEES FOR CERTIFICATES

The fees for all certificates from JUNIOR to and including the HONOR certificate will be fifty cents each.

FURTHER EXPLANATION OF RULES

For those members who are located in the AST, EST, (east of Philadelphia), and PST zones the DISTANCE RATING and NUMBER OF VERIFIED STATIONS required for the various certificates are as follows:

JUNIOR: A log of 100 or more station calls none of which need be verified.

MASTER: A log of 200 or more station calls one of which must be verified and from a distance of 2,000 miles or more.

PAST MASTER: A log of 300 or more station calls five of which must be verified and from a distance of 2,000 miles or more.

ACE: A log of 400 or more station calls ten of which must be verified and from a distance of 2,000 miles or more.

SUPER ACE: A log of 500 or more station calls all of which must be verified, including 50 from a distance of 2,000 miles or more.

HONOR: A log of 800 or more station calls all of which must be verified, including 100 that are from a distance of 2,000 miles or more.

For members located in the EST zone, west of Philadelphia, those in the CST and MST zones the **DISTANCE RATING** and **NUMBER OF VERIFIED DISTANT STATIONS** required will vary according to the geographical location.

For example—a member may be roughly 1,500 miles from the east and west coasts. In this case he or she may count each 1,500 mile verification as three-quarters of a 2,000 mile or, in other words, twenty 1,500 mile verifications will count as fifteen 2,000 mile confirmations.

Special rules will be made to cover the cases of members in Europe, Hawaii, New Zealand, Australia, and other foreign countries.

In all instances **DISTANCE** will be measured upon a Rand, McNally map, especially made for **THE NEWARK**

NEWS RADIO CLUB.

It is to be understood that all decisions on applications and ratings are final.

The Directors of the Club are hereby authorized to examine and approve or disapprove members' verifications.

The status of certificates, previously issued, will in no way be changed by these new and more general rules.

DXING IN CANADA

By James Woonton, London, Ontario

No doubt there are many in the United

States and other countries who would like to know just how we here in Canada find DXing conditions, so with the permission of our president I will endeavor to briefly present our problems.

It is possible that many believe Canadian DXers have an advantage over our good friends in the United States because we are not so close to the more powerful stations. While that may be true my observations lead me to state it is my opinion we are all on about even terms when it comes to dialing for distant stations. We, too, have our share of electrical interference from power transformers, motors and other devices. Canada also has its share of interference on the frequencies set aside for the low powered stations.

LICENSE REQUIRED

The Canadian Government requires that all radio owners must have a license to operate them. The annual fee is \$2. This fee is used to defray the cost of better programs broadcast by the Canadian Radio Commission's own stations comprising the Canadian network. The Commission owns and operates many stations throughout Canada. They may be identified by the first three letters of their calls—CRC—and the fourth letter usually designates the city or town wherein the station is located. For instance, CRCT is a Canadian Radio Commission station and the fourth letter denotes that it is located in the City of Toronto.

The Canadian Radio Commission has inspectors located throughout the Dominion whose duties include checking up on interference and licenses in addition to checking frequencies of the stations. When the inspectors definitely locate the source of electrical interference every effort is directed towards its elimination through the installation of filters or other devices.

CRC inspectors are equipped with the necessary apparatus for locating and determining the source and cause of electrical interference but of course, it is difficult to stop all such noise. Just recently I have been bothered with electrical interference and the inspector of our district has on several occasions tried to trace its origin. Although he has so far been unsuccessful I am grateful for the assistance I have been given and I do think that the \$2 I pay for my annual license for my receiver is money well spent.

Many leading radio manufacturers of the United States including Philco, Sparton, Majestic, Westinghouse, General Electric, Crosley, Stromberg-Carlson and a few others have branch factories in Canada so you see we are not limited to a few makes in the selection of receivers. I use a Sparton, model 16 AW, twelve tube set and find it to be good for both BC and SW reception. A Canadian manufactured receiver, the Marconi, is also very good and is used by many with success.

In the final analysis, DXing in Canada is not so different from that in the United States as there are locations where it is exceptionally good and those where a good sized log is compiled only through perseverance and the ability to "take it." Other factors are of course a good receiver, antenna and ground system.

XEFI, Chihuahua, Chih., Mexico, announce a series of special DX programs to be broadcast from 3 to 3:30 or 4 A.M., EST, on the following dates: November 15, 29; December 6, 20; January 5, 17, 31; February 7, 21, and March 6. The one scheduled for January 5 will be dedicated to the NNRC. XEFI's initial broadcast of this series, October 18, was presented in the club's honor. Announcements will be in Spanish and English and in order to procure a verification of reception it will be necessary to enclose a postal coupon. Postage stamps are unacceptable.

KGFF, Shawnee, Okla., will transmit special DX programs November 29 from 3 to 5 A.M., December 20, 3 to 5:30 A.M., and January 1 from 3 to 5 A.M. Time given is Eastern Standard. The November 29 broadcast will be dedicated to The Newark News Radio Club. All reports will be checked with the station's log and correct ones will be confirmed.

Writing to Chairman Louis Hahn of our courtesy programs committee, Richard L. Evans, production manager of KSL, Salt Lake City, says: "We are at the present time in the process of moving into new studios and are very much unsettled. However, when things are in shape we shall be occupying what will perhaps be the most modern and commodious studios west of Chicago and in connection with our formal opening it may be that the management would welcome an opportunity to dedicate an early morning program to The Newark News Radio Club members and ask them to help us celebrate."

NNRC COURTESY PROGRAMS

(Time is Eastern Standard)

November 1:

WSOC, 1210 kcs., Charlotte, N. C., 2 to 2:30 A. M.
 WCBS, 1210 kcs., Springfield, Ill., 3:40 to 4 A. M.
 WKAQ, 1240 kcs., San Juan, P. R., 3:10 to 3:30 A. M.
 KFIZ, 1420 kcs., Fond du Lac, Wis., 3:50 to 4:10 A. M.
 WGCM, 1210 kcs., Gulfport, Miss., 2:50 to 3:10 A. M.
 WGES, 1360 kcs., Chicago, 1 to 2 A. M.
 KMAC, 1370 kcs., San Antonio, Tex., 3:50 to 4:10 A. M.
 WIBM, 1370 kcs., Jackson, Mich., 5:30 to 5:50 A. M.

November 2:

WCRW, 1210 kcs., Chicago, 5:30 to 5:50 A. M.
 KGCU, 1240 kcs., Mandan, N. D., 4 to 4:20 A. M.
 WALR, 1210 kcs., Zanesville, O., 3:40 to 4 A. M.
 WJW, 1210 kcs., Akron, O., 3 to 3:30 A. M.
 KOTN, 1500 kcs., Pine Bluff, Ark., 3:10 to 3:30 A. M.
 KFJZ, 1370 kcs., Fort Worth, Tex., 4:50 to 5:10 A. M.
 WTAQ, 1330 kcs., Eau Claire, Wis., 5:40 to 6 A. M.

November 3:

WSUI, 880 kcs., Iowa City, Ia., 5 to 6 A. M.
 WWVA, 1160 kcs., Wheeling, W. Va., 11:15 P. M. to 2 A. M., November 4.
 WGES, 1360 kcs., Chicago, 1 to 2 A. M.

November 4:

LR5, 830 kcs., Buenos Aires, Argentina., 2:05 to 3:05 A. M.
 CJGX, 630 kcs., Yorkton, Sask., 3 to 3:30 A. M.
 KGER, 1360 kcs., Long Beach, Cal., 2 to 3 A. M.
 XEMO, 865 kcs., Tijuana, Mexico, 3 to 4 A. M.
 WOI, 640 kcs., Ames, Ia., 3:30 to 4:15 A. M.

November 5:

WTEL, 1310 kcs., Philadelphia, 3:10 to 3:30 A. M.
 WAAT, 940 kcs., Jersey City, N. J., 4:50 to 5:10 A. M.
 KUJ, 1370 kcs., Walla Walla, Wash., 3:45 to 4 and 5:30 to 5:50 A. M.

November 6:

KGAR, 1370 kcs., Tucson, Ariz., 5:40 to 6 A. M.
 WAGF, 1390 kcs., Dothan, Ala., 3:50 to 4:10 A. M.

November 7:

WCSH, 940 kcs., Portland, Me., 3 to 4 A. M.
 WCAL, 1250 kcs., Northfield, Minn., 4:30 to 4:50 A. M.
 WOOD-WASH, 1290 kcs., Grand Rapids, Mich., 6 to 6:30 A. M.
 WDZ, 1070 kcs., Tuscola, Ill., 5 to 5:20 A. M.
 WROK, 1410 kcs., Rockford, Ill., 3:50 to 4:10 A. M.
 WSVS, 1370 kcs., Buffalo, 3:30 to 3:50 A. M.
 WFBG, 1310 kcs., Altoona, Pa., 2:40 to 3 A. M.

November 8:

WGES, 1360 kcs., Chicago, 1 to 2 A. M.

November 9:

WJTL, 1370 kcs., Atlanta, Ga., 1 to 4 A. M.

November 10:

WGES, 1360 kcs., Chicago, 1 to 2 A. M.

November 11:

VOGY, 840 kcs., St. Johns, Newfoundland, 1 to 5 A. M.

CKBI, 1210 kcs., Prince Albert, Sask., 4 to 4:30 A. M.

CKCH, 1210 kcs., Hull, Quebec, 4:30 to 5 A. M.

KFJZ, 1370 kcs., Fort Worth, Tex., 2 to 3 A. M.

KGGK, 1370 kcs., San Angelo, Tex., 3 to 4 A. M.

WRBL, 1200 kcs., Columbus, Ga., 4 to 6 A. M.

KPKA, 880 kcs., Greeley, Colo., beginning at 2:01 A. M.

November 13:

CMBD, 1320 kcs., Havana, 2 to 3 A. M.

November 15:

WGES, 1360 kcs., Chicago, 1 to 2 A. M.

KMAC, 1370 kcs., San Antonio, Tex., 2 to 4 A. M.

November 17:

WTJS, 1310 kcs., Jackson, Tenn., 4 to 6 A. M.

WGES, 1360 kcs., Chicago, 1 to 3 A. M.

WHAS, 830 kcs., Louisville, Ky., 10:30 to 11 P. M.

November 18:

KQV, 1380 kcs., Pittsburgh, 1 to 3 A. M.

WMAZ, 1180 kcs., Macon, Ga., 4 to 5 A. M.

CJLS, 1310 kcs., Yarmouth, N. S., 3 to 3:45 A. M.

KFDY, 570 kcs., Brookings, S. D., 2 to 3 A. M.

WTAW, 1120 kcs., College Station, Tex., 3 to 3:45 A. M.

November 21:

WOOD-WASH, 1290 kcs., Grand Rapids, Mich., 6 to 6:30 A. M.

November 22:

WGES, 1360 kcs., Chicago, 1 to 2 A. M.

November 24:

KJBS, 1070 kcs., San Francisco, 4 to 5 A. M.

November 25:

TGW, 565 kcs., Guatemala City, Gua., 1 to 5 A. M.

LS-2, 1190 kcs., Buenos Aires, Argentina, 2:30 to 4 A. M.

VOGY, 840 kcs., St. Johns' Nfld., 1 to 5 A. M.

CKGB, 1420 kcs., Timmins, Ont., 2 to 3 A. M.

CJLL, 1310 kcs., Kirkland Lake, Ont., 3 to 4 A. M.

CFCH, 930 kcs., North Bay, Ont., 4 to 5 A. M.

November 27:

KPOF, 880 kcs., Denver, Col., 4 to 5 A. M.

November 28:

WSUI, 880 kcs., Iowa City, Ia., 1:30 to 3 A. M.

WFBG, 1310 kcs., Altoona, Pa., 4:30 to 4:45 A. M.

November 29:

FQN, 609 kcs., Isle of St. Pierre, 3 to 4 A. M.

KGPF, 1420 kcs., Shawnee, Okla., 2 to 4 A. M.

WGES, 1360 kcs., Chicago, 1 to 2 A. M.

KGRS, 1410 kcs., Amarillo, Tex., 2 to 3 A. M.

WHAT'S ON THE AIR

(Continued from Page 9)

The Shadow, popular radio mystery drama of two years ago, has returned to the WABC chain and can be heard every Monday and Wednesday evening from 6.30 to 7, EST. Frank Readick, the original "Shadow" is again the omniscient being who knows all about things before they happen. Orchestral music is used to indicate changes in time and scene.

LOOKING AHEAD IN RADIO

(Continued from Page 7)

broadcasting channels. Three other such stations are now under construction, one in Connecticut, one in Missouri and one in California. All will have studios, amplifiers and transmitters capable of handling at least eight and one-half octaves of the musical scale, and each is authorized to use a radio channel that is 20 kilocycles wide. That means that those of you who have receiving sets which are competent to reproduce the wide range of frequencies running up to 10,000 or even 15,000 cycles should be able to notice a definite improvement in the realism of the programs that you receive from a high-fidelity station such as ours. The additional two or three octaves of sound that we are transmitting to you are helpful not only in bringing about the highest and the lowest tones, but also contribute a great deal to the naturalness with which all sounds may be reproduced. Further, the fact that a twenty kilocycle broadcasting channel is available to us makes it possible for you to receive the wide range of sound frequencies without as much interference as would be experienced if the neighboring channels were only ten kilocycles away.

The Federal Communications Commission is relying upon us for two things. First, we are determining whether or not it is feasible to render a useful broadcasting service on this new broadcasting wave of 1550 kilocycles. Second, we are finding out whether or not broadcast listeners desire their programs to be transmitted to them with the realism that is made possible by the extended frequency range to which I have referred. In our experimental transmissions of the past two months we have been greatly assisted by the comments of a very considerable number of listeners who have taken the trouble to write to us. You may be interested to have me tell you that so far, the overwhelming vote is that the 1550 kilocycle wave is useful for broadcasting and that the increased naturalness and realism of high-fidelity sound is much appreciated.

We have before us an opportunity to make broadcasting better and more effective than it ever has been; at the station we are trying to do our part by using the best possible apparatus and operating methods; at the receiving end, you can help by telling us your impressions of how well we have succeeded.

APPLICATION FOR MEMBERSHIP

I am interested in receiving membership information from
The Newark News Radio Club and a copy of your special program
listings issued weekly:

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Street and No.....

City and State.....

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Newark News Radio Club
215 Market Street
Newark, N. J.

Enclosed please find \$..... for which send me postpaid my
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Above rates apply to anywhere in the northern hemisphere.
Above rates apply to members of The Newark News Radio Club in all
sections of the world.

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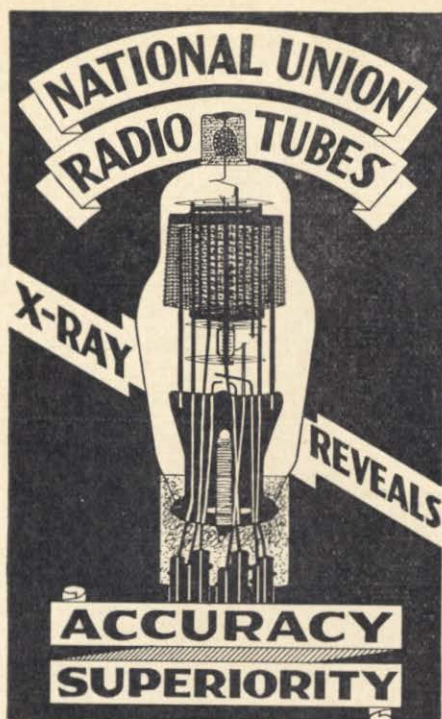
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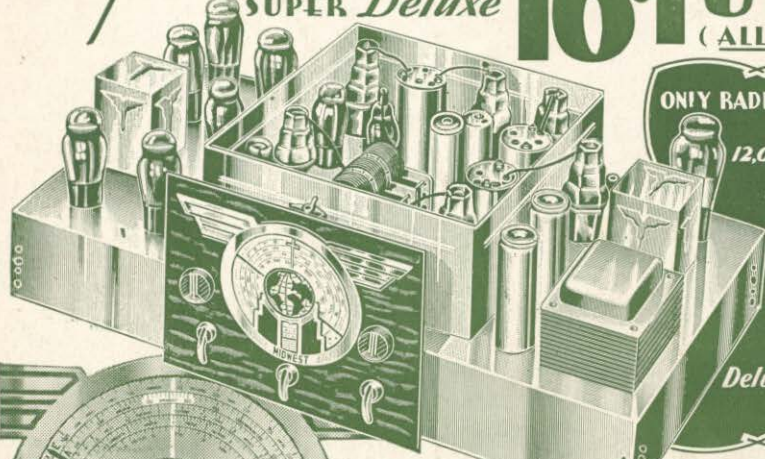
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BEFORE you buy any radio write for the new FREE 1935 Midwest "Fifteenth Anniversary" catalog and see for yourself the many reasons why 110,000 satisfied customers bought their radios direct from the Midwest Laboratories and saved from $\frac{1}{3}$ to $\frac{1}{2}$. Why pay more than the direct-to-you laboratory price? You, too, can make a positive saving of from 30% to 50% by buying this more economical way. Learn why Midwest outperforms sets costing up to \$200.00 and more. Never before so much radio for so little money! Midwest gives you triple protection with: **One-Year Guarantee, Foreign Reception Guarantee, Money-Back Guarantee.**

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Many exclusive features include: Micro-Tenuator... Fidel-A-Stat... Separate Audio Generator... Ceramic Coil Forms, etc. Only Midwest covers a tuning range of 9 to 2,400 meters (33 Megacycles to 125 KC)—enabling you to easily and successfully tune in even low-powered foreign stations up to 12,000 miles away with crystal-clear, loud-speaker reception.

All 5 Wave Bands enable you to enjoy today's finest High Fidelity American programs. In addition, you get Canadian, police, amateur, commercial, airplane and ship broadcasts and derive new delight and new excitement from un-

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This bigger, better, more powerful, clearer-toned, super selective, 16-tube radio gives you absolute realism—assures you of life-like, crystal-clear tone—unlike anything you have ever experienced before. You will hear one more octave—overtone—that cannot be brought in with ordinary radios. Now, hear every instrument, every shade and inflection of speech.



Take advantage of the amazing 30-day FREE trial offer. Send for FREE catalog.

Only Midwest Gives You Multi-Function Dial

This dial was designed in keeping with the trend of the times, yet is not an airplane dial! It is a many-purpose dial that performs many functions. Now, Midwest guarantees that inexperienced persons can secure good foreign reception. Send for FREE miniature of actual rotating dial which clearly shows these outstanding advantages:

1. Dial calibrated in Kilocycles, Megacycles and Meters;
2. Call letters of American Broadcast Stations printed on dial and illuminated;
3. Slow-Fast, Smooth-Acting Tuning;
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5. Simplified Tuning Guide Lights;
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7. Illuminated Pointer Indicator;
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Without obligation on my part send me your new FREE 1935 catalog, FREE Miniature Dial, and complete details of your liberal 30-day FREE trial offer. This is NOT an order.

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