

THE MIDSUMMER 1935

RADIO IN DEX

THE ALL-WAVE RADIO MAGAZINE



25^c

Verifications in the S. W. Field
Converting Old B. C. Sets to S. W.
How and When to Tune the Europeans
Analyzing the Howard "Grand" Receiver

No. 90

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June 1, 1935



RADIO IN DEX

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ELEVENTH YEAR

NUMBER 90

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With Fred Waring's Pennsylvanians

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VERIFICATIONS

in the Short Wave Field

• • • By PAGE TAYLOR

THE problem of verifications is a perplexing one to all DXers except ones who prefer not to collect them. New collectors usually have trouble getting them while the seasoned collector has difficulty in knowing whether his verification really verifies when he gets it. In these paragraphs we present a few original thoughts on this much-discussed topic as well as outlining several well-established rules which should be followed by all confirmation-seekers.

Listeners desire and prize their confirmations while broadcasters desire and value reports. Therefore when one writes for a verification he should include enough information of value in his report to compensate the station for the trouble it takes in answering. Accurate reports are reflected in better transmissions, so, in the end it is really the reporting listener who profits from his reports, his profits being in the form of better reception.

"First Catch the Rabbit"

To obtain a verification one must first hear the station; a few so-called DXers write for verifications as soon as they learn of a new station without bothering to tune for it. This sort of chiselling has caused several stations to adopt the practice of ignoring all reports. After tuning in a station it should be positively identified. Sometimes this is a difficult thing to do, but it is much better to refrain from writing altogether than to send a good report to the wrong station.

At least a half hour of the program should be logged, and this log should be as accurate, truthful and

complete as possible. If the station is a North or South American it is usually more convenient for the station directors if all time is converted into Eastern Standard Time, or if the station is on any other Continent, Greenwich Mean Time is the best standard time to use. Thoughtful correspondents, however, use a RADEX Time Converter to change their own time into the local standard time at the station.

Detail Your Report

The names of all musical numbers



Presenting "Margo," charm and beauty adviser on the "Lilac Time with the Night Singer" program, heard over the CBS each Monday from 10:30 to 11:00 p.m., EDST. Before entering radio "Margo," in private life Miss Marjorie Anderson, gained wide recognition as a creative parfumeur (mixer of scents to you). She is featured on the "Lilac Time" broadcast along with the anonymous "Night Singer" and Baron Sven von Hallberg and his Orchestra.

recognized should be given and unfamiliar musical items can be described, as a "fox trot," "tenor solo," "Saxophone and 'marimbas,'" etc. Most of the musical numbers heard from South American stations are unfamiliar and their tempo is indescribable, but if one pays close attention to the announcer he can usually catch the name of the dance tune to follow. A list follows the names of various South American dances; listen for these words when listening to announcements: bambuco, bolero, cancion (song), criolla, danzon, fandango, fox (fox trot), habanera, joropo, jota, marcha (march), merangue, pasillo, paso-doble, rumba, son, tango, and valse (waltz).

Whenever possible, the names of advertisers sponsoring programs should be given; regardless of the language spoken it is oftentimes easy to catch the trade names of various products.

The Signal Data

That the report may be of some value to the station it is necessary that the writer mention, truthfully, how well the station is heard, describing volume by the R Code, quality by the QSA Code, and hazards such as interference, static or fading, by the S, X and N symbols. A list of these symbols, along with other information of value to shortwave listeners, is given in the April issue of RADEX, No. 88.

One should always mention the name and type of receiver he uses, and describe, briefly, his aeri-als. Weather conditions at the receiver should be accurately described.

Always Prepay Reply

Finally, enclose an INTERNATIONAL REPLY COUPON, and, politely request a verification. International Reply Coupons cost nine cents each and can be purchased at any post office. If your own post

office does not have them, they can get them.

When all the above requirements have been met and the letter sent, be patient. Give the station more than sufficient time to reply before writing again. Never under any circumstances write a snappy "follow-up" letter. It makes one feel terribly foolish to receive a sincere and attractive QSL from a broadcaster just a day or so after posting a sassy letter.

Some "Don'ts"

Following are some comments which should be axiomatic:

Do not write on postal cards. These are not intended for use in polite correspondence nor do they require an answer.

Do not send stamps or pennies. They are no good outside your own country.

Do not send self-addressed envelopes. This will require first-class postage if it is used, while most stations have post cards at a cheaper mailing rate. It is also true that foreign letter-heads or cards are of a different size and shape than ours and cannot be fitted into our standard size envelopes.

Take What You Get

"Verification" and "confirmation" are long words so most fans prefer using the letters QSL, which are defined by international radio code as meaning, "I give you acknowledgement of receipt." Such an acknowledgement from a radio station means, broadly, that the person receiving the QSL has heard the station. However, a great many QSL collectors have lately become quite highly technical about the wording of their verifications and refuse to consider a veri as a veri unless it specifically states, in so many words, "You heard our station!" Of course, it is strictly a matter of opinion whether one wishes to consider a QSL as a confirmation of reception or simply a

"thank you" for his report, but we believe fans should be delighted to get any kind of an acknowledgement from a station without being particular how the station words that acknowledgement. Stations are not obligated to answer at all.

The writer believes a good verification should state the fact that the listener heard the station, giving the date heard and other facts, but, we see no good reason why any acknowledgement should be discarded from a QSL collection, nor why their entry should be refused in any competition.

The Ideal Verification

The best verifications we have ever seen are those sent by the National Broadcasting Co; the following is quoted from one in our collection: "In acknowledgement of your communication dated July 11th, we are very pleased to confirm your report of the shortwave transmission of Henry Busse's Castle Farm Orchestra on July 10, 1931, between 12:30 and 1 am, EDST, through W3XL of Bound Brook, N. J."

There can be no doubt about verifications from YV1BC (now YV2RC) of Caracas, Venezuela, which read like this: "Date of your report, Nov. 4, '32. You Have Heard Us! We are pleased to certify that your report about reception of our transmission is correct . . ."

On the Other Hand

We can fill this entire magazine with samples of good verifications, and, we can fill the magazine again with examples of verifications which do not specifically say "reception verified," but which should be equally acceptable as verifications. Thousands of persons claim to have verifications from WLW and W8XAL, still there are those who insist a veri must specifically verify. In addition to giving their operating schedule, QSL cards from W8XAL state, "Acknowledging report of shortwave station W8XAL of

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the Crosley Radio Corporation, Cincinnati, Ohio." We believe that is a good verification and appreciate the fact WLW was good enough to send it to us.

W2XE used to send a brochure entitled, "A Radio Map from the CBS to thank you for writing . . ." No mention is made of any reception, but still, this MUST be considered a verification because it is the standard way in which this station acknowledged reports. If this is not a veri, no one in the world has the old W2XE transmitter (1930-31) verified.

Some QSL's verify by inference, hence XEW: "We appreciate and thank you for your report dated Aug. 25/31 and hope our concerts continue to be interesting to you." Here no direct mention is made of reception but the mention of the concerts infers that the possessor of the card must have heard at least one concert.

Those G Stations

There has been more discontent over the Daventry verifications than any others. Daventry merely sends

thank you cards on which they state they regret they cannot give specific verifications. It is impossible for the British Broadcasting Corporation, to check reports, for many reasons. First, most of their programs are widely re-transmitted throughout the British Empire. Second, each program is transmitted simultaneously over two Daventry transmitters. Third, the programs are printed many weeks in advance in World-Radio, a widely distributed magazine, and in a great many newspapers and magazines throughout the world. Fourth, each program is repeated several times. A recording is made of the original program and the recordings are played on succeeding transmissions. Still, the BBC is good enough to answer letters with an attractive little "thank you" card and for this courtesy they have the commendation of this and most other magazines. The Daventry stations are easily heard; no one needs a QSL from them to prove their reception. A shortwave fan needs only to turn on the radio and tune in Daventry to prove to his doubting friends it can be done. And that, by the way, is the best verification after all. If this magazine were to conduct a short-wave contest we would automatically give every entrant credit for six QSL's from Daventry (GSA, B, C, D, E and F); it would only be necessary that the entrant prove he has a shortwave receiver.

Each Station Has Its Form

Every station has its own method of verifying and any standard communication from a station should be considered as a verification. VE9GW of Bowmanville, Ontario, has a QSL card on which no mention of a correct report is given, but, these cards are rubber-stamped with the statement, "Reception Verified." Hence, a QSL from VE9GW lacking the rubber stamp would not be a verification.

We believe, along with many sta-

tion managers, that any kind of a communication from a radio station can be considered a positive verification unless the communication states or infers the station was NOT heard. Along with our letters we have a few which fail to confirm reception. One of these reads, in part, "We are afraid that the station you listened in might not be our station XGO." Another reads, "In reply, I wish to inform you that HS1PJ has been closed down for broadcasting service some time ago and we broadcast now from HSP2, which is now undergoing a series of tests on Mondays. As June 13th happened to be a Sunday, it was not likely therefore that you heard this station." Still another letter said simply, "We wish to inform you that KA1XR is no longer on the air."

Our answer to the question, "When is a Veri a Veri?" is, "A Veri is a Veri unless it positively or inferentially states or suggests the owner of the communication did not hear the station."

Editor's Note: It will be noted that Mr. Taylor takes the opposite view from the Editor in regard to counting verifications "which do not verify." Thus our readers have both sides of the question. "When doctors disagree——"

Will You Help?

NOW that the *DX Log of the World* is to be combined with RADEX, we want to make our list of foreign broadcast stations the most complete in existence.

We want to give the following information in regard to each of them and we ask the help of our readers:

We would like to show frequency, call letters, location, power, owner, mail address, identification signal, signoff signal, and hours on the air.

If you have compiled any of the above information, please forward it to us.

A Brief Farewell to Radio

• • • THE DX SUMMARIES

ANOTHER radio year has rolled on like "Ol' Man River" and the summer season is upon us. While the foreign stations on the broadcast band will more or less disappear those who have all wave receivers will find compensation in the greater signal strength of many of the short-wave stations.

We are planning very greatly to increase the service rendered the radio listeners by this magazine commencing with the September issue. Until then, *au revoir*.

Some Aerial Experiments

This report of DX activities comes from Randolph Andrews, P. O. Box 177, La Crescenta, Calif.: "I have had on Airlinè superhet about four months and have had quite good results. My log so far is 381 stations—beb. 121, sw. broadcasters 76, hams, police, airports, etc., 138, code stations 46. Have had no luck with Australians or New Zealanders yet. There is so much interference from Pacific Coast stations, it is difficult to get many of the eastern stations.

"On the sw. I have done fairly well. A few of my best are: HJ4ABE, HJ1ABB, OAX4B-D, PRF5, TIEP, PLV, YV2-3RC, Prado, CJRX-O, VK2-3ME, VK 3LR, YV5RMO, VE9GW, KKH, HC2RL, HP5B, YDA, JVF-M-N-T, COC-H, XEBT and, of course, all the American relay stations and a few of the American phones. My Europeans are GSB-C-D-E, FYA on two frequencies, PHI, DJA-N, and EAQ. All of the above came in very loud and clear. Have also got LSX, HPF, KKP, VLJ-VLZ2, and the new one, HP5J.

"I have put up and pulled down

about ten aerials since the season started and now have found a satisfactory arrangement. I have two aerials, both Zeppelins. One is 75 feet long running N-E and S-W with Giantkiller lead-in. The other is 25 feet long, running SE-NW with lamp-cord lead-in. My ground is two pipes driven three feet into the ground connected by Giantkiller lead-in and kept watered. My 7-tube Airlinè is very sensitive and selective. I have received hams from all nine districts, Santo Domingo, Cuba, Mexico and Hawaii. However, I miss out on quite a few hams and police as my receiver covers only from 16



Swim or sing! A champion swimmer and a beauty as well turns to singing for her supper as Eleanor Holm is heard as the featured vocalist with her husband's band over the Columbia network. Her husband, as you probably know, is Art Jarrett who recently deserted Hollywood to form his own orchestra. This unique husband and wife team is heard nightly from the College Inn in Chicago.



Ferde Grofe, conductor and composer, who recently signed a contract to wield the baton in the George Burns and Gracie Allen broadcast each Wednesday from 9:30 to 10:00 p.m., EDST, over CBS. Grofe and his orchestra are supported by the Buccaneers male octet.

to 51 m. and from 175 to 550."

When the Dial Slips

"It was with considerable envy that I used to read the accounts of various DXers but with the diligence of myself and the keener ears of my wife, I can now report having heard some of the following stations which seem to be lacking in the commentaries of Kentuckians: CKWX, CKGH, HHK, KFPM, KGBU, KGU, KORE, KRE, KWG, TGX, TIGP, TIVL, XEAI, XEAJ, XEAM, XEZZ. On the sw. Daventry and other European stations come in with local station volume but the Europeans on the bcb, have as yet eluded our most persistent efforts. We are remarkably free from interference, generating our own power and having a doublet antenna 70 feet high. We use a Philco 43. While this letter is being written (9 p. m. EST.) HIZ is coming in fairly clear even above a bad background of static."

This interesting report comes from Henry R. Mortimer, Royalton, Ky., who has this query: "Can you tell me why a station using a frequency of say 1190 kcs. tunes in on my dial at 1220 and a station using 940 comes in at 970?"

It is not possible to manufacture radio sets in quantities and have each and every one of them tune accurately according to the kilocycle markings of the dial. Where some stations tune too high on the dial and others tune too low, nothing can be done to correct it except to make a new scale for the dial. Where, however, all stations come in either too high or too low, it indicates that the dial has slipped on the shaft. Thus in Mr. Mortimer's case, the two stations named each registers too high. If this is true of most or all stations, the set screw which fastens the dial to the shaft should be loosened, the dial moved slightly on the shaft to the proper point and the set screw tightened.

From Great Britain

Writes R. A. Stansfield, Neward Road, Ripley, Woking, England: "Medium-wave DX with a little four-tube battery radio has been patchy this winter. After several months of poor U. S. A. and Canadian reception things picked up a bit towards the end of March and the good conditions are still with us. April 7th was the peak morning with KWK, WFEA, XEAW, XEW, WDRC, WOKO, etc. as well as old friends like WCAU, WTIC and KSL making the crossing. Others heard in recent months include WREN, WTOC, WAPI, KVOO and XENT. The South Americans who practically monopolized the air during January and February, have faded away except for moderate signals from LR3-5-6 and WNEL and WKAQ."

Our representative in England, Robert Pybus, 4, Highfield Rd., Chorlton-cum-Hardy, Manchester, also reports DX conditions on the

mend with 30 stations heard the first week of April, several at fine volume. "On the sw. 20 m. hams have been coming in till 12:30 a. m. and I have logged plenty, the best being W9JGA in Denver, Colo., W4CRE in Nashville, Tenn., and VE1DC in Moncton, N. B. S. W. broadcasters have been rolling in; the best SA's being YV5RMO, HJ4ABE, HJ3ABH, YV2RC-3RC and PRF5. Have also heard COH once or twice at poor strength. British Summer Time begins April 14th and will make the difference with EST six hours."

Reporting on Both Bands

"In two and one-half months of the past season, I have verified 183 stations on the bcb.," announces Nicholas J. Hock, 20 Burnet St., Newark, N. J. "I verified 59 in 1929 while using a Radiola 18; 128 in 1930; 113 in 1931; 44 in 1932; 30 in 1933; 9 in 1934. From 1930 to 1934 I used a Fada 42 t. r. f. 9-tube. My present set is a Hammarlund Comet-Pro with a peak pre-selector. I have not had much luck with TP reception although I have heard 1YA very faintly. My log now stands at 566 verified of which 61 are over 2000 miles distant. I have logged 618 stations. My best are: PP, Normandie, KFPM, KFXM, KXO, KICA, KGFL, WQBZ, 10-AK, VE9EK, TGW, LR5."

"On the sw. I have heard most of the Europeans, SA's, two in USSR, one each in Japan, India and Java, three in Australia and a few in Canada, Cuba and Mexico. I find my antenna is best for reception from the south and southwest. It is a doublet with each part 42 feet long and a transposed lead 50 feet long. It runs E-W. I use two speakers and have them arranged so that I can use one for each ear thus producing the effect of immense earphones. Besides the doublet antenna, I have two L-type aerials, one 100 feet and the other 200 feet long. I'd be lost without your 'Around the Clock on

the Short Waves.' In order to use this I draw two lines in red over and under the EST times. Who has heard an English-speaking station on 9490 kcs. between five and seven a. m.?"

From the Whole World

Warren C. Reichardt, 5 Grant St., Reading, Mass., submits his complete log which is, of course, much to long to publish. He has 9 in France, 12 in Germany, 4 in Sweden, 4 in Poland, 7 in Italy, 5 in Czechoslovakia, 9 in Central and S. A., 22 in Australia, 3 in New Zealand, 13 in Japan, and one or more in Denmark, Finland, Spain, England, Ireland, Switzerland, Holland, Latvia, Portugal, Africa, Hungary and Hawaii. Certainly a very fine list. "There are three stations which I would like to hear now and those are XGOA, KGBU and KZRM. I wish it were possible to list the addresses of all the foreign bc. stations and mark those who refuse to verify so that we could save a little money on postage. I think the SA's are the poorest both on sw. and b.c. for verifying. It seems to make no difference whether you write in English or Spanish; they still refuse to verify."

A Study in Selectivity

"I am using a Stewart-Warner super and am able to separate WOR from WLW with no interference and WOAI from WFBE (less than a mile from my aerial). At night I push WTIC and WBAL apart and get KNX. On sw. I get GSC easily between W1XAZ and W3XAU and GSA right alongside of W8XAL and VK2ME alongside of W1XAZ. All these come through with no interference." This excellent report of selectivity comes from Barton A. Dowdy, 2903 Warsaw Ave., Cincinnati, Ohio. who "enjoys reading what others are able to receive but I do wish they would list the hours a little more exactly so that some of us can be helped by

their achievements. For instance, if I wanted to tune in 2BL or 2CO or JOAK-1 when should I start tuning, how are they liable to act as regards fading, will they come in over a reasonable amount of QRN, etc." P. S. "Heard JVT the other morning and was really surprised at the clarity and volume of the station." (Editor's Note: But how about the hour you heard them, Barton; and did they fade, etc.?)

One Tube Results

"As the DX season is almost gone, I am submitting some of the results," prefaces Allan Ford, Portneuf Station, Que. "I am now using a -30 tube with two dry-cells in series for A batteries in my one-tube receiver. My antenna is about 128 feet long including lead-in. It runs north-south with lead-in at the south end. It seems to be very efficient on most frequencies. I use a ground only for sw. Unfortunately I pick up a good deal of power-line interference on the bcb. Nevertheless, in seven months, I have compiled a log of 411 bcb. stations! Everyone was identified perfectly and most stations were heard at least twice. On this little one-tube I have heard, among others, W6XAI, LR5, CP4, CKY, Frankfurt, PP, HJN, CMCD, CMBX, CMBC, XETH, XES, XEU, XEMO, XEWZ, WAIM, 10-AK, XEAF, KOTN, VONF, HHK, KFPW, XELO, and XFX. I sent a report to KADA on Nov. 20 and got the veri 125 days later. I would like to hear from others and will answer all letters. Want to hear particularly from the West Indies and South America."

"Eleven More Months"

"DX here has been mostly nil," laments Warren E. Winkley, Hughson, Calif. "We have had terrible static which spoiled all DX on the bcb. and hampered DX on the sw. However, I did manage to log WDEL, CX26 and KRLC lately bringing my log to 656. Some verifications have drifted in also. They

are WJAS, KOH, ZL1YA, JOCK-1 and JOXK. I hereby claim the record for waiting the longest time for a verification and still receive it. I wrote JOCK-1 on March 11, 1933 and received verie on March 19, 1935, a wait of two years and eight days! I wrote JOXK on January 1, 1933 and received an answer on March 28, 1935, two years, three months and 28 days. Can anyone beat that? Have the boys watch out for XGOK and XGOH, two new Chinese stations. Both will have 10 kw. The first will be on 800 and the second on 560."

Super Power in N. Z.

"I have some very good news for the DXers of the U. S. although it is bad news for the New Zealand DXers," says George E. Bott, 507 Southampton St., E., Hastings, N. Z. "The New Zealand Broadcasting Board has called for tenders for the construction of a new transmitter to replace the existing 2YA. The new station is to have a power of 60,000 watts and will be on the air in about a year. The new station should give a very good signal in the U. S. DX-ing, up to about three weeks ago (March 18) has not been much good in Hastings but has now begun to get better and I have managed to log KQW, KOH, KFBK, WBOQ, XELO, WIBW, 2BH, 3WR, XQHA. I managed to log 19 Europeans and so far have answers from 16 of them. My total number of verifications is now 189."

The Noisiest Location

Looks like we would have to conduct a contest to find the location with the greatest interference. W. J. Brenner, Jr., 64 West Ontario Street, Chicago, thinks he has it. "I am twelve blocks from the world's busiest corner. I am in a forest of steel buildings and in the midst of all kinds of static in the downtown section of Chicago." Yet, in spite of all this, Mr. Brenner has 341 verifications, a few from stations with

10, 15, 25 and 30 watts, many with 100 over 1000 miles away. He has logged every state but six using a 6-tube Fada battery set up to the 250 mark since which time he has had a Philco 47-B. He would like to hear from other afflicted ones on the near north side of Chicago or downtown districts of other cities.

"Here is my log which I started the 12th of November, 1934," submits Fred W. Kroen, 606. Walnut St., Monaca, Pa. "It consists of 446 stations of which 336 are on the bcb, and 110 on sw. This does not include any amateurs, or police. The bcb, includes all the states with the exception of Wyoming. I have around 280 stations verified so far. I have logged 32 in California with 19 verified and reports out to the others. I have a Midwest 16-tube set. My aerial is a double-doublet running east-west. I can bring in Australia on the built-in antenna in the set. I don't know what is wrong with the SA stations. Either they are very slow in answering or they don't answer at all. I heard from only ten out of 26. The last veri I got was from HC2RL and that took 78 days."

Veries that Verify

"Let's keep these DX rules pretty stiff, it's too easy otherwise," maintains John B. Clapham, 7451 Sprague St., Philadelphia. "I strongly disagree with the Plainfield DX Club in respect to counting 'thank you' letters as verifications. Last year, I built a two-tube sw. set. The first European station I heard was GDB. I had no accurate sw. log at the time and I though the call letters were GBB. I sent for a verie and got the following reply: 'Thank you for your letter regarding your reception of GBB.' According to the Plainsfield DX Club that could be counted as a verification, yet I have never heard GBB on this or any other radio."

"I have had a radio set ever since 1922," observes Blake H. Page, 3045



Bobby Benson, in his ten-gallon hat and full H-Bar-O Ranger regalia, is full of pep and rarin' to go. Just now Bobby and his friends are adventuring in Darkest Africa, as all who follow their hazardous exploits (Monday through Friday at 6:15 to 6:30 p.m., EDST, from WABC) are well aware.

Washington Blvd, Chicago, Ill. "I now have a Scott all-wave 15-tube 1934 model on which I have heard over 700 stations on the bcb. alone. This in spite of the fact that reception in this city of Chicago has its difficulties. We now have or will have pretty soon, five 50,000-watters and these are most or all out here on the West Side. I hear WABC, WOR, WEAf, KDKA, WBZ, KMOX, CFRB, all clear as a bell with no interference at all on my Scott. I am using a 30-foot DX 'Lifetime,' a Scott all-wave super-system, and a Lynch Noise-reducing antenna system. I use five rods for a ground and also a water-pipe."

Logs Them Twice

"I started logging on January 5 of this year when I bought a dual-wave Airline covering the bcb, and from six to 17 megs.," supplies I. F. Wolpe, Jr., 841 N. 2nd Ave., Phoenix,

Ariz. "Since that time I've logged 63 sw. and 99 bc. and seven police. I log all stations tentatively the first time I hear them and permanently the second time. Some of what I call by good catches on the sw. are COH, Pontoise, GSB-C-D, HC2RL, HJ1ABB, HJ3ABF, HP5B, JVF, JVT, KKH, KKP, KZGF, Prado, PRF5, TIEP, VE9BJ, VE8GW, VK3LR, CK3ME, WET, WTR, XGW, YDA and four Venezuelans."

"I have verifications from 695 stations" reports Hartley Phillips, RFD 2, Flemington, N. J. "Of these 153 are over 2000 miles away, 23 are in Europe, 15 in Australia, two each in New Zealand and Hawaii. My best are 3BO, 2KO, 2KY, 2GB, 3AR, 4BH, Munich, Berlin, Koln, Bordeaux, Sottens, Parede, Budapest, Bari, Genoa, Milan, Copenhagen and Madrid. My set is a 5-tube Crosley, batteryoperated, with a few improvements. Tubes used are 30's and 34's. The aerial is about 100 feet, east-west. I will be glad to help DXers in identifying the bcb. Europeans and can supply addresses."

From the Pacific N. W.

"I see very few reports from Oregon and Washington and so I thought I would send my log in," says L. R. Underwood, (no address). "I use a Patterson 8 all-wave super and two aeriels, a doublet N-S and a conventional L E-W with four copper rods six feet long for a ground. In nine months with my Patterson I have received 101 police, 207 sw., 1209 hams and 309 bcb. Of the latter 27 are J's, 2 China, 4 NZ. and 12 Aussies. Others are KZRM, KGU, KGMB and a splendid veri from LR5. I have had all continents and a total of 34 countries outside of NA."

"Radio reception is practically over for me due to the static and interference starting in here," bemoans Earl R. Roberts, 2308 Roosevelt Ave., Indianapolis, Ind. "I find my log has increased an even 100 stations—from 1053 last year to 1153

now. Verifications from 420 to 647. Only three new foreign stations were heard, KGMB, 1YA, LS2, compared to five last year—CX26, LR4, LR5, Fecamp and Beromunster. Have added 15 new Mexicans, three new Cubans, 18 Canadians, 33 US. Probably my three best catches would be the 10-watt VE9EK, the 20-watt XEE and KGMB."

Rudolph Kure, Cincinnati, relays from the Vicomte de la Brosse, 1 rue Milton, Paris 9^e, France, the information that Tour Eiffel is now on 1456 kcs. or 206 m. with 5000 watts and wishes reports from American listeners.

Who Can Tell Him?

"I will correspond with anybody who can tell me how to get TA's TP's and SA's," offers Dick Campbell, 72 Griswold St., Delaware, Ohio. Dick is 14 years old and a freshman in high school. "In three months of tuning on my 1935 Knight 5-tube band-spread superheterodyne, I have received a total of 400 stations—359 bcb. and 41 sw. My best on the bcb. are TGW, XFX, KPCB, WMBR, XEBC, CMBS, XEMO, WOCL, KFVD, KTRB, CJAT, XET, WKAQ. On the sw. GSA-B-D-E-F, DJC-D, EAQ, 2ME, JVT, FYA, HBL-P, IRA, HJ1ABB, PHI."

"This has been my best season on the bcb," concludes Russell W. Foss, 52 Linwood St., Lynn, Mass. "I logged 24 Europeans of which the best are Turin, Copenhagen, Nurnburg and Radio-Vitus. LR4-5-6-9 and LS2, all in Argentina, came in several times. YV1RC is the most consistent SA with the exception, perhaps, of LS2. I also heard CX-26 and YV6RV. My best Mexicans are XES, XEWZ and XEMO. Out of 18 Cubans, my best is CMHW. In December CJRM, Moose Jaw, was heard quite frequently and since then CFNC and CKY have been heard. KMPC, KWG, WJBS, KGW, KHQ, KTAR, KROW, KTM, KEX, KECA, KHJ and KIDW are my best US. On the sw. I have

heard JVT, SUV, YDA, VK3ME, VK3LR, CT1GO, ZFD and XAM."

From the Other Dominion

"This is a Newfoundlander saying hello," greets P. J. Walsh, 12 Flower Hill, St. John's. "On December 16, a contest was held featuring 'Iowa on the Air.' I was lucky enough to complete in full the programs of WHO, KFNF and KMA. It is more than three months since the contest but I have not heard anything about it. Has any DXer logged this station: VGNS, the SS New Northland? I caught them in June, 1934, on 770 kcs. when they were broadcasting a program for the SS Belle Isle, both ships being at sea. I have a letter of verification on this event. I have also heard the New Northland broadcasting from Halifax, Montreal and off the coast of Newfoundland. I use a Lyric 5-tube SA5L, 1934, which tunes from 540 to 2000 kcs."

Manuel Alberto Cadilla, P. O. Box 337, San Juan, P. R., is continuing his good work. He now has a total log of 266 with the highlights being PP, LS2, CX26, YV2RC and 54 100-watt stations in the U.S. proper.

"I now have a Scott 15 AW, a real machine," proudly proclaims Eric Butcher, Cokeville, Wyo. "My best off - the - continent stations are VX2ME-3ME-2BL, HIX, OAX4B, JVT, VP6VB, JOFK, PRF5, FYA, DJC, HC2RL, PRADO, HJ4ABE, YV1RC-2RC-3RC, VPD, CT1AA, HJ1ABB, YV5RMO, HP5B, JOQK, JOFK, JVF-E, and the five Daventry stations. My receiver has a special 5-way switch on the panel so I can tune from one aerial to another. A double doublet is used for one."

Good for TP's

"This has been a wonderful season for TP's," exults Victor Young, 83 Emery St., London, Ont. "I have had my share—1YA, 2BL, 5CO, 5CL, 2UE and 4QG. Other good catches on my new Westinghouse 84 are Radio Normandie, Strasburg, WNEL, WKAQ, CJLS, CJCB, CJAT,

W6XAI, KOY, CX26, TGW, HHK, WTAW, KXO. My best, YV1RC, I hear at 8:00 p. m. On the sw. I have heard 80 per cent of the 100 best. I would like to correspond with DX fans anywhere and promise return mail service."

O. Ingmar Oleson, Ambrose, N. Dak., reports in his March-April reception: LR5, 1YA, 4QG and 2BL "all QSA4, R7." Short wave reception is not up to normal but is gradually getting better. Mr. Oleson heard an unidentified station at about 31.5 m. the last letters being LT. He would like to correspond with users of antenna tuners for both hcb. and sw. frequencies and will exchange diagrams. He uses the Scott Deluxe.

On the letter head of the Wauwatosia DX League, Wauwatosia, Wisconsin, Dave Stimple, 7439 West Garfield Ave., writes: "My log stands at 331 after a year. Could anyone give me tips on TP and TA stations, on SA's and New Englanders? I invite any owners of a Philco 95 to correspond with me and compare logs especially those in Wisconsin. Our club is two weeks old and has ten members. Yours till VE9EK drowns out WLW."

Who is WLUF?

"What station was transmitting on approximately 1490 kcs. Sunday morning, April 7, at 5:00 o'clock, signing WLUF?" queries Stuart B. Leland, New Canaan, Conn. The modulation and frequency stability were awful. The melody 'Among my Souvenirs' was repeated constantly and unintelligible voice announcements were made frequently." Did anyone else hear this station?

Edward Kocsan, 1445 Franklin St., Johnstown, Pa., writes: "I have piled up a log of 816 stations, receiving about 500 of them this last season. My foreigners include: LR5, TGW, YV1RC, PP, Radio Normandie, HJN, CX26, PTT, I1TR, and KGMB. Also VE9EK, 10-AK, KFPM, and all but 58 of the total in the U. S. My

set is a Crosley 157, 10-tube midget superhet. Could anyone furnish me with a schematic diagram of this set?"

"I use a Stromberg-Carlson 60 with a Westinghouse Doublet and does it bring them in?" Bob Calder, Box 647, Kenora, Ont., asks himself. "On the sw. have had every continent but Australia. COH is the best all-around reception here. On the bcb. my best are LR4, 1YA, CKWX and WEXL. My total on the bcb. is about 190. I would like to correspond with DXers in Honolulu and will answer promptly. When does KKH operate?"

What to do with Them

"Many of the fellows that write in requesting correspondents never answer any letters," complains Raphael Geller, 1652 Radcliff Ave., Bronx, N. Y. The word "chiseler" is used pretty often nowadays but sure those deserve it who ask for letters and then fail to answer them. Raphael now has 402 veries but thinks that of LR5 is best of all. He would like to hear from the West Coast.

"Using a four-tube Philco 81, I have acquired a log of 438 stations since August, 1934," adds up Francis Schmidt, 707 Edmond St., Pittsburgh, Pa. "Among these are TGW, KFPM, WKAQ, KNEL, KFVD, KSEI, KGDY, CJLS and HHK, all verified. Reports are out to LR5, 10-AK and others. Haven't heard any TA's or TP's as yet although I have been hearing a weak signal on 650 around 5:30 am. which I believe is 1YA."

"This morning, March 24, through a barrage of static that sounded like a Cuban revolution, I managed to bring in CX-26, Montivideo," reports Frank Wheeler, 406 Eagle Point, Lakeside, Erie, Pa. "I had them from 3:15 a.m. EST (when KNX signed off) until 4:00 a.m. On March 17th, I received HHK R9."

"I have verified 107 stations this

winter, 28 of which are 100-watt or less," totals Lamar Schlicher, 707 South 10th St., Allentown, Pa. "My latest are CMHA, XELO, KFUD, KTRH, KVOA, KASA, XEO, CHCK, WLEU, CKCH, WPAY and WIRE. I use a small midget 5-tube Monarch."

Reports in Short

"I am very anxious to hear from some kids of my own age," remarks Taylor Stewart, 1426 Princeton Ave., Salt Lake City, Utah, but he does not say what age that is. Taylor got a new Stewart-Warner for Christmas and has already logged 200 stations on the bcb. and 350 on the s. w. He had the thrill of picking up "Little America."

"Using a Majestic 90 eight-tubes, I have been able to verify the following stations," submits Charles Leboeuf, Box 222, North Grosvenordale, Conn. "TGW, XEMO, KFAC, CFQC, KFBB, KGNF, CMBC, KFPY, KFSG, CFCH, COA, CJKL, CMCA, COX, W3XCW, CJAT, W6XAI, KXA, CP4, KMPC, LS2, CT1GL, Bordeaux, Renne, Cologne, LR5 and CX26."

"I have a King 7-tube, 1929 model," writes M. T. Whalen, from 1022 7th St., Saskatoon, Sask. "I have logged WDRC, WHAM, WJAX, WBT, WJR, KDKA, W6XAI, W9XBY, CMQ, CMCW and six Mexicans. I have a 100-foot straight aerial with a seven-foot iron rod for a ground. I have logged 154 stations in about eleven months."

"Sunday night, March 30, I couldn't go to sleep so I hied myself to the three-tube Kadette," says E. D. King, 412 Linden Street, Morgantown, West Va. "From 1:00 a.m. to 7:00, I caught 23 new stations from coast to coast, south boundary to north. My three best were KTM, WSYB, and KARK."

C. H. Mann, Karaperi, Cambridge, N. Z., tells us the 3YA Christchurch, on 720 will increase its power from 2500 to 10,000 watts by the end of April and that 4YA Dunedin on 790

(Continued on page 33)

Ozzie Nelson of the "Bakers"

• • • By "BETTY"



OZZIE NELSON was born in Jersey City March 20, 1906. His parents were of Swedish descent, his grandfather being a Swedish nobleman who dropped his title when he came to the United States.

In 1920 when Ozzie was 14 he became the youngest Eagle Scout in the country and with several others was sent to the Olympic games in Antwerp, Belgium. His brother went with him and before the two youngsters came back home they achieved the distinction of singing before the late King Albert of Belgium.

As a Student

His voice showed promise even then but when he tried out for the glee club at Rutgers College he failed to make the grade. In Rutgers he paid all his expenses by organizing a student orchestra for

campus affairs. With all his other activities it was a tough grind but he came through with flying colors. Another source of income was the sale of drawings, mostly humorous, to magazines. In college Ozzie was a star quarterback, intercollegiate welter-weight boxing champion, varsity swimmer, president of the student council and art editor of the college magazine.

After Rutgers he went to New Jersey Law School, continuing to earn his own way by playing every night with an orchestra at a nearby carnival. With a law degree in his pocket he sat down and thought about his career, balanced the advantages of law against music. Music won and he has been an entertainer ever since.

As a Band Leader

He started out to organize another band and began playing at private parties. With his likable grin and clean-cut manner it wasn't hard to get bookings and soon he had more offers than he could accept. College proms and debutante dances built up a reputation for him so quickly that soon he was playing at one of the larger New York hotels and broadcasting.

But he wasn't satisfied just to get to the top. He wanted to stay there. That's why he developed his unusual style of singing. All his spare time went into concentrated thinking on how to make his band stand out from the crowd—make it different from the general run.

As a Duet

He found another voice that fitted in perfectly with this new fresh and youthful style and the voice belonged to Harriet Hilliard. They teamed up as a "boy and girl"

singing duo. Their voices were new to listeners and the night time dance broadcasts from the hotel where Ozzie was playing became a popular feature. In September, 1933, they were signed for the Bakers Broadcasts with Joe Penner over NBC and since then have been heard in this series.

He likes his job, eats up the hard work it took to make his a success and plans to keep on working just as hard. That is the secret of the college boy who couldn't make the glee club and later became a singing star of the airwaves.

* * *

Eddie Cantor will return to the air next fall in a new CBS series under the same sponsorship as before. The comedian again will be featured with Dave Rubinoff, Ted Husing and "Pargyakakas." Eddie is at present in Hollywood making a picture tentatively titled "Dreamland," an adaptation from one of Clarence Buddington Kelland's stories, the locale of which will be an amusement park. He plans no vacation this year, saying that "changing from one kind of work to another gives me all the relaxation and variety I need."

* * *

Burgess Meredith, who plays Red Davis in the NBC program of that name, stepped from behind the microphone at Radio City studios recently to open with Katherine Cornell in a new play, "Flowers of the Forest." And did the Broadway critics like Red? Burns Mantle called his performance "outstanding in its colorfulness and force." Robert Garland referring to the play's fantasy, wrote: "In Burgess Meredith's unwavering hands you are apt to believe in it, even as you believe that Mr. Burgess is well up on the honor roll of our gifted younger actors."

* * *

Pet names of some NBC artists: Morton Downey addresses his wife, the former Barbara Bennett, as

"Lover." She retaliates with "Toots." Frank Luther calls his missus, Zora Layman, "Cute," and she salutes him as "Sloo-foot." Paul Whiteman's term of endearment for the beautiful Margaret Livingston is "Maggie," while Don Ross refers to Jane Froman, his better half, as "Bunny-Nose."

* * *

Gertrude Berg, famous for five years as Molly Goldberg of The Goldbergs, has gone back to her girlhood days to find inspiration and ideas for her new serial, "The House of Glass," the scenes of which are laid in a small summer resort in the Catskills. Her father was a Harlem inn-keeper when she was a child and many incidents related in the serial had their origin in her father's hotel.

* * *

Robert Simmons, tenor in the Revelers Quartet, is the only unmarried one of the group. Wilfred Glenn, the bass, has three grown children—one son, a lawyer, another a banker, and a daughter, an actress. Elliott Shaw, the baritone, has two, a girl 16 and a boy 10.

* * *

Mario Cozzi, operatic baritone heard on the NBC networks, was born in Florence, Italy, spent his childhood in South America, and has been a resident of the United States since 1919, becoming a naturalized citizen. His operatic debut was made in his native Italy at La Scala in Milan in 1932. His first singing engagement in America after a career as private secretary to Gatti-Casazza, former director of the Metropolitan Opera, was in the movies.

* * *

Jack Benny and Mary Livingstone are among the greatest home-bodies among all the outstanding radio performers. If the comic pair really want to do something extremely gay, they see a midnight movie. Night-clubs and night-life in general have little appeal for them.

Chatting With Our S. W. Listeners

• • • By PAGE TAYLOR

TWO years ago this department prophesied good reception of the Australian stations VK2 and 3ME, but good reception failed to materialize. A year ago we again stated good reception should obtain from VK2ME, VK3LR and VK3ME and again were disappointed, but we can't go wrong this year. Although these stations are half way 'round the world, they are coming in at the present time with tremendous volume and should continue throughout the summer to put good signals into our loudspeakers.

Mr. H. N. Walker of Brisbane, Australia, tells us VK3ME has increased its schedule, working now from 5 until 6:30 a. m., EST., on Wednesdays, Thursdays and Fridays, and from 5 to 7 a. m. on Saturdays. Mr. Walker continues with the information that VP1A now announces simply as "Radio-Suva" as difficulty had been experienced in reading the call VP1A. This station is located at Suva in the Fiji Islands and is owned by Amalgamated Wireless, (A/sia), Ltd. The frequency is 13070 kc/s.

Two New Stations

"Tonight I may have received a singleton," surmises Edgar L. Koch, 1300 So. 17th St., Milwaukee, Wisc. "This was station HJV, Bogota, Colombia, on about 8.790 megs. or about 35 meters. It was announced as an experimental government station and was in communication with an American amateur. Musical items were broadcast to test modulation."

G. H. Millican, 321 E. 24th Ave., Amarillo, Tex. complains that too few Texans report on shortwave reception, in his detailed report on reception in his locality. "In the 31-meter band," he writes, "there is a new station, HP5J, 9590 kcs., Pana-

ma City, CT1AA, GSB-C, 2ME, 3LR, 3ME, PRF5 and COH are always good. DJA and DJN are weak, probably because their antenna is directed towards Asia. W1XAZ has changed its call letters to W1XK. In the 49-meter band I managed to hear GSL, 6110 kcs. at fair volume on several nights between 9 and 10 p. m., CST although YV2RC and other So. Americans try their best to spoil it. GSA and DJC are pitiful here; too much interference. Above this band YV5RMO and HJ4ABE are best, with OAX4D a poor third."

A New VE Relay

"I wish to report a new station on s. w. which relays the daily programs of CFCN on 1030 kcs." states James Maguire, 312 Devenish Apartments, Calgary, Alta. "This s. w. station is VE9CA on 6030 kcs. with 10 kw. power, working on the following schedule: Thursday, 9 a. m. until 2 a. m. Friday; Sunday, noon to midnight; other days of the week from 9 a. m. until midnight; all times, EST. CFCN and VE9CA announce, 'This is CFCN, the Voice of the Prairie, in Calgary.' I have been to the studios and all through them and would like to say that they have the latest and most up to date equipment. The transmitter is at Strathmore, about 20 miles to the east. Concerning DX from this locality, I might say that conditions as a whole are excellent. Daventry and Pontoise are heard well. DJC is seldom heard out here but that is the fault of so much crowding and no fault of the transmitter. DJN and EAQ both put in nice signals."

A New Haitian

"Last night I listened to a new station on about 9560 kcs. giving call letters which sounded like

HH2R," reports Jerry Duncan, 330 E. Flagler St., Miami, Fla. "The location was given as Port au Prince, Haiti. This was on a Saturday evening between 10:50 and 11:20 p. m., EST. They tested with musical numbers, mostly American. Announced in French and English after each number and gave their address as the Automobile Society. The frequency was about 9560 kcs. It came in R7-9, but of course, I am not far from Haiti and my aerial is beamed in that direction."

"I am still putting up aerials," writes our untiring antenna experimenter Geo. Acker, Wadsworth, Ohio. "The latest is a Tobe and it is the best I have found yet. This kit works well up to about 11,000 kcs., and from there to 23,000 kcs. I have to use my 225 foot flat-top for an antenna and the 175-foot counterpoise. I recently received a veri from Rugby and note a new address for the British fones. Letters for these stations should now be addressed to the Engineer-in-Chief, G. P. O. (Radio Section), Armour House, St. Martin's le Grand, London E. C. 1. Two of our old friends are back on the air, JVM and JVN. These stations replace JVT. Both these stations are better than JVT was at any time during the winter."

Another Texas Report

"I was warned when I moved here that a DX enthusiast would die of a broken heart. Heavy mineral deposits, nearby mountain ranges and dead spots, coupled with almost constant atmospheric make distant reception extremely tricky at times," preambles James Sheppard, El Paso Herald-Post, El Paso, Texas. "However, with good equipment, an RCA Victor 262 and RCA double-doublet aerial, I have been able to snare quite a few of the elusive distant stations from all parts of the world. EAQ, GSC, GSA, 3LR, 3ME and 2ME are like locals here this

month. Pontoise and DJC are constantly picking up and JVT and JVM are as clear as crystals in the mornings until 5 a. m. The Venezuelans and Colombians are beginning to become nuisances. We had very good reception here until the dust storms began to create heavy atmospherics around 31 and 48 meters."

Charles B. Marshall, Jr., 26 Victoria St., Washington, Pa. and Whitney Smith, 53 West End Ave., Pontiac, Mich., report HJ4ABA, "Ecos de la Montana," Medellin, Colombia, on 11.720 megs. Mr. Marshall says, "They make an announcement every half hour in English, saying, 'You are listening to shortwave station HJ4ABA, Medellin.' Mr. Smith reports another Spanish-speaking station close to HJ4ABA, but this is the second harmonic of YV5RMO. This second harmonic came through for a while with perfect quality. "There is also a new Cuban on about 10200 kcs." writes Mr. Smith. "I haven't heard any English spoken but believe the call is CMHB. One evening at about 8 p. m. I picked up CEC, Santiago, Chile, on 10750 kcs. broadcasting Spanish music and announcing entirely in Spanish." Mr. Smith wishes correspondence from DXers.

CMHB on SW.

The new Cuban CMHB was reported by many readers. Raymond Sickler, 420 E. Baird Ave., Barberton, Ohio, says they announce in Spanish and English about every ten minutes, giving their address as P. O. Box 85, Sancti Spiritus, Cuba. Raymond uses a Philco 44 and wants correspondents. Mrs. V. B. Andrews, 8935 Meridian Ave., Cleveland, Ohio, reports CMHB testing between 2:00 and 10:30 p. m. EST., but states they are heard most often around 3 p. m. Mrs. Andrews uses a McMurdo-Silver 5C Communications Receiver. She postcards, "I notice in the DX Log of the World you state

LSX does not verify. I have two veries from them, received in the past two months. They send a white card with LSX in red letters the full width of the card."

"There is plenty of QRM in the 49-meter band, but now it looks as though we will have QRM on 25 meters from the So. Americans," compains John A. Shanks, Russellville, Tenn. "At present I am hearing the harmonics of HJ4ABE and YV5RMO in this band, and the new station HJ4ABA, all of which combine in trying to cover up Pontoise. The French station comes in fairly well, however, until 11 p. m. EST, I have recently received QSL's from HJ2ABC, HJ4ABL and HJ3ABH. HJ2ABC, Cucuta, Colombia, says they have 50 watts on 50.2 meters. HJ4ABL, P. O. Box 50, Manizales, Colombia, gives its schedule as 11-12 noon, 5:30-7:30 p. m. and an English program on Saturdays from 10:30 to 11:30 p. m. EST. This English program is heard, though, from 11:30 until 12:30 or later. The owner-announcer is Mr. A. Van den Enden, a gentleman who seems to overflow with personality. He speaks in a personal way to everyone who writes him. HJ3ABH, "La Voz de la Victor," Bogota, Colombia, is on 6012 kcs. and surely comes in well between 8-11 p. m. EST. Their interval signal is three chimes exactly like those of the NBC."

QSL From YV6RV

Most of our readers have received QSL cards from YV6RV, Valencia, Venezuela, "La Voz de Carabobo." Jack Doherty, 2718 College Ave., Berkeley, Calif. has one, and adds the information that Radio-Suva is heard daily except Saturday between 8:30 and 9:30 p. m. PST. Jack wants correspondents in California. Others reporting YV6RV QSL's are Herbert Hyde, Elmwood, Conn., Oliver Amhe, Philadelphia, Pa., Al Steinmetz, Norristown Pa., John Shanks, Russellville, Tenn., Edward Lesiak,



A new electric musical instrument, the "Photona," which was recently invented and constructed for station WCAU, Philadelphia. Leonard MacClain is shown above at its console. The wide range of tones available in the "Photona" is said to be entirely different from any musical instrument yet produced. (In this respect, it's similar to some of those produced by Major Bowes' Amateurs).

Scranton, Pa., Geo. Acker, Wadsworth Ohio, Robt. Collins, Westwood, N. J. and Morgan Fashay, Montclair, N. J.

From Russell W. Foss, 52 Linwood St., Lynn, Mass. comes this condensed report: "YVR, 9168 kcs., Maracay, Venezuela, may be heard from 1-3 p. m. EST. I have had YNLF, Managua, Nicaragua, broadcasting on 6000 kcs. HJ4ABA, Medellin, Colombia is now on 11720 kcs. every night. HRM, Tela, Honduras, is a new phone on the low frequency side of the 20 meter amateur band. HJ4ABE, HJ4ABA, HJ3ABD and YV3RC are the best So. Americans here at present. I have a total of 101 s. w. stations on my 5-tube Lafayette, and would like to hear from other users of this set."

"I have 110 s. w. stations, which does not include any police nor ama-

teurs," submits Fred W. Kroen, 606 Walnut St., Monaca, Pa. "I have 26 in South America and have 10 of them verified. I have been tuning for just a short while, having started last November. I believe this is a good record for a 16-tube Midwest."

A French Station About 11.900

"I am listening to a French-speaking station between W8XK and KKQ. I am pretty sure it is Pontoise but how does an Arizona cowboy who speaks English only get enough to verify them when they talk for 45 minutes straight?" inquires I. F. Wolpe, 841 N. 2nd Ave., Phoenix, Ariz. "JVF put in an R9 volume musical program at 1:30 p. m. the other day before phoning KWU. I have been on shortwave only since January, using an Airline 7D with an ordinary 60-foot antenna located in an area where the neighbors love to use their telephones."

Bruce MacKimmie, 620 Murray Hill, Westmount, P. Q., who has a three-tube t.r.f. home-built receiver, reports reception of RNE, VK3LR, LSX, ORK, DIQ and HVJ, as well as the usual So. Americans and Europeans. Bruce tells us that PCJ, Netherlands, broadcasts an English program dedicated to America on Wednesdays, commencing at 7:30 a. m. EST.

The Brazilians

One of the biggest surprises of the month just past was the reception by several readers of verifications from PRF5, Rio de Janeiro, Brazil. Most of these letters were several months overdue. The correct mailing address of PRF5 is Director of the Imprensa Nacional, Rio de Janeiro.

"The station I thought was LUSAB turned out to be PRA8, Radio Club de Pernambuco, Brazil," postcards John M. Wheeler, Redcourt, Lee-on-the-Solent, Hampshire, England, "I have received a verification from them on which they state they transmit simultaneously on 735

kcs. and 6040 kcs., although actually they have been on 6060 kcs. for a long time instead of 6040."

"On shortwaves I have logged a number of relay, police and amateur stations," writes Allan Ford, Portneuf Station, P. Q. "My log of relays stands at 71 with 4 verified. The verified stations are W9XF, DJC, DJD and HC2RL."

Verie From Fiji

While preparing this article a QSL card came from Suva. The face of the card is similar to those from VK3ME. On the right side is a globe with Australia occupying the center, and a large red circle encloses the Fiji Islands. Across the globe are the letters VPD. On the left side of the card is the notation: "Fiji Islands, The Garden of the Pacific. These islands were discovered in 1643 by Tasman and were ceded to Great Britain in 1874. There are about 250 islands in the group and the total area is about 7100 sq. Mi. The population is 172,000 of which 4300 are Europeans. Principal exports are sugar, copra, bananas, rubber, cotton and shell. Amalgamated Wireless (A/sia) Ltd. operates the wireless services at Fiji. At the principal station, VPD, there are three transmitters. All these stations were designed and built in Australia by AWA., which also owns and operates wireless beam stations, coastal stations, ship stations and shortwave Overseas Broadcasting station 2ME Sydney. Amalgamated Wireless, (A/sia) Ltd., Suva, Fiji." On the opposite side of the card Mr. S. Exon (or Sexon?) writes, "Our only telephony schedule at present is of an experimental nature. We broadcast music and news daily on 13045 kcs. from VPD at 0530/0630 GMT except Sundays." This time, converted to EST, is 12:30 to 1:30 am.

Some DX Reports

"In a former issue of RADEX you did not give the frequency of XECR. I heard this station and believe they

announced the frequency as 7380 kcs," report G. D. Hinson, Jr., 2312 San Gabriel, Austin, Texas. The address of XEER is Secretaria de Relaciones Exteriores, Mexico City, D. F. They work on Sundays only, from 6-7 pm, EST.

"Tonight Pontoise is coming through R9 with a very good musical program. CJRX and HJ4ABA are also coming in well," states Nicholas Hock, 20 Burnett St., Newark, N. J. "The 31 meter band certainly has improved in the last three weeks. All the stations on this band are regular visitors now and my Comet PRO makes the best of them. I held VK2ME from 6:50 until 8 am, better than an hour, with an R8 signal, which is the best reception I have ever had from an Anzac. VK3LR always seems to have a shaky signal, while VK3ME, although steady, never has the volume 2ME has."

"On my G. E., K-80 I have logged 87 foreign stations," submits Earle Johnson, 440 Harrison Ave., Hamilton, Ohio. "This list is a result of a good many hours hard work between the hours of 8 am, and 8 pm. I am doing a 'rest cure' and am not permitted to be occupied at any other hours." Mr. Johnson starts a new log each month, and these 87 stations were logged during April. The list includes CT1CT, DJE, FTA, HIL, HI4D, PRF5, HRP1, HJ1ABJ, and IRJ among the more difficult catches.

"Near the end of January I bought an RCA-Victor 263, 10-tube all wave model, and its performance on both long and short waves has pleased me very much. I feel rather proud of my list of stations, although it is not very impressive," exalts Herman Hills, 237 Morgan St., Tonawanda, N. Y.

These two readers want correspondents:

Chas. E. Dunlop, Box 171, Kirkland Lake, Ont.

John F. Fisk, 238A Florida St., Vallejo, Calif.

"HJ4ABA was inaugurated on

March 25 at 7 p. m. EST giving the address as Ecos de la Montana, Edificio Casa Garces, Medellin, Columbia," reports Manuel Alberto Cadilla, P. O. Box 337, San Juan, Puerto Rico. "Heard CO7HT, Camaguey; LSX talking to New York; HJ3ABH, location not given; HP5J, 9620, Panama; a station in Pernambuco, Brazil, call not understood. Besides these many Europeans and SA's were heard. I2RO is usually on 9360 on Sunday afternoons coming R9. Did you find out anything about BC6XYB, the station at Demerara, Barbados? They have never come in again since I first reported them. Have heard some calls from Santo Domingo who must be amateurs or outlaws as they stay on for very short periods."

The Hungarian Stations

"Reception was great today (April 28)" exults Albert Steinmetz, 411 West Girard Ave., Philadelphia, Pa. "I again picked up HAT and with much better results than before. I held it from 7:03 to 7:54 p.m. EDST, at which time they signed off with the Hungarian national anthem. The time and frequencies of the Hungarian stations are now as follows: HAS-3, 19.52 m., 15,370 kcs., every Sunday 9-10 a.m. EST; HAT-4, 32.88 m., 9125 kcs., every Sunday 6-7 p.m. EST. HAT is quite easy to pick up. I heard it on Easter Sunday for about 20 minutes and again, as stated above, the Sunday following. HAT now has a very beautiful verification card printed in red and green over white (the national colors of Hungary). It is so different from any others. On each is mounted a view of some Hungarian scene.

"I had a catch on April 23 I never had before. They gave the call in Spanish and in perfect English as HKV, Bogota, Colombia, on 8795 kcs. Announced as experimental station testing; asked listeners to write their reports to the Ministry of War, Bogota. I had it from 6:45 p.m. EST to 7:08 at which time, after playing

(Continued on page 33)

With the Members of the I. D. A.

● ● ● By JAMES T. SPAULDING*

CALLING "CQ" to all DXers. As this is the last issue of RADEX until September and reception is now due for the usual seasonal change, we will omit most of the reports. The season as a whole has been fairly good. Now that bcb. reception is through we are awaiting the arrival of many old friends on sw. The 25 and 30 meter bands are becoming heard again while 49 meters is fading. We, for one, are not sorry. The SA's offer good entertainment, but good reception of Europe and Australia will be very welcome.

* * *

It is in order at this time to again thank RADEX for its generous cooperation. We have made some new members and, judging from reports, RADEX has made many new friends. We also thank everyone who sent in reports. We especially thank D. R. D. Wadia of India and B. E. Mitchell of South Africa.

* * *

For DXers who desire up-to-the-minute tips and news, we recommend W9XBY, 1530 kcs., Kansas City. Tune for them each Wednesday at 12:01 a. m. CST.

* * *

Local IDA chapters are springing up everywhere. New ones are the two in Los Angeles and Beverly Hills and the one in Toledo. Members of the London Chapter, led by H. M. Blaber, recently visited the London Power Station and the International Telephone Exchange. Fine business, H. M.! Anyone desiring information on how to form a local chapter please write headquarters at Bloomington, Ill.

* * *

The offer of a free copy of our magazine, the Globe Circler, is still

open and it may be secured by writing 3524 N. Western Parkway, Louisville, Ky.

* * *

Oliver Amlie, DXer extraordinary, writes: "Anyone who has not yet joined the IDA should do so promptly. I recently had the pleasure of turning over to the IDA the entire membership of the International Amateur and S. W. Fans' Society." Friend Amlie has sent in 130 reports to the three Aussie sw. stations and challenges anybody to beat this record.

* * *

If you have not yet received a long-awaited verie, don't give up. Mrs. Ledbetter of Vicksburg just received a verie from JOXK after 15 months. Maybe we'll get those due from JVF and HJ1ABB sometime!

* * *

Don't forget the second IDA special from HP5B, Radio Panama, 6030 kcs. on June 14th.

* * *

Many have asked for detailed information about membership requirements of the IDA. They may secure this by addressing the writer.

* * *

We hope to announce the winners of the various prizes in the IDA contest in the next issue and so, until September, here's hoping you all the very best of everything, good DX and signing off. *Hasta Luega!*

*3524 N. Western Parkway, Louisville, Ky.

The RADEX Radio Map of the World has a dial on front cover which you turn to the time in your zone and instantly the time for every place in the world is indicated. Price only 25c postpaid anywhere.

Converting Old Sets for S. W. Reception

• • • By B. FRANCIS DASHIELL

A RADIO set may grow old but it seldom wears out. If you replace its tubes, clean out the dust and readjust the circuits, it usually becomes about as good as new. There are thousands of such receivers in existence, many still giving excellent service, but most of them have been shoved away into obscurity to make way for modern, all-wave sets. If these old receivers could be remodeled so as to tune to the short waves, instead of only to the broadcast band, their usefulness would be revived.

A few years ago these short waves were not generally known to the public. The only signals in the short-wave band consisted of amateur and commercial transmissions in code which were of little interest to listeners. Today, however, in the short-wave band, we find interesting police, aviation, amateur and broadcast radiophone conversations and programs. These additional stations are denied the owner of an old broadcast receiver unless he uses a short-wave converter. Many of the readers of RADEX have asked whether their old sets can be converted so as to cover at least a portion of the short-wave band, such as the upper half that is just below the 1,500 kilocycle end of the broadcast dial. Such conversions would make it possible to pick up the police, amateur and aviation broadcasts that operate on 1,700 to 2,400 and 3,800 kilocycles.

Changing the Circuit

When we attempt to change the design of an otherwise satisfactory radio set we are very likely to reduce its efficiency. This is particu-

larly true when inductances (coils) and capacitances (condensers) are altered in size so as to create new tuning ranges so that signals having higher frequencies than those used for broadcast reception can be passed through the circuits. The coils in a broadcast receiver are designed to pass frequencies between 600 and 1,500 kilocycles. When we desire to pass higher frequencies, such as those from 1,500 to 5,000 kilocycles, much smaller coils and condensers will be needed.

However, if the owner of an old set is willing to sacrifice some of its original sensitivity and D-X qualities, it may be possible to alter the circuits so that the short waves down to nearly 40 meters can be received. But some of our readers are doomed to disappointment right here, for much depends upon the type of set to be converted. While it is possible to alter a superheterodyne so that it will tune to short waves, the work will require the services of a skilled radio technician as a careful redesign and balancing of the tuned r.f. and oscillator circuits is required. Also, a new oscillator arrangement must be determined, and for these reasons we do not generally recommend anyone attempting the conversion of a superheterodyne set for short-wave reception.

Using T.R.F. Sets

The tuned-radio-frequency receiver—and there are many thousands of this type still in use—is readily adaptable to variations in its tuning range. Little difficulty should be experienced if one is careful to follow instructions. Perhaps there are certain receivers, such as those of un-

usual design and which may employ involved r.f. transformers with neutralizing coils, which cannot so easily be altered. They need not be entirely ruled out, however.

The coils in a radio receiver determine the wave lengths or frequencies to which it will respond. The size of the coil (number of turns of wire) controls its reactance to the flow of an alternating current. The faster a current alternates the more difficult it becomes for the current to pass through a coil of wire. A coil may present a high resistance to the flow of alternating current and practically none to the flow of direct current. A coil of few turns offers little a.c. resistance to a high frequency, but another coil of many turns will effectively retard the flow of the same current. Thus a coil may be tuned simply by removing or adding turns of wire.

Tuning to Resonance

The fundamental principle of a tuned circuit is that it presents a.c. resistance or reactance to all radio-frequency currents except the one to which it is in tune and therefore offers no resistance. This is a state of resonance and is universally created by changing the capacity of a variable condenser. So, periods of resonance to all frequencies within the tuning limits of the coil will be provided, one at a time, simply by turning the dials. Such is the act of tuning a circuit. In a r.f. receiver at least two or three similar circuits are tuned simultaneously, and resonance appears instantly in each of these tuned circuits.

Because simultaneous tuning occurs in each of these circuits, the signal will pass from one circuit to the next as it is amplified in intensity. It goes through the first, second and third r.f. stages. Each stage consists of a coil, condenser and tube, and all are absolutely identical. So, if there are three r.f. transformer

coils, each will be found to be similar in size and will be wound with the same number of turns of wire.

Size of Coils

The average radio-frequency transformer coil in a t.r.f. receiver will contain from 60 to 75 turns of wire. It is tuned by a variable condenser having a maximum capacity of .00035 to .0005 microfarad (350 to 500 micro-microfarads). Such a combination forms a tuned r.f. circuit that will cover all waves having frequencies ranging from about 500 to 1,500 kilocycles, or 550 to 200 meters. But the large size of this coil prevents it from being tuned to resonance to any signals below 200 meters, its minimum limit.

Matters would be simplified if it were possible to use but one coil of wire in a r.f. transformer to cover all frequencies in the broadcast and short-wave bands. If we make a coil having about 12 turns of wire, it will tune to signals between 15 and 40 meters; if it has 25 turns, it will be resonant between 40 and 80 meters; and, if a still larger coil of 50 turns, it will tune from 80 to 200 meters. We cannot well make a coil that will tune from 15 to 200 meters. Therefore, we cannot replace the r.f. coils that are used for broadcast reception with a coil that will cover the entire band embracing the short waves

Removing Turns of Wire

Simply changing the tuning condenser will not provide reception on the short waves. If you examine your broadcast receiver when it is tuned to a station on approximately 200 meters, or 1,500 kilocycles, you will see that the rotor plates of the variable condensers in the gang unit have become entirely unmeshed from between the stator or stationary plates. The condenser capacity is now at minimum or practically zero. A smaller condenser would reach its zero setting before it tuned down to 200 meters and would fail to cover

the entire broadcast band. Smaller condensers are used on the short-wave band so tuning will be easier with wider selection between stations.

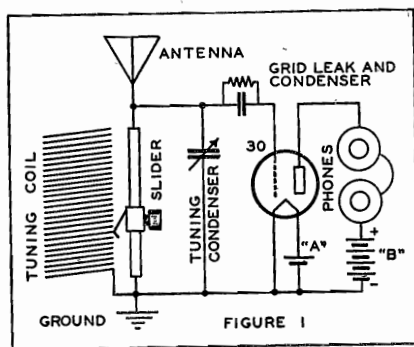
From the foregoing explanations we find that we must reduce the size of the r.f. coils if they are to respond to the shorter waves. But when we do this we also reduce the ability to tune to the top of the regular broadcast band. Let us, for instance, remove a single turn of wire from each of the r.f. coils in the receiver. Then we will see that the station settings on the dial have been changed one or two points. Now remove several turns more from each coil. The response into the upper portion of the short-wave band becomes more pronounced, but the broadcast band moves up on the dial. Perhaps a station that was received at the top of the broadcast band on No. 100, or 550 Kc., of the dial, according to how these old dials are divided, will move off and no longer be heard, but new stations will appear at the bottom of the dial, below 200 meters, or above 1,500 kilocycles.

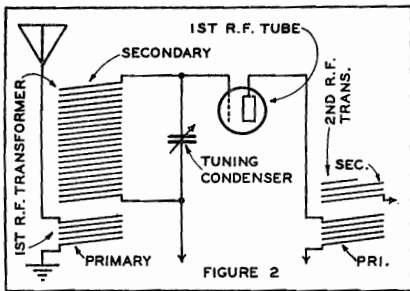
Variable Coils

A coil that is continuously variable in inductance will tune to all wave lengths. However, its efficiency is not the kind that makes radio engineers happy. In Figure 1 we see a coil of this type used with a single-

tube circuit. Such tuning coils were in use several years ago. It is possible actually to reach far above 5,000 meters and below 100 meters with a coil of this type. Several hundred turns of No. 26 enameled wire are wound on a small tube. A square brass rod fitted with a sliding contact is arranged over the coil, from end to end. By means of the slider single turns of wire can be cut in or out at will. In this manner the inductance of the coil may be varied from minimum at its lower end to maximum at the upper end. This circuit, at least, will prove an interesting experiment in all-wave reception. Its selectivity may prove rather disappointing, however.

This form of tuning coil is impracticable in a multi-tube radio receiver. As we have said before, the usual t.r.f. set contains three r.f. transformer stages. Now, each transformer has two coils—a primary and a secondary. (See Chapter Three of the *Beginners' Story of Radio*, appearing in the December, 1933, issue of RADEX). The primary is not tuned and consists of only a few turns of wire. The secondary has more turns than the primary and, in addition, is tuned to resonance by a variable condenser shunted across the two ends of the coil. The top terminal of the secondary is attached to the control grid of a r.f. tube. The bottom terminal usually is grounded, but does not interest us. When one or more turns of wire are removed from the secondary coil they must be taken from the top end that connects to the grid contact of the tube. The wire in the primary coil must be untouched. A radio set having three r.f. transformers also will have three variable condensers for tuning these three coils. And there will be three tubes—two are r.f. amplifiers and one is the detector. Any changes that are made must be carried out identically throughout all three stages. The secondary coils of



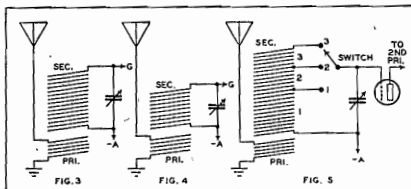


the r.f. transformers are easily identified, usually by tracing back the grid lead from the tubes.

The R. F. Transformers

Figure 2 shows a typical stage of radio-frequency amplification. As indicated, it is the first r.f. stage of the set. This is followed, in most cases, by two more similar stages, making three in all. Now, if we replace the secondary coil of this particular r.f. transformer with a larger coil, or add more turns of wire to one end, as indicated in Figure 3, the longer waves may be tuned in—those above 600 meters. Adding about 50 turns of wire may give a tuning range from about 500 to 1,000 meters instead of the usual 200 to 550-meter limits of the coil.

But, if the secondary coil is replaced with a smaller one, of about 40 turns, as shown in Figure 4, the broadcast-band becomes lost, and only shorter waves, such as 75 to 300 meters, can be received. In this case the receiver now becomes partially useless as a broadcast receiver. If the size of the coil is still reduced to about 25 turns, it will respond approximately to waves only between



50 and 100 meters. All broadcast signals will now be lost, as well as some of the short waves between 100 and 200 meter.

Dividing The Coils

From this explanation the reader will easily grasp the fact that a single coil cannot provide broadcast and all short-wave reception. Modern all-wave receivers do not operate with single coils to cover the entire wave band. At least four separate coils are used, one for each of the wave bands covered by the receiver. Switches are connected together so they may be operated simultaneously to change the circuits from one coil to another. In Figure 5 we see a simple switching arrangement that tunes a single r.f. coil of a broadcast set by dividing it into three sections. Each section covers some particular portion of the wave band. Section 1 utilizes 25 turns of the coil, counting from the bottom terminal next to the primary coil. This will cover a short-wave band from 40 to 100 meters. Section 2 adds about 15 turns to Section 1 and will tune up to about 200 meters. Section 3 adds the remainder of the original coil and provides the usual broadcast reception from 200 to 550 meters.

If the receiver will permit the addition of tiny 3-point switches of this type to each of the three r.f. secondaries, satisfactory short-wave reception and broadcast reception can be obtained without loss of the characteristics for which the set was originally designed. One complete switch assembly must be placed at each coil. The leads from the switch points (1 and 2 of Figure 5) are carefully soldered to bared spots on the proper turns of the wire. Extreme care must be exercised to make all leads from each of the switches exactly the same length. And the points where contacts are made must be identical on all three coils.

Plug-In Coils

Any t.r.f. receiver can be turned into a short-wave receiver simply by removing about 20 turns of wire from the tops of each of the r.f. transformer coils. This will provide reception between approximately 100 meters and 350 meters, covering police and amateur and aviation calls, as well as nearly one-half of the broadcast band. Removal of about 30 turns will give short-wave reception between approximately 70 meters and 200 meters. Removal of more turns is not recommended, for attempts to get down into the 20-40 meter band will result in instability of tuning. The condensers do not require changing, but in order to spread the stations over the condenser from end to end and make tuning much easier the capacity can be reduced by removing two rotor plates from each section.

Another method of providing short-wave reception is to remove all three r.f. transformers from the broadcast set and substitute three 4-contact tube sockets. Connect two contacts of each socket to the two end leads of the primary coil that go back into the set after the transformer was removed. Connect the remaining two contacts to the two leads that came to the secondary coil. Plug-in coils, with two windings—primary and secondary, can now be used to cover the entire short-wave band as well as the broadcast band. This system may be impracticable in some of the earlier neutralized receivers. Three similar sets of coils, wound on plug-in forms having four prongs, will be needed. The coils can be made according to the directions given in Chapter Eleven of the *Beginners' Story of Radio*, published in October, 1934, issue of RADEX.

The Beginner's Story of Radio is only 75c postpaid.

In the Business Office

THE May-June-July-August edition of the *DX Log of the World* went to subscribers and newsstands late in April. This will be the last edition of the *DX Log*. We have decided that it will be to the advantage of our readers to have all the information regarding radio stations of the world in one book instead of two. Beginning with the September issue, we are therefore combining our two publications and the data on the foreign broadcast stations and the short wave stations of the world will hereafter appear in RADEX. Unexpired subscriptions to the *DX Log* will be applied on subscriptions to RADEX. Be sure to watch for the September RADEX. It will be the greatest compendium of radio information ever published in this or any other country. Due to increased costs caused by the NRA codes as well as to the additional material, the subscription price of RADEX will be advanced on September first. Subscriptions will be received at the old rate of \$1.75 per year until the first of September. "A word to the wise is sufficient."

The Iowa Changes

As we stated in our last issue, recent shifts in the stations of the Iowa Broadcasting System had us all mixed up. We are now in position to straighten this matter out. KRNT, Des Moines, 1320 kcs., 1000 watts daytime and 500 watts night is a basic Columbia outlet. KSO, Des Moines, now on 1430 kcs. 500 watts daytime and 250 watts night, is now a basic NBC Blue outlet. WMT, with studios in both Cedar Rapids and Waterloo, on 600 kcs. with 2500 watts days and 1000 watts nights, is likewise a basic NBC Blue outlet. "All three stations have recently installed RCA high-fidelity transmitters. We are now in the process of moving these transmitters and other equipment to new sites away from

their present industrial-section locations. We are installing at the new transmitter site in Des Moines a 370-foot vertical antenna with high-capacity crown, thought to be the most efficient antenna design yet invented. At the new WMT transmitter site nine miles north of Cedar Rapids, we are installing a 400-foot vertical antenna." Thus writes Edward B. Nichols of the IBS.

The New Zealand DX Radio Association of Dunedin very kindly sends us a list of the reallocation of frequencies which will take place in Australia on September first. These will appear in the September issue of this magazine. At first glance it would seem as though almost every station in Australia will change its channel.

We show KOOS, Marshfield, Ore., as a 100-watt station with license for 250 watts daytime. Mr. Walter L. Read, Manager of the station, writes us that they are a daytime station and are therefore a 250 watt station. We are making corrections accordingly. Says Mr. Read further: "We expect to get permission to change to another frequency, either regional or a daytime frequency other than a local channel. We are using a new transmitter with a potential output of 500 watts and hope to make use of this power on a daytime basis in the near future. Naturally we must first get on another frequency and in so doing, it will make it possible for us to schedule more DX programs next fall than are now possible because of the crowded condition of the 1200 channel, with one station (KGFJ) on 24 hours a day. Please list us as 250 watts; hours 8:00 a. m. PST to local sunset."

Station WJR which has been a member of the NBC family "since memory runneth not to the contrary," goes over to the CBS on September 29th, according to advices from William S. Paley, president of Columbia. WJR will replace CKLW



Frances from Florida. Heard from coast to coast each Friday from 9:00 to 10:00 p.m., EDST, is Frances Langford when she stars with Dick Powell in the hour dramatic musical revue, "Hollywood Hotel," over the CBS net. Coming from Lakeland, Fla., to New York three years ago, she doggedly pursued theatrical fame until she found it. Today, as an established radio star, she's making a place for herself in films.

as the CBS outlet in the Detroit area.

From Our Readers

"In regard to the complaint of Mr. Acker of Wadsworth, Ohio, about the amateurs, I am sure it is the set he uses that is causing the disturbance. My set is a t.r.f. 7-tube using 2A5's as output with band-spread — completely a home-made set — and I have never had amateurs on top of each other." This suggestion is from Tom Brandon, 9720 106th St., Edmonton, Alta. Tom wants to join a bc DX club.

Bill Forder, 177 Third Ave., W., North Bay, Ont., sends us a newspaper clipping to the effect that CJKL, Kirkland Lake, has been raised from 100 to 1000 watts. There is a possibility of a still further increase. The purpose is to give better service to the "North Country."

The change will not take place for two months.

William Ellis of Hughson, Calif., received an up-to-date list of the Chinese stations from Mr. E. Pan, Engineer of XGOD. He forwarded the list to us in time to correct the summer edition of the *DX Log of the World*. Thanks to Messrs. Pan and Ellis, our readers may have an accurate list of the Chinese broadcast stations.

E. J. Strub of Iowa City, Iowa, sends us an old log book of 1923 which he has just run across. It shows about 560 stations in operation even at that early date. Most of these have long since disappeared from the air.

Ray La Rocque, Secretary of the New England Radio Club, Worcester, Mass., notifies all concerned that it seems best to discontinue the activities of that organization permanently.

If any reader has a copy of the schematic diagram of the Lincoln all-wave SW-34, H. C. Chestnut, 88 Bailey Ave., Plattsburg, N. Y., would appreciate an opportunity to copy it.

And now Radio, with our full consent, takes its bow and gives way to baseball and golf and tennis and motoring. We wish everyone a happy vacation and "So long until September."

Daylight Saving Time

THE cities and towns which observe daylight saving time are shown below. In the U. S. the fast time continues until the last Sunday in September.

CONNECTICUT—Bridgeport, Hartford, New Britain, New Haven, Waterbury.

DELAWARE—Wilmington.

GEORGIA—Atlanta.

ILLINOIS—Chicago and suburbs, Cicero, Waukegan.

INDIANA—Elkhart, Fort Wayne, Gary, Hammond, Muncie, Richmond, South Bend.

MAINE—Augusta, Bangor, Portland.

MASSACHUSETTS—Observance required by State law.

MICHIGAN—Practically every community follows Eastern Standard Time all year.

MISSISSIPPI—Jackson.

NEW HAMPSHIRE—Laconia, Manchester, Portsmouth.

NEW JERSEY—Asbury Park, Atlantic City, Jersey City, Newark, Red Bank, Trenton.

NEW YORK—Albany, Brooklyn, Buffalo, Freeport, Jamestown, Long Island City, New York, Plattsburgh, Saranac Lake, Troy, Utica. In Rochester daylight saving was defeated by a referendum but many factories and offices start the day an hour earlier.

OHIO—Due to demands for daylight saving in cities, towns and villages outside the Eastern Time Zone, the entire state was put on Eastern Standard Time April 3, 1927 by order of the Interstate Commerce Commission.

PENNSYLVANIA—Allentown, Erie, Johnstown, Lancaster, Philadelphia, Pittsburgh, Reading, Scranton.

RHODE ISLAND—Entire state.

HAWAII—Honolulu and entire territory.

CANADA—Brantford, Ont. (June 30-Aug. 31); Chicoutimi, Que. (May 4-Sept. 28); Fort William, Ont.; Halifax, N. S. (June 1-Sept. 29); Hamilton, Ont. (May 4-Sept. 14); Hull, Que.; Kingston, Ont.; Moncton, N. B.; Montreal; Ottawa; Quebec; Regina, Sask.; St. Catharine, Ont.; St. John, N. B.; Toronto; Yorkton, Sask., (all year).

EUROPE—Great Britain and Northern Ireland (April 13-Oct. 5); France (March 25-Sept. 29); Belgium (seven months from April 7); The Netherlands (May 15-Oct. 6); Portugal (March 30-Oct. 6).

SOUTH AMERICA—Argentina (Oct. 1-March 30).

Order Coming in Cuba

IT WILL be a real satisfaction to our readers to know that at last order is due to come out of the chaos in Cuba. We are speaking of conditions in the air and not in politics. Broadcasting in the Island Republic, so far as control is concerned, is still where it was in the United States back in 1928. Our Department of Commerce under the then Secretary, Herbert Hoover, did attempt a sort of extra-legal control but Cuba has had no radio legislation whatever.

The Director of Radio in Cuba, Dr. Nicholas G. Mendoza, writes us frankly of the radio conditions there. From his interesting letter we glean the following facts:

About a year ago a radio act was hurriedly thrown together with por-

tions of it taken from our own law as well as those of Uruguay, Argentina, Mexico and Spain. This law vested all powers in a single person, the Radio Director, and gave no right of appeal. This law existed less than a month and a commission was appointed to draft a new one. This Commission has been at work ever since and has just now submitted its work to the Government.

The broadcasters of Cuba, like those of the United States, opposed any law even where it was for their own good. They were brought out of this state of mind by the simple expedient of letting everybody broadcast who wanted to and at any time they wished. Soon chaos became so intolerable that the broadcasters themselves cried quits and asked for the enactment of controlling legislation. As a result, on February 28th, every one of Havana's thirty stations had to go on the air, for the first time, completely rebuilt with two buffer stages and frequency crystal control. At that time there were only three stations throughout the Island actually operating on their assigned frequencies. All others moved about at pleasure.

One station was authorized to use 3500 watts but actually used less than 250. Another with 500 watts never used over 80. Stations with 1000 watts shared time with 250-watters while 80-watters were granted full time. Under the direction of Dr. Mendoza, tests were made at each station and the actual averages published. The stations were then evidently licensed for the actual power they were using. This accounted for the odd figures in the power rating at which we poked a little fun in the April issue. It seems to have been a very sensible procedure, however, and much better than to license at ratings that did not exist.

No new licenses are now being issued. At the present time 58 applications for short-wave broadcasting

licenses are on file.

When we commented rather flip-pantly on the latest reallocation we assumed it was just another wholesale shift but we are very glad that it appears to be the first step in a real governmental control of radio conditions in Cuba. Chaos in that Island not only interferes with proper radio reception in a great portion of the United States but listeners here delight in many of the Cuban programs. We pay tribute, therefore, to the men who are bringing order in the air in Cuba.

About My Equipment

••• By OLIVER AMILE*

MY ARTICLE in the May issue of this magazine brought numerous inquiries as to the type of my antenna that I would like to answer here. I use the single strand type, 100 feet long. It is No. 12 double rubber covered with 40 foot lead-in. I attached an insulator to one end and another just 100 feet away with the other 40 feet to the set. I find East-West gives me the best reception. The aerial should not be cut but should be run in one piece direct to the antenna post. My aerial is now six years old, but due to the rubber covering, it is uncorroded and as fresh as the day it was put up.

While an aerial is a necessary part of radio reception, I think the biggest factor is a good receiver. I can receive Australian, South American and European stations on the speaker without either antenna or ground.

I think the Australians are the most interesting stations I hear. I have submitted 132 reports of reception to them. The best time to listen to these stations is from 5:15 a. m. until 6:30-7:30 and even 8:30 a. m. depending upon atmospheric conditions. On March 8th, 1935, VK3ME went on the air Wednesday,

Thursday, Friday and Saturday from 5 to 7 a. m. VK3LR is on Monday to Saturday from 3:15 to 7:30 a. m. VK2ME, Sundays, from 1 to 3 a. m. and 5:00-11:30 a. m. All times are EST. Australian stations are glad to verify your reception and send a card.

The most discussed station today is VPD of Suva, Fiji Island. This station operates on two watts and is on the air daily except Sundays from 12:30 to 1:30 a. m. EST. (VPIA is not correct; I have seen a card dated Aug. 5, 1929 and have one of my own dated March 22, 1935 and both cards are the same—VPD). Fiji has a population of 170,000 and owns three beam stations, ship to shore.

*56 City Line Ave., Overbrook, Philadelphia, Pa.

A Lone DXer in Sweden

• • • By John S. Bohm,*

I WAS much delighted to have your letter asking for a little article about DXing in Sweden. However I think I am not able to write interesting articles good enough for publication. Besides this, my English is not as good as I would like it because I haven't studied for a very long time. However I will do my best.

DX on the broadcast band is not general in Sweden; in fact I am not acquainted with another Swedish DXer. I have had some articles about my experiences published in the Swedish radio papers but I have never heard from people in this country that were interested in the same hobby. Nearly all of my verifications read: "Yours is the first report received from Sweden or "We have never before heard from your country."

DX is at its best here during the winter months, October to January, that is for reception of North Ameri-



John S. Bohm of Sweden

can stations. South Americans are well received during all times of the year, in summer quite as well as in winter. The US stations best received are KOA, KNX, KPO, KSL, KMOX and WIOD. Those are much better than the big East-Coasters like WTIC and WCAU. KOA and KNX are heard with great clarity every night at 01.00-03.00 our time during November and December. In fact at that time, only these two stations are heard; sometimes there is no trace of the other big US stations. Remember that 01.00-03.00 a. m. our time is 4:00-6:00 p. m. Pacific Standard Time when it may be daylight over half the United States.

Sweden seems to be a good location for signals from the stations located on the Pacific Coast. My list of verified US stations includes quite a few low-powered ones. Here is my list of verified stations in North and

South America, Asia and Africa:
 CKAC, CKCK, CRCK, CP4, KDKA,
 KFDM, KFI, KFXM, KGIR, KIT,
 KMOX, KNX, KOA, KOH, KPO, KSL,
 KWG, KWK, KWKH, KXL, KYW,
 LR4, LR5, LR6, LS2, KZRM, KTFI,
 VAS, WAAB, WABC, WAPI, WBAF,
 WBBM, WBCM, WBNX, WBT, WBZ,
 WCAU, WCCO, WCFL, WCSH,
 WEAJ, WEBC, WEEL, WENR,
 WFBL, WGN, WGY, WHAM, WHAS,
 WHK, WHP, WIOD, WJAX, WJBW,
 WJDX, WJSV, WJZ, WKAQ,
 WKBW, WLS, WLW, WMAS,
 WMBD, WNAC, WOAI, WOC,
 WOWO, WPG, WROK, WRVA,
 WSAI, WSB, WSM, WTAM, WTIC,
 WTJS, WWVA, XEAW, XEW,
 XENT, XER, YV1BC, Algiers, Cairo.

I belong to two DX Clubs, the International DXers Alliance and the Universal Radio DX Club, being the only Swedish member of either club. My present receivers are a six-tube Telefunken superhet and a five-tube Philips Superinductance. They are both very good DX sets. My home is located in middle Sweden about 300 miles from the Arctic Circle—a mountainous district. I am very interested in collecting postage stamps and will be glad to exchange stamps with American collectors, 73's to all the fellows.

*Box 511, Malung, Sweden.

While many performers have changed their broadcasting technique in the decade in which radio has come of age, Whispering Jack Smith, the soft-voiced baritone, has stuck, with success, to his original crooning methods. Jack started out as a whisperer and the idea hasn't got into the discard, not by any means! He's still a favorite with network listeners the country over and has proved to his own satisfaction that whispering pays. Smith has become famous as a singer, despite the fact that he started his career as a pianist.

The New Zealand DX Club

THOUGH New Zealand is only a tiny country, tucked away on its own in the South Pacific Ocean, it can boast of possessing one of the finest DX clubs in the world—the New Zealand DX Club. Inaugurated in 1930 by the "Radio Record," New Zealand's radio programme weekly, the Club has grown at an amazing rate until it now has a membership of over 1550, including no less than 73 overseas members in all parts of the world.

There are 16 branches of the Club established throughout the country, each with its own secretary and committee to arrange regular meetings, organize various DX competitions, and generally took after the interests of the Club. Every month each branch secretary forwards a report of his branch's activities to headquarters for publication in the Club's official organ, which is now the "N. Z. Radio Times." This magazine, which features technical and practical radio articles as well as DX news, is published monthly.

In all, there must be over thirty trophies, ranging from medals to silver cups, offered for competition among dxers belonging to the various branches, so there is no lack of interest at the monthly meetings. Every dxer's ambition, however, right from the time he logs his first DX station, is to win the New Zealand DX Challenge Cup. This trophy was donated to the Club by headquarters three years ago, and is competed for every six months. The dxer entering the largest log of verified overseas stations operating on the broadcast band has his name inscribed on the Cup, is awarded an engraved silver miniature, and is given the title of DX champion of New Zealand for the succeeding six months.

The trophy has been won seven

times now, and the following winning totals show the intense interest that is taken in the Competition. The Cup was won first with a log of 89 stations. Succeeding totals were:—142, 227, 291, 366, 417, 500, 546, 602. If not a world's record, the last total must come very close to being one, especially when it is remembered that New Zealand is 1200 miles from the nearest continent and 6000 miles from America. One remarkable fact about this contest is the large number of European verifications that are entered. The last winner had no less than 28, and New Zealand is 13,000 miles from Europe.

Life membership for the Club costs only 2/6d, which includes a membership certificate and a neatly designed badge, brightly finished in the Club colours of red, blue and gold, while the annual subscription to the Club's magazine is 10/- per year, post free. DXers in any part of the world are cordially invited to join. Any further particulars can be obtained by writing the Secretary, Box 1680, Wellington New Zealand.

Chatting About S. W.

(Continued from page 21)

records only, they stood by trying to contact W2KO, Flushing, L. I., on a two-way conversation."

"I have a FB veri from VPD, Suva, Fijis, of which I am very proud as they advise me that my report is one of the most complete they have ever received from the US. I am using a Grunow 1151 with Perfect Phone Adapter for weak signals. DX all continents and 35 countries." Thus reads a postcard from G. T. Magee, 2809 South 13th Ave., Birmingham, Ala.

Last Minute News Flashes

The Budapest, Hungary station has advanced its broadcasting schedule an hour. HAS3, 15370 kcs. transmits on Sundays only from 9-10 am., EST. and HAT4, 9125 kcs. works on Sundays only from 6-7 pm, EST. These

stations have an attractive new QSL card.

HCJB, "La Voz de Los Andes," Quito, Ecuador has changed over to its summer frequency of 8214 kcs. Reports on reception of this station are especially desired by Mr. Clarence Jones, whose address is Casilla 691, Quito. HCJB is on the air daily from 7:15 to 9:15 pm, and sometimes later.

A new Ecuadorian station being heard daily between 8 and 10 pm is HC2AT at Quayaquil. Their address is Casilla 872, and the frequency, 8400 kcs.

We are pleased we can advise readers that XEBT now verifies correct reports with a very attractive card printed in red and lavender.

Mr. J. G. Leitch, Technical Supervisor of WCAU-W3XAU tells us that W3XAU will be heard an hour later than the time given in our list of 100 Best, due to Eastern Daylight Saving Time taking effect.

The DX Summaries

(Continued from page 14)

kcs. will increase from 500 to 10,000 watts by November.

"I am coming to the close of another DX season with a log of 237," observes Richard W. Fales, Intervale Ave., Roslyn, N. Y. "I am very proud of KBPS, KFAC, HHK, PP and 10-AK. I would be glad to correspond and will answer all letters."

Nelson D. Harper, 73 Chestnut Street, Geneva, Ohio, has received a very attractive "diploma" from LR5, Buenos Aires, covering his reception of the NNRC special at 4:00 am. January 8th.

From Billie Prater, Wilder, Tenn.: "I have received 438 bcb. stations with 108 veres. My radio is an old Atwater Kent 60C (about 1927). My best are KPCB, KG CX, XFX, KGFJ, CMBC, CMBX, WELL, KVI, KGEX and KGFI."

BACK ISSUES AVAILABLE

We have the following back issues of RADEX which we can supply at the price of 25c per copy, five for \$1.00, or ten or more at 17½c.

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- No. 34 December, 1929
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- No. 57 March, 1932
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- No. 59 May, 1932
Hum and Its Remedy
A Long-Wave Converter
- No. 60 June, 1932
Opinions of Experts on Aerials and Grounds
- No. 61 September, 1932
Let's Listen to All the Waves
- No. 62 October, 1932
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- No. 65 January, 1933
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- No. 66 February, 1933
Using Phones
Short Wave Antennas
- No. 67 March, 1933
Building Radio into the Home
- No. 68 April, 1933
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- No. 69 May, 1933
Building a S. W. Converter
Making your own Noise Filter Part 2
- No. 70 June, 1933
Building a S. W. Converter Part 2
- No. 71 September, 1933
The Midget Receivers
- No. 72 October, 1933
Importance of Good Ground
Static-Reducing Antennas
Beginner's Story, Part 1
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Beginner's Story, Part 2
- No. 74 December, 1933
Gypping the Radio Buyer
Beginner's Story, Part 3
- No. 75 January, 1934
Proper Reports Bring Verifications
Using Microphones and Phono Pickups
Beginner's Story, Part 4
- No. 76 February, 1934
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The Long Wave Stations of the World
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Analyzing the Hammarlund Comet-Pro
Symbols Used in Short Waves

The Radex Press Inc., 705 Hanna Bldg.,
Cleveland, Ohio

How Many Tubes Make a Radio Set?

• • • By B. FRANCIS DASHIELL

PERHAPS most of us have wished to build a radio set having a great array of tubes and unlimited amplification. But when we realized that tube noises and static also would be amplified it appeared that a long impressive row of tubes might not be so good after all. Finally the "Midwest" set with its sixteen tubes appeared, and we thought *that* certainly was a lot of tubes. Then came an eighteen-tube "Imperial Radio Crafters" receiver, and also a Zenith "Stratosphere" set with twenty-five tubes!

But this article is about a new set that has nineteen tubes. It really is an interesting circuit, and the Howard "Grand" receiver is not as complicated as it might sound. Its makers feel that nineteen tubes are needed to do all the things they have decided are required of an ultra-modern radio set.

An All-Wave Set

The Howard "Grand" covers the entire radio broadcasting band. Its top band takes in European and American broadcasts between 390 and 150 kilocycles. The second band covers the standard broadcasts between 1,600 and 540 kilocycles. A third band embraces the amateur, police and aviation signals between 5,500 and 1,600 kilocycles. And the fourth and last band covers foreign and domestic short-wave broadcasts from 18,000 to 5,500 kilocycles.

Selectivity is remarkable, and it makes possible the easy separation of all short-wave stations. A band-spread unit actually spreads any station over a full half-inch of the dial. The signal-to-noise ratio has been increased to a point where the only noise heard is that caused by internal thermal activity within the tubes.

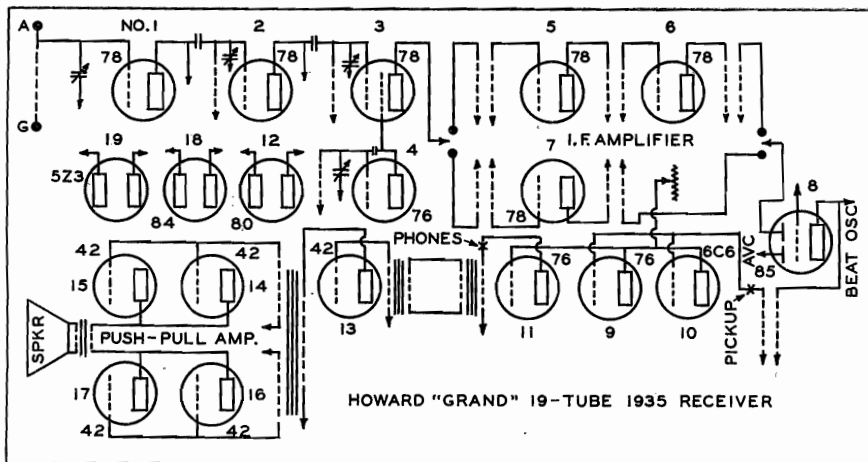
Three Separate Units

Automatic volume control holds up weak, fading, distant signals, and it has been designed so as to have a slight delay in its action. Its operation on the short waves is just as efficient as on the broadcast band. A large Jensen speaker provides high tone fidelity from the lowest notes to those having 7,500 cycles. The output into the speaker is 20 watts of undistorted power. A plug-in jack is provided for those who wish to use headphones and cut out the loud speaker, and it is also possible to plug in a phonograph pickup device.

This circuit is composed of three separate units. There is a 12-tube tuner; a 5-tube power amplifier; and



The Howard "Grand" Receiver



a 2-tube power-pack rectifier and filter. Each chassis is made of cadmium-plated steel. A rectangular dial on the tuner chassis is fully lighted, and the four wave bands are indicated by four lights so the operator will always know the wave band that is being used.

The Nineteen Tubes

Let us look at the nineteen tubes in this circuit, as shown in our diagram. No. 1 is a type 78 short-wave r.f. amplifier, and is used only on the short-wave bands. No. 2 is a 78 straight r. f. amplifier that is used on all the bands. On the short waves these tubes provide a two-stage pre-amplifier; and a one-stage on the broadcast band. No. 3 is a type 78 first detector; and No. 4 is a type 76 oscillator tube. Band changing switches shift the three sets of r.f. coils and the one set of oscillator coils to either of the four wave bands. The four tubes complete the radio-frequency element of the receiver.

The output of the first detector may be fed into either of two separate intermediate-frequency amplifier systems. This is a novel departure in radio design. The channel shown at the top of the diagram utilizes two type 78 tubes—Nos. 5 and 6. This

provides two i.f. amplifying stages. The second i.f. channel, just below the first channel, consists of one i.f. tube, a type 78, indicated by No. 7. The first system controls the selectivity of the circuit and gives high-gain amplification for short-wave and weak, distant stations; the second system is a low-gain amplifier for high-fidelity reception from nearby broadcasting stations.

Bass-Note Amplification

The output of either i.f. system is fed into the type 85 second detector or mixer tube—No. 8. The diode plates of this tube are used for both detection and automatic volume control. And the triode section becomes a beat oscillator for receiving all unmodulated very weak signals and heterodyning very weak signals so they can be identified.

Following the second detector is a type 76 tube—No. 9. It is the first audio-frequency amplifier. Then a type 6C6 tube, No. 10, operates parallel to No. 9, as a bass-note amplifier. A tone-control switch regulates this tube and provides low-frequency amplification when desired. The output of this combined stage is fed to the second a.f. tube, a type 76—No. 11. A volume control is

placed at this point. These tubes complete the tuner chassis, with the exception of a type 80 full-wave rectifier (No. 12) that furnishes power for the other eleven tubes.

The Power Amplifier

The power amplifier has five type 42 tubes—Nos. 13, 14, 15, 16 and 17. One—No. 13, is used as a driver, and the remaining four operate in a parallel push-pull system. These tubes operate as a Class A Prime amplifier. A potentiometer is employed in this circuit as a hum balancer, and it must be adjusted by ear to a point where no hum can be heard.

The separate power unit utilizes a type 5Z3 and type 6Z4 or 84 rectifier. These are Nos. 18 and 19. This unit supplies the power required for the speaker fields and the tubes in the power amplifier. The 5Z3 furnishes high voltage and has its own filter system, while type 84 also has a filter system and provides biasing voltage for the grids of the type 42 power tubes.

THE MONTH'S CHANGES

NEW

850	TIEP	San Jose, C. R.
930	TIRH	San Jose, C. R.
1000	TIGH	San Jose, C. R.
1050	TIFA	San Jose, C. R.
1100	TIRC	San Jose, C. R.
1200	.....	High Point, N. C.
1310	.....	Lafayette, La.
1370	KAST	Astoria, Ore.
1441	TIFS	Cartago, C. R.

DELETE

550	TISO	San Jose, C. R.
714	TIFB	San Jose, C. R.
800	TIGP	San Jose, C. R.
835	TTVL	San Jose, C. R.
911	TICR	San Jose, C. R.
1100	TIRCA	San Jose, C. R.
1210	KWVW	Hilo, Hawaii
1310	KFPM	Greenville, Texas

FREQUENCIES

706	RDN	San Salvador, E. S., from 68.
890	WILL	Urbana, Ill., from 580
1210	WCBS	Springfield, Ill., from 1420
1430	KSO	Des Moines, Iowa, from 1320

POWER

560	KWTO	Springfield, Mo., 1000 to 5000
890	WMMN	Fairmont, W. Va., 250 to 500
1200	KOOS	Marshfield, Ore., 100 to 250

CALLS

1210	KVSO	Ardmore, Okla., from KTUO
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368	to	BR	550	to	1552
369	to	630	to	1568	to
374	to	640	to	1570	to
375	to	680	to	1572	to
376	to	690	to	1576	to
390	to	700	to	1580	to
392	to	720	to	1588	to
394	to	730	to	1592	to
396	to	740	to	1600	to
398	to	770	to	GE	1602
400	to	780	to	BP	1604
402	to	790	to	PS BP	1608
404	to	830	to	PS EX	1612
406	to	840	to	EX	1616
408	to	850	to	BP	1620
410	to	870	to	PS BP	1624
412	to	880	to	PS GE FI	1628
414	to	900	to	PS FI	1632
416	to	910	to	P A	1636
418	to	920	to	S V	1640
422	to	930	to	PS BP	1644
424	to	940	to	BP	1648
425	to	950	to	GE	1652
426	to	960	to	P P	1655
428	to	970	to	M S	1660
430	to	980	to	P	1664
432	to	1000	to	S	1668
434	to	1010	to	PM PS	1672
436	to	1020	to	PM PS GE	1676
438	to	1030	to	PS	1680
440	to	1040	to	to	1696
442	to	1040	to	PS GE	1700
444	to	1110	to	PM PS	1704
446	to	1120	to	to	1712
448	to	1130	to	1716	to
450	to	1190	to	Amateur	1716
452	to	1200	to	72 Channels	1500 Meters
454	to	1210	to	TV Gov	2000
456	to	1220	to	TV Gov	2004
457	to	1220	to	TV	2008
458	to	1300	to	TV	2016
460	to	1310	to	TV BP	2020
462	to	1370	to	TV	2024
464	to	1370	to	TV Gov	2044
466	to	1370	to	TV	2052
468	to	1370	to	TV	2056
470	to	1370	to	TV BP	2060
472	to	1370	to	TV	2064
474	to	1370	to	TV	2084
476	to	1370	to	T V	2088
478	to	1370	to	T V	2092
480	to	1410	to	Gov	2096
482	to	1420	to	Gov	2100
484	to	1430	to	Gov	2104
486	to	1430	to	SH	2108
498	to	1490	to	SH	2144
500	to	1500	to	Gov BP	2148
502	to	1504	to	BP	2152
514	to	1530	to	SH	2156
515	to	1532	to		
515	to	1548	to		

The Frequency Allocation

WE PRESENT herewith the second diagram showing the division of the radio spectrum. The first appeared in our May issue and others will appear in later editions.

For this excellent picture of the radio bands, we are indebted to Radio Retailing, the publication of the dealer and serviceman.

For key to symbols see May issue.

A New All-Wave Tuning Coupler



FOR the approach of summer with its increased static, the Muter Company, 1255 South Michigan Ave., Chicago, presents a new all-wave tuning coupler to meet the demand for an efficient yet inexpensive unit to match up any radio set with a doublet antenna system.

With this coupler it is not necessary to purchase a complete doublet antenna. Instructions accompanying the device permit the home-construction of an inexpensive doublet using insulators and wire such as may be found in any radio store. The Muter coupler is said to be equally efficient on both the sw. bands and the hcb. Changeover from sw. to hcb. is accomplished instantly by means of a simple switching arrangement.

ANALYZING Some Radio Troubles

••• By THE TECHNICAL EDITOR

I HAVE a Clarion 5-tube model 510 receiver. Once in a while the volume dies out completely, and the only way I can make the sound come back is to tap the grid cap on the 5B tube. After a while it again quits. I have had it to a shop and it only worked two days before it started its old tricks again. Can you help me?

It appears to us that some high-value resistor, such as is used in the control-grid circuits, has become defective. At these times it intermittently opens or short circuits. Quite often the coupling condensers in the audio system will be found responsible for trouble such as you mention. The fact that you can restore the action temporarily simply by touching the grid cap with a moistened finger, which improves conductivity, indicates a defective coupling condenser or grid resistor.

An ordinary test and sometimes a precision test, under operating conditions, seldom will disclose such trouble. This very likely accounts for the fact that the shop could not remedy the trouble. We recommend in such cases the replacement of the several grid resistors and coupling condensers of the audio system with new units having the same electrical values but slightly higher power ratings. Although you may renew one or more perfectly good units, the cost is slight and the trouble in this way can be reached without hours of tedious testing.

Image Frequencies

I have a Midwest five-tube set. It tunes to the usual broadcast band and also the 19 to 54-meter wave band. A repeating of signals is found on almost the whole 40-meter amateur band, as well as on all short-wave stations.

I get a station on its regular point on the dial and then it reappears at a spot about 10 points away, and just as loud. This applies only on the short-wave band. Can you explain why this is?

These image frequencies are due to combinations of the incoming carrier frequency with the oscillator frequency which produce an intermediate frequency to which the i. f. amplifier happens to be tuned. For example, if you are receiving a carrier wave of 10,000 kilocycles or 10 megacycles, the oscillator in your receiver will be producing a continuous wave of 10,465 kilocycles when we assume the i. f. amplifier to be peaked at 465 kilocycles—a standard. Now, if the receiver is tuned to a point on the dial corresponding to a signal of 9,070 kilocycles, the oscillator will be producing this frequency *plus* the i. f., which is 465 kilocycles, totaling 9,535 kilocycles. This differs with our original 10,000 kilocycle station wave by 465 kilocycles, and since the signal is not weakened by the previous tuning units, it reaches the first detector with sufficient energy to reproduce a signal that passes through the 465 kilocycle

Use Headphones for Short-Wave!

Sensitive signals from "half way" round the world come in best on headphones. TRIMM Featherweights are the phones the experts use. Ask your dealer or write the factory.



TRIMM

Radio Mfg. Co.
Dept. RX6
1528 Armitage
Avenue
Chicago, U. S. A.

channel of the i.f. amplifier. Dozens of such combinations can be calculated, and actual stations will be found broadcasting on these predetermined frequencies.

This condition is hard to remedy in certain receivers that are not fitted with preselector circuits. The design of the r. f. system must be revised. This, of course, is expensive and impracticable. Ordinarily radio engineers look upon the reception of image frequencies as something beyond the scope of small and popular makes of radio sets.

Intermittent Reception

I have a 9-tube Rogers-Magestic, 1931 model. When listening to a station, either local or distant, it will suddenly reduce volume to a mere whisper behind a low buzz. This will continue for an indefinite time and just as suddenly bang back to normal, the whole process repeating at irregular intervals.

Intermittent reception is by far the most baffling trouble to be experienced by servicemen. No definite statement can be made regarding the exact source of such trouble as it is generally necessary to make extensive tests of the entire receiver both as to the external wiring such as antenna, power cord, etc.; and surface inspection of the receiver, including shielding as well as the various parts of the r.f. system and the power supply.

Any one of a great many high-value resistors and by-pass condensers may short-circuit or break open and thus account for this sort of trouble. The problem becomes increasingly difficult as the serviceman must wait sometimes many hours before this condition will occur. It does no good to test each part separately for when the set is operating normally all parts show perfect condition. A careful check of the parts mentioned or complete replacement will correct your trouble.

Neutralizing Stewart-Warner 901

I own a model 901 Stewart-Warner receiver. I think it needs realignment and would like your advice how to go about this operation; also, how can I add automatic volume control; and what tube changes do you advise. What is a good aerial system to use with this set?

This receiver is a tuned radio-frequency circuit using three r.f. stages ahead of the detector. The tubes are triodes and, therefore, neutralization is necessary. There are three neutralizing condensers associated with the grid circuits of the r.f. tubes which must be adjusted in accordance with standard practice.

Turn on the receiver and remove the first r.f. tube. Place a small section of a soft-drink straw over one of the heater prongs and replace the tube in its socket again. Tune in a low powered station somewhere above 1,000 kcs., and reduce the volume until the station is just audible. Now, adjust the first neutralizing condenser (that is the one having one terminal attached to the grid lead of the first r.f. tube) for minimum signal response. Increase the volume and again find the minimum or null point in the range of the neutralizing condenser. Repeat this procedure for the other two r.f. tubes one at a time in their proper order, and full neutralization will be obtained.

Then, tune the set to 1,400 kcs., and adjust each trimmer condenser for maximum signal, starting from the detector in this case, and repeat for all tubes at 1,000 and 600 kcs. This gives proper alignment of the r.f. stages.

This circuit is not adapted to automatic volume control. The tubes are of the triode type and not of the vario-mu type, such as would be needed for a.v.c. If you wish to use newer types of tubes, such as the 35, 51, or 58 types, you will find it necessary to replace the entire r.f. cir-

cuit. This in turn would require certain fundamental changes in the power supply. The entire job would be expensive, complicated, and not justified by the results obtained.

Any of the standard shielded-lead and doublet antenna systems will be suitable for the elimination of man-made static in this set. Previous issues of RADEX have covered the subject very thoroughly.

Philco Transitone

I should like to use newer tubes in my Philco model 5 Transitone auto receiver. Is the chicken-wire antenna provided with most cars the best antenna to use with this set? My set at times reproduces noises somewhat similar to the code signals. They are very loud and cover the entire broadcast band. How can you account for this?

There are no later type tubes than those used in the model 5 Transitone auto receiver made by Philco. No more highly perfected equivalents or tubes of later design for these purposes are now on the market. For this reason we cannot make the recommendations you desire.

The so-called chicken-wire antenna makes about the best antenna that it is possible to have without spoiling the appearance of the car by erecting antenna wires over the top and to the ends.

The noise to which you refer may often be traced to an intermittent howl or oscillation due usually to a faulty coupling condenser in the audio stage. Reduced emission of one of the tubes in the audio system will also have this effect. It is advisable to check both of these conditions.

Bad Filter Condenser

I have a Sparton model 931 set that has irregular volume. Sometimes the signals are loud, then weak, and frequently stop abruptly. I am using a Tobe filterizer in the antenna, and the trouble occurs when this particular antenna is in use. It does not occur when

the old, straight antenna is connected. The volume comes back if I snap a switch somewhere in the house. I think the Filterizer antenna is erected as it should be.

We feel that your trouble is caused by some form of severe leakage in the filterizer, such as a condenser. Any electrical impact produced by one of the three things mentioned in your letter will temporarily heal the condenser only to allow it to break down again when conditions permit. The cure, of course, is the replacement of the defective condenser or entire antenna or receiver filterizer unit. Or the units can be returned to the makers for examination and repair. You will find the Tobe Deutschmann Corporation reliable and willing in this respect.

Crosley Voltages

Can you help me out with my Crosley Super Buddy-Boy model 122 receiver? I have found that the voltages on the plates are only around 20 while the voltages on the screens are about 100. I cannot find out anything about this set and what its various voltages should be.

The Crosley model 122 is a 7-tube superheterodyne set. The a.c. voltages for the tube filaments, with the exception of the rectifier should vary from 2.3 to 2.5. That for the rectifier is 4.6 to 5.0 volts. The d.c. plate voltages of the first r.f. and the i.f. amplifiers should be 170 to 200 volts; for the oscillator 28 to 38 volts; for the first and second detectors, 185 to 215 volts; for the output from the power tube, 260 to 300 volts; and the rectifier a.c. voltage to each plate is 280 to 320.

The screen voltages for the first r.f. and i.f. amplifiers should be from 45 to 55; for the first and second detectors, 60 to 80 volts; for the oscillator, 80 to 100 volts; and for the output power tube, 260 to 300 volts.

The control-grid biasing voltages should be, for the r.f. and i.f. amplifiers, 1.5 to 2.5 volts; the first de-

tector, 6.0 to 8.0 volts; for the second detector, 8.0 to 10.0 volts; and for the power tube, 18.0 to 22.0 volts.

These voltage limits are to be measured with speaker connected, volume control on full, and line voltage proper at about 117 volts. Measure plate and screen voltages with a high-resistance d.c. voltmeter.

Lightning Arrester .On RCA

My RCA all-wave antenna has no provision for a lightning arrester, although I have been told that one is used with this system. Where is the arrester connected and how can I get one?

The RCA antenna all-wave system has provision for lightning arresters, but this device does not come as regular equipment. It is purchased extra. There are two lightning arresters which are fastened on the outside of the building at a point where the antenna lead-in is attached. The end of the transmission line connects to the arresters and then continues indoors through an insulating tube to the receiver. An outside ground wire then runs to the arresters. If lightning should hit, or severe induction occur, the arresters carry off the discharge into the earth without damage to the receiver.

Shadow Tuning

If possible, I should like to add a shadow or visual tuning device to my old Graybar model 770 receiver. Please tell me where I can get the device and how to connect it in the set.

Shadow tuning calls for a certain device used on some receivers. It is a tiny vane that moves so as to widen or narrow a slit through which light passes. The width of the shadow indicates that the circuit is tuned to resonance. Also, a meter with indicating hand that swings to the extreme end to indicate complete tuning, is used for the purpose. These devices may be procured from most radio supply houses, such as the Radolek Co., and the Allied Radio

Co. of Chicago, or the Wholesale Radio Co., of New York.

Connect the meter or device in series with the wire leading from the bottom of the coil connected in the plate circuit of the first 24 tube in the radio-frequency amplifying stage of the Graybar model 770 receiver. Simply cut this wire and insert the resonance meter.

Summer Noises

WITH the coming of warm weather, the increased use of electric fans and refrigerators will bring with it new problems in the way of radio interference. Although the radio and electrical industries are making a concerted drive against interference-creating devices and many municipalities have passed anti-noise ordinances, there are still countless numbers of sparking motors to contend with.

The most effective attack on the noise problem is to isolate the offending machine and to equip it with a simple filter consisting merely of two fixed condensers in series, with the outer connections across the motor brushes and the center connection grounded to the motor frame. However, in the majority of cases encountered by radio set owners and service men, the source of the interference cannot be readily located.

The only possible cure in cases of this kind is the use of an interference filter consisting of both by-pass condensers and radio-frequency chokes, according to William Bailey, of the Cornell-Dubilier Corporation, who has had considerable experience with the noise problem. This filter is connected to the line cord of the receiver, and in nine cases out of ten it is very effective because it prevents the noise from entering the receiver through the power line, which is its usual carrier.

Of course, no line filter will eliminate or even reduce noise that is picked up by the aerial or its lead-in.

How to Tune-in the Europeans

• • • By D. C. STENT*

IT IS far more difficult for America to get English stations than it is for England and Europe to get American stations, for the latter come in best after the European stations have closed down for the night, so we have no interference from nearby stations. On the other hand the European stations, which are so dear to the American DX'er close down before the American local stations, and so all the work of the American DX fan must be done with the locals working or in the early hours of the morning, as far as b.c.b. reception is concerned.

The best thing to do then, in that case, is to investigate all the heterodyne whistles. Much can be gained by finding out the source of heterodyne whistles on a station the location of which is already known. Very often, of course, they will be caused by a station on the same continent as the local, but quite often, as a background to the strong signal a feeble "Foreigner" emanating from Europe can be heard. Thus the DX'er's motto should be "Suspect All Heterodynes."

An easier and more reliable way of getting the Europeans, however, is to wait until the early-morning European stations come on the air. The following stations come on the

air at 00.30 EDST: Berlin, Breslau, Hamburg, Moscow, and sometimes a few other German stations. At 01.00 the following stations commence transmitting: Cologne, Deutschlandsender, Frankfurt, Königsberg, Leipsig, Munich, and Stuttgart. Prague commences at 01.45, and Poste Parisien, a station well heard in the USA, starts transmitting at 04.00 EDST, as do Radio Normandie and many other European stations. By 05.00 EDST nearly all the European stations are transmitting, but in USA they will be fading out, as a great part of the journey is in daylight. The best time to listen, then, is between midnight and five AM, EDST.

A few hints as to identification, etc., might be useful.

All the German stations announce as Reichsender Leipsig, Reichsender Stuttgart, etc., but it should be borne in mind that Munich is pronounced in German as Munchen.

Radio Paris announces: "Ici le Poste Nationale, Radio Paris."

Prague announces: "Allo, Praha, Polski Radio."

The Northern group of Italian stations announce as: Abbiamo trasmesso, Radio Torino, (Turin) Milano (Milan) etc.

The British stations are fairly easy to identify, on account of the accent, intonation, etc., but it should be remembered that several alternative programmes are transmitted, and the location of the station is not announced. Thus the announcer at London Regional says: "This is the Regional Programme", and the announcer at the Midland Regional says: "This is the Midland Programme" Often the station in one "region" relays the programme of another region, thus we have the Midland Regional station transmit-

A line filter is the easiest thing to try first, as it can be plugged into service in a few seconds. If the noise continues, it is not reaching the set through the electric wires, and the erection of an antenna of the noise-reducing type should be considered. Radio dealers sell line filters on a trial basis, as they know conditions vary a great deal. A filter may be 100 per cent effective in one house and not effective at all in another.

ting the Studio Orchestra of the Scottish Regional station. Therefore the Midland Regional announcer will say: "The next part of the Midland programme will be announced from Scotland," and almost immediately will be heard: "This is the Regional programme from Scotland. We have now a programme of light music by the Scottish Studio Orchestra." All this shows that it is impossible to be too careful in identifying the British stations when the programmes and announcements are so interchanged.

It has been wrongly understood in the past that certain stations in Europe have call-letters. This is a fallacy. No. B.C.B. stations in Europe except CT1GL announces any call letters. The call of Poste Parisien is Poste Parisien, and not PP. Radio Normandie is not RN, and London Regional is not LR. The Italian stations have call-letters, such as Rome, I1RO, Triestre, I1TR, etc., but these are never used.

* "Esperance", High Road, Whetstone, London, N. 20, England.

Singletons and Eliminators

THE listeners listed below hold verifications from the stations given which so far no other reader of this magazine has been able to duplicate. Those at the head of the list have held their positions for several months. Is it possible that they are the only persons in North America who hold verifications from the stations claimed? If you can eliminate any of them by producing a similar verification, notify us and your name will be entered as an Eliminator. Do not send verifications but be sure you can produce them if called upon.

SINGLETONS

ZTD Durban, South Africa. Claimed by C. E. Lowe, Merced, Calif.
2ZP, Walroa, New Zealand. Claimed by Charles Hesterman, Saskatoon, Sask.

2YC, Wellington, N. Z. Claimed by Harold Alexson, Vancouver, B. C.
JOBG, Maebashi, Japan. Claimed by R. W. Schofield, Missoula, Mont.
VUG, Delhi, India. Claimed by Robert Slosson, Milwaukee, Wis.
CX18, Montevideo, Uruguay. Claimed by Marvin D. Dixon, Shelby, N. C.
LR8, Buenos Aires, Argentina. Claimed by Murray D. Bryce, Royal Oak, B. C.
2XN, Lismore, Australia. Claimed by Roy N. Licari, Allenwood, N. J.
KZIB, Manilla, P. I. Claimed by James Blase, Bronx, N. Y.
The following are submitted as singletons by John A. Shanks, Russellville, Tenn.: 4ZW, 4BK, 5AD, and 7ZL.
2GN, Goulburn, Ausl. Claimed by Guy B. Welsh, Reynoldsville, Pa.
The following are claimed by Kenneth Page, Silver Creek, N. Y.: VFN, VDX.
4TO, Townsville, Ausl., by Joel Armantrout, Fitzgerald, Ga.
The following are claimed by Warren C. Reichardt, Reading, Mass.: Radio Vitus, Gielwitz, Halmstad, Falun, Cracow, EAJ-15, Kosice.
I1PA, Palermo, Italy, claimed by Robert Osborne, Stellarton, N. S.
Brussels, Belgium, claimed by Don Reynolds, Newburgh, N. Y.
4AY, Ayr, Australia, by Wm. H. Ansell, Regina, Sask.
3KZ, Melbourne, Ausl., by Evan B. Roberts, Danvers, Mass.
3TR, Sale; 2WL, Woolongong, 4RO Rockhampton, and Riga, Latvia, by Chas. H. Hesterman, Saskatoon, Sask.

ELIMINATORS

2CA claimed by W. Pollard, eliminated by Warren C. Reichardt, Reading, Mass.
2HD and 2CO claimed by Kenneth Page, eliminated by Warren C. Reichardt and John A. Shanks, Russellville, Tenn.
4RK claimed by Joel Armantrout, eliminated by Whitney Smith, Pontiac, Mich.
JQAK, Dairen, Mich., claimed by Chas. Hestermann, eliminated by Clyde E. Lowe, Merced, Calif.
OER3, Vienna, claimed by Lincoln A. Wood, eliminated by Chas. Hestermann, Saskatoon, Sask.

Previously Eliminated

2KY, 3KZ, SBH, SBA, HAL, 4BC, Trieste, JOLK, 3BO and 6PR.
Langenburg, OKB, 5CL, 3AR, 2FC, 2KO, 3LO, 7UV, Copenhagen CT1GL, 3HA, 2BL, 2UE, 5CK.

Advise the Editor

COMBINING the DX Log of the World with RADEX, beginning with the September issue, will require a reallocation of space among the various features of this magazine.

The data as shown in pages 45 to 80 inclusive of this issue, will be continued and expanded. But we would like to know the wishes of our readers as to the other features.

On page 79 we print a blank whereby you can indicate those features which you would like to see continued and improved. Will you not fill out this blank and mail it to the Editor?

WHAT'S ON THE AIR TONIGHT

Fill in calls and dial numbers for those stations through which you best receive the three chains. You can then turn quickly to the one that has the feature you want.

COLUMBIA.....(C)	
Call	Dial

NATIONAL, Red (R)	
Call	Dial

NATIONAL, Blue (B)	
Call	Dial

TIME: ED Eastern Daylight; E Eastern; C Central; M Mountain
For Pacific Time subtract one hour from Mountain.

RADEX is the only publication listing stations in alphabetical order for your convenience.
While these programs are correct at the time of going to press, changes are made from time to time.

MONDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00
C — **Buck Rogers; 25th Century**
CKLW WAAB WABC WBNS WCAO
WCAU WFBL WHEC WHK WJAS
WJSV WKBW WKRC WOKO

ED-6:45 p.m., E-5:45, C-4:45, M-3:45
B — **Lowell Thomas**
CFCF CRCT KDKA WBAL WBZ
WBZA WFLA WGAR WHAM WIOD
WJAX WJR WJZ WLW WMAL
WRVA WSYR

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
B — **Amos 'n' Andy**
CRCT KDKA WBAL WBZ WBZA
WFLA WIOD WJZ WMAL WPTF
WRVA

ED-7:15 p.m., E-6:15, C-5:15, M-4:15
B — **Tony and Gus**
KDKA WBAL WBZ WBZA WCKY
WENR WFIL WFLA WHAM WIOD
WIS WJAX WJZ WMAL WPTF
WSOC WSYR WTAR WWNC

R — **Stories of Black Chamber**
KYW WBEN WCAE WCSH WFAF
WEEI WGY WJAR WMAQ WRC
WSAI WTAG WTAM WVIC

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
C — **The O'Neills**
WABC WCAO WCAU WDRC WFBL
WGR WHEC WHP WJAS WJSV
WMAS WOKO WORC WVVVA

C — **Buck Rogers; 25th Century**
KMBC KMOX KRLD KTRH KTSB
WBMM WBT WCCO WDSU WFBN
WGST WHAS WMBG

B — **Red Davis; Drama**
KDKA KOIL KPRC KSO KSTP
KTBS KWCR KWK WAYE WBAL
WBZ WBZA WEBC WENR WFLA
WHAM WIBA WIOD WIS WJAX
WJDX WJZ WKY WMAL WMC
WPTF WREN WRVA WSB WSM
WSMB WSYR WTAR WWNC

R — **Easy Aces**
KSO KYW WCAE WCSH WFAF
WGY WMAQ WOW WRC WSAI
WTAG WTAM WWJ

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
C — **Boake Carter for Philco**
CKLW KMBC KMOX WABC WBMM

WBT WCAO WCAU WCCO WGR
WHAS WHK WJAS WJSV WNAC

B — **Dangerous Paradise; Drama**
KDKA KOIL KSO KTBS KVOO
KWCR KWK WBAL WBZ WBZA
WENR WFAA WGAR WHAM WJR
WJZ WKY WMAL WOAI WREN
WSB WSM WSMB WSYR

R — **Uncle Ezra**
KYW WBEN WCAE WCSH WDAF
WEAF WEEI WGY WJAR WMAQ
WOW WRC WSAI WTAG WTAM

ED-8:00 p.m., E-7:00, C-6:00, M-5:00
R — **Richard Himber and Orchestra**
KPRC KSD KTBS KVOO WBAF
WBEN WCAE WCSH WDAF WFAF
WEEI WFAA WGY WHO WJAR
WKY WMAQ WOAI WOC WOW
WRC WSAI WTAG WTAM WVIC

C — **Variety Show**
CKLW KDB KERN KFPY KPRC
KGB KHJ KLZ KMBC KMJ KMOX
KSL KWG WABC WADC WBMM
WCAO WCAU WDRC WEAN WFBL
WFBN WGR WHAS WHK WJAS
WJSV WKRC WNAC WOKO WSPD

ED-8:30 p.m., E-7:30, C-6:30, M-5:30

R — **Voice of Firestone**
CFCF CRCT KFYP KPRC KSD
KSTP KTBS KVOO KYW WAVE
WBEN WCAE WCSH WDAF WDAY
WEAF WEBC WEEI WFBR WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKBF WKY WMAQ
WMC WOAI WOW WPTF WRC
WRVA WSB WSM WSMB WSOC
WTAG WTAM WTAR WVIC WTMJ
WWJ WWNC

ED-9:00 p.m., E-8:00, C-7:00, M-6:00

R — **A & P Gypsies**
KSD WBEN WCAE WCSH WDAF
WEAF WEEI WGY WHO WJAR
WLIT WMAQ WOC WOW WTAG
WTAM WVIC WWJ

B — **Sinclair Greater Minstrels**
KDKA KFI KFSD KFYP KOA KOIL
KPO KPRC KSO KSTP ETAR KTBS
KTBS KVOO KWK WBAL WBZ
WBZA WDAY WEBC WFAA WFLA
WGAR WHAM WIBA WIOD WIS
WJAX WJDX WJR WJZ WKY WLS
WLW WMC WOAI WPTF WREN

WRVA WSB WSM WSMB WSOC
WTAR WTMJ WWNC

C — **Six-Gun Justice; Drama**
KDB KGB KHJ KRNT WABC
WDAE WDOD WGST WIBX WJSV
WKBW WLAC WOC WORC WTOC

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
C — **The Big Show**

CKAO CKLW KFAB KLZ KMBC
KMOX KSL WABC WADC WBMM
WBNS WBT WCAO WCAU WCCO
WDRC WDSU WEAN WFBL WFBN
WHAS WHK WICC WJAS WJSV
WKBW WKRC WNAC WOKO
WOW WREC WSPD

R — **Otto Harbach Musical Show**
KDYL KFI KFYP KGO KGW KHQ
KOA KOMO KPRC KSD KSTP
KTBS KVOO WBEN WCAE WCSH
WDAF WDAY WEAF WEBC WEEI
WFAA WFBR WFLA WGY WHO
WIBA WIOD WIS WJAR WJAX
WJDX WKY WLIT WLW WMAQ
WMC WOAI WOC WOW WPTF WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAM WTMJ WWJ WWNC

B — **Princess Pat Players**
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WENR
WGAR WHAM WJR WJZ WMAL
WREN WSYR

ED-10:00 p.m., E-9:00, C-8:00, M-7:00

C — **Wayne King and Orchestra**
CKLW KDB KERN KFAB KFBK
KFPY KPRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KRLD
KSL KVI KVG WAAB WABC WADC
WBMM WBNS WCAO WCAU WCCO
WDRC WDSU WEAN WFBL WFBN
WHAS WHK WIBW WJAS WJSV
WKBW WKRC WOKO WSPD

R — **Contented Program**
CFCF CRCT KDYL KFI KFYP
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP WBEN WCAE WCSH
WDAF WEAF WEBC WEEI WFAA
WFBR WGY WHO WJAR WKY
WLIT WLW WMAQ WMC WOAI
WOC WOW WRC WSB WSM WTAG
WTAM WVIC WTMJ WWJ

ED-10:30 p.m., E-9:30, C-8:30, M-7:30

C — **Lilac Time; Night Singer**
CKLW KDB KERN KFBK KFPY

MONDAY (Continued)

KFRG KGB KHJ KLZ KMJ KMOX
KQIN KOL KRLD KSL KVI WABC
WBMM WCAO WFBL WFBB WGR
WHAS WHK WJAS WJSV WKRC

R — Max Baer—Drama
KFI KFSB KFYR KGHL KGIR
KGW KHQ KOMO KPO KSD KTAR
KTBS KTHS KVoo KYW WAVE
WCAE WCHS WDAF WDAY WFAE
WIBC WFLL WGY WHIO WJBA
WIOD WIRE WIS WJAR WJAX
WJDX WMC WOV WPTF WRC
WRVA WSAI WSMB WSOB WTAG
WTAM WTR WJW WNNC

ED-11:00 p.m., E-10:00, C-9:00, M-8:00
B — Amos 'n' Andy

KDYL KFI KFRG KHQ KOA KOIL
KOMO KPO KPRC KSTP KTHS
KWK WKY WENR WGAR WHAM
WJR WKY WOAI WREN WSM
WSMB WSYR WTMJ

ED-11:15 p.m., E-10:15, C-9:15, M-8:15
B — Tony and Gus

KDYL KFI KFSB KFYR KGHL
KGIR KGW KHQ KOA KOIL KOMO
KPO KSO KSTP KTAR KTHS
KWK WAPI WAVE WDAY WIBC
WFAA WGAR WJBA WIRE WJDX
WJR WMT WOAI WREN WSM
WSMB WTMJ

ED-11:30 p.m., E-10:30, C-9:30, M-8:30
R — Voice of Firestone

KDYL KFI KFSB KGHL KGIR
KGU KGW KHQ KOA KOMO KPO
KTAR

TUESDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00
C — Buck Rogers, See Monday

ED-6:45 p.m., E-5:45, C-4:45, M-3:45
B — Lowell Thomas, See Monday

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
B — Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15
B — Tony and Gus, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
C — Buck Rogers, See Monday

R — Easy Aces, See Monday

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
C — Boake Carter, See Monday

ED-8:00 p.m., E-7:00, C-6:00, M-5:00
C — Frank Munn; Gustav Haenschen
CKLW KMBC KMOX WABC WADC
WBMM WCAO WCAU WDRG WEAN
WFBL WFBB WGR WHAS WHK
WJAS WJSV WKRC WNAC WWOV
WSPD

R — Leo Reisman and Orchestra
KFYR KPRC KSD KSTP KTBS
KVoo WAVE WBAP WBEN WCAE
WCHS WDAF WDAY WFAE WIBC
WEEI WFBF WFI WFLA WGY
WJBA WIOD WIS WJAR WJAX
WJDX WKBF WKY WMAQ WMC
WOC WOV WPTF WRC WSB WSM
WSMB WSOB WTAG WTAM WTR
WTIC WTMJ WJW WNNC

B — Eno Crime Clues
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WGAR WJR
WJZ WLS WLW WMAL WREN
WSYR

ED-8:30 p.m., E-7:30, C-6:30, M-5:30

C — Abe Lyman; Vivienne Segal
CFRB CKLW KMBC KMOX WABC
WADC WBMM WCAO WCAU WCCO
WDRG WEAN WFBL WFBB WGR
WHAS WHK WJAS WJSV WKRC
WNAC WOKO WWOV WSPD

R — Wayne King and Orchestra
KPRC KSD KSTP WBEN WCAE
WCHS WDAF WFAE WEEI WFAA
WFI WGY WHO WJAR WKBF WKY
WMAQ WMC WOAI WOV WOV
WRC WSAI WSB WSM WSMB
WTAG WTAM WTIC WTMJ WJW

B — Edgar Guest; Welcome Valley
KDKA KOIL KSO KWK WBAL
WBZ WBZA WCKY WFLG WGAR
WHAM WJR WJZ WLS WMAL
WMT WREN WSYR

ED-9:00 p.m., E-8:00, C-7:00, M-6:00

C — Bing Crosby
CKLW KDB KERN KFBK KFPY
KFRG KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KRLD KSL
KTUL KVI KWG WABC WADC
WBMM WBT WCAO WCAU WCCO
WDRG WDSU WEAN WFBL WFBB
WGST WHAS WHK WJAS WJSV
WKBW WKRC WNAC WWOV
WOWO WREC WSPD

R — Ben Bernie and Orchestra
KFYR KOA KPRC KSD KSTP
KTBS WBAP WBEN WCAE WCHS
WDAY WFAE WEEI WFBF WFI
WGY WJAR WJDX WKY WMAQ
WMC WOAI WOV WRC WSB WTAG
WTAM WTIC WTMJ WJW

B — Red Trails; Drama
KDKA KDYL KFI KGW KHQ KOA
KOIL KPO KSO KWCR KWK WBAL
WBZ WBZA WCKY WFI WHAM
WJR WJZ WKBF WLS WMAL
WREN WSYR

ED-9:30 p.m., E-8:30, C-7:30, M-6:30

C — Phil Spitalny's Orchestra
CKLW KDB KERN KFBK KFBK
KFPY KFRG KGB KHJ KMBC
KMJ KMOX KOIN KOL KSL KVI
KWG WABC WADC WBMM WCAE
WCAU WCCO WDRG WEAN WFBB
WHAS WHK WJAS WJSV WKBW
WKRC WMAS WNAC WOKO WWOV
WSPD

R — Ed Wynn; Eddie Duchin
KDYL KFI KFSB KFYR KGHL
KGIR KGO KGW KHQ KOA KOMO
KPRC KSD KSTP KTAR KTBS
KTHS KVoo WAVE WBAP WBEN
WCAE WCHS WDAF WDAY WFAE
WIBC WEEI WFBF WFI WFLA
WGY WHO WJBA WIOD WIS WJAR
WJAX WJDX WKBF WKY WMAQ
WMC WOAI WOV WPTF WRC
WRVA WSB WSM WSMB WSOB
WTAG WTAM WTIC WTMJ WJW
WNNC

ED-10:00 p.m., E-9:00, C-8:00, M-7:00

C — Glen Gray; Walter O'Keefe
CKLW KFBK KFH KLRA KMBC
KMOX KOMA KRLD KSCJ KTRH
KTSa KTUL KWKH WABC WACO
WADC WALA WBMM WBIG WBNS
WBRC WBT WCAO WCAU WCCO
WDAE WDBJ WDBO WDNC WDOB
WDRG WDSU WEAN WFBL WFBB
WFAE WGST WHEC WHK WHP
WIBW WICC WISN WJAS WJSV
WKBN WKBW WKRC WLAC
WLWB WLZB WMAS WMBD
WMBG WMBR WMT WNAC WNAX
WOKO WORC WWOV WPG WQAM
WREC WSPA WSJS WSPD WTCO

R — Palmolive Beauty Box
CFRC CRCT KDYL KFI KFSB
KFRY KGHL KGIR KGO KGW
KHQ KOA KOMO KPRC KSD KSTP
KTAR KTBS KVoo WAVE WBAP
WBEN WCAE WCHS WDAY WDAY
WFAE WIBC WEEI WFBF WFLA
WGY WHO WIOD WIS WJAR WJAX
WJDX WKBF WKY WLW WMAQ
WMC WOAI WOV WOV WPTF
WRC WRVA WSB WSM WSMB
WSOB WTAG WTAM WTMJ WJW
WNNC

B — Fibber McGe and Molly
KDKA KOIL KSO WBAL WBZ
WBZA WCKY WENR WFIL WGAR
WHAM WJR WJZ WMAL WMT
WREN WSYR

ED-10:30 p.m., E-9:30, C-8:30, M-7:30

C — Fray and Braggiotti
CKLW KDB KERN KFBK KFBK
KFPY KFRG KGB KHJ KLRA KLZ
KMJ KMOX KOIN KOL KRLD
KRNT KSL KTRH KTSa KTUL
KVI KWG WABC WBMM WBNS
WBRC WBT WCAO WCAU WCCO
WDRG WDSU WFBL WFBB WGR
WGST WHAS WHK WJAS WJSV
WKRC WLAC WMBG WMBR
WNAC WNAX WOV WOKO WQAM
WREC

ED-10:45 p.m., E-9:45, C-8:45, M-7:45

C — Advisory Council
CKAK CKLW KFH KGH KGO
KHJ KLRA KLZ KMBC KOH KOL
KOMA KRLD KTRH KTSa KVI
KVOR WABC WADC WALA WBMM
WBIG WBNS WBT WCAO WCCO
WDBJ WDBO WDNC WDOB WDRG
WEAN WFBL WFAE WGR WGST
WHAS WHEC WHK WHP WIBX
WICC WKBN WKRC WLAC WLZB
WMAS WMBG WMBR WNOX WOV
WOKO WORC WPG WQAM WSBT
WSBT WSJS WSMK WSPD WTCO

ED-11:00 p.m., E-10:00, C-9:00, M-8:00

B — Amos 'n' Andy, See Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15

C — Dance Orchestra
CKAK CKLW KDB KFH KGO
KLRA KLZ KOH KOMA KRLD
KTRH KTSa KVOR KWKH WABC
WACO WADC WALA WBNS WBRC
WBT WCAO WDAE WDBJ WDBO
WDNC WDRG WDSU WEAN WFBL
WFAE WGLC WHEC WHK WHP
WIBW WJAS WJSV WKBW WKRC
WLAC WLWB WLZB WMAS WMBG
WMBR WMT WNAC WNAX WNOX
WOKO WORC WPG WQAM WSBT
WSPA WSJS WSPD WTCO WWTVA
B — Tony and Gus, See Monday

ED-11:30 p.m., E-10:30, C-9:30, M-8:30

C — Dance Orchestra
CFRB CKAK CKLW KFH KGO
KLRA KLZ KMBC KOH KOMA
KRLD KSCJ KTRH KTSa KVOR
KWKH WABC WADC WBMM WBNS
WBRC WBT WCAO WCAU WDAE
WDBJ WDBO WDNC WDOB WDRG
WDSU WEAN WFBL WFAE WHEC
WHK WHP WIBW WICC WISN
WJAS WJSV WKBW WKRC WLAC
WLWB WLZB WMAS WMBD
WMBR WMT WNAC WNAX WNOX
WOKO WPG WQAM WSBT WSPA
WSJS WSPD WTCO WWTVA

R — Leo Reisman and Orchestra
KDYL KFI KFSB KFRG KGU KGW
KHQ KOA KOMO KPO KTAR

WEDNESDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00

C — Buck Rogers, See Monday

ED-6:45 p.m., E-5:45, C-4:45, M-3:45

B — Lowell Thomas, See Monday

ED-7:00 p.m., E-6:00, C-5:00, M-4:00

B — Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15

R — Black Chamber, See Monday

B — Tony and Gus, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30

C — Buck Rogers, See Monday

B — Red Davis, See Monday

C — The O'Neill's, See Monday

R — Easy Aces, See Monday

ED-7:45 p.m., E-6:45, C-5:45, M-4:45

C — Boake Carter, See Monday

B — Dangerous Paradise, See Monday

R — Uncle Ezra, See Monday

ED-8:00 p.m., E-7:00, C-6:00, M-5:00

R — One Man's Family

CFCF CRCT KDYL KFI KFJR

KGO KGW KHQ KOA KOMO KPRC

KSD KSTP KTAR KTBS KVOO

WAVE WBAP WBNB WCAE WCKY

WCSH WDAF WDAY WFAE WFCB

WEEI WFBR WFLA WGY WHO

WIBA WIOD WIS WJAR WJAX

WJDX WKY WLIT WMAQ WMC

WQAI WOC WOW WPTF WRC

WRVA WSAI WSB WSM WSMB

WTAG WTAM WTIC WTMJ WWJ

WVNC

B — Hal Kemp and Orchestra

KDKA KDL KSO KWCR KWK

WBAL WBZ WBZA WGAR WHAM

WJR-WJZ WLS WLW WML WREN

WYSR

C — Johnny and His Foursome

CKLW KMBC KMOX KRNT WABC

WADC WBBM WCAO WCAU WDRC

WEAN WFBL WFBM WHAS WHK

WJAS WJSV WKBW WKRC WNAC

WOKO WOWO WSPD

ED-8:15 p.m., E-7:15, C-6:15, M-5:15

C — World Peace Foundation

CKLW KDB KFBK KFH KFPY

KFRC KGB KHJ KLRA KMBC

KMOX KOH KOI KRLLD KTRH

KTSA KTUL KVOR KWG KWKH

WABC WACO WADC WALA WBBM

WBIG WBRC WBT WCAO WCAU

WCCO WDAE WDBJ WDBO WDRC

WEAN WFBL WFBM WGR WGST

WHAS WHK WJAS WJSV WKRC

WMBG WNAC WNOX WOKO WQAM

WREC WSJS WSPD WTOC

ED-8:30 p.m., E-7:30, C-6:30, M-5:30

C — Everett Marshall; Victor Arden

CKLW KDB KERN KFBK KFPY

KFRC KGB KHJ KLZ KMBC KMJ

KMOX KOIN KOL KOMA KRLLD

KSL KVI KWG WABC WADC

WBBM WBT WCAO WCAU WDRC

WDSU WEAN WFBL WFBM WGR

WHAS WIBW WJAS WJSV WKRC

WLAC WNAC WOKO WOWO WSPD

R — Wayne King, See Tuesday

B — House of Glass; Drama

KDKA KOIL KSO WBAL WBZ

WBZA WFIL WFLA WGAR WHAM

WIOD WIS WJAX WJZ WLS WML

WMT WPTF WREN WRVA WSOC

WYSR WTAR WVNC

ED-9:00 p.m., E-8:00, C-7:00, M-6:00

R — Fred Allen

KPRC KSD KSTP KTBS KVOO

WBNB WCAE WCSH WDAF WFAE

WFCB WEEI WFBR WGY WIOD

WIS WJAR WJAX WKY WLIT

WLW WMAQ WMC WOAI WOW

WPTF WRC WRVA WSB WSM

WSMB WTAG WTAM WTIC WTMJ

WWJ

B — John Charles Thomas

KDKA KDYL KFI KGW KHQ KOA

KOIL KOMO KPO KSO KWK WBAL

WBZ WBZA WKY WENR WGAR

WHAM WIRE WJR WJZ WLS

WML WMT WREN WYSR

ED-10:00 p.m., E-9:00, C-8:00, M-7:00

C — George and Gracie

CKLW KDB KERN KFBK KFPY

KFRC KGB KHJ KLZ KMBC KMJ

KMOX KOIN KOL KOMA KRLLD

KSL KTRH KTSA KVI KWG WABC

WADC WBBM WBIG WBT WCAO

WCAU WCCO WDRC WDSU WEAN

WFBL WFBM WHK WJAS WJSV

WKBW WKRC WNAC WOKO WORC

WOWO WSPD

R — Guy Lombardo and Orchestra

KPRC KSD KTBS KTHS KHQ KOA

WAVE WBNB WCAE WCSH WDAF

WFAE WEEI WFLA WFBR WFLA

WGY WHO WIOD WIS WJAR WJAX

WJDX WKBF WKY WLIT WLW

WMAQ WMC WOAI WOC WOW

WPTF WRC WRVA WSB WSM

WSMB WTAG WTAM WTIC WWJ

WVNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30

C — Howard Barlow, Norman Gordon

CFRB CKAC CKLW KDB KFH

KGKO KHJ KLRA KLZ KMBC

KOH KOMA KRLLD KSCJ KTRH

KTSA KVOR KWKH WAAB WABC

WACO WADC WALA WBBM WBIG

WBRC WBT WCAO WCAU WDAE

WDBJ WDBO WDNC WDOD WDRC

WDSU WEAN WFBL WFBM WFEA

WGLC WGR WHCC WHP WJBW

WICC WISN WJAS WJSV WKRC

WLAC WLWB WMAS WMBD

WMBR WMT WNOX WOKO WORC

WQAM WSBT WSFA WSJS WSPD

WTOC

R — Ray Noble and Orchestra

KDYL KFI KGW KHQ KOA KOMO

KPO KSD KYW WAPI WAVE WBNB

WCAE WCSH WFAE WEEI WFBR

WGY WHO WJAR WJDX WKBF

WLW WMAQ WMC WOW WRC

WSB WSM WSMB WTAG WTAM

WTIC WWJ

ED-11:00 p.m., E-10:00, C-9:00, M-8:00

B — Amos 'n' Andy, See Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15

C — Dance Orchestra

KLRA WABC WALA WBRC WBT

WCAO WCAU WDAE WDBJ WDBO

WDNC WDOD WDRC WDSU WEAN

WFEA WJSV WLAC WLWB WMBR

WNAC WNOX WORC WPG WQAM

WSFA WSJS WTOC

B — Tony and Gus, See Monday

ED-11:30 p.m., E-10:30, C-9:30, M-8:30

C — Dance Orchestra

KLRA WABC WALA WBRC WBT

WCAO WCAU WDBJ WDOD WDNC

WDOD WDRC WDSU WEAN WFEA

WICC WISN WJSV WLAC WLWB

WMAS WMBR WNAC WNOX WORC

WPG WQAM WSFA WSJS WTOC

C — Voice of Experience

KDB KERN KFBK KFPY KFRC

KGB KHJ KLZ KMLJ KOIN KOL

KSL KVI KWG

B — House of Glass, Drama

KDYL KFI KFJR KGW KHQ KOA

KOMO KPO KPRC KTBS KTHS

WAPI WAVE WDAY WFCB WFAA

WIBA WIRE WJDX WKY WMC

WOAI WSB WSM WSMB WTMJ

ED-12:00 p.m., E-11:00, C-10:00, M-9:00

R — Fred Allen

KDYL KFI KGO KGW KHQ KOA

KOMO

THURSDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00

C — Buck Rogers, See Monday

ED-6:45 p.m., E-5:45, C-4:45, M-3:45

B — Lowell Thomas, See Monday

ED-7:00 p.m., E-6:00, C-5:00, M-4:00

B — Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15

B — Tony and Gus, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30

C — Buck Rogers, See Monday

R — Mollie Minstrels

KSD KYW WBNB WCSH WDAF

WFAE WGY WHO WJAR WMAQ

WRC WSAI WTAG WTAM WWJ

B — Floyd Gibbons

KDKA KOIL KSO WBAL WBZ

WBZA WENR WFIL WFLA WHAM

WIOD WIS WJAX WJZ WML

WMT WPTF WREN WSOC WYSR

WTAR WVNC

ED-7:45 p.m., E-6:45, C-5:45, M-4:45

C — Boake Carter, See Monday

ED-8:00 p.m., E-7:00, C-6:00, M-5:00

R — Rudy Vallee and Orchestra

CFCF CRCT KDYL KFI KFJR

KGO KGW KHQ KOA KOMO KPRC

KSD KSTP KTAR KVOO WAPI

WBAP WBNB WCAE WCSH WDAY

WFAE WFCB WEEI WFBR WFI

WFLA WGY WHO WIOD WIS

WJAR WJAX WJDX WKY WLW

WMAQ WMC WOAI WOC WOW

WPTF WRC WRVA WSB WSM

WSMB WTAG WTAM WTIC WWJ

WVNC

C — Kate Smith

CKLW KDB KERN KFAB KFBK

KFPY KFRC KGB KHJ KLZ KMBC

KMJ KMOX KOIN KOL KSL KVI

KWG WABC WADC WBBM WCAO

WCAU WCCO WDRC WEAN WFBL

WFBM WGR WHAS WHK WJAS

WJSV WKRC WMAS WNAC WOKO

WOWO WSPD

ED-8:30 p.m., E-7:30, C-6:30, M-5:30

C — Freddie Rich; Entertainers

CKLW KMBC KMOX WABC WADC

WBBM WCAO WCAU WDRC WEAN

WFBL WFBM WGR WHAS WHK

WJAS WJSV WKRC WNAC WOKO

WOWO WSPD

ED-9:00 p.m., E-8:00, C-7:00, M-6:00

C — Glen Gray; Walter O'Keefe

CKLW KFAB KFH KLRA KMBC

KMOX KOMA KRLLD KSCJ KTRH

KTSA KTUL KWKH WABC WACO

WADC WALA WBBM WBIG WBNB

WBRC WBT WCAO WCAU WCCO

WDAE WDBJ WDOD WDRC

THURSDAY (Continued)

WDSU WEAN WFBL WFBM WFEA
WGST WHAS WHEC WHK WHP
WIBW WICC WISN WJAS WJSV
WKBN WKBW WKRC WLAC
WLWB WLWB WMA5 WMBD
WMBG WMBR WMT WNAC WNXA
WOKO WORC WOWO WPG WQAM
WREC WSFA WSJS WSPD WTOC

R — Maxwell House Show Boat

KDYL KFI KFSD KGHl KGRl
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP KTAI KTBS WAPI
WAVE WBAP WBEN WCAE WCSE
WDAF WDAF WEEL WFBR WFI
WFLA WGY WHO WIOD WIS WJAR
WJAX WJDX WKBF WKY WLW
WMAQ WMC WOAI WOC WOW
WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WTIC WTMJ
WVJ WVNC

B — Death Valley Days; Drama

KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WGAR WHAM
WJRW WJZ WLS WLW WMAI WREN
WYSR

ED-9:30 p.m., E-8:30, C-7:30, M-6:30

C — Fred Waring's Pennsylvanians

CFRB CKLW CRCM KDB KERN
KFAB KFBK KFH KFPY KPRC
KGB KGO KHJ KLRA KLZ KMBC
KMJ KMOX KOH KOIN KOL KOMA
KRLD KSCJ KSL KTRH KPSA
KTUL KVI KVOR KWG WABC
WACO WADW WALA WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCOO WDAE WDBJ WDBO WDNC
WDOO WDRC WDSU WEAN WFBL
WFBM WFEA WGLC WGST WHAS
WHEC WHK WHP WIBW WICC
WISN WJAS WJSV WKBN WKBW
WKRC WLAC WLWB WLWB WMA5
WMBD WMBG WMBR WMT WNAC
WNXA WNOX WOKO WORC WOWO
WPG WQAM WREC WSFA WSJS
WSPD WTOC

B — Mexican Musical Tours

KDKA KOIL KSO WBAL WBZ
WBZA WKY WENR WFIL WGAR
WHAM WJZ WMAI WMT WREN

ED-10:00 p.m., E-9:00, C-8:00, M-7:00

R — Paul Whiteman's Music Hall

CFRC CRCT KDYL KFI KFYZ
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP KTAI KTBS KTHS
KVoo WAPI WAVE WBAP WBEN
WCAE WCSE WDAF WDAF WDAF
WBC WEEI WFBR WFI WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WOAI WOC WOW WPTF
WRC WRVA WSB WSM WSMB
WTAG WTAM WTIC WTMJ WVJ
WVNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30

C — Horace Heidt and Orchestra

CKLW KDB KERN KFAB KFBK
KFPY KPRC KGB KHJ KLRA KLZ
KMBC KMN KMOX KOIN KOL
KRLD KRN KSL KTRH KPSA
KTUL KVI KWG WABC WBBM
WBNS WBRC WBT WCAO WCAU
WCOO WDRC WDSU WFBM WGBR
WGR WGST WHAS WHK WJAS
WJSV WKRC WLAC WMBG WMBR
WNAC WNXA WOKO WQAM WREC

ED-11:00 p.m., E-10:00, C-9:00, M-8:00

B — Amos 'n' Andy, See Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15

C — Dance Orchestra

CFRB CKAC CKLW KDB KFH
KGO KLRA KLZ KOH KOMA
KRLD KSCJ KTRH KPSA KVOR
KWKH WABC WACO WADC WALA
WBBM WBNS WBRC WBT WCAO
WCOO WDAE WDBJ WDBO WDNC
WDOO WDRC WDSU WEAN WFBL
WFBM WFEA WGLC WHEC WHK
WHP WIBW WISN WJAS WJSV
WKBW WKRC WLAC WLWB WLWB
WMA5 WMBD WMT WNAC WNXA
WNOX WOKO WORC WPG WQAM
WSBT WSFA WSJS WSPD WTOC
WVVA

B — Tony and Gus, See Monday

ED-11:30 p.m., E-10:30, C-9:30, M-8:30

C — Glen Gray; Walter O'Keefe

KDB KERN KFBK KFPY KPRC
KGB KHJ KLZ KMJ KOH KOIN
KOL KSL KVI KVOR KWG

FRIDAY

ED-6:30 p.m., E-5:30, C-4:30, M-3:30

C — H. V. Kaltenborn

CKLW KFH KGO KLZ KMBC KOH
KOMA KRLD KSCJ KSL KTRH
KVOR KWKH WAAB WABC WBBM
WCAO WCAU WDNC WDRC WFBM
WGLC WHEC WHK WISN WJAS
WJSV WKBW WLAC WLWB WMT
WOKO WORC WSPD

ED-6:45 p.m., E-5:45, C-4:45, M-3:45

B — Lowell Thomas, See Monday

ED-7:00 p.m., E-6:00, C-5:00, M-4:00

B — Amos 'n' Andy, See Monday

ED-7:15 p.m., E-6:15, C-5:15, M-4:15

R — Black Chamber, See Monday

B — Tony and Gus, See Monday

ED-7:30 p.m., E-6:30, C-5:30, M-4:30

B — Red Davis, See Monday

C — The O'Neill's, See Monday

ED-7:45 p.m., E-6:45, C-5:45, M-4:45

C — Boake Carter, See Monday

B — Dangerous Paradise, See Monday

R — Uncle Ezra, See Monday

ED-8:00 p.m., E-7:00, C-6:00, M-5:00

R — Cities Service Concert

CRCT KDYL KOA KPRC KSD
KSTP KTBS KTHS KVoo KYW
WBAP WBEN WCAE WCSE WDAF
WDAF WBC WEEI WFAA WFBR
WGY WHO WJAR WKY WLIT
WOAI WOC WOW WRC WRVA
WSAI WTAG WTAM WTIC WVJ

B — Irene Rich; Drama

KDKA KDYL KFI KGW KHQ
KOIL KOMO KPO KSO KTAI
WAVE WBAL WBZ WBZA WGAR
WHAM WIRE WJR WJZ WLS
WMAI WMC WMT WREN WSB
WSM WYSR

C — Leith Stevens' Harmonies

CFRB CKLW KDB KERN KFAB
KFBK KFH KFPY KPRC KGB
KHJ KLRA KLZ KMBC KMJ KMOX
KOIN KOL KOMA KRLD KSCJ
KSL KTRH KPSA KVI KWG WABC
WADC WBBM WBNS WBRC WBT
WCAO WCAU WCOO WDAE WDBJ
WDRC WDSU WEAN WFBL WFBM
WGR WGST WHAS WHEC WHK
WJAS WJSV WKRC WLAC WLWB
WMBG WMBR WNAC WNOX
WOKO WORC WQAM WREC WSPD

ED-8:15 p.m., E-7:15, C-6:15, M-5:15

B — Morton Downey

KOIL KSO WBZ WBZA WKY
WFIL WEAM WIRE WJZ WLS
WMAI WMT WREN WYSR

ED-8:30 p.m., E-7:30, C-6:30, M-5:30

B — Ruth Etting; Rod Nichols

KDKA KOIL KSO KWK WBAL
WBZ WBZA WKY WFIL WGAR
WHAM WJR WJZ WLS WMAI
WMT WREN WYSR

C — True Story Court

CKLW KMBC WABC WMBM
WCAO WCAU WCOO WDRC WEAN
WFBL WGR WHK WJAS WJSV
WKRC WNAC WOKO

ED-9:00 p.m., E-8:00, C-7:00, M-6:00

C — Hollywood Hotel

CFRB CKAC CKLW KDB KERN
KFAB KFBK KFH KFPY KPRC
KGB KGO KHJ KLRA KLZ KMBC
KMJ KMOX KOH KOIN KOL KOMA
KRLD KSCJ KSL KTRH KPSA
KTUL KVI KVOR KWG KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRC WBT WCAO
WCAU WCOO WDAE WDBJ WDBO
WDNC WDOO WDRC WDSU WEAN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WBX
WICC WISN WJAS WJSV WKBN
WKBW WKRC WLAC WLWB WLWB
WMA5 WMBD WMBG WMBR WMT
WNAC WNXA WNOX WOKO WORC
WOWO WPG WQAM WREC WSBT
WSFA WSJS WSPD WTOC

R — Frank Munn; Abe Lyman

KSD WBEN WCAE WCSE WDAF
WEAF WEEI WFBR WGY WJAR
WLIT WLW WMAQ WOW WRC
WTAG WTAM WVJ

B — Beatrice Lillie

CFRC CRCT KDKA KDYL KFI
KGW KHQ KOA KOIL KOMO KPO
KPRC KSO KTHS KWCR KWK
WAPI WAVE WBAI WCKY WFLA
WGAR WHAM WIOD WIS WJAX
WJDX WJZ WKY WLIT WLS WMAI
WMC WPTF WREN WSB WSMB
WYSR WTAR WVNC

ED-9:30 p.m., E-8:30, C-7:30, M-6:30

R — Pick and Pat

KSD WBEN WCAE WCSE WDAF
WEAF WFBR WGY WHO WJAR
WLIT WMAQ WOC WOW WRC
WSAI WTAG WTAM WTIC WVJ

B — Armour Program; Phil Baker

KDKA KDYL KFI KGO KGW KHQ
KOA KOIL KOMO KPRC KSO
KSTP KTAI KWK WAPI WAVE
WBAL WBZ WBZA WBC WENR
WFAA WFLA WGAR WHAM WIOD
WJAX WJR WJZ WKY WMC WOAI
WREN WRVA WSB WSM WSMB
WTMJ WVNC

ED-10:00 p.m., E-9:00, C-8:00, M-7:00

R — First Nighter; Drama

KDYL KFI KGO KGW KHQ KOA
KOMO KPRC KSD KSTP WBEN
WCAE WCSE WDAF WEAF WBC
WEEI WFAA WFBR WGY WHO
WJAR WKY WLIT WLW WMAQ
WMC WOAI WOC WOW WRC WSB
WSM WSMB WTAG WTAM WTIC
WTMJ WVJ

C — Richard Himber and Orchestra

CKLW KFAB KFH KMBC KMOX
WAAB WABC WADC WBBM WBNS
WBT WCAO WCAU WCOO WDRC
WDSU WFBL WFBM WGST WHA G

FRIDAY (Continued)

WHK WJAS WJSV WKWB WKRC
WOKO WBSB WSPD

ED-10:30 p.m., E-9:30, C-8:30, M-7:30

R — Joe Cook; B. A. Rolfe
CFCF CRCT KDYL KFI KFSD
KFYR KGHL KGIR KGW KHQ
KOA KPO KPRC KSTP KTRAR
KTBS KTHS KYW WAFI WAVE
WBEN WCAE WCSH WDAF WDAY
WEAF WEBC WEEI WFLA WFBR
WFLA WGY WHIO WIBA WIOD
WIS WJAR WJAX WJDX WKY
WMAQ WMC WOW WPTF WRVA
WSAI WSBM WSOB WTAG WTAM
WTIC WWJ WNNC

C — Col. Stoopnagle and Budd

CKLW KGB KGKO KHJ KLRA
KMBC KOH KOL KOMA KRLD
KSCJ KVI KVOR KWKH WAAB
WABC WACO WBBM WBIG WBNS
WBT WCAO WCAU WCCO WCHS
WDBJ WDNC WDDO WDRS WDSU
WEAN WFBL WGR WHAS WHEC
WHP WICW WJAS WJSV WKRC
WLAC WMAS WMBD WMBG WMT
WNAC WNOX WOC WOKO WORC
WPG WREC WSBT WSJS WSPD

ED-11:00 p.m., E-10:00, C-9:00, M-8:00

B — Amos 'n' Andy, See Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15

C — Dance Orchestra
KLRA WABC WALA WBRC WBT
WCAO WDAE WDBO WDNC WDDO
WDRS WDSU WEAN WFEA WHK
WJSV WLAC WLWB WMAS WNAC
WNOX WOC WPG WQAM WSFA
WSJS WTOC

B — Tony and Gus, See Monday

ED-12:30a.m., E-11:30, C-10:30, M-9:30

C — Richard Himber and Orchestra
KDB KERN KFBK KFPY KPRC
KGB KHJ KLZ KMJ KOIN KOL
KSL KVI KWG

SATURDAY

ED-6:00 p.m., E-5:00, C-4:00, M-3:00

C — Frederic William Wile
CKAC CKLW KDB KERN KFBK
KFPY KPRC KGB KHJ KLRA KLZ
KMJ KMOX KOIN KOL KRLD
KSL KTRH KTSR KVI KWG WAAB
WABC WALA WBBM WBIG WBNS
WBRC WBT WCAO WCAU WCCO
WDAE WDBJ WDBO WDNC WDDO
WDSU WFBL WFBM WGR WGST
WHAS WHEC WHK WICW WJSV
WKRC WMBR WNOX WQAM
WREC WTOC

ED-7:00 p.m., E-6:00, C-5:00, M-4:00

C — Soconyland Sketches
WABC WDRS WEAN WGR WICC
WLWB WMAS WNAC WOKO WORC

ED-7:30 p.m., E-6:30, C-5:30, M-4:30

C — Victor Arden and Orchestra
CFRB CKAC CKLW WABC WBBM
WCAO WCAU WFBL WHK WJAS
WNAC WOKO

ED-7:45 p.m., E-6:45, C-5:45, M-4:45

R — Thornton Fisher Sports Review
KDYL KFYR KOA KSD KSTP
KYW WAFI WAVE WBEN WCAE
WCSH WDAY WEAF WEBC WFLA
WGY WHIO WIBA WIOD WIS
WJAR WJAX WJDX WMAQ WMC
WOW WPTF WRC WRVA WSAI

WSB WSMB WSOB WTAG WTAM
WTAR WTIC WWJ WNNC

ED-8:00 p.m., E-7:00, C-6:00, M-5:00

C — Modern Minstrels
CFRB CKAC CKLW KDB KERN
KFBK KFPY KPRC KGB KHJ
KLRA KLZ KMBC KMJ KMOX
KOIN KOL KOMA KRLD KSL
KTRH KTSR KVI KWG WABC
WBBM WBRB WCAO WCAU WCCO
WDDO WDRS WDSU WEAN WFBL
WFBM WGR WGST WHAS WHK
WIBW WJAS WJSV WKRC WLAC
WMT WNAC WOKO WORC WREC
WSPD

R — Lucky Strike; Lonnie Hayton

KDYL KFI KFSD KFYR KGHL
KGIR KGU KGW KHQ KOA KOMO
KPO KPRC KSD KSTP KTRAR
KTBS KYW WAFI WAVE WBEN
WCAE WCSH WDAF WDAY WEAF
WEBC WEEI WFBR WFLA WHIO
WHIO WIBA WIOD WIRE WIS
WJAR WJAX WJDX WKY WLW
WMAQ WMC WOAII WOW WPTF
WRC WSB WSMB WSOB WTAG
WTAM WTAR WTIC WNNC

ED-9:00 p.m., E-8:00, C-7:00, M-6:00

R — Radio City Party
KDYL KFI KFYR KGW KHQ KOA
KOMO KPO KPRC KSD KSTP
KTBS KTHS KYW WAFI WAVE
WBAP WBEN WCSH WDAF WDAY
WEAF WEBC WEEI WFBR WFLA
WGY WHIO WIBA WIOD WIS
WJAR WJAX WJDX WKY WLW
WMAQ WMC WOAII WOW WPTF
WRC WRVA WSB WSMB WSOB
WTAG WTAM WTAR WTIC WTMJ
WWJ WNNC

ED-9:30 p.m., E-8:30, C-7:30, M-6:30

C — Melody Masterpieces
CKLW KFH KMBC KMOX WAAB
WABC WADC WBBM WBNS WBT
WCAO WCAU WCCO WDRS WDSU
WEAN WFBL WFBM WGST WHK
WJAS WJSV WKWB WKRC WOKO
WSBT WSPD

B — National Barn Dance

KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WGAR WHAM
WJR WJZ WKBF WLS WMAL
WREN WYSR

R — Al Johnson; Victor Young

KDYL KFI KFSD KFYR KGHL
KGIR KGW KHQ KOA KOMO KPO
KSD KSTP KTRAR KYW WBEN
WCAE WCSH WDAF WDAY WEAF
WEBC WEEI WFBR WFLA WGY
WHIO WHIO WIBA WIOD WIS WJAR
WJAX WMAQ WOW WPTF WRC
WRVA WSAI WSOB WTAG WTAM
WTAR WTIC WTMJ WWJ WNNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30

C — California Melodies
CFRB CKLW KDB KFH KGKO
KHJ KLRA KLZ KMBC KOH KOMA
KRLD KSCJ KTRH KTSR KVOR
KWKH WAAB WABC WACO WADC
WALA WBIG WBT WCAO WCAU
WCCO WDAE WDBJ WDBO WDNC
WDDO WDRS WDSU WEAN WFBL
WFBM WFEA WGLC WGR WHEC
WHP WIBW WICC WISN WJAS
WJSV WKRC WLAC WLWB WLZ
WMAS WMBD WMT WNAX WNOX
WOKO WORC WPG WQAM WSBT
WSFA WSJS WSPD WTOC WWVA

R — Let's Dance

KFYR KPRC KSD KTBS KTHS

KVOO KYW WAVE WBAP WBEN
WCAE WCSH WDAY WEAF WEBC
WEEI WFAA WFBR WFLA WGY
WIBA WIOD WIS WJAR WJAX
WJDX WKY WLW WMAQ WMC
WOAI WOW WRC WSB WSMB
WTAG WTAM WTAR WTIC WTMJ
WWJ WNNC

ED-11:00 p.m., E-10:00, C-9:00, M-8:00

B — National Barn Dance
KDYL KFI KGO KGW KHQ KOA
KOMO WAVE WJDX WLS WMC
WSB WSMB

ED-11:30 p.m., E-10:30, C-9:30, M-8:30

C — Dance Orchestra
CKAC CKLW KLRA WAAB WABC
WBT WDAE WDBJ WDBO WDDO
WDRS WDSU WFBM WGLC WGR
WHEC WHP WIBW WJAS WJSV
WKRC WLAC WORC WQAM WBSB
WSFA WSJS WTOC

ED-12:00p.m., E-11:00, C-10:00, M-9:00

C — Dance Orchestra
CKAC CKLW KDB KFH KGKO
KLRA KLZ KMBC KOH KOMA
KTRH KTSR KWKH WABC WBNS
WCAU WDBO WDNC WDDO WEAN
WFBL WFBM WGLC WHP WIBW
WICC WJSV WKWB WKRC WLAC
WLBW WNAC WNOX WOKO WPG
WQAM WBSB WTOC

SUNDAY

ED-11:30a.m., E-10:30, C-9:30, M-8:30

C — Salt Lake Tabernacle Choir
CKLW KFI KGKO KLRA KLZ
KOH KRLD KSCJ KSL KTRH
KTSR KWKH WABC WACO WADC
WALA WBBM WBNS WCCO WDAE
WDBO WDDO WDRS WDSU WEAN
WFBL WFBM WFEA WGLC WHK
WHP WIBW WICC WISN WJAS
WJSV WLAC WLWB WLZ WMAS
WMBD WMBR WMT WNAC WNAX
WNOX WOKO WORC WQAM WREC
WSFA WSPD

R — Major Bowes' Family

KDYL KFYR KOA KPRC KSTP
KTBS KVOO WAFI WCAE WDAF
WDAY WEAF WEBC WFAA WFBR
WFLA WGY WHO WIOD WJAR
WJAX WKY WMAQ WMC WOAII
WOC WRC WRVA WSAI WSBM
WTAG WTAM WNNC

ED-12:15p.m., E-11:15, C-10:15, M-9:15

R — What Home Means to Me
KDYL KFI KGW KHQ KOA KOMO
KPO KPRC KTBS KTHS KVOO
KYW WBAP WBEN WCAE WCSH
WEAF WEEI WFBR WGY WHIO
WHIO WIRE WJAR WKY WMAQ
WOAI WOW WRC WSAI WTAG
WTAM WTIC

ED-12:30p.m., E-11:30, C-10:30, M-9:30

C — Romany Trail
CKLW KMBC KMOX WABC WADC
WBBM WCAO WCAU WDRS WEAN
WFBL WFBM WGR WHAS WJAS
WJSV WKH WKRC WMAS WNAC
WOKO WORC WOW WSPD

B — Radio City Symphony

CFCF CRCT KDKA KDYL KFI
KFYR KGO KGW KHQ KOA KOL
KOMO KPRC KSO KVOO WAFI
WBAL WBZ WBZA WKY WDAY
WEBC WGAR WHAM WIS WJDX
WJR WJZ WKY WMAL WOAII
WREN WSMB WYSR WNNC

SUNDAY (Continued)

ED-1:00 p.m., E-12:00, C-11:00, M-10:30
C — Church of the Air
CFRB CKLW KFH KGKO KHJ KLRA KLZ KOH KRLD KSCJ KSL KTRH KTSa KWKH WAAB WABC WACO WALA WBBM WBIG WBNS WBT WCAO WCCO WDAE WDBJ WDBO WDNC WDDO WDRC WDSU WEAN WFBL WFBM WGST WHAS WHK WHP WIBW WJAS WJWS WKRC WLAC WLWB WLWZ WMBR WMT WNOX WOKO WORC WPG WQAM WRC WSBT WSFA WSJS WSPD WWSA WWSB WWSR WWSV WWSW WWSX WWSY WWSZ WWSA WWSB WWSR WWSV WWSW WWSX WWSY WWSZ

ED-1:30 p.m., E-12:30, C-11:30, M-10:30
C — Mary Eastman; Evan Evans
CKLW KFAB KFH KLZ KMBC KMOX KOMA KRLD KSCJ KSL WABC WADC WBBM WBNS WBT WCAU WCCO WDRS WFBL WFBM WGR WHAS WHK WJAS WJWS WWO

ED-2:00 p.m., E-1:00, C-12:00, M-11:00
C — Lazy Dan, Minstrel Man
CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KVI KWG WABC WADC WBBM WBNS WBT WCAO WCAU WCCO WDBJ WDRS WDSU WEAN WFBL WFBM WGST WHAS WHEC WHK WIBW WJAS WJWS WKBW WKRC WLAC WMBG WMT WNAC WWO

B — Your English
KDKA KDYL KFI KFJR KGW KHQ KOA KOIL KOMO KPO KSO KSTP KVOO KWK WBAL WBAZ WBZA WKY WENR WFAA WFL WGR WIRE WJR WJZ WKY WMAL WMT WOAI WREN

R — Sally of the Talkies
WAPI WBEN WCAE WCHS WDAF WFAE WFEI WFER WGY WHO WJAR WJDX WLIT WMAQ WMC WOC WOV WRC WSAI WSB WSM WWSB WTAG WTAM WJW

ED-2:30 p.m., E-1:30, C-12:30, M-11:30
C — Eddie Dunstetter at Organ
CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KVI KWG WABC WADC WBBM WBT WCAO WCAU WCCO WDBJ WDRS WDSU WEAN WFBL WFBM WGST WHAS WHEC WHK WIBW WJAS WJWS WKBW WKRC WLAC WMBG WMT WNAC WWO

B — Lux Program; Dramas
KDKA KDYL KFI KFJR KGO KGW KHQ KOA KOIL KOMO KPRC KSO KSTP KTBS KTHS KVOO KWCR KWK WBAL WBZ WBAZ WDAY WECB WFAA WGAR WHAM WBA WJR WJZ WKY WLW WMAL WOAI WPTF WREN WRVA WSYR WTAR

ED-3:30 p.m., E-2:30, C-1:30, M-12:30
R — Penthouse Serenade
KDYL KFI KGO KGW KHQ KOA KOMO KSD WBEN WCAE WCHS WDAF WFAE WFEI WFER WGY WHO WJAR WLIT WLW WMAQ WOC WOV WRC WTAG WTAM WTTIC WJW

C — Howard Barlow Symphony
CFRB CKAC CKLW KDB KERN KFAB KFBK KFH KFPY KFRC

KGK KGKO KHJ KLRA KLZ KMBC KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSa KVI KVOR KWG KWKH WAAB WABC WACO WADC WALA WBBM WBIG WBNS WBRB WBT WCAO WCCO WCOA WDAE WDBJ WDBO WDNC WDDO WDRS WDSU WEAN WFBL WFBM WGST WHAS WHK WHP WIBW WJAS WJWS WKBW WKRC WLAC WLWB WMAZ WMBD WMBG WMBR WNOX WOKO WORC WPG WQAM WRC WSBT WSFA WSJS WSPD WWSA WWSB WWSR WWSV WWSW WWSX WWSY WWSZ

ED-4:00 p.m., E-3:00, C-2:00, M-1:00
C — St. Louis Parade
CFRB CKAC CKLW KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KHJ KLRA KLZ KMBC KMOX KOIN KOL KOMA KRLD KSCJ KSL KTRH KTSa KVI KVOR KWG WAAB WABC WADC WALA WBBM WBIG WBNS WBRB WBT WCAO WCCO WDAE WDBJ WDBO WDNC WDDO WDRS WDSU WEAN WFBL WFBM WGST WHAS WHK WHP WIBW WJAS WJWS WKBW WKRC WLAC WLWB WMAZ WMBD WMBG WMBR WNOX WOKO WORC WPG WQAM WRC WSBT WSFA WSJS WSPD WWSA WWSB WWSR WWSV WWSW WWSX WWSY WWSZ

ED-4:30 p.m., E-3:30, C-2:30, M-1:30
R — Harry Reser and Orchestra
CFRC CRCT KTBS KTBS KVOO KYW WBAF WBEN WCAE WCHS WDAF WFAE WFEI WFER WGY WJAR WKY WMAQ WOAI WRC WSAI WTAG WTAM WTTIC WJW

ED-4:45 p.m., E-3:45, C-2:45, M-1:45
R — Dream Drama
WBEN WCAE WCHS WDAF WFAE WFEI WFER WFI WGY WJAR WMAQ WRC WSAI WTAG WTAM WTTIC WJW

ED-5:00 p.m., E-4:00, C-3:00, M-2:00
C — Country Church of Hollywood
CKLW KFH KLRA KLZ KMBC KMOX KOMA KRLD KSL KTRH KTSa KTUL WAAB WABC WADC WBBM WBIG WBRB WBT WCAO WCAU WCCO WDDO WDRS WDSU WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WIBW WJAS WJWS WKBW WKRC WLAC WLWB WMAZ WMBG WOC WORO WWO WRC WRES WSPD

B — Roses and Drums
KDKA KOIL KPRC KSO KTHS KWCR KWK WBAL WBAF WBZ WBZA WENR WGAR WHAM WJR WJZ WKY WLW WMAL WOAI WREN WWSYR

R — Rhythm Symphony
KDYL KFI KGW KOA KOMO KPO KPRC KTBS WAPI WAVE WBAF WBEN WCHS WDAF WFAE WFCB WFEI WFER WFLA WGY WBA WOD WJAR WJAX WJDX WLIT WMAQ WMC WOAI WPTF WRC WRVA WSAI WSB WSM WWSB WTAG WTAM WTTIC WJW

ED-5:30 p.m., E-4:30, C-3:30, M-2:30
C — Frank Crumit; Julia Sanderson
CKLW KFH KMBC KMOX KOMA KTUL WAAB WABC WADC WBNS WCAO WCAU WDRS WDSU WEAN WFBL WFBM WGR WHAS WHEC

WHK WIBX WICC WJSV WMAZ WOKO WORC WSPD WWSA
R — Tony Wons
CFRC CRCT KDYL KFI KFSD KFJR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTHS KVOO KYW WAPI WAVE WBAF WBEN WCAE WCHS WDAF WDAY WFAE WFCB WFEI WFER WGY WHO WBA WOD WIS WJAR WJAX WJDX WJWB WKY WMAQ WMC WOAI WOV WPTF WRC WRVA WSAI WSB WSM WTAG WTAM WTTAR WTTIC WTTMJ WTTW WTTX

ED-5:45 p.m., E-4:45, C-3:45, M-2:45
B — Becker's Dog Chats
KDKA KDYL KFI KGO KGW KHQ KOA KOIL KOMO KSO KWCR KWK WBAL WBZ WBZA WENR WGAR WHAM WJR WJZ WMAL WREN WWSYR

ED-6:00 p.m., E-5:00, C-4:00, M-3:00
C — National Amateur Night
CFRB CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KSL KVI KWG WAAB WABC WBBM WBNS WBT WCAO WCAU WCCO WDRS WDSU WFBL WFBM WGST WHAS WHEC WHK WJAS WJWS WKBW WKRC WOKO

ED-6:30 p.m., E-5:30, C-4:30, M-3:30
C — Smilin' Ed McConnell
CKLW KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMJ KMOX KOIN KOL KRLD KSL KVI KWG WAAB WABC WBBM WBNS WBRB WBT WCAO WCCO WDRS WDSU WEAN WFBL WFBM WFEA WGST WHAS WHK WHP WICC WISN WJAS WJWS WKBW WKRC WLAC WLWB WLWZ WORC WQAM WREC WWSA

B — Compana Grand Hotel
KDKA KDYL KFI KGO KGW KHQ KOA KOIL KOMO KSO KSTP KWCR KWK WBAL WBZ WBZA WECB WENR WGAR WHAM WJR WJZ WMAL WREN WSYR WTTMJ

ED-6:45 p.m., E-5:45, C-4:45, M-3:45
C — Voice of Experience
CKLW KMBC KMOX WAAB WABC WBBM WBT WCAO WCAU WCCO WDRS WEAN WFBL WCHA WHK WJAS WJWS WKBW WKRC WNAC WWO WWSA

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
B — Jack Benny; Don Bestor
KDKA KDYL KFI KGO KGW KHQ KOA KOIL KOMO KPRC KSO KSTP KWCR KWK WBAL WBAF WBZ WBAZ WECB WGAR WHAM WBA WJDX WJR WJZ WKY WIS WLW WMAL WMC WOAI WREN WSB WSM WWSB WSYR WTTMJ

C — Roadways of Romance
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMBC KMOX KOIN KOL KSL KVI KWG WABC WBBM WCAO WCAU WCCO WDRS WFBL WGR WHAS WHK WJAS WJWS WKRC WNAC WOKO

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
B — Joe Pennier; Ozzie Nelson
KDKA KDYL KFI KFJR KGO KGW KHQ KOA KOIL KOMO KPRC

SUNDAY (Continued)

KSO KSTP KTAR KVOO KWCR
KWK WBAL WBZ WBZA WDAY
WBEC WFAA WFLA WGAR WHAM
WIBA WIOD WJAX WJDX WJR
WJZ WKY WLS WMAI WMC WQAI
WPTF WREN WRVA WSB WSM
WSMB WSYR WTMJ

R — American Radiator Musical
WHEN WCAE WCSH WFAF WFBR
WGY WJAR WMAQ WOV WRC
WSAI WTAG WTAM WWJ

ED-7:45 p.m., E-6:45, C-5:45, M-4:45
R — Fitch Program; Wendell Hall
CFCE KSD WHEN WCAE WCSH
WEAF WFBR WGY WHO WJAR
WKBF WLIT WMAQ WOC WOV
WRC WSAI WTAG WTAM WTIC
WWJ

ED-8:00 p.m., E-7:00, C-6:00, M-5:00
C — Ethel Merman; Al Goodman
CKLW KDB KERN KFAB KFBK
KFPY KFRG KGB KHJ KLRA KLZ
KMBC KMJ KMOX KOIN KOL
KOMA KRLD KSL KTRH KTSa
KTUL KVI KWG WAAB WABC
WADC WBBM WBRC WBT WCAO
WCAU WCCO WDRC WDSU WEAN
WFBL WFBM WGR WGST WHAS
WHK WJAS WJSV WKRC WOKO
WOW WSPD

R — Major Bowes' Amateur Hour
CFCE CRCT KDYL KFI KFYR
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP KTAR KVOO WAPI
WAVE WBNB WBZ WBZA WCAE
WCSH WDAF WDAY WEAF WEBC
WFAA WFBR WFLA WGY WHO
WIOD WIS WJAR WJAX WJDX
WKY WLIT WLW WMAQ WMC
WQAI WOC WOV WPTF WRC
WRVA WSB WSM WSMB WTAG
WTAM WTIC WTMJ WWJ WWCN

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C — Gulf Headliners
CKLW KLRA KRLD KTRH KTSa
WABC WACO WADC WALA WBIG
WBNS WBRC WBT WCAO WCAU
WDAE WDBJ WDOD WDRC
WDSU WEAN WFEA WGST WHAS
WHEC WHK WJAS WJSV WKRC
WLAC WLWB WMAI WMBG WMBR
WNAC WOKO WORC WOV WQAM
WREC WSPD WTOC

ED-9:00 p.m., E-8:00, C-7:00, M-6:00

C — Ford Symphony
CFBR CKLW KDB KERN KFBK
KFH KFPY KFRG KGB KGKO
KHJ KLRA KLZ KMBC KMJ
KMOX KOH KOIN KOL KOMA
KRLD KSCJ KSL KTRH KTSa
KTUL KVI KVOR KWKH WABC
WACO WADC WALA WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCCO WDAE WDBJ WDOD WDCN
WDOD WDRC WDSU WEAN WFBL
WFBM WFEA WGLC WGR WGST
WHAS WHEC WHK WHP WIBV
WIBX WICC WISN WJAS WJSV
WKBH WKBN WKRC WLAC
WLWB WLWB WMAI WMBR WMT
WNAC WNAX WNOX WOKO WORC
WOWO WQAM WSBT WSPA WWSJ
WSPD WTOC WWVA

R — Manhattan Merry-Go-Round
CFCE KDYL KFI KGO KGW KHQ
KOA KOMO KSD KSTP WDAF
WEAF WEBC WFBR WFI WGY
WHO WJAR WMAQ WOC WOV
WRC WSAI WTAG WTAM WTIC
WTMJ WWJ

B — Silken Strings; Charles Previn
KDKA KDYL KFI KGO KGW KHQ
KOA KOAI KOIL KOMO KPRC KSO
KSTP KWCR KWK WBAL WBAM
WBZ WBZA WEBC WGAR WHAM
WIBA WJR WJZ WKY WLS WLW
WMAL WREN WSYR WTMJ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30

R — Album of Familiar Music
CFCE CRCT KDYL KFI KGO
KGW KHQ KOA KOMO KPRC KSD
KSTP KVOO WBNB WCAE WCSH
WDAF WEAF WEEL WFAA WFBR
WFI WFLA WGY WHO WIOD WIS
WJAR WJAX WJDX WKY WMAQ
WMC WQAI WOC WOV WPTF
WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WTMJ WWJ
WWNC

B — Walter Winchell
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WENR WGAR
WHAM WJR WJZ WLW WMAL
WREN WSYR

ED-9:45 p.m., E-8:45, C-7:45, M-6:45

B — Adventures of Sherlock Holmes
KDKA KOIL KSO KWCR WBAL
WBZ WBZA WCKY WENR WFIL
WGAR WHAM WJR WJZ WMAL
WREN WSYR

ED-10:00 p.m., E-9:00, C-8:00, M-7:00

R — The Gibson Family
KDYL KFI KFYR KGW KHQ KOA
KOMO KPO KSTP KYW WBNB
WCAE WCSH WDAF WDAY WEAF
WEBC WFBR WGY WHO WITA
WLW WMAQ WOV WRC WTAG
WTAM WTIC WTMJ WWJ

C — Wayne King, See Monday

ED-10:30 p.m., E-9:30, C-8:30, M-7:30

C — Fray and Braggiotti
CKAC CKLW KFH KGKO KHJ
KLRA KLZ KMBC KOH KRLD
KSCJ KTRH KTSa KVOR KWKH
WABC WACO WADC WALA WBIG
WBNS WBT WCAO WCAU WCCO
WDAE WDBJ WDOD WDCN WDOD
WDRC WDSU WEAN WFBL WFBM
WFEA WGLC WGR WHBC WHP
WIBV WICC WISN WJAS WJSV
WKRC WLAC WLWB WLWB WMAI
WMBD WMBR WMT WNAX WNOX
WOKO WORC WPG WQAM WREC
WSBT WSPA WWSJ WSPD WTOC

ED-11:00 p.m., E-10:00, C-9:00, M-8:00

C — Dance Orchestra
CFBR CKAC CKLW KFH KGKO
KLRA KLZ KOH KRLD KSCJ
KTRH KTSa KVOR KWKH WABC
WACO WADC WBBM WBNS WBT
WCAO WCAU WCCO WDAE WDBJ
WDBO WDNC WDOD WDRC WDSU
WEAN WFBL WFEA WGLC WGR
WHEC WHK WHP WIBV WISN
WJAS WJSV WKRC WLAC WLWB
WLWB WMAI WMBD WMBR WMT
WNAC WNAX WNOX WOKO WORC
WPG WQAM WREC WSBT WSPA
WWSJ WSPD WTOC

ED-11:15 p.m., E-10:15, C-9:15, M-8:15

B — Walter Winchell
KDYL KFI KFSD KGHL KGIR
KGW KHQ KOA KOMO KPRC
KTAR KTBS KTHS WAPI WAVE
WBAP WJDX WKY WMC WQAI
WSB WSM WSMB

ED-11:30 p.m., E-10:30, C-9:30, M-8:30

B — Jack Benny; Don Bestor
KDYL KFSD KGR KGU KHQ
KOA KOMO KTAR

ED-12:00 p.m., E-11:00, C-10:00, M-9:00

Rev. Charles E. Coughlin
WCAO WCAU WDRC WEAN WFBL
WFEA WGAR WGR WHO WICC
WIND WJAS WJR WLWB WLW
WMAI WNAC WNBH WOC WOKO
WOL WOR WORC

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Daylight Saving

C—Columbia; R—National (Red); B—National (Blue)

*These features are correct at the time of going to press,
but changes are being made daily.*

CONCERTS

Howard Barlow Symphony, 3:30 p.m. Sunday, C
Ford Concert, 9:00 p.m. Sunday, C
Radio City Music Hall, 12:30 p.m. Sunday, B

DANCE BANDS

Victor Arden, 8:30 p.m. Wednesday; 7:30 p.m. Sat., C
Leon Belasco, 9:30 p.m. Friday, B
Ben Bernie, 9:00 p.m. Tuesday, R

Don Bestor, 7:00 and 11:30 p.m. Sunday, B
Eddie Duchin, 9:30 p.m. Tuesday, R
Lud Gluskin, 9:30 p.m. Monday, C
Al Goodman, 9:30 p.m. Monday, R; 8:00 p.m. Sunday,
C
Glen Gray, 10:00 p.m. Tuesday; 9:00 and 11:30 p.m.
Thursday; C
Ferde Grofe, 10:00 p.m. Wednesday, C
Lennie Hayton, 8:00 p.m. Sat., R

Horace Heidt, 10:30 p.m. Thurs., C
 Richard Himmer, 8:00 p.m. Monday, R; 10:00 and
 12:30 p.m. Friday, C
 Hal Kemp, 8:00 p.m. Wednesday, B
 Wayne King, 8:30 p.m. Tues. and Wed., R; 10:00 p.m.
 Sunday and Monday, C
 Let's Dance, 10:30 p.m. Saturday, R
 Guy Lombardo, 10:00 p.m. Wednesday, R
 Abe Lyman, 9:00 p.m. Friday, R; 8:30 p.m. Tuesday, C
 Ozzie Nelson, 7:30 p.m. Sunday, B
 Red Nichols, 8:30 p.m. Friday, B
 Ray Noble, 10:30 p.m. Wednesday, R
 Charles Previn, 9:00 p.m. Sunday, B
 Leo Reisman, 8:00 and 11:30 p.m. Tuesday, R
 Harry Reser, 4:30 p.m. Sunday, R
 Freddie Rich, 7:00 p.m. Sun.; 8:30 p.m. Thursday, C
 B. A. Rolfe, 10:30 p.m. Friday, R
 Phil Spitalny, 9:30 p.m. Tuesday, C
 Leith Stevens, 8:00 p.m. Friday, C
 Rudy Vallee, 8:00 p.m. Thursday, R
 Fred Waring, 9:30 p.m. Thursday, C
 Paul Whitman, 10:00 p.m. Thursday, R

DIALOG

Fred Allen, 9:00 and 12:00 p.m. Wednesday, R
 Amos 'n' Andy, 7:00 and 11:00 p.m. daily, except
 Sat. and Sun., B
 Phil Baker, 9:30 p.m. Friday, B
 Jack Benny, 7:00 and 11:30 p.m. Sunday, B
 Block and Sully, 9:30 p.m. Monday, C
 Joe Cook, 10:30 p.m. Friday, R
 Easy Aces, 7:30 p.m. Mon., Tues. and Wed., R
 Fibber McGee and Molly, 10:00 p.m. Tuesday, B
 George and Gracie, 10:00 p.m. Wednesday, C
 Lou Holtz, 10:00 p.m. Thursday, R
 Beatrice Lillie, 9:00 p.m. Friday, B
 Walter O'Keefe, 10:00 p.m. Tuesday; 9:00 and 11:30
 p.m. Thursday, C
 Joe Penner, 7:30 p.m. Sunday, B
 Ray Perkins, 6:00 p.m. Sunday, C
 Pick and Pat, 9:30 p.m. Friday, R
 Stoopnagle and Budd, 10:30 p.m. Friday, C
 Uncle Ezra, 7:45 p.m. Mon.; Wed., Fri., R
 Ed Wynn, 9:30 p.m. Tuesday, R

DRAMA

Max Baer, 10:30 p.m. Monday, R
 Black Chamber, 7:15 p.m. Mon., Wed. and Fri., R
 Dangerous Paradise, 7:45 p.m. Mon., Wed. and Fri., B
 Red Davis, 7:30 p.m. Mon., Wed., and Fri., B
 Death Valley Days, 9:00 p.m. Thursday, B
 Dream Drama, 4:45 p.m. Sunday, R
 Eno Crime Clues, 8:00 p.m. Tuesday, B
 First Nighter, 10:00 p.m. Friday, R
 Grand Hotel, 6:30 p.m. Sunday, B
 Sherlock Holmes, 9:45 p.m. Sunday, B
 Home on the Range, 9:00 p.m. Wednesday, B
 House of Glass, 8:30 and 11:30 p.m. Wednesday, B
 Lux Program, 2:30 p.m. Sunday, B
 One Man's Family, 8:00 p.m. Wednesday, R
 The O'Neills, 7:30 p.m., Mon., Wed., Fri., C
 Princess Pat Players, 9:30 p.m. Monday, B
 Red Trails, 9:00 p.m. Tuesday, B
 Irene Rich, 8:00 p.m. Friday, B
 Buck Rogers, 6:00 and 7:30 p.m. Mon. to Thurs.,
 Inc., C
 Roses and Drums, 5:00 p.m. Sunday, B
 Sally of the Talkies, 2:00 p.m. Sunday, R
 Six-Gun Justice, 9:00 p.m. Monday, C
 Sooneyland Sketches, 7:00 p.m. Saturday, C
 Tony and Gus, 7:15 and 11:15 p.m. daily, ex. Sat. and
 Sun., B
 True Story Court, 8:30 p.m. Friday, C
 Welcome Valley, 8:30 p.m. Tuesday, B

POPULAR PROGRAMS

A & P Gypsies, 9:00 p.m. Monday, R
 Album Familiar Music, 9:30 p.m. Sunday, R
 American Radiator Musical, 7:30 p.m. Sunday, R

Major Bowes, 11:30 a.m. Sunday; 8:00 p.m. Sunday, R
 California Melodies, 10:30 p.m. Saturday, C
 Cities Service Concert, 8:00 p.m. Friday, R
 Contented Program, 10:00 p.m. Monday, R
 Fleischmann Variety, 8:00 p.m. Thursday, R
 Gibson Family Musical, 10:00 p.m. Sunday, R
 Gulf Headlines, 8:30 p.m. Sunday, C
 Otto Harbach Musical Show, 9:30 p.m. Monday, R
 Hollywood Hotel, 9:00 p.m. Friday, C
 Lilac Time, 10:30 p.m. Monday, C
 Lucky Strike, 8:00 p.m. Saturday, R
 Manhattan Merry-Go-Round, 9:00 p.m. Sunday, R
 Maxwell House Show Boat, 9:00 p.m. Thursday, R
 Mexican Musical Tours, 9:30 p.m. Thursday, B
 Molle Minstrels, 7:30 p.m. Thursday, R
 National Amateur Night, 6:00 p.m. Sunday, C
 National Barn Dance, 9:30 and 11:00 p.m. Saturday, B
 Palmolive Beauty Box, 10:00 p.m. Tuesday, R
 Penthouse Serenade, 3:30 p.m. Sunday, R
 Radio City Party, 9:00 p.m. Saturday, R
 Rhythm Symphony, 5:00 p.m. Sunday, R
 Roadways of Romance, 7:00 p.m. Sunday, C
 Sinclair Minstrels, 9:00 p.m. Monday, B
 Voice of Firestone, 8:30 and 11:30 p.m. Monday, R
 Tony Wons, 5:30 p.m. Sunday, R

SINGERS

Lois Bennett, 10:00 p.m. Sunday, R
 Mario Chamlee, 7:15 and 11:15 p.m. daily, ex. Sat. and
 Sun., B
 Bernice Claire, 8:00 p.m. Tues., C; 9:00 p.m. Friday, R
 Norman Cordon, 10:30 p.m. Wednesday, C
 Bing Crosby, 9:00 p.m. Tuesday, C
 Morton Downey, 8:15 p.m. Friday, B
 Jessica Dragonette, 8:00 p.m. Friday, R
 Mary Eastman, 1:30 p.m. Sunday, C
 Ruth Etting, 8:30 p.m. Friday, B
 Foursome, 8:00 p.m. Wednesday, C
 Wendell Hall, 7:45 and 11:00 p.m. Sunday, R
 Annette Hanshaw, 10:00 p.m. Tuesday; 9:00 and 11:30
 p.m. Thurs., C
 Helen Jepson, 10:00 p.m. Thursday, R
 Al Jolson, 9:30 p.m. Saturday, R
 Lazy Dan, 2:00 p.m. Sunday, C
 Elizabeth Lennox, 8:30 p.m. Wednesday, C
 Everett Marshall, 8:30 p.m. Wednesday, C
 Maxine, 9:30 p.m. Tuesday, C
 James Melton, 9:30 p.m. Monday, R
 Ethel Merman, 8:00 p.m. Sunday, C
 Frank Munn, 9:30 p.m. Sunday; 9:00 p.m. Friday, R;
 8:00 p.m. Tuesday, C
 Gertrude Niesen, 9:30 p.m. Monday, C
 Frank Parker, 7:00 and 11:30 p.m. Sunday, B
 Lanny Ross, 9:00 p.m. Thursday, R
 Sanderson-Crumit, 5:30 p.m. Sunday, C
 Vivienne Segal, 8:30 p.m. Tuesday, C; 9:30 p.m. Sun-
 day, R
 Smilin' Ed McConnell, 6:30 p.m. Sunday, C
 Kate Smith, 8:00 p.m. Thursday, C
 Conrad Thibault, 9:00 p.m. Thurs.; 10:00 p.m. Sun., R
 John Charles Thomas, 9:00 p.m. Wednesday, B

TALKS

Advisory Council, 10:45 p.m. Tuesday, C
 Becker's Dog Chats, 5:45 p.m. Sunday, B
 Boake Carter, 7:45 p.m. daily, except Sat. and Sun., C
 Rev. Charles E. Coughlin, 12:00 mid. Sunday
 Thornton Fisher, 7:45 p.m. Saturday, R
 Floyd Gibbons, 7:30 p.m. Thursday, B
 H. V. Kaltenborn, 6:30 p.m. Friday, C
 Lowell Thomas, 6:45 p.m. daily, except Sat. and
 Sun., B
 Voice of Experience, 6:45 p.m. Sunday; 11:30 p.m.
 Wednesday, C
 Frederic William Wile, 6:00 p.m. Saturday, C
 Walter Winchell, 9:30 and 11:15 p.m. Sunday, B
 World Peace Foundation, 8:15 p.m. Wednesday, C
 Your English, 2:00 p.m. Sunday, B

Radio Reception on the High Sea

●●● By Wolff M. Henius

RADIO reception on the open sea is not always a pleasure. As I write this I am enroute from Los Angeles to Manila, P. I., and will proceed from there to British India via the Dutch East Indies, Singapore and Ceylon.

I am equipped with a Philco 28-C for both a.c. and d.c., 115 volts. Nearly all ships afloat have 220 volts d.c. so a resistor is necessary to reduce the output from the mains. The best I have found is a 330-ohm resistor cord made by the Ohmite Mfg. Co. in Chicago.

Though many contrivances have been manufactured and advertised to eliminate static, I do not believe anything can do it especially in the tropics. Static, however, is not the worst enemy of radio on board ship. This lies in the ship itself, its iron structure, its many electric pumps, exhaustors, generators and especially electric fans. All of these fans are inevitably switched on as soon as the weather gets real hot and their noise

is so intense and constant that any radio reception is impossible.

My aerial consists of about fifty feet of plain copper wire with a direct lead-in to the cabin. The longer the aerial is, the better the reception and likewise the worse the static. A lightning arrester must be used in order to prevent the tubes from being ruined. DX fans should equip themselves with a watch or clock set to Eastern Standard Time. Most programs are listed in EST and tuning is made much easier.

Two or three days out of Los Angeles, I received KFI, KPO, KGO, KNX and KSL very clearly but after that time the noise from the generator became so strong that I only occasionally logged one of these stations after nightfall so that I switched entirely to the s.w. band ranging from four to thirteen megacycles.

We are now off Manila, about 6500 miles away from the Pacific Coast, but I still receive daily either day or night, the following s.w. stations: W8XK on 11.87, 10.75 and 6.14 megs. according to the time; W2XAF, XEBT, CJRX, CJRO, W8XAL and W9XF.

KEY TO SYMBOLS

As Shown in the Index by
Frequencies and Dial Numbers

Frequency is given in kilocycles; wavelength in meters. Night power is shown in watts in third column. Daytime power is shown in parenthesis in fourth column in kilowatts, thus (.25) indicating 250 watts. Some stations outside the United States use a "split frequency." Their exact frequency is shown in fourth column.

Second Column Symbols

- a Verifies reception for return postage.
- b Verifies only occasionally.
- c Does not verify
- d Verification 10c; letter 25c.
- e Sends Ekko stamp for 10c.
- f Sends Ekko stamp for 5c.
- g Sends Ekko stamp for postage.
- h Sends own station stamp for 10c.
- i Sends own station stamp for 5c.
- j Sends own station stamp for postage.
- k Has no stamps.
- m Verifies for 5c.
- n Weather or time only.
- z No information available.

Fourth Column Symbols

- A American Broadcasting System.

- B National "Blue" network.
- C Columbia network.
- D Daytime only.
- Dn Daytime with occasional evening hours.
- F Canadian Radio Brdestg. Commission.
- N National "Red" and "Blue" networks.
- P Has construction permit only.
- R National "Red" network.
- S Sunday only.
- Sy Synchronized.
- X Has permit to increase power.
- Y Has permit to change location.
- Z Has permit to change frequency.
- a-b-c. Small letters show stations using same transmitter.
- 1-2-3. Figures denote stations sharing time
- No information.

INDEX BY FREQUENCIES

540 kilocycles

CJRM ak 1000 F

Moose Jaw, Sask.

550 kilocycles

CFNB ak 1000 F
 KFUV ae 500 2 (1)
 KFYZ ae 1000 N (5)
 KOAC ak 1000
 KSD ak 1000 2R (5)
 KTSA ak 1000 C (5)
 WDEV ae 500 D
 WGR ae 1000 C
 WKRC ak 1000 C (2.5)
 WSWA z 500 DF

Fredericton, N. B.
 St. Louis, Mo.
 Blsmarck, N. D.
 Corvallis, Ore.
 St. Louis, Mo.
 San Antonio, Texas
 Waterbury, Vt.
 Buffalo, N. Y.
 Cincinnati, Ohio
 Staunton, Va.

560 kilocycles

KFDM ak 500 (1)
 KLZ ae 1000 C (2.5)
 KTAB ak 1000
 KWTO ak 5000 D
 TGW ak 10000 565
 WFIL ae 1000 B
 WIND ak 1000 (2.5)
 WNOX ak 1000 C (2)
 WQAM ae 1000 C
 XEAO ak 250 (.15)

Beaumont, Texas
 Denver, Colo.
 San Francisco, Calif.
 Springfield, Mo.
 Guatemala City
 Philadelphia, Pa.
 Gary, Ind.
 Knoxville, Tenn.
 Miami, Fla.
 Mexicali, B. C.

570 kilocycles

KGKO ak 500 C (1)
 KMTR ak 500
 KVI ak 1000
 WKBN ae 500 1C
 WMCA ak 500 A
 WNAK ak 1000 C (5)
 WOSU ak 750 1 (1)
 WSYR ak 250 B
 WWNC ae 1000 N

Wichita Falls, Texas
 Hollywood, Calif.
 Tacoma, Wash.
 Youngstown, Ohio
 New York, N. Y.
 Yankton, S. D.
 Columbus, Ohio
 Syracuse, N. Y.
 Asheville, N. C.

580 kilocycles

CHRC ak 100 F
 CKCL ak 100 F
 CKUA ae 500
 KMJ ak 1000 C
 KSAC ak 500 2 (1)
 WCHS ak 500 (1)
 WDBO ae 1000 C
 WIBW ak 1000 C2 (5)
 WTAG ae 500 R (1)

Quebec, Que.
 Toronto, Ont.
 Edmonton, Alta.
 Fresno, Calif.
 Manhattan, Kans.
 Charleston, W. Va.
 Orlando, Fla.
 Topeka, Kans.
 Worcester, Mass.

590 kilocycles

KHO ak 1000 N (2.5)
 WEEL ak 1000 R
 WKZO ae 1000 D
 WOV ae 1000 R (5)
 XEPN ak 50000

Spokane, Wash.
 Boston, Mass.
 Kalamazoo, Mich.
 Omaha, Neb.
 Piedras Negras, Coah.

600 kilocycles

CFCF ae 400
 CJOR ak 500
 CMW ak 100
 CRCW z 1000 F
 FON z 250 609
 KFSD ae 1000 N
 WCAC ak 500 2
 WCAO ae 500 C (1)
 WICC ae 500 2 C (1)

Montreal, Que.
 Vancouver, B. C.
 Havana, Cuba
 Windsor, Ont.
 St. Pierre, Miquelon
 San Diego, Calif.
 Storrs, Conn.
 Baltimore, Md.
 Bridgeport, Conn.

WMT af 1000 B (2.5)
 WREC ak 1000 C (2.5)

Cedar Rapids, Iowa
 Memphis, Tenn.

610 kilocycles

KFRG ak 1000 C (5)
 KINY z 250 P
 WDAF ak 1000 R (5)
 WIP ae 500 A (1)
 WJAY ae 500
 XFX ak 500

San Francisco, Calif.
 Juneau, Alaska
 Kansas City, Mo.
 Philadelphia, Pa.
 Cleveland, Ohio
 Mexico City, D. F.

620 kilocycles

KGW ak 1000 N (5)
 KTAR ae 1000 N
 WFLA ae 1000 Na
 WHJB ak 250 (.5)
 WLBZ ak 500 C (1)
 WWSN ae 1000 Na (1)
 WTMJ ae 1000 N (5)

Portland, Ore.
 Phoenix, Ariz.
 Clearwater, Fla.
 Greensburg, Pa.
 Bangor, Maine
 St. Petersburg, Fla.
 Milwaukee, Wis.

630 kilocycles

CFGY ae 1000 F
 CJGX ak 500 F
 CKOV ak 100 F
 KFRU ak 500 1 (1)
 KGFX ak 200 D
 WGBF ae 500 1
 WMAL ak 250 B (5)
 WOS ak 500 1D
 WPRO ak 250 A
 XEZ z 500

Char't'w'n, P.E.I.
 Yorkton, Sask.
 Kelowna, B. C.
 Columbia, Mo.
 Pierre, S. D.
 Evansville, Ind.
 Washington, D. C.
 Jefferson City, Mo.
 Providence, R. I.
 Merida, Yuc.

640 kilocycles

CMBY z 125
 KFI ak 50000 N
 WAJU ae 500
 WOI ae 5000 D
 XEOX ak 250

Havana, Cuba
 Los Angeles, Calif.
 Columbus, Ohio
 Ames, Iowa
 Saltillo, Coah.

650 kilocycles

WSM ae 50000 N

Nashville, Tenn.

660 kilocycles

CMCX z 250
 WAAW ak 500 D
 WEAJ ak 50000 R

Havana, Cuba
 Omaha, Neb.
 New York, N. Y.

670 kilocycles

WMAQ ck 50000 N

Chicago, Ill.

680 kilocycles

CMCQ z 250
 KFEQ ae 2500 D
 KPO ak 50000 N
 VAS akn 2000 685
 VQWR ck 500 681
 WPTF ae 1000 DnN (5)

Havana, Cuba
 St. Joseph, Mo.
 San Francisco, Calif.
 Glace Bay, N. S.
 St. John's, Nfld.
 Raleigh, N. C.

690 kilocycles

CFRB ae 10000 C
 CJCJ ak 100 F
 NAA akn 1000
 XET ck 500

Toronto, Ont.
 Calgary, Alta.
 Arlington, Va.
 Monterey, N. L.

700 kilocycles

RDN z 500 706
 WLW ak 50000 N

San Salvador, E. S.
 Cincinnati, Ohio

INDEX BY FREQUENCIES

710 kilocycles

KMPC ae 500
 KPGB ae 250
 WOR ak 50000
 XEN ak 1000 711

Beverly Hills, Calif
 Seattle, Wash.
 Newark, N. J.
 Mexico City, D. F.

720 kilocycles

WGN ck 50000

Chicago, Ill.

730 kilocycles

CFPL ak 100 F
 CJCA ah 1000 F
 CKAC ak 5000 C
 CMAF ak 250
 XEBC ak 5000

London, Ont.
 Edmonton, Alta.
 Montreal, Que.
 Havana, Cuba
 Agua Caliente, L. C.

740 kilocycles

KMMJ ae 1000 D
 KTRB ak 250 D
 WHEB ak 250 D
 WSB ah 50000 N
 XELC z 100

Clay Center, Neb.
 Modesto, Calif.
 Portsmouth, N. H.
 Atlanta, Ga.
 Mexico City, D. F.

750 kilocycles

CMCW dk 117
 KGU aj 2500 N
 WJR ak 10000 B

Havana, Cuba
 Honolulu, T. H.
 Detroit, Mich.

760 kilocycles

CMJK ak 150
 KXA ae 250 (.5)
 WBAL ae 10000 BSy
 WEW ae 1000 D
 WJZ ck 50000 BSy
 XEOK z 2500 765

Camaguey, Cuba
 Seattle, Wash.
 Baltimore, Md.
 St. Louis, Mo.
 New York, N. Y.
 Tijuana, L. C.

770 kilocycles

CMBS ak 130
 KFAB ae 10000 CSy
 WBBM ae 50000 CSy

Havana, Cuba
 Lincoln, Neb.
 Chicago, Ill.

780 kilocycles

CHWK ak 100 F
 CKSO z 1000 F
 KELW ae 500 2
 KFDY ae 1000 D
 KFQD ck 250
 KGHL ak 1000 N (2.5)
 KTM ak 500 2 (1)
 WEAN ae 500 C
 WMC aj 1000 N (2.5)
 WTAR ae 500 N (1)
 XEYZ z 10000

Chilliwack, B. C.
 Sudbury, Ont.
 Burbank, Calif.
 Brookings, S. D.
 Anchorage, Alaska
 Billings, Mont.
 Los Angeles, Calif.
 Providence, R. I.
 Memphis, Tenn.
 Norfolk, Va.
 Mexico City, D. F.

790 kilocycles

CMOA z 72
 KGO ak 7500 N
 WGY ak 50000 R

Havana, Cuba
 San Francisco, Calif.
 Schenectady, N. Y.

800 kilocycles

WBAP ak 50000 Na
 WFAA ak 50000 Na
 WTBO ae 250 D

Fort Worth, Tex.
 Dallas, Tex.
 Cumberland, Md.

810 kilocycles

CMCF ak 250 815
 CMHW z 100
 WCCO ae 50000 C
 WNYC ak 1000 N
 XFC z 350

Havana, Cuba
 Cienfuegos, Cuba
 Minneapolis, Minn.
 New York, N. Y.
 Aguascalientes, Ags.

820 kilocycles

WHAS aj 50000 C
 XETW dk 500

Louisville, Ky.
 Mexico City, D. F.

830 kilocycles

CMC ae 500 835
 KOA ak 50000 N
 WEEU ak 1000 D
 WHDH ae 1000 Dn A
 WRUF ae 5000 Dn

Havana, Cuba
 Denver, Colo.
 Reading, Pa.
 Boston, Mass.
 Gainesville, Fla.

840 kilocycles

CFOC ak 1000 F
 CMQ z 500
 CRCT ak 5000 F
 VOGY ak 400
 XEP z 500
 XEXX z 500 845

Saskatoon, Sask.
 Havana, Cuba
 Toronto, Ont.
 St. John's, Nfld.
 Mexico City, D. F.
 Mexico City, D. F.

850 kilocycles

KIEV aj 250 D
 TIEP z 500
 WESG ak 1000
 WWL ae 10000
 WWPA z 250 DP

Glendale, Calif.
 San Jose, C. R.
 Elmira, N. Y.
 New Orleans, La.
 Clarton, Pa.

860 kilocycles

WABC ae 50000 C
 WHB ae 1000 D
 XEMO ak 2500 865

New York, N. Y.
 Kansas City, Mo.
 Tijuana, B. C.

870 kilocycles

WENR ak 50000 Na
 WLS ae 50000 Na

Chicago, Ill.
 Chicago, Ill.

880 kilocycles

CFJC ak 100 F
 CRGO ak 1000 F
 KFKA ak 500 2 (1)
 KXL ae 1000
 KPof ak 500 2
 WCOC ae 500 (1)
 WGBI ae 500 1
 WPHR z 500 D
 WOAN ae 250 1
 WSUI ae 500 (1)

Kamloops, B. C.
 Ottawa, Ont.
 Greeley, Colo.
 Oakland, Calif.
 Denver, Colo.
 Meridian, Miss.
 Scranton, Pa.
 Petersburg, Va.
 Scranton, Pa.
 Iowa City, Iowa

890 kilocycles

CJIC z 100 D
 KARK ak 250 (.5)
 KFNF ak 500 2 (1)
 KSEI ck 250 (.5)
 KUSD ak 500 2
 WBAA ak 1000 D
 WILL ak 1000
 WGST aeh 250 C (1)
 WJAR ae 500 R
 WMMN ae 500 (1)
 XEW ak 50000

S. Sté. Marie, Ont.
 Little Rock, Ark.
 Shenandoah, Iowa
 Pocatello, Idaho
 Vermillion, S. D.
 W. Lafayette, Ind.
 Urbana, Ill.
 Atlanta, Ga.
 Providence, R. I.
 Fairmont, W. Va.
 Mexico City, D. F.

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900 kilocycles

KGBU ak 500
 KHJ ae 1000 C (5)
 WBEN ae 1000 R
 WFMD z 500 DP
 WJAX aeh 1000 N
 WKY ae 1000 N
 WLBL ak 2500 D
 WMFI z 500 DP
 WTAD ak 500 D

Ketchikan, Alaska
 Los Angeles, Calif.
 Buffalo, N. Y.
 Frederick, Md.
 Jacksonville, Fla.
 Oklahoma City, Ok.
 Stevens Point, Wis.
 New Haven, Conn.
 Quincy, Ill.

910 kilocycles

CJAT ak 250 F
 CRCM ak 5000 F
 XENT ck 60000

Trail, B. C.
 Montreal, Que.
 Nuevo Laredo, Tams.

920 kilocycles

CMX ae 650
 HHK ae 1000
 KFEL ak 500 2
 KOMO ak 1000 N
 KPRC ae 1000 N (5)
 KQVD ak 500 2
 WAAF ak 500 D
 WBSO ae 500 D
 WPEN ak 250 (.5) 1
 WRAX ak 250 1 (.5)
 WSPA ae 1000 D
 WWJ ak 1000 R
 XEAA z 200
 XEFE z 250

Havana, Cuba
 Port-au-Prince, Haiti
 Denver, Colo.
 Seattle, Wash.
 Houston, Texas
 Denver, Colo.
 Chicago, Ill.
 Babson Park, Mass.
 Philadelphia, Pa.
 Philadelphia, Pa.
 Spartanburg, S. C.
 Detroit, Mich.
 Mexicali, B. C.
 Nuevo Laredo, Tams.

930 kilocycles

CFAC ak 100 F
 CFCH ak 100 F
 CFLC ae 100
 CHNS ae 1000 F
 CKPC ae 100 F
 CKPR ak 100 F
 KGBZ ak 1000 2 (2.5)
 KMA ak 1000 2 (2.5)
 KROW ak 500 (1)
 TIRH z 50
 WBRC ak 100 C
 WDBJ ae 1000 C

Calgary, Alta.
 North Bay, Ont.
 Prescott, Ont.
 Halifax, N. S.
 Brantford, Ont.
 Fort William, Ont.
 York, Neb.
 Shenandoah, Iowa
 Oakland, Calif.
 San Jose, C. R.
 Birmingham, Ala.
 Roanoke, Va.

940 kilocycles

CMBC de 195
 CMKM z 100
 KOIN ak 1000 C (5)
 VOAS ak 100
 WAAT ae 500 D
 WAVE ak 1000 N
 WGSY ae 1000 R (2.5)
 WDAY ae 1000 N (5)
 WHA ak 2500 D
 XEFO ak 5000

Havana, Cuba
 Manzanillo, Cuba
 Portland, Ore.
 St. John's, Nfld.
 Jersey City, N. J.
 Louisville, Ky.
 Portland, Maine
 Fargo, N. D.
 Madison, Wis.
 Mexico City, D. F.

950 kilocycles

CRCS ak 100 F
 KFWS ak 1000 (2.5)
 KHSL z 250 DP (5)
 KMBC ae 1000 C
 VONF ak 5000
 WRC ae 500 R (1)

Chicoutimi, Que.
 Hollywood, Calif.
 Chico, Calif.
 Kansas City, Mo.
 St. John's, Nfld.
 Washington, D. C.

960 kilocycles

CKY ak 15000 F
 CMCD ah 180
 CMJL z 50
 XEAM z 50
 XEAW ak 10000

Winnipeg, Man.
 Havana, Cuba
 Camaguey, Cuba
 Nuevo Laredo, Tams.
 Reynosa, Tams.

970 kilocycles

KJR z 5000 N
 WCFL ae 1500 B
 WIBG ak 100 D

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

980 kilocycles

KDKA bk 50000 B

Pittsburgh, Pa.

990 kilocycles

WBZ ak 50000 BSy
 WBZA ak 1000 BSy
 XEK ak 100
 XES dk 250

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

1000 kilocycles

CMBZ ak 120
 KFVD ak 250 Dn
 TIGH z 500
 WHO ak 50000 R

Havana, Cuba
 Los Angeles, Calif.
 San Jose, C. R.
 Des Moines, Iowa

1010 kilocycles

CHML aei 50 F
 CHWC ak 500 3F
 CKCD ak 100
 CKCK ak 500 3F
 CKCO z 100
 CKIK ak 50
 CKWX ak 100 F
 CMJG z 50
 KGGF ak 1000 2
 KQW ae 1000
 TIGA z 30 1014
 WHN ae 1000
 WIS ae 1000 N (2.5)
 WNAD ae 1000 2 (1)
 XEAF z 250
 XEU ak 250

Hamilton, Ont.
 Regina, Sask.
 Vancouver, B. C.
 Regina, Sask.
 Ottawa, Ont.
 Wolfville, N. S.
 Vancouver, B. C.
 Camaguey, Cuba
 Coffeyville, Kans.
 San Jose, Calif.
 Cartago, C. R.
 New York, N. Y.
 Columbia, S. C.
 Norman, Okla.
 Nogales, Sonora
 Veracruz, Ver.

1020 kilocycles

KYW ak 10000 R
 XEJ ak 1250

Philadelphia, Pa.
 Juarez, Chih.

1030 kilocycles

CFCN ak 10000 F
 CKLW ae 5000 C
 CMCY ak 1000
 XEB ak 10000

Calgary, Alta.
 Windsor, Ont.
 Havana, Cuba
 Mexico City, D. F.

1040 kilocycles

CMGH ak 15
 KRLL ae 1000 C
 KWJJ ak 500
 WKAR ak 1000 D
 WTIC ak 50000 R

Matanzas, Cuba
 Dallas, Texas
 Portland, Ore.
 East Lansing, Mich.
 Hartford, Conn.

1050 kilocycles

CFCO ak 100 F
 CRCK z 1000 F
 KFBI ak 5000 Dn
 KNX ak 50000
 TIFA z 75

Chatham, Ont.
 Quebec, Que.
 Abilene, Kans.
 Hollywood, Calif.
 San Jose, C. R.

1060 kilocycles

CMK ae 1500
 KTHS ae 10000 N
 VOAC z 40 1065
 WBAL ae 10000 B
 WJAG ak 1000 D
 XEA ak 125

Havana, Cuba
 Hot Springs, Ark.
 St. John's, Nfld.
 Baltimore, Md.
 Norfolk, Neb.
 Guadalajara, Jal.

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1070 kilocycles

CMHA z 50
 KJBS ak 500 Dn
 WCAZ dk 100 D
 WDZ ak 100 D
 WTAM ck 50000 R

Sagua la Grande, C.
 San Francisco, Calif.
 Carthage, Ill.
 Tuscola, Ill.
 Cleveland, Ohio

1080 kilocycles

WBT ae 50000 C
 WCBD ak 5000 1Dny
 WMBI ae 5000 1Dn
 XEMA z 50
 Charlotte, N. C.
 Waukegan, Ill.
 Chicago, Ill.
 Tampico, Tams.

Charlotte, N. C.
 Waukegan, Ill.
 Chicago, Ill.
 Tampico, Tams.

1090 kilocycles

KMOX ak 50000 C

St. Louis, Mo.

1100 kilocycles

CRCV ak 1000 F
 KGDH ak 1000 D
 KWKH ae 10000 C
 TIRC ak 75
 WLWL ae 5000 i
 WPG ak 5000 1C
 XEFG ak 250 1105

Vancouver, B. C.
 Stockton, Calif.
 Shreveport, La.
 San Jose, C. R.
 New York, N. Y.
 Atlantic City, N. J.
 Mexico City, D. F.

1110 kilocycles

CMCO z 150
 KSOO ak 2500 Dn
 WRVA ae 5000 N
 XELO z 10000
 Havana, Cuba
 Sioux Falls, S. D.
 Richmond, Va.
 Piedras Negras, Co.

Havana, Cuba
 Sioux Falls, S. D.
 Richmond, Va.
 Piedras Negras, Co.

1120 kilocycles

CHLP z 100
 CHSJ ae 100 F
 CKOC ak 500 F (1)
 CKX ak 100 F
 CMGF ak 100
 KFIO ak 100 D
 KFSG ag 1000 a
 KRKD ae 1000 a (2.5)
 KRSC ck 100 D
 WDEL ak 250 (.5)
 WISN ak 250 (1)
 WMFH z 500 DP
 WTAW ae 500
 Montreal, Que.
 St. John, N. B.
 Hamilton, Ont.
 Brandon, Man.
 Matanzas, Cuba
 Spokane, Wash.
 Los Angeles, Calif.
 Los Angeles, Calif.
 Seattle, Wash.
 Wilmington, Del.
 Milwaukee, Wis.
 Boston, Mass.
 College Station, Tex.

Montreal, Que.
 St. John, N. B.
 Hamilton, Ont.
 Brandon, Man.
 Matanzas, Cuba
 Spokane, Wash.
 Los Angeles, Calif.
 Los Angeles, Calif.
 Seattle, Wash.
 Wilmington, Del.
 Milwaukee, Wis.
 Boston, Mass.
 College Station, Tex.

1130 kilocycles

CMJI ak 45
 KSL ae 50000 C
 WJJD ak 20000 Dn
 WOV ag 1000 D
 Ciego de Avila, Cuba
 Salt Lake City, Utah
 Chicago, Ill.
 New York, N. Y.

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

1140 kilocycles

CMBG z 325
 KVOO ak 25000 1N
 WAPI ae 5000 1N
 Havana, Cuba
 Tulsa, Okla.
 Birmingham, Ala.

Havana, Cuba
 Tulsa, Okla.
 Birmingham, Ala.

1150 kilocycles

CMJF z 200
 WHAM ae 50000 B
 XEH ak 250
 XEWZ z 100
 Camaguey, Cuba
 Rochester, N. Y.
 Monterrey, N. L.
 Mexico City, D. F.

Camaguey, Cuba
 Rochester, N. Y.
 Monterrey, N. L.
 Mexico City, D. F.

1160 kilocycles

WOWO ae 10000 1C

Fort Wayne, Ind.

WWVA ak 5000 1C
 XED ck 500
 XEFL z 5000 P

Wheeling, W. Va.
 Guadalajara, Jal.
 Tijuana, B. C.

1170 kilocycles

CMBD z 163
 WCAU ae 50000 C

Havana, Cuba
 Philadelphia, Pa.

1180 kilocycles

CMJO ak 50
 KEX ak 5000 2N
 KOB ae 10000 2
 VE9EK ak 10 1185
 WDGY ak 1000 D (5)
 WINS ae 1000
 WMAZ ak 1000
 XEFA z 500
 Ciego de Avila, Cuba
 Portland, Ore.
 Albuquerque, N. M.
 Montmagny, Que.
 Minneapolis, Minn.
 New York, N. Y.
 Macon, Ga.
 Mexico City, D. F.

Ciego de Avila, Cuba
 Portland, Ore.
 Albuquerque, N. M.
 Montmagny, Que.
 Minneapolis, Minn.
 New York, N. Y.
 Macon, Ga.
 Mexico City, D. F.

1190 kilocycles

HIJ z 15 1195
 WATR ak 100 D
 WOAI ak 50000 N
 WSAZ ak 1000
 Santo Domingo, D. R.
 Waterbury, Conn.
 San Antonio, Texas.
 Huntington, W. Va.

Santo Domingo, D. R.
 Waterbury, Conn.
 San Antonio, Texas.
 Huntington, W. Va.

1200 kilocycles

CHAB ak 100 F
 CKTB ak 100 F
 CMCJ ak 500
 KADA ak 100 D
 KBTM ak 100 D
 KFJB ak 100 (.25)
 KFXD ae 100 (.25)
 KFXJ ak 100 (.25)
 KGDE ak 100 (.25)
 KGEK ak 100
 KGFJ ae 100
 KGHI ak 100 (.25)
 KMLB ak 100
 KOOS ae 250 D
 KSUN ck 100 D
 KVOS ak 100
 KWG ak 100 C
 WABI ak 100
 WAIM z 100
 WBBZ ak 100
 WBNO ck 100 1
 WCAT ak 100 D
 WCAX ak 100
 WCLO ak 100
 WFAM ak 100
 WFBE ak 100 8
 WBHC ak 100 (.25)
 WBHY ak 100 2
 WIBX ak 100 (.25)
 WIL ak 100 (.3) C
 WJBC ak 100 (.25)
 WJBL ae 100 6
 WJBW ak 100 1
 WKBO ak 100 3 (.25)
 WKJC ae 100 3 (.25)
 WLVA ak 100 (.25)
 WMPC ak 100 (.25)
 WRBL ak 100
 WWAE ae 100 8
 10-AK ak 15
 10-BP ak 25
 z 100 PD

Moose Jaw, Sask.
 St. Catharines, Ont.
 Havana, Cuba
 Ada, Okla.
 Jonesboro, Ark.
 Marshalltown, Iowa
 Nampa, Idaho
 Grand Junction, Col.
 Fergus Falls, Minn.
 Sterling, Colo.
 Los Angeles, Calif.
 Little Rock, Ark.
 Monroe, La.
 Marshfield, Ore.
 Lowell, Ariz.
 Bellingham, Wash
 Stockton, Calif.
 Bangor, Maine
 Anderson, S. C.
 Ponca City, Okla.
 New Orleans, La.
 Rapid City, S. D.
 Burlington, Vt.
 Janesville, Wis.
 South Bend, Ind.
 Cincinnati, Ohio
 Canton, Ohio
 Green Bay, Wis.
 Utica, N. Y.
 St. Louis, Mo.
 Bloomington, Ill.
 Decatur, Ill.
 New Orleans, La.
 Harrisburg, Pa.
 Lancaster, Pa.
 Lynchburg, Va.
 Lapeer, Mich.
 Columbus, Ga.
 Hammond, Ind.
 Stratford, Ont.
 Wingham, Ont.
 High Point, N. C.

1210 kilocycles

CHNC ak 100 F
 CJCZ z 50
 CKBI ak 100 F
 CKCH ak 100 F
 CKMC ak 50
 New Carlisle, Que.
 Aklavik, N. W. T.
 Prince Albert, Sask.
 Hull, Que.
 Cobalt, Ont.

New Carlisle, Que.
 Aklavik, N. W. T.
 Prince Albert, Sask.
 Hull, Que.
 Cobalt, Ont.

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<p>CMHI ak 150 KASA ck 100 KDRLR ak 100 KFJI ak 100 KFOR ak 100 (.25)C KFPW ak 100 KFVS ae 100 6 (.25) KFXXM ak 100 9 KGY ak 100 KIEM ak 100 KIUL z 100 P KPCC ak 50 9 KVSO z 100 DP KWEA z 100 KWTN ak 100 WALR ak 100 WBAX ae 100 1 WBBL ak 100 S WBRB ak 100 3 WCBS ak 100 WCOL ak 100 WCRW ae 100 4 WEBQ ae 100 6 (.25) WEDC ae 100 4 WFAS ak 100 3 WGBB ae 100 3 WGCN ae 100 (.25) WGNV ak 100 3 WHBF ak 100 (.25) WHBU ak 100 (.25) WIBU ak 100 (.25) WJBY ak 100 WJEL ah 100 D WJIM z 100 (.25) WJW ak 100 WKOK ak 100 1 WMBG ak 100 C (.25) WMFG z 100 P WMFN z 100 P WOCL ak 50 WOMT ae 100 WPAX ae 100 D WSEC ae 100 4 WSIX ak 100 WSOC ak 100 N (.25) WTAX ak 100 XEE z 50 XEFV ak 100 XETH ak 100</p>	<p>Santa Clara, Cuba Elk City, Okla. Devils Lake, N. D. Klamath Falls, Ore. Lincoln, Neb. Fort Smith, Ark. Cape Girardeau, Mo. San Bernardino, Cal. Olympia, Wash. Eureka, Calif. Garden City, Kans. Pasadena, Calif. Ardmore, Okla. Shreveport, La. Watertown, S. D. Zanesville, Ohio Wilkes Barre, Pa. Richmond, Va. Red Bank, N. J. Springfield, Ill. Columbus, Ohio Chicago, Ill. Harrisburg, Ill. Chicago, Ill. White Plains, N. Y. Freeport, N. Y. Mississippi City Chester, N. Y. Rock Island, Ill. Anderson, Ind. Poynette, Wis. Gadsden, Ala. Hagerstown, Md. Lansing, Mich. Akron, Ohio Sunbury, Pa. Richmond, Va. Hibbing, Minn. Clarksdale, Miss. Jamestown, N. Y. Manitowisc, Wis. Thomasville, Ga. Chicago, Ill. Springfield, Tenn. Charlotte, N. C. Springfield, Ill. Durango, Dgo. Juarez, Chih. Puebla, Pue.</p>	<p>WXYZ ak 1000 XEAI z 100 XEKL z 500 XELA z 50</p>
1250 kilocycles		
<p>CMCG z 162 | 1255 CMKC z 150 KFOF ae 1000 WCAL ah 1000 2 (2.5) WDSU ak 1000 C WHBI ak 1000 a (2.5) WLB ak 1000 2 WNEW ae 1000 a (2.5) WTCN ak 1000 2 (5)</p>	<p>Havana, Cuba Santiago, Cuba Long Beach, Calif. Northfield, Minn. New Orleans, La. Newark, N. J. Minneapolis, Minn. Newark, N. J. Minneapolis, Minn.</p>	
1260 kilocycles		
<p>CFRN ak 100 KGVQ ak 1000 KOIL ak 1000 B (2.5) KPAC ak 500 D KRGV ak 500 KUOA ak 1000 D KWOA ak 500 WHIO ae 1000 R WNBX ak 1000 D WTOC ae 1000 C</p>	<p>Edmonton, Alta. Missoula, Mont. Council Bluffs, Iowa Port Arthur, Texas Weslaco, Texas Fayetteville, Ark. Tucson, Ariz Dayton, Ohio Springfield, Vt. Savannah, Ga.</p>	
1270 kilocycles		
<p>CMCP z 150 CMHD dk 250 HIX ak 1000 KGGA ak 100 2D KOL ae 1000 C (2.5) KVOR ae 1000 C KWLC ak 100 2D WASH ak 500 a WFRB ae 500 R WJDX ae 1000 N (2.5) WOOD ak 500 a XEG z 500 XFB ak 1000</p>	<p>Havana, Cuba Caibarien, Cuba Santo Domingo, D.R. Decorah, Iowa Seattle, Wash. Colorado Spgs., Colo. Decorah, Iowa Grand Rapids, Mich. Baltimore, Md. Jackson, Miss. Grand Rapids, Mich. Ensenada, B. C. Jalapa, Ver.</p>	
1280 kilocycles		
<p>KFBB ae 1000 (2.5) WCAM ae 500 1 WCAP ae 500 1 WDOD ae 1000 C (5) WIBA ae 1000 N WORC ak 500 C WRRR ak 500 WTNJ ak 500 1 A XEMX z 12</p>	<p>Great Falls, Mont. Camden, N. J. Asbury Park, N. J. Chattanooga, Tenn. Madison, Wis. Worcester, Mass. Dallas, Texas Trenton, N. J. Mexico City, D. F.</p>	
1290 kilocycles		
<p>KDYL ak 1000 N KLCN z 100 D KTRH ak 500 C (5) WNBC ae 1000 N (2.5) WJAS ak 1000 C (2.5) WNEZ z 100 D WNEL ak 500</p>	<p>Salt Lake City, Utah Blytheville, Ark. Houston, Texas Superior, Wis. Pittsburgh, Pa. Saranac Lake, N. Y. San Juan, P. R.</p>	
1300 kilocycles		
<p>CMKJ z 20 HIZ z 10 KALE ak 500 3C KFAC ak 1000 KFPI ak 1000 C2 KFJR ag 500 3 WBBR ae 1000 1 WEVD ak 1000 1 WFAB ae 1000 1 WFBC ak 1000 (5)</p>	<p>Guantanamo, Cuba Santo Domingo, D.R. Portland, Ore. Los Angeles, Calif. Wichita, Kans. Portland, Ore. Brooklyn, N. Y. New York, N. Y. New York, N. Y. Greenville, S. C.</p>	
<p>CMJE z 50 KFKU ae 1000 a KTW ak 1000 S2 KWSC ae 1000 2 (5) WCAD ak 500 D WCAE ak 1000 R WDAE ae 1000 C (2.5) WREN ak 1000 Ba (5) XETF z 12</p>	<p>Camaguey, Cuba Lawrence, Kas. Seattle, Wash. Pullman, Wash. Canton, N. Y. Pittsburgh, Pa. Tampa, Fla. Lawrence, Kas. Veracruz, Ver.</p>	
1230 kilocycles		
<p>CJOC ak 100 F CMCB ak 112 KGBX ak 500 KGGM ak 250 (.5) KYA ae 1000 N WFBM ae 1000 C WNAC ak 1000 C (2.5) XEFJ ak 100</p>	<p>Lethbridge, Alta. Havana, Cuba Springfield, Mo. Albuquerque, N. M. San Francisco, Calif. Indianapolis, Ind. Boston, Mass. Monterrey, N. L.</p>	
1240 kilocycles		
<p>CJCB ak 1000 F CMHB z 30 KCCU ak 250 1 KLPM ak 250 1 KTAT ak 1000 C KTFI ae 1000 WKAQ ae 1000</p>	<p>Sydney, N. S. San Spiritus, Cuba Mandan, N. D. Minot, N. D. Fort Worth, Texas Twin Falls, Idaho San Juan, P. R.</p>	

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WHAZ ae 500 1
WIOD ae 1000 N

Troy, N. Y.
Miami, Fla.

WDRC ae 1000 C (2.5)
WSAI ak 1000 R (2.5)
WTAQ ae 1000 1

Hartford, Conn.
Cincinnati, Ohio
Eau Claire, Wis.

1310 kilocycles

CHCK ak 50
CJLJ z 100
CJLS z 100
CKCV ak 50 F
KCRJ ak 100 D
KFBK ak 100 C
KFPL dkh 100 (.25)
KFXR ak 100 (.25)
KFYO ak 100 (.25)
KGCX ak 100 (.25)
KGEZ aj 100
KGFV ak 100
KIT ak 100 (.25)
KIUV z 100
KMED ck 100 (.25)
KRMD ak 100
KROC z 100 P
KTSM ak 100
KXRO ak 100
WAML ak 100
WBEO ae 100
WBOW ak 100
WBRE ak 100
WCLS z 100
WCMI z 100 DP
WDAH ak 100 S
WEBR ae 100 (.25)
WEXL ak 50
WFBG ae 100 3
WDFD am 100
WGH ae 100 (.25)
WHAT ak 100 4
WJAC ae 100 3
WLBC ak 50 D (.1)
WLNH ak 100 6
WMBO ak 100
WMFF z 100 D
WNBH ae 100 (.25) C
WOL ae 100 (.25) A
WRAW ak 100
WROL ak 100
WSAJ ae 100
WSGN ak 100 (.25)
WSJS ak 100 C
WTAL z 100 P
WTSL ah 100 4
WTJS ak 100 (.25)
WTRC ak 50 6 (.1)
XEAJ z 15
XEC z 50
XECW z 10
XEFK ak 100
XEFW ak 250
XELM z 15
XETB z 125
XEX ak 125
..... z 100 P

Charlottetown, P.E.I.
Kirkland Lake, Ont
Yarmouth, N. S.
Quebec, Que.
Jerome, Ariz.
Sacramento, Calif.
Dublin, Texas
Oklahoma City, Ok.
Lubbock, Texas
Wolf Point, Mont.
KallsPELL, Mont.
Kearney, Neb.
Yakima, Wash.
Santa Fe, N. Mex.
Medford, Ore.
Shreveport, La.
Rochester, Minn.
El Paso, Texas
Aberdeen, Wash.
Laurel, Miss.
Marquette, Mich.
Terre Haute, Ind.
Wilkes Barre, Pa.
Joliet, Ill.
Ashland, Ky.
El Paso, Texas
Buffalo, N. Y.
Royal Oak, Mich.
Altoona, Pa.
Flint, Mich.
Newport News, Va.
Philadelphia, Pa.
Johnstown, Pa.
Muncie, Ind.
Laconia, N. H.
Auburn, N. Y.
Plattsburg, N. Y.
New Bedford, Mass.
Washington, D. C.
Reading, Pa.
Knoxville, Tenn.
Grove City, Pa.
Birmingham, Ala.
Winston-Salem, N.C.
Tallahassee, Fla.
Philadelphia, Pa.
Jackson, Tenn.
Elkhart, Ind.
Cazaca, Camp.
Tijuana, B. C.
Mexico City, D. F.
Merida, Yuc.
Tampico, Tams.
Mineral del Monte
Torreon, Coah.
Monterrey, N. L.
Lafayette, La.

1340 kilocycles

KFPY ak 1000 C
KGDY ak 250 D
KGNQ ak 250
WCOA ak 500 C
WFEA ae 500 C (1)
WSPD ae 1000 C (2.5)
XFD z 250
.....

Spokane, Wash.
Huron, S. D.
Dodge City, Kans.
Pensacola, Fla.
Manchester, N. H.
Toledo, Ohio
Orizaba, Ver.

1350 kilocycles

CMCA z 435
KIDO ak 1000 (2.5)
KWK ak 1000 B (5)
WAWZ ae 500 1 (1)
WBNX ae 250 1

Havana, Cuba
Boise, Idaho
St. Louis, Mo.
Zarephath, N. J.
New York, N. Y.

1360 kilocycles

CMJH ak 50
KGER ak 1000
KGRJ ak 1000 N (2.5)
WCSC ae 500 (1)
WFBL ak 1000 C (5)
WGES ae 500 1
WQBC ak 1000 D
WSBT ak 500 1

Ciego de Avila, Cuba
Long Beach, Calif.
Butte, Mont.
Charleston, S. C.
Syracuse, N. Y.
Chicago, Ill.
Vicksburg, Miss.
South Bend, Ind.

1370 kilocycles

CKCW z 100 F
CMGE z 30
KAST z 100 DP
KCRG ak 100 2 (.25)
KELD z 100 P
KERN ak 100
KFGQ ak 100
KFJM ak 100 (.25)
KFJZ ae 100
KFRQ z 100 D
KGAR z ae 100 (2.5)
KGFG bk 100 2
KGLF ak 100 4
KGKL ak 100 (.25)
KICA ak 100 4
KLUF z 100 (.25)
KMAC ak 100 5
KONO ak 100 5
KRE ak 100 (.25)
KRKO ak 50 1
KSLM z 100
KUJ ak 100
KVL ak 100 1
KWKC z 100
KWYO ak 100
WABY ak 100 A
WAGF ak 100 (.25)
WBTM ak 100 (.25)
WCBM ae 100 (.25) A
WDAS ae 100 (.25)
WGL ak 100 C
WHBO ak 100
WHDF ak 100 (.25)
WIBM ak 100 (.25)
WJTL ae 100
WLLH ae 100 (.25)
WMBR ak 100 C
WMFD z 100 DP
WMFO z 100 DP
WOC z 100 C (2.5)
WPA Y ak 100
WPFB ak 100
WQDM ae 100 D
WRAK ak 100 (.25)

Moncton, N. B.
Cardenas, Cuba
Astoria, Ore.
Enid, Okla.
El Dorado, Ark.
Bakersfield, Calif.
Boone, Iowa
Grand Forks, N. D.
Fort Worth, Texas
Longview, Texas
Tucson, Ariz.
Oklahoma City, Ok.
Roswell, N. M.
Clovis, N. M.
Galveston, Texas
San Antonio, Texas
San Antonio, Texas
Berkeley, Calif.
Everett, Wash.
Salem, Ore.
Walla Walla, Wash.
Seattle, Wash.
Kansas City, Mo.
Sheridan, Wyo.
Albany, N. Y.
Dothan, Ala.
Danville, Va.
Baltimore, Md.
Philadelphia, Pa.
Fort Wayne, Ind.
Memphis, Tenn.
Calumet, Mich.
Jackson, Mich.
Atlanta, Ga.
Lowell, Mass.
Jacksonville, Fla.
Wilmington, N. C.
Decatur, Ala.
Davenport, Iowa
Portsmouth, Ohio
Hattiesburg, Miss.
St. Albans, Vt.
Williamsport, Pa.

1320 kilocycles

CMCK z 100 P
CMOX z 250
KGHF ak 500
KGM B ak 250 C
KID ae 250 (.5)
KRNT ak 500 C (1)
WADC ae 1000 C (2.5)
WORK ak 1000
WSMB ak 1000 N

Havana, Cuba
Havana, Cuba
Pueblo, Colo.
Honolulu, T. H.
Idaho Falls, Idaho
Des Moines, Iowa
Akron, Ohio
York, Pa.
New Orleans, La.

1330 kilocycles

CMHK z 250
KGB ag 1000 C (2.5)
KMO ak 250
KSCJ aj 1000 1C (2.5)

Cruces, Cuba
San Diego, Calif.
Tacoma, Wash.
Stour City, Iowa

INDEX BY FREQUENCIES

WRDO ae 100
 WRJN ak 100
 WSVS ak 50 D
 XEFZ ae 100
 XEJ ak 125
 XEZZ z 100

1380 kilocycles

CMBX ak 171
 CMJC z 150
 KOH ak 500 C
 KOV ak 500 2
 WALA ae 500 C (1)
 WKBH ae 1000
 WMFE z 250 PD
 WSMK ak 200 C

1390 kilocycles

CJRC ck 100 F
 HIIH ak 15 1395
 KLRA ae 1000 C (2.5)
 KOY ae 500 (1)
 WHK ae 1000 C (2.5)

1400 kilocycles

CMGC z 100
 KLO ae 500 C
 KTUL ak 500 C (1)
 TGX ak 150
 WARD ak 500 2
 WBBC ae 500 2 (1)
 WIRE ae 500 R (1)
 WLTH ak 500 2
 WVFW ak 500 2

1410 kilocycles

CKFC ak 50 5
 CKMO ag 100 5F
 CMCR z 122
 KGRS ae 1000 1 (2.5)
 WAAB ak 500 C
 WBCM ae 500
 WDAG ae 1000 1 (2.5)
 WHBL ae 500 4
 WHIS ak 250 2 (5)
 WRBX ae 250 2 (5)
 WROK ak 500 4
 WSFA ak 500 C (1)

1420 kilocycles

CKGB ak 100
 CKNC ak 100 F
 CMGI z 30
 KABC ak 100
 KABR z 100 D
 KBPS aj 100 4
 KCMC ak 100
 KFIZ ak 100
 KGFF ak 100
 KGGC ak 100
 KGIW ak 100 1
 KGIX ak 100 P (2.5)
 KIDW z 100 1
 KIUN z 100 P
 KORE ae 100
 KRLC z 100
 KUMA ak 100
 KWBG z 100 P
 KXL ae 100 4 (2.5)
 WACO ak 100 C
 WAGM ae 100
 WAZL ak 100 2
 WEED ak 100 3
 WEHC ae 100 3 (2.5)

Augusta, Maine
 Racine, Wis.
 Buffalo, N. Y.
 Mexico City, D. F.
 Morelia, Mch.
 San Luis Potosi, SLP

Havana, Cuba
 Camaguey, Cuba
 Reno, Nev.
 Pittsburgh, Pa.
 Mobile, Ala.
 LaCrosse, Wis.
 New Britain, Conn.
 Dayton, Ohio

Winnipeg, Man.
 San Ped. de Macoris, DR
 Little Rock, Ark.
 Phoenix, Ariz.
 Cleveland, Ohio

Matanzas, Cuba
 Ogden, Utah
 Tulsa, Okla.
 Guatemala City, Gt.
 Brooklyn, N. Y.
 Brooklyn, N. Y.
 Indianapolis, Ind.
 Brooklyn, N. Y.
 Brooklyn, N. Y.

Vancouver, B. C.
 Vancouver, B. C.
 Havana, Cuba
 Amarillo, Texas
 Boston, Mass.
 Bay City, Mich.
 Amarillo, Texas
 Sheboygan, Wis.
 Bluefield, W. Va.
 Roanoke, Va.
 Rockford, Ill.
 Montgomery, Ala.

Timmins, Ont.
 Toronto, Ont.
 Colon, Cuba
 San Antonio, Texas
 Aberdeen, S. Dak.
 Portland, Ore.
 Texarkana, Ark.
 Fond du Lac, Wis.
 Shawnee, Okla.
 San Francisco, Cal.
 Alamosa, Colo.
 Las Vegas, Nev.
 Lamar, Colo.
 Pecos, Texas
 Eugene, Ore.
 Lewiston, Idaho
 Yuma, Ariz.
 Hutchinson, Kans.
 Portland, Ore.
 Waco, Texas
 Presque Isle, Maine
 Hazleton, Pa.
 Rocky Mount, N. C.
 Charlottesville, Va.

WEHS ak 100 a
 WELL ak 100
 WGPL ak 100
 WHDL ak 100 D
 WHFC ae 100 a
 WILM aj 100 2
 WJBO z 100
 WJMS ak 100
 WKBI ak 100 a
 WLPJ ak 100 (2.5)
 WLEU z 100 (2.5)
 WMAS ak 100 C (2.5)
 WMBG ae 100 (2.5)
 WMBH ak 100 (2.5)
 WMPJ z 100 P
 WNPJ ak 100 D
 WPAD ak 100 (2.5)
 WPRP z 100 P (2.5)
 WWC z 100 P
 XEAZ z 7
 XEFB ak 100
 z 100 P

Cicero, Ill.
 Battle Creek, Mich.
 Albany, Ga.
 Olean, N. Y.
 Cicero, Ill.
 Wilmington, Del.
 Baton Rouge, La.
 Ironwood, Mich.
 Cicero, Ill.
 Lexington, Ky.
 Kansas City, Kans.
 Erie, Pa.
 Springfield, Mass.
 Detroit, Mich.
 Joplin, Mo.
 Daytona Beach, Fla.
 Muscle Shoals, Ala.
 Paducah, Ky.
 Ponce, P. R.
 Spartanburg, S. C.
 Guanajuato, Gto.
 Monterrey, N. L.
 Parkersburg, W. Va.

1430 kilocycles

CMJP ak 75
 KECA ak 1000 (5)
 KGNF ak 1000 D
 KSO ak 250 B (.5)
 WBNS ae 500 C (1)
 WHEC ae 500 C (1)
 WHP ak 500 C (1)
 WNBR ae 500 (1)
 WOKO ae 500 C (1)

Moron, Cuba
 Los Angeles, Calif.
 North Platte, Neb.
 Des Moines, Iowa
 Columbus, Ohio
 Rochester, N. Y.
 Harrisburg, Pa.
 Memphis, Tenn.
 Albany, N. Y.

1440 kilocycles

KDFN ak 500
 KLS ae 250 D
 KXYZ ak 1000
 TIFS z 7.5 (1441)
 WBIG ae 500 C (1)
 WCBA aj 500 a
 WMBD ae 500 C (1)
 WSAN aj 500 a
 XEFI ae 250

Casper, Wyo.
 Oakland, Calif.
 Houston, Texas
 Cartago, C. R.
 Greensboro, N. C.
 Allentown, Pa.
 Peoria, Ill.
 Allentown, Pa.
 Chihuahua, Chih.

1450 kilocycles

CFCT ae 75
 CHGS ae 50 F
 KTBS ck 1000 N
 WGAR ak 500 B (1)
 WHOM ae 250
 WSAR ae 250
 WTFI ak 500

Victoria, B. C.
 Summerville, P.E.I.
 Shreveport, La.
 Cleveland, Ohio
 Jersey City, N. J.
 Fall River, Mass.
 Athens, Ga.

1460 kilocycles

CMKF z 30
 KSTP ae 1000 N (2.5)
 WJSV ak 1000 C

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

1470 kilocycles

KGA ak 5000 N (2.5)
 WLAC ak 5000 C

Spokane, Wash.
 Nashville, Tenn.

1480 kilocycles

KOMA ak 5000 C
 WKBW ae 5000 C

Oklahoma City, Ok.
 Buffalo, N. Y.

1490 kilocycles

WCKY ae 5000 B

Covington, Ky.

INDEX BY LOCATIONS

1500 kilocycles

GMCN	z	162	.....	Havana, Cuba
KDB	ak	100	C	Santa Barbara, Calif.
KGFI	ak	100	(.25)	Corpus Christi, Tex.
KGFK	ak	100	Y	Moorhead, Minn.
KGKY	ak	100	.....	Tyler, Texas
KGKY	ck	100	(.25)	Scottsbluff, Neb.
KNOW	ak	100	.....	Austin, Texas
KOTN	ak	100	D	Pine Bluff, Ark.
KPLM	ak	100	P	Prescott, Ariz.
KPLC	z	100	.....	Lake Charles, La.
KPO	ak	100	(.25)	Wenatchee, Wash.
KREG	ak	100	.....	Santa Ana, Calif.
KXO	ak	100	.....	El Centro, Calif.
WCNW	ak	100	I (.25)	Brooklyn, N. Y.
WDNC	ak	100	C	Durham, N. C.
WGAL	ak	100	(.25)	Lancaster, Pa.
WHFZ	z	100	(.25)	Kosciusko, Miss.
WJBK	ae	100	(.25)	Detroit, Mich.
WKBW	ak	100	(.25)	E. Duquenois, Ill.
WBBW	ak	100	(.25)	Richmond, Ind.
WKBZ	ak	100	(.25)	Muskegon, Mich.
WKEU	ak	100	.....	Griffin, Ga.

WMBO	ae	100	I	Brooklyn, N. Y.
WMEX	ak	100	(.25) A	Boston, Mass.
WNEF	ak	100	(.25) C	Binghamton, N. Y.
WOPI	ak	100	.....	Bristol, Tenn.
WRDW	ak	100	.....	Augusta, Ga.
WRCA	ak	100	(.25)	Rome, Ga.
WSBY	ak	100	P	Rutland, Vt.
WTMV	z	100	P	East St. Louis, Ill.
WWRL	ak	100	I (.25)	Woodside, N. Y.
WWSW	ae	100	(.25)	Pittsburgh, Pa.
.....	z	100	P	St. Louis, Mo.

1510 kilocycles

CFRC	ak	100	.....	Kingston, Ont.
CKCR	ak	100	.....	Waterloo, Ont.

1530 kilocycles

WLXBS	z	1000	A	Waterbury, Conn.
W9XBY	z	1000	.....	Kansas City, Mo.

1550 kilocycles

W2XR	z	1000	.....	Long Isl. City, N. Y.
W6XAI	z	1000	.....	Bakersfield, Calif.

INDEX BY LOCATIONS

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

ALABAMA				Hot Springs				Modesto				Pueblo						
Birmingham				KTHS	1060	10000	N	KTRB	740	250		KGHF	1320	500				
WAPI	1140	5000	N	Jonesboro				Oakland				Sterling						
WBRC	930	1000	C	KBTM	1200	100		KLS	1440	250		KGEK	1200	100				
WSGN	1310	100		Little Rock				KLX	880	1000		CONNECTICUT						
Decatur				KARK	890	250		KROW	930	1000		Bridgeport						
WMFO	1370	100		KGHI	1200	100		Pasadena			KPPC	1210	50	WICC	600	500	C	
Dothan				KLRA	1390	1000	C	Sacramento			KFBK	1310	100	C	Hartford			
WAGF	1370	100		Pine Bluff				San Bernardino			KFXM	1210	100	WDR	1330	1000	C	
Gadsden				KOTN	1500	100		San Diego			KFSD	600	1000	N	WTIC	1040	50000	R
WJBY	1210	100		Texarkana				KGB	1330	1000	C	New Britain						
Mobile				KCMC	1420	100		San Francisco			KJBS	1070	500	WMEF	1380	250		
WALA	1380	500	C	CALIFORNIA				KPO	680	50000	N	New Haven						
Montgomery				KERN	1370	100	C	KTAB	560	1000		WMFI	900	500				
WSFA	1410	500	C	W6XAI	1550	1000		KYA	1230	1000	N	Storrs						
Muscle Shoals				Berkeley				San Jose			Waterbury							
WNRA	1420	100		KRE	1370	100		KQW	1010	1000		WCAC	600	500				
ALASKA				Beverly Hills				Santa Ana			Waterbury							
Anchorage				KMPC	710	500		KREG	1500	100		WATR	1190	100				
KFOD	780	250		KRFB	950	250		KDB	1500	100	C	WIXBS	1530	1000	A			
Juneau				KELW	780	500		Santa Barbara			Wilmington							
KINY	610	250		Chico				KGM	1100	1000		WDEL	1120	250	A			
Ketchikan				KHSL	950	250		Stockton			WILM							
KGBU	900	500		El Centro				KGW	1200	100	C	WILM	1420	100				
ARIZONA				KXO	1500	100		Alamosa			DISTRICT OF COLUMBIA							
Jerome				Eureka				Colorado Springs			Washington							
KCRJ	1310	100		KIEM	1210	100		KVOR	1270	1000	C	WJSV	1460	10000	C			
Lowell				KMJ	580	1000	C	Denver			Daytona Beach							
KSUN	1200	100		KIEV	850	250		KFEL	920	500		WMAL	630	250	B			
Phoenix				KIEV	850	250		KLZ	560	1000	C	WOL	1310	100	A			
KOY	1390	500		Hollywood				KOA	830	50000	N	WRC	950	500	R			
KTAR	620	1000	N	KFWB	950	1000		KPOF	880	500		FLOIDA						
Prescott				KNX	1050	50000		Grand Junction			Clearwater							
KPJM	1500	100		Long Beach				KQD	920	500		WFLA	620	1000	N			
Tucson				KFOX	1250	1000		Greeley			Daytona Beach							
KGAR	1370	100		KGER	1360	1000		KFKA	880	500		WMPJ	1420	100				
KVOA	1260	500		Los Angeles				Lamar			Gainesville							
KUMA	1420	100		KECA	1430	1000		KIDW			WRUF							
ARKANSAS				KFAC	1300	1000		1420			100	Jacksonville						
Blytheville				KFI	640	50000	N	1200			100	WJAX						
KLNC	1290	100		KFSG	1120	1000		1200			100	WMBR						
El Dorado				KFVD	1000	250		1200			100	WMI						
KELD	1370	100		KGFJ	1200	100		1200			100	WQAM						
Fayetteville				KHJ	900	1000	C	1200			100	WQAN						
KUOA	1260	1000		KRKD	1120	1000		1200			100	WDBO						
Fort Smith				KTM	780	500		1200			100	WPCO						
KFPW	1210	100						1200			100	WCOA						

INDEX BY LOCATIONS

St. Petersburg	Peoria	Garden City	Fall River
WSUN 620 1000 N	WMBD 1440 500 C	KIUL 1210 100	WSAR 1450 250
Tallahassee	Quincy	Hutchinson	Lowell
WTAL 1310 100	WTAD 900 500	KVWG 1420 100	WLLH 1370 100
Tampa	Rockford	Kansas City	New Bedford
WDAR 1220 1000 C	WROK 1410 500	WLBK 1420 100	WNBH 1310 100 C
GEORGIA	Rock Island	Lawrence	Springfield
Albany	WHBF 1210 100	KFKU 1220 1000 B	WBA 990 1000 B
WCPE 1420 100	Springfield	WREN 1220 1000 B	WMAS 1420 100 C
Athens	WCBS 1210 100	Manhattan	Worcester
WTFI 1450 500	WTAX 1210 100	KSAC 580 500	WORC 1280 500 C
Atlanta	Tuscola	Topeka	WTAG 580 500 R
WGST 890 500 C	WDZ 1070 100	WIBW 580 1000 C	MICHIGAN
WJTL 1370 100	WUrbana 890 1000	Wichita	Battle Creek
WSB 740 50000 N	Waukegan	KFH 1300 1000 C	WELL 1420 100
Augusta	WCB D 1080 5000	KENTUCKY	Bay City
WRDW 1500 100	INDIANA	Ashland	WBCM 1410 500
Columbus	Anderson	WCMF 1310 100	Calumet
WRB 1200 100	WHBU 1210 100	Covington	WHDF 1370 100
Griffin	Elkhart	WCKY 1490 5000 B	Detroit
WKEU 1500 100	WTRC 1310 50	Lexington	WJBK 1500 100
Macon	Evansville	WLAP 1420 100	WJR 750 10000 B
WMAZ 1180 1000	WGBF 630 500	Louisville	WMBC 1420 100
Rome	WGL 1370 100 C	WAVE 940 1000 N	WWJ 920 1000 R
WRGA 1500 100	Fort Wayne	WHAS 820 50000 C	WXYZ 1240 1000
Savannah	WOWO 1160 10000 C	Paducah	East Lansing
WTOC 1260 1000 C	Gary	WPAD 1420 100	WKAR 1040 1000
Thomasville	WIND 560 1000	LOUISIANA	Flint
WPAX 1210 100	Hammond	Baton Rouge	WFDF 1310 100
HAWAII	WWAE 1200 100	WJBO 1420 100	Grand Rapids
Honolulu	Indianapolis	Lafayette	WASH 1270 500
KGMB 1320 1000 C	WFBM 1230 1000 C	..... 1310 100	WOOD 1270 500
KGU 750 2500 N	WIRE 1400 500 R	Lake Charles	Ironwood
IDAHO	Muncie	KPLC 1500 100	WJMS 1420 100
Boise	WLBC 1310 50	Monroe	Jackson
KIDO 1350 1000	Richmond	KMLB 1200 100	WIBM 1370 100
Idaho Falls	WKBV 1500 100	New Orleans	Kalamazoo
KID 1320 250	South Bend	WBN0 1200 100	WKZO 590 1000
Lewiston	WFAM 1200 100	WDSU 1250 1000 C	Lansing
KRLC 1420 100	WSBT 1360 500 C	WJBW 1200 100	WJIM 1210 100
Nampa	Terre Haute	WSMB 1320 1000 N	Lapeer
KFXD 1200 100	WBOW 1310 100	WWL 850 10000	WMPC 1200 100
Pocatello	West Lafayette	Shreveport	Marquette
KSEI 890 250	WBAA 890 1000	KRMD 1310 100	WBEO 1310 100
Twin Falls	IOWA	KTBS 1450 1000 N	Muskegon
KTFI 1240 1000	Ames	KWEA 1210 100	WKBZ 1500 100
ILLINOIS	WOI 640 5000	KVKEH 1100 10000 C	Royal Oak
Bloomington	Boone	MAINE	WEXL 1310 50
WJBC 1200 100	KFGQ 1370 100	Augusta	MINNESOTA
Carthage	WMT 600 1000 B	WRDO 1370 100	Fergus Falls
WCAZ 1070 100	Council Bluffs	Bangor	KGDE 1200 100
Chicago	KOIL 1260 1000 B	WABI 1200 100	Hibbing
WAAF 920 500	Davenport	WLBZ 620 500 C	WMFG 1210 100
WBBM 770 50000 C	WOC 1370 100 C	Portland	Minneapolis
WCFL 970 1500 B	Decorah	WCSH 940 1000 R	WCCO 810 50000 C
WCRW 1210 100	KGCA 1270 100	Presque Isle	WDGY 1180 1000
WEDC 1210 100	KWLC 1270 100	WAGM 1420 100	WLB 1250 1000
WENR 870 50000 N	Des Moines	MARYLAND	WTCN 1250 1000
WGES 1360 500	KRNT 1320 500 C	Baltimore	Moorhead
WGN 720 50000	KSO 1430 250 B	WBAL 1060 10000 B	KGFK 1500 100
WJJD 1130 20000	WHO 1000 50000 R	WCAO 600 500 C	Northfield
WLS 870 50000 N	Low City	WCBM 1370 100 A	WCAL 1250 1000
WMAQ 670 50000 N	Marshalltown	WFBR 1270 500 R	Rochester
WMBI 1080 5000	KFJB 1200 100	Cumberland	KROC 1310 100
WSBC 1210 100	Shenandoah	WTBO 800 250	St. Paul
Cicero	KPNF 890 500	Frederick	KSTP 1460 10000 N
WEHS 1420 100	KMA 930 1000	WFMD 900 500	MISSISSIPPI
WHFC 1420 100	St. Louis City	Hagerstown	Clarksdale
WKBI 1420 100	KSCJ 1330 1000 C	WJEJ 1210 100	WMFN 1210 100
Decatur	KANSAS	MASSACHUSETTS	Hattiesburg
WJBL 1200 100	Abilene	Babson Park	WFPB 1370 100
East Dubuque	KFBI 1050 5000	WBSO 920 500	Jackson
WKBB 1500 100	Coffeyville	Boston	WJDX 1270 1000 N
East St. Louis	KGDF 1010 1000	WAAB 1410 500 C	Kosciusko
WTMV 1500 100	Dodge City	WBEZ 990 50000 B	WHFF 1500 100
Harrisburg	KGNO 1340 250	WEEI 590 1000 R	Laurel
WEBQ 1210 100		WHDH 830 1000 A	WAML 1310 100
Joliet		WMEX 1500 100 A	Meridian
WCLS 1310 100		WMFH 1120 500	WGOC 880 500
		WNA C 1230 1000 C	

INDEX BY LOCATIONS

Mississippi City WGCM 1210 100	Atlantic City WPG 1100 5000 C	Rochester WHAM 1150 5000 B	Youngstown WKBN 570 500 C
Vicksburg WQBC 1360 1000	Camden WCAM 1280 500	WHEC 1430 500 C	Zanesville WALR 1210 100
MISSOURI	Jersey City WJAT 940 500	Saranac Lake WNBZ 1290 100	OKLAHOMA
Cape Girardeau KFVS 1210 100	WHAU 1450 250	Schenectady WGY 790 50000 R	Ada KADA 1200 100
Columbia KFUR 630 500	Newark WHBY 1250 1000	Syracuse WBEL 1360 1000 C	Ardmore KVRD 1200 100
Jefferson City WOS 630 500	WNEW 1250 1000 A	Troy WSYR 570 250 B	Ark City KASA 1210 100
Joplin WMBH 1420 100	WOR 710 50000	Utica WHAZ 1300 500	Enid KCRC 1370 100
Kansas City KMBC 950 1000 C	Red Bank WBRB 1210 100	White Plains WIBX 1200 100 C	Norman WNAD 1010 1000
KWKC 1370 100	Trenton WTNJ 1280 500 A	WFAA 1210 100	Oklahoma City KFXR 1310 100
WDAF 610 1000 R	Zarephath WAWZ 1350 500	Woodside WVRL 1500 100	KGFG 1370 100
WHB 860 1000	NEW MEXICO	NORTH CAROLINA	KOMA 1480 5000 C
W9XBV 1530 1000	Albuquerque KGGM 1230 250	Asheville WVNC 570 1000 N	WKY 900 1000 N
St. Joseph KFEQ 680 2500	KOB 1180 10000	Charlotte WBT 1080 50000 C	Ponca City WBBZ 1200 100
St. Louis KFUO 550 500	Clovis KICA 1370 100	WOC 1210 100 N	Shawnee KGFJ 1420 100
KMOX 1090 50000 C	Roswell KGFL 1370 100	Durham WDNC 1500 100 C	Tulsa KTUL 1400 500 C
KSD 550 1000 R	Santa Fe KIUF 1310 100	Greensboro WBGJ 1440 500 C	KVOO 1140 25000 N
KWK 1350 1000 B	NEW YORK	High Point 1200 100	OREGON
WEW 760 1000	Albany WABY 1370 100	Raleigh WPTF 680 1000 N	Astoria KAST 1370 100
WIL 1200 100	WOKO 1430 500 C	Rocky Mount WEED 1420 100	Corvallis KOAC 550 1000
1500 100	Auburn WMB0 1310 100	Wilmington WMFD 1370 100	Eugene KORE 1420 100
Springfield KGBX 1230 500	Binghamton WNB5 1500 100 C	Winston-Salem WSJS 1310 100 C	Klamath Falls KFJI 1210 100
KWTO 560 5000	Brooklyn WARD 1400 500	NORTH DAKOTA	Marshfield KOOS 1200 250
MONTANA	WBBC 1400 500	Bismarck KPYR 550 1000 N	Medford KMD 1310 100
Billings KGHL 780 1000 N	WBRR 1300 1000	Devils Lake KDLR 1210 100	Portland KALE 1300 500 C
Butte KGR 1360 1000 N	WCNW 1500 100	Fargo WDAY 940 1000 N	KBPS 1420 100
Great Falls KFBB 1280 1000	WLTH 1400 500	Grand Forks KFJM 1370 100	KEX 1180 5000 N
KFBZ 1280 1000	WMB0 1500 100	Mandan KGCU 1240 250	KFJR 1300 500
Kallispi KGEZ 1310 100	WVFW 1400 500	Minot KLPM 1240 250	KGW 620 1000 N
Missoula KGVO 1260 1000	Buffalo WBEN 900 1000 R	OHIO	KOIN 940 1000 C
Wolf Point KGCX 1310 100	WEBR 1310 100	Akron WADC 1320 1000 C	KWJJ 1040 500
NEBRASKA	WGR 550 1000 C	WJW 1210 100	KXL 1420 100
Clay Center KMMJ 740 1000	WKBW 1480 5000 C	Canton WHBC 1200 100	PENNSYLVANIA
Kearney KGFV 1310 100	WSVS 1370 50	Cincinnati WBE 1200 100	Allentown WCBA 1440 500
Lincoln KFAB 770 10000 C	Canton WCAD 1220 500	WKR 550 1000 C	WSAN 1440 500
North Platte KFOR 1210 100 C	Chester WGNV 1210 100	WLV 700 50000 N	Altoona WFBG 1310 100
Norfolk WJAG 1060 1000	Elmira WESG 850 1000	WSAI 1330 1000 R	Clarion WWPA 850 250
North Platte KGNF 1430 1000	Freepport WGBB 1210 100	Cleveland WGAR 1450 500 B	Erie WLEU 1420 100
Omaha WAAW 660 500	Jamestown WOCL 1210 50	WHL 1390 1000 C	Glenside WIBG 970 100
WOW 590 1000 R	Long Island City W2XR 1550 1000	WJAY 610 500	Greensburg WHJB 620 250
Scottsbluff KKGK 1500 100	New York WABC 860 50000 C	WTAM 1070 50000 R	Grove City WSAJ 1310 100
York KGBZ 930 1000	WBNX 1350 250	Columbus WAIU 640 500	Harrisburg WHP 1430 500 C
NEVADA	WB0Q 860 50000	WBN 1430 500 C	WKBO 1200 100
Las Vegas KGIX 1420 100	WEAF 660 50000 R	WCOL 1210 100	Hazleton WAZL 1420 100
Reno KOH 1380 500 C	WEVD 1300 1000	WOSU 570 750	Johnstown WJAC 1310 100
NEW HAMPSHIRE	WFB 1300 1000	Dayton WHIO 1260 1000 R	Lancaster WGAL 1500 100
Laconia WLNH 1310 100	WHN 1010 1000	Portsmouth WPMK 1380 200 C	WKCJ 1200 100
Manchester WFEA 1340 500 C	WINS 1180 1000	WPAV 1370 100	Philadelphia KXW 1020 10000 R
Portsmouth WHEB 740 250	WJZ 760 50000 B	WSPD 1340 1000 C	WCAU 1170 50000 C
NEW JERSEY	WLWL 1100 5000		
Asbury Park WCAP 1280 500	WMCA 570 500		
	WNYC 810 1000		
	WOV 1130 1000		
	Olean WHDL 1420 100		
	Plattsburg WMFF 1310 100		

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WDAS 1370 100	Memphis	Waterbury	Janesville
WFIL 560 1000 B	WHBO 1370 100	WDEV 550 500	WCLO 1200 100
WHAT 1310 100	WMC 780 1000 N	VIRGINIA	LaCrosse
WIP 610 500 A	WNBR 1430 500	Arlington	WKBH 1380 1000
WPEN 920 250	WREC 600 1000 C	NAA 690 1000	Madison
WRAX 920 250	Nashville	Charlottesville	WHA 940 2500
WTEL 1310 100	WLAC 1470 5000 C	WEHC 1420 100	WIBA 1280 1000 N
Pittsburgh	WSM 650 50000 N	Danville	Manitowoc
KDKA 980 50000 B	Springfield	WBTM 1370 100	WOMT 1210 100
KQV 1380 500	WSIX 1210 100	Lynchburg	Milwaukee
WCAE 1220 1000 R	TEXAS	WLVA 1200 100	WISN 1120 250 C
WJAS 1290 1000 C	KGRS 1410 1000	Newport News	WTMJ 620 1000 N
WWSW 1500 100	WDAG 1410 1000	WGH 1310 100	Poyette
Reading	Austin	Norfolk	WIBU 1210 100
WEEU 830 1000	KNOW 1500 100	WTAR 780 500 N	Racine
WRAW 1310 100	Beaumont	Petersburg	WRJN 1370 100
Scranton	KFDM 560 500	WPHR 880 500	Sheboygan
WGBI 880 500	College Station	Richmond	WHBL 1410 500
WQAN 880 250	WTAW 1120 500	WBBL 1210 100	Stevens Point
Sunbury	Corpus Christi	WMBG 1210 100 C	WLBL 900 2500
WKOK 1210 100	KGFI 1500 100	WRVA 1110 5000 N	Superior
Wilkes-Barre	Dallas	Roanoke	WEBC 1290 1000 N
WBAX 1210 100	KRLD 1040 10000 C	WDBJ 930 1000 C	WYOMING
WBRE 1310 100	WFAA 800 50000 N	WRBX 1410 250	Casper
Williamsport	WRR 1280 500	Staunton	KDFN 1440 500
WRAK 1370 100	Dublin	WSVA 550 500	Sheridan
York	KFPL 1310 100	WASHINGTON	KWYO 1370 100
WORK 1320 1000	El Paso	Aberdeen	CANADA
PORTO RICO	KTSM 1310 100	KXRO 1310 100	ALBERTA
Ponce	WDAH 1310 100	Bellingham	Calgary
WPRP 1420 100	Fort Worth	KVOS 1200 100	CFAC 930 100 F
San Juan	KFJZ 1370 100	Everett	CFGN 1030 10000 F
WKAQ 1240 1000	KTAT 1240 1000 C	KRKO 1370 50	CJGJ 690 100 F
WNEL 1290 500	WBAP 800 50000 N	Olympia	Edmonton
RHODE ISLAND	Galveston	KGY 1210 100	CFRN 1260 100
Providence	KLUF 1370 100	Pullman	CJCA 730 1000 F
WEAN 780 500 C	Houston	KWSC 1220 1000	CKUA 580 500
WJAR 890 500 R	KPRC 920 1000 N	Seattle	Lethbridge
WPRO 630 250 A	KTRH 1290 1000 C	KJR 970 5000 N	CJOC 1230 100 F
SOUTH CAROLINA	KXYZ 1440 1000	KOL 1270 1000 C	BRITISH COLUMBIA
Anderson	Longview	KOMO 920 1000 N	Chilliwack
WAIM 1200 100	KFRO 1370 100	KPCB 710 250	CHWK 780 100 F
Charleston	Lubbock	KRSC 1120 100	Kamloops
WCSC 1360 500	KFYO 1310 100	KTW 1220 1000	CFJC 880 100 F
Columbia	Pecos	KVL 1370 100	Kelowna
WIS 1010 1000 N	KIUN 1420 100	KXA 760 250	CKOV 630 100 F
Greenville	Port Arthur	Spokane	Trail
WFBC 1300 1000	KPAC 1260 500	KFIO 1120 100	CJAT 910 250 F
Spartanburg	San Angelo	KFPY 1340 1000 C	Vancouver
WSPA 920 1000	KGKL 1370 100	KGA 1470 5000 N	CJOR 600 500
WWC 1420 1000	San Antonio	KHO 590 1000 N	CKGD 1010 100
SOUTH DAKOTA	KABC 1420 100	Tacoma	CKFC 1410 50
Aberdeen	KMAC 1370 100	KMO 1330 250	CKMO 1410 100 F
KABR 1420 100	KONO 1370 100	KVI 570 1000 C	CKWX 1010 100 F
Brookings	KTSA 550 1000 C	Walla Walla	CRCV 1100 1000 F
KFDY 780 1000	WQAI 1190 50000 N	KUJ 1370 100	Victoria
Huron	Tyler	Wenatchee	CFCT 1450 75
KGDY 1340 250	KGKB 1500 100	KPO 1500 100	MANITOBA
Pierre	Waco	Yakima	Brandon
KGFX 630 200	WACO 1420 100 C	KIT 1310 100	CKX 1120 100 F
Rapid City	Westlaco	WEST VIRGINIA	Winnipeg
WCAT 1200 100	KRGV 1260 500	Bluefield	CJRC 1390 100 F
Sioux Falls	Wichita Falls	WHIS 1410 250	CKY 960 15000 F
KSOU 1110 2500	KGKO 570 500 C	Charleston	NEW BRUNSWICK
Vermillion	UTAH	WCHS 580 500	Frederickton
KUSD 890 500	Ogden	Fairmont	CFNB 550 1000 F
Watertown	KLO 1400 500 C	WMMN 890 500	Moncton
KWTN 1210 100	Salt Lake City	Huntington	CKCW 1370 100 F
Yankton	KDYL 1290 1000 N	WSAZ 1190 1000	St. John
WNAX 570 1000 C	KSL 1130 50000 C	Parkersburg	CHSJ 1120 100 F
TENNESSEE	VERMONT	Wheeling	N. W. TERRITORY
Bristol	Burlington	WWVA 1160 5000 C	Aklavik
WOPJ 1500 100	WCAX 1200 100	WISCONSIN	CJCU 1210 50
Chattanooga	Rutland	Eau Claire	NOVA SCOTIA
WDOD 1280 1000 C	WSYB 1500 100	WTAQ 1330 1000	Glace Bay
Jackson	St. Albans	Fond du Lac	VAS 685 2000
WTJS 1310 100	WQDM 1370 100	KFIZ 1420 100	Halifax
Knoxville	Springfield	Green Bay	CHNS 930 1000 F
WNOX 560 1000 C	WNBX 1260 1000	WHBY 1200 100	Sydney
WROL 1310 100			CJCB 1240 1000 F

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CKIC 1010	50	
Yarmouth		
CJLS 1310	100	
ONTARIO		
Brantford		
CKPC 930	100 F	
Chatham		
CFCO 1050	100 F	
Cobalt		
CKMC 1210	50	
Fort William		
CKPR 930	100 F	
Hamilton		
CHML 1010	50 F	
CKOC 1120	500 F	
Kingston		
CFRC 1510	100	
Kirkland Lake		
CJKL 1310	100	
London		
CFPL 730	100 F	
North Bay		
CFCH 930	100 F	
Ottawa		
CKCO 1010	100	
CRCO 880	1000 F	
Prescott		
CFLC 930	100	
St. Catharines		
CKTB 1200	100 F	
Sault Ste. Marie		
CJIC 890	100	
Stratford		
10-AK 1200	15	
Sudbury		
CKSO 780	1000	
Timmins		
CKGB 1420	100	
Toronto		
CFRB 690	10000 C	
CKCL 580	100 F	
CKNC 1420	100 F	
CRCT 840	5000 N	
Waterloo		
CKCR 1510	100	
Windsor		
CKLW 1030	5000 C	
CRCW 600	1000 F	
Wingham		
10-B 1200	25	
PRINCE EDWARD		
ISLAND		
Charlottetown		
CFCY 630	1000 F	
CHCK 1310	50	
Summerside		
CHGS 1450	50 F	
QUEBEC		
Chicoutimi		
CRCS 950	100 F	
Hull		
CKCH 1210	100 F	
Montmagny		
VE9EK 1185	10	
Montreal		
CFCF 600	400 N	
CHLP 1120	100	
CKAC 730	5000 C	
CRGM 910	5000 F	
New Carlisle		
CHNC 1210	100 F	
Quebec		
CHRC 580	100 F	
CKCV 1310	50 F	
CRCK 1050	1000 F	
SASKATCHEWAN		
Moose Jaw		
CHAB 1200	100 F	
CJRM 540	1000 F	

Prince Albert		
CKBI 1210	100 F	
Regina		
CHWC 1010	500 F	
CKCK 1010	500 F	
Saskatoon		
CFQC 840	1000 F	
Yorkton		
CJGX 630	500 F	
NEWFOUNDLAND		
St. John's		
VOAC 1065	40	
VOAS 940	100	
VOGY 840	400	
VONF 950	5000	
VOWR 681	500	

MIQUELON		
St. Pierre		
FQNJ 609	250	
CENTRAL AMERICA		
COSTA RICA		
Cartago		
TIFS 1441	7.5	
TIGA 1014	30	
San Jose		
TIEP 850	500	
TIFA 1050	75	
TIGH 1000	500	
TIRC 1100	75	
TIRH 930	50	
GUATEMALA		
Guatemala City		
TCGW 565	10000	
TCGX 1400	150	
EL SALVADOR		
San Salvador		
RDN 706	500	

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AGUASCALIENTES		
Aguascalientes		
XPC 810	350	
BAJA CALIFORNIA		
Agua Caliente		
XEBC 730	5000	
Ensenada		
XEG 1270	500	
Mexicali		
XEAA 920	200	
XEAO 560	250	
Tijuana		
XEC 1270	50	
XEFL 1160	5000	
XEMO 865	2500	
XEOK 765	2500	
CAMPECHE		
Cazaca		
XEAJ 1310	15	
CHIHUAHUA		
Chihuahua		
XEFI 1440	250	
Juarez		
XEFV 1210	100	
XEJ 1020	1250	
COAHUILA		
Piedras Negras		
XELO 1110	10000	
XEPN 590	50000	
Saltillo		
XELA 1240	50	
XEOX 640	250	
Torreón		
XETB 1310	125	
D. F.		
Mexico City		
XEAI 1240	100	
XEB 1030	10000	
XECW 1310	10	
XEFA 1180	500	

XEFG 1100	250	
XEFO 940	5000	
XEFZ 1370	100	
XEK 990	100	
XELC 740	100	
XEMX 1280	12	
XEN 710	1000	
XEO 940	5000	
XEP 840	500	
XETW 820	500	
XEW 890	50000	
XEWZ 1150	100	
XEXX 845	500	
XEYZ 780	10000	
XFX 610	1000	

DURANGO		
Durango		
XEE 1210	50	
Mineral del Monte		
XELM 1310	15	
GUANAJUATO		
Guanajuato		
XEAZ 1420	7	
Leon		
XEKL 1240	500	
JALISCO		
Guadalajara		
XEA 1060	125	
XED 1160	500	
MICHOACAN		
Morelia		
XEI 1370	125	
 NUEVO LEON		
Monterrey		
XEFB 1420	100	
XEFJ 1230	100	
XEH 1150	250	
XET 690	500	
XEX 1310	125	

PUEBLA		
Puebla		
XETH 1210	100	
SAN LUIS POTOSI		
San Luis Potosi		
XEZZ 1370	100	
SONORA		
Nogales		
XEAF 1010	250	
TAMAULIPAS		
Nuevo Laredo		
XEAM 960	50	
XEFE 920	250	
XENT 910	60000	
Reynosa		
XEAW 960	10000	
Tampico		
XEFW 1310	250	
XEMA 1080	50	
XES 990	250	

VERACRUZ		
Jalapa		
XFB 1270	250	
Orizaba		
XFD 1340	350	
Veracruz		
XETF 1220	12	
XEU 1010	250	
YUCATAN		
Merida		
XEFC 1310	100	
XEZ 630	500	

WEST INDIES		
CUBA		
Caibarien		
CMHD 1270	250	
Camaguey		
CMJC 1380	150	
CMJE 1220	50	
CMJF 1150	200	
CMJG 1010	50	

CMJK 760	150	
CMJL 960	50	
Cardenas		
CMGE 1370	30	
Ciego de Avila		
CMJH 1360	50	
CMJI 1130	45	
CMJO 1180	50	
Cienfuegos		
CMHJ 1180	100	
CMHW 810	100	
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CMGI 1420	30	
Cruces		
CMHK 1330	250	
Guantanamo		
CMKJ 1300	20	
Havana		
CMAF 730	250	
CMBC 940	195	
CMBD 1170	163	
CMBG 1140	325	
CMBS 770	130	
CMBX 1380	171	
CMBY 640	125	
CMBZ 1000	120	
CMC 835	500	
CMCA 1350	435	
CMCB 1230	112	
CMCD 960	180	
CMCF 815	250	
CMCG 1255	162	
CMCJ 1200	500	
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CMCO 1110	150	
CMCP 1270	150	
CMCQ 680	250	
CMCR 1410	122	
CMCU 1280	152	
CMCW 750	117	
CMCX 660	250	
CMCY 1030	1000	
CMK 1060	1500	
CMOA 790	72	
CMOK 1470	184	
CMOX 1320	250	
CMQ 840	500	
CMW -600	1000	
CMX 920	650	
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CMKF 1460	30	
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CMKM 940	100	
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CMGC 1400	100	
CMGF 1120	100	
CMGH 1040	15	
Moron		
CMJP 1430	75	
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CMHA 1070	50	
San Spiritus		
CMHB 1240	30	
Santa Clara		
CMHI 1210	150	
Santiago		
CMKC 1250	150	
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San Pedro de		
Marcoris		
HHH 1395	15	
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HIJ 1195	15	
HIX 1270	1000	
HIZ 1300	10	
HAITI		
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HHK 920	1000	

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CFAC 930 100 Calgary, Alta. Calgary Herald, Southam Bldg.	CJOR 600 500 Vancouver, B. C. G. C. Chandler, Hotel Grosvenor
CFCF 600 400 Montreal, Que. Mt. Royal Hotel	CJRC 1390 100 Winnipeg, Man. Royal Alexandra Hotel
CFCH 930 100 North Bay, Ont. Capitol Theatre Bldg.	CJRM 540 1000 Moose Jaw, Sask. 311 Main St. No.
CFCN 1030 10000 Calgary, Alta. Toronto Gen. Trust Bldg.	CKAC 730 5000 Montreal, Que. 980 St. Catherine St. W.
CFCO 1050 100 Chatham, Ont. Wm. Pitt Hotel	CKBI 1210 100 Prince Albert, Sask. Canada Bldg.
CFCT 1450 75 Victoria, B. C. 620 View St.	CKCD 1010 100 Vancouver, B. C. 142 Hastings St. W.
CFCY 630 1000 Charlottetown, P.E.I. 143 Great George St.	CKCH 1210 100 Hull, Que. Standish Hall Hotel
CFJC 880 100 Kamloops, B. C. Wilcox-Hall Bldg.	CKCK 1010 500 Regina, Sask. 1853 Hamilton St.
CFLC 930 100 Prescott, Ont. Hoy Bldg., 307 George St.	CKCL 580 100 Toronto, Ont. 444 University Ave.
CFNB 550 1000 Fredericton, N. B. York St.	CKCO 1010 100 Ottawa, Ont. 272 Somerset St. W.
CFPL 730 100 London, Ont. Richmond St.	CKCR 1510 100 Waterloo, Ont. 24 King St. So.
CFQC 840 1000 Saskatoon, Sask. 216 First Ave., No.	CKCV 1310 50 Quebec, Que. 254 Ave. Marguerite
CFRB 690 10000 Toronto, Ont. 37 Bloor St. W.	CKCW 1370 100 Moncton, N. B. Moncton Brdsg. Co., Ltd.
CFRC 1510 100 Kingston, Ont. Queens University	CKFC 1410 50 Vancouver, B. C. Hemlock & 12th Ave.
CFRN 1260 100 Edmonton, Alta. Birks Bldg.	CKGB 1420 100 Timmins, Ont. R. H. Thompson, Press Bldg.
CHAB 1200 100 Moose Jaw, Sask. Grant Hall Hotel	CKIC 1010 50 Wolfville, N. S. Acadia University
CHCK 1310 50 Charlottetown, P.E.I. 36 Upper Hillsboro St.	CKLW 1030 5000 Windsor, Ont. Guaranty Trust Bldg.
CHGS 1450 50 Summerside, P. E. I. 190 Water St.	CKMC 1210 50 Cobalt, Ont. R. L. MacAdam
CHLP 1120 100 Montreal, Que. Sun Life Bldg.	CKMO 1410 100 Vancouver, B. C. 1604 Bekins Bldg.
CHML 1010 50 Hamilton, Ont. 47 Main St. E.	CKNC 1420 100 Toronto, Ont. 805 Davenport Road
CHNC 1210 100 New Carlisle, Que. Gaspeian Radio Brdsg. Co.	CKOC 1120 500 Hamilton, Ont. Wentworth Bldg.
CHNS 930 1000 Halifax, N.[S]. Lord Nelson Hotel	CKOV 630 100 Kelowna, B. C. Okanagan Broadcasters, Ltd., Box 243
CHRC 580 100 Quebec, Que. CHRC, Ltd., Victoria Hotel	CKPC 930 100 Brantford, Ont. Arcade Bldg.
CHSJ 1120 100 St. John, N. B. Admiral Beatty Hotel	CKPR 930 100 Fort William, Ont. Roya Edward Hotel
CHWC 1010 500 Regina, Sask. Williams Building	CKSO 780 1000 Sudbury, Ont. W. E. Mason, Grand Theatre Bldg.
CHWK 788 100 Chilliwack, B. C. Wellington Ave.	CKTB 1200 100 St. Catharines, Ont. E. T. Sandell, Welland House
CJAT 910 250 Trail, B. C. Kootenay Brdsg. Co.	CKUA 580 500 Edmonton, Alta. University of Alberta.
CJCA 730 500 Edmonton, Alta. 10122—100A St.	CKWX 1010 100 Vancouver, B. C. Hotel Georgia
CJCB 1240 1000 Sydney, N. S. 318 Charlotte St.	CKX 1120 100 Brandon, Man. Rosser Ave.
CJCJ 690 100 Calgary, Alta. New Albertan Bldg.	CKY 960 15000 Winnipeg, Man. Sherbrooke St.
CJCU 1210 50 Aklavik, N. W. T. Dr. J. A. Urquhart, Dept. of Interior	CMAF 730 250 Havana, Cuba 1 y 8 Rept. Miramar
CJGX 630 500 Yorkton, Sask. 188 Grain Exchange Bldg. (Winnipeg)	CMBC 940 195 Havana, Cuba Domingo Fernandez, Maximo Gomez No. 139
CJIC 890 100 S. Ste. Marie, Ont. Windsor Hotel	CMBD 1170 163 Havana, Cuba Luis Perez Garcia, Calle 17 y O, Vedado
CJKL 1310 100 Kirkland Lake, Ont. O. J. Thorpe	CMBG 1140 325 Havana, Cuba John L. Stowers, Hospital No. 100
CJLS 1310 100 Yarmouth, N. S. Laurie L. Smith, Grand Hotel	CMBS 770 130 Havana, Cuba Calzada y H. St., Vedado
CJOC 1230 100 Lethbridge, Alta. Marquis Hotel	CMBX 1380 171 Havana, Cuba Alberto Alvarez, San Miguel 194

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CMBY 640 125 Havana, Cuba Infanta 132 esq. Jevellar	CMJI 1130 45 Ciego de Avila, Cuba Gilberto Gessa Lopez, Independencia 95
CMBZ 1000 120 Havana, Cuba Manuely G. Salas, San Rafael No. 14	CMJK 760 150 Camaguey, Cuba Cla. Nacional de Radio, Finlay No. 3
CMC 835 500 Havana, Cuba Aguila y Dragones	CMJL 960 50 Camaguey, Cuba Enrique Artime, Cuba No. 27
CMCA 1350 435 Havana, Cuba Gallano No. 102	CMJO 1180 50 Ciego de Avila, Cuba Jose M. Rey, C. Central & Maceo
CMCB 1230 112 Havana, Cuba O'Reilly y Aguacate	CMJP 1430 75 Moron, Cuba Cesar Canall, Callejas No. 28
CMCD 960 180 Havana, Cuba Calle G y 25, Vedado	CMK 1060 1500 Havana, Cuba Hotel Plaza
CMCF 815 250 Havana, Cuba Raoul Karman, Rayo No. 67	CMKC 1250 150 Santiago, Cuba J. A. Saco, Alta 23
CMCG 1255 162 Havana, Cuba Malecon No. 340 Altos	CMKF 1460 30 Holquin, Cuba Libertad esq. Arias
CMCJ 1200 500 Havana, Cuba Rafael Rodriguez, Estevez No. 4	CMKJ 1300 20 Guantanamo, Cuba Luis Morlote, East Giro 11
CMCK 1320 100 Havana, Cuba Mantel Autran G., Vedado	CMKM 940 100 Manzanillo, Cuba Jesus Armeste, Merchant y P. Figuerado
CMCN 1500 162 Havana, Cuba Reina y Ave. Buen Ritiroe, Marianao	CMOA 790 72 Havana, Cuba Juan Fernandez, Agular 126 Altes
CMCO 1110 150 Havana, Cuba Oficios 116	CMOK 1470 184 Havana, Cuba Rafael Valdez, Marques Gonzales 52
CMCP 1270 150 Havana, Cuba Calzada de Luyane No. 132	CMOX 1320 250 Havana, Cuba 10 entre 17 y 19, Vedado
CMCQ 680 250 Havana, Cuba Vista Alegre No. 80, Vibora	CMQ 840 500 Havana, Cuba 25 Numero 445, Vedado
CMCR 1410 122 Havana, Cuba Milagros No. 35, Vibora	CMW 600 100 Havana, Cuba Paseo de Marti 103
CMCU 1280 152 Havana, Cuba San Francisco No. 13, Vibora	CMX 920 650 Havana, Cuba Casa "Lavin," Ave. de la Republica 99A
CMCW 750 117 Havana, Cuba Gallano y San Lazaro Sts.	CRCK 1050 1000 Quebec, Que. Chateau Frontenac Hotel
CMCX 660 250 Havana, Cuba Maceo No. 7, Guanabacoa	CRCM 910 5000 Montreal, Que. 1231 St. Catherine St. W.
CMCY 1030 1000 Havana, Cuba Manuel D. Autran, Calle G 215, Vedado	CRCO 880 1000 Ottawa, Ont. Chateau Laurier Hotel
CMGC 1400 100 Matanzas, Cuba Independencia No. 56	CRCS 950 100 Chicoutimi, Que. 4 Rue Larouche
CMGE 1370 30 Cardenas, Cuba Genaro Sebater, Cespedes No. 180	CRCT 840 5000 Toronto, Ont. 805 Davenport Road
CMGF 1120 100 Matanzas, Cuba G. Betancourt No. 51	CRCV 1100 1000 Vancouver, B. C. C. N. R. Station Bldg.
CMGH 1040 15 Matanzas, Cuba B. Byrne No. 113	CRCW 600 1000 Windsor, Ont. Guaranty Trust Bldg.
CMGI 1420 30 Colon, Cuba Armando Linanza, Marti No. 35	FQN 609 250 St. Pierre, Miq.
CMHA 1070 50 Sagua Grande, Cuba Abelardo Menocal, Carrillo No. 1	HHK 920 1000 Port-au-Prince, Haiti Haitian Government
CMHB 1240 30 San Spiritus, Cuba Independencia No. 33	HIH 1395 15 San Pedro de M., D.R. Domingo Dominguez
CMHD 1270 250 Caibarien, Cuba Manuel Alvarez, M. Escobar 17	HIJ 1195 15 Santo Domingo, D. R. Tuto Baez, Hostos 34
CMHI 1210 150 Santa Clara, Cuba Lavis y Paz, Independencia No. 34	HIX 1270 1000 Santo Domingo, D. R. J. R. Saladin, Director General
CMHJ 1180 100 Cienfuegos, Cuba Romoualde Ugalde, Sta. Elena 104	HIZ 1300 10 Santo Domingo, D. R. Abbes and Garcia
CMHK 1330 250 Cruces, Cuba Heredia No. 61	KABC 1420 100 San Antonio, Texas Texas Theatre Bldg.
CMHW 810 100 Cienfuegos, Cuba Arguelles No. 200	KABR 1420 100 Aberdeen, S. Dak. Aberdeen Broadcast Co.
CMJC 1380 150 Camaguey, Cuba Cisneros y G. Gomez	KADA 1200 100 Ada, Okla. C. C. Morris
CMJE 1220 50 Camaguey, Cuba Manuel Fernandez, Hnos. Aguerre No. 2	KALE 1300 500 Portland, Ore. Kale, Inc., New Heathman Hotel
CMJF 1150 200 Camaguey, Cuba John L. Stowers, Republica No. 88	KARK 890 250 Little Rock, Ark. N. S. L. Bldg.
CMJG 1010 50 Camaguey, Cuba Maceo No. 1	KASA 1210 100 Elk City, Okla. E. M. Woody, Casa Grande Hotel
CMJH 1360 50 Ciego de Avila, Cuba Luis Maraauri, H. Castilla 37	KAST 1370 100 Astoria, Ore. Abraham Shapiro

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KBPS 1420 100	Portland, Ore.
E. 12th & Hoyt Sts.	
KBTM 1200 100	Jonesboro, Ark.
Jay P. Beard	
KCMC 1420 100	Texarkana, Ark.
Box 865	
KCRC 1370 100	Enid, Okla.
Enid Radiophone Co., Oxford Hotel	
KCRJ 1310 100	Jerome, Ariz.
Chas. C. Robinson, Drawer D.	
KDB 1500 190	Santa Barbara, Calif.
15-17 E. Haley St.	
KDFN 1440 500	Casper, Wyo.
Donald Lewis Hathaway	
KDKA 980 50000	Pittsburgh, Pa.
Hotel Wm. Penn	
KDLR 1210 100	Devils Lake, N. D.
KDLR, Inc., 1025 3rd Street	
KDYL 1290 1000	Salt Lake City, Utah
Ezra Thompson Bldg.	
KECA 1430 1000	Los Angeles, Calif.
1000 S. Hope St.	
KELD 1370 100	El Dorado, Ark.
T. H. Barton	
KELW 780 500	Burbank, Calif.
3702 Magnolia Park Blvd.	
KERN 1370 100	Bakersfield, Calif.
Elk's Club	
KEX 1180 5000	Portland, Ore.
Oregonian Bldg.	
KFAB 770 10000	Lincoln, Neb.
Cornhusker Hotel	
KFAC 1300 1000	Los Angeles, Calif.
E. L. Cord, 645 So. Mariposa	
KFBB 1280 1000	Great Falls, Mont.
Buttrey Broadcast., Inc.	
KFBI 1050 5000	Abilene, Kans.
Box 345	
KFBK 1310 100	Sacramento, Calif.
Sacramento Bee	
KFDM 560 500	Beaumont, Texas
Beaumont Hotel, P. O. Box 2950	
KFDY 780 1000	Brookings, S. D.
South Dakota State College	
KFEL 920 500	Denver, Colo.
Albany Hotel	
KFEQ 680 2500	St. Joseph, Mo.
Schneider Bldg.	
KFGQ 1370 100	Boone, Iowa
924 W. 2nd St.	
KFH 1300 1000	Wichita, Kans.
124 1/2 S. Market St.	
KFI 640 50000	Los Angeles, Calif.
1000 S. Hope St.	
KFIO 1120 100	Spokane, Wash.
213 Riverside Ave.	
KFIZ 1420 100	Fond du Lac, Wis.
18 W. 1st St.	
KFJB 1200 100	Marshalltown, Iowa
1603 W. Main St.	
KFJI 1210 100	Klamath Falls, Ore.
KFJI Broadcasters, Inc., Willard Hotel	
KFJM 1370 100	Grand Forks, N. D.
University of North Dakota	
KFJR 1300 500	Portland, Ore.
622 Lumbermen's Bldg.	
KFJZ 1370 100	Fort Worth, Texas
Texas Hotel	
KFKA 880 500	Greeley, Colo.
Box 735	
KFKU 1220 1000	Lawrence, Kans.
University of Kansas	

KKNF 890 500	Shenandoah, Iowa
407 Sycamore St.	
KFOR 1210 100	Lincoln, Neb.
Howard Shuman, Hotel Lincoln	
KFOX 1250 1000	Long Beach, Calif.
220 E. Anaheim St.	
KFPL 1310 100	Dublin, Texas
C. C. Baxter, Box 176	
KFPW 1210 100	Fort Smith, Ark.
Goldman Hotel	
KFPY 1340 1000	Spokane, Wash.
Symons Bldg.	
KFQD 780 250	Anchorage, Alaska
411—4th Ave.	
KFRC 610 1000	San Francisco, Calif.
1000 Van Ness Ave.	
KFRO 1370 100	Longview, Texas
Voice of Longview	
KFRU 630 500	Columbia, Mo.
KFRU, Inc., 9th and Elm Sts.	
KFSD 600 1000	San Diego, Calif.
U. S. Grant Hotel	
KFSG 1120 1000	Los Angeles, Calif.
1100 Glendale Blvd.	
KFUO 550 500	St. Louis, Mo.
801 De Mun St.	
KFVD 1000 250	Los Angeles, Calif.
E. L. Cord, 645 S. Mariposa	
KFVS 1210 100	Cape Girardeau, Mo.
Oscar C. Hirsch, Box 275	
KFWB 950 1000	Hollywood, Calif.
Warner Bros. Motion Pictures, Inc.	
KFXD 1200 100	Nampa, Idaho
Frank E. Hurt, 1024 12th Ave. S.	
KFXJ 1200 100	Grand Jct., Colo.
Hillcrest Manor	
KFXM 1210 100	San Bernardino, Calif.
California Hotel	
KFXR 1310 100	Oklahoma City, Okla.
541 Hightower Bldg.	
KFYO 1310 100	Lubbock, Texas
Kirksey Bros., Hotel Lubbock	
KFYR 550 1000	Bismarck, N. D.
320 Broadway	
KGA 1470 5000	Spokane, Wash.
1023 W. Riverside Ave.	
KGAR 1370 100	Tucson, Ariz.
142 S. 6th Ave.	
KGB 1330 1000	San Diego, Calif.
1012—1st St.	
KGBU 900 500	Ketchikan, Alaska
Mile 5, Wards Cove Rd.	
KGBX 1230 500	Springfield, Mo.
KGBX, Inc., C. of C. Bldg.	
KGBZ 930 1000	York, Neb.
KGBZ Broadcasting Co., 715 Grant Ave.	
KGCA 1270 100	Decorah, Iowa
Charles W. Greenley, 201 Water St.	
KGCU 1240 250	Mandan, N. D.
404 W. Main St.	
KGCX 1310 100	Wolf Point, Mont.
E. E. Krebbach	
KGDE 1200 100	Fergus Falls, Minn.
C. L. Jaren	
KGDM 1100 1000	Stockton, Calif.
E. F. Peffer, 42 S. Calif. St.	
KGDY 1340 250	Huron, S. D.
Voice of S. D., Inc., 347 Dakota Ave.	
KGEK 1200 100	Sterling, Colo.
Elmer G. Beehler, 109 W. 2nd St.	
KGER 1360 1000	Long Beach, Calif.
435 Pine Ave.	

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KGEZ 1310	100	Kalispell, Mont. Donald C. Treloar, Box 1	KIDO 1350	1000	Boise Idaho Hotel Boise
KGFF 1420	100	Shawnee, Okla. 9th & Bell Sts.	KIDW 1420	100	Lamar Colo. Lamar Broadcasting Co., Box 688
KGFG 1370	100	Oklahoma City, Okla. Okla. Broadcasting Co., 1113 N. Broadway	KIEM 1210	100	Eureka, Calif. Redwood Bdstg. Co., Vance Hotel
KGFI 1500	100	Corpus Christi, Texas Eagle Broadcasting Co., Inc., P. O. Box 1508	KIEV 850	250	Glendale, Calif. Cannon System, Ltd., Glendale Hotel
KGfJ 1200	100	Los Angeles, Calif. Ben S. McGlashan, 1417 S. Figueroa.	KINY 610	250	Juneau, Alaska Northwest Advertising Co.
KGfK 1500	100	Moorhead, Minn. 722 Center Ave.	KIT 1310	100	Yakima, Wash. 109 1/2 E. Yakima Ave.
KGfL 1370	100	Roswell, N. M. KGfL, Inc., 507 N. Main St.	KIUJ 1310	100	Santa Fe, N. Mex. J. H. Speck
KGfW 1310	100	Kearney, Neb. Midway Hotel	KIUL 1210	100	Garden City, Kans. Garden City Brdstg. Co.
KGfX 630	200	Pierre, S. D. Dana McNeil, 510 Summit Ave.	KIUN 1420	100	Pecos, Texas J. H. Hawkins & B. H. Hubbs
KGQC 1420	100	San Francisco, Calif. 230 Eddy St.	KJBS 1070	500	San Francisco, Calif. 1380 Bush St.
KGfF 1010	1000	Coffeyville, Kans. Coffeyville Journal Bldg.	KJR 970	5000	Seattle, Wash. Skinner Bldg.
KGGM 1230	250	Albuquerque, N. M. Franciscan Hotel	KLCN 1290	100	Blytheville, Ark. C. L. Lintzenleh, Main and Division St.
KGfH 1320	500	Pueblo, Colo. C. P. Ritchie, 113 Broadway	KLO 1400	500	Ogden, Utah 405—25th St.
KGHI 1200	100	Little Rock, Ark. Arkansas Brdstg. Co., Marion Hotel	KLPM 1240	250	Minot, N. D. John B. Cooley, Box 707
KGHL 780	1000	Billings, Mont. 5th & N. Broadway	KLRA 1390	1000	Little Rock, Ark. Arkansas Broadcasting Co., Box 550
KGIR 1360	1000	Butte, Mont. KGIR, Inc., 121 W. Broadway	KLS 1440	250	Oakland, Calif. Warner Bros., 2201 Telegraph Ave.
KGIW 1420	100	Alamosa, Colo. Leonard E. Wilson, 326 N. Commercial	KLUF 1370	100	Galveston, Texas Geo. R. Clough, Buccaneer Hotel
KGIX 1420	100	Las Vegas, Nev. J. M. Heaton, Box 656	KLX 880	1000	Oakland, Calif. Tribune Tower
KGKB 1500	100	Tyler, Texas 115 S. College	KLZ 560	1000	Denver, Colo. Shirley-Savoy Hotel
KGKL 1370	100	San Angelo, Texas KGKL, Inc., St. Angelus Hotel	KMA 930	1000	Shenandoah, Iowa Earl E. May Seed & Nursery Co.
KGKO 570	500	Wichita Falls, Texas 9th St. & Indiana Ave.	KMAC 1370	100	San Antonio, Texas W. W. McAllister, Blue Bonnet Hotel
KGKY 1500	100	Scottsbluff, Neb. Hilliard Co., Inc., 1517 1/2 Broadway	KMBC 950	1000	Kansas City, Mo. Pickwick Hotel
KGMB 1320	1000	Honolulu, T. H. Honolulu Broadcasting Co., Box 2663	KMED 1310	100	Medford, Ore. Mrs. W. J. Virgin, Sparta Bldg.
KGfN 1430	1000	North Platte, Neb. Great Plains Broadcasting Co., W. 12th St.	KMJ 580	1000	Fresno, Calif. Van Ness & Calaveras Sts.
KGNO 1340	250	Dodge City, Kans. First Natl. Bank Bldg.	KMLB 1200	100	Monroe, La. Francis Hotel
KGQ 790	7500	San Francisco, Calif. 111 Sutter St.	KMMJ 740	1000	Clay Center, Neb. The M. M. Johnson Co.
KGRS 1410	1000	Amarillo, Texas Plains Radio Broadcasting Co.	KMO 1330	250	Tacoma, Wash. KMO, Inc., Hotel Winthrop
KGU 750	2500	Honolulu, T. H. Kaplan at South St.	KMOX 1090	50000	St. Louis, Mo. 401 S. 12th St.
KGVO 1260	1000	Missoula, Mont. Mosby, Inc., 240 N. Higgins	KMPC 710	500	Beverly Hills, Calif. 9631 Wilshire Blvd.
KGW 620	1000	Portland, Ore. 325 Adler St.	KMTR 570	1000	Hollywood, Calif. KMTR Radio Corp., 915 N. Formosa Ave.
KGy 1210	100	Olympia, Wash. EGY, Inc., 11th and Capitol Way	KNOW 1500	100	Austin, Texas Norwood Building
KHJ 900	1000	Los Angeles, Calif. 7th at Bixel	KNX 1050	50000	Hollywood, Calif. West. Broadcast Co., Inc., 1558 N. Vine St.
KHQ 590	1000	Spokane, Wash. Sprague Ave. & Post St.	KOA 830	50000	Denver, Colo. General Electric Co., 1370 Krameria St.
KHSL 950	250	Chico, Calif. Golden Empire Brdstg. Co.	KOAC 550	1000	Corvallis, Ore. Oregon State Agricultural College
KICA 1370	100	Clevis, N. M. Southwest Broadcasting Co.	KOB 1180	10000	Albuquerque, N. M. Albuquerque Journal, Box 867
KID 1320	250	Idaho Falls, Idaho Park Ave. & Broadway	KOH 1380	500	Reno, Nev. 440 N. Virginia St.

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KOIL 1260 1000 Council Bluffs, Iowa Mona Motor Oil Co.	KSEI 890 250 Pocatello, Idaho Radio Service Corp., 141 S. 6th Ave.
KOIN 940 1000 Portland, Ore. KOIN, Inc., New Heathman Hotel	KSL 1130 50000 Salt Lake City, Utah Vermont Bldg.
KOL 1270 1000 Seattle, Wash. Northern Life Tower	KSLM 1370 100 Salem, Ore. Oregon Radio, Inc.
KOMA 1480 5000 Oklahoma City, Okla Biltmore Hotel	KSO 1430 250 Des Moines, Iowa Des Moines Register & Tribune
KOMO 920 1000 Seattle, Wash. Skinner Bldg	KSOO 1110 2500 Sioux Falls, S. D. Sioux Falls Brdcast. Assn., Carpenter Hotel
KONO 1370 100 San Antonio, Texas Mission Broadcast. Co., St. Anthony Hotel	KSTP 1460 10000 St. Paul, Minn. St. Paul Hotel
KOOS 1200 250 Marshfield, Ore. H. H. Hanseth, Hall Bldg.	KSUN 1200 100 Lowell, Ariz. Copper Electrical Co., Drawer C
KORE 1420 100 Eugene, Ore. 733 Willamette St.	KTAB 560 1000 San Francisco, Calif. 5th & Mission Sts.
KOTN 1500 100 Pine Bluff, Ark. Universal Brdcastg. Corp., Hotel Pines	KTAR 620 1000 Phoenix, Ariz. 116 N. Central Ave.
KOY 1390 500 Phoenix, Ariz. 621 N. Central Ave.	KTAT 1240 1000 Fort Worth, Texas Ft. Worth Natl. Bank Bldg.
KPAC 1260 500 Port Arthur, Texas Port Arthur College	KTBS 1450 1000 Shreveport, La. Box 1642
KPCB 710 100 Seattle, Wash. Tower Bldg.	KTF 1240 1000 Twin Falls, Idaho Radio Broadcasting Corp., Box 521
KPJM 1500 100 Prescott, Ariz. Scott & Sturm, P. O. Box 782	KTHS 1060 10000 Hot Springs, Ark. Chamber of Commerce, Box 886
KPLC 1500 100 Lake Charles, La. Calcasieu Brdcastg. Co.	KTM 780 500 Los Angeles, Calif. 214 S. Vermont St.
KPO 680 50000 San Francisco, Calif. 111 Sutter St.	KTRB 740 250 Modesto, Calif. McTammany & Bates
KPOF 880 500 Denver, Colo. Pillar Of Fire, 1845 Champa St.	KTRH 1290 1000 Houston, Texas KTRH Broadcasting Co., Rice Hotel
KPPC 1210 50 Pasadena, Calif. 585 E. Colorado St.	KTSA 550 1000 San Antonio, Texas Southwest Broadcasting Co., Plaza Hotel
KPQ 1500 100 Wenatchee, Wash. KPQ Bldg.	KTSM 1310 100 El Paso, Texas P. O. Box 1976
KPRC 920 1000 Houston, Texas 2204 Shell Bldg.	KTUL 1400 500 Tulsa, Okla. National Bank of Tulsa Bldg.
KQV 1380 500 Pittsburgh, Pa. KQV Broadcasting Co., Investment Bldg.	KTW 1220 1000 Seattle, Wash. 77th Ave. & Spring St.
KQW 1010 1000 San Jose, Calif. 87 E. San Antonio St.	KUJ 1370 100 Walla Walla, Wash. KUJ, Inc., Marcus Whitman Hotel
KRE 1370 100 Berkeley, Calif. 2345 Channing Way	KUMA 1420 100 Yuma, Ariz. Dr. A. H. Schermann, Box 267
KREG 1500 100 Santa Ana, Calif. 3rd & Sycamore Sts.	KUOA 1260 1000 Fayetteville, Ark. KUOA, Inc., Washington Hotel
KRGV 1260 500 Weslaco, Texas KRGV Inc.	KUSD 890 500 Vermillion, S. D. University of South Dakota
KRKD 1120 1000 Los Angeles, Calif. 815 Spring Arcade Bldg.	KVI 570 1000 Tacoma, Wash. W. R. Rust Bldg.
KRKO 1370 50 Everett, Wash. Lee Mudgett, 2814 Rucker Ave.	KVL 1370 100 Seattle, Wash. KVL, Inc., 5th and Virginia St.
KRLC 1420 100 Lewiston, Idaho H. E. Studebaker	KVOA 1260 500 Tucson, Ariz. Cons. Natl. Bank Bldg.
KRLD 1040 10000 Dallas, Texas KRLD Radio Corp., Adolphus Hotel	KVOD 920 500 Denver, Colo. Continental Oil Bldg.
KRMD 1310 100 Shreveport, La. Jefferson Hotel	KVOO 1140 25000 Tulsa, Okla. Wright Bldg.
KRNT 1320 500 Des Moines, Iowa Des Moines Register Tribune	KVOR 1270 1000 Colorado Spg., Colo. Mining Exchange Bldg.
KROC 1310 100 Rochester, Minn. Southern Minnesota Broadcasting Co.	KVOS 1200 100 Bellingham, Wash. 115 W. Magnolia St.
KROW 930 1000 Oakland, Calif. 1803 Franklin St.	KVSO 1210 100 Ardmore, Okla. Ardmoreite Pub. Co., Inc.
KRSC 1120 100 Seattle, Wash. Radio Sales Corp., Washington Athletic Club	KWBG 1420 100 Hutchinson, Kans. W. B. Greenwald
KSAC 580 500 Manhattan, Kans. State College of Agriculture	KWEA 1210 100 Shreveport, La. Spring & Fannin Sts.
KSCJ 1330 1000 Sioux City, Iowa Perkins Bros. Co., 415 Douglas St.	KWG 1200 100 Stockton, Calif. Medico-Dental Bldg.
KSD 550 1000 St. Louis, Mo. 12th & Olive Sts.	KWJJ 1040 500 Portland, Ore. 622 S. W. Salmon St.

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KWK 1350 1000 St. Louis, Mo. Thomas Patrick, Inc., Hotel Chase	WAAW 660 500 Omaha, Neb. Omaha Grain Exchange
KWKC 1370 100 Kansas City, Mo. 39th & Main Sts.	WABC 860 50000 New York, N. Y. 485 Madison Ave.
KWKH 1100 10000 Shreveport, La. Spring & Fannin Sts.	WABI 1200 100 Bangor, Maine First Universalist Society Park St.
KWLC 1270 100 Decorah, Iowa Luther College	WABY 1370 100 Albany, N. Y. Strand Theatre Bldg.
KWSC 1220 1000 Pullman, Wash. State College of Washington	WACO 1420 100 Waco, Texas Amicable Bldg.
KWTN 1210 100 Watertown, S. D. Citizens Bank Bldg.	WADC 1320 1000 Akron, Ohio Allen T. Simmons, P. O. Box 29
KWTO 560 5000 Springfield, Mo. KGBX Inc.	WAGF 1370 100 Dothan, Ala. Houston Hotel
KWYO 1370 100 Sheridan, Wyo. Big Horn Brdcastg. Co.	WAGM 1420 100 Presque Isle, Me. Aroostook Broadcasting Corp., Main St.
KXA 760 250 Seattle, Wash. American Radio Tel. Co., 218 Bigelow Bldg.	WAIM 1200 100 Anderson S. C. Wilton E. Hall
KXL 1420 100 Portland, Ore. KXL Broadcasters, Multnomah Hotel	WAIU 640 500 Columbus, Ohio Deshier-Wallick Hotel
KXO 1500 100 El Centro, Calif. F. M. Bowles, Box 140	WALA 1380 500 Mobile, Ala. Battie House
KXRO 1310 100 Aberdeen, Wash. KXRO, Inc., Hotel Morck.	WALR 1210 100 Zanesville, Ohio First Trust & Savs. Bank Bldg.
KXYZ 1440 1000 Houston, Texas Fannin & Rusk Sts.	WAML 1310 100 Laurel, Miss. Southland Radio Corp., Box 26
KYA 1230 1000 San Francisco, Calif. 988 Market St.	WAPI 1140 5000 Birmingham, Ala. Protective Life Bldg.
KYW 1020 10000 Philadelphia, Pa. 1622 Chestnut Street	WARD 1400 500 Brooklyn, N. Y. 427 Flatbush Ave., Ext.
NAA 690 1000 Arlington, Va. United States Navy	WASH 1270 500 Grand Rapids, Mich. Grand Rapids Natl. Bank Bldg.
RDN 706 500 San Salvador, E. S. Republic of El Salvador	WATR 1190 100 Waterbury, Conn. WATR Co. Inc. 47 Grand St.
TGW 565 10000 Guatemala, Gua. Gobierno de Guatemala	WAVE 940 1000 Louisville, Ky. WAVE, Inc., 1525 Brown Hotel
TGX 1400 150 Guatemala City	WAWZ 1350 500 Zarephath, N. J. Pillar of Fire.
TIEP 850 500 San Jose, C. R.	WAZL 1420 100 Hazleton, Pa. Hazleton Broadcasting Service, Inc.
TIFA 1050 75 San Jose, C. R.	WBAA 890 1000 West Lafayette, Ind. Purdue University
TIFS 1441 7.5 Cartago, C. R.	WBAL 1060 10000 Baltimore, Md. Lexington Bldg., Amer. Radio News Corp.
TIGA 1014 30 Cartago, C. R.	WBAP 800 50000 Fort Worth, Texas Blackstone Hotel
TIGH 1000 500 San Jose, C. R.	WBAX 1210 100 Wilkes-Barre, Pa. John H. Stenger, Jr., 70 S. Main St.
TIRC 1100 75 San Jose, C. R. Perry Girton, Apdo. 225	WBBC 1400 500 Brooklyn, N. Y. 552-54 Atlantic Ave.
TIRH 930 50 San Jose, C. R.	WBBL 1210 100 Richmond, Va. 1627 Monument Ave.
VAS 685 2000 Glace Bay, N. S. Canadian Marconi Co., Ltd.	WBBM 770 50000 Chicago, Ill. WBBM Broadcasting Corp., Wrigley Bldg.
VESEK 1185 10 Montmagny, Que. J. A. Marquis, P. O. Box 52	WBBR 1300 1000 Brooklyn, N. Y. 124 Columbia Heights
VOAC 1065 40 St. John's, Nfld.	WBBZ 1200 100 Ponca City, Okla. C. L. Carrell, 407 W. South Ave.
VOAS 940 100 St. John's N. F. Ayre & Sons, Ltd., Water St.	WBCM 1410 500 Bay City, Mich. James E. Davidson, Hotel Wenonah
VOGY 840 400 St. John's, N. F. Newfoundland Hotel	WBEN 900 1000 Buffalo, N. Y. WBEN, Inc., Hotel Statler
VONF 950 5000 St. John's N. F. Dominion Broadcasting Co., Ltd., Box 135	WBEO 1310 100 Marquette, Mich. 146 W. Washington St.
VOWR 681 500 St. John's, N. F. Wesley United Church, Box 157	WBIG 1440 500 Greensboro, N. C. Box 408
WAAB 1410 500 Boston, Mass. 21 Brookline Ave.	WBNO 1200 100 New Orleans, La. Hotel New Orleans
WAAF 920 500 Chicago, Ill. Palmer House	WBNS 1430 500 Columbus, O. 33 N. High St.
WAAT 940 500 Jersey City, N. J. Bremer Broadcasting Corp., 50 Journal Sq.	WBNX 1350 250 New York, N. Y. 260 E. 161st St.

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WBOQ 860 50000 New York, N. Y. Atlantic Broadcasting Corp.	WCRW 1210 100 Chicago, Ill. Clinton R. White, 2756 Pine Grove Ave.
WBOW 1310 100 Terre Haute, Ind. Banks of Wabash, Inc., 19 Beach Block	WCSC 1360 500 Charleston, S. C. Francis Marion Hotel
WBRB 1210 100 Red Bank, N. J. 63 Broad St.	WCSH 940 1000 Portland, Me. 679 Congress St
WBRC 930 1000 Birmingham, Ala. Bankhead Hotel	WDAE 1220 1000 Tampa, Fla. Tampa Times Co., Tampa Terrace
WBRE 1310 100 Wilkes-Barre, Pa. Louis G. Baltimore, 16 N. Main	WDAF 610 1000 Kansas City, Mo. 1729 Grand Ave.
WBSO 920 500 Babson Park, Mass. Drawer B	WDAG 1410 1000 Amarillo, Texas Box 306
WBT 1080 50000 Charlotte, N. C. Station WBT, Inc., Wilder Bldg.	WDAH 1310 100 El Paso, Texas Box 1976
WBTM 1370 100 Danville, Va. Miller Bldg.	WDAS 1370 100 Philadelphia, Pa. WDAS Brdestg. Co., Inc., Broadway Hotel
WBZ 990 50000 Boston, Mass. Hotel Bradford	WDAY 940 1000 Fargo, N. D. WDAY, Inc., Black Bldg., 118 Broadway
WBZA 990 1000 Springfield, Mass. Hotel Kimball	WDBJ 930 1000 Roanoke, Va. Times World Corp., P. O. Box 150
WCAC 600 500 Storrs, Conn. Connecticut State College	WDBO 580 1000 Orlando, Fla. 555 N. Orange Ave.
WCAD 1220 500 Canton, N. Y. St. Lawrence University	WDEL 1120 250 Wilmington, Del. WDEL, Inc., 10th and King Sts.
WCAE 1220 1000 Pittsburgh, Pa. 6th Ave. & Smithfield St.	WDEV 550 500 Waterbury, Vt. Harry C. Whitehill, Stowe St.
WCAL 1250 1000 Northfield, Minn. St. Olaf College	WDGY 1180 1000 Minneapolis, Minn. Dr. Geo. W. Young, 909 W. Broadway
WCAM 1280 500 Camden, N. J. City of Camden, City Hall	WDNC 1500 100 Durham, N. C. Washington Duke Hotel
WCAO 600 500 Baltimore, Md. 811 W. Lanvale St.	WDDO 1280 1000 Chattanooga, Tenn. WDDO Broadcasting Corp., Hotel Patten
WCAP 1280 500 Asbury Park, N. J. Convention Hall	WDRC 1330 1000 Hartford, Conn. WDRC, Inc., Corning Bldg., 11 Asylum St.
WCAT 1200 100 Rapid City, S. D. South Dakota State School of Mines	WDSU 1250 1000 New Orleans, La. WDSU Inc., Hotel Monteleone
WCAU 1170 50000 Philadelphia, Pa. WCAU Broadcasting Co., 1622 Chestnut	WDZ 1070 100 Tuscola, Ill. James L. Bush, Star Store Bldg.
WCAX 1200 100 Burlington, Vt. 203 College St.	WEAF 660 50000 New York, N. Y. 30 Rockefeller Plaza
WCAZ 1070 100 Carthage, Ill. 97 1/2 Adams St.	WEAN 780 500 Providence, R. I. New Crown Hotel
WCBA 1440 500 Allentown, Pa. B. Bryan Musselman, 39-41 10th St.	WEBC 1290 1000 Superior, Wis. Spaulding Hotel, Duluth, Minn.
WCBD 1080 5000 Waukegan, Ill. 75 E. Wacker Drive, Chicago	WEBQ 1210 100 Harrisburg, Ill. 100 E. Poplar St.
WCBM 1370 100 Baltimore, Md. Keith Theatre Bldg.	WEBR 1310 100 Buffalo, N. Y. Howel Broadcasting Co., Inc., 735 Main
WCBS 1210 100 Springfield, Ill. WCBS, Inc., 208 1/2 S. 5th.	WEDC 1210 100 Chicago, Ill. Emil Denmark, 3860 Ogden Ave.
WCCO 810 50000 Minneapolis, Minn. Nicollet Hotel	WEED 1420 100 Rocky Mount, N. C. Wm. Avera Wynne, Box 221
WCFL 970 1500 Chicago, Ill. 866 Lake Shore Drive	WEEL 590 1000 Boston, Mass. 182 Tremont St.
WCHS 580 500 Charleston, W. Va. WOBV, Inc., Ruffner Hotel	WEEU 830 1000 Reading, Pa. Berks Broadcasting Co., 533 Penn.
WCKY 1490 5000 Covington, Ky. 6th & Madison Sts.	WEHC 1420 100 Charlottesville, Va. 7th & Main Sts.
WCLO 1200 100 Janesville, Wis. 200 E. Milwaukee St.	WEHS 1420 100 Cicero, Ill. WEHS, Inc., 6135 W. Cermak Rd.
WCLS 1310 100 Joliet, Ill. WCLS, Inc., 301 E. Jefferson St.	WELL 1420 100 Battle Creek, Mich. Enquirer News, 38 W. State St.
WCMI 1310 100 Ashland, Ky. Ashland Broadcasting Co.	WENR 870 50000 Chicago, Ill. 222 N. Bank Drive
WCNW 1500 100 Brooklyn, N. Y. Arthur Faske, 1525 Pitkin Ave.	WESG 850 1000 Elmira, N. Y. Mark Twain Hotel
WCOA 1340 500 Pensacola, Fla. San Carlos Hotel	WEVD 1300 1000 New York, N. Y. Jewish Daily Forward, Hotel Claridge
WCOC 880 500 Meridian, Miss. Box 603	WEW 760 1000 St. Louis, Mo. St. Louis University, 221 N. Grand Blvd.
WCOL 1210 100 Columbus, Ohio WCOL Inc., 30 N. High St.	WEXL 1310 50 Royal Oak, Mich. 212 W. 6th St.

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WFAA 800 50000 Dallas, Texas Baker Hotel	WHBC 1200 100 Canton, Ohio Edw. P. Graham, 319 Tusc. St., W.
WFAB 1300 1000 New York, N. Y. Fifth Avenue Broadcasting Corp.	WHBF 1210 100 Rock Island, Ill. Hotel Harms
WFAM 1200 100 South Bend, Ind. South Bend Tribune, 225 W. Colfax Ave.	WHBI 1250 1000 Newark, N. J. 100 Shipman St.
WFAS 1210 100 White Plains, N. Y. Hotel Roger Smith	WHBL 1410 500 Sheboygan, Wis. Press Publishing Co., Press Bldg.
WFBC 1300 1000 Greenville, S. C. Imperial Hotel	WHBQ 1370 100 Memphis, Tenn. Brdstg. Sta. WNBQ, Inc. Hotel Claridge
WFBE 1200 100 Cincinnati, Ohio WFBE, Inc., Hotel Sinton	WHBU 1210 100 Anderson, Ind. Anderson Broadcasting Corp., Box 816
WFBG 1310 100 Altoona, Pa. Gable Broadcasting Co. 12th Av. & 13th St.	WHBY 1200 100 Green Bay, Wis. WHBY, Inc., Bellin Bldg.
WFBL 1360 1000 Syracuse, N. Y. Onondaga Hotel	WHDF 1370 100 Calumet, Mich. Box 643
WFBM 1230 1000 Indianapolis, Ind. 48 Monument Circle	WHDH 830 1000 Boston, Mass. Matheson Radio Co., 62 Boylston
WFBR 1270 500 Baltimore, Md. 7 St. Paul St.	WHDL 1420 100 Olean, N. Y. Exchange Natl. Bank Bldg.
WFDF 1310 100 Flint, Mich. Union Industrial Bldg.	WHEB 740 250 Portsmouth, N. H. Box 522, 39 Congress St.
WFEA 1340 500 Manchester, N. H. Carpenter Hotel	WHEC 1430 500 Rochester, N. Y. WHEC, Inc., 40 Franklin St.
WFIL 560 1000 Philadelphia, Pa. WFIL Broadcasting Co., 801 Market	WHEF 1500 100 Kosciusko, Miss. 417 W. Adams St.
WFLA 620 1000 Clearwater, Fla. Box 119	WHFC 1420 100 Cicero, Ill. WHFC, Inc., 6138 W. Cermaak Road
WFMD 900 500 Frederick, Md. Monocacy Broadcasting Co.	WHIO 1260 1000 Dayton, Ohio 39 S. Ludlow St.
WGAL 1500 100 Lancaster, Pa. WGAL, Inc., 8 W. King St.	WHIS 1410 250 Bluefield, W. Va. Bland St.
WGAR 1450 500 Cleveland, Ohio WGAR Broadcasting Co., Hotel Statler	WHJB 620 250 Greensburg, Pa. Penn-Albert Hotel, 128 Pa. Ave.
WGBB 1210 100 Freeport, N. Y. H. H. Carman, 64 S. Grove St.	WHK 1390 1000 Cleveland, Ohio 1311 Terminal Tower
WGBF 630 500 Evansville, Ind. 519 Vine St.	WHN 1010 1000 New York, N. Y. 1540 Broadway
WGBI 880 500 Scranton, Pa. 116 N. Washington Ave.	WHO 1000 50000 Des Moines, Iowa Central Brdstg. Co., 914 Walnut St.
WGCM 1210 100 Mississippi City Great Southern Golf Club	WHOM 1450 250 Jersey City, N. J. 2870 Boulevard
WGES 1360 500 Chicago, Ill. 128 N. Crawford Ave.	WHP 1430 500 Harrisburg, Pa. WHP, Inc., 216 Locust St.
WGH 1310 100 Newport News, Va. 2813 Washington Ave.	WIBA 1280 1000 Madison, Wis. 111 King St.
WGL 1370 100 Fort Wayne, Ind. F. C. Zieg, 213 W. Main St.	WIBG 970 100 Glenside, Pa. WIBG, Inc., Keswick Bldg.
WGN 720 50000 Chicago, Ill. WGN, Inc., Tribune Tower	WIBM 1370 100 Jackson, Mich. WIBM, Inc., 306 W. Michigan Ave.
WGNV 1210 100 Chester, N. Y. Peter Goelet (Orange County)	WIBU 1210 100 Poynette, Wis. Wm. C. Forrest, R. F. D. No. 3
WGPC 1420 100 Albany, Ga. Rylander Theatre Bldg.	WIBW 580 1000 Topeka, Kans. 11th & Topeka Blvd.
WGR 550 1000 Buffalo, N. Y. Rand Bldg.	WIBX 1200 100 Utica, N. Y. WIBX, Inc., 1st Natl. Bank Bldg.
WGST 890 500 Atlanta, Ga. Ansley Hotel	WICC 600 500 Bridgeport, Conn. Southern Conn. Broadcasting Corp.
WGY 790 50000 Schenectady, N. Y. 1 River Road	WIL 1200 100 St. Louis, Mo. Melbourne Hotel
WHA 940 2500 Madison, Wis. University of Wisconsin	WILL 890 1000 Urbana, Ill. University of Illinois
WHAM 1150 50000 Rochester, N. Y. 100 Carlson Road	WILM 1420 100 Wilmington, Del. 920 King St.
WHAS 820 50000 Louisville, Ky. 300 W. Liberty St.	WIND 560 1000 Gary, Ind. 504 Broadway
WHAT 1310 100 Philadelphia, Pa. Public Ledger Bldg.	WINS 1180 1000 New York, N. Y. 110 E. 58th St., Hearst Radio, Inc.
WHAZ 1300 500 Troy, N. Y. 8th St.	WIOD 1300 1000 Miami, Fla. Herald Bldg., Metropolis Pub. Co.
WHB 860 1000 Kansas City, Mo. WHB Broadcasting Co., Scarritt Bldg.	WIP 610 500 Philadelphia, Pa. Gimbel Bldg.

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WIRE 1400 500	Indianapolis, Ind. 540 N. Meridian St.
WIS 1010 1000	Columbia, S. C. Station WIS, Inc., 1811 Main St.
WISN 1120 250	Milwaukee, Wis. 123 W. Michigan St., Hearst Radio, Inc.
WJAC 1310 100	Johnstown, Pa. WJAC, Inc., Locust St.
WJAG 1060 1000	Norfolk, Neb. Norfolk Daily News
WJAR 890 500	Providence, R. I. Outlet Co., Weybossett St.
WJAS 1290 1000	Pittsburgh, Pa. Chamber of Commerce Bldg.
WJAX 900 1000	Jacksonville, Fla. City of Jacksonville
WJAY 610 500	Cleveland, Ohio 1224 Huron Road
WJBC 1200 100	Bloomington, Ill. Kaaskaskia Broadcasting Co.
WJBK 1500 100	Detroit, Mich. 6559 Hamilton Ave.
WJEL 1200 100	Decatur, Ill. Gushard Bldg.
WJBO 1420 100	Baton Rouge, La. Baton Rouge Broadcasting Co., Inc.
WJBW 1200 100	New Orleans, La. C. C. Carlson, Godechaux Bldg.
WJBY 1210 100	Gadsden, Ala. Gadsden Broadcasting Co., 112 N. 8th St.
WJDX 1270 1000	Jackson, Miss. Lamar Life Bldg.
WJEF 1210 100	Hagerstown, Md. Lovely Dame Bldg.
WJIM 1210 100	Lansing, Mich. Capital City Brdcastg. Co.
WJJD 1130 20000	Chicago, Ill. WJJD, Inc., 201 N. Wells St.
WJMS 1420 100	Ironwood, Mich. WJMS, Inc., St. James Hotel
WJR 750 10000	Detroit, Mich. WJR, Inc., Fisher Bldg.
WJSV 1460 10000	Washington, D. C. Earle Building
WJTL 1370 100	Atlanta, Ga. Oglethorpe University
WJW 1210 100	Akron, Ohio WJW, Inc., 41 S. High St.
WJZ 760 50000	New York, N. Y. 80 Rockefeller Plaza
WKAQ 1240 1000	San Juan, P. R. Radio Corp. of Porto Rico, P. O. Box 358
WKAR 1040 1000	East Lansing, Mich. Michigan State College
WKBB 1500 100	East Dubuque, Ill. Richard W. Hoffman
WKBH 1380 1000	LaCrosse, Wis. WKBH, Inc., 409 Main St.
WKBI 1420 100	Cleora, Ill. WKBI Inc., 6138 W. Cermak Road
WKBN 570 500	Youngstown, Ohio 17 N. Champion St.
WKBO 1200 100	Harrisburg, Pa. Penn Harris Hotel
WKBV 1500 100	Richmond, Ind. Knox Radio Corp., Box 308
WKBW 1480 5000	Buffalo, N. Y. Rand Bldg.
WKBZ 1500 100	Muskegon, Mich. Karl L. Ashbacher & Sons
WKEU 1500 100	Griffin, Ga. Radio Station WKEU, 906 Hill St.

WKJC 1200 100	Lancaster, Pa. 16 W. King St.
WKOK 1210 100	Sunbury, Pa. 1160 N. Front St.
WKRC 550 1000	Cincinnati, Ohio WKRC, Inc., Hotel Alms
WKY 900 1000	Oklahoma City, Okla. Plaza Court Bldg.
WKZO 590 1000	Kalamazoo, Mich. John E. Fetzer, Burdick Hotel
WLAC 1470 5000	Nashville, Tenn. 159—4th Ave. No. WLAC Inc.
WLAP 1420 100	Lexington, Ky. Main & Esplanade
WLB 1250 1000	Minneapolis, Minn. University of Minnesota
WLBC 1310 50	Muncie, Ind. D. A. Burton, Anthony Bldg.
WLBK 1420 100	Kansas City, Kans. WLBK Broadcasting Co., Huron Bldg.
WLBL 900 2500	Stevens Point, Wis. Wisconsin Dept. of Agriculture and Markets
WLBZ 620 500	Bangor, Me. Maine Broadcasting Co., Inc., 100 Main
WLEU 1420 100	Erie, Pa. Leo J. Omelian
WLLH 1370 100	Lowell, Mass. Albert S. Moffat, Box D
WLNH 1310 100	Laconia, N. H. 523 Main St.
WLS 870 50000	Chicago, Ill. 1230 W. Washington Blvd.
WLTH 1400 500	Brooklyn, N. Y. 305 Washington St.
WLVA 1200 100	Lynchburg, Va. 915 Main St.
WLW 700 50000	Cincinnati, Ohio 1329 Arlington St.
WLWL 1100 5000	New York, N. Y. 415 W. 59th St.
WMAL 630 250	Washington, D. C. 712—11th St., N. W.
WMAQ 670 50000	Chicago, Ill. Merchandise Mart
WMAS 1420 100	Springfield, Mass. WMAS, Inc., 70 Chestnut St.
WMAZ 1180 1900	Macon, Ga. 211 Cotton Ave.
WMBC 1420 100	Detroit, Mich. 7310 Woodward Ave.
WMBD 1440 500	Peoria, Ill. 114 N. Madison St.
WMBG 1210 100	Richmond, Va. 914 W. Broad St.
WMBH 1420 100	Joplin, Mo. 1334 Roosevelt St.
WMBI 1080 5000	Chicago, Ill. 153 Institute Place
WMO 1310 100	Auburn, N. Y. WMO, Inc., Metcalf Bldg.
WMBQ 1500 100	Brooklyn, N. Y. Paul J. Gollhofer, 95 Leonard St.
WMBR 1370 100	Jacksonville, Fla. F. J. Reynolds, Carling Hotel
WMC 780 1000	Memphis, Tenn. WMC, Inc., Hotel Gayoso
WMCA 570 500	New York, N. Y. 1697 Broadway
WMEX 1500 100	Boston, Mass. The Northern Corp., Hotel Manger
WMFD 1370 100	Wilmington, N. C. Richard Austin Dunlea

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WMFE 1380	250	New Britain, Conn. William J. Sanders	WOS 630	500	Jefferson City, Mo. State Highway Control, Capitol Bldg.
WMFF 1310	100	Plattsburg, N. Y. Plattsburg Broadcasting Corp.	WOSU 570	750	Columbus, Ohio Ohio State University
WMFG 1210	100	Hibbing, Minn. Head of the Lakes Brdcastg. Co.	WOV 1130	1000	New York, N. Y. 132 West 43rd St.
WMFH 1120	500	Boston, Mass. Joseph M. Kirby	WOW 590	1000	Omaha, Neb. Woodmen of the World, 4th and Farnam
WMFI 900	500	New Haven, Conn. Patrick J. Goode	WOWO 1160	10000	Fort Wayne, Ind. Main Auto Supply Co., 213 W. Main
WMFJ 1420	100	Daytona Beach, Fla. W. Wright Esch	WPAD 1420	100	Paducah, Ky. 2201 Broadway
WMFN 1210	100	Clarksdale, Miss. Attala Brdcastg. Corp.	WPAX 1210	100	Thomasville, Ga. H. Wimpy, 135 E. Jackson St.
WMFO 1370	100	Decatur, Ala. James R. Doss, Jr.	WPAY 1370	100	Portsmouth, Ohio F. P. Moler
WMMN 890	500	Fairmont, W. Va. West Va. Brdcastg. Corp., 325 Main St.	WPEN 920	250	Philadelphia, Pa. 22nd & Walnut Sts.
WMPG 1200	100	Lapeer, Mich. 81 Liberty St.	WPFB 1370	100	Hattiesburg, Miss. Forest Brdcastg. Co.
WMT 600	1000	Cedar Rapids, Iowa Hotel Montrose	WPG 1100	5000	Atlantic City, N. J. Convention Hall
WNAC 1230	1000	Boston, Mass. 21 Brookline Ave.	WPHR 880	500	Petersburg, Va. WLBG, Inc., Medical Arts Bldg.
WNAD 1010	1000	Norman, Okla. University of Oklahoma	WPRO 630	250	Providence, R. I. Cherry & Webb Brdcastg. Co., 15 Chestnut
WNAX 570	1000	Yankton, S. D. House of Gurney, Inc., 2nd and Capital St.	WPRR 1420	100	Ponce, P. R. Julio M. Conesa
WNBK 1500	100	Binghamton, N. Y. Arlington Hotel	WPTF 680	1000	Raleigh, N. C. 324 Fayetteville St.
WNBH 1310	100	New Bedford, Mass. 251 Union St.	WQAM 560	1000	Miami, Fla. Miami Brdcastg. Co., Inc., 327 N. E. 1st Ave.
WNBK 1430	500	Memphis, Tenn. Memphis Broadcasting Co., Hotel DeVoy	WQAN 880	250	Scranton, Pa. Scranton Times, 149 Penn Ave.
WNBX 1260	1000	Springfield, Vt. WNBX Broadcasting Co., 39 Main St.	WQBC 1360	1000	Vicksburg, Miss. Delta Broadcasting Co., Hotel Vicksburg
WNBZ 1290	100	Saranac Lake, N. Y. Smith & Mace, 70 Broadway	WQDM 1370	100	St. Albans, Vt. 42 N. Main St.
WNEL 1290	500	San Juan, P. R. Box 1252	WRAC 1370	100	Williamsport, Pa. WRAC, Inc., 244 W. 4th St.
WNEW 1250	1000	Newark, N. J. Wodaam Corp., 1060 Broad	WRAW 1310	100	Reading, Pa. Reading Broadcasting Co., 533 Penn St.
WNOX 560	1000	Knoxville, Tenn. WNOX, Inc., Hotel Andrew Johnson	WRAX 920	250	Philadelphia, Pa. WRAX Broadcasting Co., 217 S. Broad St.
WNRA 1420	100	Muscle Shoals, Ala. Kathryn Jones, P. O. Box 486, Sheffield, Ala.	WRBL 1200	100	Columbus, Ga. Royal Theatre Bldg.
WNYC 810	1000	New York, N. Y. Centre & Duane Sts.	WRBX 1410	250	Roanoke, Va. P. O. Box 2389
WOAI 1190	50000	San Antonio, Texas Southland Industries, Inc., 1038 Navarro	WRC 950	500	Washington, D. C. National Press Bldg.
WOC 1370	100	Davenport, Iowa Palmer School of Chiropractic	WRDO 1370	100	Augusta, Me. WRDO, Inc., Augusta House
WOCL 1210	50	Jamestown, N. Y. A. E. Newton, 840 N. Main St.	WRDW 1500	100	Augusta, Ga. Augusta Brdcastg. Co., 309 8th St.
WOI 640	5000	Ames, Iowa Iowa State College	WREC 600	1000	Memphis, Tenn. WREC, Inc., Hotel Peabody
WOKO 1430	500	Albany, N. Y. WOKO, Inc., Hotel Ten Eyck	WREN 1220	1000	Lawrence, Kans. WREN Brdcastg. Co., 8th and Vermont St.
WOL 1310	100	Washington, D. C. American Broadcasting Co., Annapolis Hotel	WRGA 1500	100	Rome, Ga. 10 Third Ave.
WOMT 1210	100	Manitowoc, Wis. Francis M. Kadow, Box 326	WRJN 1370	100	Racine, Wis. Racine Broadcasting Corp., Hotel Racine
WOOD 1270	500	Grand Rapids, Mich. Grand Rapids Natl. Bank Bldg.	WRKQ 1410	500	Rockford, Ill. 109 So. Water St.
WOPI 1500	100	Bristol, Tenn. 22nd & State Sts.	WROL 1310	100	Knoxville, Tenn. Stuart Broadcasting Corp., 524 S. Gay
WOR 710	50000	Newark, N. J. 147 Market St.	WRR 1280	500	Dallas, Texas City of Dallas, Southland Life Bldg.
WORC 1280	500	Worcester, Mass. Alfred F. Kleindienst, 60 Franklin St.	WRUF 830	5000	Gainesville, Fla. State University
WORY 1320	1000	York, Pa. York Broadcasting Co., 15 S. Beaver St.	WRVA 1110	5000	Richmond, Va. Larus & Bros Co., Inc., 22nd and Gary St.

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WSAI 1330 1000 Cincinnati, Ohio Crosley Radio Corp., 1329 Arlington	WTIC 1040 50000 Hartford, Conn. 26 Grove St.
WSAJ 1310 100 Grove City, Pa. Grove City College, 418 Poplar St.	WTJS 1310 100 Jackson, Tenn. Sun Publishing Co., Sun Bldg.
WSAN 1440 500 Allentown, Pa. WSAN, Inc., 39 10th St.	WTMJ 620 1000 Milwaukee, Wis. The Journal Co., 333 W. State St.
WSAR 1450 250 Fall River, Mass. Academy of Music Bldg.	WTMV 1500 100 East St. Louis, Ill. Mississippi Valley Brdcastg. Co.
WSAZ 1190 1000 Huntington, W. Va. WSAZ, Inc., P. O. Box 729	WTNJ 1280 500 Trenton, N. J. Trenton Brdcastg. Co., Stacy Trent Hotel
WSB 740 50000 Atlanta, Ga. Atlanta Journal, 7 N. Forsyth St.	WTOC 1260 1000 Savannah, Ga. Savannah Brdcastg. Co., De Soto Hotel
WSBC 1210 100 Chicago, Ill. Gene T. Dyer, 1258 S. Michigan Ave.	WTRC 1310 50 Elkhart, Ind. Truth Pub. Co., Inc., Hotel Elkhart
WSBT 1360 500 South Bend, Ind. South Bend Tribune, 225 W. Colfax Ave.	WVFW 1400 500 Brooklyn, N. Y. Paramount Brdcastg. Co., 1 Nevins St.
WSFA 1410 500 Montgomery, Ala. Jefferson Davis Hotel	WWAE 1200 100 Hammond, Ind. 402 Hammond Bldg.
WSGN 1310 100 Birmingham, Ala. R. B. Broyles, Tutwiler Hotel	WWC 1420 1000 Spartanburg, S. C. Virgil V. Evans, Ravenal & Avant St.
WSIX 1210 100 Springfield, Tenn. 638 Tire & Vulcanizing Co.	WWJ 920 1000 Detroit, Mich. Evening News Assn., 616 Lafayette Blvd.
WSJS 1310 100 Winston-Salem, N. C. Winston-Salem Journal Co., 416 N. Marshall	WWL 850 10000 New Orleans, La. Loyola University, Roosevelt Hotel
WSM 650 50000 Nashville, Tenn. 301—7th Ave. No.	WWNC 570 1000 Asheville, N. C. Citizen Brdcastg. Co., Inc., Flatiron Bldg.
WSMB 1320 1000 New Orleans, La. WSMB, Inc., Maison Blanche Bldg.	WWPA 850 250 Clarion, Pa.
WSMK 1380 200 Dayton, Ohio WSMK Inc., Loew Theatre Bldg.	WWRL 1500 100 Woodside, N. Y. 4130—58th St.
WSOC 1210 100 Charlotte, N. C. WSOC, Inc., Box 730	WWSW 1500 100 Pittsburgh, Pa. Hotel Schenley
WSPA 920 1000 Spartanburg, S. C. Virgil V. Evans, Ravenal & Avant St.	WWVA 1160 5000 Wheeling, W. Va. Hawley Bldg.
WSPD 1340 1000 Toledo, Ohio Toledo Broadcasting Co., 505 Jefferson	WXYZ 1240 1000 Detroit, Mich. Madison Theatre Bldg.
WSUI 880 500 Iowa City, Iowa State University of Iowa	W1XBS 1530 1000 Waterbury, Conn. 61 Leavenworth St., Amer. Republican, Inc.
WSUN 620 1000 St. Petersburg, Fla. Chamber of Commerce	W2XR 1550 1000 Long Island City, N. Y. Scientific Brdcastg. Serv., 41 Park Row, N. Y.
WSVA 550 500 Staunton, Va. Marlon K. Gilliam	W6XA 1 1550 1000 Bakersfield, Calif. Pioneer Mercantile Co.
WSVS 1370 50 Buffalo, N. Y. 666 E. Delavan Ave.	WSXBY 1530 1000 Kansas City, Mo. First National Television Inc.
WSYB 1500 100 Rutland, Vt. Philip Welas Music Co., 80 West St.	XEA 1060 125 Guadalajara, Jal. Alberto Palos Souza, Apdo. 197
WSYR 570 250 Syracuse, N. Y. E. Onondaga & S. Warren Sts.	XEAA 920 200 Mexicali, B. C. Carlos Blando, Apdo. 42
WTAD 900 500 Quincy, Ill. Illinois Brdcastg. Corp., State and 6th	XEAF 1010 250 Nogales, Son. Francisco G. Elias, Hote Central
WTAG 580 500 Worcester, Mass. 18 Franklin St.	XEAI 1240 100 Mexico City, D. F. Carlos Gonzales Caballero, Insurgentes 366
WTAL 1310 100 Tallahassee, Fla. Florida Capitol Broadcasters, Inc.	XEAJ 1310 15 Cazaca, Cam. Enrique M. Crrhuela, 3a, Guerrero 18
WTAM 1070 50000 Cleveland, Ohio 1367 E. 6th St.	XEAM 960 50 Nuevo Laredo, Tams. Edificio Banco Longoria
WTAQ 1330 1000 Eau Claire, Wis. Gillette Rubber Co., Hotel Eau Claire	XEAO 560 250 Mexicali, B. C. Luis L. Castro, C. Altamirano 156
WTAR 780 500 Norfolk, Va. WTAR Radio Corp., Wainwright Bldg.	XEAW 960 10000 Reynosa, Tams. Internacional Broadcasting Co., S. A.
WTAW 1120 500 College Station, Tex. Agricultural and Mechanical College	XEAZ 1420 7 Guanajuato, Gto. Antonio Zavala, Pasco de la Presa 85
WTAX 1420 100 Springfield, Ill. WTAX, Inc., 416 E. Capitol Ave.	XEB 1030 10000 Mexico City, D. F. El Buen Tono, S. A., Apdo. 79-44
WTBO 800 250 Cumberland, Md. Associated Brdcastg. Corp., Box 794	XEBC 730 5000 Agua Caliente, B. C. Alberto V. Aldrete
WTCN 1250 1000 Minneapolis, Minn. Wesley Temple Bldg.	XEC 1310 50 Tijuana, B. C. Luis F. Enciso, Teatro Zaragoza
WTEL 1310 100 Philadelphia, Pa. Broad & Erie Ave.	XECW 1310 10 Mexico City, D. F. Maria Elena Bravo de Cordero Ave. Juarez 104
WTFI 1450 500 Athens, Ga. 133 E. Washington St.	XED 1160 500 Guadalajara, Jal. Cia. Radiofonografica, Apdo. 197

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XEE 1210 50 Durango, Dgo. 20 de Nov. 112 (Apdo. 148)	XENT 910 60000 Nuevo Laredo, Tams. Box 410, Laredo, Texas
XEFA 1180 500 Mexico City, D. F. Eduardo Limon Segui, Meditarraneo 236	XEOK 765 2500 Tijuana, L. C. Carlos de la Sierra, Calle 5a 312
XEFB 1420 100 Monterrey, N. L. Jesus Quintanilla, P. O. Box 317	XEOX 640 250 Saltillo, Coah. Victoria No. 4, Altos.
XEFC 1310 100 Merida, Yuc. J. Molina Font. Calle 59, 517	XEP 840 500 Mexico City, D. F. Cla Difusora de Mexico S. A., Rembrandt 11
XEFE 920 250 Laredo, Tams. R. T. Carranza, Km. 4 Carretera Laredo Mt.	XEPN 590 50000 Piedras Negras, Coah. Piedras Negras Brdestg. Co., Madero 53
XEFG 1100 250 Mexico City, D. F. Ricardo Gonzales Montero, Teple 48	XES 990 250 Tampico, Tams. Fernando Sada, Box 309
XEFI 1440 250 Chihuahua, Chih. Feliciano Lopez Isles, Ap. 157	XET 690 500 Monterrey, N. L. P. O. Box 203, Hidalgo
XEFJ 1230 100 Monterrey, N. L. R. Junco de la Vega, P. O. Box 186	XETB 1310 125 Torreon, Coah. Jose A. Berumen, R. Corona 317
XEFL 1160 500 Tijuana, B. C. (P. O. Box 6, San Diego, Calif.)	XETF 1220 12 Veracruz, Ver. Jose M. Lopez, Independencia 20
XEFO 940 5000 Mexico City, D. F. Reforma No. 137	XETH 1210 100 Puebla, Pue. Ramon Huerta G., Calle 17 Oriente 11
XEFV 1210 100 Juarez, Chih. Cordova & Prieto, Ave. Ferrocarril 104	XETW 820 500 Mexico City, D. F. Rafael M. Pena, Ave. 16 de Sep. 83
XEFW 1310 250 Tampico, Tams. J. E. Martinez, Salvador Diaz Miron 6	XEU 1010 250 Veracruz, Ver. Fernando Pazos Sosa, Independencia 98
XEFZ 1370 100 Mexico City, D. F. Manuel Zetina, Calzada Nonoalco 481	XEW 890 50000 Mexico City, D. F. P. O. Box 2516
XEG 1270 500 Ensenada, B. C. Juan C. Chavez	XEWZ 1150 100 Mexico City, D. F. Medellin e Insurgentes
XEH 1150 250 Monterrey, N. L. Tarnava y Cia, P. O. Box 147	XEX 1310 125 Monterrey, N. L. L. F. Petit Jean, P. O. Box 10
XEI 1370 125 Morelia, Mich. Carlos Gutierrez M., F. I. Madero 545	XEXX 845 500 Mexico City, D. F. Av. Pino Suarez 9
XEJ 1020 1250 Juarez, Chih. Juan G. Buttner, P. O. Box 111	KEYZ 780 10000 Mexico City, D. F. Angel M. Diaz, Ave. Juarez 48
XEK 990 100 Mexico City, D. F. Arturo Martinez, Jalapa No. 51	KEZ 630 500 Merida, Yuc. Jorge L. Falomeque, Estamores Ctd 214
XEKL 1240 500 Leon, Guan. 5 de Mayo 26	KEZZ 1370 100 San Luis Potosi, SLP Emilio Delgado R. Ave. Chibolein 32
XELA 1240 50 Saltillo, Coah. Enrique Gomez, Chauhtemos 28 Sur	XFB 1270 1000 Jalapa, Ver. Gobierno del Estado de Veracruz
XELC 740 100 Mexico City, D. F. Manuel Valdes Bravo, C. Central 112	XFC 810 350 Aguascalientes, Ags. Gobierno del Estado de Aguascalientes
XELM 1310 15 Mineral del Monte, Jose Sanchez, Abesoio 1-A Dgo.	XFD 1340 350 Orizaba, Ver. Gobierno Estado de Veracruz
XELO 1110 10000 Piedras Negras, Coah. Piedras Negras Brdestg. Co.	XFO 940 5000 Mexico City, D. F. Nat. Rev. Party. Ave. Morelos 110
XEMA 1080 50 Tampico, Tams. Manuel M. Pier, Aretsanos 10	XFX 610 1000 Mexico City, D. F. Secretaria de Educacion Publica
XEMO 865 2500 Tijuana, B. C. P. O. Box 202, San Diego, Calif.	10-AK 1200 15 Stratford, Ont. M. I. Higgins, 151 Ontario St.
XEMX 1280 12 Mexico City, D. F. Alfonzo T. Avales	10-BP 1200 25 Wingham, Ont. W. T. Cruickshank, Box 65
XEN 710 1000 Mexico City, D. F. Cerveceria Modelo Ave. Juarez 77	

100 Best Shortwave Stations by Call Letters

Frequencies are given in megacycles and the time is Eastern Standard. In this list, the location of the transmitter is given. For a more complete list of the shortwave stations by frequencies, by calls and by countries, see the *DX Log of the World*.

Amateur phones are heard between	Broadcast Pickup stations: 1.606; 1.875 and 2.000 megas. 1.622; 1.646; 2.102; 2.150; 2.190; 3.900 and 4.000 megas. 2.390.	COC, Havana, Cuba, 6.010. 8:30 a.m. to 12:30 p.m.; 4-7 p.m. Sat., 11:30-12:30.
7.000 and 7.300 megas. (Foreign only).	CJRO, Middlechurch, Man., 6.150.	COH, Havana, Cuba, 9.428. 5-6; 8-9 p.m.
14.150 and 14.250 megas.	CJRX, Middlechurch, Man., 11.720.	

AROUND the CLOCK on the SHORT WAVES

MIDNIGHT TO NOON (EST)

GMT	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	
MST	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	
PST	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	
	COC DJB DJQ GSB GSD VE9CA VPD VK2ME W3XAL W8XAL W8XK	DJB DJB GSB GSD VE9CA VPD VK2ME W8XAL W9XF	W8XAL W9XF	DJB DJB RV15	DJB DJB GSF GSF JVM RV15 VK2ME VK3LR	DJB DJB GSF GSF JVM LKJ1 RNE RV15 VK2ME VK3LR VK3ME	DJB DJB GSF GSF JVM LKJ1 VK2ME VK3LR VK3ME W8XAL	GSF GSG JVM LKJ1 Pont. Rabat RV15 VE9GW VK2ME VK3LR VK3LR W8XAL W8XK	DJB DJB DJQ GSF GSG PCJ PHI Pont. Rabat. VE9GW W1XK W8XK	DJB DJB DJQ GSE GSG HAS3 PCJ PHI Pont. VE9CA VE9GW W1XK W3XAL W8XK	DJB DJB DJQ GSE GSG HVJ PCJ PHI Pont. RNE VE9GW W1XK W3XAL W8XK	DJB DJB DJQ GSE GSG Pont. Rabat. VE9GW W1XK W8XK	DJB DJB DJQ GSE GSG Pont. Rabat. VE9GW W1XK W8XK

NOON TO MIDNIGHT (EST)

GMT	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	1:00	2:00	3:00	4:00
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
MST	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
PST	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00
	DJC DJD EAQ GSB GSD Pont. VE9GW W1XK W2XE W3XAU W8XAL W8XK W9XAA	DJC DJD EAQ GSB GSD Pont. VE9CA VE9GW W1XK W3XAU W8XK W9XAA XEBT	DJC DJD GSB GSD IRO Rabat VE9CA VE9GW W1XK W3XAL W3XAU W8XK W9XAA XEBT	DJC DJD GSB GSD IRO Rabat RV59 Pont. VE9GW W2XE W3XAL W3XAU W8XK W9XAA XEBT	COC COH CTIAA DJA DJD GSD DJB IRO EAQ GSB GSD HBL HJ1ABB Pont. PRF5 Rabat RV59 W3XAU W8XAL W8XK W9XAA XEBT YV3RC	COC COH CTIAA DJA DJD DJB EAQ GSB GSD HAT4 HC2RL HJ1ABB HJ2ABC HJ4ABA IRA Pont. Rabat RV59 W1XAL W1XK W1XK W2XE W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	COC CTIAA DJA DJD DJB EAQ GSB GSD HAT4 HC2RL HJ1ABB HJ2ABC HJ4ABA IRA Pont. Rabat RV59 W1XAL W1XK W1XK W2XE W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	DJA DJD DJB GSE GSD HC2RL HJ1ABB HJ1ABG HP5B VE9GW W1XK W2XAF W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX COH CP5 DJA DJD DJB HC2ET HJ1X HJ1ABB HP5B TIEP TIGPH VE9GW W1XK W2XAF W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX DJD DJB DJB HC2ET HC2RL HJ1X HJ1ABB HP5B TIGPH VE9GW W1XK W2XAF W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX DJB DJD DJB HC2ET HC2RL HJ1X HJ1ABB HP5B TIGPH VE9GW W1XK W2XAF W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX COH DJB DJD GSC GSL HC2RL HC2ET HP5B OAX4D PRADO TIGPH VE9GW W1XK W2XAF W3XAU W8XK W9XAA XEBT YV2RC

CP5, La Paz, Bolivia, 6.080. 8-9 p.m.
 CT1AA, Lisbon, Portugal, 9.590.
 Tues., Thurs., Sat., 4:30-7 p.m.
 CT1GO, Lisbon, Portugal, 6.190.
 Sat., 8-9 p.m.; Tues, Thurs.,
 7:30-8:15 p.m.
 12.330: Sat., Sun., 9-10 a.m.
 DJA, Zeesen Germany, 9.560.
 5:05-9:15 p.m.
 DJB, Zeesen, Germany, 15.200.
 3:45-7:15 a.m.; 12:30-2 a.m.
 8-11:30 a.m.
 DJC, Zeesen, Germany, 6.020. Noon
 to 4:30 p.m.; 9:30-10:30 p.m.
 DJD, Zeesen, Germany, 11.760. Noon
 to 4:30 p.m.; 5:05-10:30 p.m.
 DJE, Zeesen, Germany, 17.760. 8-
 11:30 a.m.
 DJN, Zeesen, Germany, 9.540.
 3:45-7:15 a.m.; 5:05-10:30 p.m.
 DJQ, Zeesen, Germany, 15.280. 12:30-
 2 a.m.; 8-11:30 a.m.
 EAQ, Aranjuez, Spain, 9.862. 5:30-
 7 p.m.; Sat. noon to 2 p.m.
 GBB, Rugby, England, 13.500. Phones
 Canada.
 GBS, Rugby, England, 12.150. Phones
 N.Y.
 GBU, Rugby, England, 12.240. Phones
 N. Y.
 GBW, Rugby, England, 14.440.
 Phones N. Y. 6-8 p.m.
 GSA, Daventry, England, 6.050.
 GSB, Daventry, England, 9.510
 11:30 p.m. to 1:30 a.m.; 11 a.m.
 to p.m.; 12:15-4:40 p.m.; 6-8 p.m.
 GSC, Daventry, England, 9.580.
 6-8 p.m.; irreg. 10-11 p.m.
 GSD, Daventry, England, 11.750.
 11:30 p.m. to 1:30 a.m.; 12:15-
 4:40 p.m.; irreg. 10-11 p.m.
 GSE, Daventry, England, 11.860.
 9 a.m. to noon.
 GSF, Daventry, England, 15.140.
 4:45-8:45 a.m.
 GSG, Daventry, England, 17.790.
 4:45-8:45 a.m.; 9-10:45 a.m.
 GSL, Daventry, England, 6.110.
 irreg., 10-11 p.m.
 HASS, Szekesfehervar, Hun-
 gary, 15.370. Sun., 9-10 a.m.
 HAT4, Budapest, Hungary, 9.125.
 Sun., 6-7 p.m.
 HBL, Prangins, Switzerland, 9.595.
 Sat. 5:30-6:15 p.m.
 HBP, Prangins, Switzerland, 7.797.
 Sat. 5:30-6:15 p.m.
 HC2RL, Guayaquil, Ecuador, 6.659.
 Tues. 9:14-11:14 p.m.; Sun.
 5:45-7:45 p.m.
 HHH, San Pedro de Macoris, D. R.,
 6.810. 4-7:30 p.m. daily, and
 3-4 a.m. Sunday.
 HIX, Santo Domingo, D. R., 5.948.
 Tues. and Fri., 8-10 p.m.
 HJA2, Bogota, Colombia, 5.825.
 HJA3, Barranquilla, Colombia, 12.830
 HJB, Bogota, Colombia, 14.930.
 HJ1ABB, Barranquilla Colombia,
 6.447. 5-10 p.m.
 HJ1ABG, Barranquilla, Colombia
 6.042. 7-10 p.m.
 HJ2ABC, Cucuta, Colombia, 5.975.
 6-9 p.m.
 HJ3ABD, Bogota, Colombia, 7.406.
 "Colombia Broadcasting." 6-9
 p.m. daily.
 HJ4ABA, Medellin, Colombia,
 11.720. 5 p.m.—?
 HJ4ABE, Medellin, Colombia, 5.900
 7-11 p.m.
 HJ4ABL, "Ecos del Occidente,"
 Manizales, Colombia, 6.100.
 Sat., 11 p.m. to 12:30 a.m.
 HJ5ABD, Cali, Colombia, 6.490.
 Thurs., Sat., Sun., 7-9 p.m.
 HPF, Panama City, Panama, 14.545.
 Phones Hialeah.
 HP5B, Panama City, Panama,
 6.030. 7-10:30 p.m.
 HP5J, Panama City, Panama, 9.590.
 8-11 p.m.
 HSJ, Bangkok, Siam, 7.980.
 HVJ, Vatican City. 15.120. 5-5:15
 a.m. daily except Sunday. Oc-
 casionally from 10-10:30 a.m.
 IRA, Rome, Italy, 6.070. Mon.,
 Wed., Fri., 6-7:30 p.m.
 IRE, Rome, Italy, 11.810. 9-10 a.m.
 IS3, Bolling Field, Va. 6.412.
 I2RO, Rome, Italy.
 9.600: 2:30-5 p.m.; 7:45-9:15
 p.m.
 JVE, Nazaki, Japan, 15.660. Phones
 Java, nights.
 JVF, Nazaki, Japan, 15.620. Phones
 Dixon, 5-11 p.m.
 JVM, Nazaki, Japan, 10.740. 4-
 8 a.m.
 KAY, Manila, P. I., 14.980. Phones
 Dixon.
 KKH, Kahuku, T. H., 7.520. Phones
 Dixon.
 KKP, Kahuku, T. H., 16.030. Phones
 Dixon.
 KNRA, "Seth Parker", 6.160; 6.660;
 6.670; 8.230; 8.820; 8.840; 13.200
 KWO, Dixon, Calif., 15.415. Phones
 Hawaii and Manila.
 KWU, Dixon, Calif., 15.355. Phones
 Japan.
 KWX, Dixon, Calif., 7.610. Phones
 Hawaii.
 LKJ1, Jeloy, Norway, 9.540. 5-8 a.m.
 OAX4D, Lima, Peru, 5.780. Wed. and
 Sat., 9-11:30 p.m.
 ORK, Ruyselede, Belgium, 10.330.
 1:30-3 p.m.
 PCJ, Hilversum, Netherlands,
 15.220: 7:30-10 a.m. daily exc.
 Tues., Wed.
 PHI, Hilversum, Netherlands,
 17.775: 7:30-10 a.m. daily exc.
 Tues., Wed.

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PRADO, Rlobamba, Ecuador, 6.618. Thurs., 9-11:30 p.m.

PRF55, Rio de Janeiro, Brazil, 9.505. 5:30-6:15 p.m.

Radio Coloniale, Pontoise, France, 11.710: 1:15-5 p.m.; 5:15-9 p.m.; 10 p.m. to midnight. 11.905: 11:15 a.m. to 5 p.m. 15.243: 7:30-11 a.m.

Rabat, Morocco, 8.035. Sun., 11 a.m. to noon, 2-7 p.m. 12.830. Sun., 7-9 a.m.

RKL, Moscow, U.S.S.R., 7.520. Phones USA.

RNE, Moscow, U.S.S.R., 12.000. Sun., 6 a.m. and 10 a.m.

RV15, Khabarovsk, U.S.S.R., 4.273. 3-9 a.m.

RV59, Moscow, U.S.S.R., 5.996. 3-6 p.m.

TIEP, San Jose, Costa Rica, 6.710. 7-10 p.m.

TIGPH, San Jose, Costa Rica, 5.820. 7-10 p.m.

VE9CA, Calgary, Alta., 6.030. Thurs., 9 a.m. to 2 a.m. Fri.; Sun., noon to midn.; other days 9 a.m. to midnight.

VE9GW, Bowmanville, Ont., 6.095. Sun., noon to 8 p.m.; Mon., Tues., Wed., 2-11 p.m.; Thur., Fri., Sat., 6 a.m. to 11 p.m.

VE9HX, Halifax, N. S., 6.110. 5-11 p.m.

VK1, Selfridge Field, Mich, 6.425.

VK2ME, Pennant Hills, Australia, 9.585. Mid. to 2 a.m. and 4:30-8:30 a.m., Sundays only.

VK3LR, Melbourne, Australia, 9.580. Daily exc. Sun. 4-8 a.m.

VK3ME, Braybank, Australia 9.503. Wed., Thurs., Fri., 5-6:30 a.m.; Sat. 5-7 a.m.

VPD, Suva, Fiji, 13.045. 12:30-1:30 a.m.

VUB, Bombay, India, 9.565. Testing Sunday, 7 a.m.

WTR, Albrook Field, Canal Zone, 6.385.

WOO, Ocean Gate, N. J., 4.273; 4.753; 8.560; 12.840. Phones Ships.

W1XAL, Boston, Mass., 6.040. Tues., Thurs., 7:30-9:30; Sunday, 5-7 p.m.

W1XK, Millis, Mass., 9.570. 6 a.m. to midnight.

W2XAD, Schenectady, N. Y., 15.340. 2:30-3:30 p.m.

W2XAF, Schenectady, N. Y., 9.530. 7:40-11 p.m.

W2XE, Wayne, N.J., 6.120. 6-11 p.m. 11.830. 3-5 p.m. 15.270. 11 a.m. to 1 p.m.

W3XAL, Boundbrook, N. J., 6.100. Mon., Wed., Fri., 5-6 p.m. 17.780: daily 9-10 a.m.; Tues., Thurs., Sat., 3-4 p.m.

W3XAU, Newton Sq., Pa., 6.060. 8 p.m. to 11 p.m. 9.590. Noon to 8 p.m.

W8XAL, Mason, Ohio, 6.060. Irregular.

W8XK, Saxonburg, Pa., 6.140. 4:30 p.m. to 12:30 a.m. 11.870. 4:30-10 p.m. 15.210. 10 a.m. to 5:15 p.m. 21.540. 7 a.m. to 2 p.m.

W9XAA, Chicago, Ill., 6.080. Sun., 11:30 a.m. to 9 p.m. Tues. Thur. Sat. 4-12 p.m. Mon., Wed. Fri. 4:30-7 p.m.

W9XF, Downer's Grove, Ill., 6.100- Daily exc. Sat. and Sun., 4:30. 8 p.m.; 9:30 p.m. to 2 a.m. Sunday, 4:30-7 p.m. and 9 p.m. to 2 a.m.

XEBT, Mexico City, D. F., 6.610. Relays XEB, 10 a.m. to 11 p.m.

XECW, del Caballero del Santokan, Mexico, D. F., 5.980. 11-12 p.m.

YNA, Managua, Nicaragua, 14.480. Phones Hialeah.

YN1GG, Managua, Nicaragua, "La Voz de los Lagos", 6.385. 7-10:30 p.m.

YVQ, Maracay, Venezuela, 6.672. Relays Caracas BC stations occasionally.

YVR, Maracay Venezuela, 9.168. Phones Madrid.

YV2RC, Caracas Venezuela, 6.112. 5:15-10 p.m.

YV3RC, Caracas, Venezuela, 6.150. 5-10 p.m.

YV4RC, Caracas, Venezuela, 6.375: 4:30-10:30 p.m.

YV5RMO, Maracaibo, Venezuela 5.850: 5:15-10:15 p.m.

YV6RV, Valencia, Venezuela, 6.520. "La Voz de Carabobo."

ZFB, St. George, Bermuda, 10.060.

ZFS, Nassau, Bahamas, 4.513.

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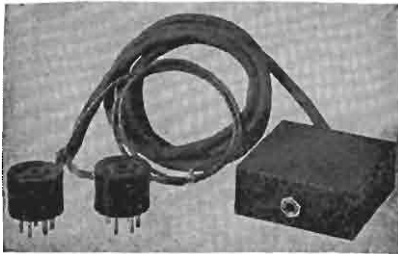
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