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THE OCTOBER 1935

# RADIO INDEX

The All-wave DX Log of the World



25<sup>c</sup>

30c in  
Canada

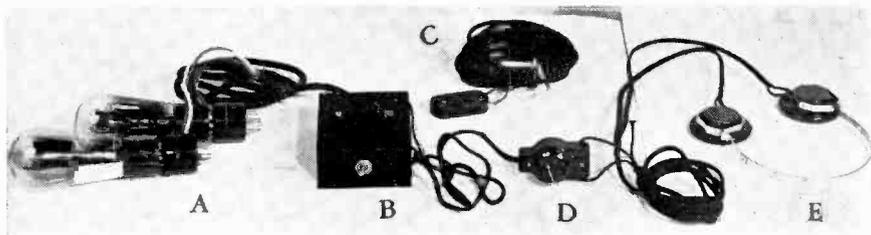
The Radio Stations of the Whole  
World Listed by Frequencies, by  
Locations and by Call Letters

No. 92

N. S. E.

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# The "Perfect" Method of Using Head Phones



"A". The small socket adapter or adapters are placed under the power tubes where they remain.

"B". The Perfect Phone Adapter is placed on the underside of console or table. The tips of the phones may be inserted in the box and used directly at the set. No phone plug is required. The toggle-switch silences the speaker if desired. Price of Adapter, \$3.95 postpaid. (In Ohio, \$4.07)

"C". By inserting this extension cord and connector, the phones may be used at a distance of 15 feet from the set. Price 50c. (In Ohio, 52c)

"D". When this Distant Volume Control is inserted in the Adapter as shown, the volume may be regulated at a distance or the "blurbs" may be silenced altogether. The extension cord may also be used between the Volume Control and the set. Price, \$2.00. (In Ohio, \$2.06)

"E". The phones may be used directly with the Adapter or they may be used with the Volume Control as shown. This permits their use at a distance. We can furnish phones of the regular 2000-ohm type at \$2.75 or the Trimm "Feather weight" shown in the illustration for \$8.05. These we believe to be the best phones made. (In Ohio add 3% for sales tax.)

## THE RADEX PRESS INC.

Conneaut, Ohio

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Only the **SCOTT**  
Full Range Hi-Fidelity  
**ALL-WAVE**

*Brings* **YOU PARLIAMENT'S MIDNIGHT CHIMES WITH SUCH THRILLING TRUE TONE**

London midnight—full of stars and historic towers. Big Ben's chimes booming across the darkness!

And here in another quarter of the world at the same instant—at a touch of the dial of your new SCOTT—you set your watch to the same thundering of these great chimes ringing out over the British Parliament! Nightly modern miracle—as only the magnificent new SCOTT brings it to you.

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The new SCOTT carries a five year guarantee on all parts except tubes. Custom-built and sold direct from laboratories on 30 day trial (in U. S. A. only). Send **TODAY** for complete information on the new SCOTT Full Range Hi-Fidelity AllWave—the receiver owned by Toscanini, Jeritza, Rudy Vallee, Guy Lombardo, Walter Winchell and celebrities.



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Chicago, Illinois

Send me complete details of the new SCOTT Full Range Hi-Fidelity AllWave, "94 PROOF" of its superior tone and DX performance, and particulars of your 30 day trial offer.

Name.....  
Street.....  
City..... State.....

October 1, 1935



# RADIO INDEX

Reg. U. S. Patent Office

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TWELFTH YEAR

NUMBER 92

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# Anyone Can Build *this* All-Wave Crystal Set

••• By B. FRANCIS DASHIELL

Last year this magazine published a noteworthy series of articles by Mr. Dashiell entitled "The Beginner's Story of Radio." These have since been published in bookform and may be secured from the publishers of this magazine at fifty cents the copy.

Now we are publishing in every other issue a second series which will be practically a continuation of the first. After all, there is only one way to learn to do a thing and that is by *doing* it. Building a radio set is a fascinating undertaking and will do more to teach the fundamentals of the science than reading a thousand books.

In this issue Mr. Dashiell begins with the construction of the simplest form of radio receiver—the crystal set. This requires neither tubes nor electric current. Many happy evenings lie ahead of those of our readers who follow this series of articles and construct the simple sets Mr. Dashiell will describe. To such we urge that they read again "The Beginner's Story of Radio." The Editor

**B**UILDING a radio set is a fascinating job. In fact, most people learned about radio during their struggles with coils, condensers, crystals and tubes. It was not so long ago that one had to build his own set in order to have one. The early wireless experimenters worked amid a confusion of wires and homemade parts, but when we consider the crude apparatus that was used, the results obtained seem only a little short of miraculous.

Crystal sets were the pioneers of radio. It is remarkable what can be done with a crystal in the hands of a careful operator. If we profit by the mistakes of the old timers we may build a crystal set in a few hours. Let us, then, turn back the years to assemble radio's most simple pioneer type of receiver—the crystal set. It will be our first step toward the construction of more efficient and interesting sets. But you will be surprised with what a crystal can do, and its fine tone will more than please you.

## The Detector or Rectifier

The crystal receiver is so named because a piece of some kind of

crystal is used as a detector instead of the tubes we know so well. It is generally understood that radio signals, which pass through the air, cannot immediately be utilized. These waves vibrate too rapidly, for they are high-frequency alternating currents, and, as such, are far beyond the hearing limits of the human ear. So it becomes necessary first to detect these signals. Actually, the word "detector" is a misnomer, for the device used for that purpose does not detect; it rectifies. The detector, then, is a "rectifier" of alternating currents.

Many kinds of detector-rectifiers have been devised. Most persons assume that the crystal was the earliest detector. This is not the case. Hertz, back in 1887, demonstrated the inductive reception of electromagnetic waves by making a tiny spark jump between the ends of a loop of wire some distance from an induction coil transmitter. It was when these "Hertzian" waves were applied to a system of wireless telegraphy by Marconi, early in the '90s, that signal communication through the air became possible.

## Early Detectors

Marconi used a detector which he called a "coherer." It consisted of a small glass tube filled with iron filings, and fitted at its ends with brass plugs. These loose particles presented high resistance to the flow of a battery current, but, when a radio wave passed in from the antenna it electrified the filings and caused them to cohere. Conductivity was increased and the battery current passed through to operate a telegraph relay. This principle was discovered by Hughes as early as 1879. Marconi also used a mechanical magnetic de-

tector, but it was too bulky and not at all sensitive. Yet, in spite of all this crudeness, Marconi, early in 1902, heard his first trans-Atlantic signals being transmitted from a spark station located in England.

Following the pioneer work of Maxwell, Hughes and Hertz who first devised detectors of electric waves, came the application of Marconi's detectors; then the crystals and tubes. The use of crystals took the wireless world by storm. Every kind of crystal was tested, and some were exploited through the use of patents, as, for instance, the silicon crystal detector, which cost fifteen dollars if you wanted one badly enough.

### Crystals Are Rectifiers

Not all crystals are suitable for radio detection. A crystal must possess decided rectifying properties. That is, it must be capable of converting the alternating current frequencies received from the antenna into uni-directional or pulsating direct currents. So, if a crystal permits a large current to flow in one direction only, and a very small current, or none at all, in the opposite direction, it will make a good detector-rectifier. Crystals do not amplify and can be used only for detection. Do not confuse this type of crystal with the piezo-electric crystal used to pass only one frequency.

Most crystals rectify alternating currents when in contact with a piece of dissimilar metal; but some crystals also work when in contact with a different kind of crystal. Still other crystals will rectify only when used with a local battery. The experimenter will find he can use any of these crystals in his set.

### Kinds of Crystals

Crystals that operate best alone, without a local battery current, are: Silicon, galena, iron pyrites, and a piece of zincite used in contact with a piece of bornite. Crystals that func-

tion best with a local battery are: Carborundum and molybdenite.

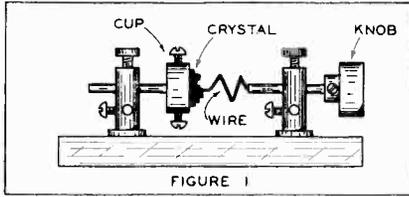
Silicon is an element that is electrically fused into metallic lumps presenting a graphite-like, crystalline appearance. Galena is a rich lead-sulphide ore that has crystallized in cubic and octahedral crystals, and which runs as high as 60 per cent lead. The crystals are heavy and possess a lead-gray color with a bright luster. Iron pyrites crystals present a yellow luster; they are high in iron and sulphur content, and frequently are known as "fools gold." Those early American settlers who sent a ship load of this ore back to England thinking it was gold, did not realize how appropriately this appellation would later apply to gullible wireless experimenters who paid ten dollars for iron pyrites detectors that sold under a patented name!

Zincite is a native ore of zinc oxide or red zinc, while bornite is a sulphide of iron and copper—a valuable copper ore. Carborundum is the commercial raw product that results when silicon and carbon are fused together in an electric furnace. Molybdenite is a blue-gray, flaky and graphite-like element, somewhat resembling mica.

### The Galena Detector

Galena is the most satisfactory crystal for rectifying radio waves. So, for all purposes, the detector used in our description is made of galena. Galena is utilized in connection with some dissimilar metal, bronze, copper or brass being particularly suitable. Best results are obtained by using a bronze or brass wire in light contact with a bright, freshly cleft fracture of the galena. Do not handle crystals with the fingers as the least oil or moisture will render the sensitive surface inefficient.

One end of the wire should be sharpened to a point, and the wire twisted in a coil so that its tension



will be constant once it is set to the surface of the crystal. Often the entire face of a piece of galena must be searched in order to find a sensitive spot. Or the crystal must be fractured several times, and many pieces tested, before a super-sensitive spot will be located. A small piece of crystal is best; a lump that will hardly cover a ten cent piece is sufficient.

A crystal detector is easy to construct. In fact, a piece of wire wrapped around a crystal, and a second piece of wire touching the face of the crystal, will provide a perfect detector. This arrangement, however, is crude and unstable. A simple type of detector is shown in Figure 1. Two binding posts are fastened to a hard-rubber or bakelite base. One post supports a short brass rod carrying a brass cup or spring clip which holds the piece of galena. The other binding post supports a movable arm that carries on one end the fine contact wire—or “cat whisker.” This arm, with its insulated knob, enables the listener to make light contact with any part of the surface of the galena.

#### A Fundamental Circuit

Place the detector between a large antenna and a good ground connection. Then attach a pair of sensitive (2,000 ohms or more) radio headphones to both sides of the crystal detector. This is a fundamental untuned circuit. Signals within the wavelength of the antenna will be heard. However, audible sounds from phones can be obtained only from powerful stations which send out waves that are damped, modu-

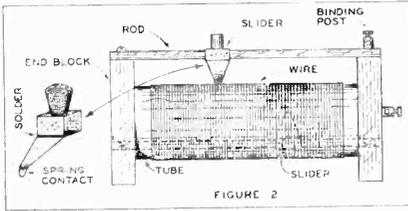
lated or interrupted. No continuous wave (c. w.) signals can be heard.

The above circuit is not suited for reception because the resistance of the crystal, when placed in series with the antenna and ground, will interfere with the unrestricted flow of the radio-frequency waves from the antenna. Therefore, in order to get the best operation possible from a crystal the detector must be removed from its position directly in the antenna circuit and placed in a separate circuit that is “coupled” to the antenna. This is accomplished by means of a tuning coil. The duty of a tuning coil is to “tune” the antenna circuit to a desired signal while excluding all others.

#### The Tuning Coil

Now, when a tuning coil is used for short waves it should have very few turns of wire; for broadcast waves a moderate number only is necessary; and, for long waves, it must have many turns. Since the circuits of a crystal receiver are not critical we may use one large coil for tuning purposes. This will cover the long and short wave bands, and we shall have an all-wave crystal set. But, an adjustable device must be arranged so that the coil can be changed in size and inductance by cutting turns of wire in or out, one loop at a time. This is accomplished by means of a sliding contact. Changing the size or length of a coil by adding or removing loops of wire tends to increase or decrease, respectively, its impedance or inductance to high-frequency antenna currents. Thus a tuning coil can be made variable throughout its entire length, and it will tune to all wave lengths within its range. (Read again Chapter Five of *The Beginner's Story of Radio*).

A simple type of tuning coil is shown in Figure 2. It consists of a cardboard or fiber tube fastened between two square, wooden end-

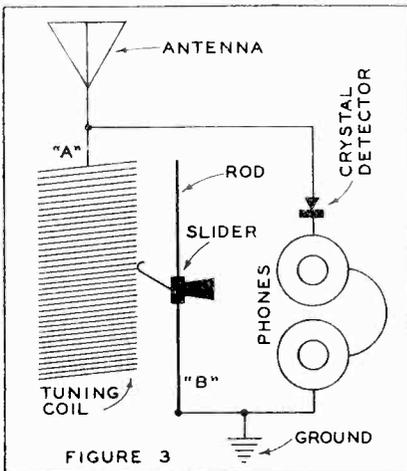
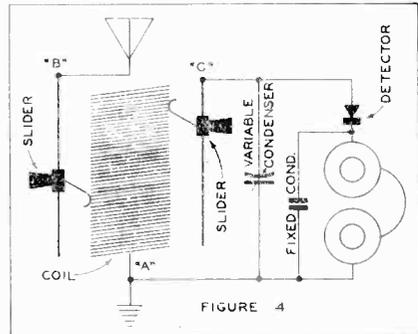


blocks. The tube should be eight inches long and two inches in diameter. It is wound closely with No. 22 copper wire, either enameled or single-silk covered, to within one-half an inch of each end. You will need about 4½ ounces of this wire for the purpose. Along the top of the coil, supported at either end by the end blocks, place a square brass rod. Over this rod fit a length of spring brass that has been bent at one end so as to wrap around the rod, as shown in Figure 2. Attach a small insulated knob. The end of the strip should be rounded off and pointed as a slider arm to make contact with the turns of wire. The insulation of the wire should be scraped off for a width of one-half an inch with a file or knife for the full length of the coil. The contact arm, sliding along this scraped strip,

will make contact with each individual turn of wire.

### Tuning The Circuit

The tuning coil is placed in the radio circuit as shown in Figure 3. One end of the coil, which has been attached to a binding post placed on an end block, is connected to the antenna. The binding post on the slider rod "B" is attached to the ground. The crystal detector and headphones should be inserted in series between "A" and "B," as indicated. Tuning the coil with its slider causes it to respond to radio signals having different wave lengths. This arrangement of a single-circuit



tuner is one of the basic methods of tuning a circuit. It is obsolete, of course, in modern radio receivers. (See Chapter Four of *The Beginner's Story of Radio*).

This tuner can be further improved by adding a second rod and slider as shown by the dotted lines in Figure 2. It should be placed in a circuit as shown in Figure 4. This is a two-slide tuner with two "closed" circuits that are "closely coupled." It permits the coupling of two circuits conductively, each of which may be individually tuned. The frequency of the antenna or primary circuit is tuned by moving the slider "B" on its rod, and the frequency of the detector or secondary circuit is tuned

*(Continued on page 58)*

# READING *The Editor's Mail*

**T**HE enlarged issue of September, combining the *DX Log of the World* with RADEX, is now on the newsstands as this is written but not enough time has expired to bring the usual "brickbats and bouquets." Certainly the issue contained about all the information our readers could possibly request. So little space is left for articles that we will adopt a policy of alternating the short wave information and that covering the broadcast stations in foreign countries. Next month, the short-wave data will again appear, corrected to date and amplified by information received from our readers. Then in December the foreign stations will be included with, we hope, much additional data to be supplied by our readers covering addresses and hours on the air.

We again ask our correspondents to bear in mind that all mail should now be addressed to us at Conneaut, Ohio, and not to Cleveland. Also to write of DX, short-wave and radio troubles on separate sheets so they may be referred to the proper editor.

The business office asks us to invite our readers to study the advertisements of the Scott and Midwest receivers which will be found regularly in our pages. The b. o. is of the opinion that these firms, which help to make this publication possible, are entitled to special consideration by our readers. We are sorry we cannot comply with this request as the advertising columns are outside the jurisdiction of the Editor.

## Hours on the Air

In this issue, the Sunday time on the air for North American broadcasting stations is given. Next month, the hours for Saturday will be shown and, in the December issue, the time will be given for the week-days. We had hoped to be able to show all these



*Here we have a peek behind the scenes while Amos and Andy are broadcasting. Gosden is arguing as the lordly "Kingfish" while Correll, back for the moment in his favorite role, holds up Andy's part in the argument. Programs may come and programs may go but Amos 'n' Andy go on forever.*

times in each issue but many of them were altogether too lengthy and involved to permit it. Under present plans, the time for the whole week will be given in three issues instead of seven as heretofore.

We extend our thanks to those hundreds of stations which filled out and returned our questionnaire promptly. The information contained thereon is absolutely necessary and the cooperation of these stations is greatly appreciated.

A considerable number of stations indicate that they are no longer furnishing "Ekko" stamps. A letter to the Ekko Company is returned indicating that they are no longer in business. In perhaps another year the "Ekko" stamps will be exhausted.

Several stations indicate that they do not care to verify reception. A great many say that listeners do not send return postage. The selfish and penurious are thus gradually destroying the verification privilege. A few stations state that return postage is not necessary but we, nevertheless, urge our readers to send return postage when reporting reception.

### Some Station Comment

VONF, St. John's, Newfoundland, write that Newfoundland stamps must be enclosed to insure verification. U. S. stamps are, of course, worthless to them and it is contrary to the Newfoundland postal regulations to enclose coins in letters.

E. R. Morris, General Manager of the Associated Broadcasting System, P. O. Box 6, San Diego, Calif., writes: "XEFL of Tijuana, Mexico, is and has been off the air for many months. As the situation now stands, to the best of our knowledge, the only border station operating in this area (Lower California) is XEMO. It is doubtful, in view of political conditions in Mexico, if there will be any border stations in operation more than another few weeks. We ourselves have closed all our stations and have stopped construction of the new ones we had licenses for, so that ends our story. By way of explanation, Tijuana was 'closed tight' a few weeks ago. Please direct all future matters to me personally as the offices have been given up."

CJKL, Kirkland Lake, Ont., report their frequency as 1310 still although the CRC shows them moved to 530. They write: "We are unable to give our hours as our power is being stepped up to 1000 watts shortly and CRC programs taken." We wonder how many b. c. sets will be able to tune as low as 530.

CMBZ, Havana, Cuba, state: "We are on the air daily from 7 a. m. to 12 p. m. featuring Cuban typical music, American popular music, operatic, etc., and literary essays. The radio audience will place the management under many obligations by mailing to us a postcard, advising whether our programs are heard in the U. S. A."

CMHX, Cienfuegos, Cuba, is one of the few stations stating that return postage is unnecessary. This makes CMHX rather unique among Cuban stations.

KFJR, Portland, Ore., warns that reports of reception must be accurate. "Reports that cannot be verified will not be answered."

KFPL, Dublin, Texas, furnishes a verification certificate in three colors. The charge is ten cents.

KGKB, Tyler, Texas, advise that they have an application pending for full day time and share time at night with a proposed station on 1500 kcs. in Dallas.

KGNF, North Platte, Nebr., send a picture postcard of their station for a two-cent stamp. KGVO, Missoula, Mont., send a photograph for fifteen cents.

KLCN, Blytheville, Ark., insist upon a self-addressed, stamped envelope for return of verification. Likewise WAGM, Presque Isle, Maine.

KOOS, Marshfield, Ore., writes: "We have an application in to increase to 500 watts daytime which may be OK'd any day now. We just recently were granted the change from 1200 to 1390 and will be on the new frequency in a few days."

KVI, Tacoma, Wash., asks us to note that they are a full-time Columbia and Columbia-Don Lee network outlet.

W1XX on short waves carries all WBZ programs, says the latter.

WCOP, Boston, Mass., state that they will verify "as soon as the stenog force is working."

WFDF, Flint, Mich., ask five cents for verification.

W4XB broadcasting on a frequency of 6040 kcs., and relaying the regularly scheduled programs of WIOD, is owned by the Isle of Dreams Broadcasting Corp. W4XB signs on at noon and off at 2 p. m.; on again at 5:30 until midnight.

XEAW, Reynosa, Tamps, Mexico, state that they require a stamped and addressed envelope for verification. This being the case, listeners must provide themselves with Mexican stamps.

*(Continued on page 58)*

# The SCOTT High-Fidelity Receiver

All-Wave Full-Range

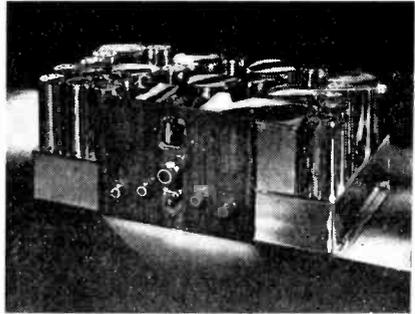
• • • By B. FRANCIS DASHIELL

IT IS a far cry from the first "World's Record Super Eight" broadcast radio set built in 1924 by E. H. Scott to his newest "Full Range High-Fidelity" all-wave receiver of 1935-36. When Mr. Scott carried his first commercial set to New Zealand eleven years ago to prove that reception from stations six to nine thousand miles distant was consistently possible, he amazed the radio world and immediately launched the beginning of a successful enterprise that was destined to become famous. Later, in 1929, Mr. Scott pioneered the all-wave field with the presentation of his "Shield Grid Nine" all-wave set. Since that time record-breaking models have appeared in 1930, 1931, 1932, 1934 and 1935.

The creation of six highly successful all-wave superheterodyne receivers has made Mr. Scott's name well known throughout the world. During all these years there has been a policy that all sets must be "custom built." Radio sets do not pour out of the big, three-story laboratory-factory in Chicago in huge quantities through high-speed production methods, but rather are limited by the number that can be built and tested by craftsmen of many years of radio experience in the Scott laboratory.

## Testing And Tuning

At the Scott factory each step of construction and assembly is carefully checked and tested. Then, when the set is completed it must go through a series of precision measurements and adjustments which assure keenness of selectivity and sensitivity, full range and fidelity of tone, and accuracy of calibration. A specially built oscillation generator, which gives a remarkable radio sig-



*Chassis of the Scott All-Wave, Full-Range, High-Fidelity Receiver*

nal reading as low as .1 microvolt at all frequencies, is used for the calibration and oscillation tests. Finally, each set must demonstrate its ability in actual performance on the air by bringing in, with good volume, many stations on all waves from Europe, South America, Australia and North America.

The Scott "Full Range High-Fidelity Receiver" is built around the time-tested and efficient superheterodyne circuit. It covers wave lengths between 13 and 555 meters. The set will provide selectivity from as sharp as 2 kilocycles selectivity for DX reception to as wide as 16 kcs. for local stations. The receiver gives faithful reproduction of all audible frequencies within the full tonal range of the human ear—from 25 to 16,000 cycles. The average small set fitted with a single speaker seldom covers an audio range of more than 100 to 7,000 cycles and, therefore cannot respond to low bass notes and high harmonics and overtones. Full 35 watts of undistorted power operates three loud speakers—one of which covers the low and medium sound frequencies, and the other two, the

high frequencies. This arrangement provides clear and life-like reproduction of sound at all volumes.

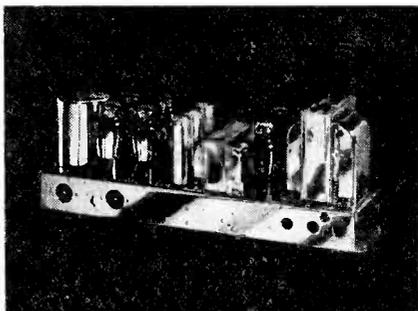
### Twenty-Three Tubes

Here is an improved superheterodyne circuit employing seventeen tubes in the receiver chassis and six tubes in the power unit. There are 23 tubes in all, twenty-one of the latest six-volt glass tubes and the two voltage regulators in the circuit. The Scott engineers have not succumbed to the present furor over the metal tubes. The conventional glass tubes are still used in this newest set of the modern Scott line, and it is indicated by the manufacturers that since metal tubes are new, and because certain disadvantages still exist which as yet have not been compensated for, metal tubes will not replace standard glass tubes at the present time in Scott all-wave sets.

All-wave sets are divided into two or more tuning sections. The Scott high-fidelity receiver makes use of four wave bands, called the white, blue, red and green bands. These four tuning bands embrace the entire range of 13 to 555 meters by four steps, and are selected by means of a multi-contact switch operated by a wave changing knob on the front of the panel.

### Highly Developed Coils

In this receiver the coils are wound on tubes that are spaced around an octagonal support. None of the eight coils are parallel to each other, and, therefore, interaction between high-frequency fields is impossible. The wave changing mechanism cuts in these coils at will according to the wave band selected. A few words about the new intermediate-frequency transformers may not be amiss. These units are accurately air tuned. Both the primary and secondary windings are permanently tuned with tiny air-dielectric variable condensers. The two coils are partially



*Power Assembly of the Scott*

separated by a shielding plate, and the whole unit encased in a sealed shielding can that prevents moisture and dust from entering and disturbing the accurate i.f. setting originally adjusted at the factory.

When a radio signal comes down from the antenna it passes through the antenna radio-frequency coil and into a type 6D6 r.f. pentode tube. Then a 6A7 pentagrid converter, or first detector tube, receives this amplified signal and, in connection with the output from a type 76 super-triode oscillator tube, provides the converted intermediate-frequency signal that is now fed into a type 39/44 super-control r.f. amplifier pentode tube.

### Arrangement Of Tubes

In the intermediate-frequency circuit there are three 39/44 i.f. tubes, but the fourth, or last i.f. tube, is a type 6D6 r.f. pentode. The output of this tube is sent directly into the second detector—a type 76 super-triode detector tube. Automatic volume control, which operates with even level on all wave bands, is obtained with a type 6B7 double-diode pentode tube. Type 76 tubes are used separately for noise suppression; tuning-meter control; and beat oscillation for reception of c.w. signals, as well as the location of weak, distant stations.

From the second detector the signal receives its first audio amplification. This tube is a type 6C6 connected to the detector by means of resistance coupling. Then, this amplified output passes through a push-pull transformer-coupled second audio amplifier utilizing two more type 6C6 tubes. The amplified signal is carried to the power amplifier chassis through a cable and socket connection.

### The Power Amplifier

Because the Scott is a large receiver it does not combine its power-pack and speaker amplifier with the receiver chassis. Such a multi-tube receiver cannot well be built on a single chassis, so wise engineering provides separation of powerful currents and power sources, and spacing of the elements that tend to create excessive heat.

A sturdy chassis carries the power amplifier. There is a large power transformer which steps up the house lighting current to very high voltages. The output of the two 6C6 push-pull power tubes in the radio receiver is carried down to the power amplifier by means of a cable and is fed into the input of a second push-pull audio transformer connected to four 2A3 power tubes arranged in two sets of a pair of tubes each in parallel. The power amplifier is constructed along the same substantial and attractive lines as the radio-receiver chassis.

### The Three Speakers

The powerful output of this amplifier passes through a device called a

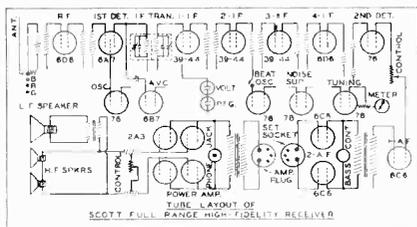
10,000 cycle attenuator. The purpose of this unit is to control those frequencies which lie in the higher register and which operate two small loud speakers. There is also a bass note control, which operates on the large speaker so as to accentuate or subdue the bass or lower frequency response. Two knobs on the front of the receiver are used to control the full audio range and high fidelity of the set. The high-fidelity control is continuously variable, while the bass control is divided into five steps or shades of bass-note brilliancy.

It has been previously mentioned that this receiver uses three individual loud speakers. As it is rather well known that higher sound frequencies tend to reflect and travel out in a straight line from their source, while lower frequencies spread out in all directions, it can be seen why three speakers are used to obtain a complete spreading of all frequencies throughout the room in which the radio set is located.

The two small, high-frequency speakers are connected in series while the larger speaker is wired separately. A cable with plug attaches the speaker assembly to a socket in the power amplifier chassis. This arrangement reproduces a full tonal range that is audible to the human ear and completely fills the entire room with all audio frequencies. Placing a large speaker so as to face directly forward, and two smaller speakers a little above and to either side, each pointed slightly outward at an angle, secures a sound distribution to all corners of the room.

*Radio manufacturers are invited to submit their sets to us for test. Mr. Carleton Lord will use them in actual DX work and publish his findings.*

*In each issue of this magazine, Mr. Dashiell will describe some one of the leading radio receivers. Do not miss one of the series as these articles will help you in deciding upon your next set.*



# Do British Stations

## Want U. S. Listeners?

• • • By PAGE TAYLOR

**S**INCE the inauguration of the Daventry transmitters of the British Broadcasting Corp. in December, 1932, many shortwave fans in this country have been displeased with the manner in which the BBC answers their reports. It has been the belief of the Editor, however, that any kind of a positive acknowledgement from any station should constitute a verification and that listeners should accept the attractive little cards from England as QSL's; readers must have noted the consistency with which the Editor has upheld these cards. In the Midsummer Edition of this magazine considerable space was devoted to a discussion of the BBC policy, but since writing that article a number of persons have received "verifications" from GSL; verifications of a nature which causes us to doubt that the BBC really appreciates reception reports from the U. S. A.

### Britain Asks for Reports

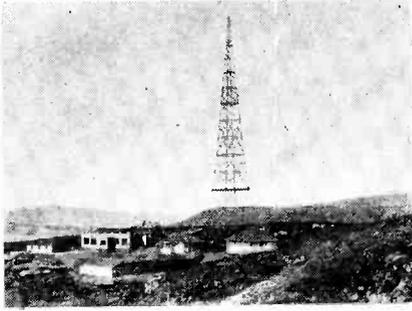
It will be recalled that about a year ago test transmissions from GSL were undertaken. In view of the fact these tests were not advertised in advance and the broadcasts were of an experimental nature, and particularly because reports were requested over the air, listeners optimistically looked forward to receiving positive confirmations in response to their reports. This optimism was not rewarded. Replies have come back from England, some persons receiving the customary cards and others, letters that not only failed to verify but stated that to verify such reports would serve the BBC no useful purpose! The let-

ter continues, however, that they are always glad to have reports as they are of assistance in developing the shortwave service and therefore result in improved reception for the reporters. Ordinarily, reports do result in improved reception, but not in this one case.

### Avoiding the U. S.

There can be no doubt that the German stations endeavor to improve their reception in this country as they use frequencies favorable to us, their aeriels are directed towards us and their programs are addressed to us. There are six Empire transmissions from Daventry and none is directed towards the United States; each of the six transmissions employs directional antennae pointed as follows: Trans. 1, towards the Antipodes. No. 2 towards Malaya and the Far East. No. 3 to India, Burma and Ceylon. No. 4a to South and East Africa and 4b to West Africa and islands of the South Atlantic. No. 5 is designed to serve Canada and the West Indies and No. 6 is primarily for reception in Western Canada.

Unfortunately (or fortunately?) it is not yet possible to confine a radio signal into a beam narrow enough that it can be heard in only one country, but knowledge of the propagation of radio waves increases and it may some day be possible to exclude undesired listeners from any transmission. The signals as transmitted from Daventry are concentrated into a beam 68 degrees wide, but there is now under construction a new Empire transmitter with new aeriels capable of emitting beams with a width of only 40 degrees. "Thus a much more intense signal



*Situated in a very remote and lofty position at Gebbies Pass, 18 miles from Christchurch, New Zealand, 3YA is a favorite mark for American DXers. The programs are relayed by wire from the studio in the city. One of the two 300-foot towers is shown in the photo.*

will be concentrated on a smaller area." And American listeners will then be rewarded for their reports by better reception in Newfoundland and the Falkland Islands.

#### **What About the British-Americans?**

It seems to us that the BBC, in failing in any way to recognize its American audience is overlooking its largest potential audience in the world. We know that British radio stations are supported by British taxpayers and there is no good reason why those tax-payers should pay to entertain us "Yankees," but they surely must be willing to afford entertainment from the homeland for their own people resident here. According to United States census figures for 1930 (the latest available source of reliable information) there are resident in the United States nearly seven million people who were born under the British flag.

We learn from these census figures that 4,354,518 persons have immigrated to this country from the British Isles alone. Although figures are available showing the number of immigrants from each section of the world, it is sufficient to state that Britain's total contribution to our population is 6,848,511 persons. Of course, all these people do not have

radio sets, but according to the International Broadcasting office at Geneva, Switzerland, the United States leads the world in the number of receivers with 162.23 radios per 1000 of population. Thus we calculate that our six odd million British friends own 1,111,033 receiving sets, or more receivers than exist in any locality to which Empire transmissions are addressed.

British countries represented in Transmission No. 1 are Australia with 644,409 radios; New Zealand with 135,312 and British Oceania with 250 for a total of 779,971. Other totals follow: Trans. No. 2, heard on 4,382 sets. No. 3, 17,220. Trans. 4a with 107,813 and 4b a total of 516 sets. No. 5 boasts 555,019 receivers.

#### **A Suggestion to the B.B.C.**

At the present time, due to our proximity to Canada, it is possible to enjoy good reception of some of the Empire broadcasts and it must be admitted that many of the most delightful programs on the air are heard from London, but the time may come, perhaps not soon, when directional aerials will be efficient enough to exclude undesired listeners from any broadcast. American listeners join us, we know, in requesting the BBC to remember its large and sympathetic American audience. Many reasons contribute to the fact they cannot specifically verify reception, so we would like to feel that our reports will result in a desire to provide improved reception here. It naturally goes without saying that unless reports are encouraged in some manner they will eventually cease. Incidentally, we wonder if, some time this winter, the BBC could address a program of an hour or so to the British listeners in this country. Key words or some sort of identification symbols could be used so reports could be positively verified with a minimum of effort. We know that if such a program were

broadcast with the promise reports would be verified the BBC would increase their good-will to a point that the broadcast would be amply repaid. The number of reports they would receive would, we are sure, surprise even the BBC.

#### **The German Attitude**

Following this British discussion the following letter from Germany fits in quite nicely; this letter leaves no doubt that the Germans really try to provide their listeners here with maximum reception. "With regard to the interference which our American friends reported in connection with reception of DJC, this is a matter which we are afraid can be settled only at the next International Shortwave Congress. When traffic threatens to get unpleasantly congested it is time for all concerned, in their mutual interest, to decide upon common 'rules of the road' and stick to them. We older stations of national responsibility have learned to 'drive on the radio thoroughfares', so to say, but these recent South and Central American ones have yet to learn to manage the steering wheel more sportingly! In the meantime we hope that now we have used DJD for our North American programs in addition to DJC since May 1st you have been able to dodge their obstreperousness and get real good reception on the other channel."

#### **Some New Stations**

A number of new stations have made their appearance, or are about to make their appearance. This information on three Venezuelans is through the courtesy of the Radio Club Venezolano. Of first importance is YV1ORS because this one has already been heard. It is located in San Cristobal and is known as "La Voz de Tachira." YV1ORSC works on 5720 kc/s. irregularly in the evenings.

YV8RB, "La Voz de Lara," at Barquisimeto works on 5880 kc/s.

and YV9RC at Caracas is on 6400 kc/s. These stations are both conducting tests and should be on regular schedules soon.

"Could someone tell me who the Costa Rican near 6400 is?" inquires Bill Bundlie, 614 N. 6th St., Grand Forks, N. D. I have to date received 52 stations, half of which are foreign, including HJ4ABA, 4ABE, 1ABB, VK3ME, 2ME, 3LR, and JVM." The Costa Rican is not a new station but it has just made an appearance on a new frequency, 6410 kcs. It is TIPG, "La Voz de la Victor" at San Jose. Perry Girton is the owner, Apartado 225, the address.

#### **Some Summer Reception**

"My log of s.w. stations totals about 150," summarizes Samuel Meyer, Jr., 83 Canterbury Road, Rochester, N. Y. "At the present I am using a Pilot converter with a 9-tube K-62 General Electric. I notice a contributor refers to HJ5ABE as a 20-meter amateur, but they transmit musical programs sponsored by commercial interests and despite the frequency I believe they should be considered as a regular s.w. broadcast station. They are not in the 20-meter fone band. A verification from them states that they work on exactly 14.000 megs. and the address is given as Estacion Radio-difusora Colombiana, Apartado 50, Cali, Colombia."

"Shortwave reception seems to have been quite remarkable this summer," writes Ray N. Putnam, 920 12th Ave., Fargo, N. Dak. "I have been able to receive JVH and VPD nearly any night at all and I have had numerous phone stations from all over the world, such as VIZ3 at Melbourne, HBH and HBJ Switzerland, KTO Manila, JVF and JVE Tokyo and several others. I have had two strange phones, one on 18.00 megs. at 10.30 a.m. and the other on 14.710 megs. near noon-time. The first sounded like a Ger-

man and the second like an Italian.”

The 18 megacycle station might have been PMC as the Javanese stations have been very active lately.

### On the Other Side

From the West Australia Wireless News (Perth) we learn that YDA of Bandoeng, Java, has moved to a wavelength of 27.26 meters or 11,000 megs. This frequency is assigned to PLP, a telephony station, and initial tests were carried out on PLP to determine the effectiveness of this frequency. Numerous reports of reception in the U. S. A. have been seen but none of the reports properly identified the station as YDA.

It is quite probable that out of the war clouds gathering in Europe and Africa will come some new shortwave stations. In fact, a few unidentified stations have already been heard on frequencies of 7250, 11500, 11540 and 11670 kc/s. Another station, on 14.710, is located in Massawa, Eritrea, and it is very likely this is the station reported by Mr. Putnam a few paragraphs back. These stations are all well-heard in the United States in the mornings between 8 a.m. and noon, EST.

### Experimental S.W. Work

The Explorer II, the National Geographic Society's stratosphere balloon, has been repaired and will take the air again, according to latest reports. The National Broadcasting Co. was recently granted a license for a special experimental station W10XFH to work on 13050 kc/s. with 10 watts power, the purpose of this station being to obtain propagation data for the proposed flight. This license is granted for the month of October only.

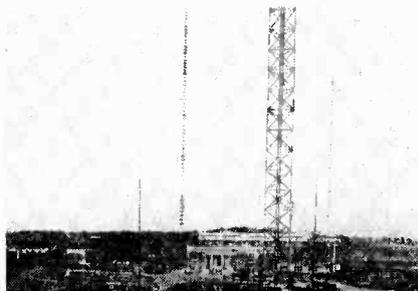
The FCC also granted a Construction Permit to the Advertisers' Publishing Co., Ltd., of Honolulu, for a relay broadcasting station to work on 11.850 and 15.230 megs.

Edgar J. Anzola, Director of YV2RC, writes, "We are pleased to

let you know that since July 23rd we have been working with our new 1 kw. transmitter. It seems that it is reaching foreign countries with very large volume as reports are pouring in already and increasing every day." YV2RC is dedicating special programs to foreign radio clubs every Tuesday night from 8:30 to 9 p.m., EST and listeners are especially urged to report on these specials. Attention is invited to the fact that the new mailing address is Apartado 2009. The schedule of the special transmissions is here given: Oct. 1, Chicago Shortwave Radio Club. Oct. 8, San Francisco Examiner. Oct. 15, Anglo-American Radio & Television Society (England). Oct. 22, International Shortwave Club. Oct. 29, Short Wave League. Nov. 5, The New York Sun. Nov. 12, New Zealand DX Radio Association. Nov. 19, The Transatlantic DX Club. Nov. 26, Indian Radio Amateur's League.

### Another Report from Africa

"The reception on shortwaves has been fairly consistent and as is usual during the winter months there has been little falling off in strength and clarity of signals generally," reports A. C. Lyell of Johannesburg, South Africa. "Although I have been successful in picking up quite a few stations I do not propose to attach



*In this picture we present a view of the transmitter and building of the famous ORK, Belgian Colonial station. Located at Ruysselede with 11,000 watts on 10.330 megacycles. This station broadcasts daily.*

any significance to any particular pick-up unless I have been able to procure a verification in the usual way from the stations concerned. The problem of identifying South Americans, Colombians in particular, is becoming an increasingly difficult one, and the difficulty becomes even more acute because of their apparent reluctance to answer letters. Up to the present YV2RC, YV3RC and HKE seem to be the only exceptions. The following verifications have, however, come to hand: OXY, 49 metres; OER2 49.4 m.; 2RO, PHI, CT1GO and seven of the Zeesen stations. Owing to the refusal of the BBC to verify any of its transmissions it has unfortunately become unavoidable to ignore, in this country at any rate, all transmissions from Great Britain, from the point of view of securing verifications. As a matter of fact, in view of the South African Radio Contest now in progress, some rather pointed and spirited references have lately appeared in the press in various parts of the country in connection with this regrettable and inexplicable attitude. The position may well be described by stating that a good deal of resentment appears to have been provoked as a result of this attitude of the BBC towards its reporting listeners."

Perhaps Mr. Lyell can be consoled by the fact that he and his shortwave friends in South Africa will receive the benefit of improved reception conditions as knowledge of the radio art progresses. When the new aerials are put into use he will have the advantage of signals centered right on Johannesburg, while we will be listening to whatever might "slop over" from the Canadian transmission.

#### The Foreign "Hams"

"Now that the lower frequencies are static-choked DXers should try the 20-meter band where remarkable reception prevails," suggests Leon

Papernow, 2479 Bedford Ave., Brooklyn, N. Y. "A word to those who have yet to hear a foreign ham: tune just outside either end of the band. Amateurs in other countries are not so severely restricted as the Americans and they usually work very close to the outside limits. Some of the most consistent stations are F8DR, HB9AQ, EA4AO, G5NI, and many South Americans and Mexicans. Altogether I have heard 33 countries. The best time for Europeans is 5-7 pm, EST, and for the Australians is from midnight to 1 am. The best Aussies are VK2EP, 2BQ and 3KX. My receiver is a 4-tube home-made set."

Station COCD, "La Vox del Aire," at Vedado, Havana, Cuba, advises us that they work on 6.130 megs. with a power of 350 watts. Their current schedule is Sundays from 5 to 11 pm and weekdays from 11 am to midnight. After 10 pm COCD is one of the best stations in the 49 meter band and listeners should not fail to tune for their spirited programs and report on them to the Hotel Palace, G and 25th, Vedado. COCD relays CMCD.

#### Two New Swiss

"Reception below 13.5 megs. has been very good this summer," reports George Curl, Meredith, N. H. "Two new Swiss stations, HBJ and HBO on 16.1 and 13.8 megs. respectively were heard relaying a program from St. Bernard Pass to the NBC. I also head a new Honduran phone near 14 megs. located at Tegucigalpa, and another Honduran was heard near 6.1 megs. talking to Costa Rica. This station was, I believe, HRP-1 and the operator mentioned that he expected to have the station on the air regularly within two months.

Irving Goodeve, 210 Chestnut, Kalamazoo, Mich., has verified a number of 20 meter amateurs and gives most of the credit for his re-

*(Continued on page 57)*

# Trouble Symptoms and Remedies

• • • By the TECHNICAL EDITOR

**L**IKE many of our readers, John P. Van Tighem, residing in Great Falls, Mont., has an old set that he would like to convert over to a short-wave receiver. "Is it possible to change the coils and condensers in my Browning-Drake set so as to make a short-wave receiver out of it?" asks Mr. Van Tighem.

We wish to call your attention to an article in the June, 1935, issue of **RADEX**, which goes into detail about converting old sets into short-wave receivers. We think that you can follow the advice given in that article, unless your set is either a model 70 or 71. In that case it is not advisable to attempt the change because of the peculiar design of the circuits involved.

## Weak Short-Wave Signals

When Stanley Bogdan, of Chicago, Ill., wrote of his troubles he touched on a common ailment prevalent in many sets. "I have a Detrola 7-tube midget set," writes Mr. Bogdan. "It has a tuning range covering four bands, but I can hardly receive any signals on the bottom, or 6 to 22 megacycle band, even though all the other bands work well. Why is this?"

This weakness on the very short-end band indicates that the oscillator tube is not creating the high frequencies needed to beat against the incoming signal in order to produce the necessary intermediate frequency to operate the set at this low wave band. Replacing the oscillator tube, trying several tubes until one is found that is a good oscillator at the highest frequencies, often corrects the trouble.

The above is a common failure on the short waves. Also, you may expect failure in one of the coils, that

one which connects to the grid of the r.f. tube when the very highest frequency band is switched on. A broken wire or poor contact in this coil may cause the trouble. Look also for defective switching contacts, improper voltage on the plate of the r.f. and first detector tubes when this coil is used, or defective resistors and condensers in those particular sections of the circuit.

## Weak and Distorted

Mr. Buster Walker, who writes from Atoka, Oklahoma, asks: "I have a Midwest, 1934, 16-tube set which does not seem to have much power, and when the volume is turned down it becomes distorted. What is the intermediate frequency of this set? How shall I go about balancing the circuit to correct the trouble?"

The intermediate frequencies of the Midwest sets are as follows: RT is 456 kcs. The same frequency is also found in models A, B, D, PR and RM-16. You have not stated the model number, and perhaps you can pick out your i.f. from the above.

Distortion usually appears with weak signals. There are so many reasons that a good service man may be needed to locate source and perform the work necessary when re-balancing is required in this complicated circuit. Look for the following: Excessive or insufficient grid bias due to defective biasing resistors and condensers in the cathode circuits of certain tubes, mostly the audio system; improperly acting AVC tubes; defective tone or volume controls; overloading of tubes; defective coupling or blocking condensers in the r.f., i.f. or a.f. circuits; gassy tubes; and leaking coupling between plate of one tube and grid of

another. Then there is the possibility of trouble in the speaker cone and its voice coil.

#### **Hum And Tube Data**

The old question of hum is revived again by Murray Wilson, of Port Arthur, Ontario, when he writes the following letter: "My Sonora set, model 80, has a bad hum as soon as the switch is turned on. Tuning does not change it. There is a high-tension power line that passes by the front of my home. Can it be the cause of the trouble? As I wish to learn more about tubes will it be possible for me to obtain some publication showing the characteristics of all the tubes."

Hum in radio receivers, of the kind described, may be due to some defect in the audio or power circuits. A defective bypass or coupling condenser in the audio tube circuits, or filter electrolytic condenser in the power unit, will cause such trouble. Test all the condensers in these two sections of the circuit.

You have not indicated whether the hum has always been present. If it is of recent origin then it must be in the set and not due to induction from the power line. If you are rather suspicious of the power wires why not carry the set off some distance and try it in another location that is free of power lines.

Untunable hum, which can be heard all over the dial at all times, may be a.c. hum from the power circuit of the set. It spreads through the set because of a breakdown of a filtering circuit. Look for trouble in these circuits (condensers and resistors) and in any audio tubes that use filaments only, such as the type 45.

Write to the Sylvania Tube Company, Emporium, Pa., and enclose ten cents for their complete book giving technical data on tubes. Or to the RCA Radiotron Co., Harrison, N. J., for their similar book, costing twenty-five cents. The Raytheon Tube Co., 30 East 42nd Street, New

York, N. Y., has a free 1935 tube chart that you may receive upon request.

#### **Silver-Marshall 730**

When H. C. Johnson, of Springfield, Mass., wonders why his Silver-Marshall, model 730, battery set, does not work well he refers us to a circuit used in building the set. "I enclose a sketch of this set," advises Mr. Johnson, "and many times when I try to operate the set with 135 volts the primary of the first audio transformer burns out. What is wrong?"

When you place 135 volts on the primary of the S-M first audio transformer you not only overload the coil and its coupling condenser but you tend to overload the plate of the tube and thus weaken its action and bring about considerable distortion. No detector tube in a circuit of this kind should have more than 45 to 90 volts on its plate.

So your circuit is wrong in this respect. The plate of the detector tube and the plate of the last audio power tube should not be connected to the same B battery or 135 volts. Incidentally, this type of audio transformer, while being excellent for tone, gives trouble by breaking under high voltages. A common trouble is the breaking down of the coupling condenser between the internal resistance and winding. This permits a leakage of the B voltage to the grid of the audio tube following the detector. It causes distortion and weak signals, and tends to run down the B battery faster. We suggest testing and replacement with any good type of audio transformer of the conventional type. A 2 to 1 ratio in the first stage, and a 3 to 1 ratio in the second stage.

#### **Matched Tubes**

The subject of matched tubes is worrying Mr. Edwin F. Dreher, of Novato, Calif. He wishes to "match the tubes in my Edison t-r-f receiver".

Matched tubes mean little to any set except that they should be good tubes which have the characteristics established for the type of tubes in question. Thus, if a tube has certain values of plate resistance, mutual conductance, amplification factor, etc., then, when you purchase tubes you should see their readings match the standards of the manufacturer. Now, if two or more similar tubes are used, they should be matched so that all will be equal. You would not want one good i.f. amplifier connected next to a poor tube performing the same duties. Then, too, the matching of tube characteristics, such as impedance, etc., so as to balance certain parts of the circuit that has been designed about the factors of the tube in question.

However, the general opinion is that, if tubes are good and test according to specifications, further matching means little in the real operation of the set. The selection of an oscillator tube in superheterodyne sets is important, particularly in all-wave sets.

If you have access to a supply of new tubes a matched set will soon be found that works perfectly. Dealers are loath to do this as it takes time and causes a lot of tubes to be opened and tested. We doubt whether any dealer will go to all this trouble. We do believe that a careful matching is one way of getting good results, but we have never been turned loose in a big stock of tubes. Some tube manufacturers provide factory-assembled kits of matched tubes for certain of their sets, namely, the Philco people.

The testing values of the 50, 81, 27 and 26 types of tubes used in your set will be found in any tube chart or maker's specifications. The length of time a tube will remain matched is problematical. The filament and cathode of a tube will change in its emission values, some quicker than others, and no two tubes will paral-

lel each other in action during their life. One tube may last twice as long as another.

### Set Skips Signals

Some hum trouble and signal skipping is reported by George Wood, of Komoka, Canada. In an inquiry to RADEX, Mr. Wood asks: "A hum comes in my set after it has been running a while and it increases in loudness as I give the set more volume; also, that the set skips signals on the 22-35 meter band and I can hear some broadcast stations on the 12-25 meter band."

Hum may be caused by a number of defects. Chiefly among these are defective power tubes, broken bypass condensers and defective biasing resistors. Sometimes, after a set warms up, some resistor or condenser will break open its circuit or short-circuit due to thermal or heating action created by the internal warming of the set and parts. In such cases it is necessary to test out all the resistors and condensers and replace those found to be defective. A bad audio tube will give similar trouble. You will also see another answer along this same line in this department.

Skipping signals on one band is caused perhaps by a poor oscillator tube. The tube may not function properly at these high frequencies and should be replaced with a new one. Then, too, there are other reasons which any good serviceman can quickly locate by means of his instrumental equipment, something that the amateur experimenter lacks in his home. Failure to obtain signals on one band also may mean a broken connection or poor contacts in the band switch, one point only, of the section of the circuit involved.

Broadcast reception on the low-wave band is caused by an "image-frequency" condition which seldom can be entirely eliminated. As you have not mentioned the make of set in question we cannot offer much ad-

vice. It is due to certain combinations of the intermediate frequencies created within the set and the incoming broadcast signals—harmonics. Sometimes an efficient serviceman can make some adjustments to the i.f. and first detector circuit that will prevent some of this repeating of broadcast signals in the short-wave bands.

### **New Tubes In Radiola 3**

Ross Russell, of Fayette, Ohio, has held to his old Radiola III so long he thinks it time for more up-to-date tubes. "What tubes can I use in place of the 201As now in my set?" asks Mr. Russell. "Also, can I use a power pack with this battery set?"

There is no suitable 5-volt tube that can be substituted for the 201A in a battery set. However, you may use a 12A in place of the 201A in the audio stage. The 12A is particularly valuable in the output stage where a tube of moderate battery requirements is needed. It gives very good tone and volume. At least 135 volts B battery with a maximum of 15 volts C battery will be necessary for this tube.

Any good battery eliminator or power pack will work nicely provided it gives the necessary voltage and current output. But, for a set of this kind, batteries are the best and quietest.

### **S.W. On Radiola 3**

Another owner of a Radiola III is Harold A. Shippy, of Wetherfield, Conn. He writes: "Can I convert my old RCA Radiola III so as to obtain some of the short waves in addition to the broadcast waves, or just the shortwaves alone?"

To convert the Radiola III into a short-wave set you can proceed as follows: Remove the r.f. coils from the set; also, the input condensers. Detach the r.f. coil lead from terminal No. 1 of the first audio trans-

former. Wind a suitable antenna coil having a little more than one-half the number of turns now on the old antenna coil; also a coil for grid and plate. The new grid coil should also have about one-half the number of turns now on the old secondary of the r.f. coil. The new plate coil, or feedback, of the three-circuit tuner being arranged, may have about 7 turns of wire. Use a .00015 mfd. variable condenser for tuning and a 50,000 ohm variable resistor for regeneration control. This control is placed in series with the B or No. 2 terminal of the first audio transformer and the source of plate or B current. Add a bypass condenser, of .002 mfd., between the bottom of the grid or secondary coil and No. 1 terminal of the audio transformer.

### **His Bosch Has Hum**

This hum occurs in a Bosch receiver. "My Bosch all-wave receiver has a hum that persists at all times on all bands," writes Ellwood Beiber, of Marion, Iowa. "What can I do to stop it?"

Hum of this kind, which is not tunable hum, is likely caused by some breakdown in the filter or power circuit. If a filter condenser in the powerpack opens the hum that is being filtered out will get into the circuit. If a center-tap resistor is used with a filament-type power tube check it and replace if even slightly defective. These center-tap resistors are used to prevent audio hum in the tube.

You have not indicated the special model of this Bosch set. Hum in Bosch receivers, in general, may be due to a shorted r.f. bias resistor. Or it may be possible to reduce the hum by connecting a 2.0 mfd. condenser, rated at 600 volts, from one side of the speaker field to the chassis. Try both ends of the speaker field winding and use the one that gives the best results.

### **Kadette Seems Weak**

Reception on board ship is not always so satisfactory. Mr. L. H. Johnson, an officer of the S. S. Bessemer City, writes from Calcutta, India: "My Kadette ac-dc set does not bring in stations above 32 meters and on up to the broadcast band. When I return to New York can I replace the coil and thus improve reception on the longer waves when in far-off regions?"

When an attempt is made to cover a large portion of the high frequency spectrum with only one coil, difficulty is experienced in getting the oscillator tube to oscillate on the longer waves if the shorter waves are efficient, or vice versa. Of course, you cannot expect this set to cover very great distances on the broadcast band. Not all tubes make good oscillators and it may be necessary to try several tubes before a good one is discovered.

It does not generally pay to attempt changing the ratio between the feed-back and the grid coils in a circuit of this kind. It is difficult to attempt increasing the plate voltage of the oscillator to obtain greater oscillation on the longer waves. This is why we suggest that you try several tubes until you get a good one. In the design of the receiver it would have been much better to divide the short-wave section into at least two bands, so that the characteristics of a coil on each band could be made suitable for the tube used as an oscillator. Any attempt to change coils in a compact set such as the Kadette will be just so much grief to you, but, if you wish, you should be able to get coils at the Wholesale Radio Service, New York City, or some other large radio supply concern, when you reach that port.

### **Stewart-Warner Repeats**

A well-known radio phenomenon is giving Ralph Boswell, who lives in Milwaukee, Wis., much concern. He asks us in a recent letter: "I

receive the same signal at several places on the dial of my Stewart-Warner receiver, and I am wondering what is wrong".

Your trouble, defined as "repeat points", is due to the design of the high-frequency tuning system of the set. Image frequencies, as they are called, are due to combinations of the incoming carrier wave with the oscillator frequency, producing an intermediate frequency to which the i.f. amplifier is tuned. It occurs in the best of sets at certain times. No one has entirely eliminated it.

Ordinarily the oscillator frequency is higher than the signal frequency by an amount numerically equal to the intermediate frequency. For example, if you are receiving a carrier wave of 10,000 kcs., the oscillator in your receiver will be producing a continuous wave of 10,456 kcs. The i.f. peak of your set is 456 kcs. If the receiver is now tuned to a point on the dial corresponding to a signal of 9,088 (actually about 9,080 or 9,090) kcs., the oscillator will be producing this frequency plus the i.f. which is 456 kcs., totalling 9,544 kilocycles. This differs with our original 10,000 kcs., station signal by 456 kcs., and, since the signal is not attenuated very severely by the tuning mechanism in the r.f. amplifier, it reaches the first detector with sufficient energy to reproduce a signal throughout the i.f. and a.f. systems.

This condition cannot be avoided unless the design of the r.f. and i.f. system is revised or a new intermediate frequency determined. This, is usually impracticable. Ordinarily, we consider the reception of image frequencies beyond the scope of design for most popular receivers.

*Readers are invited to submit their radio problems for analysis. Replies will be made by mail as rapidly as possible and later the question will be discussed by Mr. Dashiell in these columns.*

# The Monthly RADIO FORUM

● ● ● *By the DX EDITOR*

**R**ADEX is pleased to announce the appointment of Carleton Lord as DX Editor. Mr. Lord is well and favorably known to radio enthusiasts everywhere. He started his DX work back in 1924 and has a record of 927 b. c. b. stations heard with 887 verified. This log was compiled in four years. Mr. Lord is a Director of the Newark News Radio Club and a member of the International DXers Alliance. His wide experience in radio and broad acquaintance bring new strength to this magazine.

**O**NE of the most gratifying phases of DXing is the fine spirit of co-operation which is shown by virtually every person associated with this popular hobby. Whether it be the broadcasters, the club officials or the DXers themselves, it seems that everybody is doing his level best to further this interesting game.

Every year, when we send out our regular questionnaires to the stations, we have an opportunity to judge the attitude of station officials towards DXers and DXing. Despite suggestions one hears that this type of dial twisting is losing its appeal, we fail to find any such indications in the replies received.

## A Courteous Station

While some stations merely expressed their policies on our printed forms, others took the trouble to send us a personal letter. The following reply from Lester W. Zellmer, Assistant Engineer of WTRC, is just

a sample of what the others have said:

"Enclosed you will find questionnaire card mailed to this station. We appreciate your sending this card, as WTRC is always willing and ready to co-operate in furthering greater interest in the popular winter pastime of DXing.

"Last season, we dedicated quite a few programs to the three leading clubs, the NNRC, CDXR and NRC. Our response was very satisfactory, when we consider that WTRC received reports from 39 states of the Union, all provinces of Canada, and seven reports from New Zealand.

"As Assistant Engineer of WTRC. I have taken full responsibility for running out scheduled DX programs and arranging publicity for them through the medium of various DX magazine and radio clubs. We broadcast daily except Sunday all DX tips furnished us by the clubs, besides running a weekly DX column in the Elkhart Truth, our local newspaper."

## WBIG Offers Service

"During the winter months," writes Edney Ridge of WBIG, Greensboro, N. C., "we give a monthly DX program featuring our studio orchestra and the best talent in this area. We gave several last year dedicated to the Newark News Radio Club, the Canadian DX Relay and one in honor of the Hon. Josephus Daniels, United States Ambassador to Mexico, a native of North Carolina, which was heard throughout Mexico and South America. We will keep you informed of any special DX program and assure you that we will co-operate with you fully at all times."

A tabulation of the replies received

from the smaller stations shows that an overwhelming majority is planning one or more special programs during the current season. Of the 232 definite replies received as we go to press, one hundred and three promised specials but gave no dates; forty-five gave their schedules; twenty-five said that it was probable that they would transmit DX programs; twelve said "perhaps"; twenty-two were undecided; eighteen promised to go on when requested; and but seven said that they were doubtful.

#### **New Stations to be Heard**

A further study of the replies indicates that ample opportunity will be afforded DXers to hear the new stations recently licensed by the FCC. Of these, KFRO will have several DX programs, KHSL proposes to schedule some in the future, KIUJ expects to be on at least once, KIUM promises its share; KIUP advises that it will be broadcasting every Sunday morning from 1:00 to 5:00 AM, EST; WCMI promises a monthly program, and KWBG, WLEU, WMFD, WMFF, WMFJ, WMFN, WMFR, WPAR and WTAL say "Yes."

Of special interest is the reply from the management of WLW and WSAI who say, "No regular schedule, but glad to put on special programs."

So, to our friends the broadcasters, without whose interest and co-operation DXing would die, we take off our hats and say, "More power to you!"

While a great many letters from readers contain resumes of logs, this seems to be the time of year when such reports are received to the total exclusion of all others. What with last year's problems decidedly a dead issue and no time for comment on reception this fall, listeners enjoy the opportunity to look back on past experiences and talk over their more poignant memories.

This is, after all, one of the most pleasant sides of DXing. When old man static and interference have been forgotten, when the thoughts of delinquent veries and lost specials are gone, it is a great satisfaction to remember the time we logged our first European or picked LS2 out from behind WOAI. Looking through our logs, each verification brings back some vivid association, while an increase in stations heard justifies a glow of pleasure.

#### **Personal Experiences**

"Just a few lines to thank RADEX," briefs Raphael Geller, Secretary-Treasurer of the Globe Circlers DX Club, 1652 Radcliff Ave., Bronx, N. Y. "for you have been responsible for my contacts with a swell bunch of pen pals. Well, one DX season has gone and another will soon be in full swing. My verified log is now well over the 400 mark and I aim to hit 550 before the new season is over. JOBK-1 sends a swell verie and they sure did answer promptly, as did CX26 and CP4, but some of these U. S. stations seem to take years. How come? I am a member of quite a few DX clubs and I'll be only too glad to send a sample bulletin of the GCDXC to all who send in a request. We have a world-wide membership and dues are still \$1.25 per year."

"I have been DXing for the past two years," announces Donald W. Shields, Box 345, Roseville, Ohio, "and although I have not tried to verify every station heard, I have several veries of which I am very proud. My best on the broadcast band include 1YA, 4QG, 3LO, 2BL, 5CK, KGU, TGW, HHK, and LR5. On short waves, I have verified RNE, KBP, JVM, IAR, YV4RC, HJ5ABD, HC1FC, OAX4B, T12RC, KJ4ABE, K6CMC, G5ML, YV6RV, CT1AA, HB9AQ, HJ1ABD and LU6AP among others. HB9AQ sent me a fine picture of his station, the very best I have ever seen."

"It has been ten years since I commenced DXing," records Duane McMurray, 501 S. Main St., Maquoketa, Ia., "and I have started a new log with each new receiver. On my present set, a six-tube Atwater Kent Model 90, I have heard a total of 536 stations since January, 1932. All of these stations are now in active operation. Whenever a station is deleted, it is scratched from the log. The same applies when a call or location is changed, although I re-instate it when I hear it again on its new call or location. I have about 20 verifies and my log covers every state except Maine and Vermont."

"I started DXing with a four-tube Aetna Model 400 receiver on March 20, 1935," greets twelve-year-old Dick Henry, 103 Cherry Road, Syracuse, N. Y. "During the first three months, I received 140 stations on the broadcast band. The first month, I used an aerial eliminator because my location is poor, but I now have a 40-foot antenna which is entirely satisfactory. My best catch so far is the 100-watt KIDW in Lamar, Colo. I have also received 10AK, XEAW, XEPN, KFI, KMBC and many stations in Mexico and Canada. I did plenty of DXing one month and, every time I thought I had a good station, it turned out to be WEXL."

"Just a short report on reception in Central California during June and July," offers Clyde E. Lowe, 730 K St., Merced, Cal. "Australia and New Zealand stations have been giving some excellent signals, with 1YA, 3AR, 3LO, 4QG, 4BC and 5CL outstanding. These stations have been played every Saturday morning during these two months. On the morning of August 3rd, I had 6IX for twenty minutes and, on August 1st, I heard a wrestling match from 6ML. On my Majestic 61, I have also heard six Japs and two Chinese broadcasters."

#### Averaged 13 a Night

"Since April 1933, I have done but little DXing," preambles Russell

Geiges, Poland, Ohio, "due to some difficult work in school, but I am rararin' to start up again this fall. When I stopped listening, I had about 300 BC stations in the United States, Canada, Cuba and Mexico, although I was never successful in landing a TA or a TP. On the few nights I did sit up during this time, I averaged about 13 stations a night. This year, I hope to hit the air often and would appreciate information about membership in a good DX club."

"The new Ashland, Ky., station, WCMI, is now on a regular broadcasting schedule," advises Lloyd Harrison, 130 S. Hague Ave., Columbus, Ohio. "Our local 100-watt WCOL has just erected a new vertical radiating tower on top of 'Radio Center,' which also houses the studios of WBNS. This is 101 feet high and is 301 feet above the street level."

"As I look forward to the new season, I find that my log contains a total of 665 stations. Included in the best verifications are 10AK, 10BQ, 10BP, KFPM, KXL, KWG, KPJM, CFCT, XETH, HHK, LR5, and WNEL. There are twelve 50-watters and 205 100-watters. My receiver is a nine-tube McMillian. I believe that I am the only listener in this country using this make of set."

"In your Midsummer Edition," bemoans W. J. Mulock, 8 Cluny Drive, Toronto, Ont., "you announced your intention to combine the DX LOG with RADEX in one volume. I hope this will not mean the beginning of the end for RADEX. So many magazines have become entirely devoted to short waves. To me, RADEX has always been *the* magazine for the broadcast band DXer and in the future I sincerely trust that it will remain the same. One likes to know how other DXers are getting along in their radio quests, so *please* don't remove the section devoted to the letters from readers!"

We trust that an inspection of the September issue has allayed Mr.

Mulock's fears. It is our hope that the merging of these two publications has resulted in a happy combination of valuable information for all listeners.

### More About Interference

Last issue, after remarking about being afflicted with 'steen odd varieties of interference, Charles Hesterman submitted a log which seemed to include virtually every well-known foreign station in the world. Just to keep the chain unbroken, Bill Savage, 270 1/2 King St. East, Hamilton, Ont., submits his first report.

"My location is anything but ideal," he confesses. "I am living in an apartment on a street car line, with a beauty parlor on the first floor and many stores with electrical machines in the immediate neighborhood. With that barrage of interference, I have managed to log over 700 stations. Among the best are JOJK, JOOK, JOKK, Graz, Brussels 2, Nice, Cote d'Azur, Bucharest, Monte Ceneri, 1YX, 2NC, 2YC, 3AW, 3ZM, 5AD and 2TM, the latter a 50-watter at Tamworth, Australia. For DXing, I use an 11-tube Marconi receiver, with an inverted 'L' aerial 150 feet long."

Just now, we are looking for a report from a DXer in an ideal location, where there is no interference, no static, no fading but, probably, no radio.

"Last season, my third at DX, brought me about 330 new stations in seven months," recapitulates Murray D. Bryce, Route 1, Royal Oak, B. C. "That brought my grand total to 518. Among my best best catches are 2WL, Wollongong, Australia, 50 watts, heard at 4:00 AM on last February 22nd; 3HA, Hamilton, Australia, 300 watts, from which I heard a half hour bag pipe concert and the call announced three times; 7UV, 250 watts; 4TO, 200 watts; LR8, KFPM, WOCL, WEXL, WCAZ and WTRC. With the approach of fall, I am looking forward to the return of DX and, my ancient 4-tube Browning-

Drake by my bed, I hope to re-visit my radio friends across the ocean."

### 5300 Stations Heard!

"I sure get a 'wallop' out of logging stations," maintains Cecil Owens, P. O. Box 194, Brownstown, Ind., "and although I have an outfit that is hard to beat for bringing in distant stations, I am compelled to give RADEX its share of praise for all the data and information which has enabled me to build up one of the finest logs in the country. At present, my log stands at exactly 5300 stations heard. This, of course, includes amateurs, police, airports, airplanes, ships, commercial phones, short wave relays as well as broadcast band stations."

"The recently licensed station in New Britain, Conn., WNBC, is now operating on 1380 kcys. with 250 watts power," avers Kenneth I. Albrecht, 241 Palm St., Hartford, Conn. "They are using high fidelity equipment and their address is 147 Main St., New Britain."

"I have been DXing for a little over two years," admits Robert Hyland, 216 E. Grand Ave., Springfield, Ohio, "and have logged a total of 562 stations on my 5-tube Gloritone Model 26, using one of your Perfect Phone Adapters. I have heard stations in every state and province and consider by best catches to be TGW, HHK, 1YA, 2YA, 4BC, 2CO, LR8, LR5, XEE, CMOA, CMBZ and a number of the smaller stations on the Pacific Coast. I owe most of my good results to the Canadian DX Relay, of which I am a member, and to RADEX."

### Making Your Own Verie

"Just received the September issue," advises Elwin H. Bullard, P. O. Box 170, Drummondville, Que., "and notice the talk about verifications. Possibly readers would be interested in the verification form card which I prepare for CDXR members. At the top is printed 'CANADIAN DX RELAY, OFFICIAL VERIFICATION

CARD.' The card itself reads: 'Dear CDXR Member, This will verify your reception of Radio Station \_\_\_\_\_. We have checked your report with our station log of that date and are pleased to inform you that it is correct. Signed \_\_\_\_\_.' The member addresses the card to himself, puts on a stamp, fills in the station call and location and mails it, together with his report, to the station. Then, the station merely has to sign the card and drop it in the mail. We have found that stations who would not verify under other circumstances will reply on this form. Besides providing an almost-sure means of obtaining a verification which will pass the utmost scrutiny, this is quite an economical form. For submitting reports, we have printed an official form which gives blanks for the information usually of value to broadcasters. Both report and verification forms are sold for twenty-five cents a hundred post paid, which amounts to just cost plus postage. So far, I have sold over 50,000 report forms and about 18,000 verification cards."

"When listening to VK3LR, Melbourne," reports Bezaleel Jones, Rampart, Alaska, "it comes in loud enough, but there is a queer sound at the end of each sentence as though the speaker was inside a barrel or drum. Has anyone else had the same sort of reception?"

#### **Another Mystery**

"Reception has been very good here this summer," observes Robert Nestor, R. D. 3, Sayre, Okla. "I have caught 31 new stations, of which 29 are 100-watters, in less than five hours of time at the dials. One of these is still unidentified. I hear him every morning on 650 Keys, but he never gives his call. Has anyone else heard him?"

"Since my last report," proclaims Vane A. Jones, 1105 West 35th St., Indianapolis, Ind., "I have verified WIRE, WKBF, KTUL, KVSO, CMBX, WILL and WBAA. My total is now 505 heard. Nine of us Indi-

ana DXers traveled East the first of May and attended the big NNRC party. It was a bang-up affair and we all had a swell time."

"Station WGCM will have 500 watts unlimited time on 1120 Keys about November 1st," advises W. H. Hardy, Jr., of that station. "Our operating schedule will then be the same as at present—8:00 AM to 2:00 PM and 4:00 PM to 10:00 PM weekdays and from 12:00 noon to 2:00 PM on Sundays. We contemplate broadcasting a special DX program every other Saturday night from about midnight to 3:00 AM."

#### **Wants Details**

As reported last month, readers were very conscientious in sending in their replies to our questionnaires about the material they wanted to read in RADEX. Some went even farther and wrote long letters which have assisted us immeasurably in lining up future features. A typical letter comes from Dr. Harold R. Jacobs, 991-05 Boulevard, Rockaway Beach, N. Y.

"In publishing reports from readers," he proposes, "I suggest that you use only those which contain information of value to other listeners. This would include the exact time at which a station was heard, its QSA-R condition, etc. It is of no interest to read that Pink-Ears of Headphone, Ky., has logged 435 stations, including XXX, YYY and ZZZ. If his article mentioned that YYY was heard at 5:50 AM on 708 Keys, QSA-1, R-O, it would provide information of value to others.

"As for the articles on construction, I suggest that these be limited to subjects which can be used to improve DX. I have in mind antenna tuners, beat oscillators, new antenna designs, discussions of directional aeriels, etc. Such would be preferable to articles which belong solely in an experimenter's publication.

"Let us have as many station lists as possible, all giving complete, de-

tailed information. You could probably omit everything else from the magazine and it would be of infinite value because of these lists alone. Give time schedules, identifying notes, special broadcasts and all available data which will assist listeners in increasing their logs.

"In my own particular case, I would be greatly interested in articles on the elimination, or at least the reduction, of interference, and I daresay that all other listeners are likewise concerned with this problem. Let us have information on how to locate sources of interference, where to apply for relief and what to do when the source is traced. It would be an excellent idea to start a campaign to have the FCC take over the elimination of this evil.

#### What To Do

"At my location, for example, I am beset with a form of QRN which will probably make DX quite impossible. I have referred the matter to the local electric company, but they have been unable to do anything about it. Apparently there is no way to have the condition corrected. Or do you know of one? The FCC says that they have no jurisdiction in such matters, so this is where Canada does things better than we do.

"Until March, last season was most successful for me. Until the aforementioned QRN started up, my log included such verified catches as KGU, YV1RC, CPC, CP4, HJN, 4QG, 2UE, Poste Parisien, Fecamp, Leipzig, Rennes, Bordeaux, Munich, Breslau, Praha, Milan, Frankfurt, and LR5. Cardiff as also definitely logged, but of course the BBC never verifies. I was all set for the TP season, but all I got was QRN and the outlook is pretty glum." What, no times or QSA-R data on those catches, Doctor?

"This trying to get verifications from foreigners is beginning to drive me nuts," laments R. H. Tomlinson, 125 Terrace Ave., Port Chester, N. Y.

"Sent a report to 1YA a long time ago and gave 'em a lot of dope. Four weeks later, Ed Goss sends one which is about a quarter as long as mine. By another month, his report was verified and I'm still waiting. 1YA was about the only TP that could be copied here with any success, although a dozen or so others could be heard faintly, and then they won't verify for me.

#### Verifying Europeans

"But that's nothing. Everyone knows how easy Poste Parisien is to get verified. Well, I logged them on October 15th and sent in a 30-minute report. In November, I sent a follow-up of this report. Then in December, I had them on an IBC program between 5:00 and 6:00 PM and sent in a full hour's report. Along comes February and still no reply. On March 15th, I sent a fourth report, reminding them of the three which had been unanswered all this time and raking them over the coals in general. By golly, if I don't get my veries back in 17 days. And PP isn't the only European offender. It took three letters to Stuttgart and two to the other Germans, with the last one going to the head man of the RRG. Four letters were required to get a reply from OKB and the same number from OKM and OKR. In the end, I got a letter saying that all the reports had been turned over to Prague and doggone if Prague didn't turn around and verify their station OKP, which I hadn't heard. Such is the life of a DXer and I'm glad the season's over for a few months. The expense of postage and reply coupons would bankrupt me, while the mental grief would have put me in the bug-house for keeps."

"I got myself a new Grunow the first of the year," gloats E. G. Goss, 666 Park Place, Brooklyn, N. Y., "but had only two weeks to work on the Europeans, as they faded out for

*(Continued on page 57)*

# USING PHONES *with* Radio Sets

**T**HERE are many cases where it is not desirable to use the loud speaker. Very often one wants to listen to the radio when others in the house are asleep or ill. Residents of apartment houses, too, often forego the pleasure of radio for fear of disturbing their neighbors. In these instances, headphones are a friend in need.

While phones will not, of course, eliminate static, they do help to minimize it. With phones the volume may be turned down much lower than with the speaker and this increases the signal-to-noise ratio. Phones, too, shut out the room noises and, bringing the signals direct to the ears, enable one to identify many a distant station they would not otherwise.

## For the Deaf

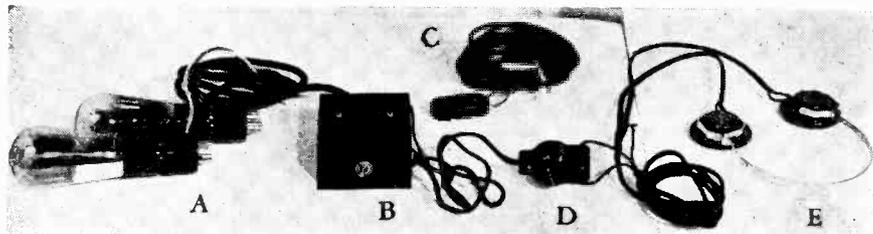
Radio offers to the hard-of-hearing a wealth of pleasure that is ordinarily denied them. To them the phones are a God-send. Their difficulty has been to listen to the phones and at the same time not to interfere with the enjoyment of the rest of the family who wish to listen to the programs via the loud speaker.

Oftentimes one wants to listen to phones from his easy chair and not be forced to sit at the set. The trouble heretofore has been to regulate the volume of the signals without constantly going to the receiver to do it.

All of these difficulties have now been met and eliminated by the "Perfect" method of using phones. This is illustrated in our picture. "B" is the Perfect Phone Adapter. It consists of a small metal box which may be mounted on the underside of the console or table where it will be out of sight and yet readily accessible. A cable to which are attached one or two small socket adapters "A", as the set may require, leads from the box. These adapters are placed under the power tube or tubes of the set where they remain. Placing these adapters in the sockets and inserting the tubes in the adapters is all the installation required.

In the top of the box is a small jack which receives the tips of the phones. At the front is a toggle-switch which cuts the speaker on or off as may be desired. When one wishes to listen at the set, the tips of the phones are inserted, the switch is set as desired and the volume of the signals is controlled from the set itself.

"D" is a distant volume control. When the tips of the volume control are inserted in the box in place of the phones, it becomes a "Lady Esther Eliminator." That is, one may carry the control to his easy chair and regulate the volume of the speaker from a distance—turning up the volume for the music, turning it down for the talks, or silencing the speaker altogether when the "blurbs" are on.



## NATIONAL HEARING WEEK

October 20-26

# TRIMM

### FEATHERWEIGHT HEADSETS

attached to the radio receiver will help the Hard of Hearing to go "Forward" to a new and better world of sound.

Light in weight—Precision built—  
Dependable—Durable.

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1528 Armitage Ave.  
CHICAGO, ILL.

If greater distance is desired, the connecting cord "C" may be inserted between the set and the volume control. This cord is ten feet in length. The control is a small device which fits the hand. Turning the knob regulates the volume from silence to maximum.

#### Using an Additional Speaker

The volume control also contains two tip-jacks into which the tips of the phone cords may be inserted. This permits the phones to be used at a distance of 15 feet from the set and yet the volume may be controlled without going to the receiver.

If desired, an extra speaker of the dynamic type may be used in another room of the house. The wires leading from this speaker may be connected either at the distant volume control or at the set. With this arrangement, either of the speakers may be silenced without interfering with the other.

All in all, the "Perfect" method of using phones adds greatly to the convenience of any radio set and brings new convenience and enjoyment in its use.

*Complete list of the short wave stations of the world will be found in the November RADEX.*

## Tuning the Foreigners

**N**O MATTER how much success a DXer may have in logging stations in his own country, he is never satisfied until he has been able to tune in a foreign station. Whether it be a European or a South American, a broadcaster in Asia or the Antipodes, the logging of an overseas station remains his one goal in life. When he is finally successful, the thirst for foreigners continues unabated and it is likely that he will never be completely satisfied.

However, as the new season gets under way, he will have another shot at his principal targets. While many DXers believe that they know all the tricks of foreign tuning, there is never any harm in reviewing the problem and picking up any stray tips.

#### Making Ready

Before any tuning is done, some attention should be paid to the receiving equipment. While few of us can afford to start off each season with a new receiver, an inspection of the "vitals" may work wonders. Get the dust out of the condensers, clean the sockets and inspect the tubes. Owners of superheterodyne receivers are often agreeably surprised at improved reception brought about by a re-alignment job by a competent serviceman. Such work is quite inexpensive, costing from three to five dollars, and is usually well worth the cost. Most listeners don't think of their tubes until the set commences to go dead. However, just as a bad spark plug will waste one gallon of gasoline in ten, a weak tube can and will waste ten Aussies or Europeans out of ten.

Formerly, many DXers thought that just any kind of an aerial was satisfactory. Because they might be unable to detect any appreciable

difference in the results brought by a bed spring or a long, high, outside installation, they were usually content to get along with the most convenient system. And they always wondered why they never heard a foreign station worthy of note.

Be sure that all connections are well-soldered and that there is no chance for bare wires to be grounded anywhere. A tree or a vine may have grown during the summer to the extent that it will brush against the wire.

The chances are that most of us ought to put up a brand new aerial and take advantage of the latest developments in noise-reducing equipment. It is really remarkable how much racket can be reduced by the use of a good system and it is hardly necessary to remind DXers that it doesn't take much buzzing to drown out a weak foreigner. So, the more noise we can eliminate, the better chance we have to pull in desired stations.

Next to the receiver and antenna installation, the most important point is the knowledge of when and where to tune. Needless to say, if a station isn't on the air or if conditions make it impossible for its signals to reach the aerial, no amount of equipment will enable the listener to hear that station.

### Hearing The Antipodes

The season for Australian and New Zealand reception will arrive first this fall, but, unlike former years, it is going to be difficult to predict just which stations will be heard. As most DXers are already aware, a sweeping re-allocation of stations took place in Australia on the first of September. No less than seventeen new stations have come into existence and most of the old stand-bys have been switched to new frequencies.

On local stations, a change of wavelengths makes little difference.

but there is no telling what effect a switch will have on a foreigner. SBH, Horby, Sweden, was a regular visitor on these shores when it was on 1166 Kcys, but a change to 1131 virtually ended its appearances. Fecamp was seldom heard on 1328, but provided an excellent signal when it changed to 1456. The old 2YA on 720 was a regular, but seemed to lose its potency on 570.

Consequently, past experience can be of little assistance and about the only thing we can do is point out the changes and let our readers try their luck.

Of the new Aussies, three will use 10 KW. These are: 2CR, Cumnock, N. S. W., 550 Kcys; 6WA, Minding, W. Austr., 560 Kcys; and 3WV, Horsham, N. S. W., 580 Kcys. Four of the new transmitters will use 7 KW and they are: 4QN, Clevedon, Qsld., 600 Kcys; 2NR, Lawrence, N. S. W., 700 Kcys; 7NT, Kelso, Tasmania, 750 Kcys; and 3GI, Longford, Vic., 830 Kcys. Other newcomers include: 6GF, Kalgoorlie, W. Austr., 720 Kcys, 2000 watts; 4AK, Toowoomba, Qsld., 1220 Kcys., 1000 watts; and a slew of low-power stations.

Of our old friends, 7ZL has switched from 580 to 590, 2FC from 665 to 610, 3AR from 610 to 630, 2CO from 560 to 670, 2BL from 855 to 740, 3LO from 880 to 770, 4QG from 760 to 800, 2GB from 950 to 870, 2UE from 1025 to 950, 2KY from 1070 to 1020, and 2CH from 1210 to 1190. Other changes, too numerous to list, will be noticed when a reference is made to the station indices.

Of these new stations, 6WA will commence operation this month, 2CR is scheduled to start up in November, and 6GF won't be heard until December. All others are supposed to be transmitting at present.

Over in New Zealand, 3YA's new 10-KW transmitter should be pound-

ing out its signals on 720 Keys now, while 4YA is scheduled to boost its power on 790 Keys to 10 KW in December.

### **Be Patient**

So much for the changes. About the only thing listeners can do is "park" on these frequencies and see what happens. We say "park" advisedly, for a signal may be a good R5 at one time and completely inaudible five minutes later. Therefore, if a signal isn't heard the first time you reach a channel, stick around for a while. You may be surprised at what happens.

Ordinarily, signals from the Antipodes start coming in as early as 3:30 AM, EST, although they are best heard between 4:00 or 4:30 and daybreak. Last year, 1 YA was logged as early as 2:30, but that was an exceptional case.

October and November will bring best reception this fall, while March and April will be high spots next spring.

Everything considered, DXers should enjoy a good season insofar as the Aussies and Zedders are concerned. Most listeners will recall how poor reception was last spring, and yet the 10-KW 1YA was able to break through when most of the old stand-bys were virtually inaudible. Consequently, with favorable reception conditions, the new stations will not have to wait long before being entered in the logs of many DXers.

### **Concerning The South Americans**

Due to the similarity of time, it is very difficult to log any of the South American stations on their regular transmissions. While the successful reception of specials from LR5, CX26, CPX, CP4, HJN and YV1BC (now YV1RC) shows that signals will cover this country, the barrage of domestic stations during the evening hours makes a catch from this continent very rare.

During the past season, DXers re-

ported LS2 in back of WOAI, LR3 in back of the jumble on 950, LR4 in back of the 890 crowd and YV1RC behind CKY and XEAW, so it is probable that similar reception will be enjoyed this fall. While the Argentine stations operate on even frequencies and are thus more difficult to hear, some of the other more-powerful South Americans use split frequencies and listeners with selective receivers may be able to separate them from the domestic transmitters.

As with signals from the Antipodes, South American stations are received best in October, November, March and April, when our fall and spring correspond with their spring and fall respectively. The best time to tune for their regular transmissions is in the early evening hours before American stations reach a signal peak. Occasionally, they may be heard just before daybreak when they commence another day's broadcasting.

Unfortunately, even when these stations are logged, it is very difficult, if not impossible, to obtain a verification. About the only ones upon whom we can rely are those which put on special programs, so it is to be trusted that the various DX clubs will continue their "missionary" work in this connection.

### **Mystery of the Japs**

Oddly enough, reception of Japanese and Chinese stations is limited practically to the West Coast, where they are reported with excellent volume and quality. Just why these strong signals fail to penetrate to the Eastern seaboard cannot be said, but the fact remains that few of them are reported East of the Mississippi.

The season for the Japs should coincide with our own best DX weather, since their winter corresponds to ours. The best time to hear them is the hour before daybreak when the maximum amount of

darkness covers the intervening distance. However, October 10th of last year yielded the greatest DX reception of Japanese and Chinese stations in the memory of DXers. No fewer than twenty of the Japs were heard throughout this country, while many of the medium-power Chinese stations were also logged with good volume. So, there is no telling what can be expected from this game of DX.

### The Europeans

European stations can be divided into two classes: those which are heard in the early evening and those which are best received in the early morning. In the former case, reception must be obtained before the local stations reach their peak of signal strength. During the late fall and winter, these stations are heard as early as 4:30 PM on the Atlantic seaboard and reach their strongest point between 5:00 and 6:00. By the latter time, the locals have become too loud for separation.

In picking the stations to tune in early evening, it is necessary to consider their schedules. Virtually all of the Europeans sign off between 11:00 PM and midnight, their time. In the case of mid-continental stations, this would be 5:00 and 6:00 PM, EST. Stations operating on Greenwich or corresponding times will thus leave the air between 6:00 and 7:00.

Reception of these early-evening stations is limited almost exclusively to listeners in the Atlantic and Eastern time belts. In fact, it is only those on the actual coastline who can enjoy consistent reception.

By far the best time to hear Europeans is in the early morning hours when most of the channels are clear. Some of the Germans come on at midnight, EST, but are usually unable to break through the local stations until 1:00 or 1:30. The Italians commence their day's broad-

casting between 1:30 and 2:30, as do many of the others. Poste Parisien, the most famous of the Europeans, signs on at 2:10 and you can set your watch by that. Fecamp and a few of the other French stations can be heard about this time. All European signals begin to fade about 2:30 and are generally gone by 3:00, with the Germans and Italians the first to leave.

Here again it is necessary to consult a schedule, so, for the convenience of readers, we are publishing a list of forty-eight of the most frequently heard European stations on page 33. This list gives different means of identifying each station and, where available, the times at which they sign on and off. (The times, given in Eastern Standard, are in the 24-hour form. Thus, while 0230 will be 2:30 AM, EST, 1900 will be 7:00 PM.) A study of these schedules will enable listeners to determine the stations which will be heard in the early evening and those which may be tuned in the early morning.

### A Blank For Africa

Just about the most-sought-after stations are those on the continent of Africa. While there are a number which transmit with a fair amount of power, reports of reception of these broadcasters are few and far between. Algiers has a 12-KW station on 941 Kcys and this has been heard in the early evenings before the 940 channel becomes too jumbled. Cairo's 20-KW transmitter, using 620 Kcys, has never been heard in this country so far as we know. An even more powerful 25-KW station at Rabat, Morocco, operates on 601 Kcys, but is seldom heard. The Union of South Africa has three 10-KW transmitters at Cape Town, Grahamstown and Johannesburg which have thus far failed to reach North American listeners.

There are two ways of going after foreign stations—fishing and tuning. When “fishing,” the DXer runs up and down his dial looking for signals and stopping whenever he finds a carrier which looks promising. When “tuning,” he decides in advance which station he wants, tunes to the correct frequency at the right time, and waits for results.

Both methods have their good and bad points. The “fishing” DXer will miss stations which have faded out completely as he passes their frequency, while the “tuning” DXer will wait for the signal to pick up again. On the other hand, the tuner will concentrate on a chosen few and pass up others which might be located by fishing. Possibly a combination of the two will work to best results.

## Europeans Worth Trying For

(Times are EST)

- Budapest, Hungary, 546 kes. 120 kw.  
Call—“Hallo! Itt Radio Budapest!” Interval signal—phrase of nine notes in two part harmony. Schedule—Sundays, 0415-1915; weekdays 0145-1915.
- Beromunster, Switzerland, 556 kes. 100 kw.  
Call—“Hallo! Hier Schweizerischer Landesender Beromunster. Program von Berne (or Basle or Zurich)”. Interval signal—music box, carillon or chimes. Announcers—men. Schedule—Sundays, 0400-1700; weekdays, 0700-1715.
- Athlone, Irish Free State, 565 kes. 60 kw.  
Call—(in Irish and English)—“Radio Atha Luain, Atha Cliath, Agus Corcaigh!” Announcer—woman. Schedule—Daily, 0830-1800.
- Stuttgart, Germany—547 kes. 100 kw.  
Call—“Hier ist der Reichssender Stuttgart!” Interval Signal—Three notes (C, D and G) on metal bars. Announcer—man. Schedule—Daily, 0100-2100.
- Grenoble, France, 583 kes. 15 kw.  
Call—“Allo! Allo! Ici le Poste Radiotelephonique de la Region des Alpes a Grenoble!” Announcer—man.
- Vienna, Austria, 592 kes. 100 kw.  
Call—“Hallo! Hallo! Radio Wien!” Interval Signal—ticking of metronome. Announcer—man. Schedule—Sundays, 0315-2000; weekdays, 0410-2000.
- Rabat, Morocco, 601 kes. 25 kw.  
Call—“Tel Radio-Moroc! Station de l’Office Cherifien des Postes et Telegraphes!” Announcer—man. Interval signal—ticking of metronome.
- Florence, Italy, 610 kes. 20 kw.  
Call—“Ente Italiano Audizioni Radiofoniche EIAR (pronounced eh-yar), Stazione di Firenze Milano-Torino-Genova-Trieste!” Announcers—men and women. Interval signal—music box.
- Brussels I, Belgium, 620 kes. 15 kw.  
Call—“Tel Bruxelles I.N.R.I.” in French. Announcer—man. Interval signal—first bars of Belgian popular song on chimes. Schedule—Sundays, 0430-1900; weekdays, 0700-1800.
- Lisbon, Portugal, 629 kes. 20 kw.  
New station. No information available.
- Prague I, Czechoslovakia, 638 kes. 120 kw.  
Schedule—Sundays, 0130-1830; weekdays, 0100-1800.
- Cologne, Germany, 658 kes. 100 kw.  
Call—“Hier ist der Reichssender Kolu!” Announcers—men and women. Interval signal—Opening bars of “Postillon Song”. Schedule—Daily, 0100-1900.
- NR, Manchester, England, 668 kes. 50 kw.  
Schedule—Sundays, 0730-1730; weekdays, 0515-1900.
- Scottens, Switzerland, 677 kes. 25 kw.  
Call—“Ici Emetter National Suisse Romand!” Announcers—men and women. Interval Signal—“R.S.R.” in Morse and chimes. Schedule—Sundays, 0500-1715; weekdays, 0730-1715.
- Stockholm, Sweden, 704 kes. 55 kw.  
Call—“Stockholm Rundradio!” Announcer—man. Schedule—Sundays, 0415-1900; weekdays, 0245-1800.
- Rome, Italy, 713 kes. 50 kw.  
Call—“Ente Italiano Audizioni Radiofoniche EIAR (pronounced eh-yar), Stazione di Roma!” Announcer—woman. Interval signal—popular air in three different keys. Schedule—Sundays, 0440-1800; weekdays, 0230-1800.
- Munich, Germany, 740 kes. 100 kw.  
Call—“Hier ist der Reichssender Munchen und seine Nebensender!” Interval signal—bell item from Parsifal. Schedule—Daily, 0100-1900.
- Marseilles, France, 749 kes. 5 kw.  
Call—“Allo! Allo! Ici la Station de Radio-diffusion de Marseilles!” Interval signal—three notes: G, E flat, F.
- SR, Falkirk, Scotland, 767 kes. 50 kw.  
Schedule—Sundays, 0730-1730; weekdays, 0515-1900.
- Leipzig, Germany, 785 kes. 120 kw.  
Call—“Hier ist der Reichssender Leipzig und seine Nebensender!” Interval signal—four notes: B flat, A, C, B natural. Schedule—Daily, 0100-1900.
- EAJI, Barcelona, Spain, 795 kes. 5 kw.  
Call—“Aqui estacion EAJI (pronounced eh-ah-hota-ono) Union Radio Barcelona, instalada en la cumbre del Tibidabo, Parque del Hotel Florida.” Announcer—man. Schedule—Daily, 0315-2000.
- Wit, Cardiff, England, 804 kes. #50 kw.  
Schedule—Sunday, 0730-1730; weekdays, 0515-1900.
- Milan I, Italy, 814 kes. 50 kw.  
Call—“Ente Italiano Audizioni Radiofoniche EIAR (pronounced eh-yar), Stazione di Milano-Torino-Genova-Trieste-Firenze!” Announcers—men and women. Interval signal—Nightingale (music box).
- Bucharest, Roumania, 823 kes. 12 kw.  
Call—“Atentie! Atentie! Aci Radio Bucharest pe treisute saszeci si patru virgula cince metri!” Repeated in French, German and Italian. Announcer—woman. Opening signal—Metronome beating for five minutes. Schedule—Sundays, 0530-1930; weekdays, 0700-1930.
- Berlin, Germany, 841 kes. 100 kw.  
Call—“Hier ist der Reichssender Berlin!” Announcer—man. Interval signal—phrase of eight notes. Schedule—Daily, 0100-1900.
- Strasbourg, France, 859 kes. 35 kw.  
Call—“Allo! Allo! Ici Radio Strasbourg (PTT)!” Announcements in French and German. Opening signal—deep-toned bell sounding for five-second periods. Schedule—Daily, 0545-1815.
- LR, London, England, 877 kes. 50 kw.  
Schedule—Sundays, 0730-1730; weekdays, 0515-1900.
- Hamburg, Germany, 904 kes. 100 kw.  
Call—“Hier ist der Reichssender Hamburg und seine Nebensender!” Interval signal—bars from folk tune. Schedule—Daily, 0100-1900.
- Toulouse, France, 913 kes. 60 kw.  
Call—“Allo! Ici Radio Toulouse! Emissions de la

Radiophonie du Midi!" Announcer—man. Interval signal—Gong sounded at second intervals. Schedule—Sundays, 0600-1930; weekdays, 0300-1930.

Brno, Czechoslovakia, 922 kes. 32 kw.  
Call—"Halo! Halo! Brno (pronounced Brrr-no) vysila!" Announcer—man. Interval signal—Four chords on harp. Schedule—Sundays, 0130-1830; weekdays, 0100-1800.

Brussels 2, Belgium, 932 kes. 15 kw.  
Call—"Hier Brussel NLR!" in Flemish. Announcer—man. Interval signal—first few bars of Flemish folk song. Schedule—Sundays, 0430-1900; weekdays, 0700-1800.

Breslau, Germany, 950 kes. 100 kw.  
"Hier ist der Reichssender Breslau und seine Nebensender!" Announcer—man. Interval signal—first bars of "Hohenfriedber" march. Schedule—daily, 2400-1900.

P.P. Paris, France, 959 kes. 60 kw.  
Call—"Ici le Poste Parisien Paris" (frequently given in English as well as French.) Announcers—men and women. Opening signal—"Marche de Sambre et Meuse". Interval signal—first six notes of the Air from the opera *Louise*. Schedule—Daily, 0210-1900.

Hilversum, Holland, 995 kes. 20 kw.  
Call—"Hier Hilversum, Holland!" Announcer—man. Schedule—Sundays, 0335-1840; weekdays, 0240-1840.

Bratislava, Czechoslovakia, 1004 kes. 13.5 kw.  
Call—"Halo! Bratislava vysila!" Announcer—woman. Interval signal—four chords on harp. Schedule—Sundays, 0500-1830; weekdays, 0100-1900.

MR, Daventry, England, 1013 kes. 50 kw.  
Schedule—Sundays, 0730-1730; weekdays, 0515-1900.

Konigsberg, Germany, 1031 kes. 60 kw.  
Call—"Hier ist der Reichssender Konigsberg und seine Nebensender!" Announcers—men and women. Interval signal—few bars from "Wild flutet der See". Schedule—Sundays, 0100-1900; weekdays, 2400-1900.

Rennes, France, 1040 kes. 40 kw.  
Call—"Allo! Allo! Ici le Poste Radiodiffusion de Rennes!" Announcer—man.

SN, Falkirk, Scotland, 1050 kes. 50 kw.  
Schedule—Sundays, 0730-1730; weekdays, 0515-1900.

Bordeaux, France, 1077 kes. 30 kw.  
Schedule—Daily, 0300-1830.

EAJ7, Madrid, Spain, 1095 kes. 7 kw.  
Call—"EAJ7 (pronounced eh-ah-hota-sjete) Union Radio Madrid!" Announcers—men and women. Opening signal—Siegfried's bugle-call theme, usually on the piano. Schedule—Daily, 0400-2100.

Fecamp, France, 1113 kes. 10 kw.  
Call—"Ici Radio Normandie!" Announcers—men and women. Schedule—Daily, 0200-2100.

Moravsko-Ostrava, Czechoslovakia, 1113 kes. 11.2 kw.  
Call—"Halo, Moravsko Ostrava vysilani!" Announcer—man. Interval signal—four chords on harp. Schedule—Sundays, 0130-1830; weekdays, 0100-1800.

Turin, Italy, 1140 kes. 7 kw.  
Call—"Ente Italiano Audizioni Radiofoniche EIAR (pronounced eh-yar), Stazione di Torino-Milano-Genova-Trieste-Firenze!" Announcers—men and women. Interval signal—song of nightingale (music box). Schedule—Sundays, 0435-1815; weekdays, 0230-1815.

Monte Ceneri, Switzerland, 1167 kes. 15 kw.  
Call—"Radio Svizzera Italiana-Impianto nazionale, Monte Ceneri!" Interval signal—peal of church bells. Schedule—Daily, 0600-1730.

Frankfurt, Germany, 1195 kes. 25 kw.  
Call—"Hier ist der Reichssender Frankfurt und seine Nebensender!" Announcers—men and women. Interval signal—few bars from "Zum Rhein, zum Rhein!" Schedule—Daily, 0100-2100.

Lille, France, 1213 kes. 60 kw.  
Call—"Allo! Allo! Ici Radio PTT de Nord a Lille!"

Eiffel Tower, Paris, France, 1456 kes. 5 kw.  
Schedule—Daily, 0300-0500.

## Monthly Notes of the I.D.A.

• • • By James T. Spalding

**H**ERE'S some good news: membership is rapidly increasing and our goal of one thousand members by Christmas seems assured. We recently welcomed the entire Pacific Shortwave Club as new members. Their president, John Clark, becomes Asiatic Editor of the G. C.

\* \* \*

Jim Maguire of Calgary, Alberta, has been appointed Provincial Publicity Director, and is angling for a DX period over CFCN in addition to his column in the Calgary Herald.

\* \* \*

The Regina Jubilee Chapter was recently formed by Bill Ansell and Lloyd Westmoreland. Formal announcement of the Kalamazoo Chapter will soon be made, a sufficient number of members having already been enrolled.

\* \* \*

Radio Fellowship Chapter, Los Angeles, has a membership of sixty DX'ers and a new club house overlooking the city will soon be built.

\* \* \*

The leaders in the Randolph Trophy Contest include: Charles Hesterman, Canada, 6265 points; W. K. Walton, England, 5390; Leo De Roo, Hawaii, 4141; Warren Reichert, Mass., 3665; and R. T. Cooles, England, 3030.

\* \* \*

Our friend, Bob Hamilton of Scotland, has been having his troubles identifying the South Americans. This is not unusual, and we would like to see all foreign stations emulating the German Stations, who announce in several languages.

Brian Mitchell, Cape., S. A., writes that a new B. C. Station was opened on July 15. It is "Pieter Maritzburg" in Maritzburg, South Africa, relaying Durban on 400 meters, with a power of 10 KW.

\* \* \*

Our very good friend Hector McCormick, owner of HJ2ABD, writes that his original Xmitter was dropped in the Magdalena River while in transit, but the new one will start testing by Sept. 25. One of the first programs will be dedicated to I.D.A. and two of his I.D.A. friends, Weber and Spalding. All DX'ers are urged to watch the 49 meter band for this one as reports are requested and will be verified by a nice QSL card. The address is "Radio Bucaramanga, Calle 2A, No. 1205, Bucaramanga, Columbia, S. A.

\* \* \*

Joseph Mercieca of Malta, has introduced the sport of veri' collecting there and reports good success. While Malta has no stations, we have several enthusiastic DX'ers there who report good reception.

\* \* \*

Moscow is soon to have a 120 KW station on SW which will be heard all over the world, according to the British Globe Circler. C. K. McVonn, the Editor of the B.G.C., spent an enjoyable vacation in the Rhineland.

\* \* \*

With increased power this year, the European and Australian stations should be heard better than ever before, and from advance reports from the Foreign Affairs Dept., there will be a great number of special broadcasts for I.D.A. We therefore suggest that all DX'ers renew their membership subscriptions in order to get information about these programs. DX'ers who have not already joined should do so at once. Information about membership may be obtained by addressing "The Publicity Dept.", James Spalding, Director, 2710 Alford Ave., Louisville, Ky.

## Reception in England

• • • by R. T. Coales\*



*The radio corner of R. T. Coales, Southsea, England. The set is H. M. V. 9-valve super-heterodyne with a short wave converter using two valves. Friend Coales is an enthusiastic tuner.*

**T**HE past season has been a very poor one so far as DX reception on the broadcast band is concerned. During November, the U. S. A. transmitters were in fine form, but ever since, with the exception of a few tolerably good nights, it has been very hard to hear any American station.

The two previous winters brought such good results that I was inclined to take good signals from the States for granted and I had hoped to verify a hundred stations. Up to the end of November, forty-four of your stations had been reported, while since then only four new ones were identified. This will show how conditions fell away.

Perhaps there has been an increase of sun-spot activity, which would account for it. However, strangely enough, reception from South America has been consistently satisfactory.

Unfortunately, few of these stations seem willing to verify, the only ones to reply so far are LR5, LS2, CPX and YV1RC. From Porto Rico, I have received veries from WKAQ and WNEL, while Egypt provided a fine verification from Cairo. I heard

CMCY on February 28th, but have yet to receive a reply. Happily, it is most rare for a United States or Canadian station to fail to verify.

Owing to the poor conditions, I have been unable to hear twenty American stations which I verified in the winter of 1933-34. I believe that my best catches in the States were WSMB, WFEA, WBBR, KPO, WTOC, KOA, KSL and WORK—all verified.

Last year, in the I.D.A. contest, I verified 71 stations. This year, with a far superior receiver — a nine-valve H.M.V. super—I have only verified 53. However, when I bought my new set last fall, it took me some time to have earphones installed, so I probably lost quite a few good catches while reception was good at that time. Altogether, I have verified a total of 86 different stations on the broadcast band—all of these being more than 3000 miles distant.

The British I.D.A. short wave contest is now on, with general conditions excellent. Many 20-meter "W" hams are heard on phone. W2XAF, W2XAD and W8XK (19 meters) show splendid signal strength. Considering their low power, the South Americans come through remarkably well, with YV6RC outstanding.

Last November, I had a very interesting visit from Sidney Mead, engineer and announcer of WCSH. He is a local man and, by an extraordinary coincidence, I happened to hear him announcing over WCSH way back in November, 1933.

\*54 Chelsea Road, Southsea, England.

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*In tuning for foreign stations it is necessary to know their time. The RADEX Map of the World automatically converts their time to your time. Just turn the dial and the proper time is shown. Price 25c postpaid.*

## **USE HEAD PHONES FOR DISTANCE**

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**The Radex Press Inc.**  
Conneaut, Ohio

# Club Cooperation Comes at Last

• • • By CARLETON LORD

**C**OINCIDENTAL with the opening of the new season comes word that the much-discussed plan for inter-club co-operation has finally been accepted by the leading DX societies. With this agreement on matters of paramount importance, the clubs concerned have taken one of the most important forward steps in the history of DXing as an organized hobby.

Intended primarily as an instrument to prevent clashing of special broadcasts, the plan seems to have grown into a virtual code of ethics for DXing and, as such, it should have lasting benefits.

The working of the plan\*, although somewhat cumbersome, appears to be adequate in its coverage of vital problems. A Clearing House has been established and to this central point all CPC chairmen will send weekly reports listing all of the DX programs arranged by their respective clubs. These reports will be checked against each other and then combined into a composite report, listing all programs arranged by all clubs, and this will then be sent to each CPC chairman.

## Whose Program?

It will be the duty of each chairman to advise his committee members to refrain from arranging specials which will conflict with those already scheduled and "passed on" by the Clearing House. When it is found that two or more stations are going to transmit programs on the same frequency at the same time, the station whose notice bore the earliest postmark will have the "right of way" and conflicting broadcasts will be cancelled by the club which arranged them.

The only exceptions to this rule will be foreign stations, which will

take precedence at all times, and government frequency checks dedicated to individual clubs. The latter, of course, cannot conflict with each other.

The Clearing House will be operated by Miss Emily Griswold, 326 N. Main St., West Hartford, Conn., and upon her shoulders will fall the burden of checking on the hundreds of special transmissions scheduled each season.

The balance of the plan deals with the ethics of inter-club relations. This covers points which have long been sources of controversies, and so a final agreement on these clauses will go a long way towards eliminating the friction which can only harm DXing as a whole.

## To Prevent "Chiseling"

Under the plan, each club agrees that it will not make unfair use of information supplied them by the Clearing House. This appears to be aimed in particular at a few clubs which have made a practice of writing to stations transmitting for another club and requesting that a portion of that program be dedicated to them. Needless to say, this "chiseling" must be condemned and its elimination cannot be commended too highly.

Further, each club agrees that it will not take names and addresses from publications of other clubs for the purpose of soliciting membership. This point has long been the principal reason why one of the larger clubs has refused to consider any suggestion of co-operation with other DX organizations, and its final settlement cannot help but react favorably.

Finally, each club agrees that it will not publish in its bulletins or tip sheets the special programs ar-

ranged by another club without first having received definite permission from the other club to do so.

### **Growth of the Idea**

The early history of the pact can best be traced by its indefatigable champion. "When I started in as the CPC Chairman of the CDXR," writes Edwin H. Bullard, CPC Chairman of the CDXR, "I could see where co-operation was needed. Everyone was suggesting that weekends be divided among the clubs, but I could see that this would never work out. After a while, I thought of the idea of notifying other clubs of programs arranged so that they would not schedule any broadcasts which would conflict. During my holidays in the summer of 1934, I went to York, Pa., and talked the matter over with Bob Weaver, president of the NRC. And so was started the co-operation plan between the NRC and CDXR. Later on, the IDA came in, to be followed by the GCRDXC and finally the URDXC of California. By this time, I could see that we had to make another change and I thought of the Clearing House. I finally secured the services of Miss Griswold to take over this job and I am convinced that she will handle the work in a creditable manner."

While the plan was used last season by the NRC, IDA, CDXR, GCRDXC and URDXC, it was not until this summer that the NNRC entered the fold. The idea of preventing the clashing of DX programs was all right, they argued, but why cooperate on one phase when there were so many other points to be straightened out?

Consequently, Mr. Bullard traveled to Newark in June and talked the matter over with President Irving R. Potts and other officials. As a result of this conference, the original plan was amended to include the clauses concerning solicitation of membership and publication of tips originating with other clubs.

The amended plan was then re-

submitted to the clubs concerned and, as we go to press, it has been approved by the NNRC and the NRC. The confirmation by the other organizations is expected to be forthcoming in the near future and this final agreement will undoubtedly work to the advantage of the entire DXing fraternity.

If all of the clubs concerned approve the plan, it will embrace the NNRC, NRC, IDA, CDXR, GCDXC (formerly the GCRDXC) and the URDXC. Upon a majority vote of these clubs, additional organizations may be admitted to the co-operating group. At present, the Mid-Co DX Exchange has petitioned for entrance and Mr. Bullard requests that other interested clubs communicate with him at P. O. Box 170, Drummondville, Que., Canada.

### **Some Mooted Points**

Analysis of the plan in detail brings up two points which may prove to be boomerangs. While it is admittedly impossible to formulate a perfect plan on the first draft, consideration of these two possible weaknesses may pave the way for an even better agreement in the future.

It will be noticed that the fundamental action of the plan is aimed at the elimination of conflicting DX programs. This, of course, is praiseworthy and a step in the right direction.

Under the present agreement, a club which has arranged a special program will, through the medium of the Clearing House, notify other clubs so that no conflicting programs will be arranged. Unfortunately, this assumes that there will be sufficient leeway, between the time the broadcast is confirmed and the date of the transmission, for another program to be scheduled.

However, every CPCman knows that, while it may take weeks and even months to line up a program, final confirmation usually arrives a week or two before the broadcast. Consequently, it is then too late to

prevent the scheduling of a conflicting program.

Considering the fact that five or six CPCmen from as many clubs will be endeavoring to schedule programs from stations on the same channel, it isn't hard to see that conflicts are bound to occur. Under the plan, such clashing will be eliminated by giving the "right of way" to the station whose confirmation was postmarked first and the other broadcasts will be cancelled summarily.

While the station having the right of way will undoubtedly appreciate the clear channel, what will be the reaction of the broadcasters whose transmissions are ruled out?

Thus, it seems that the plan fails to prevent the *scheduling* of conflicting programs, except in a few cases, and merely provides a remedy when conflicts arise.

This observation, of course, is made before the plan has had a trial and it remains to be seen just how it will work out. The results may be all that the sponsors could desire, or they may necessitate further changes in the agreement.

#### Just a Suggestion

In this connection, RADEX offers the following suggestion: Let the CPCmen of the different clubs who are assigned to the same frequency get together by mail and divide the time among themselves.

For example, each club has a committeeman assigned to the 1200 keys channel. Let the NNRC CPCman, for instance, have the exclusive right to schedule programs on this channel during the second week of each month. All other CPCmen will agree not to line up specials on this frequency during this week of each month. Then, the CDXR will take the third week and the NRC will assume charge of the fourth. Smaller clubs could be given certain days and hours of the weeks which are assigned to the big-three. The IDA, of course, would not enter into this, due to the nature of their programs.

This arrangement would be made by the individual committeemen and should in no way affect the general operation of the plan. However, it would tend to *eliminate the scheduling of conflicting programs* and, for that reason alone, it may be worthy of consideration.

#### Shall Programs be Secret?

Finally, there is the clause which forbids a club to publish announcements of specials by another organization without definite permission to do so. Were it not for the avowed intention of one club to withhold this permission, such a point would have little importance. As it is, this clause may prove to be a serious defect in the plan.

On this question, there are two points of view. One faction holds that a confirmed special is the same as a copyrighted newspaper or magazine "scoop." It is the exclusive property of the club which arranges it and should not be distributed to listeners who have not contributed to the support of the organization to which the special will be dedicated.

On the other hand, opponents of this stand insist that every station is entitled to the greatest possible publicity on one of its specials. They contend that the limitation of the notice of a DX program to the members of one club is unfair to station and listener alike.

One wag suggests that the club in question forbid its members to listen to specials dedicated to another club.

It is difficult to say which stand is right, both having their own merits, but the latter will probably appeal to the broadcasters and, after all, upon them depends the future of DXing.

In spite of these two possible weaknesses, the acceptance of the plan remains one of the most forward steps yet taken by the DX clubs.

*\*The plan as adopted is printed on page 57.*

# What the Stations Expect

• • • *From the New Zealand Radio Times*

**P**ROBABLY the most important part of dxing nowadays is the preparing of reports, for unless one sends a good report a verification cannot be expected.

Formerly, the actual method of reporting was not considered as a very important factor in gaining a verification, and as long as a definite item was named or a part of the program described, a verification was usually forthcoming.

Now, however, stations require informative reports which can be made use of by the station engineers. Station officials rely a great deal on dxers for the necessary information on how their station is getting out, and the quality of signals. Comprehensive reports with such information are welcomed and are certain to be acknowledged, usually with an extra word or two of thanks.

Naturally, in order to report to a station correctly, something definite must be heard—a set of call letters with the exact time of announcements, a number of items, with their titles, and description of the numbers, the type of music, vocal refrains, if any, and by male or female, etc. Probably the two most important facts of a report are the "volume" and "quality." The standard code is rapidly becoming universally known, and is recognized in most countries. I would therefore advise all dxers to become acquainted with the volume code, i. e., "R," and the quality code, i. e., "QSA," and to use them when reporting. (See Footnote.)

Next comes "fading," another important item in a report. Fading is caused by various factors, though mainly by atmospherical conditions. Interference caused by a station lo-

cated on a close frequency blotting out the original stations is not fading, even though signals disappear. It is heterodyne interference, and mention should be made of such. Fading may be rapid or slow. Rapid fading is a characteristic of stations on high frequencies, i. e., 1200 k.c. and higher, and slow fading usually occurs with stations on the low frequencies. Special mention should be made of the exact type of fading.

Static is not of much importance, as this is mostly local, but mention of this will explain any difficulty in getting announcements and give some idea of what the signals had to be received through.

An accurate description of the receiver must be given. State the number of valves and the type of set—whether tuned radio frequency or superhet. Particulars of the type of aerial and earth installation should always be given as these are of interest to the technical staff.

Lastly, a word of thanks to the station for the trouble you have put them to in checking the report, which, after all, is common courtesy, and, if possible, include return postage. Reports should not be scribbled but written legibly on the standard report forms of the DX Club. If all these points are followed, dxers can rest assured that in due course a verification will be received, together with the station's thanks. In this way the term "black-listed stations" would soon cease to exist.

## Reception Symbols

- R1—The faintest signal that can be heard on headphones.
- R2—A weak headphone signal.
- R3—Audible but only partially readable.
- R4—A fair signal.
- R5—A good headphone or a weak speaker signal.
- R6—Fair speaker volume.
- R7—Strong volume.
- R8—Very strong volume.
- R9—Extremely strong, maximum volume.

QSA1—Unintelligible.  
 QSA2—Signals which can be understood only now and then.  
 QSA3—Poor signals, understood with difficulty.  
 QSA4—Good signals, quite easily understood.  
 QSA5—Perfectly understandable.  
 S—Slight fading.  
 SS—Deep fading.  
 SSS—Complete fadeout.  
 R—Rapid fading.  
 N—No fading.  
 X—Slight static.  
 XX—Rather bad static.  
 XXX—Very heavy static.  
 N—No static.

15	kanz	keen-say	finf-tsane	keen-zy
16	saze	deesi-sase	sex-tsane	deza-sayz
17	deece-set	deesi-sate	seeben-tsane	deza-seti
18	deece-hweet	deesi-ochbo	okt-tsane	dez-oyto
19	deece-nerf	deesi-noovavay	noin-tsane	deza-novay
20	vant	vain-tay	tsvantsig	veentay
30	traynt	trayntah	dry-tsig	trec-teh
40	karant	karentah	feer-tsig	qwurrenteh
50	sankant	seen-kentah	finf-tsig	seen-kwenteh

## Foreign-Language Calls

THE following table gives the names of the letters of the alphabet and of the simple numerals in the more common languages of broadcasting. An English equivalent of the pronunciation of the letter names and numerals is included to facilitate interpretation of the announcement of the various station call letters.

	French	Spanish	German	Portuguese
a	ah	ah	ah	ah
b	bay	bay	bay	bay
c	say	say (thay)	tsay	say
d	day	day	day	day
e	ay	ay	ay	ay
f	ef	effay	ef	effay
g	zhay	hay	zay	hay
h	asch	ah-chay	hah	ah-hay
i	ee	ee	ee	ee
j	zhee	ho-tah	yot	ho-tah
k	kah	kah	kah	kah
l	el	ellay	el	ellay
m	em	emmay	em	emmay
n	en	ennay	en	ennay
o	o	o	o	o
p	pay	pay	pay	pay
q	coo	coo	coo	coo
r	air	erray	air	erray
s	ess	essay	ess	essay
t	tay	tay	tay	tay
u	eu	oo	oo	oo
v	vay	vay	fow	vay
w	double-vay	double-vay	vay	double-vay
x	eeks	eekis	icks	eekis
y	egrek	egree-ay-gah	ipsilon	erreeko
z	zed	zed	tset	zed
1	unh	uno	ine	oon
2	der	doce	tswi	dois
3	trwa	trace	dry	trezh
4	katth	kwah-tro	feer	kwah-tro
5	sank	sinko	finf	seenko
6	seece	sase	sex	sase
7	set	sate	seeben	seti
8	hweet	ochbo	okt	oyto
9	nerf	noo-a-vay	noin	novay
10	deece	de-ais	tsane	dezh
11	onze	on-say	elf	ohnzi
12	doze	do-say	tsvelf	dohzi
13	traze	trasy	try-tsane	trehzi
14	katorz	katorsay	feer-tsane	ka-tawr-zy

## Our Cuban "Ambassador"



ON THE roster of men who have done much for DXers and DXing, the name of Alec Kinghorn stands out. From his home in Havana, he has spread the gospel of the Midnight Marauders among the Cuban stations and most DXers are aware of the results of his work.

When he isn't announcing DX programs and taking care of requests for verifications, Alec is busy soliciting more special broadcasts and obtaining the co-operation of station managers on DX matters. From a chaos of indifference and even utter ignorance, he has brought about a situation which, while by no means Utopian, is at least encouraging, and there are probably

few DXers who cannot trace a valued verification to his work.

Alec was born in Havana twenty-five years ago, the son of a British civil engineer who had then been in Cuba about five years. Due to the nature of his father's work, considerable travelling was the order, and the Kinghorn family covered the Island of Cuba extensively in addition to longer trips to Santo Domingo, England, Scotland and Canada. Despite this, Alec still has the wander-lust and looks forward to more globe-trotting.

Most of his education was obtained in Havana, where he was graduated from high school in 1930. In the same year, he entered the University of Havana and commenced a course in Electrical Engineering. However, due to the killing of a number of students during the Machado regime, the University was closed and he was obliged to continue his studies by correspondence.

#### **Becomes Interested in Radio**

The radio bug first bit him back in 1924, when he built a cigar box crystal set. The first station he ever heard was the old PWX, now known to thousands of listeners as the Cuban Telephone Company's transmitter, CMC. For a while, radio held little interest for him. This was probably due to the fact that his allowance wouldn't buy admissions to picture shows when it had been used for radio components. Besides, there was the early-day trouble in obtaining reliable circuits and parts. Consequently, radio was set aside until he could earn his own money.

Early in 1930, he made his first visit to a radio station. Calling at the studios of CMCA, he met the chief engineer, J. M. Gonzalez, who showed him about the plant and gave him a chance to speak into the mike. This was undoubtedly the greatest thrill of his life and he still treasures its memory.

The following day, he spoke again

and had his family and friends listening in. They all thought he did well, but had a difficult time recognizing his voice.

He continued to go around to the station every day and obtained quite a bit of practice as an announcer and commentator. Then, Engineer Gonzalez put on a DX program and didn't tell him about it.

A few days later, letters commenced to come in and Alec watched the station operators indulge in what must have been a common practice with Cuban stations at the time. They would open the envelopes, take out a quantity of coins and then throw the letters in the waste basket. Then would follow an invitation to coffee or drinks.

Alec wondered why those letters contained dimes. Why did the writers enclose money? And why did the personnel take no heed of the correspondence? It began to look mighty queer.

At last he got hold of one of the letters. It was from an American listener who had sent a reception report and asked for a verification. A dime was enclosed to cover postage and handling costs.

Alec went to Gonzalez. "Why," he asked, "don't you answer these letters?" Gonzalez was indifferent. They had never paid any attention to them before, so why should they start now? Anyhow, it was quite nice of so many listeners to send money. They must have liked the programs to be willing to pay for them. Besides, those dimes bought lots of coffee and drinks for the men. Salaries weren't very large and every little bit helped.

However, if Senior Kinghorn wished to tie into the stack of letters and get off the verifications, it would be quite all right with Senior Gonzalez and CMCA. In fact, Senior Kinghorn's insinuations were most disconcerting, and it might be well to take care of the mail which fol-

lowed every late broadcast.

### **Undertakes Verifications**

Senor Kinghorn was willing. It took considerable scraping to buy enough three-cent stamps to mail the verifications—Senor Gonzalez apparently still thought that the dimes should buy coffee and drinks for the staff—but every correct report was finally verified. And that was how Alec made his first contacts with American DXers.

Shortly afterward, CMCA put on another DX broadcast and this time Alec was installed as an announcer. It was his first experience in this capacity and he still recalls the thrill.

This broadcast brought a flood of reports, no doubt due to Alec's fluent English, and it was quite a task to check all of the letters with the station's log. It was most enjoyable to read correspondence from all parts of the United States and Canada and, despite the work involved, he started a campaign for more DX transmissions.

A little later, he was introduced to Mr. Estefani, one of the owners of CMBY. This contact resulted in an early special program for DXers with Alec at the mike. While the station had put on a number of previous DX programs, reports had been unanswered due to lack of time on the part of the small station staff. However, Mr. Estefani was really interested in DXing and promised that all future reports would be verified, even if he had to handle it himself.

During the winter of 1932-1933, CMBY inaugurated a series of "Smart Hour" DX broadcasts, with Alec as director and announcer. A special verification card, showing a view of the Hotel Alcazar, was printed and the record shows that every correct report was verified. As there were several hundred of these, the size of the job which Alec undertook that winter can be appreciated.

### **Makes U. S. Contact**

The following spring, the Newark

News Radio Club asked him to act as its official Cuban representative and to assist members in obtaining verifications from delinquent stations. As most Cuban broadcasters fell in that category, this was no small assignment, yet he started to work and was soon instrumental in reducing the blacklists in the logs of not a few DXers.

It was at this time that his work first began to attract the attention of American listeners. With the announcement that DXers should send him their report, together with ten cents to cover costs of handling and postage, listeners hailed him as a benefactor of DXing, and promptly swamped him with correspondence.

Upon receiving a report on a delinquent station, Alec immediately forwarded the information to the station officials. If the station was out of town, the report was sent by mail; if it was a Havana broadcaster, Alec made a personal call at the studios. When the station responded with a confirmation, he forwarded it to the listener. Counting the cost of postage to and from the station and then back to the United States, the ten cents were soon consumed. When many DXers thought that a dime would take care of a multitude of reports, it was just a case of digging into his own pockets to cover the deficiency, for, when it was humanly possible to obtain a verification, no listener was ever disappointed.

When his work for the NNRC became known, other clubs asked him to act in similar capacities for them and it wasn't long before he added the work of the IDA, CDXR and NRC to his already sizable burden.

During the whole of his activities on the part of American DXers, he has been able to maintain his original enthusiasm for the work. His extensive correspondence has rewarded him with many treasured friendships, which he values more than any monetary remuneration.

As yet, he has met but one of his correspondents. This was Karl T. Soule, Jr., of New York, who stopped off in Havana for a day. However, Alec hopes that his wanderlust will at least enable him to visit the United States once more and meet his many DX friends.

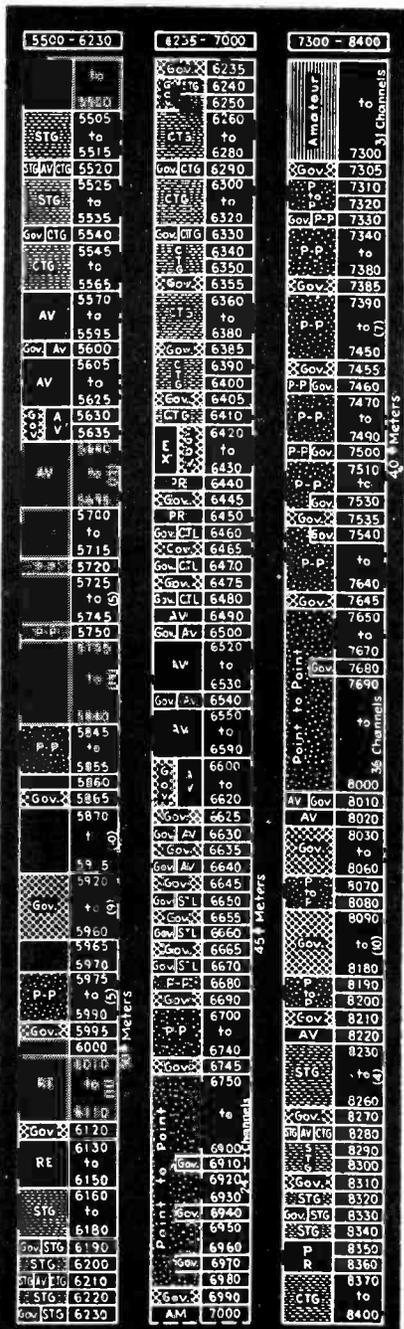
With the new deal for Cuban broadcasting under way, it is difficult to predict just how it will affect Alec's future activities. It seems logical that the weeding out of the irresponsible broadcasters will pave the way for work of even greater benefit to the listeners, but time alone can tell.

## The Frequency Charts

THE diagram which follows is one of a series which began in our May, 1935, issue and which will be concluded in a subsequent number. The complete set of these charts will give in diagrammatic form a picture of the allocation of frequencies to various radio services. These charts should be saved and mounted as they will be of great assistance in tuning, particularly in the short wave field. We are indebted to "Radio Retailing," a journal for dealers and servicemen, for these diagrams.

We repeat again the key to the symbols.

- AG—Agriculture.
- AM—Amateur.
- AV—Aviation.
- BC—Broadcast, clear channel.
- BE—Broadcast, experimental.
- BL—Broadcast, local channel.
- BP—Broadcast, pickup.
- BR—Broadcast, regional channel.
- CH—Coastal, harbor.
- CTG—Coastal, telegraph.
- CTL—Coastal, telephone.
- EM—Emergency, (special).
- EX—Experimental, (general).
- FI—Fire (marine).
- GE—Geophysical.
- Gov.—Government.
- PM—Police, municipal.
- P-P—Point to point (fixed).
- PR—Press, (mobile).
- PS—Police, state.
- RE—Relay, broadcast experimental
- SH—Ship, harbor.
- STG—Ship, telegraph.
- STL—Ship, telephone.
- TV—Television.
- Blank Unassigned



# What About TELEVISION?

**I**F YOU are hesitating about purchasing a new radio set for this winter's pleasure for fear that Television may be "just around the corner," the following article from "Radio Retailing" may assist you in making up your mind:

"U. S. Leading in World Race to Television"; "Early Success Predicted"; "Now on Verge of Reality." These, and similar glaring headlines, continue to appear with disturbing regularity in the columns of the daily press. Because of their retarding influence on set sales, dealers should once more become familiar with the truth regarding the actual date of the introduction of *practical commercial* television for public purchase and use.

Television positively will not be available to Mr. and Mrs. John Q. Consumer during the coming radio season. It is extremely doubtful if television receivers will be a factor at any time during 1936.

Because of the many rumors that this art has reached a state of practical perfection abroad, let us first consider this angle.

In June, Andrew W. Cruse, chief of the United States Department of Commerce, Electrical Equipment Division, sailed for Europe to investigate the status of the visual transmission in England, France and Germany. The day he sailed Mr. Cruse called at the editorial offices of *Radio Retailing* and promised the writer a report of his findings. Mr. Cruse has returned. Here are his summations:

## England

The British Broadcasting Corporation is offering low definition programs of short duration twice weekly, transmitted on 261 meters with accompanying sound on 398 meters, using separate transmitters for each. For television the Baird system is used employing mechanical scanning giving a 30-

line picture, 12 frames per second. These programs, states Mr. Cruse, have an objectionable flicker. The British Postal authorities estimate less than a hundred receivers in use.

High definition television also is being transmitted, but on a purely experimental basis, with no receivers in public service. Television in England is on a strictly experimental basis, with no prospect of public use for another 18 months.

## Germany

The Ministry of Propaganda now provides a two-hour program three nights a week and the Post Office supplies programs in mornings and afternoons as well as alternate evenings. These programs are 180-line, 25 frame, sequentially-scanned transmissions from a 7-meter transmitter in Berlin and are viewed by the public at several places in Berlin. They are proving popular, although nearly all of the program is provided by films. The quality is excellent, says Mr. Cruse.

About 25 ultra-shortwave transmitters with 20-kw. power will be required to cover main population centers, it is estimated, and a survey of locations has been started with a portable 20-kw. transmitter for both sound and television.

No high definition television receivers are being sold, but all principal manufacturers plan to show models at the August radio show, when they will be available for sale.

"Television is moving ahead in Germany on what certainly appears to be a most thorough basis," says Mr. Cruse, "and the cost is being carried by the license fees plus an additional government appropriation."

## France

France is behind England and Germany in television development. The French Ministry of Telegraphs is plan-

ning 180-line transmission in the near future.

"But it is in the other two countries where we may expect some really significant and practical television results within the next two years," concluded Mr. Cruse.

### And in the United States

Plans for the development of television in the United States have recently been covered in *Radio Retailing*. The most outstanding statement being that of David Sarnoff, president of the Radio Corporation, contained in a recent report to the directors of that company.

RCA has allotted \$1,000,000 for the erection of a television station and the manufacture of receiving equipment for trial reception tests.

In a recent article under the title, "Radio Opens Its Eyes," which appeared in the magazine *This Week* under date of July 7, Mr. Sarnoff quite frankly dwelt upon the many difficulties which yet must be overcome before television will be ready for dealer-merchandising and for home use.

Television has emerged from the laboratory and has now entered the field of experimental stage. This does not mean, however, that the commercial stage is "just around the corner." The following statements by Mr. Sarnoff accurately portray the present status of television in the United States:

"We are at a spot in television right now when ill-considered haste might mean the very opposite of speed. Television bears no relation to the present system of sound broadcasting. Television promises to supplement the present broadcasting service by adding sight to sound. It will not supplant or diminish the importance of broadcasting by sound. There is no longer any question about the clarity and sharpness of transmitted images. (Referring to laboratory transmission and reception.)

"However, the mere fact that clear

and pleasing pictures can be transmitted between two groups of engineers working under the most careful scientific control is far from positive evidence that a continuous stream of pictures may be broadcast over 3,000,000 square miles of territory to 130,000,000 people, even if all facilities for doing so were ready, which of course they are not.

"Great improvements unquestionably are ahead in this new art of the radio waves. The very rapidity of recent progress stands as warning that we are far from a reasonably stabilized development. It would be economic folly to set up a nationwide system at tremendous cost, only to find it hopelessly inadequate in a short time.

*"Clearly the next stage of television is proper field demonstration by which the basis may be set for technical standards. A few years from now the story may be—we hope it will be—different."*

## Don't Remain in Ignorance of Radio

Surely you must want to know something of what happens in your set when you turn the dials. For the first time, we believe, the fundamentals of radio have been set forth in clear and easily-understandable language in Mr. Dashiell's

### The Beginner's Story of Radio

In simple words, as nearly non-technical as possible, Mr. Dashiell conducts you through your radio set pointing out each part and explaining its function. This is an excellent book for boys but equally as fascinating for grown-ups.

Bound in leatherette, profusely illustrated, printed in large, clear type, the price is now

Only Fifty Cents  
Postpaid

**The Radex Press Inc.**  
Conneaut, Ohio

## Radio Miscellany

**M**AN power operates the new Peshawar station on the Northwest frontier in India. The batteries are charged by an automobile generator, belt-driven from the rear wheels of specially mounted bicycles. Natives pedal for two hours daily, the energy being converted into news bulletins, talks on hygiene, agriculture, music, native songs and readings from the Koran. (What, no Lady Esther? Ed.)

\* \* \*

The newest alibi of New Zealand listeners, who have been detected operating receivers without licenses, is that they are on relief and cannot afford the fee of twenty-five shillings. Oddly enough, two out of three "pirates" prosecuted recently owned the latest model all-wave receivers imported from the United States.

\* \* \*

Radio operators in aircraft flying over the Valley of Kings in Egypt report that signals disappear in this sector, although communication is good before and after crossing. While some people would have us believe that this is due to occult influences of the dead Pharaohs, the more logical theory holds that disturbances are caused by particles of whirling sand which have become electrified by rubbing against each other.

\* \* \*

The principal Rome transmitter, IRO, will soon double its present power of 50 KW and may even go as high as 120 KW. Experiments and investigations are now being held to prepare the technical plans, and the work will be completed before the end of the year.

\* \* \*

Receivers may be installed in Paris taxis so long as they are not audible on the street and no extra charge is made to fares.

French State stations have adopted the following official signature tunes as a means of identification: Radio-Paris—*La Victoire En Chantant*; Paris PTT—*Si Le Roin 'Avait Donne Paris*; Bordeaux—*Se Quanto*; Montpellier—*La Marche Des Rois*; Marseille—*O Magali*; Toulouse—*Les Montagnards*; Lille—*Le P'tit Quinquin*; and Lyons—*Le Bon Roi Dagobert*. So, all we have to do to identify a Frenchman is to hear one of these tunes, if we can hear the station.

\* \* \*

Ravag, Austrian broadcasting control organization, has announced plans for a new *Funkhaus*, or Austrian Radio City, to be erected in Vienna. Costing \$1,250,000, the building will contain eighteen studios and fifteen rooms for rehearsal purposes, in addition to liberal accommodations for other departments. Construction will require two years.

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# 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-6:00 p.m., C-5:00, M-4:00, P-3:00**  
**C — Buck Rogers 25th Century**  
 CKLW WAAB WABC WCAU WFBL  
 WHK WJAS WJSV WKBW WOKO

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

**E-6:45 p.m., C-5:45, M-4:45, P-3:45**  
**C — Concert Miniatures**  
 CFRB CKLW KFAB KFH KGKO  
 KLRA KLZ KMBC KLLD KRNT  
 KSCJ KTSB KTUL KWKH WAAB  
 WAAC WBBM WBIG WBNS WBRC  
 WBT WCAO WCCO WCOA WDAE  
 WDBO WFBL WFBN WFEA WGR  
 WGST WHAS WHEC WHK WHF  
 WICC WISN WJSV WKRC WLAC  
 WLBZ WMBD WMBG WOKO WORC  
 WOWO WWSJ WSMK WSPD WVVV

**B — Lowell Thomas**  
 CRCT KDKA WBAL WBZ WBZA  
 WFIL WGAR WHAM WIOD WJAX  
 WJZ WLW WMLA WRVA WSYR

**E-7:00 p.m., C-6:00, M-5:00, P-4:00**  
**C — Myrt and Marge**  
 WABC WADC WBT WCAO WCAU  
 WDAE WDBO WEAN WFBL WGR  
 WJAS WJSV WKRC WNAC WOKO  
 WQAM WSPD WTOC WVVV

**R — Amos 'n' Andy**  
 CRCT KYW WBEN WCAE WCHS  
 WEAF WEEL WFBR WGY WJAR  
 WLW WRC WTAG WVIC

**E-7:15 p.m., C-6:15, M-5:15, P-4:15**  
**C — Patti Chapin**  
 CFRB CKLW KFAB KFH KGKO  
 KLRA KLZ KMBC KLLD KRNT  
 KSCJ KTSB KTUL KWKH WAAB  
 WABC WBBM WBIG WBNS WBRC  
 WBT WCAO WCCO WCOA WDAE  
 WDBO WDNC WFBL WFBN WFEA  
 WGR WGST WHAS WHEC WHK  
 WHF WICC WISN WJSV WKRC  
 WLAC WLBZ WMBD WMBG WOKO  
 WORC WOWO WWSJ WSMK WSPD  
 WVVV

**R — Uncle Ezra**  
 KYW WBEN WCAE WCHS WDAE  
 WEAF WEEL WFBR WGY WHO

WHIO WJAR WMAQ WOW WRC  
 WSAI WTAG WTAM

**B — Tony and Gus**  
 KDKA WBAL WBZ WBZA WCKY  
 WENR WFIL WFLA WGAR WHAM  
 WIOD WIS WJAX WJZ WMAL  
 WPTF WSOC WSYR WTAR WWNC

**E-7:30 p.m., C-6:30, M-5:30, P-4:30**  
**C — Singin' Sam**  
 CKLW KFAB KMOX KRNT WABC  
 WADC WBBM WCAO WCAU WCCO  
 WDRC WEAN WFBL WFBN WGR  
 WHAS WHK WJAS WJSV WKRC  
 WNAC WOKO WSPD

**B — Lum and Abner**  
 WBZ WBZA WENR WJZ WSYR

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

**B — Dangerous Paradise**  
 KDKA KOIL KSO KTBS KWK  
 WBAL WBAF WBZ WBZA WENR  
 WFIL WHAM WJZ WLW WMAL  
 WREN WSB WSM WSMB WSYR

**E-8:00 p.m., C-7:00, M-6:00, P-5:00**  
**C — Guy Lombardo and Orchestra**  
 KLRA KWKH WABC WBIG WBT  
 WCAO WCAU WDBJ WDNC WDOE  
 WDRC WDSU WEAN WESG WFBL  
 WGR WHF WIBX WICC WJAS  
 WJSV WLAC WMAS WNAC WNOX  
 WOKO WORC WPG WREX WWSJ  
 WVVV

**B — Fibber McGee and Molly**  
 KDKA KDYL KFI KGW KHQ KOA  
 KOIL KOMO KPO KSO WBAL  
 WBZ WBZA WCKY WFIL WGAR  
 WHAM WJZ WLS WMAL WMT  
 WREN WSYR

**E-8:30 p.m., C-7:30, M-6:30, P-5:30**  
**C — One Night Stands**  
 CKLW KFAB KMBC WABC WADC  
 WBBM WBT WCAO WCAU WDRC  
 WEAN WFBL WGR WHEC WHK  
 WHF WICC WJAS WJSV WKRC  
 WLBZ WMAS WMBG WNAC WOKO  
 WORC WSPD

**R — Voice of Firestone**  
 CFCE CRCT KFYZ KPRC KSD  
 KSTP KTBS KTHS KYW WAPI  
 WAVE WBEN WCAE WCHS WDAE  
 WDAY WEAF WEBC WEEL WFAA  
 WFRB WFLA WGY WHO WHIO  
 WIBA WIOD WIRE WIS WJAR  
 WJAX WJDX WKY WLW WMAQ  
 WMC WOAI WOW WPTF WRC  
 WRVA WSB WSM WSMB WSOC  
 WTAG WTAM WTAR WVIC  
 WTMJ WWJ WWNC

**B — Evening in Paris**  
 KDKA KOIL KSO KWK WBAL  
 WBZ WBZA WCKY WFIL WGAR  
 WHAM WJZ WLS WMAL WMT  
 WREN WSYR

**E-9:00 p.m., C-8:00, M-7:00, P-6:00**  
**C — Lux Radio Theatre**  
 CFRB CKAC CKLW KDB KERN  
 KFAB KFBC KFPY KFRG KGB  
 KHJ KLRA KLZ KMBC KMJ KMOX  
 KOIN KOMA KRLL KRNT KSL  
 KTRH KTSB KTUL KVI KWG  
 WABC WADC WBBM WBNS WBRC  
 WBT WCAO WCAU WCCO WDAE  
 WDBJ WDRC WDSU WEAN WFBL  
 WFBN WGST WHAS WHEC WHK  
 WICC WISN WJAS WJSV WKBW  
 WKRC WLAC WNAC WMAX WOWO  
 WORC WQAM WREX WSPD

**R — A. & P. Gypsies**  
 KSD KYW WBEN WCAE WCHS  
 WDAE WEAF WEEL WGY WHO  
 WHIO WIRE WJAR WMAQ WOW  
 WRC WSAI WTAG WTAM WVIC  
 WWJ

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

**E-9:30 p.m., C-8:30, M-7:30, P-6:30**  
**R — Grace Moore**  
 KDYL KFI KFSD KFYR KGHL  
 KGIR KGW KHQ KOA KOMO KPO  
 KPRC KSD KSTP KTAR KTBS  
 KVOO KYW WAVE WBEN WCAE

# MONDAY (Continued)

WCSS WDAF WDAY WEAF WEBC  
WEEI WFBR WFLA WGY WHO  
WHIO WIBA WIOD WIRE WIS  
WJAR WJAX WJDX WKY WLW  
WMAQ WMIC WOAI WOW WPTF  
WRC WRVA WSB WSM WSMB  
WSOC WTAG WTAM WTAR WTMJ  
WWJ WUNC

## B — Princess Play

KDKA KOIL KSO KWK WBAL  
WBZ WBZA WCKY WENR WFIL  
WGAR WHAM WJZ WMAL WMT  
WREN WSYR

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

### C — Wayne King's Orchestra

CKLW KDB KERN KFAB KFBK  
KFPY KPRC KGB KHJ KLZ KMBC  
KMJ KMOX KOIN KOL KRLL KSL  
KVI KWG WAAB WABC WADC  
WBMM WBNS WCAO WCAU WCCO  
WDRS WDSU WEAN WFBL WFMM  
WHAS WHK WIBW WJAS WJSV  
WKBW WKRC WOKO WSPD

## R — Contented Program

KDYL KFI KGW KHQ KOA KOMO  
KPO KSD KYW WBN WCAE  
WCSS WDAF WEAF WEEI WFAA  
WFBZ WGY WHO WJAR WMAQ  
WOW WRC WSAI WTAG WTAM  
WTIC WWJ

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

### C — March of Time

CKLW KDB KERN KFAB KFBK  
KFPY KPRC KGB KHJ KLZ KMBC  
KMJ KMOX KOIN KOL KRLL  
KRNT KSL KVI KWG WABC WADC  
WBMM WCAO WCAU WCCO WDRS  
WDSU WEAN WFBL WFMM WGST  
WHAS WHK WJAS WJSV WKBW  
WKRC WNAC WOKO WSPD

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

### C — Tito Guizar, Tenor

CFRB CKAC CKLW KDB KFBK  
KFH NGB KGKO KIJ KLRA KLZ  
KMBC KOH KOL KOMA KRLL  
KSL KTRH KTSa KVI KYOR KWG  
KWKH WAAB WABC WADC WALA  
WBMM WBIG WBNS WBRG WBT  
WCAO WDAE WDBO WDNB WDOO  
WDRS WFBL WFMM WGR WGST  
WHAS WHK WHF WIBW WIBX  
WISN WJAS WJSV WKBW WKBW  
WKRC WLAC WLBZ WMBR WNXX  
WOKO WORC WOWO WPG WQAM  
WREX WSBT WSFA WSMK WSPD  
WTOC

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

### C — Myrt and Marge

KDB KERN KFAB KFBK KFPY  
KPRC KGB KHJ KLRA KLZ KMBC  
KMJ KMOX KOIN KOL KOMA  
KRLL KSL KTRH KVI KWG  
WALA WBMM WBRG WCCO WDSU  
WFMM WGST WHAS WLAC WREX  
WSFA

## C — Dance Orchestra

CKAC CKLW KDB KFBK KFH  
KGB KGKO KIJ KLRA KLZ KMBC  
KOH KOL KRLL KSL KTRH KVI  
KYOR KWG KWKH WABC WADC  
WALA WBIG WBNS WBRG WBT  
WCAO WDAE WDBO WDNB WDOO  
WDRS WFBL WGST WHAS WHK  
WHF WIBX WJAS WJSV WKBW  
WKBW WKRC WLAC WLBZ WMBR  
WNXX WOKO WORC WOWO WPG  
WQAM WREX WSBT WSFA WJSV  
WSMK WSPD WTOC

## R — Amos 'n' Andy

KDYL KFI KGW KHQ KOA KOMO  
KPO KPRC KSD KTHS WDAF  
WFAA WHIO WKY WMAQ WMIC  
WOAI WOW WSB WSM WSMB  
WTAM WWJ

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

### C — Singin' Sam

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

## B — Tony and Gus

KDYL KFI KFSB KFYR KGIL  
KGIR KGW KHQ KOA KOIL KOMO  
KPO KSO KSTP KTAR KTHS KTHS  
KWK WAPI WAVE WDAY WEBC  
WFAA WIBA WIRE WJDX WMIC  
WMT WOAI WREN WSB WSM  
WSMT WTMJ

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

### C — Dance Orchestra

WABC WBRG WBT WCAO WCAU  
WCOA WDAE WDBJ WDBO WDOO  
WDRS WEAN WFAA WICC WJSV  
WLAC WLBZ WMAS WMBG WMBR  
WNAC WNXX WORC WREX WSFA  
WSJS WTOC

## C — One Night Stands

KDB KERN KFBK KFPY KPRC  
KGB KHJ KMJ KMOX KOIN KOL  
KRNT KSCJ KSL KVI KWG WCCO  
WFMM WHAS

## R — Voice of Firestone

KDYL KFSB KGIL KGIR KGU  
KGW KHQ KOA KOMO KPO KTAR

# TUESDAY

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

### C — Buck Rogers, See Monday

## E-6:15 p.m., C-5:15, M-4:15, P-3:15

### C — Carson Robinson

WAAB WABC WCAO WDRS WEAN  
WFBL WGR WHEC WOKO

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

### C — Russian Bear Orchestra

KLRA WABC WALA WBIG WBRG  
WBT WCAO WDAE WDBJ WDBO  
WDNB WDOO WDRS WGST WLAC  
WLBZ WMAS WMBG WMBR WNXX  
WORC WQAM WREX WSFA WSJS  
WTOC

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

### B — Lowell Thomas, See Monday

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

### C — Myrt and Marge, See Monday

## R — Amos 'n' Andy, See Monday

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

### R — Popeye, The Sailor

KFYR KSD KYW WBN WCAE  
WCSS WDAF WDAY WEAF WEBC  
WFBZ WGY WHO WIBA WIRE  
WJAR WMAQ WOV WRC WSAI  
WTAG WTAM WWJ

## B — Tony and Gus, See Monday

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

### C — Kate Smith

CKLW KFAB KMBC KMOX KRLL  
KTRH WABC WADC WBMM WBNS  
WBRG WBT WCAO WCAU WDRS  
WEAN WFBL WFMM WGST WHAS  
WHK WJAS WJSV WKBW WKRC  
WMBG WMBR WNAC WOKO

## 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 — Frank Munn; Bernice Claire  
CKLW KFAB KMBC KMOX KRNT  
WABC WADC WBMM WCAO WCAU  
WDRS WEAN WFBL WFMM WGR  
WHAS WHK WJAS WJSV WKRC  
WNAC WOKO WSPD

## R — Leo Reisman's Orchestra

KSD KYW WBN WCAE WCSS  
WDAF WEAF WEI WFBR WFLA  
WGY WHO WIOD WIS WJAR WJAX  
WMAQ WOV WPTF WRC WSOB  
WTAG WTAM WTAR WTIC WWJ  
WUNC

## B — One Crime Clues

KDKA KOIL KSO WBAL WBZ  
WBZA WFIL WGAR WHAM WJZ  
WLS WLW WMAL WMT WREN  
WSYR

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

### C — Lawrence Tibbett

CFRB CKAC CKLW KDB KERN  
KFAB KFBK KFH KFPY KPRC  
KGB KHQ KHJ KLRA KLZ KMBC  
KMJ KMOX KOH KOIN KOL KOMA  
KRLL KRNT KSCJ KSL KTRH  
KTSa KTUL KVI KYOR KWG  
KWKH WABC WACO WADC WALA  
WBMM WBIG WBNS WBRG WBT  
WCAO WCAU WCCO WCOA WDAE  
WDBJ WDBO WDNB WDOO WDRS  
WDSU WEAN WFBL WFMM WGST  
WHAS WHK WIBW WISN WJAS  
WJSV WKBW WKRC WLAC WMBG  
WMBR WNAC WNXX WNXX WOC  
WOKO WQAM WREX WSFA WSJS  
WSPD WTOC

## R — Wayne King and Orchestra

KFYR KPRC KSD KSTP KTHS  
KVOO KYW WAVE WBN WCAE  
WCSS WDAF WDAY WEAF WEEI  
WFAA WGY WHO WIBA WIRE  
WJAR WJDX WKY WMAQ WMIC  
WOAI WOW WRC WSAI WSB WSMB  
WTAG WTAM WTIC WTMJ WWJ

## B — Edgar Guest in Welcome Valley

KDKA KOIL KSO KWK WBAL  
WBZ WBZA WFIL WGAR WHAM  
WJZ WLS WLW WMAL WMT WREN  
WSYR

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

### C — Lud Gluskin and Orchestra

CKLW KDB KERN KFAB KFBK  
KFPY KPRC KGB KGKO KIJ  
KLRA KLZ KMBC KMJ KMOX  
KOIN KOL KRLL KSCJ KSL KTRH  
KTSa KTUL KVI KWG WABC  
WADC WBNS WBRG WBT WCAU  
WCCO WDBO WDNB WDRS WDSU  
WEAN WFBL WFMM WHAS WHEC  
WHK WHX WISN WJAS WJSV  
WKBW WKRC WLAC WNAC WOKO  
WOWO WREX WSPD

## R — Ben Bernie and Orchestra

KSD KYW WBN WCAE WCSS  
WEAF WEEI WFBZ WGY WHO  
WJAR WMAQ WOV WRC WSAI  
WTAG WTAM WTIC WWJ

## B — N.T.G. and His Girls

KDKA KDYL KFI KGW KHQ KOA  
KOIL KOMO KPO KSO WBAL  
WBZ WBZA WFIL WGAR WHAM  
WJZ WLS WLW WMAL WMT  
WREN WSYR

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

### C — Fred Waring and Orchestra

CFRB CKAC CKLW KDB KERN  
KFAB KFBK KFH KFPY KPRC  
KGB KGKO KIJ KLRA KLZ KMBC

**TUESDAY (Continued)**

KMJ KMOX KOH KOIN KOL KOMA  
 KRLD KSCJ KSL KTSK KVI KVOR  
 KWG KWKH WABC WACO WADC  
 WALA WBBM WBIG WBNS WBRC  
 WBT WCAO WCAU WCCO WCOA  
 WDAE WDBJ WDBC WDDC WDDO  
 WDRC WDSU WEAN WFBL WFBM  
 WGST WHAS WHEC WHK WHP  
 WIBX WIBZ WICG WISN WJAS  
 WJSV WKBN WKWB WKRC WLAC  
 WLBZ WMAS WMBD WMBR WNAC  
 WNAX WNOX WOC WORO WORC  
 WOWO WPG WQAM WRBC WSBT  
 WSFA WSJS WSMK WSPD WTOG

**R — Eddie Duchin and Orchestra**  
 KDYL KFI KFSU KYFR KGHL  
 KGIR KGW KHQ KOA KOMO KPO  
 KPRC KSD KSTP KTAR KTBS  
 KVOO KYW KYVE WBAF WBEN  
 WCAE WCHS WDAF WDAY WEAF  
 WEBC WEEL WFBR WFLA WGY  
 WHO WHIO WIBA WIOD WIRE  
 WIS WJAR WJAX WJDX WKY  
 WLW WMAQ WMC WOAI WOW  
 WPTF WRG WRVA WSB WSM  
 WSMB WSOC WTAG WTAM WTAR  
 WTCO WTMJ WJJ WWNC

**B — Helen Hayes, Drama**  
 KDKA KDYL KFI KGW KHQ KOA  
 KOIL KOMO KSO KWK WAVE  
 WBAL WBZ WBZA WCKY WFIL  
 WGAR WHAM WJDX WJZ WLS  
 WMAL WMC WMT WREN WSB  
 WSM WSMB WSYR

**E-10:00 p.m., C-9:00, M-8:00, P-7:00**  
**R — Swift Studio Party**  
 KDYL KFI KYFR KGW KHQ KOA  
 KOMO KPO KPRC KSD KSTP  
 KTBS KTHS KYW WBAF WBEN  
 WCAE WCHS WDAF WDAY WEAF  
 WEBC WEEL WFBR WGY WHIO  
 WIBA WJAR WKY WLW WMAQ  
 WOAI WOW WRC WTAG WTAM  
 WTCO WTMJ WJJ

**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**  
 CFRB CKLW KDB KFBK KFJ  
 KFPY KFRC KGB KGKO KIJ  
 KLRA KLZ KNBC KMOX KOH KOL  
 KOMA KRLD KSL KTRH KTSK  
 KTUL KVI KVOR KWG KWKH  
 WABC WACO WADC WALA WBIG  
 WBNS WBRC WBT WCAO WDAE  
 WDBJ WDBO WDBC WDDC WDRG  
 WDSU WFBL WBNM WFEA WGST  
 WHAS WHEC WHK WHP WIBW  
 WIBX WICG WJAS WJSV WKBN  
 WKWB WKRC WLAC WLBZ WMAS  
 WMBG WMBR WNOX WOKO  
 WORC WOWO WPG WQAM WRBC  
 WSBT WSFA WSJS WSMK WSPD  
 WTOG

**R — Amos 'n' Andy, See Monday**  
**C — Myrt and Marge, See Monday**

**E-11:15 p.m., C-10:15, M-9:15, P-8:15**  
**B — Tony and Gus, See Monday**

**E-11:30 p.m., C-10:30, M-9:30, P-8:30**  
**R — Leo Reisman's Orchestra**  
 KDYL KFI KFSU KYFR KGHL  
 KGIR KGW KHQ KOA KOMO KPO  
 KPRC KTAR KTBS WAPI WAVE  
 WBAF WDAY WEBC WIBA WIRE  
 WJDX WKY WMC WOAI WSB WSM  
 WSMB

**WEDNESDAY**

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

**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**  
**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**

**C — Myrt and Marge, See Monday**

**E-7:15 p.m., C-6:15, M-5:15, P-4:15**  
**C — Mary Eastman, Soprano**  
 CKLW KDB KFBK KFJ KFPY  
 KFRC KGB KGKO KIJ KLRA KLZ  
 KMBC KMOX KOH KOL KRLD  
 KRNT KSCJ KTRH KTSK KTUL  
 KVOO KWG KWKH WABC WACO  
 WADC WALA WBBM WBT WCAU  
 WCAO WDAE WDBJ WDBO  
 WDBC WDRG WEAN WESG WFBL  
 WFBM WGR WJAS WHAS WHK  
 WIBX WISN WJDX WJSV WKBN  
 WKRC WMBG WNAC WNOX  
 WORO WOWO WQAM WRBC WSJS  
 WSMK WSPD WTOG WVVV

**R — Uncle Ezra, See Monday**  
**B — Tony and Gus, See Monday**

**E-7:30 p.m., C-6:30, M-5:30, P-4:30**  
**C — Kate Smith, See Tuesday**

**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**

**B — Dangerous Paradise, See Monday**

**E-8:00 p.m., C-7:00, M-6:00, P-5:00**  
**C — Johnnie and Foursome**  
 CKLW KFAB KMBC KMOX KRNT  
 WABC WADC WBBM WCAO WCAU  
 WCOO WDRG WEAN WFBL WFBM  
 WGR WHAS WHEC WHK WJAS  
 WJSV WKRC WLBZ WNAC WOKO  
 WSPD

**R — One Man's Family**  
 KDYL KFI KYFR KGW KHQ KOA  
 KOMO KPRC KSD KSTP KTAR  
 KTBS KTHS KVOO KYW WAPI  
 WAVE WBEN WCAE WCHS WDAF  
 WDAY WEAF WEBC WEEL WFBR  
 WFLA WGY WHO WHIO WIBA  
 WIOD WIRE WIS WJAR WJAX  
 WJDX WKY WLW WMAQ WMC  
 WOAI WOW WPTF WRC WRVA  
 WSB WSM WSMB WTAG WTAM  
 WTCO WTMJ WJJ WWNC

**B — Life Savers Rendezvous**  
 KDKA KDB KSO WBAL WBZ  
 WBZ WCKY WFIL WGAR WJZ  
 WLS WMAL WMT WREN WSYR

**E-8:15 p.m., C-7:15, M-6:15, P-5:15**  
**C — Emery Deutsch's Orchestra**  
 CKLW KDB KFBK KFJ KFPY  
 KFRC KGB KGKO KIJ KLRA KLZ  
 KMBC KMOX KOH KOL KRLD  
 KRNT KSCJ KTRH KTSK KTUL  
 KVOO KWG KWKH WABC WACO  
 WADC WALA WBBM WBT WCAU  
 WCAO WDAE WDBJ WDBO WDBC  
 WDRG WEAN WESG WFBL WBNM  
 WGR WJAS WISN WHAS WHK WHX  
 WISN WJSV WJSV WKBN WKRC  
 WLAC WMAS WMBG WNAC WNOX  
 WOKO WOWO WQAM WRBC WSJS  
 WSMK WSPD WTOG WVVV

**E-8:30 p.m., C-7:30, M-6:30, P-5:30**  
**C — Burns and Allen**  
 CFRB CKAC CKLW KDB KEIN

KFAB KFBK KFJ KFPY KFRC  
 KGB KHJ KLRA KLZ KMBC KMJ  
 KMOX KOIN KOL KOMA KRLD  
 KRNT KSCJ KSL KTRH KTSK  
 KTUL KVI KVOR KWG KWKH  
 WABC WADC WBBM WBNS WBRC  
 WBT WCAO WCAU WCCO WDAE  
 WDBJ WDBO WDRG WDSU WEAN  
 WFBL WFBM WFEA WGST WHAS  
 WHEC WHK WHP WIBW WIBX  
 WICC WJAS WJSV WKWB WKRC  
 WLAC WLBZ WMAS WMBD WMBG  
 WMBR WNAC WNAX WNOX WOKO  
 WORC WPG WQAM WRBC WSPD

**B — House of Glass; Drama**  
 KDKA KOIL KSO KWK WBAL  
 WBZ WBZA WFIL WFLA WGAR  
 WHAM WIOD WIS WJAX WJZ  
 WLS WLW WMAL WMT WPTF  
 WREN WSOC WSYR WTAR WVNC

**R — Wayne King, See Tuesday**

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

**C — Chesterfield Program**  
 CKAC CKLW KDB KERN KFBK  
 KFPY KFRC KGKO KIJ KLRA  
 KLZ KMBC KMJ KOIN KOL KSL  
 KTUL KVI KWG WAAB WABC  
 WADC WALA WBBM WBIG WBNS  
 WBRC WBT WCAO WCAO WDAE  
 WDBJ WDBO WIDG WDRG WDSU  
 WFBL WFBM WFEA WGST WHAS  
 WHEC WHP WICC WJAS WJSV  
 WKWB WKRC WLAC WLBZ WMBG  
 WMBR WNOX WOKO WORC WOWO  
 WPG WQAM WRBC WSBT WSPD  
 WTOG

**R — Town Hall; Fred Allen**  
 KSD KYW WBEN WCAE WCHS  
 WDAF WEAF WEEL WFBR WGY  
 WHO WJAR WLW WMAQ WOW  
 WRC WTAG WTAM WTCO WJJ

**B — John Charles Thomas**  
 KDKA KDYL KFI KGW KHQ  
 KOA KOIL KOMO KPO KSO KWK  
 WBAL WBZ WBZA WCKY WENR  
 WFIL WGAR WHAM WIRE WJZ  
 WLS WMAL WMT WREN WSYR

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

**B — Warden Laces; Drama**  
 KDKA KDYL KFI KGW KHQ KOA  
 KOIL KOMO KPO KSO KWK WBAL  
 WBZ WBZA WCKY WFIL WGAR  
 WHAM WIRE WJZ WLS WMAL  
 WMT WREN WSYR

**C — Presenting Mark Warnow**  
 CFRB CKAC CKLW KDB KERN  
 KFBK KFPY KFRC KGKO KIJ  
 KLRA KLZ KMBC KMJ KOIN KOL  
 KSL KTUL KVI KWG WAAB WABC  
 WADC WALA WBIG WBNS WBRC  
 WBT WCAO WCAO WDAE WDBJ  
 WDBO WDBC WDDC WDRG WDSU  
 WFBL WFBM WFEA WGST WHAS  
 WHEC WHP WIBX WICC WJAS  
 WJSV WKWB WKRC WLAC WLBZ  
 WMAS WMBG WMBR WNOX WOKO  
 WORC WOWO WPG WQAM WRBC  
 WSBT WSFA WSJS WSPD WTOG

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

**R — Log Cabin Musical**  
 KDYL KFI KGW KHQ KOA KOMO  
 KPO KPRC KSD KTBS KTHS KYW  
 WBEN WCAE WCHS WDAF WEAF  
 WEI WFAA WGY WHO WJAR  
 WKY WMAQ WOAI WOW WRC  
 WSAI WTAG WTAM WTCO WJJ

**E-10:30 p.m., C-9:30, M-8:30, P-7:30**  
**R — Ray Noble and Orchestra**  
 KDYL KFI KGW KHQ KOA KOMO

## WEDNESDAY (Continued)

KPO KPRC KSD KTBS KTHS KYOO  
KYW WAVE WBEN WCAE WFSH  
WDAF WFAF WVEE WFAA WFRB  
WGY WHO WHIO WIRE WJAR  
WJDX WKY WLW WMAQ WMC  
WOAI WOW WRC WSB WSM  
WSMB WTAG WTAM WTIC WWJ

**C — March of Time, See Monday**

**E-11:00 p.m., C-10:00, M-9:00, P-8:30**

**C — Myrt and Marge, See Monday**

**R — Amos 'n' Andy, See Monday**

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

**C — Claude Hopkins' Orchestra**

CFRB CKAC KDB KFAB KFH  
KFPY KFRC KGB KGKO KHJ  
KLRA KLZ KMBC KOH KOI  
KOMA KRLD KRNT KSCJ KTRH  
K TSA KTUL KVI KVOR KWKH  
WAAB WABC WADC WADC WALA  
WBMM WBIG WINS WBRC WBT  
WCAO WCCO WCOA WDAE WDBJ  
WDBO WDNC WDOO WDRC WFBL  
WFBM WFEA WFD WGT WHT  
WHFC WHK WHW WIBW WIBC  
WICC WISN WJAS WJSV WKRC  
WLAC WLZ WMAS WMBD WMBG  
WMBR WNOX WOC WOKO WORC  
WOWO WPG WQAM WREC WSBT  
WSFA WSIS WSMK WSPD WTOC

**B — Tony and Gus, See Monday**

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

**B — House of Glass; Drama**

KDYL KFI KFYZ KGW KHQ  
KOA KOMO KPO KPRC KTBS  
WAPI WAVE WDAY WFAA WIBA  
WIRE WJDX WKY WMC WOAI  
WSB WSM WSMB WTMJ

## THURSDAY

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

**C — Buck Rogers, See Monday**

**E-6:15 p.m., C-5:15, M-4:15, P-3:15**

**C — Carson Robinson, See Tuesday**

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

**C — Russian Bear Orchestra**

KLRA WAAB WABC WALA WBIG  
WBRC WCOA WDAE WDBJ WDBO  
WDNC WDOO WDRC WGST WLAC  
WLZ WMAS WMBG WMBR WORC  
WQAM WREC WSFA WSIS WTOC

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

**B — Lowell Thomas, See Monday**

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

**C — Myrt and Marge, See Monday**

**R — Amos 'n' Andy, See Monday**

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

**C — Buddy Clark, Singer**

CFRB CKLW KFAB KFH KGB  
KLRA KLZ KMBC KMOX KRLD  
KRNT KSCJ KSL K TSA KTUL  
KWG KWKH WAAB WABC WACO  
WBMM WBIG WBNS WBRC WBT  
WCOA WDAE WDBO WDNC WDOO  
WDRC WDSU WFBL WFBM WFEA  
WGR WGST WHAS WHFC WHP  
WIBX WJSV WKRC WLAC WLZ  
WMBD WMBG WMBR WOKO  
WORC WOWO WQAM WREC WSJS  
WSMK WSPD WVA

**B — Tony and Gus, See Monday**

**R — Popeye, See Tuesday**

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

**C — Kate Smith, See Tuesday**

**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 — Harv and Esther**

CKLW KFAB KMBC KMOX KRNT  
WABC WADC WBMM WBNS WCAO  
WCAU WCCO WDRC WEAN WFBL  
WFBM WGR WHAS WHK WJAS  
WJSV WKRC WNAC WOKO WSMK  
WSPD

**R — Rudy Vallee's Variety Hour**

CFCE CRCT KDYL KFI KFYZ  
KGW KHQ KOA KOMO KPO KSD  
KSTP KTAR KYW WBEN WCAE  
WCSS WDAF WDAY WFAF WERC  
WVEE WFBW WGY WHO WJAR  
WLW WMAQ WOW WRC WTAG  
WTAM WTIC WTMJ WWJ

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

**C — Atwater Kent Concert**

CKAC CKLW KDB KERN KFBC  
KFPY KFRC KGB KHJ KLZ KMBC  
KMJ KMOX KOIN KOL KOMA  
KRLD KRNT KSL K TSA KVI KWG  
WABC WADC WBMM WBT WCAO  
WCAU WCCO WDAE WDBO WDRC  
WDSU WEAN WFBL WFBM WGR  
WGST WHAS WHK WJAS WJSV  
WKRC WLAC WLZ WMBR WNAC  
WOKO WQAM WREC WSPD

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

**C — Charles Hanson Towne**

CFRB CKAC CKLW KDB KERN  
KFAB KFBC KFH KFPY KFRC  
KGB KGKO KHJ KLRA KMJ  
KMOX KOH KOIN KOL KOMA  
KRLD KSCJ KSL KTRH K TSA  
KTUL KVI KVOR KWG KWKH  
WABC WACO WADC WALA WBMM  
WBIG WBNS WBRC WBT WCAO  
WCAU WCCO WCOA WDAE WDBJ  
WDBO WDNC WDOO WDRC WDSU  
WFBL WFBM WFEA WGT WHAS  
WHFC WHK WHW WIBW WIBC  
WICC WISN WJAS WJSV WKBN  
WKRC WLAC WLZ WMAS WMBD  
WMBR WNAX WNOX WOC  
WOKO WORC WOWO WPG  
WQAM WREC WSBT WSFA WSJS  
WSMK WSPD WTOC

**R — Maxwell House Show Boat**

KDYL KFI KFSD KFYZ KGHL  
KGIR KGW KHQ KOA KOMO  
KPO KPRC KSD KSTP KTAR  
KTBS KYW WAPI WAVE WBAF  
WBEN WCAE WCSS WDAF WDAY  
WFAF WERC WVEE WFBW WFLA  
WGY WHO WHIO WIBA WIOD  
WIRE WIS WJAR WJAX WJDX  
WKY WMAQ WMC WOAI WOW  
WPTF WRC WRVA WSAI WSH  
WSM WSMB WSOC WTAG WTAM  
WTAR WTIC WTMJ WWJ WYWC

**B — Death Valley Days**

KDKA KOIL KSO KWK WBAL  
WBZ WBZA WFIL WGAR WIAM  
WJZ WLS WLW WMAL WMT  
WREN WSYR

**E-9:15 p.m., C-8:15, M-7:15, P-6:15**

**C — Manhattan Choir**

CKLW KFAB KFBC KFH KGB  
KGKO KHJ KLRA KLZ KMBC  
KMOX KOL KOMA KRLD KRNT  
KSCJ KTRH K TSA KTUL KVI  
KWG KWKH WAAB WABC WACO

WADC WALA WBMM WBIG WBNS  
WBRC WBT WCAO WCAU WCCO  
WDAE WDBJ WDBO WDNC WDOO  
WDRC WDSU WFBM WFBM WFOA  
WGST WHAS WHFC WHK WHW  
WIBW WIBW WICC WISN WJAS  
WJSV WKBN WKBW WKRC WLAC  
WLZ WMAS WMBD WMBG  
WMBR WNAC WNAX WOKO WORC  
WOWO WQAM WREC WSFA WSJS  
WSMK WSPD WTOC

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

**C — Marty May, Comedian**

CFRB CKAC CKLW KDB KERN  
KFAB KFBC KFH KFPY KFRC  
KGB KGKO KHJ KLRA KMJ  
KMOX KOH KOIN KOL KOMA  
KRLD KSCJ KSL KTRH K TSA  
KTUL KVI KVOR KWG KWKH  
WABC WACO WADC WALA WBMM  
WBIG WBNS WBRC WBT WCAO  
WCAU WCCO WCOA WDAE WDBJ  
WDBO WDNC WDOO WDRC WDSU  
WFBL WFBM WFEA WGT WHAS  
WHFC WHK WHW WIBW WIBC  
WICC WISN WJAS WJSV WKBN  
WKRC WLAC WLZ WMAS WMBD  
WMBR WNAX WNOX WOC  
WOKO WORC WOWO WPG WQAM  
WREC WSBT WSFA WSJS WSMK  
WSPD WTOC

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

**C — Horace Heidt's Orchestra**

CKLW KDB KERN KFAB KFBC  
KFH KFPY KFRC KGB KHJ KLRA  
KLZ KMBC KMJ KMOX KOIN  
KOL KRLD KRNT KSL KTRH  
K TSA KTUL KVI KWG WABC  
WBMM WBNS WBRC WBT WCAO  
WCAU WCCO WDOO WDRC  
WDSU WFBM WFBM WGT WHAS  
WHK WISN WJAS WJSV WKBN  
WKRC WLAC WMBG WNAC  
WNAX WOC WOKO WQAM WREC

**R — Paul Whiteman's Music Hall**

CFCE CRCT KDYL KFI KFYZ  
KGW KHQ KOA KOMO KPO KPRC  
KSD KSTP KTAR KTBS KTHS  
KYW WAPI WAVE WBAF WBEN  
WCAE WCSS WDAF WDAY WFAF  
WERC WVEE WFBW WFLA WGY  
WHO WIBA WIOD WIS WJAR  
WJAX WJDX WKY WLW WMAQ  
WMC WOAI WOW WPTF WRC  
WRVA WSB WSM WSMB WTAG  
WTAM WTIC WTMJ WWJ WYWC

**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 — Dance Orchestra**

CFRB CKAC CKLW KDB KERN  
KFAB KFBC KFH KFPY KFRC  
KGB KGKO KHJ KLRA KMBC  
KMJ KMOX KOH KOIN KOL KOMA  
KRLD KSCJ KSL KTRH K TSA  
KTUL KVI KVOR KWG KWKH  
WABC WACO WADC WALA WBMM  
WBIG WBNS WBRC WBT WCAO  
WCAU WCCO WCOA WDAE WDBJ  
WDBO WDOO WDRC WDSU WFBL  
WFBM WFEA WGT WHAS WHFC  
WHK WHW WIBW WIBC WICC  
WISN WJAS WJSV WKBN WKRC  
WLAC WLZ WMAS WMBD  
WMBR WNAX WNOX WOC WOKO  
WORC WOWO WPG WQAM WREC  
WSBT WSFA WSJS WSMK WSPD  
WTOC

## THURSDAY (Continued)

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

### C — Dance Orchestra

CFRB CKAC CKLW KFB KFBK KFH KFPY KFRK KGB KGKO KHJ KLRA KLZ KMBC KOH KOIN KOMA KRLD KSL KTRH KTSa KTUL KYOR KWG KWKk WAAB WABC WACO WADC WAlA WBlG WBNs WBRC WBT WCAO WCOA WDAE WDbJ WDbO WDNc WDRC WDSU WFBW WFEA WFG WGHc WHP WIBW WlBx WlC WJAS WJSV WKbN WKbW WKRC WlAC WlBZ WMAA WMBG WMbR WNAc WNOX WOKO WORC WOVQ WPG WQAM WRCB WSBT WSFA WSJS WSMK WSPD WTOC

### R — Amos 'n' Andy, See Monday

### C — Myrt and Marge, See Monday

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

### B — Tony and Gus, See Monday

## FRIDAY

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

### C — H. V. Kaitlenborn

CKLW KDB KERN KFAB KFH KFPY KFRK KGB KGKO KHJ KLRA KLZ KMBC KOH KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSa KTUL KVI KYOR KWG KWKk WAAB WABC WACO WADC WAlA WBBM WBlG WBNs WBRC WCAO WCOA WDAE WDbJ WDbO WDNc WDOO WDSU WEAN WESG WFBW WFBM WFEA WGHc WHc WHP WIBW WlBx WlC WJAS WJSV WKbN WKbW WKRC WlAC WlBZ WMAA WMBD WMBG WMbR WNOX WOC WOKO WORC WOVQ WPG WQAM WRCB WSBT WSFA WSJS WSMK WSPD WTOC

E-6:15 p.m., C-5:15, M-4:15, P-3:15

### C — Bobby Benson, See Monday

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

### C — Allan Leifer's Orchestra

KLBA WABC WAlA WBlG WBRC WCOA WDAE WDbJ WDbO WDNc WDOO WDRc WDSU WGHc WlAC WlBZ WMBR WOC WQAM WRCB WSFA WSJS WTOC

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

### B — Lowell Thomas, See Monday

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

### C — Myrt and Marge, See Monday

### R — Amos 'n' Andy, See Monday

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

### R — Uncle Ezra, See Monday

### B — Tony and Gus, See Monday

### C — Lazy Dan, Minstrel Man

KFAB WABC WADC WBBM WCAO WCAU WDRc WEAN WGR WJAS WJSV WKRC WOKO WSPD

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

### B — Dangerous Paradise, See Monday

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

### C — Johnny Green and Orchestra

WABC WCAU WDRc WEAN WFBW WGR WHc WHc WlBZ WMAA WNAc WOKO WORC

### R — Cities Service Concert

CRCT KDYL KOA KPRC KSD KSTP KTBS KTHS KYOO KYW WBAI WBEN WCAE WCSH WDAF WEAf WEBC WEEl WFAA WFBW WGY WHO WHIO WIOD WJAR WKY WMAQ WOAI WOW WRC WRVA WSAI WTAG WTAM WTIC WTMJ WWJ

### B — Irene Rich; Dramatic Sketch

KDKA KDYL KFI KGW KHQ KOIL KOMO KPO KSO KTAR WAVE WBAL WBZ WBZA WGAR WHAM WIRE WJZ WLS WMAL WMC WMT WREN WSB WSM WSYR

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

### C — Broadway Varieties

CKLW KAIE KDB KERN KFAB KFRc KGB KHJ KLZ KMBC KMJ KMox KOIN KOL KOMA KRNT KSL KWG WABC WADC WBNs WBRC WBT WCAO WCAU WCOO WDRc WDSU WEAN WFBW WFBM WGR WGHc WHc WJAS WJSV WKRC WMAA WMBG WNAc WOKO WSPD

### B — Ruth Etting; Red Nichols

KDKA KDYL KFI KFSB KGW KHQ KOIL KOMO KPO KSO KTAR KWK WBAL WBZ WBZA WFL WGAR WHAM WJZ WLS WLW WMAL WMT WREN WSYR

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

### C — Hollywood Hotel

CFRB CKAC CKLW 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 KYOR KWG KWKk WABC WADC WBBM WBNs WBRC WBT WCAO WCAU WCOO WDAE WDbJ WDbO WDRc WDSU WEAN WFBW WFBM WFEA WGHc WHc WHP WIBW WlBx WlC WJAS WJSV WKbW WKRC WlAC WlBZ WMAA WMBD WMBG WMbR WNAc WNAx WNOX WOKO WORC WPG WQAM WRCB WSPD

### R — Frank Munn; Vivienne Segal

KSD KYW WBEN WCAE WCHS WDAF WEAf WEEl WFBW WGY WJAR WLW WMAQ WOW WRC WTAG WTAM WTIC WWJ

### B — Palmolive Beauty Box Theatre

CHCF CRCT KDKA KFYR KOIL KPRC KSO KSTP KTBS KWK WPI WAVE WBAL WBZ WBAZ WKY WDAf WEBC WENR WFAA WFL WFLA WGAR WHAM WIBA WIOD WLE WIS WJAX WJDX WJZ WKY WLS WMAL WMC WMT WAI WPTe WREN WRVA WSB WSM WSMb WSOC WSYR WTAR WTMJ WUNC

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

### R — True Story Court

KSD KYW WBEN WCAE WCHS WEAf WEEl WFBW 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

### C — Richard Himber and Orchestra

CKLW KFAB KFH KMBC KMox WAAB WABC WADC WBBM WBNs WBT WCAO WCAU WCOO WDRc WFBW WFBM WGHc WHc WHP WIBW WlBx WlC WJAS WJSV WKbW WKRC WlAC WlBZ WMAA WMBG WMbR WNOX WOC WOKO WORC WOVQ WPG WRCB WSBT WSFA WSJS WSMK WSPD WTOC WVVa

WJAS WJSV WKbW WKRC WOKO WSBT WSPD

### R — Compans's First Nighter

KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD KSTP KYW WBEN WCAE WCHS WDAF WEAf WEBC WEEl WFAA WFBW WGY WHO WJAR WKY WLW WMAQ WMC WOAI WOW WRC WBS WSM WSMb WTAG WTAM WTIC WTMJ WWJ

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 — Myrt and Marge, See Monday

### R — Amos 'n' Andy, See Monday

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

### B — Tony and Gus, See Monday

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

### C — Luigi Romanelli's Orchestra

CKLW KFAB KFBK KGB KGKO KLZ KRLD KRNT KSCJ KTRH WABC WCAO WBBM WDBJ WDbO WDOO WFBM WGHc WHP WISN WJAS WlAC WMBD WNAc WNOX WOC WORC WOBZ WSMK

### B — Palmolive Beauty Box Theatre

KDYL KFI KFSB KGHL KGRH KGW KRQ KOA KOMO KPO KTAR WLW

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

### C — Richard Himber's Orchestra

KDB KERN KFBK KFPY KFRc KGB KHJ KLZ KMJ KOIN KOL KYI KWG

## SATURDAY

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

### C — Frederic William Wile

CKLW KDB KERN KFAB KFBK KFH KFPY KFRc KGB KGKO KHJ KLRA KLZ KMBC KOH KOIN KOL KOMA KRLD KSCJ KSL KTSa KTUL KVI KYOR KWG KWKk WAAB WABC WACO WADC WBBM WBlG WBRC WBT WCAO WCAU WDAE WDbJ WDbO WDNc WDOO WDRc WESG WFBW WFBM WGHc WHc WHP WIBW WlBx WlC WJAS WJSV WKbW WlAC WlBZ WMBD WMBG WMbR WNOX WOC WOKO WORC WOVQ WQAM WRCB WSBT WSFA WSJS WSMK WSPD WTOC WVVa

E-6:15 p.m., C-5:15, M-4:15, P-3:15

### C — Sandra Brown

CKLW KDB KERN KFAB KFBK KFH KFPY KFRc KGB KGKO KHJ KLRA KLZ KMBC KOH KOIN KOL KOMA KRLD KSCJ KSL KTSa KTUL KVI KYOR KWG KWKk WAAB WABC WACO WADC WBBM WBlG WBRC WBT WCAO WCAU WDAE WDbJ WDbO WDNc WDOO WDRc WESG WFBW WFBM WGHc WHc WHP WIBW WlBx WlC WJAS WJSV WKbW WlAC WlBZ WMBD WMBG WMbR WNOX WOC WOKO WORC WOVQ WQAM WRCB WSBT WSFA WSJS WSMK WSPD WTOC WVVa

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

### C — Allan Leifer's Orchestra

CFRB CKAC CKLW KDB KERN KFAB KFH KFPY KFRc KGB KGKO KHJ KLRA KLZ KMBC KOH KOIN KOL KOMA KRLD KSCJ KSL KTSa KTUL KVI KYOR KWG

**SATURDAY (Continued)**

KWKH WAAB WABC WACO WADC  
 WBBM WBDB WBNS WBRC WCAO  
 WCAU WCOA WDAE WDAJ WDBO  
 WDNC WDOD WDRD WEAN WESG  
 WFBL WFEA WGST WHAS WHEC  
 WHK WHP WIBW WIBX WICC  
 WISN WJAS WJSV WKWB WKRC  
 WLAC WLBZ WMAS WMBG WMBR  
 WNOX WOC WOKO WORC WOWO  
 WQAM WRBC WSBT WSFA WSJS  
 WSMK WSPD WTOC WVVVA

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

**C — Atlantic Family; Frank Parker**  
 WABC WADC WBIQ WBNS WBT  
 WCAO WCAU WDAE WDBJ WDBO  
 WDRD WEAN WFBL WHEC WHK  
 WHP WICC WJAS WJSV WKWB  
 WMAS WMBG WMBR WNAC  
 WOKO WORC WPG WQAM WSJS  
 WTOC

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

**R — Popeye, See Tuesday**

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

**R — Briggs Sport Review**

KDYL KFYR KOA KSD KSTP  
 KYW WAPI WAVE WHEN WCAE  
 WCHS WDAY WFAE WIBC WEEL  
 WFBR WFLA WGY WHIO WIBA  
 WIOD WIRE WIS WJAR WJAX  
 WJDX WMAQ WMC WOW WPTT  
 WRC WRVA WSAI WSB WSM  
 WSMB WSOE WTAG WTAM WTAR  
 WTTIC WWJ WNNC

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

**R — Lennie Hayton and Orchestra**  
 KDYL KFI KFSD KFYR KGHL  
 KGIR KGU KGW KHQ KOA KOMO  
 KPO KPRC KSD KSTP KTAR  
 KTBS KTHS KVOO KYW WAPI  
 WAVE WBAP WHEN WCAE WCHS  
 WDAF WDAY WFAE WIBC WEEL  
 WFAA WFBR WFLA WGY WHIO  
 WHIO WIBA WIOD WIRE WIS  
 WJAR WJAX WJDX WKY WLW  
 WMAQ WMC WOAI WOW WPTT  
 WRC WRVA WSB WSM WSMB  
 WSOE WTAG WTAM WTAR WTTIC  
 WTMJ WWJ WNNC

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

**R — G-Men; Drama**

KDYL KFI KFSD KFYR KGHL  
 KGIR KGW KHQ KOA KOMO KPO  
 KPRC KSD KSTP KTAR KTBS  
 KYW WAPI WAVE WBAP WHEN  
 WCAE WCHS WDAY WFAE WFAE  
 WIBC WEEL WFBR WFLA WGY  
 WHIO WHIO WIBA WIOD WIRE  
 WIS WJAR WJAX WJDX WKY  
 WLW WMAQ WMC WOAI WOW  
 WPTT WRC WRVA WSB WSM  
 WSMB WSOE WTAG WTAM WTAR  
 WTTIC WTMJ WWJ WNNC

**C — Chesterfield, See Wednesday**

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

**C — California Melodies**

CFRB CKLW KDB KFAB KFH  
 KFHC KGKO KHJ KLRA KLZ  
 KOH KOL KOMA KRLD KSCJ KSL  
 KTSa KVI KVOR KWG KWKH  
 WAAB WABC WACO WADC WBBM  
 WBIG WBNS WBRC WCAU WCCO  
 WCOA WDBJ WDBO WDNC WDOD  
 WFBL WFBM WFEA WGST WHAS  
 WHEC WHK WHP WIBX WICC  
 WISN WJSV WKRC WLAC WLBZ  
 WMAS WMBR WNOX WOC WOKO

WORC WOWO WQAM WREC WSFA  
 WSJS WSMK WSPD WTOC

**R — Al Jolson; Victor Young**

KDYL KFI KFSD KFYR KGHL  
 KGIR KGW KHQ KOA KOMO  
 KPO KSD KSTP KTAR KYW WBEN  
 WCAE WCHS WDAF WDAY WFAE  
 WIBC WEEL WFLA WGY WHIO  
 WHIO WIBA WIOD WIS WJAR  
 WJAX WLW WMAQ WOW WPTT  
 WRC WRVA WSOE WTAG WTAM  
 WTAR WTTIC WTMJ WWJ WNNC

**B — National Barn Dance**

KDKA KOIL KSO KWK WHAL  
 WBZ WBZA WFTL WGAR WHAM  
 WIRE WJZ WLS WMAL WMIT  
 WREN WSYR

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

**C — Dance Orchestra**

CFRB CKAC CKLW KDB KFBB  
 KFH KFPY KFRC KGB KGK  
 KHJ KLZ KMOX KOH KOIN KOL  
 KRLD KSCJ KSL KTSa KTUL  
 KVI KVOR KWG KWKH WAAB  
 WABC WACO WADC WBBM WBIG  
 WBNS WBRC WCAU WCCO WDBJ  
 WDBO WDNC WFBL WFBM WGST  
 WHAS WHEC WHK WHP WIBW  
 WIBX WISN WJAS WJSV WKRC  
 WLAC WLBZ WMAS WMBD WMBR  
 WNOX WOC WORC WPG WREC  
 WSFA WSJS WSMK WSPD WTOC  
 WVVVA

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

**C — Dance Orchestra**

CKLW KDB KERN KFBB KFH  
 KFPY KFRC KGB KGK KLRA  
 KLZ KMBC KMOX KOH KOIN  
 KOL KOMA KRLD KTSa KTUL  
 KVI KVOR KWG KWKH WABC  
 WACO WADC WBBM WBIG WBNS  
 WBRC WBT WCAO WCAU WCOA  
 WDAE WDBJ WDBO WDNC WDOD  
 WDRD WFBL WFBM WFEA WGST  
 WHAS WHEC WHK WHP WIBW  
 WIBX WICC WJAS WJSV WKWB  
 WKRC WLAC WLBZ WMAS WMBR  
 WNOX WOKO WORC WPG WQAM  
 WREC WSBT WSFA WSJS WSMK  
 WSPD WTOC WVVVA

**B — National Barn Dance**

KDYL KFI KFYR KGW KHQ  
 KOA KOMO KPO KPRC KSTP  
 KTBS KTHS KVOO WAVE WBAP  
 WDAY WIBC WIBA WJDX WKY  
 WLW WMC WOAI WSB WSMB

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

**C — Dance Orchestra**

CFRB CKAC CKLW KDB KERN  
 KFAB KFBB KFH KFPY KFRC  
 KGKO KHJ KLRA KOH KOL KOMA  
 KRLD KSCJ KSL KTSa KTUL  
 KVOR KWKH WABC WACO WADC  
 WBBM WBIG WBNS WBRC WBT  
 WCAO WCAU WCCO WCOA WDAE  
 WDBJ WDBO WDNC WDOD WDRD  
 WEAN WFBL WFBM WFEA WGST  
 WHAS WHEC WHK WHP WIBW  
 WIBX WICC WISN WJAS WJSV  
 WKWB WKRC WLAC WLBZ WMAS  
 WMBD WNBC WNAW WNOX WOKO  
 WORC WPG WQAM WREC WSBT  
 WSFA WSJS WSMK WSPD WTOC  
 WVVVA

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

**C — Dance Orchestra**

CKAC CKLW KDB KERN KFBB  
 KFH KFPY KGB KGK KLRA KLZ  
 KOH KOIN KOL KOMA KRLD

KSL KTSa KTUL KVI KVOR KWG  
 KWKH WABC WACO WADC WBNS  
 WBRC WBT WCAO WCAU WCOA  
 WDBJ WDBO WDNC WDOD WEAN  
 WFBL WFBM WBNS WHK WHP  
 WIBX WICC WKWB WKRC WLAC  
 WMBR WMC WNOX WOC WOKO  
 WQAM WREC WSBT WSFA WSJS  
 WSMK WSPD WTOC

**SUNDAY**

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

**C — Salt Lake Tabernacle Choir**

CKLW KFAB KFBB KFH KGKO  
 KLRA KLZ KOMA KRLD KRNT  
 KSCJ KSL KTRH KTSa KTUL  
 KWKH WACO WADC WALA WBIG  
 WBNS WBRC WBT WCAO WCCO  
 WCOA WDAE WDBJ WDBO WDNC  
 WDOD WDRD WDSU WESG WFBL  
 WFEA WGST WHP WIBW WIBX  
 WISN WJAS WJSV WKWB WLAC  
 WLBZ WMAS WMBD WMBR WNAC  
 WNAW WOC WOKO WORC WOWO  
 WPG WQAM WREC WSFA WSJS  
 WSMK WSPD WTOC

**R — Major Bowes' Capitol Family**

KDYL KFYR KOA KPRC KSTP  
 KTBS KVOO WAPI WCAE WDAF  
 WDAY WFAE WIBC WFAA WFBR  
 WFLA WGY WHIO WJAR  
 WJAX WKY WMAQ WMC WOAI  
 WRC WRVA WSAI WSMB WTAG  
 WTAM WNNC

**E-12:00 a.m., C-11:00, M-10:00, P-9:00**

**B — Tastyest Matinee**

KDKA WBAL WBZ WBZA WCKY  
 WJZ WMAL WSYR

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

**C — Musical Footnotes**

CKLW KMBC KMOX KRNT WABC  
 WBBM WBNS WCAU WCCO WGR  
 WHAS WHK WJAS WJSV WKRC  
 WNAC

**B — Radio City Music Hall**

CFRC CRCT KDKA KDYL KFI  
 KFYR KGO KGW KHQ KOA KOIL  
 KOMO KPRC KSO KVOO WAPI  
 WBAL WBZ WBZA WCKY WDAY  
 WIBC WGAR WIAM WIS WJDX  
 WJZ WKY WMAL WOAI WREN  
 WSMB WSYR WNNC

**E-1:30 p.m., C-12:30, M-11:30, P-10:30**

**C — Eddie Dunstetter at Organ**

CFRB CKAC CKLW KFAB KFH  
 KGKO KLRA KLZ KMBC KOH  
 KOMA KRLD KRNT KSCJ KTRH  
 KTSa KVOR KWKH WABC WACO  
 WADC WALA WBIG WBNS WBRC  
 WBT WCAO WCCO WCOA WDAE  
 WDBJ WDBO WDNC WDOD WDRD  
 WESG WFBL WFBM WGR WGST  
 WHAS WHEC WHP WIBW WIBX  
 WISN WJAS WJSV WKWB WKRC  
 WLAC WLBZ WMBD WMBR WOC  
 WOKO WORC WPG WQAM WREC  
 WSBT WSFA WSJS WSMK WSPD  
 WTOC WVVVA

**E-1:45 p.m., C-12:45, M-11:45, P-10:45**

**C — Sisters of the Skillet**

CKLW KDB KERN KFAB KFBB  
 KFPY KFRC KGB KHJ KLZ KMBC  
 KMJ KMOX KOIN KOL KOMA  
 KRLD KSL KTRH KTSa KVI KWG  
 WABC WADC WBBM WBNS WBRC  
 WBT WCAO WCAU WCCO WDBJ  
 WDRD WDSU WEAN WFBM WGST  
 WHAS WHEC WHK WIBX WICC

SUNDAY (Continued)

WJAS WJSV WKBW WKRC WNAC  
WNOX WOKO WORC WREC WTOG

E-2:00 p.m., C-1:00, M-12:00, P-11:00

C—Johnny Augustine and Orchestra  
CFRB CKAC CKLW KDB KERN  
KFAB KFBK KFI KFPY KFRC  
KGB KGKO KHJ KLZ KMBC  
KMOX KOH KOI KOMA KRLD  
KRNT KSCJ KTRH KTSA KVI  
KVOR KWG KWKH WDAE WADC  
WALO WBIG WBNS WBRC WBT  
WCAO WCAU WCCO WCOA WDAE  
WDBJ WDDW WDEAN WDEG WDFL  
WFBM WGR WGST WHAS WHFC  
WHK WHF WIBW WIBX WIFC  
WJAS WJSV WKBN WKBW WKRC  
WLAC WLWB WMAE WMBD WMBR  
WNAC WOC WOKO WORC WQAM  
WPG WQAM WREC WSBT WSFA  
WSJS WSMK WSPD WTOG WVVA

E-2:45 p.m., C-1:45, M-12:45, P-11:45

C—Eton Boys, Quartet  
CKLW KERN KFI KFPY KFRC KGB  
KGKO KHJ KLZ KMBC KMIJ  
KMOX KOIN KOI KOMA KRLD  
KRNT KSCJ KSL KVI KVOR KWG  
WABC WACO WADC WDBM WBNS  
WBRC WBT WCAO WCAU WCCO  
WDBJ WDBO WDRC WDSU WEAN  
WENG WFBL WFBM WGST WHAS  
WHFC WHK WIBW WIBX WJAS  
WJSV WKBN WKBW WKRC WLAC  
WMBG WNAC WOKO WQAM  
WSPD

E-3:00 p.m., C-2:00, M-1:00, P-12:00

C—Symphonic Hour, Howard Barlow  
CFRB CKAC CKLW KERN KFBK  
KFH KFPY KFRC KGB KGKO  
KHJ KLRA KLZ KMBC KMOX  
KOIN KOI KOMA KRLD KRNT  
KSCJ KSL KTRH KTSA KVOR  
KWG KWKH WABC WACO WADC  
WALA WBBM WBNS WBRC WBT  
WCAO WCCO WDAE WDBJ WDBO  
WDNC WDDW WDRC WDSU WEAN  
WENG WFBL WFBM WFEA WGR  
WGST WHAS WHFC WHK WHF  
WIBW WIBX WICC WISN WJAS  
WKBN WKBW WKRC WLAC WLZ  
WMAE WMBD WMBG WMBR  
WNAC WOC WOKO WORC WPG  
WQAM WREC WSBT WSFA WSJS  
WSMK WSPD WTOG

E-3:30 p.m., C-2:30, M-1:30, P-12:30

R—Penthouse Serenade  
ASD KYW WBEN WCAE WCHS  
WDAF WDAF WEEI WFBW WGY  
WHF WHF WJAR WMAQ WOV  
WRC WSAI WTAG WTAM WVIC  
WVJ

E-4:00 p.m., C-3:00, M-2:00, P-1:00

C—St. Louis Parade  
CFRB CKAC CKLW KDB KERN  
KFBK KFH KFPY KGB KGKO  
KHJ KLRA KLZ KMBC KMOX  
KOI KOIN KOI KOMA KRLD  
KRNT KSCJ KSL KTRH KTSA  
KVOR KWG KWKH WAAB WABC  
WACO WADC WALA WBBM WBIG  
WBNS WBRC WBT WCAO WCCO  
WDAE WDBJ WDBO WDNC WDDW  
WDRC WDSU WEAN WENG WFBL  
WFBM WFEA WGR WGST WHAS  
WHFC WHK WHF WIBW WIBX  
WICC WISN WJAS WKBN WKBW  
WKRC WLAC WLZ WMAE WMBD  
WMBG WMBR WNOX WOC WOKO

WORC WFLG WQAM WREC WSBT  
WSFA WSJS WSMK WSPD WTOG

E-5:00 p.m., C-4:00, M-3:00, P-2:00

C—Abe Lyman's Orchestra  
CFRB CKLW KFAB KMBC KMOX  
KRNT WAAB WABC WADC WBBM  
WCAO WCAU WCCO WDCB WEAN  
WFBL WFBM WGR WHAS WHFC  
WHK WJAS WJSV WKRC WOKO  
WSPD

R—Rhythm Symphony

KDYL KFI KESD KEYR KGW  
KHQ KOA KOMO KPO KPRC  
KSTP KTBS KTHS KVOO KYW  
WAPI WAVE WBAF WBEN WCAE  
WCHS WDAF WDAF WEEB WEEI  
WFBW WFLA WGY WHO WHIO  
WIBA WIOD WJAR WJAX WJDX  
WKA WMAQ WNC WQAI WOW  
WPTF WRC WRVA WSAI WSB  
WSM WSMN WTAG WTAM WVIC  
WTMJ WVVJ

B—Roses and Drums

KDKA KOIL KSO KWK WBAL  
WBZ WBZA WENR WFIL WGAR  
WHAM WJZ WLW WMAE WMT  
WREN WSYR

E-5:30 p.m., C-4:30, M-3:30, P-2:30

C—Frank Crummit-Julia Sanderson  
CKLW KTH KMBC KMOX KOMA  
KTUL WAAB WABC WADC WBNS  
WCAO WCAU WDRC WDSU WEAN  
WFBL WFBM WGR WHAS WHFC  
WHK WIBX WICC WJSV WMAE  
WOKO WORC WSPD WVVA

R—Dream Drama

KYW WBEN WCAE WCHS WDAF  
WDAF WEEI WFBW WGY WJAR  
WMAQ WRC WSAI WTAG WTAM  
WVIC WVVJ

B—Bob Becker's Dog Chats

KDKA KOIL KSO KWK WBAL  
WBZ WBZA WCKY WENR WFIL  
WGAR WHAM WJZ WMAE WMT  
WREN WSYR

E-5:45 p.m., C-4:45, M-3:45, P-2:45

B—Gabriel Heatter, Talks

KDKA KOIL KSO WBAL WBZ  
WBZA WENR WFIL WGAR WHAM  
WJZ WMAE WREN WSYR

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

C—National Amateur Night

CFRB CKLW KERN KFAB KFBK  
KFPY KFRC KGB KHJ KLZ KMBC  
KMIJ KMOX KOIN KOI KRLD  
KSL KVI KWG WAAB WABC  
WBBM WBNS WBT WCAO WCAU  
WCCO WDRC WDSU WFBL WFBM  
WGST WHAS WHFC WHK WJAS  
WJSV WKBW WKRC WOKO WQAM  
WREC

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

C—Smiling Ed McConnell

CKLW KMOX WAAB WABC WBBM  
WCAU WCCO WDRC WEAN WFBL  
WHAS WJAS WJSV WKBW WKRC

B—Compana's Grand Hotel

KDKA KDYL KFI KGW KHQ KOA  
KOIL KOMO KPO KSO KSTP KWK  
WBAL WBZ WBZA WCKY WEEB  
WENR WHAM WJZ WMAE WMT  
WREN WSYR

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

C—Voice of Experience

CKLW KMBC KMOX WAAB WABC  
WADC WBBM WBT WCAO WCAU  
WCCO WDRC WEAN WFBL WFBM

WHAS WHFC WHK WJAS WKBW  
WKRC WSPD WVVA

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

C—Alexander Woolcott

KDB KERN KFBK KFPY KFRC  
KGB KHJ KLZ KMBC KMOX KOIN  
KOL KSL KVI KWG WABC WBBM  
WCAO WCAU WCCO WDRC WFBL  
WGR WHAS WHK WJAS WJSV  
WKRC WNNAC WOKO

B—Jack Benny; Johnny Green

KDKA KFYR KOIL KPRC KSO  
KSTP KTBS KTHS KVOO KWK  
WAPI WAVE WBAE WBAF WBB  
WBZA WCKY WDAY WEBC WENR  
WFIL WFLA WGAR WHAM WIBA  
WIOD WIRE WJAX WJZ WKY  
WMAE WMC WMT WQAI WPTF  
WREN WRVA WSB WSM WSMN  
WSOC WSYR WTAR WTMJ

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

R—Fireside Recitals

KSD KYW WBEN WCAE WCHS  
WDAF WDAF WFBW WGY WHIO  
WIRE WJAR WMAQ WOW WRC  
WSAI WTAG WTAM WVIC WVVJ

B—Sidewalk Interviews

KDKA KOIL KSO KWK WBAL  
WBZ WBZA WCKY WGAR WHAM  
WJZ WLS WMAE WMT WREN  
WSYR

C—Gulf Headliners; Phil Baker

CKLW KLRA KRLD KTRH KTSA  
KWKH WABC WACO WADC WALA  
WBIG WBNS WBRC WBT WCAO  
WCAU WCOA WDAE WDBJ WDBO  
WDNC WDDW WDRC WDSU WEAN  
WENG WFBL WFBM WFEA WGR  
WGST WHAS WHFC WHK WHF  
WICC WJAS WJSV WKBN WKRC  
WLAC WLWB WMAE WMBR WNAC  
WNOX WOKO WORC WQAM WQAM  
WREC WSBT WSFA WSJS WSMK  
WSPD WTOG WVVA

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

R—Sunset Dreams; Morin Sisters

CFBC KSD KYW WBEN WCAE  
WCHS WDAF WFBW WGY WHO  
WHIO WIRE WJAR WLW WMAQ  
WRC WTAG WTAM WVIC WVVJ

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

R—Major Bowles' Amateur Hour

CFBC CRCT KDYL KFI KFYR  
KGW KHQ KOA KOMO KPO KPRC  
KSD KSTP KTAR KTHS KVOO  
KYW WAPI WAVE WBEN WBT  
WBZA WCAE WCHS WDAF WDAY  
WDAF WEEB WFAA WFBW WFLA  
WGY WHO WIOD WIS WJAR  
WJAX WJDX WKY WLW WMAQ  
WMC WQAI WOW WPTF WRC  
WRVA WSB WSM WSMN WTAG  
WTAM WTAR WVIC WTMJ WVVJ  
WVNC

C—Eddie Cantor

CKLW KDB KERN KFAB KFBK  
KFPY KFRC KGB KHJ KLRA KLZ  
KMBC KMIJ KMOX KOIN KOI  
KOMI KRLD KSL KTRH KTSA  
KTUL KVI KWG WAAB WABC  
WADC WBBM WBRC WBT WCAO  
WCAU WCCO WDRC WDSU WEAN  
WFBL WFBM WGR WGST WHAS  
WHK WJAS WJSV WKRC WOKO  
WOWO WSPD

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

C—America's Hour, Drama

CFRB CKAC CKLW KDB KERN  
KFAB KFBK KFH KFPY KFRC

## SUNDAY (Continued)

KGK 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  
 WBIG WBNS WBRC WBT WCAO  
 WCAU WCCO WCOA WDAE WDJJ  
 WDRD WDNC WDOJ WDRS WDSU  
 WEAN WFBL WFBM WFEA WGR  
 WGST WHAS WHEC WHK WHP  
 WIBW WIBX WICC WISN WJAZ  
 WJSV WKBN WKRC WLAC WLWB  
 WMAS WMBD WMBR WNAC  
 WNAX WNOX WOC WORC  
 WOWO WQAM WRFC WSBT WSFA  
 WSJS WSMK WSPD WTOC

**R — Manhattan Merry-Go-Round**  
 CFCE KDYL KFI KFR KGW  
 KIQ KOA KOMO KPO KSD KSTP  
 KYW WBN WCAE WCSB WDAF  
 WDAY WEAF WEBC WFBY WFO  
 WHO WHIO WHIA WJAR WMAQ  
 WOW WRC WSAI WTAG WTAM  
 WTIC WTMJ WWJ

**B — Charles Previn and Orchestra**  
 KDKA KOIL KSO KWK WBAL  
 WBZ WBZA WENR WFIL WGAR  
 WHAM WJZ WLW WMAL WMT  
 WREN WSYR

**E-9:30 p.m., C-8:30, M-7:30, P-6:30**  
**R — Album of Familiar Music**  
 CFCE CRT KDYL KFI KFR  
 KGW KHQ KOA KOMO KPO KPRC  
 KSD KSTP KTBS KVoo KYW  
 WAVE WBN WCAE WCSB WDAF  
 WDAY WEAF WEBC WEEI WFAA  
 WFBR WFLA WGY WHO WHIO

WIBA WIOD WIS WJAR WJAX  
 WJDX WKY WMAQ WMC WOAI  
 WOV WPTF WRC WRVA WSAI  
 WSB WSM WSMB WSOE WTAG  
 WTAM WTM WTMJ WWJ WWNC  
**B — Walter Winchell**  
 KDKA KOIL KSO KWK WBAL  
 WBZ WBZA WENR WFIL WGAR  
 WHAM WJZ WLW WMAL WMT  
 WREN WSYR

**E-10:00 p.m., C-9:00, M-8:00, P-7:00**  
**C — Wayne King's Orchestra**  
 CKLW KDB KERN KFAB KFBK  
 KFFY KFRC KGB KHJ KLZ KMBC  
 KMJ KMOX KOIN KOL KRLD  
 KSL KVI KWG WAAB WABC  
 WADC WRBM WBNS WCAO WCAU  
 WCCO WDRS WDSU WFBL WFBM  
 WHAS WHK WIBW WJAS WJSV  
 WRBW WKRC WSPD

**E-10:30 p.m., C-9:30, M-8:30, P-7:30**  
**C — Benay Venuta, Songs**  
 CFRB CKAC CKLW KDB KERN  
 KFH KFFY KFRC KGB KGKO  
 KHJ KLRA KLZ KMBC KMOX  
 KOIL KOL KOMA KRLD KRLL  
 KSCJ KTRH KTSa KTUL KVI  
 KVOR KWG KWKH WAAB WABC  
 WADC WALA WBIG WBNS WBRC  
 WBT WCAO WCAU WCCO WDAE  
 WDBJ WDBO WDNC WDOJ WFBL  
 WFLA WGST WHAS WHEC WHK  
 WHP WIBW WIBX WISN WJAS  
 WJSV WKBN KWBW WKRC WLAC  
 WLWB WMAS WMBD WMBG  
 WMBR WNOX WOC WORC WQAM  
 WRFC WSBT WSFA WSMK WSPD  
 WTOC

**E-11:00 p.m., C-10:00, M-9:00, P-8:00**  
**C — Musical Mirror**  
 CKAC CKLW KFAB KFBK KFH  
 KGKO KHJ KLRA KLZ KMBC  
 KMOX KOH KOL KOMA KRLD  
 KRNT KSCJ KSL KTRH KTSa  
 KTUL KVOR KWG WABC WACO  
 WADC WALA WBBM WBIG WBNS  
 WBRC WBT WCAO WCCO WCOA  
 WDAE WDRJ WDOJ WDNC WDOJ  
 WDRS WDSU WFBL WGST WHEC  
 WHK WHP WHX WISN WJSV  
 WKBN WKRC WLAC WMAS WMBD  
 WMBG WMBR WNAK WOC WOKO  
 WPG WQAM WRFC WSBT WSFA  
 WSJS WSMK WSPD WTOC

**R — Sunset Dreams; Morin Sisters**  
 KDYL KFI KFSO KGW KHQ KOA  
 KOMO KPO KPRC KTAR KTBS  
 KTBS WPAP WDAF WKY WOAI

**E-11:15 p.m., C-10:15, M-9:15, P-8:15**  
**B — Walter Winchell**  
 KDYL KFI KFSO KGHL KGIR  
 KGW KHQ KOA KOMO KPO KPRC  
 KTAR KTBS KTBS WAPI WAVE  
 WPAP WJDX WMC WSB WSM  
 WSMB

**E-11:30 p.m., C-10:30, M-9:30, P-8:30**  
**B — Jack Benny; Johnny Green**  
 KDYL KFI KFSO KGHL KGIR  
 KGW KHQ KOA KOMO KPO  
 KTAR

**E-12:00 p.m., C-11:00, M-10:00, P-9:00**  
**B — Charles Previn and Orchestra**  
 KDYL KFI KGW KHQ KOA KOMO  
 KPO

## CLASSIFIED INDEX TO CHAIN PROGRAMS

*Time in Eastern Standard*

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

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

### CONCERTS

Atwater Kent Concert, 8:30 p.m. Thursday, C  
 Concert Miniatures, 6:45 p.m. Monday, C  
 Radio City Music Hall, 12:30 p.m. Sunday, B  
 Symphonic Hour, 3:00 p.m. Sunday, C

### DANCE BANDS

Victor Arden, 8:00 p.m. Thurs.; 8:30 p.m. Fri., C  
 Johnny Augustine, 2:00 p.m. Sunday, C  
 Ben Bernie, 9:00 p.m. Tuesday, R  
 Emery Deutsch, 8:15 p.m. Wednesday, C  
 Eddie Duchin, 9:30 p.m. Tuesday, R  
 Lud Gluskin, 9:00 p.m. Tuesday, C  
 Al Goodman, 9:00 and 11:30 p.m. Friday, B  
 Johnny Green, 8:00 p.m. Friday, C; 7:00 and 11:30  
 p.m. Sunday, B  
 Lennie Hayton, 8:00 p.m. Saturday, R  
 Horace Heidt, 10:00 p.m. Thursday, C  
 Richard Himber, 10:00 and 12:30 p.m. Friday, C  
 Johnny Johnson, 12:00 noon Sunday, B  
 Wayne King, 10:00 p.m. Sun. and Mon., C; 8:30 p.m.  
 Tues. and Wed., R  
 Allan Leifer, 6:30 p.m. Friday and Saturday, C  
 Guy Lombardo, 8:00 p.m. Monday, C  
 Abe Lyman, 5:00 p.m. Sun., C; 9:00 p.m. Friday, R  
 Red Nichols, 8:30 p.m. Friday, B  
 Ray Noble, 10:30 p.m. Wednesday, R  
 Charles Previn, 9:00 and 12:00 p.m. Sunday, B  
 Leo Reisman, 8:00 and 11:30 p.m. Tuesday, R

Harry Salter, 10:00 p.m. Wednesday, R  
 Rudy Vallee, 8:00 p.m. Thursday, R  
 Fred Waring, 9:30 p.m. Tuesday, C  
 Paul Whiteman, 10:00 p.m. Thursday, R  
 Victor Young, 9:30 p.m. Saturday, R

### DIALOG

Fred Allen, 9:00 p.m. Wednesday, R  
 Amos 'n' Andy, 7:00 and 11:00 p.m. daily except Sat.  
 and Sun., R  
 Phil Baker, 7:30 p.m. Sunday, C  
 Jack Benny, 7:00 and 11:30 p.m. Sunday, B  
 Burns and Allen, 8:30 p.m. Wednesday, C  
 Eddie Cantor, 8:00 p.m. Sunday, C  
 Fibber McGee and Molly, 8:00 p.m. Monday, B  
 Gary and Esther, 8:00 p.m. Thursday, C  
 Lum and Abner, 7:30 p.m. daily, except Sat. and Sun., B  
 Marty May, 9:30 p.m. Thursday, C  
 Pick and Pat, 8:30 and 11:30 p.m. Monday, C  
 Popeye, The Sailor, 7:15 p.m. Tues., Thurs. and Sat., R  
 Sisters of the Skillet, 1:45 p.m. Sunday, C  
 Stoopnagle and Budd, 9:30 p.m. Tuesday, C

### DRAMA

America's Hour, 9:00 p.m. Sunday, C  
 Dangerous Paradise, 7:45 p.m. Mon., Wed. and Fri., B  
 Death Valley Days, 9:00 p.m. Thursday, B  
 Dream Drama, 5:30 p.m. Sunday, R  
 Eno Crime Clues, 8:00 p.m. Tuesday, B

First Nighter, 10:00 p.m. Friday, R  
 G-Men, 9:00 p.m. Saturday, R  
 Grand Hotel, 6:30 p.m. Sunday, B  
 Helen Hayes, 9:30 p.m. Tuesday, B  
 House of Glass, 8:30 and 11:30 p.m. Wednesday, B  
 Warden Lawes, 9:30 p.m. Wednesday, B  
 Lux Theatre, 9:00 p.m. Monday, C  
 Myrt and Marge, 7:00 and 11:00 p.m. daily, except Sat. and Sun., C  
 One Man's Family, 8:00 p.m. Wednesday, R  
 Princess Pat Players, 9:30 p.m. Monday, B  
 Irene Rich, 8:00 p.m. Friday, B  
 Buck Rogers, 6:00 p.m. Mon., Tues., Wed., Thurs., C  
 Roses and Drums, 5:00 p.m. Sunday, B  
 Tony and Gus, 7:15 and 11:15 p.m. daily, except Sat. and Sun., B  
 True Story Court, 9:30 p.m. Friday, R  
 Welcome Valley, 8:30 p.m. Tuesday, B

#### POPULAR PROGRAMS

A. and P. Gypsies, 9:00 p.m. Monday, R  
 Atlantic Family, 7:00 p.m. Saturday, C  
 Album of Familiar Music, 9:30 p.m. Sunday, R  
 Major Bowes, 11:30 a.m. and 8:00 p.m. Sunday, R  
 Broadway Varieties, 8:30 p.m. Friday, C  
 California Melodies, 9:30 p.m. Saturday, C  
 Chesterfield Program, 9:00 p.m. Wed. and Sat., C  
 Cities Service Concert, 8:00 p.m. Friday, R  
 Contended Program, 10:00 p.m. Monday, R  
 Evening in Paris, 8:30 p.m. Monday, B  
 Fireside Recitals, 7:30 p.m. Sunday, R  
 Fleischmann Variety, 8:00 p.m. Thursday, R  
 Gulf Headliners, 7:30 p.m. Sunday, C  
 Hollywood Hotel, 9:00 p.m. Friday, C  
 Life Savers Rendezvous, 8:00 p.m. Wednesday, B  
 Manhattan Merry-Go-Round, 9:00 p.m. Sunday, R  
 March of Time, 10:30 p.m. daily, except Sat. and Sun., C  
 Maxwell House Show Boat, 9:00 p.m. Thursday, R  
 Musical Footnotes, 12:30 p.m. Sunday, C  
 National Amateur Night, 6:00 p.m. Sunday, C  
 National Barn Dance, 9:30 and 11:00 p.m. Saturday, B  
 N.T.G. and His Girls, 9:00 p.m. Tuesday, B  
 Palmolive Beauty Box, 9:00 and 11:30 p.m. Friday, B  
 Penthouse Serenade, 3:30 p.m. Sunday, R  
 Rhythm Symphony, 5:00 p.m. Sunday, R  
 St. Louis Parade, 4:00 p.m. Sunday, C  
 Sinclair Minstrels, 9:00 p.m. Monday, B  
 Swift Studio Party, 10:00 p.m. Tuesday, R  
 Town Hall Tonight, 9:00 p.m. Wednesday, R  
 Uncle Ezra, 7:15 p.m. Mon., Wed., Fri., R  
 Voice of Firestone, 8:30 and 11:30 p.m. Monday, R

#### SINGERS

Michael Bartlett, 7:00 and 11:30 p.m. Sunday, B  
 Sandra Brown, 6:15 p.m. Saturday, C  
 Patti Chapin, 7:15 p.m. Monday, C  
 Bernice Clair, 5:00 p.m. Sunday; 8:00 p.m. Tuesday, C  
 Buddy Clark, 7:15 p.m. Thursday, C  
 Crumit-Sanderson, 5:30 p.m. Sunday, C  
 Vivian Della Chiesa, 12:30 p.m. Sunday, C  
 Jessica Dragonette, 8:00 p.m. Friday, R  
 Eton Boys, 2:45 p.m. Sunday, C  
 Ruth Etting, 8:30 p.m. Friday, B  
 Foursome, 8:00 p.m. Wednesday, C  
 Helen Jepson, 10:00 p.m. Thursday, R  
 Al Jolson, 9:30 p.m. Saturday, R  
 Frances Langford, 9:00 p.m. Friday, C  
 Lazy Dan, 7:15 p.m. Friday, C  
 Elizabeth Lennox, 8:30 p.m. Friday, C  
 Nino Martini, 9:00 p.m. Saturday, C  
 Grace Moore, 9:30 p.m. Monday, R  
 Morin Sisters, 7:45 and 11:00 p.m. Sunday, R  
 Frank Munn, 8:00 p.m. Tuesday, C; 9:30 p.m. Sunday and 9:00 p.m. Friday, R  
 Frank Parker, 7:00 p.m. Saturday, C  
 Lily Pons, 9:00 p.m. Wednesday, C  
 Dick Powell, 9:00 p.m. Friday, C  
 Carson Robison, 6:15 p.m. Tues. and Thurs., C  
 Lanny Ross, 9:00 p.m. Thursday, R  
 Vivienne Segal, 9:30 p.m. Sunday and 9:00 p.m. Friday, B  
 Singin' Sam, 7:30 and 11:15 p.m. Monday, C  
 Smilin' Ed McConnell, 6:30 p.m. Sunday, C  
 Kate Smith, 7:30 p.m. Tues., Wed. and Thurs., C  
 Conrad Thibault, 10:00 p.m. Wed.; 9:00 p.m. Thursday, R  
 John Charles Thomas, 9:00 p.m. Wednesday, B  
 Lawrence Tibbett, 8:30 p.m. Tuesday, C  
 Benay Venuta, 10:30 p.m. Sunday, C  
 Virginia Verrill, 8:00 p.m. Friday, C

#### TALKS

Bob Becker's Dog Chats, 5:30 p.m. Sunday, B  
 Boake Carter, 7:45 p.m. daily, except Sat. and Sun., C  
 Thornton Fisher, 7:45 p.m. Saturday, R  
 Gabriel Heatter, 5:45 p.m., Sunday, B  
 H. V. Kaltenbach, 6:00 p.m. Friday, C  
 Sidewalk Interviews, 7:30 p.m. Sunday, B  
 Lowell Thomas, 6:45 p.m. daily, except Sat. and Sun., R  
 Charles Hanson Towne, 9:00 p.m. Thurs., C  
 Voice of Experience, 6:45 p.m. Sunday, C  
 Frederic William Wile, 6:00 p.m. Saturday, C  
 Walter Winchell, 9:30 and 11:15 p.m. Sunday, B  
 Alexander Woolcott, 7:00 p.m. Sunday, C

When a fire broke out in a village near Rome, there was no fire department or telephone to summon aid. A radio amateur in the village sent out a message which was picked up by a listener in Copenhagen, who promptly telephoned the authorities in Rome.

\* \* \*

More stations are planned for Portugal. A 20-KW short wave transmitter will be erected in Lisbon for overseas work; national relay stations at Oporto and Algarve, using 20 KW and 5 KW respectively, will be built; and additional relays in the Azores and at Madeira will be

constructed. Also, the power of *Emissora Nacional* will be jumped to 100-KW.

\* \* \*

Spanish authorities are planning a new network of stations. The new long-wave National transmitter at Madrid will have a power of 150-KW. Six medium-wave stations, of from 20 to 60 KW, will be erected at Madrid, Barcelona, Valencia, Seville, La Coruna and Vizcaya. Relay stations will be built at Teneriffe (Canary Islands), Murcia and Oviedo. The former will use 10 KW, while the latter two will have 5 KW.

## Inter-Club Plan for Cooperation

1. The CPC Chairman of each club will send a weekly report to the Clearing House, listing all DXes definitely arranged, the notification to show call letters, frequency, location, date and Eastern Standard Time. (Frequency check dedications are excepted.)

2. The CPC Chairman of each club will receive a weekly report from the Clearing House, listing all DX programs reported to the Clearing House and the club which arranged the program. It will be the duty of each CPC Chairman to advise his committee members not to arrange any DXes that will clash with those already arranged.

3. Each club agrees that under no circumstances will they make unfair use of the information supplied them by the Clearing House reports. This includes the agreement that no club will write to a station scheduled for a DX program for another club and ask to have a portion of that DX program dedicated to their club.

4. Each club agrees that for all foreign DXes, they will do their utmost to give the foreign DX broadcast a clear frequency for the period of the DX and, if possible, also to keep the adjacent frequencies clear. Cuban and Mexican programs will not be considered foreign.

5. Each club agrees that it will not publish anything in its publications that will in any way be offensive to another club in the plan.

6. Each club agrees that it will not use the publications of any other DX Club in the plan to secure the names and addresses of members of other DX Clubs for the purpose of soliciting membership.

7. If the clearing house shall receive notice of two programs on the same frequency for the same period, the notice which shall have the earlier postmark shall receive priority—except in the case of foreign programs, which will be given priority in all cases. The Clearing House shall immediately notify the sender of the conflicting program of the necessity of canceling the conflicting broadcast.

8. Each club agrees that it will not publish or publicize the DX programs arranged by another club without the permission or request of that club. (Requests or permission to use DX programs must be made by the President of each club in the plan.) When permission is granted, clubs listing DX programs arranged by another club will give credit to the club that arranged the DX. If any program is to be shared with another club, it shall be so listed and credited.

## The Short Waves

*(Continued from page 16)*

sults to the Perfect Phone Adapter, which he uses with his 16B Philco. Because of the fact there are so many thousands of amateur stations around the world we do not like to commence listing these stations as it would be an endless task. A few

of them have proven to be so consistent, however, that a few of Mr. Goodeve's catches are here listed: G5BY, G5ML, G6XR and G5NI, England; ON4AC Antwerp, Belgium; CT1BY, Lisbon; LA1G, Oslo, Norway; F8DR, Paris; K4SA, Puerto Rico; H17G, Santo Domingo; CE1BC, Chantalquito, Chile; LU6AP, LU8DR and LU8AB, Argentina; K6BAZ, K6FJF and K6CIC, Hawaii; and X1Q and X1G, Mexico City. These stations are heard very nearly every night with good volume and listeners with good locations, selective receivers, and lots of patience should hear all of them.

An unsigned letter from a correspondent in Schenectady states that Schenectady seems to be a favorable spot for s.w. as the writer has logged over 100 stations since the first of this year. He reports a new Cuban station, CO9JQ, at Camaguey, on 8.886 megs. between 9:30 and 10 pm, EST, with a test program. An official list from Cuba states that CO9JQ is owned by Rafael Grimany, Calle General Gomez No. 4, and that the station uses 150 watts. The assigned frequency of this station is 8.665 megs. or 34.6 meters.

## The Monthly Forum

*(Continued from page 27)*

good on January 11th. However, in that time, I got reports out to Fe-camp, Frankfort, Rennes, Hamburg, EAJ7, Bordeaux, Praha and, of course, Poste Parisien. Also heard Berlin, Cologne, Munich, Milan, West Regional and Toulouse, but these were not good enough to copy.

"When I heard the three Germans, they were good for ten minutes or so, and then they either faded out or the noise ruined them. A ten-minute report may be all right for some stations, but not when a band selection or a speech in a foreign tongue takes up the entire period. Morning after morning I'd hear the same thing,

and finally, in desperation, I decided to forget my self-respect and report on them, one number or not. Then, as luck would have it, they were so poor that I couldn't get a thing, much less ten minutes.

"Milan came in fairly well, but you can't report on some bloke talking in a foreign language all the time. West Regional and Toulouse could have been copied, but I didn't bother with them for they never verify. Finally, when the Frenchman came on for the IDA and promised confirmations, he didn't register at all.

"Although I missed out on CT1GL and was quite disappointed, I did have fair luck with the South Americans, having sent reports to IRC, HJN, CPX, CP4, LR2, LR3, LR4, LR5 and LS2.

"The entire TP season was terrific. Static and noise only permitted reports to 1YA and 2BL, although 3YA, 2YA, 4QG, 2UE and 4BC could be heard faintly."

## Building Sets

(Continued from page 6)

by moving slider "C." Thus the r.f. antenna current passes through the coil section B-A, or from antenna to ground. This current sets up a magnetic field about the primary section, and these magnetic lines of force induce a similar but stronger current in the secondary portion B-A. This current is then detected and made audible in the phones.

A variable tuning condenser should next be connected between "C" and "A." It provides a more efficient circuit and adds to the sharpness of tuning. Also, when a small fixed condenser is shunted across the phones it will greatly improve the audibility. This condenser should have a capacity of .001 microfarad, while the variable condenser should have about .0005 microfarad.

(The next article which will appear in our December issue will deal

with improvements in the tuning of this circuit, and how to amplify the detector output for loud speaker operation).

## Editorial Mail

(Continued from page 8)

XEPN, Piedras Negras, Coah., Mexico, state they will increase their power to 100,000 watts after September 15th. Tough luck for the four 1000-watters on 590.

Our letter to WAML, Laurel, Miss., was returned to us marked "Out of business." Can some of our southern readers verify this for us?

W. G. Meek, 621 S. Marengo Ave., Pasadena, Calif., writes: "There is a new station on 820 kcs., XEMB, Coronado Island." The new list from the Mexican government does not show it. Can others verify and give power and owner?

WNEW, Newark, N. J., is now on a schedule of twenty-four hours a day which will be meat for the West Coast listener but poison for the East.

## MONTH'S CHANGES IN STATION DATA

### POWER

570	KGKO	Wichita Falls, Texas, 1000 to 250
610	WIP	Philadelphia, Pa., 500 to 1000
640	CMBY	Havana, Cuba, 125 to 150
680	WPTF	Raleigh, N. C., 1000 to 5000
750	CMCW	Havana, Cuba, 125 to 150
750	XEAM	Matamoros, Cuba, 50 to 7.5
760	CMHX	Cienfuegos, Cuba, 150 to 500
760	NEOK	Tijuana, L. C., 2500 to 250
770	CMBS	Havana, Cuba, 120 to 150
780	CMJK	Camaguey, Cuba, 150 to 250
790	CMOA	Havana, Cuba, 75 to 150
850	KIEV	Glendale, Calif., 250 to 100
860	NEMO	Tijuana, L. C., 2500 to 5000
890	WILL	Urbana, Ill., 1000 to 250
910	NENT	Nuevo Laredo, Tams., 60000 to 65000
920	CMX	Havana, Cuba, 500 to 650
940	WHA	Madison, Wis., 2500 to 1000
960	CMCD	Havana, Cuba, 200 to 250
960	XEAW	Reynosa, Tams., 10000 to 50000
990	NEAF	Nogales, Son., 250 to 500
1000	CMBZ	Havana, Cuba, 150 to 250
1020	XEJ	Juarez, Chih., 1250 to 1000
1060	CMK	Havana, Cuba, 1500 to 250
1070	WDZ	Tuscola, Ill., 250 to 100
1100	CRCV	Vancouver, B. C., 1000 to 500
1110	CMCO	Havana, Cuba, 150 to 250
1120	KRKD	Los Angeles, Calif., 1000 to 500
1140	CMBG	Havana, Cuba, 300 to 200
1155	XED	Guadalajara, Jal., 500 to 2500
1160	XEC	Tijuana, L. C., 50 to 30
1195	VONF	St. John's, Nfld., 5000 to 500
1230	CMCB	Havana, Cuba, 100 to 150

1255	CMCG	Havana, Cuba, 150 to 250
1270	XEG	Ensenada, L. C., 500 to 200
1270	XFB	Jalapa, Ver., 1000 to 250
1320	WSMB	New Orleans, La., 1000 to 500
1340	CMJL	Camaguey, Cuba, 75 to 100
1340	XFD	Jalapa, Ver., 250 to 350
1350	CMCA	Havana, Cuba, 150 to 250
1360	CMJH	Ciego de Avila, Cuba, 50 to 100
1400	CMKR	Santiago, Cuba, 200 to 100
1430	KSO	Des Moines, Iowa, 250 to 500
1460	KSTP	St. Paul, Minn., 10000 to 25000
1470	CMOK	Havana, Cuba, 200 to 150

**FREQUENCIES**

560	NEFC	Merida, Yuc., from 1310
570	KGKO	Wichita Falls, Texas, from 1240
750	NEAM	Matamoros, Tams., from 960
850	XEFE	Nuevo Laredo, Tams., from 920
990	XEAF	Nocales, Son., from 950
1070	WDFZ	Tuscola, Ill., from 1020
1155	XED	Guadalajara, Jal., from 1160
1160	XEC	Tijuana, L. C., from 1310
1390	KOOS	Marshfield, Ore., from 1200

**DELETED**

730	NEBC	Agua Caliente, L. C.
740	XELC	Mexico City, Mex.
830	CMC	Havana, Cuba
845	XEXX	Mexico City, Mex.
1040	CMGH	Matanzas, Cuba
1100	TIRC	San Jose, C. R.
1105	NEFG	Mexico City, Mex.
1150	NEFL	Tijuana, L. C.
1270	CMCP	Havana, Cuba
1300	CMKJ	Guantanamo, Cuba
1310	XELM	Mineral del Monte, Dgo.
1310	XETB	Torreón, Coah.
1320	CMCK	Havana, Cuba

**NEW**

1000	XEY	Merida, Yuc.
1100	NEL	Mexico City, Mex.
1210	XEMZ	Tijuana, L. C.
1310	XFA	Agua Calientes, Ags.
1420	KIHC	Hilo, T. H.
1420	.....	Palestine, Texas
1500	KNEL	Brady, Texas
1500	.....	Valley City, N. D.
1500	.....	Roseburg, Ore.
1500	.....	Selma, Ala.

**LOCATION**

750	XEAM	Matamoros, Tams., from Nuevo Laredo, Tams.
1340	XFD	Jalapa, Ver., from Orizaba, Ver.
1420	CMGI	Matanzas, Cuba, from Colon, Cuba
1430	CMJP	Camaguey, Cuba, from Moron, Cuba

**CALLS**

1120	WCOP	Boston, Mass., from WMPH
1210	KDON	Del Monte, Calif., from KFUH

**CHAINS**

1240	WXYZ	Detroit, Mich., new NBC (Blue)
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**The October DX Calendar**

of frequency checks and special programs for distant listeners arranged by the stations outside of their regular hours. All time is EST so that programs may be arranged in order.

**Sunday Mornings**

**October 6**

3:00-3:20	KLCN	1290	100	Blytheville
3:30-3:50	KXYZ	1440	500	Houston
3:50-4:10	KTUL	1400	500	Tulsa

4:00-4:20	KPAC	1260	500	Port Arthur
4:10-4:30	KGDY	1340	250	Huron
4:20-4:40	KRGV	1260	500	Weslaco
4:50-5:10	KARK	890	250	Little Rock
5:00-5:20	KGKO	1240	500	Wichita Falls
5:20-5:40	WNAD	1010	1000	Norment
5:40-6:00	KUOA	1260	1000	Fayetteville

**October 13**

1:00-3:00	CMOX	1320	250	Havana
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**October 20**

1:01-1:09	CRCS	950	100	Chicoutimi
1:11-1:19	CJCB	1240	1000	Sydney
1:21-1:29	CHNS	930	1000	Halifax
1:31-1:40	CHRC	580	500	Quebec
1:51-1:59	CJLS	1310	100	Yarmouth
2:00-2:09	CFNB	550	500	Fredericton
2:11-2:19	CHNJ	1120	500	St. John
3:01-3:09	CHNC	1410	500	New Carlisle
3:15 on	KGGM	1230	250	Albuquerque

**October 27**

12:01-4:00	CJRC	1390	100	Winnipeg
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**October 6, 13, 20, 27**

1:00-1:30	KFI	640	50000	Los Angeles
1:00-5:00	KIUP	1370	100	Ourango
2:30-4:00	CKWX	1010	100	Vancouver
3:00-4:30	CKOV	630	100	Kelowna

**Monday Mornings**

**October 7**

2:00-2:20	WCNW	1500	100	Brooklyn
2:00-2:20	WJAC	1310	100	Johnstown
2:10-2:30	WFAS	1210	100	White Plains
2:10-2:30	WRAC	1370	100	Williamsport
2:20-2:40	WBNF	1500	100	Binghamton
2:20-2:40	WCHS	580	500	Charleston
2:30-2:50	WAGM	1420	100	Presque Isle
2:30-2:50	WBTM	1370	100	Danville
2:40-3:00	WMFF	1310	100	Plattsburg
2:40-3:00	WLVA	1200	100	Lynchburg
2:50-3:10	WHDL	1420	100	Olean
3:00-3:20	WCAX	1200	100	Burlington
3:10-3:30	WSBY	1500	100	Rutland
3:10-3:30	WTEL	1310	100	Philadelphia
3:20-3:40	WIBN	1200	100	Utica
3:30-3:50	WQDM	1370	100	St. Albans
3:30-3:50	WKOK	1210	100	Sunbury
3:40-4:00	WMBO	1310	100	Auburn
3:40-4:00	WLEU	1420	3100	Erie
3:50-4:10	WABY	170	100	Albany
3:50-4:10	WBAN	1210	100	Wilkes-Barre
4:00-4:20	WCAD	1220	500	Canton
4:00-4:20	WHAT	1310	100	Philadelphia
4:00-4:20	KOOS	1200	100	Marshfield
4:10-4:30	WRDC	1370	100	Augusta
4:10-4:30	WBBL	1210	100	Richmond
4:10-4:30	KGBU	900	500	Ketchikan
4:20-4:40	WNBZ	1290	100	Saranac Lake
4:20-4:40	WBRE	1310	100	Wilkes-Barre
4:20-4:40	KGVO	1260	1000	Missoula
4:30-4:50	WMAS	1420	100	Springfield
4:30-4:50	KPQ	1500	100	Wenatchee
4:40-5:00	WRWA	1310	100	Reading
4:40-5:00	KGY	1210	100	Olympia
4:50-5:10	WAAT	940	500	Jersey City
4:50-5:10	KRKO	1370	100	Everett
5:00-5:20	WSYR	570	250	Syracuse
5:00-5:20	KFND	1200	100	Nampa
5:10-5:30	KVL	1370	100	Seattle
5:20-5:40	KGEZ	1310	100	Kalispell
5:30-5:50	KUJ	1370	100	Kula Walla
5:40-6:00	KGCN	1310	100	Wolf Point
5:50-6:10	KFQD	780	250	Anchorage
6:00-6:20	KSEI	900	250	Pocatello
6:10-6:30	KVOS	1200	100	Bellingham
6:20-6:40	KIT	1310	100	Yakima
6:30-6:50	KRSC	1120	100	Seattle
6:40-7:00	KXRO	1310	100	Aberdeen
6:50-7:10	KFJO	1120	100	Spokane
7:00-7:10	KFJI	1210	100	Klamath Falls
7:10-7:30	KMED	1310	100	Medford
7:20-7:40	KORE	1420	100	Eugene



5:00-5:20	KGBX	1310	100	Springfield	2:30-2:50	WGNV	1210	100	Chester
5:10-5:30	WFLA	620	1000	Clearwater	2:40-3:00	WMBQ	1500	100	Brooklyn
5:10-5:30	WPAY	1370	100	Potomouth	2:50-3:10	WGBB	1210	100	Freeport
5:10-5:30	KCMC	1420	100	Texarkana	3:00-3:20	WOKO	1430	500	Albany
5:20-5:40	KPLC	1500	100	Lake Charles	3:00-3:20	WJBC	1200	100	Bloomington
5:20-5:40	WHBU	1210	100	Anderson	3:00-3:20	KTRH	1330	500	Houston
5:20-5:40	WBBZ	1200	100	Ponca City	3:10-3:30	WDEV	550	500	Waterbury
5:30-5:50	WAIM	1200	100	Anderson	3:10-3:30	WGL	1370	100	Fort Wayne
5:30-5:50	WIBM	1370	100	Jackson	3:10-3:50	KFPV	1210	100	Fort Smith
5:30-5:50	KGFF	1420	100	Shawnee	3:20-3:40	WNYC	810	1000	New York
5:40-6:00	WMFJ	1420	100	Daytona Beach	3:20-3:40	WWAE	1200	100	Hammond
5:40-6:00	WOMT	1210	100	Mantowoc	3:20-3:40	WTAW	1120	500	College Station
5:40-6:00	KNOW	1500	100	Austin	3:30-3:50	WQV	1130	1000	New York

**October 3, 10, 17, 24, 31**

12:01-2:00	CFCN	1030	10000	Calgary	3:30-3:50	KASA	1210	100	Elk City
					3:40-4:00	WINS	1180	1000	New York
					3:40-4:00	WFAM	1200	100	South Bend
					3:40-4:00	KWLC	1270	100	Decorah
					3:50-4:10	WCAP	1280	500	Asbury Park
					3:50-4:10	WEXL	1310	100	Rocky Oak
					4:00-4:20	WNBC	1350	250	New Britain
					4:00-4:20	WJAY	610	500	Cleveland
					4:00-4:20	KGCA	1270	100	Decorah
					4:10-4:30	WTNJ	1280	500	Trenton
					4:10-4:30	WBNS	1430	500	Columbus
					4:10-4:30	KFVS	1210	100	Cape Girardeau
					4:20-4:40	WLNH	1310	100	Laeonia
					4:20-4:40	WWJ	920	1000	Detroit
					4:20-4:40	KGHL	780	1000	Billings
					4:30-4:50	KQV	1380	500	Pittsburgh
					4:30-4:50	KDLR	1210	100	Devil's Lake
					4:40-5:00	WLAP	1420	100	Lexington
					4:40-5:00	WOC	1370	100	Davenport
					4:50-5:10	WSMK	1380	200	Dayton
					4:50-5:10	KFXJ	1200	100	Grand Junction
					5:00-5:20	WAVE	940	1000	Louisville
					5:00-5:20	KFDM	560	500	Beaumont
					5:10-5:30	WADC	1320	1000	Akron
					5:10-5:30	KWTN	1210	100	Watertown
					5:20-5:40	WSPD	1340	100	Toledo
					5:20-5:40	WEW	760	1000	St. Louis
					5:30-5:50	WHK	1590	1000	Cleveland
					5:30-5:50	KWEA	1210	100	Shreveport
					5:40-6:00	WCMT	1310	100	Ashland
					5:40-6:00	WSUI	880	500	Iowa City
					5:50-6:10	KGGM	1230	250	Albuquerque

**Friday Mornings**

**October 4**

3:00-3:20	WJW	1210	100	Akron	5:00-5:20	WAVE	940	1000	Louisville
3:00-3:20	KRMD	1310	100	Shreveport	5:00-5:20	KFDM	560	500	Beaumont
3:10-3:30	WPAD	1420	100	Paducah	5:10-5:30	WADC	1320	1000	Akron
3:10-3:30	KOTN	1500	100	Pine Bluff	5:10-5:30	KWTN	1210	100	Watertown
3:20-3:40	WCOL	1210	100	Columbus	5:20-5:40	WSPD	1340	100	Toledo
3:20-3:40	KFXR	1310	100	Oklahoma City	5:20-5:40	WEW	760	1000	St. Louis
3:30-3:50	WELL	1420	100	Battle Creek	5:30-5:50	WHK	1590	1000	Cleveland
3:30-3:50	KGEK	1200	100	Sterling	5:30-5:50	KWEA	1210	100	Shreveport
3:40-4:00	WALR	1210	100	Zanesville	5:40-6:00	WCMT	1310	100	Ashland
3:40-4:00	KFPL	1310	100	Dublin	5:40-6:00	WSUI	880	500	Iowa City
3:50-4:10	WMHC	1420	100	Detroit	5:50-6:10	KGGM	1230	250	Albuquerque
3:50-4:10	WCAT	1200	100	Rapid City					
4:00-4:20	WFDF	1310	100	Flint					
4:00-4:20	KGCU	1240	250	Mancan					
4:10-4:30	WPBE	1200	100	Cincinnati					
4:10-4:30	KWYO	1370	100	Sheridan					
4:20-4:40	WGAR	1450	500	Cleveland					
4:20-4:40	KLPM	1240	250	Minot					
4:30-4:50	WLO	1200	100	Janesville					
4:30-4:50	KGFG	1370	100	Oklahoma City					
4:40-5:00	WCLS	1310	100	Joliet					
4:40-5:00	KABC	1420	100	San Antonio					
4:50-5:10	WJBL	1200	100	Decatur					
4:50-5:10	KI JZ	1370	100	Fort Worth					
5:00-5:20	WJBK	1500	100	Detroit					
5:00-5:20	KSO	1430	250	Des Moines					
5:10-5:30	WYBU	1210	100	Poynette					
5:10-5:30	KGFI	1500	100	Cornus Christie					
5:20-5:40	WHDH	1370	100	Calumet					
5:20-5:40	WLFH	1420	100	Kansas City					
5:30-5:50	WCRW	1210	100	Chicago					
5:30-5:50	KGKB	1500	100	Tyler					
5:40-6:00	WTAQ	1330	1000	Eau Claire					
5:40-6:00	WMBH	1420	100	Joplin					

**October 18**

1:41-1:49	CFCY	630	1000	Charlottetown	1:01-1:09	CRCS	950	100	Chicoutimi
					1:11-1:19	CJCB	1240	1000	Sydney
					1:21-1:29	CHNS	930	1000	Halifax
					1:31-1:39	CHRC	580	100	Quebec
					1:41-1:49	CPCY	630	1000	Charlottetown
					1:51-1:59	CJLS	1310	100	Yarmouth
					2:11-2:19	CHSJ	1120	500	St. John
					3:01-3:09	CHNC	1410	500	New Carlisle

**October 19**

**October 5, 12, 19, 26**

2:10-2:30	WBRB	1210	100	Red Bank	12:01-1:00	CMCO	1110	150	Havana
2:20-2:40	WWRL	1500	100	Woodside	12:30-1:00	KDKA	980	50000	Pittsburgh
					2:00-4:00	KIUN	1420	100	Pecos

**LONG WAVE STATIONS BY FREQUENCIES**

Kycs.	Meters	Power	Call	Location	Kycs.	Meters	Power	Call	Location
155	1934	7.	.....	Kaunas, Lith.	218	1378	100.	.....	Novosibirsk, USSR.
158	1900	1.	.....	Julianhaab, Grn.	224	1338	.....	WSG	LaCrosse, Wis.
160	1874	100.	.....	Kootwijk, Neth.	.....	.....	.....	WWAT	Birmingham, Ala.
		150.	.....	Brasov, Rum.	.....	.....	.....	WWQ	Bellefonte, Pa.
166	1806	40.	.....	Lahti, Fin.	.....	.....	120.	.....	Warsaw, Pol.
174	1723	500.	.....	Moscow I, USSR.	230	1304	.....	KCAF	Albuquerque, N. M.
182	1647	80.	.....	Radio-Paris, F.	.....	.....	.....	KKAC	Shreveport, La.
188	1599	5.	.....	Istanbul, Tur.	.....	.....	7.	.....	Ankara, Tur.
191	1570	60.	.....	Berlin, G.	.....	.....	150.	.....	Luxembourg, Lux.
200	1500	.5	.....	Godhavn, Grn.	232	1292	20.	.....	Kharkov, USSR.
		150.	.....	Droitwich, G. B.	236	1270	.....	WWAC	Nashville, Tenn.
		35.	.....	Irkoutsik, USSR.	238	1260	60.	.....	Kalundborg, Den.
208	1441	35.	.....	Minsk, USSR.	240	1249	.5	.....	Vienna, Austria
		16.	.....	Reykjavik, Iceland	242	1239	.....	KCAO	El Paso, Tex.
216	1388	150.	.....	Motala, Swe.	.....	.....	.....	KCR	Boise, Idaho

## LONG WAVE STATIONS BY FREQUENCIES

Kycs.	Meters	Power	Call	Location	Kycs.	Meters	Power	Call	Location
			KCV	Oakland, Calif.				WRW	Greensboro, N. C.
			WWHP	Harrisburg, Pa.				WWAH	Albany, N. Y.
245	1224	100.		Leningrad, USSR.				WWAR	Jackson, Mich.
248	1209		CYW	Strathburn, Ont.	326	920		KCAP	Big Spring, Tex.
			KCAG	Amarillo, Tex.				KSG	Cheyenne, Wyo.
			WET	Spartanburg, S. C.				WWAU	Memphis, Tenn.
			WWBF	Mobile, Ala.				VFS	Lethbridge, Alta.
			VFT	Red Deer, Alta.				VXR	Jarvis, Ont.
254	1180		KCAV	Springfield, Mo.	332	903		KCAU	Houston, Tex.
			KCAW	San Antonio, Tex.				KCY	Portland, Ore.
			KLK	Reno, Nev.				VFN	St. Hubert, Que.
			WWAP	Pittsburgh, Pa.				VFP	Forrest, Man.
			WWBC	Titusville, Fla.				WBP	Key West, Fla.
256	1169	25.		Tashkent, USSR.	332	903		WEK	Wichita, Kans.
260	1153		KCS	Pasco, Wash.				WWAS	Cincinnati, O.
			KCT	Los Angeles, Cal.				WWAW	Charleston, S. C.
			WNR	Richmond, Va.	338	887		KCAM	Tucson, Ariz.
			WWAQ	Jackson, Miss.				KGD	Salt Lake City, Utah
		60.		Oslo, Nor.				WWAG	New Orleans, La.
266	1127		KCAQ	Minneapolis, Minn.				WWHS	Chattanooga, Tenn.
			KCX	Medford, Ore.				WWU	Newark, N. J.
			WHZ	Atlanta, Ga.	344	872		KCAS	Spokane, Wash.
			WSX	Boston, Mass.				KCU	Fresno, Calif.
			WWAB	Buffalo, N. Y.				WWAV	Jacksonville, Fla.
270	1100	.5		Godthaab, Grn.				WWO	Cleveland, O.
271	1106	100.		Moscow II, USSR.	350	857		KCAH	Kingman, Ariz.
272	1102		KCAJ	Little Rock, Ark.				KCCA	Oklahoma City
			KIS	Iowa City, Iowa				KDA	Chicago, Ill.
			WWAF	Miami, Fla.				WWBI	Raleigh, N. C.
			WWX	Washington, D. C.	355	845	10.		Finmark, Nor.
278	1078		Common	Wave			20.		Rostov-on-Don, USSR
280	1071	35.		Tiflis, USSR.	359	835		KCAD	Idaho Falls, Ida.
284	1056		KCAC	Butte, Mont.				KRC	Kansas City, Mo.
			KVM	North Platte, Neb.			20.		Budapest II, Hun.
290	1034		KCQ	St. Louis, Mo.	365	821		KCAN	Fargo, N. D.
			KDN	Rock Springs, Wyo.				KCZ	Seattle, Wash.
296	1013		KCAA	Tulsa, Okla.				KKJ	Ft. Worth, Tex.
			VFQ	Regina, Sask.	375	800	50.		Sverdlovsk, USSR.
302	993		KCAR	Pueblo, Colo.	392	765	.6		Boden, Swe.
308	973		KCAE	Winslow, Ariz.	401	748	1.3		Geneva, Swi.
314	955		KOJ	Elko, Nev.			100.		Moscow III, USSR.
			VFR	Maple Creek, Sask.	414	725	.6		Ostersund, Swe.
			VFU	London, Ont.			10.		Voronezh, USSR.
320	937		KCAT	Milford, Utah	431	696	1.2		Oulu, Fin.
			KJF	Omaha, Nebr.	436	688	10.		Ufa, USSR.

## LONG WAVE STATIONS BY LOCATIONS

AUSTRIA	QUEBEC	FRANCE	ICELAND	Oslo	TURKEY
Vienna	St. Hubert	Paris	Reykjavik	260	Ankara
240	VFN 332	182	208		230
				POLAND	Istanbul
CANADA	SASKATCHEWAN	GERMANY	LITHUANIA	Warsaw	188
ALBERTA	Maple Creek	Berlin	Kaunas	224	USSR
Lethbridge	VFR 314	191	155	RUMANIA	Irkoutsk
VFS 326	Regina	GREAT BRITAIN	LUXEMBOURG	Brasov	200
Red Deer	VFQ 296	Droitwich	230	160	Kharkov
VFT 248	EUROPE	200	Luxembourg	SWEDEN	232
MANITOBA	DENMARK	GREENLAND	230	Boden	Leningrad
Forrest	Kalundborg	Godhavn	NETHERLANDS	392	Minsk
VFP 332	238	200	Kootwijk	Motala	208
ONTARIO	FINLAND	Godthaab	160	216	Moscow
Jarvis	Lahti	270	NORWAY	Ostersund	I. 174
VXR 326	166	Julianhaab	Finmark	414	II. 271
London	Oulu	158	355	SWITZERLAND	III. 401
VFU 314	431	HUNGARY		Geneva	Novosibirsk
Strathburn		Budapest		401	218
CYW 248		359			Rostov-on-Don
					355
					Sverdlovsk
					375

## LONG WAVE STATIONS BY LOCATIONS

<b>Tashkent</b> 256 <b>Tiflis</b> 280 <b>Ufa</b> 436 <b>Voronezh</b> 414 <b>UNITED STATES</b> <b>ALABAMA</b> <b>Birmingham</b> 224 <b>WWAT</b> 224 <b>Mobile</b> <b>WWBF</b> 248 <b>ARIZONA</b> <b>Kingman</b> 350 <b>KCAH</b> 350 <b>Tucson</b> <b>KCAM</b> 338 <b>Winslow</b> <b>KCAE</b> 308 <b>ARKANSAS</b> <b>Little Rock</b> <b>KCAJ</b> 272 <b>CALIFORNIA</b> <b>Fresno</b> 344 <b>KCU</b> 344 <b>Los Angeles</b> <b>KCT</b> 260 <b>Oakland</b> <b>KCV</b> 242 <b>COLORADO</b> <b>Pueblo</b> <b>KCAR</b> 302	<b>DISTRICT OF COLUMBIA</b> <b>Washington</b> 272 <b>WWX</b> 272 <b>FLORIDA</b> <b>Jacksonville</b> 344 <b>WWAV</b> 344 <b>Key West</b> <b>WBP</b> 332 <b>Miami</b> <b>WWAF</b> 272 <b>Titusville</b> <b>WWBC</b> 254 <b>GEORGIA</b> <b>Atlanta</b> 266 <b>WHZ</b> 266 <b>IDAHO</b> <b>Boise</b> <b>KCR</b> 242 <b>Idaho Falls</b> <b>KCAD</b> 359 <b>ILLINOIS</b> <b>Chicago</b> 350 <b>KDA</b> 350 <b>IOWA</b> <b>Iowa City</b> 272 <b>KIS</b> 272 <b>KANSAS</b> <b>Wichita</b> 332 <b>WEK</b> 332	<b>LOUISIANA</b> <b>New Orleans</b> 338 <b>WWAG</b> 338 <b>Shreveport</b> <b>KCAK</b> 230 <b>MASSACHUSETTS</b> <b>Boston</b> 266 <b>WSX</b> 266 <b>MICHIGAN</b> <b>Jackson</b> 320 <b>WWAR</b> 320 <b>MINNESOTA</b> <b>Minneapolis</b> 266 <b>KCAQ</b> 266 <b>MISSISSIPPI</b> <b>Jackson</b> 260 <b>WWAQ</b> 260 <b>MISSOURI</b> <b>Kansas City</b> 359 <b>KRC</b> 359 <b>St. Louis</b> <b>KCQ</b> 290 <b>Springfield</b> <b>KCAV</b> 254 <b>MONTANA</b> <b>Butte</b> 284 <b>KCAC</b> 284 <b>NEBRASKA</b> <b>North Platte</b> 284 <b>KVM</b> 284	<b>Omaha</b> 320 <b>KJF</b> 320 <b>NEVADA</b> <b>Elko</b> 314 <b>KOJ</b> 314 <b>Reno</b> 254 <b>KLK</b> 254 <b>NORTH CAROLINA</b> <b>Greensboro</b> 320 <b>WRW</b> 320 <b>Raleigh</b> <b>WWBI</b> 350 <b>N. DAKOTA</b> <b>Fargo</b> 365 <b>KCAN</b> 365 <b>N. MEXICO</b> <b>Albuquerque</b> 320 <b>KCAF</b> 320 <b>NEW JERSEY</b> <b>Newark</b> 338 <b>WWU</b> 338 <b>NEW YORK</b> <b>Albany</b> 320 <b>WWAH</b> 320 <b>Buffalo</b> 266 <b>WWAB</b> 266 <b>OHIO</b> <b>Cincinnati</b> 332 <b>WWAS</b> 332 <b>Cleveland</b> 344 <b>WVO</b> 344	<b>OKLAHOMA</b> <b>Oklahoma City</b> 350 <b>KCCA</b> 350 <b>Tulsa</b> <b>KCAA</b> 296 <b>OREGON</b> <b>Medford</b> 266 <b>KCX</b> 266 <b>Portland</b> 332 <b>KCY</b> 332 <b>PENN-SYLVANIA</b> <b>Bellefonte</b> 224 <b>WWQ</b> 224 <b>Harrisburg</b> <b>WWHP</b> 242 <b>Pittsburgh</b> <b>WWAP</b> 254 <b>SOUTH CAROLINA</b> <b>Charleston</b> 332 <b>WWAW</b> 332 <b>Spartanburg</b> <b>WET</b> 248 <b>TENNESSEE</b> <b>Chattanooga</b> 338 <b>WWHS</b> 338 <b>Memphis</b> <b>WWAU</b> 326 <b>Nashville</b> <b>WWAC</b> 236 <b>TEXAS</b> <b>Amarillo</b> 248 <b>KCAC</b> 248	<b>Big Spring</b> 326 <b>KCAP</b> 326 <b>El Paso</b> 242 <b>KCAO</b> 242 <b>Ft. Worth</b> 365 <b>KKJ</b> 365 <b>Houston</b> 332 <b>KCAU</b> 332 <b>San Antonio</b> 254 <b>KCAW</b> 254 <b>UTAH</b> <b>Milford</b> 320 <b>KCAT</b> 320 <b>Salt Lake</b> 338 <b>KGD</b> 338 <b>VIRGINIA</b> <b>Richmond</b> 260 <b>WNR</b> 260 <b>WASHINGTON</b> <b>Pasco</b> 260 <b>KCS</b> 260 <b>Seattle</b> 365 <b>KCZ</b> 365 <b>Spokane</b> 344 <b>KCAS</b> 344 <b>WISCONSIN</b> <b>La Crosse</b> 224 <b>WSG</b> 224 <b>WYOMING</b> <b>Cheyenne</b> 326 <b>KSC</b> 326 <b>Rock Spring</b> 290 <b>KDN</b> 290
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## LONG WAVE STATIONS BY CALLS

CYW 248	KCAA 296	KCAP 326	KCAQ 284	KCAD 359	KCAE 308	KCAF 230	KCAG 248	KCAH 350	KCAJ 272	KCAK 230	KCAM 338	KCAN 365	KCAO 242	KCAP 326	KCAQ 284	KCAD 359	KCAE 308	KCAF 230	KCAG 248	KCAH 350	KCAJ 272	KCAK 230	KCAM 338	KCAN 365	KCS 260	KCT 260	KCU 344	KCV 242	KCX 266	KCY 332	KCZ 365	KDA 350	KDN 290	KGD 338	KIS 272	KJF 320	KKJ 365	KLK 260	KOJ 314	KRC 242	KSG 326	KVM 284	VFN 332	VFP 350	VFQ 290	VFR 338	VFS 320	VFT 248	VFU 314	VXR 326	WBP 332	WEK 332	WET 248	WHZ 266	WNR 260	WRW 320	WSG 224	WSX 266	WWAB 266	WWAC 236	WWAG 272	WWAH 320	WWAP 254	WWAQ 260	WWAR 320	WWAS 332	WWAT 224	WWAU 326	WWAV 344	WWAW 332	WWBC 254	WWBF 248	WWBI 350	WWHP 242	WWHS 338	WWO 344	WWQ 224	WWU 338	WWX 272
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## FOREIGN B. C. STATIONS BY FREQUENCIES

Wavelength in meters is given in parentheses following frequencies in kilocycles. Entering dial number in square provided will enable you to identify stations heard. Power is given in second column in kilowatts and decimals thereof. Actual frequency is given in parentheses. While call letters are given wherever possible, very few European stations use these calls. Time is Local unless otherwise stated.

<b>520 (576.6)</b> <input style="width: 100px; height: 20px;" type="text"/> <b>LKH</b> .7 <b>Hamar, Nor.</b> (519) <b>OFH</b> 10. <b>Viipuri, Fin.</b> (527) <b>RW34</b> 10. <b>Stalingrad, U.S.R.</b> (522) ..... 1. <b>Innsbruck, Aust.</b> (519) ..... 5. <b>Ljubljana, Yug.</b> (527) ..... .5 <b>Tartu, Est.</b> (517)	<b>530 (565.7)</b> <input style="width: 100px; height: 20px;" type="text"/> <b>11BZ</b> 10. <b>Bolzano, I.</b> (536) ..... 16. <b>Wilno, Pol.</b> (536) <b>540 (555.2)</b> <input style="width: 100px; height: 20px;" type="text"/> <b>HAL</b> 120. <b>Budapest, Hun.</b> (546)	<b>Budapest VIII, Sandor Utca No. 7, Tchita, U.S.R.</b> (546) <b>RW52</b> 20. <b>Tchita, U.S.R.</b> (546) <b>550 (545.1)</b> <input style="width: 100px; height: 20px;" type="text"/> <b>2CR</b> 10. <b>Cumnock, Aust.</b> ..... 100. <b>Beromunster, Sw.</b> (556). Report to PTT.
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## FOREIGN B. C. STATIONS BY FREQUENCIES

JOKK .5 1230; 16-20; 22-24  
 OKayama, J.  
 PRA7 .05 Sao Paulo, Brz., Rua Tibirica 26  
 RW48 2.5 Elista, USR. (704)  
 SBA 55. Stockholm, Swe. (704)  
 VPB 1.75 Colombo, Cey. (705)  
 XMHC .5 Shanghai, Chn.  
 ZP15 . Villarrica, Par.  
 ZNR 7. Lawrence, Ausl.

### 710 (422.3)

IIRO 50. Rome, I. (713)  
 JOJK 3. Kanazawa, J.  
 LSI 5. Buenos Aires, Arg Radio Municipal, Teatro, Colon  
 RW16 10. Kouibychev, USR.  
 XGML .0075 Kashing, Chn. (714.3)  
 XGOS 1 Chunching Chn. (711)

### 720 (416.4)

CW9 .12 Colonia, Brz. Ernesto W. Labbe (bldg.)  
 JFBK 1. Tainan, For.  
 JORK .5 Kochi, J. Mr. Matsuo, Mgr., EST Daily 10:15 p.m.-7:30 a.m.; Sun., 10:30 p.m.-7:30 a.m.  
 PRF2 .25 Rio Claro, Brz. (725) Radio Club of Rio Claro  
 PRG5 .75 Santos, Brz. Radio Atlantica  
 RW9 36. Kiev, USR. (722)  
 RW28 10. Vlavirus, USR (725)  
 XLHD .1 Shanghai, Chn.  
 3YA 10. Christchurch, N. Z. Gloucester St. Continuous 10-22 weekdays; Sat., 15-23; Sun., 9-11; 13-1630; 1730-22  
 6GF 2. Malgoorlie, Ausl.

### 730 (410.7)

CE73 1. Vina del Mar, Chi. La Union, Ave. Portales 528  
 CX10 1. Montevideo, Uru. Internacional Bldg., Industria 2840; 11-15; 16-24  
 EAJ2 3. Madrid, Sp. (731) Radio-Espana  
 EAJ5 5.5 Seville, Sp. (731)  
 JOSK 1. Kokura, J. (735)  
 LVI 1.5 San Juan, Arg. Radio Graffigna, C. de Correo 44  
 RW65 1. Saransk, USR. (734)  
 XHGS .05 Huchow, Chn.  
 SCL 2. Adelaide, Ausl.  
 . . . . . 20. Tallin, Est. (731)

### 740 (405.2)

OFD 1. Pori, Fin. (749)  
 PRE6 1.5 Uberaba, Brz.  
 XHHB .05 Shanghai, Chn.  
 ZBL 3. Sydney, Ausl.  
 . . . . . 100. Munich, G., Funkhaus Rundfunkplatz No. 1

. . . . . 5. Marseilles, F. (749) PTT  
 . . . . . 2. Sortavala, Fin. (749)

### 750 (399.8)

JOBK1 10. Osaka, J.  
 LR7 1. Buenos Aires, Arg.  
 LUHO .02 T'ung Hsien, Chn.  
 OAX4A 1.5 Lima, Peru. Daily 11 a.m.-1 p.m.; 6-7; 9-11 p.m.  
 PRA2 1.5 Rio de Janeiro, Brz. Rua da Caraca 45  
 PRA8 3. Pernambuco, Brz. Ave. Cruz Cabuga 394  
 RW64 10. Urdjonikidze, USR. (752)  
 XGOK 1. Canton, Chn.  
 YVARC .1 Caracas, Vnz.  
 ZTD 1.5 Durban, S. Af.  
 ZNT 7. Kelso, Ausl.  
 . . . . . 12. Katowice, Pol. (758)  
 . . . . . 10. Maritzburg, S. Af.

### 760 (394.5)

CE76 10. Valparaiso, Chi. (765) Coop. Vitalicia, Ed. La Nacion, 9 Piso  
 LT4 .2 Mendoza, Arg.  
 PRD9 .25 Sorocaba, Brz. (769) Radio Soc. Sorocaba  
 RW78 3. Ijevsk, USR. (767)  
 XLHI .0075 Shanghai, Chn.  
 XLHJ .1 Shanghai, Chn.  
 2YB .1 New Plymouth, N. Z. Empire Bldg., King St. Mon. 19-22; Wed. 1830-22; Sat. 1830-2230; Sun. 18-22  
 . . . . . 50. Falkirk, G.B. (767) Scottish Regional

### 770 (389.4)

CX12 1. Montevideo, Uru. Radio Westinghouse, Itacabo 2620; 10-23  
 JOHK 10. Sendai, J.  
 LKF .7 Frederikstad, N. (776)  
 RW26 10. Stalino, U.S.R. (776)  
 VUM .2 Madras, In.  
 3LO 3.5 Melbourne, Ausl.  
 . . . . . 2. Toulouse, F. (776) PTT

### 780 (384.4)

CE78 1. Santiago, Chi. (785) Huko, Providencia; 10-1130; 13-14; 1830-20; 2130-24  
 JOPK .5 Shizuoka, J.  
 KZEG 1. Manila, P. I.  
 LT1 5. Rosario, Arg. Radio Litoral, Cordoba 1049  
 Sao Paulo, Brz. (788)  
 PRE7 5. Radio Cosmos, Praca Marochal Deodora 52 Hangchow, Chn. (977.5)  
 XGOD 1. Shanghai, Chn. Leipzig, G. (785) Temporarily on low power.

### 790 (379.5)

EAJ1 5. Barcelona, Sp. (795) Union Radio.  
 JOGK 10. Kumamoto, J.  
 LR10 8. Buenos Aires, Arg. Radio Cultura. Belgrano 1841  
 RW51 1. Naltchik, USR. (794)  
 ZTB .5 Bloemfontaine, S. Af.  
 4YA .5 Dunedin, N. Z. Stuart St. Continuous 10-22 weekdays; Sat. 15-23; Sun., 9-11; 13-1630; 1730-22  
 . . . . . 16. Lwow, Pol. (795) Polskie Radjo SA. Rozglosnia we Lwowie

### 800 (374.8)

LU2 .5 Bahiablanca, Arg. Radio Educadora do Brasil, Rua Senador Dantas 82  
 PRB7 .5 Rio de Janeiro, Brz. XLHL .1 Shanghai, Chn.  
 4QQ 2.5 Brisbane, Ausl.  
 . . . . . 50. Cardiff, G.B. (804) West Regional

### 810 (370.2)

CE81 1. Valparaiso, Chi. Chilena Consolidada, Edwards 383.  
 CX14 5. Montevideo, Uru. El Espectador Ltd., Lanus 5760. 10-24  
 IIM1 50. Milan, I. (814) Radio Milano, Corso 28, Ottobre 102, Milano 134  
 JOCK1 10. Nagoya, J.  
 PRA6 10. Sao Paulo, Brz. (815) Radio Educadora Paulista, Rua Jose Bonifacio 12  
 VUC 3. Calcutta, In.

### 820 (365.6)

CE82 1. Santiago, Chi. (825) El Diario Ilustrado, Moneda 1158. 9-10; 12-14; 16-1830; 20-24  
 LV7 .5 Tucuman, Arg. G. Acha Munoz y Cia. Mendoza 437  
 PRH8 5. Rio de Janeiro, Brz. Radio Ipanema  
 RW68 1.5 Tcheliabinsk, U.S.R. (824)  
 ZZH .065 Napier, N. Z. C. B. Hansen & Co., 59 Latham St., Mon., Tues., Fri., 12-14; 19-2230; Wed., 12-14; 1830-230; Thurs., 12-14; Sat., 10-17; 19-23; Sun. 12-15  
 ZHO .05 Hobart, Ausl.  
 . . . . . 12. Bucharest, Ru. (823)

### 830 (361.2)

JOIK 10. Sapporo, J. T. Okada,

FOREIGN B. C. STATIONS BY FREQUENCIES

Chf. Engr. EST Daily.  
4 a.m.-7:30 a.m.

LR5 16. Buenos Aires, Arg.  
Radio Excelsior, Malpu  
462

RW39 100. Moscow, U.S.R. (832)  
Innan Marr, Esq.  
Moscow-Stalin Radio  
Station.

XGWH .03  
3GI 7. Wuhu, Chn.  
Gippslaud, Ausl.

840 (356.9)

F31CD 12. Saigon, Indo.  
Cie Generale de Tele-  
graphie sans Fil, P. O.  
Box, 238

LT8 .35 Rosario, Arg.  
Julio Blomberg, Sar-  
miento 958

PRA4 .5 Bahia, Brz. Radio  
Soc. da Bahia

XGTM .015 Chang-sha, Chn.

XHHA .15 Shanghai, Chn.

ZBW 2. Hongkong, C. (845)  
The Secretary, Hong  
Kong Brdctg. Com.,  
P. O. Box 200.

2YC .2 Wellington, N. Z.  
Featherstone St.  
Mon. to Sat., 19-20

..... 100. Berlin, G. (841)  
Radio Reichsender,  
Berlin Brdctg. House

850 (352.7)

CX16 1. Montevideo, Uru.  
SADREP, Av. S. Mar-  
tinez 13500; 8-1

EAJ3 1.5 Valencia, Sp.

HSPI 2.5 Bangkok, Siam  
(857)

JOFK 10. Hiroshima, J.

LKA .35 Aalesund, Nor.

LKB 1. Bergen, Nor.

LKP .7 Porsgrund, Nor.

PRB3 .25 Juiz de Fora, Brz.  
(857)  
Radio Soc. de Juiz de  
Fora, Parque Herald  
Simferopol, U.S.R.  
(859)

RW73 10. Nairobi, Ken. (858)

VQZLO .6 Bombay, In. (855)

VUB 3. Tsinan, Chn. (855)

XOST .5

SRM 1. Renmark, Ausl.

..... 1. Sofia, Bul.

..... 35. Strasbourg, F. (859)  
Radio Strasbourg  
PTT, 30 Rue du 22  
Nov.

860 (348.6)

CE86 .5 Santiago, Chl. (865)  
Otto Becker, Ahuma-  
da 113. 10-1230; 15-  
17; 19-22.

LV10 Mendoza, Arg.

PRA3 2.5 Rio de Janeiro, Brz.  
Radio Club de Brasil,  
Rua Betancourt da  
Silva 21

XHHD .05 Shanghai, Chn.

..... 16. Poznan, Pol. (868)

..... .6 Agen, F. (868)

870 (344.6)

CE87 .1 Talcahuano, Chl.  
(875) Francisco Mo-  
rales, Aldea 96

JOAK1 10. Tokyo, J. M. Toma-  
becio, EST Daily 4  
a.m.-7:30 a.m.

LR6 16. Buenos Aires, Arg.  
La Nacion, Florida  
347

RW85 2. Igarca, U.S.R. (871)

XGBL .025 Suchow, Chn.

2GB 1. Sydney, Ausl. "The  
Nation's Station",  
Aryan House, 29  
Bligh St., Daily EST  
2130-830; Sun. 22-730.

..... 50. London, G.B. (877)  
London Regional.

880 (340.7)

CE88 .1 Valparaiso, Chl.  
El Mercurio de Val-  
paraiso, Casiono de  
Vina del Mur. 1230-  
1345; 1630-1730; 20-23

HS7PJ .. Bangkok, Siam (882)

LV2 7. Cordova, Arg.  
Radio Central, San  
Lorenzo 339

PRB2 .25 Curityba, Brz. (882)  
Radio Club Para-  
naense

RW61 1. Iochar-Ola, U.S.R.  
(888)

VUL .1 Lahore, In. (882)

XHHV .1 Shanghai, Chn.

YV2RC .1 Caracas, Venz. (882)

6PR .5 Perth, Ausl.

1YX .5 Auckland, N. Z.  
Karangahape Road,  
Mon. to Sat., 19-20

..... 15. Graz, Aust. (886)

890 (326.9)

CX18 .75 Montevideo, Uru.  
Difusora El especta-  
dor, E. Martinez Esq.  
J. Paullier, 11-14;  
1730-24

MTBY 2. Mukden, Chn.

OFA 10. Heisinki, Fin. (895)

XGKA .015 Kashing, Chn. (895)

ZP9 1.5 Asuncion, Par. (898)

..... .5 Limoges, F. (895)

900 (333.1)

CE90 1. Santiago, Chl. (905)  
El Mercurio, Com-  
pania esq. Morande.  
15-1630; 21-24

JODK1 10. Keijo, Ko.

KZIB 1. Manila, P. I.

LV9 .5 Salta, Arg.  
G. Sanches y Cia.,  
Alberdi 110

PRF3 5. Sao Paulo, Brz.

ZILY 2. Hoten, Mnch.

2ZP .105 Wairoa, N. Z.  
E. A. Perry. 128

Queen St. Daily 7-9;  
Tues., 18-2230; Sun.  
8-930.

3MA .05 Mildura, Ausl.

4WK .05 Warwick, Ausl.

..... 100. Hamburg, G. (904)  
Radio Reichsender  
Hamburg

910 (329.6)

LR2 6. Buenos Aires, Arg.  
Radio, Bolivar 1356  
Argentina

RW30 10. Dnepropetrovsk,  
U.S.R. (913)

4RK 2. Rockhamton, Ausl.

..... 60. Toulouse, F. (913)  
Villa Schmidt, Rue  
Monie

..... .5 Limoges, F. (913)

920 (325.9)

CW19 .05 Rocha, Uru.  
Arispuru y Machado,  
10-13; 18-21

JOOK .5 Niigata, J.

OKB 32. Brno, Cz. (922)

PRC3 .25 Pelotas, Brz.  
Soc. Radio Pelotense

PRF4 10. R'de Janeiro, Brz.  
(923). Soc. Anonima  
"Journal do Brasil"

XHHX .1 Shanghai, Chn.

ZZR .05 Nelson, N. Z.  
Trafalgar St. Mon.,  
Wed. 17-22; Tues.,  
Thurs., Sat., 18-22;  
Sat. 1430-1630; 18-22;  
Sun., 1045-13; 1815-  
2130

930 (322.4)

CX20 2. Montevideo, Uru.  
Radio Moncarlo,  
Humberto I No. 3.  
11-1430; 16-24

JOAG .5 Nagasaki, J.

PRD2 1. R'de Janeiro, Brz.  
(932) Soc. Radio Cru-  
celro do Sul; Rua  
Mariz e Barros 270

RW55 1. Engels, U.S.R. (932)

3UZ .6 Melbourne, Ausl.

NO. 2 15. Brussels, Belg. (932)

940 (319)

CE94 1. Santiago, Chl. (945)  
Chilena Consolidada,  
E. Llanos 35. 12-14;  
17-20; 21-24

JONK .5 Nagano, J. K. Yana-  
da, Dir. EST Daily  
4-1930

PRE4 .25 Rio de Janeiro, Brz.  
(941). Soc. Radio  
Cultura "A Voz do  
Espacoo"

SBB 10. Goteborg, Swe. (941)

XHHE 1. Shanghai, Chn.

3ZR .4 Greymouth, N. Z.  
West Coast Radio  
Soc., Bright St., Cob-  
den. Mon. to Fri.,

**FOREIGN B. C. STATIONS BY FREQUENCIES**

7-9; 18-22; Sat. 7-9;  
15-17; 18-1830; 19-21  
Algiers Alg. (941)  
Radio PTT du Govt.  
Gen., Rue Berthe-  
zene, Alger, Algeria,  
N. Af.

**950 (315.6)**

LR3 12. Buenos Aires, Arg.  
Radio Belgrano, Bel-  
grano 1841  
PP 60. Paris, F. (959)  
Poste Parisien, 4 Rue  
du General-Foy.  
PRF8 .5 Bahia, Brz. (959) Ra-  
dio Commercial da  
Bahia  
RW40 1. Gomel, U.S.R. (959)  
RW54 1. Gomel USR. (959)  
XGOP .1 Peiping, Chn.  
XOPP .1 Peiping, Chn. (952.8)  
ZTP .5 Pretoria, S. Af. (952)  
2UE 1. Sydney, Ausl. Rex  
Shaw, 296 Pitt St.,  
EST Mon., to Fri.,  
2230-8; Sat. to 9;  
Sun., 2230-8.  
100. Breslau, G. Schles-  
ische Funkstunde,  
GMBH, Breslau 18

**960 (312.3)**

JOOK .3 Kyoto, J.  
PRB4 1. Santos, Brz. Radio  
Club de Santos, Rua  
de Pedro II 16.  
RW13 10. Odessa USR. (968)  
RW67 2. Oukhta, USR (968)  
RW69 10. Odessa USR (968)  
XHHF .1 Shanghai, Chn.  
YV1RC 5. Caracas, Venz. (961)  
Brdstg. Caracas, Apt  
de Correos 2009. Sun.  
9-23; weekdays 16-  
2230  
2ZF .15 Palmerston, N. Z.  
King St., Mon.,  
Thurs., Sat., 20-22;  
Wed. 1815-22; Fri.,  
Sun., 19-2130  
5DN 3. Adelaide, Ausl.

**970 (309)**

CX22 .25 Montevideo, Uru.  
Fada Radio, Larranga  
278. 1030-1530; 17-23  
JOBG .5 Maebashi, J.  
3BO .2 Bendigo, Ausl.  
1. Belfast, GB (977)

**980 (303.9)**

CE98 1. Santiago, Chl. (985)  
Radio Bayer, E.  
Llanos 35. 13-14;  
1930-2330  
CNO .025 Casablanca, Mor.  
(983)  
1IGE 10. Genoa, I. (986) EIAR  
Stazione di Genova,  
Tokushima, J. T.  
Tsutsumi, Chf. Engr.  
EST Daily 2205-730;  
Sun., 2230-730.

OA4XE .05 Lima, Peru, Juan P.  
Goincochea, Jiron  
Ocona No. 158  
PRC6 1. R'de Janeiro, Brz.  
Soc. Radio Philips,  
Rua Sacadura Cabral  
43

XMBH .5 Shanghai, Chn.  
ZTP .5 Pretoria, S. Af. (985)  
2ZJ .25 Gisborne, N. Z.  
229 Gladstone Rd.  
Mon., Fri., Sat., 19-  
22; Tues., Wed., 12-  
1330; 19-22; Thurs.,  
19-20

4AY .03 Ayr., Ausl. Norman  
L. Dahl, Airdmillon  
Rd. "The Voice of  
the Cane Fields"  
EST Daily 2-8; Sun.  
330-730.  
6BY .05 Bunbury, Ausl.  
24. Torun, Pol. (986)  
(Testing)

**990 (302.8)**

JOFG .5 Fukui, J.  
LR4 12. Buenos Aires, Arg.  
Radio Splendide, Cal-  
lao 1526. Daily 11-24  
Hilversum, Hol. (995)  
Heir Radio Hilver-  
sum, Ouden, Eng-  
weg, 4.  
XFCK .03 Shanghai, Chn.  
Central NSW, Ausl.

**1000(299.8)**

CE100 .5 Santiago, Chl. (1005)  
La Nacion, Fontecilla  
66  
CW23 .25 Salto, Uru.  
Modesto Llantada.  
10-1230; 17-20  
HJ3ABH 2. Bogota, Col. (1005)  
"La Voz de La Vic-  
tor", Aptdo 565. Sun.,  
12-14; 16-21; Wednes-  
days 1130-14; 18-23.  
Armenia, Col.  
HJ4ABJ .05 Bratislava, Cz. (1004)  
OKR 13.5 Rio de Janeiro, Brz.  
PRA9 1. Radio Soc. Mayrink  
Veiga, Rua Mayrink  
Veiga 17

PRB8 .05 Mogy das Cruces,  
Brz.  
XGOW 5 Hangkow, Chn.  
XKRI 1 Canton, Chn.  
XOTY .05 Shang-si, Chn.  
ZP3 .3 Asuncion, Par.  
4GR 3 Toowoomba, Ausl.

**1010(296.9)**

CE101 1. Vina del Mar, Chl.  
Los Castanos Ave.  
393. 1230-1330; 18-19;  
21-22  
CX24 5. Montevideo, Uru.  
PRB9 5. Sao Paulo, Brz. (1017)  
Radio Soc. Record,  
Praca da Republica 17  
RW86 5. Tchernigov, USR.  
(1013)  
3HA .3 Hamilton, Ausl. 37

Gray St., "The Age  
Brdstg. Service",  
EST. Daily 2:45-7:30;  
Sun., 3:45-8.  
4ZB .07 Dunedin, N. Z.  
180 Rattray St. Wed.  
1830-23; Thurs., 18-  
23; Sun., 10-12  
4ZM .1 Dunedin, N. Z.  
McCracken & Wells,  
17 George St. Week-  
days 10-12; Mon. to  
Thurs., 13-14; 15-17;  
Tues., 18-23  
4ZO .025 Dunedin, N. Z.  
50. Davenport, G.B. (1013)  
Midland Regional.

**1020(293.9)**

CE102 .1 Santiago, Chl. (1025)  
Nacimiento, J. In-  
fante 2299. 13-14;  
2130-2330  
EAJ15 3. Barcelona, Sp. (1022)  
EAJ19 .7 Oviedo, Sp. (1022)  
XHHG .1 Shanghai, Chn.  
2KY 1. Sydney, Ausl.  
2. Cracow, Pol. (1022)

**1030(291.1)**

CE103 .1 Valdivia, Chl. (1035)  
Carlos Kahler, Isla  
Teja  
CT1GL 5. Parede, Por. (1031)  
Radio Club Portu-  
gues  
LR9 5. Buenos Aires, Arg.  
Radio Fenix, Santa  
Fe 1174  
PRC8 1. Rio de Janeiro, Brz.  
Radio Soc. Guana-  
bara, Rua 1st de  
Mayo 123  
YV11RMO . Maracaibo, Venz.  
(1034)  
3DB .6 Melbourne, Ausl.  
60. Konigsberg, G. (1031)

**1040(288.3)**

CE104 .1 Magallanes, Chl.  
Ramon Verde San-  
ches, Mexicana 936.  
1630-1730; 18-19;  
2130-2230  
CP4 10. La Paz, Bol.  
Carlos Lopez Vedela,  
Casilla 637  
CW25 .5 Durazno, Uru.  
Artola Evangelisti y  
Cia. 10-13; 18-23  
RW70 10. Lenigrad, USR.  
XHHH .1 Shanghai, Chn.  
5PI 2. Port Pirie, Ausl.  
40. Rennes-Bretagne, F.

**1050(285.5)**

CE105 1. Valparaiso, Chl.  
Radio Valparaiso,  
Prat 773. 1230-1315;  
17-18; 2130-2235  
CX26 2. Montevideo, Uru.  
Radio Uruguay,  
Millan 2370. 9-1430;  
16-23

## FOREIGN B. C. STATIONS BY FREQUENCIES

**IIBA 20.** Bari, I. (1059) EIAR  
 Stazione di Bari  
**PRF6 10.** Rio de Janeiro, Brz.  
**RW33 1.** Krasnodar, USR.  
**XHKA .05** Tien-tsin, Chn.  
**2CA .5** Canberra, Ausl.  
 ..... 50. Falkirk, G. B. Scot-  
 tish National

**1060(282.8)**

**CE106 1.** Santiago, Chl.  
 Sud America, Goi-  
 colea 0122. 11-13;  
 17-18  
**LT9 .2** Santa Fe, Arg.  
**RW57 4.** Tiraspol, USR. (1068)  
**XHHI .1** Shanghai, Chn.  
**3YB .025** Melbourne, Ausl.  
**4MB .05** Maryborough, Ausl.

**1070(280.2)**

**LRI .5** Buenos Aires, Arg.  
 Radio El Mundo  
**PYG2 10.** Sao Paulo, Brz. Ra-  
 dio Tupy Sao Paulo  
**XGOE 1.** Kwangsi, Chn.  
**XGOX .2** Honan, Chn.  
**2KB .5** Katoomba, Ausl.  
**6AM .5** Northam, Ausl.  
 ..... 30. Bordeaux, F. (1077)  
 Bordeaux - Lafayette  
 Hotel des PTT, 220  
 Chemin de Tondou

**1080(277.6)**

**CE108 .1** Concepcion, Chl.  
 (1085) El Sur. Freyre  
 799. 14-15; 20-22  
**CW27 .25** Salto, Uru.  
 Ernesto Popelka. 8-  
 14; 17-23  
**JOBK2 10.** Osaka, J. (1085)  
**LT3 3.5** Rosario, Arg.  
 Radio Soc. Rural de  
 Cerealistas, Pte. Roca  
 770  
**OAX4F .05** Lima, Peru  
**SCC 2.** Falun, Swe. (1086)  
**XHHJ .08** Shanghai, Chn.  
**ZP7 .7** Asuncion, Par. (1083)  
**35H .05** Swan Hill, Ausl.  
 ..... 7. Zagreb, Yu. (1086)

**1090(275.1)**

**CE109 .1** Valparaiso, Chl.  
 Zenith, Atahualpa  
 (816) 13-14; 2130-2330  
**CX28 3.** Montevideo, Uru.  
**EAJ7 10.** Madrid, Sp. (1095)  
 Union Radio Station  
 EAJ7, Aptdo 745.  
**PRC2 3.** Porto Alegre, Brz.  
 Radio Soc. Gaucha,  
 Galerie Chaves  
**PRC7 .25** Bello Horizonte, Brz.  
 Soc. Radio Minheira  
**RW75 10.** Vinnitsa, USR. (1095)  
**1ZB .2** Auckland, N. Z.  
 153 Krangahape Rd.  
 Mon., 9-1030; 1930-  
 2230; Tues. to Sat.,  
 9-1030; Wed. 20-22

**1100(272.6)**

**CE110 1.** Santiago, Chl. (1105)  
 Mavis, Ave. J. D.  
 Canas 655. 12-13;  
 21-23  
**HJ3ABD .05** Bogota, Col.  
 Alford's Radio, Calle  
 16. No. 5-40  
**IINA 1.5** Naples, I. (1104)  
**XHHS .15** Shanghai, Chn.  
**7LA .3** Lancaster, Ausl.  
 ..... 50. Madona, Lat. (1104)

**1110(270.1)**

**CE111 .1** Osorno, Chl. (1115)  
 David Arriagada,  
 Baquedano 715  
**L55 4.5** Buenos Aires, Arg.  
 Radio Rivadavia,  
 Callao 1526  
**OKK 11.2** Moravska, Cz. (1113)  
**2UW .75** Sydney, Ausl., J. M.  
 Prentice, Box 241D,  
 GPO. "At the Cross  
 Roads of Sydney".  
 24 hrs. daily.  
 ..... 10. Normandy, F. (1113)  
 Fecamp

**1120(267.7)**

**CE112 .1** San Felipe, Chl.  
 Ilustre Municipalidad,  
 Baquedano 715  
**CW29 .05** Mercedes, Uru.  
 Bautista Abbo. 1130-  
 13; 1830-2230  
**HAE 6.2** Nyiregyhaza, Hung.  
 (1122)  
**LV5 .7** San Juan, Arg.  
 Radio Los Andes, G.  
 Acha 362  
**PRH3 10.** Sao Paulo, Brz.  
 Radio Piratininga  
**XLHM .05** Shanghai, Chn.  
**XLHN .05** Shanghai, Chn.  
**4BC 1.** Brisbane, Ausl., R. F.  
 Roberts, 43 Adelaide  
 St., EST. Daily 2130-  
 830; Sun., 3-7:30.  
 ..... 25. Alexandria, Eg. (1122)  
 ..... 1. Newcastle, G.B. (1122)

**1130(265.3)**

**CX30 .5** Montevideo, Uru.  
 Radio Nacional. Por-  
 venir 2384. 9-24.  
**PRD8 1.** Nitheroy, Brz. (1132)  
 Radio Club Flumi-  
 nense  
**SBH 10.** Horby, Swe. (1131)  
**XGOC .5** Nan-chang, Chn.  
 (1132)  
**ZP1 1.** Asuncion, Par. (1135)  
**6ML .3** Perth, Ausl.

**1140 (263)**

**CE114 .1** Santiago, Chl. (1145)  
 Spencer y Vivado,  
 Roman Diaz 1132.  
 13-14; 2130-2330  
**CW30 .5** Tucumano, Uru.

**I1T0 7.** Turin, I.  
**XHHL .1** Shanghai, Chn.  
**2HD .5** Newcastle, Ausl.  
**4Y0 .2** Dunedin, N. Z.  
 ..... 20. London National,  
 G.B. (1149)  
 ..... 20. North National, G.B.  
 (1149)  
 ..... 20. West National, G.B.  
 (1149)

**1150(260.7)**

**CE115 .1** Talca, Chl. (1155)  
 Enrique Garcia, Mo-  
 lino Holman  
**HC2ET .3** Guyaquil, Ec. (1153)  
**HJ1ABM .05** Cartagena, Cb. (1154)  
**LR8 5.** Buenos Aires, Arg.  
 Radio Paris, Cangallo  
 860  
**XGGW .05** Tsin-tao, Chn.  
**YV7RMO .5** Maracaibo, Venz.  
 (1153)  
**2WG .05** Wagga, Aus.  
**2ZM .017** Gisborne, N. Z.  
 ..... 2.6 Kosice, Cz. (1158)

**1160(258.5)**

**CW31 .25** Salto, Uru.  
 Salvador E Pera. 9-  
 1230; 16-23  
**LT5 .5** Resistencia, Arg.  
 Radio Chaco, Av.  
 9 de Julio  
**XHHU .1** Shanghai, Chn.  
**4MK .1** Mackay, Ausl.  
 ..... 15. Mte. Ceneri, Sw.  
 (1167)  
 Report to PTT Berne,  
 Speighergrasse No. 6

**1170(256.3)**

**CE117 .25** Valparaiso, Chl.  
 A Garcia y Cia, Cerro  
 Carcel 47  
**CX32 .5** Montevideo, Uru.  
 Radio Marconi, Gen.  
 Hornos 537. 10-2  
**JOCK2 10.** Nagoya, J. (1175)  
**PRB6 1.** Sao Paulo, Radio  
 Cruzeiro do Sul, Largo  
 da Misericordia 4  
**PRC9 .25** Campinas, Brz.  
 Radio Educadora di  
 Campinas  
**XGDZ .01** Changchow, Chn.  
**XGSM .025** Suchow, Chn.  
**XLIF .015** Wusih, Chn.  
**2ZD .008** Masterton, N. Z.  
 W. D. Ansell, 7 Rimu  
 St. Mon. to Sat.  
 20-22; Sun. 930-11;  
 20-22  
**4T0 .2** Townsville, Aus.  
 ..... 10. Cophgen, Den. (1176)  
 Strats Radio Fonien  
 Heibergsgrade No. 7.

**1180(254.1)**

**CE118 1.** Santiago, Chl. (1185)  
 Siam, Boliver 1551  
**CW32 .25** Salto, Uru.  
**LKM .1** Tromso, Nor. (1186)  
**RW20 10.** Kharkov, USR. (1185)

FOREIGN B. C. STATIONS BY FREQUENCIES

XHHM .1 Shanghai, Chn.  
 3KZ .6 Melbourne, Ausl., S. Morgan, 64 Elizabeth St., "The Brighton Brcdstg. Service".

1190(252)

CE119 .1 Magallanes, Chl. Radio Austral, Independencia s/n. 20-23  
 LS2 .25 Buenos Aires, Arg. Radio Prieto, Bolivar 1356  
 XHPA .03 Peiping, Chn. (1194)  
 2CH 1. Sydney, Ausl.  
 ..... 25. Frankfurt, G. (1195) Eschersheimer Landstrabe No. 33.  
 ..... 5. Freiburg, G. (1195)  
 ..... 5. Kaiserslautern (1195)  
 ..... 2. Trier, G. (1195)  
 ..... 5. Cassel, G. (1195)  
 ..... 2. Coblenz, G. (1195)

1200(249.9)

CE120 .1 Curico, Chl. (1205)  
 CW33 .075 Florida, Uru. Omar F. Barreiro. 11-13; 2030-23  
 HJ3ABE 1. Bogota, Clb., Uribe y Moreno, P. O. Box 317.  
 PRD3 .25 Taubate, Brz. (1207) Soc. Radio Bandeirante  
 XHHN .1 Shanghai, Chn.  
 YV3RC 3. Caracas, Vnz. Bajos Pasaje Ramella  
 3YL .5 Christchurch, N. Z.  
 5KA .3 Adelaide, Ausl.  
 No. 2 5. Prague, Cz. (1204)

1210(247.8)

CX34 .5 Montevideo, Uru. Radio Artigas, Millan 2370. 10-16; 18-23  
 O44AR .025 Lima, Peru  
 2GF .05 Grafton, Ausl.  
 6KG .5 Kalgoorlie, Ausl.  
 ..... 5 Lille, F. (1213) Radio PTT Nord (testing) South Queensland, Ausl.

1220(245.8)

CE122 1. Santiago, Chl. (1225) Radio Mayo, Bandera 154. 11-12; 21-23  
 CW34 .25 Salto, Uru.  
 I1TR 10. Trieste, I. (1222)  
 PRE3 10. Rio de Janeiro, Brz. Radio Transmissora Brasileira  
 PRG9 .5 Sao Paulo, Brz. Radio Excelsior  
 XGOT .5 Pei-ping, Chn.  
 4ZL .1 Dunedin, N. Z. 243 Macandrew Rd. Mon., Thurs., 7-9; 1930-23; Tues., Wed., Fri., 7-9; Sat., 7-9; 19-23; Sun. 8-10

1230(243.8)

HJ4ABK .3 Medellin, Clb.  
 LS8 20. Buenos Aires, Arg. Radio Stentor. Florida 8  
 XGLS .1 Suchow, Chn.  
 2NC 2. Newcastle, Ausl.  
 ..... 5. Gleiwitz, G. (1231)

1240(241.8)

CE124 .1 Concepcion, Chl. (1245) Rolando Beckdorf, Ave. Argentina 977  
 CW35 .25 Paysandu, Uru. Buenaventura y Mahler. 9-13; 17-22  
 LV14 .2 La Rioja, Arg. Radio Provincia de La Rioja  
 XGKT .01 Suchow, Chn.  
 XHHY .1 Shanghai, Chn.  
 2ZL .05 Hastings, N. Z. John Holden, 609 Park Rd. Thurs., 1830-23; Sun. 930-1200  
 3TR .25 Sale, Ausl. A. Gilchrist, Raymond St., "Gippsland's Radio Station."  
 ECK 1. Cork, I. F. S.  
 ..... 2. Juan-les-Pins, F (1249). Radio Cote d'Azur.  
 ..... 2. Swedish Relay Stations.

1250(239.9)

CE125 1. Valparaiso, Chl. David Wallace, Esmerald 1111. 13-14; 19-20; 2130-22.  
 CX36 .25 Montevideo, Uru. Centenario Brcdstg. Ignacio Nunez 2133. 9-14; 17-24.  
 EAJ8 3. Sn. Sebastian, Sp. (1258)  
 HC2JB .03 Guyaquill, Ec.  
 PYG8 .25 Bauru, Brz.  
 XLWU .05 Wusih, Chn.  
 No. 3 1. Rome, I. (1258)  
 ..... 10. Kuldiga, Lat. (1258)

1260(238)

CE126 1. Santiago, Chl. (1265) Consorcio Espanol, Gran Ave. 2564. 9-10; 16-17; 21-22.  
 CW36 .03 Salto, Uru.  
 LT11 .25 Parana, Arg. Radio Provincia de Entre Rios.  
 XHHP .1 Shanghai, Chn.  
 1ZM .05 Manurewa, N. Z. W. Rodgers, Massey Rd. Mon. 9-1130; 14-17; 19-22; Tues. to Fri. 9-1130; 19-2130; Sat. 9-14; 19-230; Sun., 10-15.  
 3WR .06 Shepparton, Aus.  
 ..... 2. Nurnberg, G. (1267)

1270(236.1)

LKK .5 Christiansand, Nor. (1276)  
 LKS .5 Stavanger, Nor. (1276)  
 LS9 5. Buenos Aires, Arg. Radio La Voz del Aire, Pozos 439.  
 OA40 .1 Lima, Peru (1277)  
 PRE8 7. Rio de Janeiro, Brz. Soc. Radio Nacional Rua Buenos Aires 120.  
 TUA .5 Tunis, Tun. (1275)  
 XDYF .15 Wu-hu, Chn.  
 XGUT .01 Suchow, Chn. 76  
 ZP4 .15 Asuncion, Par. (1275)  
 2SM 1. Sydney, Ausl. 46 Carrington St., "Double D Eucalyptus" EST Daily 22-8.

1280(234.2)

CE128 .5 Temuco, Chl. Luis Brain. 14-15; 20-22.  
 CW37 .025 Colonia, Uru. N. Gonzales Moreno. 9-11; 14-18; 20-23.  
 LU7 .2 Bahiablanca, Arg. Radio Gen. San Martin, Calle Saromiento 60.  
 PRG3 10. Rio de Janeiro, Brz.  
 XLKB .05 Tien-tsin, Chn.  
 3AW .6 Melbourne, Ausl.  
 4ZC .007 Cromwell, N. Z. John I. Bilton, Lowburn Ferry. Mon., 19-21; Mon. to Sat. 12-13; Sat. 1730-19.  
 ..... 1. Aberdeen, G. B. (1285)  
 ..... 25. Dresden, G. (1285)

1290(232.4)

CX38 .5 Montevideo, Uru. Ramon Puyal, Caigua 3710. 11-14; 18-23.  
 PRA5 5. Sao Paulo, Brz. (1295) Radio Club de Sao Paulo, Rua 7 de Abril  
 4BK .3 Brisbane, Ausl.  
 ..... 15. Linz, Aust. (1294)  
 ..... 5. Dornbirn, Aust. (1294)  
 ..... 4.2 Klagenfurt, Aust. (1294)  
 ..... 5. Vorarlberg, Aus. (1294)

1300(230.6)

CPX 5. La Paz, Bol.  
 CW38 .03 Salto, Uru.  
 LT10 .1 Santa Fe, Arg. Radio del Inst. Soc. de la Univ. Nac. del Litoral  
 OAX4C .. Lima, Peru, Estacion Radiodifusora DUSA, Calle de Plumeros.  
 PRC4 .05 Amparo, Brz. (1304)  
 XQHC 50. Shanghai, Chn.  
 YV5RMO .15 Maracaibo, Vnz.  
 2TM ..... Tamworth, Ausl.  
 3ZE .054 Greymouth, N. Z. Schaeffs Ltd., Mackay

## FOREIGN B. C. STATIONS BY FREQUENCIES

<p>St. Mon., 1230-1330; 1645-1745; Wed., 1230-1330; Fri., 12-14; 1645-1745; Sat. 2115-23</p> <p>..... .5 Danzig, Dan. (1303)</p>	<p>2XN .05 Lismore, Aus.</p> <p>4ZR .004 Balclutha, N. Z.</p> <p>..... Renton &amp; Clark, Clyde St. Thurs., 19-23; Fri., 14-15; Sun., 10-12; 18-2030</p> <p>No. 2 4. Milan, I. (1348)</p> <p>..... 2. Ille de F., F. (1348)</p> <p>..... 5. Salzburg, Aust. (1348)</p> <p>..... 2. Konigsberg, G. (1348)</p> <p>..... 1. Berdeaus, F. (1348)</p> <p>..... 5. Cairo, Eg. (1348)</p>	<p>O'Higgins 128. 1130-1230; 18-20</p> <p>LR11 1. La Plata, Arg. Radio Univ. Nac. de La Plata</p> <p>2GN .1 Goulburn, Ausl.</p> <p>..... 5. Radio-Lyons, F. (1393)</p>
<p><b>1310(228.9)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CE131 .1 Santiago, Chl. (1315)</p> <p>Los Cuatro Ases, Roman Diaz 1972. 14-1530; 2130-23</p> <p>LS7 3. Buenos Aires, Arg.</p> <p>PRE9 .5 Fortaleza, Brz. (1315)</p> <p>Ceara Radio Club</p> <p>SBC 1.25 Malmo, Swe. (1312)</p> <p>SKC .25 Karlstad, Swe. (1312)</p> <p>SCD .25 Norrkoping, Swe. (1312)</p> <p>SCQ .25 Trollhattan, Swe. (1312)</p> <p>XL1J .05 Wusi, Chn.</p> <p>SAD .3 Adelaide, Ausl.</p>	<p><b>1350(222.4)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CE135 .1 San Antonio, Chl. (1355)</p> <p>Puerto San Antonio Casa 12</p> <p>LKN .15 Notodden, Nor. (1357)</p> <p>LS6 3.5 Buenos Aires, Arg. Radio del Pueblo, Estados Unidos 1816</p> <p>OA6E .03 Arequipa, Peru</p> <p>3GL .05 Geelong, Ausl.</p> <p>No. 2 .2 Turin, I. (1357)</p>	<p><b>1400(214.2)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CW43 .02 Melo, Uru. Difusora Electra (bldg.)</p> <p>OA6D .15 Arequipa, Peru</p> <p>PRD5 1. R' de Janeiro, Brz. Dpto. de Educacio da Pref. Largo da Carioca 5</p> <p>XLHO .1 Shanghai, Chn.</p> <p>ZZO .1 Palmerston, N. Z. J. V. Kyle, 50 Waldegrave St. Tues., 1830-22; Sun, 10-1230</p> <p>61X .3 Perth, Ausl.</p> <p>Swedish Common Wave (1402)</p> <p>See SC in Index by Calls</p>
<p><b>1320(227.1)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CW39 1. Paysandu, Uru. Miguel Penna. 1030-1230; 1730-2245</p> <p>HAE2 1.25 Magyarovar. Hun. (1321)</p> <p>HJ3ABK .05 Bogota, Col.</p> <p>XLIA .015 Ningpo, Chn.</p> <p>3BA .05 Ballarat, Ausl.</p>	<p><b>1360(220.4)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CW41 .05 San Jose, Uru. Radio San Jose 10-14; 18-23.</p> <p>OA4K .15 Lima, Peru</p> <p>PRC5 .1 Belen, Brz. (1364)</p> <p>PRD4 .25 Arraraquara, Brs. (1364)</p> <p>Radio Cultura Araraquara, Ave. Feijo 25</p> <p>PRF9 .5 Porto Alegre, Brz. Empresa Radiodifusora</p> <p>XQHD 2. Shanghai, Chn.</p> <p>2BH .1 Broken Hill, Ausl.</p> <p>4PM .1 Port Moresby, Ausl.</p> <p>7BU .1 Burnie, Ausl.</p> <p>No. 2 .1 Turin, I. (1366)</p>	<p><b>1410(212.6)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CE141 .1 Concepcion, Chl. Radio Phillips, Cau-polican 370.</p> <p>CX44 .2 Montevideo, Uru. SADREP, Sois Grande 912. 8-2</p> <p>PRB5 .05 Franca, Brz. (1415)</p> <p>Radio Club Hertz Uberaba, Brz.</p> <p>PRE5 .25 Radio Soc. Triangulo Minero</p> <p>2KO .5 Newcastle, Ausl.</p> <p>Portuguese Common Wave (1411)</p>
<p><b>1330(225.4)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CE133 .1 Osorno, Chl. (1335)</p> <p>Radio Austrai Montevideo, Uru. Radio Fenix, Chayos 4534; 8-24.</p> <p>HJ1ABA .1 Barranquilla, Clb., E. J. Pellet B., P.O. Box 751</p> <p>PRE2 .5 R' de Janeiro, Brz. Soc. Radio Cajuti, Rua Conde de Bomfim 457.</p> <p>PRG7 .25 Jahu, Brz. Radio Club Jahuense</p> <p>XL1K .05 Changchow, Chn.</p> <p>XSRC .01 Suchow, Chn.</p> <p>4RO .05 Rockhampton, Ausl. Montpellier, F. (1339)</p> <p>..... 5. Bremen, G.</p> <p>..... 2. Hanover, Ga.</p> <p>..... 2. Madgeburg, G.</p> <p>..... 2. Stettin, G.</p> <p>..... 2. Flensburg, G.</p> <p>..... 1.7 Lodz, Pol. (1339)</p>	<p><b>1370(218.8)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CX42 1. Montevideo, Uru. Colonial Brdctsg. Ave. Italia 3646, 11-24</p> <p>XHHA .05 Hangchow, Chn.</p> <p>3HS .05 Horsnam, Ausl.</p> <p>..... 5. Basle, Swi. (1375)</p> <p>..... 5. Berne, Swi. (1375)</p>	<p><b>1420(211.1)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CE142 .1 Santiago, Chl. (1425)</p> <p>S. Pitz y Cia (bldg.)</p> <p>CW44 .1 Paysandu, Uru.</p> <p>..... 8. Paris, F. (1424)</p> <p>Radio LL</p> <p>LS11 1. Buenos Aires, Arg.</p> <p>OFE .7 Tampere, Fin.</p> <p>IZ5 .05 Auckland, N. Z.</p> <p>3XY .05 Melbourne, Ausl.</p> <p>..... 1.5 Beziers, F. (1429)</p> <p>..... 5. Alexandria, Eg. (1429)</p> <p>..... 5. Turku, Fin. (1429)</p>
<p><b>1340(223.7)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CE134 .15 Santiago, Chl. (1345)</p> <p>Luis Desmaras Los Leones, Camelia 2860 (bldg.)</p> <p>CW40 .03 Paysandu, Uru.</p> <p>LKR .15 Rjukan, Nor. (1348)</p> <p>LT7 .04 Corrientes, Arg. Radio Provinciade Corrientas</p> <p>XGED .015 Suchow, Chn.</p> <p>XHHR .05 Shanghai, Chn.</p> <p>2RN .5 Dublin, I. F. S. (1348)</p>	<p><b>1380(217.3)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CE138 .5 Santiago, Chl. (1385)</p> <p>Radio Aliviol, Gumer-sindo 135 (bldg.)</p> <p>CW42 .02 Artigas, Uru.</p> <p>LU6 .05 Mar del Plata, Arg. Radio Atlantica</p> <p>PRF7 .5 Campos, Brz.</p> <p>XLHE .075 Shanghai, Chn.</p> <p>XLHF .05 Shanghai, Chn.</p> <p>4BH .6 Brisbane, Ausl.</p> <p>No. 2 2. Warsaw, Pol. (1384)</p> <p>..... 150. Motala, Sw. (1389) (testing)</p>	<p><b>1430(209.7)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CE143 .1 Magallanes, Chl. Santiago G. Aguilera. Valdivia 250</p> <p>HAE3 1.25 Miskolc, Hung. (1438)</p> <p>LP9 1.5 La Plata, Arg.</p> <p>LS11 .7 La Plata, Arg. Radio Prov. de Bs. Aires</p> <p>PRD7 .25 Sorocaba, Brz. Radio Club Sorocaba</p> <p>RW10 100. Minsk, U.S.R. (1438)</p> <p>2WL .05 Wollongong, Ausl. (1435)</p> <p>Russell Yeldon, Woon-gong Brdctsg. Co., "Ferranti Products".</p>
<p><b>1390(215.7)</b> <input style="width: 100px; height: 15px;" type="text"/></p> <p>CE139 .1 Rancagua, Chl. Jorge Romero, Ave.</p>		

## FOREIGN B. C. STATIONS BY FREQUENCIES

### 1440(208.2)

CW45 .03 Durazno, Uru.  
 OA6U .05 Arequipa, Peru (1443)  
 PRG4 .25 Jabotical, Brz. Radio Club Jabotical (1442)  
 XLHQ .03 Shanghai, Chn.  
 ZMO .05 Gunndeah, Ausl.  
 Spanish Common Wave (1447)

### 1450(206.8)

CE145 .1 Rancagua, Chl.  
 Guillermo Espinosa, Brasil 1174. 16-17; 19-20; 22-23  
 CX46 1.5 Montevideo, Uru. Radio America, Camino Corrales 2808. 10-24  
 XLIB .01 Suchow, Chn.  
 4ZW .06 Dunedin, N. Z. Clarke & Woods, 136 George St. Mon. to Fri., 8-11; 15-17; 19-23; Sat. 8-11; 15-17; 19-24; Sun., 12-14; 19-23  
 5MU .05 Murray Bridge, Ausl.  
 ..... 5. Paris, F. (1456) Eiffel Tower

### 1460(205.4)

CE146 ... Santiago, Chl.

Markoff Hnos.  
 Tucuaembo, Uru.  
 Pecs, Hun. (1465)  
 HA4 1.25 Antwerp, Belg. (1465)  
 ON4EB .1 Asuncion, Par. (1465)  
 ZP5 .15 Cairns, Ausl.  
 4CA ..... Ulverstone, Ausl.  
 7UV ..... Dresden, G. (1465)  
 ..... 1.5 Courtrai, Belg. (1465)  
 ..... 1. Bega, Ausl.

### 1470(204)

XOMO .25 Pei-ping, Chn.  
 3ZM .14 Christchurch, N. Z. Green & Younger, 253 Brougham St. Mon to Fri., 730-10; Tues. to Fri., 17-18; Mon., 19-22; Tues., 1845-22; Sat., 730-14; Sun., 11-14; 17-18; 19-22  
 ..... 3. Plymouth, G. B. (1474)  
 ..... 1. Bournemouth, G. B. (1474)

### 1480(202.6)

CW47 .1 Canclones, Uru. Rafael J. Espiga. 11-14; 16-23  
 XQHF .2 Shanghai, Chn.  
 2AY .05 Albury, Ausl. John Dower, 47 York St., (Sydney)

### 1490(201.2)

CX48 1.5 Montevideo, Uru. Clulow y Abella (now bldg.)  
 ON4CE .1 Chatelineau, Blg. (1492)  
 XLKS .02 Kashing, Chn.  
 No. 1 .1 Wallonia, Belg. (1492)  
 2TM .05 Tamworth, Ausl.  
 ..... 1. Binche, Blg. (1492)  
 ..... 2. Nimes, F. (1492)  
 ..... 1. Courtrai, Belg.  
 Spanish Common Wave (1492)  
 See EAJ in Index by Calls

### 1500(199.9)

PRG6 .25 Cruzeiro, Brz. Soc. Radio Manti-queira  
 XOCL .0075 Tsinan, Chn.  
 3AK .05 Melbourne, Ausl. Hobart, Ausl.  
 ..... 25. Pietersaari, Fin.  
 ..... 2. Radio Alcalá, Sp.  
 Belgium has several 100 watt stations on 1500.

### 1530(196.0)

SCJ .2 Karlskrona, Swe.

## FOREIGN B. C. STATIONS BY LOCATIONS

### SOUTH AMERICA

#### ARGENTINA

**Bahia Blanca**  
 LU2 800 500  
 LU7 1280 200  
**Buenos Aires**  
 LR1 1070 500  
 LR2 910 000  
 LR3 950 12000  
 LR4 990 12000  
 LR5 830 16000  
 LR6 870 16000  
 LR7 750 1000  
 LR8 1150 5000  
 LR9 1030 5000  
 LR10 790 8000  
 LS1 710 5000  
 LS2 1190 25000  
 LS3 630 4500  
 LS4 670 6000  
 LS5 1110 4500  
 LS6 1350 3500  
 LS7 1310 3000  
 LS8 1230 20000  
 LS9 1270 5000  
 LS10 590 5000  
**Cordoba**  
 LV2 880 7000  
 LV3 620 2000  
**Corrientes**  
 LT7 1340 40  
**La Plata**  
 LP9 1430 1500  
 LR11 1390 1000  
 LS11 1430 700

**La Rioja**  
 LV14 1240 200  
**Mar del Plata**  
 LU6 1380 500  
**Mendoza**  
 LT4 760 200  
 LV10 860 500  
**Parana**  
 LT11 1260 250  
**Resistencia**  
 LT5 1160 500  
**Rosario**  
 LT1 780 5000  
 LT3 1080 3500  
 LT8 840 350  
**Salta**  
 LV9 900 500  
**San Juan**  
 LV1 730 1500  
 LV5 1120 700  
**Santa Fe**  
 LT9 1060 200  
 LT10 1300 100  
**Tucuman**  
 LV7 820 500

#### BOLIVIA

**La Paz**  
 CPX 1300 5000  
 CP4 1040 10000

#### BRAZIL

**Arraaraquara**  
 PRD4 1364 250  
**Bahia**  
 PRA4 840 500

**Bauru**  
 PYG8 1250 250  
**Belem**  
 PRC5 1360 100  
**Bello Horizonte**  
 PRC7 1090 250  
**Campinas**  
 PRC9 1175 250  
**Campoos**  
 PRF7 1380 500  
**Cruzeiro**  
 PRG6 1500 250  
**Curitiba**  
 PRB2 882 250  
**Fortaleza**  
 PRE9 1315 500  
**Franca**  
 PRB5 1415 50  
**Jabotical**  
 PRG4 1442 250  
**Juiz de Fora**  
 PRB3 857 250  
**Niterroy**  
 PRD8 1132 1000  
**Pelotas**  
 PRC3 920 250  
**Pernambuco**  
 PRA8 750 3000  
**Porto Alegre**  
 PRC2 1090 3000  
 PRE9 1360 500  
**Recife**  
 PRA8 750 300  
**Rio Claro**  
 PRF2 725 250  
**Rio de Janeiro**  
 PRA2 750 1500  
 PRA3 860 2500

**PRA9** 1000 1000  
**PRB7** 800 500  
**PRC6** 980 1000  
**PRC8** 1030 1000  
**PRD2** 932 1000  
**PRD5** 1400 1000  
**PRE2** 1330 500  
**PRE3** 1220 1000  
**PRE4** 940 250  
**PRE8** 1270 7000  
**PRF4** 923 10000  
**PRF6** 1050 10000  
**PRG3** 1280 10000  
**Santos**  
**PRB4** 960 1000  
**PRG5** 720 750  
**Sao Paulo**  
**PRA5** 1295 5000  
**PRA6** 815 10000  
**PRA7** 706 50  
**PRB6** 1170 1000  
**PRB8** 1000 50  
**PRB9** 1017 5000  
**PRC4** 1304 50  
**PRE7** 788 5000  
**PRF3** 900 5000  
**PRG9** 1220 500  
**PRH3** 1120 10000  
**PYG2** 1070 10000  
**Sorocaba**  
**PRD7** 1430 250  
**PRD9** 769 250  
**Taubate**  
**PRD3** 1207 250  
**Uberaba**  
**PRE5** 1410 250  
**PRE6** 740 1500

**FOREIGN B. C. STATIONS BY LOCATIONS**

<b>CHILE</b>	<b>Medellin</b>	<b>Paysandu</b>	<b>BULGARIA</b>
Concepcion	HJ4ABK 1230 300	CW35 1240 250	Sofia 850 1000
CE108 1085 100	<b>ECUADOR</b>	CW39 1320 100	<b>CZECHOSLOVAKIA</b>
CE124 1245 100	Guyaquil	CW40 1340 30	Bratislava
CE141 1410 100	HC2ET 1153 300	CW44 1420 100	OKR 1004 13500
Curico	HC2JB 1250 30	<b>Rocha</b>	Brno 922 32000
CE120 1205 100	<b>PARAGUAY</b>	CW19 920 50	Kosice 1158 2600
Magallanes	Asuncion	<b>Salto</b>	Moravska
CE104 1040 100	ZP1 1135 500	CW23 1000 250	OKK 1113 11200
CE119 1190 100	ZP3 1000 300	CW27 1080 250	Praha 633 120000
CE143 1430 100	ZP4 1275 150	CW31 1160 250	No. 2 1204 5000
Osorno	ZP5 1465 150	CW32 1180 250	<b>DANZIG</b>
CE111 1115 100	ZP7 1083 700	CW34 1220 250	Danzig 1303 500
CE133 1335 100	ZP9 898 1500	CW36 1260 30	<b>DENMARK</b>
Rancagua	Villarrica	CW38 1300 30	Copenhagen 1176 10000
CE139 1390 100	ZP15 700	<b>San Jose</b>	<b>ESTONIA</b>
CE145 1450 100	<b>PERU</b>	CW41 1360 50	Tallinn 731 20000
San Antonio	Arequippa	Tucuaurembo	Tartu 517 500
CE135 1355 100	OA6D 1400 150	CW30 1140	<b>FINLAND</b>
San Felipe	OA6E 1350 30	CW46 1460 30	Helsinki
CE112 1120 100	OA6U 1443 50	<b>VENEZUELA</b>	OFA 895 10000
Santiago	Lima	Caracas	Pietersaari 1500 250
CE58 585 1000	OAX4A 750 1500	YV1RC 960 5000	Pori 749 1000
CE62 625 1000	OAX4B 1200	YV3RC 1200 3000	Sortavala 749 200
CE66 665 1000	OAX4C 1300	YV4RC 750 100	Tampere
CE70 705 1000	OAX4E 980 50	Maracaibo	OFE 1420 700
CE78 785 1000	OAX4F 1080 50	YV5RMO 1300 150	Turku 1429 500
CE82 825 1000	OAX4K 1360 150	YV7RMO 1153 500	Viiipuri 527 10000
CE86 865 500	OA40 1277 100	YV11RMO 1034 500	<b>FRANCE</b>
CE88 865 500	OA4D 1210 25	Valencia	Beziers 1429 1500
CE90 905 1000	<b>URUGUAY</b>	YV6RV 670 350	Bordeaux 1077 30000
CE94 945 1000	Artigas	<b>EUROPE</b>	Grenoble 583 15000
CE98 985 1000	CW42 1380 20	<b>AUSTRIA</b>	Lille 1213 60000
CE100 1005 500	Canelones	Dornbirn 1294 500	Limoges 913 500
CE102 1025 100	CW47 1480 100	Graz 886 15000	Lyons 648 100000
CE106 1065 1000	Colonia	Innsbruck 519 1000	RL 1393 5000
CE110 1105 1000	CW9 720 120	Klangenfurt 1294 4200	Marseilles 749 5000
CE114 1145 100	CW37 1280 25	Linz 1294 1500	Montpellier 1339 5000
CE118 1185 1000	Durazno	Salzburg 1348 500	Nice 1249 2000
CE122 1225 1000	CW25 1040 500	Vienna 592 120000	Nimes 1492 200
CE126 1265 100	CW45 1440 30	Vorarlberg 1294 5000	Paris 868 600
CE131 1315 100	Florida	<b>EUROPE</b>	FPTT 695 7000
CE134 1345 150	Melo	<b>AUSTRIA</b>	
CE138 1385 500	CW43 1400 20	Dornbirn 1294 500	
CE142 1425 100	Mercedes	Graz 886 15000	
CE146 1460	CW29 1120 50	Innsbruck 519 1000	
Talcahuano	Montevideo	Klangenfurt 1294 4200	
CE87 875 100	CX2 570	Linz 1294 1500	
Talea	CX4 610 1000	Salzburg 1348 500	
CE115 1155 100	CX6 650 10000	Vienna 592 120000	
Temuco	CX8 690 10000	Vorarlberg 1294 5000	
CE128 1285 500	CX10 730 1000	<b>BELGIUM</b>	
Valdivia	CX12 770 1000	Antwerp	
CE103 1035 100	CX14 810 5000	ON4EB 1465 100	
Valparaiso	CX16 850 1000	Binche 1492 100	
CE76 765 10000	CX18 890 750	Brussels 1492 100	
CE81 810 1000	CX20 930 2000	No. 1 620 15000	
CE88 885 1000	CX22 970 250	No. 2 932 15000	
CE105 1050 1000	CX24 1010 2500	Chattelineau	
CE109 1090 105	CX26 1050 2000	ON4CE 1492 100	
CE117 1170 250	CX28 1090 3000	Courtrai 1465 100	
CE125 1250 1000	CX30 1130 500	Liege 1465 100	
Vina del Mar	CX32 1170 500	ON4RW 1500 100	
CE73 730 1000	CX34 1210 500	Radio Comte 1500 100	
CE101 1010 1000	CX36 1250 250	Seraing 1500 100	
<b>COLOMBIA</b>	CX38 1290 500	Verviers 1500 100	
Armenia	CX40 1330 500	No. 1 1500 100	
HJ4ABJ 1000 50	CX42 1370 1000	No. 2 1500 100	
Barranquilla	CX44 1410 200	Wallonia	
HJ1ABA 1330 100	CX46 1450 1500	No. 1 1492 100	
Bogota	CX48 1490 1500	No. 2 1500 100	
HJN 681 500			
HJ3ABD 1100 50			
HJ3ABE 1200 1000			
HJ3ABH 1005 2000			
HJ3ABK 1320 50			
Cartagena			
HJ1ABM 1154 500			

## FOREIGN B. C. STATIONS BY LOCATIONS

<table style="width: 100%; border-collapse: collapse;"> <tr><td>ILLE</td><td>1348</td><td>2000</td></tr> <tr><td>LL</td><td>1424</td><td>800</td></tr> <tr><td>PP</td><td>959</td><td>60000</td></tr> <tr><td>Eiffel</td><td>1456</td><td>5000</td></tr> <tr><td colspan="3"><b>Radio-Normandie</b></td></tr> <tr><td>.....</td><td>1113</td><td>10000</td></tr> <tr><td>Rennes</td><td>1040</td><td>40000</td></tr> <tr><td>Strasbourg</td><td></td><td></td></tr> <tr><td>SPTT</td><td>859</td><td>40000</td></tr> <tr><td>Toulouse</td><td></td><td></td></tr> <tr><td>.....</td><td>776</td><td>2000</td></tr> <tr><td>.....</td><td>913</td><td>60000</td></tr> <tr><td colspan="3" style="text-align: center;"><b>GERMANY</b></td></tr> <tr><td>Berlin</td><td>841</td><td>100000</td></tr> <tr><td>Bremen</td><td>1330</td><td>1500</td></tr> <tr><td>Breslau</td><td>950</td><td>100000</td></tr> <tr><td>Cassel</td><td>1195</td><td>1500</td></tr> <tr><td>Coblenz</td><td>1195</td><td>2000</td></tr> <tr><td>Cologne</td><td>658</td><td>100000</td></tr> <tr><td>Dresden</td><td>1285</td><td>250</td></tr> <tr><td>Flensburg</td><td>1330</td><td>1500</td></tr> <tr><td>Frankfurt</td><td>1195</td><td>17000</td></tr> <tr><td>Freiburg</td><td>1195</td><td>5000</td></tr> <tr><td>Gleiwitz</td><td>1231</td><td>5000</td></tr> <tr><td>Hamburg</td><td>904</td><td>100000</td></tr> <tr><td>Hanover</td><td>1330</td><td>1500</td></tr> <tr><td>Kaiserslautern</td><td>1195</td><td>1500</td></tr> <tr><td>Konigsberg</td><td>1031</td><td>60000</td></tr> <tr><td>.....</td><td>1348</td><td>1500</td></tr> <tr><td>Leipzig</td><td>785</td><td>120000</td></tr> <tr><td>Magdeburg</td><td>1330</td><td>1500</td></tr> <tr><td>Munich</td><td>740</td><td>100000</td></tr> <tr><td>Nurnberg</td><td>1267</td><td>2000</td></tr> <tr><td>Stettin</td><td>1330</td><td>1500</td></tr> <tr><td>Stuttgart</td><td>574</td><td>100000</td></tr> <tr><td>Trier</td><td>1195</td><td>2000</td></tr> <tr><td colspan="3" style="text-align: center;"><b>GREAT BRITAIN</b></td></tr> <tr><td>Aberdeen</td><td>1285</td><td>1000</td></tr> <tr><td>Belfast</td><td>977</td><td>1000</td></tr> <tr><td>Bournemouth</td><td>1474</td><td>1000</td></tr> <tr><td>Cardiff</td><td></td><td></td></tr> <tr><td>WR</td><td>804</td><td>50000</td></tr> <tr><td>WN</td><td>1149</td><td>20000</td></tr> <tr><td>Davenport</td><td></td><td></td></tr> <tr><td>MR</td><td>1013</td><td>50000</td></tr> <tr><td>Falkirk</td><td></td><td></td></tr> <tr><td>SN</td><td>1050</td><td>50000</td></tr> <tr><td>SR</td><td>767</td><td>50000</td></tr> <tr><td>London</td><td></td><td></td></tr> <tr><td>LN</td><td>1149</td><td>20000</td></tr> <tr><td>LR</td><td>877</td><td>50000</td></tr> </table>	ILLE	1348	2000	LL	1424	800	PP	959	60000	Eiffel	1456	5000	<b>Radio-Normandie</b>			.....	1113	10000	Rennes	1040	40000	Strasbourg			SPTT	859	40000	Toulouse			.....	776	2000	.....	913	60000	<b>GERMANY</b>			Berlin	841	100000	Bremen	1330	1500	Breslau	950	100000	Cassel	1195	1500	Coblenz	1195	2000	Cologne	658	100000	Dresden	1285	250	Flensburg	1330	1500	Frankfurt	1195	17000	Freiburg	1195	5000	Gleiwitz	1231	5000	Hamburg	904	100000	Hanover	1330	1500	Kaiserslautern	1195	1500	Konigsberg	1031	60000	.....	1348	1500	Leipzig	785	120000	Magdeburg	1330	1500	Munich	740	100000	Nurnberg	1267	2000	Stettin	1330	1500	Stuttgart	574	100000	Trier	1195	2000	<b>GREAT BRITAIN</b>			Aberdeen	1285	1000	Belfast	977	1000	Bournemouth	1474	1000	Cardiff			WR	804	50000	WN	1149	20000	Davenport			MR	1013	50000	Falkirk			SN	1050	50000	SR	767	50000	London			LN	1149	20000	LR	877	50000	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Manchester</td><td></td><td></td></tr> <tr><td>NN</td><td>1149</td><td>20000</td></tr> <tr><td>NR</td><td>668</td><td>50000</td></tr> <tr><td>Newcastle</td><td></td><td></td></tr> <tr><td>.....</td><td></td><td>1000</td></tr> <tr><td>Plymouth</td><td></td><td></td></tr> <tr><td>.....</td><td>1474</td><td>300</td></tr> <tr><td colspan="3" style="text-align: center;"><b>HOLLAND</b></td></tr> <tr><td>Hilversum</td><td></td><td></td></tr> <tr><td>PFBI</td><td>995</td><td>20000</td></tr> <tr><td colspan="3" style="text-align: center;"><b>HUNGARY</b></td></tr> <tr><td>Budapest</td><td></td><td></td></tr> <tr><td>HAL</td><td>546</td><td>120000</td></tr> <tr><td>Magyarovar</td><td></td><td></td></tr> <tr><td>HAE-2</td><td>1321</td><td>1250</td></tr> <tr><td>Miskolc</td><td></td><td></td></tr> <tr><td>HAE-3</td><td>1438</td><td>1250</td></tr> <tr><td>Nyiregyhaza</td><td></td><td></td></tr> <tr><td>HAE</td><td>1122</td><td>6200</td></tr> <tr><td>Pecs</td><td></td><td></td></tr> <tr><td>HAE-4</td><td>1465</td><td>1250</td></tr> <tr><td colspan="3" style="text-align: center;"><b>IRISH FREE STATE</b></td></tr> <tr><td>Athlone</td><td></td><td></td></tr> <tr><td>.....</td><td>565</td><td>60000</td></tr> <tr><td>Cork</td><td></td><td></td></tr> <tr><td>6CK</td><td>1240</td><td>1000</td></tr> <tr><td>Dublin</td><td></td><td></td></tr> <tr><td>2RN</td><td>1348</td><td>500</td></tr> <tr><td colspan="3" style="text-align: center;"><b>ITALY</b></td></tr> <tr><td>Bari</td><td></td><td></td></tr> <tr><td>11BA</td><td>1059</td><td>20000</td></tr> <tr><td>Bolzano</td><td></td><td></td></tr> <tr><td>11BZ</td><td>536</td><td>10000</td></tr> <tr><td>Firenze</td><td></td><td></td></tr> <tr><td>11FI</td><td>610</td><td>20000</td></tr> <tr><td>Genoa</td><td></td><td></td></tr> <tr><td>11GE</td><td>986</td><td>10000</td></tr> <tr><td>Milan</td><td></td><td></td></tr> <tr><td>11MI</td><td>814</td><td>50000</td></tr> <tr><td>No. 2</td><td>1348</td><td>4000</td></tr> <tr><td>Naples</td><td></td><td></td></tr> <tr><td>11NA</td><td>1104</td><td>1500</td></tr> <tr><td>Palermo</td><td></td><td></td></tr> <tr><td>11PA</td><td>565</td><td>4000</td></tr> <tr><td>Rome</td><td></td><td></td></tr> <tr><td>11RO</td><td>713</td><td>50000</td></tr> <tr><td>No. 3</td><td>1258</td><td>1000</td></tr> <tr><td>Trieste</td><td></td><td></td></tr> <tr><td>11TR</td><td>1222</td><td>10000</td></tr> <tr><td>Turin</td><td></td><td></td></tr> <tr><td>11TO</td><td>1140</td><td>7000</td></tr> <tr><td>No. 2</td><td>1357</td><td>200</td></tr> <tr><td colspan="3" style="text-align: center;"><b>LATVIA</b></td></tr> <tr><td>Kuldiga</td><td></td><td></td></tr> <tr><td>.....</td><td>1258</td><td>10000</td></tr> <tr><td>Madonna</td><td></td><td></td></tr> <tr><td>.....</td><td>1104</td><td>50000</td></tr> <tr><td>Riga</td><td></td><td></td></tr> <tr><td>YLZ</td><td>583</td><td>15000</td></tr> <tr><td colspan="3" style="text-align: center;"><b>NORWAY</b></td></tr> <tr><td>Aalesund</td><td></td><td></td></tr> <tr><td>LKA</td><td>850</td><td>350</td></tr> <tr><td>Bergen</td><td></td><td></td></tr> <tr><td>LKB</td><td>850</td><td>1000</td></tr> <tr><td>Bodo</td><td></td><td></td></tr> <tr><td>LKD</td><td>686</td><td>500</td></tr> <tr><td>Fredrikstad</td><td></td><td></td></tr> <tr><td>LKF</td><td>776</td><td>700</td></tr> <tr><td>Hamar</td><td></td><td></td></tr> <tr><td>LKH</td><td>519</td><td>700</td></tr> </table>	Manchester			NN	1149	20000	NR	668	50000	Newcastle			.....		1000	Plymouth			.....	1474	300	<b>HOLLAND</b>			Hilversum			PFBI	995	20000	<b>HUNGARY</b>			Budapest			HAL	546	120000	Magyarovar			HAE-2	1321	1250	Miskolc			HAE-3	1438	1250	Nyiregyhaza			HAE	1122	6200	Pecs			HAE-4	1465	1250	<b>IRISH FREE STATE</b>			Athlone			.....	565	60000	Cork			6CK	1240	1000	Dublin			2RN	1348	500	<b>ITALY</b>			Bari			11BA	1059	20000	Bolzano			11BZ	536	10000	Firenze			11FI	610	20000	Genoa			11GE	986	10000	Milan			11MI	814	50000	No. 2	1348	4000	Naples			11NA	1104	1500	Palermo			11PA	565	4000	Rome			11RO	713	50000	No. 3	1258	1000	Trieste			11TR	1222	10000	Turin			11TO	1140	7000	No. 2	1357	200	<b>LATVIA</b>			Kuldiga			.....	1258	10000	Madonna			.....	1104	50000	Riga			YLZ	583	15000	<b>NORWAY</b>			Aalesund			LKA	850	350	Bergen			LKB	850	1000	Bodo			LKD	686	500	Fredrikstad			LKF	776	700	Hamar			LKH	519	700	<table style="width: 100%; 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For complete list see Index by Calls.			<b>SWEDEN</b>			Falun			SCC	1086	2000	Goteborg			SBB	941	10000	Horby			SBH	1131	10000	Kariskrona			SCJ	1530	200	<table style="width: 100%; border-collapse: collapse;"> <tr><td>Karlstad</td><td>1312</td><td>250</td></tr> <tr><td>Malmö</td><td></td><td></td></tr> <tr><td>SBC</td><td>1312</td><td>1250</td></tr> <tr><td>Motala</td><td></td><td></td></tr> <tr><td>.....</td><td>1389</td><td>15000</td></tr> <tr><td>Norrköping</td><td></td><td></td></tr> <tr><td>SCO</td><td>1312</td><td>250</td></tr> <tr><td>Stockholm</td><td></td><td></td></tr> <tr><td>SBA</td><td>704</td><td>55000</td></tr> <tr><td>Sundsvall</td><td></td><td></td></tr> <tr><td>SBD</td><td>601</td><td>10000</td></tr> <tr><td>Trollhattan</td><td></td><td></td></tr> <tr><td>SCQ</td><td>1312</td><td>250</td></tr> <tr><td colspan="3">Swedish Common Wave 1402. See Index by Calls.</td></tr> <tr><td colspan="3" style="text-align: center;"><b>SWITZERLAND</b></td></tr> <tr><td>Basle</td><td></td><td></td></tr> <tr><td>.....</td><td>1375</td><td>500</td></tr> <tr><td>Berne</td><td></td><td></td></tr> <tr><td>.....</td><td>1375</td><td>500</td></tr> <tr><td>Beremunster</td><td></td><td></td></tr> <tr><td>.....</td><td>556</td><td>100000</td></tr> <tr><td>Monte Ceneri</td><td></td><td></td></tr> <tr><td>.....</td><td>1167</td><td>15000</td></tr> <tr><td>Sottens</td><td></td><td></td></tr> <tr><td>.....</td><td>677</td><td>25000</td></tr> <tr><td colspan="3" style="text-align: center;"><b>U. S. S. 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## FOREIGN B. C. STATIONS BY LOCATIONS

..... 1348	500	4BH 1380	600	Melbourne		Wagga	
<b>KENYA</b>		4BK 1290	300	3AK 1500	50	2WG 1150	50
Nairobi		4QG 800	2500	3AR 630	4500	Warwick	
VQ7LO 858	600	<b>Broken Hill</b>		3AW 1280	600	4WK 900	50
<b>MOROCCO</b>		2BH 1360	100	3DB 1030	600	Wollongong	
Casablanca		Bunbury		3KZ 1180	600	2WL 1430	50
CNO 983	25	6BY 980	50	3LO 770	3500	<b>NEW ZEALAND</b>	
Rabat		Burnie		3UZ 930	600	<b>Auckland</b>	
CNR 601	25000	7BU 1360	.....	3XY 1420	.....	1YA 650	10000
<b>SOUTH RHODESIA</b>		4CA 1470	.....	3YB 1060	.....	1YX 880	500
Salisbury		Canberra		Minding		1ZB 1090	200
..... 681.8	1500	2CA 1050	500	6WA 560	10000	Balclutha	
<b>TUNISIA</b>		Clevedon		Murray Bridge		4ZR 1340	5
Tunis		4QN 600	7000	5MU 1450	50	Christchurch	
TUA 1275	500	2CO 670	7500	Mildura		3YA 720	10000
<b>UNION S. AFRICA</b>		Crystal Brook		3MA 900	50	3YL 1200	500
Bloemfontaine		5CK 640	7500	Newcastle		3ZM 1470	140
ZTB 790	500	5PI 1040	2000	2HD 1140	500	Cromwell	
Cape Town		2CR 550	10000	2KO 1410	500	4ZC 1280	7
ZTC 600	10000	Geelong		2NC 1230	2000	Dunedin	
Durban		3GL 1350	50	Northam		4YA 790	500
ZTD 750	1500	Gippsland		6AM 1070	500	4YO 1140	200
Grahamstown		3GI 830	7000	Northern Rivers		4ZB 1010	70
ZTG 560	10000	Goulburn		2NR 700	.....	4ZL 1220	100
Johannesburg		2GN 1390	100	Perth		4ZM 1010	100
ZTJ 645	10000	Grafton		61X 1400	300	4ZO 1010	25
Maritzburg		2GF 1210	50	6ML 1130	300	4ZW 1450	60
..... 750	10000	..... 660	7000	6PR 880	500	Gisborne	
Pretoria		Gunnedah		6WF 690	3500	2ZJ 980	250
ZTP 952	500	2MO 1440	50	Port Moresby		2ZM 1150	17
<b>OCEANIA</b>		Hamilton		4PM 1360	100	Greymouth	
AUSTRALIA		3HA 1010	300	Renmark		3ZE 1300	50
Adelaide		Hobart		5RM 850	1000	3ZR 940	400
5AD 1310	300	7HO 820	50	Rockhampton		Hastings	
5CL 730	2000	7ZL 590	1000	4RK 910	2000	2ZL 1240	50
5DN 960	300	..... 1500	.....	4RO 1330	50	Invercargill	
5KA 1200	300	Horsham		Sale		4ZP 620	500
Albury		3IIS 1370	50	3TR 1240	250	Manurewa	
2AY 1480	50	3WV 580	10000	Shepparton		1ZM 1260	50
Ayr		Kalgoorlie		3WR 1260	60	Masterton	
4AY 980	30	6GF 720	2000	Swan Hill		2ZD 1170	8
Ballarat		6KG 1210	500	3SH 1080	50	Napier	
3BA 1320	50	Katoomba		Sydney		2ZH 820	65
Bega		2KB 1070	.....	2BL 740	3000	Nelson	
..... 1470	.....	Keiso		2CH 1180	1000	2ZR 920	50
Bendigo		7NT 750	7000	2FC 610	3500	New Plymouth	
3BO 970	200	Launceston		2GB 870	1000	2YB 760	100
Brisbane		7LA 1100	300	2KY 1020	1000	Palmerston N.	
4BC 1120	850	7L 630	7000	2SM 1270	1000	2ZF 960	150
		Laurence		2UE 950	1000	2ZO 1400	100
		2NR 700	7000	2UW 1110	750	Wairoa	
		Lismore		Tamworth		2ZP 900	150
		2XN 1340	50	2TM 1300	50	Wellington	
		Mackay		Toowoomba		2YA 570	5000
		4MK 1160	100	4GR 1000	300	2YC 840	200
		Maryborough		Townsville			
		4MB 1060	50	4TO 1170	200		
				Ulverstone			
				U7V 1460	300		

## FOREIGN B. C. STATIONS BY CALLS

CE58	585	CE101	1010	CE120	1205	CE146	1460	CW32	1180	CX2	570	CX34	1210
CE62	625	CE102	1020	CE122	1220	CNO	983	CW33	1200	CX4	610	CX36	1250
CE66	656	CE103	1035	CE124	1245	CNR	601	CW34	1220	CX6	650	CX38	1290
CE70	705	CE104	1040	CE125	1255	COA	1175	CW35	1240	CX8	690	CX40	1330
CE73	730	CE105	1050	CE126	1265	CPX	1300	CW36	1260	CX10	730	CX42	1370
CE76	765	CE106	1065	CE128	1285	CPA	1040	CW37	1280	CX12	770	CX44	1410
CE78	785	CE108	1085	CE131	1315	CT1AA	629	CW38	1300	CX14	810	CX46	1450
CE81	805	CE109	1090	CE133	1335	CT1GL	1031	CW39	1320	CX16	850	CX48	1490
CE82	825	CE110	1105	CE134	1345	CW9	720	CW40	1340	CX18	890	EAJ1	795
CE86	865	CE111	1115	CE135	1355	CW19	920	CW41	1360	CX20	930	EAJ2	731
CE87	875	CE112	1120	CE138	1380	CW23	1000	CW42	1380	CX22	970	EAJ3	850
CE88	885	CE114	1345	CE139	1390	CW25	1040	CW43	1400	CX24	1010	EAJ4	1492
CE90	905	CE115	1155	CE141	1410	CW27	1080	CW44	1420	CX26	1050	EAJ5	731
CE94	945	CE117	1170	CE142	1425	CW29	1120	CW45	1440	CX28	1090	EAJ6	1492
CE98	985	CE118	1185	CE143	1430	CW30	1140	CW46	1460	CX30	1130	EAJ7	1095
CE100	1005	CE119	1190	CE145	1450	CW31	1160	CW47	1480	CX32	1170		

FOREIGN B. C. STATIONS BY CALLS

EAJ8	1258	JOCG	655	LV5	1120	PRG4	1442	SCQ	1312	XLIB	1450	2ZH	820
EAJ9	1492	JOCK-1	810	LV7	820	PRG5	720	SCR	1402	XLIF	1170	2ZJ	1240
EAJ10	1492	JOCK-2	1175	LV9	900	PRG6	1500	SCS	1402	XLIJ	1310	2ZL	1900
EAJ11	1500	JODG	635	LV10	860	PRG7	1330	SCU	1402	XLIK	1330	2ZM	1150
EAJ12	1492	JODK-1	900	LV14	1240	PRG9	1220	SCV	1402	XLKB	1230	2Z0	1400
EAJ13	1492	JODK-2	610	MOHB	674	PRH3	1120	SCW	1402	XLKS	1490	2ZF	900
EAJ14	1500	JODG	990	MTAY	560	PGY2	1070	SCW	1402	XLWU	1250	2ZR	920
EAJ15	1022	JOFK	850	MTBY	890	PGY8	1250	SPTT	859	XMHA	600	3AK	1500
EAJ16	1492	JOJK	790	MTCY	560	RW9	722	TUA	1275	XMHB	980	3AB	630
EAJ17	1492	JOHK	770	MTFY	674	RW10	722	VPB	700	XMHC	700	3AW	1280
EAJ19	1022	JOIK	830	OAX4A	750	RW16	710	VQ7LO	858	XOCL	1500	3BA	1320
EAJ20	1492	JOJK	710	OAX4B	1200	RW18	610	VUB	855	XOMO	1470	3BO	970
EAJ21	1492	JOJK	700	OAX4C	1300	RW17	686	VUC	810	XOPP	952.8	3DB	1030
EAJ23	1492	JOLK	680	OAX4E	980	RW20	1185	VUL	1200	XOST	855	3GI	830
EAJ24	1492	JONK	940	OAX4F	1080	RW22	617	VUM	770	XOTY	1000	3GL	1350
EAJ25	1502	JOOK	960	OAAAR	1210	RW23	676	XDFY	1270	XQXC	1300	3HA	1010
EAJ26	1502	JOJK	780	OAX4K	1360	RW26	776	XGBL	870	XQHD	1360	3HS	1370
EAJ27	1492	JOJK	920	OAAO	1277	RW27	689	XGCK	990	XQHF	1480	3KZ	1180
EAJ29	1500	JORK	720	OAGD	1400	RW28	635	XGED	1340	XSRC	1330	3LO	770
EAJ30	1500	JOSK	735	OAGE	1350	RW28	725	XGKA	1140	XTOY	625	3MA	900
EAJ31	1492	JOTK	625	OAGU	1443	RW29	648	XGDZ	1470	YLZ	583	3MH	1080
EAJ32	1500	JOUK	645	OFA	895	RW30	913	XGGW	1150	YN	648	3TR	1240
EAJ33	1492	JOVK	680	OFD	749	RW31	625	XGKA	895	YNCRG	870	3UZ	930
EAJ34	1492	JOXK	980	OFE	1450	RW32	635	XGKT	1240	YNOP	1230	3WR	1260
EAJ35	1500	JQAK	650	OFH	527	RW33	1050	XGLS	1230	YVIRC	960	3WV	580
EAJ36	1500	KZEG	780	OKB	922	RW34	522	XGML	714.3	YV3RC	1200	3XY	1420
EAJ37	1500	KZIB	900	OKK	1113	RW35	598	XGPA	660	YV4RC	750	3YA	720
EAJ38	1500	KZRM	618.5	OKP	633	RW38	662	XGOC	1132	YV5RMO	1300	3YB	1060
EAJ39	1492	LKA	850	OKR	1004	RW39	832	XGOD	977.5	YV7RMO	1153	3YL	1200
EAJ40	1500	LKB	850	ONACE	1492	RW40	953	XGOE	1070	YV11RMO	1034	3ZE	1300
EAJ41	1492	LKD	686	ONACE	1500	RW41	563	XGOF	675	YV6RV	670	3ZM	1470
EAJ42	1492	LKF	776	ONABE	1492	RW42	565	XGOG	570	ZBW	845	3ZR	940
EAJ43	1492	LKH	519	ONARW	1500	RW46	653	XGOK	750	ZEK	620	4AY	980
EAJ44	1492	LKI	845	PFB1	995	RW46	653	XGOP	950	ZILY	900	4BC	1120
EAJ45	1500	LKK	1276	PP	959	RW46	686.5	XGOS	711	ZP1	1135	4BH	1380
EAJ46	1492	LKM	1186	PRA2	750	RW50	617	XGOT	1220	ZP4	1275	4BK	1290
EAJ47	1492	LKN	1357	PRA3	860	RW51	794	XGOW	1000	ZP5	1465	4BA	1470
EAJ48	1492	LKO	1181	PRA4	840	RW52	546	XGOY	1070	ZP9	898	4GR	1000
EAJ49	1500	LKP	850	PRA5	1295	RW54	959	XGSM	698	ZTB	790	4MB	1060
EAJ51	1492	LKR	1348	PRA6	815	RW55	932	XGSS	610	ZTC	600	4MK	1160
EAJ52	1492	LKS	1276	PRA7	706	RW56	640	XGTM	840	ZTD	750	4FP	1360
EAJ53	1492	LKT	629	PRA8	750	RW57	1068	XGUT	1270	ZTJ	645	4QN	800
EAJ55	1492	LP9	1430	PRA9	1000	RW61	888	XGWH	830	ZTP	952	4RK	910
F8GC	810	LR1	1070	PRB2	882	RW64	752	XGWT	1320	1YA	850	4RO	1330
F31CD	840	LR2	910	PRB3	857	RW65	734	XHGS	730	1YX	880	4TO	1170
HAE	1122	LR3	950	PRB4	960	RW67	968	XHHA	840	1ZB	1080	4WK	900
HAE2	1438	LR4	990	PRB5	1415	RW68	824	XHHA	1370	1ZM	1260	4YA	790
HAE3	1438	LR5	830	PRB6	1170	RW69	968	XHHB	740	2AY	1480	4YO	1140
HAE4	1465	LR6	870	PRB7	800	RW70	1040	XHHC	780	2BH	1360	4ZB	1010
HAL	546	LR7	750	PRB8	1000	RW71	689	XHHD	880	2BL	740	4ZC	1280
HAL2	1321	LR8	1150	PRB9	1017	RW73	859	XHHE	940	2CA	1050	4ZL	1220
HC2ET	1153	LR9	1030	PRC2	1090	RW74	680	XHHE	960	2CH	1190	4ZM	1010
HC2JB	1250	LR10	790	PRC3	920	RW75	1095	XHHE	1020	2CO	670	4ZO	1010
HJN	681	LR11	1390	PRC4	1304	RW78	767	XHHH	1040	2CR	550	4ZP	620
HJ1ABA	1330	LS1	710	PRC5	1364	RW79	610	XHHI	900	2FC	610	4ZR	1340
HJ1ABM	1154	LS2	1190	PRC6	980	RW82	608	XHHJ	1080	2GB	870	4ZW	1450
HJ3ABD	1100	LS3	630	PRC7	1090	RW84	635	XHHL	1140	2GF	1210	5AD	1310
HJ3ABE	1200	LS4	670	PRC8	1030	RW85	871	XHHM	1180	2GN	1390	5CK	640
HJ3ABH	1005	LS5	1150	PRC9	1175	RW86	1013	XHHN	1200	2HD	1140	5CL	730
HJ4ABJ	1000	LS6	1350	PRD2	932	SBA	704	XHPH	1260	2KB	1070	5DN	960
HJ4ABK	1230	LS7	1310	PRD3	1207	SBB	941	XHHS	1100	2KO	1410	5KA	1200
HSP1	857	LS8	1230	PRD4	1364	SCB	1312	XHHU	1160	2KY	1020	5MU	1450
H57PJ	882	LS9	1270	PRD5	1400	SBD	601	XHHV	860	2MO	1440	5P1	1040
11BA	1059	LS10	590	PRD7	1430	SBH	1131	XHHY	920	2NC	1230	5RM	850
11BZ	536	LS11	1430	PRD8	1132	SCA	1402	XHHY	1240	2NR	700	6AM	1070
11F1	610	LT1	780	PRD9	769	SCB	1402	XHKA	1050	2RN	1348	6BY	980
11GE	986	LT3	1080	PRE2	1330	SCC	1086	XHPA	1194	2SM	1270	6CK	1240
11M1	814	LT4	760	PRE3	1220	SCD	1402	XKRI	1071.4	2TM	1300	6GF	720
11NA	1104	LT5	1160	PRE4	941	SCE	1402	XLHB	560	2UE	950	6IX	1400
11PA	565	LT7	1340	PRE5	1410	SCF	1402	XLHD	720	2UW	1110	6KG	1210
11RO	713	LT8	840	PRE6	740	SCG	1402	XLHE	1380	2WG	1150	6ML	1130
11TO	1140	LT9	1060	PRE7	788	SCH	1402	XLHF	1380	2WL	1430	6PR	880
11TR	1222	LT10	1300	PRE8	1270	SCI	1402	XLHI	760	2XN	1340	6WA	560
JFAK	670	LT11	1260	PRE9	1315	SCJ	1530	XLHJ	760	2YA	570	6WF	1360
JFBK	720	LUO	750	PRF2	725	SCK	1312	XLHL	800	2YB	760	7HO	820
JOAG	930	LU2	800	PRF3	900	SCL	1402	XLHM	1120	2YC	840	7LA	1100
JOAK-1	870	LU6	1380	PRF4	923	SCM	1402	XLHO	1280	2ZD	1170	7NT	750
JOAK-2	590	LU7	1280	PRF6	1050	SCN	1312	XLHQ	1440	2ZF	960	7ZL	590
JOBG	970	LV1	730	PRF7	1380	SCO	1402	XLIA	1320				
JOBK-1	750	LV2	880	PRF9	1360	SCP	1402						
JOBK-2	1085	LV3	620	PRG3	1280								

530 kilocycles (565.7)

CJKL ak 1000 .... Kirkland Lake, Ont. E-.....

540 kilocycles (555.2)

CJRM ak 1000 F Moose Jaw, Sask. M-11:00-22:30

550 kilocycles (545.1)

CFNB ak 500	F (1)	Fredericton, N. B.	A-11:00-12:00; 14:00-00:30
KFUO ae 500	2 (1)	St. Louis, Mo.	C-8:30-13:00; 15:30-16:30; 21:15-22:15
KFYR ae 1000	N (5)	Bismarck, N. D.	C-8:00-24:00
KOAC ak 1000	....	Corvallis, Ore.	P-Silent
KSD ak 1000	2R	St. Louis, Mo.	C-13:00-15:30; 16:30-21:15
KTSA ak 1000	C (5)	San Antonio, Texas	C-7:30-24:00
WDEV ae 500	D	Waterbury, Vt.	E-10:45-12:00
WGR ck 1000	C	Buffalo, N. Y.	E-9:00-1:00
WKRC ak 1000	C	Cincinnati, Ohio	E-7:00-1:00
WSVA ak 500	D	Harrisonburg, Va.	E-10:30-ss

560 kilocycles (535.4)

KFDM ak 500	(1)	Beaumont, Texas	C-8:30-15:00; 18:00-22:00
KLZ ae 1000	C	Denver, Colo.	M-7:45-24:00
KSFO ak 1000	....	San Francisco, Calif.	P-8:30-1:00
KWTO ak 5000	D	Springfield, Mo.	C-7:00-17:45
TGW ak 10000	565	Guatemala City	C-12:00-14:30
WFL ak 1000	B	Philadelphia, Pa.	E-8:00-1:00
WIND ak 1000	(2.5)	Gary, Ind.	C-8:00-24:00
WNOX ak 1000	C (2)	Knoxville, Tenn.	C-7:30-23:30
WOAM ae 1000	C	Miami, Fla.	E-8:00-24:00
XEAO ak 250	(.15)	Mexicali, L. C.	P-7:00-23:00
XEFC ak 100	....	Merida, Yuc.	C-.....

570 kilocycles (526.0)

KGKO ak 250	C (1)	Wichita Falls, Tex.	C-8:00-23:30
KMTR ak 1000	....	Hollywood, Calif.	P-8:00-23:00
KVI ak 1000	C	Tacoma, Wash.	P-8:00-24:00
WKBN ae 500	1C	Youngstown, Ohio	E-9:00-24:00
WBCA ak 500	....	New York, N. Y.	E-9:00-2:00
WNAX ak 1000	C (5)	Yankton, S. D.	C-8:00-24:00
WOSU ak 750	I (1)	Columbus, Ohio	E-Silent
WSYR ak 250	B	Syracuse, N. Y.	E-8:00-24:00
WWNC ak 1000	N	Asheville, N. C.	E-8:00-1:00

580 kilocycles (516.9)

CFPR z 50	....	Prince Rupert, B. C.	P-.....
CHRC ak 100	F	Quebec, Que.	E-12:00-23:00
CKCL ae 100	F	Toronto, Ont.	E-11:00-14:00; 16:00-20:30
CKUA ak 500	....	Edmonton, Alta.	M-Silent
KMJ ak 1000	C	Fresno, Calif.	B-8:30-23:00
KSAC ak 500	2 (1)	Manhattan, Kans.	C-Silent
WGHS ak 500	(1)	Charleston, W. Va.	E-12:00-18:00
WDBO ae 1000	C	Orlando, Fla.	E-8:00-24:00
WIBW ak 1000	C2 (5)	Topeka, Kans.	C-8:00-24:00
WTAG ae 500	R	Worcester, Mass.	E-10:00-24:00

590 kilocycles (508.2)

KHQ ak 1000	N (2.5)	Spokane, Wash.	P-9:00-24:00
WEI ak 1000	R	Boston, Mass.	E-9:00-24:00
WKZO ae 1000	D	Kalamazoo, Mich.	E-9:00-18:00
WOW ae 1000	R (5)	Omaha, Neb.	C-6:30-00:30
XEPN ak 50000	....	Piedras Negras, Coah.	C-18:00-24:00

600 kilocycles (499.7)

CFCF ae 400	....	Montreal, Que.	E-12:30-23:00
CJOR ak 500	....	Vancouver, B. C.	P-10:30-21:50
CMW ak 1000	....	Havana, Cuba	E-10:00-15:00
CRCW z 500	F (1)	Windsor, Ont.	E-.....
FQN z 250	609	St. Pierre, Miquelon	L-.....

North American B. C. Stations by Frequencies with Sunday's Time on the Air

KFSD	ae	1000	N	San Diego, Calif.	P-8:00-24:00
WCAO	ak	500	2	Storrs, Conn.	E-Silent
WCAO	ae	500	C (1)	Baltimore, Md.	E-9:00-24:00
WICC	ae	500	2 C (1)	Bridgeport, Conn.	E-.....
WMT	ak	1000	B (2.5)	Cedar Rapids, Iowa	C-7:00-24:00
WREC	ak	1000	C (2.5)	Memphis, Tenn.	C-7:00-24:00

610 kilocycles (491.5)

KFRK	ck	1000	C (5)	San Francisco, Calif.	P-8:00-24:00
WDAF	ak	1000	R (5)	Kansas City, Mo.	C-8:00-23:00
WIP	ae	1000	.....	Philadelphia, Pa.	E-8:00-1:00
WJAY	ae	500	D	Cleveland, Ohio	E-8:00-17:45
XFX	ak	500	.....	Mexico City, D. F.	C-.....

620 kilocycles (483.6)

KGW	ak	1000	N (5)	Portland, Ore.	P-8:00-24:00
KTAR	ae	1000	N	Phoenix, Ariz.	M-8:00-23:15
WFLA	ae	1000	Na (5)	Clearwater, Fla.	E-8:00-24:00
WHJB	ak	250	D	Greensburg, Pa.	E-9:00-ss
WLBZ	ak	500	C (1)	Bangor, Maine	E-8:45-24:00
WSUN	ae	1000	Na (5)	St. Petersburg, Fla.	E-Silent
WTMJ	ae	1000	N (5)	Milwaukee, Wis.	C-7:30-00:30

630 kilocycles (475.9)

CFCO	ak	100	F	Chatham, Ont.	E-9:30-12:15; 13:30-15:00; 19:00-20:15
CFCY	ae	1000	F	Char't'wn, P.E.I.	A-11:00-12:15; 20:00-24:00
CJGX	ae	500	F	Yorkton, Sask.	C-16:00-22:00
CKOV	ak	100	F	Kelowna, B. C.	P-10:30-23:00; 00:00-1:30
KFRU	ak	500	I (1)	Columbia, Mo.	C-7:30-12:30; 14:30-ss; 19:00-21:00
KCFX	ak	200	D	Pierre, S. D.	C-.....
WCBF	ak	500	I	Evansville, Ind.	C-8:00-19:00
WMAL	ak	250	B (.5)	Washington, D. C.	E-8:00-24:00
WOS	ak	500	1D	Jefferson City, Mo.	C-Silent
WPRO	ak	250	.....	Providence, R. I.	E-9:00-24:00
XEZ	z	500	.....	Merida, Yuc.	C-.....

640 kilocycles (468.5)

CMBY	z	150	.....	Havana, Cuba	E-.....
KFI	ah	50000	N	Los Angeles, Calif.	P-8:00-23:00
WAIU	ae	500	.....	Columbus, Ohio	E-6:15-18:00
WOI	ae	5000	D	Ames, Iowa	C-Silent
XEOX	ak	250	.....	Saltillo, Coah.	C-.....

650 kilocycles (461.3)

WSM	ae	50000	N	Nashville, Tenn.	C-8:00-24:00
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660 kilocycles (454.3)

CMCX	z	150	.....	Havana, Cuba	E-.....
WAAW	ak	500	D	Omaha, Neb.	C-10:00-16:00
WEAF	ak	50000	R	New York, N. Y.	E-8:00-1:00

670 kilocycles (447.5)

WMAQ	ak	50000	N	Chicago, Ill.	C-8:00-1:00
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680 kilocycles (440.9)

CMCO	z	250	.....	Havana, Cuba	E-.....
KFEQ	ak	2500	D	St. Joseph, Mo.	C-8:00-17:45
KPO	ak	50000	N	San Francisco, Calif.	P-8:00-24:00
VAS	akn	2000	685	Glace Bay, N. S.	A-23:00-23:10; 00:00-00:10
VOWR	ck	500	681	St. John's, Nfld.	L-11:00-18:30
WPTF	ae	5000	DnN	Raleigh, N. C.	E-9:00-23:00

690 kilocycles (434.5)

CFRB	ak	10000	C	Toronto, Ont.	E-10:30-24:00
CJ CJ	ak	100	F	Calgary, Alta.	M-9:30-10:45; 18:00-19:15
NAA	akn	1000	.....	Arlington, Va.	E-10:10-10:15; 11:55-12:00; 21:55-22:05
XET	ak	500	.....	Monterrey, N. L.	C-10:00-14:00

### 700 kilocycles (428.3)

RDN	z	500	706	San Salvador, E. S.	L—.....
WLW	ak	50000	N	Cincinnati, Ohio	E—7:00-1:30

### 710 kilocycles (422.3)

KMPC	ak	500	.....	Beverly Hills, Calif.	P—7:00-18:00; 21:00-1:00
KPCB	ae	250	.....	Seattle, Wash.	P—5:30-ss; 22:00-4:00
WOR	ak	50000	.....	Newark, N. J.	E—10:00-00:30
XEN	ak	1000	.....	Mexico City, D. F.	C—9:00-10:00; 13:00-16:00; 19:00-24:00

### 720 kilocycles (416.4)

WGN	ak	50000	.....	Chicago, Ill.	C—9:00-1:30
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### 730 kilocycles (410.7)

CFPL	ak	100	F	London, Ont.	E—11:00-12:30; 18:30-23:30
CJCA	ah	1000	F	Edmonton, Alta.	M—10:45-16:00; 17:00-22:30
CKAC	ck	5000	C	Montreal, Que.	E—10:30-1:00

### 740 kilocycles (405.2)

KMMJ	ae	1000	D	Clay Center, Neb.	C—Irregular
KTRB	ak	250	D	Modesto, Calif.	P—8:30-17:30
WHEB	ak	250	D	Portsmouth, N. H.	E—9:00-18:00
WSB	ah	50000	N	Atlanta, Ga.	C—6:55-24:00

### 750 kilocycles (399.8)

CMCW	dk	150	.....	Havana, Cuba	E—.....
KGU	aj	2500	N	Honolulu, T. H.	L—8:45-22:30
WJR	ak	50000	C	Detroit, Mich.	E—8:00-24:00
XEAM	z	7.5	.....	Matamoros, Tams.	C—.....

### 760 kilocycles (394.5)

CMHX	ak	500	(.15)	Cienfuegos, Cuba	E—8:00-22:00
KXA	ae	250	(.5)	Seattle, Wash.	P—7:30-ss; 22:00-24:00
WBAL	ae	10000	BSy	Baltimore, Md.	E—8:00-1:00
WEW	ae	1000	D	St. Louis, Mo.	C—6:00-ss
WJZ	ck	50000	BSy	New York, N. Y.	E—8:00-1:00
XEOK	z	250	.....	Tijuana, L. C.	P—.....

### 770 kilocycles (389.4)

CMBS	ak	150	.....	Havana, Cuba	E—Silent
KFAB	ae	10000	CSy	Lincoln, Neb.	C—9:00-24:00
WBBM	ae	50000	CSy	Chicago, Ill.	C—7:45-1:30

### 780 kilocycles (384.4)

CHWK	dk	100	F	Chilliwack, B. C.	P—12:00-22:30
CKSO	ak	1000	F	Sudbury, Ont.	L—11:00-13:00; 17:00-23:00
CMJK	ak	250	.....	Camaguey, Cuba	E—Silent
KEHE	ak	500	2 (1)	Los Angeles, Calif.	P—6:00-10:00; 13:00-17:00; 20:00-4:00
KELW	ak	500	2	Burbank, Calif.	P—10:00-13:00; 17:00-20:00; 4:00-6:00
KFDY	ae	1000	D	Brookings, S. D.	C—Silent
KFOD	ck	250	.....	Anchorage, Alaska	L—17:00-19:00
KGHL	ak	1000	N (2.5)	Billings, Mont.	M—8:00-23:00
WEAN	ae	500	C	Providence, R. I.	E—8:00-1:00
WMC	ak	1000	N (2.5)	Memphis, Tenn.	C—6:45-24:00
WTAR	ae	500	N (1)	Norfolk, Va.	E—8:30-24:00
XEYZ	z	10000	.....	Mexico City, D. F.	C—10:00-23:00

### 790 kilocycles (379.5)

CMOA	z	150	.....	Havana, Cuba	E—.....
KGO	ak	7500	N	San Francisco, Calif.	E—8:00-24:00
WGY	ak	50000	R	Schenectady, N. Y.	E—9:00-00:30

### 800 kilocycles (374.8)

WBAP	ak	50000	Na	Fort Worth, Tex.	C-10:00-12:00; 15:00-18:00; 21:00-23:30
WFAA	ak	50000	Na	Dallas, Tex.	C-8-10; 12-15; 18-21; 23:30-24:00
WTBO	ak	250	D	Cumberland, Md.	E-11:00-ss

### 810 kilocycles (370.2)

CMCF	ak	250	815	Havana, Cuba	E-12:00-14:00
CMHW	dk	100	.....	Cienfuegos, Cuba	E-10:00-11:00; 14:00-15:00
WCCO	ae	50000	C	Minneapolis, Minn.	C-8:00-24:00
WNYC	ak	1000	D	New York, N. Y.	E-9:00-one hour after ss
XFC	z	350	.....	Aguascalientes, Ags.	C-.....

### 820 kilocycles (365.6)

WHAS	aj	50000	C	Louisville, Ky.	C-8:00-24:00
XETW	dk	500	.....	Mexico City, D. F.	C-.....

### 830 kilocycles (361.2)

KOA	ak	50000	N	Denver, Colo.	M-8:00-24:00
WEEU	ak	1000	D	Reading, Pa.	E-8:00-ss
WHDH	ae	1000	Dn	Boston, Mass.	E-7:00-21:00
WRUF	ae	5000	Dn	Gainesville, Fla.	E-8:30-19:15

### 840 kilocycles (356.9)

CFQC	ak	1000	F	Saskatoon, Sask.	M-11:00-23:00
CMQ	ak	500	.....	Havana, Cuba	E-6:55-1:00
GRCT	ak	5000	F	Toronto, Ont.	E-11:00-24:00
VOGY	ak	400	.....	St. John's, Nfld.	L-Silent
XEP	z	500	.....	Mexico City, D. F.	C-.....

### 850 kilocycles (352.7)

KIEV	ak	100	D	Glendale, Calif.	P-6:00-18:00
KWKH	ae	10000	C	Shreveport, La.	C-19:45-24:00
TIEP	z	500	.....	San Jose, C. R.	C-.....
WESG	ak	1000	C	Elmira, N. Y.	E-10:00-18:15
WWL	ae	10000	.....	New Orleans, La.	C-8:00-24:00
XEFE	z	250	.....	Nuevo Laredo, T.	C-.....

### 860 kilocycles (348.6)

WABC	ak	50000	C	New York, N. Y.	E-8:00-2:00
WHIB	ak	1000	D	Kansas City, Mo.	G-6:00-17:45
XEMO	ak	5000	.....	Tijuana, L. C.	P-16:30-23:00

### 870 kilocycles (344.6)

WENR	ak	50000	Na	Chicago, Ill.	C-12:00-18:30; 20:00-1:00
WLS	ae	50000	Na	Chicago, Ill.	C-8:00-12:00; 18:30-20:00

### 880 kilocycles (340.7)

CFJC	ak	100	F	Kamloops, B. C.	P-18:00-19:30
CMBN	z	150	.....	Havana, Cuba	E-.....
CRCO	ak	1000	F	Ottawa, Ont.	E-9:30-24:00
KFKA	ak	500	2 (1)	Greeley, Colo.	M-16:30-19:00
KLX	ae	1000	.....	Oakland, Calif.	P-12:00-23:00
KPOF	ae	500	2	Denver, Colo.	M-7:30-9:00; 11-12; 15-16; 19:30-20:30
WCOC	ae	500	(1)	Meridian, Miss.	C-7:30-14:00; 17:00-22:30
WGBI	ae	500	1	Scranton, Pa.	E-13:00-22:30
WPHR	ak	500	D	Petersburg, Va.	E-7:30-ss
WQAN	ae	250	1	Scranton, Pa.	E-Silent
WSUI	ae	500	(1)	Iowa City, Iowa	C-14:00-18:00; 19:00-21:00; 21:15-21:45

### 890 kilocycles (336.9)

CJIC	ak	100	D	S. Ste. Marie, Ont.	C-11:00-14; 17:00-20:00
KARK	ak	250	(.5)	Little Rock, Ark.	C-7:30-22:00
KFNF	ak	500	2 (1)	Shenandoah, Iowa	C-8:00-12:00; 14:00-18:00; 17:00-18:45

North American B. C. Stations by Frequencies with Sunday's Time on the Air

KFPY	ak	1000	C	Spokane, Wash.	P—9:00-24:00
KUSD	ae	500	2	Vermillion, S. D.	C—16:00-17:00 irregularly
WBAA	ak	1000	D	W. Lafayette, Ind.	C—Silent
WILL	ak	250	2 (1)	Urbana, Ill.	C—Silent
WGST	ak	500	C (1)	Atlanta, Ga.	C—8:00-24:00
WJAR	ae	500	R	Providence, R. I.	E—9:00-1:00
WMMN	ak	500	(1)	Fairmont, W. Va.	E—10:30-21:00
XEW	ak	50000	....	Mexico City, D. F.	C—10:00-24:00

900 kilocycles (333.1)

KGBU	ak	500	....	Ketchikan, Alaska	L—10:00-24:00
KHJ	ae	1000	C (5)	Los Angeles, Calif.	P—8:00-1:00
KSEI	ck	250	(.5)	Pocatello, Idaho	M—.....
WBEN	ak	1000	R	Buffalo, N. Y.	E—9:00-24:00
WFMD	z	500	DP	Frederick, Md.	E—.....
WJAX	ae	1000	N (5)	Jacksonville, Fla.	E—9:00-24:00
WKY	ae	1000	N	Oklahoma City, Ok.	C—8:00-24:00
WLBL	ak	2500	D	Stevens Point, Wis.	C—Silent
WMFI	z	500	DP	New Haven, Conn.	E—.....
WTAD	ak	500	D	Quincy, Ill.	C—10:00-ss

910 kilocycles (329.6)

CJAT	ak	250	F	Trail, B. C.	P—10:30-22:30
CRCM	ak	5000	F	Montreal, Que.	E—17:00-23:30
XENT	ak	65000	....	Nuevo Laredo, Tams.	C—19:30-22:30

920 kilocycles (325.9)

CMX	ae	650	....	Havana, Cuba	E—8:00-1:00
HHK	ae	1000	....	Port-au-Prince, Haiti	E—Silent
KFEL	ak	500	a	Denver, Colo.	M—7:30-1:00
KOMO	ak	1000	N (5)	Seattle, Wash.	P—8:00-23:00
KPRC	ak	1000	N (5)	Houston, Texas	C—8:00-24:00
KVOD	ak	500	a	Denver, Colo.	M—7:30-1:00
WAAF	ak	500	D	Chicago, Ill.	C—6:00-17:15
WBSO	ak	500	D	Babson Park, Mass.	E—8:30-17:00
WPEN	ak	250	(.5) 1	Philadelphia, Pa.	E—8:00-22:00
WRAX	ak	250	1 (.5)	Philadelphia, Pa.	E—8:00-22:00
WSPA	ae	1000	D	Spartanburg, S. C.	E—10:00-19:30
WWJ	ak	1000	R	Detroit, Mich.	E—8:00-24:00
XEAA	ak	200	....	Mexicali, L. C.	P—6:00-22:00

930 kilocycles (322.4)

CFAC	ak	100	F	Calgary, Alta.	M—9:00-22:30
CFCH	ak	100	F	North Bay, Ont.	E—11:00-12:30; 15:00-23:00
CFLC	ae	100	....	Prescott, Ont.	E—19:00-20:30
CHNS	ae	1000	F	Halifax, N. S.	A—18:00-24:00
CKPC	ak	100	F	Brantford, Ont.	E—9:30-23:00
CKPR	ak	100	F	Fort William, Ont.	E—17:00-22:00
KGBZ	ak	1000	2 (2.5)	York, Neb.	C—9:15-11:15; 13:30-15; 16:30-18; 19-20:30
KMA	ak	1000	2 (2.M)	Shenandoah, Iowa	C—8-9:15; 11:15-13:30; 15-16:30; 18-19
KROW	ak	1000	....	Oakland, Calif.	P—8:00-2:00
TRH	z	50	....	San Jose, C. R.	C—.....
WBRC	ak	1000	C	Birmingham, Ala.	C—7:00-23:00
WDBJ	ae	1000	C	Roanoke, Va.	E—8:00-24:00

940 kilocycles (319.0)

CMBC	de	200	....	Havana, Cuba	E—14:00-23:00
KOIN	ak	1000	C (2.5)	Portland, Ore.	P—8:00-24:00
VOAS	ak	100	....	St. John's, Nfld.	C—Silent
WAAT	ae	500	D	Jersey City, N. J.	E—6:30-18:00
WAVE	bk	1000	N	Louisville, Ky.	C—8:00-24:00
WCSH	ae	1000	R (2.5)	Portland, Maine	E—8:45-24:00
WDAY	ae	1000	N (5)	Fargo, N. D.	C—8:00-24:00
WHA	ak	1000	D (5)	Madison, Wis.	C—Silent
XEFO	ak	5000	(XFO)	Mexico City, D. F.	C—7:00-24:00

950 kilocycles (315.6)

CRCS	ak	100	F	Chicoutimi, Que.	E—15:00-23:30
KFWB	ak	1000	(2.5)	Hollywood, Calif.	P—8:00-23:30
KHSL	ak	250	D	Chico, Calif.	P—8:00-ss

North American B. C. Stations by Frequencies with Sunday's Time on the Air

KMBC ae 1000 C (5) Kansas City, Mo. C—7:30-24:00  
 WRC ak 500 R (1) Washington, D. C. E—8:00-24:00

960 kilocycles (312.3)

CKY ak 15000 F Winnipeg, Man. C—11:00-23:00  
 CMCD ak 250 Havana, Cuba E—17:00-23:00  
 XEAW ak 50000 Reynosa, Tams. C—19:00-10:00

970 kilocycles (309.1)

KJR z 5000 N Seattle, Wash. P—8:00-24:00  
 WCFL ae 1500 B Chicago, Ill. C—8:00-24:00  
 WIBG ak 100 D Glenside, Pa. E—9:30-ss

980 kilocycles (303.9)

KDKA ae 5000 B Pittsburgh, Pa. E—9:00-1:00

990 kilocycles (302.8)

WBZ ak 50000 BSy Boston, Mass. E—8:00-1:00  
 WBZA ak 1000 BSy Springfield, Mass. E—8:00-1:00  
 XEAF ak 500 Nogales, Sonora M—8:00-15:00; 18:00-22:00  
 XEK ak 100 Mexico City, D. F. C—  
 XES dk 250 Tampico, Tams. C—11:00-15:00

1000 kilocycles (299.8)

CMBZ ak 250 Havana, Cuba E—7:00-24:00  
 KFVD ak 250 Dn Los Angeles, Calif. P—8:00-18:30; 21:15-24:00  
 TIGH z 500 San Jose, C. R. C—  
 WHO ak 50000 R Des Moines, Iowa C—6:00-24:00  
 XEY z 10 Merida, Yuc. C—

1010 kilocycles (296.9)

CHML ak 50 F Hamilton, Ont. E—10:00-23:00  
 CHWC ak 500 3F Regina, Sask. M—15:30-21:00  
 CKGD ak 100 Vancouver, B. C. P—20:45-21:00  
 CKK ak 500 3F Regina, Sask. M—10:00-16:00; 21:00-24:00  
 CKGO z 100 Ottawa, Ont. E—  
 CKIC ak 50 Wolfville, N. S. A—Irregular  
 CKWX ak 100 F Vancouver, B. C. P—7:00-24:00  
 CMJA z 50 Camaguey, Cuba E—  
 KGGF ak 1000 2 Coffeyville, Kans. C—13:30-17:00  
 KOW ak 1000 San Jose, Calif. P—9:00-24:00  
 TIGA z 30 1014 Cartago, C. R. C—  
 WHN ae 1000 (5) New York, N. Y. E—8:00-1:00  
 WIS ae 500 N (1) Columbia, S. C. E—9:00-24:00  
 WNAD ae 1000 2 (1) Norman, Okla. C—Silent  
 XEU ak 250 Veracruz, Ver. C—7:00-8:30; 10:00-15:00; 18:00-23:00

1020 kilocycles (293.9)

KYW ak 10000 R Philadelphia, Pa. C—8:00-1:00  
 XEJ ak 1000 Juarez, Chih. C—10:00-14:00; 17:00-23:30

1030 kilocycles (291.1)

CFCN ak 10000 F Calgary, Alta. M—9:30-22:30  
 CKLW ag 5000 Windsor, Ont. E—8:00-1:00  
 CMCY ak 1000 Havana, Cuba E—20:30-22:30  
 XEB ak 10000 Mexico City, D. F. C—9:00-23:00

1040 kilocycles (288.3)

KRLD ae 10000 C Dallas, Texas C—7:30-23:00  
 KWJJ ak 500 Portland, Ore. P—7:00-17:30; 21:00-3:00  
 WKAR ae 1000 D East Lansing, Mich. E—Silent  
 WTIC ah 50000 R Hartford, Conn. E—9:30-24:00

1050 kilocycles (285.5)

CMKD ak 250 Santiago, Cuba E—7:30-22:30

North American B. C. Stations by Frequencies with Sunday's Time on the Air

CRCK	ak	1000	F	Quebec, Que.	E—16:30-24:00
KFBI	ak	5000	Dn	Abilene, Kans.	C—8:00-18:45
KNX	ak	50000	S	Hollywood, Calif.	P—7:00-22:30
TIFA	z	75	S	San Jose, C. R.	C—.....

1060 kilocycles (282.8)

CMK	ae	250	.....	Havana, Cuba	E—10:00-12:00; 18:00-24:00
KTHS	ak	10000	N	Hot Springs, Ark.	C—10:00-17:00; 20:00-23:00
VOAC	z	40	1065	St. John's, Nfld.	L—.....
WBAL	ak	10000	B	Baltimore, Md.	E—8:00-24:00
WJAG	ak	1000	D	Norfolk, Neb.	C—10:00-ss
XEA	ak	125	.....	Guadalajara, Jal.	C—8:30-9:00; 20:00-23:00

1070 kilocycles (280.2)

CMHA	z	50	.....	Sagua la Grande, C.	E—.....
KJBS	ak	500	Dn	San Francisco, Calif.	P—00:00-ss
WGAZ	ak	100	D	Carthage, Ill.	C—10:00-15:30
WDZ	ak	100	D	Tuscola, Ill.	C—9:00-16:45
WTAM	ak	50000	R	Cleveland, Ohio	E—7:00-1:00

1080 kilocycles (277.6)

WBT	ak	50000	C	Charlotte, N. C.	E—10:00-24:00
WCBD	ak	5000	1Dny	Waukegan, Ill.	C—9:00-11:00; 14:30-17:15
WMBI	ae	5000	1Dn	Chicago, Ill.	C—11:00-15:30
XEMA	z	50	.....	Tampico, Tams.	C—.....

1090 kilocycles (275.1)

KMOX	ak	50000	C	St. Louis, Mo.	C—8:00-24:00
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1100 kilocycles (272.6)

CRCV	ak	500	F	Vancouver, B. C.	P—12:00-23:00
KGDM	ak	1000	D	Stockton, Calif.	P—6:00-ss
WLWL	ae	5000	1	New York, N. Y.	E—15:15-16:30; 20:00-21:15
WPG	ak	5000	1C	Atlantic City, N. J.	E—8:30-15:15; 18:30-20:00; 21:15-00:30
XEL	z	250	.....	Mexico City, D. F.	C—.....

1110 kilocycles (270.1)

CMCO	ak	250	.....	Havana, Cuba	E—9:00-12:00
KSOO	ak	2500	Dn	Sioux Falls, S. D.	C—9:30-18:30
WRVA	ae	5000	N	Richmond, Va.	E—10:00-24:00
XELO	z	10000	.....	Piedras Negras, Co.	C—.....

1120 kilocycles (267.7)

CHLP	ak	100	.....	Montreal, Que.	E—17:00-23:00
CHSJ	ak	500	F (1)	St. John, N. B.	A—11:00-12:15; 18:00-24:00
CKOC	ae	500	F (1)	Hamilton, Ont.	E—10:00-12:00
CKX	ak	100	F	Brandon, Man.	C—16:00-23:30
CMGF	ak	100	.....	Matanzas, Cuba	E—.....
CMKM	z	50	.....	Manzanillo, Cuba	E—.....
KFIO	ae	100	D	Spokane, Wash.	P—8:00-17:00
KFSG	ag	500	a (1)	Los Angeles, Calif.	P—10:30-12:45; 14:30-16:30; 18:30-24:00
KRKD	aj	500	a (1)	Los Angeles, Calif.	P—7:45-10:30; 12:30-19:00
KRSC	ak	100	D	Seattle, Wash.	P—6:00-ss
WCOP	ak	500	DP	Boston, Mass.	E—8:00-ss
WDEL	ak	250	(.5)	Wilmington, Del.	E—10:00-22:30
WGCM	ae	500	.....	Mississippi City	C—12:00-14:00
WISN	ak	250	(1)	Milwaukee, Wis.	C—8:00-24:00
WTAW	ae	500	.....	College Station, Tex.	C—8:30-9:30

1130 kilocycles (265.3)

CMJI	ak	50	.....	Ciego de Avila, Cuba	E—10:00-10:30; 18:00-22:00
KSL	ae	50000	C	Salt Lake City, Utah	M—7:00-24:00
WJJD	ak	20000	Dn	Chicago, Ill.	C—7:00-18:45
WOV	ag	1000	D	New York, N. Y.	E—8:00-15:15; 16:30-18:00

1140 kilocycles (263.0)

CMBG	z	200	.....	Havana, Cuba	E—.....
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KVOO ak 25000 1N Tulsa, Okla. C-7:30-20:15  
 WAPI ae 5000 1N Birmingham, Ala. C-8:30-ss; 20:15-23:30

1150 kilocycles (260.7)

CMJF z 200 ..... Camaguey, Cuba E-.....  
 WHAM ae 50000 B Rochester, N. Y. E-7:30-00:30  
 XED ak 2500 1155 Guadalajara, Jal. C-8:00-9:00; 12:00-24:00  
 XEH ak 250 ..... Monterrey, N. L. C-Silent  
 XEWZ ak 100 ..... Mexico City, D. F. C-12:00-1:00

1160 kilocycles (258.5)

CMHJ z 100 ..... Cienfuegos, Cuba E-8:00-8:30; 10:00-15:00; 17:30-22:30  
 WOWO ae 10000 1C Fort Wayne, Ind. C-7:30-17:00; 19:30-24:00  
 WWVA ak 5000 1C Wheeling, W. Va. E-7:00-20:30  
 XEC z 30 ..... Tijuana, L. C. P-.....

1170 kilocycles (256.3)

CMBD z 150 ..... Havana, Cuba E-.....  
 WCAU ae 50000 C Philadelphia, Pa. E-9:00-1:00

1180 kilocycles (254.1)

CMJO ak 50 ..... Ciego de Avila, Cuba E-9:00-13:00; 18:00-22:00  
 KEX ak 5000 2N Portland, Ore. P-8:00-17:30; 20:00-24:00  
 KOB ak 10000 Z Albuquerque, N. M. M-Silent  
 VE9EK ak 10 1185 Montmagny, Que. E-.....  
 WDG Y ak 1000 Dn (5) Minneapolis, Minn. C-6:30-18:30  
 WINS ak 1000 ..... New York, N. Y. E-6:00-19:30  
 WMAZ ak 1000 ..... Macon, Ga. E-8:30-19:30  
 XEFA z 500 ..... Mexico City, D. F. C-.....

1190 kilocycles (252.0)

CMKV z 50 ..... Santiago, Cuba E-.....  
 HIJ z 15 1195 Santo Domingo, D.R. E-.....  
 VONF ak 500 1195 St. John's, Nfld. L-Silent  
 WATR ak 100 D Waterbury, Conn. E-10:00-17:15  
 WOAI ak 50000 N San Antonio, Texas C-8:00-23:00  
 WSAZ ak 1000 ..... Huntington, W. Va. E-12:00-18:45

1200 kilocycles (249.9)

CHAB ak 100 F Moose Jaw, Sask. M-8:45-22:00  
 CKNX ak 50 ..... Wingham, Ont. E-11:00-13:00; 16:30-20:30  
 CKTE ae 100 F St. Catherines, Ont. E-10:45-24:00  
 CM CJ ak 350 ..... Havana, Cuba E-.....  
 KADA ak 100 D Ada, Okla. C-10:30-17:45  
 KBTM ak 100 D Jonesboro, Ark. C-7:30-18:30  
 KRJB ak 100 (.25) Marshalltown, Iowa C-8:00-9:00; 11:00-14:00; 17:30-20:30  
 KFXD ae 100 (.25) Nampa, Idaho M-11:00-16:30  
 KFXJ ak 100 (.25) Grand Junction, Col. M-9:00-21:00  
 KGDE ak 100 (.25) Fergus Falls, Minn. C-9:00-21:00  
 KGKE ak 100 ..... Sterling, Colo. M-11:00-12:15  
 KG FJ ae 100 ..... Los Angeles, Calif. P-24 hours daily  
 KGHI ak 100 (.25) Little Rock, Ark. C-11:00-14:00  
 KMLB ak 100 ..... Monroe, La. C-9:00-13:00; 18:00-22:00  
 KSUN ak 100 D Lowell, Ariz. M-8:30-17:45  
 KVOS dk 100 ..... Bellingham, Wash. P-9:00-21:00  
 KWG ak 100 C Stockton, Calif. P-8:00-24:00  
 WABI ak 100 ..... Bangor, Maine E-9:00-14:00; 18:00-22:00  
 WAIM ak 100 ..... Anderson, S. C. E-9:45-15:30  
 WBBZ ak 100 ..... Ponca City, Okla. C-8:00-15:00  
 WBNO ak 100 1 New Orleans, La. C-10:00-13:00; 17:00-21:00  
 WCAT ak 100 D Rapid City, S. D. C-Silent  
 WCAX ak 100 ..... Burlington, Vt. E-Silent  
 WCLO ak 100 ..... Janesville, Wis. C-Silent  
 WFAM ak 100 8 South Bend, Ind. C-8:00-24:00  
 WFBE ak 100 (.25) Cincinnati, Ohio E-8:00-23:00  
 WHBC ak 100 2 (.25) Canton, Ohio E-12:00-15:00; 18:00-21:00  
 WHBY ak 100 (.25) Green Bay, Wis. C-10:00-21:00  
 WIBX aej 100 (.3) C Utica, N. Y. E-8:45-1:00  
 WIL ak 100 (.25) St. Louis, Mo. C-9:00-23:00  
 WJBC ak 100 6 Bloomington, Ill. C-8:30-10:00; 12:30-18:00  
 WJBL ak 100 6 Decatur, Ill. C-10:00-12:00; 18:00-22:00

North American B. C. Stations by Frequencies with Sunday's Time on the Air

WJBW	ak	100	1	New Orleans, La.	C-8:00-10:00; 13:00-17:00; 22:00-24:00
WKBO	ak	100	3 (.25)	Harrisburg, Pa.	E-12:30-19:00
WKJC	ak	100	3 (.25)	Lancaster, Pa.	E-Silent
WLVA	ak	100	(.25)	Lynchburg, Va.	E-9:00-15:00
WMFR	ae	100	PD	High Point, N. C.	E-7:00-ss
WMPC	ak	100	(.25)	Lapeer, Mich.	E-10:00-14:00; 15:00-18:00; 19:30-22:30
WNRI	ak	100	(.25) P	Newport, R. I.	E-
WRBL	ak	100	.....	Columbus, Ga.	C-8:00-15:00; 18:00-21:00
WWAE	ae	100	8	Hammond, Ind.	C-11:00-14:15; 16:00-24:00

1210 kilocycles (247.8)

CJCS	ak	50	.....	Stratford, Ont.	E-10:30-12:30; 18:00-20:30
CJCU	z	50	.....	Aklavik, N. W. T.	M-.....
CKBI	ak	100	F	Prince Albert, Sask.	M-11:00-23:00
CKCH	ak	100	F	Hull, Que.	E-12:30-13:30; 17:00-23:45
CKMC	ak	50	.....	Cobalt, Ont.	E-15:00-19:00
CMHI	ak	150	.....	Santa Clara, Cuba	E-10:00-12:00; 16:00-17:00; 21:00-22:00
KASA	ck	100	.....	Elk City, Okla.	C-7:00-12:00; 13:00-17:45
KDLR	ak	100	.....	Devils Lake, N. D.	C-11:00-14:00
KDON	z	100	P	Del Monte, Calif.	P-.....
KFJI	ak	100	.....	Klamath Falls, Ore.	P-Silent
KFOR	ae	100	(.25)C	Lincoln, Neb.	C-8:00-22:30
KFPW	ak	100	.....	Fort Smith, Ark.	C-11:00-14:00; 17:00-21:00
KFVS	ak	100	6 (.25)	Cape Girardeau, Mo.	C-9:00-16:00; 21:30-24:00
KFXM	ak	100	9	San Bernardino, Cal.	P-15:00-18:45; 21:00-24:00
KGY	ak	100	.....	Olympia, Wash.	P-Silent
KIEM	ak	100	.....	Eureka, Calif.	M-10:00-21:15
KIUL	ak	100	.....	Garden City, Kans.	M-10:00-19:00
KPPC	ak	50	9	Pasadena, Calif.	P-9:30-12:30; 19:30-21:00
KVSO	ak	100	DP	Ardmore, Okla.	C-10:00-18:00
KWEA	z	100	.....	Shreveport, La.	C-.....
KWTN	ak	100	.....	Watertown, S. D.	C-9:00-15:00
WALR	ak	100	.....	Zanesville, Ohio	E-10:00-22:00
WBAX	ae	100	1	Wilkes Barre, Pa.	E-13:00-24:00
WBBL	ak	100	S	Richmond, Va.	E-11:00-12:00; 19:30-20:30
WBRB	ak	100	3	Red Bank, N. J.	E-Silent
WCOL	ak	100	.....	Columbus, Ohio	E-9:30-23:00
WCRW	ae	100	4	Chicago, Ill.	C-11:00-14:00; 17:00-19:00
WBO	ae	100	6 (.25)	Harrisburg, Ill.	C-6:00-9:00; 16:00-21:30
WEDC	ae	100	4	Chicago, Ill.	C-8:30-10; 15:30-17; 19-20; 22-23
WFAS	ak	100	3	White Plains, N. Y.	E-18:00-21:00
WGBB	ae	100	3	Freeport, N. Y.	E-9:00-18:00
WGNV	ak	100	3	Chester, N. Y.	E-21:00-22:30
WHBF	ak	100	(.25)	Rock Island, Ill.	C-12:00-23:00
WHBU	ak	100	(.25)	Anderson, Ind.	C-9:00-24:00
WIBU	ak	100	(.25)	Poynette, Wis.	C-8:30-17:00
WIBY	ak	100	.....	Gadsden, Ala.	C-6:00-12:10
WJEJ	ae	100	D	Hagerstown, Md.	E-6:30-23:00
WJIM	z	100	(.25)	Lansing, Mich.	E-8:00-24:00
WJW	ae	100	(.25)	Akron, Ohio	E-9:00-22:30
WKOK	ak	100	1	Sunbury, Pa.	E-6:00-13:00
WMBG	ak	100	C (.25)	Richmond, Va.	E-11:30-17:30; 21:30-24:00
WMFG	z	100	P	Hibbing, Minn.	C-.....
WMFN	ak	100	.....	Clarksdale, Miss.	C-8:00-18:00
WOCL	ak	50	.....	Jamestown, N. Y.	E-9:00-12:30
WOMT	ae	100	.....	Manitowoc, Wis.	C-Silent
WPAX	ak	250	D	Thomasville, Ga.	E-9:00-14:00
WSBC	ae	100	4	Chicago, Ill.	C-6:00-8:30; 10-11; 14-15:30; 20-22; 23-24
WSIX	ak	100	.....	Springfield, Tenn.	C-11:00-12:00
WSOC	ak	100	N (.25)	Charlotte, N. C.	E-9:00-24:00
WTAX	ak	100	.....	Springfield, Ill.	C-8:00-22:30
XEE	z	50	.....	Durango, Dgo.	C-.....
XEFV	ak	100	.....	Juarez, Chih.	M-9:00-15:00; 17:00-22:00
XEMZ	z	250	.....	Tijuana, L. C.	P-.....
XETH	ak	100	.....	Puebla, Pue.	C-8:30-11:00; 13:00-15:00; 19:00-23:00

1220 kilocycles (245.8)

CMJE	z	50	.....	Camaguey, Cuba	E-.....
KFKU	ak	1000	a	Lawrence, Kas.	C-16:00-17:00
KTW	ak	1000	S2	Seattle, Wash.	P-10:00-22:00
KWSC	ae	1000	2 (5)	Pullman, Wash.	P-Silent
WCAD	ak	500	D	Canton, N. Y.	E-Silent usually
WCAE	ak	1000	R (5)	Pittsburgh, Pa.	E-8:00-1:00
WDAE	ae	1000	C (2.5)	Tampa, Fla.	E-9:00-24:00
WREN	ak	1000	Ba(5)	Lawrence, Kas.	C-8:00-24:00
XETF	ak	12	.....	Veracruz, Ver.	C-10:00-15:00; 20:00-23:00

### 1230 kilocycles (243.8)

CJOC	ak	100	F	Lethbridge, Alta.	M—9:00-22:30
CMCB	ak	150	.....	Havana, Cuba	E—10:00-23:00
KGBX	ak	500	.....	Springfield, Mo.	C—7:00-13:00; 16:00-23:00
KGGM	ak	250	(.5)	Albuquerque, N. M.	M—11:00-18:00
KYA	ak	1000	N	San Francisco, Calif.	P—8:00-23:00
WFBM	ae	1000	C	Indianapolis, Ind.	C—7:00-24:00
WNAC	ak	1000	C (2.5)	Boston, Mass.	E—8:00-1:00
XEFJ	ak	100	.....	Monterrey, N. L.	C—Silent

### 1240 kilocycles (241.8)

GJCB	ak	1000	F	Sydney, N. S.	A—15:00-24:00
CMHB	z	50	.....	San Spiritus, Cuba	E—.....
KGCU	ak	250	1	Mandan, N. D.	M—12:00-17:00; 18:45-21:00
KLPM	ak	250	1	Minot, N. D.	C—9:00-11:45; 13:30-14:30; 17:00-20:00
KTAT	ak	1000	.....	Port Worth, Texas	C—7:00-23:30
KTFI	ak	1000	.....	Twin Falls, Idaho	M—10:00-23:15
WKAQ	ae	1000	.....	San Juan, P. R.	A—11:00-19:30
WXYZ	ak	1000	B	Detroit, Mich.	E—9:00-24:00
XEAI	z	100	.....	Mexico City, D. F.	C—.....
XEKL	z	500	.....	Leon, Guan.	C—13:00-16:00
XELA	z	50	.....	Saltillo, Coah.	C—.....

### 1250 kilocycles (239.9)

CMCG	ak	250	1255	Havana, Cuba	A—8:00-12:00; 18:00-24:00
CMKC	ak	150	.....	Santiago, Cuba	E—8:00-14:00; 19:00-22:00
KFOC	ae	1000	.....	Long Beach, Calif.	P—6:00-24:00
WCAL	ah	1000	2 (2.5)	Northfield, Minn.	C—8:15-9:30; 15:00-16:00; 19:00-20:00
WDSU	ak	1000	C	New Orleans, La.	C—8:00-24:00
WHBI	ak	1000	a (2.5)	Newark, N. J.	E—8:00-10:00; 12:30-18:30; 21:00-24:00
WLB	ak	1000	2	Minneapolis, Minn.	C—Silent
WNEW	ae	1000	a (2.5)	Newark, N. J.	E—24 hours daily
WTCN	ak	1000	2 (5)	Minneapolis, Minn.	C—9:30-15:00; 16:00-19:00; 20:00-24:00

### 1260 kilocycles (238.0)

GFRN	ak	1000	.....	Edmonton, Alta.	M—11:00-22:00
KGOV	ak	1000	.....	Missoula, Mont.	M—10:00-20:00
KOIL	ak	1000	B (2.5)	Council Bluffs, Iowa	C—8:00-1:00
KPAC	ak	500	D	Port Arthur, Texas	C—7:00-ss
KRGV	ak	500	.....	Weslaco, Texas	C—7:00-21:00
KUOA	ak	1000	D	Fayetteville, Ark.	C—10:00-18:00
KVOA	ak	500	.....	Tucson, Ariz.	M—7:00-9:00; 11:00-15:00; 18:00-21:00
WHIO	ae	1000	R	Dayton, Ohio	E—8:00-24:00
WNBX	ak	1000	D	Springfield, Vt.	E—10:30-12:00
WTOC	ae	1000	C	Savannah, Ga.	E—8:00-24:00

### 1270 kilocycles (236.1)

CMHD	dk	250	.....	Caibarien, Cuba	E—8:00-21:00
HIX	ak	1000	.....	Santo Domingo, D.R.	E—.....
KGCA	ak	100	2D	Decorah, Iowa	C—10:45-12:00
KOL	ae	1000	C (2.5)	Seattle, Wash.	P—8:00-24:00
KVOR	ae	1000	C	Colorado Spgs., Colo.	M—9:30-22:00
KWLC	ak	100	2D	Decorah, Iowa	C—9:30-10:30
WASH	ak	500	a	Grand Rapids, Mich.	E—9:00-24:00
WPBR	ak	500	R	Baltimore, Md.	E—9:00-24:00
WJDX	ae	1000	N (2.5)	Jackson, Miss.	C—10:30-23:00
WOOD	ak	500	a	Grand Rapids, Mich.	E—9:00-24:00
XEG	z	200	.....	Ensenada, L. C.	P—.....
XFB	ak	250	.....	Jalapa, Ver.	C—.....

### 1280 kilocycles (234.2)

CMGU	z	150	.....	Havana, Cuba	E—10:00-12:00; 13:00-16:00; 18:00-21:00
KFBB	ak	1000	(2.5)	Great Falls, Mont.	M—9:00-21:00
WCAM	ae	500	1	Camden, N. J.	E—10:15-12:30; 15:00-17:00
WCAP	ae	500	1	Asbury Park, N. J.	E—6:00-10:15; 12:30-15:00; 20:00-24:00
WDDO	ak	1000	C (5)	Chattanooga, Tenn.	C—7:00-23:30
WIBA	ae	1000	N	Madison, Wis.	C—8:00-24:00
WORC	ak	500	C	Worcester, Mass.	E—9:00-23:30
WRR	ak	500	.....	Dallas, Texas	C—7:30-22:30
WTNJ	ak	500	1	Trenton, N. J.	E—17:00-20:00; 21:00-24:00
XEMX	z	12	.....	Mexico City, D. F.	C—.....

1290 kilocycles (232.4)

KDYL	ak	1000	N	Salt Lake City, Utah	M—6:20-1:00
KLGN	ak	100	D	Blytheville, Ark.	C—8:00-18:00
KTRH	ak	1000	C (5)	Houston, Texas	C—8:00-24:00
WEBC	ae	1000	N (5)	Superior, Wis.	C—8:00-24:00
WJAS	ak	1000	C (2.5)	Pittsburgh, Pa.	E—9:00-24:00
WNBZ	z	100	D	Saranac Lake, N. Y.	E—.....
WNEL	ak	500	.....	San Juan, P. R.	E—9:00-14:00; 17:00-23:00

1300 kilocycles (230.6)

HIZ	z	10	.....	Santo Domingo, D.R.	E—.....
KALE	ak	500	3C	Portland, Ore.	P—9:00-22:30
KFAC	ak	1000	.....	Los Angeles, Calif.	P—8:00-23:00
KFH	ak	1000	C	Wichita, Kans.	C—8:00-24:00
KFJR	ag	500	3	Portland, Ore.	P—Silent
WBRR	ae	1000	1	Brooklyn, N. Y.	E—8:00-11:00; 15:00-20:00
WEVD	ak	1000	1	New York, N. Y.	E—11:00-15:00; 20:00-21:00; 22-23; 0-1
WFAB	ae	1000	1	New York, N. Y.	E—21:00-22:00; 23:00-24:00
WFBC	ak	1000	(5)	Greenville, S. C.	E—8:30-22:30
WHAZ	ae	500	1	Troy, N. Y.	E—Silent
WIOD	ak	1000	N	Miami, Fla.	E—8:00-24:00

1310 kilocycles (228.9)

CHCK	ak	50	.....	Charlottetown, P.E.I.	A—11:00-13:30; 16:00-17:00; 19:00-20:30
CHLS	ak	100	.....	Yarmouth, N. S.	A—Silent
CKCV	ak	100	F	Quebec, Que.	E—12:00-23:00
KCRJ	ak	100	D	Jerome, Ariz.	M—Silent
KFPL	dk	100	(.25)	Dublin, Texas	C—18:30-21:15
KFYR	ak	100	(.25)	Oklahoma City, Ok.	C—9:00-22:00
KFXO	dk	100	(.25)	Lubbock, Texas	C—8:00-13:00; 16:00-19:00
KGCX	ak	100	(.25)	Wolf Point, Mont.	M—11:30-13:45
KGEZ	aj	100	.....	Kalispell, Mont.	M—9:00-14:00
KGFW	ak	100	.....	Kearney, Neb.	C—8:30-12:00
KINY	ak	100	.....	Juneau, Alaska	L—13:00-17:00
KIT	ak	100	(.25)	Yakima, Wash.	P—9:00-22:00
KIUJ	ak	100	.....	Santa Fe, N. Mex.	M—10:30-16:30
KMED	ck	100	(.25)	Medford, Ore.	P—10:00-12:00
KRMD	ak	100	.....	Shreveport, La.	C—7:00-21:00
KROC	z	100	P	Rochester, Minn.	C—.....
KTSM	ak	100	.....	El Paso, Texas	M—8:00-9:30; 13:00-18:00
KVOL	ak	100	.....	Lafayette, La.	C—12:00-21:00
KXRO	ak	100	.....	Aberdeen, Wash.	P—10:00-19:00
WAML	ak	100	.....	Lauret, Miss.	C—12:00-19:00
WBEO	ae	100	.....	Marquette, Mich.	C—9:00-13:30
WBOW	ak	100	(.25)	Terre Haute, Ind.	C—8:30-22:00
WBRE	ak	100	.....	Wilkes Barre, Pa.	E—10:00-22:30
WCLS	ak	100	.....	Joliet, Ill.	C—9:00-20:30
WCMJ	ak	100	D	Ashland, Ky.	E—9:30-24:00
WDAH	ak	100	S	El Paso, Texas	M—9:30-12:00; 19:30-21:00
WEBR	aeH	100	(.25)	Buffalo, N. Y.	E—8:30-24:00
WEXL	ak	50	.....	Royal Oak, Mich.	E—8:30-24:00
WFBG	ae	100	3	Altoona, Pa.	E—10:45-16:30; 18:15-22:00
WFDF	mk	100	.....	Flint, Mich.	E—9:00-24:00
WGH	aj	100	(.25)	Newport News, Va.	E—8:30-22:30
WHAT	z	100	4	Philadelphia, Pa.	E—7:00-10:15; 20:00-24:00
WISC	z	100	PD	Milwaukee, Wis.	C—.....
WJAC	ae	100	3	Johnstown, Pa.	E—8:00-10:30; 16:30-18:15
WLBC	ak	50	0 (.1)	Muncie, Ind.	C—8:30-16:30
WLNH	ak	100	.....	Laconia, N. H.	E—.....
WMBO	ak	100	.....	Auburn, N. Y.	E—10:30-14:00; 18:00-20:30
WMFF	ak	100	D (.25)	Plattsburg, N. Y.	E—10:30-16:00
WNBH	ak	100	(.25) C	New Bedford, Mass.	E—8:45-23:30
WOL	ak	100	.....	Washington, D. C.	E—9:00-24:00
WRAW	ak	100	.....	Reading, Pa.	E—18:30-20:30
WROL	ak	100	(.25)	Knoxville, Tenn.	C—8:30-23:00
WSAJ	ae	100	.....	Grove City, Pa.	E—16:30-17:30
WSGN	ak	100	(.25)	Birmingham, Ala.	C—7:00-21:00
WSJS	ak	100	C	Winston-Salem, N.C.	E—8:00-24:00
WTAL	ak	100	P	Tallahassee, Fla.	E—7:00-23:00
WTEL	ce	100	4	Philadelphia, Pa.	E—12:30-15:00; 17:00-20:00
WTJS	ak	100	(.25)	Jackson, Tenn.	C—10:00-15:30
WTRC	ak	50	6 (.1)	Elkhart, Ind.	C—11:00-12:00; 17:00-21:00
XEAJ	z	15	.....	Oaxaca, Oax.	C—.....
XECW	z	10	.....	Mexico City, D. F.	C—.....

North American B. C. Stations by Frequencies with Sunday's Time on the Air

XEFW	ak	250	....	Tampico, Tams.	C-11:00-14:00
XEX	ak	125	....	Monterrey, N. L.	C-.....
XFA	z	5	....	Aguascalientes, Ags.	C-.....

1320 kilocycles (227.1)

CMOX	ak	250	....	Havana, Cuba	E-10:00-12:00; 20:00-23:00
KGHF	ak	500	....	Pueblo, Colo.	M-10:00-16:00
KGMB	ak	1000	C	Honolulu, T. H.	L-8:30-22:00
KID	ae	250	(.5)	Idaho Falls, Idaho	M-9:00-21:00
KRNT	ak	500	C (1)	Des Moines, Iowa	C-7:30-24:00
WADC	ae	1000	C (2.5)	Akron, Ohio	E-8:00-24:00
WORK	ak	1000	N	York, Pa.	E-10:45-18:00
WSMB	ak	500	N	New Orleans, La.	C-7:00-24:00

1330 kilocycles (225.4)

CMHK	z	250	....	Crucos, Cuba	E-9:30-12:00; 13:00-15:30
KGB	ag	1000	C (2.5)	San Diego, Calif.	M-8:00-24:00
KMO	ak	250	....	Tacoma, Wash.	P-6:45-23:00
KSCJ	aj	1000	1C (2.5)	Sioux City, Iowa	C-8:00-23:00
WDRC	ae	1000	C (5)	Hartford, Conn.	E-8:45-24:00
WSAI	ak	1000	R (2.5)	Cincinnati, Ohio	E-8:00-24:00
WTAQ	ae	1000	1	Eau Claire, Wis.	C-10:30-17:45

1340 kilocycles (223.7)

CMJL	z	100	....	Camaguey, Cuba	E-.....
KGDY	ak	250	D	Huron, S. D.	C-9:00-15:00
KIDQ	ak	1000	N (2.5)	Butte, Mont.	M-9:00-23:00
KGNO	ak	250	....	Dodge City, Kans.	C-10:30-19:00
WCOA	ak	500	C	Pensacola, Fla.	C-8:00-23:00
WFEA	ae	500	C (1)	Manchester, N. H.	E-8:45-23:00
WSPD	ae	1000	C (2.5)	Toledo, Ohio	E-8:00-1:00
XFD	z	350	....	Jalapa, Ver.	C-.....

1350 kilocycles (222.1)

CMCA	z	250	....	Havana, Cuba	E-11:00-14:00; 21:00-22:00
KIDQ	ak	1000	(2.5)	Boise, Idaho	M-10:30-16:30
KWK	ak	1000	B (5)	St. Louis, Mo.	C-7:00-24:00
WAWZ	ae	500	1 (1)	Zarephath, N. J.	E-6:00-9:00; 11:00-12:30; 15:00-16:30; 19:20-30
WBNX	ae	250	1	New York, N. Y.	E-12:30-15:00; 16:30-18:00

1360 kilocycles (220.4)

CMJH	dk	100	....	Ciego de Avila, Cuba	E-8:00-9:30; 10:00-14:00; 17:00-22:00
KCRC	ak	250	....	Enid, Okla.	C-10:00-18:00
KGER	ak	1000	....	Long Beach, Calif.	P-7:00-23:00
WGSC	ak	500	(1)	Charleston, S. C.	E-9:00-15:30; 18:00-21:30
WFBL	ak	1000	C (5)	Syracuse, N. Y.	E-9:00-1:00
WGES	ae	500	1	Chicago, Ill.	C-8:00-17:00; 23:00-1:00
WQBC	ak	1000	D	Vicksburg, Miss.	C-10:00-11:00; 12:00-14:00
WSBT	ak	500	1	South Bend, Ind.	C-8:00-24:00

1370 kilocycles (218.8)

CKCW	ak	100	F	Moncton, N. B.	A-8:00-9:30; 12:00-14:00; 17:00-19:30
CMGE	ak	50	....	Cardenas, Cuba	L-Silent
KAST	ak	100	D	Astoria, Ore.	P-Silent
KELD	z	100	P	El Dorado, Ark.	C-.....
KERN	ak	100	....	Bakersfield, Calif.	P-8:00-24:00
KFGO	ak	100	....	Boone, Iowa	C-8:30-9:00; 14:30-16:00; 19:30-21:00; 23-24
KFJM	ak	100	(.25)	Grand Forks, N. D.	C-7:00-21:00
KFJZ	ae	100	....	Fort Worth, Texas	C-7:00-23:00
KFRO	ak	100	D	Longview, Texas	C-8:00-ss
KGAR	ae	100	(.25)	Tucson, Ariz.	M-9:30-21:00
KGFG	bk	100	....	Oklahoma City, Ok.	C-8:00-11:00; 15:00-18:00; 19:00-24:00
KGFL	ak	100	4	Roswell, N. M.	M-15:00-17:30
KGKL	ak	100	(.25)	San Angelo, Texas	C-8:45-14:00
KICA	ak	100	4	Clovis, N. M.	M-11:00-16:30
KIUP	ak	100	P	Durango, Colo.	M-10:00-16:00
KLUF	z	100	(.25)	Galveston, Texas	C-.....
KMAC	ak	100	5	San Antonio, Texas	C-7:00-9:00; 11-12:30; 14-16; 18-20; 22-00:30
KONO	ak	100	5	San Antonio, Texas	C-9:00-11:00; 12:30-14:00; 16-18; 20-22

North American B. C. Stations by Frequencies with Sunday's Time on the Air

KRE	ak	100	(.25)	Berkeley, Calif.	P-7:00-24:00
KRKO	ak	50	1	Everett, Wash.	P-12:00-14:00
KSLM	ak	100	....	Salem, Ore.	P-9:00-22:00
KUJ	ak	100	....	Walla Walla, Wash.	P-7:45-22:00
KVL	ak	100	1	Seattle, Wash.	P-16:00-22:30
KWKC	ak	100	....	Kansas City, Mo.	C-6:00-9:00; 12:00-15:00; 18:00-21:00
KWYO	ak	100	....	Sheridan, Wyo.	M-10:00-23:00
WABY	aj	100	....	Albany, N. Y.	E-Silent
WAGF	ak	100	....	Dothan, Ala.	C-8:00-17:15
WBTM	ak	100	(.25)	Danville, Va.	E-10:00-13:00
WGBM	ae	100	(.25)	Baltimore, Md.	E-.....
WDAS	ae	100	(.25)	Philadelphia, Pa.	E-7:30-24:00
WGL	ae	100	C	Fort Wayne, Ind.	C-14:00-18:00; 17:00-20:30
WBBO	ak	100	....	Memphis, Tenn.	C-10:30-21:00
WHDF	ak	100	(.25)	Calumet, Mich.	E-10:00-14:00; 16:30-20:30
WBIM	ak	100	(.25)	Jackson, Mich.	E-7:00-00:45
WJTL	ak	100	....	Atlanta, Ga.	C-8:00-24:00
WLLH	ak	100	(.25)	Lowell, Mass.	E-8:00-23:15
WMBR	ak	100	C	Jacksonville, Fla.	E-8:00-24:00
WMFD	ak	100	D	Wilmington, N. C.	E-10:00-14:00; 17:00-19:00
WMFO	z	100	D	Decatur, Ala.	E-.....
WOC	ak	100	C (.25)	Davenport, Iowa	C-9:00-24:00
WPAY	ak	100	....	Portsmouth, Ohio	E-10:00-19:00
WFPB	ak	100	....	Hattiesburg, Miss.	C-11:00-16:30; 19:00-21:00
WQDM	ae	100	D	St. Albans, Vt.	E-10:00-14:00
WRAK	ak	100	(.25)	Williamsport, Pa.	E-17:30-22:00
WRDO	ae	100	....	Augusta, Maine	E-10:30-13:30
WRJN	ak	100	....	Racine, Wis.	C-8:00-22:30
WSVS	ak	50	D	Buffalo, N. Y.	E-Silent
XEFZ	ak	100	....	Mexico City, D. F.	C-18:00-1:00
XFI	ak	125	....	Morelia, Mch.	C-19:00-21:00
XZZZ	z	100	....	San Luis Potosi, SLP	C-9:30-15:00; 17:00-22:00

1380 kilocycles (217.3)

CMBX	ak	150	....	Havana, Cuba	E-.....
KOH	ak	500	C	Reno, Nev.	P-8:00-24:00
KOV	ae	500	....	Pittsburgh, Pa.	E-9:00-24:00
WALA	af	500	C (1)	Mobile, Ala.	C-9:00-22:00
WKBH	ae	1000	....	LaCrosse, Wis.	C-10:00-21:30
WNBC	mk	250	D	New Britain, Conn.	E-8:00-17:15
WSMK	ak	200	C	Dayton, Ohio	E-8:00-1:00

1390 kilocycles (215.7)

CJRC	ak	100	F	Winnipeg, Man.	C-11:00-16:00; 19:00-21:00
GMJC	z	150	....	Camaguey, Cuba	E-.....
HHH	ak	15	....	1395 San Ped. de Macoris, DR	E-12:30-14:30; 18:30-20:30
KLRA	ae	1000	C (2.5)	Little Rock, Ark.	C-17:00-23:00
KOOS	ae	250	....	Marshfield, Ore.	P-8:00-21:00
KOY	ae	500	(1)	Phoenix, Ariz.	M-9:00-23:15
WHK	ae	1000	C (2.5)	Cleveland, Ohio	E-8:00-24:00

1400 kilocycles (214.2)

CMGC	z	100	....	Matanzas, Cuba	E-.....
CMKR	z	100	....	Santiago, Cuba	E-.....
KLO	ak	500	....	Ogden, Utah	M-9:00-21:30
KTUL	ak	500	C (1)	Tulsa, Okla.	C-6:30-24:00
TCX	ak	250	....	Guatemala City, Gt.	C-13:00-16:00
WARD	ak	500	2	Brooklyn, N. Y.	E-10:30-11:00; 19:00-21:00
WBBC	ae	500	2 (1)	Brooklyn, N. Y.	E-7:00-10:30; 15:00-16:30; 21:00-22:30
WIRE	ak	500	R (1)	Indianapolis, Ind.	C-8:00-24:00
WLTH	ak	500	2	Brooklyn, N. Y.	E-11:00-12:00; (13:30-14 or 15-16:30); 22:30-24
WVFW	ak	500	2	Brooklyn, N. Y.	E-12:00-13:15; 16:30-19:00

1410 kilocycles (212.6)

CHNC	ak	500	F (1)	New Carlisle, Que.	A-11:00-13:00; 18:00-24:00
CKFC	ak	50	....	Vancouver, B. C.	P-10:45-18:00; 19:30-21:00
CKMO	ag	100	5F	Vancouver, B. C.	P-.....
CMCR	z	150	....	Havana, Cuba	E-9:00-23:00
KGNK	ae	1000	(2.5)	Amarillo, Texas	C-6:00-10:00; 11:00-15:00; 17-19:30; 22-24
WAAF	ak	500	C	Boston, Mass.	E-9:30-23:00
WBCM	ae	500	....	Bay City, Mich.	E-9:00-00:45
WHBL	ae	500	4	Sheboygan, Wis.	C-13:00-16:30; 18:00-19:30
WHIS	ak	250	2 (.5)	Bluefield, W. Va.	E-9:00-17:00
WRBX	ae	250	2 (.5)	Roanoke, Va.	E-17:00-23:00

North American B. C. Stations by Frequencies with Sunday's Time on the Air

WROK ak 500 4 Rockford, Ill. C-16:00-13:00; 16:00-18:00; 20:00-22:30  
 WSFA ak 500 C(1) Montgomery, Ala. C-6:30-22:30

1420 kilocycles (211.1)

CKGB	ak	100	....	Timmins, Ont.	E—
CKNC	ak	100	F	Toronto, Ont.	E-11:00-23:15
CMGI	z	50	....	Matanzas, Cuba	E—
KABC	ak	100	(.25)	San Antonio, Texas	C-8:00-21:30
KABR	ak	100	D	Aberdeen, S. Dak.	C—
KALB	z	100	PD	Alexandria, La.	C—
KBPS	aj	100	4	Portland, Ore.	P—Silent
KCMC	ak	100	....	Texarkana, Ark.	C-11:00-14:00; 18:00-20:00
KFIZ	ak	100	....	Fond du Lac, Wis.	C—Silent
KGFF	ak	100	....	Shawnee, Okla.	C-10:15-21:00
KGGC	ak	100	....	San Francisco, Cal.	P-9:00-12:30; 14:30-17:00; 19:00-22:00
KGIW	ak	100	1	Alamosa, Colo.	M—Silent
KHBC	z	100	....	Hilo, T. H.	L—
KIDW	ak	100	1	Lamar, Colo.	M-11:00-15:30
KIUN	ak	100	P	Pecos, Texas	C-7:00-12:00; 16:00-19:00
KORE	ae	100	....	Eugene, Ore.	P-10:00-15:00; 18:00-21:00
KRLC	ak	100	....	Lewiston, Idaho	P-8:00-22:00
KUMA	ak	100	....	Yuma, Ariz.	M-11:00-12:00; 18:00-21:00
KWBG	ak	100	....	Hutchinson, Kans.	C-7:00-19:00
KXL	ae	100	4 (.25)	Portland, Ore.	P-8:00-24:00
WACO	ak	100	C	Waco, Texas	C-8:00-22:00
WAGM	ae	100	....	Presque Isle, Maine	E-10:00-12:00
WAZL	ak	100	2	Hazleton, Pa.	E-11:45-19:30
WCBS	ak	100	....	Springfield, Ill.	C-7:00-22:00
WEED	ak	100	3	Rocky Mount, N. C.	E-8:00-17:00; 20:00-22:00
WEHC	ak	100	3 (.25)	Charlottesville, Va.	E-10:00-12:00
WEHS	ak	100	a	Cicero, Ill.	C-16:00-20:00
WELL	ak	100	....	Battle Creek, Mich.	E-10:00-24:00
WGPC	ak	100	....	Albany, Ga.	C-8:00-14:00
WHDL	ak	100	D	Olean, N. Y.	E-8:00-ss
WHFC	ae	100	a	Cicero, Ill.	C-7:00-16:00; 20:00-1:00
WILM	aj	100	2	Wilmington, Del.	E—Silent
WJBO	aj	100	....	Baton Rouge, La.	C-9:00-17:00
WJMS	ak	100	....	Ironwood, Mich.	C-10:00-19:00
WKBI	ak	100	a	Cicero, Ill.	C—Silent
WLAP	ak	100	(.25)	Lexington, Ky.	C-9:00-22:00
WLBF	ak	100	....	Kansas City, Kans.	C-9:00-23:00
WLEU	ak	100	(.25)	Erie, Pa.	E-10:00-23:00
WMAS	ak	100	C (.25)	Springfield, Mass.	E-8:00-24:00
WMBC	ae	100	(.25)	Detroit, Mich.	E-9:45-24:00
WMBH	ak	100	(.25)	Joplin, Mo.	C-8:00-21:30
WMFJ	ak	100	....	Daytona Beach, Fla.	E-8:00-24:00
WNRA	ak	100	....	Muscle Shoals, Ala.	C-9:00-13:00; 16:00-21:00
WPAD	ak	100	(.25)	Paducah, Ky.	C-7:00-9:00; 10:00-14:00; 15:00-22:30
WPAR	ak	100	....	Parkersburg, W. Va.	E-10:45-18:30
WPRP	z	100	P (.25)	Ponce, P. R.	A—
WWC	z	1000	P	Spartanburg, S. C.	E—
XEAZ	z	7	....	Guanajuato, Gto.	C—
XEFB	ak	100	....	Monterrey, N. L.	C-8:00-15:00
.....	z	100	DP	Palestine, Tex.	C—

1430 kilocycles (209.7)

CMJP	ak	100	....	Camaguey, Cuba	E-10:00-12:00; 20:00-22:00
KEGA	ah	1000	(5) N	Los Angeles, Calif.	P-8:00-23:00
KGNF	ak	1000	D	North Platte, Neb.	C—Silent
KSO	ak	500	B (1)	Des Moines, Iowa	C-7:00-1:00
WBNS	ae	500	C (1)	Columbus, Ohio	E-7:30-24:00
WHEC	ae	500	C (1)	Rochester, N. Y.	E-9:00-24:00
WHP	ak	500	C (1)	Harrisburg, Pa.	E-9:00-24:00
WNBR	ae	500	(1)	Memphis, Tenn.	C-9:00-21:30
WOKO	aj	500	C (1)	Albany, N. Y.	E-8:00-1:00

1440 kilocycles (208.2)

KDFN	ak	500	....	Casper, Wyo.	M-10:00-11:00
KLS	ag	250	D	Oakland, Calif.	P-8:00-16:30
KXYZ	ak	1000	....	Houston, Texas	C-8:00-22:30
TIFS	z	7.5	(1441)	Cartago, C. R.	C—
WBIG	ae	500	C(1)	Greensboro, N. C.	E-8:00-23:00
WCBA	aj	500	a	Allentown, Pa.	E-12:00-13:30; 18:00-23:00
WMBD	ak	500	C(1)	Peoria, Ill.	C-8:00-24:00

North American B. C. Stations by Frequencies with Sunday's Time on the Air

WSAN	aj	500	a	Allentown, Pa.	E—Silent
XEFI	ae	250	....	Chihuahua, Chih.	C—11:00-15:00; 20:00-22:30

1450 kilocycles (206.8)

CFCT	ae	75	....	Victoria, B. C.	P—11:00-12:30; 18:30-21:00
CHGS	ae	50	F	Summerside, P.E.I.	A—11:00-13:00; 15:30-23:00
KTPS	ak	1000	N	Shreveport, La.	C—8:00-24:00
WGAR	ak	500	B (1)	Cleveland, Ohio	E—8:00-24:00
WIOM	ae	250	....	Jersey City, N. J.	E—7:00-24:00
WSAR	ae	250	....	Fall River, Mass.	E—8:00-15:30; 17:00-22:15
WTFI	ak	500	....	Athens, Ga.	E—9:00-13:15

1460 kilocycles (205.4)

CMKF	z	50	....	Holguin, Cuba	E—
KSTP	ak	25000	N	St. Paul, Minn.	C—8:00-24:00
WJSV	ak	10000	C	Washington, D. C.	E—8:00-1:00

1470 kilocycles (204.0)

CMOK	z	150	....	Havana, Cuba	E—
KGA	ak	5000	N	Spokane, Wash.	P—8:00-24:00
WLAC	ak	5000	C	Nashville, Tenn.	C—8:00-23:30

1480 kilocycles (202.6)

KOMA	ak	5000	C	Oklahoma City, Ok.	C—8:00-24:00
WKBW	ck	5000	C	Buffalo, N. Y.	E—9:00-1:00

1490 kilocycles (201.2)

KFBK	ak	5000	C	Sacramento, Calif.	P—8:00-24:00
WCKY	ae	5000	B	Covington, Ky.	E—8:00-24:00

1500 kilocycles (199.9)

CMCN	z	150	....	Havana, Cuba	E—
KDB	ak	100	C	Santa Barbara, Calif.	P—8:00-24:00
KGFI	ak	100	(.25)	Corpus Christi, Tex.	C—7:00-15:00; 18:00-22:00
KGFK	ak	100	Y	Moorhead, Minn.	C—9:00-21:00
KGKB	ak	100	....	Tyler, Texas	C—8:00-14:00; 17:00-23:00
KGKY	ak	100	(.25)	Scottsbluff, Neb.	M—10:00-12:00
KNEL	z	100	DP	Brady, Tex.	C—
KNOW	ak	100	....	Austin, Texas	C—8:00-21:00
KOTN	ak	100	D	Pine Bluff, Ark.	C—10:00-ss
KPJM	ak	100	....	Prescott, Ariz.	M—17:30-19:00
KPLC	ak	100	....	Lake Charles, La.	C—7:45-14:00; 17:00-21:00
KPO	ak	100	(.25)	Wenatchee, Wash.	P—9:00-21:00
KREG	ak	100	....	Santa Ana, Calif.	P—11:00-12:45; 18:30-23:00
KXO	ae	100	....	El Centro, Calif.	P—9:00-15:00
WCNW	ak	100	1 (.25)	Brooklyn, N. Y.	E—9:00-11:00; 23:00-1:00
WDNC	ae	100	C	Durham, N. C.	E—7:30-00:30
WGAL	ae	100	(.25)	Lancaster, Pa.	E—8:00-18:00
WHEF	ak	100	(.25)	Kosciusko, Miss.	C—8:00-18:00
WJBK	ae	100	(.25)	Detroit, Mich.	E—9:00-24:00
WKBB	ak	100	(.25)	E. Dubuque, Ill.	C—9:00-14:00
WKBV	ak	100	....	Richmond, Ind.	C—Silent
WKBZ	ak	100	(.25)	Muskegon, Mich.	E—7:30-22:00
WKEU	ak	100	....	Griffin, Ga.	C—9:00-17:00
WMBQ	ae	100	1	Brooklyn, N. Y.	E—19:00-23:00
WMEX	ak	100	(.25)	Boston, Mass.	E—
WNBf	ae	100	C	Binghamton, N. Y.	E—10:30-12:00; 13:30-21:30
WOPi	ae	100	....	Bristol, Tenn.	E—10:30-21:30
WRDw	ak	100	....	Augusta, Ga.	E—9:45-21:30
WRGA	ak	100	(.25)	Rome, Ga.	C—9:00-15:00; 18:00-21:00
WSYB	ak	100	....	Rutland, Vt.	E—10:00-11:00
WTMV	ak	100	....	East St. Louis, Ill.	C—8:00-23:00
WWRL	ak	100	1 (.25)	Woodside, N. Y.	E—8:00-9:00; 11:00-19:00
WWSW	ae	100	(.25)	Pittsburgh, Pa.	E—10:30-23:00
.....	z	100	P	St. Louis, Mo.	C—
.....	z	100	P	Valley City, N. Dak.	P—
.....	z	100	DP	Roseburg, Ore.	E—
.....	z	100	DP	Selma, Ala.	E—

1510 kilocycles (198.6)

CFRC ak 100 ..... Kingston, Ont. E—No regular schedule  
 CKCR ak 100 ..... Waterloo, Ont. E—10:00-14:00; 17:00-23:00

1530 kilocycles (196.0)

W1XBS z 1000 ..... Waterbury, Conn. E—.....  
 W9XBY ak 1000 ..... Kansas City, Mo C—8:00-2:00

1550 kilocycles (193.4)

W2XR z 1000 ..... Long Isl. City, N. Y. E—Silent  
 W6XAI ak 1000 ..... Bakersfield, Calif. P—8:00-23:00

KEY TO SYMBOLS

As Shown in the Index by  
 Frequencies and Dial Numbers

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

Second Column Symbols

- a Verifies reception for 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.  
Sends own station stamp for 5c.
- j Sends own station stamp for postage.
- k Has no stamps.
- m Verifies for 5c.
- n Weather or time only.
- z No information available.

Fourth Column Symbols

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

Time on the Air

The time is given in accordance with the "24-hour clock." Noon is always 12:00, but midnight may be either 0:00 or 24:00. To change to time of your own clock, subtract twelve. Thus, 18:00-24:00 is 6:00 p. m. to midnight. 23:00-0:30 is 11:00 p. m. to 12:30 a. m. A signifies Atlantic Standard Time (AST). E is Eastern Standard Time (EST). C is Central Standard Time (CST). P is Pacific Standard Time (PST). L is Local Standard Time (LST).

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				Montgomery			ARIZONA			ARKANSAS				
<b>Birmingham</b>				WSFA	1410	500	C	<b>Jerome</b>			<b>Blytheville</b>			
WAPI	1140	5000	N	<b>Muscle Shoals</b>				KCRJ	1310	100	KLCN 1290 100			
WBRC	930	1000	C	WNRA	1420	100		<b>Lowell</b>			<b>El Dorado</b>			
WSGN	1310	100		<b>Seima</b>				KSN	1200	100	KELD 1370 100			
<b>Decatur</b>				.....	1500	100		<b>Phoenix</b>			<b>Fayetteville</b>			
WMFO	1370	100		<b>ALASKA</b>				KOY	1390	500	KUOA 1260 1000			
<b>Dothan</b>								KTAR	620	1000	N	<b>Fort Smith</b>		
WAGF	1370	100		<b>Anchorage</b>				<b>Prescott</b>			KFPW 1210 100			
<b>Gadsden</b>				KFQD	780	250		<b>Tucson</b>			<b>Hot Springs</b>			
WJBY	1210	100		<b>Juneau</b>				KGAR	1370	100	KTHS 1060 10000 N			
<b>Mobile</b>				KINY	1310	100		<b>Yuma</b>			<b>Jonesboro</b>			
WALA	1380	500	C	<b>Ketchikan</b>				KVOA	1260	500	KBTM 1200 100			
				KGBU	900	500		<b>KUMA</b>						
								KUMA	1420	100				

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

<b>Little Rock</b>	
KARK 890	250
KGHI 1200	100
KLRA 1390	1000 C
<b>Pine Bluff</b>	
KOTN 1500	100
<b>Texarkana</b>	
KCMC 1420	100

**CALIFORNIA**

<b>Bakersfield</b>	
KERN 1370	100 C
W6XAI 1550	1000
<b>Berkeley</b>	
KRE 1370	100
<b>Beverly Hills</b>	
KMPC 710	500
<b>Burbank</b>	
KELW 780	500
<b>Chico</b>	
KHSL 950	250
<b>Del Monte</b>	
KDON 1210	100
<b>El Centro</b>	
KXO 1500	100
<b>Eureka</b>	
KIEM 1210	100
<b>Fresno</b>	
KMJ 580	1000 C
<b>Glendale</b>	
KIEV 850	100
<b>Hollywood</b>	
KFWB 950	1000
KMTR 570	1000
KNX 1050	50000
<b>Long Beach</b>	
KFOX 1250	1000
KGER 1360	1000
<b>Los Angeles</b>	
KECA 1430	1000 N
KEHE 780	500
KFAC 1300	1000
KFI 640	50000 N
KFSG 1120	1000
KFVD 1000	250
KGFJ 1200	100
KHJ 900	1000 C
KRKD 1120	500
<b>Modesto</b>	
KTRB 740	250
<b>Oakland</b>	
KLS 1440	250
KLX 880	1000
KROW 930	1000
<b>Pasadena</b>	
KPPC 1210	50
<b>Sacramento</b>	
KFBK 1490	5000 C
<b>San Bernardino</b>	
KFXM 1210	100
<b>San Diego</b>	
KFSD 600	1000 N
KGB 1330	1000 C
<b>San Francisco</b>	
KFRG 610	1000 C
KGGC 1420	100
KGO 790	7500 N
KJBS 1070	500
KPO 680	50000 N
KSFO 560	1000
KYA 1230	1000 N
<b>San Jose</b>	
KQW 1010	1000
<b>Santa Ana</b>	
KREG 1500	100
<b>Santa Barbara</b>	
KDB 1500	100 C
<b>Stockton</b>	
KGDM 1100	1000

KWG 1200 100 C

**COLORADO**

<b>Alamosa</b>	
KGIW 1420	100
<b>Colorado Springs</b>	
KVOR 1270	1000 C
<b>Denver</b>	
KREL 920	500
KLZ 560	1000 C
KOA 830	50000 N
KPOF 880	500
KVOD 920	500
<b>Durango</b>	
KIUP 1370	100
<b>Grand Junction</b>	
KFXJ 1200	100
<b>Greeley</b>	
KFA 880	500
<b>Lamar</b>	
KIDW 1420	100
<b>Pueblo</b>	
KGHF 1320	500
<b>Sterling</b>	
KGEK 1200	100

**CONNECTICUT**

<b>Bridgeport</b>	
WICG 600	500 C
<b>Hartford</b>	
WDRC 1330	1000 C
WTIC 1040	50000 R
<b>New Britain</b>	
WNBC 1380	250
<b>New Haven</b>	
WMFI 900	500
<b>Storrs</b>	
WCAC 600	500
<b>Waterbury</b>	
WATR 1190	100
WIXBS 1530	1000

**DELAWARE**

<b>Wilmington</b>	
WDEL 1120	250
WILM 1420	100

**DISTRICT OF COLUMBIA**

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

**FLORIDA**

<b>Clearwater</b>	
WFLA 620	1000 N
<b>Daytona Beach</b>	
WMFJ 1420	100
<b>Gainesville</b>	
WRUF 830	5000
<b>Jacksonville</b>	
WJAX 900	1000 N
WMBR 1370	100 C
<b>Miami</b>	
WIOD 1300	1000 N
WQAM 560	1000 C
<b>Orlando</b>	
WDBO 580	1000 C
<b>Pensacola</b>	
WCOA 1340	500 C
<b>St. Petersburg</b>	
WSUN 620	1000 N

<b>Tallahassee</b>	
WTAL 1310	100
<b>Tampa</b>	
WDAE 1220	1000 C

**GEORGIA**

<b>Albany</b>	
WGPC 1420	100
<b>Athens</b>	
WTFI 1450	500
<b>Atlanta</b>	
WGST 890	500 C
WJTL 1370	100
WSB 740	50000 N
<b>Augusta</b>	
WRDW 1500	100
<b>Columbus</b>	
WRBL 1200	100
<b>Griffin</b>	
WKUE 1500	100
<b>Macon</b>	
WMAZ 1180	1000
<b>Rome</b>	
WRGA 1500	100
<b>Savannah</b>	
WTOG 1260	1000 C
Thomasville	
WPAX 1210	250

**HAWAII**

<b>Hilo</b>	
KHBC 1420	100
<b>Honolulu</b>	
KGMB 1320	1000 C
KGU 750	2500 N

**IDAHO**

<b>Boise</b>	
KIDO 1350	1000
<b>Idaho Falls</b>	
KID 1320	250
<b>Lewiston</b>	
KRLC 1420	100
<b>Nampa</b>	
KFXD 1200	100
<b>Pocatello</b>	
KSEI 900	250
<b>Twin Falls</b>	
KTFI 1240	1000

**ILLINOIS**

<b>Bloomington</b>	
WJBC 1200	100
<b>Carthage</b>	
WCZA 1070	100
<b>Chicago</b>	
WAAF 920	500
WBBM 770	50000 C
WCFL 970	1500 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
<b>Cicero</b>	
WEHS 1420	100
WHFC 1420	100
WKBI 1420	100
<b>Decatur</b>	
WJBL 1200	100

<b>East Dubuque</b>	
WKBB 1500	100
<b>East St. Louis</b>	
WTMV 1500	100
<b>Harrisburg</b>	
WEBQ 1210	100
<b>Joliet</b>	
WCLS 1310	100
<b>Peoria</b>	
WMBD 1440	500 C
<b>Quincy</b>	
WTAD 900	500
<b>Rockford</b>	
WROK 1410	500
<b>Rock Island</b>	
WHBF 1210	100
<b>Springfield</b>	
WCBS 1420	100
WTAX 1210	100
<b>Tuscola</b>	
WDZ 1070	100
<b>Urbana</b>	
WILL 890	250
<b>Waukegan</b>	
WCBD 1080	5000

**INDIANA**

<b>Anderson</b>	
WHBU 1210	100
<b>Elkhart</b>	
WTRC 1310	50
<b>Evansville</b>	
WGBF 630	500
<b>Fort Wayne</b>	
WGL 1370	100 C
WOWO 1160	10000 C
<b>Gary</b>	
WIND 560	1000
<b>Hammond</b>	
WWAE 1200	100
<b>Indianapolis</b>	
WFBM 1230	1000 C
WIRE 1400	500 R
<b>Muncie</b>	
WLBC 1310	50
<b>Richmond</b>	
WKBV 1500	100
<b>South Bend</b>	
WFAM 1200	100
WSBT 1360	500 C
<b>Terre Haute</b>	
WBOW 1310	100
<b>West Lafayette</b>	
WBAA 890	1000

**IOWA**

<b>Ames</b>	
WOI 640	5000
<b>Boone</b>	
KFGQ 1370	100
<b>Cedar Rapids</b>	
WMT 600	1000 B
<b>Council Bluffs</b>	
KOIL 1260	1000 B
<b>Davenport</b>	
WOC 1370	100 C
<b>Decorah</b>	
KGCA 1270	100
KWLC 1270	100
<b>Des Moines</b>	
KRNT 1320	500 C
KSO 1430	500 B
WHO 1000	50000 R
<b>Iowa City</b>	
WSUI 880	500
<b>Marshalltown</b>	
KFJB 1200	100

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

<p><b>Shenandoah</b> KFNF 890 500 KMA 930 1000 <b>Sloux City</b> KSCJ 1330 1000 C</p> <p><b>KANSAS</b></p> <p>Ablene 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 KFH 1300 1000 C</p> <p><b>KENTUCKY</b></p> <p>Ashland WCMI 1310 100 Covington WCKY 1490 5000 B Lexington WLAP 1420 100 Louisville WAVE 940 1000 N WHAS 820 5000 C Paducah WPAD 1420 100</p> <p><b>LOUISIANA</b></p> <p>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 C WJBW 1200 100 WSMB 1320 500 N WWL 850 10000 Shreveport KRMD 1310 100 KTBS 1450 1000 N KWEA 1210 100 KWKH 850 1000 C</p> <p><b>MAINE</b></p> <p>Augusta WRDO 1370 100 Bangor WABI 1200 100 WLBZ 620 500 C Portland WCSH 940 1000 R Presque Isle WAGM 1420 100</p>	<p><b>MARYLAND</b></p> <p>Baltimore WBAL 1060 10000 B WCAO 600 500 C WGBM 1370 100 WFBR 1270 500 R Cumberland WTBO 800 250 Frederick WFMD 900 500 Hagerstown WJEF 1210 100</p> <p><b>MASSACHUSETTS</b></p> <p>Babson Park WBOS 920 500 Boston WAAB 1410 500 C WBZ 990 5000 B WCOP 1120 500 WEEL 530 1000 R WHDH 830 1000 WMEX 1500 100 WNAC 1230 1000 C Fall River WSAR 1450 250 Lowell WLLH 1370 100 New Bedford WNBH 1310 100 C Springfield WBZA 990 1000 B WMAS 1420 100 C Worcester WORC 1280 500 C WTAG 580 500 R</p> <p><b>MICHIGAN</b></p> <p>Battle Creek WELL 1420 100 Bay City WBCM 1410 500 Calumet WHDF 1370 100 Detroit WJBK 1500 100 WJR 750 50000 C WMBK 1420 100 WWJ 920 1000 R WXYZ 1240 1000 East Lansing WKAR 1040 1000 Flint WFDF 1310 100 Grand Rapids WASHI 1270 500 WOOD 1270 500 Ironwood WJMS 1420 100 Jackson WJBM 1370 100 Kalamazoo WKZO 590 1000 Lansing WJIM 1210 100 Lapeer WMPG 1200 100 Marquette WBEO 1310 100 Muskegon WKBZ 1500 100 Royal Oak WEXL 1310 50</p> <p><b>MINNESOTA</b></p> <p>Fergus Falls KGDE 1200 100</p>	<p>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 KRCC 1310 100 St. Paul KSFP 1460 25000 N</p> <p><b>MISSISSIPPI</b></p> <p>Clarksdale WMFN 1210 100 Hattiesburg WFPB 1370 100 Jackson WJDX 1270 1000 N Kosciusko WHEF 1500 100 Laurel WAML 1310 100 Meridian WCOC 880 500 Mississippi City WGCM 1120 500 Vicksburg WQBC 1360 1000</p> <p><b>MISSOURI</b></p> <p>Cape Girardeau KFVS 1210 100 Columbia KFRR 630 500 Jefferson City WOS 630 500 Joplin WMBH 1420 100 Kansas City KMBC 950 1000 C KWKC 1370 100 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 ... 1500 100 Springfield KGBZ 1230 500 KWTO 560 5000</p> <p><b>MONTANA</b></p> <p>Billings KGHL 780 1000 N Butte KGIR 1340 1000 N Great Falls KFBB 1280 1000 Kalispell KGEZ 1310 100 Missoula KGVO 1260 1000 Wolf Point KGXC 1310 100</p>	<p><b>NEBRASKA</b></p> <p>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 1000 R Scottsbluff KGKY 1500 100 York KGBZ 930 1000</p> <p><b>NEVADA</b></p> <p>Reno KOH 1380 500 C</p> <p><b>NEW HAMPSHIRE</b></p> <p>Laconia WLNH 1310 100 Manchester WFEA 1340 500 C Portsmouth WHEB 740 250</p> <p><b>NEW JERSEY</b></p> <p>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</p> <p><b>NEW MEXICO</b></p> <p>Albuquerque KGCM 1230 250 KOB 1180 10000 Clovis KICA 1370 100 Roswell KCFE 1370 100 Santa Fe KIUF 1310 100</p> <p><b>NEW YORK</b></p> <p>Albany WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500</p>
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NORTH AMERICAN B. C. STATIONS BY LOCATIONS

WBBC 1400 500	Winston-Salem	OREGON	WBRE 1310 100
WBBR 1300 1000	WSJS 1310 100 C	Astoria	Williamsport
WGNW 1500 100	<b>NORTH DAKOTA</b>	KAST 1370 100	WRAC 1370 100
WLTH 1400 500	Bismarck	Corvallis	York
WMBQ 1500 100	KFYR 550 1000 N	KOAC 550 1000	WORK 1320 1000
WVFW 1400 500	Devils Lake	Eugene	<b>PUERTO RICO</b>
Buffalo	KDLR 1210 100	KORE 1420 100	Ponce
WBN 900 1000 R	Fargo	Klamath Falls	WPRP 1420 100
WEER 1310 100	WDAY 940 1000 N	KFJI 1210 100	San Juan
WGR 550 1000 C	Grand Forks	Marshfield	WKAQ 1240 1000
WKBW 1480 5000 C	KFJM 1370 100	KOOS 1390 250	WNEL 1290 500
WVSV 1370 50	Mandan	Medford	<b>RHODE ISLAND</b>
Canton	KGCU 1240 250	KMED 1310 100	Newport
WCAD 1220 500	Minot	Portland	WNRI 1200 100
Chester	KLPN 1240 250	KALE 1300 500 C	Providence
WGNV 1210 100	Valley City	KBPS 1420 100	WEAN 780 500 C
Elmira	..... 1500 100	KEX 1180 5000 N	WJAR 890 500 R
WESG 850 1000 C	<b>OHIO</b>	KFJR 1300 500	WPRO 630 250
Freeport	Akron	KGW 620 1000 N	
WGBB 1210 100	WADC 1320 1000 C	KOIN 940 1000 C	<b>SOUTH CAROLINA</b>
Jamestown	WJW 1210 100	KWJJ 1040 500	Anderson
WOCL 1210 50	Canton	KXL 1420 100	WAIM 1200 100
Long Island City	WBBC 1200 100	Roseburg	Charleston
W2XR 1550 1000	Cincinnati	Salem	WCSC 1360 500
New York	WBFB 1200 100	KSLM 1370 100	Columbia
WABC 860 50000 C	WKRC 1200 1000 C	<b>PENNSYLVANIA</b>	WIS 1010 500 N
WBNX 1350 250	WLW 700 500000 N	Allentown	Greenville
WBOQ 860 50000	WSAI 1330 1000 R	WCBA 1440 500	WFBC 1300 1000
WEAF 660 50000 R	Cleveland	WSAN 1440 500	Spartanburg
WEVD 1300 1000	WGAR 1450 500 B	Altoona	WSPA 920 1000
WFAB 1300 1000	WHK 1390 1000 C	WFBG 1310 100	WWC 1420 1000
WHN 1010 1000	WJAY 610 500	Erie	
WINS 1180 1000	WTAM 1070 50000 R	WLEU 1420 100	<b>SOUTH DAKOTA</b>
WJZ 760 50000 B	Columbus	Glenside	Aberdeen
WLWL 1100 5000	WAIU 640 500	WIBG 970 100	KABR 1420 100
WMCA 570 500	WBNS 1430 500 C	Greensburg	Brookings
WNYC 810 1000	WCOL 1210 100	WHJB 620 250	KFDY 780 1000
WOV 1130 1000	WOSU 570 750	Grove City	Huron
Olean	Dayton	WSAJ 1310 100	KGDY 1340 250
WHDL 1420 100	WHIO 1260 1000 R	Harrisburg	Pierre
Plattsburg	WSMK 1380 200 C	WHP 1430 500 C	KGFX 630 200
WMF 1310 100	Portsmouth	WKBO 1200 100	Rapid City
Rochester	WPAY 1370 100	Hazleton	WCAT 1200 100
WHAM 1150 50000 B	Toledo	WAZL 1420 100	Sioux Falls
WHIC 1430 500 C	WSPD 1340 1000 C	Johnstown	KSOO 1110 2500
Saranac Lake	Youngstown	WJAC 1310 100	Vermillion
WNBZ 1290 100	WKBN 570 500 C	Lancaster	KUSD 890 500
Schenectady	Zanesville	WGAL 1500 100	Watertown
WGY 790 50000 R	WLR 1210 100	WKJC 1200 100	KWTN 1210 100
Syracuse	<b>OKLAHOMA</b>	Philadelphia	Nankton
WBEL 1360 1000 C	Ada	KYW 1020 10000 R	WNAX 570 1000 C
WSYR 570 250 B	KADA 1200 100	WCAU 1170 50000 C	<b>TENNESSEE</b>
Troy	Ardmore	WDAS 1370 100	Bristol
WHAZ 1300 500	KVSO 1200 100	WFIL 560 1000 B	WOPJ 1500 100
Utica	Elk City	WHAT 1310 100	Chattanooga
WIBX 1200 100 C	KASA 1210 100	WIP 610 1000	WDOD 1280 1000 C
White Plains	Enid	WPEN 920 250	Jackson
WFAS 1210 100	KCRC 1360 250	WRAX 920 250	WTJS 1310 100
Woodside	Norman	WTEL 1310 100	Knoxville
WWRL 1500 100	WNAD 1010 1000	Pittsburgh	WROL 1310 100
<b>NORTH CAROLINA</b>	Oklahoma City	KDKA 980 50000 B	
Asheville	KFPXR 1310 100	KOV 1380 500	
WVNC 570 1000 N	KGFG 1370 100	WCAE 1220 1000 R	
Charlotte	KOMA 1480 5000 C	WJAS 1290 1000 C	
WBT 1080 50000 C	WKY 900 1000 N	WWSW 1500 100	
WSOC 1210 100 N	Ponca City	Reading	
Durham	WBZZ 1200 100	WEEU 830 1000	
WDNC 1500 100 C	Shawnee	WRAW 1310 100	
Greensboro	KGFF 1420 100	Scranton	
WBIG 1440 500 C	Tulsa	WGBI 880 500	
High Point	KTUL 1400 500 C	WQAN 880 250	
WMFR 1200 100	KVOO 1140 25000 N	Sunbury	
Raleigh		WKOK 1210 100	
WPTF 680 5000 N		Wilkes-Barre	
Rocky Mount		WBAX 1210 100	
WEED 1420 100			
Wilmington			
WMFD 1370 100			

## NORTH AMERICAN B. C. STATIONS BY LOCATIONS

TEXAS	VIRGINIA	Fond du Lac	Winnipeg	
Amarillo	Arlington	KFJZ 1420 100	CJRC 1390 100 F	
KGNC 1410 1000	NAA 690 1000	Green Bay	CKY 960 15000 F	
Austin	Charlottesville	WBHY 1200 100	<b>NEW BRUNSWICK</b>	
KNOW 1500 100	WEHC 1420 100	Janesville	Fredericton	CFNB 550 500 F
Beaumont	Danville	WCLO 1200 100	Moncton	CKCW 1370 100 F
KFDM 560 500	WBTM 1370 100	LaCrosse	St. John	CHSJ 1120 500 F
Brady	Harrisonburg	WKBH 1380 1000	<b>N. W. TERRITORY</b>	
KNEL 1500 100	WSVA 550 500	Madison	Aklavik	CJCU 1210 50
College Station	Lynchburg	WHA 940 1000	<b>NOVA SCOTIA</b>	
WTAW 1120 500	WLVA 1200 100	WIBA 1280 1000 N	Glace Bay	VAS 685 2000
Corpus Christi	Newport News	Manitowoc	Halifax	CHNS 930 1000 F
KGFI 1500 100	WGHW 1310 100	WOMT 1210 100	Sydney	CJCB 1240 1000 F
Dallas	Norfolk	Milwaukee	Wolfville	CKIC 1010 50
KRLD 1040 10000 C	WTAR 780 500 N	WISC 1310 100	Yarmouth	CJLS 1310 100
WFAA 800 50000 N	Petersburg	WISN 1120 250 C	<b>ONTARIO</b>	
WRR 1280 500	WPIR 880 500	WTMJ 620 1000 N	Brantford	CKPC 930 100 F
Dublin	Richmond	Paynette	Chatham	CFCO 630 100 F
KFPL 1310 100	WBBL 1210 100	WIBU 1210 100	Cobalt	CKMC 1210 50
El Paso	WMBG 1210 100 C	Racine	Fort William	CKPR 930 100 F
KTSM 1310 100	WRVA 1110 5000 N	WRJN 1370 100	Hamilton	CHML 1010 50 F
WDAH 1310 100	Roanoke	Sheboygan	CKOC 1120 500 F	
Fort Worth	WDBJ 930 1000 C	WHBL 1410 500	Kingston	CFRC 1510 100
KFJZ 1370 100	WRBX 1410 250	Stevens Point	Kirkland Lake	CJKL 530 1000
KTAT 1240 1000 C	<b>WASHINGTON</b>		London	CFPL 730 100 F
WBAP 800 50000 N	Aberdeen	Superior	North Bay	CFCH 930 100 F
Galveston	KXRO 1310 100	WEBC 1290 1000 N	Ottawa	CKCO 1010 100
KLUF 1370 100	Bellingham	<b>WYOMING</b>		CRKO 880 1000 F
Houston	KVOS 1200 100	Casper	KDFN 1440 500	Prescott
KPRC 920 1000 N	Everett	Sheridan	KWYO 1370 100	CKLC 930 100
KTRH 1290 1000 C	KRKO 1370 50	<b>CANADA</b>		St. Catharines
KXYZ 1440 1000	Olympia	<b>ALBERTA</b>		CKTB 1200 100 F
Longview	KG Y 1210 100	Calgary	CFAC 930 100 F	Sault Ste. Marie
KFRO 1370 100	Pullman	CFCN 1030 10000 F	CJGJ 690 100 F	GJIC 890 100
Lubbock	KWSC 1220 1000	CJGJ 690 100 F	Edmonton	Stratford
KFYO 1310 100	Seattle	Edmonton	CFRM 1260 100	CJCS 1210 50
Palestine	KJR 970 5000 N	CJGA 730 1000 F	CFAC 930 100 F	Sudbury
Pecos	KOL 1270 1000 C	CKUA 580 500	CFCN 1030 10000 F	CKSO 780 1000
KIUN 1420 100	KOMO 920 1000 N	Lethridge	CJGJ 690 100 F	CKGB 1420 100
Port Arthur	KPCB 710 250	CJOC 1230 100 F	Edmonton	Toronto
KPAC 1260 500	KRSC 1120 100	Chilliwack	CFRM 1260 100	CFRB 690 10000 C
San Angelo	KTW 1220 1000	CHWK 780 100 F	CJGA 730 1000 F	CKCL 580 100 F
KGKL 1370 100	KVL 1370 100	Kamloops	CKUA 580 500	CKNC 1420 100 F
San Antonio	KXA 760 250	CFJC 880 100 F	Lethridge	CRCT 840 5000 N
KABC 1420 100	Spokane	Kelowna	CJOC 1230 100 F	Waterloo
KMAC 1370 100	KFIO 1120 100	CKOV 630 100 F	Chilliwack	CKCR 1510 100
KONO 1370 100	KFPY 890 1000 C	Prince Rupert	Chilliwack	Windsor
KTSA 550 1000 C	KG A 1470 5000 N	CFPR 580 50	Chilliwack	CKLW 1030 5000
WOAI 1190 50000 N	KHQ 590 1000 N	Trail	Chilliwack	CRGW 600 500 F
Tyler	Tacoma	CJAT 910 250 F	Chilliwack	Wingham
KGKB 1500 100	KMO 1330 250	Vancouver	Chilliwack	CKNX 1200 50
WACO 1420 100 C	KVI 570 1000 C	CJOR 600 500	Chilliwack	
Weslaco	Walla Walla	CKCD 1010 100	Chilliwack	
KRCV 1260 500	KUJ 1370 100	CKFC 1410 50	Chilliwack	
Wichita Falls	Wenatchee	CKMO 1410 100 F	Chilliwack	
KGKO 570 250 C	KPO 1500 100	CKWX 1010 100 F	Chilliwack	
<b>UTAH</b>		CRCV 1100 500 F	Chilliwack	
Ogden	Bluefield	Victoria	Chilliwack	
KLO 1400 500 C	WHIS 1410 250	CFCT 1450 75	Chilliwack	
Salt Lake City	Charleston	<b>MANITOBA</b>		
KDYL 1290 1000 N	WCHS 580 500	Brandon	Chilliwack	
KSL 1130 50000 C	Fairmont	CKX 1120 100 F	Chilliwack	
<b>VERMONT</b>		<b>WEST VIRGINIA</b>		
Burlington	Bluefield	WHIS 1410 250	Chilliwack	
WCAX 1200 100	Charleston	WCHS 580 500	Chilliwack	
Rutland	Fairmont	WMMN 890 500	Chilliwack	
WSYB 1500 100	Huntington	WSAZ 1190 1000	Chilliwack	
St. Albans	Parkersburg	WPARK 1420 100	Chilliwack	
WQDM 1370 100	Wheeling	WWVA 1160 5000 C	Chilliwack	
Springfield	<b>WISCONSIN</b>		Chilliwack	
WNBX 1260 1000	Eau Claire	WTAQ 1330 1000	Chilliwack	
Waterbury	<b>WISCONSIN</b>		Chilliwack	
WDEV 550 500	Eau Claire	WTAQ 1330 1000	Chilliwack	

# NORTH AMERICAN B. C. STATIONS BY LOCATIONS

<p style="text-align: center;"><b>PRINCE EDWARD ISLAND</b></p> <p>Charlottetown CFPY 630 1000 F CHCK 1310 50 Summerside CHGS 1450 50 F</p> <p style="text-align: center;"><b>QUEBEC</b></p> <p>Chicoutimi CRCS 950 100 F Hull CKCH 1210 100 F Montmagny VE9EK 1185 10 Montreal CFCE 600 400 N CHLP 1120 100 CKAC 730 5000 C CRGM 910 5000 F New Carlisle CHNC 1410 500 F Quebec CHRC 580 100 F CKCV 1310 100 F CKCK 1050 1000 F</p> <p style="text-align: center;"><b>SASKATCHEWAN</b></p> <p>Moose Jaw GHAB 1200 100 F CJRM 540 1000 F Prince Albert CKBI 1210 100 F Regina CHWK 1010 500 F CKCK 1010 500 F Saskatoon CFQC 840 1000 F Yorkton CJGK 630 500 F</p> <p style="text-align: center;"><b>NEWFOUNDLAND</b></p> <p>St. John's VOAC 1065 40 VOAS 940 100 VOGY 840 400 VONF 1195 500 VOWR 681 500</p> <p style="text-align: center;"><b>MIQUELON</b></p> <p>St. Pierre FQN 609 250</p> <p style="text-align: center;"><b>CENTRAL AMERICA</b></p> <p style="text-align: center;"><b>COSTA RICA</b></p> <p>Cartago TIFS 1441 7.5 TIGA 1014 30 San Jose TIEP 850 500 TIFA 1050 75 TIGH 1000 500 TIRH 930 50</p> <p style="text-align: center;"><b>GUATEMALA</b></p> <p>Guatemala City TGW 565 10000 TGX 1400 150</p> <p style="text-align: center;"><b>EL SALVADOR</b></p> <p>San Salvador RDN 706 500</p>	<p style="text-align: center;"><b>MEXICO</b></p> <p style="text-align: center;"><b>AGUASCALIENTES</b></p> <p>Aguascalientes XFA 1310 5 XFC 810 350</p> <p style="text-align: center;"><b>BAJA CALIFORNIA</b></p> <p>Ensenada XEG 1270 200 Mexicali XEAA 920 200 XEAO 560 250 Tijuana XEC 1160 30 XEMO 865 5000 XEMZ 1210 250 XEOK 760 250</p> <p style="text-align: center;"><b>CHIHUAHUA</b></p> <p>Chihuahua XEFI 1440 250 Juarez XEFV 1210 100 XEJ 1020 1000</p> <p style="text-align: center;"><b>COAHUILA</b></p> <p>Piedras Negras XELO 1110 10000 XEPN 590 50000 Saltillo XELA 1240 50 XEOX 640 250</p> <p style="text-align: center;"><b>D. F.</b></p> <p>Mexico City XEAI 1240 100 XEB 1030 10000 XFCW 1310 10 XEFA 1180 500 XEFO 940 5000 XEFZ 1370 100 XEK 990 100 XEL 1100 250 XEMX 1280 12 XEN 710 1000 XEO 940 5000 XEP 840 500 XETW 820 500 XEW 890 50000 XEWZ 1150 100 XEYZ 780 10000 XFX 610 1000</p> <p style="text-align: center;"><b>DURANGO</b></p> <p>Durango XEE 1210 50</p> <p style="text-align: center;"><b>GUANJUATO</b></p> <p>Guanajuato XEAZ 1420 7 Leon XEKL 1240 500</p> <p style="text-align: center;"><b>JALISCO</b></p> <p>Guadalajara XEA 1060 125 XED 1155 2500</p>	<p style="text-align: center;"><b>MICHOACAN</b></p> <p>Morelia XEI 1370 125</p> <p style="text-align: center;"><b>NUEVO LEON</b></p> <p>Monterrey XEFB 1420 100 XEFJ 1230 100 XEI 1150 250 XET 690 500 XEX 1310 125</p> <p style="text-align: center;"><b>OAXACA</b></p> <p>Oaxaca XEAJ 1310 15</p> <p style="text-align: center;"><b>PUEBLA</b></p> <p>Puebla XETH 1210 100</p> <p style="text-align: center;"><b>SAN LUIS POTOSI</b></p> <p>San Luis Potosi XEZZ 1370 100</p> <p style="text-align: center;"><b>SONORA</b></p> <p>Nogales XEAJ 990 500</p> <p style="text-align: center;"><b>TAMAULIPAS</b></p> <p>Matamoros XEAM 750 7.5 Nuevo Laredo XEFB 850 250 XENT 910 65000 Reynosa XEAJ 960 50000 Tampico XEFW 1310 250 XEMA 1080 50 XES 990 250</p> <p style="text-align: center;"><b>VERACRUZ</b></p> <p>Jalapa XFB 1270 250 XFD 1340 350 Veracruz XETF 1220 12 XEU 1010 250</p> <p style="text-align: center;"><b>YUCATAN</b></p> <p>Merida XEFC 560 100 XEY 1000 10 XEZ 630 500</p>	<p>CMJP 1430 100 Cardenas CMGE 1370 50 Ciego de Avila CMJH 1360 100 CMJI 1130 50 CMJO 1180 50 Cienfuegos CMHJ 1160 100 CMHW 810 100 CMHX 760 500 Cruces CMHK 1330 250 Havana CMAF 730 250 CMRC 940 200 CMBD 1170 150 CMBG 1140 200 CMBN 880 150 CMB5 770 150 CMBX 1380 150 CMBY 640 150 CMBZ 1000 250 CMCA 1350 250 CMCB 1230 150 CMCD 960 250 CMCF 815 250 CMCG 1255 250 CMCJ 1200 350 CMCN 1500 150 CMCO 1110 250 CMCO 680 250 CMCR 1410 150 CMCU 1280 150 CMCW 750 150 CMCX 660 150 CMCY 1030 1000 CMK 1060 250 CMOA 790 150 CMOK 1470 150 CMOX 1320 250 CMQ 840 500 CMW 600 1000 CMX 920 650 Holguin CMKF 1460 50 Manzanillo CMKM 1120 50 Matanzas CMGC 1400 100 CMGF 1120 100 CMGI 1420 50 Sagua la Grande CMHA 1070 50 San Spiritus CMHB 1240 50 Santa Clara CMHI 1210 150 Santiago CMKC 1250 150 CMKD 1050 250 CMKR 1400 100 CMKV 1190 50</p> <p style="text-align: center;"><b>DOMINICAN REPUBLIC</b></p> <p>San Pedro de Macoris HIH 1395 15 Santo Domingo HIJ 1195 15 HIX 1270 1000 HIZ 1300 10</p> <p style="text-align: center;"><b>HAITI</b></p> <p>Port-au-Prince HIK 920 1000</p>
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## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>CFAC</b> 930 100	Calgary, Alta.	<b>CJLS</b> 1310 100	Yarmouth, N. S.
Calgary Herald, Southam Bldg.		Laurie L. Smith, Grand Hotel	
<b>CFCF</b> 600 400	Montreal, Que.	<b>CJOC</b> 1230 100	Lethbridge, Alta.
Mt. Royal Hotel		Marquis Hotel	
<b>CFCH</b> 930 100	North Bay, Ont.	<b>CJOR</b> 600 500	Vancouver, B. C.
Capitol Theatre Bldg.		G. C. Chandler, Hotel Grosvenor	
<b>CFCN</b> 1030 10000	Calgary, Alta.	<b>CJRC</b> 1390 100	Winnipeg, Man.
Toronto Gen. Trust Bldg.		Royal Alexandra Hotel	
<b>CFCO</b> 630 100	Chatham, Ont.	<b>CJRM</b> 540 1000	Moose Jaw, Sask.
Wm. Pitt Hotel		311 Main St. No.	
<b>CFCT</b> 1450 75	Victoria, B. C.	<b>CKAC</b> 730 5000	Montreal, Que.
#20 View St.		980 St. Catherine St. W.	
<b>CFCY</b> 630 1000	Charlottetown, P.E.I.	<b>CKBI</b> 1210 100	Prince Albert, Sask.
143 Great George St.		Canada Bldg.	
<b>CFJC</b> 880 100	Kamloops, B. C.	<b>CKCD</b> 1010 100	Vancouver, B. C.
Wileox-Hall Bldg.		142 Hastings St. W.	
<b>CFLC</b> 930 100	Prescott, Ont.	<b>CKCH</b> 1210 100	Hull, Que.
Hoy Bldg., 307 George St.		Standish Hall Hotel	
<b>CFNB</b> 550 500	Fredericton, N. B.	<b>CKCK</b> 1010 500	Regina, Sask.
York St.		1853 Hamilton St.	
<b>CFPL</b> 730 100	London, Ont.	<b>CKCL</b> 580 100	Toronto, Ont.
Richmond St.		444 University Ave.	
<b>CFPR</b> 580 50	Prince Rupert, B. C.	<b>CKCO</b> 1010 100	Ottawa, Ont.
Felix E. Batt		272 Somerset St. W.	
<b>CFQC</b> 840 1000	Saskatoon, Sask.	<b>CKCR</b> 1510 100	Waterloo, Ont.
216 First Ave., No.		24 King St. So.	
<b>CFRB</b> 690 10000	Toronto, Ont.	<b>CKCV</b> 1310 100	Quebec, Que.
37 Bloor St. W.		142 St. John St.	
<b>CFRC</b> 1510 100	Kingston, Ont.	<b>CKCW</b> 1370 100	Moncton, N. B.
Queens University, Fleming Hall		Moncton Brdstrg. Co., Ltd., K. of P. Ha	
<b>CFRN</b> 1260 100	Edmonton, Alta.	<b>CKFC</b> 1410 50	Vancouver, B. C.
109 C. P. R. Building		Hemlock & 12th Ave.	
<b>CHAB</b> 1200 100	Moose Jaw, Sask.	<b>CKGB</b> 1420 100	Timmins, Ont.
P. O. Box 26		R. H. Thompson, Press Bldg.	
<b>CHCK</b> 1310 50	Charlottetown, P.E.I.	<b>CKIC</b> 1010 50	Wolfville, N. S.
36 Upper Hillsboro St.		Acadia University	
<b>CHGS</b> 1450 50	Summerside, P.E.I.	<b>CKLW</b> 1030 5000	Windsor, Ont.
190 Water St.		Guaranty Trust Bldg.	
<b>CHLP</b> 1120 100	Montreal, Que.	<b>CKMC</b> 1210 50	Cobalt, Ont.
Sun Life Bldg.		R. L. MacAdam	
<b>CHML</b> 1010 50	Hamiiltan, Ont.	<b>CKMO</b> 1410 100	Vancouver, B. C.
Pigott Bldg.		1604 Bekins Bldg.	
<b>CHNC</b> 1410 500	New Carlisle, Que.	<b>CKNC</b> 1420 100	Toronto, Ont.
Gaspeian Radio Brdstrg. Co.		805 Davenport Road	
<b>CHNS</b> 930 1000	Halifax, N. S.	<b>CKNX</b> 1200 50	Wingham, Ont.
Lord Nelson Hotel		Wingham Radio Club	
<b>CHRC</b> 580 100	Quebec, Que.	<b>CKOC</b> 1120 500	Hamilton, Ont.
CHRC, Ltd., Victoria Hotel		Wentworth Bldg.	
<b>CHSJ</b> 1120 500	St. John, N. B.	<b>CKOV</b> 630 100	Kelowna, B. C.
Admiral Beatty Hotel		Okanagan Broadcasters, Ltd., Box 243	
<b>CHWC</b> 1010 500	Regina, Sask.	<b>CKPC</b> 930 100	Brantford, Ont.
R. H. Williams & Sons, Kitchener Hotel		Arcade Bldg.	
<b>CHWK</b> 780 100	Chilliwack, B. C.	<b>CKPR</b> 930 100	Fort William, Ont.
Box 452		Royal Edward Hotel	
<b>CJAT</b> 910 250	Trail, B. C.	<b>CKSO</b> 780 1000	Sudbury, Ont.
Kootenay Brdstrg. Co.		W. E. Mason, Grand Theatre Bldg.	
<b>CJCA</b> 730 1000	Edmonton, Alta.	<b>CKTB</b> 1200 100	St. Catharines, Ont.
10122-100A St.		E. T. Sandell, Welland House	
<b>CJCB</b> 1240 1000	Sydney, N. S.	<b>CKUA</b> 580 500	Edmonton, Alta.
318 Charlotte St.		University of Alberta	
<b>CJ CJ</b> 690 100	Calgary, Alta.	<b>CKWX</b> 1010 100	Vancouver, B. C.
New Albertan Bldg.		Hotel Georgia	
<b>CJCS</b> 1210 50	Stratford, Ont.	<b>CKX</b> 1120 100	Brandon, Man.
M. I. Higgins, 151 Ontario St.		City Hall Square	
<b>CJCU</b> 1210 50	Aklavik, N. W. T.	<b>CKY</b> 960 15000	Winnipeg, Man.
Dr. J. A. Urquhart, Dept. of Interior		Sherbrooke St.	
<b>CJGX</b> 630 500	Yorkton, Sask.	<b>CMAF</b> 730 250	Havana, Cuba
188 Grain Exchange Bldg. (Winnipeg)		1 y 8 Rept. Miramar	
<b>CJIC</b> 890 100	S. Ste. Marie, Ont.	<b>CMBC</b> 940 200	Havana, Cuba
Windsor Hotel		Domingo Fernandez, Maximo Gomez No. 139	
<b>CJKL</b> 530 1000	Kirkland Lake, Ont.	<b>CMBD</b> 1170 150	Havana, Cuba
O. J. Thorpe		Luis Perez Garcia, Calle 17 No. 3, Vedado	

## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>CMBG 1140</b>	200	Havana, Cuba	<b>CMIAH 1360</b>	100	Ciego de Avila, Cuba
John L. Stowers, Hospital No. 100			Luis Marauri, H. Castilla 37		
<b>CMBN 880</b>	150	Havana, Cuba	<b>CMJI 1130</b>	50	Ciego de Avila, Cuba
Pozos Dulac No. 3			Gilberto Gessa Lopez, Independencia 95		
<b>CMBS 770</b>	150	Havana, Cuba	<b>CMJK 780</b>	250	Camaguey, Cuba
Caizada y H. St., Vedado			Cla. Nacional de Radio, Finlay No. 3		
<b>CMBX 1380</b>	150	Havana, Cuba	<b>CMJL 1340</b>	100	Camaguey, Cuba
Alberto Alvarez, San Miguel 194			M. Caymares, Republica 181		
<b>CMBY 640</b>	150	Havana, Cuba	<b>CMJO 1180</b>	50	Ciego de Avila, Cuba
Infanta 132 Callejas Estefani			C. Central & Maceo		
<b>CMBZ 1000</b>	250	Havana, Cuba	<b>CMJP 1430</b>	100	Camaguey, Cuba
Manuely G. Salas, San Rafael No. 14			Cesar Canall, Callejas No. 28		
<b>CMCA 1350</b>	250	Havana, Cuba	<b>CMK 1060</b>	250	Havana, Cuba
Galiano No. 102			Hotel Plaza		
<b>CMCB 1230</b>	150	Havana, Cuba	<b>CMKC 1250</b>	150	Santiago, Cuba
Metropolitan Bldg. 828/30.			J. A. Saco, P. O. Box 466		
<b>CMCD 960</b>	250	Havana, Cuba	<b>CMKD 1050</b>	250	Santiago, Cuba
Calle G y 25, Vedado			Box 23		
<b>CMCF 815</b>	250	Havana, Cuba	<b>CMKF 1460</b>	50	Holguin, Cuba
Cuban Brdestg. Co., Paseo de Marti No. 9			Libertad esq. Arlas		
<b>CMCG 1255</b>	250	Havana, Cuba	<b>CMKM 1120</b>	50	Manzanillo, Cuba
Malecon No. 340 Altos			Merchan P. Pigeredo		
<b>CMCJ 1200</b>	350	Havana, Cuba	<b>CMKR 1400</b>	100	Santiago, Cuba
Rafael Rodriguez, Estevez No. 4			B. Maso alta 71		
<b>CMCN 1500</b>	150	Havana, Cuba	<b>CMKV 1190</b>	50	Santiago, Cuba
Reina y Ave. Buen Ritiroe, Marianao			Oscar Vidal, Palma Soriano		
<b>CMCO 1110</b>	250	Havana, Cuba	<b>CMOA 790</b>	150	Havana, Cuba
Oficios 116, Enrique Lasanta			Juan Fernandez, Aguilar 126 Altos		
<b>CMCQ 680</b>	250	Havana, Cuba	<b>CMOK 1470</b>	150	Havana, Cuba
Vista Alegre No. 80, Vibora			Rafael Valdez, Marques Gonzales 52		
<b>CMCR 1410</b>	150	Havana, Cuba	<b>CMOX 1320</b>	250	Havana, Cuba
Milagros No. 35, Vibora			10 entre 17 y 19, Vedado		
<b>CMCU 1280</b>	150	Havana, Cuba	<b>CMQ 840</b>	500	Havana, Cuba
San Francisco No. 13, Vibora			25 Numero 445, Vedado		
<b>CMCW 750</b>	150	Havana, Cuba	<b>CMW 600</b>	1000	Havana, Cuba
San Lazaro No. 113			Troncoso Gil, Prado 103		
<b>CMCX 660</b>	150	Havana, Cuba	<b>CMX 920</b>	650	Havana, Cuba
Maceo No. 7, Guanabacoa			Casa "Lavin," Ave. del a Republica 99.A		
<b>CMCY 1030</b>	1000	Havana, Cuba	<b>CRCK 1050</b>	1000	Quebec, Que.
Manuel D. Autran, Calle G 215, Vedado			Chateau Frontenac Hotel		
<b>CMGC 1400</b>	100	Matanzas, Cuba	<b>CRCM 910</b>	5000	Montreal, Que.
Independencia No. 56			1231 St. Catherine St. W.		
<b>CMGE 1370</b>	50	Cardenas, Cuba	<b>CRCO 880</b>	1000	Ottawa, Ont.
Genaro Sebater, Cespedes No. 180			Chateau Laurier Hotel		
<b>CMGF 1120</b>	100	Matanzas, Cuba	<b>CRCS 950</b>	100	Chicoutimi, Que.
G. Betancourt No. 51			4 Rue Larouche		
<b>CMGI 1420</b>	50	Matanzas, Cuba	<b>CRCT 840</b>	5000	Toronto, Ont.
Armando Lizama Mart No. 35			805 Davenport Road		
<b>CMHA 1070</b>	50	Sagua Grande, Cuba	<b>CRCV 1100</b>	500	Vancouver, B. C.
Abelardo Menocal, Carrillo No. 31			1150 Main Street		
<b>CMHB 1240</b>	50	San Spiritus, Cuba	<b>CRCW 600</b>	500	Windsor, Ont.
Independencia No. 33			Guaranty Trust Bldg.		
<b>CMHD 1270</b>	250	Caibarien, Cuba	<b>FQN 609</b>	250	St. Pierre, Miq.
Manuel Alvarez, M. Escobar 17					
<b>CMHI 1210</b>	150	Santa Clara, Cuba	<b>HHK 920</b>	1000	Port-au-Prince, Hait
Lavis y Paz, Independencia No. 34			Haitian Government		
<b>CMHJ 1160</b>	100	Cienfuegos, Cuba	<b>HHH 1395</b>	15	San Pedro de M., D.R.
Romoualde Ugalde, Sta. Elena 184			Domingo Dominguez		
<b>CMHK 1330</b>	250	Cruces, Cuba	<b>HJ 1195</b>	15	Santo Domingo, D.R.
Heredia No. 61			Tuto Baez, Hostos 34		
<b>CMHW 810</b>	100	Cienfuegos, Cuba	<b>HIX 1270</b>	1000	Santo Domingo, D. R.
P. O. Box 226, Ramon Gonzalles			J. R. Saladin, Director General		
<b>CMHX 760</b>	500	Cienfuegos, Cuba	<b>HIZ 1300</b>	10	Santo Domingo, D. R.
F. Chavarry, P. O. Box 205			Abbes and Garcia		
<b>CMJA 1010</b>	50	Camaguey, Cuba	<b>KABC 1420</b>	100	San Antonio, Texas
Maceo No. 1, Rafael Vaides			Texas Theatre Bldg.		
<b>CMJC 1390</b>	150	Camaguey, Cuba	<b>KABR 1420</b>	100	Aberdeen, S. Dak.
Cisneros y G. Gomez			Aberdeen Broadcast Co.		
<b>CMJE 1220</b>	50	Camaguey, Cuba	<b>KADA 1200</b>	100	Ada, Okla.
Manuel Fernandez, Hnos. Arterre No. 2			C. C. Morris		
<b>CMJF 1150</b>	200	Camaguey, Cuba	<b>KALB 1420</b>	100	Alexandria, La.
John L. Stowers, Republica No. 88			Alexandria Brdestg. Co.		

## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>KALE 1300 500</b> Portland, Ore. Kale, Inc., New Heathman Hotel	<b>KFJI 1210 100</b> Klamath Falls, Ore. KFJI Broadcasters, Inc., Willard Hotel
<b>KARK 890 250</b> Little Rock, Ark. N. S. L. Bldg.	<b>KFJM 1370 100</b> Grand Forks, N. D. University of North Dakota
<b>KASA 1210 100</b> Elk City, Okla. E. M. Woody, Casa Grande Hotel	<b>KFJR 1300 500</b> Portland, Ore. 622 Lumberman's Bldg.
<b>KAST 1370 100</b> Astoria, Ore. Abraham Shapiro, 611 Commercial St.	<b>KFJZ 1370 100</b> Fort Worth, Texas 502 Trinity Life Bldg.
<b>KBPS 1420 100</b> Portland, Ore. 546 N. E. 12th Ave.	<b>KFKA 880 500</b> Greeley, Colo. Box 735
<b>KBTM 1200 100</b> Jonesboro, Ark. Jay P. Beard	<b>KFKU 1220 1000</b> Lawrence, Kans. University of Kansas
<b>KCMC 1420 100</b> Texarkana, Ark. Box 865	<b>KFNF 890 500</b> Shenandoah, Iowa 107 Sycamore St.
<b>KCRC 1360 250</b> Enid, Okla. Enid Radiophone Co., Oxford Hotel	<b>KFOR 1210 100</b> Lincoln, Neb. Howard Shuman, Hotel Lincoln
<b>KCRJ 1310 100</b> Jerome, Ariz. Chas. C. Robinson, Drawer D	<b>KFOX 1250 1000</b> Long Beach, Calif. 220 E. Anaheim St.
<b>KDB 1500 100</b> Santa Barbara, Calif. 15-17 E. Haley St.	<b>KFPL 1310 100</b> Dublin, Texas C. C. Baxter, Box 176
<b>KDFN 1440 500</b> Casper, Wyo. Donald Lewis Hathaway, Box 930	<b>KFPW 1210 100</b> Fort Smith, Ark. Goldman Hotel
<b>KDKA 980 50000</b> Pittsburgh, Pa. Grant Building	<b>KFPY 890 1000</b> Spokane, Wash. Symons Bldg.
<b>KDLR 1210 100</b> Devils Lake, N. D. KDLR, Inc., 1025 3rd Street	<b>KFQD 780 250</b> Anchorage, Alaska 411-4th Ave.
<b>KDON 1210 100</b> Del Monte, Calif. Richard F. Lewis	<b>KFR 610 1000</b> San Francisco, Calif. 1000 Van Ness Ave.
<b>KDYL 1290 1800</b> Salt Lake City, Utah Ezra Thompson Bldg.	<b>KFRO 1370 100</b> Longview, Texas Voice of Longview, Box 86
<b>KECA 1430 1000</b> Los Angeles, Calif. 1000 S. Hope St.	<b>KFRU 630 500</b> Columbia, Mo. KFRU, Inc., 9th and Elm Sts.
<b>KEHE 780 500</b> Los Angeles, Cal. 214 S. Vermont St.	<b>KFSO 600 1000</b> San Diego, Calif. U. S. Grant Hotel
<b>KELD 1370 100</b> El Dorado, Ark. T. H. Barton	<b>KFSG 1120 1000</b> Los Angeles, Calif. 1100 Glendale Blvd.
<b>KELW 780 500</b> Burbank, Calif. 3702 Magnolia Park Blvd.	<b>KFUO 550 500</b> St. Louis, Mo. 891 De Mun St.
<b>KERN 1370 100</b> Bakersfield, Calif. Elk's Club	<b>KFVD 1000 250</b> Los Angeles, Calif. E. L. Cord, 645 S. Mariposa
<b>KEX 1180 5000</b> Portland, Ore. Oregonian Bldg.	<b>KFVS 1210 100</b> Cape Girardeau, Mo. Oscar C. Hirsch, Box 275
<b>KFAB 770 10000</b> Lincoln, Neb. Cornhusker Hotel	<b>KFWB 950 1000</b> Hollywood, Calif. Warner Bros. Motion Pictures, Inc.
<b>KFAC 1300 1000</b> Los Angeles, Calif. E. L. Cord, 645 So. Mariposa	<b>KFXD 1200 100</b> Nampa, Idaho Frank E. Hurt, 1024 12th Ave., S.
<b>KFBB 1280 1000</b> Great Falls, Mont. Buttrey Broadcast., Inc., P. O. Box 1817	<b>KFXJ 1200 100</b> Grand Jct., Colo. Hillcrest Manor
<b>KFBI 1050 5000</b> Abilene, Kans. Box 345	<b>KFXM 1210 100</b> San Bernardino, Calif. California Hotel
<b>KFBK 1490 5000</b> Sacramento, Calif. Sacramento Bee, 7th & I Sts.	<b>KFXR 1310 100</b> Oklahoma City, Okla. 541 Hightower Bldg.
<b>KFDM 560 500</b> Beaumont, Texas Beaumont Hotel, P. O. Box 2950	<b>KFYO 1310 100</b> Lubbock, Texas Kirksey Bros., Hotel Lubbock
<b>KFDY 780 1000</b> Brookings, S. D. Box L, State College Station	<b>KFYR 550 1000</b> Bismarck, N. D. 329 Broadway
<b>KFEL 920 500</b> Denver, Colo. Albany Hotel	<b>KGA 1470 5000</b> Spokane, Wash. 1023 W. Riverside Ave.
<b>KFEQ 680 2500</b> St. Joseph, Mo. Schneider Bldg., KFEQ, Inc.	<b>KGAR 1370 100</b> Tucson, Ariz. 142 S. 6th Ave.
<b>KFGQ 1370 100</b> Boone, Iowa 924 W. 2nd St.	<b>KGB 1330 1000</b> San Diego, Calif. 1012-1st Ave.
<b>KFH 1300 1000</b> Wichita, Kans. 124 1/2 S. Market St.	<b>KGBU 900 500</b> Ketchikan, Alaska Mile 5, Wards Cove Rd.
<b>KFI 640 50000</b> Los Angeles, Calif. 1000 S. Hope St.	<b>KGBX 1230 500</b> Springfield, Mo. KGBX, Inc., St. Louis at Kimbrough
<b>KFIO 1120 100</b> Spokane, Wash. Ziegler Building	<b>KGBZ 930 1000</b> York, Neb. KGBZ Broadcasting Co., 719 Grant Ave
<b>KFIZ 1420 100</b> Fond du Lac, Wis. 18 W. 1st St.	<b>KGCA 1270 100</b> Decorah, Iowa Charles W. Greenley, 201 Water St.
<b>KFJB 1200 100</b> Marshalltown, Iowa 1603 W. Main St.	<b>KGCU 1240 250</b> Mandan, N. D. 404 W. Main St.

NORTH AMERICAN B. C. STATIONS BY CALLS

<b>KG CX</b> 1310 100 Wolf Point, Mont. E. E. Krebsbach.	<b>KHBC</b> 1420 100 Hilo, T. H.
<b>KG DE</b> 1200 100 Fergus Falls, Minn. C. L. Jaren	<b>KHJ</b> 900 1000 Los Angeles, Calif. Don Lee Building
<b>KG DM</b> 1100 1000 Stockton, Calif. E. F. Pfeffer, 42 S. Calif. St.	<b>KHQ</b> 590 1000 Spokane, Wash. Sprague Ave. & Post St.
<b>KG DY</b> 1340 250 Huron, S. D. Voice of S. D., Inc., 347 Dakota Ave	<b>KHSL</b> 950 250 Chico, Calif. Golden Empire Brdcastg. Co.
<b>KG EK</b> 1200 100 Sterling, Colo. Elmer G. Beehler, 109 W. 2nd St.	<b>KICA</b> 1370 100 Clovis, N. M. Southwest Broadcasting Co.
<b>KG ER</b> 1360 1000 Long Beach, Calif. 435 Pine Ave.	<b>KID</b> 1320 250 Idaho Falls, Idaho Box 487
<b>KG EZ</b> 1310 100 Kalispell, Mont. Donald C. Treloar, Box 1	<b>KIDO</b> 1350 1000 Boise, Idaho Hotel Boise
<b>KG FF</b> 1420 100 Shawnee, Okla. 9th & Bell Sts.	<b>KIDW</b> 1420 100 Lamar, Colo. Lamar Broadcasting Co., Box 688
<b>KG FG</b> 1370 100 Oklahoma City, Okla. Okla. Broadcasting Co., 1113 N. Broadway	<b>KIEM</b> 1210 100 Eureka, Calif. Redwood Brdcastg. Co., Vance Hotel
<b>KG FI</b> 1500 100 Corpus Christi, Texas Eagle Broadcasting Co., Inc., P. O. Box 1508	<b>KIEV</b> 850 100 Glendale, Calif. Cannon System, Ltd., Glendale Hotel
<b>KG FJ</b> 1200 100 Los Angeles, Calif. Ben S. McGlashan, 1417 S. Figueroa	<b>KINY</b> 1310 100 Juneau, Alaska Northwest Advertising Co.
<b>KG FK</b> 1500 100 Moorhead, Minn. Comstock Hotel	<b>KIT</b> 1310 100 Yakima, Wash. 109 1/2 E. Yakima Ave.
<b>KG FL</b> 1370 100 Roswell, N. M. KGFL, Inc., 507 N. Main St.	<b>KIUJ</b> 1310 100 Santa Fe, N. Mex. W. C. Irvin
<b>KG FW</b> 1310 100 Kearney, Neb. 919 West 27th St.	<b>KIUL</b> 1210 100 Garden City, Kans. Garden City Brdcastg. Co.
<b>KG FX</b> 630 200 Pierre, S. D. Dana McNeil, 510 Summit Ave.	<b>KIUN</b> 1420 100 Pecos, Texas J. H. Hawkins & B. H. Hubbs
<b>KG GC</b> 1420 100 San Francisco, Calif. 230 Eddy St.	<b>KIUP</b> 1370 100 Durango, Colo. C. Guy Shepard 2800 Main Street
<b>KG GF</b> 1010 1000 Coffeyville, Kans. Coffeyville Journal Bldg.	<b>KJBS</b> 1070 500 San Francisco, Calif. 1380 Bush St.
<b>KG GM</b> 1230 250 Albuquerque, N. M. Kimo Building	<b>KJR</b> 970 5000 Seattle, Wash. Skinner Bldg.
<b>KG HF</b> 1320 500 Pueblo, Colo. C. P. Ritchie, 113 Broadway	<b>KLCN</b> 1290 100 Blytheville, Ark. C. L. Lintzenich, Main and Division St.
<b>KG HI</b> 1200 100 Little Rock, Ark. Arkansas Brdcastg. Co., Marion Hotel	<b>KLO</b> 1400 500 Ogden, Utah 405-25th St.
<b>KG HL</b> 780 1000 Billings, Mont. 5th & N. Broadway	<b>KLPM</b> 1240 250 Minot, N. D. John B. Cooley, Box 707
<b>KG IR</b> 1340 1000 Butte, Mont. KGIR, Inc., 121 W. Broadway	<b>KLRA</b> 1390 1000 Little Rock, Ark. Arkansas Broadcasting Co., Box 550
<b>KG IW</b> 1420 100 Alamosa, Colo. Leonard E. Wilson, 326 N. Commercial	<b>KLS</b> 1440 250 Oakland, Calif. Warner Bros., 2201 Telegraph Ave.
<b>KG KB</b> 1500 100 Tyler, Texas 115 S. College	<b>KLUF</b> 1370 100 Galveston, Texas Geo. R. Clough, Buccaneer Hotel
<b>KG KL</b> 1370 100 San Angelo, Texas KGKL, Inc., St. Angelus Hotel	<b>KLX</b> 880 1000 Oakland, Calif. Tribune Tower
<b>KG KO</b> 570 250 Wichita Falls, Texas 9th St. & Iadlana Ave.	<b>KLZ</b> 560 1000 Denver, Colo. Shirley-Savoy Hotel
<b>KG KY</b> 1500 100 Scottsbluff, Neb. Hilliard Co., Inc., 1517 1/2 Broadway	<b>KMA</b> 930 1000 Shenandoah, Iowa Earl E. May Seed & Nursery Co.
<b>KG MB</b> 1320 1000 Honolulu, T. H. Honolulu Broadcasting Co., Box 2663	<b>KMAC</b> 1370 100 San Antonio, Texas W. W. McAllister, Smith-Young Tower
<b>KG NC</b> 1410 1000 Amarillo, Texas Plains Radio Brdcastg. Co.	<b>KMBC</b> 950 1000 Kansas City, Mo. Plekwick Hotel
<b>KG NF</b> 1430 1000 North Platte, Neb. Great Plains Broadcasting Co., W. 12th St.	<b>KMED</b> 1310 100 Medford, Ore. Mrs. W. J. Virgin, Sparta Bldg.
<b>KG NO</b> 1340 250 Dodge City, Kans. First Natl. Bank Bldg.	<b>KMJ</b> 580 1000 Fresno, Calif. Van Ness & Calaveras Sts.
<b>KG O</b> 790 7500 San Francisco, Calif. 111 Sutter St.	<b>KMLB</b> 1200 100 Monroe, La. Francis Hotel
<b>KG U</b> 750 2500 Honolulu, T. H. Kapiolani at South St.	<b>KMMJ</b> 740 1000 Clay Center, Neb. The M. M. Johnson Co.
<b>KG VO</b> 1260 1000 Missoula, Mont. Mosby, Inc., 240 N. Higgins	<b>KMO</b> 1330 250 Tacoma, Wash. KMO, Inc., Hotel Winthrop
<b>KG W</b> 620 1000 Portland, Ore. 325 Adler St.	<b>KMOX</b> 1090 50000 St. Louis, Mo. 401 S. 12th St.
<b>KG Y</b> 1210 100 Olympia, Wash. KGY, Inc., 11th and Capitol Way	<b>KMPC</b> 710 500 Beverly Hills, Calif. 9631 Wilshire Blvd.

## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>KMTR 570 1000</b> Hollywood, Calif. KMTR Radio Corp., 915 N. Formosa Ave.	<b>KRMD 1310 100</b> Shreveport, La. Jefferson Hotel
<b>KNEL 1500 100</b> Brady, Texas G. L. Burns	<b>KRNT 1320 500</b> Des Moines, Iowa 715 Locust Street
<b>KNOW 1500 100</b> Austin, Texas Norwood Building	<b>KROC 1310 100</b> Rochester, Minn. Southern Minnesota Broadcasting Co.
<b>KNX 1050 50000</b> Hollywood, Calif. West. Broadcast Co., Inc., 1555 N. Vine St.	<b>KROW 930 1000</b> Oakland, Calif. 1803 Franklin St.
<b>KOA 830 50000</b> Denver, Colo. General Electric Co., 1370 Krameria St.	<b>KRSC 1120 100</b> Seattle, Wash. Radio Sales Corp., Washington Athletic Club
<b>KOAC 550 1000</b> Corvallis, Ore. Oregon State Agricultural College	<b>KSAC 580 500</b> Manhattan, Kans. State College of Agriculture
<b>KOB 1180 10000</b> Albuquerque, N. M. Albuquerque Journal, Box 1319	<b>KSCJ 1330 1000</b> Sioux City, Iowa Perkins Bros. Co., 415 Douglas St.
<b>KOH 1380 500</b> Reno, Nev. 440 N. Virginia St.	<b>KSD 550 1000</b> St. Louis, Mo. St. Louis Post-Dispatch
<b>KOIL 1260 1000</b> Council Bluffs, Iowa Mona Motor Oil Co.	<b>KSEI 900 250</b> Pocatello, Idaho Radio Service Corp., 141 S. 6th Ave.
<b>KOIN 940 1000</b> Portland, Ore. KOIN, Inc., New Heathman Hotel	<b>KSFO 560 1000</b> San Francisco, Calif. Russ Building
<b>KOL 1270 1000</b> Seattle, Wash. Northern Life Tower	<b>KSL 1130 50000</b> Salt Lake City, Utah Vermont Bldg.
<b>KOMA 1480 5000</b> Oklahoma City, Okla. Biltmore Hotel	<b>KSLM 1370 100</b> Salem, Ore. Oregon Radio, Inc.
<b>KOMO 920 1000</b> Seattle, Wash. Skinner Bldg.	<b>KSO 1430 500</b> Des Moines, Iowa 715 Locust Street
<b>KONO 1370 100</b> San Antonio, Texas Mission Broadcast Co., Millam Bldg.	<b>KSOO 1110 2500</b> Sioux Falls, S. D. Sioux Falls Brdcast. Assn., Carpenter Hotel
<b>KOOS 1390 250</b> Marshfield, Ore. H. H. Hanseth, Hall Bldg.	<b>KSTP 1460 25000</b> St. Paul, Minn. St. Paul Hotel
<b>KORE 1420 100</b> Eugene, Ore. 733 Willamette St.	<b>KSUN 1200 100</b> Lowell, Ariz. Copper Electrical Co., Drawer C
<b>KOTN 1500 100</b> Pine Bluff, Ark. Universal Brdcastg. Corp., Hotel Pines	<b>KTAR 620 1000</b> Phoenix, Ariz. Heard Building
<b>KOY 1390 500</b> Phoenix, Ariz. P. O. Box 1323	<b>KTAT 1240 1000</b> Fort Worth, Texas Ft. Worth Natl. Bank Bldg.
<b>KPAC 1260 500</b> Port Arthur, Texas Port Arthur College	<b>KTBS 1450 1000</b> Shreveport, La. Box 17
<b>KPCB 710 100</b> Seattle, Wash. Tower Bldg.	<b>KTFI 1240 1000</b> Twin Falls, Idaho Radio Broadcasting Corp., Box 521
<b>KPJM 1500 100</b> Prescott, Ariz. Scott & Sturm, P. O. Box 782	<b>KTHS 1060 10000</b> Hot Springs, Ark. Chamber of Commerce, Box 886
<b>KPLC 1500 100</b> Lake Charles, La. Caleasieu Brdcastg. Co., Majestic Hotel	<b>KTRB 740 250</b> Modesto, Calif. McTammany & Bates
<b>KPO 680 50000</b> San Francisco, Calif. 111 Sutter St.	<b>KTRH 1290 1000</b> Houston, Texas KTRH Broadcasting Co., Rice Hotel
<b>KPOF 880 500</b> Denver, Colo. Pillar of Fire, 1845 Champa St.	<b>KTSA 550 1000</b> San Antonio, Texas Southwest Broadcasting Co., Plaza Hotel
<b>KPPC 1210 50</b> Pasadena, Calif. 585 E. Colorado St.	<b>KTSM 1310 100</b> El Paso, Texas P. O. Box 1976
<b>KPQ 1500 100</b> Wenatchee, Wash. KPQ Bldg., 20 2nd St.	<b>KTUL 1400 500</b> Tulsa, Okla. National Bank of Tulsa Bldg.
<b>KPRC 920 1000</b> Houston, Texas Lamar Hotel	<b>KTW 1220 1000</b> Seattle, Wash. 7th Ave. & Spring St.
<b>KQV 1380 500</b> Pittsburgh, Pa. KQV Broadcasting Co., 1406 C. of C. Bldg.	<b>KUJ 1370 100</b> Walla Walla, Wash. KUJ, Inc., Marcus Whitman Hotel
<b>KQW 1010 1000</b> San Jose, Calif. 87 E. San Antonio St.	<b>KUMA 1420 100</b> Yuma, Ariz. Dr. A. H. Schermann, Box 267
<b>KRE 1370 100</b> Berkeley, Calif. 2337 Shattuck Ave.	<b>KUOA 1260 1000</b> Fayetteville, Ark. KUOA, Inc., Washington Hotel
<b>KREG 1500 100</b> Santa Ana, Calif. 3rd & Sycamore Sts.	<b>KUSD 890 500</b> Vermillion, S. D. University of South Dakota
<b>KRGV 1260 500</b> Weslaco, Texas KRGV Inc.	<b>KVI 570 1000</b> Tacoma, Wash. W. R. Rust Bldg.
<b>KRKD 1120 500</b> Los Angeles, Calif. 815 Spring Arcade Bldg.	<b>KVL 1370 100</b> Seattle, Wash. KVL, Inc., 2101 Smith Tower
<b>KRKO 1370 50</b> Everett, Wash. Lee Mudgett, 2814 Rucker Ave.	<b>KVOA 1250 500</b> Tucson, Ariz. Cons. Natl. Bank Bldg.
<b>KRLC 1420 100</b> Lewiston, Idaho H. E. Studebaker, Lewis-Clarke Hotel	<b>KVOD 920 500</b> Denver, Colo. Continental Oil Bldg.
<b>KRLD 1040 10000</b> Dallas, Texas KRLD Radio Corp., Adolphus Hotel	<b>KVOL 1310 100</b> Lafayette, La. Evangeline Hotel

## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>KVOO</b> 1140 25000	<b>Tulsa, Okla.</b> Wright Bldg.	<b>VOAS</b> 940 180	<b>St. John's, N. F.</b> Ayre & Sons, Ltd., Water St
<b>KVOR</b> 1270 1000	<b>Colorado Spg., Colo.</b> Antlers Hotel	<b>VOGY</b> 840 400	<b>St. John's, N. F.</b> Newfoundland Hotel
<b>KVOS</b> 1200 100	<b>Bellingham, Wash.</b> 115 W. Magnolia St.	<b>VONF</b> 1195 500	<b>St. John's, N. F.</b> Dominion Broadcasting Co., Ltd., Box 135
<b>KVSO</b> 1210 100	<b>Ardmore, Okla.</b> Ardmoreite Pub. Co., Inc.	<b>VOWR</b> 681 500	<b>St. John's, N. F.</b> Wesley United Church, Box 157
<b>KWBG</b> 1420 100	<b>Hutchinson, Kans.</b> W. B. Greenwald	<b>WAAB</b> 1410 590	<b>Boston, Mass.</b> 21 Brookline Av.
<b>KWEA</b> 1210 100	<b>Shreveport, La.</b> Spring & Fannin Sts., Times Pub. Co.	<b>WAAF</b> 920 500	<b>Chicago, Ill.</b> Palmer House
<b>KWG</b> 1200 100	<b>Stockton, Calif.</b> Medico-Dental Bldg.	<b>WAAT</b> 940 500	<b>Jersey City, N. J.</b> Bremer Broadcasting Corp., 50 Journal Sq.
<b>KWJJ</b> 1040 500	<b>Portland, Ore.</b> 622 Salmon St.	<b>WAAW</b> 66. 500	<b>Omaha, Neb.</b> Omaha Grain Exchange
<b>KWK</b> 1350 1000	<b>St. Louis, Mo.</b> Thomas Patrick, Inc., Hotel Chase	<b>WABC</b> 360 50000	<b>New York, N. Y.</b> 485 Madison Ave.
<b>KWKC</b> 1370 100	<b>Kansas City, Mo.</b> 3915 Main St.	<b>WABI</b> 1200 100	<b>Bangor, Maine</b> Community Brdestg. Service
<b>KWKH</b> 850 10000	<b>Shreveport, La.</b> Spring & Fannin Sts., Times Pub. Co.	<b>WABY</b> 1370 100	<b>Albany, N. Y.</b> Hotel Ten Eyck
<b>KWLC</b> 1270 100	<b>Decorah, Iowa</b> Luther College	<b>WACO</b> 1420 100	<b>Waco, Texas</b> Amicable Bldg.
<b>KWSC</b> 1220 1000	<b>Pullman, Wash.</b> State College of Washington	<b>WADC</b> 1320 1000	<b>Akron, Ohio</b> Allen T. Simmons, P. O. Box 29
<b>KWTN</b> 1210 100	<b>Watertown, S. D.</b> Citizens Bank Bldg.	<b>WAGF</b> 1370 100	<b>Dothan, Ala.</b> P. O. Box 25
<b>KWTO</b> 560 5000	<b>Springfield, Mo.</b> KGBX Inc., St. Louis at Kumbrough	<b>WAGM</b> 1420 100	<b>Presque Isle, Me.</b> Aroostook Broadcasting Corp., Main St.
<b>KWYO</b> 1370 100	<b>Sheridan, Wyo.</b> Big Horn Brdestg. Co.	<b>WAIM</b> 1200 100	<b>Anderson, S. C.</b> Anderson College
<b>KXA</b> 760 250	<b>Seattle, Wash.</b> American Radio Tel. Co., 312 Bigelow Bldg.	<b>WAIU</b> 640 500	<b>Columbus, Ohio</b> Deshler-Wallick Hotel
<b>KXL</b> 1420 100	<b>Portland, Ore.</b> KXL Broadcasters, Multnomah Hotel	<b>WALA</b> 1380 500	<b>Mobile, Ala.</b> Pape Brdestg. Corp., P. O. Box 288
<b>KXO</b> 1500 100	<b>El Centro, Calif.</b> F. M. Bowies, Box 140	<b>WALR</b> 1210 100	<b>Zanesville, Ohio</b> First Trust & Savings Bank Bldg.
<b>KXRO</b> 1310 100	<b>Aberdeen, Wash.</b> KNRO, Inc., Hotel Morek	<b>WAML</b> 1310 100	<b>Laurel, Miss.</b> Southland Radio Corp., Box 26
<b>KXYZ</b> 1440 1000	<b>Houston, Texas</b> Gulf Building	<b>WAPI</b> 1140 5000	<b>Birmingham, Ala.</b> Protective Life Bldg.
<b>KYA</b> 1230 1000	<b>San Francisco, Calif.</b> 988 Market St.	<b>WARD</b> 1400 500	<b>Brooklyn, N. Y.</b> 427 Fulton St.
<b>KYW</b> 1020 10000	<b>Philadelphia, Pa.</b> 1622 Chesnut Street	<b>WASH</b> 1270 500	<b>Grand Rapids, Mich.</b> Grand Rapids Natl. Bank Bldg.
<b>NAA</b> 690 1000	<b>Arlington, Va.</b> United States Navy	<b>WATR</b> 1190 100	<b>Waterbury, Conn.</b> WATR Co. Inc., 47 Grand St.
<b>RDN</b> 706 500	<b>San Salvador, E. S.</b> Republic of El Salvador	<b>WAVE</b> 940 1000	<b>Louisville, Ky.</b> WAVE, Inc., 1525 Brown Hotel
<b>TGW</b> 565 18000	<b>Guatemala, Gua.</b> Gobierno de Guatemala	<b>WAWZ</b> 1350 500	<b>Zarephath, N. J.</b> Pillar of Fire.
<b>TGX</b> 1400 150	<b>Guatemala City</b>	<b>WAZL</b> 1420 100	<b>Hazleton, Pa.</b> Hazleton Broadcasting Service, Inc.
<b>TIEP</b> 850 500	<b>San Jose, C. R.</b>	<b>WBAA</b> 890 1000	<b>West Lafayette, Ind.</b> Purdue University
<b>TIFA</b> 1050 75	<b>San Jose, C. R.</b>	<b>WBAL</b> 1060 10000	<b>Baltimore, Md.</b> Lexington Bldg., Amer. Radio News Corp
<b>TIFS</b> 1441 7.5	<b>Cartago, C. R.</b>	<b>WBAP</b> 800 50000	<b>Fort Worth, Texas</b> Ft. Worth Star-Telegram
<b>TIGA</b> 1014 30	<b>Cartago, C. R.</b>	<b>WBAX</b> 1210 100	<b>Wilkes-Barre, Pa.</b> John H. Stenger, Jr., 70 S. Main St.
<b>TIGH</b> 1000 500	<b>San Jose, C. R.</b>	<b>WBBC</b> 1400 580	<b>Brooklyn, N. Y.</b> 552-54 Atlantic Ave.
<b>TIRH</b> 930 50	<b>San Jose, C. R.</b>	<b>WBBL</b> 1210 100	<b>Richmond, Va.</b> 1627 Monument Ave.
<b>VAS</b> 685 2000	<b>Glace Bay, N. S.</b> Canadian Marconi Co., Ltd.	<b>WBBM</b> 770 50000	<b>Chicago, Ill.</b> 410 N. Michigan Ave.
<b>VESEK</b> 1185 10	<b>Montmagny, Que.</b> J. A. Marquis, P. O. Box 52	<b>WBBR</b> 1300 1000	<b>Brooklyn, N. Y.</b> 124 Columbia Heights
<b>VOAC</b> 1065 40	<b>St. John's, Nfld.</b>	<b>WBBZ</b> 1200 100	<b>Ponca City, Okla.</b> C. L. Carrell, 407 W. South Ave.

## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>WBCM 1410</b>	<b>500</b>	<b>Bay City, Mich.</b> James E. Davison, Hotel Venonah	<b>WCLO 1200</b>	<b>100</b>	<b>Janesville, Wis.</b> 200 E. Milwaukee St.
<b>WBEN 900</b>	<b>1000</b>	<b>Buffalo, N. Y.</b> WBEN, Inc., Hotel Statler	<b>WCLS 1310</b>	<b>100</b>	<b>Joliet, Ill.</b> WCLS, Inc., 301 E. Jefferson St.
<b>WBOE 1310</b>	<b>100</b>	<b>Marquette, Mich.</b> 146 W. Washington St.	<b>WCMI 1310</b>	<b>100</b>	<b>Ashland, Ky.</b> Ashland Broadcasting Co., Box 106
<b>WBIG 1440</b>	<b>500</b>	<b>Greensboro, N. C.</b> O. Henry Hotel	<b>WCNW 1500</b>	<b>100</b>	<b>Brooklyn, N. Y.</b> Arthur Fiske, 864-868 Flatbush Ave.
<b>WBNO 1200</b>	<b>100</b>	<b>New Orleans, La.</b> Hotel New Orleans	<b>WCOA 1340</b>	<b>500</b>	<b>Pensacola, Fla.</b> San Carlos Hotel
<b>WBNS 1430</b>	<b>500</b>	<b>Columbus, O.</b> 33 N. High St.	<b>WCOC 880</b>	<b>500</b>	<b>Meridian, Miss.</b> Box 603
<b>WBX 1350</b>	<b>250</b>	<b>New York, N. Y.</b> 260 E. 161st St.	<b>WCOL 1210</b>	<b>100</b>	<b>Columbus, Ohio</b> WCOL Inc., 33 N. High St.
<b>WBOQ 860</b>	<b>50000</b>	<b>New York, N. Y.</b> Atlantic Broadcasting Corp.	<b>WCOP 1120</b>	<b>500</b>	<b>Boston, Mass.</b> Joseph M. Kirby, Hotel Copley-Plaza
<b>WBOW 1310</b>	<b>100</b>	<b>Terre Haute, Ind.</b> Banks of Wabash, Inc., 19 Beach Block	<b>WCRW 1210</b>	<b>100</b>	<b>Chicago, Ill.</b> Clinton R. White, 2756 Pine Grove Ave.
<b>WBRB 1210</b>	<b>100</b>	<b>Red Bank, N. J.</b> 63 Broad St.	<b>WCSC 1360</b>	<b>500</b>	<b>Charleston, S. C.</b> Francis Marion Hotel
<b>WBRC 930</b>	<b>1000</b>	<b>Birmingham, Ala.</b> Bankhead Hotel	<b>WCSH 940</b>	<b>1000</b>	<b>Portland, Me.</b> Congress Square Hotel
<b>WBRE 1310</b>	<b>100</b>	<b>Wilkes-Barre, Pa.</b> Louis G. Baltimore, 16 N. Main	<b>WDAE 1220</b>	<b>1000</b>	<b>Tampa, Fla.</b> Tampa Times Co., Tampa Terrace
<b>WBSO 920</b>	<b>500</b>	<b>Babson Park, Mass.</b> Drawer B	<b>WDAF 610</b>	<b>1000</b>	<b>Kansas City, Mo.</b> 1729 Grand Ave.
<b>WBT 1080</b>	<b>50000</b>	<b>Charlotte, N. C.</b> Station WBT, Inc., Wilder Bldg.	<b>WDAH 1310</b>	<b>100</b>	<b>El Paso, Texas</b> Box 1976
<b>WBTM 1370</b>	<b>100</b>	<b>Danville, Va.</b> Miller Bldg.	<b>WDAS 1370</b>	<b>100</b>	<b>Philadelphia, Pa.</b> WDAS Bldg. Co., Inc., 1211 Chestnut St
<b>WBZ 990</b>	<b>50000</b>	<b>Boston, Mass.</b> Hotel Bradford	<b>WDAY 940</b>	<b>1000</b>	<b>Fargo, N. D.</b> WDAY, Inc., Black Bldg., 118 Broadway
<b>WBZA 990</b>	<b>1000</b>	<b>Springfield, Mass.</b> Hotel Kimball	<b>WDBJ 930</b>	<b>1000</b>	<b>Roanoke, Va.</b> Times World Corp., P. O. Box 150
<b>WCAC 600</b>	<b>500</b>	<b>Storrs, Conn.</b> Connecticut State College	<b>WDBO 580</b>	<b>1000</b>	<b>Orlando, Fla.</b> P. O. Box 1097
<b>WCAD 1220</b>	<b>500</b>	<b>Canton, N. Y.</b> St. Lawrence University	<b>WDEL 1120</b>	<b>250</b>	<b>Wilmington, Del.</b> WDEL, Inc., 10th and King Sts.
<b>WCAE 1220</b>	<b>1000</b>	<b>Pittsburgh, Pa.</b> P. O. Box 1705	<b>WDEV 550</b>	<b>500</b>	<b>Waterbury, Vt.</b> Harry C. Whitehill, Stowe St.
<b>WCAL 1250</b>	<b>1000</b>	<b>Northfield, Minn.</b> St. Olaf College	<b>WDGY 1180</b>	<b>1000</b>	<b>Minneapolis, Minn.</b> Dr. Geo. W. Young, 909 W. Broadway
<b>WCAM 1280</b>	<b>500</b>	<b>Camden, N. J.</b> City of Camden, City Hall	<b>WDNC 1500</b>	<b>100</b>	<b>Durham, N. C.</b> Washington Duke Hotel
<b>WCAO 600</b>	<b>500</b>	<b>Baltimore, Md.</b> 811 W. Lanvale St.	<b>WOOD 1280</b>	<b>1000</b>	<b>Chattanooga, Tenn.</b> WODD Broadcasting Corp., Hotel Patten
<b>WCAP 1280</b>	<b>500</b>	<b>Asbury Park, N. J.</b> Convention Hall	<b>WDRC 1330</b>	<b>1000</b>	<b>Hartford, Conn.</b> WDRG, Inc., Corning Bldg., 11 Asylum St.
<b>WCAT 1200</b>	<b>100</b>	<b>Rapid City, S. D.</b> South Dakota State School of Mines	<b>WDSU 1250</b>	<b>1000</b>	<b>New Orleans, La.</b> WDSU Inc., Hotel Monteleone
<b>WCAU 1170</b>	<b>50000</b>	<b>Philadelphia, Pa.</b> WCAU Broadcasting Co., 1622 Chestnut	<b>WDZ 1070</b>	<b>100</b>	<b>Tuscola, Ill.</b> James L. Bush, Star Store Bldg.
<b>WCAX 1200</b>	<b>100</b>	<b>Burlington, Vt.</b> 203 College St.	<b>WEAF 660</b>	<b>50000</b>	<b>New York, N. Y.</b> 30 Rockefeller Plaza
<b>WCAZ 1070</b>	<b>100</b>	<b>Carthage, Ill.</b> 97 1/2 Adams St.	<b>WEAN 780</b>	<b>500</b>	<b>Providence, R. I.</b> New Crown Hotel
<b>WCBA 1440</b>	<b>500</b>	<b>Allentown, Pa.</b> B. Bryan Musselman, 39-41 10th St.	<b>WEBC 1290</b>	<b>1000</b>	<b>Superior, Wis.</b> Spaulding Hotel, Duluth, Minn.
<b>WCBD 1080</b>	<b>5000</b>	<b>Waukegan, Ill.</b> Karcher Hotel	<b>WEBQ 1210</b>	<b>100</b>	<b>Harrisburg, Ill.</b> 100 E. Popular St.
<b>WCBM 1370</b>	<b>100</b>	<b>Baltimore, Md.</b> Keith Theatre Bldg.	<b>WEBR 1310</b>	<b>100</b>	<b>Buffalo, N. Y.</b> Howel Broadcasting Co., Inc., 23 North
<b>WCBS 1420</b>	<b>100</b>	<b>Springfield, Ill.</b> WCBS, Inc., 208 1/2 S. 5th	<b>WEDC 1210</b>	<b>100</b>	<b>Chicago, Ill.</b> Email Denmark, 3860 Ogden Ave.
<b>WCCO 810</b>	<b>50000</b>	<b>Minneapolis, Minn.</b> Nicollet Hotel	<b>WEED 1420</b>	<b>100</b>	<b>Rocky Mount, N. C.</b> Wm. Avera Wynne, Box 221
<b>WCFL 970</b>	<b>1500</b>	<b>Chicago, Ill.</b> 666 Lake Shore Drive	<b>WEEI 590</b>	<b>1000</b>	<b>Boston, Mass.</b> 182 Tremont St.
<b>WCHS 580</b>	<b>500</b>	<b>Charleston, W. Va.</b> WOBU, Inc., Ruffner Hotel	<b>WEEU 830</b>	<b>1000</b>	<b>Reading, Pa.</b> Berks Broadcasting Co., 533 Penn.
<b>WCKY 1490</b>	<b>5000</b>	<b>Covington, Ky.</b> 6th & Madison Sts.	<b>WEHC 1420</b>	<b>100</b>	<b>Charlottesville, Va.</b> P. O. Box 221

## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>WEHS 1420 100 Cicero, Ill.</b> WEHS, Inc., 6138 W. Cermak Rd.	<b>WGY 790 50000 Schenectady, N. Y.</b> 1 River Road
<b>WELL 1420 100 Battle Creek, Mich.</b> Enquirer News, 38 W. State St.	<b>WHA 940 1000 Madison, Wis.</b> University of Wisconsin, Radio Hall
<b>WENR 870 50000 Chicago, Ill.</b> Merchandise Mart	<b>WHAM 1150 50000 Rochester, N. Y.</b> 100 Carlson Road
<b>WESG 850 1000 Elmira, N. Y.</b> Mark Twain Hotel	<b>WHAS 820 50000 Louisville, Ky.</b> 300 W. Liberty St.
<b>WEVD 1300 1000 New York, N. Y.</b> Jewish Daily Forward, Hotel Claridge	<b>WHAT 1310 100 Philadelphia, Pa.</b> Public Ledger Bldg.
<b>WEW 760 1000 St. Louis, Mo.</b> St. Louis University, 221 N. Grand Blvd.	<b>WHAZ 1300 500 Troy, N. Y.</b> 8th St.
<b>WEXL 1310 50 Royal Oak, Mich.</b> 212 W. 6th St.	<b>WHB 860 1000 Kansas City, Mo.</b> WIB Broadcasting Co., Searritt Bldg.
<b>WFAA 800 50000 Dallas, Texas</b> Baker Hotel	<b>WHBC 1200 100 Canton, Ohio</b> Edw. P. Graham, 319 Tusc. St., W.
<b>WFAB 1300 1000 New York, N. Y.</b> 154 W. 57th St.	<b>WHBF 1210 160 Rock Island, Ill.</b> Hotel Harms
<b>WFAM 1200 100 South Bend, Ind.</b> South Bend Tribune, 225 W. Colfax Ave.	<b>WHBI 1250 1000 Newark, N. J.</b> 100 Shipman St.
<b>WFAS 1210 100 White Plains, N. Y.</b> Hotel Roger Smith	<b>WHBL 1410 500 Sheboygan, Wis.</b> Press Publishing Co., Press Bldg.
<b>WFBC 1300 1000 Greenville, S. C.</b> Imperial Hotel	<b>WHBQ 1370 100 Memphis, Tenn.</b> Brdestg. Sta. WNBQ, Inc., Hotel Claridge
<b>WFBE 1200 100 Cincinnati, Ohio</b> WFBE, Inc., Hotel Sinton	<b>WHBU 1210 100 Anderson, Ind.</b> Anderson Broadcasting Corp., Box 816
<b>WFBG 1310 100 Altoona, Pa.</b> Gable Broadcasting Co., 12th Ave. & 13th St.	<b>WHBY 1200 100 Green Bay, Wis.</b> WIBY, Inc., Bellin Bldg.
<b>WFBL 1360 1000 Syracuse, N. Y.</b> Onondaga Hotel	<b>WHDF 1370 100 Calumet, Mich.</b> Box 643
<b>WFBM 1230 1000 Indianapolis, Ind.</b> 307 N. Pennsylvania St.	<b>WHDH 830 1000 Boston, Mass.</b> Matheson Radio Co., 62 Boylston
<b>WFBR 1270 500 Baltimore, Md.</b> 7 St. Paul St.	<b>WHDL 1420 100 Olean, N. Y.</b> Exchange Natl. Bank Bldg.
<b>WFDF 1310 100 Flint, Mich.</b> Union Industrial Bldg.	<b>WHEB 740 250 Portsmouth, N. H.</b> Box 522, 39 Congress St.
<b>WFEA 1340 500 Manchester, N. H.</b> Carpenter Hotel	<b>WHEC 1430 500 Rochester, N. Y.</b> WHEC, Inc., 40 Franklin St.
<b>WFIL 560 1000 Philadelphia, Pa.</b> WFIL Broadcasting Co., 801 Market	<b>WHEF 1500 100 Kosciusko, Miss.</b> Box 631
<b>WFLA 620 1000 Clearwater, Fla.</b> Box 119	<b>WHFC 1420 100 Cicero, Ill.</b> WHFC, Inc., 6138 W. Cermak Road
<b>WFMD 900 500 Frederick, Md.</b> Monocacy Broadcasting Co.	<b>WHIO 1260 1000 Dayton, Ohio</b> 39 S. Ludlow St.
<b>WGAL 1500 100 Lancaster, Pa.</b> WGAL, Inc., 8 W. King St.	<b>WHIS 1410 250 Bluefield, W. Va.</b> Bland St.
<b>WGAR 1450 500 Cleveland, Ohio</b> WGAR Broadcasting Co., Hotel Statler	<b>WHJB 620 250 Greensburg, Pa.</b> Penn-Albert Hotel, 128 Pa. Ave.
<b>WGBB 1210 100 Freeport, N. Y.</b> H. H. Carman, 64 S. Grove St.	<b>WHK 1390 1000 Cleveland, Ohio</b> 1311 Terminal Tower
<b>WGBF 630 500 Evansville, Ind.</b> 519 Vine St.	<b>WHN 1010 1000 New York, N. Y.</b> 1540 Broadway
<b>WGBI 880 500 Scranton, Pa.</b> 1000 Wyoming Ave.	<b>WHO 1000 50000 Des Moines, Iowa</b> Central Brdestg. Co., 914 Walnut St.
<b>WGCM 1120 500 Mississippi City</b> Great Southern Golf Club, Box 207	<b>WHOM 1450 250 Jersey City, N. J.</b> 2870 Hudson Boulevard
<b>WGES 1360 500 Chicago, Ill.</b> 4000 Washington Blvd.	<b>WHP 1430 500 Harrisburg, Pa.</b> WHP, Inc., 216 Locust St.
<b>WGH 1310 100 Newport News, Va.</b> 2813 Washington Ave.	<b>WIBA 1280 1000 Madison, Wis.</b> 111 King St.
<b>WGL 1370 100 Fort Wayne, Ind.</b> F. C. Zieg, 213 W. Main St.	<b>WIBG 970 100 Glenside, Pa.</b> Seaboard Radio Brdestg. Corp.
<b>WGN 720 50000 Chicago, Ill.</b> WGN, Inc., 435 N. Michigan Ave.	<b>WIBM 1370 100 Jackson, Mich.</b> WIBM, Inc., 306 W. Michigan Ave.
<b>WGNV 1210 100 Chester, N. Y.</b> Peter Goelet (Orange County)	<b>WIBU 1210 100 Poynette, Wis.</b> Wm. C. Forrest, R. F. D. No. 3
<b>WGPC 1420 100 Albany, Ga.</b> Rylander Theatre Bldg.	<b>WIBW 580 1000 Topeka, Kans.</b> 11th & Topeka Blvd.
<b>WGR 550 1000 Buffalo, N. Y.</b> Rand Bldg.	<b>WIBX 1200 100 Utica, N. Y.</b> WIBX, Inc., 1st Natl. Bank Bldg.
<b>WGST 890 500 Atlanta, Ga.</b> Ansley Hotel	<b>WICC 600 500 Bridgeport, Conn.</b> Stratfield Hotel

NORTH AMERICAN B. C. STATIONS BY CALLS

<b>WIL</b> 1200 100 St. Louis, Mo. Melbourne Hotel	<b>WKBH</b> 1380 1000 LaCrosse, Wis. WKBH, Inc., 409 Main St.
<b>WILL</b> 890 250 Urbana, Ill. University of Illinois	<b>WKBI</b> 1420 100 Cicero, Ill. WKBI, Inc., 6138 W. Cermak Road
<b>WILM</b> 1420 100 Wilmington, Del. 920 King St.	<b>WKBN</b> 570 500 Youngstown, Ohio 17 N. Champion St.
<b>WIND</b> 560 1000 Gary, Ind. 504 Broadway	<b>WKBO</b> 1200 100 Harrisburg, Pa. Penn Harris Hotel
<b>WINS</b> 1180 1000 New York, N. Y. 114 E. 58th St., Hearst Radio, Inc.	<b>WKBV</b> 1500 100 Richmond, Ind. Knox Radio Corp., Box 308
<b>WIOD</b> 1300 1000 Miami, Fla. News Tower, Biscayne Blvd.	<b>WKBW</b> 1480 5000 Buffalo, N. Y. Rand Bldg.
<b>WIP</b> 610 1000 Philadelphia, Pa. Gimbel Bldg., 9th & Chestnut Sts.	<b>WKBZ</b> 1500 100 Muskegon, Mich. Occidental Hotel Bldg.
<b>WIRE</b> 1400 500 Indianapolis, Ind. 540 N. Meridian St.	<b>WKEU</b> 1500 100 Griffin, Ga. Radio Station WKEU, 906 Hill St.
<b>WIS</b> 1010 500 Columbia, S. C. Station WIS, Inc., Box 635	<b>WKJC</b> 1200 100 Lancaster, Pa. 16 W. King St.
<b>WISC</b> 1310 100 Milwaukee, Wis. Milwaukee Brdestg. Co.	<b>WKOK</b> 1210 100 Sunbury, Pa. 1150 N. Front St.
<b>WISN</b> 1120 250 Milwaukee, Wis. 123 W. Michigan St., Hearst Radio, Inc.	<b>WKRC</b> 550 1000 Cincinnati, Ohio WKRC, Inc., Hotel Alms
<b>WJAC</b> 1310 100 Johnstown, Pa. WJAC, Inc., Locust St.	<b>WKY</b> 900 1000 Oklahoma City, Okla. Plaza Court Bldg.
<b>WJAG</b> 1060 1000 Norfolk, Neb. Norfolk Daily News	<b>WKZO</b> 590 1000 Kalamazoo, Mich. John E. Fetzer, Burdick Hotel
<b>WJAR</b> 890 500 Providence, R. I. Outlet Co., Weybossett St.	<b>WLAC</b> 1470 5000 Nashville, Tenn. WLAC, Inc., 159—4th Ave., No.
<b>WJAS</b> 1290 1000 Pittsburgh, Pa. Chamber of Commerce Bldg.	<b>WLAP</b> 1420 100 Lexington, Ky. Main & Esplanade
<b>WJAX</b> 900 1000 Jacksonville, Fla. City of Jacksonville	<b>WLB</b> 1250 1000 Minneapolis, Minn. University of Minnesota
<b>WJAY</b> 610 500 Cleveland, Ohio 1224 Huron Road	<b>WLBC</b> 1310 50 Muncie, Ind. D. A. Burton, Anthony Bldg.
<b>WJBC</b> 1200 100 Bloomington, Ill. Kaskaskia Broadcasting Co.	<b>WLBK</b> 1500 100 Detroit, Mich. 6559 Hamilton Ave
<b>WJBL</b> 1200 100 Decatur, Ill. Gushard Bldg.	<b>WLBL</b> 900 2500 Stevens Point, Wis. Fox Theater Bldg.
<b>WJBO</b> 1420 100 Baton Rouge, La. 334 Florida Street	<b>WLBZ</b> 620 500 Bangor, Me. Maine Broadcasting Co., Inc., 100 Main
<b>WJBW</b> 1200 100 New Orleans, La. C. C. Carlson, Godchaux Bldg.	<b>WLEU</b> 1420 100 Erie, Pa. Commerce Building
<b>WJBY</b> 1210 100 Gadsden, Ala. Gadsden Broadcasting Co., 112 N. 8th St.	<b>WLLH</b> 1370 100 Lowell, Mass. Merrimac Brdestg. Co., Box D
<b>WJDX</b> 1270 1000 Jackson, Miss. Lamar Life Bldg.	<b>WLNH</b> 1310 100 Laconia, N. H. 523 Main St.
<b>WJEJ</b> 1210 100 Hagerstown, Md. Lovely Dame Bldg.	<b>WLS</b> 870 50000 Chicago, Ill. 1230 W. Washington Blvd.
<b>WJIM</b> 1210 100 Lansing, Mich. Capital City Brdestg. Co.	<b>WLTH</b> 1400 500 Brooklyn, N. Y. 105 2nd Ave., (N. Y. City)
<b>WJJD</b> 1130 20000 Chicago, Ill. WJJD, Inc., 201 N. Wells St.	<b>WLVA</b> 1200 100 Lynchburg, Va. 915 Main St.
<b>WJMS</b> 1420 100 Ironwood, Mich. WJMS, Inc., St. James Hotel	<b>WLW</b> 700 50000 Cincinnati, Ohio 1329 Arlington St.
<b>WJR</b> 750 50000 Detroit, Mich. WJR, Inc., Fisher Bldg.	<b>WLWL</b> 1100 5000 New York, N. Y. 415 W. 59th St.
<b>WJSV</b> 1460 10000 Washington, D. C. Earle Building	<b>WMAL</b> 630 250 Washington, D. C. 712—11th St., N. W.
<b>WJTL</b> 1370 100 Atlanta, Ga. Volunteer Life Bldg.	<b>WMAQ</b> 670 50000 Chicago, Ill. Merchandise Mart
<b>WJW</b> 1210 100 Akron, Ohio WJW, Inc., 41 S. High St.	<b>WMAS</b> 1420 100 Springfield, Mass. WMAS, Inc., 70 Chestnut St.
<b>WJZ</b> 760 50000 New York, N. Y. 30 Rockefeller Plaza	<b>WMAZ</b> 1180 1000 Macon, Ga. 211 Cotton Ave.
<b>WKAQ</b> 1240 1000 San Juan, P. R. Radio Corp. of Puerto Rico, Box 1414	<b>WMBC</b> 1420 100 Detroit, Mich. 7310 Woodward Ave.
<b>WKAR</b> 1040 1000 East Lansing, Mich. Michigan State College	<b>WMBD</b> 1440 500 Peoria, Ill. 114 N. Madison St.
<b>WKBB</b> 1500 100 East Dubuque, Ill. Hotel Julien	<b>WMBG</b> 1210 100 Richmond, Va. 914 W. Broad St.
	<b>WMBH</b> 1420 100 Joplin, Mo. 1334 Roosevelt St.

## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>WMBI 1080 5000</b> Chicago, Ill. 153 Institute Place	<b>WOL 640 5000</b> Ames, Iowa Iowa State College
<b>WMBO 1310 100</b> Auburn, N. Y. WMBO, Inc., Metcalf Bldg.	<b>WOKO 1430 500</b> Albany, N. Y. WOKO, Inc., Hotel Ten Eyck
<b>WMBQ 1500 100</b> Brooklyn, N. Y. Metropolitan Bldg. Corp., 95 Leonard St.	<b>WOL 1310 100</b> Washington, D. C. American Broadcasting Co., Annapolis Hotel
<b>WMBR 1370 100</b> Jacksonville, Fla. F. J. Reynolds, Carling Hotel	<b>WOMT 1210 100</b> Manitowoc, Wis. Francis M. Kadow, Box 326
<b>WMC 780 1000</b> Memphis, Tenn. WMC, Inc., Hotel Gayoso	<b>WOOD 1270 500</b> Grand Rapids, Mich. Grand Rapids Natl. Bank Bldg.
<b>WMCA 570 500</b> New York, N. Y. 1697 Broadway	<b>WOPJ 1500 100</b> Bristol, Tenn. 22nd & State Sts.
<b>WMEX 1500 100</b> Boston, Mass. The Northern Corp., Hotel Manger	<b>WOR 710 50000</b> Newark, N. J. 147 Market St.
<b>WMFD 1370 100</b> Wilmington, N. C. Hotel Wilmington	<b>WORC 1280 500</b> Worcester, Mass. Alfred F. Kleindienst, 60 Franklin St.
<b>WMFF 1310 100</b> Plattsburg, N. Y. Hotel Cumberland	<b>WORK 1320 1000</b> York, Pa. York Broadcasting Co., 15 S. Beaver St.
<b>WMFG 1210 100</b> Hibbing, Minn. Head of the Lakes Bldg. Co.	<b>WOS 630 500</b> Jefferson City, Mo. State Highway Control, Capitol Bldg.
<b>WMFI 900 500</b> New Haven, Conn. Patrick J. Goode	<b>WOSU 570 750</b> Columbus, Ohio Ohio State University
<b>WMFJ 1420 100</b> Daytona Beach, Fla. W. Wright Esch	<b>WOV 1130 1000</b> New York, N. Y. 132 West 43rd St.
<b>WMFN 1210 100</b> Clarksdale, Miss. Attala Bldg. Corp., Box 180	<b>WOW 590 1000</b> Omaha, Neb. Woodmen of the World, 4th and Farnam
<b>WMFO 1370 100</b> Decatur, Ala. James R. Doss, Jr.	<b>WOWO 1160 19000</b> Fort Wayne, Ind. Main Auto Supply Co., 213 W. Main
<b>WMFR 1200 100</b> High Point, N. C. Hart & Neison	<b>WPAD 1420 100</b> Paducah, Ky. 2201 Broadway
<b>WMMN 890 500</b> Fairmount, W. Va. West Va. Bldg. Corp., 208 Main St.	<b>WPAR 1420 100</b> Parkersburg, W. Va. Chancellor Hotel
<b>WMPC 1200 100</b> Lapeer, Mich. 81 Liberty St.	<b>WPAX 1210 250</b> Thomasville, Ga. H. Wumpy, 135 E. Jackson St.
<b>WMT 600 1000</b> Cedar Rapids, Iowa Hotel Montrose	<b>WPAY 1370 100</b> Portsmouth, Ohio E. P. Moler
<b>WNAC 1230 1000</b> Boston, Mass. 21 Brookline Ave.	<b>WPEN 920 250</b> Philadelphia, Pa. 22nd & Walnut Sts.
<b>WNAD 1010 1000</b> Norman, Okla. University of Oklahoma	<b>WPFB 1370 100</b> Hattiesburg, Miss. Forest Bldg. Co., 512 Main St.
<b>WNAX 570 1000</b> Yankton, S. D. House of Gurney, Inc., 2nd and Capital St.	<b>WPG 1100 5000</b> Atlantic City, N. J. City of Atlantic City, Convention Hall
<b>WNBC 1380 250</b> New Britain, Conn. Wm. J. Sanders, 147 Main St.	<b>WPHR 880 500</b> Petersburg, Va. WLBG, Inc., Medical Arts Bldg.
<b>WNBF 1500 100</b> Binghamton, N. Y. Arlington Hotel	<b>WPRO 630 250</b> Providence, R. I. Cherry & Webb Bldg. Co., 15 Chestnut
<b>WNBH 1310 100</b> New Bedford, Mass. 251 Union St.	<b>WPRP 1420 100</b> Ponce, P. R. Julio M. Conesa
<b>WNBR 1430 500</b> Memphis, Tenn. Memphis Broadcasting Co., Hotel DeVoy	<b>WPTF 680 5000</b> Raleigh, N. C. 324 Fayetteville St.
<b>WNBX 1260 1000</b> Springfield, Vt. WNBX Broadcasting Corp., 39 Main St.	<b>WQAM 560 1000</b> Miami, Fla. Miami Bldg. Co., Inc., 327 N.E. 1st Ave.
<b>WNBZ 1290 100</b> Saranac Lake, N. Y. Smith & Mace, 70 Broadway	<b>WRAN 880 250</b> Scranton, Pa. Scranton Times, 149 Penn Ave.
<b>WNEL 1290 500</b> San Juan, P. R. Box 1252	<b>WQBC 1360 1000</b> Vicksburg, Miss. Delta Broadcasting Co., Hotel Vicksburg
<b>WNEW 1250 1000</b> Newark, N. J. Wodaam Corp., 100 Shipman St.	<b>WQDM 1370 100</b> St. Albans, Vt. 42 N. Main St.
<b>WNOX 560 1000</b> Knoxville, Tenn. WNOX, Inc., Hotel Andrew Johnson	<b>WRAK 1370 100</b> Williamsport, Pa. WIRAK, Inc., 244 W. 4th St.
<b>WNRA 1420 100</b> Muscle Shoals, Ala. Kathryn Jones, P. O. Box 486, Sheffield, Ala.	<b>WRAW 1310 100</b> Reading, Pa. Reading Broadcasting Co., 633 Penn St.
<b>WNRI 1200 100</b> Newport, R. I. S. George Webb, 21 Bull St.	<b>WRAX 920 250</b> Philadelphia, Pa. WRAX Broadcasting Co., 217 S. Broad St.
<b>WNYC 810 1000</b> New York, N. Y. Centre & Duane Sts.	<b>WRBL 1200 100</b> Columbus, Ga. Royal Theatre Bldg.
<b>WOAI 1190 50000</b> San Antonio, Texas Southland Industries, Inc., 1038 Navarro	<b>WRBX 1410 250</b> Roanoke, Va. P. O. Box 2389
<b>WOC 1370 100</b> Davenport, Iowa 1002 Brady Street	<b>WRC 950 500</b> Washington, D. C. National Press Bldg.
<b>WOCL 1210 50</b> Jamestown, N. Y. A. E. Newton, 840 N. Main St.	<b>WRDO 1370 100</b> Augusta, Me. WRDO, Inc., Augusta House

## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>WRDW 1500 100</b> Augusta, Ga. Augusta Brdcastg. Co., 309 8th St.	<b>WTAL 1310 100</b> Tallahassee, Fla. Florida Capitol Broadcasters, Inc.
<b>WREC 600 1000</b> Memphis, Tenn. WREC, Inc., Hotel Peabody	<b>WTAM 1070 50000</b> Cleveland, Ohio 1367 E. 6th St.
<b>WREN 1220 1000</b> Lawrence, Kans. WREN Brdcastg. Co., 7th and Vermont St.	<b>WTAQ 1330 1000</b> Eau Claire, Wis. WHBY Inc., Hotel Eau Claire
<b>WRGA 1500 100</b> Rome, Ga. 10 Third Ave.	<b>WTAR 780 500</b> Norfolk, Va. WTAR Radio Corp., Bank of Com. Bldg.
<b>WRJN 1370 100</b> Racine, Wis. Racine Broadcasting Corp., Hotel Racine	<b>WTAW 1120 500</b> College Station, Tex. Agricultural and Mechanical College
<b>WROK 1410 500</b> Rockford, Ill. 109 So. Water St.	<b>WTAX 1210 100</b> Springfield, Ill. WTAX, Inc., 416 E. Capitol Ave.
<b>WROL 1310 100</b> Knoxville, Tenn. Stuart Broadcasting Corp., 524 S. Gay	<b>WTBO 800 250</b> Cumberland, Md. Associated Brdcastg. Corp., Box 794
<b>WRR 1280 500</b> Dallas, Texas City of Dallas, Southland Life Bldg.	<b>WTCN 1250 1000</b> Minneapolis, Minn. Wesley Temple Bldg.
<b>WRUF 830 5000</b> Gainesville, Fla. State University	<b>WTEL 1310 100</b> Philadelphia, Pa. 3701 N. Broad Street
<b>WRVA 1110 5000</b> Richmond, Va. Larus & Bros Co., Inc., 22nd and Gary St.	<b>WTFI 1450 500</b> Athens, Ga. Liberty Brdcastg. Co., 133 E. Washington St.
<b>WSAI 1330 1000</b> Cincinnati, Ohio Crosley Radio Corp., 1329 Arlington	<b>WTIC 1040 50000</b> Hartford, Conn. 26 Grove St.
<b>WSAJ 1310 100</b> Grove City, Pa. Grove City College, 418 Popular St.	<b>WTJS 1310 100</b> Jackson, Tenn. Sun Publishing Co., Sun Bldg.
<b>WSAN 1440 500</b> Allentown, Pa. WSAN, Inc., 39 10th St.	<b>WTMJ 620 1000</b> Milwaukee, Wis. The Journal Co., 333 W. State St.
<b>WSAR 1450 250</b> Fall River, Mass. Academy of Music Bldg.	<b>WTMV 1500 100</b> East St. Louis, Ill. Mississippi Valley Brdcastg. Co.
<b>WSAZ 1190 1000</b> Huntington, W. Va. WSAZ, Inc., P. O. Box 729	<b>WTNJ 1280 500</b> Trenton, N. J. Trentou Brdcastg. Co., Stacy Trent Hotel
<b>WSB 740 50000</b> Atlanta, Ga. Atlanta Journal, 7 N. Forsyth St.	<b>WTOC 1260 1000</b> Savannah, Ga. Savannah Brdcastg. Co., De Soto Hotel
<b>WSBC 1210 100</b> Chicago, Ill. Gene T. Dyer, 1258 S. Michigan Ave.	<b>WTRC 1310 50</b> Elkhart, Ind. Truth Pub. Co., Inc., Hotel Elkhart
<b>WSBT 1360 500</b> South Bend, Ind. South Bend Tribune, 225 W. Colfax Ave.	<b>WVFW 1400 500</b> Brooklyn, N. Y. Paramount Brdcastg. Co., 4 & 5 Court St.
<b>WSFA 1410 500</b> Montgomery, Ala. Jefferson Davis Hotel	<b>WWAE 1200 100</b> Hammond, Ind. 402 Hammond Bldg.
<b>WSGN 1310 100</b> Birmingham, Ala. Tutwiler Hotel	<b>WWC 1420 1000</b> Spartanburg, S. C. Virgil V. Evans, Ravenel & Avant St.
<b>WSIX 1210 100</b> Springfield, Tenn. 638 Tire & Vulcanizing Co.	<b>WWJ 920 1000</b> Detroit, Mich. Evening News Assn., 616 Lafayette Blvd.
<b>WSJS 1310 100</b> Winston-Salem, N.C. Winston-Salem Journal Co., 416 N. Marshall	<b>WWL 850 10000</b> New Orleans, La. Loyola University, Roosevelt Hotel
<b>WSM 650 50000</b> Nashville, Tenn. 301-7th Ave. No.	<b>WWNC 570 1000</b> Asheville, N. C. Citizen Brdcastg. Co., Inc., Flatiron Bldg.
<b>WSMB 1320 500</b> New Orleans, La. WSMB, Inc., Maison Blanche Bldg.	<b>WWRL 1500 100</b> Woodside, N. Y. 41-30-58th St.
<b>WSMK 1380 200</b> Dayton, Ohio WSMK, Inc., 121 N. Main St.	<b>WWSW 1500 100</b> Pittsburgh, Pa. Hotel Keystone
<b>WSOC 1210 100</b> Charlotte, N. C. WSOC, Inc., 516 W. Trade St.	<b>WWVA 1160 5000</b> Wheeling, W. Va. Hawley Bldg.
<b>WSPA 920 1000</b> Spartanburg, S. C. Virgil V. Evans, Ravenel and Avant St.	<b>WXYZ 1240 1000</b> Detroit, Mich. Macabees Bldg.
<b>WSPD 1340 1000</b> Toledo, Ohio Toledo Broadcasting Co., 505 Jefferson	<b>W1XBS 1530 1000</b> Waterbury, Conn. 61 Leavenworth St., Amer. Republican, Inc.
<b>WSUI 880 500</b> Iowa City, Iowa State University of Iowa	<b>W2XR 1550 1000</b> Long Island City, N. Y. Scientific Brdcastg. Serv., 41 Park Row, N. Y.
<b>WSUN 620 1000</b> St. Petersburg, Fla. Recreation Pier	<b>W6XAI 1550 1000</b> Bakersfield, Calif. Pioneer Mercantile Co.
<b>WSVA 550 500</b> Harrisonburg, Va. Main & Market Sts.	<b>W9XBY 1530 1000</b> Kansas City, Mo. 106 West 14th St.
<b>WSVS 1370 50</b> Buffalo, N. Y. 666 E. Delavan Ave.	<b>XEA 1060 125</b> Guadalajara, Jal. Alberto Palos Souza, Apdo. 197
<b>WSYB 1500 100</b> Rutland, Vt. Phillip Weiss Music Co., Box 328	<b>XEAA 920 200</b> Mexicali, B. C. P. O. Box 714 (Calexico, Calif.)
<b>WSYR 570 250</b> Syracuse, N. Y. 315 Starret-Syracuse Bldg.	<b>XEAF 990 500</b> Nogales, Son. Francisco G. Elias, Hotel Central
<b>WTAD 900 500</b> Quincy, Ill. Illinois Brdcastg. Corp., State and 6th	<b>XEAI 1240 100</b> Mexico City, D. F. Carlos Gonzales Caballero, Insurgentes 366
<b>WTAG 580 500</b> Worcester, Mass. 18 Franklin St.	<b>XEAJ 1310 15</b> Oaxaca, Oax. Enrique M. Crihuela, 3a, Gurroro 18

## NORTH AMERICAN B. C. STATIONS BY CALLS

<b>XEAM</b> 750 7.5 Matamoros, Tams. Edificio Banco Longoria	<b>XEMO</b> 865 5000 Tijuana, B. C. P. O. Box 202, San Diego, Calif.
<b>XEAO</b> 560 250 Mexicali, B. C. Luis L. Castro, C. Altamirano 156	<b>XEMX</b> 1280 12 Mexico City, D. F. Alfonzo T. Avales
<b>XEAW</b> 960 50000 Reynosa, Tams. Apartado No. 6	<b>XEMZ</b> 1210 250 Tijuana, L. C. Ave. "D" No. 542
<b>XEAZ</b> 1420 7 Guanajuato, Gto. Antonio Zavala, Pasco de la Presa 85	<b>XEN</b> 710 1000 Mexico City, D. F. Cerveceria Modelo Ave. Juarez 77
<b>XEB</b> 1030 10000 Mexico City, D. F. El Buen Tono, S. A., Apdo. 79-44	<b>XENT</b> 910 65000 Nuevo Laredo, Tams. Box 410, Laredo, Texas
<b>XEC</b> 1160 30 Tijuana, B. C. Luis F. Enciso, Teatro Zaragoza	<b>XEOK</b> 760 250 Tijuana, L. C. Carlos de la Sierra, Calle 5a 312
<b>XECW</b> 1310 10 Mexico City, D. F. Maria Elena Bravo de Cordero Ave. Juarez 104	<b>XEOX</b> 640 250 Saltillo, Coah. Victoria No. 4, Altos.
<b>XED</b> 1155 2500 Guadalajara, Jal. Cla. Radiofotografica, Apdo. 197	<b>XEP</b> 840 500 Mexico City, D. F. Cia Difusora de Mexico S. A., Rembrandt 11
<b>XEE</b> 1210 50 Durango, Dgo. 20 de Nov. 112 (Apdo. 148)	<b>XEPN</b> 590 50000 Piedras Negras, Coah. Piedras Negras Brdestg. Co., Box 360
<b>XEFA</b> 1180 500 Mexico City, D. F. Eduardo Limon Segui, Meditarraneo 236	<b>XES</b> 990 250 Tampico, Tams. Fernando Sada, Box 309
<b>XEFB</b> 1420 100 Monterrey, N. L. Jesus Quintanilla, P. O. Box 317	<b>XET</b> 690 500 Monterrey, N. L. P. O. Box 203, Hidalgo
<b>XEFC</b> 560 100 Merida, Yuc. J. Molina Font, Calle 59, 517	<b>XETF</b> 1220 12 Veracruz, Ver. Jose M. Lopez, Independencia 20
<b>XEFE</b> 850 250 Laredo, Tams. R. T. Carranza, Km. 4 Carretera Laredo Mt.	<b>XETH</b> 1210 100 Puebla, Pue. Ramon Huerta G., Calle 17, Oriente 11
<b>XEFI</b> 1440 250 Chihuahua, Chih. Feliciano Lopez Isles, Ap. 157	<b>XETW</b> 820 500 Mexico City, D. F. Rafael M. Pena, Ave. 16 de Sep. 83
<b>XEFJ</b> 1230 100 Monterrey, N. L. R. Junco de la Vega, P. O. Box 186	<b>XEU</b> 1010 250 Veracruz, Ver. Fernando Pazos Sosa, Independencia 98
<b>XEFO</b> 940 5000 Mexico City, D. F. Reforma No. 137	<b>XEW</b> 890 50000 Mexico City, D. F. P. O. Box 2516
<b>XEFV</b> 1210 100 Juarez, Chih. Cordova & Prieto, Ave. Ferrocarril 104	<b>XEWZ</b> 1150 100 Mexico City, D. F. P. O. Box 291
<b>XEFW</b> 1310 250 Tampico, Tams. J. E. Martinez, Salvador Diaz Miron 6	<b>XEX</b> 1310 125 Monterrey, N. L. L. F. Petit Jean, P. O. Box 10
<b>XEFZ</b> 1370 100 Mexico City, D. F. Manuel Zetina, Cedro & Nonoaleo No. 344	<b>XEY</b> 1000 10 Merida, Yuc. Calle 64, Numero 568
<b>XEG</b> 1270 200 Ensenada, B. C. Juan C. Chavez	<b>XEYZ</b> 780 10000 Mexico City, D. F. Angel M. Diez, Ave. Juarez 48
<b>XEH</b> 1150 250 Monterrey, N. L. Tarnava y Cia, P. O. Box 147	<b>XEZ</b> 630 500 Merida, Yuc. Jorge L. Falomque, Estamores Ctd 214
<b>XEI</b> 1370 125 Morelia, Mich. Carlos Gutierrez M., F. I. Madero 545	<b>XEZZ</b> 1370 100 San Luis Potosi, SLP Emilio Delgado R. Ave. Chicosin 32
<b>XEJ</b> 1020 1000 Juarez, Chih. Juan G. Buttner, P. O. Box 111	<b>XFA</b> 1310 5 Aguascalientes, Ags. A. Postal 92
<b>XEK</b> 990 100 Mexico City, D. F. Arturo Martinez, Jalapa No. 51	<b>XFB</b> 1270 250 Jalapa, Ver. Gobierno del Estado de Veracruz
<b>XEKL</b> 1240 500 Leon, Guan. 5 de Mayo 26	<b>XFC</b> 810 350 Aguascalientes, Ags. Gobierno del Estado de Aguascalientes
<b>XEL</b> 1100 250 Mexico City, D. F. Calzada del Rosel No. 1	<b>XFD</b> 1340 350 Jalapa, Ver. Gobierno Estado de Veracruz
<b>XELA</b> 1240 50 Saltillo, Coah. Enrique Gomez, Chauhtemos 28 Sur	<b>XFO</b> 940 5000 Mexico City, D. F. Nat. Rev. Party, Ave. Morelos 110
<b>XELO</b> 1110 10000 Piedras Negras, Coah. Piedras Negras Brdestg. Co.	<b>XFX</b> 610 1000 Mexico City, D. F. Secretaria de Educacion Publica
<b>XEMA</b> 1080 50 Tampico, Tams. Manuel M. Pier, Aretsanos 10	

## BEST SHORTWAVE BROADCASTING STATIONS BY CALL LETTERS

Frequencies are given in megacycles and the time is Eastern Standard.

*On the following pages will be found the details regarding the stations given in "Around the Clock". A complete list of the Short Wave Stations of the World was given in the September RADEX by frequencies, by locations and by call letters. It will appear again in the November issue.*

# AROUND the CLOCK on the SHORT WAVES

MIDNIGHT TO NOON (EST)

GMT	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
MST	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
PST	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00
	COC DJA DJN HJ4ABL JVH VPD VK2ME W3XAL W8XAL W8XK	DJA DJN GSB GSD VPD VK2ME W3XAL W9XF	GSD W9XF	DJB DJN GSB PCJ VK3LR RV15	DJB DJN JVM PCJ RV15 VK2ME VK3LR	DJB DJN HVJ JVM LJKJ RV15 VK2ME VK3LR VK3ME	DJB DJN GSF GSG JVM LJKJ RNE RV15 VK2ME VK3LR VK3ME W8XAL	GSF GSG JVM LJKJ PCJ PHI RNE Pont. RV15 VK2ME VK3ME W8XAL	DJB DJE GSF GSG PCJ PHI RNE Pont. RV15 VK2ME VK3ME W8XAL	DJB DJE DJQ GSF GSG PCJ PHI Pont. RNE VE9CA W8XK	DJB DJE DJQ GSF GSG IVJ PCJ PHI Pont. RNE VE9GW W8XAL W9XAA	DJB DJE DJQ GSE GSF Pont. VE9GW W1XK W3XAL W8XK W9XAA

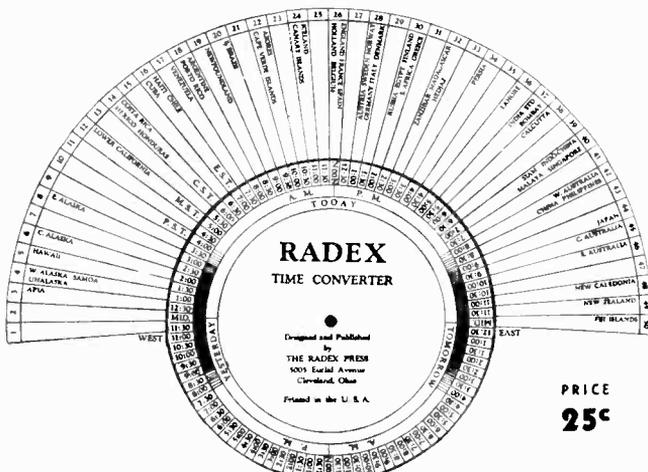
NOON TO MIDNIGHT (EST)

GMT	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	1:00	2:00	3:00	4:00
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
MST	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
PST	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00
	DJC DJD EAG GSB GSD ORK Pont. VE9GW W1XK W2XE W3XAU W8XAL W8XK W9XAA	DJC DJD EAG GSB GSD ORK Pont. VE9CA VE9GW W1XK W3XAU W8XK W9XAA	DJC DJD GSB GSD VE9CA VE9GW W1XK W3XAU W8XK W9XAA	CJRO CJRX DJC DJD GSB GSD Pont. VE9GW W1XK W3XAL W3XAU W8XK W9XAA	CJRO CJRX COC COH CT1AA DJC DJD GSD H1H Pont. VE9CA W1XK W2XE W3XAU W8XK W9XAA	CJRO CJRX COC COH CT1AA DJA DJD DJN EAG GSC GSD H1B HJ1ABB Pont. PRF5 VE9GW W1XK W3XAL W3XAU W8XK W9XAA XEBT YV3RC	CJRO CJRX COC COH CT1AA DJA DJD DJN EAG GSC GSD HAT4 HC2RL HJ1ABB IRA Pont. VE9GW W1XAL W1XK W2XE W3XAU W8XK W9XAA XEBT W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX COC COH CT1AA DJA DJD DJN EAG GSD HJ1ABB HJ1ABG HP5B TIEP VE9GW W1XAL W1XK W2XAF W2XE W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CFC CJRO CJRX COC COH DJA DJD DJN H1X HJ1ABB HP5B TIEP VE9GW W1XAL W1XK W2XAF W2XE W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX COC COH DJD DJN HC2ET HC2LT OAN4D H1X HJ1ABB HP5B W1XK PRADO TIGPH VE9GW W1XK W2XAF W2XE W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX COC COH DJC DJD DJN HC2RL HC2ET OAN4D H1X HJ1ABB HP5B W1XK PRADO TIGPH VE9GW W1XK W2XAF W2XE W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRX COC COH DJC DJD DJN GSL HC2RL HC2ET OAN4D H1X HJ1ABB HP5B W1XK PRADO TIGPH VE9GW W1XK W2XAF W2XE W3XAU W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO

- CEC, Santiago, Chile, 10.670. Sun., 2030-2100.
- CJRO, Winnipeg, Man., 6.150. Sun., 1500-2200; other days, 2000-2400.
- CJRX, Winnipeg, Man., 11.720. Sun., 1500-2200; other days, 2000-2400.
- COC, Havana, Cuba, 6.010. Daily, 0930-1300; Sat., 2330-0030.
- COCD, Havana, Cuba, 6.130. Sun., 1200-1400; 2000-2230. Other days, 1130-1600; 1800-2400.
- COH, Havana, Cuba, 9.428. Daily 1000-1200; 1600-1800; 2100-2200.
- CO9GC, Santiago, Cuba, 6.150. Sun., 0000-0200.
- CO9JQ, Camaguey, Cuba, 8.665.
- CO9WR, Sancti-Spiritus, Cuba, 11.800.
- CTIAA, Lisbon, Portugal, 9.600. Tues., Thurs., Sat., 1630-1900.
- DJA, Berlin, Germany, 9.560. 0030-0215; 1705-2115.
- DJB, Berlin, Germany, 15.200. 0345-0715; 0800-1130.
- DJC, Berlin, Germany, 6.020. 1200-1630; 2130-2245.
- DJD, Berlin, Germany, 11.770. 1200-1630; 1705-2245.
- DJE, Berlin, Germany, 17.760. 0800-1130.
- DJN, Berlin, Germany, 9.540. 0030-0215; 0345-0715; 1705-2245.
- DJQ, Berlin, Germany, 15.280. 0800-1130.
- EAQ, Madrid, Spain, 9.562. 1730-1900; Sat., 1200-1400.
- GSE, Daventry, England, 9.510. 0115-0315; 1215-1500; 1515-1645.
- GSC, Daventry, England, 9.580. 1800-2000; 2200-2300.
- GSD, Daventry, England, 11.750. 0115-0315; 1215-1600; 1800-2000; 2200-2300.
- GSE, Daventry, England, 11.860. 1100-1200.
- GSF, Daventry, England, 15.140. 0900-1200; 1615-1745; 0600-0845.
- GSG, Daventry, England, 17.790. 0900-1045; 0600-0845.
- GSL, Daventry, England, 6.110. 2200-2300.
- HAS3, Budapest, Hungary, 15.370. Sun., 0900-1000.
- HAT4, Budapest, Hungary, 9.125. Sun., 1800-1900.
- HBL, Geneva, Switz., 9.595. Sat., 1730-1815.
- HBP, Geneva, Switz., 7.797. Sat., 1730-1815.
- HCJB, Quito, Ecuador, 8.214. Daily exc. Mon., 1915-2315.
- HC2AT, Guayaquil, Ecuador, 8.400. Daily exc. Sun., 2000-2200.
- HC2ET, Guayaquil, Ecuador, 4.600. Wed., Sat., 2130-2300.
- HC2RL, Guayaquil, Ecuador, 6.659. Tues., 2115-2315; Sun., 1745-1945.
- IIIH, San Pedro de Macoris, D. R., 6.800. 1600-2030.
- FIX, Santo Domingo, D. R., 5.980. Tues., Fri., 2000-220.
- HIJ, Santo Domingo, D. R., 6.315. Sat., 2300-0100; daily exc. Sun., 1700-1800.
- I14D, Santo Domingo, D. R., 6.500. 1640-1940 daily exc. Sun.
- HJ1ABB, Barranquilla, Colombia, 6.447. 1700-2200.
- HJ1ABD, Cartagena, Colombia, 7.280. 1945-2115.
- HJ1ABE, Cartagena, Colombia, 6.115. Sun. at 0400; Mon., 2200-2400; Wed., 2000-2200.
- HJ1ABC, Barranquilla, Colombia, 6.042. 1900-2200.
- HJ1ABII, Cienaga, Colombia, 6.300. Tues., Fri., 1945-2200.
- HJ2ABC, Cucuta, Colombia, 5.975. Daily exc. Sun., 1800-2100.
- HJ3ABD, Bogota, Colombia, 7.390. 1930-2300.
- HJ3ABF, Bogota, Colombia, 6.200. 1900-2300.
- HJ3ABH, Bogota, Colombia, 6.012. Sun., 1600-2100; other days, 1800-2300.
- HJ4ABA, Medellin, Colombia, 11.720. 1130-1300; 1830-2230.
- HJ4ABC, Pereira, Colombia, 6.230. 1900-2000.
- HJ4ABE, Medellin, Colombia, 5.900. 1900-2300.
- HJ4ABL, Manizales, Colombia, 6.100. Sat., 2300-2430.
- HJ5ABD, Cali, Colombia, 6.490. Thurs., Sat., Sun., 1900-2100.
- HP5B, Panama City, Panama, 6.030. 1900-2200.
- HP5J, Panama City, Panama, 9.590. 1930-2200.
- HVJ, Vatican City, 5.970. Sun., 0500-0530. 15.120. Daily exc. Sun., 0500-0515.

## RADEX RADIO MAP of the WORLD

Showing all Countries and their Principal Cities  
with Call Letters and Time Zones of each Country



**DIRECTIONS**—Turn the dial to the desired hour, either A. M. or P. M., in the center marked "TODAY" opposite your own zone and the correct time in all other zones in the world will be shown. It will also be indicated which of the other zones are "Yesterday" and which are "Tomorrow". The position of night, darkness and dawn is graphically shown. Or, if you desire to tune in a New Zealand program, turn the hour of the program (say 9:00 a. m.) to the New Zealand zone and you will find that it is 6:30 A. M. some day in Eastern Standard Zone or 11 P. M. yesterday in Hawaii.

Just turn the dial to the time in your zone and—Presto! Change—there is the time for every other place in the world.

No adding; no subtracting; no trying to figure which is yesterday, today or tomorrow. The dial does it all.

Big map of the world showing all principal cities and their time zones.

Only a Quarter

Postpaid to any country.

**THE RADEX PRESS INC.**  
**CONNEAUT,**  
**OHIO**  
**U. S. A.**

PRICE

**25¢**

IZRO, Rome, Italy, 9.630. Mon., Wed., Fri., 1800-1930.  
 JVH, Nazaki, Japan, 14.640. 0000-0100. Mon., Thurs., 1600-1700.  
 JVM, Nazaki, Japan, 10.740. Daily, 0400-0745.  
 LKJ1, Jeloy, Norway, 9.540. 0500-0800.  
 OAX4B, Lima, Peru, 6.230. 1900-2100.  
 OAX4D, Lima, Peru, 5.780. Wed., Sat., 2100-2330.  
 ORK, Brussels, Belgium, 10.330. 1200-1400.  
 PCJ, Hilversum, Netherlands, 15.220. Sun., 0730-1000; Tues., 0300-0600; Wed., 0700-1100.  
 PHI, Hilversum, Netherlands, 17.775. Mon., Thurs., Fri., 0730-0930; Sat., Sun., 0730-1030.  
 PRADO, Riobamba, Ecuador, 6.620. Thurs., 2100-2330.  
 PRF5, Rio de Janeiro, Brazil, 9.505. 1700-1745.  
 RNE, Moscow, USSR, 12.000. Daily, 1400-1800; Sun., 0700-1100; Wed., 0600-0700.  
 RV15, Khabarovsk, USSR., 4.273. Daily, 0300-0900.  
 TIEP, San Jose, Costa Rica, 6.710. 1900-2200.  
 TIGPH, San Jose, Costa Rica, 5.820. 1900-2200.  
 TIPG, San Jose, Costa Rica, 6.385.  
 TIRCC, San Jose, Costa Rica, 6.550. Daily, 1800-1900. Sun., Thurs., 2000-2100; Sun., 1100-1300.  
 VEGCA, Calgary, Alta., 6.030. Thurs., 0900-0200; Sun., 1200-2400; Other days, 0900-2400.  
 VEGGW, Bowmanville, Ont., 6.090. 0600-2300.  
 VK2ME, Sydney, Australia, 9.585. Sun., 0000-0200; 0430-0830; 0900-1100.  
 VK3LR, Melbourne, Australia, 9.580. Mon., Tues., Wed., Thurs., 0315-0730; Fri., 2230-0200; Sat., 0500-0730.  
 VK3ME, Melbourne, Australia, 9.503. Wed., Thurs., Fri., Sat., 0500-0700.  
 VPD, Suva, Fiji, 13.045. 0030-0130.  
 VUB, Bombay, India, 9.565. Sun., near 7 a.m.  
 W1XAL, Boston, Mass., 11.790. Tues., Thurs., Sun., 1830-2030.  
 W1XK, Mills, Mass., 9.570. 0700-0100.  
 W2XAD, Schenectady, N. Y., 11.830. Tues., Thurs., Sun., 1830-2030.  
 W2XAF, Schenectady, N. Y., 9.530. 1840-2300.  
 W2XE, Wayne, N. J., 6.120. 2000-2300. 11.830. 1700-1900. 15.270. 1900-1700.  
 W3XAL, Bound Brook, N. J., 6.100; Mon., Wed., Sat., 1700-0100. 17.780; Tues., Thurs., Fri., 1500-1600.  
 W3XAU, Philadelphia, Pa., 9.590; 1200-2000.  
 W3XL, Bound Brook, N. J., 17.310; 1100-1700.  
 W4XB, Miami, Fla., 6.040. Sun., 1130-1500; 1700-2400. Other days, 1200-1400; 1730-2400.  
 W8XX, Pittsburgh, Pa., 6.140; 2100-0100. 11.870; 1700-2100. 15.210; 0900-1900. 21.540; 0700-0900.  
 W8XAL, Cincinnati, Ohio, 6.060. Sun., 0700-1900; 2200-0130. Other days, 0630-1900; 2200-0200.  
 W9XF, Chicago, Ill., 6.100; Monday to Friday, 0100-0200; 2100-2200; Sat., 0100-0200; Sun., 0100-0230; 2100-2200.  
 XEBT, Mexico City, D. F., 6.000; 1200-0100.  
 XECH, Mexico City, D. F., 7.380. Sun., 1800-1900.  
 XECW, Mexico City, D. F., 5.980; daily 2300-2400.  
 YV2RC, Caracas, Venezuela, 6.112. 1700-2145.  
 YV3RC, Caracas, Venezuela, 6.150. 1700-2200.  
 YV4RC, Caracas, Venezuela, 6.375. 1630-2230.  
 YV5RMO, Maracaibo, Venezuela, 5.850. Daily exc. Sun., 1700-2130.  
 YV6RV, Valencia, Venezuela, 6.520. 1700-2200.  
 YVQ, Maracay, Venez., 6.672. Sat., 2000-2100.  
 . . . . . Pontoise, France, 11.720. 1800-2100; 2200-2400. 11.880; 1015-1315; 1400-1700. 15.250.

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The Radex Press Inc.,  
Conneaut, Ohio:

Enclosed find \$..... for which send me postpaid my choice of your offers as checked below:

- Program "slates"       1 for 10c       2 for 15c       4 for 25c  
 One Radio World Map and Time Converter..... 25c  
 One copy of the next RADEX ..... 25c  
 One year's subscription to RADEX, 10 issues..... \$2.00  
 Beginner's Story of Radio ..... .50

(If you live in Ohio, add 3% for State Sales Tax. No tax on Subscriptions.)

Per year outside the U. S. A., \$2.50

Write Name Plainly .....

Street and Number.....

City and State .....



*Sometimes I think there ought to be a law to make everyone do a little studying every week. I didn't think that a year ago because it looked like all the cards were stacked against me. But I am surely making good money now. Maybe my story will show you the way to larger earnings also.*

## I THOUGHT RADIO WAS A PLAYTHING But Now My Eyes Are Opened, and I'm Making Over \$40.00 a Week!

\$40 a week! Man alive, a year ago I thought anyone making so much was just plain lucky.

Twelve months 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 twelve months later I would be making \$40 a week in my own Radio business—I'd thought you were crazy.

But I am getting ahead of my story—let me tell you how it all started. I was hard up a year ago 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 show you how 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 the promises 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 little business of my own.

That business has since grown to the point where I am clearing an average of \$40 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 other lines. Broadcasting Stations, Radio Manufacturers, Operating on Board Ship, Servicing Sets, Aviation Radio, Television, Short Wave, Automobile and Police Radio, Loud Speaker Systems are other fields their training covers. And to think, until the day I wrote for that book, I'd been wailing, "I never had a chance and will never have one because I have no pull or a good education!"

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 Receiving Troubles—the Cause and Remedy" is valuable. And when you see how simple this lesson is to understand you'll know why many fellows with less than a grammar school education 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. 5KO, Washington, D. C.

J. E. SMITH, President,  
National Radio Institute  
Dept. 5KO, Washington, D. C.

Dear Mr. Smith:

Without obligation, send me the sample lesson and your free 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.....

14X1

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(Noises Suppressed)

Now, Push Button Silent Tuning is offered for first time! Simply pushing Silencer Button hushes set between stations... suppresses noises. Pressing Station Finder Button automatically indicates proper dial position for bringing in extremely weak stations.

**Acousti-Tone V-Spread Design**

(Patent Pending)

Establishes new radio style overnight! The V-Front Dispensing Valve was developed by Midwest engineers as a result of a study of directional effect of the Midwest Full Scope High Fidelity Speaker. These Valves spread the beautiful lacework of the "high" throughout the entire room in a scientific manner... directing the High Fidelity waves uniformly to the ear. Send for new FREE 40-page catalog. It pictures the complete line of beautiful 1936 Acousti-Tone V-Spread consoles... and chassis... in four colors.

**FULL SCOPE HIGH FIDELITY**

(Brilliant)

**Concert Tone**  
Now, get complete range of audible frequencies from 50 to 16,000 cycles, being transmitted by four new High Fidelity Broadcasting stations—WJNB, WORNY, WEXR and WGNAL. Glorious new Acousti-tone is achieved by assuring life-like, crystal clear "concert" realism.

**V-FRONT**

**EVERYWHERE**, radio enthusiasts are praising this amazingly beautiful, bigger, better, more powerful, super selective, 18-tube 6-tuning range radio. They say it is a tremendous improvement over Midwest's 16-tube set, so popular last season. It is sold direct to you from Midwest Laboratories as a positive saving of 30% to 50%. (This statement has been verified by a Certified Public Accountant who conducted an impartial survey among representative Ohio, Kentucky and Indiana radio retailers.) Before you buy any radio, write to: FREE 40-page 1936 catalog. Never before so much radio for so little money. Why pay more? You are triple-protected with "One Year Guarantee, Foreign Reception Guarantee and Money-Back Guarantee!"

This super Midwest will out-perform \$200 to \$300 sets on a point-for-point comparison. That is why nationally known orchestra leaders like Fred Waring, George Olsen, Jack Denney, Ted Fio Rito, and others use Midwest sets to study types of harmony and rhythmic beats followed by leading American and Foreign orchestras.

**80 ADVANCED 1936 FEATURES**

Scores of marvelous features, many exclusive, explain Midwest super performance and thrilling world-wide all-wave reception enable Midwest to bring in weak distant foreign stations, with full loud speaker volume, on channels adjacent to locals. Only Midwest offers so many features... only Midwest tunes times as low as 4½ meters... only Midwest gives the sensational new Push-Button Tuning feature, etc. See pages 12 to 21 in FREE catalog for description of the 80 features. Read out advantages of 6 Tuning ranges offered for first time: E, A, L, M, H and U. They make this Super Deluxe 18-tube set the equivalent of six different radios... offer tuning ranges not obtainable in other radios at any price!

**SAVE UP TO 50%**

**DEAL DIRECT WITH LABORATORIES**  
No middle-men's profits to pay—you buy at wholesale price direct from laboratories... saving 30% to 50%. Increasing costs are sure to result in higher radio prices soon. Buy before the big advance **NOW!** while you can take advantage of Midwest's sensational values. You can order your Midwest 1936 Full Scope High Fidelity Acousti-Tone radio from the 40-page catalog with as much certainty of satisfaction as if you were to come yourself to our great radio laboratories. You save 30% to 50%... you get 30 days FREE trial... as little as \$5.00 puts a Midwest radio in your home... Satisfaction guaranteed or money back. Write today, for FREE catalog.

Thrill to new explorations in sections of radio spectrum that are strangers to you. Every type of broadcast from North and South America, Europe, Asia, Africa and Australia is now yours. Send today for money-saving facts.

**GEORGE OLSEN PRAISES LIFE-LIKE TONE REALISM**

Long Island, N. Y.—After comparing many different makes, I finally decided upon Midwest. It out-performs other radios costing almost twice as much. The crystal-clear tone is so life-like that it sounds as though I am in the studios, actually hearing artists performing.



**TODAY'S FINEST RADIO SAYS TED FIO RITO**

My new Midwest is finest radio I have had pleasure of hearing. Saw "Cable control" is marvelous... enables one to hear every instrument in orchestra.



**METAL TUBES**

This Midwest is engineered from the ground up to see either the new METAL tubes or glass-metal counterpart tubes. Oetel sockets and newest circuits permit use of either type... just as you desire.

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Without obligation on my part, send me your new FREE catalog, complete details of your liberal 30-day FREE trial offer, and FREE Miniature Rotating Residue Dial. This is NOT an order.

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Name: \_\_\_\_\_  
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DEPT. 81D CINCINNATI, OHIO U.S.A.

Established 1920 Cable Address MIRACO All Codes