THE NOVEMBER 1936

RADIO INDEX

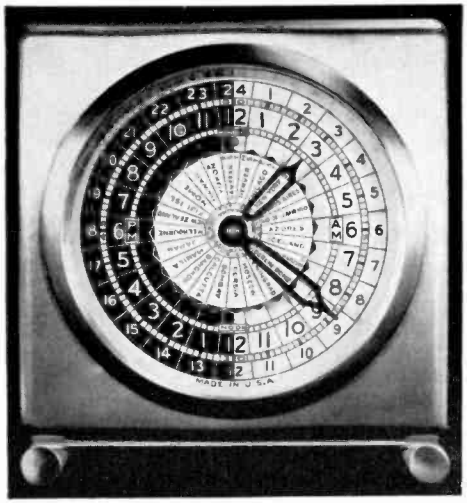
25c

The All-wave DX Log of the World

What About Television?
The 1936 Radio Exposition
Tuning the Foreign Stations
The Short Wave Stations of the World

No. 103

AN INTERNATIONAL CLOCK



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

Actual size is 5¼ inches high by 4¾ inches wide.

Has A. M. and P. M. divided dial and 24-hour dial. 40-Hour Movement.

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What DXers Have Always Wished For!

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THE RADEX PRESS

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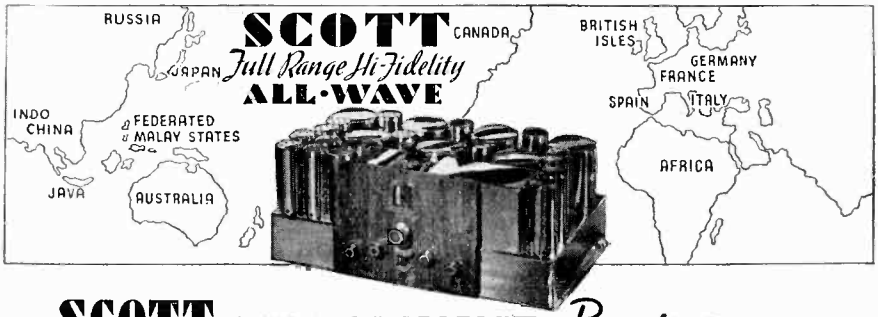

SCOTT PERFORMANCE *Begins* WHERE THE OTHERS STOP —

● Here's a target for distance sharpshooters all over the world to level guns at! Here is **proof** that the **SCOTT ALLWAVE** is the finest receiver in the world!

From F. L. Stitzinger in Pennsylvania comes this **verified** list of 34 foreign countries, 98 foreign stations, 1651 foreign programs —not merely logged, but **verified!** All within a short six months period! No other receiver in the world has equalled this **verified** world record performance during any six consecutive months tuning!—Argentine, Australia, Belgian Congo, Bermuda, Bolivia, Brazil, Belgium, Canada, Columbia, Costa Rica, Cuba, Denmark, Ecuador, England, Federated Malay States, France, Germany, Hawaii, Holland, Indo-China, Italy, Japan, Java, Kenya Colony, Mexico, Morocco, Peru, Portugal, Republic Dominica, Russia, Spain, Uruguay, Venezuela! Every station, every program, **verified!**

E. H. SCOTT, designer and custom-builder of world's finest radio receivers since 1924

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Says Mr. Scott: "Mr. Stitzinger's list is only one of thousands which **SCOTT** owners constantly send in to our laboratories — **SCOTT** owners receive and have **verified** 3 times as many foreign stations as are received on sets of other radio manufacturers . . . **SCOTT ALLWAVE** receivers are giving distinguished service in more than 146 countries throughout the world. . . . We have over 600 expert 'Installation and Service representatives' over entire United States alone—to give you instant service should you ever need it. This, even though every **SCOTT** receiver carries five year guarantee of perfect service."

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To enjoy the really great world music, to hear the tremendous events which are moulding history—still to be in tomorrow's headlines—you *must* have *high* Class "A" speaker power.

SCOTT 23 TUBE ALLWAVE has **35 Watts Strictly Class "A" Power**, 50 watts Class "AB" power—6 times undistorted output of average receiver —for vaster distances.

Bullet-Direct Variable Selectivity 2 to 16 KC—3 times better than selectivity of average receiver — to pierce through powerful local stations and bring in weak distant stations thousands of miles distant.

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Dial Calibration — accurate on all tuning bands for the first time in radio history.

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More Important PERFORMANCE Features Than Any Other Receiver —including True Bass Control — True Separate Treble Control — 23 Tubes, New Highest Efficiency Type—Oversize Construction throughout — Includes many advanced laboratory developments which cannot be incorporated in production type radio receivers.

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These celebrities demand the world's finest quality—all are **SCOTT** owners — Toscanini — Guy Lombardo — Eddie Cantor—Walter Winchell—Ted Husing —Rudy Vallée—Al Jolson—and hundreds more. The **SCOTT** is the choice of Presidents and Princes all over the world.

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NOVEMBER 1, 1936

RADIO INDEX

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CARLETON LORD, *Broadcast*

THIRTEENTH YEAR

NUMBER 103

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Frontispiece—Annadell Kiger as *Isabell Ricks* with *Ma Perkins*

$1.75 Per Year *25c Per Copy*

See Subscription Blank on Page 96
Published Monthly Excepting July and August

THE RADEX PRESS

Publication Office: - 326 Penton Bldg., Cleveland, Ohio
Editorial and Advertising Office: - - Conneaut, Ohio

Entered as second-class matter April 23, 1931, at the postoffice at Cleveland, Ohio, under the Act of March 3, 1879.

Printed in U. S. A.

Looking In *On The* Radio Show

● ● ● *By* R. H. TOMLINSON

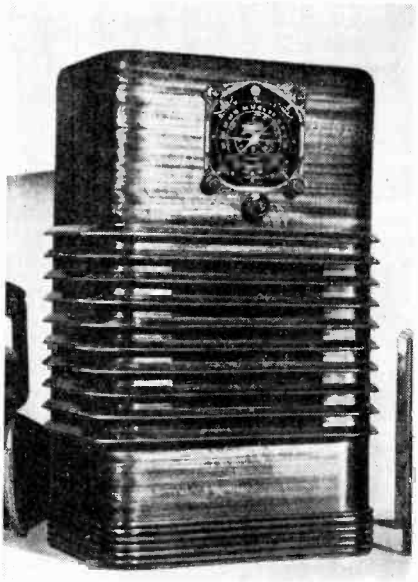
IF WE are to believe the managers of the various exhibits at the recent Electrical and Radio Exposition in New York, the coming season will probably be one of the most prosperous in radio history. Judging by overheard conversations and by one hundred definite interviews, this feeling was shared by most of the visitors at the show.

After spending five hours browsing around the displays, picking out and inspecting models which should interest DXers, it wasn't hard to single out the outstanding attractions of the new models.

First to attract the eye are the many new dial improvements and the novel visual-tuning arrangements. For the latter, the makers have coined such names as "Viso-Glow," "Magic Eye," "Shadow Beam," "Tel-Eye," "Flashograph" and "Glowing Beam." The dials are referred to in terms of "precision," "automatic," "photochromatic," "colorama" and "teledial."

In the opinion of one hundred visitors stopped at the different exhibits, the dial and visual-tuning gadgets were the principal point of interest, being specified by thirty of those interviewed. Twenty visitors spoke of improvements in speakers and quality of reproduction. Eighteen were of the opinion that improved foreign tuning was outstanding. Ten went on record as favoring the metal tubes, while a like number were positive that increased selectivity and sensitivity were the high spots. Eight preferred the new cabinet designs, while four took me for a salesman of some sort and refused to answer.

Upon entering the auditorium, the first exhibit to be seen is the large Zenith line, and some of their new models are certainly eye-openers. The best bets for the average DXer seemed to be the Zephyr Model 10-S-157, in ebony finish, and the Model 10-S-155. Both of these are 10-tube console jobs. The 8-tube table Model 8-S-129 also looks as though it would go places. All three of these models have attractive, oversize dials, acoustic adapters, split-second bandspread tuning, voice-music high fidelity control, target (visual) tuning and metal tubes. A new Zenith feature which should appeal to DXers is the "Privacy Plug-In," an adapter and cord for silencing the speaker, a pair of phones and a control box for adjusting volume. Prices on these three models are astonishingly low. Other Zenith models include four for the



Several of the cabinet types of Zenith's "Year-Ahead" radios have been given the name "Zephyr," because they are fluted much like a stream-lined engine. This 10-tube receiver covers all the radio bands. The Model 10-S-157 is shown.

One of the new General Electric table model receivers is shown here. This 10-tube receiver is the Model E-101 and tunes all the short-waves as well as the broadcast band.

farm, two for the boat or trailer, eleven AC-DC jobs, and 21 more standard AC models.

One of the most interesting displays was that of the General Electric line, covering eight table models, eight consoles and two radio-phonograph combinations. Something new this season, and exclusive with the GE sets, is "Focused Tone," which makes it practically impossible to tune in a station off exact resonance. While the dial pointer nears a strong carrier, the frequency control goes into action, swinging the tuning circuits automatically into sharp resonance. As this happens the dial lights change from red to green, showing that the set is properly tuned. This feature can be cut in or out at will.

From air tests, I can say that the GE line includes some mighty nice sets. The E-101 10-tube table model, the E-86 8-tube console and the E-105 10-tube console should appeal to the DXer's tuning tastes as well as to his pocketbook. All three cover the frequencies from 540 to 18,000 kcys. Higher priced models have an added band of 140 to 410 kcys.

Majestic, "Mighty Monarch of the Air," is back on the market, displaying five consoles and six table models and featuring a "super-colotura" speaker, radio-eye for precision tuning, full-vision dials and illuminated controls. The 8-tube Model 850, a console job, and the table model 85 are threeband receivers which should appeal to DXers. Be prepared for a shock when the prices are quoted.

The Crosley exhibt attracted lots of attention. The main feature from a spectacular angle was a huge $1500 model containing five speakers and employing three separate audio channels. According to the manager of the display, this was "mainly for some radio nut." The console Model 1199 seems to be the best bet here, having eleven tubes and covering from 540 to 18,000 kcys. This set boasts a "Mystic Eye," bass and treble compensator, six-position high-fidelity switch, auto-expressonator (volume expansion) and easy-to-read oversize dial, tuning indicator and many other features. The 7-tube table Model 745 should not be overlooked for DX purposes.

The Stromberg Carlson display contained twenty-seven new models. Twelve of these were in consoles which featured the "acoustical labyrinth," a series of long baffles placed around the speaker for improved tone quality. For the DXer wanting the very best, the console Model 145-L is to be recommended. This is a 10-tube job, covering 145 to 370 kcys. and 525 to 18,000 kcys, and featuring adjustable high-fidelity control and an 11-inch speaker. Other innovations include beam power output tubes, carpin-shoe leather speaker cone support, cathode ray tuning and a swell dial. For listeners of average means, the 7-tube 130-U table model should be a good bet, while the battery-operated console Model 115 has an appeal for rural listeners.

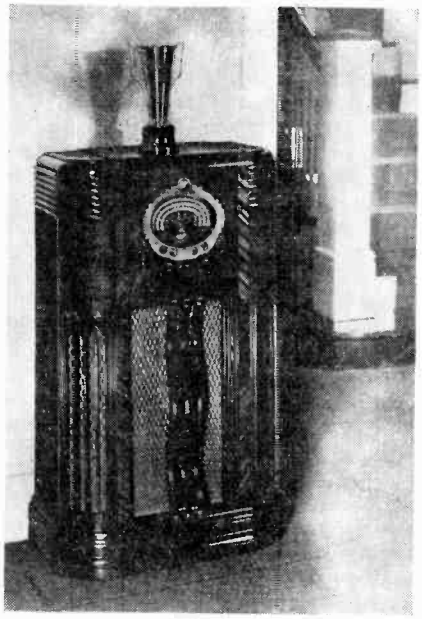
RCA Victor was showing twenty-

seven models in their display. Some of the features to be found were a new dial with good band-spread, "Magic Eye" visual tuning, metal tubes, a music-speech control, and an automatic tone compensator. Then there is the "Magic Voice." The speaker is enclosed in an acoustically sealed chamber, in which there are five organ-like pipes. This is supposed to give excellent reproduction and to eliminate the boom. The Magic Voice Model 10-K seems to be the logical preference of DXers. This is a 10-tube, 5-band console job covering 150 to 410 kcys and 530 to 60,000 kcys. The Magic Eye Model 8-T, an 8-tube table set tuning between 530 and 23,000 kcys, seems to be second choice in the smaller models.

The Grunow exhibit contained three of their new "Teledial" models—the Teledial Twelve, Super-Twelve and Fifteen—as well as standard jobs without this feature. For the DXer, the Grunow Eleven is tops—eleven tubes, large dial, cathode ray tuning, etc.

The Pilot display had many attractive models, with the 11-tube table Model X-114 leading in DX interest. This is the famous Super Dragon and features headphone jack, phonograph connection, two-speed dial and band spread. Second choice here is the Model 23, three tuning bands, seven tubes, split-second tuning and a good band-spread arrangement. This model is for AC-DC operation.

Summing up, it appeared that the principal improvements over last year's models are in the dials, which showed marked increases in size, and in the visual tuning methods employed. Behind the scenes, but none the less important, are advances in speaker design. I found speakers running up to eighteen inches in diameter, with the average being about twelve. Some of the higher priced sets, such as the $1500 Crosley and the $750 Zenith, had as many as five speakers. Metal tubes seem to be standard equipment now, except in the audio end of the high fidelity models.



The Majestic 850 features radio beam tuning. World-wide reception is assured on the three tuning bands and tuning is made easy by means of the radio eye. This model employs 8 tubes.

WJAG DX Special

The annual DX program of WJAG, Norfolk, Nebraska, will be held Friday, November 13th from 12:30 to 6:30 a.m. CST. Dedication will be made to all DX Clubs who request it. This will be an excellent opportunity to hear this popular station. The broadcast will be on 1060 kcs. with 1000 watts.

It is not clear from the notice from the station whether this program will be given Friday morning or Friday night. We assume it will be Thursday night or Friday morning. This instance indicates how confusing our 12-hour clock can be. It demonstrates why RADEX uses the International or 24-hour system.

What Has Become *of* TELEVISION?

● ● ● *By* B. FRANCIS DASHIELL

IN THE Nation's capital an internationally famous hotel adds to its widely circulated advertisements this statement: "When television arrives we shall have it." That is just what many people are thinking and wishing for themselves, but who knows when television will arrive?

Television is far from being ready to be tried out on the listening, or, shall we say, the seeing, public. Many years have elapsed since the pioneers in this branch of radio optics showed shuddering shadows on a screen for the benefit of awed spectators and newspaper reporters. We were told that television was just around the corner. But now we wonder whether television has finally become lost after it seemed so fraught with great possibilities. Can television come back, and will it ever be a practical thing?

The Idea Remains

The principles of television were discovered long ago. And, like the fundamentals underlying radio, those of television have changed but little. Refinements appear here and there, but under it all the simple idea remains. But the man or corporation owning and controlling the patents of television is going to have a lot to say about when television is to become the practical, inexpensive servant of the public.

Without doubt, this about places the finger of opinion on the crux of the whole matter. Squabbles over patents; assignments in the air lanes; the contradictions of inventors; the battles in the short-wave bands; monopolistic fights for exclusive control; the regulations of the Federal Communications Commission, and other things, all tend to complicate the television situation as it is today.

Intensive Tests

But scientists, with their usual indifference toward things mundane, are working intensively with television's problems. Much has been discovered since the "old guard" developed its crude transmitters and receivers. One man made a fortune from his fundamental patents but did not live to enjoy it; thousands of average Americans invested millions in the stock of television corporations; a few broadcasts were made and a few complicated receivers were sold. Then came the long silence, with its present awakening. Now, the question is asked, who owns television today and who will control its destiny?

Intensive studies and tests are being conducted in all television laboratories more than ever before. They are being carried on experimentally in every conceivable frequency band in the radio spectrum. But interference has been met at nearly every hand, and science has been discouraged. Static cannot be tolerated in the realm of television. What can be done to overcome these interferences?

What Power?

Super-power, such as that of station WLW, and one or two others, was once thought to hold the solution of good television transmission. It is still advocated by a few engineers. But television requires a wide band, and if only a few long-wave broadcasting channels were allocated for visual broadcasting on super power there would be little room left for the thousands of already congested stations operating throughout the world. Then, too, radio waves do not respect national boundaries;

interferences may come from distant lands that care very little about America's television problems.

So, before television becomes a sensible, practicable member of our radio family, there must be accord among regulating agencies so that definite and clear channels may be assigned for experimental and actual broadcasts. The thousands of careful tests that have been conducted show that neither superpower nor standard broadcasting channels will solve the problem.

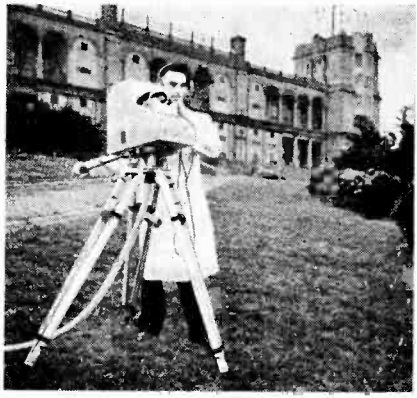
Ultra Short Waves

The short waves seem to hold a natural affinity for television. Perhaps the shorter the better, but there is no positive conclusion on this point, except the accord of many men who have made the experiments which have been conducted up to this time. Of course, if the thing is to be accomplished in the ultra short wave bands, such as one meter or less, there might be little of much value left in it for the average listening, or seeing, public.

Engineers realize this, and a move is now on hand to grab into the amateur wave bands for more easily received wave lengths. This, of course, raised a great howl. The radio amateurs have been pushed about for many years. There are many thousands of them in America alone, and they have practically made short-wave radio what it is today. They proved to a sceptical lot of scientists what could be done in the short waves soon after they were shoved down below 200 meters many years ago.

Hard On Amateurs

Later they were squeezed tighter, being forced to give up most of the 200-meter reservation. Today they manage to operate around the world with an astonishing low power in a congested air lane that beggars description. Now the television influences would like to make a raid into the little that is left to the



Television programs are broadcast regularly in England from the new studios at Alexandra Palace. This is the Marconi television camera transmitting scenes outside the Palace. Two different systems of television transmission are in use in England, each requiring entirely different equipment for transmission and reception. Photo courtesy of the BBC.

honest, aspiring amateur. And many of these amateurs are real television experts, just as they have been progressive radio builders and inventors for a score of years.

Television might settle down around the 1 to 5 meters band someday. Just how this can provide decent reception for the average radio listener who seldom can tune his all-wave set with satisfaction when he gets below 18 meters, is hard to understand. Perhaps by the time television has fully blossomed radio reception on the ultra-short waves will be a simple matter for the average radio listener.

Popular Waves

Down in this region of very short waves there are thousands of wave channels. Tuning is very sharp, and low power can be used to cover the range of the transmitter. But these waves act in a different manner from those to which we are accustomed. At the present time it is an experimental part of the radio spectrum. Static and other interferences seldom affect such reception. This is in favor of television, but there are other

features which are less desirable when the listening public is considered.

Television has not been at a standstill during the battle for assignment of wave bands. The big corporations conduct daily tests here and there. But there should be opportunity for everyone to conduct his experiments, for radio amateurs, experimenters and commercial concerns alike need equal opportunity on the air lanes. Monopoly should be carefully guarded against in the popular wave bands of the air.

Standards Needed

Since the early days of Jenkins, Ranger, Baird and others of the original television investigators, a crop of new names has sprung up. And much of their impressive scientific work is being done in the great laboratories of the radio and electrical organizations — such as the Radio Corporation of America, General Electric Co., Bell Telephone, Philco Television, and several others. But this does not mean that one of these combines should gain control of wave bands suitable for television. The situation promises a real fight.

There also arises, quite naturally, the question of standardization before television can be offered the public as a finished product. Certainly this is a science that must be exact. Should a number of corporations begin broadcasting on television chains or networks with their own individual methods, each of which may require a receiver that synchronizes only with certain transmitters, there will be great confusion on the visual wave bands. No one would care to purchase a machine that can tune to only one transmitter and prove useless as far as other broadcasts are concerned.

Price Of Sets

The establishment of a single standard is imperative. The radio enthusiast must be able to tune to any television station. Prices of receivers must be arranged so as to fall within the range of the average pocketbook. Television can never become successful unless it first is made popular by price and adaptability in the home. Perhaps a television machine can be made to sell for about twice the cost of a good radio receiver.

This mademoiselle's experience with the Opera Comique and the Folies Bergere of Paris won Rachel Carlay a permanent part as singing star of the Manhattan Merry Go Round, one of the popular programs without which Sunday evening would be incomplete. Miss Carlay is about 26 years of age and was born in Brussels, Belgium. The Merry Go Round features Oliver Smith and Andy Sanella's Orchestra as well as Rachel, at 9 p.m. on the Red.

The Radio Manufacturers' Association is now working on the problem of television. The Federal Communications Commission of the U. S. Government also is holding hearings, and may soon assign some permanent wave bands so television can get a start. All this will tend to smooth matters so that television can plan for a sane, standardized and practical inauguration in America.

Is Television Alive?

What is television accomplishing? It is a fact that this branch of radio science is advancing remarkably, but has been held down by the almost hopeless situation that exists,

not to mention the economic condition. Perhaps one of the most interesting experiments for the transmission of television signals by radio, in a realm of little or no interference, is that which is being conducted between New York and Philadelphia.

Atop the great Empire State Building in New York City, is an ultra-short-wave transmitter. It operates on 99.5 megacycles, or 99,500 kilocycles — almost 3 meters. But its range is less than 30 miles, as far as people on earth are concerned. This is a point just above the horizon, for these waves travel out in a straight line and pass into space beyond the horizon at the curve of the earth. That is why the transmitter must be placed as high as possible above the earth's surface, so as to make the distant horizon far away.

Actual Transmissions

At New Brunswick, N. J., where the wave comes to earth, a second station relays the signals to a third station also in New Jersey. From there the signal is relayed again to Philadelphia where perfect reproduction of the pictures and printed matter is obtained. This is a "still" picture circuit, but it serves to illustrate the possibilities of ultra-short waves and their limitations.

We must remember that television does not always apply to radio. Images, both still and moving, can be transmitted by wire as well as radio. In fact, those carried by wire, such as most of the "still" or, what are popularly termed "Wirephoto", pictures, that we see every day in the papers, are far superior to those sent through the air. Wire transmission eliminates fading, static and other interference. So, as far as television goes, it is an actual, and rather widely used fact, when wire transmission is considered. The present difficulty lies chiefly with television by air—radiovision broadcasting, if you care to call it by that name.

Television A Fact

For land-wire television there is being built a special test circuit. It consists of a long metal tube containing a wire that runs through it, parallel to the sides, and spaced in the center. It is held in position with rubber insulating discs set at regular intervals. The tube is filled with gas. This "coaxial" cable is now being installed between New York and Philadelphia, and will be tried out for television. It should make it possible for us to see each other while we speak by telephone.

Television by air, too, is an accomplished fact. Once the many difficulties of air, monopoly, standards, patents, and the opportunity for all to participate in the services, are ironed out, it is expected that rapid advances toward actual broadcasts will have been effected.

What Goes On?

At the present time RCA is making regular motion visual broadcasts on certain frequencies to a number of their own receiving machines located at different points. This concern has also issued several semi-private publications telling about the progress and methods of their work, one of which is a large book that may be purchased. It is recommended to those who wish to study the question of television very thoroughly. Then, too, the Farnsworth Television Corporation is ready to make actual broadcasts and is doing much preliminary work.

On the Pacific Coast the Lee Broadcasting System, together with the DeForest people, have been presenting regular visual radio programs to a limited number of receiving machines. The Television Corporation of America, too, is making many broadcasts on the high frequency band. In England regular tests are conducted through the air,

(*Continued on page* 22)

Around Europe *by* SHORTWAVE

• • • *By the* SHORTWAVE EDITOR

THIS month is what we consider an "in-between" month. It is late enough in the year that shortwaves still have some of the summer peculiarities, and early enough that some winter effects are becoming noticeable. Better reception is had on lower frequencies now than a month or two ago and night-time reception is improving, but the high frequencies are not out of the question and daytime reception is still good. It is a good season to go fishing for stations.

A guide to all the principal European stations is given here, with their time on the air, addresses where required, and identification symbols where helpful.

There are two shortwave stations in Lisbon, Portugal. One of them, **CSW**, is reported this month by Fred Van Voorhees, Miller Place, N. Y. The frequency was announced as 9540 kcs. but the actual frequency was nearer to 9550. Announcements were in Portugese and English. This station, known as the National Broadcasting Station, was heard between 1700 and 1800, EST.

London calling! The senior Empire announcer, W. M. Shewen, is shown at the microphone at Broadcasting House, London. The Empire programs are radiated six times daily over the shortwave transmitters at Daventry. Photo courtesy of the BBC.

The other Lisbon station is the well-known CT1AA on 9650 kcs. This 2 kw. station, known as "Radio Colonial," is received with very good volume at times, on its regular schedule of 1500 to 1800 on Tuesdays, Thursdays and Saturdays. Although frequent announcements are heard in English, identification is facilitated by the interval signal of three cuckoos. Reports are acknowledged by the owner, Sr. Abilio Nunes dos Santos, Jr., Av. Antonio Augusto d'Aguiar 144.

Germany

We believe everyone is well agreed that the German stations easily rank with the best transmitters in the world. The address of the German stations is Reichsrundfunkgesellschaft, Masurenallee, Berlin-Charlottenberg 9, and reports from listeners are welcome. The Zeesen stations can always be identified by the music-box tune which precedes each program. Their schedule for this month follows:

DJA, 9.560 megs., 0005-0515; 1650-2245.

DJB, 15.200 megs., 0005-0515; 0555-1100; 1650-2245.

DJD, 11.770 megs., 1135-1630; 1650-2245.

DJE, 17.760 megs., 0005-0515; 0555-1100.

DJL, 15.110 megs., 0000-0200; 0800-0900; 1135-1630. On Sundays only from 0600-0800.

DJN, 9.540 megs., 0005-0515; 1650-2245.

DJQ, 15.280 megs., 0600-0800; 0815-1100; 1650-2245.

DJR, 15.340 megs., 0800-0900.

One of the most interesting of the European stations for the past few months has been EAQ. DXers have enjoyed listening to first hand reports on the civil war from this sta-

tion, and to conflicting reports broadcast from a station set up by the rebels. The rival station is **EHZ** in the Canaries. **EAQ** works on 9862 kcs. daily from 1715 to 2115 and on Saturdays from 1200 to 1400. A few letters that have come through Spain recently have been opened, censored, and rubber stamped before forwarding, making interesting mementos for the few DXers getting them.

The British stations at Daventry have altered their schedules slightly from last month.

Trans. I, **GSD**, 11750 and **GSB**, 9510, from 0215 to 0420.

Trans. II, **GSG**, 17790 and **GSH**, 21470, from 0600 to 0815.

Trans. III, **GSF** and **GSG** from 0900 to 1200.

Trans. IV, three of the following stations will be used: **GSB**, 9510, **GSD**, 11750, **GSF**, **GSG**, or **GSO**, 15180, from 1215 to 1745.

Trans. V, **GSC**, 9580, **GSD**, **GSP**, 15310, from 1800 to 2000.

Trans. VI, **GSC** and **GSF** from 2100 to 2300.

From the Blue Danube

From Budapest on the Blue Danube come programs every Sunday over broadcasters **HAS3** and **HAT4**, the two stations that are making Hungary famous. Announcements are made in three languages, French, English and Hungarian. Letters addressed to Radiolabor, Budapest, will reach them. HAS3 is heard between 9 and 10 on Sunday mornings on 15370 kcs. and HAT4 works from 6 to 7 on Sunday afternoons on 9125 kcs.

The League of Nations operates a number of transmitters at Prangins, near Geneva, in Switzerland, but two of their stations transmit programs regularly every Saturday afternoon from 1730 to 1815, EST.

HBL on 9595 and **HBP** on 7797 are the two broadcasters. The same program is radiated over both stations, and consists of talks on activities of the League. The talks are presented in three languages, French, English and Spanish. Reports should be addressed to the Information Section of the League.

The Vatican station is one of the most interesting of all the shortwave broadcasters in Europe. This station works on two frequencies but we list only one, 15120 kcs.; the other is not audible in this country. HVJ broadcasts programs in various languages every morning from 10 to 10:30 but reports are not very frequent. However, when special broadcasts are scheduled from HVJ, it enjoys one of the largest audiences of any one station in the entire world. Reports are acknowledged, usually with a photograph, and should be addressed to the Pontificia Accademia Della Scienze, Citta del Vaticano. Preceding transmissions from HVJ, a clock can be heard ticking for ten minutes. During broadcasts, the words "Laudatur Jesus Christus" are used often.

Feminine Announcers

In Italy there are many shortwave transmitters, but the broadcasting stations are located at Prato-Smeraldo, near Rome. The stations all have the call letters I2RO, although the announcers leave off the "I". The call letters are followed by numbers to indicate the various frequencies; **2RO4** is on 11810 kcs. and **2RO3** is on 9635 kcs. Feminine announcers are favored in Italy and this fact aids in identifying Italian stations. As the shortwavers relay long wave stations often, the lady is heard to announce "Radio Roma-Napoli," and this is followed by a man, as a rule, who says "2RO" in English. On signing off the two Italian anthems are played, "Giovenezza" and the Facisti Hymn. The address is E. I. A. R., Via Montella **5**, Roma.

Among the newer stations in Europe is **LZA**, Sofia, Bulgaria, 14970 kcs. It has been reported by a number of fans but it is not a very easy

station to get. The time to tune is on Sundays between midnight, Saturday, and 4:30 Sunday afternoon. The weekday schedule is from 5 to 7 in the mornings and from 12 to 2:45 in the afternoons.

The Belgian station ORK, at Brussels has not made a change in any respect for months, which is what we like to see most of the stations do. The frequency of 10330 and the schedule from 1:30 to 3 p.m. can be relied upon. It may be a little difficult for some to identify, however, because announcements are in French and Flemish with a little English. They sign off with "La Brabaconne." Address letters to Direction des Radiocommunications, Bruxelles.

The Pioneer PCJ

One of the earliest stations in the world was PCJ in Hilversum, Netherlands. This was the station that established the fact that transmissions could be carried on between the ends of the world, that is, between Holland and Java. PCJ enjoyed the distinction of being the most popular station in existence, and its announcer, Edward Startz, about the best-known man among DXers. Mr. Startz still announces over PCJ and PHI, and because of his ability to speak several languages fluently has made thousands of friends. These are the "Happy Stations" and everyone should listen to them if they wish good music, cheerful, informal announcements and excellent reception. Each station uses two frequencies, PCJ working on 9590 and 15220, and PHI using 11725 and 17775 kcs. On 9590, PCJ is heard Sundays from 1900 to 2000 and on Wednesdays from 1900 to 2200. The 15220 kcs. frequency of PCJ is used on Sunday from 0630 to 0730; Tuesday from 0400 to 0600 and Wednesday from 0700 to 1100. The frequencies of PHI are alternated with the seasons. 11725 in the winter and 17775 in the summer. Tune for them this month on 11725 on Sundays from 1300-1400 and every day except Tuesday and Wednesday from 0730 to 0930, EST.

Stations in the Soviet Union are numerous, but information concerning them is scarce. Mme. Inna Marr at Radio Centre, Moscow, keeps us quite well advised on the schedules and wavelengths of those stations broadcasting in English, so perhaps we should be satisfied. The newest of the Moscow stations is **RAN** but its frequency is already in dispute; it seems to use both 9520 and 9615. It is heard frequently with excellent volume between 1900 and 1930, EST. We believe **RKI** is the best of the Russians. It uses 15090 kcs. from 10 to 11 a.m., Sundays. **RNE** is the poorest of the broadcasters but the most active. English programs are broadcast Sundays on 12000 kcs. (25 meters exact) from 6 to 7 a.m.; 10 to 11 a.m. and 4 to 5 p.m. These programs are interspersed with programs in other languages, so the station does not leave the air.

Parisian Programs

The French Republic operates a group of stations known as "Radio Coloniale." The frequencies are three in number: **TPA2**, 15243 kcs.; **TPA3**, 11885 kcs.; and **TPA4**, 11720 kcs. Reports of reception should be addressed to 103, Rue de Grenelle, Paris VII. Identification is made easy (if one is lucky enough to tune in near the end of a broadcast) by the fact they sign off with the "Marseillaise." The schedule in effect at present is:

TPA2, 0100-0140; 0455-1000.
TPA3, 0100-0140; 0155-0400; 1115-1700.
TPA4, 1715-2400.

One of the newest stations in Europe, but already among the most popular, is "Radio Podebrady," at Prague, Czechoslovakia. The original tests from this transmitter were heard on three wavelengths, 19.698 meters, 25.51 m. and 49.05 meters. Joe Tamele of 13201 Coath Ave., Cleveland, Ohio, one of the first to

report Prague, has a verification from them stating that most of their reports were received on the 19 meter wavelength so that is the one they will use most frequently in subsequent tests to the USA.

"Like all good readers of RADEX, I would like to see the ideal letter appear in it, so I'm sending my contribution," volunteers Fred Van Voorhees, Box 125, Miller Place, N. Y. "I do not care to read about the good catches made by anyone if he only lists the call lettters with no other information. **WPHT**, Cambridge, Ohio seems to be silent as **WQFT**, same frequency, 1.596 megs., announces its location as Cambridge. A new station for the Maryland State Police has been heard testing on about 1.706 megs. with the call **WHWN**. **WPGU**, Cohasset, Mass., has been heard quite regularly on 1.712 megs."

A DX Program

A DX Tip for shortwave listeners comes from Bernard Ahman, Jr., 3313 Westerwald Ave., Baltimore, Md. On November 20 the two General Electric stations at Schenectady, N. Y., will broadcast a special program between 3 and 4 p.m., EST, for the Newark News Radio Club. The stations are **W2XAD** and **W2XAF**, 15330 and 9530 kcs. respectively. A highly interesting program is promised by the manager of the stations, Mr. **Darlington.**

"I received a verification from a new station in Cartagena, Colombia," postcards Milton Shwartz, 1056 Shenandoah St., Los Angeles, Calif. "This station is **HJ1ABE**, working on 9500 kcs. or 31.58 meters and relaying the programs of 'El Progreso Cartagenero.' The address given on the verification is P. O. Box 31. Their transmitter is a 1000 watt Collins."

Mr. G. Saladin, Director of station **HIX** in Trujillo, D. R., officially advises us that the frequency of their shortwave transmitter has been changed from 6131 to 6340 kcs. This 500 watt station transmits on the following schedule: Sundays, 0745-1045; weekdays from 1215 to 1315; Tuesday and Friday from 2015 to 2215, EST.

The Bronx Owl, Carl Forestieri, is shown here surrounded by a few of his best verifications. To the right are his BCB verifications and on the left those he has received on shortwaves. His Super Ace certificate in the NNRC is also shown.

New Cubans

From Arthur Viner, 4554 Kenwood Ave., Chicago, Ill., comes a summary of his shortwave results. "A new Cuban, **COCX** has been heard relaying CMX quite regularly after 1730, EST, just below the 25-meter band or on about 11.68 megs." Arthur tells us. "On 31 meters **COCQ** is about the best-heard station at the present time. Some of my better catches on the shortwaves are VIZ3, VE9AS, WVD, HAT4, all verified, VP3MR, HH3W, JVF, the Schooner

Several young ladies have made good as poets on the radio, but listeners acclaim Mary Livingstone as radio's poet laureate. Mary, with Jack Benny, is returning to the air lanes soon and her admirers no doubt are looking forward to hearing some of her new verse. She is called the "Pulitzer Poetess—perhaps."

Morrissey, W10XDA, and many amateurs and commercial code stations. All together, I have heard 23 countries on voice, and 45 countries on code." Mr. Viner postscripts his letter, telling us he got up at three o'clock the following morning and heard seven Australian amateurs and one Hawaiian on 20 meters. VK2ME was producing a beautiful signal at the time, and PCJ was on the air sending a program in Dutch to the East Indies. The Japanese station on the air was JVM on 10740 kcs.

"Using a five-tube table model General Electric radio for six weeks, I have so far logged 84 stations on shortwaves," contributes J. F. Finlay, 352 Robie St., Halifax, N. S. "Among my better catches are VK3ME, VK3LR, VPD, RAN, PRF5, COCQ, ORK, Prague and several others. Incidentally, a few items of information which I have not yet seen in RADEX are given here: **GBTT**, the s. s. "Queen Mary" works W01 and GBC on an announced frequency of 13210 kcs. **COCQ**, Havana, Cuba, relays CMQ, in the 31 meter band, slightly lower in frequency than CT1AA. **COCX**, also in Havana, announces in English and relays CMX on the approximate frequency of 11580 kcs. **HJ1ABE**, Cartagena, Colombia, La Voz de los Laboratorios Fuentes, now works on an announced frequency of 9500 kcs. **PDK**, Kootwijk, Netherlands, announces "Hier is Amsterdam" and broadcasts to the East Indies every afternoon from 1500 to 1615, EST, on 10410 kcs. **HJ1ABB**, Barranquilla, Colombia, has been heard numerous times on 9600 kcs."

Joseph Morsello, 15 E. Upsal St., Philadelphia, Pa., wishes to correspond with DXers and amateurs throughout the world. Joseph uses a National SW-3 receiver and has been tuning for about three years. He wishes also to exchange photographs.

N for Normandie

"While looking over my shortwave log a few days ago, the following notes came to my attention," states Howard M. Phillips, 2016 Otis St., N. E., Washington, D. C. "A new station, **HIN**, was logged on two different frequencies, 6223 kcs. and 11490 kcs. The operating schedule was announced over the air as 1700 to 1800, EST, on 11490 kcs., and on 6223 from 1220 to 1400 and 1900 to 1930, EST. In addition to this announced schedule, I have heard it on 6223 kcs. between 2030 and 2100. **HJ2ABC**, Cucuta, Colombia, has been heard several times on 9570 kcs. between 1830 and 2200, EST. The receiver in use here is a Silvertone Model 1918A and I am quite well pleased with it." Mr. Phillips lists also a few amateur stations which have been covered in the amateur column appearing in this issue of RADEX.

Another newcomer to the short-wave ranks is Maxwell Grimm, Springfield, N. S. He uses a Canadian Serenader 5-tube set which tunes from 5950 to 18000 kcs., and has heard thirty stations on three continents already.

"I bought a Westinghouse 6-tube receiver in June and believe you will agree with me that it is a very good set when you read the list of stations I have heard already," acclaims a reader who signs "W. B.", 189 Park St., Sydney, N. S. "I have heard all the listed Zeesen stations except DJC and DJM; the three French-colonial stations; seven of the Daventry transmitters; three Australians, six Japanese, VPD in Suva; PCJ in the Netherlands; Czechoslovakia, Hungary, numerous South Americans, etc., etc. Three of the Russian stations also are in my log. I hope in due time to have verifications back from most of these broadcasters."

Strangers

"Recently I obtained a 16-tube Airline receiver which, as nearly as I could tell from tests and comparisons was the most efficient for the price asked, and I am more than satisfied with the results. I have kept an accurate tabulation of all the stations I have heard, but three of them have me puzzled; they are WUEX, WUEV and WUEW. They may be navy stations, judging by the conversations heard. For the information of other listeners, **KKP** at Kahuku, Hawaii, is on the air from 2230 to 2300, CST, with a special broadcast for the Columbia Network, on 16030 megs. Consistent reception of DJB in Berlin has been enjoyed here, while the BBC stations at London, the French transmitters and the League of Nations broadcasters are only a little less consistent. The only complaint I may have is that the South American and other Spanish-speaking stations do not announce their calls and locations very frequently in English so I am unable to identify them."

Replying to our questionnaire, station CMX at Havana Cuba, gave us a little information about their new shortwave transmitter, **COCX**. This shortwaver does not have, as yet, a definite frequency assignment, working in the vicinity of the 25-meter band. Reports are verified by "Casa Lavin," Francisco A. Lavin, Manager, P. O. Box 32, Havana.

He Draws a Blank

"A few days ago, after 18 months of waiting, I received a confirmation of my report to **YDA** at Bandoeng, Java," states Emile C. Page, 1716 N. Highland Ave., Glendale, Calif., "This reply was in the form of a brochure, with a slip attached reading: 'Owing to the fact that our office was flooded with foreign reports and the broadcast hours and wavelengths as well as the number of our transmitters were subject to many alterations we have not been able to answer your report before now. From now on, however, changes in wavelengths and times are not apt to happen.' There is a verification blank on one of the pages, but mine is a blank. They didn't fill it in so it is not very satisfactory to me as a verification. I have never mailed a request for confirmation outside of the USA without enclosing an International Reply Coupon. About two months ago I wrote to another NIROM station, YDB, and it will be interesting to know how I fare with that one, now that they have straightened out their troubles."

Ralph Gozen, the well-known shortwaver of Yonkers, has moved to 1090 Eastern Parkway, Brooklyn, N. Y. This month, as usual, he sent in a lot of valuable information. "The new Italian call letters for the Addis Ababa stations are **IUA**, 5.88 megs, formerly ETG; **IUB**, 7620 kcs., formerly ETD; **IUC**, 11955 and **IUD**, 18270 kcs. A new Moscow transmitter is **RV96** on 15180 kcs. Sundays from 1300 to 1400, EST. It is rumored that a new Chilean station is under construction to work on

9540 kcs, so its call letters will be **CB940.**

"I certainly have had a lot of trouble getting the Roman station verified," Mr. Gozen complains. "First, I sent a report to 12RO3 and received a letter but they forgot to enclose the veri card. Later, I reported 2RO4 and stated they didn't send me a card for the other station. Now I have a card verifying transmitter No. 3 but none for No. 4. Since March 6 of this year I have verified 32 stations and have 25 reports out to the other stations."

War in Spain

A station believed to be **EHZ** in the Canary Islands is reported by Capt. Oxrieder, 122 E. Hamilton Ave., State College, Pa. This station is on the air nearly every evening from about 1800 to 2000 with a multilingual program, on 10370 kcs. The languages spoken are French, Spanish, German, English and maybe others. "Station **HJ4ABE** has moved up again in frequency," reports Capt. Oxrieder. "The new frequency is 6097 or 98 kcs. and it is drowned out when W2XE comes on the air as there is too much difference in the signal strength. **YNLF** has moved again also, now coming in on 9630 kcs. **HJ4ABD** has moved to 6135 (I believe it is assigned to 6138). **YV7RMO** is on 6070. **XEWI** is now on 11900 and I have a veri showing this frequency. **HJ1ABJ** in Santa Marta is on 6018, on the low frequency side of **XEUW,** which is on 6020 kcs. **HJ3ABD** has returned to 6050 and seems to show signs of staying there. **HI3C** at La Romana has moved again, this time to 6725 kcs. **TIEP** wanders around a lot and it is hard to tell what frequency he should be listed on; 6676 kcs. seems to be the best bet. **HJ3ABF,** the old HKF, has been reported on 6070 and near 9500 and 9590 but I am sure it is on 6170 kcs. The station on 9590 is **HJ2ABC,** La Voz de Cucuta. **COCX** is, I believe, the world's worst mover; he has been on 12165, moved one night from 12135 to 12125 kcs. and back up to 12160; he has been on 11540, 11430 and many other frequencies. This may be due to the fact it has no definite frequency assignment."

Let's Verify

WHILE some listeners continue to debate the familiar question of "To verify or not to verify," the average DXer seems to be concentrating his efforts on getting all of his catches confirmed. Regardless of how the verie is to be counted or when it shall be discarded, the important point is to get the verification — and then decide what to do with it.

As listeners settle down once more for regular turns at the dials, it may not be amiss to consider the matter of submitting reports. While it is admitted that there can be no uniform system, the general station response can be improved by a wise decision on what shall and shall not be done when reporting.

Essentially, a verification is accepted proof that a listener has tuned in a certain station. When we write for a verie, we are asking a broadcaster to confirm the fact that we heard his station and, it follows, we must send definite information which he can check with his records.

Obviously, then, the whole process of verifying commences when the station is tuned in. It is absolutely necessary that we log the greatest amount of material possible, for only with a complete report can we give evidence that we deserve a confirmation.

Unless pressed for time, every listener should endeavor to take down a full report for a period of fifteen minutes — listing selections heard, announcements other than just for titles of selections, station identification by call letters, etc. Under favorable reception conditions, three successive selections should be

the least amount of program material reported.

Of course, obstacles to complete reports are often encountered in the form of weak signals, frequent periods of severe fading, and interference from nearby stations. In such cases, listeners should make every effort to take down as much data as possible, even though it may be necessary to stick with a station for as much as an hour before a comprehensive report is available.

Network stations are usually hard nuts to crack. For obvious reasons, few stations will verify reports covering chain programs. Possibly the best chance for identification material is the spot announcement in the regular station breaks, since mention of the local advertiser is often considered ample proof of reception. Late at night, many chain broadcasters carry local dance programs, which are always suitable for reporting. Another good bet is the station sign-off, when the announcer may give his name and the time at which the station will return to the air next morning.

Other bug-a-boos are foreign stations which announce in an unknown language and play unfamiliar music. About the only way to report them is to take down everything which is heard. Make a note of every selection, mentioning the type of music and specifying whether it was an orchestral number, or a vocal or instrumental solo. Long announcements should always be reported, with mention of whether it was a man or woman speaking. The longer these reports are made, the better the chance to receive a confirmation.

Frequently, a listener may hear a familiar selection, yet be unable to identify it from memory or announcement. A good way to overcome this obstacle is to keep handy a list of recent record releases from the prominent studios. Reference to this list may recall to mind the title of a selection heard. This tip is particularly valuable on DX programs, when popular recordings are the principal fare.

Football's "Galloping Ghost," Harold "Red" Grange is heard in the role of gridiron forecaster and analyst in his series of thrice-weekly broadcasts over NBC Networks. On Fridays at 10:30 pm, over the Red Network, he discusses game to be played the following day. At 7 pm Saturdays, also on the Red, he reports on the outcome of leading games played during the day. He also is heard on Mondays during the Greater Sinclair Minstrels broadcast at 9 pm.

When reporting any station, it is essential that the correct time of each item be given. It is always a good idea to check your watch or clock with the various time signals before settling down for a turn at DXing.

When reporting to stations on the North American continent, the listener may content himself with giving his local time. For foreign stations, it is well to convert the hour into Greenwich Mean Time. In doing this, it must be remembered that, while it may be one day in your location, it may be another by GMT. For instance, 11:00 PM, EST, on

October 1st will be 0400 GMT, October 2nd.

No matter how accurate and complete a report may be, it will be valueless if sent to the wrong station. Thus, a listener should take care that each station reported has been identified.

Although most domestic stations may be identified without much trouble, every DXer is occasionally faced with a weak signal which cannot be traced definitely. On this score, listeners take sides; some holding that no report should be sent unless the call is heard.

On the other hand, not a few DXers contend that it is quite all right to report reception if you are *reasonably sure* of a station's identity. This is particularly true when, by a process of logical elimination, it is apparent that but one station within range can be operating on a certain frequency at a given time.

In case this "reasoning process" is used, the listener should state in his report that he *believes* he heard the station. Under such circumstances, no positive claim of reception should be made and the question of verifying should be left entirely to the discretion of the station.

After the broadcaster has been identified and the program taken down, every listener should pay particular attention to the manner in which he writes his report. He should remember that he is asking a favor and that no station is under obligation to verify. The report should be expressed in courteous terms and the kindness of a confirmation should be requested, not demanded.

Although some listeners contend that reception data is wasted on some stations, there are undoubtedly many broadcasters who are very much interested in learing just how their signals are received at distant points. The inclusion of information on signal strength, quality, fading, possible interference from stations on the same or adjoining channels, and local weather conditions shows a desire to co-operate and no report is complete without this data.

Following is a suggested verification request form:

ROBERT M. DAILY,
57 GLENDALE AVENUE,
NEW YORK, N. Y., U. S. A.

October 21, 1936

Radio Station 2NZ,
Narrabi, N.S.W., Australia.
Gentlemen:

This will report reception of Station 2NZ on 1170 kcys between 4:30 and 5:00 AM, EST, (0930 to 1000 GMT) this morning, October 21st, when the following program was heard:

EST	GMT	
4:30	0930	Station identification; announcing a program of Victor Herbert selections.
4:32	0932	By orchestra, "March of the Toys".
4:39	0939	Soprano solo, "Kiss Me Again".
4:45	0945	By orchestra, "It's a Great Day Tonight for the Irish".
4:50	0950	Tenor solo, "My Dream Girl".
4:55	0955	By orchestra, "Pan Americana".
5:00	1000	Station identification.

Your transmission was received with fair volume, about R4. Quality was good at all times. Slight fading was noticed, occurring every five minutes and lasting about 30 seconds. Weather conditions here in New York were excellent for reception. Sky was clear, static light, and temperature about 32°. My receiver is a 10-tube Little Giant Air Hopper. No interference from other stations was observed.

If this report checks your station log, will you kindly send me a letter or card of verification? An International Reply Coupon for return postage is enclosed.

Thanking you in advance for your courtesy, I am,

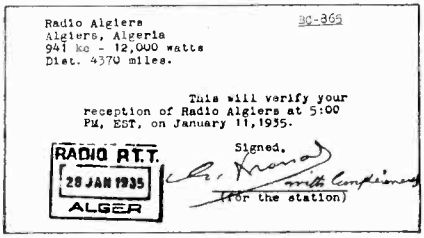
Yours sincerely,
Robert M. Daily.

This form seems to cover all of the essential points necessary for a complete report. It will be noted that the program heard has been itemized, making for easy checking with the station log. It is always well to keep away from wordy letters, stick to the matter at hand, and don't forget return postage.

Some DXers believe that they stand a better chance of receiving a verie if they report excellent volume, fine quality, lack of fading and other complimentary exaggerations, regardless of the actual facts. We feel that the stations appreciate the truth

about reception conditions, even if it is derogatory. Constructive criticism may enable them to improve their equipment, while obvious flattery is of no value.

Despite constant hammering on the subject, many listeners continue to ignore the absolute necessity of enclosing return postage with their reports. There is no reason for not being aware of this vital part of every verification request. If a DXer cannot afford the expense, he should join the clan of non-verifiers and cease being a harmful parasite. If he thinks he is wise and is putting something over on the stations, he is


Radio Algiers
Algiers, Algeria
941 kc - 12,000 watts
Dist. 4370 miles.

30-365

This will verify your reception of Radio Algiers at 5:00 PM, EST, on January 11,1935.

Signed,

(For the station)

RADIO R.T.T.
28 JAN 1935
ALGER

A verification from Radio-Alger, illustrating the method of submitting an International Postal Union postal card to foreign stations for verification. The message was already typed in by the writer and all the station had to do was check the report, sign and rubber stamp the card, and return it. This method sometimes works when others fail.

due for some painful publicity.

When reporting to a station in the United States, the enclosure of a three-cent stamp is customary. For foreign stations, an International Reply Coupon or a stamp of the country in question, obtainable from stamp exchanges, is necessary.

A more economical, yet ethical, way of supplying return postage is the use of post cards on which a verification form has been typed, ready for signing by the station. A sample of this type of verie is shown in the accompanying picture. A penny card will suffice for stations in the United States. For foreign stations, the post office sells double return cards in four and six cent denominations. In the latter cases, half of the card may be used for the report and the other half for the return verification.

Recently, a number of listeners have complained that their three-cent stamps to American stations brought nothing but post card veries. While it is admitted that station letterheads are to be preferred, a station's policy in this connection should be respected. After all, it takes time and money to check a report and they are certainly entitled to two of the three cents.

A simple system of handling station reports involves the use of a small card index file. When a new broadcaster is heard, the call, location, frequency and power are noted in the upper left-hand corner. Immediately below and in the center of the card, should appear the date of reception. Next will come the itemized program heard. The upper right-hand corner may be used for noting reception data. At the bottom of the card should appear the date when the report has been sent to the station.

In this connection, it is well to remember that all reports should be mailed as soon as possible after reception. If a station is heard early one morning, the verification request should be on its way that night, and never more than 48 hours after reception.

When the report has been mailed, the station card can be filed away by call letters. When the verie comes back, the card can be removed from the file and either destroyed or kept in another index for future reference. Some DXers like to fasten the card to their verie and have a complete and permanent record of each station heard.

Once a week, the listener can go through his file, note the stations which are delinquent and prepare a follow-up report. It seems to be customary to allow a station from

four to six weeks before writing a second letter to a domestic station; three months, to a foreigner.

The first follow-up may be in the form of a card or letter and should merely call attention to the fact that a previous report had been overlooked. In case the original request may have been lost, it is a good idea to repeat the program details. Return postage may be enclosed with the first follow-up, but since this is primarily a reminder, it is hardly necessary.

If another month or so passes and it is evident that a second follow-up will be necessary, the use of a form verification on a post card is suggested. Once again the attention of the station should be called to the delinquent confirmation. Under no circumstances should a listener become abusive in his language, as that will hurt the chances of himself as well as other DXers.

In most cases, a maximum of two follow-up letters should bring in the desired verification. If, however, the confirmation is still missing and it is known that other DXers have received veries from the station in question, the DXer should consider the possibility that his report may have been in error. If possible, he should log the station again and commence the process of verifying once more.

A possible source of assistance is the radio editor of the local paper. In most cases, the stations are dependent upon the newspaper for publicity and a radio editor is, therefore, in a position to ask favors.

In many instances, a fellow radio club member or even a reader of RADEX, located in the city in question, may be willing to intercede on your behalf.

Many of these points may seem "old stuff" to some DXers, but they are often neglected by old-timers and are essential bits of information for the neophytes.

Support *The* Commentators

● ● ● *By* ROBERT H. WEAVER
President, National Radio Club

AS ANOTHER DX season swings into action, DXers should remember the problems confronting a DX commentator and how, by a little effort, they can assist him in putting over a successful program. As this is the third year during which I have had the privilege of broadcasting DX tips and news, I feel that I am qualified to speak on the subject.

The success of a DX tip program depends largely upon the information which the commentator has at his disposal. Since most of these broadcasts run from fifteen to thirty minutes in length, it is obvious that a vast amount of material is necessary for an interesting program.

These broadcasts are put on for the particular benefit of the DXer. Therefore, if he receives a certain amount of enjoyment from such a program, it is essential that he cooperate with the commentator whenever possible.

At the end of each broadcast, the commentator usually requests all listeners to send in all information which may be of interest to other DXers. This material is used to build up the program and to stimulate interest in DXing.

Also, in an effort to learn whether his broadcasts are popular, the commentator asks for a response to his program. I have found that it is particularly hard to get the DXers to abide by this request. There are many weeks when I, as well as other DX commentators, find the response very disappointing.

This indicates one of two things. Either the commentator is not capable of presenting an interesting program, or the DXers themselves lack the incentive to respond to the broadcasts

Homer Rodeheaver, who is estimated to have directed more than 70,000,000 people in song during the past 30 years, is now conductor of the Palmolive "Community Sing" broadcast on Wednesdays from 9:30 to 10 p.m. EST over the Columbia Network. One time associate of the late Billy Sunday, Rodeheaver has gained fame as a trombone soloist as well as a song leader. He says he will not play the trombone often during the programs, however, because the trombone has to be seen to be appreciated. Its chief attraction seems to be the sliding motion rather than the music.

which can be so valuable to them. Since the comments which are received usually applaud this type of program, it is my belief that the fault lies with the listeners.

It must be remembered that a DX commentator has one of the most difficult of all programs to prepare. A large number of his listeners are not familiar with DXing and may not understand what is being said. Thus, it is necessary that the commentator be given every assistance in conducting a broadcast which will be of interest to everyone.

Therefore, all DXers are urged to pitch in and do whatever they can to make these programs a success. If the response falls off, the stations will be justified in assuming that there is insufficient interest to justify the regular donation of time. As a result, the DXers will lose their opportunity to receive the latest DX news and tips, all because they failed to do their part.

Attention is called to several tip periods which are now on the air each week: KFAC, 1300 kcys, Los Angeles, Calif., Tuesdays from 1:00 to 1:30 AM; W2XAF, 9530 kcys, Schenectady, N. Y., Thursdays from 5:35 to 6:00 PM; KDKA, 980 kcys, Pittsburgh, Pa., Fridays at midnight; CFAC, 930 kcys, Calgary, Alta., Sundays from 1:00 to 1:15 AM; and WORK, 1320 kcys, York, Pa., Thursdays from 8:45 to 9:00 PM. All times are Eastern Standard. In addition, WEEU, 830 kcys, Reading, Pa., is expected to have a regular period on Saturdays, although the time has not as yet been determined.

DXers are urged to do everything possible to make these programs a big success and to keep them on the air.

Logging Foreigners *In The* South

● ● ● ***By*** **Isaac T. Davis**
Elkhart, Texas

IN THIS locality, trans-Pacific stations are much easier to hear and far more consistent than those across the Atlantic. During the past season—February, March and April—on almost any morning when static was not too high, signals could be heard from some of the Aussies and Zedders after 3:00 AM, CST. Sometimes, they could be heard until after sun-up.

When tuning for the Southern TP's, I always tune to three different channels. I usually turn the set on around 4:00 A.M., and then turn the volume up until the static can be heard plainly, but not too loud. I then tune to the WSM channel on 650 kcys to see if 1YA is pushing through. Whether or not I heard him, I stay on the 650 channel for five minutes. Next, I turn to 790, WGY's channel, for a try at 4YA—the loudest of all TP's. I stay there for another five minutes. Finally, I move over to 720 for 3YA and, as

with the other two, I remain for five minutes.

If, after tuning to these three specified channels for a period of five minutes each I have not heard a signal, I know that it's no use to try for the other Aussies or Zedders. Since 1YA, 3YA and 4YA are always more consistent than the other TP's, absence of a signal from them indicates a pretty poor morning.

If the YA's are coming in good, I next turn to WMAQ's frequency, 670 kcys., for the easiest of all the Aussies, 2CO at Corowa. If I am successful with 2CO, I run over the dial, stopping at 570 for 2YA; at 640 for 5CK; 710, 7NT; 730, 5CL; 740, 2BL; 770, 3LO; 800, 4QG; 990, 2GZ; 1020, 2KY; 1110, 2UW; 1120, 4BC; and 1190, 2CH. If these are coming in, I fish for other and smaller stations. I heard several of the low power stations on half a dozen mornings last spring, but all DXers, veterans or neophytes, should "test" the reception conditions by trying for the stronger stations first.

The Asiatics

For the Japs and Chinese, there isn't much luck East of the Rockies. However, JOAK2 on 590, JOBK2 on 1085 and XGOA on 660 filter through at times. Try for them after 4:00 AM, CST. They improve towards sun-up, but early U. S. stations come on and spoil reception just as the Japs are reaching a peak.

I find that Sunday mornings offer the best DX possibilities, since most stations do not sign on as early as on week days and, therefore, cannot offer as much interference.

Of the TA's, I find Munich on 740 to be the easiest. Try for him just as soon as WSB signs off. Cologne, 658, is the next best bet. However, because of our geographical location, the TA's are very difficult and, unless a listener is very lucky, he must be very persistent to be rewarded with a signal from across the Atlantic.

Of all foreign stations, the South Americans put the strongest signals into most parts of the United States. Unfortunately, similarity in hours of operation cause those which can be heard during the evening hours to be sprinkled with QRM from our locals. Anyone seeking his first TA should tune to 670 and see if LS4 is going to break through WMAQ. LR6 is usually a good bet to be heard behind WLS-WENR on 870 some evenings. Of course, the best reception of the SA's is to be had on early morning tests, when they sure pound through.

To sum up, the best way to hear a TP or a TA is to *tune*, not *fish*, for certain stations. After the more powerful stations have been logged, the listener may then try his luck at fishing, but he should always fish slowly, with a "taut line."

Last season, April afforded the best TP reception. December and January have been the best months for the Japs and Chinese, while the same months have brought the best European results.

What of Television?

(*Continued from page* 9)

and here in America we find some of the large colleges, such as Harvard and Columbia, doing the same.

But most of these test broadcasts are semi-private. They are scheduled to investigators, and as the systems are different no practical receivers are available generally to the public so that nearby transmitters can be utilized. As the situation is at this time, no one can step up and purchase a television receiver, tune it in on some visual broadcasting station, here or there, and watch the happenings throughout the country. There is a limited amount of this, it is true, but no radio engineer cares to predict that visual broadcasting has arrived, or that it is even "just around the corner".

In *the* WORLD *of* DX

● ● ● *By* CARLETON LORD

SINCE the formation of the Newark News Radio Club nine years ago, DXing has been an organized hobby, advanced by the co-operation of all its devotees.

Cooperation has brought special courtesy programs, facilities for the prompt exchange of tips and news, clarification of the verification problem, and the opening of foreign fields for dialing. As we know it today, DXing is a far cry from the hit-or-miss system of a dozen years ago.

Perhaps this approach to a Utopian state of affairs has made the listener less conscious of his own obligations to the hobby. At any rate, it is becoming increasingly evident that there is a marked tendency to pass over the support and cooperation which are so necessary to the continued good health of DXing.

Many listeners apparently are of the opinion that the payment of dues to one or more radio clubs and the purchase of a favorite magazine constitute their share of support. Of course, they will report to a station when a verification is desired, but that is for their personal benefit.

In another section of this issue, Robert H. Weaver, president of the National Radio Club, appeals for the support of DXers in providing reports for various DX tip programs. Such broadcasts are provided for the special benefit of long distance listeners. For it to be necessary for a commentator to beg for news is indeed a sad situation.

But that is by no means all! Practically every DXer in the country has, at some time or other, bewailed the channel hogging of the all-night stations. Judging from the letters which we have received, listeners would go to almost any extreme to clear up the affected frequencies. So, when the time for united effort arrives, what happens?

In the Midsummer issue, Robert R. Rawstron suggested that readers prepare letters of protest to the F. C. C. Instead of sending them direct to Washington, it was felt that a better impression would be made if they came to us for collection and forwarding in one large bundle. By submitting this idea to our readers, we indicated our belief that such a plan would at least receive some attention by the Commission.

As we go to press, four months after the appearance of this suggestion, we have received exactly one letter of protest—and that was from the originator of the plan, Mr. Rawstron!

In the same Midsummer issue, we asked readers to send in ideas on what constitutes an efficient aerial and ground installation. This information was to be shaped into an article covering the entire subject. This article appeared in the September issue, but we had barely a dozen letters to consider in its preparation.

For years it has been an accepted fact that courtesy programs should receive the unqualified support of the members of the club to which the broadcast was dedicated. Regardless of whether a station had been verified, it has been the duty of every member to report on the program and to thank the station for the courtesy.

From the broadcasters themselves, there is ample evidence that this obligation is being fulfilled by too few listeners. Typical reaction is that of James R. Curtis, president of Station KFRO, Longview, Texas.

"Last season," he writes, "we did not have as many reports as during the previous year. This can possibly

be attributed to the fact that in 1935 we were a new station, and the 1935-36 season was our second year. Unless there is a better mail response on our first program this year, we will not put on any more special broadcasts. It appears that the regular FCC frequency test is satisfactory for most DX programs, and that is what we intend to use this year."

From this point of reasoning, it is but a short jump to the policy of no DXes and no verifications. Such, for instance, is the belief of Irving Vermilya, General Manager of Station WNBH, New Bedford, Mass., who writes:

"It is my opinion that a so-called DX program has no particular value to any of the broadcasting stations and, therefore, I believe that the practice should be discontinued. As far as the DX listeners are concerned, the only benefit obtained by them is the possible thrill of hearing their radio cover long distances—and that can be accomplished on the short waves."

A recent portrait of Helen Hayes, who is in her second season on the NBC-Blue Network. This year she dramatizes the novel "Bambi," heard Mondays at 8 pm, EST. Hollywood offers have been frequent but Miss Hayes confines her performance to radio and the New York stage.

It would not be difficult to note additional points to show that DXing has not been receiving the cooperation and support which it needs. The possible blame for this condition can be distributed in a number of directions. Many of the old-time DXers, who formerly were exceedingly active, may have lost their interest in the hobby. The younger generation accustomed to the leadership of the veterans, may not realize that it is high time that they began lending an active hand.

But whatever the reason, present-day listeners must remember that everyone can and should support DXing to the best of their abilities. Club officials and radio editors will continue to push the interest of the listener at large, but they must receive support and cooperation.

Verifying Again

As long as DXers desire confirmation of their reception, just so long will verifying remain a major problem in the minds of most listeners. Fortunately for the hobby, the great majority of American and Canadian stations will verify correct reports.

A few stations announce a definite policy of issuing no verifications under any circumstances. Typical reason for such a stand comes from Stations KASA, Elk City, Okla.

"Our situation as regards the answering of DX mail," advises F. E. Mayhew, Supervisor, "is not an arbitrary one. Rather, it is entirely individual with our station. Our staff is small, and we have hardly time to take care of the essential duties that are required to operate the station successfully. We are strictly a community station, with the interests of our listeners only at heart. Our commercialization is only such as will cover the actual operating expenses of the station. Therefore, it is only

natural that we have no nation-wide interests that can be accelerated by answering DX mail."

Somewhat along the same line, yet revealing a dangerous pitfall for DXers, is the attitude of the new WJRD at Tuscaloosa, Ala. Writes their Chief Engineer, J. G. Cobble:

"The average DXer and DX club seem to have the opinion that they are putting a station under an obligation when they make a report on reception. This is a false impression. In the first place, it is a reflection on a local service station to cover too much DX territory, since it shows that the sky wave is too pronounced. The FCC frowns on this and their first check for faulty antenna performance is to inquire as to the DX ability of the station.

"Second, we are not interested in anything beyond our normal primary and secondary service areas. We can get a reliable picture of our cover—in these areas by a simple field intensity survey. Third, when certain unsolicited reports are not answered, the writers immediately send threatening letters. In extreme cases, they report the matter to the local Chamber of Commerce, with the request that the station be *forced* to reply to a report which was not asked for.

"I will concede that a regional or clear-channel station stands to benefit from DX mail, but to the smaller stations this verie business is becoming a nuisance."

When stations like KASA and WJRD frankly state their policy of non-verifying, listeners must recognize the reasons for this action and applaud the truthful announcement. If such broadcasters are ever subjected to threatening letter and complaints to chambers of commerce, we invite the stations to forward the names of such "DXers" for publication in RADEX.

Unfortunately, there are a few stations who tell us that they will verify correct reports for return postage, and then apparently adopt an opposite policy when the DX mail commences to come in. Some of these stations may occasionally confirm a scattered few reports after a number of follow-up letters, while the others appear to be even less considerate of their previous promises.

Several of the radio clubs report consideration of a central committee to check up on the latter class of stations and to list the broadcasters who continue to overlook DX mail.

Aerials and Such

From time to time, we have recommended various types of antenna installations which should give maximum reception in a given location. In our wildest moments, we would never suggest that listeners attempt the hook-up which is used by Augustine Lawrence, 8 Pine St., Nantucket (Island), Mass.

"Using a 1936 Philco Model 610B," he pens, "my aerials consists of a five foot piece of wire inserted in the castor of an iron bed. The regularly-supplied 25 feet of antenna wire is attached to the ground clip of the radio and strung out the window, winding around a galvanized iron pipe. I have put pieces of asbestos around the unshielded tubes and have covered the tips with pieces of ½" rubber tubing. To prevent vibration, I have placed an old blanket over the top of the wooden cabinet. I don't yet know why or how it works, but it sure does perform to perfection."

"I have tried numerous aerials on by Gilfillan Model 30," admits Arvid E. A. Astad, 1211 Henry St., Berkeley, Calif., a shut-in, "but never was satisfied with the results. I finally found that, by grounding the aerial post on the set and not using the ground post, I was able to top any results obtained with an outside wire."

"As a means of reducing local interference," advises Tom Black, 143 Carroll St., Pittston, Pa., "I have

wound the lead-in of a standard inverted-L aerial around a free piece of wire. One end of this wire reaches as high as the flat-top, while the other end is run to a separate ground."

"With my new 8-tube Silvertone," reports Lloyd Harrison, 130 S. Hague Ave., Columbus, Ohio, "I am using 200 feet of wire arranged as three spokes of a wheel. The lead-in is taken from the center, where the three spokes join. This gives me a non-directional aerial which receives equally well from any point of the compass. My ground is a nine foot iron stake into the ground and connected with a two foot piece of galvanized heating pipe. Both are moistened frequently."

"On the matter of grounds," briefs H. P. Rosenbrock, 252 N. Fourth St., Clifton, N. J., "I have tried radiators, driven pipes and rods, and finally a 25-gallon submerged oil tank which serves as a rain drain. They all seem to work the same."

Summer Records

While most DXers seem to close up shop every spring for an annual summer hibernation, a few hardy souls brave heavy static on the chance that a few new catches may be entered in their logs. Recent reports indicate that the past summer has provided its share of new stations.

"During the summer," recalls Robert Hyland, 216 E. Grand Ave., Springfield, Ohio, "I heard LR5 seven times and LS2 twice. On June 21st, the first day of summer, I heard YV1RC with R8 volume. In May, I heard the three Hawaiians—KHBC, KGMB and KGU—with the latter weaker than the other two. Because of this kind of reception in the warm months, I am of the opinion that the coming season will be somewhat better than last year."

"Incidentally, on some SW QSL cards belonging to a friend of mine, I note that there are a number of heretofore unknown BCB stations working in conjunction with YV12RM, YV11RB, HH2S and HI8Q. YV12RM, Maracay, Venezuela, is on 1150 kcys; YV11RB, Bolivar, Venezuela, 1400 kcys; HH2S Port au Prince, Haiti, 1125 kcys; and HI8Q, Trujillo, D. R., 1475 kcys. I know of one DXer already who has heard HH2S on 1125."

"Haven't done so much DXing," admits S. R. Lewis, R. D. 3, Box 660, Toledo, Ohio, "but did snag two new BCB stations during the recent frequency checks. KCMO and WFOR were the first new medium-wave stations to be heard on the Scott. One thing to cheer about is the reception of verie from TIPG, which has been out since last December."

"Have been after the South Americans all summer," offers R. H. Tomlinson, 125 Terrace Ave., Port Chester, N. Y. "Strange as it may seem, I've done even better with them than last winter. On several occasions, there have been as many as 15 SA's coming in on the speaker, with the American stations on the same or adjacent frequencies not even heard except for an occasional whistle. SA veries now total 28, with about a dozen more due any time. Among the better catches are two 250-watt stations in Brazil and one 500-watter in the Argentine. The others range from 1 KW up. Heretofore, I haven't even thought of DX after April, so see what a lot of chaps are missing."

The All-Night Situation

There is little need to remind readers of the activities of the all-night stations last season. Channel after channel was blocked during the DX hours and untold interference was experienced. While reports for the new season are not complete, there is reason to believe that there will be fewer late programs during the coming months.

"The old blockade on 780 by KTM and KELW is a thing of the past," avers Charles C. Norton,

President of the Universal Radio DX Club, 2018 Green St., San Francisco, Calif., "as KEHE is only on the air from 6:00 AM to midnight, PST. KRE and KJBS are still all-nighters, with KRE on a 24-hour schedule."

"For the past few months, WHN has been operating until 2:00 AM and then sign off until 7:00 AM, EST," points out G. R. Windham, Chief Engineer. "At the present time, we do not intend to increase our schedule of broadcasting during the early morning hours, so we do not believe that our station is causing a great deal of interference with DX listeners. We hope that this information will place WHN on good standing with your readers."

"At present time, we are not contemplating any late programs for the coming winter," informs Frank J. Kotnour, Commercial Manager of Station WEDC, Chicago. "The reason for discontinuing these after-midnight broadcasts was due to a ruling of the FCC."

"Present plans call for WEXL to be on the air from 8:00 AM to 4:00 AM, EST, daily except Sunday," announces Ellis C. Thompson, Station Manager. "We sign off at midnight Saturdays to return at 8:00 AM Monday morning. We are also silent after 2:00 AM from the 8th to the 14th of each month, because of the FCC frequency check programs."

"The regular schedule of WJBK calls for transmissions twenty-four hours a day," writes James F. Hopkins, owner of Detroit's 1500 kcys station, "with the exception of a stand-by between 2:00 and 7:00 AM when the government monitoring tests are being conducted."

"Station WNEW inaugurated its 24-hour schedule on August 2nd, 1935," submits M. J. Weiner, Chief Engineer. "At that time, our transmitter was being used by another station in Newark, with whom we share time on Sunday and Monday of each week. Taking cognizance of the fact that many DXers wished to log stations on the 1250 kcys channel, and for certain other reasons, we arranged to shut down every Monday morning between the hours of 2:00 and 7:00 AM, EST. This schedule of operation was maintained until March of this year, at which time the station with whom we share time reverted to the use of its own transmitter and began to use the aforementioned silent hours. As a result, with the exception of the FCC frequency checking periods, the 1250 channel is never idle."

Information of the future policies of the other all-night stations has not been received as yet. However, it would seem that DXers are getting something of a break. We know that the 1210 and 1010 channels will be open in the East, while 780 will be vacant in the West. The stand-by of WEXL on Sunday mornings opens the 1310 channel for DX and test purposes KRE, of course, will continue to be a problem for West Coast listeners, while KJBS was never a great source of interference.

While many late stations continued broadcasting during the monthly frequency checks last year, it appears that such will not be the case during the coming winter. This means that approximately one fourth of the early-morning hours will be available for DXing—and listeners certainly should have no kick on that score.

Reports and Resumes

"During the 1935-36 DX season," greets Carl Forestieri, 2354 Cambreleng Ave., New York City, "I logged 64 new stations. Today, I have a list of 860 stations heard, with 855 verified. The missing five are Toulouse, Strasburg Genoa, XERA and XEFZ. Among the best veries from last season are LR1-3-4, Milan, Turin, Bari, Bordeaux, Rennes, Algiers, CNR, a number of small Mexican, and several 100-watters on the Pacific Coast. It is inter-

esting to note that all of the 34 Cubans logged have been verified, while only two—XERA and XEFZ—of my 37 Mexicans are missing. During seven years of DXing, I have used only two receivers. From 1929 to 1934, I had a Zenith 35 PX. Since then, I have tuned an 11-tube Atwater Kent 711."

"I purchased a four-tube Century receiver in December 1933," supplies Ned Burks, Box 725, Lexington, Va. "Since then, I have logged 545 stations, of which the best are KFEL-KVOD, KGHL, KHJ, KJR, KFAC, XEAQ, XEMO, KROW KFKA and KDYL. I have heard stations in 41 of the 48 states, and hope to add the rest this season. Incidentally, WDBJ is building a 312-foot vertical antenna and a new studio building."

"At this time last year," recalls John H. Terziev, 109 Cherry Rd., Syracuse, N. Y., "my log stood at 245 stations. By DXing week-ends and vacations, I hoped to raise the total to around 400 by last summer. I was getting along okay until I ran across the April frequency checks. The first two mornings, I tuned just by fishing and got myself 14 new stations. The last four mornings, I used the schedule printed in RADEX, and got as many as 23 and 24 in one night. In one week, I increased my log by a even 100 stations. The log stands now at 509, quite a bit higher than my goal, and the better catches include LR1, LR4, XEFB, KHBC, KXA, CJOC, KXO, KDON, KVL, KRNR and KWG. All this has been on a small four-tube Philco purchased in January 1934."

"I should like to purchase old copies of RADEX, dating from 1920 to 1927," announces Ed Nesbitt, 109 W. Woodbine St., Chevy Chase, Md. "If readers have such issues for sale, please have them write to me.

RADEX didn't commence publication until 1924, but we imagine that there are still a few old copies since that date floating around.

The CDXR Looks Ahead

● ● ● *By* CHARLES HESTERMAN
President

THE announcement last summer, that Fred Bisset would be obliged to resign from the presidency of the Canadian DX Relay, came as a bolt from the blue to all CDXR members. We sincerely regretted the loss of the man who had guided the club from its inception to its present place in the DX world.

The reorganization which followed has now been completed and we wish to announce our plans for the future.

It is our opinion that DXing on the broadcast band can produce more genuine pleasure than any other form of listening. We feel that this is due to the fact that reception of a distant station on the medium waves is a real achievement, while extreme DX on short waves is to be expected.

We intend, therefore, to confine our activities exclusively to DX on the BCB. We believe that there are enough broadcast listeners to warrant the existence of a strictly BCB organization. By this stand, we are nailing our colors to the mast, to stand or fall by the response of the DXers.

We plan to cover, as completely as possible, the foreign as well as the domestic fields. As we see it, the domestic field is a sort of primary education in DX work, where the listener whets his appetite for foreign reception. We intend our bulletins to give every encouragement to the beginner in DX as well as to the old-timer.

Our present schedule calls for the distribution of bulletins every two weeks during the winter season, once a month in the summer. We will continue to forward bulletins to all paid-up members until their memberships expire, at which time we hope that

our new set-up will have won its spurs and that renewals will be forthcoming.

The dues will be but a dollar a year and all communications should be addressed to the Canadian DX Relay, 2014 Lorne Ave., Saskatoon, Sask., Canada.

The Export Zenith

● ● ● *By* E. L. Peters*

RELATIVELY only a few of the DXing fraternity are in a position to own and operate a custom-built receiver. The vast majority, like myself, have to turn to the low and medium price fields for our new outfits.

Considerable thought was given to the selection of my new receiver. Primarily a foreign BCB DXer, I wanted one which incorporated the long waves. I finally chose one which seemed to suit my particular needs. This was a 1936 Export Zenith, Model 9-A-54, a nine tube job which covered every important wave band from 13 to 2100 meters.

I have found this set to have many desirable features, not the least of which is the large "magnavision" dial, six inches in diameter and in various colors. The more important trans-Atlantic stations are located by name on the dial, which is calibrated entirely in meters. Companion sets, minus the long wave band, are calibrated in kilocycles.

The tuning arrangement is very similar to that of the Stromberg-Carlson described in May RADEX. Dual ratio planetary reduction is operated from two tuning knobs placed concentrically. This is very smooth in operation. There are also the usual controls for band changing, tone and volume.

The twelve-inch concert speaker, over-tone amplifier and fine baffle contribute in no small way to the superb tone of this receiver.

In operation, the first thing to be noticed is the low noise level, which enables me to pick up and amplify the weakest signals with plenty of power in reserve. I rarely find it necessary to advance the volume control more than one-third for any signal. Other features are ample selectivity and sensitivity, split-second tuning and triple filtering.

In actual performance, this set has proved to be a real distance getter. In spite of the fact that it arrived a bit late (February 13th) for good TA reception, many of these stations were heard on both long and medium waves. Of the long wavers, those logged were Huizen, Lahti, Moscow, Radio Paris, Motala, Deutschlandsender, Luxembourg and Kalundborg. These stations were received much later in the season than broadcasters on the medium waves.

On the regular broadcast band, many TA, TP and SA signals have been heard, with 25 or more South Americans being quite common in a single evening. Trans-Pacific signals were below normal, but about 20 were audible, poor to fair. 4YA and 3TR were reported and verified, and the latter gave me credit for their most distant report. Stations as far distant as Chicago were regular daytime fare.

So far, with the exception of 20-meter foreign phones, the short wave bands have been tuned chiefly for program value, and very little DXing has been attempted. About 125 of the hams have been logged, exclusive of Mexicans and Cubans. The best catches probably include I1IT, LY1J, SU8MA, SU1CH, SU1RO, E12J (7 watts, Dublin), FB8AG (Madagascar), CE1AR, CE1BC, in addition to 27 VK's, 26 G's and numerous SA's and TA's.

In my opinion, this export Zenith has exceeded all expectations. It seems to be well-engineered and well-built throughout, and it has been a pleasure to operate.

**Box 65. Westport, Nova Scotia.*

Logging *the* Foreign Broadcasters

with COUNT DE VERIES

THE reception of a foreign station on the broadcast band is a happy occasion for most DXers. For the neophyte, it is a sign that he is progressing along the road to DX efficiency; for the old-timer, it is a welcome addition to an ever-growing log. For every listener, it is usually the result of careful planning, skillful tuning and a measure of old-fashioned good luck.

While most of us are not fortunate enough to be located where signals from across the seas crowd our locals, nearly every listener has more than a few potential foreign catches playing on his aerial during the course of a winter season. The big question, then, is how to reach out and pull them through our speakers and phones.

It goes without saying, of course, that reasonably efficient equipment is a primary requisite for foreign reception. This does not necessarily mean that a listener must possess a fifteen or twenty tube set, although they are a big help in many cases. The average seven to ten tube receiver of recent vintage can do wonders if it is properly aligned, if its tubes are in good shape and if it is hooked to a good aerial.

The really essential point is the knowledge of when and where to tune. While many DXers believe that they know all the tricks of foreign tuning, many valuable tips may be picked up by a review of the problem.

The Antipodes

Foreign reception of the broadcast band is a seasonal affair. First to arrive this year will be the Australian and New Zealand stations. They will hit a peak in October and November, while March and April will be high spots next spring.

Because of the extreme distances over which these signals must travel, they are necessarily very weak when they reach our aerials. This is a point which must be remembered, as care and patience in dialing are essential for good results. Since the signals are weak even at a maximum, a period of fading can easily make them inaudible. Therefore, if a station is not heard when first tuning to a certain frequency, it is usually a good idea to stick around a few minutes to see if they fade in again.

For all long distance reception, it is necessary to have darkness over as much as possible of the path traveled by the signal. Stations in New Zealand ordinarily make their bow each morning at about 0400 EST, when it is 2030 down there. It is then, but 1900 in Eastern Australia, so the Aussies are seldom heard until a little later. From then until daylight over here, the stations get stronger.

When trying for the broadcasters Down Under, it is a good idea to *tune* carefully for definite stations on certain frequencies. Then, if reception appears to be good, a certain amount of *fishing* will be in order. The following stations in Australia and New Zealand are recommended as having a good chance of being heard: In all station lists, the frequency in kilocycles is given first; followed by the call letters, if any; the power in kilowatts; and the location.

550	2CR	10	Cumnock, Ausl.
560	6WA	10	Minding, Ausl.
570	2YA	5	Wellington, N. Z.
580	3WV	10	Horsham, Ausl.
590	7ZL	1	Hobart, Ausl.
600	4QN	7	Clevedon, Ausl.
610	2FC	3	Sydney, Ausl.
630	3AR	4.5	Melbourne, Ausl.
640	5CK	7.5	Crystal Brook, Ausl.
650	1YA	10	Auckland, N. Z.
670	2CO	1	Corowa, Ausl.
690	6WF	3.5	Perth, Ausl.
700	2NR	7	Lawrence, Ausl.

720	3YA	10	Christchurch, N. Z.
730	5CL	2	Adelaide, Ausl.
740	2BL	3	Sydney, Ausl.
750	7NT	7	Kelso, Ausl.
770	3LO	3.5	Melbourne, Ausl.
790	4YA	10	Dunedin, N. Z.
800	4QG	2.5	Brisbane, Ausl.
830	3GI	7	Longford, Ausl.
870	2GB	1	Sydney, Ausl.
910	4RK	2	Rockhampton, Ausl.
950	2UE	1	Sydney, Ausl.
980	6AM	1	Northam, Ausl.
990	2GZ	2	Orange, Ausl.
1020	2KY	1	Sydney, Ausl.
1040	5PI	2	Port Pirie, Ausl.
1110	2UW	1	Sydney, Ausl.
1120	4BC	1	Brisbane, Ausl.
1190	2CH	1	Sydney, Ausl.
1220	4AK	1	Oakey, Ausl.
1230	2NC	2	Newcastle, Ausl.
1270	2SM	1	Sydney, Ausl.

This list of stations includes those which were reported regularly last season, as well as the more powerful of the new transmitters. For Pacific Coast listeners in favorable locations, a complete list of Aussies and Zedders was published in the October issue.

South America

Reception of South American stations provide a stiff test of DX skill. As these stations broadcast while our locals are on the air, the odds are against receiving very many of them. Occasional DX and test programs, similar to the Bureau of Standards tests last winter, are just about the only sure means of increasing one's log of SA's.

An increasing number of DXers, however, have found that the early evening hours may be happy hunting grounds for stations to the South. By tuning to the frequencies of the more powerful stations before the dominant local has reached a peak, it is often possible to pick up a station in Brazil or Argentina. For listeners with ultra-selective receivers, split-frequency tuning is often a fertile field.

South Americans worth watching are:

590	LS10	6	Buenos Aires, Arg.
600	PRH2	25	Porto Alegre, Brazil
630	LS3	5	Buenos Aires, Arg.
650	CX6	10	Montevideo, Uruguay
670	LS4	7	Buenos Aires, Arg.
681	HJN	.5	Bogota, Colombia
710	LS1	5	Buenos Aires, Arg.
750	LR7	15	Buenos Aires, Arg.
	PRA8	3	Pernambuco, Brazil
780	LT1	4	Rosario, Arg.
	PRE7	5	Sao Paulo, Brazil
790	LR10	10	Buenos Aires, Arg.
810	PRA6	10	Sao Paulo, Brazil
820	PRH8	5	Rio de Janeiro, Brazil
830	LR5	29	Buenos Aires, Arg.
850	CX16	10	Montevideo, Uruguay
860	PRA3	2.5	Rio de Janeiro, Brazil
870	LR6	26	Buenos Aires, Arg.
900	PRF3	5	Sao Paulo, Brazil
910	LR2	12	Buenos Aires, Arg.
923	PRF4	10	Rio de Janeiro, Brazil
950	LR3	31	Buenos Aires, Arg.
960	YV1RC	5	Caracas, Venezuela
990	LR4	16	Buenos Aires, Arg.
1005	HJ3ABH	2	Bogota, Colombia
1017	PRB9	5	Sao Paulo, Brazil
1030	LR9	5	Buenos Aires, Arg.
1040	CP4	10	La Paz, Bolivia
1050	CX26	2	Montevideo, Uruguay
1070	LR1	50	Buenos Aires, Arg.
1080	LT3	4.5	Rosario, Arg.
1110	LS5	5	Buenos Aires, Arg.
1120	PRH3	10	Sao Paulo, Brazil
1150	LR8	7	Buenos Aires, Arg.
1190	LS2	30	Buenos Aires, Arg.
1220	PRE3	10	Rio de Janeiro, Brazil
1230	LS8	15	Buenos Aires, Arg.
1270	LS9	6	Buenos Aires, Arg.
	PRE8	7	Rio de Janeiro, Brazil
1295	PRA5	5	Sao Paulo, Brazil
1350	LS6	6	Buenos Aires, Arg.

This list is by no means complete, nor is it to be construed that the broadcasters noted will be heard. Rather, it is a short listing of the more powerful stations, and as such, it should be of value to the listener who likes to go fishing.

Trans-Atlantics

European stations, which are heard best in November, December and January, may be divided into two general classes—those which may be logged in the early evening, between 1700 and 1900 EST, and those which must be tuned in the early morning, between 0100 and 0300, EST. Therefore, for successful trans-Atlantic tuning, a knowledge of the stations' schedules is essential.

In the first class, we find the stations which broadcast until 2300 or 2400 and later GMT. They are the hardest to receive, since they must break through a barrier of domestic transmitters. However, shortly after dark and before the locals reach their peaks, listeners along the Atlantic Coast have had any number of good catches in this class.

The early-morning group includes the stations which sign on early for the day. Some of the Germans come

on at midnight EST. but they are seldom heard until 0100 or later. Between 0100 and 0200, many of the French and Italian stations commence broadcasting. By 0300 most of them have faded out.

In the following list of European stations, we are listing those which have been heard with fair regularity in the United States and Canada. When known, their times of sign-on and sign-off are given in Eastern Standard. This will enable DXers to decide when to tune for them.

546	HAL	120	Budapest, Hungary. Weekdays —0045-1815; Sunday—0315-1900.
556	.....	100	Beromunster, Switz. Weekdays —0600-1630; Sundays—0130-1630.
565	.....	60	Athlone, Ireland. Daily—0830-1800.
574	.....	100	Stuttgart, Germany. Daily—0000-2000.
583	.....	15	Grenoble, France. Daily -0300-1730.
592	.....	120	Vienna, Austria. Daily—0310-—1900.
610	HFI	20	Florence, Italy. Weekdays, 0130-1730; Sundays, 0310-1730.
629	CTIAA	20	Lisbon, Portugal. Daily 0700-1900.
633	OKP	120	Praha, Czech. Daily 0030-1730.
648	.....	90	Lyons, France. Daily 0215-1800.
658	.....	100	Cologne, Germany. Daily 0000-1800.
668	.....	70	Manchester (No. Reg.), Eng. Weekdays,0515-1900;Sundays, 0730-1745.
677	.....	100	Sottens, Switz. Weekdays, 0630-1630; Sundays, 0355-1630.
695	.....	120	Paris, France. (PTT) Daily 0300-1800.
704	.....	55	Stockholm, Sweden. Weekdays, 0145-1700; Sundays, 0300-1700.
713	HRO	50	Rome, Italy. Weekdays, 0130-1730; Sundays, 0335-1730.
740	.....	100	Munich, Germany. Daily 0000-1800.
749	.....	120	Marseilles, France. Daily 0245-1700.
767	.....	50	Falkirk, Scotland. (Scottish Regional) Weekdays, 0515-1900; Sundays, 0730-1730.
776	.....	120	Toulouse, France. (PTT) Daily, 0330-1730.
785	.....	120	Leipzig, Germany. Daily 0000-1800.
795	.....	7.5	Barcelona, Spain. Daily, 0215-1900.
804	.....	70	Cardiff, G. B. (West Regional) Weekdays ,0515-1900;Sundays, 0730-1745.
814	HMI	50	Milan, Italy. Weekdays, 0130-1730; Sundays, 0330-1730.
823	.....	12	Bucharest, Romania. Weekdays, 0600-1730; Sundays, 0430-1830.
841	.....	100	Berlin, Germany. Daily 0000-1800.
859	.....	35	Strasbourg, France. Weekdays, 0545-1900; Sundays, 1630-1900.
877	.....	50	London, Eng. (London Regional) Weekdays, 0515-1930; Sundays, 0730-1745.
904	.....	100	Hamburg, Germany. Daily 0000-1800.
913	.....	60	Toulouse, France. Daily 0300-1930.
932	.....	15	Brussels No. 2, Belgium. Weekdays, 0700-1900; Sundays, 0500-1900.
950	.....	100	Breslau, Germany. Daily 2300-1800.
959	.....	60	Paris, France. (Poste Parisien) Daily 0210-1800.
968	.....	30	Bordeaux, France.
977	.....	100	Belfast, Ireland.
995	.....	60	Hilversum, Holland. Daily 2300-1800.
1004	.....	13.5	Bratislava, Czech. Daily 0030-1730.
1013	.....	70	Daventry, England. (Midland Regional) Weekdays, 0545-1815; Sundays, 1130-1745.
1031	CTIGL	5	Parede, Portugal
	.....	100	Konigsburg, Germany. Daily 0000-1800.
1040	.....	120	Rennes, France. Daily 0300-1730.
1050	.....	50	Falkirk, Scotland. (Scottish National) Weekdays, 0545-1815; Sundays, 1130-1745.
1059	HBA	20	Bari, Italy. Weekdays, 0130-1730; Sundays, 0335-1730.
1077	.....	30	Bordeaux, France. Daily 0300-1730.
1095	EAJ7	10	Madrid, Spain. Daily 0300-1900.
1113	OKK	11.2	Moravska, Czech. Daily 0030-1730.
	.....	10	Fecamp, France. (Radio Normandie) Daily 0200-2100.
1131	SBH	10	Horby, Sweden. Weekdays, 0145-1700; Sundays, 0300-1700.
1167	.....	15	Mte. Ceneri, Switz. Weekdays, 0600-1700; Sundays, 0430-1630.
1185	.....	60	Nice, France.
1195	.....	25	Frankfurt, Germany. Daily 0000-2000.
1213	.....	60	Lille, France. (Radio PTT Nord) Daily 0300-1730.
1222	.....	50	Bologna, Italy. (Radio Marconi)
1276	.....	27	Juan-les-Pins, France. (Radio Cote d'Azur)
1393	.....	25	Lyous, France.

The Far East

Stations in Japan, China and other Far Eastern countries are frequently heard on our West Coast, although their signals seem to have a difficult time crossing the Rockies. When audible, their signals are best heard in November, December and January between 0500 EST and daylight.

The following list of Far East stations include the more powerful broadcasters which have been reported from time to time.

560	MTCY	100	Hsinking, Manchuokuo
560	XGOH	10	Chengtu, China
590	JOAK2	10	Tokyo, Japan
610	JODK2	10	Seoul, Korea
618	KZRM	50	Manila, P. I.
660	XGOA	75	Nanking, China
670	JFAK	10	Taihoku, Formosa
750	HS7PJ	15	Bangkok, Siam
750	JOBK1	10	Osaka, Japan

770	JOHK	10	Sendai, Japan
790	JOGK	10	Kumamoto, Japan
810	JOCK1	10	Nagoya, Japan
830	JOIK	10	Sapporo, Japan
840	F3ICD	12	Saigon, Fr. Indo China
850	JOFK	10	Hirshima, Japan
900	JODK1	10	Seoul, Korea
1010	XGOW	5	Hangchow, China
1085	JOBK2	10	Osaka, Japan
1170	JOCK2	10	Nagoya, Japan

The Dark Continent

American reception from Africa is as near a complete blank as may be had in radio. Only on the Atlantic seaboard have listeners been fortunate to tune in these stations, and reports are few and far between. Algiers, Algeria, on 941 kcys with 12 KW appears to be the best bet. Their schedule calls for transmissions between 0800 and 1800 EST, but it is only just before dark that they may be heard. The Rabat, Morocco, station on 601 kcys, with 25 KW power, is infrequently reported at the same time as Algiers. Cairo, Egypt, 620 kcys, 20 KW, is the only other North African station with a chance of being heard, but no reports of them have been received.

In the Union of South Africa, there are four 10 KW stations which might be heard in the fall and spring. They are: ZTC, Cape Town, 600 kcys; ZUG, Grahamstown, 560 kcys; ZTJ, Johannesburg, 645 kcys; and Martziburg, 750 kcys (no call known).

In Conclusion

The only successful way to tune foreign stations in any part of the world is to consider the season of the year and the time of day in which to tune. Pick out the more powerful stations, dial their frequencies at the proper time, and see what happens. If a signal isn't heard, wait around a few minutes on the chance that it may have faded out when you tuned in. If the larger stations are found to be coming in well, try for a few of the medium power broadcasters. The whole process of dialing should be systematic—tuning for definite stations at specified hours of the day.

When the orderly "spot tuning" has brought results, the DXer may try some "fishing." Running up and down the broadcast band, he may stop at audible carriers and see what is there. This type of tuning, however, is bound to miss a large percentage of weak signals and should only be used when going after something out of the ordinary.

Tuning *the* AMATEURS

● ● ● B. L. AHMAN, JR.
N. N. R. C. Publicity Director

A LARGE number of shortwave fans are becoming interested in listening to the amateur transmissions. Those who have tuned for several seasons have turned to these bands looking for new DX, countries not heard on the regular broadcasting bands, while the beginner turns to them as they offer the easiest way to quickly build up a log. This initial column shall be addressed to those s.w. fans who have not yet tried the "hams."

Roughly, the amateur bands are on 10, 20, 40, 80 and 160 meters. Phone is used on each band except that United States operators are not permitted to use phone on 40 meters. For DX, however, the 20 meter band between 14000 and 14300 kcs. is the most consistent for worldwide work and it holds up quite well for the entire year. Since local conditions determine the amount of success anyone might have, it is difficult for any writer to give a definite list of stations which any reader may try for, but by sifting numerous reports from tuners in all parts of the country an excellent idea may be obtained of what might be expected.

Following is a list of the ten most consistently received amateurs that will verify for an International Reply Coupon. Tune for them and write to them.

1. G5NI, Bill Nightingale, Beaks Hill Road, Kings Norton, Birming-

ham, England. This station is on 14087 kcs. and is heard nearly every night from 1700-2000 EST.

2. HH2B, Gertrude Bleo, Box G, Port-au-Prince, Haiti. She uses a frequency of 14140 kcs. and was heard between 2100 and 2300 during the summer but will probably be on the air earlier this winter.

3. NY2AE, U. S. Submarine Base, Coco Solo, Canal Zone, uses a power of 700 watts on various frequencies in the 20 meter band but is so loud that it is never difficult to locate it. It is heard usually commencing at 1730 EST and continuing until the early morning hours.

4. HI5X, Walter Fox, Boca Chica, Dominican Republic, a 100 watt station on 14090 kcs. heard with a loud, clear signal after 1900.

5. CE1BC, John N. Pyster, Barquito Chanarel, Chile. He uses 130 watts on 14050 kcs., speaking in Spanish and English nearly every night between 2000 and 2400.

6. CO6OM, Frank H. Jones, Tuinicu, Cuba. This station is operated by one of Cuba's radio pioneers; has a powerful signal on 14260 kcs.

7. VP6YB, Thomas A. Archer, Claradon, Pine Road, Barbados. This station is heard best after 1900, EST. Two frequencies are used, 14180 and 14275 kcs. The power is 85 watts.

8. PY2CK, Santos, Brazil, Caixa Postal 317. This station uses a frequency right under G5NI but a good receiver will separate them. He uses excellent English but constantly apologizes for his accent.

9. G6XR, Henry V. Cook, 78 Wyken Ave., Wyken, Coventry, Warwickshire, England. The frequency of this station is about 14125 kcs. and he usually works from 1730 until midnight. He is a good talker and replies promptly.

10. HI7G, H. H. Goslin, Calle Cesar Nicolas Pensan, Ciudad Trujillo, D. R., works very close to HI5X in frequency. His hours are nightly from 1730 to 2300. This station promptly replies with an attractive QSL card.

These are what we consider the ten leading amateur stations at the present time. If readers would like a continuation of this amateur discussion, with bigger and better stations tabulated each month, send a card or a letter to the Shortwave Editor or direct to Mr. Ahman.

Around *the* World *of* Radio

OF VITAL interest to the broadcasters, the radio industry and the listeners is the hearing scheduled by the Federal Communications Commission for October 5th. As a means of considering possible re-allocation of the broadcast spectrum, the Commission plans to survey technical broadcasting problems and to seek from stations advance information as to what improvements, if any, should be made in the present allocation.

The theme behind the hearings is that developments since the last allocations in 1928 make desirable a realignment of the broadcast band. It is felt that engineering advances have been such that it may be necessary to shift stations to procure maximum benefits from available facilities.

Questions to be considered include super power of the WLW variety, horizontal increases in station power in the regional and local categories, duplication on clear channels and their reduction, and the setting up of a new classification of stations in the 1500-1600 kcys band.

As a part of the hearings, the Engineering Division of the FCC is expected to introduce the results of its clear-channel survey showing reception results of stations throughout the country. It is believed that this survey may disclose the advisability of reducing the number of clear channels from the theoretical 40 to 20 or 25.

Of interest to most listeners is the matter of super-power broadcasting. Hearings on the applications of WHO, KNX, WJZ, WGN, KDKA, WJR, KFI, WSM, WHAS and WBZ for authority to use 500,000 watts, previously scheduled for September 24th, have been postponed indefinitely. This is believed to be the result of protests on the ground that FCC regulations, which now specify a maximum power of 50,000 watts, should be amended before individual applications should be considered. It is also likely that the Commission decided to await the outcome of the hearings and learn the general sentiment concerning super-power broadcasting.

Europeans Boost Power

While the United States debates general power increases, European stations continue to add kilowatts. A survey by *Wireless World* indicates that the total power of European stations will increase by 1700 kilowatts to attain a total of 8000 KW in 1937.

The number of 100 KW stations will be boosted from 26 to 44 during the year, while the number using more than 50 but less than 100 KW will jump from 46 to 64.

In the medium and long wave groups, the following increases are expected: Athlone, 60 to 100 KW; two Brussels stations from 15 to 100 KW; Kuanas, Lithuania, 7 to 100 KW; a new 100 KW station in Southern Sweden, a new 100 KW station at Vakarel, Bulgaria; two new 120 KW stations at Rome; Praha II from 5 to 60 KW and a new 60 KW station near Kosice; two 120 KW stations, one near Bordeaux and the other near the center of France; and a new 200 KW long wave transmitter to replace the 80 KW Radio-Paris and to be called Poste National. All are now under construction.

Spain is said to be planning to modernize its set-up with a 150 KW long wave station at Madrid. Yugoslavia talks of increasing the power of all present transmitters. Warsaw is to build a 20 KW station and a new 100 KW transmitter is planned near Cracow. Czechoslovakia contemplates two 100 KW stations in 1938 and a British station is reported to have received a contract calling for the construction of a new Estonian station. Russia, believed to have 50 broadcasters, is understood to be planning five more in 1937.

In the short wave field, France is building four 100 KW transmitters. Germany is completing four powerful stations and Great Britain is embarking on further high frequency development. Germany is also understood to be constructing a "mystery" super-power Deutschlandsender to be in operation next year.

Direct broadcasting to foreign listeners is increasing in Europe, with Italy taking the lead. Il Duce's stations broadcast to the world in 18 languages last year and received nearly 60,000 letters from foreign listeners.

Canada Follows Suit

With the opening this fall of a new 5000 watt transmitter for CRCV, Vancouver, the Canadian Radio Commission takes another step forward towards better service for Canadian listeners.

The new equipment, contract for which has already been let, will be built on recently-purchased property on Lulu Island. The single 400 foot tower incorporates the latest advances in antenna design and is the

first of its type in Canada. More than 50,000 feet of buried wire will make up the ground system.

The transmitter itself is of standard design, but is being modified extensively to be ready for future developments. It will feed the antenna through a concentric transmission line, said to be the most modern and effective type known today.

German Television Service

What is claimed to be the first public television-telephone service in the world was officially opened at Leipzig on May 25th. The service is conducted over a specially constructed cable between this city and Berlin. Satisfactory tests of the apparatus were made in connection with the last Leipzig Spring Fair, but a certain amount of experimentation was considered necessary before the facilities could be placed permanently at the disposal of the public.

For each television conversation up to three minutes, a fee of three marks ($1.20 at current rate of exchange) is charged, with an additional charge of Rm 0.50 ($0.20) for getting specific parties to the apparatus.

THE MONTH'S CHANGES IN STATION DATA

NEW

820	XEBZ	Mexico City, D. F.

POWER

570	WSYR	Syracuse, N. Y. 1000 from 250
580	WILL	Urbana, Ill., 250 from 1000
630	WPRO	Providence, R. I., 500 from 250
680	CMCG	Havana, Cuba, 1000 from 150
	WPTF	Raleigh, N. C., 1000 from 5000
890	WMMN	Fairmont, W. Va., 500 from 250
940	WHA	Madison, Wisc., 5000 from 2500
1000	CMBZ	Havana, Cuba, 500 from 150
1030	CMCY	Havana, Cuba, 5000 from 1000
1120	CMKM	Manzanillo, Cuba, 200 from 50

FREQUENCY

720	XEH	Monterrey, N. L., from 1150
730	XEPN	Piedras Negras, Coah., from 590
960	CFRN	Edmonton, Alta., from 1260
1160	XED	Guadalajara, Jal., from 1155
1280	CMCU	Havana, Cuba, from 1460
1390	CJGX	Yorkton, Sask., from 580
1450	XEF	Juarez, Chih., from 980

Let *The* Wind Run Your Radio

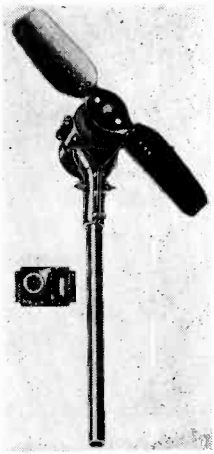
WHEN Don Quixote opened his one-man warfare against windmills, away back in the sixteenth century, he might have deprived us of a new way of running our battery radios. For ages the wind has been pumping water and turning mills, as well as behaving in less friendly attitudes. But now, if you live in the rural sections of this land and are compelled to use battery sets, the wind can be utilized to keep your batteries charged at all times.

The device which makes this possible is called a "Wincharger." It is really just a tiny windmill, or propeller blade, that drives a direct connected generator. Of course, there might sometimes be a slight hiatus when the breezes die down or a calm persists too long, but if the battery has been well charged it will carry over during the non-charging period. The whole thing is not unlike your automobile battery system —running keeps the battery automatically charged.

The Wincharger

As long as there is a breeze the charger runs and will keep any high-amperage 6-volt battery fully charged. An automatic switch cuts in as the generator current reaches the charging rate when a breeze springs up, and if the radio does not pull too heavily on the battery continuous service will be rendered. When the wind is not sufficient to generate a suitable current, the charger automatically is cut off from the battery.

The manufacturer of this remarkable charger makes a number of types. In localities where prevailing breezes are rather constant, such chargers are very useful and solve a problem in isolated regions that has long bothered battery-set owners.



This wind-driven generator keeps your storage battery up. The device shown to the right is an ammeter which can be installed on the instrument panel of the car if the windcharger is used on a trailer.

There is a charger that can be attached to the top of an automobile trailer for the radio, and this relieves the car battery of a serious drain. In this case the motion of the car creates its own breeze for the little propeller. It also may be placed on boats.

(*Details and prices of these sturdy units may be obtained by writing and mentioning RADEX. Communicate direct with the Wincharger Corporation, 2700 Hawkeye Drive, Sioux City, Iowa.*)

Rumors concerning WHK and WGAR in Cleveland were stifled when WHK renewed its contract with CBS. It was thought in some quarters that WGAR, NBC-Blue outlet in Cleveland, would join its sister station, WJR of Detroit (both are owned by the Richards-Fitzpatrick interests) on the CBS. If this had occured WHK would have gone NBC. The new contract between CBS and WHK is for three years.

Who's Who on the Airways

● ● ● *By* "BETTY"

FROM obscurity to fame overnight is the story of Jimmy Newell, new CBS tenor. He tried to break into pictures ever since he could walk but the best he could do was "dub for voiceless film stars. Then he was engaged on twenty-four hours' notice by Eddy Duchin for the current Burns and Allen series. Overnight the scene changed; Warner Brothers, Fox and Paramount all began to bid for his services, but Jimmy says he will stick to radio. Newell is over 6 feet tall, weighs 185 pounds, is well built and good looking.

A new Tuesday night program on the NBC features authentic western ballads sung by real westerners. Followers of the Show Boat Programs have found their old friends Louise Massey and her Westerners starring in their own program this fall, the Log Cabin Bar Z Ranch. This spot should be an easy one for these entertainers to act because Louise and three of the Westerners come from a ranch in Lincoln County, New Mexico, and another of the cast spent his boyhood on cattle ranches in the Southwest. The new program is heard at 8 pm Tuesdays on the NBC-Blue.

Wendell Hall, the Red Headed Music Maker, and Milton Berle, comedian, share honors on the new Gillette Community Sing program. This is Berle's first big network assignment as a matter of ceremonies, but Hall has been starring as an entertainer on the Columbia Network off and on since 1929.

In vaudeville, before his radio days, he was billed as the Singing Xylophonist. Fifteen years ago, 1921 to be exact, Wendell Hall played the xylophone for a Chicago station, but one day he took a ukelele along

to work instead and sang a little ditty he wrote himself. It was "It Ain't Gonna Rain No More," a song that has sold two million records and one million copies of sheet music. This, however, is not the only song he ever wrote; 367 of his more than 500 songs have been published.

Kate Smith is now heard in her Bandwagon Variety Show with Babe Ruth. The Babe is no stranger to radio, but of course he has always talked about baseball on his radio appearances. One day while playing golf Kate met the Bambino and he confessed to her that he would rather be a comedian than talk baseball, so Kate gave him his chance. Before Miss Smith became a radio star her vocal talents were considered secondary to her antics as a comedienne. Listen for this team at 8 pm Thursday on the CBS.

In celebration of its Tenth Anniversary, the National Broadcasting Company has planned many outstanding programs for November. Complete details are lacking now, but it is understood that late in the month a massive two-hour program will be broadcast during which every country in the world will be heard. Short-wave fans should be on the lookout for preliminary tests preceding this program.

A true story from the CBS. Out of the mass of anecdotes accumulated since Columbia's Community Sing series was started comes a tale of a Pawtucket, R. I., lady who is hard of hearing. Like many other listeners she likes to sit at her set and sing along with the 1000 voices in the CBS Playhouse in New York, but she had to tune her set high in volume in order to hear the program. Neighbors were prompt to complain and the police came. Then someone told Irving Kaufman, the director of the program, about her plight. He arranged to have earphones installed in her set and now everything is serene

Here is a Hollywood girl who doesn't want to be a picture star. Trudy Wood, a twenty-year-old miss, has already spurned four film offers in order to stick to the work she likes best. She is heard on Fred Astaire's Packard Hour on Tuesdays at 9:30 pm, EST.

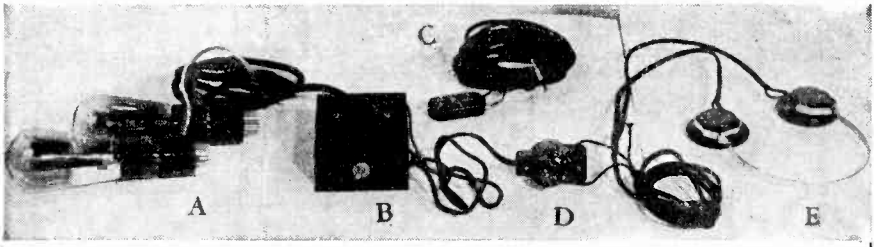
in Pawtucket. Moral: With the Perfect Phone Adapter you can listen in comfort and not disturb anyone.

* * *

Starlines . . . "Scoop Ward" in "News of Youth" on the CBS is really Laddie Seamon . . . is only nineteen years old . . . has been in radio for nine years . . . has appeared in the "American School of the Air" and "The March of Time" . . . has been a writer and a reporter and in his spare time is a painter and an expert at the foils . . . has two pets, a cat named "Cat" and dog named "Dog."

* * *

Walter Woolf King and Frank Crumit have been made Admirals of the Great Lakes Exposition at Cleveland, Ohio. To prove their rank they were presented with scrolls of commission and crowned with honest-to-goodness admiral's hats.



The "Perfect" Phone Adapter

You can install it yourself in just a minute or two without tools, and it cannot harm the set in any way. The speaker can be silenced while the 'phones are being used. Price postpaid $3.95

With the Distant Volume Control (D) you can control the volume of the speaker from your easy chair. Useful for cutting out advertising "blurbs." Price $2.00

Featherweight, 24,000-ohm headphones are the finest and most sensitive made. They weigh only 4 ounces. Yours for only $8.05

All prices postpaid. If you live in Ohio add 3% for State Sales Tax.

In ordering be sure to give make and model of receiver and a list of the tubes used.

The Radex Press
Conneaut, Ohio

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: E Eastern; C Central; M Mountain; P Pacific

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

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — Bobby Benson—Sunny Jim
WAAB WABC WCAU WDRC WEAN WFBL WGR WHEC WOKO

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C — Renfrew of the Mounted
KFAB KFH KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTUL KWKH WABC WADC WBBM WBNS WCCO WDRC WFBM WGR WHEC WHK WIBX WICC WISN WJR WJSV WKBN WMAS WMBG WNAC WNBH WOC WREC WSMK WSPD WWVA

B — Lowell Thomas
CRCT KDKA WBAL WBZ WBZA WFLA WIOD WJAX WJZ WLW WMAL WOOD WRVA WSYR WTAM WXYZ

E-7:00 p.m., C-6:00, M-5:00, P-4:00
R — Amos 'n' Andy
KYW WBEN WCAE WCSH WEAF WEEI WFBR WGY WJAR WLW WRC WTAG WTIC

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Popeye the Sailor
KFAB KLZ KMBC KMOX KRNT KSL WABC WADC WBBM WBNS WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WIBX WICC WJAS WJSV WKRC WNAC WOC WOKO WORC WSMK

R — Uncle Ezra's Radio Station
KPRC KTBS KTHS KVOO KYW WBAP WBEN WCAE WCKY WCSH WDAF WEAF WEEI WFBR WGY WHIO WIRE WJAR WKY WMAQ WOAI WOOD WOW WRC WTAG WTAM WTIC

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C — Goose Creek Parson
KFAB KMBC WABC WBBM WBNS WBT WCAO WCAU WDAE WDBJ WDBO WDRC WEAN WFBL WGR WGST WHEC WHK WICC WJAS WJR WJSV WKRC WLBZ WMBG WMBR WNAC WOKO WORC WQAM WTOC

B — Lum and Abner
WBZ WBZA WENR WJZ WLW WMC WSM WSYR

E-7:45 p.m., C-6:45, M-5:45, P-4:45
C — Boake Carter
KMBC KMOX KOMA KRLD WABC WBBM WBT WCAO WCAU WCCO WDRC WEAN WFBL WGR WHAS WHK WJAS WJR WJSV WKRC WNAC

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Horace Heidt and Orchestra
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KTRH KTSA KTUL KVI KWG WABC WBBM WBRC WBT WCAO WCAU WCCO WDRC WFBL WFBM WGR WGST WHAS WHK WJAS WJR WJSV WKRC WLAC WMBR WNAC WNAX WOKO WREC WWL

R — Fibber McGee and Molly
KSD KYW WBEN WCAE WCKY WCSH WDAF WEAF WEEI WFBR WGY WHO WIRE WJAR WMAQ WOOD WOW WRC WTAG WTAM WTIC WWJ

B — Helen Hayes, Drama
KDKA KOIL KSO KWK WABY WBAL WBZ WBZA WEBR WFBR WFIL WGAR WHAM WJZ WLS WMAL WMT WREN WSAI WSYR WXYZ

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — Pick and Pat
KFAB KMBC WABC WADC WBBM WBT WCAO WCAU WDRC WEAN WFBL WGR WGST WHEC WHK WHP WICC WJAS WJR WJSV WKRC WLBZ WMAS WNAC WOKO WORC WSPD

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

B — Melodiana; Abe Lyman
KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WFIL WGAR WHAM WJZ WLS WMAL WMT WREN WSYR WXYZ

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C — Lux Radio Theatre
CFRB CKAC KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KTUL KVI KWG WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WNAC WNAX WOKO WORC WQAM WREC WWL

R — Warden Lawes, Prison Drama
KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD KYW WBEN WCAE WCKY WCSH WDAF WEAF WGY WHO WHIO WIRE WJAR WMAQ WNAC WOW WRC WTAM WTIC WWJ

B — Sinclair Greater Minstrels
KDKA KDYL KFYR KOA KOIL KPRC KSO KSTP KTBS KTHS KVOO KWK WBAL WBZ WBZA WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WIS WJAX WJDX WJZ WKY WLS WLW WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSUN WSYR WTAR WTMJ WWNC WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30
R — Richard Himber and Orchestra
KFYR KPRC KSD KSTP KTBS KVOO KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFAA WFBR WGY WHO WIBA WJAR WKY WLW WMAQ WOAI WOW WRC WTAG WTAM WTIC WTMJ WWJ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
R — Contented Program
CFCF CRCT KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WFLA WGY WHO WIOD WIS WJAR WJAX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM

MONDAY (*Continued*)

WTAG WTAM WTAR WTIC WWJ WWNC

C — Wayne King and Orchestra
KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRNT KSL KVI KWG WAAB WABC WADC WBBM WBNS WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WHAS WHK WIBW WJAS WJR WJSV WKBW WKRC WOKO WSPD WWL

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — The March of Time
KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KVI KWG WABC WADC WBBM WBT WCAO WCAU WCCO WDAE WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WNAC WOKO WQAM WSPD WWL

(This program may go off the air.)

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C — Goose Creek Parson
KDB KERN KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMJ KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KTUL KVI KWG KWKH WBRC WCCO WFBM WHAS WISN WLAC WREC WWL

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Dance Orchestra
CFRB CKAC WAAB WABC WADC WCAO WCAU WDRC WFBL WFEA WHEC WHK WIBX WJAS WKBN WKBW WLBZ WMAS WOKO WORC WPG WSBT WSPD

R — Amos 'n' Andy
KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD WBAP WDAF WHO WKY WLW WMC WOAI WOW WSB WSM WSMB WTAM WWJ

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C — Renfrew of the Mounted
KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOIN KOL KSL KVI KWG

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Dance Orchestra
CFRB CKAC KLRA WAAB WABC WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WIBX WICC WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBG WMBR WNOX WQKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

C — Pick and Pat
KDB KERN KFBK KFPY KFRC KFB KGKO KHJ KLRA KLZ KMJ KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTUL KVI KWG KWKH WACO WBRC WCCO WFBM WHAS WLAC WREC

TUESDAY

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — News of Youth
WABC WADC WBNS WCAO WCAU WDRC WEAN WFBL WHK WIBX WICC WJR WKBN WLBZ WNAC WOKO WORC WWVA

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

C — Renfrew, See Monday

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

B — Easy Aces
KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KSO KWK WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WHIO WIRE WJZ WMAL WMT WSYR WXYZ

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Ted Husing Sportcast
WABC WADC WBIG WBNS WBT WCAO WCAU WDAE WDBJ WDBO WDRC WFBL WGR WGST WHEC WHK WHP WIBX WICC WKBN WMAS WMBG WMBR WNBF WOKO WORC WQAM WSJS WTOC WWVA

R — Voice of Experience
KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WHO WIBA WJAR WLW WMAQ WOW WRC WTAG WTAM WTIC

E-7:30 p.m., C-6:30, M-5:30, P-4:30
B — Lum and Abner, See Monday

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

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Hammerstein Music Hall
KFAB KMOX KRNT WABC WADC WBBM WBNS WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJR WJSV WKRC WMAS WNAC WOKO WSPD

R — Leo Reisman and Orchestra
KFYR KPRC KSD KSTP KTBS KVOO KYW WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEEI WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WOW WPTF WRC WRVA WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B — Log Cabin Bar Z Ranch
KDKA KOIL KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WIRE WJZ WLS WMAL WMT WREN WSYR WXYZ

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — Russ Morgan; Ken Murray
CFRB CRCM KFAB KFH KLRA KMBC KMOX KOMA KRLD KRNT KSL KTRH KTSA KTUL WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WICC WISN WJAS WJR WJSV WKRC WLAC WMAS WMBD WMBG WNAC WNAX WOKO WORC WQAM WREC WWL

R — Wayne King and Orchestra
KFYR KPRC KSD KSTP KTBS KVOO KYW WAVE WBAP WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WHO WHIO WIBA WIRE WJAR WJDX WKY WMAQ WMC WOAI WOW WRC WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ

B — Edgar Guest, Welcome Valley
KDKA KOIL KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WLW WMAL WMT WREN WSYR WXYZ

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C — Fred Waring and Orchestra
CFRB CKAC KFAB KFH KGKO KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBH WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WMMN WNAC WNAX WNBF WNOX WOC WOKO WORC WOWO WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL

R — Vox Pop; Sidewalk Interviews
KSD KYW WBEN WCAE WCKY WCSH WDAF WEAF WEEI WFBR WGY WHO WHIO WIRE WJAR WMAQ WOW WRC WTAG WTAM WTIC WWJ

B — Ben Bernie and Orchestra
KDKA KDYL KFI KFSD KFYR KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTAR KTBS KVOO KWK WAVE WBAL WBAP WBZ WBZA WDAY WEBC WFIL WFLA WGAR WHAM WIBA WIOD WIS WJAX WJDX WJZ WKY WLS WLW WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSYR WTAR WTMJ WWNC WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — Camel Caravan
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNOX WOKO WORC WOWO WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL

R — Fred Astaire; Johnny Green
CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KVOO KYW WAVE WBAP WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B — Husbands and Wives
KECA KEX KFSD KGA KGO KJR KLO KOIL KSO KWK WBAL WBZ WBZA WEBR WENR WHAM WJZ WMAL WMT WREN WSAI WSYR WXYZ

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — March of Time, See Monday

TUESDAY (*Continued*)

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Dance Orchestra
CKAC WAAB WABC WADC WCAO WCAU WDRC WFBL WFEA WHEC WHK WIBX WJAS WJSV WKBW WLBZ WMAS WOKO WORC WSBT WSPD

R — Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C—Renfrew of Mounted, See Monday

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Dance Orchestra
CFRB CKAC KLRA KSCJ WAAB WABC WADC WALA WBBM WBNS WBRC WBT WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WIBX WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAX WNOX WOC WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

R — Leo Reisman and Orchestra
KDYL KFI KFSD KGHL KGIR KGW KHQ KOA KOMO KPO KTAR

WEDNESDAY

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — Bobby Benson, See Monday

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C — Renfrew of Mounted, See Mon.
B — Lowell Thomas, See Monday

E-7:00 p.m., C-6:00, M-5:00, P-4:00
R — Amos 'n' Andy, See Monday
B — Easy Aces, See Tuesday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Popeye, see Monday
R — Uncle Ezra, See Monday

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C — Goose Creek Parson, See Mon.
B — Lum and Abner, See Monday

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

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Cavalcade of America
KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KVI KWG WABC WBBM WBNS WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WJAS WJR WJSV WKRC WLAC WMBG WNAC WOKO WTOC WWL

B — Follies de Paree
KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WFIL WGAR WHAM WHIO WIRE WJZ WLS WMAL WMT WREN WSYR WXYZ

R — One Man's Family
KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KTHS KVOO KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — Burns and Allen
CKAC KFAB KFH KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WJAS WJR WJSV WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WSPD WWL

R — Wayne King, See Tuesday

B — Lavender and Old Lace
KDKA KOIL KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WMAL WMT WREN WSAI WSYR WXYZ

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C — Chesterfield Program
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KGMB KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBG WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBH WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNBF WNOX WOC WOKO WORC WOWO WPG WQAM WREC WSFA WSJS WSPD WTOC WWL

R — Town Hall Tonight
KFYR KPRC KSD KSTP KTBS KTHS KVOO KYW WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — Come On, Let's Sing
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGMB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KTUL KVI KWG KWKH WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMBG WMBR WNAC WOKO WORC WOWO WQAM WREC WTOC WWL

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Crime Crusade; Phil Lord
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KTUL KVI KWG KWKH WABC WACO WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMBG WMBR WNAC WOKO WORC WOWO WQAM WREC WTOC WWL

R — Your Hit Parade
KDYL KEX KFI KFYR KGHL KGIR KGU KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KTHS KVOO KYW WAVE WCAE WCSC WCSH WDAF WDAY WEAF WEBC WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WNAC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WSUN WSYR WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — March of Time, See Monday

E-10:45 p.m., C-9:45, M-8:45, P-7:45
C — Goose Creek Parson, See Mon.

E-11:00 p.m., C-10:00, M-9:00, P-8:00
R — Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C—Renfrew of Mounted, See Monday

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Dance Orchestra
CKAC KLRA WAAB WABC WADO WALA WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOI WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WICC WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMBG WMBR WNOX WOKO WORC WQAM WREC WSPD WTOC

C — Burns and Allen
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KVOR KWG

THURSDAY

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — News of Youth, See Tuesday

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C — Renfrew of Mounted, See Mon.

B — Lowell Thomas, See Monday

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

B — Easy Aces, See Tuesday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Ted Husing, See Tuesday
R — Experience, See Tuesday

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C — Judy Starr and Charioteers
KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMJ KMOX KOIN KOL KVI KWG WABC WBBM WCAO WCAU WCCO WEAN WEEI WFBL WFBM WGR WHEC WHK WJAS WJR WJSV WKRC

B — Lum and Abner, See Monday

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

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Kate Smith; Babe Ruth
KFAB KMBC KMOX KRLD KRNT KTRH WABC WADC WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDRC WEAN WEEI WFBL WFBM WGR WGST WHAS WHK WHP WIBX WJAS WJR WJSV WKBN WKRC WLBZ WMAS WMBG WMBR WOC WOKO WSPD WTOC WWL WWVA

THURSDAY (*Continued*)

R — Rudy Vallee's Variety Hour
CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KTAR KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WHO WJAR WLW WMAQ WOW WRC WTAM WTIC WTMJ WWJ

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C — Major Bowes' Amateurs
CFRB CKAC KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KLRA KLZ KMBC WMJ KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WMMN WNAC WNAX WOC WOKO WORC WOWO WPG WQAM WREC WSFA WSJS WSPD WTOC WWL

R — Maxwell House Show Boat
KDYL KFI KFSD KFYR KGHL KGIR KWK KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSAI WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Sears—Then and Now
KDB KERN KFAB KFBB KFBK KFH KFPY KFRC KGB KGKO KGMB KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WEEI WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WMMN WNAX WNOX WOC WOKO WORC WOWO WPG WQAM WREC WSBT WSFA WSJS WSMK WSPD WTOC WWL

R — Bing Crosby; Bob Burns
CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KTHS KVOO KYW WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — March of Time, See Monday

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Dance Orchestra
WAAB WABC WADC WCAO WCAU WFBL WHK WIBX WJSV WKBN WKBW WLBZ WMAS WOKO WORC WPG WSBT WSPD

R — Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C — Renfrew of Mounted, See Monday

FRIDAY

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — Bobby Benson, See Monday

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C — Renfrew of Mounted, See Tues.
B — Lowell Thomas, See Monday

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

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Popeye, See Monday
R — Uncle Ezra, See Monday

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C — Goose Creek Parson, See Mon.
B — Lum and Abner, See Monday

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

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Broadway Varieties
KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRNT KSL KVI KWG WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WGST WHAS WHK WJAS WJR WJSV WKRC WMAS WMBG WNAC WOKO WWL

R — Cities Service Concert
CRCT KFYR KOA KPRC KSD KSTP KTBS KTHS KVOO KYW WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WGY WHO WHIO WIBA WIOD WJAR WKY WMAQ WOAI WOW WRC WRVA WSAI WTAG WTAM WTIC WTMJ WWJ

B — Irene Rich; Drama
KDKA KDYL KFI KGW KHQ KOIL KOMO KPO KSO KTAR KWK WAVE WBAL WBZ WBZA WCKY WFIL WGAR WHAM WIRE WJZ WLS WMAL WMC WMT WREN WSB WSM WSYR WXYZ

E-8:15 p.m., C-7:15, M-6:15, P-5:15
B — Singin' Sam
KDKA KOIL KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WMAL WMT WREN WSYR WXYZ

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — Andre Kostelanetz
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KGMB KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNBF WNOX WOC WOKO WORC WOWO WPG WQAM WREC WSFA WSJS WSMK WSPD WTOC WWL

B — Death Valley Days
KDKA KDYL KFI KGW KHQ KOIL KOMO KPO KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WLW WMAL WMT WREN WSYR WXYZ

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C — Hollywood Hotel
CFRB CKAC KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNOX WOKO WORC WPG WQAM WREC WSPD WWL

R — Frank Munn; Bernice Claire
KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WJAR WLW WMAQ WOW WRC WTAG WTAM WWJ

B — Fred Waring
KDKA KDYL KFYR KOA KOIL KPRC KSO KSTP KTBS KWK WAPI WAVE WBAL WBZ WBZA WDAY WEBC WFAA WFIL WFLA WGAR WHAM WIBA WIOD WIS WJAX WJDX WJZ WKY WLS WLW WMAL WMC WMT WOAI WOOD WPTF WREN WRVA WSB WSM WSMB WSOC WSUN WSYR WTAR WTMJ WWNC WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30
R — True Story Court
KSD KYW WBEN WCAE WCSH WEAF WEEI WFBR WGY WHO WHIO WJAR WMAQ WOW WRC WTAG WTAM WTIC WWJ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
R — First Nighter; Drama
KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KYW WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B — Your Radio Guide
CRCT KDKA KOIL KSO KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WIRE WJZ WMAL WMT WREN WSYR WXYZ

E-10:30 p.m., C-9:30, M-8:30, P-7:30
R — "Red" Grange, Football
KDYL KFYR KOA KPRC KSD KSTP KTBS KYW WAVE WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

FRIDAY (*Continued*)

C — March of Time, See Monday

E-11:00 p.m., C-10:00, M-9:00, P-8:00
R — Amos 'n' Andy, See Monday

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C — Dance Orchestra
CFRB CKAC KLRA KSCJ WAAB WABC WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WFBL WFEA WGST WHEC WHK WIBX WISN WJAS WJR WKBW WLAC WLBZ WMAS WMBD WMBG WMBR WNAX WNOX WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSMK WSPD WTOC

C — Renfrew of Mounted, See Mon.

SATURDAY

E-6:15 p.m., C-5:15, M-4:15, P-3:15
C — News of Youth, See Tuesday

E-6:30 p.m., C-5:30, M-4:30, P-3:30
C — Royal Football Talks
KGB KMOX WAAB WABC WBBM WCAU WHAS WHK WJAS WJR WKBW

E-7:00 p.m., C-6:00, M-5:00, P-4:00
R — Harold "Red" Grange
KDYL KFYR KOA KPRC KSD KSTP KTBS KYW WAVE WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Ted Husing, See Tuesday

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C — Carborundum Band, list of stations not available.

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Columbia Workshop; Drama
CFRB CKAC KFAB KFH KFRC KLRA KMBC KMOX KOMA KRNT KTRH KTSA KTUL KWKH WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WHP WICC WISN WJAS WJR WJSV WKRC WLAC WLBZ WMBG WMBR WNAC WOKO WORC WQAM WREC WTOC WWL

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — Ed Thorgersen
CKAC KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KTUL KVI KWG WABC WBBM WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WISN WJAS WJR WJSV WKRC WLAC WMBG WMBR WOKO WORC WQAM WREC WWL

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C — Floyd Gibbons; Vincent Lopez
KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KVI KWG WABC WBBM WBNS WBT WCAO WCAU WCCO WDAE WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WISN WJAS WJR WJSV WKBW WKRC WMBR WOKO WQAM WREC WSPD WWL

R — Snow Village Sketches
KSD KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WJAR WMAQ WNAC WOW WRC WTAG WTAM WTIC WWJ

B — National Barn Dance
KDKA KOIL KPRC KSO KTBS KTHS KWK WABY WAPI WAVE WBAL WBAP WBZ WBZA WFIL WFLA WGAR WHAM WIOD WIRE WIS WJAX WJDX WJZ WKY WLS WMAL WMC WMT WOAI WOOD WPTF WREN WRVA WSB WSMB WSOC WSUN WSYR WTAR WWNC WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — Mary Eastman; Gus Haenschen
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KTRH KTSA KTUL KVI KWG KWKH WALA WBBM WBIG WBNS WBRC WBT WCAO WCOA WDAE WDBO WDOD WEAN WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WLAC WMBD WMBR WNOX WOC WQAM WREC WSFA WSPD WTOC WWL WWVA

R — Shell Chateau
KDYL KFI KFSD KFYR KGHL KGIR KGW KHQ KOA KOMO KPO KSD KSTP KTAR KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WIBA WJAR WLW WMAQ WOW WRC WTAG WTAM WTIC WTMJ WWJ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Your Hit Parade
KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KGMB KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNOX WOC WOKO WORC WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL WWVA

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Dance Orchestra
CFRB CKAC KFH KGKO KLRA KLZ KMBC KMOX KOMA KRLD KSCJ KSL KTRH KTSA KVOR KWKH WABC WACO WADC WALA WBBM WBNS WBRC WBT WACO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WFBL WFBM WFEA WGST WHAS WHEC WHK WIBW WIBX WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAX WNOX WOC WOKO WORC WQAM WREC WSHT WSJS WSMK WSPD WTOC

B — National Barn Dance
KDYL KFI KFSD KFYR KGHL KGIR KGU KGW KHQ KOA KOMO KPO KSTP KTAR WDAY WEBC WIBA WLW WTMJ

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Dance Orchestra
CFRB CKAC KFH KGKO KLRA KLZ KMBC KMOX KOMA KSL KTRH KTSA KVOR KWKH WABC WACO WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WIBW WIBX WICC WJAS WJR WKBW WKRC WLAC WLBZ WMAS WMBG WMBR WNOX WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

SUNDAY

E-11:30 a.m., C-10:30, M-9:30, P-8:30
C — Major Bowes' "Family"
CFRB KERN KFAB KFBB KFBK KFH KFPY KFRC KGB KGVO KMBC KOH KOL KRLD KSL KTRH KTSA KVI KVOR KWG KWKH WABC WACO WADC WALA WBNS WBRC WCAO WCCO WDAE WDBJ WDBO WDNC WESG WFBL WFEA WHAS WHK WIBX WJAS WJR WKRC WLBZ WMBD WMBR WMMN WOC WOKO WORC WPG WQAM WSBT WSJS WSPD WTOC

E-12:30 p.m., C-11:30 a.m., M-10:30, P-9:30
C — Salt Lake Tabernacle Choir
CFRB KFAB KFBB KFBK KFH KFPY KFRC KGB KLZ KOH KOL KRLD KSL KTRH KTSA KVI KVOR KWG WABC WACO WADC WALA WBIG WBNS WBRC WCAO WCCO WDAE WDBJ WDBO WESG WFBL WFEA WGR WHAS WICC WJAS WJR WKRC WLBZ WMBR WMMN WOC WOKO WORC WQAM WSBT WSJS WSPD WTOC

B — Radio City Music Hall
CFCF CRCT KDKA KDYL KFI KFYR KGO KGW KHQ KOIL KOMO KPRC KSO KVOO WAPI WBAL WBZ WBZA WCKY WDAY WEBC WGAR WHAM WIS WJDX WJZ WKY WMAL WOAI WREN WSMB WSYR WWNC

E-12:45 p.m., C-11:45 a.m., M-10:45, P-9:45
C — Trans-Atlantic Broadcast
CFRB CKAC KFH KGKO KLRA KLZ KMBC KRLD KSCJ KTRH KTSA KVOR WABC WACO WADC WALA WBIG WBRC WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WESG WFBL WFBM WFEA WGR WHAS WIBX WJAS WJSV WKBN WLAC WLBZ WMBD WMBR WNAC WOC WOKO WORC WPG WQAM WREC WSJS WSMK WSPD WTOC WWL

E-1:00 p.m., C-12:00, M-11:00, P-10:00
C — Church of the Air
KFBK KFH KFPY KFRC KGB KHJ KMOX KOH KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KVI KVOR KWG WABC WALA WBNS WBT WCAO WCCO WDAE WDBJ WDBO WDRC WESG WFBL WFBM WGR WHAS WHP WIBX WJAS WJSV WKBN WKRC WLAC WLBZ WMBR WNBF WOC WOKO

SUNDAY (*Continued*)

WORC WPG WQAM WREC WSBT WSJS WSPD WTOC WWVA

E-2:00 p.m., C-1:00, M-12:00, P-11:00
C — Pittsburgh Symphony
KFAB KLRA KLZ KMBC KMOX KOMA KRLD KRNT KTRH KTSA KTUL KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WIBX WISN WJAS WJR WJSV WKBW WKRC WLAC WMBG WMBR WMMN WNAC WNOX WOC WOKO WQAM WREC WTOC WWL

B — Magic Key of RCA
CFCF CRCT KDKA KDYL KFI KFYR KGU KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTBS KTHS KVOO KWK WAPI WAVE WBAL WBZ WBZA WCKY WDAY WEBC WENR WFAA WFIL WFLA WGAR WHAM WHIO WIBA WIOD WIRE WIS WJAX WJDX WJZ WKY WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSYR WTAR WTMJ WWNC WXYZ

E-3:00 p.m., C-2:00, M-1:00, P-12:00
C — Everybody's Music
CFRB CKAC KERN KFH KFPY KFRC KGB KGKO KHJ KLZ KMBC KMOX KOH KOL KOMA KRNT KSCJ KSL KTRH KTSA KVI KVOR KWG WAAB WABC WALA WBIG WBNS WBRC WBT WCAO WCCO WDAE WDBJ WDRC WEAN WESG WFBL WFBM WFEA WGST WHAS WHK WHP WIBW WIBX WICC WJAS WKBN WKBW WKRC WLAC WLBZ WMBD WMBG WMBR WNBF WNOX WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSMK WSPD WTOC

E-3:30 p.m., C-2:30, M-1:30, P-12:30
R — Grand Hotel; Drama
KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFBR WGY WHO WIBA WJAR WMAQ WNAC WOW WRC WSAI WTAG WTAM WTIC WWJ

E-5:00 p.m., C-4:00, M-3:00, P-2:00
R — Marion Talley, Soprano
KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSTP KYW WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WFBR WGY WHIO WIBA WIRE WJAR WMAQ WNAC WOW WRC WTAG WTAM WTIC WTMJ WWJ

B — We, The People; Phil Lord
KDKA KECA KEX KFSD KGA KGHL KGIR KGO KJR KLO KOIL KPRC KSO KTBS KTHS KVOO KWK WABY WAPI WAVE WBAL WBAP WBZ WBZA WEBR WENR WFIL WFLA WGAR WHAM WIOD WIS WJAX WJDX WJZ WKY WLW WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSUN WSYR WTAR WWNC WXYZ

E-5:30 p.m., C-4:30, M-3:30, P-2:30
C — Guy Lombardo and Orchestra
KFH KMBC KMOX KOMA KTUL WAAB WABC WBNS WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WIBX WICC WJR WJSV WMAS WOKO WORC WSPD WWVA

R — Smiling Ed McConnell
KDYL KFI KFYR KGIR KGW KHQ KOMO KPO KSTP KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFBR WGY WHO WIBA WJAR WLW WMAQ WNAC WOW WRC WTAG WTAM WTIC WTMJ WWJ

B — Stoopnagle and Budd
KDKA KECA KEX KFSD KGA KGO KJR KLO KOIL KSO KWK WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WHIO WIRE WJZ WMAL WMT WREN WSYR WXYZ

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C — Joe Penner; Jimmy Grier
KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KTRH KTSA KVI KWG WABC WBBM WBNS WBT WCAO WCAU WCCO WDAE WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WMBG WMBR WOKO WQAM WWL

E-6:30 p.m., C-5:30, M-4:30, P-3:30
C — Coming; Rubinoff

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C — America Dances; Lud Gluskin
KERN KFAB KFBB KFBK KFH KFPY KFRC KGB KGVO KMBC KOH KOL KRLD KTRH KTSA KVI KVOR KWKH WABC WACO WADC WALA WBBM WBIG WBRC WCAO WCCO WDAE WDBO WDNC WDRC WEAN WEEI WFBL WFBM WFEA WGR WHAS WICC WJAS WJR WJSV WKRC WLBZ WMBD WMBG WMBR WMMN WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSPD WTOC

R — Jack Benny; Mary Livingstone
KSD KYA KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WHO WJAR WLW WMAQ WNAC WOW WRC WTAG WTAM WTIC WWJ

E-7:30 p.m., C-6:30, M-5:30, P-4:30
C — Phil Baker; Hal Kemp
KLRA KLZ KRLD KTRH KTSA KTUL KWKH WABC WACO WADC WALA WBIG WBNS WBRC WBT WCAO WCAU WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBX WICC WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBR WNAC WNOX WOKO WORC WQAM WREC WSBT WSFA WSJS WSMK WSPD WTOC WWL WWVA

R — Fireside Recitals
KSD KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WHIO WIRE WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WWJ

B — Ozzie Nelson; Bob Ripley
KDKA KOIL KPRC KSO KTBS KTHS KVOO KWK WAPI WAVE WBAL WBAP WBZ WBZA WCKY WFIL WGAR WHAM WHIO WIRE WJDX WJZ WKY WLS WMAL WMC WMT WOAI WREN WSB WSM WSMB WSYR WXYZ

E-7:45 p.m., C-6:45, M-5:45, P-4:45
R — Sunset Dreams; Morin Sisters
CFCF CRCT KSD KYW WBEN WCAE WCSH WDAF WEAF WFBR WGY WHO WHIO WIRE WJAR WLW WMAQ WOAI WOOD WOW WRC WTAG WTAM WTIC WWJ

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Nelson Eddy; Francia White
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KWKH WABC WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBD WMBR WMMN WNAX WNOX WOC WOKO WORC WQAM WREC WSBT WSFA WSJS WSMK WSPD WTOC WWL WWVA

R — Good Will Court
CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KTHS KVOO KYW WAPI WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFAA WFBR WFLA WGY WHO WIBA WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WNAC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — Eddie Cantor; Bobby Breen
KFAB KFH KGKO KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBD WMBR WMMN WNAX WNOX WOC WOKO WORC WQAM WREC WSBT WSFA WSJS WSMK WSPD WTOC WWL WWVA

E-9:00 p.m., C-8:00, M-7:00, P-6:00
R — Manhattan Merry-Go-Round
CFCF KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KYW WAVE WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

C — Ford Sunday Evening Hour
CFRB CKAC KDB KERN KFAB KFBK KFH KFPY KFRC KGB KGKO KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT

SUNDAY (*Continued*)

WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBD WMBR WNAC WNAX WOC WOKO WORC WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL WWVA

S — Walter Winchell

KDKA KECA KEX KFSD KGA KGHL KGIR KGO KJR KLO KOIL KSO KTAR KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WLW WMAL WMT WREN WSYR WXYZ

E-9:15 p.m., C.8:15, M-7:15, P-6:15
B — Paul Whiteman's Varieties

KDKA KECA KFSD KGA KGHL KGIR KGU KJR KLO KOIL KSO KTAR KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WLW WMAL WMT WREN WSYR WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30
***R* — Album of Familiar Music**

CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KYW WAPI WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WHIO WIBA WIOD WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSAI WSB WSM WSMB WSOC WTAG WTAM WTAR WTMJ WWJ WWNC

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Gillette Community Sing

CFRB CKAC KDB KERN KFAB KFBB KFBK KFH KFPY KFRC KGB KGKO KGMB KGVO KHJ KLRA KLZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WMMN WNAC WNAX WNOX WOC WOKO WORC WOWO WPG WQAM WREC WSBT WSFA WSJS WSMK WSPD WTOC WWL

R — General Motors Concert

CFCF CRCT KDYL KFI KFYR KGHL KGIR KGW KHQ KOA KOMO KPO KPRC KSTP KTAR KTBS KTHS KYW WAPI WAVE WBEN WCAE WCKY WCSH WDAF WDAY WEAF WEBC WFAA WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WNAC WOAI WOOD WOW WPTF WRC WRVA WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B — Edwin C. Hill

KDKA KECA KFSD KGA KGO KJR KLO KOIL KSO KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WLW WMAL WMT WREN WSYR WXYZ

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Eddie Cantor; Bobby Breen

KDB KERN KFBB KFBK KFPY KFRC KGB KGKO KHJ KLZ KMJ KOH KOIN KOL KSL KVI KWG

R — Sunset Dreams; Morin Sisters

KDYL KFI KFSD KGW KHQ KOA KOMO KPO KPRC KTAR KTBS KTHS WBAP WDAF WKY

E-11:15 p.m., C-10:15, M-9:15, P-8:15
B — Walter Winchell

KDYL KFI KFSD KGHL KGIR KGW KHQ KOA KOMO KPO KPRC KTAR KTBS KTHS WAPI WAVE WBAP WJDX WKY WMC WOAI WSB WSM WSMB

E-11:30 p.m., C-10:30, M-9:30, P-8:30
B-Paul Whiteman's Musical Varieties

KECA KEX KFSD KGA KGO KJR KPRC KTBS KTHS WAPI WAVE WBAP WJDX WKY WMC WOAI WSB WSM WSMB

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Standard

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

CONCERTS

Frank Black, 2 p.m. Sun., B
Rosario Bourdon, 8 p.m. Fri., R
Everybody's Music, 3 p.m. Sun., C
Ford Concert, 9 p.m. Sun., C
General Motors Concert, 10 p.m. Sun., R
Pittsburgh Symphony, 2 p.m. Sun., C
Radio City Music Hall, 12:30 p.m. Sun., B
Don Voorhees, 8 p.m. Wed., C

DANCE BANDS

Victor Arden, 8 p.m. Wed., B; 8 p.m. Fri., C
Ben Bernie, 9:00 p.m. Tues., B
Jimmie Dorsey, 10 p.m. Thurs., R
Lud Gluskin, 7 p.m. Sun., C
Al Goodman, 9 and 11:15 p.m. Thurs., R
Benny Goodman, 9:30 p.m. Tues., C
Johnny Green, 9:30 p.m. Tues., R
Jimmy Grier, 6 p.m. Sun., C
Gus Haenschen, 9:30 p.m. Sat., C
Horace Heidt, 8 p.m. Mon., C
Richard Himber, 9:30 p.m. Mon., R
Hal Kemp, 7:30 p.m. Sun., C
Henry King, 8:30 and 11:30 p.m. Wed., C
Wayne King, 8:30 p.m. Tues. and Wed., R. 10 p.m. Mon., C
Andre Kostelanetz, 9 p.m. Wed., C and 8:30 p.m. Fri., C
Benny Krueger, 8:30 and 11:30 p.m., Mon., C
Kay Kyser, 8:30 Sat., C
Guy Lombardo, 5:30 Sun., C
Vincent Lopez, 9 p.m. Sat., C
Abe Lyman, 8:30 p.m. Mon., B. 9 p.m. Fri., R
Russ Morgan, 8:30 p.m. Tues., C
Ozzie Nelson, 7:30 Sun., B
Raymond Paige, 9 p.m. Fri., C
Leo Reisman, 8 and 11:30 p.m. Tues., R
Harry Salter, 10 p.m. Sat., C
Andy Sanella, 9 p.m. Sun., R
Nathaniel Shilkret, 9:30 p.m., Tues., C
Harry Sosnik, 10 p.m. Wed., R; 10 p.m. Sun., B
Rudy Valee, 8 p.m. Thurs., R
Peter Van Steeden, 9 p.m. Wed., R
Don Voorhees, 5:30 p.m. Sun., B
Fred Waring, 9:00 Tues., C.; 9:00 Fri., B
Paul Whiteman, 9:15 and 11:30 p.m. Sun., B
Victor Young, 9:30 p.m. Sat., R

DIALOG

Fred Allen, 9:00 Wed., R
Amos 'n' Andy, 7 and 11 p.m. daily except Sat. and Sun., R
Phil Baker, 7:30 p.m. Sun., C
Jack Benny, 7 and 11:30 p.m. Sun., R
Milton Berle, 10 p.m. Sun., C
Bob Burns, 10:00 Thurs., R
Burns and Allen, 8:30 and 11:30 p.m. Wed., C
Charles Butterworth, 9:30 Tues., R
Eddie Cantor, 8:30 p.m. Sun., C
Easy Aces, 7 p.m. Tues., Wed., Thurs., B
Fibber McGee and Molly, 8 p.m. Mon., R
Lum and Abner, 7:30 p.m. daily except Sat. and Sun., B
Ken Murray, 8:30 p.m. Tues., C
Joe Penner, 6 p.m. Sun., C
Pick and Pat, 8:30 and 11:30 p.m. Mon., C
Popeye the Sailor, 7:15 Mon., Wed., Fri., C
Babe Ruth, 8 p.m. Thurs., C
Stoopnagle and Budd, 5:30 p.m. Sun., B
Uncle Ezra's Radio Station, 7:15 Mon., Wed., Fri., R

DRAMA

Columbia Workshop, 8:00 p.m. Sat., C
Death Valley Days, 8:30 p.m. Fri., B
First Nighter, 10 p.m. Fri., R

Gang Busters, 10 p.m. Wed., C
Goose Creek Parson, 7:30 and 10:45 Mon., Wed., Fri., C
Grand Hotel, 3:30 p.m. Sun., R
Helen Hayes, 8:00 Mon., B
Hollywood Hotel, 9 p.m. Fri., C
Warden Lawes, 9 p.m. Mon., R
Log Cabin Ranch, 8 p.m. Tues., B
Phillips Lord, 10 p.m. Wed., C
Lux Radio Theater, 9 p.m. Mon., C
News of Yough, 6:15 p.m. Tues., Thurs., Sat., C
One Man's Family, 8 p.m. Wed., R
Renfrew of the Mounted, 6:45 and 11:15 p.m. Mon. thru Fri., C
Irene Rich, 8 p.m. Fri., B
Snow Village Sketches, 9 p.m. Sat., R
True Story Court, 9:30 p.m. Fri., R
Welcome Valley, 8:30 p.m. Tues., B

POPULAR PROGRAMS

Album of Familiar Music, 9:30 p.m. Sun., R
Major Bowes, 11:30 a.m. Sun. and 9 p.m. Thurs., C
Broadway Varieties, 8:00 p.m. Fri., C
Camel Program, 9:30 p.m. Tues., C
Carborundum Band, 7:30 p.m. Sat., C
Cavalcade of America, 8 p.m. Wed., C
Chesterfield Program, 9 p.m. Wed., C
Cities Service Concert, 8 p.m. Fri., R
Contented Program, 10 p.m. Mon., R
Come On, Let's Sing, 9:30 p.m. Wed., C
Community Sing, 10 p.m. Sun., C
Fireside Recitals, 7:30 p.m. Sun., R
Fleischmann Variety Hour, 8 p.m. Thurs., R
Good Will Court, 8 p.m. Sun., R
Hannnerstien's Music Hall, 8 p.m. Tues., C
Hit Parade, 10 p.m. Red Wednesday; 10 p.m. Sat., C
Hollywood Hotel, 9 p.m. Fri., C
Husbands and Wives, 9:30 p.m. Tues., B
Magic Key of RCA, 2 p.m. Sun., B
Manhattan Merry-Go-Round, 9 p.m. Sun., R
March of Time, 10:30 p.m. Mon. thru Fri., C
Maxwell House Show Boat, 9 p.m. Thurs., R
Melodiana, 8:30 p.m. Mon., B
National Barn Dance, 9:00 and 11:30 p.m. Sat., B
Packard Hour, 9:30 p.m. Tues., R
Sears, Then and Now, 10 p.m. Thurs., C
Sinclair Minstrels, 9 p.m. Mon., B
Variety Show, 8 p.m. Thurs., C
Voice of Firestone, 8:30 p.m. Mon., R
Vox Pop, 9 p.m. Tues., R
Waltz Time, 9 p.m. Fri., R

SINGERS

Fred Astaire, 9:30 p.m. Tues., R
Kenny Baker, 7 and 11:30 p.m. Sun., R
Smith Ballew, 9:30 p.m. Sat., R
Bobby Breen, 8:30 p.m. Sun., C
Rachel Carlay, 9 p.m. Sun., R
Charlotteers, 7:30 p.m. Thurs., C
Bernice Claire, 9 p.m. Fri., R, and 8:30 Mon., B
Bing Crosby, 10 p.m. Thurs., R
Fifi D'Orsay, 8 p.m. Wed., B
Jessica Dragonette, 8 p.m. Fri., R
Phil Duey, 8 and 11:30 p.m. Tues., R
Nelson Eddy, 8 p.m. Sun., C
Wendell Hall, 10 p.m. Sun., C
Helen Jepson, 9 and 11:15 p.m. Thurs., R
Elizabeth Lennox, 8:00 p.m. Fri., C
Nino Martini, 9 p.m. Wed., C
Ed McConnell, 5:30 p.m. Sun., R
Lucy Monroe, 9:30 p.m. Sun., R, 8:30 p.m. Wed., B
Morin Sisters, 7:45 and 11 p.m. Sun., R
Frank Munn, 9:30 p.m. Sun. and 9 p.m. Fri., R
Jan Peerce, 6:30 p.m. Sun., C
Carmella Ponselle, 8:00 p.m. Fri., C
Dick Powell, 9 p.m. Fri., C
Virginia Rea, 6:30 p.m. Sun., C
Homer Rodeheaver, 9:30 p.m. Wed., C
Singin' Sam, 8:15 Fri., B
Kate Smith, 8 p.m. Thurs., C
Oliver Smith, 5 p.m. Sun., C
Judy Starr, 7:30 p.m. Thurs., C
Marion Talley, 10 p.m. Fri., R
Francia White, 8 p.m. Sun., C

TALKS

Boake Carter, 7:45 p.m. Mon. thru Fri., C
Floyd Gibbons, 9 p.m. Sat., C
"Red" Grange, 10:30 Fri. and 7 p.m. Sat., R
Eddie Guest, 8:30 p.m. Tues., B
Edwin C. Hill, 10 p.m. Sun., B
Ted Husing, 7:15 p.m. Tues., Thurs., Sat., C
Bob Ripley, 7:30 Sun., B
Sidewalk Interviews, 9 p.m. Tues., R
Lowell Thomas, 6:45 p.m. Mon., thru Fri., B
Ed Thorgersen, 8:30 p.m. Sat., C
Trans-Atlantic Broadcast, 12:45 p.m. Sun., C
Voice of Experience, Tues., Thurs., 7:15 R
Walter Winchell, 9 and 11:15 p.m. Sun., B

The Milwaukee Journal, operators of WTMJ, want a new station on the so-called high-fidelity band. The 1570 kcs spot is requested and 1000 watts full time. It was recently stated by the FCC that no further assignments would be made between 1500 and 1600 kcs.

* * *

KGBZ at York, Nebr. has certainly had its ups and downs lately. When it was deleted Dr. George R. Miller, the owner, petitioned the U. S. Court of Appeals to grant a stay, holding that the FCC had failed to give the station a fair hearing prior to the deletion order. The stay order was granted, but afterwards negotiations were made to sell its half-time facilities to KMA at Shenandoah, Iowa for about $50,000. On the completion of this transaction it is believed that KGBZ's troubles are over. It was originally ordered deleted because of improper programs and because it was not believed the station sufficiently served public interest.

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The world's largest single radio network now consists of 105 stations. On the 9th of August two Montana stations joined the CBS, KFBB in Great Falls and KGVO in Missoula, making the first CBS outlets in that state.

Short Wave Stations By Frequencies

Police Broadcasters are shown in italics.

Megs.	Meters		
1.596	187.84	*WPGG*	*Findlay, Ohio*
		WPGQ	*Columbus, Ohio*
		WPHC	*Massillon, Ohio*
		WPHK	*Wilmington, Ohio*
		WQFT	*Portable in Ohio*
1.606	189.69	KGXW	Port Alexander, Alaska
1.610	186.22	*WQPC*	*Chicago, Ill.*
		WQPD	*DeQuoin, Ill.*
		WQPF	*Effingham, Ill.*
		WQPG	*Sterling, Ill.*
		WQPM	*Macomb, Ill.*
		WQPP	*Pontiac, Ill.*
		WQPS	*Springfield, Ill.*
1.622	184.85	KGXU	Port Armstrong, Alaska
		KIJI	Port Conclusion, Alaska
		KIJK	Washington Bay, Alaska
		KIJO	Port Herbert, Alaska
		KIJS	Newport Walter, Alaska
		KIJV	Deep Cove, Alaska
		KIOG	Red Bluff Bay, Alaska
1.634	183.48	*WPHE*	*Marion County, Ind.*
		WPHS	*Culver, Ind.*
		WPHU	*Jasper, Ind.*
		WQFE	*Seymour, Ind.*
		WQFW	*Columbia City, Ind.*
1.642	182.59	*WRDS*	*E. Lansing, Mich.*
1.658	180.83	*KNHD*	*Redwood Falls, Minn.*
		KSW	*Berkeley, Calif.*
		WPGC	*S. Schenectady, N. Y.*
1.666	179.96	*WMP*	*Framingham, Mass.*
		WPEL	*W. Bridgewater, Mass*
		WPEV	*Portable in Mass.*
		WPEW	*Northampton, Mass.*
		.....	*Nashville, Tenn.*
1.674	179.10	*KGHK*	*Palo Alto, Calif.*
		KGZT	*Santa Cruz, Calif.*
		KIUK	*Jefferson, Mo.*
		WPSP	*Harrisburg, Pa.*
1.682	178.25	*KACC*	*Fairfield, Iowa*
		KACD	*Atlantic, Iowa*
		KCHO	*Des Moines, Iowa*
		KNFN	*Waterloo, Iowa*
		KNFO	*Storm Lake, Iowa*
1.692	177.19	*WQFT*	*Portable in Ohio*
1.698	176.57	*KNGG*	*Phoenix, Ariz.*
		WAKJ	*Duval County, Fla.*
		.....	*Portable in Maryland*
1.706	175.74	*KGPC*	*St. Louis, Mo.*
		WKDU	*Cincinnati, Ohio*
		WPET	*Lexington, Ky.*
1.710	175.33	*CZ6F*	*Hamilton, Ont.*
1.712	175.13	*COL2*	*Havana, Cuba*
		KACU	*Gladewater, Texas*
		KGHY	*Whittier, Calif.*
		KGJX	*Pasadena, Calif.*
		KGPJ	*Beaumont, Texas*
		KGPL	*Los Angeles, Calif.*
		KGPQ	*Honolulu, T. H.*
		KGPR	*Fort Worth, Texas*
		KGZB	*Houston, Texas*
		KGZL	*Shreveport, La.*
		KGZQ	*Waco, Texas*
		KGZY	*San Bernardino, Cal.*
		KNFJ	*Pomona, Calif.*
		KNGE	*Cleburne, Texas*
		KNGL	*Galveston, Texas*
		KNHF	*Denton, Texas*
		KVP	*Dallas, Texas*
		VYR	*Montreal, P. Q.*
		WAKF	*Everett, Mass.*

Megs.	Meters		
		WAKV	*Fall River, Mass.*
		WPDB	*Chicago, Ill.*
		WPDC	*Chicago, Ill.*
		WPDD	*Chicago, Ill.*
		WPDU	*Pittsburgh, Pa.*
		WPED	*Arlington, Mass.*
		WPEH	*Somerville, Mass.*
		WPEI	*E. Providence, R. I.*
		WPFA	*Newton, Mass.*
		WPFN	*Fairhaven, Mass.*
		WPGF	*Providence, R. I.*
		WPGU	*Cohasset, Mass.*
		WPGV	*Boston, Mass.*
		WPHG	*Medford, Mass.*
		WQFL	*Oak Park, Ill.*
		WQFX	*Waukegan, Ill.*
2.318	129.34	*CYQ*	*Toronto, Ont.*
2.342	128.02	*CGZ*	*Vancouver, B. C.*
2.366	126.72	*WAKC*	*Freehold, N. J.*
2.382	125.87	*KGHT*	*Brownsville, Texas*
		KGHV	*Corpus Christi, Tex.*
		KNFE	*Duluth, Minn.*
		KNHB	*Green Bay, Wisc.*
		WAKE	*Oshkosh, Wisc.*
		WPDN	*Auburn, N. Y.*
		WPEA	*Syracuse, N. Y.*
		WPFM	*Birmingham, Ala.*
		WPGW	*Mobile, Ala.*
2.390	125.45	*CJW*	*St. John, N. B.*
		CJZ	*Verdun, P. Q.*
2.396	125.14	*VYW*	*Winnipeg, Man.*
2.406	124.61	*KGHZ*	*Little Rock, Ark.*
		KGPW	*Salt Lake City, Utah*
		KNHE	*Fort Smith, Ark.*
2.414	124.30	*KACE*	*Olympia, Wash.*
		KACJ	*Wenatchee, Wash.*
		KACK	*Bellingham, Wash.*
		KACN	*San Buenaventure, C.*
		KACO	*Tracy, Calif.*
		KACS	*Bakersfield, Calif.*
		KACV	*Walla Walla, Wash.*
		KGHS	*Spokane, Wash.*
		KGHW	*Centralia, Wash.*
		KGPA	*Seattle, Wash.*
		KGPF	*Santa Fe, N. Mex.*
		KGPS	*Bakersfield, Calif.*
		KGZA	*Fresno, Calif.*
		KGZM	*El Paso, Texas*
		KGZN	*Tacoma, Wash.*
		KGZO	*Santa Barbara, Calif.*
		KGZV	*Aberdeen, Wash.*
		KGZX	*Albuquerque, N. M.*
		KNFA	*Clovis, N. Mex.*
		KNFI	*Mt. Vernon, Wash.*
		KNFP	*Everett, Wash.*
		KNGU	*Yakima, Wash.*
		KNGY	*Lodi, Calif.*
		WCK	*Detroit, Mich.*
		WMO	*Highland Park, Mich.*
		WPDA	*Tulare, Calif.*
		WPDJ	*Passaic, N. J.*
		WPDX	*Detroit, Mich.*
		WPDY	*Atlanta, Ga.*
		WPFH	*Baltimore, Md.*
		WPFI	*Columbus, Ga.*
		WPGH	*Albany, N. Y.*
		WPGJ	*Utica, N. Y.*
		WPGM	*La Grange, Ga.*
		WQFB	*Macon, Ga.*
		WQFJ	*Oneonta, N. Y.*
		WQFV	*Augusta, Ga.*
		WRDR	*Grosse Pointe, Mich.*
		.....	*Herkimer, N. Y.*
		.....	*Stockton, Calif.*

Megs.	Meters		
2.416	124.09	*CZG*	*Prince Rupert, B. C.*
2.422	123.79	*KACA*	*Atchison, Kans.*
		KACI	*Eureka, Calif.*
		KGPE	*Kansas City, Mo.*
		KGPG	*Vallejo, Calif.*
		KGZC	*Topeka, Kans.*
		KNGF	*Sacramento, Calif.*
		KNGV	*Salina, Kans.*
		WMJ	*Buffalo, N. Y.*
		WNFP	*Niagara Falls, N. Y.*
		WPDR	*Rochester, N. Y.*
		WPDW	*Washington, D. C.*
		WPFU	*Portland, Me.*
		WPHB	*Nashua, N. H.*
2.430	123.38	*KGPB*	*Minneapolis, Minn.*
		KGZJ	*Phoenix, Ariz.*
		KNGP	*Shreveport, La.*
		KNHG	*Prescott, Ariz.*
		WAKH	*Bloomfield, N. J.*
		WCPD	*Charleston, S. C.*
		WPDI	*Columbus, Ohio*
		WPDM	*Dayton, Ohio*
		WPDS	*St. Paul, Minn.*
		WPEK	*New Orleans, La.*
		WPFD	*Highland Park, Ill.*
		WPFK	*Hackensack, N. J.*
		WPGI	*Portsmouth, Ohio*
		WPHO	*Zanesville, Ohio*
		WQFO	*Lancaster, Ohio*
		.....	*Baton Rouge, La.*
2.442	122.77	*KGHU*	*Austin, Texas*
		KGPP	*Portland, Ore.*
		KGPX	*Denver, Colo.*
		KGZH	*Klamath Falls, Ore.*
		KGZR	*Salem, Ore.*
		KNHM	*Fargo, N. Dak.*
		WAKO	*Ft. Lauderdale, Fla.*
		WMDZ	*Indianapolis, Ind.*
		WPDE	*Louisville, Ky.*
		WPDF	*Flint, Mich.*
		WPDH	*Richmond, Ind.*
		WPDL	*Lansing, Mich.*
		WPEB	*Grand Rapids, Mich.*
		WPES	*Saginaw, Mich.*
		WPFC	*Muskegon, Mich.*
		WPFE	*Reading, Pa.*
		WPFG	*Jacksonville, Fla.*
		WPFT	*Lakeland, Fla.*
		WPFX	*Palm Beach, Fla.*
		WPFY	*Yonkers, N. Y.*
		WPFZ	*Miami, Fla.*
		WPGL	*Binghamton, N. Y.*
		WPGP	*Muncie, Ind.*
		WPHM	*Orlando, Fla.*
		WQFM	*Wilkes-Barre, Pa.*
		WQFQ	*Lafayette, Ind.*
		.....	*Connersville, Ind.*
2.450	122.38	*KACF*	*Chickasha, Okla.*
		KACL	*Altus, Okla.*
		KACP	*Ponca City, Okla.*
		KACR	*Seminole, Okla.*
		KAPB	*Cushing, Okla.*
		KAPC	*Drumright, Okla.*
		KAPD	*El Dorado, Kans.*
		KAPE	*Norman, Okla.*
		KAPF	*Okmulgee, Okla.*
		KGHN	*Hutchinson, Kans.*
		KGHP	*Lawton, Okla.*
		KGPH	*Oklahoma City, Ok.*
		KGPO	*Tulsa, Okla.*
		KGPZ	*Wichita, Kans.*
		KGZF	*Chanute, Kans.*
		KGZP	*Coffeyville, Kans.*
		KNGK	*Duncan, Okla.*
		KNGM	*Rapid City, S. Dak.*
		KNGT	*Muskogee, Okla.*
		KNHC	*Ada, Okla.*
		WPDK	*Milwaukee, Wisc.*

Megs.	Meters		
		WPEE	*Brooklyn, N. Y.*
		WPEF	*Bronx, N. Y.*
		WPEG	*New York, N. Y.*
		WPEP	*Kenosha, Wisc.*
		WPHF	*Richmond, Va.*
		WQFG	*Roanoke, Va.*
		WQFH	*Lynchburg, Va.*
		WQFI	*Petersburg, Va.*
		.....	*Huron, S. Dak.*
		.....	*Iola, Kans.*
2.458	121.97	*KACM*	*Big Spring, Tex.*
		KGZI	*Wichita Falls, Tex.*
		KGZW	*Lubbock, Texas*
		KNFB	*Idaho Falls, Idaho*
		KNGW	*Brownwood, Texas*
		WPDG	*Youngstown, Ohio*
		WPDO	*Akron, Ohio*
		WPDV	*Charlotte, N. C.*
		WPFS	*Asheville, N. C.*
		WPGD	*Rockford, Ill.*
		WPHD	*Steubenville, Ohio*
		WQFZ	*Ottawa, Ill.*
		WRBH	*Cleveland, Ohio*
		.....	*Urbana, Ill.*
2.466	121.58	*KGOZ*	*Cedar Rapids, Iowa*
		KGPD	*San Francisco, Calif.*
		KGPI	*Omaha, Nebr.*
		KGPK	*Sioux City, Iowa*
		KGPM	*San Jose, Calif.*
		KGPN	*Davenport, Iowa*
		KGZG	*Des Moines, Iowa*
		WAKB	*New London, Conn.*
		WAKG	*Clearwater, Fla.*
		WPEC	*Memphis, Tenn.*
		WPEM	*Woonsocket, R. I.*
		WPFV	*Pawtucket, R. I.*
		WPFW	*Bridgeport, Conn.*
		WPGA	*Bay City, Mich.*
		WPGB	*Port Huron, Mich.*
		WPGK	*Cranston, R. I.*
		WPGX	*Worcester, Mass.*
		WPHA	*Fitchburg, Mass.*
		WPHN	*Tampa, Fla.*
		WPHP	*Jackson, Mich.*
		WQFA	*New Haven, Conn.*
		WQFC	*Gainsville, Fla.*
		WQFK	*Clearwater, Fla.*
2.474	121.19	*KGHG*	*Las Vegas, Nev.*
		KGHM	*Reno, Nev.*
		KNFH	*Garden City, Kans.*
		KNGH	*Dodge City, Kans.*
		WAKI	*Sandusky, Ohio*
		WPDP	*Philadelphia, Pa.*
		WPFO	*Knoxville, Tenn.*
		WPFQ	*Swarthmore, Pa.*
		WPFS	*Asheville, N. C.*
		WPGZ	*Johnson City, Tenn.*
		WPHY	*Elizabethtown, Tenn.*
		WQFY	*Mansfield, Ohio*
		WRDQ	*Toledo, Ohio*
2.482	120.80	*KGZE*	*San Antonio, Texas*
		WPGT	*New Castle, Pa.*
		WPHZ	*Oil City, Pa.*
		WQFF	*Monessen, Pa.*
		WQFU	*Sharon, Pa.*
2.490	120.41	*KACQ*	*Kalaloch, Wash.*
		KGHD	*Seattle, Wash.*
		KGHX	*Santa Ana, Calif.*
		KGZD	*San Diego, Calif.*
		KGZU	*Lincoln, Nebr.*
		KNFG	*Olympia, Wash.*
		KNFK	*Bellingham, Wash.*
		KNFM	*Compton, Calif.*
		KNFX	*Ellenburg, Wash.*
		KNGB	*Yakima, Wash.*
		KNGC	*Vancouver, Wash.*
		KNGD	*Walla Walla, Wash.*
		KNGJ	*El Centro, Calif.*

SHORT WAVE STATIONS BY FREQUENCIES

Megs.	Meters		
		KNGN	*Norfolk, Nebr.*
		KNGQ	*Wenatchee, Wash.*
		KNGR	*Spokane, Wash.*
		KNGZ	*Ephrata, Wash.*
		WAKA	*Huntington, Ind.*
		WAKK	*Frankfort, Ind.*
		WPDT	*Kokomo, Ind.*
		WPDZ	*Fort Wayne, Ind.*
		WPFP	*Clarksburg, W. Va.*
		WPGN	*South Bend, Ind.*
		WPGO	*Huntington, N. Y.*
		WPGS	*Mineola, N. Y.*
		WPHI	*Charleston, W. Va.*
		WPHJ	*Fairmont, W. Va.*
		WPHQ	*Parkersburg, W. Va*
		.....	*Marion, Ind.*
2.506	119.64	WOU	Marshfield, Mass.
2.512	119.36	KGM	Ketchikan, Alaska
		KLB	Port Althorp, Alaska
		KLC	Kake, Alaska
		KLE	Rose Inlet, Alaska
2.538	118.13	KDH	Port Alexander, Aaa.
		KILD	Cordova (Eyak River)Aaa.
2.566	116.84	KFF	Union Bay, Alaska
		KHV	Nakeen, Alaska
		KLA	Waterfall, Alaska
		KLD	Hidden Inlet, Aaa.
2.604	115.14	WVD	Seattle, Wash.
		WXH	Ketchikan, Alaska
2.616	114.61	KAEB	Hydaburg, Alaska
		KAED	Angoon, Alaska
		KAEF	Jack Wade. Alaska
		KAEP	Tenakee, Alaska
		KION	Tin City, Alaska
2.632	113.91	KIJW	Shearwater Bay, Aaa.
		KIJX	Kadiak Island, Alaska
		KIMA	Port Hobron, Alaska
		KIOC	Port Wakefield, Alaska
		KIOD	Nellie Juan, Alaska
		KIOH	Iron Creek, Alaska
		KIOI	Akutan, Alaska
2.726	109.98	WANB	Dinsmore, Fla.
2.912	102.96	KHW	Akutan, Alaska
		KHZ	Port Hobron, Alaska
2.986	100.41	KIJP	Uganik, Alaska
		KIJR	Port San Juan, Alaska
		KIJU	Todd, Alaska
2.994	100.14	KIEJ	Poorman, Alaska
		KIIK	Circle, Alaska
		KIIL	Fort Yukon, Alaska
		KIIM	Hot Springs, Alaska
		KINN	Eagle, Alaska
		KIIO	McGrath, Alaska
		KIJB	Cape Pole, Alaska
		KILY	Excursion Inlet, Alaska
		KNBZ	Pillar Bay, Alaska
2.998	100.00	WXE	Anchorage, Alaska
3.040	98.63	YDA	Tandjong Priok, Java
3.093	96.94	KAED	Angoon, Alaska
		KIAP	Rose Inlet, Alaska
		KIAW	Port Althorp, Alaska
		KIAY	Ketchikan, Alaska
		KIBA	Kake, Alaska
		KICI	View Cove, Alaska
3.100	96.72	KIIP	Luckyshot, Alaska
3.190	93.99	KIIJ	Tanana, Alaska
		KIIK	Circle, Alaska
3.265	91.83	KIBZ	Waterfall, Alaska
		KICE	Nakeen, Alaska
		KICG	Union Bay, Alaska
		KIDE	Hidden Inlet, Alaska
4.098	73.16	WND	Hialeah, Fla.
4.178	71.76	WOO	Ocean Gate, N. J.
4.253	70.50	WKF	Lawrenceville, N. J.
4.273	70.16	RV15	Khabarovsk, USSR.
4.512	66.44	ZFS	Nassau, Bahamas
4.600	65.18	HC2ET	Guayaquil, Ecuador
4.753	63.08	WOO	Ocean Gate, N. J.
4.755	63.05	CFU	Rossland, B. C.
4.795	62.53	VE9BK	Vancouver, B. C.
4.820	62.20	GDW	Rugby, England
4.865	61.63	VDO	Vancouver, B. C.
5.000	59.96	WWV	Beltsville, Md.
5.025	59.67	ZFA	Hamilton, Bermuda
5.520	54.32	TI5HH	San Ramon, Costa Rica
5.710	52.51	TGS	Guatemala City, Guat.
5.720	52.42	YV1ORSC	San Cristobal, Venezuela
5.730	52.32	JVV	Nazaki, Japan
5.760	52.05	HJ4ABD	Medellin, Colombia
5.780	51.87	OAX4D	Lima, Peru
5.790	51.78	JVU	Nazaki, Japan
5.800	51.69	YV2RC	Caracas, Venezuela
5.810	51.60	YV7RMO	Maracaibo, Venez.
5.820	51.52	CEC	Santiago, Chile
		TIGPH	San Jose, Costa Rica
5.830	51.43	TDD	Shinkio, Manchukuo
5.850	51.25	YV5RMO	Maracaibo, Venez.
5.865	51.12	HI1J	San Ped. de Macoris, D.R.
5.875	51.03	HRN	Tegucigalpa, Honduras
5.885	50.95	HCK	Quito, Ecuador
5.890	50.90	JIC	Taihoku, Taiwan
5.895	50.86	YV8RB	Barquisimeto, Venez.
5.915	50.69	HH2S	Port-au-Prince, Haiti
5.940	50.47	TG2X	Guatemala City, Guat.
5.950	50.39	HJN	Bogota, Colombia
		YNLF	Managua, Nicaragua
5.980	50.14	HJ2ABD	Bucaramanga, Colombia
5.985	50.10	XEWI	Mexico City, D. F.
6.000	49.97	TGWA	Guatemala City, Guat.
		XEBT	Mexico City, D. F.
6.005	49.93	CFCX	Montreal, P. Q.
		HP5K	Colon, Panama
6.010	49.89	CJCX	Sydney, N. S.
		COCO	Havana, Cuba
		HJ1ABC	Quibdo, Colombia
6.012	49.87	HJ3ABH	Bogota, Colombia
6.014	49.85	HI3U	Santiago, D. R.
6.018	49.82	ZHI	Singapore, Straits Settl'ts
6.020	49.80	DJC	Zeesen, Germany
		XEUW	Veracruz, Ver.
6.025	49.76	HJ1ABJ	Santa Marta, Colombia
6.030	49.72	HP5B	Panama City, Panama
6.040	49.64	W1XAL	Boston, Mass.
		W4XB	Miami, Fla.
		YDA	Tandjongpriok, N.E.I.
6.042	49.62	HJ1ABG	Barranquilla, Colombia
6.045	49.60	HI9B	Santiago, D. R.
6.050	49.56	GSA	Daventry, Gt. Britain
6.055	49.52	HJ3ABD	Bogota, Colombia
6.060	49.48	W3XAU	Philadelphia, Pa.
		W8XAL	Cincinnati, Ohio
6.070	49.39	CFRX	Toronto, Ont.
6.080	49.31	DJM	Zeesen, Germany
		HP5F	Colon, Panama
		W9XAA	Chicago, Ill.

Megs.	Meters		
6.085	49.27	HJ5ABD	Cali, Colombia
6.090	49.23	CRCX	Toronto, Ont.
6.092	49.22	HJ4ABE	Medellin, Colombia
6.100	49.15	HJ4ABL	Manizales, Colombia
		W3XAL	Bound Brook, N. J.
		W9XF	Chicago, Ill.
		.....	Belgrade, Yugo Slavia
6.110	49.07	GSL	Daventry, Gt. Britain
		HJ4ABB	Manizales, Colombia
6.115	49.03	.....	Prague, Czechoslovakia
6.120	48.99	W2XE	New York, N. Y.
		YDA5	Bandoeng, N.E.I.
6.122	48.97	HJ3ABX	Bogota, Colombia
6.130	48.91	COCD	Havana, Cuba
		TGXA	Guatemala City, Guat.
		VE9HX	Halifax, N. S.
		XEOK	Tijuana, L. C.
6.135	48.87	HJ4ABP	Medellin, Colombia
6.140	48.83	W8XK	Pittsburgh, Pa.
6.150	48.75	CB615	Santiago, Chile
		CJRO	Winnipeg, Man.
		HI5N	Santiago, D. R.
6.155	48.74	COKG	Santiago, Cuba
6.165	48.63	YV3RC	Caracas, Venezuela
6.170	48.60	HJ2ABA	Tunja, Colombia
		HJ3ABF	Bogota, Colombia
6.182	48.50	XEXA	Mexico, D. F.
6.185	48.48	HI1A	Santiago, D. R.
6.230	48.13	OAX4G	Lima, Peru
6.235	48.09	HRD	La Ceiba, Honduras
6.243	48.03	HIN	Trujillo, D. R.
6.280	47.74	CO9WR	Sancti-Spiritus, Cuba
		HIG	Trujillo, D. R.
6.300	47.59	HJ1ABH	Cienaga, Colombia
		YV12RM	Maracay, Venezuela
6.315	47.48	HIZ	Trujillo, D. R.
6.330	47.36	JZG	Nazaki, Japan
6.356	47.17	HRP1	San Pedro Sula, Hond.
6.375	47.03	YV4RC	Caracas, Venez.
6.400	46.85	YV9RC	Caracas, Venez.
6.410	46.77	TIPG	San Jose, Costa Rica
6.420	46.70	HI1S	Puerto Plata, D. R.
6.425	46.66	W2XGB	Hicksville, N. Y.
		W3XL	Bound Brook, N. J.
		W9XF	Chicago, Ill.
		W9XBS	Chicago, Ill.
6.446	46.50	HJ1ABB	Barranquilla, Colombia
6.450	46.48	HJ4ABC	Ibague, Colombia
6.480	46.27	HI4V	Trujillo, D. R.
6.500	46.13	HIL	Trujillo, D. R.
		HI4D	Trujillo, D. R.
6.520	45.98	YV6RV	Valencia, Venezuela
6.545	45.81	YV11RB	Bolivar, Venez.
6.550	45.76	TIRCC	San Jose, Costa Rica
6.620	45.29	PRADO	Rio Bamba, Ecuador
6.630	45.22	HIT	Trujillo, D. R.
6.650	45.09	HC2RL	Guayaquil, Ecuador
6.662	45.00	WXH	Ketchikan, Alaska
6.672	44.94	YVQ	Maracay, Venezuela
6.700	44.75	TIEP	San Jose, Costa Rica
6.750	44.42	HI3C	La Romana, D. R.
		JVT	Nazaki, Japan
6.755	44.38	WOA	Lawrenceville, N. J.
6.800	44.09	HI7P	Trujillo, D. R.

Megs.	Meters		
6.814	44.00	HIH	San Ped. de Macoris, D.R
6.860	43.71	KEL	Bolinas, Calif.
6.905	43.42	GDS	Rugby, Gt. Britain
7.100	42.23	FO8AA	Papeete, Tahiti
7.220	41.53	VP3BG	Georgetown, Br. Guiana
7.280	41.18	HJ1ABD	Cartagena, Colombia
7.380	40.63	XECR	Mexico City, D. F.
7.520	39.87	KKH	Kahuku, T. H.
7.797	38.47	HBP	Geneva, Switzerland
7.850	38.19	HC2JSB	Guayaquil, Ecuador
7.900	37.95	VE9EW	Toronto, Ont.
7.920	37.86	GDP	Rugby, Gt. Britain
7.960	37.67	VLZ	Sydney, Australia
8.050	37.24	WXA	Juneau, Alaska
8.075	37.13	WEZ	Rocky Point. N. Y.
8.095	37.04	VLK	Sydney, Australia
8.560	35.03	WOO	Ocean Gate, N. J.
8.565	35.00	HAT3	Budapest, Hungary
8.575	34.96	TYD2	Pontoise, France
		YCP	Balikpapan, N.E.I.
8.590	34.90	YNVA	Managua, Nicaragua
8.620	34.78	WVD	Seattle, Wash.
8.665	34.60	CO9JQ	Camaguey, Cuba
8.680	34.54	GBC	Rugby, Gt. Britain
8.690	34.50	VWZ	Kirkee, India
8.750	34.26	ZBW	Hong Kong
8.900	36.50	HCJB	Quito, Ecuador
9.010	33.28	KEJ	Bolinas, Calif.
9.020	33.24	GCS	Rugby, Gt. Britain
9.045	33.15	VWY	Kirkee, India
9.125	32.86	HAT4	Budapest, Hungary
9.168	32.70	YVR	Maracay, Venezuela
9.280	32.31	GCB	Rugby, Gt. Britain
9.415	31.84	PLV	Bandoeng, N. E. I.
9.428	31.80	COCH	Havana, Cuba
9.448	31.74	WES	Rocky Point, N. Y.
9.450	31.73	TG1X	Guatemala City, Guat.
9.460	31.69	XGOX	Nanking, China
		WKJ	New Brunswick, N. J.
9.470	31.66	WET	Rocky Point, N. Y.
9.480	31.63	KES	Bolinas, Calif.
9.490	31.59	OXY	Copenhagen, Denmark
		VK3ME	Melbourne, Australia
9.500	31.56	HJ1ABE	Cartagena, Colombia
9.505	31.54	XEFT	Veracruz, Ver.
		PRF5	Rio de Janeiro, Brazil
9.510	31.53	GSB	Daventry, Gt. Britain
		HJU	Buenaventura, Colombia
9.520	31.49	RAN	Moscow, USSR.
		XEDQ	Guadalajara, Jal.
9.530	31.46	W2XAF	Schenectady, N. Y.
9.540	31.43	DJN	Zeesen, Germany
		LKJ1	Jeloy, Norway
		VPD2	Suva, Fiji
9.560	31.56	DJA	Zeesen, Germany
9.570	31.33	W1XK	Boston, Mass.
9.575	31.31	HJ2ABC	Cucuta, Colombia
9.580	31.30	GSC	Daventry, Gt. Britain
		3LR	Melbourne, Australia
9.585	31.28	VK2ME	Sydney, Australia
9.590	31.26	PCJ	Hilversum, Netherlands
		VK6ME	Perth, Australia
		W3XAU	Philadelphia, Pa.

SHORT WAVE STATIONS BY FREQUENCIES

Megs.	Meters		
9.595	31.25	HBL	Geneva, Switzerland
9.600	31.23	CB960	Santiago, Chile
9.605	31.21	HP5J	Panama City, Panama
9.615	31.18	HJ1ABP	Cartagena, Colombia
9.617	31.18	HH3W	Port-au-Prince, Haiti
9.635	31.12	I2RO	Rome, Italy
9.640	31.10	YDB	Sourabaya, Java
9.650	31.07	CT1AA	Lisbon, Portugal
9.660	31.03	LRX	Buenos Aires, Argentina
9.670	31.01	TI4NRH	Heredia, Costa Rica
9.675	30.99	DZA	Zeesen, Germany
9.700	30.91	CQN	Macau
9.755	30.74	COCQ	Havana, Cuba
9.862	30.40	EAQ	Madrid, Spain
9.870	30.38	WON	Lawrenceville, N. J.
9.895	30.30	LSN	Buenos Aires, Argentina
9.950	30.13	GCU	Rugby, Gt. Britain
9.990	30.01	KAZ	Manila, P. I.
10.000	29.98	WWV	Beltsville, Md.
10.040	29.86	HII	Trujillo, D. R.
10.042	29.85	DZB	Zeesen, Germany
10.055	29.82	SUV ZFB	Cairo, Egypt Hamilton, Bermuda
10.135	29.58	OPM	Leopoldville, Bel. Congo
10.160	29.51	RIO	Baku, USSR.
10.220	29.34	PSH	Rio de Janeiro, Brazil
10.250	29.25	LSL	Buenos Aires, Argentina
10.260	29.22	PMN	Bandoeng, N. E. I.
10.285	29.15	DZC	Zeesen, Germany
10.290	29.14	HPC	Panama City, Panama
10.330	29.02	ORK	Brussels, Belgium
10.335	29.01	ZFD	St. George, Bermuda
10.610	28.25	WEA	Rocky Point, N. Y.
10.660	28.13	JVN	Nazaki, Japan
10.670	28.10	CEC	Santiago, Chile
10.740	27.92	JVM	Nazaki, Japan
10.770	27.84	GCP	Rugby, Gt. Britain
10.840	27.66	KWV	Dixon, Calif.
10.955	27.37	HS8PJ	Bangkok, Siam
11.000	27.26	PLP	Bandoeng, N. E. I.
11.290	26.56	HIN	Trujillo, D. R.
11.490	26.09	PLO	Bandoeng, N. E. I.
11.595	25.86	VRR4	Stoney Hill, Jamaica
11.650	25.73	COCX	Havana, Cuba
11.715	25.59	TPA4	Pontoise, France
11.720	25.58	CJRX	Winnipeg, Man.
11.750	25.52	GSD	Daventry, Gt. Britain
11.760	25.50	.....	Prague, Czechoslovakia
11.770	25.47	DJD	Zeesen, Germany
11.790	25.43	W1XAL	Boston, Mass.
11.795	25.42	DJO	Zeesen, Germany
11.810	25.39	I2RO	Rome, Italy
11.820	25.37	GSN	Daventry, Gt. Britain
11.830	25.34	W2XE W9XAA	Wayne, N. J. Chicago, Ill.
11.855	25.29	DJP	Zeesen, Germany
11.860	25.28	GSE	Daventry, Gt. Britain
11.870	25.25	W8XK	Pittsburgh, Pa.
11.880	25.24	TPA3	Pontoise, France

Megs.	Meters		
12.000	24.99	RNE	Moscow USSR.
12.225	24.53	TFJ	Reykjavik, Iceland
12.290	24.49	GBU	Rugby, Gt. Britain
12.830	23.36	CNR	Rabat, Morocco
12.840	23.35	WOO	Ocean Gate, N. J.
13.075	22.93	VPD	Suva, Fiji
13.380	22.41	IDU	Asmara, Eritrea
13.410	22.36	WCT	San Juan, Puerto Rico
13.585	22.05	GBB	Rugby, Gt. Britain
13.880	21.60	VJZ	Raboul, New Guinea
13.990	21.43	GBA2	Rugby, Gt. Britain
14.440	20.76	GBW	Rugby, Gt. Britain
14.590	20.55	WMN	Lawrenceville, N. J.
14.640	20.48	JVH	Nazaki, Japan
14.960	20.04	YSL	San Salvador, El Salv.
14.970	20.03	LZA	Sofia, Bulgaria
15.000	19.99	WWV	Beltsville, Md.
15.055	19.91	WNC	Hialeah, Fla.
15.090	19.87	RKI	Moscow, USSR.
15.120	19.83	HVJ	Vatican City
15.140	19.80	GSF	Daventry, Gt. Britain
15.175	19.76	RV96	Moscow, USSR.
15.180	19.75	GSO	Daventry, Gt. Britain
15.200	19.73	DJB	Zeesen, Germany
15.210	19.71	W8XK	Pittsburgh, Pa.
15.220	19.70	PCJ	Hilversum, Netherlands
15.230	19.69	.....	Praque, Czechoslovakia
15.245	19.67	TPA2	Pontoise, France
15.260	19.65	GSI	Daventry, Gt. Britain
15.270	19.64	W2XE	New York N. Y.
15.290	19.61	LRU	Buenos Aires, Argentina
15.310	19.58	GSP	Daventry, Gt. Britain
15.330	19.56	W2XAD	Schenectady, N. Y.
15.340	19.55	DJR	Berlin, Germany
15.355	19.52	KWU	Dixon, Calif.
15.360	19.52	DZG	Zeesen, Germany
15.370	19.51	HAS3	Budapest, Hungary
15.415	19.45	KWO	Dixon, Calif.
16.140	18.58	GBX	Rugby, Gt. Britain
17.080	17.55	GBC	Rugby, Gt. Britain
17.120	17.51	WOO	Ocean Gate, N. J.
17.310	17.32	W3XL	Bound Brook, N. J.
17.480	17.15	VWY2	Kirkee, India
17.760	16.88	W2XE	New York, N. Y.
17.775	16.87	PHI	Hilversum, Netherlands
17.780	16.86	W3XAL	Bound Brook, N. J.
17.790	16.85	GSG	Daventry, Gt. Britain
18.310	16.40	GAS	Rugby, Gt. Britain
18.350	16.34	WLA	Lawrenceville, N. J.
18.620	16.10	GAU	Rugby, Gt. Britain
18.670	16.06	OCI	Lima, Peru
18.830	15.92	PLE	Bandoeng, N. E. I.
19.480	15.39	GAD	Rugby, Gt. Britain
19.630	15.27	VQG	Nairobi, Kenya
19.650	15.26	LSN5	Buenos Aires, Argentina
20.380	14.71	GAA	Rugby, Gt. Britain
21.470	13.96	GSH	Daventry, Gt. Britain
21.520	13.93	W2XE	New York, N. Y.
21.530	13.93	GSJ	Daventry, Gt. Britain
21.540	13.92	W8XK	Pittsburgh, Pa.
26.100	11.49	GSK	Daventry, Gt. Britain

ARGENTINA (LOA-LVZ)

Buenos Aires
LRU 15.290
LRX 9.660
LSL 10.250
LSN 9.895
LSN 14.480
LSN5 19.650

AUSTRALIA (VHA-VMZ)

Melbourne
VK3LR 9.580
VK3ME 9.490
Perth
VK6ME 9.590
Sydney
VK2ME 9.585
VLK 8.095
VLZ 7.960

BAHAMAS (ZF-)

Nassau
ZFS 4.512

BELGIAN CONGO (OP-)

Leopoldville
OPM 10.135

BELGIUM (ONA-OTZ)

Brussels
ORK 10.330

BERMUDA (ZF-)

Hamilton
ZFA 5.025
ZFB 10.055
St. George
ZFD 10.335

BRAZIL (PPA-PYZ)

Rio de Janeiro
PRF5 9.500
PSH 10.220

BRITISH GUIANA

Georgetown
VP3BG 7.220

BULGARIA (LZA-LZZ)

Sofia
LZA 14.970

CANADA (CFA-CKZ; CYA-CZZ; VAA-VGZ; VXA-VYZ)

BRITISH COLUMBIA

Prince Rupert
CZG 2.416
Rossland
CFU 4.755
Vancouver
CGZ 2.342
VDO 4.865
VE9BK 4.795

MANITOBA

Winnipeg
CJRO 6.150
CJRX 11.720
VYW 2.396

NEW BRUNSWICK

St. John
CJW 2.390

NOVA SCOTIA

Halifax
VE9HX 6.130
Sydney
CJCX 6.010

ONTARIO

Hamilton
CZ6F 1.710
Toronto
CFRX 6.070
CRCX 6.090
CYQ 2.318
VE9EW 7.900

QUEBEC

Montreal
CFCX 6.005
VYR 1.712
Verdun
CJZ 2.390

CHILE (CAA-CEZ)

Santiago
CB615 6.150
CB960 9.600
CEC 5.820
CEC 10.670

CHINA (XGA-XUZ)

Nanking
XGOX 9.460

COLOMBIA (HJA-HKZ)

Barranquilla
HJ1ABB 6.447
HJ1ABG 6.042
Bogota
HJN 5.950
HJ3ABD 6.055
HJ3ABF 6.170
HJ3ABH 6.012
HJ3ABX 6.122
Bucaramanga
HJ2ABD 5.980
Buenaventura
HJU 9.510
Cali
HJ5ABD 6.085
Cartagena
HJ1ABD 7.280
HJ1ABE 9.500
HJ1ABP 9.615
Cienaga
HJ1ABH 6.300
Cucuta
HJ2ABC 9.575
Ibague
HJ4ABC 6.450
Manizales
HJ4ABB 6.110
HJ4ABL 6.100
Medellin
HJ4ABD 5.760
HJ4ABE 6.092
HJ4ABP 6.135
Quibdo
HJ1ABC 6.010
Santa Marta
HJ1ABJ 6.025
Tunja
HJ2ABA 6.170

COSTA RICA (TIA-TIZ)

Heredia
TI4NRH 9.670
San Jose
TIEP 6.700
TIGPH 5.820
TIPG 6.410
TIRCC 6.550
San Ramon
TI5HH 5.520

CUBA (CLA-CMZ; COA-COZ)

Camaguey
CO9JQ 8.665
Havana
COCD 6.130
COCH 9.428
COCO 6.010
COCQ 9.755
COCX 11.650
COL2 1.712
Sanctl Spiritus
CO9WR 6.280
Santiago
COKG 6.155

CZECHO-SLOVAKIA

Prague
..... 6.115
..... 11.760
..... 15.230

DENMARK (OUA-OZZ)

Copenhagen
OXY 9.490

DOMINICAN REPUBLIC (HIA-HIZ)

La Romana
HI3C 6.750
Puerto Plata
HI1S 6.420
San Pedro de Macoris
HIH 6.814
HI1J 5.865
Santiago de Los Caballeros
HI-1-A 6.185
HI3U 6.014
HI5N 6.150
HI9B 6.045
Trujillo
HIG 6.280
HII 10.040
HIL 6.500
HIN 6.243
HIN 11.290
HIT 6.630
HIX 6.150
HIZ 6.315
HI4D 6.500
HI4V 6.480
HI7P 6.800

ECUADOR (HCA-HCZ)

Guayaquil
HC2ET 4.600
HC2JSB 7.850
HC2RL 6.650
Quito
HCJB 8.900
HCK 5.885
Riobamba
PRADO 6.620

EGYPT (STA-SUZ)

Cairo
SUV 10.055

EL SALVADOR

San Salvador
YSL 14.960

ERITREA

Asmara
IDU 13.380

FIJI (VPA-VSZ)

Suva
VPD 13.075
VPD2 9.540

FRANCE (F; TYA-TZZ)

Pontoise
TPA2 15.245
TPA3 11.880
TPA4 11.715
TYD2 8.575

GERMANY (D)

Zeesen
DJA 9.560
DJB 15.200
DJC 6.020
DJD 11.770
DJM 6.080
DJN 9.540
DJO 11.795
DJP 11.855
DJQ 15.280
DJR 15.340
DZA 9.675
DZB 10.042
DZC 10.285
DZG 15.360

GREAT BRITAIN (G; M)

Daventry
GSA 6.050
GSB 9.510
GSC 9.580
GSD 11.750
GSE 11.860
GSF 15.140
GSG 17.790
GSH 21.470
GSI 15.260
GSJ 21.530
GSK 26.100
GSL 6.110
GSN 11.820
GSO 15.180
GSP 15.310
Rugby
GAA 20.380
GAD 19.480
GAS 18.310
GAU 18.620
GBA2 13.990
GBB 13.585
GBC 8.680
GBC 17.080
GBU 12.290
GBW 14.440
GBX 16.140
GCB 9.280
GCP 10.770
GCS 9.020
GCU 9.950
GDP 7.920
GDS 6.905
GDW 4.820

GUATEMALA (TGA-TGZ)

Guatemala City
TGS 5.710
TGWA 6.000
TGXA 6.130
TG1X 9.450
TG2X 5.940

HAITI

Port au Prince
HH2S 5.915
HH3W 9.617

HONDURAS (HRA-HRZ)

La Ceiba
HRD 6.235
San Pedro Sula
HRP1 6.356
Tegucigalpa
HRN 5.875

HONKONG (Z)

Honkong
ZBW 8.750

HUNGARY (HAA-HAZ)

Budapest
HAS3 15.370
HAT3 8.565
HAT4 9.125

ICELAND (TFA-TFZ)

Reykjavik
TFJ 12.225

INDIA (VTA-VWZ)

VWY 9.045
VWY2 17.480
VWZ 8.690

ITALY (I)

I2RO 9.635
I2RO 11.810

JAMAICA

Stoney Hill
VRR4 11.595

JAPAN (J)

Nazaki
JVM 10.740
JVN 10.660
JVT 6.750
JVU 5.790
JVV 5.730

KENYA (VQ7-)

Nairobi
VQG 19.630

MACAU

Macau
CQN 9.700

MANCHUKUO (J)

Shinkio
TDD 5.830

MEXICO (XAA-XFZ)

Guadaljara
XEDQ 9.520
Mexico City
XEBT 6.000
XECR 7.380
XEWI 5.985
XEXA 6.182
Tijuana
XEOK 6.130
Veracruz
XEFT 9.505
XEUW 6.020

MOROCCO

Rabat
CNR 12.830

NETHERLANDS (PAA-PIZ)

Hilversum
PCJ 9.590
PCJ 15.220
PHI 17.775

NETHERLAND EAST INDIES (PKA-POZ; YBA-YHZ)

Balikpapan
YCP 8.575
Bandoeng
PLE 18.830
PLO 11.490
PLP 11.000
PLV 9.415
PMN 10.260
YDA5 6.120
Sourabaya
YDB 9.640
Tandjongpriok
YDA 3.040
YDA 6.040

NEW GUINEA

Raboul
VJZ 13.880

NICARAGUA (YNA-YNZ)

Managua
YNLF 5.950
YNVA 8.590

NORWAY (LAA-LNZ)

Jeloy
LKJ1 9.540

PANAMA (HPA-HPZ)

Colon
HP5F 6.080
HP5K 6.005
Panama City
HP5B 6.030
HP5J 9.605

PERU (OAA-OCZ)

Lima
OAX4D 5.780
OAX4G 6.230
OCI 18.670

PHILIPPINE ISLANDS (K)

Manila
KAZ 9.990

PORTUGAL (CSA-CUZ)

Lisbon
CT1AA 9.650

SIAM (HSA-HSZ)

Bangkok
HS8PJ 10.955

SPAIN (EAA-EHZ)

Madrid
EAQ 9.862

STRAITS SETTLEMENTS

Singapore
ZHI 6.018

SWITZERLAND (HBA-HBZ)

Geneva
HBL 9.595
HBP 7.797

TAHITI

Papeete
FO8AA 7.100

TAIWAN (J)

Taihoku
JIC 5.890

UNION OF SOCIALIST SOVIET REPUBLICS (R; U)

Baku
RIO 10.160
Khabarovsk
RV15 4.273
Moscow
RAN 9.520
RKI 15.090
RNE 12.000
RV96 15.175

UNITED STATES (K; N; W)

ALABAMA

Birmingham
WPFM 2.382
Mobile
WPGW 2.382

ALASKA

Akutan
KHW 2.912
KIOI 2.632
Anchorage
WXE 2.998
Angoon
KAED 2.616
KAED 3.093
Cape Pole
KIJB 2.994
Circle
KIIK 2.994
KIKK 3.190
Cordova
KILD 2.538
Deep Cove
KHP 1.622
Eagle
KIIN 2.994
Excursion Inlet
KILY 2.994
Fort Yukon
KIIL 2.994
Hidden Inlet
KIDE 3.265
KLD 2.566
Hot Springs
KIIM 2.994
Hydaburg
KAEB 2.616
Iron Creek
KIOH 2.632
Jack Wade
KAEF 2.616
Juneau
WXA 8.050
Kadiak Island
KIJX 2.632
Kake
KIBA 3.093
KLC 2.512
Ketchikan
KGM 2.512
KIAY 3.093
WXH 2.604
WXH 6.662
Luckyshot
KIIP 3.100
McGrath
KIIO 2.994
Nakeen
KHV 2.566
KICE 3.265
Nellie Juan
KIOD 2.632
Newport Walter
KIJS 1.622
Pillar Bay
KNBZ 2.994
Poorman
KIEJ 2.994
Port Alexander
KDH 2.538
KGXW 1.606
Port Althorp
KIAW 3.093
KLB 2.512
Port Armstrong
KGXU 1.622
Port Conclusion
KIJI 1.622
Port Herbert
KIJO 1.622
Port Hobron
KHZ 2.912
KIMA 2.632
Port San Juan
KIJR 2.986
P. Wakefield
KIOC 2.632
Red Bluff
KIOG 1.622
Rose Inlet
KIAP 3.093
KLE 2.512
Shearwater Bay
KIJW 2.632
Tanana
KIIJ 3.190
Tenakee
KAEP 2.616
Tin City
KION 2.616
Todd
KIJU 2.986
Uganik
KIJP 2.986
Union Bay
KFF 2.566
KICG 3.265
View Cove
KICI 3.093
Washington Bay
KIJK 1.622
Waterfall
KIBZ 3.265
KLA 2.566
Wrangell
KDK 2.538

ARIZONA

Phoenix
KNGG 1.698
KGZJ 2.430
Prescott
KNHG 2.430

ARKANSAS

Fort Smith
KNHE 2.406
Little Rock
KGHZ 2.406

CALIFORNIA

Bakersfield
KACS 2.414
KGPS 2.414
Berkeley
KSW 1.658
Bolinas
KEE 7.715
KEJ 9.010
KEL 6.860
KES 9.480
Compton
KNFM 2.490
Dixon
KWN 21.060
KWO 15.415
KWU 15.355
KWV 10.840
El Centro
KNGJ 2.490
Eureka
KACI 2.422
Fresno
KGZA 2.414
Lodi
KNGY 2.414
Los Angeles
KGPL 1.712
Palo Alto
KGHK 1.674
Pasadena
KGJX 1.712
Pomona
KNFJ 1.712
Sacramento
KNGF 2.422
San Bernardino
KGZY 1.712
San Buenaventura
KACN 2.414
San Diego
KGZD 2.490
San Francisco
KGPD 2.466
San Jose
KGPM 2.466
Santa Ana
KGHX 2.490
Santa Barbara
KGZO 2.414
Santa Cruz
KGZT 1.674
Tracy
KACO 2.414
Tulare
WPDA 2.414
Vallejo
KGPG 2.422
Whittier
KGHY 1.712

COLORADO

Denver
KGPX 2.442

CONNECTICUT

Bridgeport
WPFW 2.466
New Haven
WQFA 2.466
New London
WAKB 2.466

DISTRICT OF COLUMBIA

Washington
WPDW 2.422

FLORIDA

Clearwater
WAKG 2.466
WQFK 2.466
Dinsmore
WANB 2.726
Duval County
WAKJ 1.698
Ft. Lauderdale
WAKO 2.442
Gainesville
WQFC 2.466
Hialeah
WND 4.098
WNC 15.055
Jacksonville
WPFG 2.442
Lakeland
WPFT 2.442
Miami
WPFZ 2.442
W4XB 6.040
Orlando
WPHM 2.442
Palm Beach
WPFX 2.442
Tampa
WPHN 2.466

GEORGIA

Atlanta
WPDY 2.414
Augusta
WQFV 2.414
Columbus
WPFI 2.414
La Grange
WPGM 2.414
Macon
WQFB 2.414

HAWAII

Honolulu
KGPQ 1.712
Kahuku
KKH 7.520

IDAHO

Idaho Falls
KNFB 2.458

ILLINOIS

Chicago
WPDB 1.712
WPDC 1.712
WPDD 1.712
WQPC 1.610
W9XAA 6.080
W9XAA 11.830
W9XBS 6.425
W9XF 6.100
W9XF 6.425
DeQuoin
WQPD 1.610
Effingham
WQPF 1.610
Highland Park
WPFD 2.430
Macomb
WQPM 1.610
Oak Park
WQFL 1.712
Ottawa
WQFZ 2.458
Pontiac
WQPP 1.610
Rockford
WPGD 2.458
Sterling
WQPG 1.610
Springfield
WQPS 1.610
Waukegan
WQFX 1.712

SHORT WAVE STATIONS BY LOCATIONS

INDIANA

Columbia City
WQFW 1.634

Culver
WPHS 1.634

Fort Wayne
WPDZ 2.490

Frankfort
WAKK 2.490

Huntington
WAKA 2.490

Indianapolis
WMDZ 2.442

Jasper
WPHU 1.634

Kokomo
WPDT 2.490

Lafayette
WQFQ 2.442

Marion
..... 2.490

Marion County
WPHE 1.634

Muncie
WPGP 2.442

Richmond
WPDH 2.442

Seymour
WQFE 1.634

South Bend
WPGN 2.490

IOWA

Atlantic
KACD 1.682

Cedar Rapids
KGOZ 2.466

Davenport
KGPN 2.466

Des Moines
KGHO 1.682
KGZG 2.466

Fairfield
KACC 1.682

Sioux City
KGPK 2.466

Storm Lake
KNFO 1.682

Waterloo
KNFN 1.682

KANSAS

Atchison
KACA 2.422

Chanute
KGZF 2.450

Coffeyville
KGZP 2.450

Dodge City
KNGH 2.474

Eldorado
KAPD 2.450

Garden City
KNFH 2.474

Hutchinson
KGHN 2.450

Salina
KNGV 2.422

Topeka
KGZC 2.422

Wichita
KGPZ 2.450

KENTUCKY

Lexington
WPET 1.706

Louisville
WPDE 2.442

LOUISIANA

New Orleans
WPEK 2.430

Shreveport
KGZL 1.712
KNGP 2.430

MAINE

Portland
WPFU 2.422

MARYLAND

Baltimore
WPFH 2.414

Beltsville
WWV 5.000
WWV 10.000
WWV 15.000

MASSACHUSETTS

Arlington
WPED 1.712

Boston
WPGV 1.712
W1XAL 6.040
W1XAL 11.790

Cohasset
WPGU 1.712

Everett
WAKF 1.712

Fairhaven
WPFN 1.712

Fitchburg
WPHA 2.466

Framingham
WMP 1.666

Marshfield
WOU 2.506

Medford
WPHG 1.712

Millis
W1XK 9.570

Newton
WPFA 1.712

Northampton
WPEW 1.666

Somerville
WPEH 1.712

W. Bridgewater
WPEL 1.666

Worcester
WPGX 2.466

MICHIGAN

Bay City
WPGA 2.466

Detroit
WCK 2.414
WPDX 2.414

E. Lansing
WRDS 1.642

Flint
WPDF 2.442

Grand Rapids
WPEB 2.442

Grosse Pointe
WRDR 2.414

Highland Park
WMO 2.414

Jackson
WPHP 2.466

Lansing
WPDL 2.442

Manitou Island
WWAJ 3.410

Marquette
WWM 3.410

Muskegon
WPFC 2.442

Passage Island
WWAL 3.410

Poe Reef
WRJ 3.410

Port Huron
WPGB 2.466

Rock of Ages
WWAM 3.410

Saginaw
WPES 2.442

Sault Ste. Marie
NOR 2.670
NOR 2.698

Selfridge Field
VK1 6.425

MINNESOTA

Duluth
KNFE 2.382

Minneapolis
KGPB 2.430

Redwood Falls
KNHD 1.658

St. Paul
WPDS 2.430

MISSOURI

Jefferson
KIUK 1.674

Kansas City
KGPE 2.422

St. Louis
KGPC 1.706

NEBRASKA

Lincoln
KGZU 2.490

Norfolk
KNGN 2.490

Omaha
KGPI 2.466

NEVADA

Las Vegas
KGHG 2.474

Reno
KGHM 2.474

NEW HAMPSHIRE

Nashua
WPHB 2.422

NEW JERSEY

Bloomfield
WAKH 2.430

Bound Brook
W3XAL 6.100
W3XAL 17.780
W3XL 6.425
W3XL 17.310

Freehold
WAKC 2.366

Hackensack
WPFK 2.430

Lawrenceville
WKF 4.253
WKF 19.220
WLA 18.350
WMN 14.590
WOA 6.755
WON 9.870

New Brunswick
WKJ 9.460

Ocean Gate
WOO 4.178
WOO 4.753
WOO 8.560
WOO 12.840
WOO 17.120

Passaic
WPDJ 2.414

Wayne
W2XE 6.120
W2XE 11.830
W2XE 15.270
W2XE 17.760
W2XE 21.520

NEW MEXICO

Albuquerque
KGZX 2.414

Clovis
KNFA 2.414

Santa Fe
KGPF 2.414

NEW YORK

Albany
WPGH 2.414

Auburn
WPDN 2.382

Binghamton
WPGL 2.442

Bronx
WPEF 2.450

Brooklyn
WPEE 2.450

Buffalo
WMJ 2.422

Herkimer
..... 2.414

Hicksville
W2XGB 6.425

Huntington
WPGO 2.490

Mineola
WPGS 2.490

New York
WPEG 2.450

Niagara Falls
WNFP 2.422

Oneonta
WQFJ 2.414

Rochester
WPDR 2.422

Rocky Point
WEA 10.610
WES 9.448
WET 9.470
WEZ 8.075

Schenectady
W2XAD 15.330
W2XAF 9.530

S. Schenectady
WPGC 1.658

Syracuse
WPEA 2.382

Utica
WPGJ 2.414

Yonkers
WPFY 2.442

NORTH CAROLINA

Asheville
WPFS 2.458
WPFS 2.474

Charlotte
WPDV 2.458

NORTH DAKOTA

Fargo
KNHM 2.442

OHIO

Akron
WPDO 2.458

Cincinnati
WKDU 1.706
W8XAL 6.060

Cleveland
WRBH 2.458

Columbus
WPDI 2.430
WPGQ 1.596

Dayton
WPDM 2.430

Findlay
WPGG 1.596

Lancaster
WQFO 2.430

Mansfield
WQFY 2.474

Massillon
WPHC 1.596

Portsmouth
WPGI 2.430

Sandusky
WAKI 2.474

Steubenville
WPHD 2.458

Toledo
WRDQ 2.474

Wilmington
WPHK 1.596

Youngstown
WPDG 2.458

Zanesville
WPHO 2.430

OKLAHOMA

Ada
KNHC 2.450

Altus
KACL 2.450

Chickasha
KACF 2.450

Cushing
KAPB 2.450

Drumright
KAPC 2.450

Duncan
KNGK 2.450

Lawton
KGHP 2.450

Muskogee
KNGT 2.450

Norman
KAPE 2.450

Oklahoma City
KGPH 2.450

Okmulgee
KAPF 2.450

Ponca City
KACP 2.450

Seminole
KACR 2.450

Tulsa
KGPO 2.450

OREGON

Klamath Falls
KGZH 2.442

Portland
KGPP 2.442

Salem
KGZR 2.442

PENNSYLVANIA

Harrisburg
WPSP 1.674

Monessen
WQFF 2.482

New Castle
WPGT 2.482

Oil City
WPHZ 2.482

Philadelphia
WPDP 2.474
W3XAU 6.060
W3XAU 9.590

Pittsburgh
WPDU 1.712
W8XK 6.140
W8XK 11.870
W8XK 15.210
W8XK 21.540

Reading
WPFE 2.442

Sharon
WQFU 2.482

Swarthmore
WPFQ 2.474

Wilkes-Barre
WQFM 2.442

SHORT WAVE STATIONS BY LOCATIONS

PUERTO RICO

San Juan
WCT 13.410

RHODE ISLAND

Cranston
WPGK 2.466
E. Providence
WPEI 1.712
Pawtucket
WPFV 2.466
Providence
WPGF 1.712
Woonsocket
WPEM 2.466

SOUTH CAROLINA

Charleston
WCPD 2.430

SOUTH DAKOTA

Huron
..... 2.450
Rapid City
KNGM 2.450

TENNESSEE

Elizabethton
WPHY 2.474
Johnson City
WPGZ 2.474
Knoxville
WPFO 2.474
Memphis
WPEC 2.466
Nashville
..... 1.666

TEXAS

Austin
KGHU 2.442
Beaumont
KGPJ 1.712
Big Spring
KACM 2.458
Brownsville
KGHT 2.382
Brownwood
KNGW 2.458
Cleburne
KNGE 1.712
Corpus Christi
KGHV 2.382
Dallas
KVP 1.712
Denton
KNHF 1.712
El Paso
KGZM 2.414
Fort Worth
KGPR 1.712
Galveston
KNGL 1.712
Gladewater
KACU 1.712
Houston
KGZB 1.712
Lubbock
KGZW 2.458
San Antonio
KGZE 2.482
Waco
KGZQ 1.712
Wichita Falls
KGZI 2.458

UTAH

Salt Lake City
KGPW 2.406

VIRGINIA

Lynchburg
WQFH 2.450
Petersburg
WQFI 2.450
Richmond
WPHF 2.450
Roanoke
WQFG 2.450

WASHINGTON

Aberdeen
KGZV 2.414
Bellingham
KACK 2.414
KNFK 2.490
Centralia
KGHW 2.414
Ellenburg
KNFX 2.490
Ephrata
KNGZ 2.490
Everett
KNFP 2.414
Kalaloch
KACQ 2.490
Mt. Vernon
KNFI 2.414
Olympia
KACE 2.414
KNFG 2.490
Seattle
KGPA 2.414
WVD 2.604
WVD 8.620
Spokane
KGHS 2.414
KNGR 2.490
Tacoma
KGZN 2.414
Vancouver
KNGC 2.490
Walla Walla
KACV 2.414
KNGD 2.490
Wenatchee
KACJ 2.414
KNGQ 2.490
Yakima
KNGB 2.490
KNGU 2.414

WEST VIRGINIA

Charleston
WPHI 2.490
Clarksburg
WPFP 2.490
Fairmont
WPHJ 2.490
Parkersburg
WPHQ 2.490

WISCONSIN

Green Bay
KNHB 2.382
Kenosha
WPEP 2.450
Milwaukee
WPDK 2.450
Oshkosh
WAKE 2.382

VATICAN STATE (HVA-HVZ)

Vatican City
HVJ 15.120

VENEZUELA (YVA-YWZ)

Barquisimeto
YV8RB 5.895
Bolivar
YV11RB 6.545
Caracas
YV2RC 5.800
YV3RC 6.165
YV4RC 6.375
YV9RC 6.400
Maracaibo
YV5RMO 5.850
YV7RMO 5.810
Maracay
YVQ 6.672
YVR 9.168
YV12RM 6.300
San Cristobal
YV10RSC 5.720
Valencia
YV6RV 6.520

YUGO SLAVIA

Belgrade
..... 6.100

Numerous improvements in broadcasting in France are expected soon. First, the French Government has purchased the privately-owned station "Radio-Paris", but it has been decided to replace this station by a larger one, working on the same wavelength but situated in the center of France. This new station will commence operations in 1937.

The Eiffel Tower station will be transferred to a place outside of Paris because of the Exposition to be held there in 1937. The Lyon Tramoyes station located at Tramoyes (Ain) will replace the Lyon-La Doua station. A new station situated at Muret, the Pyrennees station, with a power of 120 kw. should be conducting its trial broadcasts at the present time. Many of the stations have had their power increased to 100 kw., particularly Marseilles PTT, Strasbourg Brumath, Rennes-Bretagne and Toulouse PTT.

There are 35,700 wireless transmitting stations in the world, but only 7,700 of these broadcast entertainment programs. The remainder are engaged in communication with ships, aircraft, etc.

Rules concerning "emergency" service have been clarified by the FCC. Among the new regulations is one that municipal police stations cannot have power in excess of 500 watts and that the maximum power assigned to state police will be 5000 watts days and 1000 watts nights. A table has been drawn up showing the maximum power to be assigned any police station in accordance with the population of the city. Cities under 100,000 will have to get along with a station of 50 watts or less. For each additional 100,000 persons, 50 watts power can be added, up to 700,000. Above this figure, the maximum power, 500 watts, is granted.

SHORT WAVE STATIONS BY CALLS

CB615	6.150	GSO	15.180	JZG	6.330	KGZI	2.458	KNGD	2.490	VK2ME	9.585	WPEA	2.382
CB960	9.600	GSP	15.310	KACA	2.422	KGZJ	2.430	KNGE	1.712	VK3LR	9.580	WPEB	2.442
CEC	5.820	HAS3	15.370	KACC	1.682	KGZL	1.712	KNGF	2.422	VK3ME	9.490	WPEC	2.466
CEC	10.670	HAT	5.400	KACD	1.682	KGZM	2.414	KNGG	1.698	VK6ME	9.590	WPED	1.712
CFCX	6.005	HAT2	7.220	KACE	2.414	KGZN	2.414	KNGJ	2.490	VLK	8.095	WPEE	2.450
CFRX	6.070	HAT3	8.565	KACF	2.450	KGZO	2.414	KNGK	2.450	VLZ	7.960	WPEF	2.450
CFU	4.755	HAT4	9.125	KACI	2.422	KGZP	2.450	KNGL	1.712	VPD	13.075	WPEG	2.450
CGZ	2.342	HBL	9.595	KACJ	2.414	KGZQ	1.712	KNGM	2.450	VQG	19.630	WPEH	1.712
CJCX	6.010	HBP	7.797	KACK	2.414	KGZR	2.442	KNGN	2.490	VRR4	11.595	WPEI	1.712
CJRO	6.150	HCJB	8.900	KACL	2.450	KGZT	1.674	KNGP	2.430	VWY	9.045	WPEK	2.430
CJRX	11.720	HCK	5.885	KACM	2.458	KGZU	2.490	KNGQ	2.490	VWY2	17.480	WPEL	1.666
CJW	2.390	HC2ET	4.600	KACN	2.414	KGZV	2.414	KNGR	2.490	VWZ	8.690	WPEM	2.466
CJZ	2.390	HC2JSB	7.850	KACO	2.414	KGZW	2.458	KNGT	2.450	VYR	1.712	WPEP	2.450
CNR	12.830	HC2RL	6.650	KACP	2.450	KGZX	2.414	KNGU	2.414	VYW	2.396	WPES	2.442
COCD	6.130	HH2S	5.915	KACQ	2.490	KGZY	1.712	KNGV	2.422	WAKA	2.490	WPET	1.706
COCH	9.428	HH3W	9.617	KACR	2.450	KHV	2.566	KNGW	2.458	WAKB	2.466	WPEV	1.666
COCO	6.010	HIG	6.280	KACS	2.414	KHW	2.912	KNGY	2.414	WAKC	2.366	WPEW	1.666
COCQ	9.755	HIH	6.814	KACU	1.712	KHZ	2.912	KNGZ	2.490	WAKE	2.382	WPFA	1.712
COCX	11.650	HII	10.040	KACV	2.414	KIAP	3.093	KNHB	2.382	WAKF	1.712	WPFC	2.442
COKG	6.155	HIL	6.500	KAEB	2.616	KIAW	3.093	KNHC	2.450	WAKG	2.466	WPFD	2.430
COL2	1.712	HIN	6.243	KAED	2.616	KIAY	3.093	KNHD	1.658	WAKH	2.430	WPFE	2.442
CO9JQ	8.665	HIN	11.290	KAEF	2.616	KIBA	3.093	KNHE	2.406	WAKI	2.474	WPFG	2.442
CO9WR	6.280	HIT	6.630	KAZ	9.990	KIBZ	3.265	KNHF	1.712	WAKJ	1.698	WPFH	2.414
CQN	9.700	HIX	6.150	KDH	2.538	KICE	3.265	KNHG	2.430	WAKK	2.490	WPFI	2.414
CRCX	6.090	HIZ	6.315	KEJ	9.010	KICG	3.265	KNHM	2.442	WAKO	2.442	WPFK	2.430
CSL	6.150	HI1A	6.185	KEL	6.860	KICI	3.093	KSW	1.658	WANB	2.726	WPFM	2.382
CT1AA	9.650	HI1J	5.865	KES	9.480	KIDE	3.265	KVP	1.712	WCK	2.414	WPFN	1.712
CYQ	2.318	HI1S	6.420	KFF	2.566	KIEJ	2.994	KWO	15.415	WCPD	2.430	WPFO	2.474
CZG	2.416	HI3C	6.750	KGHD	2.490	KIIJ	3.190	KWU	15.355	WCT	13.410	WPFP	2.490
CZ6F	1.710	HI3U	6.014	KGHG	2.474	KIIK	2.994	KWV	10.840	WEA	10.610	WPFQ	2.474
DJA	9.560	HI4D	6.500	KGHK	1.674	KIIK	3.190	LKJ1	9.540	WES	9.448	WPFS	2.458
DJB	15.200	HI4V	6.480	KGHM	2.474	KIIL	2.994	LQA	9.600	WET	9.470	WPFS	2.474
DJC	6.020	HI5N	6.150	KGHN	2.450	KIIM	2.994	LRU	15.290	WEZ	8.075	WPFT	2.442
DJD	11.770	HI7P	6.800	KGHO	1.682	KIIN	2.994	LRX	9.660	WKDU	1.706	WPFU	2.422
DJE	17.760	HI9B	6.045	KGHP	2.450	KIIO	2.994	LSL	10.250	WKF	4.253	WPFV	2.466
DJM	6.080	HJN	5.950	KGHS	2.414	KIIP	3.100	LSN	9.895	WKJ	9.460	WPFW	2.466
DJN	9.540	HJP	7.465	KGHT	2.382	KIJB	2.994	LSN5	19.650	WLA	18.350	WPFX	2.442
DJO	11.795	HJU	9.510	KGHU	2.442	KIJI	1.622	LZA	14.970	WMDZ	2.442	WPFY	2.442
DJP	11.855	HJ1ABB	6.447	KGHV	2.382	KIJK	1.622	OAX4D	5.780	WMJ	2.422	WPFZ	2.442
DJR	15.340	HJ1ABC	6.010	KGHW	2.414	KIJO	1.622	OAX4G	6.230	WMN	14.590	WPGA	2.466
DZA	9.675	HJ1ABD	7.280	KGHX	2.490	KIJP	2.986	OCI	18.670	WMO	2.414	WPGB	2.466
DZB	10.042	HJ1ABE	9.500	KGHY	1.712	KIJR	2.986	OPM	10.135	WMP	1.666	WPGC	1.658
DZC	10.285	HJ1ABG	6.042	KGHZ	2.406	KIJS	1.622	ORK	10.330	WNC	15.055	WPGD	2.458
DZE	12.130	HJ1ABH	6.300	KGJX	1.712	KIJU	2.986	OXY	9.490	WND	4.098	WPGF	1.712
DZG	15.360	HJ1ABJ	6.025	KGM	2.512	KIJV	1.622	PCJ	9.590	WNFP	2.422	WPGG	1.596
EAQ	9.862	HJ1ABP	9.615	KGOZ	2.466	KIJW	2.632	PCJ	15.220	WOA	6.755	WPGH	2.414
FO8AA	7.100	HJ2ABA	6.170	KGPA	2.414	KIJX	2.632	PHI	17.775	WON	9.870	WPGI	2.430
GAA	20.380	HJ2ABD	5.980	KGPB	2.430	KILD	2.538	PLE	18.830	WOO	4.178	WPGJ	2.414
GAD	19.480	HJ3ABD	6.055	KGPC	1.706	KILY	2.994	PLV	9.415	WOO	4.753	WPGK	2.466
GAQ	18.970	HJ3ABF	6.170	KGPD	2.466	KIMA	2.632	PMN	10.260	WOO	8.560	WPGL	2.442
GAS	18.310	HJ3ABH	6.012	KGPE	2.422	KIOC	2.632	PRADO	6.620	WOO	12.840	WPGM	2.414
GAU	18.620	HJ4ABB	6.110	KGPF	2.414	KIOD	2.632	PRF5	9.500	WOO	17.120	WPGN	2.490
GBA2	13.990	HJ4ABC	6.450	KGPG	2.422	KIOG	1.622	PSH	10.220	WOU	2.506	WPGO	2.490
GBB	13.585	HJ4ABD	5.760	KGPH	2.450	KIOH	2.632	RIO	10.160	WPDA	2.414	WPGP	2.442
GBC	8.680	HJ4ABE	6.092	KGPI	2.466	KIOI	2.632	RKI	15.040	WPDB	1.712	WPGQ	1.596
GBC	17.080	HJ4ABL	6.100	KGPJ	1.712	KION	2.616	RNE	12.000	WPDC	1.712	WPGS	2.490
GBU	12.290	HJ4ABP	6.135	KGPK	2.466	KKH	7.520	RV15	4.273	WPDD	1.712	WPGT	2.482
GBW	14.440	HJ5ABD	6.085	KGPL	1.712	KLA	2.566	SUV	10.055	WPDE	2.442	WPGV	1.712
GBX	16.140	HKE	7.090	KGPM	2.466	KLB	2.512	TDD	5.830	WPDF	2.442	WPGW	2.382
GCB	9.280	HPC	10.290	KGPN	2.466	KLC	2.512	TFJ	12.225	WPDG	2.458	WPGX	2.466
GCP	10.770	HP5B	6.030	KGPO	2.450	KLD	2.566	TGS	5.710	WPDH	2.442	WPGZ	2.474
GCS	9.020	HP5F	6.080	KGPP	2.442	KLE	2.512	TGWA	6.000	WPDI	2.430	WPHA	2.466
GCU	9.950	HP5J	9.590	KGPQ	1.712	KNBZ	2.994	TGXA	6.130	WPDJ	2.414	WPHB	2.422
GDP	7.920	HP5K	6.005	KGPR	1.712	KNFA	2.414	TG1X	9.450	WPDK	2.450	WPHC	1.596
GDS	6.905	HRD	6.235	KGPS	2.414	KNFB	2.458	TG2X	5.940	WPDL	2.442	WPHD	2.458
GDW	4.820	HRN	5.875	KGPW	2.406	KNFE	2.382	TIEP	6.700	WPDM	2.430	WPHE	1.634
GSA	6.050	HRP1	6.356	KGPX	2.442	KNFG	2.490	TIGPH	5.820	WPDN	2.382	WPHF	2.450
GSB	9.510	HS8PJ	10.955	KGPZ	2.450	KNFH	2.474	TIPG	6.410	WPDO	2.458	WPHG	1.712
GSC	9.580	HVJ	15.120	KGXU	1.622	KNFI	2.414	TIRCC	6.550	WPDP	2.474	WPHI	2.490
GSD	11.750	IDU	13.380	KGXW	1.606	KNFJ	1.712	TI5HH	5.520	WPDR	2.422	WPHJ	2.490
GSE	11.860	I2RO	9.635	KGZA	2.414	KNFK	2.490	TPA2	15.245	WPDS	2.430	WPHK	1.596
GSF	15.140	I2RO	11.810	KGZB	1.712	KNFM	2.490	TPA3	11.880	WPDT	2.490	WPHM	2.442
GSG	17.790	JIC	5.890	KGZC	2.422	KNFN	1.682	TPA4	11.715	WPDU	1.712	WPHN	2.466
GSH	21.470	JVM	10.740	KGZD	2.490	KNFO	1.682	TYD2	8.575	WPDV	2.458	WPHO	2.430
GSI	15.260	JVN	10.660	KGZE	2.482	KNFP	2.414	VDO	4.865	WPDW	2.422	WPHP	2.466
GSJ	21.530	JVT	6.750	KGZF	2.450	KNFX	2.490	VE9BK	4.795	WPDX	2.414	WPHQ	2.490
GSK	26.100	JVU	5.790	KGZG	2.466	KNGB	2.490	VE9EW	7.900	WPDY	2.414	WPHS	1.634
GSL	6.110	JVV	5.730	KGZH	2.442	KNGC	2.490	VJZ	13.880	WPDZ	2.490	WPHU	1.634
GSN	11.820												

SHORT WAVE STATIONS BY CALLS

WPHY	2.474	WQFO	2.430	WQPS	1.610	W1XAL	11.790	W3XL	17.310	XEDQ	9.520	YV2RC	5.800
WPHZ	2.482	WQFQ	2.442	WRBH	2.458	W1XK	9.570	W4XB	6.040	XEFT	6.120	YV3RC	6.165
WPSP	1.674	WQFT	1.596	WRDQ	2.474	W2XAD	15.330	W8XAL	6.060	XEOK	6.130	YV4RC	6.375
WQFA	2.466	WQFT	1.692	WRDR	2.414	W2XAF	9.530	W8XK	6.140	XEUW	6.020	YV5RMO	5.850
WQFB	2.414	WQFV	2.414	WRDS	1.642	W2XE	6.120	W8XK	11.870	XEWI	5.985	YV6RV	6.520
WQFC	2.466	WQFW	1.634	WVD	2.604	W2XE	11.830	W8XK	15.210	XEXA	6.182	YV7RMO	5.810
WQFE	1.634	WQFX	1.712	WVD	8.620	W2XE	15.270	W8XK	21.540	XGOX	9.460	YV8RB	5.895
WQFF	2.482	WQFY	2.474	WWV	5.000	W2XE	17.760	W9XAA	6.080	YCP	8.575	YV9RC	6.400
WQFG	2.450	WQFZ	2.458	WWV	10.000	W2XE	21.520	W9XAA	11.830	YDA	6.040	YV10RS	5.720
WQFH	2.450	WQPC	1.610	WWV	15.000	W2XGB	6.425	W9XBS	6.425	YDA5	6.120	YV11RB	6.545
WQFI	2.450	WQPD	1.610	WXA	8.050	W3XAL	6.100	W9XF	6.100	YNLF	5.950	YV12RM	6.300
WQFJ	2.414	WQPF	1.610	WXE	2.998	W3XAL	17.780	W9XF	6.425	YNVA	8.590	ZBW	8.750
WQFK	2.466	WQPG	1.610	WXH	2.604	W3XAU	6.060	XEBT	6.000	YSL	14.960	ZFA	5.025
WQFL	1.712	WQPM	1.610	WXH	6.662	W3XAU	9.590	XECR	7.380	YVQ	6.672	ZFB	10.055
WQFM	2.442	WQPP	1.610	W1XAL	6.040	W3XL	6.425			YVR	9.168	ZFD	10.335
												ZFS	4.512

Application for change of ownership of WFLA, Clearwater, Fla., has been filed with the FCC. No money will be involved. It is sought to transfer the station from the Clearwater Chamber of Commerce to the Florida West Coast Broadcasting Co., who have agreed to buy the equipment only. The City of St. Petersburg would retain its half interest (WSUN) for its own use.

* * *

In celebration of its 16th anniversary on the air, WWJ of Detroit formally opened its new broadcasting plant this summer. The new installation cost one million dollars, it is reported; it is located across the street on Lafayette Blvd. from the Detroit News Building, and the transmitter is situated at 8-Mile and Meyer Roads. The studio building was designed by Albert Kahn. There are four large studios which may be viewed from observation rooms, and there are numerous smaller studios. In the lobby of the transmitter room, behind a glass partition, WWJ's original transmitter is on display. With this station WWJ commenced regular broadcasting on Aug. 20, 1920.

* * *

With the expiration of the present Don Lee contract with CBS on Dec. 29, it is expected that the Mutual system will extend from Chicago to Los Angeles via Denver. When Mutual takes over the Don Lee stations, KNX in Los Angeles and KSFO in San Francisco will become the CBS outlets in those cities.

* * *

Call letter changes are becoming more numerous. The new Watsonville, Calif. station, not yet on the air, has had two; originally assigned KWAT this has already been changed to KHUB. F. W. Atkinson is the owner of the station which will work with 250 watts on 1310 kcs. WPFB in Hattiesburg, Miss. is now using the sign WFOR. In Rapid City, S. Dak., KBHB, not yet on the air, has already been changed to KOBH.

* * *

WJSV, the CBS station serving Washington, D. C., wishes to move its main studios from Alexandria, Va., across the Potomac from the Capital City, into the city of Washington. If the move is granted they will move into the Earle Building, where their business offices already are located.

* * *

A new local station in Carlsbad, N. Mex. was authorized by the FCC. The station will operate on 1210 kcs. with 100 watts unlimited time. Partners in the organization are Barney Hubbs, A. J. Crawford, Jack Hawkins and Harold Miller, doing business as the Carlsbad Broadcasting Co.

540 kcys. (555.2)

CJRM	ak	1000	F	Moose Jaw, Sask.	—Su. 1400-0100; †0930-0130

550 kcys. (545.1)

CFNB	mk	500	F (1)	Fredericton, N. B.	—Su. 1000-1100; †0700-2300
KFUO	ae	500	2 (1)	St. Louis, Mo.	—Su. 0930-1330; 1600-1730; 2215-2315. †0800-0900; 1030-1045; 1315-1345; 1600-1645; 2300-2400
KFYR	ae	1000	N (5)	Bismarck, N. D.	—Su. 0900-0100; †0800-0100
KOAC	ak	1000	....	Corvallis, Ore.	—†1200-2400
KSD	ak	1000	2R (5)	St. Louis, Mo.	
KTSA	ak	1000	C (5)	San Antonio, Tex.	
WDEV	ae	500	D	Waterbury, Vt.	
WGR	ae	1000	C	Buffalo, N. Y.	—Su. 0900-0100; †0700-2400
WKRC	ak	1000	CX	Cincinnati, Ohio	
WSVA	ak	500	D	Harrisonburg, Va.	

560 kcys. (535.4)

KFDM	ak	500	(1)	Beaumont, Tex.	
KLZ	ae	1000	C (5)	Denver, Colo.	—Su. 0900-0130; †0830-0200
KSFO	ak	1000	....	San Francisco, Cal.	—Su. 1100-0400; †1000-0400
KWTO	ak	5000	D	Springfield, Mo.	
WFIL	ak	1000	B	Philadelphia, Pa.	—Su. 0800-2400; †0700-2400
WIND	ak	1000	(5)	Gary, Ind.	—M. 0600-0200; daily exc. M., 0600-0400
WIS	ae	1000	N (5)	Columbia, S. C.	—Su. 0800-2400; †0700-2400
WQAM	ak	1000	C	Miami, Fla.	—*0700-2400
XEAO	ak	250	(.15)	Mexicali, L. C.	
XEFC	ak	100	....	Merida, Yuc.	

570 kcys. (526.0)

KGKO	ak	250	C (1)	Wichita Falls, Tex.	
KMTR	ak	1000	....	Hollywood, Calif.	
KVI	ak	1000	C	Tacoma, Wash.	
WKBN	ae	500	1C	Youngstown, Ohio	
WMCA	ak	500	X	New York, N. Y.	
WNAX	ak	1000	C (5)	Yankton, S. D.	
WOSU	ak	750	1 (1)	Columbus, Ohio	—M. thru F., 0900-1100; M thru Th., 1300-1500; M., W., 2000-2200; F., 1900-2300; Sa. 1300-2300
WSYR	ak	1000	B	Syracuse, N. Y.	—Su. 0700-2400; †0700-0100
WWNC	ak	1000	N	Asheville, N. C.	—Su. 0800-0100; †0730-0100

580 kcys. (516.9)

CFPR	ak	50	....	Prince Rupert, B.C.	
CHRC	ak	100	F	Quebec, Que.	—Su. 1200-2400; †0800-2400
CKCL	ag	100	F	Toronto, Ont.	—Su. 1000-2230; †0800-2400
CKUA	ak	500	....	Edmonton, Alta.	
KMJ	ak	500	C (1)	Fresno, Calif.	—Su. 1030-0200; †1000-0300
KSAC	ak	500	2 (1)	Manhattan, Kans.	—†1030-1130; 1330-1500; ‡1730-1830
WCHS	ak	500	(1)	Charleston, W. Va.	
WDBO	ak	1000	C	Orlando, Fla.	—Su. 0800-2400; †0700-2400
WIBW	ak	1000	C2 (5)	Topeka, Kans.	
WILL	ak	250	(1)	Urbana, Ill.	—‡0900-1200; 1800-1900; 2300-0100
WTAG	ae	500	RX	Worcester, Mass.	—Sa. 0730-0100; Su. 0900-2400; ‡0730-2400

590 kcys. (508.2)

KHQ	ak	1000	R (2.5)	Spokane, Wash.	
WEEI	ak	1000	RX	Boston, Mass.	
WKZO	ak	1000	D	Kalamazoo, Mich.	—Su. 0815-1815; †0700-1815
WOW	ae	5000	R	Omaha, Nebr.	—W. 0700-0100; daily exc. W., 0700-0330

600 kcys. (499.7)

CFCF	ae	400	FN	Montreal, Que.	
CJOR	ak	500	....	Vancouver, B. C.	—Su. 0900-2315; †0745-0100
CMW	ak	1400	....	Havana, Cuba	
CRCW	ak	500	F (1)	Windsor, Ont.	—Su. 1500-2330; †1630-2330
FQN	z	250	609	St. Pierre, Miq.	

KFSD	ae	1000	B	San Diego, Calif.	
WCAO	ae	500	C (1)	Baltimore, Md.	
WICC	ae	500	C (1)	Bridgeport, Conn.	—Su. 0800-0100; †0700-0100
WMT	ak	1000	B (5)	Cedar Rapids, Ia.	—Su. 0830-0100; †0630-0100
WREC	c	1000	C (5)	Memphis, Tenn.	—Su. 0800-0100; †0730-0100

610 kcys. (491.5)

KFRC	ck	1000	C (5)	San Francisco, Cal.	
WDAF	ak	1000	R (5)	Kansas City, Mo.	—Su. 0800-0100; †0730-0100
WIP	ak	1000	....	Philadelphia, Pa.	—Su. 0900-0100; †0700-0100
WJAY	ae	500	D	Cleveland, Ohio	
XEXM	z	....	....	Mexico City, D. F.	
XFX	ak	1000	....	Mexico City, D. F.	

620 kcys. (483.6)

KGW	ak	1000	R (5)	Portland, Ore.	
KTAR	ae	1000	N	Phoenix, Ariz.	—Su. 1000-0115; †0900-0115
WFLA	ae	1000	Na (5)	Clearwater, Fla.	—Su. 0800-2400; M., W., F., 0700-0100
WHJB	ak	250	D C	Greensburg, Pa.	—Sign off at 1700
WLBZ	ak	500	C (1)	Bangor, Maine	
WSUN	ae	1000	Na (5)	St. Petersburg, Fla.	—Su. 0800-2400; Tu., Th., Sa., 0700-0100
WTMJ	ak	1000	N (5)	Milwaukee, Wis.	—Su. 0830-0100; †0715-0100

630 kcys. (475.9)

CFCO	ak	100	F	Chatham, Ont.	—Su. 0930-1215; 1345-2200; †0800-1330; 1700-2230
CFCY	ae	1000	F	Charlottetown, P.E.I.	—Su. 1000-1200; 1700-2300; †0900-1200; 1600-2300
CJRC	ak	1000	F	Winnipeg, Man.	—*0830-0030
CKOV	ak	100	F	Kelowna, B. C.	—Su. 1330-0130; †1100-1500; 2000-0130
KFRU	ak	500	1 (1)	Columbia, Mo.	—Sa. 0700-2300; Su. 0830-ss; ‡0700-2130
KGFX	ak	200	D	Pierre, S. D.	
WGBF	ak	500	1	Evansville, Ind.	
WMAL	ak	250	B (.5)	Washington, D. C.	—Su. 0800-2400; †0700-0200
WOS	ak	500	1D	Jefferson City, Mo.	
WPRO	ak	500	(1)	Providence, R. I.	—Su. 0800-0100; †0700-0100
XEZ	z	500	....	Merida, Yuc.	

640 kcys. (468.5)

CMBC	dj	150	....	Havana, Cuba	
KFI	ak	50000	R	Los Angeles, Calif.	—*0945-0300
WHKC	ak	500	....	Columbus, Ohio	—Su. 0830-2015; †0630-2015
WOI	ae	5000	D	Ames, Iowa	
WSPG	z	500	P	Portland, Me.	
XEOX	ak	500	....	Saltillo, Coah.	

650 kcys. (461.3)

TIGPH	ak	1000	....	San Jose, C. R.	
WSM	ae	50000	N	Nashville, Tenn.	—Su. 0900-0100; †0730-0100

660 kcys. (454.3)

WAAW	ae	500	D	Omaha, Neb.	—Su. 0900-1800; †0700-ss
WEAF	ak	50000	R	New York, N. Y.	—Su. 0800-0100; †0730-0100

670 kcys. (447.5)

WMAQ	ak	50000	N	Chicago, Ill.	—Su. 0900-0100; †0700-0100

680 kcys. (440.9)

CMCG	ak	1000	....	Havana, Cuba	—*0700-2400
KFEQ	ak	2500	D	St. Joseph, Mo.	
KPO	ak	50000	R	San Francisco, Cal.	—*1100-0300
RDN	z	500	....	San Salvador, E. S.	
VAS	akn	2000	685	Glace Bay, N. S.	
VOWR	ck	500	681	St. John's, Nfld.	
WPTF	ak	1000	N (5)	Raleigh, N. C.	—Su. 0900-2300; †0700-2300

690 kcys. (434.5)

CFRB	ae	10000	C	Toronto, Ont.	—Su. 1030-2400; †0800-2400
CJCJ	ak	100	F	Calgary, Alta.	—Su. 1200-0100; †0930-0100
NAA	akn	1000	....	Arlington, Va.	
XET	ak	500	....	Monterrey, N. L.	

700 kcys. (428.3)

WLW	ak	500000	N	Cincinnati, Ohio	—Su. 0800-0130; †0630-0130

710 kcys. (422.3)

KIRO	ak	1000	....	Seattle, Wash.	—Su. 1000-0400; †0900-0500
KMPC	ak	500	....	Beverly Hills, Cal.	—Su. 1000-ss.; 0030-0400; †0900-ss.; 0030-0400
WOR	ak	50000	....	Newark, N. J.	
XEN	ak	1000	....	Mexico City, D. F.	

720 kcys. (416.4)

WGN	ak	50000	....	Chicago, Ill.	
XEH	ak	250	....	Monterrey, N. L.	—†1000-2100

730 kcys. (410.7)

CFPL	ak	100	F	London, Ont.	
CJCA	ak	1000	F	Edmonton, Alta.	—Sa. 0900-0300; Su. 1100-0100; ‡0900-0200
CKAC	ak	5000	CF	Montreal, Que.	—Su. 0900-0100; †0730-0100
CKPR	ak	100	F	Fort William, Ont.	—Su. 1500-2300; †0900-1400; 1700-2300
CMK	ae	3000	....	Havana, Cuba	
XEBC	z	5000	....	Agua Caliente, L.C.	
XEPN	ak	50000	....	Piedras Negras,Ch.	

740 kcys. (405.2)

KMMJ	ae	1000	D	Clay Center, Neb.	
KTRB	ak	250	D	Modesto, Calif.	—Su. 1130-2030; †0900-2030
WHEB	ak	250	D	Portsmouth, N. H.	
WSB	ae	50000	N	Atlanta, Ga.	—Su. 0755-0100; †0655-0100

750 kcys. (399.8)

CMCW	dk	150	....	Havana, Cuba	
KGU	aj	2500	N	Honolulu, T. H.	
WJR	ak	50000	C	Detroit, Mich.	
XEAM	z	7.5	....	Matamoros, Tams.	

760 kcys. (394.5)

CMHX	ak	200	....	Cienfuegos, Cuba	
KXA	ae	250	(.5)	Seattle, Wash.	
WBAL	ae	2500	BSy	Baltimore, Md.	
WEW	ae	1000	D	St. Louis, Mo.	—Su. 0900-1100; †0800-ss.
WJZ	ak	50000	BSy	New York, N. Y.	—Su. 0800-0100; †0730-0100
XEOK	ak	250	....	Tijuana, L. C.	

770 kcys. (389.4)

CMBS	ak	150	....	Havana, Cuba	
KFAB	ak	10000	CSy	Lincoln, Neb.	—*0700-0100
WBBM	ae	50000	CSy	Chicago, Ill.	

780 kcys. (384.4)

CHWK	dk	100	F	Chilliwack, B. C.	—Su. 1500-0100; †1100-1700; 2000-0115
CKSO	ak	1000	F	Sudbury, Ont.	—Su. 1500-2300; †0900-1400; 1700-2400
CMJK	ak	250	....	Camaguey, Cuba	—Su. 1100-1300; †1100-1400; Sa. 1700-2300; ‡1800-2200
KEHE	ak	500	(1) X	Los Angeles, Calif.	
KFDY	ae	1000	D	Brookings, S. D.	—†1330-1500
KFQD	ck	250	....	Anchorage, Alaska	
KGHL	ak	1000	N (5)	Billings, Mont.	—Su. 1100-0100; †1000-0100
WEAN	ae	500	CX	Providence, R. I.	

WMC	ak	1000	N (5.)	Memphis, Tenn.	—Su. 0800-0100; †0745-0100
WTAR	ae	500	NX (1)	Norfolk, Va.	
XEYZ	z	10000	....	Mexico City, D. F.	

790 kcys. (379.5)

CMGH	z	250	....	Matanzas, Cuba	
KGO	ak	7500	B	San Francisco, Cal.	—Su. 1100-0300; †1000-0300
WGY	ak	50000	R	Schenectady, N. Y.	—Su. 0900-0100; †0700-0100

800 kcys. (374.8)

HIX	ak	700	....	Trujillo, D. R.	
TIX	ak	....	....	San Jose, C. R.	
WBAP	ak	50000	Na	Fort Worth, Tex.	—Su. 1100-1300; 1600-1900; 2300-0130; †0700-0800; 0930-1130; 1330-1600; 1830-1930; M., W., F., 2300-0030; Tu., Th., Sa., 2000-2300
WFAA	ak	50000	Na	Dallas, Tex.	—Su. 0900-1100; 1300-1600; 1900-2200; †0000-0930; 1130-1330; 1600-1830; M., W., F., 1930-2300; Tu., Th., Sa., 1930-2000; 2300-0030
WTBO	ak	250	D	Cumberland, Md.	—Su. 1030-ss.; †0830-ss.

810 kcys. (370.2)

CMCF	ak	600	....	Havana, Cuba	
WCCO	ae	50000	C	Minneapolis, Minn.	—Su. 0900-0100; †0730-0100
WNYC	ak	1000	D	New York, N. Y.	—Su. 0900-1900; †0700-1900
XFC	z	350	....	Aguascalientes, Ags.	

820 kcys. (365.6)

CMHW	ak	100	....	Cienfuegos, Cuba	
WHAS	aj	50000	C	Louisville, Ky.	
XEBZ	ae	100	....	Mexico City, D. F.	—*1430-0400
XEMZ	z	....	....	Coronado Isle, L. C.	

830 kcys. (361.2)

CMJX	z	....	....	Camaguey, Cuba	
KOA	ak	50000	N	Denver, Colo.	—Su. 1000-0300; †0900-0200
WEEU	ak	1000	D	Reading, Pa.	—*0800-1700
WHDH	ae	1000	Dn	Boston, Mass.	
WRUF	ae	5000	Dn	Gainesville, Fla.	—Su. 0800-1830; †0700-1830

840 kcys. (356.9)

CFQC	ak	1000	F	Saskatoon, Sask.	
CRCT	ak	5000	FN	Toronto, Ont.	
VOGY	ak	400	....	St. John's, Nfld.	
XERA	ck	250000	....	Villa Acuna, Coah.	

850 kcys. (352.7)

CMBN	z	150	....	Havana, Cuba	
KIEV	ak	250	D	Glendale, Calif.	
TIEP	z	500	....	San Jose, C. R.	
WESG	ak	1000	C	Elmira, N. Y.	—Su. 0800-1800; †0730-1800
WKAR	ae	1000	D	East Lansing, Mich.	—†0700-1700
WWL	ae	10000	C	New Orleans, La.	—Su. 0900-0100; †0730-0100

860 kcys. (348.6)

WABC	ae	50000	C	New York, N. Y.	—Su. 0800-0100; †0730-0100
WHB	ak	1000	D	Kansas City, Mo.	
XEMO	ak	5000	....	Tijuana, L. C.	—Su. 1100-0200; †0945-0300

870 kcys. (344.6)

WENR	ak	50000	Na	Chicago, Ill.	—Su. 1200-1830; 2000-2400; †1500-1900; ‡2030-2400
WLS	ae	50000	Na	Chicago, Ill.	

880 kcys. (340.7)

CFJC	ak	100	F	Kamloops, B. C.	—Su. 1500-0115; †1230-1630; 1830-0115
CMQ	ak	500	....	Havana, Cuba	
CRCO	ak	1000	F	Ottawa, Ont.	—Su. 1030-2400; †0800-0930; Sa. 1200-2400; ‡1200-1400; 1700-2400

KFKA	ak	500	2 (1)	Greeley, Colo.	—Su. 1830-2030; †0730-0930; 1100-1630; 1830-2030; 2230-0100
KLX	ae	1000	....	Oakland, Calif.	
KPOF	ae	500	2	Denver, Colo.	
WCOC	ae	500	(1)	Meridian, Miss.	
WGBI	ae	500	1	Scranton, Pa.	—Su. 1230-2115; †0700-1230; 1330-1630; M., W., Th., Sa., 1730-2230; Tu., F., 1730-2000
WPHR	ak	500	D	Petersburg, Va.	—*0730-ss.
WQAN	ae	250	1	Scranton, Pa.	—†1230-1330; 1630-1730; M., W., F., 0900-0930; Tu., F., 2000-2200
WSUI	ae	500	(1)	Iowa City, Iowa	—Su. 1015-1045; †1000-2300

890 kcys. (336.9)

KARK	ak	250	(.5)X	Little Rock, Ark.	—Su. 0900-0100; †0700-0100
KFNF	ak	500	2 (1)	Shenandoah, Iowa	—Su. 0900-1300; 1500-1700; 1800-1945; †0630-1700; 1900-2200
KFPY	ak	1000	C (5)	Spokane, Wash.	—Su. 1200-0300; †0950-0300
KUSD	ae	500	2	Vermillion, S. D.	
WBAA	ak	500	(1)	W. Lafayette, Ind.	—Sa. 1200-1700; Su. 1500-1700; ‡1200-1800
WGST	ak	1000	C	Atlanta, Ga.	
WJAR	ae	1000	R	Providence, R. I.	—Su. 0900-0100; 0730-0100
WMMN	500	250	C (1)	Fairmont, W. Va.	—Su. 0900-0100; †0700-0100
XEW	ak	50000	....	Mexico City, D. F.	

900 kcys. (333.1)

KGBU	ak	500	X	Ketchikan, Alaska	
KHJ	ae	1000	C (5)	Los Angeles, Calif.	
KSEI	ae	250	(.5)	Pocatello, Idaho	—Su. 1200-0100; †0930-0100
WBEN	ak	1000	R (5)	Buffalo, N. Y.	—Su. 0900-2400; M., Tu., Th., F., 0700-2400; W., Sa., 0700-0100
WELI	ak	500	D	New Haven, Conn.	—*0600-ss.
WFMD	ak	500	D	Frederick, Md.	—Su. 1000-ss.; †0630-ss.
WJAX	ak	1000	N (5)	Jacksonville, Fla.	—Su. 0800-2400; †0645-0100
WKY	ae	1000	N (5)	Oklahoma City, Okla.	—Su. 0900-0100; †0745-0100
WLBL	ak	2500	D	Stevens Point, Wis.	—‡0900-1700; Sa. 0900-1400
WTAD	ak	500	D	Quincy, Ill.	—* -1745

910 kcys. (329.6)

CJAT	ak	1000	F	Trail, B. C.	—Su. 1345-0200; †1000-0200
CKY	ak	15000	F	Winnipeg, Man.	—Su. 1200-0030; †0800-0100
CRCM	ak	5000	F	Montreal, Que.	—*0500-2330
XENT	ak	150000	...	Nuevo Laredo, Tams.	

920 kcys. (325.9)

CMX	ae	1000	....	Havana, Cuba	—M., 1100-0100; daily exc. M., 0800-0100
HIIK	ae	1000	...	Port-au-Prince, Haiti	
KFEL	ak	500	a	Denver, Colo.	
KOMO	ak	1000	R (5)	Seattle, Wash.	
KPRC	ak	1000	N (5)	Houston, Texas	
KVOD	ak	500	a	Denver, Colo.	
WAAF	ak	1000	D	Chicago, Ill.	
WORL	ae	500	D	Boston, Mass.	
WPEN	ak	250	(.5) 1	Philadelphia, Pa.	
WRAX	ak	250	1 (.5)	Philadelphia, Pa.	
WSPA	ae	1000	D	Spartanburg, S. C.	—*0630-1800
WWJ	ak	1000	R (5)	Detroit, Mich.	—Su. 0800-0030; †0600-0030
XEAA	ak	200	....	Mexicali, L. C.	

930 kcys. (322.4)

CFAC	ak	100	F	Calgary, Alta.	—Su. 1100-0100; †0900-0200
CFCH	ak	100	F	North Bay, Ont.	
CFLC	ae	100	....	Prescott, Ont.	—Su. 0700-2000; †0800-1000; 1200-1400; M., W., Th., Sa., 1700-1930; Tu., F., 1700-2200
CHNS	ae	1000	F	Halifax, N. S.	—Su. 1400-2300; †0730-1230; 1600-2300
CKPC	ae	100	F	Brantford, Ont.	
KMA	ak	1000	(2.5)	Shenandoah, Iowa	
KROW	ak	1000	....	Oakland, Calif.	—Su. 1100-0500; †0900-0500
TIRH	z	50	....	San Jose, C. R.	
WBRC	ak	1000	C	Birmingham, Ala.	—*0800-0030
WDBJ	ae	1000	C (5)	Roanoke, Va.	—Su. 0830-0030; †0700-2400
XEBH	ak	500	....	Hermosillo, Sonora	—*1300-1600; 2100-2400

940 kcys. (319.0)

KOIN	ak	1000	C (5)	Portland, Ore.	
VOAS	ak	100	....	St. John's, Nfld.	
WAAT	ak	500	D	Jersey City, N. J.	—*0630-1800
WAVE	ak	1000	N	Louisville, Ky.	—Su. 0900-0100; †0800-0100
WCSH	ak	1000	R (2.5)	Portland, Maine	—Su. 0845-2400; †0800-2400
WDAY	ae	1000	N (5)	Fargo, N. D.	
WHA	ak	5000	D	Madison, Wis.	—†0900-1730
XEFO	ak	5000	(XFO)	Mexico City, D. F.	

950 kcys. (315.6)

CJOC	ak	100	F	Lethbridge, Alta.	—Su. 1030-0030; †0900-0100
CMCD	ak	250	....	Havana, Cuba	—Su. 1000-2100; †1200-0100
CRCS	ak	100	F	Chicoutimi, Que.	—Su. 1500-2330; †1630-2300
KFWB	ak	1000	(5)	Hollywood, Calif.	
KHSL	ak	250	D	Chico, Calif.	—Su. 1100-1945; †1000-1945
KMBC	ae	1000	C (5)	Kansas City, Mo.	—Su. 0830-0103; †0655-0103
WRC	ak	500	R (1)	Washington, D. C.	
YNVA	z	30	....	Managua, Nic.	

960 kcys. (312.3)

CFRN	ak	100	F	Edmonton, Alta.	—Sa. 0930-0200; Su. 1200-0100; ‡0930-1300
CHNC	ak	1000	F	New Carlisle, Que.	
XEAW	ck	50000	....	Reynosa, Tams.	

970 kcys. (309.1)

CMBY	z	150	....	Havana, Cuba	
KJR	ak	5000	B	Seattle, Wash.	
WCFL	ae	5000	B	Chicago, Ill.	
WIBG	ak	100	D	Glenside, Pa.	

980 kcys. (306.0)

KDKA	c	50000	B	Pittsburgh, Pa.	

990 kcys. (302.8)

WBZ	c	50000	BSy	Boston, Mass.	—Su. 0800-0100; †0630-0100
WBZA	c	1000	BSy	Springfield, Mass.	
XEAF	ak	500	....	Nogales, Sonora	
XEK	ak	100	....	Mexico City, D. F.	
XES	dk	250	....	Tampico, Tams.	

1000 kcys. (299.8)

CMBZ	ak	500	(1)	Havana, Cuba	—18 hours daily
KFVD	ae	250	Dn	Los Angeles, Calif.	—*0100-0700; Su. 1100-2015; †0900-2015
TIGH	z	500	....	San Jose, C. R.	
WHO	ak	50000	R	Des Moines, Iowa	—Su. 1000-0100; †0700-0100
XEBK	ak	100	....	Nuevo Laredo, Tams.	—Su. 1200-1500; †1000-2030
XEY	z	10	....	Merida, Yuc.	

1010 kcys. (296.9)

CHML	ak	100	F	Hamilton, Ont.	—Su. 0900-2230; †0800-2400
CKCD	ak	100	1	Vancouver, B. C.	
CKCD	ak	100	....	Vancouver, B. C.	
CKCK	ak	500	3F	Regina, Sask.	—Su. 1200-0100; †0930-0200
CKCO	ak	100	F	Ottawa, Ont.	—*1200-2330
CKIC	ak	50	....	Wolfville, N. S.	
CKWX	ak	100	F 1	Vancouver, B. C.	—Su. 1200-0200; 0230-0400; M., Tu., Th., Sa., 1000-2230; W., F., 1000-2330; Th., Sa., 0000-0200
CMJA	ak	50	....	Camaguey, Cuba	
KGGF	ak	1000	2	Coffeyville, Kans.	
KQW	ae	1000	....	San Jose, Calif.	—Su. 1130-0300; †0930-0300
TIGA	z	30	1014	Cartago, C. R.	
WHN	ae	1000	(5)	New York, N. Y.	
WNAD	ae	1000	2	Norman, Okla.	
WNOX	ak	1000	C (2)	Knoxville, Tenn.	—Su. 0900-0100; †0630-0200
XEU	ak	250	....	Veracruz, Ver.	—*0800-0100

1020 kcys. (293.9)

KYW	ak	10000	R	Philadelphia, Pa.	—Su. 0800-0100; †0705-2200
WDZ	ak	250	D	Tuscola, Ill.	—Su. 0900-1800; †0700-1800
XEJ	ak	1000	....	Juarez, Chih.	

1030 kcys. (291.1)

CFCN	ak	10000	....	Calgary, Alta.	
CKLW	ae	5000	....	Windsor, Ont.	—Su. 0800-0100; †0645-0130
CMCY	ak	5000	....	Havana, Cuba	—*1000-2400
XEB	ak	10000	....	Mexico City, D. F.	—*1000-2415

1040 kcys. (288.3)

KRLD	ak	10000	C	Dallas, Texas	—*0700-0100
KWJJ	ak	500	....	Portland, Ore.	
KYOS	z	250	DP	Merced, Calif.	
WTIC	ah	50000	R	Hartford, Conn.	

1050 kcys. (285.5)

CMKD	ak	250	....	Santiago, Cuba	
CRCK	ak	1000	F	Quebec, Que.	
KFBI	ak	5000	Dn	Abilene, Kans.	—Su. 0900-1945; †0700-1945
KNX	ak	50000	....	Hollywood, Calif.	—Su. 1100-0230; †0930-0315
TIFA	z	75	....	San Jose, C. R.	

1060 kcys. (282.8)

KTHS	ak	10000	N	Hot Springs, Ark.	—*2100-2400; Su. 1100-ss.; †0900-ss.
VOAC	z	40	1065	St. John's, Nfld.	
WBAL	ak	10000	B (25)	Baltimore, Md.	—Su. 0800-2400; †0700-2400
WJAG	ak	1000	D	Norfolk, Neb.	
XEA	ak	500	....	Guadalajara, Jal.	

1070 kcys. (280.2)

CMBX	ak	500	....	Havana, Cuba	
CMHA	z	50	....	Sagua la Grande, C.	
KJBS	ak	500	Dn	San Francisco, Cal.	—*0100-2030
WCAZ	ak	100	D	Carthage, Ill.	
WTAM	ak	50000	R	Cleveland, Ohio	—Su. 0700-2400; †0600-2400

1080 kcys. (277.6)

WBT	ak	50000	C	Charlotte, N. C.	—Su. 1000-2400; †0645-2400
WCBD	ak	5000	1Dn	Waukegan, Ill.	
WMBI	ak	5000	1Dn	Chicago, Ill.	

1090 kcys. (275.1)

KMOX	ak	50000	C	St. Louis, Mo.	—Sa. 0700-0130; Su. 0830-0100; ‡0700-0100
XEAQ	ak	1000	....	Rosarito, L. C.	

1100 kcys. (272.6)

CRCV	ak	1000	FX	Vancouver, B. C.	
KGDM	ak	1000	D	Stockton, Calif.	—*0900-ss.
KWKH	ae	10000	C	Shreveport, La.	—Su. 0900-0100; †0730-0100
WLWL	ae	5000	1	New York, N. Y.	—Su. 1515-1630; 2000-2115; †1800-2000; F., 1400-1500
WPG	ak	5000	1C	Atlantic City, N. J.	—Su. 0900-1515; 1630-2000; 2115-2400; M., Tu., W., Th., Sa. 0900-1800; 2000-2400; F., 0900-1400; 1500-1800; 2000-2400
XEL	z	250	....	Mexico City, D. F.	

1110 kcys. (270.1)

CMCJ	ak	500	....	Havana, Cuba	
KSOO	ak	2500	Dn	Sioux Falls, S. D.	—Su. 1000-1845; †0700-1845
WRVA	ak	5000	N	Richmond, Va.	—Su. 1000-2400; †0700-2400
XELO	z	10000	....	Piedras Negras, Co.	— 10/30/36 — 22:09

1120 kcys. (267.7)

CHLP	ak	100	F	Montreal, Que.	—Su. 1700-2100; †0900-2300
CHSJ	ak	500	F (1)	St. John, N. B.	—Su. 1000-1100; ‡1400-2300; †0500-0505; 0630-2400
CKOC	ae	500	F (1)	Hamilton, Ont.	
CKX	ak	100	F	Brandon, Man.	
CMGF	dk	150	....	Matanzas, Cuba	
CMKM	ak	200	....	Manzanillo, Cuba	—†0800-1200; 1800-2200
KFIO	ae	100	D	Spokane, Wash.	
KFSG	ag	500	a (2.5)	Los Angeles, Calif.	
KRKD	ak	500	a (2.5)	Los Angeles, Calif.	—Su. 0930-1330; 1530-1800; 1900-2200; †0900-2245; F., 2245-0300
KRSC	ak	100	DX	Seattle, Wash.	
WCOP	ak	500	D	Boston, Mass.	—*0800-1600
WDEL	ak	250	(.5)	Wilmington, Del.	—Su. 0900-2300
WISN	ak	250	(1) C	Milwaukee, Wis.	—Su. 0900-0100; †0800-0100
WTAW	ae	500	....	College Station, Tex.	

1130 kcys. (265.3)

CMJI	ak	150	....	Ciego de Avila, Cuba	—Su. 0700-2400; †1200-2200
KSL	ak	50000	C	Salt Lake City, Utah	—Sa. 0830-0200; Su. 0200-to 0300 M.; ‡0830-0300
WJJD	ak	20000	Dn	Chicago, Ill.	—Su. 0730-1845; †0600-1845
WOV	ag	1000	D	New York, N. Y.	

1140 kcys. (263.0)

CMBG	z	200	....	Havana, Cuba	
KVOO	ak	25000	1N	Tulsa, Okla.	
WAPI	ak	5000	1N	Birmingham, Ala.	
WSPR	ak	500	....	Springfield, Mass.	—Su. 0845-1745; †0700-1745

1150 kcys. (260.7)

CMJF	z	200	....	Camaguey, Cuba	
WHAM	ae	50000	B	Rochester, N. Y.	—Su. 0830-2400; 0700-2400
XEFL	ak	250	....	Tijuana, L. C.	
XEWZ	ak	100	....	Mexico City, D. F.	

1160 kcys. (258.5)

CMHJ	ak	175	....	Cienfuegos, Cuba	—Su. 0800-1800; M. 1100-2200; Tu., Th., Sa. 0800-2300; W., F., 0800-2200
WOWO	ae	10000	1C	Fort Wayne, Ind.	
WWVA	ak	5000	1C	Wheeling, W. Va.	—Su. 0700-2200; M., Tu., F., 0600-2030; W. 0600-2000; Th., 0600-2100; Sa., 0600-0200; Tu., Th., 2330-0100
XEAS	z	100	....	Saltillo, Coah.	
XEC	z	30	....	Tijuana, L. C.	
XED	ak	2500	....	Guadalajara, Jal.	—*1200-1630; 2000-2400
XEP	ak	500	....	Juarez, Chih.	—*0900-0200
XESL	z	....	....	Tijuana, L. C.	

1170 kcys. (256.3)

CMBD	ae	500	....	Havana, Cuba	—*0700-2400
WCAU	ak	50000	C	Philadelphia, Pa.	—Su. 0900-0100; †0730-0100

1180 kcys. (254.1)

CMJO	ak	50	....	Ciego de Avila, Cuba	
KEX	ak	5000	2B	Portland, Ore.	
KOB	ak	10000	2	Albuquerque, N.M.	- 11-5-36 - 21:00
VE9EK	ak	10	1185	Montmagny, Que.	
WDGY	ak	1000	Dn (5)	Minneapolis, Minn.	- 10/30/36 - 21'15
WINS	ak	1000	....	New York, N. Y.	
WMAZ	ak	1000	....	Macon, Ga.	—Su. 0845-1900; †0700-1900
XEFA	z	500	....	Mexico City, D. F.	

1190 kcys. (252.0)

HIJ	z	15	1195	Trujillo, D. R.	
VONF	ak	500	1195	St. John's, Nfld.	
WATR	ak	100	D	Waterbury, Conn.	

WOAI	ak	50000	N	San Antonio, Tex.	—Su. 0900-0030; †0730-0030
WSAZ	ak	1000	....	Huntington, W. Va.	—Su. 1200-1900; †0700-1900

1200 kcys. (249.9)

CHAB	ak	100	F	Moose Jaw, Sask.	—Su. 1145-0030; †0900-0030
CKNX	ak	50	....	Wingham, Ont.	—Su. 1100-1300; †1100-1400; 1800-2100; Sa. 2300-0100
CKTB	ag	100	F	St. Catherines, Ont.	—Su. 1045-1300; 1500-2330; †0930-2330
CMCO	ak	150	....	Havana, Cuba	
KADA	ak	100	D	Ada, Okla.	
KBTM	ak	100	D	Jonesboro, Ark.	
KDNC	z	100	P	Lewistown, Mont.	
KFJB	ak	100	(.25)	Marshalltown, Iowa	—Su. 1300-1500; †0700-2200
KFXD	ae	100	(.25)	Nampa, Idaho	—Su. 1300-2000; †0800-2200
KFXJ	ak	100	(.25)	Grand Junc., Colo.	
KGDE	ak	100	(.25)	Fergus Falls, Minn.	—Su. 1000-2200; †0800-2200
KGEK	ak	100	....	Sterling, Colo.	
KGFJ	ae	100	....	Los Angeles, Calif.	—24 hours daily
KGHI	ak	100	(.25)	Little Rock, Ark.	—Su. 0900-1930; †0830-2300
KMLB	ak	100	....	Monroe, La.	
KSUN	c	100	(.25)	Lowell, Ariz.	—Su. 1700-2230; †1100-2300; W. 2300-2400
KVCV	z	100	P	Redding, Calif.	
KVEC	z	250	DP	San Luis Obispo, Cal.	
KVOS	dk	100	....	Bellingham, Wash.	
KWG	ak	100	C	Stockton, Calif.	—Su. 1030-0300; †1000-0300
WABI	ak	100	....	Bangor, Maine	
WAIM	ak	100	XZ	Anderson, S. C.	—Su. 0900-1730; †0600-2200
WAYX	z	100	P	Waycross, Ga.	
WBBZ	ak	100	....	Ponca City, Okla.	—Su. 0930-1830; †0800-2200
WBNO	ak	100	1	New Orleans, La.	
WCAT	ak	100	D	Rapid City, S. D.	
WCAX	ak	100	....	Burlington, Vt.	
WCLO	ak	100	X	Janesville, Wis.	
WCPO	ak	100	(.25)	Cincinnati, Ohio	—Su. 0800-2300; †0700-2330
WEST	ae	100	3 (.25)	Easton, Pa.	
WFAM	ak	100	8	South Bend, Ind.	
WHBC	ak	100	(.25)	Canton, Ohio	
WHBY	ak	100	(.25)	Green Bay, Wis.	
WIBX	ak	100	(.3) C	Utica, N. Y.	—Su. 0900-0100; †0700-0100
WIL	ak	100	(.25)	St. Louis, Mo.	
WJBC	ak	100	6(.25)	Bloomington, Ill.	—*1000-1330; 1600-2030
WJBL	ak	100	6	Decatur, Ill.	
WJBW	ak	100	1	New Orleans, La.	— 11-15-36-2115
WJNO	ak	100	....	W. Palm Beach, Fla.	—Su. 0900-2200; †0700-2300
WJRD	c	100	DP	Tuscaloosa, Ala.	
WKBO	ak	100	3 (.25)	Harrisburg, Pa.	—Su. 1230-1900; †0800-1100; 1500-1800; 2000-2300
WLVA	ak	100	(.25)	Lynchburg, Va.	—Su. 0900-1600; †0700-2300
WMFR	ae	100	D	High Point, N. C.	
WMPC	ak	100	(.25)	Lapeer, Mich.	
WNRI	ak	100	(.25)	Newport, R. I.	
WOLS	z	100	DP	Florence, S. C.	
WRBL	ak	100	....	Columbus, Ga.	—Su. 0900-1600; 0730-2100; †0800-2230
WTHT	ak	100	D	Hartford, Conn.	—Su. 0900-1715; 0700-1615
WWAE	ae	100	8	Hammond, Ind.	

1210 kcys. (247.8)

CJCS	ak	50	....	Stratford, Ont.	—†0800-1330; 1700-2100
CJCU	z	50	....	Aklavik, N. W. T.	
CKBI	ak	100	F	Prince Albert, Sask.	—Su. 1500-0100; †0945-0100
CKCH	ak	100	F	Hull, Que.	
CKMC	ak	50	....	Cobalt, Ont.	
CMHI	ak	150	....	Santa Clara, Cuba	
KANS	ak	100	P	Wichita, Kans.	—Su. 0800-2400; †0730-2400
KASA	ck	100	....	Elk City, Okla.	—Su. 0800-2000; †0700-2000
KDLR	ak	100	....	Devils Lake, N. D.	—*0730-2130
KDON	z	100	....	Del Monte, Calif.	
KFJI	ak	100	....	Klamath Falls, Ore.	
KFOR	ae	100	(.25)	C Lincoln, Neb.	
KFPW	ak	100	....	Fort Smith, Ark.	
KFVS	ak	100	6(.25)	Cape Girardeau, Mo.	—Su. 1000-1700; 2230-0100; †1000-1300; M., W., F., 1700-2130; Tu., Th., Sat. 1700-2030; 2200-0100
KFXM	ak	100	9	San Bernardino, Calif.	—M. Tu., Th., F., Sa., 0900-0300; Su. 1700-2145; M. 0000-0300; W., 0900-2200; Th. 0030-0300
KGLO	z	100	P	Mason City, Iowa	
KGY	ak	100	....	Olympia, Wash.	
KIUL	ak	100	....	Garden City, Kans.	—Su. 1200-2000; †0800-2200
KLAH	z	100	P	Carlsbad, N. Mex.	

KOCA	z	100	P	Kilgore, Texas	
KPPC	ak	100	9	Pasadena, Calif.	—Su. 1200-1600; 2145-2400; †1000-0030
KVSO	ak	100	....	Ardmore, Okla.	—Su. 0800-1800; †0800-2300
KWTN	ak	100	....	Watertown, S. D.	
TGW	ak	10000	....	Guatemala City	
WALR	ak	100	....	Zanesville, Ohio	
WBAX	ae	100	....	Wilkes Barre, Pa.	
WBBL	ak	100	S	Richmond, Va.	
WBLY	z	100	DP	Lima, Ohio	
WBRB	ak	100	3	Red Bank, N. J.	
WCOL	ak	100	....	Columbus, Ohio	—Su. 1000-2200; †0700-2300
WCRW	ae	100	4	Chicago, Ill.	
WEBQ	ae	100	6(.25)	Harrisburg, Ill.	—*0700-1000; †1300-1700; Su., 1700-2230; M., W., F., 2130-0100; Tu., Th., Sa., 2030-2200
WEDC	ae	100	4	Chicago, Ill.	
WFAS	ak	100	3	White Plains, N. Y.	
WFOY	z	100	P	St. Augustine, Fla.	
WGBB	ae	100	3	Freeport, N. Y.	
WGCM	ae	100	(.25)	Gulfport, Miss.	
WGNY	ak	100	3	Newburgh, N. Y.	—‡0730-0900; M., Tu., Th., F., 1100-1300; Sa., 0645-0900; 1130-1500; 2200-2400; Su. 0900-2400
WHBF	ak	100	(.25)	Rock Island, Ill.	—Su. 0800-0105; †0700-0105
WHBU	ak	100	(.25)	Anderson, Ind.	
WIBU	ak	100	(.25)	Poynette, Wis.	
WJBY	ak	100	....	Gadsden, Ala.	—Su. 1100-2200; †0800-2230
WJEJ	ae	100	D	Hagerstown, Md.	
WJIM	z	100	(.25)	Lansing, Mich.	
WJW	ae	100	(.25)	Akron, Ohio	—†0800-2230; F., 2230-2300; Sa., 2230-0200; Su. 0930-2230
WKOK	ak	100	....	Sunbury, Pa.	
WLMU	z	100	P	Middlesboro, Ky.	
WMBG	ak	100	C(.25)	Richmond, Va.	—Su. 1330-1630; 2130-2400; †0700-2400
WMFG	z	100	....	Hibbing, Minn.	—Su. 1300-2200; †0730-2200
WMFN	ak	100	Y	Clarksdale, Miss.	
WOCL	ak	50	....	Jamestown, N. Y.	
WOMT	ak	100	....	Manitowoc, Wis.	
WPAX	ak	100	D	Thomasville, Ga.	—Su. 0900-1600; †0800-1800
WSAY	z	100	DP	Rochester, N. Y.	
WSBC	ae	100	4	Chicago, Ill.	—*0600-0830; 1000-1100; 1400-1530; 2000-2200; 2300-2400
WSIX	ak	100	Y	Springfield, Tenn.	
WSOC	ak	100	N(.25)	Charlotte, N. C.	—Su. 0900-2400; †0700-2400
WTAX	ak	100	....	Springfield, Ill.	
XEAT	ak	300	(.25)	Hidalgo, Chih.	—Su. 1100-1700; 1100-2100
XEE	z	50	....	Durango, Dgo.	
XEFV	ak	100	....	Juarez, Chih.	
XETH	ak	100	....	Puebla, Pue.	

1220 kcys. (245.8)

CMJE	z	50	....	Camaguey, Cuba	
KFKU	ak	1000	a (5)	Lawrence, Kans.	—†1530-1600; M., Tu., Th., Sa., 1900-1915; W., F., 1900-1930
KTW	ak	1000	S2	Seattle, Wash.	
KWSC	ae	1000	2 (5)	Pullman, Wash.	—†0945-1100; 1330-0030 (Th. to 2230 only)
TIVCA	ak	....	1225	San Jose, C. R.	
WCAD	ak	500	D	Canton, N. Y.	—†1230-1330; 1500-1600; Su. irreg.
WCAE	ak	1000	R(5)	Pittsburgh, Pa.	—Su. 0800-0200; †0700-0230
WDAE	ae	1000	C (5)	Tampa, Fla.	—Su. 0800-?; †0730-?
WREN	ak	1000	Ba(5)	Lawrence, Kas.	—Su. 0900-0100; †0800-1530; 1600-1900; M., Tu., Th., Sa., 1915-0100; W. F., 1930-0100
XETF	ak	12	....	Veracruz, Ver.	

1230 kcys. (243.8)

CMCB	ak	150	....	Havana, Cuba	
KGBX	ak	500	....	Springfield, Mo.	
KGGM	ak	250	(.5)	Albuquerque, N. M.	—Su., 1245-2000; †0930-2330
KYA	ak	1000	N	San Francisco, Calif.	
WFBM	ae	1000	C(5)	Indianapolis, Ind.	—Su., 0800-0100; †0730-0100
WNAC	ak	1000	R (5)	Boston, Mass.	—Su., 0800-0100; †0630-0100
XEFJ	ak	100	....	Monterrey, N. L.	—†1100-1500; 1800-2000
YNOP	z	100	....	Managua, Nic.	

1240 kcys. (241.8)

CJCB	ak	1000	F	Sydney, N. S.	—Su. 1400-2300; †0700-1300; 1500-2300
CMHB	z	50	....	Sancti Spiritus, Cuba	
KGCU	ak	250	1	Mandan, N. D.	

KLPM	ak	250	1	Minot, N. D.	—Su. 1000-1245; 1430-1530; 1800-2100; †0800-1400; 1900-2045; 2300-0030
KTAT	ak	1000	....	Fort Worth, Texas	
KTFI	ae	1000	....	Twin Falls, Idaho	
WKAQ	ae	1000	....	San Juan, P. R.	
WXYZ	ak	1000	B	Detroit, Mich.	
XEAC	z	250	....	Tijuana, L. C.	
XEAI	z	100	....	Mexico City, D. F.	
XEKL	z	500	....	Leon, Guan.	
XELA	z	50	....	Saltillo, Coah.	
XEME	z	15	....	Merida, Yuc.	

1250 kcys. (239.9)

CMKC	ak	150	....	Santiago, Cuba	
KFOX	ae	1000	....	Long Beach, Calif.	
WCAL	ah	1000	2(2.5)	Northfield, Minn.	
WDSU	ak	1000	....	New Orleans, La.	—Su. 0800-2400; †0700-2400
WHBI	ak	1000	1(2.5)	Newark, N. J.	—Su. 0700-1000; 1230-1830; 2100-to 0700 Mon.; M. 1400-1700; 2000-2200
WLB	ak	1000	2	Minneapolis, Minn.	
WNEW	ae	1000	1(2.5)	Newark, N. J.	
WTCN	ak	1000	2 (5)	Minneapolis, Minn.	—Su. 1030-1600; 1700-2000; 2100-0100; †0700-1045; 2000-2400; M., Sa., 1015-1900; W., 1045-1900; Th., 1015-1045; 1330-2000

1260 kcys. (238.0)

KGVO	ak	1000	C	Missoula, Mont.	—Su. 1100-0100; †0900-0100
KOIL	ak	1000	B(2.5)	Council Bluffs, Ia.	
KPAC	ak	500	D	Port Arthur, Texas	—*0600-1745
KRGV	ae	500	....	Weslaco, Texas	—*0800-2300
KUOA	ak	1000	DXY	Fayetteville, Ark.	
KVOA	ak	500	....	Tucson, Ariz.	
WHIO	ak	1000	C (5)	Dayton, Ohio	—Su. 0100-0200; 0800-2400; †0600-0100
WNBX	ak	1000	....	Springfield, Vt.	—Su. 1030-1800; †0715-1330; Sa. 1500-2100; ‡1600-2200
WTOC	ae	1000	C	Savannah, Ga.	—Su. 0830-2400; †0700-2400

1270 kcys. (236.1)

CMHD	dk	250	....	Caibarien, Cuba	
KGCA	ak	100	2D	Decorah, Iowa	
KOL	ae	1000	C(5)	Seattle, Wash.	
KVOR	ae	1000	C	Colorado Sp'gs, Colo.	—Su. 1100-0100; †0900-0100
KWLC	ak	100	2D	Decorah, Iowa	
WASH	ak	500	aN	Grand Rapids, Mich.	—Su. 0800-2400; †0700-2400
WFBR	ae	500	R (1)	Baltimore, Md.	—Su. 0900-2400; †0700-2400
WJDX	ae	1000	N(2.5)	Jackson, Miss.	
WOOD	ak	500	aN	Grand Rapids, Mich.	—Su. 0800-2400; †0700-2400
XEG	z	200	....	Ensenada, L. C.	
XFB	ak	250	....	Jalapa, Ver.	
YNLF	z	20	1275	Managua, Nic.	

1280 kcys. (234.2)

CMCU	aed	500	....	Havana, Cuba	—*0655-0100; Su. 0200-0500
KFBB	ae	1000	C (2.5)	Great Falls, Mont.	
WCAM	ae	500	1	Camden, N. J.	—Su. 1015-1230; 1500-1700; M., W., F., 1030-1130; Mon. thru Fri., 1400-1700; M., 2000-2400; F., 2100-2400
WCAP	ae	500	1	Asbury Park, N. J.	—Su. 0600-1015; 1230-1500, M., W., F, 1130-1400; Tu., Th. Sa., 1030-1400; daily exc. Mon., 2000-2400
WDOD	ak	1000	C(5)	Chattanooga, Tenn.	—*0730-0030
WIBA	ae	1000	N(5)	Madison, Wis.	
WORC	ak	500	C	Worcester, Mass.	—Su. 0845-2315; †0800-2400
WRR	ak	500	....	Dallas, Texas	—Su. 0830-2330; †0800-2400
WTNJ	ak	500	1	Trenton, N. J.	
XEMX	z	12	....	Mexico City, D. F.	

1290 kcys. (232.4)

KDYL	ak	1000	RX	Salt Lake City, Utah	—*0800-0300
KLCN	ak	100	D	Blytheville, Ark.	
KTRH	ak	1000	C(5)	Houston, Texas	
WEBC	ak	1000	N (5)	Superior, Wis.	—Su. 0900-0100; †0800-0100
WJAS	ak	1000	C(5)	Pittsburgh, Pa.	—Sa., Su., 0730-2400; †0730-0030
WNBZ	ak	100	D	Saranac Lake, N. Y.	—Su. 1000-1400; †0930-ss.
WNEL	ak	1000	(2.5)	San Juan, P. R.	—*0630-2330

1300 kcys. (230.6)

KALE	ak	500	3C	Portland, Ore.	
KFAC	ak	1000	....	Los Angeles, Calif.	
KFH	ak	1000	C	Wichita, Kans.	
KFJR	ag	500	3	Portland, Ore.	—†1330-1730; M., 2000-2100; M., Th., Sa., 2200-2300; Tu., W., 2200-0200; F., 2200-0130
WBBR	ak	1000	1	Brooklyn, N. Y.	—Su., 0800-1100; 1500-2000; ‡0630-0700; 1000-1200; Tu., W., Th., F., 1800-2000
WEVD	ak	1000	1	New York, N. Y.	—Sa. 1000-1200; 1500-2100; Su. 0000-0300; †0000-0100; 0700-0900; ‡1500-1800; Daily exc. M., 2000-2100; 2200-2300
WFAB	ae	1000	1	New York, N. Y.	
WFBC	ak	1000	(5)N	Greenville, S. C.	
WHAZ	ae	500	1	Troy, N. Y.	—†1800-2400
WHBL	ae	250	....	Sheboygan, Wis.	
WIOD	ak	1000	N	Miami, Fla.	

1310 kcys. (228.9)

CHCK	ak	50	...	Charlottetown, P.E.I.	
CJKL	ak	1000	F	Kirkland Lake, Ont.	
CJLS	ak	100	....	Yarmouth, N. S.	
CKCV	ak	100	F	Quebec, Que.	—Su. 1200-2300; †0755-2330
KCRJ	ak	100	D	Jerome, Ariz.	
KFPL	dk	100	(.25)	Dublin, Texas	—Su. 0800-1000; †0700-1600; 1945-2245
KFXR	ak	150	(.2)	Oklahoma City, Okla.	—Su. 1030-2330; †0800-2400
KFYO	ak	100	(.25)	Lubbock, Texas	—Su. 0900-1500; 1700-1915; †0800-2215; W., 2215-2400
KGCX	ak	100	(.25)	XZ Wolf Pt., Mont.	
KGEZ	ae	100	....	Kalispell, Mont.	—Su. 1100-1800; †0900-2300
KGFW	ak	100	....	Kearney, Neb.	—Su. 0930-1045; 1200-1300; 2030-2130; †0700-1430; 1630-2200
KHUB	z	250	DP	Watsonville, Calif.	
KINY	ak	100	....	Juneau, Alaska	—Su. 1500-1800; 2100-2400; †1200-0200; Sa. 0200-0300
KIT	ak	100	(.25)	Yakima, Wash.	
KIUJ	ak	100	....	Santa Fe, N. Mex.	
KMED	ck	100	(.25)	Medford, Ore.	
KPDN	z	100	DP	Pampa, Texas	
KRMD	ak	100	....	Shreveport, La.	
KROC	ak	100	....	Rochester, Minn.	—Su. 1000-0015; †0700-0015
KROY	z	100	DP	Sacramento, Calif.	
KRRV	z	100	DP	Sherman, Texas	
KTSM	ak	100	....	El Paso, Texas	—Su. 1000-1130; 1500-2030; †0830-0100
KVOL	ak	100	....	Lafayette, La.	—Su. 1200-1900; †0800-1500; 1700-2230
KXRO	ak	100	....	Aberdeen, Wash.	—Su. 1300-2200; †1000-0200
WAML	ak	100	....	Laurel, Miss.	—Su. 1300-2000; †0800-1100; 1200-1500; 1700-2000; Sa. 2000-2230
WBEO	ae	100	....	Marquette, Mich.	—Su. 1000-1430; †1030-1730
WBOW	ak	100	(.25)	Terre Haute, Ind.	—*0700-2400
WBRE	ak	100	....	Wilkes Barre, Pa.	
WCLS	ak	100	....	Joliet, Ill.	
WCMI	ak	100	(.25)	Ashland, Ky.	—Su. 0900-2230; †0600-2330; Sa. 2330-2400
WDAH	ak	100	S	El Paso, Texas	—Su. 1130-1400; 2130-2230
WEBR	ak	100	B(.25)	Buffalo, N. Y.	—Su. 0000-0100; 0900-2400; †0700-2400
WEMP	ak	100	D	Milwaukee, Wis.	—Su. 0900-ss.; 0730-ss.
WEXL	ak	50	....	Royal Oak, Mich.	—*0800-2400; †0000-0400
WFBG	ae	100	3	Altoona, Pa.	
WFDF	ak	100	....	Flint, Mich.	—Su. 0900-2400; †0700-2400
WGH	ak	100	(.25)	Newport News, Va.	—Su. 0830-2230; †0700-2400
WHAT	ak	100	4	Philadelphia, Pa.	—Su. 0900-1015; 2000-2400; ‡1300-1400; M., W., F., 0900-1030; 1130-1200; M., F., 1700-1830; Tu., 0900-1200; 2030-2400; W., 1700-2400; Th. 0900-1100; Sa., 0900-1130; 1300-1600; 2100-2400
WJAC	ae	100	3	Johnstown, Pa.	
WLAK	z	100	....	Lakeland, Fla.	
WLBC	ak	100	6(.25)	Muncie, Ind.	—Su. 0930-1900; †0700-1900; 2030-2400
WLNH	ak	100	....	Laconia, N. H.	
WMBO	ak	100	....	Auburn, N. Y.	
WMFF	ak	250	D	Plattsburg, N. Y.	
WNBH	ak	100	(.25)	New Bedford, Mass.	—Su. 0845-2315; †0730-2315; Sa. to 2400
WOL	ae	100	XZ	Washington, D. C.	—Su. 0800-2400; †0700-0100
WRAW	ak	100	....	Reading, Pa.	—Su. 1800-?; †0700-1300; ‡1630-2230; Sa. 1700-2300
WROL	ak	100	(.25)	Knoxville, Tenn.	
WSAJ	ae	100	....	Grove City, Pa.	
WSGN	ak	100	(.25)	Birmingham, Ala.	
WSJS	ak	100	C	Winston-Salem, N.C.	—Su. 0830-2400; †0800-2400
WTAL	ak	100	....	Tallahassee, Fla.	—Su. 0900-2200; †0800-2200
WTEL	ce	100	4	Philadelphia, Pa.	

WTJS	ak	100	(.25)	Jackson, Tenn.	
WTRC	ak	100	6(.25)	Elkhart, Ind.	—Su. 1200-2215; †0700-2030
XEAG	z	10	....	Cordoba, Ver.	
XECW	z	10	....	Mexico City, D. F.	
XEFW	ak	250	....	Tampico, Tams.	—Su. 1130-1600; †1100-2200
XETB	ak	125	....	Torreon, Coah.	
XEX	ak	125	....	Monterrey, N. L.	
XFA	z	5	...	Aguascalientes, Ags.	

1320 kcys. (227.1)

CMOX	ak	200	....	Havana, Cuba	
KGHF	am	500	....	Pueblo, Colo.	—Su. 1230-1830; 0930-2345
KGMB	ak	1000	C	Honolulu, T. H.	
KID	ae	500	(1)	Idaho Falls, Idaho	
KRNT	ak	500	C(1)	Des Moines, Iowa	
WADC	ae	1000	C(5)	Akron, Ohio	—*0700-0100
WORK	ak	1000	....	York, Pa.	—Su. 1045-2030; †0800-2200
WSMB	ak	1000	N	New Orleans, La.	— 11-15-36 - 2:30

1330 kcys. (225.4)

CMHK	z	250	....	Cruces, Cuba	
CMKW	z	...	....	Santiago, Cuba	
KGB	ag	1000	C(2.5)	San Diego, Calif.	—Su. 1100-0300; †1000-0400
KMO	ak	250	....	Tacoma, Wash.	—Su. 1300-2200; †0900-0300
KSCJ	ak	1000	C(2.5)	Sioux City, Iowa	—Su. 0900-0100; †0700-0100
WDRC	ae	1000	C(5)	Hartford, Conn.	—Su. 0930-2400; †0700-2400
WSAI	ak	1000	N(2.5)	Cincinnati, Ohio	—Su. 0800-0100; †0700-0100
WTAQ	ae	1000	....	Green Bay, Wis.	

1340 kcys. (223.7)

CMAB	z	....	....	Pinar del Rio, Cuba	
CMJL	z	75	....	Camaguey, Cuba	
HRN	z	50	....	Tegucigalpa, Hond.	
KGDY	ak	250	D	Huron, S. D.	—Su. 1000-1500; †0800-1845
KGIR	ak	1000	N(2.5)	Butte, Mont.	—Su. 1100-0100; †1000-0100
KGNO	ak	250	....	Dodge City, Kans.	
WCOA	ak	500	C	Pensacola, Fla.	—Su. 0900-2400; †0830-2400
WFEA	ae	500	C(1)	Manchester, N. H.	—Su. 0845-2400; †0800-2400
WSPD	ae	1000	C(5)	Toledo, Ohio	—Su. 0830-0100; †0630-0100
XEFE	z	250	....	Nuevo Laredo, Tams.	
XFD	z	350	....	Jalapa, Ver.	

1350 kcys. (222.1)

CMCA	z	250	....	Havana, Cuba	
KIDO	ak	1000	(.25)	Boise, Idaho	—Su. 1230-2000; †1000-2400
KWK	ak	1000	B(5)	St. Louis, Mo.	—Su. 0800-0100; †0630-0100
WAWZ	ae	500	1(1)	Zarephath, N. J.	—Daily exc. Tu., Sa., 0600-0900; Tu., Sa., 0745-0845; Su. 1100-1230; 1500-1630; 1900-2030; M., W., 1900-2030; Tu., Th., F., Sa., 1700-1830
WBNX	ae	1000	1	New York, N. Y.	—Su. 0900-1100; 1230-1500; 1630-1900; 2030-0015; †0900-1700; M., W., 1700-1900; 2030-0015; Tu., Th., F., Sa., 1830-0015

1360 kcys. (220.4)

CMJH	dk	50	....	Ciego de Avila, Cuba	
KCRC	ak	250	....	Enid, Okla.	—*0800-2300
KGER	ak	1000	....	Long Beach, Calif.	
WCSC	ak	500	(1)N	Charleston, S. C.	—Su. 0800-2400; †0700-2400
WFBL	ak	1000	C(5)	Syracuse, N. Y.	—Su. 0900-0100; †0700-0100
WGES	ae	500	1	Chicago, Ill.	
WQBC	ak	1000	D	Vicksburg, Miss.	
WSBT	ak	500	1	South Bend, Ind.	

1370 kcys. (218.8)

CKCW	ak	100	F	Moncton, N. B.	
CMGE	ak	150	....	Cardenas, Cuba	—Su. 0800-2200; †1000-1300; 1900-2230
HIZ	z	10	....	Trujillo, D. R.	
KAST	ak	100	D	Astoria, Ore.	—†1100-2030
KCMO	ak	100	....	Kansas City, Mo.	—Su. 0000-0500; 0700-0100; †0700-0200
KELD	z	100	....	El Dorado, Ark.	
KERN	ak	100	....	Bakersfield, Calif.	*1100-0300
KFGQ	ak	100	....	Boone, Iowa	—Su. 0830-1000; 1130-1230; 1530-1700; †0700-0830; 1030-1100; 1300-1400
KFJM	ak	100	(.25)XZ	Grand Forks, N. D.	

KFJZ	ae	100	(.25)	Fort Worth, Texas	
KFRO	ak	100	D	Longview, Texas	—Su. 0900-ss.; †0700-ss.
KGAR	ae	100	(.25)	Tucson, Ariz.	
KGFG	bk	100	....	Oklahoma City, Okla	
KGFL	ak	100	4	Roswell, N. M.	
KGKL	ak	100	(.25)	San Angelo, Texas	
KICA	ak	100	4	Clovis, N. M.	—Su. 1300-1830; †0900-1830; 2130-2300
KIUP	ak	100	....	Durango, Colo.	—Su. 1300-1830; †1000-2300
KLUF	ak	100	(.25)	Galveston, Texas	—Su. 1000-1515; 1900-2130; †0900-1600; 1800-2400
KMAC	ak	100	5	San Antonio, Tex.	—*2300-0130; Su. 0800-1000; 1200-1330; 1500-1700; 1900-2100; †0800-0930; 1100-1200· 1300-1430; 1700-1900; 2000-2100
KOBH	ak	100	P	Rapid City, S. Dak.	—Su. 1100-2000; †0800-2400
KONO	ak	100	5	San Antonio, Tex.	—Su. 1000-1200; 1330-1500; 1700-1900; 2100-2300; †0700-0800; 0930-1100; 1200-1300; 1430-1700; 1900-2000; 2100-2300
KRE	ak	100	(.25)	Berkeley, Calif.	—24 hours daily
KRKO	ak	50	1	Everett, Wash.	
KSLM	ak	100	....	Salem, Ore.	—Su. 1200-2345; †1000-0100
KTEM	z	100	DP	Temple, Texas	
KUJ	ak	100	....	Walla Walla, Wash.	
KVL	ak	100	1	Seattle, Wash.	
KWYO	ak	100	(.25)	Sheridan, Wyo.	—Su. 1000-1400; 1900-2330; †0900-2400
WABY	ak	100	B	Albany, N. Y.	—*0700-2400
WAGF	ak	250	D	Dothan, Ala.	—Su. 0900-1730; †0900-ss.
WATL	ak	100	....	Atlanta, Ga.	
WBNY	ak	100	2(.25)	Buffalo, N. Y.	—Su. 1000-2400; †0730-0830; 1000-2400
WBTM	ak	100	(.25)	Danville, Va.	—Su. 1000-1300; †0700-1400; 1700-2200
WCBM	ae	100	(.25)	Baltimore, Md.	
WDAS	ag	100	(.25)	Philadelphia, Pa.	—*0800-2400
WDWS	ak	100	DP	Champaign, Ill.	—On air Dec. 1, 1936
WEOA	z	100	....	Evansville, Ind.	
WEXP	z	100	DP	Clarksburg, W. Va.	
WFOR	ak	100	....	Hattiesburg, Miss.	—Su. 1300-1900; †0800-2100
WGL	ae	100	C	Fort Wayne, Ind.	
WGRC	z	250	DP	New Albany, Ind.	
WHBQ	ak	100	....	Memphis, Tenn.	—Su. 0900-2230; †0800-2330
WHDF	ak	100	(.25)	Calumet, Mich.	—Su. 1030-1345; 1630-1800; †1145-1330; M., W., F., 1630-1845; Tu., Th., Sa., 1630-1830
WHLB	ak	100	P	Virginia, Minn.	
WIBM	ak	100	(.25)	Jackson, Mich.	—*0630-0030
WLLH	ak	100	(.25)	Lowell, Mass.	—Su. 0800-2400; †0730-2400
WMBR	ak	100	C(.25)	Jacksonville, Fla.	—Su. 0830-2400; †0730-2400
WMFD	ak	100	D	Wilmington, N. C.	
WMFO	ak	100	D	Decatur, Ala.	—Su. 1030-1830; †0800-1830
WMIN	ak	100	P	St. Paul, Minn.	—*0700-0100
WOC	ak	100	C(.25)	Davenport, Iowa	—Su. 1000-0100; †0700-0100
WPAY	ak	100	....	Portsmouth, Ohio	—Su. 0930-2030; †0700-2215
WPRA	z	100	(.25)P	Mayaguez, P. R.	
WQDM	ae	100	DXZ	St. Albans, Vt.	
WRAK	ak	100	(.25)	Williamsport, Pa.	
WRDO	ae	100	....	Augusta, Maine	
WRJN	ak	100	(.25)	Racine, Wis.	—Su. 0800-2400; †0845-2400
WSVS	ak	50	D2	Buffalo, N. Y.	
XEFZ	ak	100	....	Mexico City, D. F.	
XEI	ak	125	....	Morelia, Mich.	
XEZZ	z	100	....	San Luis Potosi, SLP.	

1380 kcys. (217.3)

CMCR	z	150	....	Havana, Cuba	
KOH	ak	500	C	Reno, Nev.	—*1100-0300
KQV	ae	500	1C	Pittsburgh, Pa.	—Su. 0900-1930; †0700-2200
WALA	af	500	C(1)	Mobile, Ala.	—Su. 1000-2300; †0830-2400
WKBH	ae	1000	....	LaCrosse, Wis.	
WNBC	ak	250	D	New Britain, Conn.	—Su. 0800-ss.; †0700-ss.
WSMK	ak	200	1C	Dayton, Ohio	

1390 kcys. (215.7)

CJGX	ak	100	....	Yorkton, Sask.	—*0830-1530; 1800-0030
CMJC	z	150	....	Camaguey, Cuba	
HIH	ak	15	1395	San Ped. de Macoris	
KLRA	ae	1000	C(2.5)	Little Rock, Ark.	
KOOS	ae	250	D	Marshfield, Ore.	—Su. 1500-1900; †1000-1945
KOY	ae	500	(1)	Phoenix, Ariz.	
WHK	ae	1000	C(2.5)	Cleveland, Ohio	—Su. 0800-2400; †0700-2400

1400 kcys. (214.2)

CMGC	ad	150	....	Matanzas, Cuba	—M., 1000-2300; daily exc. Su., M., 0800-2300
CMKR	z	100	....	Santiago, Cuba	
KHBC	z	250	....	Hilo, T. H.	
KLO	ak	500	B	Ogden, Utah	—Su. 1100-0100; †1000-0100
KTUL	ak	500	C(1)	Tulsa, Okla.	
TGX	ak	250	....	Guatemala City, Gt.	
WARD	ak	500	2	Brooklyn, N. Y.	
WBBC	ae	500	2(1)	Brooklyn, N. Y.	
WEGL	z	500	P	Brooklyn, N. Y.	
WIRE	ak	500	R(1)	Indianapolis, Ind.	—Su. 0900-0100; †0730-0100
WLTH	ak	500	2	Brooklyn, N. Y.	—Su. 1030-1200; 1500-1630; 2230-2400; M. 1330-1600; 2100-2230; Tu. 1130-1330; 1930-2100; W., 1600-1800; 2200-2400; Th. 0700-1130; 1800-1930; F. 1330-1600; 2100-2200; Sa. 1100-1330; 1800-1930 — 10-30-36—21:48
WVFW	ak	500	2	Brooklyn, N. Y.	

1410 kcys. (212.6)

CKFC	ak	50	5	Vancouver, B. C.	
CKMO	ag	100	5F	Vancouver, B. C.	
KGNC	ae	1000	(2.5)	Amarillo, Texas	
WAAB	ak	500	....	Boston, Mass.	—24 hours a day —10-30-36 21:30
WBCM	ae	500	....	Bay City, Mich.	—*0900-0030
WHIS	ak	500	(1)	Bluefield, W. Va.	
WROK	ak	500	....	Rockford, Ill.	—Su. 0930-2400; †0730-2400
WSFA	ak	500	C(1)	Montgomery, Ala.	—*0730-2400

1420 kcys. (211.1)

CKGB	ak	100	F	Timmins, Ont.	—Su. 1100-1230; 1645-2330; †1100-1330; 1630-2330
CMCQ	z	250	....	Havana, Cuba	
KABC	ak	100	(.25)	San Antonio, Texas	—Su. 0900-2300; †0700-0015
KABR	ak	100	....	Aberdeen, S. Dak.	—Su. 1000-1800; †0800-2300
KALB	z	100	D	Alexandria, La.	—Su. 1000-1900; †0800-ss.
KBPS	aj	100	4	Portland, Ore.	
KCMC	ak	100	....	Texarkana, Ark.	
KEUB	z	100	P	Price, Utah	
KFIZ	ak	100	....	Fond du Lac, Wis.	
KGFF	ak	100	(.25)	Shawnee, Okla.	—*0800-2200
KGGC	ak	100	....	San Francisco, Cal.	
KGIW	ak	100	1	Alamosa, Colo.	—*0930-1730; 2000-2230
KIDW	ak	100	1	Lamar, Colo.	—Su. 1300-1630; †0900-2000
KIUN	ak	100	....	Pecos, Texas	—Su. 0900-1400; 1700-2200; †0800-2200
KNET	z	100	D	Palestine, Texas	
KORE	ae	100	..	Eugene, Ore.	
KRBC	ak	100	P	Abilene, Tex.	—*0800-2200
KRLC	ak	100	..	Lewiston, Idaho	—Su. 1200-2400; †0930-0100
KRLH	z	100	D	Midland, Tex.	
KUMA	ak	100	....	Yuma, Ariz.	
KWBG	ak	100	....	Hutchinson, Kans.	
KXL	ak	100	4(.25)	Portland, Ore.	
WACO	ak	100	C	Waco, Texas	
WAGM	ae	100	....	Presque Isle, Maine	
WAPO	ak	100	DP	Chattanooga, Tenn.	—Su. 0800-1900; †0700-1900
WAZL	ak	100	2	Hazleton, Pa.	—Su. 1200-1930; †0900-1330; 1600-2200
WCBS	ak	100	....	Springfield, Ill.	—Su. 0900-2300; †0800-2300
WCHV	ak	100	3(.25)	Charlottesville, Va.	—Su. 1000-2000; †0700-2000; Sa. 2300-2400
WEED	ak	100	3 X	Rocky Mount, N. C.	
WEHS	ak	100	a	Cicero, Ill.	—Su. 1600-2000; †1600-1800
WELL	ak	100	....	Battle Creek, Mich.	—Su. 1045-2400; †0730-2400
WGPC	ak	100	....	Albany, Ga.	
WHDL	ak	100	D	Olean, N. Y.	—Su. 0800-1730; †0700-ss.
WHFC	ae	100	a	Cicero, Ill.	—Su. 0700-1600; 2000-0100; †0700-1330; 1800-2100; 2300-0100; Sa. 1800-0100
WILM	aj	100	2	Wilmington, Del.	
WJBO	ak	100	....	Baton Rouge, La.	
WJBR	z	100	P	Gastonia, N. C.	
WJMS	ak	100	....	Ironwood, Mich.	
WKBI	ak	100	a	Cicero, Ill.	—†1330-1600; †2100-2300
WLAP	ak	100	(.25)	Lexington, Ky.	—2-14-37 — 24:30
WLBF	ak	100	Z	Kansas City, Kan.	—Su. 1000-2300; †0755-2300
WLEU	ak	100	(.25)	Erie, Pa.	
WMAS	ak	100	C(.25)	Springfield, Mass.	—Su. 0800-2400; †0700-2400
WMBC	ae	100	(.25)	Detroit, Mich.	
WMBH	ak	100	(.25)	Joplin, Mo.	
WMFJ	ak	100	....	Daytona Beach, Fla.	
WMSD	ak	100	....	Sheffield, Ala.	

WPAD	ak	100	(.25)	Paducah, Ky.	-2-15-37- 00:00
WPAR	ak	100	....	Parkersburg, W. Va.	
WPRP	z	100	P(.25)	Ponce, P. R.	
XEAZ	z	7	....	Guanajuato, Gto.	
XEFB	ak	100	....	Monterrey, N. L.	

1430 kcys. (209.7)

CMJP	ak	75	....	Camaguey, Cuba	
KECA	ak	1000	(5) B	Los Angeles, Calif.	—*1000-0300
KGNF	ak	1000	D	North Platte, Neb.	†0800-1815
KSO	ak	500	B (1)	Des Moines, Iowa	
WBNS	ak	500	C (1)	Columbus, Ohio	—Su. 0700-2460; †0630-2400
WHEC	ak	500	C (1)	Rochester, N. Y.	—Su. 0800-2400; †0700-2400
WHP	ak	500	C (1)	Harrisburg, Pa.	
WNBR	ae	500	(1)	Memphis, Tenn.	—Su. 1030-2230; †0830-2310
WOKO	ae	500	C (1)	Albany, N. Y.	—Su. 0845-0100; †0800-0100

1440 kcys. (208.2)

CMOA	z	150	....	Havana, Cuba	
HP50	z	25	....	Colon, Panama	
KDFN	ak	500	....	Casper, Wyo.	
KLS	ae	250	D	Oakland, Calif.	—Su. 1100-1930; †0900-2045
KXYZ	ak	1000	....	Houston, Texas	
TIFS	z	7.5	(1441)	Cartago, C. R.	
WBIG	ae	500	C (1)	Greensboro, N. C.	—Su. 0830-2330; †0630-2330
WCBA	aj	500	a	Allentown, Pa.	—Su. 1000-2300; †0730-2330
WMBD	ak	500	C (1)	Peoria, Ill.	—Su. 0900-0100; †0700-2400
WSAN	aj	500	a	Allentown, Pa.	—M., 1300-1700; Tu., Th., Sa., 1300-2330
XEFI	ae	250	....	Chihuahua, Chih.	

1450 kcys. (206.8)

CFCT	ae	75	(.05)	Victoria, B. C.	—*1045-1630; 2030-0015; Su. 0300-0500
CHGS	ae	50	F	Summerside, P.E.I.	—Su. 1000-1200; 1400-2200; †0630-0730; 0900-1330; 1500-2200
K1EM	ak	500	....	Eureka, Calif.	—Su. 1200-0030; †1000-0100
KTBS	ak	1000	N	Shreveport, La.	—Su. 0900-0100; †0730-0100
WGAR	ak	500	B (1)	Cleveland, Ohio	—Su. 0800-2400; †0700-2400
WHOM	ae	250	....	Jersey City, N. J.	—*0700-2400
WSAR	ae	1000	....	Fall River, Mass.	
WTFI	ak	500	Y	Athens, Ga.	
XEF	ak	100	....	Juarez, Chih.	—*0900-2400

1460 kcys. (205.4)

CMKF	z	50	....	Holguin, Cuba	
KSTP	ak	10000	N (25)	St. Paul, Minn.	—Su. 0900-0100; †0700-0200
WJSV	ak	10000	C	Washington, D. C.	

1470 kcys. (204.0)

CMOK	z	150	....	Havana, Cuba	
KGA	ak	5000	B	Spokane, Wash.	
WLAC	ak	5000	C	Nashville, Tenn.	

1480 kcys. (202.6)

KOMA	ak	5000	C	Oklahoma City, Okla.	—Su. 0900-0100; †0730-0100
WKBW	ae	5000	C	Buffalo, N. Y.	—Su. 0930-2400; †0800-0100

1490 kcys. (201.2)

KFBK	ak	5000	C	Sacramento, Calif.	—Su. 1030-0300; †1000-0300
WCKY	ae	5000	N	Covington, Ky.	—Su. 0800-2400; †0700-2400

1500 kcys. (199.9)

CJIC	ak	100	...	Sault Ste. Marie, Ont.	—Su. 1100-1500; †1000-2200
CMCX	z	150	....	Havana, Cuba	
KBIX	z	100	....	Muskogee, Okla.	—Su. 1045-1900; †0800-2300
KBST	z	100	P	Big Spring, Tex.	
KDB	ak	100	C	Santa Barbara, Cal.	
KGFI	ak	100	(.25)	Corpus Christi, Tex.	
KGFK	ak	100	Y	Moorhead, Minn.	
KGKB	ak	100	....	Tyler, Texas	
KGKY	ak	100	(.25)	Scottsbluff, Neb.	—Su. 1200-0200; †0830-1630; 1900-2300

KNEL	ak	100	D	Brady, Texas	—Su. 0900-1800; †0800-1800
KNOW	ak	100	C	Austin, Texas	
KOTN	ak	100	D	Pine Bluff, Ark.	—*0800-ss.
KOVC	ak	100	P	Valley City, N. Dak.	—*0800-2200
KPLC	ak	100	....	Lake Charles, La.	
KPLT	z	100	DP	Paris, Texas	
KPQ	ak	100	(.25)	Wenatchee, Wash.	
KRNR	ak	100	D	Roseburg, Ore.	—Daytime only.
KTEP	z	100	P	El Paso, Texas	
KUTA	z	100	P	Salt Lake City, Utah	
KVOE	ak	100	....	Santa Ana, Calif.	—Su. 1400-1545; 2200-0200; †1200-0200
KXO	ak	100	....	El Centro, Calif.	—Su. 1200-1400; †1100-1700; 1800-2400
WCNW	ak	100	1 (.25)	Brooklyn, N. Y.	—Su. 0900-1100; ‡1400-1800; Sa. 1500-2100; Su. 2300-2400; M., F., 2000-2200; W., 2200-2400
WDNC	ae	100	C	Durham, N. C.	—*0730-0030
WGAL	ae	100	(.25)	Lancaster, Pa.	
WHBB	ak	100	D	Selma, Ala.	—Su. 0800-ss.; †0730-ss.
WHEF	ak	100	(.25)	Kosciusko, Miss.	—Su. 0900-ss.; †0730-1500; 1700-2200
WJBK	ae	100	(.25)	Detroit, Mich.	—24 hours daily
WKBB	ak	100	(.25)	E. Dubuque, Ill.	
WKBV	ak	100	(.25)	Richmond, Ind.	
WKBZ	ak	100	(.25)	Muskegon, Mich.	—Su. 0730-2200; †0700-2200
WKEU	ak	100	D	Griffin, Ga.	
WMBQ	ae	100	1	Brooklyn, N. Y.	
WMEX	ak	100	(.25)	Boston, Mass.	
WNBF	ae	100	C	Binghamton, N. Y.	
WNLC	ak	100	D	New London,Conn.	
WOPI	ae	100	....	Bristol, Tenn.	—Su. 1030-2130; †0700-2300
WRDW	ak	100	....	Augusta, Ga.	—Su. 0900-2100; †0700-2100
WRGA	ak	100	(.25)	Rome, Ga.	—Su. 1000-2300; †0800-2300
WSYB	ak	100	....	Rutland, Vt.	—Su. 1000-1100; †1000-1300; 1700-2100
WTMV	ak	100	....	East St. Louis, Ill.	
WWRL	ak	100	1 (.25)	Woodside, N. Y.	—*0800-0900; 1100-1400; 2000-2400
WWSW	ae	100	(.25)	Pittsburgh, Pa.	

1510 kcys. (198.6)

CFRC	ak	100	F	Kingston, Ont.	—Su. 0600-2300; †1200-1300; 1730-2300
CKCR	ak	100	....	Waterloo, Ont.	—Su. 1000-1400; 1700-2200; †0800-2300

1530 kcys. (196.0)

W1XBS	ak	1000	....	Waterbury, Conn.	—Su. 0900-2400; †0800-2400
W9XBY	ak	1000	....	Kansas City, Mo.	—Su. 0900-0130; †0800-0330

1550 kcys. (193.4)

W2XR	ak	1000	....	Long Isl. City, N.Y	—Su. 1700-2100; †1000-1200; 1700-2115
W6XAI	ak	1000	....	Bakersfield, Calif.	—Su. 1100-0200; †1000-0200

KEY TO SYMBOLS

As shown in the Index by Frequencies and Dial Numbers

Frequency is given in kilocycles; wave lengths 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.
- s No information available.

Fourth Column Symbols

- B National "Blue" network.
- C Columbia network.
- D Day time only.
- Dn Day time with occasional evening hours.
- F Canadian Radio Brdcstg. 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.

Time on the Air

All times are shown in Eastern Standard. * Daily; † Daily except Sunday; ‡ Daily except Saturday and Sunday. Su. Sunday; M. Monday; Tu. Tuesday; W. Wednesday; Th. Thursday; F. Friday; Sa. Saturday. The hours are given according to the International or 24-hour clock. To convert to ordinary time, subtract 12 where the time shown in greater than that figure. Thus, 1700 is 5:00 p.m.; 1200 is noon; midnight is either 0000 or 2400. The letters ss indicate sunset.

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

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

ALABAMA

Birmingham
WAPI 1140 5000 N
WBRC 930 1000 C
WSGN 1310 100

Decatur
WMFO 1370 100

Dothan
WAGF 1370 250

Gadsden
WJBY 1210 100

Mobile
WALA 1380 500 C

Montgomery
WSFA 1410 500 C

Selma
WHBB 1500 100

Sheffield
WMSD 1420 100

Tuscaloosa
WJRD 1200 100

ALASKA

Anchorage
KFQD 780 250

Juneau
KINY 1310 100

Ketchikan
KGBU 900 500

ARIZONA

Jerome
KCRJ 1310 100

Lowell
KSUN 1200 100

Phoenix
KOY 1390 500
KTAR 620 1000 N

Tucson
KGAR 1370 100
KVOA 1260 500

Yuma
KUMA 1420 100

ARKANSAS

Blytheville
KLCN 1290 100

El Dorado
KELD 1370 100

Fayetteville
KUOA 1260 1000

Fort Smith
KFPW 1210 100

Hot Springs
KTHS 1060 10000 N

Jonesboro
KBTM 1200 100

Little Rock
KARK 890 250
KGHI 1200 100
KLRA 1390 1000 C

Pine Bluff
KOTN 1500 100

Texarkana
KCMC 1420 100

CALIFORNIA

Bakersfield
KERN 1370 100 C
W6XAI 1550 1000

Berkeley
KRE 1370 100

Beverly Hills
KMPC 710 500

Chico
KHSL 950 250

Del Monte
KDON 1210 100

El Centro
KXO 1500 100

Eureka
KIEM 1450 500

Fresno
KMJ 580 500 C

Glendale
KIEV 850 250

Hollywood
KFWB 950 1000
KMTR 570 1000
KNX 1050 50000

Long Beach
KFOX 1250 1000
KGER 1360 1000

Los Angeles
KECA 1430 1000 B
KEHE 780 500
KFAC 1300 1000
KFI 640 50000 R
KFSG 1120 500
KFVD 1000 250
KGFJ 1200 100
KHJ 900 1000 C
KRKD 1120 500

Merced
KYOS 1040 250

Modesto
KTRB 740 250

Oakland
KLS 1440 250
KLX 880 1000
KROW 930 1000

Pasadena
KPPC 1210 100

Redding
KVCV 1200 100

Sacramento
KFBK 1490 5000 C
KROY 1310 100

San Bernardino
KFXM 1210 1000

San Diego
KFSD 600 1000 B
KGB 1330 1000 C

San Francisco
KFRC 610 1000 C
KGGC 1420 100
KGO 790 7500 B
KJBS 1070 500
KPO 680 50000 R
KSFO 560 1000
KYA 1230 1000 N

San Jose
KQW 1010 1000

San Luis Obispo
KVEC 1200 250

Santa Ana
KVOE 1500 100

Santa Barbara
KDB 1500 100 C

Stockton
KGDM 1100 1000
KWG 1200 100 C

Watsonville
KHUB 1310 250

COLORADO

Alamosa
KGIW 1420 100

Colorado Springs
KVOR 1270 1000 C

Denver
KFEL 920 500
KLZ 560 1000 C
KOA 830 50000 N
KPOF 880 500
KVOD 920 500

Durango
KIUP 1370 100

Grand Junction
KFXJ 1200 100

Greeley
KFKA 880 500

Lamar
KIDW 1420 100

Pueblo
KGHF 1320 500

Sterling
KGEK 1200 100

CONNECTICUT

Bridgeport
WICC 600 500 C

Hartford
WDRC 1330 1000 C
WTIC 1040 50000 R
WTHT 1200 100

New Britain
WNBC 1380 250

New Haven
WELI 900 500

New London
WNLC 1500 100

Waterbury
WATR 1190 100
W1XBS 1530 1000

DELAWARE

Wilmington
WDEL 1120 250
WILM 1420 100

DISTRICT OF COLUMBIA

Washington
WJSV 1460 10000 C
WMAL 630 250 B
WOL 1310 100
WRC 950 500 R

FLORIDA

Clearwater
WFLA 620 1000 N

Daytona Beach
WMFJ 1420 100

Gainesville
WRUF 830 5000

Jacksonville
WJAX 900 1000 N
WMBR 1370 100 C

Lakeland
WLAK 1310 100

Miami
WIOD 1300 1000 N
WQAM 560 1000 C

Orlando
WDBO 580 1000 C

Pensacola
WCOA 1340 500 C

St. Augistine
WFOY 1210 100

St. Petersburg
WSUN 620 1000 N

Tallahassee
WTAL 1310 100

Tampa
WDAE 1220 1000 C

West Palm Beach
WJNO 1200 100

GEORGIA

Albany
WGPC 1420 100

Athens
WTFI 1450 500

Atlanta
WATL 1370 100
WGST 890 1000 C
WSB 740 50000 N

Augusta
WRDW 1500 100

Columbus
WRBL 1200 100

Griffin
WKEU 1500 100

Macon
WMAZ 1180 1000

Rome
WRGA 1500 100

Savannah
WTOC 1260 1000 C

Thomasville
WPAX 1210 100

Waycross
WAYX 1200 100

HAWAII

Hilo
KHBC 1400 250

Honolulu
KGMB 1320 1000 C
KGU 750 2500 N

IDAHO

Boise
KIDO 1350 1000

Idaho Falls
KID 1320 500

Lewiston
KRLC 1420 100

Nampa
KFXD 1200 100

Pocatello
KSEI 900 250

Twin Falls
KTFI 1240 1000

ILLINOIS

Bloomington			
WJBC	1200	100	
Carthage			
WCAZ	1070	100	
Champaign			
WDWS	1370	100	
Chicago			
WAAF	920	1000	
WBBM	770	50000	C
WCFL	970	5000	B
WCRW	1210	100	
WEDC	1210	100	
WENR	870	50000	N
WGES	1360	500	
WGN	720	50000	
WJJD	1130	20000	
WLS	870	50000	N
WMAQ	670	50000	N
WMBI	1080	5000	
WSBC	1210	100	
Cicero			
WEHS	1420	100	
WHFC	1420	100	
WKBI	1420	100	
Decatur			
WJBL	1200	100	
East Dubuque			
WKBB	1500	100	
East St. Louis			
WTMV	1500	100	
Harrisburg			
WEBQ	1210	100	
Joliet			
WCLS	1310	100	
Peoria			
WMBD	1440	500	C
Quincy			
WTAD	900	500	
Rockford			
WROK	1410	500	
Rock Island			
WHBF	1210	100	
Springfield			
WCBS	1420	100	
WTAX	1210	100	
Tuscola			
WDZ	1020	250	
Urbana			
WILL	580	250	
Waukegan			
WCBD	1080	5000	

INDIANA

Anderson			
WHBU	1210	100	
Elkhart			
WTRC	1310	100	
Evansville			
WEOA	1370	100	
WGBF	630	500	
Fort Wayne			
WGL	1370	100	C
WOWO	1160	10000	C
Gary			
WIND	560	1000	
Hammond			
WWAE	1200	100	
Indianapolis			
WFBM	1230	1000	C
WIRE	1400	500	R
Muncie			
WLBC	1310	100	
New Albany			
WGRC	1370	250	
Richmond			
WKBV	1500	100	
South Bend			
WFAM	1200	100	
WSBT	1360	500	C
Terre Haute			
WBOW	1310	100	
West Lafayette			
WBAA	890	500	

IOWA

Ames			
WOI	640	5000	
Boone			
KFGQ	1370	100	
Cedar Rapids			
WMT	600	1000	B
Council Bluffs			
KOIL	1260	1000	B
Davenport			
WOC	1370	100	C
Decorah			
KGCA	1270	100	
KWLC	1270	100	
Des Moines			
KRNT	1320	500	C
KSO	1430	500	B
WHO	1000	50000	R
Iowa City			
WSUI	880	500	
Marshalltown			
KFJB	1200	100	
Mason City			
KGLO	1210	100	
Shenandoah			
KFNF	890	500	
KMA	930	1000	
Sioux City			
KSCJ	1330	1000	C

KANSAS

Abilene			
KFBI	1050	5000	
Coffeyville			
KGGF	1010	1000	
Dodge City			
KGNO	1340	250	
Garden City			
KIUL	1210	100	
Hutchinson			
KWBG	1420	100	
Kansas City			
WLBF	1420	100	
Lawrence			
KFKU	1220	1000	
WREN	1220	1000	B
Manhattan			
KSAC	580	500	
Topeka			
WIBW	580	1000	C
Wichita			
KANS	1210	100	
KFH	1300	1000	C

KENTUCKY

Ashland			
WCMI	1310	100	
Covington			
WCKY	1490	5000	N
Lexington			
WLAP	1420	100	
Louisville			
WAVE	940	1000	N
WHAS	820	50000	C
Middlesboro			
WLMU	1210	100	
Paducah			
WPAD	1420	100	

LOUISIANA

Alexandria			
KALB	1420	100	
Baton Rouge			
WJBO	1420	100	
Lafayette			
KVOL	1310	100	
Lake Charles			
KPLC	1500	100	
Monroe			
KMLB	1200	100	
New Orleans			
WBNO	1200	100	
WDSU	1250	1000	
WJBW	1200	100	
WSMB	1320	1000	N
WWL	850	10000	C
Shreveport			
KRMD	1310	100	
KTBS	1450	1000	N
KWKH	1100	1000	C

MAINE

Augusta			
WRDO	1370	100	
Bangor			
WABI	1200	100	
WLBZ	620	500	C
Portland			
WCSH	940	1000	R
WGAN	640	500	
Presque Isle			
WAGM	1420	100	

MARYLAND

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

MASSACHUSETTS

Boston			
WAAB	1410	500	
WBZ	990	50000	C
WCOP	1120	500	
WEEI	590	1000	R
WHDH	830	1000	
WMEX	1500	100	
WNAC	1230	1000	R
WORL	920	500	
Fall River			
WSAR	1450	1000	
Lowell			
WLLH	1370	100	
New Bedford			
WNBH	1310	100	
Springfield			
WBZA	990	1000	B
WMAS	1420	100	C
WSPR	1140	500	
Worcester			
WORC	1280	500	C
WTAG	580	500	R

MICHIGAN

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

MINNESOTA

Duluth			
KDAL	. . . .	. . . .	
Fergus Falls			
KGDE	1200	100	
Hibbing			
WMFG	1210	100	
Minneapolis			
WCCO	810	50000	C
WDGY	1180	1000	
WLB	1250	1000	
WTCN	1250	1000	
Moorhead			
KGFK	1500	100	
Northfield			
WCAL	1250	1000	
Rochester			
KROC	1310	100	
St. Paul			
KSTP	1460	10000	N
WMIN	1370	100	
Virginia			
WHLB	1370	100	

MISSISSIPPI

Clarksdale			
WMFN	1210	100	
Gulfport			
WGCM	1210	100	
Hattiesburg			
WFOR	1370	100	
Jackson			
WJDX	1270	1000	N
Kosciusko			
WHEF	1500	100	
Laurel			
WAML	1310	100	
Meridian			
WCOC	880	500	
Vicksburg			
WQBC	1360	1000	

MISSOURI

Cape Girardeau			
KFVS	1210	100	
Columbia			
KFRU	630	500	
Jefferson City			
WOS	630	500	
Joplin			
WMBH	1420	100	
Kansas City			
KCMO	1370	100	
KMBC	950	1000	C
WDAF	610	1000	R
WHB	860	1000	
W9XBY	1530	1000	
St. Joseph			
KFEQ	680	2500	
St. Louis			
KFUO	550	500	
KMOX	1090	50000	C
KSD	550	1000	R
KWK	1350	1000	B
WEW	760	1000	
WIL	1200	100	
Springfield			
KGBX	1230	500	
KWTO	560	5000	

MONTANA

Billings			
KGHL	780	1000	N
Butte			
KGIR	1340	1000	N
Great Falls			
KFBB	1280	1000	C
Kallspell			
KGEZ	1310	100	
Lewistown			
KDNC	1200	100	
Missoula			
KGVO	1260	1000	C
Wolf Point			
KGCX	1310	100	

NEBRASKA

Clay Center			
KMMJ	740	1000	
Kearney			
KGFW	1310	100	
Lincoln			
KFAB	770	10000	C
KFOR	1210	100	C
Norfolk			
WJAG	1060	1000	
North Platte			
KGNF	1430	1000	
Omaha			
WAAW	660	500	
WOW	590	5000	R
Scottsbluff			
KGKY	1500	100	

NEVADA

Reno			
KOH	1380	500	C

NEW HAMPSHIRE

Laconia			
WLNH	1310	100	
Manchester			
WFEA	1340	500	C
Portsmouth			
WHEB	740	250	

NEW JERSEY

Asbury Park			
WCAP	1280	500	
Atlantic City			
WPG	1100	5000	C
Camden			
WCAM	1280	500	
Jersey City			
WAAT	940	500	
WHOM	1450	250	
Newark			
WHBI	1250	1000	
WNEW	1250	1000	
WOR	710	50000	
Red Bank			
WBRB	1210	100	
Trenton			
WTNJ	1280	500	
Zarephath			
WAWZ	1350	500	

NEW MEXICO

Albuquerque			
KGGM	1230	250	
KOB	1180	10000	
Carlsbad			
KLAH	1210	100	
Clovis			
KICA	1370	100	
Roswell			
KGFL	1370	100	
Santa Fe			
KIUJ	1310	100	

NEW YORK

Albany			
WABY	1370	100	B
WOKO	1430	500	C
Auburn			
WMBO	1310	100	
Binghamton			
WNBF	1500	100	C
Brooklyn			
WARD	1400	500	
WBBC	1400	500	
WBBR	1300	1000	
WCNW	1500	100	
WEGL	1400	500	
WLTH	1400	500	
WMBQ	1500	100	
WVFW	1400	500	
Buffalo			
WBEN	900	1000	R
WBNY	1370	100	
WEBR	1310	100	B
WGR	550	1000	C
WKBW	1480	5000	C
WSVS	1370	50	
Canton			
WCAD	1220	500	
Elmira			
WESG	850	1000	C
Freeport			
WGBB	1210	100	
Jamestown			
WOCL	1210	50	
Long Island City			
W2XR	1550	1000	
Newburgh			
WGNY	1210	100	
New York			
WABC	860	50000	C
WBNX	1350	10000	
WBOQ	860	50000	
WEAF	660	50000	R
WEVD	1300	1000	
WFAB	1300	1000	
WHN	1010	1000	
WINS	1180	1000	
WJZ	760	50000	B
WLWL	1100	5000	
WMCA	570	500	
WNYC	810	1000	
WOV	1130	1000	
Olean			
WHDL	1420	100	
Plattsburg			
WMFF	1310	250	
Rochester			
WHAM	1150	50000	B
WHEC	1430	500	C
WSAY	1210	100	
Saranac Lake			
WNBZ	1290	100	
Schenectady			
WGY	790	50000	R
Syracuse			
WFBL	1360	1000	C
WSYR	570	1000	B
Troy			
WHAZ	1300	500	
Utica			
WIBX	1200	100	C
White Plains			
WFAS	1210	100	
Woodside			
WWRL	1500	100	

NORTH CAROLINA

Asheville			
WWNC	570	1000	N
Charlotte			
WBT	1080	50000	C
WSOC	1210	100	N
Durham			
WDNC	1500	100	C
Gastonia			
WJBR	1420	100	
Greensboro			
WBIG	1440	500	C
High Point			
WMFR	1200	100	
Raleigh			
WPTF	680	1000	N
Rocky Mount			
WEED	1420	100	
Wilmington			
WMFD	1370	100	
Winston-Salem			
WSJS	1310	100	C

NORTH DAKOTA

Bismarck			
KFYR	550	1000	N
Devils Lake			
KDLR	1210	100	
Fargo			
WDAY	940	1000	N
Grand Forks			
KFJM	1370	100	
Mandan			
KGCU	1240	250	
Minot			
KLPM	1240	250	
Valley City			
KOVC	1500	100	

OHIO

Akron			
WADC	1320	1000	C
WJW	1210	100	
Canton			
WHBC	1200	100	
Cincinnati			
WCPO	1200	100	
WKRC	550	1000	C
WLW	700	500000	N
WSAI	1330	1000	N
Cleveland			
WGAR	1450	500	B
WHK	1390	1000	C
WJAY	610	500	
WTAM	1070	50000	R
Columbus			
WBNS	1430	500	C
WCOL	1210	100	
WHKC	640	500	
WOSU	570	750	
Dayton			
WHIO	1260	1000	C
WSMK	1380	200	C
Lima			
WBLY	1210	100	
Portsmouth			
WPAY	1370	100	
Toledo			
WSPD	1340	1000	C
Youngstown			
WKBN	570	500	C
Zanesville			
WALR	1210	100	

OKLAHOMA

Ada			
KADA	1200	100	
Ardmore			
KVSO	1200	100	
Elk City			
KASA	1210	100	

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Enid
KCRC 1360 250
Muskogee
KBIX 1500 100
Norman
WNAD 1010 1000
Oklahoma
KFXR 1310 150
KGFG 1370 100
KOMA 1480 5000 C
WKY 900 1000 N
Ponca City
WBBZ 1200 100
Shawnee
KGFF 1420 100
Tulsa
KTUL 1400 500 C
KVOO 1140 25000 N

OREGON

Astoria
KAST 1370 100
Corvallis
KOAC 550 1000
Eugene
KORE 1420 100
Klamath Falls
KFJI 1210 100
Marshfield
KOOS 1390 250
Medford
KMED 1310 100
Portland
KALE 1300 500 C
KBPS 1420 100
KEX 1180 5000 N
KFJR 1300 500
KGW 620 1000 R
KOIN 940 1000 C
KWJJ 1040 500
KXL 1420 100
Roseburg
KRNR 1500 100
Salem
KSLM 1370 100

PENNSYLVANIA

Allentown
WCBA 1440 500
WSAN 1440 500
Altoona
WFBG 1310 100
Easton
WEST 1200 100
Erie
WLEU 1420 100
Glenside
WIBG 970 100
Greensburg
WHJB 620 250 C
Grove City
WSAJ 1310 100
Harrisburg
WHP 1430 500 C
WKBO 1200 100
Hazleton
WAZL 1420 100
Johnstown
WJAC 1310 100
Lancaster
WGAL 1500 100
Philadelphia
KYW 1020 10000 R
WCAU 1170 50000 C
WDAS 1370 100
WFIL 560 1000 B
WHAT 1310 100
WIP 610 1000
WPEN 920 250
WRAX 920 250
WTEL 1310 100
Pittsburgh
KDKA 980 50000 B
KQV 1380 500 C
WCAE 1220 1000 R
WJAS 1290 1000 C
WWSW 1500 100
Reading
WEEU 830 1000
WRAW 1310 100
Scranton
WGBI 880 500
WQAN 880 250
Sunbury
WKOK 1210 100
Wilkes-Barre
WBAX 1210 100
WBRE 1310 100
Williamsport
WRAK 1370 100
York
WORK 1320 1000

PUERTO RICO

Mayaguez
WPRA 1370 100
Ponce
WPRP 1420 100
San Juan
WKAQ 1240 1000
WNEL 1290 1000

RHODE ISLAND

Newport
WNRI 1200 100
Providence
WEAN 780 500 C
WJAR 890 1000 R
WPRO 630 500

SOUTH CAROLINA

Anderson
WAIM 1200 100
Charleston
WCSC 1360 500 N
Columbia
WIS 560 1000 N
Florence
WOLS 1200 100
Greenville
WFBC 1300 1000 N
Spartanburg
WSPA 920 1000

SOUTH DAKOTA

Aberdeen
KABR 1420 100
Brookings
KFDY 780 1000
Huron
KGDY 1340 250
Pierre
KGFX 630 200
Rapid City
KOBH 1370 100
WCAT 1200 100
Sioux Falls
KSOO 1110 2500
Vermillion
KUSD 890 500
Watertown
KWTN 1210 100
Yankton
WNAX 570 1000 C

TENNESSEE

Bristol
WOPI 1500 100
Chattanooga
WAPO 1420 100
WDOD 1280 1000 C
Jackson
WTJS 1310 100
Knoxville
WNOX 1010 1000 C
WROL 1310 100
Memphis
WHBQ 1370 100
WMC 780 1000 N
WNBR 1430 500
WREC 600 1000 C
Nashville
WLAC 1470 5000 C
WSM 650 50000 N
Springfield
WSIX 1210 100

TEXAS

Abilene
KRBC 1420 100
Amarillo
KGNC 1410 1000
Austin
KNOW 1500 100 C
Beaumont
KFDM 560 500
Big Spring
KBST 1500 100
Brady
KNEL 1500 100
College Station
WTAW 1120 500
Corpus Christi
KGFI 1500 100
Dallas
KRLD 1040 10000 C
WFAA 800 50000 N
WRR 1280 500
Dublin
KFPL 1310 100
El Paso
KTEP 1500 100
KTSM 1310 100
WDAH 1310 100
Fort Worth
KFJZ 1370 100
KTAT 1240 1000
WBAP 800 50000 N
Galveston
KLUF 1370 100
Houston
KPRC 920 1000 N
KTRH 1290 1000 C
KXYZ 1440 1000
Kilgore
KOCA 1210 100
Longview
KFRO 1370 100
Lubbock
KFYO 1310 100
Midland
KRLH 1420 100
Palestine
KNET 1420 100
Pampa
KPDN 1310 100
Paris
KPLT 1500 100
Pecos
KIUN 1420 100
Port Arthur
KPAC 1260 500
San Angelo
KGKL 1370 100
San Antonio
KABC 1420 100
KMAC 1370 100
KONO 1370 100
KTSA 550 1000 C
WOAI 1190 50000 N
Sherman
KRRV 1310 100
Temple
KTEM 1370 100
Tyler
KGKB 1500 100
Waco
WACO 1420 100 C
Weslaco
KRGV 1260 500
Wichita Falls
KGKO 570 250 C

UTAH

Ogden
KLO 1400 500 B
Price
KEUB 1420 100
Salt Lake City
KDYL 1290 1000 R
KSL 1130 50000 C
KUTA 1500 100

VERMONT

Burlington
WCAX 1200 100
Rutland
WSYB 1500 100
St. Albans
WQDM 1370 100
Springfield
WNBX 1260 1000
Waterbury
WDEV 550 500

VIRGINIA

Arlington
NAA 690 1000
Charlottesville
WCHV 1420 100

Danville			
WBTM	1370	100	
Harrisonburg			
WSVA	550	500	
Lynchburg			
WLVA	1200	100	
Newport News			
WGH	1310	100	
Norfolk			
WTAR	780	500	N
Petersburg			
WPHR	880	500	
Richmond			
WBBL	1210	100	
WMBG	1210	100	C
WRVA	1110	5000	N
Roanoke			
WDBJ	930	1000	C

WASHINGTON

Aberdeen			
KXRO	1310	100	
Bellingham			
KVOS	1200	100	
Everett			
KRKO	1370	50	
Olympia			
KGY	1210	100	
Pullman			
KWSC	1220	1000	
Seattle			
KIRO	710	1000	
KJR	970	5000	B
KOL	1270	1000	C
KOMO	920	1000	R
KRSC	1120	100	
KTW	1220	1000	
KVL	1370	100	
KXA	760	250	
Spokane			
KFIO	1120	100	
KFPY	890	1000	C
KGA	1470	5000	B
KHQ	590	1000	R
Tacoma			
KMO	1330	250	
KVI	570	1000	C
Walla Walla			
KUJ	1370	100	
Wenatchee			
KPQ	1500	100	
Yakima			
KIT	1310	100	

WEST VIRGINIA

Bluefield			
WHIS	1410	500	
Charleston			
WCHS	580	500	
Clarksburg			
WEXP	1370	100	
Fairmont			
WMMN	890	500	C
Huntington			
WSAZ	1190	1000	
Parkersburg			
WPAR	1420	100	
Wheeling			
WWVA	1160	5000	C

WISCONSIN

Fond du Lac			
KFIZ	1420	100	
Green Bay			
WHBY	1200	100	
WTAQ	1330	1000	
Janesville			
WCLO	1200	100	
LaCrosse			
WKBH	1380	1000	
Madison			
WHA	940	5000	
WIBA	1280	1000	N
Manitowoc			
WOMT	1210	100	
Milwaukee			
WEMP	1310	100	
WISN	1120	250	C
WTMJ	620	1000	N
Poynette			
WIBU	1210	100	
Racine			
WRJN	1370	100	
Sheboygan			
WHBL	1300	250	
Stevens Point			
WLBL	900	2500	
Superior			
WEBC	1290	1000	N

WYOMING

Casper			
KDFN	1440	500	
Sheridan			
KWYO	1370	100	

CANADA

ALBERTA

Calgary			
CFAC	930	100	F
CFCN	1030	10000	
CJCJ	690	100	F
Edmonton			
CFRN	960	100	F
CJCA	730	1000	F
CKUA	580	500	
Lethridge			
CJOC	950	100	F

BRITISH COLUMBIA

Chilliwack			
CHWK	780	100	F
Kamloops			
CFJC	880	100	F
Kelowna			
CKOV	630	100	F
Prince Rupert			
CFPR	580	50	
Trail			
CJAT	910	1000	F
Vancouver			
CJOR	600	500	
CKCD	1010	100	
CKFC	1410	50	
CKMO	1410	100	F
CKWX	1010	100	F
CRCV	1100	1000	F
Victoria			
CFCT	1450	75	

MANITOBA

Brandon			
CKX	1120	100	F
Winnipeg			
CJRC	630	1000	F
CKY	910	15000	F

NEW BRUNSWICK

Fredericton			
CFNB	550	500	F
Moncton			
CKCW	1370	100	F
St. John			
CHSJ	1120	500	F

N. W. TERRITORY

Aklavik			
CJCU	1210	50	

NOVA SCOTIA

Glace Bay			
VAS	685	2000	
Halifax			
CHNS	930	1000	F
Sydney			
CJCB	1240	1000	F
Wolfville			
CKIC	1010	50	
Yarmouth			
CJLS	1310	100	

ONTARIO

Brantford			
CKPC	930	100	F
Chatham			
CFCO	630	100	F
Cobalt			
CKMC	1210	50	
Fort William			
CKPR	730	100	F
Hamilton			
CHML	1010	100	F
CKOC	1120	500	F
Kingston			
CFRC	1510	100	F
Kirkland Lake			
CJKL	1310	100	F
London			
CFPL	730	100	F
North Bay			
CFCH	930	100	F
Ottawa			
CKCO	1010	100	F
CRCO	880	1000	F
Prescott			
CFLC	930	100	
St. Catherines			
CKTB	1200	100	F
Sault Ste. Marie			
CJIC	1500	100	
Stratford			
CJCS	1210	50	
Sudbury			
CKSO	780	1000	F
Timmins			
CKGB	1420	100	F
Toronto			
CFRB	690	10000	C
CKCL	580	100	F
CRCT	840	5000	N
Waterloo			
CKCR	1510	100	
Windsor			
CKLW	1030	5000	
CRCW	600	500	F
Wingham			
CKNX	1200	50	

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	F
CKAC	730	5000	C
CRCM	910	5000	F
New Carlisle			
CHNC	960	1000	F
Quebec			
CHRC	580	100	
CKCV	1310	100	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	1390	100	

NEWFOUNDLAND

St. John's			
VOAC	1065	40	
VOAS	940	100	
VOGY	840	400	
VONF	1195	500	
VOWR	681	500	

MIQUELON

St. Pierre			
FQN	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
TIGPH	650	1000
TIRH	930	50
TIVCA	1225	....
TIX	800	....

GUATEMALA

Guatemala City		
TGW	1210	10000
TGX	1400	250

HONDURAS

Tegucigalpa		
HRN	1340	100

NICARAGUA

Managua		
YNLF	1275	20
YNOP	1230	100
YNVA	950	30

PANAMA

Colon		
HP50	1440	25

EL SALVADOR

San Salvador		
RDN	680	500

MEXICO

AGUASCALIENTES

Aguascalientes		
XFA	1310	5
XFC	810	350

CHIHUAHUA

Chihuahua		
XEFI	1440	250
Hidalgo		
XEAT	1210	300
Juarez		
XEFV	1210	100
XEF	1450	100
XEJ	1020	1000
XEP	1160	500

COAHUILA

Piedras Negras		
XELO	1110	10000
XEPN	730	50000
Saltillo		
XEAS	1160	100
XELA	1240	50
XEOX	640	500
Torreon		
XETB	1310	125
Villa Acuna		
XERA	840	250000

D. F.

Mexico City		
XEAI	1240	100
XEB	1030	10000
XEBZ	820	100
XECW	1310	10
XEFA	1180	500
XEFO	940	5000
XEFZ	1370	100
XEK	990	100
XEL	1100	250
XEMX	1280	12
XEN	710	1000
XEW	890	50000
XEWZ	1150	100
XEXM	610	....
XEYZ	780	10000
XFX	610	1000

DURANGO

Durango		
XEE	1210	50

GUANAJUATO

Guanajuato		
XEAZ	1420	7
Leon		
XEKL	1240	500

JALISCO

Guadalajara		
XEA	1060	500
XED	1160	2500

LOWER CALIFORNIA

Agua Caliente		
XEBC	730	5000
Coronado Island		
XEMZ	820	....
Ensenada		
XEG	1270	200
Mexicali		
XEAA	920	200
XEAO	560	250
Rosarito		
XEAQ	1090	1000
Tijuana		
XEAC	1240	250
XEC	1160	30
XEFL	1150	250
XEMO	860	5000
XEOK	760	250
XESL	1160	....

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

Hermosillo		
XEBH	930	500
Nogales		
XEAF	990	500

TAMAULIPAS

Matamoros		
XEAM	750	7.5
Nuevo Laredo		
XEBK	1000	100
XEFE	1340	250
XENT	910	150000
Reynosa		
XEAW	960	50000
Tampico		
XEFW	1310	250
XES	990	250

VERACRUZ

Cordoba		
XEAG	1310	10
Jalapa		
XFB	1270	250
XFD	1340	350
Veracruz		
XETF	1220	12
XEU	1010	250

YUCATAN

Merida		
XEFC	560	100
XEME	1240	15
XEY	1000	10
XEZ	630	500

WEST INDIES

CUBA

Caibarien		
CMHD	1270	250
Camaguey		
CMJA	1010	50
CMJC	1390	150
CMJE	1220	50
CMJF	1150	200
CMJK	780	250
CMJL	1340	100
CMJP	1430	75
CMJX	830	....
Cardenas		
CMGE	1370	150
Ciego de Avila		
CMJH	1360	100
CMJI	1130	150
CMJO	1180	50
Cienfuegos		
CMHJ	1160	175
CMHW	820	100
CMHX	760	200
Cruces		
CMHK	1330	250
Havana		
CMBC	640	150
CMBD	1170	500
CMBG	1140	200
CMBN	850	150
CMBS	770	150
CMBX	1070	500
CMBY	970	150
CMBZ	1000	500
CMCA	1350	250
CMCB	1230	150
CMCD	950	250
CMCF	810	600
CMCG	680	1000
CMCJ	1110	500
CMCO	1200	150
CMCQ	1420	250
CMCR	1380	150
CMCU	1280	500
CMCW	750	150
CMCX	1500	150
CMCY	1030	5000
CMK	730	3000
CMOA	1440	150
CMOK	1470	150
CMOX	1320	200
CMQ	880	500
CMW	600	1400
CMX	920	1000
Holguin		
CMKF	1460	250
Manzanillo		
CMKM	1120	200
Matanzas		
CMGC	1400	150
CMGF	1120	150
CMGH	790	250
Pinar del Rio		
CMAB	1340	....
Sagua la Grande		
CMHA	1070	50
Sancti Spiritus		
CMHB	1240	50
Santa Clara		
CMHI	1210	150
Santiago		
CMKC	1250	150
CMKD	1050	250
CMKR	1400	100
CMKW	1330	....
CMKX	1190	75

DOMINICAN REPUBLIC

San Pedro de Macoris		
HIH	1395	15
Trujillo		
HIJ	1195	15
HIX	800	700
HIZ	1370	10

HAITI

Port-au-Prince		
HHK	920	1000

CFAC 930 100
Calgary, Alta.
CFCF 600 400
Montreal, Que.
CFCH 930 100
North Bay, Ont.
CFCN 1030 10000
Calgary, Alta.
CFCO 630 100
Chatham, Ont.
CFCT 1450 75
Victoria, B. C.
CFCY 630 1000
Charlottetown, P.E.I.
CFJC 880 100
Kamloops, B. C.
CFLC 930 100
Prescott, Ont.
CFNB 550 500
Fredericton, N. B.
CFPL 730 100
London, Ont.
CFPR 580 50
Prince Rupert, B. C.
CFQC 840 1000
Saskatoon, Sask.
CFRB 690 10000
Toronto, Ont.
CFRC 1510 100
Kingston, Ont.
CFRN 960 100
Edmonton, Alta.
CHAB 1200 100
Moose Jaw, Sask.
CHCK 1310 50
Charlottetown, P. E. I.
CHGS 1450 50
Summerside, P. E. I.
CHLP 1120 100
Montreal, Que.
CHML 1010 100
Hamilton, Ont.
CHNC 960 1000
New Carlisle, Que.
CHNS 930 1000
Halifax, N. S.
CHRC 580 100
Quebec, Que.
CHSJ 1120 500
St. John, N. B.
CHWC 1010 500
Regina, Sask.
CHWK 780 100
Chilliwack, B. C.
CJAT 910 1000
Trail, B. C.
CJCA 730 1000
Edmonton, Alta
CJCB 1240 1000
Sydney, N. S.
CJCJ 690 100
Calgary, Alta.
CJCS 1210 50
Stratford, Ont.
CJCU 1210 50
Aklavik, N. W. T.
CJGX 1390 100
Yorkton, Sask.

CJIC 1500 100
S. Ste. Marie, Ont.
CJKL 1310 100
Kirkland Lake, Ont.
CJLS 1310 100
Yarmouth, N. S.
CJOC 950 100
Lethbridge, Alta.
CJOR 600 500
Vancouver, B. C.
CJRC 630 1000
Winnipeg, Man.
CJRM 540 1000
Moose Jaw, Sask.
CKAC 730 5000
Montreal, Que.
CKBI 1210 100
Prince Albert, Sask.
CKCD 1010 100
Vancouver, B. C.
CKCH 1210 100
Hull, Que.
CKCK 1010 500
Regina, Sask.
CKCL 580 100
Toronto, Ont.
CKCO 1010 100
Ottawa, Ont.
CKCR 1510 100
Waterloo, Ont.
CKCV 1310 100
Quebec, Que.
CKCW 1370 100
Moncton, N. B.
CKFC 1410 50
Vancouver, B. C.
CKGB 1420 100
Timmins, Ont.
CKIC 1010 50
Wolfville, N. S.
CKLW 1030 5000
Windsor, Ont.
CKMC 1210 50
Cobalt, Ont.
CKMO 1410 100
Vancouver, B. C.
CKNX 1200 50
Wingham, Ont.
CKOC 1120 500
Hamilton, Ont.
CKOV 630 100
Kelowna, B. C.
CKPC 930 100
Brantford, Ont.
CKPR 730 100
Fort William, Ont.
CKSO 780 1000
Sudbury, Ont.
CKTB 1200 100
St. Catherines, Ont.
CKUA 580 500
Edmonton, Alta.
CKWX 1010 100
Vancouver, B. C.
CKX 1120 100
Brandon, Man.
CKY 910 15000
Winnipeg, Man.

CMAB 1340 ....
Pinar del Rio, Cuba
CMBC 640 150
Havana, Cuba
CMBD 1170 500
Havana, Cuba
CMBG 1140 200
Havana, Cuba
CMBN 850 150
Havana, Cuba
CMBS 770 150
Havana, Cuba
CMBX 1070 500
Havana, Cuba
CMBY 970 150
Havana, Cuba
CMBZ 1000 500
Havana, Cuba
CMCA 1350 250
Havana, Cuba
CMCB 1230 150
Havana, Cuba
CMCD 950 250
Havana, Cuba
CMCF 810 600
Havana, Cuba
CMCG 680 1000
Havana, Cuba
CMCJ 1110 500
Havana, Cuba
CMCO 1200 150
Havana, Cuba
CMCQ 1420 250
Havana, Cuba
CMCR 1380 150
Havana, Cuba
CMCU 1280 500
Havana, Cuba
CMCW 750 150
Havana, Cuba
CMCX 1500 150
Havana, Cuba
CMCY 1030 5000
Havana, Cuba
CMGC 1400 150
Matanzas, Cuba
CMGE 1370 150
Cardenas, Cuba
CMGF 1120 150
Matanzas, Cuba
CMGH 790 250
Matanzas, Cuba
CMHA 1070 50
Sagua la Grande, Cu.
CMHB 1240 50
Sancti Spiritus, Cuba
CMHD 1270 250
Caibarien, Cuba
CMHI 1210 150
Santa Clara, Cuba
CMHJ 1160 175
Cienfuegos, Cuba
CMHK 1330 250
Cruces, Cuba
CMHW 820 100
Cienfuegos, Cuba
CMHX 760 200
Cienfuegos, Cuba

CMJA 1010 50
Camaguey, Cuba
CMJC 1390 150
Camaguey, Cuba
CMJE 1220 50
Camaguey, Cuba
CMJF 1150 200
Camaguey, Cuba
CMJH 1360 100
Ciego de Avila, Cuba
CMJI 1130 150
Ciego de Avila, Cuba
CMJK 780 250
Camaguey, Cuba
CMJL 1340 100
Camaguey, Cuba
CMJO 1180 50
Ciego de Avila, Cuba
CMJP 1430 75
Camaguey, Cuba
CMJX 830 ....
Camaguey, Cuba
CMK 730 3000
Havana, Cuba
CMKC 1250 150
Santiago, Cuba
CMKD 1050 250
Santiago, Cuba
CMKF 1460 250
Holguin, Cuba
CMKM 1120 200
Manzanillo, Cuba
CMKR 1400 100
Santiago, Cuba
CMKW 1330 ....
Santiago, Cuba
CMKX 1190 75
Santiago, Cuba
CMOA 1440 150
Havana, Cuba
CMOK 1470 150
Havana, Cuba
CMOX 1320 200
Havana, Cuba
CMQ 880 500
Havana, Cuba
CMW 600 1400
Havana, Cuba
CMX 920 1000
Havana, Cuba
CRCK 1050 1000
Quebec, Que.
CRCM 910 5000
Montreal, Que.
CRCO 880 1000
Ottawa, Ont.
CRCS 950 100
Chicoutimi, Que.
CRCT 840 5000
Toronto, Ont.
CRCV 1100 1000
Vancouver, B. C.
CRCW 600 500
Windsor, Ont.
FQN 609 250
St. Pierre, Miq.
HHK 920 1000
Port-au-Prince, Haiti

HIH 1395 15
San Pedro de M., D. R.
HIJ 1195 15
Trujillo, D. R.
HIX 800 700
Trujillo, D. R.
HIZ 1370 10
Trujillo, D. R.
HP50 1440 25
Colon, Panama
HRN 1340 100
Tegucigalpa, Hond.
KABC 1420 100
San Antonio, Texas
KABR 1420 100
Aberdeen, S. Dak.
KADA 1200 100
Ada, Okla.
KALB 1420 100
Alexandria, La.
KALE 1300 500
Portland, Ore.
KANS 1210 100
Wichita, Kans.
KARK 890 250
Little Rock, Ark.
KASA 1210 100
Elk City, Okla.
KAST 1370 100
Astoria, Ore.
KBIX 1500 100
Muskogee, Okla.
KBPS 1420 100
Portland, Ore.
KBST 1500 100
Big Spring, Texas
KBTM 1200 100
Jonesboro, Ark.
KCMC 1420 100
Texarkana, Ark.
KCMO 1370 100
Kansas City, Mo.
KCRC 1360 250
Enid, Okla.
KCRJ 1310 100
Jerome, Ariz.
KDB 1500 100
Santa Barbara, Calif.
KDFN 1440 500
Casper, Wyo.
KDKA 980 50000
Pittsburgh, Pa.
KDLR 1210 100
Devils Lake, N. D.
KDNC 1200 100
Lewistown, Mont.
KDON 1210 100
Del Monte, Calif.
KDYL 1290 1000
Salt Lake City, Utah
KECA 1430 1000
Los Angeles, Calif.
KEHE 780 500
Los Angeles, Calif.
KELD 1370 100
El Dorado, Ark.
KERN 1370 100
Bakersfield, Calif.

KEUB 1420 100
Price, Utah
KEX 1180 5000
Portland, Ore.
KFAB 770 10000
Lincoln, Neb.
KFAC 1300 1000
Los Angeles, Calif.
KFBB 1280 1000
Great Falls, Mont.
KFBI 1050 5000
Abilene, Kans.
KFBK 1490 5000
Sacramento, Calif.
KFDM 560 500
Beaumont, Texas
KFDY 780 1000
Brookings, S. D.
KFEL 920 500
Denver, Colo.
KFEQ 680 2500
St. Joseph, Mo.
KFGQ 1370 100
Boone, Iowa
KFH 1300 1000
Wichita, Kans.
KFI 640 50000
Los Angeles, Calif.
KFIO 1120 100
Spokane, Wash.
KFIZ 1420 100
Fond du Lac, Wis.
KFJB 1200 100
Marshalltown, Iowa
KFJI 1210 100
Klamath Falls, Ore.
KFJM 1370 100
Grand Forks, N. D.
KFJR 1300 500
Portland, Ore.
KFJZ 1370 100
Fort Worth, Texas
KFKA 880 500
Greeley, Colo.
KFKU 1220 1000
Lawrence, Kans.
KFNF 890 500
Shenandoah, Iowa
KFOR 1210 100
Lincoln, Neb.
KFOX 1250 1000
Long Beach, Calif.
KFPL 1310 100
Dublin, Texas
KFPW 1210 100
Fort Smith, Ark.
KFPY 890 1000
Spokane, Wash.
KFQD 780 250
Anchorage, Alaska
KFRC 610 1000
San Francisco, Calif.
KFRO 1370 100
Longview, Texas
KFRU 630 500
Columbia, Mo.
KFSD 600 1000
San Diego, Calif.

KFSD 1120 500
Los Angeles, Calif.

KFUO 550 500
St. Louis, Mo.

KFVD 1000 250
Los Angeles, Calif.

KFVS 1210 100
Cape Girardeau, Mo.

KFWB 950 1000
Hollywood, Calif.

KFXD 1200 100
Nampa, Idaho

KFXJ 1200 100
Grand Junction, Colo.

KFXM 1210 100
San Bernardino, Calif.

KFXR 1310 100
Oklahoma City, Okla.

KFYO 1310 100
Lubbock, Texas

KFYR 550 1000
Bismarck, N. D.

KGA 1470 5000
Spokane, Wash.

KGAR 1370 100
Tucson, Ariz.

KGB 1330 1000
San Diego, Calif.

KGBU 900 500
Ketchikan, Alaska

KGBX 1230 500
Springfield, Mo.

KGCA 1270 100
Decorah, Iowa

KGCU 1240 250
Mandan, N. D.

KGCX 1310 100
Wolf Point, Mont.

KGDE 1200 100
Fergus Falls, Minn.

KGDM 1100 1000
Stockton, Calif.

KGDY 1340 250
Huron, S. D.

KGEK 1200 100
Sterling, Colo.

KGER 1360 1000
Long Beach, Calif.

KGEZ 1310 100
Kalispell, Mont.

KGFF 1420 100
Shawnee, Okla.

KGFG 1370 100
Oklahoma City, Okla.

KGFI 1500 100
Corpus Christi, Texas

KGFJ 1200 100
Los Angeles, Calif.

KGFK 1500 100
Moorhead, Minn.

KGFL 1370 100
Roswell, N. M.

KGFW 1310 100
Kearney, Neb.

KGFX 630 200
Pierre, S. D.

KGGC 1420 100
San Francisco, Calif.

KGGF 1010 1000
Coffeyville, Kans.

KGGM 1230 250
Albuquerque, N. M.

KGHF 1320 500
Pueblo, Colo.

KGHI 1200 100
Little Rock, Ark.

KGHL 780 1000
Billings, Mont.

KGIR 1340 1000
Butte, Mont.

KGIW 1420 100
Alamosa, Colo.

KGKB 1500 100
Tyler, Texas

KGKL 1370 100
San Angelo, Texas

KGKO 570 250
Wichita Falls, Texas

KGKY 1500 100
Scottsbluff, Neb.

KGLO 1210 100
Mason City, Iowa

KGMB 1320 1000
Honolulu, T. H.

KGNC 1410 1000
Amarillo, Texas

KGNF 1430 1000
North Platte, Neb.

KGNO 1340 250
Dodge City, Kans.

KGO 790 7500
San Francisco, Calif.

KGU 750 2500
Honolulu, T. H.

KGVO 1260 1000
Missoula, Mont.

KGW 620 1000
Portland, Ore.

KGY 1210 100
Olympia, Wash.

KHBC 1400 250
Hilo, T. H.

KHJ 900 1000
Los Angeles, Calif.

KHQ 590 1000
Spokane, Wash.

KHSL 950 250
Chico, Calif.

KHUB 1310 250
Watsonville, Calif.

KICA 1370 100
Clovis, N. M.

KID 1320 500
Idaho Falls, Idaho

KIDO 1350 1000
Boise, Idaho

KIDW 1420 100
Lamar, Colo.

KIEM 1450 500
Eureka, Calif.

KIEV 850 250
Glendale, Calif.

KINY 1310 100
Juneau, Alaska

KIRO 710 1000
Seattle, Wash.

KIT 1310 100
Yakima, Wash.

KIUJ 1310 100
Santa Fe, N. Mex.

KIUL 1210 100
Garden City, Kans.

KIUN 1420 100
Pecos, Texas

KIUP 1370 100
Durango, Colo.

KJBS 1070 500
San Francisco, Calif.

KJR 970 5000
Seattle, Wash.

KLAH 1210 100
Carlsbad, N. Mex.

KLCN 1290 100
Blytheville, Ark.

KLO 1400 500
Ogden, Utah

KLPM 1240 250
Minot, N. D.

KLRA 1390 1000
Little Rock, Ark.

KLS 1440 250
Oakland, Calif.

KLUF 1370 100
Galveston, Texas

KLX 880 1000
Oakland, Calif.

KLZ 560 1000
Denver, Colo.

KMA 930 1000
Shenendoah, Iowa

KMAC 1370 100
San Antonio, Texas

KMBC 950 1000
Kansas City, Mo.

KMED 1310 100
Medford, Ore.

KMJ 580 500
Fresno, Calif.

KMLB 1200 100
Monroe, La.

KMMJ 740 1000
Clay Center, Neb.

KMO 1330 250
Tacoma, Wash.

KMOX 1090 50000
St. Louis, Mo.

KMPC 710 500
Beverly Hills, Calif.

KMTR 570 1000
Hollywood, Calif.

KNEL 1500 100
Brady, Texas

KNET 1420 100
Palestine, Texas

KNOW 1500 100
Austin, Texas

KNX 1050 50000
Hollywood, Calif.

KOA 830 50000
Denver, Colo.

KOAC 550 1000
Corvallis, Ore.

KOB 1180 10000
Albuquerque, N. M.

KOBH 1370 100
Rapid City, S. Dak.

KOCA 1210 100
Kilgore, Texas

KOH 1380 500
Reno, Nev.

KOIL 1260 1000
Council Bluffs, Iowa
KOIN 940 1000
Portland, Ore.
KOL 1270 1000
Seattle, Wash.
KOMA 1480 5000
Oklahoma City, Okla.
KOMO 920 1000
Seattle, Wash.
KONO 1370 100
San Antonio, Texas
KOOS 1390 250
Marshfield, Ore.
KORE 1420 100
Eugene, Ore.
KOTN 1500 100
Pine Bluffs, Ark.
KOVC 1500 100
Valley City, N. Dak.
KOY 1390 500
Phoenix, Ariz.
KPAC 1260 500
Port Arthur, Texas
KPDN 1310 100
Pampa, Texas
KPLC 1500 100
Lake Charles, La.
KPLT 1500 100
Paris, Texas
KPO 680 50000
San Francisco, Calif.
KPOF 880 500
Denver, Colo.
KPPC 1210 100
Pasadena, Calif.
KPQ 1500 100
Wenatchee, Wash.
KPRC 920 1000
Houston, Texas
KQV 1380 500
Pittsburgh, Pa.
KQW 1010 1000
San Jose, Calif.
KRBC 1420 100
Abilene, Texas
KRE 1370 100
Berkeley, Calif.
KRGV 1260 500
Weslaco, Texas
KRKD 1120 500
Los Angeles, Calif.
KRKO 1370 50
Everett, Wash.
KRLC 1420 100
Lewiston, Idaho
KRLD 1040 10000
Dallas, Texas
KRLH 1420 100
Midland, Texas
KRMD 1310 100
Shreveport, La.
KRNR 1500 100
Roseburg, Ore.
KRNT 1320 500
Des Moines, Iowa
KROC 1310 100
Rochester, Minn.
KROW 930 1000
Oakland, Calif.

KROY 1310 100
Sacramento, Calif.
KRRV 1310 100
Sherman, Texas
KRSC 1120 100
Seattle, Wash.
KSAC 580 500
Manhattan, Kans.
KSCJ 1330 1000
Sioux City, Iowa
KSD 550 1000
St. Louis, Mo.
KSEI 900 250
Pocatello, Idaho
KSFO 560 1000
San Francisco, Calif.
KSL 1130 50000
Salt Lake City, Utah
KSLM 1370 100
Salem, Ore.
KSO 1430 500
Des Moines, Iowa
KSOO 1110 2500
Sioux Falls, S. D.
KSTP 1460 25000
St. Paul, Minn.
KSUN 1200 100
Lowell, Ariz.
KTAR 620 1000
Phoenix, Ariz.
KTAT 1240 1000
Fort Worth, Texas
KTBS 1450 1000
Shreveport, La.
KTEM 1370 100
Temple, Texas
KTEP 1500 100
El Paso, Texas
KTFI 1240 1000
Twin Falls, Idaho
KTHS 1060 10000
Hot Springs, Ark.
KTRB 740 250
Modesto, Calif.
KTRH 1290 1000
Houston, Texas
KTSA 550 1000
San Antonio, Texas
KTSM 1310 100
El Paso, Texas
KTUL 1400 500
Tulsa, Okla.
KTW 1220 1000
Seattle, Wash.
KUJ 1370 100
Walla Walla, Wash.
KUMA 1420 100
Yuma, Ariz.
KUOA 1260 1000
Fayetteville, Ark.
KUSD 890 500
Vermillion, S. D.
KUTA 1500 100
Salt Lake City, Utah
KVCV 1200 100
Redding, Calif.
KVEC 1200 250
San Luis Obispo, Calif.

KVI 570 1000
Tacoma, Wash.
KVL 1370 100
Seattle, Wash.
KVOA 1260 500
Tucson, Ariz.
KVOD 920 500
Denver, Colo.
KVOE 1500 100
Santa Ana, Calif.
KVOL 1310 100
Lafayette, La.
KVOO 1140 25000
Tulsa, Okla.
KVOR 1270 1000
Colorado Spgs., Colo.
KVOS 1200 100
Bellingham, Wash.
KVSO 1210 100
Ardmore, Okla.
KWBG 1420 100
Hutchinson, Kans.
KWG 1200 100
Stockton, Calif.
KWJJ 1040 500
Portland, Ore.
KWK 1350 1000
St. Louis, Mo.
KWKH 1100 10000
Shreveport, La.
KWLC 1270 100
Decorah, Iowa
KWSC 1220 1000
Pullman, Wash.
KWTN 1210 100
Watertown, S. D.
KWTO 560 5000
Springfield, Mo.
KWYO 1370 100
Sheridan, Wyo.
KXA 760 250
Seattle, Wash.
KXL 1420 100
Portland, Ore.
KXO 1500 100
El Centro, Calif.
KXRO 1310 100
Aberdeen, Wash.
KXYZ 1440 1000
Houston, Texas
KYA 1230 1000
San Francisco, Calif.
KYOS 1040 250
Merced, Calif.
KYW 1020 10000
Philadelphia, Pa.
NAA 690 1000
Arlington, Va.
RDN 680 500
San Salvador, E. S.
TGW 1210 10000
Guatemala, Gua.
TGX 1400 250
Guatemala City
TIEP 850 500
San Jose, C. R.

TIFA 1050 75
San Jose, C. R.
TIFS 1441 7.5
Cartago, C. R.
TIGA 1014 30
Cartago, C. R.
TIGH 1000 500
San Jose, C. R.
TIGPH 650 1000
San Jose, C. R.
TIRH 930 50
San Jose, C. R.
TIVCA 1225 ....
San Jose, C. R.
TIX 800 ....
San Jose, C. R.
VAS 685 2000
Glace Bay, N. S.
VE9EK 1185 10
Montmagny, Que.
VOAC 1065 40
St. John's, Nfld.
VOAS 940 100
St. John's, Nfld.
VOGY 840 400
St. John's, Nfld.
VONF 1195 500
St. John's, Nfld.
VOWR 681 500
St. John's, Nfld.
WAAB 1410 500
Boston, Mass.
WAAF 920 1000
Chicago, Ill.
WAAT 940 500
Jersey City, N. J.
WAAW 660 500
Omaha, Neb.
WABC 860 50000
New York, N. Y.
WABI 1200 100
Bangor, Maine
WABY 1370 100
Albany, N. Y.
WACO 1420 100
Waco, Texas
WADC 1320 1000
Akron, Ohio
WAGF 1370 250
Dothan, Ala.
WAGM 1420 100
Presque Isle, Me.
WAIM 1200 100
Anderson, S. C.
WALA 1380 500
Mobile, Ala.
WALR 1210 100
Zanesville, Ohio
WAML 1310 100
Laurel, Miss.
WAPI 1140 5000
Birmingham, Ala.
WAPO 1420 100
Chattanooga, Tenn.
WARD 1400 500
Brooklyn, N. Y.
WASH 1270 500
Grand Rapids, Mich.

WATL 1370 100
Atlanta, Ga.
WATR 1190 100
Waterbury, Conn.
WAVE 940 1000
Louisville, Ky.
WAWZ 1350 500
Zarephath, N. J.
WAYX 1200 100
Waycross, Ga.
WAZL 1420 100
Hazleton, Pa.
WBBA 890 500
West Lafayette, Ind.
WBAL 760 2500
Baltimore, Md.
WBAL 1060 10000
Baltimore, Md.
WBAP 800 50000
Fort Worth, Texas
WBAX 1210 100
Wilkes-Barre, Pa.
WBBC 1400 500
Brooklyn, N. Y.
WBBL 1210 100
Richmond, Va.
WBBM 770 50000
Chicago, Ill
WBBR 1300 1000
Brooklyn, N. Y.
WBBZ 1200 100
Ponca City, Okla.
WBCM 1410 500
Bay City, Mich.
WBEN 900 1000
Buffalo, N. Y.
WBEO 1310 100
Marquette, Mich.
WBIG 1440 500
Greensboro, N. C.
WBLY 1210 100
Lima, Ohio
WBNO 1200 100
New Orleans, La.
WBNS 1430 500
Columbus, Ohio
WBNX 1350 1000
New York, N. Y.
WBNY 1370 100
Buffalo, N. Y.
WBOQ 860 50000
New York, N. Y.
WBOW 1310 100
Terre Haute, Ind.
WBRB 1210 100
Red Bank, N. J.
WBRC 930 1000
Birmingham, Ala.
WBRE 1310 100
Wilkes-Barre, Pa.
WBT 1080 50000
Charlotte, N. C.
WBTM 1370 100
Danville, Va.
WBZ 990 50000
Boston, Mass.
WBZA 990 1000
Springfield, Mass.

WCAD 1220 500
Canton, N. Y.
WCAE 1220 1000
Pittsburgh, Pa.
WCAL 1250 1000
Northfield, Minn.
WCAM 1280 500
Camden, N. J.
WCAO 600 500
Baltimore, Md.
WCAP 1280 500
Asbury Park, N. J.
WCAT 1200 100
Rapid City, S. D.
WCAU 1170 50000
Philadelphia, Pa.
WCAX 1200 100
Burlington, Vt.
WCAZ 1070 100
Carthage, Ill.
WCBA 1440 500
Allentown, Pa.
WCBD 1080 5000
Waukegan, Ill.
WCBM 1370 100
Baltimore, Md.
WCBS 1420 100
Springfield, Ill.
WCCO 810 50000
Minneapolis, Minn.
WCFL 970 5000
Chicago, Ill.
WCHS 580 500
Charleston, W. Va.
WCHV 1420 100
Charlottesville, Va.
WCKY 1490 5000
Covington, Ky.
WCLO 1200 100
Janesville, Wis.
WCLS 1310 100
Joliet, Ill.
WCMI 1310 100
Ashland, Ky.
WCNW 1500 100
Brooklyn, N. Y.
WCOA 1340 500
Pensacola, Fla.
WCOC 880 500
Meridian, Miss.
WCOL 1210 100
Columbus, Ohio
WCOP 1120 500
Boston, Mass.
WCPO 1200 100
Cincinnati, Ohio
WCRW 1210 100
Chicago, Ill.
WCSC 1360 500
Charleston, S. C.
WCSH 940 1000
Portland, Me.
WDAE 1220 1000
Tampa, Fla.
WDAF 610 1000
Kansas City, Mo.
WDAH 1310 100
El Paso, Texas

WDAS 1370 100
Philadelphia, Pa.

WDAY 940 1000
Fargo, N. D.

WDBJ 930 1000
Roanoke, Va.

WDBO 580 1000
Orlando, Fla.

WDEL 1120 250
Wilmington, Del.

WDEV 550 500
Waterbury, Vt.

WDGY 1180 1000
Minneapolis, Minn.

WDNC 1500 100
Durham, N. C.

WDOD 1280 1000
Chattanooga, Tenn.

WDRC 1330 1000
Hartford, Conn.

WDSU 1250 1000
New Orleans, La.

WDWS 1370 100
Champaign, Ill.

WDZ 1020 250
Tuscola, Ill.

WEAF 660 50000
New York, N. Y.

WEAN 780 500
Providence, R. I.

WEBC 1290 1000
Superior, Wis.

WEBQ 1210 100
Harrisburg, Ill.

WEBR 1310 100
Buffalo, N. Y.

WEDC 1210 100
Chicago, Ill.

WEED 1420 100
Rocky Mount, N. C.

WEEI 590 1000
Boston, Mass.

WEEU 830 1000
Reading, Pa.

WEGL 1400 500
Brooklyn, N. Y.

WEHS 1420 100
Cicero, Ill.

WELI 900 500
New Haven, Conn.

WELL 1420 100
Battle Creek, Mich.

WEMP 1310 100
Milwaukee, Wis.

WENR 870 50000
Chicago, Ill.

WEOA 1370 100
Evansville, Ind.

WESG 850 1000
Elmira, N. Y.

WEST 1200 100
Easton, Pa.

WEVD 1300 1000
New York, N. Y.

WEW 760 1000
St. Louis, Mo.

WEXL 1310 50
Royal Oak, Mich.

WEXP 1370 100
Clarksburg, W. Va.

WFAA 800 50000
Dallas, Texas

WFAB 1300 1000
New York, N. Y.

WFAM 1200 100
South Bend, Ind.

WFAS 1210 100
White Plains, N. Y.

WFBC 1300 1000
Greenville, S. C.

WFBG 1310 100
Altoona, Pa.

WFBL 1360 1000
Syracuse, N. Y.

WFBM 1230 1000
Indianapolis, Ind.

WFBR 1270 500
Baltimore, Md.

WFDF 1310 100
Flint, Mich.

WFEA 1340 500
Manchester, N. H.

WFIL 560 1000
Philadelphia, Pa.

WFLA 620 1000
Clearwater, Fla.

WFMD 900 500
Frederick, Md.

WFOR 1370 100
Hattiesburg, Miss.

WFOY 1210 100
St. Augustine, Fla.

WGAL 1500 100
Lancaster, Pa.

WGAN 640 500
Portland, Me.

WGAR 1450 500
Cleveland, Ohio

WGBB 1210 100
Freeport, N. Y.

WGBF 630 500
Evansville, Ind.

WGBI 880 500
Scranton, Pa.

WGCM 1210 100
Gulfport, Miss.

WGES 1360 500
Chicago, Ill.

WGH 1310 100
Newport News, Va.

WGL 1370 100
Fort Wayne, Ind.

WGN 720 50000
Chicago, Ill.

WGNY 1210 100
Newburgh, N. Y.

WGPC 1420 100
Albany, Ga.

WGR 550 1000
Buffalo, N. Y.

WGRC 1370 250
New Albany, Ind.

WGST 890 1000
Atlanta, Ga.

WGY 790 50000
Schenectady, N. Y.

WHA 940 5000
Madison, Wis.

WHAM 1150 50000
Rochester, N. Y.

WHAS 820 50000
Louisville, Ky.

WHAT 1310 100
Philadelphia, Pa.

WHAZ 1300 500
Troy, N. Y.

WHB 860 1000
Kansas City, Mo.

WHBB 1500 100
Selma, Alabama

WHBC 1200 100
Canton, Ohio

WHBF 1210 100
Rock Island, Ill.

WHBI 1250 1000
Newark, N. J.

WHBL 1300 250
Sheboygan, Wis.

WHBQ 1370 100
Memphis, Tenn.

WHBU 1210 100
Anderson, Ind.

WHBY 1200 100
Green Bay, Wis.

WHDF 1370 100
Calumet, Mich.

WHDH 830 1000
Boston, Mass.

WHDL 1420 100
Olean, N. Y.

WHEB 740 250
Portsmouth, N. H.

WHEC 1430 500
Rochester, N. Y.

WHEF 1500 100
Kosciusko, Miss.

WHFC 1420 100
Cicero, Ill.

WHIO 1260 1000
Dayton, Ohio

WHIS 1410 500
Bluefield, W. Va.

WHJB 620 250
Greensburg, Pa.

WHK 1390 1000
Cleveland, Ohio

WHKC 640 500
Columbus, Ohio

WHLB 1370 100
Virginia, Minn.

WHN 1010 1000
New York, N. Y.

WHO 1000 50000
Des Moines, Iowa

WHOM 1450 250
Jersey City, N. J.

WHP 1430 500
Harrisburg, Pa.

WIBA 1280 1000
Madison, Wis.

WIBG 970 100
Glenside, Pa.

WIBM 1370 100
Jackson, Mich.

WIBU 1210 100
Poynette, Wis.

WIBW 580 1000
Topeka, Kans.

WIBX 1200 100
Utica, N. Y.
WICC 600 500
Bridgeport, Conn.
WIL 1200 100
St. Louis, Mo.
WILL 580 250
Urbana, Ill.
WILM 1420 100
Wilmington, Del.
WIND 560 1000
Gary, Ind.
WINS 1180 1000
New York, N. Y.
WIOD 1300 1000
Miami, Fla.
WIP 610 1000
Philadelphia, Pa.
WIRE 1400 500
Indianapolis, Ind.
WIS 560 1000
Columbia, S. C.
WISN 1120 250
Milwaukee, Wis
WJAC 1310 100
Johnstown, Pa.
WJAG 1060 1000
Norfolk, Neb.
WJAR 890 1000
Providence, R. I.
WJAS 1290 1000
Pittsburgh, Pa.
WJAX 900 1000
Jacksonville, Fla.
WJAY 610 500
Cleveland, Ohio
WJBC 1200 100
Bloomington, Ill.
WJBK 1500 100
Detroit, Mich.
WJBL 1200 100
Decatur, Ill.
WJBO 1420 100
Baton Rouge, La.
WJBR 1420 100
Gastonia, N. C.
WJBW 1200 100
New Orleans, La.
WJBY 1210 100
Gadsden, Ala.
WJDX 1270 1000
Jackson, Miss.
WJEJ 1210 100
Hagerstown, Md.
WJIM 1210 100
Lansing, Mich.
WJJD 1130 20000
Chicago, Ill.
WJMS 1420 100
Ironwood, Mich.
WJNO 1200 100
W. Palm Beach, Fla.
WJR 750 50000
Detroit, Mich.
WJRD 1200 100
Tuscaloosa, Ala.
WJSV 1460 10000
Washington, D. C.

WJW 1210 100
Akron, Ohio
WJZ 760 50000
New York, N. Y.
WKAQ 1240 1000
San Juan, P. R.
WKAR 850 1000
East Lansing, Mich.
WKBB 1500 100
East Dubuque, Ill.
WKBH 1380 1000
LaCrosse, Wis.
WKBI 1420 100
Cicero, Ill.
WKBN 570 500
Youngstown, Ohio
WKBO 1200 100
Harrisburg, Pa.
WKBV 1500 100
Richmond, Ind.
WKBW 1480 5000
Buffalo, N. Y.
WKBZ 1500 100
Muskegon, Mich.
WKEU 1500 100
Griffin, Ga.
WKOK 1210 100
Sunbury, Pa.
WKRC 550 1000
Cincinnati, Ohio
WKY 900 1000
Oklahoma City, Okla.
WKZO 590 1000
Kalamazoo, Mich.
WLAC 1470 5000
Nashville, Tenn.
WLAK 1310 100
Lakeland, Fla.
WLAP 1420 100
Lexington, Ky.
WLB 1250 1000
Minneapolis, Minn.
WLBC 1310 100
Muncie, Ind.
WLBF 1420 100
Kansas City, Kans.
WLBL 900 2500
Stevens Point, Wis.
WLBZ 620 500
Bangor, Me.
WLEU 1420 100
Erie, Pa.
WLLH 1370 100
Lowell, Mass.
WLMU 1210 100
Middlesboro, Ky.
WLNH 1310 100
Laconia, N. H.
WLS 870 50000
Chicago, Ill.
WLTH 1400 500
Brooklyn, N. Y.
WLVA 1200 100
Lynchburg, Va.
WLW 700 500000
Cincinnati, Ohio
WLWL 1100 5000
New York, N. Y.

WMAL 630 250
Washington, D. C.
WMAQ 670 50000
Chicago, Ill.
WMAS 1420 100
Springfield, Mass.
WMAZ 1180 1000
Macon, Ga.
WMBC 1420 100
Detroit, Mich.
WMBD 1440 500
Peoria, Ill.
WMBG 1210 100
Richmond, Va.
WMBH 1420 100
Joplin, Mo.
WMBI 1080 5000
Chicago, Ill.
WMBO 1310 100
Auburn, N. Y.
WMBQ 1500 100
Brooklyn, N. Y.
WMBR 1370 100
Jacksonville, Fla.
WMC 780 1000
Memphis, Tenn.
WMCA 570 500
New York, N. Y.
WMEX 1500 100
Boston, Mass.
WMFD 1370 100
Wilmington, N. C.
WMFF 1310 250
Plattsburg, N. Y.
WMFG 1210 100
Hibbing, Minn.
WMFJ 1420 100
Daytona Beach, Fla.
WMFN 1210 100
Clarksdale, Miss.
WMFO 1370 100
Decatur, Ala.
WMFR 1200 100
High Point, N. C.
WMIN 1370 100
St. Paul, Minn.
WMMN 890 500
Fairmont, W. Va.
WMPC 1200 100
Lapeer, Mich.
WMSD 1420 100
Sheffield, Ala.
WMT 600 1000
Cedar Rapids, Iowa
WNAC 1230 1000
Boston, Mass.
WNAD 1010 1000
Norman, Okla.
WNAX 570 1000
Yankton, S. D.
WNBC 1380 250
New Britain, Conn.
WNBF 1500 100
Binghamton, N. Y.
WNBH 1310 100
New Bedford, Mass.
WNBR 1430 500
Memphis, Tenn.

WNBX 1260 1000
Springfield, Vt.
WNBZ 1290 100
Saranac Lake, N. Y.
WNEL 1290 1000
San Juan, P. R.
WNEW 1250 1000
Newark, N. J.
WNLC 1500 100
New London, Conn.
WNOX 1010 1000
Knoxville, Tenn.
WNRI 1200 100
Newport, R. I.
WNYC 810 1000
New York, N. Y.
WOAI 1190 50000
San Antonio, Texas
WOC 1370 100
Davenport, Iowa
WOCL 1210 50
Jamestown, N. Y.
WOI 640 5000
Ames, Iowa
WOKO 1430 500
Albany, N. Y.
WOL 1310 100
Washington, D. C.
WOLS 1200 100
Florence, S. C.
WOMT 1210 100
Manitowoc, Wis.
WOOD 1270 500
Grand Rapids, Mich.
WOPI 1500 100
Bristol, Tenn.
WOR 710 50000
Newark, N. J.
WORC 1280 500
Worcester, Mass.
WORK 1320 1000
York, Pa.
WORL 920 500
Boston, Mass.
WOS 630 500
Jefferson City, Mo.
WOSU 570 750
Columbus, Ohio
WOV 1130 1000
New York, N. Y.
WOW 590 5000
Omaha, Neb.
WOWO 1160 10000
Fort Wayne, Ind.
WPAD 1420 100
Paducah, Ky.
WPAR 1420 100
Parkersburg, W. Va.
WPAX 1210 100
Thomasville, Ga.
WPAY 1370 100
Portsmouth, Ohio
WPEN 920 250
Philadelphia, Pa.
WPG 1100 5000
Atlantic City, N. J.
WPHR 880 500
Petersburg, Va.

WPRA 1370 100
Mayaguez, P. R.
WPRO 630 500
Providence, R. I.
WPRP 1420 100
Ponce, P. R.
WPTF 680 1000
Raleigh, N. C.
WQAM 560 1000
Miami, Fla.
WQAN 880 250
Scranton, Pa.
WQBC 1360 1000
Vicksburg, Miss.
WQDM 1370 100
St. Albans, Vt.
WRAK 1370 100
Williamsport, Pa.
WRAW 1310 100
Reading, Pa.
WRAX 920 250
Philadelphia, Pa.
WRBL 1200 100
Columbus, Ga.
WRC 950 500
Washington, D. C.
WRDO 1370 100
Augusta, Me.
WRDW 1500 100
Augusta, Ga.
WREC 600 1000
Memphis, Tenn.
WREN 1220 1000
Lawrence, Kans.
WRGA 1500 100
Rome, Ga.
WRJN 1370 100
Racine, Wis.
WROK 1410 500
Rockford, Ill.
WROL 1310 100
Knoxville, Tenn.
WRR 1280 500
Dallas, Texas
WRUF 830 5000
Gainesville, Fla.
WRVA 1110 5000
Richmond, Va.
WSAI 1330 1000
Cincinnati, Ohio
WSAJ 1310 100
Grove City, Pa.
WSAN 1440 500
Allentown, Pa.
WSAR 1350 1000
Fall River, Mass.
WSAY 1210 100
Rochester, N. Y.
WSAZ 1190 1000
Huntington, W. Va.
WSB 740 50000
Atlanta, Ga.
WSBC 1210 100
Chicago, Ill.
WSBT 1360 500
South Bend, Ind.
WSFA 1410 500
Mongtomery, Ala.

WSGN 1310 100
Birmingham, Ala.
WSIX 1210 100
Springfield, Tenn.
WSJS 1310 100
Winston-Salem, N. C.
WSM 650 50000
Nashville, Tenn.
WSMB 1320 1000
New Orleans, La.
WSMK 1380 200
Dayton, Ohio
WSOC 1210 100
Charlotte, N. C.
WSPA 920 1000
Spartanburg, S. C.
WSPD 1340 1000
Toledo, Ohio
WSPR 1140 500
Springfield, Mass.
WSUI 880 500
Iowa City, Iowa
WSUN 620 1000
St. Petersburg, Fla.
WSVA 550 500
Harrisonburg, Va.
WSVS 1370 50
Buffalo, N. Y.
WSYB 1500 100
Rutland, Vt.
WSYR 570 1000
Syracuse, N. Y.
WTAD 900 500
Quincy, Ill.
WTAG 580 500
Worcester, Mass.
WTAL 1310 100
Tallahassee, Fla.
WTAM 1070 50000
Cleveland, Ohio
WTAQ 1330 1000
Green Bay, Wis.
WTAR 780 500
Norfolk, Va.
WTAW 1120 500
College Station, Tex.
WTAX 1210 100
Springfield, Ill.
WTBO 800 250
Cumberland, Md.
WTCN 1250 1000
Minneapolis, Minn.
WTEL 1310 100
Philadelphia, Pa.
WTFI 1450 500
Athens, Ga.
WTHT 1200 100
Hartford, Conn.
WTIC 1040 50000
Hartford, Conn.
WTJS 1310 100
Jackson, Tenn
WTMJ 620 1000
Milwaukee, Wis.
WTMV 1500 100
East St. Louis, Ill.

WTNJ 1280 500
Trenton, N. J.
WTOC 1260 1000
Savannah, Ga.
WTRC 1310 100
Elkhart, Ind.
WVFW 1400 500
Brooklyn, N. Y.
WWAE 1200 100
Hammond, Ind.
WWJ 920 1000
Detroit, Mich.
WWL 850 10000
New Orleans, La.
WWNC 570 1000
Asheville, N. C.
WWRL 1500 100
Woodside, N. Y.
WWSW 1500 100
Pittsburgh, Pa.
WWVA 1160 5000
Wheeling, W. Va.
WXYZ 1240 1000
Detroit, Mich.
W1XBS 1530 1000
Waterbury, Conn.
W2XR 1550 1000
Long Island City, N. Y.
W6XAI 1550 1000
Bakersfield, Calif.
W9XBY 1530 1000
Kansas City, Mo.
XEA 1060 500
Guadalajara, Jal.
XEAA 920 200
Mexicali, B. C.
XEAC 1240 250
Tijuana, L. C.
XEAF 990 500
Nogales, Son.
XEAG 1310 10
Cordoba, Ver.
XEAI 1240 100
Mexico City, D. F.
XEAM 750 7.5
Matamoros, Tams.
XEAO 560 250
Mexicali, B. C.
XEAQ 1090 1000
Rosarito, L. C.
XEAS 1160 100
Saltillo, Coah.
XEAT 1210 300
Hidalgo, Chih.
XEAW 960 50000
Reynosa, Tams.
XEAZ 1420 7
Guanajuato, Gto.
XEB 1030 10000
Mexico City, D. F.
XEBC 730 5000
Agua Caliente, L. C.
XEBH 930 500
Hermosillo, Sonora
XEBK 1000 100
Nuevo Laredo, Tams.
XEBZ 820 100
Mexico City, D. F.
XEC 1160 30
Tijuana, L. C.

XECW 1310 10
Mexico City, D. F.
XED 1160 2500
Guadalajara, Jal.
XEE 1210 50
Durango, Dgo.
XEF 1450 100
Juarez, Chih.
XEFA 1180 500
Mexico City, D. F.
XEFB 1420 100
Monterrey, N. L.
XEFC 560 100
Merida, Yuc.
XEFE 1340 250
Laredo, Tams.
XEFI 1440 250
Chihuahua, Chih.
XEFJ 1230 100
Monterrey, N. L.
XEFL 1150 250
Tijuana, L. C.
XEFO 940 5000
Mexico City, D. F.
XEFV 1210 100
Juarez, Chih.
XEFW 1310 250
Tampico, Tams.
XEFZ 1370 100
Mexico City, D. F.
XEG 1270 200
Ensenada, B. C.
XEH 1150 250
Monterrey, N. L.
XEI 1370 125
Morelia, Mich.
XEJ 1020 1000
Juarez, Chih.
XEK 990 100
Mexico City, D. F.
XEKL 1240 500
Leon, Guan.
XEL 1100 250
Mexico City, D. F.
XELA 1240 50
Saltillo, Coah.
XELO 1110 10000
Piedras Negras, Coah.
XEME 1240 15
Merida, Yuc.
XEMO 860 5000
Tijuana, L. C.
XEMX 1280 12
Mexico City, D. F.
XEMZ 820 ....
Coronado Isl., L. C.
XEN 710 1000
Mexico City, D. F.
XENT 910 150000
Nuevo Laredo, Tams.
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Tijuana, L. C.
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XEP 1160 500
Juarez, Chih.
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Torreon, Coah.
XETF 1220 12
Veracruz, Ver.
XETH 1210 100
Puebla, Pue.
XEU 1010 250
Veracruz, Ver.
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XEY 1000 10
Merida, Yuc.
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San Luis Potosi, S. L. P.
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Aguascallentes, Ags.
XFB 1270 250
Jalapa, Ver.
XFC 810 350
Aguascallentes, Ags.
XFD 1340 350
Jalapa, Ver.
XFO 940 5000
Mexico City, D. F.
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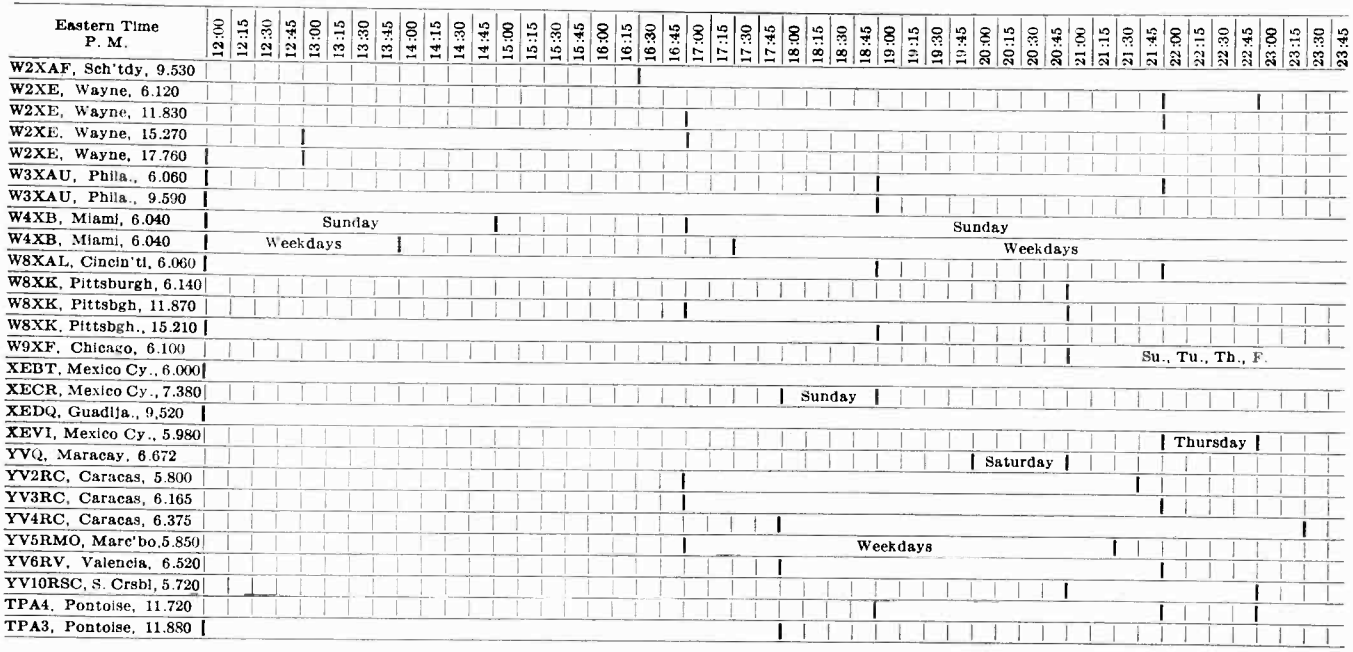
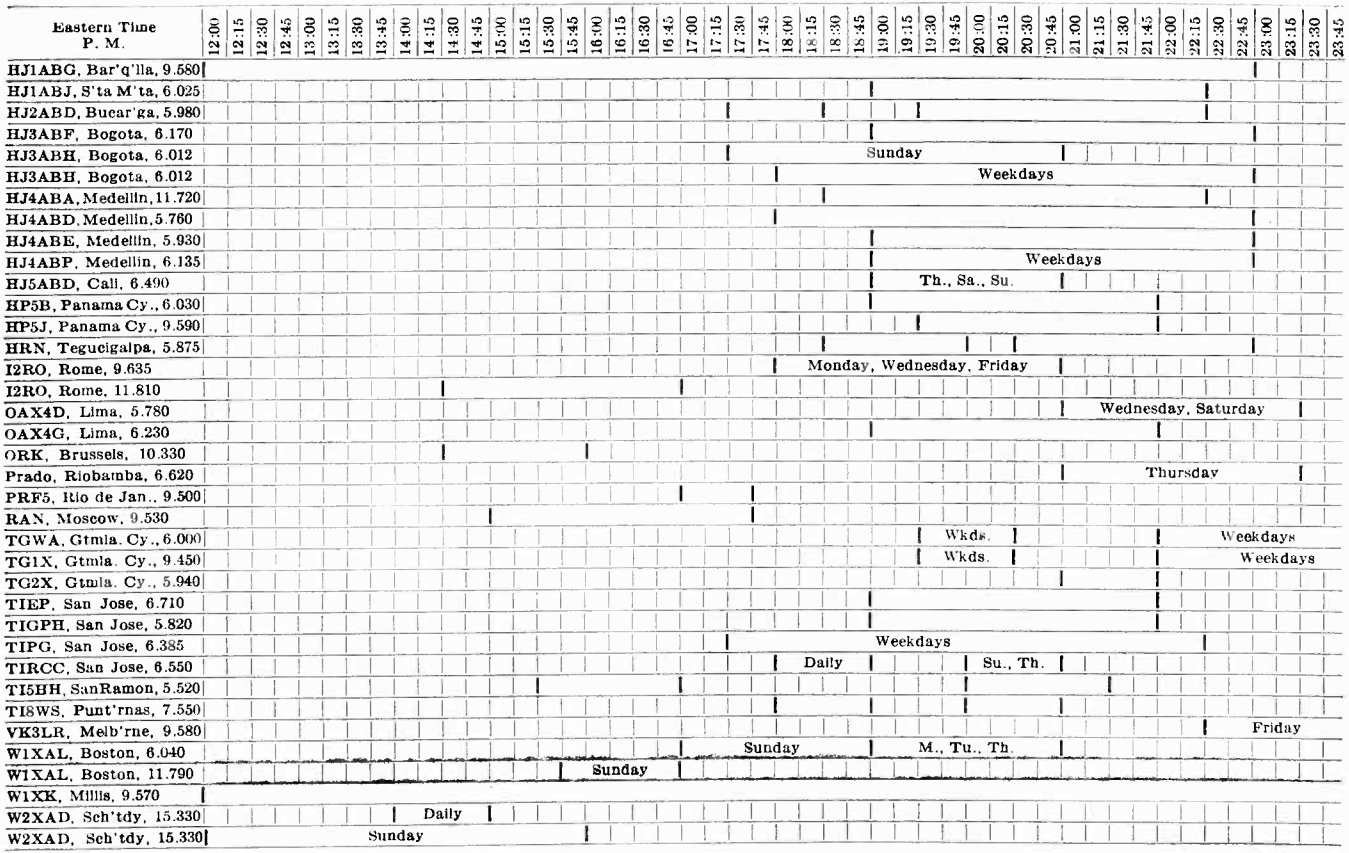
Managua, Nicaragua
YNOP 1230 100
Managua, Nicaragua
YNVA 950 30
Managua, Nicaragua



Hints on Tuning the Short Waves

It has been noted that shortwave reception follows certain definite trends. Stations between 5 and 7 megacycles favor darkness between the transmitter and the receiver. Transmitters working between about 8 and 10 megacycles are best when the station is in a night-time area and the receiver in daylight, so tuners should try for Europeans in this band in the early evening and for Australians near dawn. Below 10 megacycles the difficulty in tuning increases; here the path of the transmission should be as nearly as possible completely in daylight.

At night tune for South America between 5 and 10 megs. Europeans are good in the early evening and some of the higher powered Europeans are good all night. In the early morning tune for Australia and Asia between 6 and 10 megs. During the daytime tune for Europe, Africa and South America below 10 megacycles.


Eastern Time
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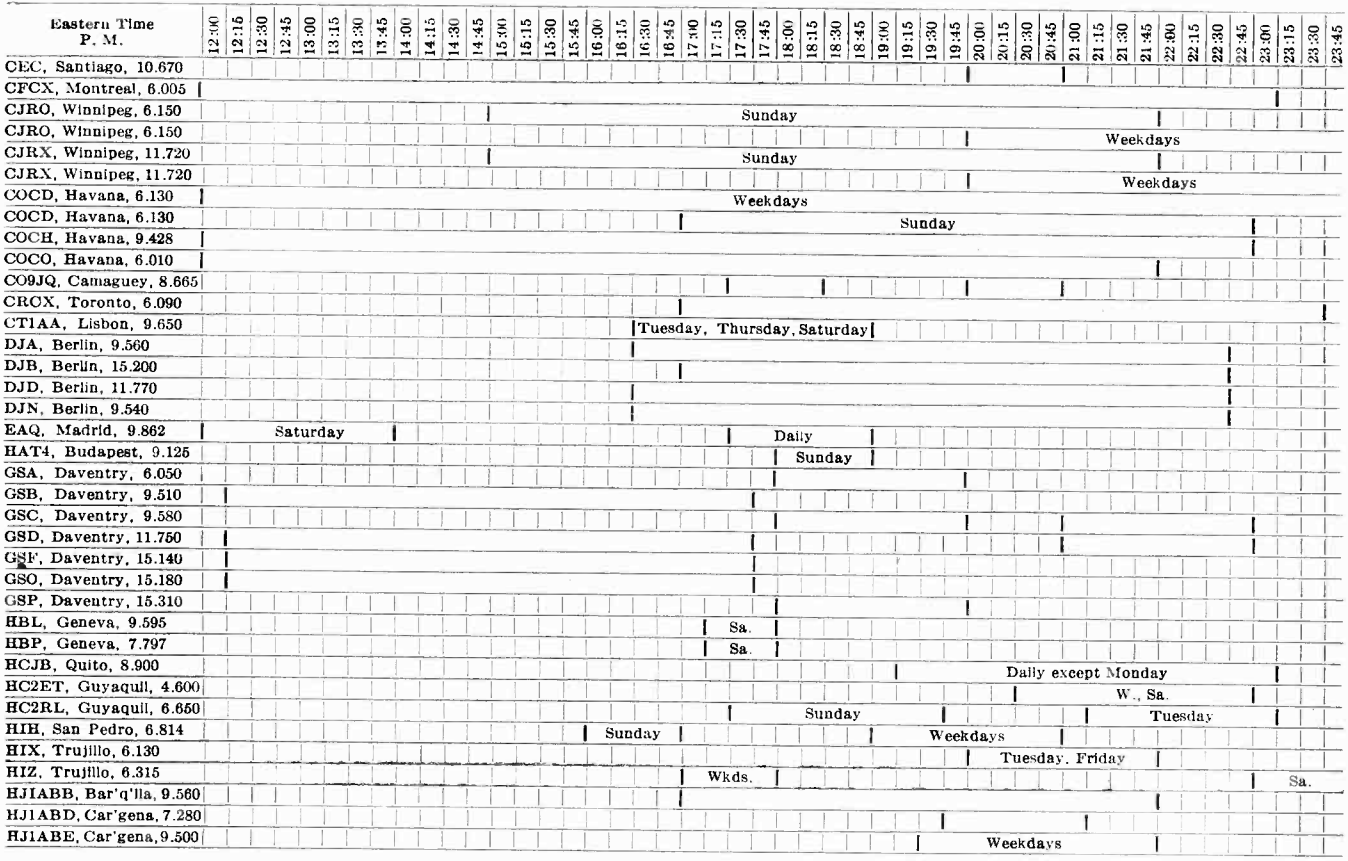
HJ1ABG, Bar'q'lla, 9.580
HJ1ABJ, S'ta M'ta, 6.025
HJ2ABD, Bucar'ga, 5.980
HJ3ABF, Bogota, 6.170
HJ3ABH, Bogota, 6.012
Sunday
HJ3ABH, Bogota, 6.012
Weekdays
HJ4ABA, Medellin, 11.720
HJ4ABD, Medellin, 5.760
HJ4ABE, Medellin, 5.930
HJ4ABP, Medellin, 6.135
Weekdays
HJ5ABD, Cali, 6.490
Th., Sa., Su.
HP5B, Panama Cy., 6.030
HP5J, Panama Cy., 9.590
HRN, Tegucigalpa, 5.875
I2RO, Rome, 9.635
Monday, Wednesday, Friday
I2RO, Rome, 11.810
OAX4D, Lima, 5.780
Wednesday, Saturday
OAX4G, Lima, 6.230
ORK, Brussels, 10.330
Prado, Riobamba, 6.620
Thursday
PRF5, Rio de Jan., 9.500
RAN, Moscow, 9.530
TGWA, Gtmla. Cy., 6.000
Wkds.
Weekdays
TG1X, Gtmla. Cy., 9.450
Wkds.
Weekdays
TG2X, Gtmla. Cy., 5.940
TIEP, San Jose, 6.710
TIGPH, San Jose, 5.820
TIPG, San Jose, 6.385
Weekdays
TIRCC, San Jose, 6.550
Daily
Su., Th.
TI5HH, SanRamon, 5.520
TI8WS, Punt'rnas, 7.550
VK3LR, Melb'rne, 9.580
Friday
W1XAL, Boston, 6.040
Sunday
M., Tu., Th.
W1XAL, Boston, 11.790
Sunday
W1XK, Millis, 9.570
W2XAD, Sch'tdy, 15.330
Daily
W2XAD, Sch'tdy, 15.330
Sunday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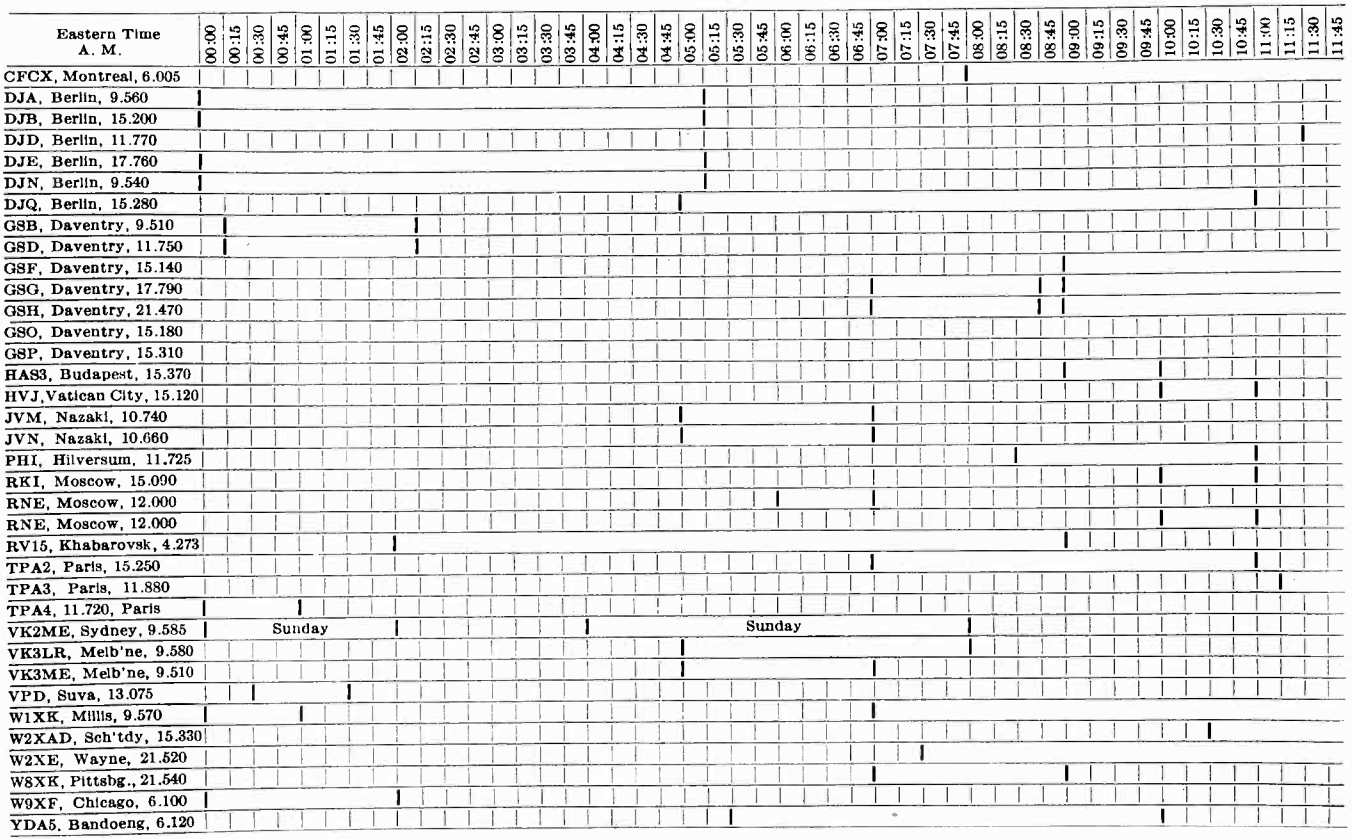
CEC, Santiago, 10.670
CFCX, Montreal, 6.005
CJRO, Winnipeg, 6.150
Sunday
CJRO, Winnipeg, 6.150
Weekdays
CJRX, Winnipeg, 11.720
Sunday
CJRX, Winnipeg, 11.720
Weekdays
COCD, Havana, 6.130
Weekdays
COCD, Havana, 6.130
Sunday
COCH, Havana, 9.428
COCO, Havana, 6.010
CO9JQ, Camaguey, 8.665
CROX, Toronto, 6.090
CT1AA, Lisbon, 9.650
Tuesday, Thursday, Saturday
DJA, Berlin, 9.560
DJB, Berlin, 15.200
DJD, Berlin, 11.770
DJN, Berlin, 9.540
EAQ, Madrid, 9.862
Saturday
Daily
HAT4, Budapest, 9.125
Sunday
GSA, Daventry, 6.050
GSB, Daventry, 9.510
GSC, Daventry, 9.580
GSD, Daventry, 11.750
GSF, Daventry, 15.140
GSO, Daventry, 15.180
GSP, Daventry, 15.310
HBL, Geneva, 9.595
Sa.
HBP, Geneva, 7.797
Sa.
HCJB, Quito, 8.900
Daily except Monday
HC2ET, Guyaquil, 4.600
W., Sa.
HC2RL, Guyaquil, 6.650
Sunday
Tuesday
HIH, San Pedro, 6.814
Sunday
Weekdays
HIX, Trujillo, 6.130
Tuesday, Friday
HIZ, Trujillo, 6.315
Wkds.
Sa.
HJ1ABB, Bar'q'lla, 9.560
HJ1ABD, Car'gena, 7.280
HJ1ABE, Car'gena, 9.500
Weekdays


Eastern Time
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CFCX, Montreal, 6.005
DJA, Berlin, 9.560
DJB, Berlin, 15.200
DJD, Berlin, 11.770
DJE, Berlin, 17.760
DJN, Berlin, 9.540
DJQ, Berlin, 15.280
GSB, Daventry, 9.510
GSD, Daventry, 11.750
GSF, Daventry, 15.140
GSG, Daventry, 17.790
GSH, Daventry, 21.470
GSO, Daventry, 15.180
GSP, Daventry, 15.310
HAS3, Budapest, 15.370
HVJ, Vatican City, 15.120
JVM, Nazaki, 10.740
JVN, Nazaki, 10.660
PHI, Hilversum, 11.725
RKI, Moscow, 15.090
RNE, Moscow, 12.000
RNE, Moscow, 12.000
RV15, Khabarovsk, 4.273
TPA2, Paris, 15.250
TPA3, Paris, 11.880
TPA4, 11.720, Paris
VK2ME, Sydney, 9.585
Sunday
Sunday
VK3LR, Melb'ne, 9.580
VK3ME, Melb'ne, 9.510
VPD, Suva, 13.075
W1XK, Millis, 9.570
W2XAD, Sch'tdy, 15.330
W2XE, Wayne, 21.520
W8XK, Pittsbg., 21.540
W9XF, Chicago, 6.100
YDA5, Bandoeng, 6.120

AROUND THE CLOCK ON THE SHORT WAVES

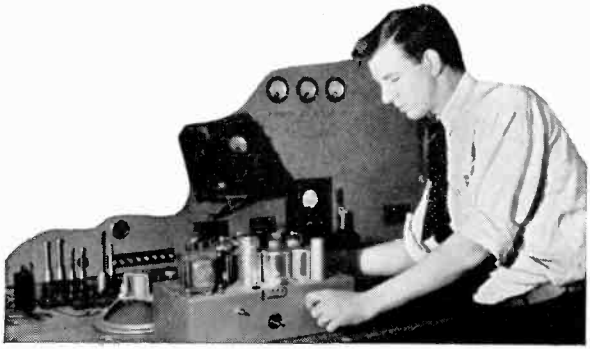
The time is given by the 24-hour clock. Noon is always 12:00 but midnight may be either 00:00 or 24:00. To change time to your own clock, subtract twelve from p.m. hours. Thus, 18:00 is 6 p.m. and 23:00 is 11:00 p.m. The time lines used in charts are for Eastern Standard. Those living in other zones may clip out the lines below and paste them over the EST lines. The following strips are for Central Standard Time. For MST, start with 10:00 and 22:00. For PST with 09:00 and 21:00.

Central Time A. M.	23:00	23:15	23:30	23:45	00:00	00:15	00:30	00:45	01:00	01:15	01:30	01:45	02:00	02:15	02:30	02:45	03:00	03:15	03:30	03:45	04:00	04:15	04:30	04:45
Central Time P. M.	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45
Central Time P. M.	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45
Central Time P. M.	11:00	11:15	11:30	11:45	12:00	12:15	12:30	12:45	13:00	13:15	13:30	13:45	14:00	14:15	14:30	14:45	15:00	15:15	15:30	15:45	16:00	16:15	16:30	16:45

Central Time A. M.	05:00	05:15	05:30	05:45	06:00	06:15	06:30	06:45	07:00	07:15	07:30	07:45	08:00	08:15	08:30	08:45	09:00	09:15	09:30	09:45	10:00	10:15	10:30	10:45
Central Time P. M.	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30	22:45
Central Time P. M.	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30	22:45
Central Time P. M.	17:00	17:15	17:30	17:45	18:00	18:15	18:30	18:45	19:00	19:15	19:30	19:45	20:00	20:15	20:30	20:45	21:00	21:15	21:30	21:45	22:00	22:15	22:30	22:45

QUICK INDEX TO ALL STATION DATA

I sometimes think there should be a law requiring everyone to spend some of his spare time training for the future. I once thought all the cards were stacked against me. Now I'm making good money. Maybe my experience will show you the way to better pay too.



I THOUGHT RADIO WAS A PLAYTHING

But Now My Eyes Are Opened--I'm Making Over $30 a Week!

$30 a week. Man alive, I used to think anyone making that much was just plain lucky.

A short time ago I was just barely getting by. It was the same old story—a little job; a salary as small as the job.

If you had told me that I would soon be making $30 and more a week in my own Radio business—I'd thought you were crazy. To me, Radio was a plaything. Now I know it's a big business where specialized training pays rich rewards.

But I am getting ahead of my story—let me tell you how it all started. I was hard up because I had been kidding myself—that's all—not because I had to be. I thought a fellow either had to be lucky or have a string of college degrees to make good money.

One day I picked up a magazine and an ad attracted me because it seemed to fit my case. It said, "I will train you to start a spare time or full time Radio service business of your own WITHOUT CAPITAL."

"They're trying to kid somebody," I thought, "but I'll find out what it's all about."

I wrote in, and within a few days received a 64-page book telling about the opportunities in Radio; how I could prepare right at home in my spare time, and how they would show me how to start making money in my neighborhood selling and repairing Radio sets. It would have sounded too good to be true if it had not been backed up by nearly 100 letters from fellows who had taken their course and were very enthusiastic about it.

What has happened since seems almost like a dream. I started to take their course, and soon I was ready to start making money in my neighborhood—as much as $5 and $15 a week. It wasn't long until I had saved enough money to start a full time business of my own.

That business in a surprisingly short time grew to the point where I am clearing over $30 a week. All this took place under the watchful guidance of my friends at the National Radio Institute. They also offered to train me for jobs in Broadcasting Stations, Radio Factories, Radio Jobbers and Dealers, Aviation Radio, Television, Short Wave Stations, Automobile, Police Radio, Loud Speaker Systems, and other branches of Radio.

THINK IT OVER

Friend—you may not be as bad off as I was—but think it over—are you satisfied? Are you making as much money as you need? Would you sign a contract to stay where you are for the next ten years at the same salary? Those are the things you have to think about—because no one is going to make it his business to push you ahead—you must make it your own business.

TAKE MY TIP

Write for their book, "Rich Rewards in Radio." It won't cost you anything except a postage stamp. It shows you a lot of things which I don't believe you know now about Radio—a lot of facts and figures on the opportunities in this new, fast-growing field—where the jobs are, what they pay, how to get ready for them. Beginners as well as experienced men are making as much as $500 to $1,500 a year more as a result of N. R. I. Training. And at the same time they send the book, "Rich Rewards in Radio," **they'll send you, without any cost or obligation, a Free Lesson,** to prove that their training is easy, practical, fascinating. The lesson they send, "Radio Receiver Troubles—Their Cause and Remedy," is valuable. And when you read this lesson, you'll know why so many fellows have mastered N. R. I. Training and are now making good money as Radio Experts.

You are not placing yourself under any obligation by writing for this material as they will gladly send it to anyone who is ambitious and wants to get ahead. Mail the coupon in an envelope or paste it on a 1c postcard. **Just address Mr. J. E. Smith, President, National Radio Institute, Dept. 6MO, Washington, D. C.**

MAIL THIS COUPON

J. E. Smith, President,
National Radio Institute
Dept. 6MO, Washington, D. C.

Dear Mr. Smith:

Without obligation, send me the sample lesson and your book about spare time and full time Radio opportunities, and how I can train for them at home in spare time. (Please print plainly.)

Name ..... Age .....

Address .....

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

14XI

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Once again, Midwest demonstrates its leadership by offering this amazingly beautiful, bigger, better, more powerful, 16-tube, 5-band world-wide radio — a startling achievement that makes the whole world your radio playground. Out-performs $150 radios on point-for-point comparison. Powerful Triple-Twin Tubes (two tubes in one) give 20-tube results.

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Save the jobber's-retailer's profits that often amount to 50% of ordinary retail prices. Become your own radio dealer and buy at wholesale prices direct from the Midwest factory. Never before so much radio for so little money! Why pay more?

This super deluxe Midwest radio is so amazingly selective, so delicately sensitive, that it brings in distant foreign stations with full loud speaker volume on channels adjacent to powerful locals. You'll thrill over its marvelous super-performance . . . glorious crystal-clear "concert realism" . . . and magnificent world-wide foreign reception. Scores of marvelous Midwest features, many of them exclusive, make it easy to parade the nations of the world before you. You can switch instantly from American programs . . . to Canadian, police, amateur, commercial, airplane and ship broadcasts . . . to the finest, most fascinating world-wide foreign programs.

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