THE APRIL 1936

RADIO INDEX

The All-wave DX Log of the World

25c

Hints on Buying A Radio Receiver

A New Kind of Broadcasting Station

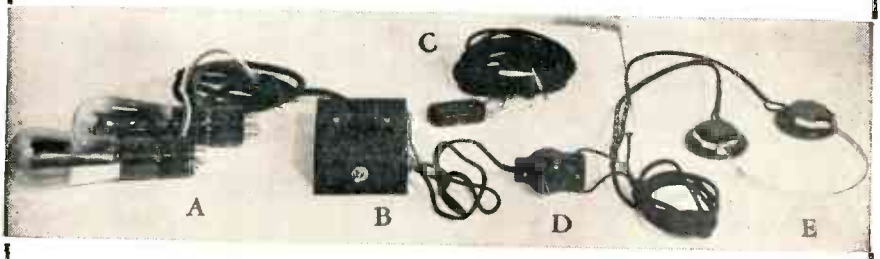
Complete Log of Short Wave Stations

A Twenty-four Hour Tuning Chart

No. 98

The "Perfect" Phone Adapter

permits the use of head-phones on any radio receiver. It is easily attached by anyone without tools and will not affect the operation of the set in any way. It comes with either one or two small socket-adapters (A) which are placed under the last or power tubes. The hard of hearing may listen on the phones while others listen to the speaker. Or the speaker may be silenced when others in the house are asleep or ill.



When the Distant Volume Control (D) is connected to the Adapter in place of phones, the volume may be turned up or down or the advertising "blurbs" may be eliminated altogether—all without leaving your chair. The ten-foot extension cord (C) permits the use of phones and Volume Control from a distance. In this case the phones are connected to the Control as shown. If desired a second speaker in another room may be used in place of phones and either or both speakers used.

PRICES

Perfect Phone Adapter (A & B)	$3.95
Adapter with 2000-ohm phones	6.70
Adapter with "Featherweight" 24,000-ohm phones	12.00
Distant Volume Control	2.00
Extension cord and connector	.50

All prices postpaid. If you live in Ohio add 3% for state sales tax.

The 2000-ohm phones will give excellent service. The 24,000-ohm phones are perhaps the very finest made being especially light and extremely sensitive. They were developed especially for the hard of hearing, airplane pilots, short wave work, etc.

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

The Radex Press, Inc. Conneaut, Ohio

23 tube SCOTT Full Range High Fidelity Chassis. Furnished with 19 exclusively designed cabinets.

You're in the midst of living history!—tremendous events in Europe—modern music—the Asiatic military giants rocking the pillars of the world—news and new experiments of the inventor-amateurs! It's your world!—enjoy it to the utmost with a SCOTT, the magnificent 23 tube Full Range Hi-Fidelity receiver which has been making world DX reception records for 9 years.

COMPARE THIS DX LIST

Here is but one of dozens of SCOTT records—from Official Radio News Listening Post—39 foreign stations, on the *broadcast band alone*, in 7 hours!

COMPARE THESE FEATURES

.6 Microvolt Sensitivity with unmodulated carrier—twice the average useable sensitivity.

Variable Selectivity 2 to 16 K.C.—three times more station separation.

Double A.V.C.—allowing maximum R.F. tube efficiency, for higher signal-to-noise ratio.

35 Watts Class "A" Power—concert volume without distortion. Five times average.

Short Wave Station Locator.—beat frequency oscillator button signals instantly.

30 to 16,000 Cycles—provably greater High Fidelity than ordinary High Fidelity Radios.

More Performance Features—including True Separate Bass and Treble Controls; 23 Tubes; and Oversize Construction throughout.

COMPARE ITS OWNER-LIST

These and other exclusive laboratory developments impossible to include in production type receivers, have made the SCOTT world-famous for distance-getting ability—have won for it distinguished owners in more than 146 countries—musicians, broadcasters, amateurs, princes and presidents! You can own the SCOTT for no more than you would pay for a good radio!

COMPARE IT IN YOUR OWN HOME

Put the SCOTT in your own home anywhere in U. S. A. on 30-day trial! Put it to a side by side comparative performance test with any other receiver at any price! If after making this test you are not convinced that the SCOTT gives you vastly superior performance, brings you more foreign stations with more enthralling volume, with more diamond sharp clarity and more beautifully true tone—you may return it for refund without any obligation whatever.

Every SCOTT is custombuilt to the highest precision standards known. Every SCOTT carries a five year perfect performance guarantee. Sent direct to you from the laboratories, fully aged, tested and proved with nation-wide installation service. Mail Coupon—NOW—for one of the most extraordinary records in all the history of worldwide DX reception!

DETAILS ARE FREE

SEND THIS COUPON TODAY

E. H. SCOTT RADIO LABORATORIES, INC.
4424 Ravenswood Ave., Dept. 15F6, Chicago, Ill.

Send details of unsurpassed performance and life-true tone of new 23-tube SCOTT.

Name _____

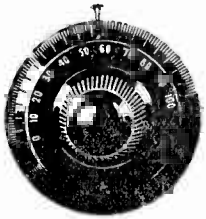
Address _____

City _____ State _____

E. H. SCOTT RADIO LABORATORIES, INC.
4424 Ravenswood Ave., Dept. 15F6, Chicago, Ill.

Visit our new permanent salon at 630 Fifth Ave., New York City

April 1, 1936



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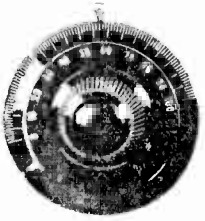

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TWELFTH YEAR

NUMBER 98

CONTENTS

$2.00 Per Year *25c Per Copy*

Outside of the U. S. A. and Canada $2.50 Per Year

See Subscription Blank on Page 112

Published Monthly Excepting July and August

THE RADEX PRESS INC.

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

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

Printed in the U. S. A.

The Art Of Buying A Radio

● ● ● *By* B. FRANCIS DASHIELL

NOW that radio has turned so completely to the world of short waves for reception from great distances and foreign places, there are many owners of old fashioned broadcast receivers, as well as prospective purchasers, who are thinking of buying new and modern all-wave radio sets.

But when he listens to the claims set forth by more than half a hundred radio manufacturers, or examines the dozen or so widely advertised and internationally famous receivers, it is no small wonder that the prospective owner becomes bewildered and often buys a set that is unsuited to his purposes.

Modern radio sets have to be good in order to live through this age of competition. Like motorcars, they all have some faults, idiosyncrasies and other little things which we may dislike. But automobiles do the things for which they are primarily built; they provide transportation quickly, cheaply and with certainty. And the modern radio set does the same thing; it brings in stations easily and efficiently whenever called upon to do so.

All-Wave Sets

The art of buying a radio, like selecting a car, depends upon the extras and refinements we wish to add to the performance of its essential duty. If we are satisfied with turning a dial and listening to broadcasts, or stepping on the gas and having the car take us where we want to go, without further thought beyond these bare essentials, then we might as well segregate the products into the price class we can afford, close our eyes and take the first one we touch. In any event we shall get a good machine, but if we know beforehand what we should look for other than the mere fact that it works, we are more apt to be awarded with service, appearance, economy, efficiency and smooth performance. And in the long run there will be less to complain about.

Of course, we are selecting an all-wave receiver. They are the style, but they also provide all the entertainment that it is possible to get by radio. Even if we desire only a broadcast set, we must take one that embraces also a bit of the short-wave band so as to bring in a few police and aviation calls. The writer is reluctant to recommend the purchase of a receiver that covers only

After a five weeks' rest in California and the Southwest, Jessica Dragonette has returned to the Cities Service Concert on Fridays at 8 pm on the NBC-Red Networks. Here we see Jessica dressed up in a Grecian gown.

the broadcast band, for, even if there is no incentive to listen to short-wave stations, there will be times when it is nice to have the short-wave features available. All-wave sets are no higher in cost than old fashioned broadcast receivers; in fact, the prospective buyer gets more for his money today than he did five years ago.

What Price?

The more we pay for a radio, the finer the instrument will be. Any set, even when very inexpensive, will bring in many stations, but when we get a larger and better receiver we also obtain more volume, greater sensitivity and selectivity, less noise from the sources we wish to avoid, finer tone, and an excellent example of the cabinet maker's skill. But do not make the mistake of buying too much radio; only the largest homes and rooms are suitable for large radio sets and their tremendous volume of sound.

While we are thinking in terms of prices we must remember that every manufacturer issues circulars listing all models for the current year, showing the prices established by the factory. But there are a lot of dealers who, in spite of competition, are not permitted to cut prices below the standard; they will, however, make allowances for any old radio that is turned in. The actual price of a new set depends upon how well the buyer can shop around. Sometimes it is possible to make a good purchase from some cut-rate dealer who stocks up from sales and closed out models. When a big "sale" is announced if often can be taken to indicate that a line of new models is about to appear.

The Dealer

The selection of the dealer is an important matter. He should be a reliable agent. Again referring to our automobile comparison, it should be remembered that some day there will arise the question of making good a promise or providing service. No radio is infallible, even if you pay a handsome price, for something can always go wrong.

If the dealer has a good service department, operated by an intelligent, courteous personnel, you are assured that the radio will be kept at a high peak of performance whenever necessary. This also means that the service man is kept informed of circuit changes and methods of repairing and adjusting your set, by the factory service department. Dependable servicing of radio sets is a highly important factor, and should be provided by every alert dealer who wishes to maintain the goodwill of his customers.

Your new radio should be guaranteed. In most instances the manufacturer backs up the dealer by making a warranty that the set will operate perfectly, and that if anything goes wrong because of workmanship or a defect in the parts, repairs or replacements will be made free within a period of 90 days. This guarantee is similar to that given by makers of automobiles and other mechanical and electrical devices. Dependable dealers should permit you to take one or more sets in your home for trial and comparison without the obligation to purchase.

Size Of Set

The all-wave receiver is intended to pick up stations on all wave lengths. The short waves exist in the band between 5 meters and 200 meters. The broadcast band stretches out between 200 and 550 meters, and a longer band exists above the 550 meters limit of the broadcast band. But only a portion of this latter band is covered by some all-wave sets.

Tuning to the short waves requires that the entire 5 to 200 meter short-wave band be divided into several narrow bands, each of which is a

certain portion of the total short-wave band. So, in all-wave sets, we will find from 3 to 4 of these separate bands below 200 meters. This is as it should be, so do not become alarmed when you find that an all-wave receiver appears at first glance to be complicated. It is not, for switching from band to band is automatic and need not cause fear that tuning is difficult.

The smallest sets usually embrace two bands—the standard broadcast and one of the short-wave bands; the latter covering most of the American short waves and amateur and police calls. The next size receiver will include the broadcast band and two short-wave bands. These take in American and foreign short waves, as well as police, airplane and amateur stations. The largest sets add still another or third band which takes in many more foreign short-wave stations. Some multi-tube sets, not sold generally by local dealers but through mail and magazine advertising, include a fourth or ultra short-wave band.

How Many Tubes?

Once we have decided what sort of all-wave set we think will best serve our purposes, we immediately encounter the problem of how many tubes should be in the set. If we wish merely to hear a few broadcasts, a small set with three, four or five tubes will be sufficient. But, since all sets now sold are superheterodynes, except in certain unimportant cases, we will find there is a fundamental number of tubes required to make the set work properly. We will find that even the most insignificant superheterodyne must provide tubes for the following actions: Radio-frequency amplification or preamplifier; first detector; oscillator; intermediate-frequency amplification; second detector; automatic volume control; first audio amplifier; and the second audio amplifier or power output stage. Such

Here is the first soprano in the history of radio to bear the name of William. Papa wanted a boy and selected the name. Although he was disappointed the rest of the world is pleased to meet such a feminine William as Willie Morris. Dial for her on the Fireside Recitals program on the Red Network Sunday nights at 7:30 pm, EST.

a circuit requires from 7 to 9 tubes, and will provide all the entertainment and foreign reception the average listener may desire.

However, it is possible to buy sets employing eleven, fifteen, eighteen and even twenty-four tubes. These sets are, of course, more expensive, but the greater number of tubes provides extra sensitivity and power for amplification of weak, distant signals, as well as more fidelity of tone reproduction. No circuit using less than seven tubes is recommended for the consistent reception of radio signals on the broadcast and short-wave bands. And, if much foreign and DX reception is desired, the chassis should be fitted with not less than nine tubes and, preferably, at least eleven tubes. The peak of power and range is obtained from the eighteeen and twenty-four tube receivers. These latter receivers seldom get any additional stations, for

many of the tubes are merely set in parallel for improved tone and volume.

Metal Or Glass

Just now most of us are faced with the dilemma brought about by the metal-tube situation. One radio manufacturer boosts metal tubes, while another equally prominent maker advises that metal tubes are experimental and fail to provide the sensitivity on short waves that may be expected. This is a pioneer undertaking, and most metal-tube sets are offered by the makers of the tubes.

However, if a careful purchaser will compare a metal-tube receiver with a glass-tube set, each of which have specifications that otherwise are very similar, every opportunity to decide will present itself. Make sure the metal-tube receiver is purchased through a very reliable agency, such as the manufacturer's local branch, so that proper service can be given in case some experimental alterations may be advised at a later date. RADEX feels that metal-tube sets are satisfactory, for certainly such great companies as their sponsors would not risk a gigantic failure. In fact, there are many things to be said in favor of metal tubes. But some of our largest radio manufacturers have not switched to metal tubes, and this fact alone leaves us all up in the air—certainly the writer is helpless, and he strongly recommends the actual comparison between two different sets, as above suggested.

Essential Controls

The new receiver should have an automatic volume control as well as the usual manual control knob. Many DX listeners think that a built-in beat oscillator aids in detecting faint, distant signals. A slight whistle occurs when the carrier wave is passed over when tuning. A set with a high noise level, when operating to distant signals, is practically useless. This is something to be checked when the set is tested in a quiet spot where electrical interference is at a minimum. Such noises come to some extent from tubes, and cannot be avoided. But internal noises, due to poor filtering in the rectifier system, insufficient resistors, leaking condensers, or badly soldered contacts, should cause immediate rejection of the receiver. A good receiver should bring in a weak, distant signal slightly louder than the background of internal noise.

Tone must be considered. There should be a good tone control on the panel, preferably one that adjusts the tone continuously from bass to treble. Many sets, however, use two or three steps of tone control. Much depends upon the price of the receiver. If the receiver is fitted with a tuning indicator, it should work easily and positively when the signal is tuned to maximum resonance. The dial lighting arrangement should also be positive, particularly when it switches to different wave bands when the band-selector switch is turned. All switches and knobs should work easily, yet snapping firmly in place; if any looseness is noticed in the dial mechanism and adjusting parts, turn your attention to another receiver on the dealer's floor. Remember, you alone are buying the set, and your dealer has nice, new sets back in his stock room, and you do not have to take the exhibits in his store.

Volume And Tone

We hear a lot about high fidelity of tones. This is just another way of saying the receiver reproduces nearly all tones between bass and treble, or the lowest and highest notes that can be detected by the human ear. The tuning circuit, in this case, must pass the full range of all audio frequencies, while the

(*Continued on page* 35)

TIMELY TIPS *For* Shortwave Fans

● ● ● *By* PAGE TAYLOR

AFTER an absence of several years, the original PCJ, Hilversum, Netherlands, on 9490 kcs., is returning to the air. This station is original in more ways than one; it not only was one of the first shortwave stations in the world, but it is the first station whose signals were regularly picked up on the other side of the earth. Philipps' Radio, operators of PCJ and PHI, are now transmitting programs to the North American Continent on Sunday evenings from 1900 to 2000, E.S.T.

Following their long-established policy of allowing American shortwave listeners interference-free reception of popular overseas stations, W3XAU has altered its schedule so they will not interfere with PCJ on its Sunday night transmission. The new schedule for 3XAU is: 6060 kcs., daily from 2000 to 2300, and on 9590 kcs., daily except Sunday from 1200 to 2000, and on Sundays from 1200 to 1900, E. S. T. We are sure all our readers join us in expressing thanks to the WCAU Broadcasting Co. for this courteous gesture.

The Ultra-Highs

Reports on the ultra-high frequencies are becoming more numerous. Two reports of long distance reception are on hand, the first of these coming from John Marchildon, 112 N. Edinburg Ave., Los Angeles, Calif. "I have received the Milwaukee Journal's ultra-shortwave station W9XAZ, which works in conjunction with WTMJ," states Mr. Marchildon. "W9XAZ is on a frequency of about 30,300 or 31,400 kcs. Their power is 200 watts. There is another station in Los Angeles, W6XKG, which requests reports and will acknowledge all correct ones. They transmit now on 35,600 kcs., but will alternate on that frequency and 31,600 kcs. They relay KGFJ most of the time but I have heard them talking with the yacht El Ferrito, KABG, on 2150 kcs."

Our second report comes from Robert Pybus, 4 Highfield Road, Chorlton - cum - Hardy, Manchester, England, and reads, "On the s. w. VK3LR is the best Aussie, whilst I have heard VQG on 15.28 meters, in Nairobi, Kenya Colony, testing. On 10 meters (30 megs.) I have heard W2XEN, the Newark City Police with 500 watts at R9 signal strength. Two amateurs were also logged, W3AIR at Princeton, N. J. and OK1DC in Czechoslovakia."

More definite information on the Ethiopian stations has come to Clem Counts, 1008 Johns Court, Huntington, W. Va. His QSL card reads, "Emperial Ethiopian Radio Station, Akaki, 8 km. south of Addis Ababa. Maximum antenna power is 3.5 kw. A non-directional antenna is used

W2XE, the shortwave voice of the CBS, is a 1000-watt crystal controlled transmitter. An unusual feature of this station is the manner of making announcements; W2XE signs on and off the air by announcing in English, French, German, Italian and Spanish.

and broadcasts are radiated only on special occasions." The call letters and frequencies are given in our shortwave station lists.

More New Stations

The British Broadcasting Corporation announces two new frequencies are in use by the Empire Station at Daventry. The new frequencies are GSN, 11.820 megs., daily from 0215 to 0420, E. S. T., and GSO, 15.180 megs. from 1215 to 1745 E. S. T.

The German stations, too, are using some new frequencies. DJL on 15.110 megs. is on daily from 0400 to 0600 E. S. T.; DJO, 11.795 megs. works from 0500-0700 E. S. T.; DJR on 15.340 megs. transmits from 0130 to 0330 and DJM on 6.078 megs. works from 1500 to 1655 E. S. T.

More frequent reception of the station at Vienna, Austria, is promised American listeners when construction of the new 10 kilowatt transmitter is completed. The owners of this station, Oesterr. Radioverkehrs, Wein 1, Johannesgasse 4b, Vienna, advise us that OER2, sometimes known as the "Rosenhuegel" station, is situated on Rosenhuegel Hill, "seven kilometers from the city of Vienna. Here the antenna for our station OER2 is hanging between two steel masts," write the operators. "The shortwaver now has a power of 2.5 kw. but in this year it will be enlarged to 10 kw. Our frequency is 6072.87 kHz, and we are in the air daily except Sunday from 1000 to 1800, E. S. T. On Saturdays we stay on the air an hour longer."

The kHz (kiloHertz) mentioned above is the same as kilocycles per second, and is a more accurate abbreviation than kcs.

Four telephony stations were set up in the Florida Keys last September; F. E. Carlton, 908 Lynch Bldg., Jacksonville, Fla., gives us the call letters of the stations as follows: at Tavernier, W4XBG, 4177.5 kcs. and 4XBH, 4242.5 kcs.; at Big Pine, 4XBI, 5077.5 and 4XBJ, 5197.5 kcs. "I doubt that this information will be very useful," states Mr. Carlton, "as these stations were installed to bridge a gap in the line which was destroyed by the September hurricane. The line was rebuilt later, however, and these stations have not been used since. There is a question whether or not the stations will be maintained for emergency use."

RV15 Does Verify!

Very good news comes from Jack Goesle, Box 2395, Stanford University, Calif. "I have read that RV15 in Siberia never verifies," states Mr. Goesle, "but I just received a verification on a post card on which their call letters are printed in large letters in red across the face of the card. Their regular transmission schedule is given in GMT, and the wavelength of 70.2 meters. It is inscribed 'Crystal controlled shortwave radio telegraph and broadcasting station, Radio Station RV15, Khabarovsk, Far East, USSR.'"

"I am glad to report that I got a card from FTA in the record-breaking time of three weeks," postcards Russell Eley, 113 Chestnut St., Suffolk, Va. "It seems to me that reception this season has not been up to par and I would like to know how some of the other readers are receiving the Aussies on the eastern seaboard. My best catches are DJC, FTA, JVN, EAQ and 2RO. My receiver is an Atwater-Kent 206 and I would like to obtain a good used pre-selector to use with this set."

A Veri That Isn't a Veri

"Ondas de la Heroica" is the slogan by which station HJ1ABD in Cartagena, Colombia, is known. We wrote to this station for information and a photograph, and in reply received a verification, despite the fact we had not reported its reception.

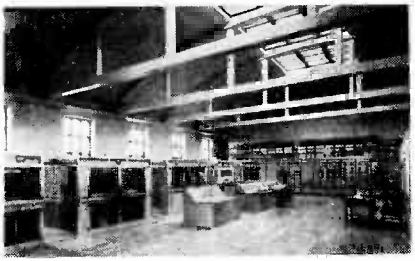
The information we wished was on the QSL, however. The frequency is given as 7281.55 kcs.; most of the Colombians cannot remain within 20 or 30 kilocycle limits, so we wonder how closely HJ1ABD adheres to that .55th of a kilocycle. Mr. Ignacio de Villarreal, the manager of the station, states that it has 100 watts power output, and that, in addition to the slogan, listeners should be able to recognize it by the fact they use a gong at intervals, and leave the air with "The Stars and Stripes Forever."

We wish all radio stations would respond to our requests for information as splendidly as PRA8 at Pernambuco, Brazil. Sr. Oscar Moreira Pinto, Director, deserves orchids or something for this letter: "At present we have two stations which form the Society Radio Club de Pernambuco; one is long wave and the other shortwave. The long waver works on 720 kcs. with an output of 10,000 watts, the time schedule being 1100 to 1300 and 1800 to 2230, Rio de Janeiro Time. (For E. S. T., subtract 200 from these times as Rio is two hours ahead of E. S. T.)

"The shortwave station works on 6040 kcs. with 1000 watts output, on the same schedule as the medium wave station.

"The correct call letters are PRA8 for both stations, and the slogan, 'A Vox do Norte'. Our mailing address is Ave. Cruz Cabuga 324. The only language used in our transmissions is Portuguese. In regard to the signal to recognize our transmissions, we use a device consisting of 6 metal tubes of different sizes on which we strike at certain intervals four times, four different tunes.

"This society will be reorganized during 1936 sometime, issuing shares amounting to about $50,000, and when that is accomplished our transmitting facilities will be increased so we will have 25 kw. on the broadcast band and 5 kw. on shortwaves."



This very modern transmitting room is situated in Lahti, Finland. Lahti, call letters OFB, is on the long wavelength of 1807 meters or 166 kilocycles. This is an efficient-looking station but we do not remember of anyone reporting its reception here.

Some Newsy News

A lot of information in condensed form is submitted by Ralph Gozen, 60 Warburton Ave., Yonkers, N. Y. "I am hearing HCK at Quito, Ecuador irregularly on 5900 kcs. instead of 5815. HJ4ABE at Medellin is heard on 5930 instead of 5900. HJ4ABB at Manizales, Colombia, is being heard on about 6135, slightly interfering with COCD. YV3RC is heard on 6170 rather than 6150 kcs. Another new Honduran station is HRY at Tegucigalpa, testing with New Orleans on 6350 kcs. Ibague, Colombia, HJ4ABJ, 6460 kcs. is heard regularly in the evening. SUX at Cairo, Egypt, 7867 kcs. was heard talking to DGU at Nauen, Germany, between 1700 and 1800, E. S. T. The S. S. Columbus, DOBX, is still in use and has been heard talking to WOO. VK3ME at Melbourne, Australia, changed its frequency to about 9490 kcs. to avoid interference with GSB on its early morning transmission. There are several new Germans; DKA, 9675 kcs, and DKD, 10042 kcs. I am not positive of these calls; they might have been DZA and DZD."

"I have had my 7-tube Colonial Super in operation for just one year," recalls Roy E. DeMent, Box

206, Plainview, Texas. "A home-made antenna tuner is used and I believe it has been of great help in tuning, especially because both my aerials are inside. My first foreign station was EAQ, and my latest, HAS3. This winter I have found 2RO to be the most consistent of the European stations. Many of the South Americans, of which PRF5 is the most consistent, are also coming in fine now; I have logged 14 stations in Colombia alone. During this twelve month period a total of 134 stations was logged, 89 of them foreign; 37 countries on all continents. My main trouble is the fact I am only 300 feet from a main highway; more than anything else, I crave an outside antenna, fifty-feet high, at least three country blocks from a road."

Shifting Frequencies

Last month HRN, Tegucigalpa, Honduras, moved to 5910 kcs. to avoid interference, and YV8RB, Barquisimeto, Venezuela, moved to 5900 kcs. at the same time for the same purpose. HRN remained on that frequency for less than a week. It is now back on 5875 kcs. Robert D. Wade, 3704 Tyler St., Amarillo, Texas, has the schedule of HRN directly from the Chief Engineer, as follows: Sundays, 0800-0930; 1400-1600; 1900-2000 and the American Appreciation Hour from 2000 to 2230, E. S. T. On weekdays the schedule is 1130-1300; 1700-1830 and 1900 to 2100, E. S. T.

Ian C. Morgan tells us of a new station in Africa, ICK, Tripoli, which works on 9460 kcs. Mr. Morgan is owner of Bermuda station VP9M but resides at 3462 Peel St., Montreal, P. Q. He says IAC at Coltano, Italy, works ships and ICK.

The Editor is floored by a question from Melvin Hane, 3102 Clarence Ave., Berwyn, Ill. Perhaps some readers can identify the station which was heard on January 23rd between 2345 and 0015, EST, on about 7800-8000 megs. "At the time I tuned in there were church bells chiming," describes Mr. Hane. "As soon as one bell would stop another would pick up the chime; then suddenly all the bells would stop and music followed. The music seemed to be a dirge chanted by many people. After this was repeated several times a sound that resembled a coo coo clock was heard, first slowly, then more rapidly."

Some More Strangers

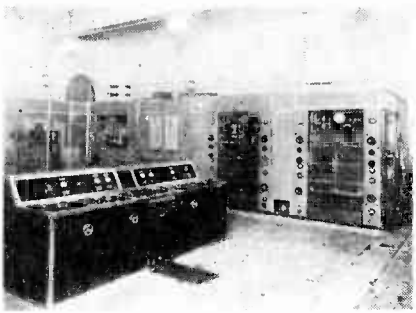
At 8 a. m., PST, a strange station was heard on 8690 kcs. by W. G. Umstead, 1845 So. Brand Blvd., Glendale, Calif. The station gave its call letters as ZUD, and it was trying to contact a station ZTN. Judging from the call letters, both transmitters must be in the Union of South Africa. During the transmission inquiries were made about stations in Port Elizabeth. If any readers can throw light on the identity of these stations the information will be welcomed by RADEX as well as Mr. Umstead.

A new Canadian station, VE9EW, is reported by Charles Spielman, 415 S. Barstow St., Eau Clair, Wisc. This station, located in Toronto, Ont., works on about 7900 kcs. nearly every evening near 2000 EST. It was announced that reports should be sent to Mr. J. E. Smith, 60 Rochester Ave., Toronto.

Here is a shortwaver who has had good luck with Africa. "So far I have QSL's from OPM, SUZ, ETD and ETB," postcards Donald Smith, 12 South St., Woburn, Mass. I have lots of Asiatics, too; VWY, VUB, VPD, FZS, PLV, JVN, etc. Altogether I have 107 s.w. veries and requests out to a couple dozen more, including the new LRU at Buenos Aires and NX2Z in Greenland."

"I am an officer on a tanker that runs on the east coast of the U. S. A. to Central and South America and

occasionally across the Atlantic," pens Smith Bryant of the S. S. George W. Barnes, Standard Oil Co., 30 Rockefeller Plaza, New York. "I have a 14-tube AC-DC high fidelity receiver and use no filter of any kind. I am not at all troubled with ship noises. I do not try for the hard-to-get s.w. stations but am able to get the regulars easily, such as London, Rome, Zeesen, Paris, Sydney, Rio, Madrid, Nazaki, almost any time they are on the air and with such volume that everyone in the adjoining rooms either enjoy or cuss the programs."



The transmitting room of the Prato Smeraldo shortwave station, 2RO, at Rome, Italy. Here are the 25 and 31-meter panels. From right to left in the picture are the frequency doublers and amplifiers, then the 5 kw. amplifier stage, followed by the 20 kw. output panel with four water-cooled tubes.

Short Aerials Are Best

"As far as antennas are concerned, I believe in a number of fairly short ones," submits Hiram A. Crain, 25 St. Leonards Ave., Toronto, Ont. "I use two 60-foot aerials connected to a twisted lead-in, with another hitched in parallel, with no ground. I have also a directional inverted V aerial, pointed towards London, and this aerial pepped up signals from Daventry better than 100% in spite of interference. There are a couple of new police stations near here: CYQ, 2318 kcs., 400 watts, of the Toronto Police, and CZ50, 2318 kcs., 750 watts, at Ottawa. CZ50 has been on the air nearly a year now but CYQ just started last December. So far as I know, VYZ at High Falls, P. Q., is not operating. I was up there recently and saw no sign of aerials."

A Long Aerial is Best

"On the shortwave bands I have recorded on my log 25 stations, among them being PLE, GSI, WXE as well as all the main U. S. A. stations from which I have verifications," summarizes H. J. Lettig, Franklin, Calif. "JVN, 2RO, Pontoise and a few others have not as yet sent in their verifications. I have also heard Saigon, Indo-China, calling Bangkok, Siam. In addition to my regular Philco all-wave antenna I have hooked in 100 feet of straight antenna wire, which I believe is contrary to regular shortwave practice, but which I have found to give very good results."

A verification was received from HH3W by Ray English, 360 Lafayette Ave., Passaic, N. J. The QSL card states that HH3W works on 9595 kcs. from 0700 to 1400 and from 1900 to 2030, EST., daily. The operator of the station is C. Ricardo Widmaier.

"I bought a new RCA receiver last fall but so far have not been able to devote much time to DXing," complains Enrique Hidalgo. Prado 210, Cienfuegos, Cuba. "Although I have not written for verifications, I have a log of 116 s.w. stations. Following is some information I have picked up from my listening: XBJQ, Mexico City, 11000 kcs., gives market quotations at 4 p. m., EST. In Guayaquil, Ecuador, station HC2JSB was heard on 7830 kcs. but you list this station as 4283 kcs. HC2JSB was working nicely, giving news and musical numbers by a guitar duet. After the program was terminated they called a HC1TM, Quito, and

HCJB, Quito." Sr. Hidalgo wishes correspondents in North, Central and South America.

DXing Difficult

"DXing here in British Columbia is much more difficult than in your eastern states," explains Alfred Bacon, 928—13th St., New Westminster, B. C. "Here we are up against the Rocky Mountain storm pockets and hemmed in all around by mountains. I have managed, however, to gather 125 verifications from 40 different countries. The South Americans are good at times but the Europeans are not at all reliable. Of the Europeans the British stations are the best and the Germans next. I have six of the Zeesens verified, among them DJM, a new station."

"Since last reporting to RADEX I have purchased an ICA Scout Converter which I use with my 9-tube Silvertone," states Frank Wheeler, Erie, Pa. "Stations received on the s.w. are COCD, CJRX, DJC, GSL, HJ1ABB, TIPG, GSB, HIX, CO9GC and many others. I enjoy the shortwaves but one objection is the number of Spanish-speaking stations which do not announce in English. I want to give a pat on the back to those foreigners who announce in English as well as their own language."

Two very popular stations are reported by John McNulty, 685 Washington Ave., Albany, N. Y. One is HH3W at Port-au-Prince, Haiti, on 9595 kcs. from 1300 to 1400, EST., and again at 1900 to approximately 2015. The other station is HJU, Buenaventura, Colombia. HJU was off the air for a while but is expected to return to its frequency of 9500 kcs. soon.

From Estacada, Ore., Mr. L. R. Underwood writes, "There are many SP and PF government forestry stations on frequencies between 2800 and 3470 kcs. The SP and PF stations are portables while the fixed stations they work with have M call letters, followed by numbers to indicate their location. There are also quite a few Alaskan and Canadian stations in the evenings, 1800 to 2200 PST., among them KBAI at Ketchikan; KMYA and KMYB at Juneau and WXE at Anchorage."

Looking Ahead

A small shortwave transmitter is to be installed at Bangalore, India. This station is being built because reception of other Indian stations is difficult, and moreover, the music broadcast by Bombay and Calcutta does not appeal to the Bangalore public.

The Compania de Telefonos de Chile, in Antofagasta, Chile, will soon place in operation a radio telephone for internal service only. The station will communicate with Santiago on 8035 and 10230 kcs. The call sign will probably be CED.

The Reception Symbols

Many requests have been received to reprint the codes used in reporting the volume and clarity of reception.

The R (audibility) Code is used to describe the volume of a broadcast, from the weakest phone signal to full loudspeaker volume. The QSA (readability) Code describes the understandability of a signal. Readability is not necessarily dependent upon audibility; for example, a station can be heard 50 feet away from a loudspeaker without being at all intelligible (QSA1, R9), or, it may be possible to clearly understand every word of a transmission which is just fairly audible in the headphones (QSA5, R4).

These descriptions can be carried further by employing a code to describe atmospherics (static) and fading, by the letters N, X, R, or S. The letter "N" stands for "no," . . . no fading or no static.

(*Continued on page* 34)

Questions *Our* Readers Ask

● ● ● *By the* TECHNICAL EDITOR

THE most interesting question to reach the Technical Editor this month deals with fading which is blamed on certain effects from afar.

The writer has been using a new Scott receiver for a few weeks and believes that the automatic volume control is not functioning properly and permits considerable fading on the broadcast band with excessive fading on the short waves. After taking the matter up with the manufacturers it is reported that they suggested that sunspots may be the factor involved, and the fading cannot be controlled. If sunspots are not the cause can the trouble be remedied by the servicing department of the Scott Laboratories?

Fading in the set may be caused by several conditions. If it is in the automatic volume control of the set there may be a defective coupling condenser, excessive voltage on the cathode of the AVC tube or a shorted resistor. Then, too, there may be some defect in the connections, and any of the parts in the circuit. Very frequently a bad tube in the set will cause fading; this may be in the oscillator, AVC, or detector tubes. Try replacing these tubes, one at a time, constantly testing for fading.

If fading is due to some failure in a new set like this we feel certain that the manufacturer will advise you —after you have made a fair test to see whether conditions not under the control of man may actually be the cause of the trouble—and the set can be adjusted easily at the factory.

Now fading is a natural condition in radio. It may be caused by atmospheric effects, such as certain weather, and the mysterious undulations of the upper Heaviside reflecting layer. As this layer has much to do with short-wave transmissions it can easily be the cause of severe fading. However, a properly working AVC system in a set can overcome much of this fading as long as the signal being received does not become lost entirely. When there is no signal for the AVC action to boost to the established level of volume, then the AVC system cannot work and the set becomes silent.

As this question raises an important discussion, the Editor of this department took the matter up with one of the Government agencies that has charge of radio investigations. It seems that at present no excessive fading has been observed on short wave signals, but there is a decidedly energetic increase in sunspot activity. Sunspots usually affect radio in certain ways, but just now its action is to vary the ionization of the upper strata of the outer atmosphere where auroras occur with their magnetic storms. If the sunspots will affect radio during the coming year it will be in the form of fading and blanketing of signals, and all this is yet to come, if such is the case.

Retuning Is Necessary

This question involves the creeping of the dial of the set, and an article dealing with such matters appeared in the March, 1936, issue of RADEX, page 36.

This discussion involves a McMurdo Silver "Masterpiece III." After the set has been turned on for a few minutes reception fades right out and the dial pointer has to be readjusted slightly, upon which reception comes through at first, and then a short time later another adjustment is necessary. Usually the pointer has to be moved three or four times and always in the same direction, that is, to a shorter wave length, before reception comes through without requiring further at-

tention. The tone is at times harsh and distorted no matter whether the volume is turned on loud, medium or soft.

The fact that it is found necessary to retune the receiver indicates that a change is occurring in the oscillator frequency. In some cases this cannot be avoided, for it may be a natural result of the design or arrangement of the receiver, unfortunate as it may be. It can be alleviated to a certain extent by band-passing the intermediate-frequency amplifier. Surely any skilled service man can make the adjustments necessary to overcome this trouble.

Very often all that need be done is to try out a new tube in the oscillator socket; also a new fixed low-frequency padding condenser. The March issue of RADEX carried a story, as above mentioned, which went into many more details that might help in this case.

The distortion often is caused by this detuning of the signal or shifting of the oscillator frequency. It can also be caused by a leaky bypass or coupling condenser in the audio circuit. While voltage measurements might show up the trouble, the more experienced service man will resort to actual substitution of the parts believed defective.

Filter Chokes

The December, 1935, issue of RADEX, described a choke or filter that could be used to hold back much of the noise that comes into the set through the power lines.

One writer wishes to know if it will be just as well to use a slightly different size wire, condensers, etc. The size of condensers that he can get is not as specified in our article, but slightly different. What would be a good size?

Wire sizes for filter chokes to go into the 110-volt power line may be as follows: Where 2 amperes is used by the set a wire size of No. 12 will be sufficient; for 5 amperes use No. 16; for 10 amperes use No. 12 wire. No. 17 single-cotton-covered wire ought to be suitable for most average sized receivers. In making the choke described in RADEX we suggest that you try to follow the specifications as closely as possible, but some little variation is permitted. Any condenser can be used, either tubular or square, as the only difference is in the casing used. For all-around work condensers having a capacity of 0.5 microfarads will do. If you do not have that size it can be assembled by connecting different sizes in parallel.

The J. W. Miller Co., of Los Angeles, Calif., have prepared a kit for assembling line chokes. The superiority of duo-lateral wound coils for power line filters has been recognized, but it is next to impossible to wind these coils by hand. So the Miller Company is making coils to carry heavy currents with low ac-dc resistance at a low distribution of capacity. We are sending you a circular from our files that deals with the Miller chokes.

"B" Battery Drain

Thousands of battery sets are still in use, but when the batteries get low the reception of signals is in proportion to the strength of the batteries.

This question involves a Crosley Empire model 7-tube set. The set works well except for the automatic volume control. An expert has examined the set and says nothing is wrong with it. Is there a certain tube that acts as AVC? The set uses three 45-volt B batteries and they never last more than three months. Is this too much B battery drain? The short wave band is from 19 to 49 meters but so far only two stations have been heard, and this failure is attributed to the defective AVC circuit.

The fact that this receiver does not get a lot of distant stations does not mean that the AVC is inoperative. The best check is to place a 0-10 d.c.

millammeter in the plate supply circuit of the 34 type tubes. When tuning in a strong station, the plate current will decrease, due to the AVC action.

When tuning for short wave stations, you must not only listen at the right time but at the proper place on the dial. It may be that the receiver needs realigning, and a noiseless all-wave antenna, if properly installed, will help.

The number of hours to be expected from the "B" batteries depends upon their size and the length of periods of operation. With heavy duty B batteries operated for a period of three hours per day, a total life of about 820 hours can be expected. Increasing the daily period of operation will greatly reduce the total life of the batteries.

Two Antennas

There still is much to be learned about antenna action. It is strange, but the same set and same antenna, moved to different locations, will give different results.

The writer has just installed a new Westinghouse all-wave antenna in a NE-SW direction and, now after using it for several months does not feel it works as it should. The user has repeatedly switched back and forth from this antenna to a conventional single-wire antenna and has seen no difference. The receiver used is a new 1936 *RCA, and as the new antenna has been rather expensive to the writer he wonders what may be wrong.*

The principle of any all-wave antenna, if of the correct length, is that it resonates in the wave band you desire to work. If properly installed in a suitable location, the results on all bands should be superior to that obtained on an ordinary straight antenna.

We do not consider that the ear is satisfactory to judge the effective worth of an antenna. A very sensitive receiver equipped with a tuning device would give you a better idea of the strength of the signals picked up.

Four of radio's smoothest voices, Morton Downey and the Pickens Sisters, who sing for the "Evening in Paris" program on an NBC Blue Network on Monday nights at 8:30 *pm, EST.*

If your two antennas, the all-wave one and the ordinary wire type, are hung near each other, they will tend to interact and no difference can be observed under any condition. The time of year, too, will have considerable to do with the strength of signals received from various continents. The direction of your antenna and surrounding objects is also a governing factor. We always feel that experimentation often solves these radio problems and a new height or direction of antenna may make all the difference in the world.

A.C. Tubes In Batttery Set

While a.c. tubes will light just as well from batteries, there will be a heavy drain because of the high amperage consumption of the tubes, and there will be all kinds of other difficulties, as can be seen from the following:

Here is the case of a Lincoln DC-SW 10 *receiver which uses* 2*-volt type tubes. The owner did not want to use*

batteries so he was struck with the idea of substituting a.c. tubes for the battery tubes. He placed 58s in the i.f. stages, and 57s, 56s and 45s in the rest of the circuit. The set was turned on and all the tubes lighted from the a.c. power source, but there were whistles all over the dial and code stations were heard on the broadcast band. The set has tremendous amplification but the distant stations do not come through any more. It is hoped that RADEX can help in this problem.

Unfortunately the gain of this set has been increased to a great extent through the use of tubes not made to fit into the other units. This increase in gain means oscillations are occurring. When a set is designed around one type of tube and a change is made to other tubes, trouble in big doses is sure to appear. This is particularly true when rewiring battery sets for alternating current. We believe that the only sensible solution to this problem is to trade the old set in for an AC receiver, or use an ABC eliminator in the old battery circuit so as to avoid the necessity for batteries.

At present, experimentation with the plate and screen voltages is advisable, and we suggest that the C bias on all the AVC controlled tubes be increased by using larger bias resistors. The proper voltage is determined by measuring the plate currents when the set is not tuned in to any signal. The positions of the wires, now that the set is using alternating current with greater gain of amplification in all portions of the circuit, particularly the controlled grids, plates, and cathodes, are of extreme importance. And a realignment of the entire set is absolutely necessary.

Antenna Lead In

Readers of RADEX raise many interesting questions, as the following about antennas will indicate.

If the lead-in is taken from the center of a 200-foot horizontal, single-wire antenna, what is the effect? Is this effect that of only a 100-foot wire? Or, if the lead comes from the apex of a "V" antenna, each leg being 100 feet, would it have any directional value? Are grounds necessary for the short waves?

The two straightaways of a "T" type antenna cancel out, and the effectiveness of this type of antenna is practically determined by its height above the ground or grounded surfaces. With a "V" shaped antenna, strongest signals are received from the area embraced by the legs of the V. This, of course, is dependent upon reflection due to surrounding objects. On the shorter waves, the chassis of the receiver very often is sufficient as a ground.

Boosters

When DX work is being done it is necessary to force the receiver so as to emplify every bit of the signal that is picked up. Boosters are used to pre-amplify the tiny signal before it is passed into the receiver.

One writer states that where he resides, far up in the Yukon country of northwestern Canada, many listeners are using boosters on the back of their sets, which really are antenna tuners. In many cases the listeners are able to double the volume with certain combinations of ground or counterpoise antenna. He wonders why manufacturers do not incorporate similar devices in their sets, and asks if the Philco automatic antenna selector is made up along these lines. The set in question, used by the writer, is a Crosley 7-tube all-wave Cambridge model, and if a good pre-selector will raise the volume and sensitivity of the receiver, it is requested that RADEX advise where such a device may be found.

The trend in radio manufacturing is to get away from many controls. Tuned antennas are valuable, and are coming to the front, but they require a certain amount of gadgets. In the old crystal-set days, all antennas were tuned, for that is what the tuning

coils provided—resonance of the antenna circuit. Philco is making an effort to make antenna tuning an automatic operation by placing another switch on the band changing shaft, but the effect is the same over the entire band in use, and does not tune to the one frequency being received—yet the results are distinctly noticeable.

A booster is good up to a certain point. Extreme sensitivity and selectivity will distort the signal and the tone will drop. The noise level of the receiver will rise sharply, and when this noise becomes as strong or stronger than the signals the increase in sensitivity is useless and worthless.

There are a number of pre-selectors on the market, and the one manufactured by the J. W. Miller Co., 5917 So. Main Street, Los Angeles, Calif., is very satisfactory. Write to them for information about the complete unit or the kit of assembled parts which can quickly be put together. This a two-tube unit having three wave bands. There is, in addition to the two tuned r.f. amplifier tubes, its own rectifier tube. It is claimed that distant signals that normally are barely audible in the receiver may be increased to full room volume.

Out Of Line

Alignment in radio receivers is an important factor. In fact, a good receiver that is tracking nicely, can be made much more selective and sensitive if it is carefully realigned by a good service man.

This question involves a Silver Marshall, model J, 10-tube receiver. It is very sensitive and selective, but during the day code signals are received over the entire dial, being loudest when a signal is tuned in. Some of the shorter wave police calls come in on the low end of the broadcast band, and there are some repeat points on the broadcast dial.

We believe that this receiver is out of alignment. If there is no oscillator available, we suggest you get a good service man to make the adjustments. It may also be possible that wave traps, fixed tuned to the interfering signals may be required. But we think you will be vastly surprised at what proper realignment will do for this receiver.

Speaker Wiring

Most dynamic loud speakers have two coils with four terminals, all of which should be easy to locate.

This is a Midwest 1934 receiver fitted with a Magnavox speaker, model 143. But there are 5 wires from chassis to the speaker—one grey, and others are yellow, black, green and red. Then, in addition, this correspondent has another speaker, Utah model, which was used in a Regent radio. This speaker has the conventional 4 wires, one is black, another black-red, one green, and the final is green-red. It is desired to hook up both speakers so they will work together.

Parks Johnson (left) and Jerry Belcher are responsible for all the questions, silly and sane, which are heard on the Vox Pop Program Tuesday nights at 9 pm on an NBC Red Network. They ask the questions but never answer them. Nobody has been able to learn whether or not they actually know the answers to their questions.

In a dynamic speaker there are two wires that lead to the field coil, which is contained in the heavy pot portion of the speaker and attached to the magnet that surrounds the cone. The other leads go to the output transformer and consist of two wires from the voice coil on the cone. The fifth wire may be used for several purposes. We assume the Magnavox speaker is being used with the Midwest set.

The field coil of the Utah should be connected in parallel with that of the other speaker. We cannot identify the two wires and it will be necessary to determine the two outer ends of the Magnavox field coil. Connect the other two leads of the Utah, from the output transformer, mounted on the speaker, to the plates of the power tubes. Try a 0.5 mfd. 600-volt condenser is series with one of the leads. If sufficient field excitation in obtained, and we are rather dubious about this, the results should be fairly good. The great trouble in connecting dynamic speakers together is in supplying power to the additional field coil, for an extra load is thrown on the power pack for which it is not designed.

Current Goes 'Round

The direction of flow of an electric current frequently puzzles many persons, and a little enlightenment might not be amiss.

Does the current coming from a battery flow from the positive terminal or the negative terminal? The negative pole of a battery is the cathode, and it is always said that the current flows from the cathode, but it often indicated that the current flows from the positive terminal.

All batteries, dry, wet or storage have two terminals—one is called the anode or positive post and the other is the cathode or negative post. Now it is always considered that electrons, or bits of actual negative electricity flow from the negative source or the cathode. This holds good in electron radio tubes, x-ray and cathode tubes, batteries and mechanical generators. These electrons flow toward the positive or attracting source, or the anode.

But batteries have two circuits—internal and external. In a simple primary cell, such as one made of a piece of zinc and a piece of copper, both submerged in a dilute acid solution, a current can be made to flow. This applies to any battery. The electrons are released from the zinc by the action of the acid and pass through the electrolyte solution to the positive or copper anode. Now connect an external circuit to the two terminals of the battery, such as a coil or wire. The electrons, or current, flowing into the anode through the internal circuit, pass up into the external circuit and back to the cathode or negative terminal, and the cycle again is repeated. Thus the current begins at the negative terminal, but comes out into the external circuit from the positive terminal.

That Philco 16B

Quite a number of owners of the Philco model 16B have written this department about their troubles.

It was noticed that in the February issue of RADEX, page 25, the Technical Editor advised one reader that the dial "slipping" of his model 16B Philco must be a simple failure that could be easily remedied by a service man. It is believed that this trouble is inherent in the set because this writer has the same trouble in his late 1933 Philco 16B and knows of similar defects in another 16B, and that it cannot be corrected.

Ordinary faults in receivers frequently occur, even in the very best, and the Editor of this department has been suggesting the usual methods of correcting the trouble. But, due to several complaints about this particular receiver, the Editor felt that perhaps this was an inherent trouble, and as a result of his investigation wishes to advise as follows:

There were two separate and dis-

(Continued on page 34)

Checking *The* Mystery DX Contest

AFTER the turbulent week-end of February 22-24, it is likely that not a few DXers confessed to an overwhelming desire for at least a day of uninterrupted slumber. During four solid hours on three successive mornings, scattered stations broadcast their greetings to RADEX and to the DXing fraternity at large, while uncounted listeners madly twirled their dials in an attempt to log three consecutive selections from the greatest number of transmitters.

Although the number of participating stations fell short of the mark which we had set when the original plans were made, we believe that the contest was an unqualified success from every angle. The stations which did take part presented outstanding programs of high entertainment value, which made it all the more difficult to leave one program in search of another.

As the result of several last-minute cancellations, the contest opened with a total of 43 stations expected to take part. At the conclusion of three nights of concentrated listening, it was known definitely that 40 broadcasts were dedicated to readers of RADEX. As we go to press, it is certain that one station failed to come on the air at its allotted time, while the status of the other two missing stations is not known. We have not received their program details nor have we found any mention of them in the early reports from contestants.

Following is the schedule of transmissions which are known to have taken place:

	February 22nd		
1:45-2:45	CKLW	1030	Windsor, Ont.
2:00-3:00	KFNF	890	Shenandoah, Ia.
	W9XBY	1530	Kansas City, Mo.
	WBIG	1440	Greensboro, N. C.
	WFBR	1270	Baltimore, Md.
	KFYR	550	Bismarck, N. D.
2:30-6:00	CFCO	630	Chatham, Ont.
3:00-4:00	KGIW	1420	Alamosa, Colo. 4:24
	WDNC	1500	Durham, N. C.
	WNEW	1250	Newark, N. J.
4:00-5:00	WEXL	1310	Royal Oak, Mich.
	WLAC	1470	Nashville, Tenn.
	WSUI	880	Iowa City, Iowa
5:00-6:00	KWBG	1420	Hutchinson, Kans.
	WHAM	1150	Rochester, N. Y.
	February 23rd		
2:00-3:00	KOH	1380	Reno, Nevada
	WPHR	880	Petersburg, Va.
	W8XO	710	Cincinnati, Ohio
	KEPN	590	Piedras Negras, Coah.
3:00-4:00	WTFI	1450	Athens, Ga.
	WAAW	660	Omaha, Neb.
	WTRC	1310	Elkhart, Ind.
	WSYR	570	Syracuse, N. Y.
	WIBM	1370	Jackson, Mich.
	WBBR	1300	Brooklyn, N. Y.
	KOMA	1480	Oklahoma City, Okla.
4:00-5:00	WNEW	1250	Newark, N. J.
	WHJB	620	Greensburg, Pa.
	WOI	640	Ames, Iowa
5:00-6:00	WCSH	940	Portland, Me.
	CJLS	1310	Yarmouth, N. S.
	CKNX	1200	Wingham, Ont.
	February 24th		
2:00-3:00	KDYL	1290	Salt Lake City, Utah
	KWYO	1370	Sheridan, Wyo.
	CFCN	1030	Calgary, Alta.
3:00-4:00	WADC	1320	Akron, Ohio
	KVOD	920	Denver, Colo.
4:00-5:00	WHA	940	Madison, Wisc.
5:00-6:00	WFBC	1300	Greenville, S. C.
	WNBX	1260	Springfield, Vt.

The announcers' room at HSP1, Bangkok, Siam. On the right side of the table is the gong on which the interval signal of the station is played. It consists of six notes, up and down the scale. HSP1 is on 856 kcs. with a power rated at 2.5 kw.

As the result of a number of last-minute decisions and changes by the stations, DXers undoubtedly faced a task more difficult than had been intended for them. The 3:00-4:00 period on February 23rd, with its line-up of seven stations, must have been a hard nut to crack, while CFCO's

all-night program probably caused a great deal of confusion.

Originally scheduled for the 3:00-4:00 period on the 22nd, WTFI switched to the same hour on the 23rd. Whether this was a mistake in the date or a deliberate change, we cannot say at this time. WAAW was supposed to take the 2:00-3:00 period on the 22nd, so its appearance an hour later was undoubtedly an error in time.

Although we requested a program of but an hour in duration and even suggested one or two appropriate periods, CFCO decided at the last minute to stay on all night. Being totally unprepared for such an eventuality, we were obliged to consider this as but a single program, eligible for a maximum of 20 points, regardless of when it was reported.

The only other possible cause of confusion was CKLW's decision to commence their broadcast at 1:45 instead of 2:00. However, since DXers had an opportunity to hear 45 minutes of the transmission during the scheduled period, we doubt if any damage was done.

At this early date, it is impossible to judge the amount of interference caused by other stations. In the East, we know that CMBX played havoc with the KOH program, as did WJBK with the transmission from WDNC. Programs from KONO and WATL might have interfered with KWYO had not the latter station switched its broadcast from the 23rd to the 24th.

In passing, it is interesting to record that the last of a series of three letters to WJBK, requesting a stand-by during WDNC's program, brought a *verification of reception* from WJBK!

It is probably needless to point out that a few "catch" programs were included in the line-up of stations. For example, it is likely that few DXers would think of tuning in WEXL during its regular all-night transmission when in search of a contest station, while the same can be said of WNEW and XEPN. However, these three stations played a prominent part in the contest and early reports indicate that not a few watchful listeners heard their programs.

In the final announcement distributed to readers and radio clubs, we announced that at least one station would broadcast three separate programs on as many mornings, and that each of these programs would count as one station. As it happened, WNEW made but two transmissions for the contest, but listeners who heard both broadcasts will receive credit for two stations.

We hope to be able to announce the final results of the contest in the May issue, and we are sure that all contestants will join with us in congratulating the winners upon their tuning skill.

Vivienne Segal, soprano, representing a committee of noted conductors, presents a bronze medal to Sigmund Romberg as an expression of the esteem in which he is held by other musicians. Mr. Romberg conducts the Swift Studio Party on the NBC-Red Network at 10 pm on Tuesday nights.

In The Wee Hours *With The* Radexers

● ● ● *By the* DX EDITOR

OF ALL the factors contributing to the existence of the DX hobby, the co-operation of the broadcasters necessarily ranks first in importance. Without the presentation of special DX programs, the logs of listeners would be sliced in half; without the courtesy of a verified report, DXing would head for the last round-up.

It has been estimated that the average special transmission costs between $40 and $50, while an additional expense is involved when reports are checked and verifications issued. Considering the hundreds of special programs which are scheduled every year, it isn't difficult to appreciate the financial burden which DXing loads upon the broadcasters.

While it is admitted that reports from listeners in various parts of the country are of value to station operators, the cost of one or two special programs would cover the cost of reports by professional engineers which would be far more comprehensive and which would include accurate measurements of all important factors.

With this in mind, it must be admitted that broadcasters are conferring a very definite favor when they are willing to co-operate in any manner with the DXing fraternity. When stations are unable to put on special programs and cannot afford the expense of verifying reports, listeners recognize their position and appreciate the more any favors bestowed by other broadcasters.

Thus, it is with regret that we report a letter received from a prominent DXer who, for obvious reasons, asks us to withhold his name, as well as any reference to the station concerned. "A well-known station recently presented a DX program for the members of our organization,"

People in Switzerland should enjoy good radio reception. There are only five broadcast band stations there, but two of them are super-powered 100,000 watters. Here is the Beromunster Sender, one of the giants. It works on 556 kcs.

he writes. "Advance publicity advised that a verification would be issued for return postage, while a picture of the station could be had for ten cents. Several announcements to the same effect were made during the two-hour program.

"From an official of a certain DX club, they received a letter which has been passed on to me for inspection. Here is a paragraph, *copied exactly as in the original:*

" 'You camethrou with a R8-faded to R3 at times signal . . QSA3 . . margulation was very bad . . for a hi-fidelity station you was terr-ible . . whats this asking for a dime???Gee whiz its bad enuf the Cubans &the foreign stations costs us *plenty*, with out the US stations trying to make a petty latceny racket out of it. . .' "

"A very comprehensive report, isn't it? And from the official of a DX club! I am not sending this to you to obtain some free space, but only from a genuine desire to let the DX fraternity know what some stations have to put up with—particularly those stations which co-operate

with the DXers to the extent of spending a good many dollars for the thankless task of helping some listeners. To me, this is a flaming answer to why some stations no longer care to DX and why many of them are hesitating to verify even their regular programs."

To the writer of this report, our thanks for baring a flagrant violation of common courtesy to a friendly broadcaster; to the guilty DXer in question, our promise to print his name in **BIG BLACK LETTERS** the next time he pulls a stunt like this.

Contest Opinions

As might be expected, the interest of readers seems to have centered on the Mystery DX Contest. Reactions have varied somewhat, but the consensus hailed this late-winter feature as the outstanding event of this or any other season.

A typical letter comes from Robert W. Wood, R.F.D. 1, Hillsboro, N. H., who writes: "I am looking forward to this wonderful feature in the DX world, and I am sure that a great majority of the DXers will compete for the large number of valuable prizes."

"At last there is a contest with real interest for real DXers," compliments Manual A. Cadilla, P.O. Box 337, San Juan, P. R. "I do not think I am in a position to compete with fellows having a better set and living in the center of the United States, but you can bet that I'll do my very best. Even if I do not win any prize, I shall be more than satisfied to report what I have been able to do down here where conditions are different."

This feeling of enthusiasm, in spite of supposed handicaps, is maintained by Harold A. Hayne, 301 E. Dutton St., Kalamazoo, Mich., who writes: "I have a Zenith 6-tube console receiver, with a Browning doublet antenna. I don't know if I'll stand much of a chance up against some of the old-timers and their 'communications type' receivers, but I'm sure going to try it."

"The contest is going to be pretty tough for we West Coasters," points out Maxon B. Sayre, Waterford, Cal. "The 'fishing party' will start at 11:00 PM out here and all of our stations will be blasting away at a peak. Just try to get through that QRM to a central 500-watter or even a high-power Eastern transmitter at that time. We realize, of course, that conditions can't be perfect for every one and we'll just do the best we can."

Reviving Interest

We suspected that the very novelty of the contest would revive interest in DXing for some of the old-timers who have strayed from the path of lost sleep. Ivan E. Myers, 28 Virginia Ave., Wheeling, W. Va., rather confirms this theory.

"As an old-time DXer who lost much interest in this most fascinating of winter sports," he greets, "allow me to extend all manner of commendations, felicitations and congratulations. The announcement of the RADEX Mystery DX Contest prompts me to dust off the old fingertips, revive the elderly Bosch, and again twist the dial over the bounding kilocycles in search of the elusive signals that mark the reception of a station far, far away."

"I believe that RADEX has at last found exactly what the radio public wants," comments Cecil F. Smith, 101 E. Bond St., Denison, Texas. "The contest seems to be fair and square, and your rules and arrangements are perfect."

"To me, the contest is the most exciting and interesting event ever sponsored," exclaims Franklin C. Brownell, 591 Monroe St., Little Falls, N. Y. "While the DXers get the fun and the prizes, the stations will receive data which will be valuable to them for future transmissions."

Besides awakening interest in the old-timers, the contest has claimed at least one neophyte for DXing in the person of Edith Dixie Ross, Box 266, Eagle, Colo. "I have never tried DXing," she admits, "and I do not fully understand what it's all about, but I'm mighty interested and would like to receive your final bulletin about the contest."

Of Complications . . .

When we worked out the rules for the contest, we thought we had covered every possible condition which might arise. Apparently the original announcement in the February issue was not entirely clear on some points, so we corrected this in the final bulletins which were distributed to readers and DX clubs.

However, J. K. Frampton., Big Creek, Cal., raised a point which left us pluperfectly stumped. "As I understand the rules," he writes, "there are no restrictions on the type of receiving apparatus used nor on the locations used by contestants. I live in the mountains where reception is very poor and I intend to run down to my father-in-law's place in the valley on the nights of the contest. If that is not permissible, I'm out of luck."

. . . And Complaints

"If you had staged the contest from 4:00 to 6:00 AM, EST, on six days," offers Rud Anderson, Ambrose, N. D., "I think you could get sixty stations in the clear. If you can at the times you have set, you are a magician—unless you were able to silence the Western stations. If you did that, you were a wizard, since the F.C.C. can't do anything about them."

"When I saw the times at which the programs were to be broadcast, I knew that I was out of the contest," bemoans Walter Snyder, 1401 Logan St., S. E. Grand Rapids, Mich. "It is a swell idea for the fellows who could get up at two o'clock three mornings in succession, but what about the fellow who has to go to school? I think it would be greatly appreciated by the younger readers of RADEX if your future contests were arranged for a time when more of us could participate."

Naturally, we are sorry that the very nature of the contest ruled out some listeners from the start. We had hoped that it would be physically possible for every reader to take part and we were of the opinion that the arrangements would suit the majority.

By Way of Suggestion

"May I suggest in RADEX a list showing the language which is in general use in each country," contributes R. R. Rawstron, 16 Marconi Rd., Worcester, Mass. "I believe that this would help greatly when attempting to identify foreign stations, especially the South Americans."

"I have not been having any luck this season," admits Virgil Engleman, 1771 Fischer Ave., Detroit, Mich. "Static has been so severe most of the time that DXing is virtually impossible. It isn't so bad early in the evening, but after midnight it gradually gets worse and worse. I am using an attic aerial, so cannot imagine what it would be like with an outside wire."

Broadcast band station PRA8, 750 kcs., is shown in this photo. The transmitter is a Telefunken, and when this picture was made it was rated at only 1500 watts. An additional stage is being added, increasing the power to 10 kw. To the right is shown the s.w. transmitter. PRA8 is operated by the Radio Club de Pernambuco, Brazil.

"Conditions have been very erratic this year," supplies George M. Curl, 16 School St., Tilton, N. H., "but I have increased my log to 575 on the BCB. On the better mornings, I have heard four Frenchmen and London Regional, and I have sent reports to three Argentines and 4BC. Even on the poorer mornings, Fecamp could be heard from 0200 to 0245 EST with a good signal. I managed to hear the Argentines four times and they were very good, with LR1 the best."

"So far this season, I have logged 370 stations," reports R. A. Butts, Ellensburg, Wash., R.F.D. 2, c/o N.P. Depot, Thrall, Wash., "for a total of 571,258 miles and an average of 1554 miles per station." Reader Butts enclosed a tabulation of stations heard since 1925. With a total of 567 stations and an aggregate of 931,618 miles, there is the remarkably high average of 1643 miles per station. Included as the two European catches, we note the old 2LO at London and 2BD, Aberdeen.

"Can anyone give me the time schedule of LV1, San Juan, Argentina?" queries Elwin T. Smith, Box 82, Harrah, Wash. "I have been hearing a good R9 signal from a station on 730 kcys which leaves the air at 1900 PST. The South Americans have been showing unusual strength and it keeps one stepping to sort out the Mexicans. CMCF, the 250-watt station at Havana, has been heard with an R8 signal despite WCCO and WHAS.

"I should like to add my name to the list of those who wish to see the all night stations set back on their heels. We on the West Coast find reception blocked by several stations, with XEFL, XERA, KWJJ and KJBS the most bothersome. Imagine my embarrassment when I tried for a special from CX26 on 1050 kcys, and found KWJJ on 1040 and KJBS on 1070 doing their bit to assist the fight of Old Man Static versus us wee night owls."

More About The All-Nighters

"In one of your recent issues," recalls Glenn Ford, 802 South Ninth St., Salina, Kans., "I notice the argument that the all-night stations must have these late sponsored programs to keep out of the red. Since these broadcasters are in the minority, how is it that so many other stations are able to continue operating without these late programs?"

Radexer Ford may have struck a salient point there. While we are not in a position to judge the merits of the regular daytime and early evening programs of the all-nighters, it may be that they lack the necessary quality to attract listeners—and sponsors. Without this support, the stations naturally must resort to late programs, when competition for the local audience is practically non-existent, to balance their budgets. All of which might lead to the logical supposition that the all-nighters are incapable of serving public interest during normal hours of broadcasting. If this is true, why should they continue to hold valuable licenses?

"The broadcasting day should come to a close at 0200 local time," avers Andrew Hill, 14 Worthley St., Red Bank, N. J., "and all stations would sign on no earlier than 0600 local time. Thus, broadcasters on the Pacific Coast would close down at 0200 PST, which would be 0500 EST. With such a ruling in effect, clear channels for DX and test transmissions would be available from 0500 to 0600 EST—and that would be all we DXers could ask for."

"I have noticed quite a few reports from different sections of the country," informs L. R. Underwood, Eastacada, Oregon, "and I have been wondering how my log compares with others sent in from this state. My BCB log is not too large, since I don't DX for Eastern U. S. stations, but I have heard Cologne, LR5, LR4, LR2,

28 Japs, 3 Zedders, 17 Aussies, 2 Chinese, KZRM and no end of local U. S., Canadian and Mexican stations."

"It seems that Texas DXers are reluctant to send you any DX dope," greets Isaac T. Davis, Elkhart, Texas. "so I am reporting on my reception of the past month or two. The South Americans have been the best of all the foreigners, with LS2 outstanding. This station has come through with a signal approaching real high fidelity on early morning test programs. A number of other South Americans have been heard through local QRM around 2000 CST.

"The TA's have been awful. The only ones heard at all were Cologne, Munich, Strasbourg, Toulouse, Poste Parisien, and several unidentified whispers. KGMB and KGU have been really good. Of the Southern TP's, 1YA has been the most consistent, although 4YA has improved amazingly of late. I have heard 6WF, Perth, Western Australia, which is about the most distant station in the world from Texas, but he was too weak to copy. The Japs are *bad*. The best of these have been JOAK2, JOBK2, JOCK1 and JOGK. JODK2 has been heard once or twice, but with a very weak signal. XGOA has also been heard, but quite faint. The Cubans and Mexicans are literally 'knocking the sap' out of the U. S. stations."

"I was able to hear all four Argentines—LR1, LR4, LR5 and LS2—during January," asserts Duane McMurray, 501 S. Main St., Maquoketa, Iowa. "Other good catches this season include CRCV, XEFE, KWYO, CJCB, XEU, XEX, and HIX. LR1 announces short wave relays—LRU on 15290 kcys and LRX on 9580 kcys—to take the air sometime in February."

First Reports

"A year ago, I knew nothing about DXing," professes Harold L. Gilgen, R.F.D. 2, State Center, Iowa, "but I am indebted to RADEX for introducing me to an interesting hobby which, I feel sure, will last throughout the rest of my years. I began DXing in May, 1935, and have compiled a list of 275 BCB stations since that time. My biggest thrill came when I logged KGU from 0430 to 0450 CST on January 7th. My latest veries are KGU, CMOX and HJ1ABB."

From another new DXer, Arthur Seidenschwartz, 2104 N. 64th St., Wauwatosa, Wisc., comes the following report: "I have been DXing since last March and my log now stands at 597 heard, with 100 verified. I would have sent for more confirmations, but finances are low. My best catches are LR1, LR4, LR5, LS2, 1YA, 2YA, 3YA, 4YA, 1YX, 2FC, 2CO, 2BL, 2GB, KGU, HIX, TGW, KPPC, CJLS, CKOV, CFJC, CMBD, CMBY, CMCW and CMOA. All DXing is done on a home-made 10-tube super, which tunes only from 540 to 1410 kcys. This is supplemented by a 3-tube blooper, on which I have added KECA, CFRC, CKOC and KGFL. I am going to build a new set to replace the three-tuber and expect some real DX in the near future."

"This being my first report to you, I will check on my log for this season," promises T. L. Strong, 620 Olive Rd., St. Louis, Mich. "On November 4th, I purchased a new RCA Victor all-wave receiver and put up an RCA double-doublet antenna system. I started a new log on this date and have since received 584 RCB stations. Included are four in South America, two in Hawaii and Puerto Rico, one in Guatamala, and several in Cuba and Mexico. Nineteen states are logged 100% and but one or two stations are lacking in several others."

In recent issues, we have remarked that a number of readers have complained about the letters which have been quoted in this section. Instead of resumes of logs, these readers

would prefer to find latest news of the DX world and tuning tips. In the February issue, we used a letter from James L. Black as a sample of what might be termed a truly informative report.

"The report from Mr. Black in the February issue is a splendid letter," concedes Frank Wheeler, Erie, Pa., "and it gives a lot of helpful information. I am sure that the majority of DXers would like to send in a fine letter like this, but if we haven't got the tips, we can't pass them along. I, for one, seldom have any tips to give, and I don't belive that I'm alone in this. One reason is that I can't receive Europeans on the BCB and, therefore, can't tell other DXers how to cross the Atlantic. If all readers waited until they had real news to submit to their club bulletins or radio magazines, I'm afraid the letters and cards would be pretty scarce. Personally, I enjoy information-giving letters better than any others, but one can only send in tips when there is news to pass along."

Help Wanted

"Can any reader tell me what station was operating on 1500 kcys at 02:30 EST on February 12th?" queries Alfred J. Stansfield, Oradell, N. J. "WKEU was broadcasting for the NNRC at the same time and this station could be heard plainly when WKEU faded. It wasn't WJBK, as I definitely heard them sign off at 02:00. From 02:40 until 03:00 EST, I heard the following selections: *Awake In A Dream* (this faded so I could hear *Mood Indigo* from WKEU), *Broken Record, Lights Out, A Melody In The Sky, Wahoo* (which faded to enable me to hear *Here Comes Cookie* from WKEU), *Night In Monte Carlo, I'm Shooting High* and *West Wind.* The unknown station signed off shortly before WKEU, but had faded too much for me to catch the announcements."

"DX has been pretty good out here on Vancouver Island," admits Vern Grassie, P. O. Box 213, Duncan, B. C. "I have increased my log to 410 stations and the latest veries include CMBX, JOIK, JOHK, TGW, JODG (500 watts!), XEAQ, WJBK, KGFF and WEBQ. As you can imagine, I am mighty proud of my swell QSL card from JODG, to whom I had sent a report of an hour and 36 minutes. I'm still using my 1932 General Electric, so I can't hope for exceptionally good results."

"As a new Dxer, I joined this very interesting hobby with a letter to WPAR on November 27th," submits Bruce D. Davidson, 207 Morgan Ave., Palmyra, N. J. "Their verie came back on the first of this year. At the time of writing, I have 46 stations verified, with 16 reports still out, one of which is to Doc Brinkley's famed XERA. Among my nicer verifications are CKCV, CFCL, CJLS, WBOW and WDAY, all of which make up for time and sleep lost."

Another new DXer is Bill Petty, R.F.D. 1, Saltville, Va., who advises: "I started DXing on December 1, 1934 and have logged 346 stations on the broadcast band. Among my best verifications are TGW, CJCB, CJLS, HIX, HHK, WNEL and five Cubans. On the night of February 10th, the Cubans invaded the United States again and many of them were received with local volume. Can

Union Radio Station, EAJ7, Madrid, Spain, 1095 kcs., 10 kilowatts. EAJ7 works daily from 0300 to 1900, EST, and is sometimes picked up early in the morning by eastern listeners.

anyone tell me why I cannot get the Canadian stations in Saskatchewan, Alberta and Manitoba? I can get stations all around these, but not one from the provinces which I've mentioned."

Speaking of Cubans, William Tawzer, Jr., Glenshaw, Pa., reports another new Havana station. "On the morning of February 11th," he postcards, "I picked up CMOR, 1440 kcys., at 03:55 EST. The signal strength was very good and no fading was noticed."

On Scheduling Specials

"I have just read the February issue," relates E. O. Cutler, 36 West 44th St., Suite 1313, New York City, "and note that the Dean of DXers, H. T. Tyndall, Jr., wants quality instead of quantity in the specials. Since I was honored with an official position in the NNRC, my own personal efforts in promoting special DX programs have been concentrated in trying to effect a few high-grade programs from well-known stations. These stations would hardly be called 'DX catches' to North American listeners, but they attract thousands of dialers in the late hours—people who wake up to the fact that there is plenty doing after their pet locals have gone to bed.

"The success of the KVOO, KSL and LR5 specials was spectacular. The only credit the NNRC accepts is for devoting a lot of time and considerable money to obtain the sort of program which Mr. Tyndall wants. Incidentally, such programs help *all* of the clubs, since more people will listen late and get the DX habit."

"Way up East here, the Cubans and Mexicans surely come rolling in!" notes H. F. Hawkins, 222 Massabesic St., Manchester, N. H. "CMQ usually over-rides CRCO on 880, while CMX throws a very powerful signal and drowns out WWJ and Philadelphia on 920. CMBC finds it difficult to pull out from under the many W's on 940, but occasionally it does, and quite fairly so. In your latest issue, I fail to find a Spanish speaking station on 730 kcys, although I have heard such a station several times recently. Does anyone know who this is? Also, can someone tell me when I could catch FQN?"

"Noticing a paragraph about the fan who says it is impossible to receive European stations on the broadcast band," submits W. D. MacBride, Whitehorse, Yukon, Canada, "I thought I might as well tell my Yukon story and have a flock of folks call me a prevaricator. At this season of the year (December 23rd), we often hear foreign stations on the broadcast band during two definite periods of the day—between 11:30 and 14:00 Eastern Alaska Time (which is four hours behind Eastern Standard Time) and between 19:30 and 23:00 EAT. In the first instance, the Europeans are signing off for the night, while in the second they are coming on in the morning. Both of these periods bring a strip of darkness between Yukon and Europe across the Pole.

"For the last month, I have heard German stations almost every evening—in many cases, with more volume than desired. Last night, for example between 19:30 and 22:30 EAT, I heard Cologne, Munich, Leipsig, Berlin, Hamburg, Konigsberg and Frankfort; while between 22:00 and 23:00, I heard Milan, Strasburg, Poste Parisien, Bordeaux; Madona, Latvia; Fecamp; and Kuldiga, Latvia. Madona often interferes with CRCV on 1100."

Boiled Reports

"Last season, with the RADEX World Log as a guide," offers Hilding Gustafson, 2228 Sixth St., Rockford, Ill., "I verified 17 Aussies and Zedders, 8 Japs, and 3 Europeans. This year, although many say that it has been bad, I have had much greater success. So far, I have heard

12 Europeans, 6 South Americans, and 35 stations in the Antipodes. For some reason or other, the Japs have been missing, except for very weak carriers."

"This season has brought me my first TA reception," submits Charles B. Marshall, Jr., 26 Victoria St., Washington, Pa. "To date, I have identified Poste Parisien, Rennes, Bordeaux and Marseilles. Also. I have heard LR1, LR3, LR4, LS2 and YV1RC among the South Americans and KERN, KRE, KFXM, KFBK (1310), KFRC, KGGC, KWG, KXL, KRKO, KGY, KVL, KUJ, KPQ, CKOV, CKX, CFCT, TIPG, TGW and HHK for North America."

"Since January, 1934, I have been using a 4-tube Philco for DXing," informs John H. Terziev, 109 Cherry Rd., Syracuse, N. Y. "My log now totals 340 stations and they are still coming in at the rate of four or five each night I listen. Up to this season, I used a 75-foot non-directional indoor aerial, with a 25-foot lead-in. I got good results with this, but was not satisfied and am now using a 125-foot outdoor aerial, running NE by SW. There has been a marked improvement in reception with this antenna. I got my first surprise of the year on December 26th when I heard LS2 coming in QSA4, R7. On the following Thursday, January 2nd, U. S. reception was poor, but LS2 and LR1 pounded through QSA5, R8. They were much better than KFI."

"DX this season has been fair," relates Harry McPoyle, 1411 N. Edgewood St., W. Philadelphia, Pa. "Although weather conditions have not been conducive to good reception, I have gathered 40 new stations into the fold, bringing the log up to 622. Of these, 523 are still active. Some of the highlights are KWBG, KGW, KIUL, KPOF, KVOL, KCRC, KGFF, KGBI, CHNS, CJCB, CFCY, CFCO, CFCH, CJIC, LR1,

(*Continued on page* 35)

Two Letters

Del Rio, Val Verde County, Texas.
February 12, 1936

Mr. Carleton Lord,
RADEX
Conneaut, Ohio.

Dear Mr. Lord:

Evidently you consider yourself lord and master when you distort facts as you rave relative to a letter I wrote somebody, asking for verification of XERA telling them very kindly that it was impossible for us to verify reception on some two or three thousand requests a week. For my trouble in verifying this individual's request I ask kindly if they had time and heard XERA would they tell me its signal strength in comparison with WLW.

You, very unfairly and very unjustly publish on page 30 of your February magazine that I am willing to take all you will give me "but try to get me to give you anything!" This, to me, shows the small type, small caliber man that you are. It is unfortunate that the little magazine to which you contribute is worsted by such an individual. Evidently your brain is contracted, because when an editor purposely and viciously misstates facts without any reason, then I have nothing for him but contempt.

I would like for you to publish this letter in its entirety, in your magazine, so that the readers may know the consideration I have for men of your caliber.

Yours truly,
(Signed) J. R. Brinkley, M. D.

* * *

Conneaut, Ohio,
February 17, 1936

J. R. Brinkley, M. D.
Del Rio, Texas.

Dear Sir:

Replying to your letter of the 12th instant:

Whether or not you choose to acknowledge the reports of reception of your station is your own business. But when you request listeners to give you data on your signal strength then you should, in common courtesy, be willing to return the favor by sending verification. To refuse to do this obviously lays you open to the charge of "taking but not giving."

The feeling of antipathy toward your station is widespread due to your powerful signals interfering all over North America with stations providing programs of much greater merit and interest. When listeners find several of their favorite stations ruined by your signals, you can scarcely blame them for feeling deep resentment. This feeling would be removed if you would use a power in keeping with your local character and not attempt to out-power the really great stations of America.

Yours truly,
THE RADEX PRESS INC.
(Signed) F. C. Butler, Editor

A NEW KIND *of* Radio Station

NOW we have the *apex* broadcasting station. For a year or so the Federal Communications Commission has been issuing licenses for general experimental stations to work in the ultra-high frequencies, but the listening public has paid very little attention, for the very good reason that few have receivers capable of picking up these transmissions.

Altogether, twenty-five licenses were granted to broadcasters for experimental stations to work on frequencies of 31,600 kcs. and above. The first of these stations, known as "apex" stations, were mentioned in RADEX in March. A further list of all the active apex stations follows at the end of this article.

The FCC tells us that the very high frequencies above 30 megacycles have characteristics which make them useful in serving a small area and, beyond this limited range no interference is caused to other stations. This is different from the propogation characteristics of regular broadcasting stations, which are heard well only within a limited range, but whose signals continue for hundreds of miles so that their interference range is enormous compared with the primary service area.

It is believed, therefore, that the ultra-high frequencies will offer a means of supplying strictly local service to any number of communities, with frequency assignments duplicated at relatively close geographical separations. Each station would serve only a few miles, probably about 2 to 10 miles, or 25 miles at the most.

The above paragraphs outline the current belief of the FCC, but it is frankly admitted that nothing at the present time is known of these frequencies, and it is for this reason that the 25 licenses were so freely granted. The FCC, as well as the licenses, and radio listeners in general, are anxious to learn just what can be done with these ultra-highs. The most serious concern right now is the very limited audience as few people have sets that tune beyond 30 megs. or 10 meters.

A few years ago it was believed that the ultra-highs could not be transmitted beyond the horizon as it was assumed they had the nature of visible light frequencies. However, as we have reported several times in RADEX, it is becoming more evident that the ultra-highs know no barriers. Signals from W9XPD in St. Louis should die before they reach Kirkwood, but they have been jumping right over the Rocky Mountains to San Francisco. W8XAI at Rochester, N. Y., has been heard in Salt Lake City.

Here is another instance of history repeating itself. The broadcasters are anxious to have reports on the reception of their apex stations. The FCC insists that many reports will have to be studied before they will be able to determine a course to follow in the assignment of further licenses. Early this year they stopped granting licenses until reports on the 25 existing stations could be studied.

The DXer is in demand again, just as he was back in 1921-22 when broadcasting was born, and again in 1929-30 when the queer actions of shortwaves required s t u d y. Of course, the stations have their own engineers out making field surveys but these engineers cannot cover the entire country. This task falls to the DXer . . . and his reports will be sought after and appreciated *until* apex broadcasting is perfected.

Following is the list of active stations. As the rest of the licensed stations commence their tests we will add them to this list.

W6XAS, San Francisco, Calif., 10 watts. Licensee, KJBS.

W6XKG, Los Angeles, Calif., 100 watts. Lic., KGFJ.

W8XAI, Rochester, N. Y., 100 watts. Lic., WHTM.

W8XH, Buffalo, N. Y., 100 watts. Lic., WBEN.

W8XKA, Pittsburgh, Pa., 150 watts. Lic., KDKA.

W8XWJ, Detroit, Mich., 100 watts. Lic., WWJ.

W9XAZ, Milwaukee, Wisc., 500 watts. Lic., WTMJ.

W9XPD, St. Louis, Mo., 100 watts. Lic., KSD.

These stations are all licensed to work on 31,600; 35,600; 38,600; and 41,000 kcs. In addition to these frequencies, W9XPD has the band from 86,000 to 400,000 kcs., and W8XKA has 55,500; 60,500, and 86,000-400,000 kcs.

The Editor's Desk

ALMOST every day we receive a letter from some reader asking us which is the best set on the market. Obviously it is impossible for us to answer this question. It is exactly as though they were to ask us which is the best automobile. It is impossible for us to test every make and every model of receiver. Even if we did so our decision would be only one man's opinion. Every set like every automobile has its friends and most have a few opponents.

It would be a fine thing if there were a sort of "Good Housekeeping Institute" for radio sets for, naturally, readers who are contemplating an investment in a new receiver want to get the very best they can for their money. We would like to help them.

On page 16 of the January, 1936, issue of this magazine, we published an article by R. H. Tomlinson on his tuning experiences with his new Scott High Fidelity receiver. This was an excellent article as it told the reader exactly what he might expect if he too were to tune this excellent set.

We would like to publish other articles similar to Mr. Tomlinson's regarding other late model receivers. Among our readers are many who have purchased new Philcos, Crosleys, Atwater Kents, Stromberg-Carlsons, RCAs, Midwests, Pattersons, and other prominent makes which are available to anyone.

For the best letter of this kind which we publish each month, we will give a year's subscription to RADEX. Here is a chance for you to get your magazise free. We suggest you read Mr. Tomlinson's article, not to copy but as an illustration of an intelligent presentation of the subject.

Saving the Covers

RADEX gets more wear in a month than ordinary magazines do in a year. It is impossible for us to bind this magazine so that it will stand all this wear. Harold J. Clark, Secretary of the Plainsfields DX Club, 431 Watchung Ave., North Plainfield, N. J., tells how he keeps his copies in perfect condition. Says he: "Open your copy of RADEX to the center. Put paper clips on each of the four corners. Now carefully remove the wire staples. Take the cover and fasten a piece of gummed paper, 3 inches wide by ten inches long, from top to bottom covering the folding edge. Let one inch of the paper extend at top and bottom and fold this over on inside of cover. Reopen the holes in the cover with a straight pin. Push the wire clips through the cover and back through

the pages. Bend the wire clips into place, remove the paper clips and you have a permanent cover on your RADEX."

Growth in Power

The trade journal, Radio Retailing, recently asked us to prepare figures showing the growth in average power used by stations in the U. S. Perhaps this data may be of interest to our readers.

The figures show, from January of each year, the total number of stations, the total power in watts, and the average power in watts.

1925	566	121,500	214.66
1930	620	1,131,015	1824.22
1935	637	2,685,820	4216.36

A New Building Field

The present "generation" of radio listeners do not know the thrill that was experienced by the oldtimers of 1922-1928 who had to build their own sets. What a joy it was to take a discarded oat-meal box, a variable condenser, a 170-tube, some wire and a few whatnots such as gridleaks, condensers, etc., and hook them together with some wire, connect the mess up to a battery and actually bring music from the air to the headphones! Well, the opportunity is here for the listener of today to experience this thrill. Ordinary receivers will not pick up the new "Apex" stations which are described in another article published in this issue. For the present, at least, if you want to hear these stations, you will have to build your own set.

In connection with the inauguration of its new ultra-short-wave broadcasting station, the Detroit News which operates WWJ, will print schematic drawings for those who want to build their own receivers capable of picking up the signals of the new station. Perhaps our readers can secure the copies of the News in which these articles

One of the most powerful of the German stations is Stuttgart, which has 100 kilowatts in the aerial. Stuttgart works on 574 kcs. Here is shown the plant in which the transmitter is located.

appear, or the News may be good enough to reprint the articles for the benefit of those who want to build sets for these 31.6 signals.

Station Chit-Chat

WJAR has been granted an increase in power to 1000 watts, with directional antenna for its Providence, R. I., station.

WFBC, Greenville, S. C., dedicated its new 5000-watt plant on March 1st. The equipment includes an RCA fidelity transmitter and a 376-foot vertical radiator.

WTAQ, 1000 watts, Green Bay, Wis., which was recently acquired by St. Norbert's College, was formally dedicated on Feb. 9. This station was formerly at Eau Claire, Wis., but was moved to Green Bay where St. Norbert's College also operates WHBY, 100-watts.

Although many stations have heretofore picked them up direct for rebroadcasting, the NBC will now carry the Arlington time signals on the combined networks as a regular feature. They will be heard for 30 seconds from 11:58 a. m. daily.

WBSO, Needham, Mass., went on the air as WORL on January 5. Offices have been established in the Myles Standish Hotel in the Boston Back Bay district.

Samuel Insull of Chicago has

formed the Affiliated Broadcasting Co. and organized a network of low-powered Midwest broadcasting stations. Plans for the operation of the new chain are still a secret.

After the three Brooklyn stations —WLTH, WARD and WVFW—had been ordered deleted, the FCC has decreed an entirely new hearing some time in April. This is the fourth postponement of the effective date for deletion of the three stations—an indication of the difficulty the Commission faces in wiping out existing stations.

After ordering KFYR, Bismarck, N. D., deleted last fall because of use of more than legal power, the FCC, after hearing new evidence to show that the violations were without the knowledge of the owner, has granted a regular renewal of license.

The Fort Worth Star-Telegram, operator of WBAP, is seeking to buy KGKO, Wichita Falls, Texas, and move it to Fort Worth. Local civic organizations are protesting the move. Hearings on the project were adjourned Jan. 31.

Harold V. Hough, manager of WBAP is seeking to purchase control of KGFG, Oklahoma City. It is said to be a personal venture on the part of Mr. Hough and in no way connected with WBAP.

WSM, Nashville's 50,000-watter has granted permission to 25 stations, mainly in the South, to pick up and rebroadcast programs originating in the WSM studios. If you hear WSM's announcement on other channels, do not assume that they have changed frequencies.

WHBC, Canton, Ohio, has been purchased by the Ohio Broadcasting Co., a subsidiary of the Brush-Moore newspapers and application for transfer has been filed with the Commission. Newspapers are published in Canton, Steubenville, Marion, East Liverpool, Portsmouth and Salem, all of Ohio.

The FCC granted on Feb. 8 the application of Edward Hoffman, St. Paul, Minn., for a new local station in that city on 1370 kc. with 100 watts full time. Mr. Hoffman is a St. Paul merchant. The grant was once withdrawn but has now been reaffirmed.

It is said that Westinghouse Electric & Mfg. Co., has concluded an agreement to purchase WOWO, Fort Wayne, and WGL, of the same Indiana city. It is believed that the stations will remain in Fort Wayne and will both be operated.

South America's most powerful broadcasting station, LR1, Buenos Aires, 50,000 watts, is now on the air. It is owned by the newspaper El Mundo. RCA high fidelity equipment is used. Plans are under way to install short wave broadcasting adjuncts using the call LRX on 31.22 meters and LRU on 19.62 meters.

THE MONTH'S CHANGES ON THE SHORTWAVES

NEW

1.610	WQPC, Chicago, Ill.
	WQPD, DeQuoin, Ill.
	WQPF, Effingham, Ill.
	WQPG, Sterling, Ill.
	WQPP, Pontiac, Ill.
	WQPS, Springfield, Ill.
1.712	WAKF, Everett, Mass.
2.318	CYQ, Toronto, Ont.
2.382	WAKE, Oshkosh, Wisc.
2.406	KNHE, Ft. Smith, Ark.
2.414	KACJ, Wenatchee, Wash.
	KACK, Bellingham, Wash.
	KACN, San Buenaventura, Calif.
	KACO, Tracy, Calif.
	KACS, Bakersfield, Calif.
	KNGY, Lodi, Calif.
2.422	KACA, Atchison, Kans.
	KACI, Eureka, Calif.
2.430	WAKH, Bloomfield, N. J.
2.450	KACL, Altus, Okla.
	KACP, Ponca City, Okla.
	KACR, Seminole, Okla.
2.458	KACM, Big Spring, Texas.
2.466	WAKG, Clearwater, Fla.
2.490	KACQ, Kalaloch, Wash.
2.616	KIOX, Deering, Alaska
	KIUW, Kenai, Alaska.
	KIUX, Wales, Alaska
2.986	KIUW, Kenai, Alaska
2.998	WXE, Anchorage, Alaska
3.093	KIOM, Chevak, Alaska
4.795	VE9BK, Vancouver, B. C.
5.710	TGS, Guatemala City, Guat.
5.880	ETG, Addis Ababa, Ethiopia

5.965 HIIJ, San Pedro de Macoris. D. R.
6.150 CB615, Santiago, Chile
6.182 XEXA, Mexico City, D. F.
6.380 HI3U, Santiago, D. R.
6.450 HI4V, Trujillo, D. R.
7.900 VE9EW, Toronto, Ont.
8.075 WEZ, Rocky Point, N. Y.
8.190 XEME, Merida, Yuc.
9.060 HJU, Buenaventura, Colombia
9.600 CB960, Santiago, Chile
11.595 VRR4, Stoney Hill, Jamaica
11.795 DJO, Zeesen, Germany
11.820 GSN, Daventry, Great Britain
11.855 DJP, Zeesen, Germany
15.180 GSO, Daventry, Great Britain

FREQUENCIES

2.414 KGHS, Spokane, from 2.458
2.490 KGHX, Santa Ana, from 2.430
3.100 KIIP, Luckyshot, from 3.093
6.000 ZEC, Salisbury, from 6.590
6.147 ZEB, Bulawayo, from 6.590
8.900 HCJB, Quito, from 8.214
9.490 VK3ME, Melbourne, from 9.503
11.955 ETB, Addis Ababa, from 11.940

DELETE

2.422 KNFF, Leavenworth, Kans.
9.490 SR1, Poznan, Poland
13.415 TIEP, San Jose, Costa Rica

CALLS

7.620 ETD. Addis Ababa, from ETA.

The April DX Calendar

Special programs arranged by the stations for the benefit of distant listeners. The list of F.C.C. frequency check programs may be found in the February issue. All times are in Eastern Standard in order that the programs may be arranged chronologically.

Sunday Mornings

April 5

2:00-3:00 CJLS 1310 Yarmouth, N. S. NNRC
2:00-4:00 CHAB 1200 Moose Jaw, Sask.
2:15-2:45 WTBO 800 Cumberland, Md.
3:00-5:00 XEFL 1150 Tijuana, L. C. URDXC

April 19

1:00-1:30 WICC 600 Bridgeport, Conn. CDXR
3:30-5:30 KNET 1420 Palestine, Texas. RN
3:30-4:30 KFRO 1370 Longview, Texas CDXR
4:00-5:00 WGBF 630 Evansville, Ind. CDXR
4:00-6:00 KVOL 1310 Lafayette, La. CDXR
5:00-6:00 CHML 1010 Hamilton, Ont. CDXR

April 5, 19

3:00-5:00 CFCT 1450 Victoria, B. C. CDXR

April 12, 26

2:00-4:00 WJBO 1420 Baton Rouge, La.

April 5, 12, 19, 26

1:00-3:00 CMJA 1010 Camaguey, Cuba
2:00-4:00 XEWZ 1150 Mexico City, D. F.
3:00-4:00 CKWX 1010 Vancouver, B. C.
3:00-4:30 CKOV 630 Kelowna, B. C.

Monday Mornings

April 6

2:45-3:00 KUJ 1370 Walla Walla, Wash.
3:00-5:10 WIRE 1400 Indianapolis, Ind

April 13

2:00-5:50 FCC Frequency Checks
3:00-3:30 KID 1320 Idaho Falls, Idaho
3:00-6:00 CMOX 1320 Havana, Cuba
5:45-6:00 WGAL 1500 Lancaster, Pa. NNRC

April 20

3:15-3:30 KGGM 1230 Albuquerque, N. M.

April 27

12:01-3:00 WPAR 1420 Parkersburg, W. Va. CDXR
5:45-6:00 WGAL 1500 Lancaster, Pa. NNRC

April 6, 13, 20, 28

12:01-2:00 CMHW 810 Cienfuegos, Cuba
1:00-2:00 WGES 1360 Chicago, Ill.

Tuesday Mornings

April 7

3:00-4:00 WNEL 1290 San Juan, P. R.

April 14

1:00-2:00 CMCR 1380 Havana, Cuba.
2:00-6:00 FCC Frequency Checks
3:00-3:30 CKBI 1210 Pr. Albert, Sask. NNRC

April 21

1:00-4:00 WDAY 940 Fargo, N. D.
2:00-3:30 KIUL 1210 Garden City, Kans.

April 28

4:00-5:00 WKAQ 1240 San Juan, P. R.

April 7, 14, 21, 28

3:00-4:00 KFXM 1210 San Bernardino, Cal.
5:00-5:15 WBNS 1430 Columbus, Ohio

Wednesday Mornings

April 1

1:00-1:30 WEBC 1290 Superior, Wisc.
2:00-2:30 WEBR 1310 Buffalo, N. Y. CDXR

April 8

2:00-5:50 FCC Frequency Checks
2:30-3:00 WHBQ 1370 Memphis, Tenn. NNRC

April 15

2:00-2:30 KWTO 560 Springfield, Mo.
2:30-3:00 WCMI 1310 Ashland, Ky.
WHBQ 1370 Memphis, Tenn. CDXR
3:30-4:30 KIDW 1420 Lamar, Colo.
4:00-4:30 KFNF 890 Shenandoah, Ia.
4:00-5:00 WIL 1200 St. Louis, Mo.

April 29

2:30 on WOC 1370 Davenport, Ia. NNRC
3:00-4:00 WNEL 1290 San Juan, P. R.

April 1, 8, 15, 22, 29

12:01-1:00 WOWO 1160 Fort Wayne, Ind.
1:30-2:00 WKBB 1500 E. Dubuque, Ill.
4:30-4:45 WCAL 1250 Northfield, Minn.

Thursday Mornings

April 2

3:00-3:15 KVOE 1500 Santa Ana, Cal. NNRC

April 9

2:00-2:30 WLLH 1370 Lowell, Mass.
2:00-3:00 CMKC 1250 Santiago, Cuba NNRC
KIUN 1420 Pecos, Texas
2:00-5:50 FCC Frequency Checks

April 30

5:10-6:00 WFLA 620 Clearwater, Fla
5:15-5:45 WALA 1380 Mobile, Ala.
5:30-6:00 WRAW 1310 Reading, Pa. CDXR

Friday Mornings

April 11

2:00-6:20 FCC Frequency Checks

April 24

1:00-1:15 KPRC 920 Houston, Texas
WLLH 1370 Lowell, Mass.
2:15-2:30 WCSH 940 Portland, Me.

April 3, 10, 17, 24

12:01-2:00 CFCN 1030 Calgary, Alta.

Saturday Mornings

April 4

3:30-4:00 KSAC 590 Manhattan, Kans.
4:30-5:30 CKNX 1200 Wingham, Ont. CDXR

April 11

2:00-6:20 FCC Frequency Checks

April 25

:30-4:00 KADA 1200 Ada, Okla

April 4, 11, 18, 25

5:00-6:00 WMFO 1370 Decatur, Ala. NNRC
6:00-7:00 WHDL 1420 Olean, N. Y.
7:00-8:00 WSBC 1210 Chicago, Ill. NNRC

THE MONTH'S CHANGES IN STATION DATA

NEW

790 CMGH Matanzas, Cuba
1370 ..... St. Paul, Minn.
1420 ..... Price, Utah

POWER

850 KIEV Glendale, Calif., 250 from 100
910 XENT Nuevo Laredo, 150000 from 65000
940 WHA Madison, Wisc., 2500 from 1000
1020 WDZ Tuscola, Ill., 250 from 100

	FREQUENCIES	
730	CMK	Havana, Cuba, from 1060
850	CMBN	Havana, Cuba, from 880
930	XEBH	Hermosillo, Son., from 1000
950	CJOC	Lethbridge, Alta., from 1230
	CMCD	Havana, Cuba, from 960
970	CMBC	Havana, Cuba, from 940
1020	WDZ	Tuscola, Ill., from 1070
1100	CMCJ	Havana, Cuba, from 1200
1200	CMCO	Havana, Cuba, from 1110
1440	CMOA	Havana, Cuba, from 790
1500	CMCX	Havana, Cuba, from 660
	LOCATIONS	
1330	WTAQ	Green Bay, Wisc., from Eau Claire
	DELETE	
820	XETW	Mexico City, D. F.
840	XEP	Mexico City, D. F.
1080	XEMA	Tampico, Tams.
1210	XEMZ	Tijuana, L. C.
1310	XEAJ	Oaxaca, Oax.

For Short Wave Fans

(*Continued from page* 12)

The statement "Pontoise, QSA4, R7/S/N" means that Pontoise was heard quite clearly (QSA4), with good volume (R7), with slight fading (/S) and no static (/N). "YV2RC, QSA1, R7/R/XX" means that YV2RC was bothered by rapid fading and bad static, both of which combined to make the program unintelligible, QSA1, despite the good volume, R7.

The QSA and R codes are universally understood and may be used when writing to foreign as well as domestic stations to describe their transmissions.

R1, the faintest signals 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.

Questions *and* Answers

(*Continued from page* 18)

tinct models of the 16 Philco chassis. The earlier type came under Codes 121-2-3, and is the receiver that sometimes develops the troubles discussed, namely, that of frequency shifting on the short waves. The later type, or Code 125-6-7, was designed with a different radio-frequency section and tuning assembly, and gave no trouble in this respect. It must be remembered that the earlier receivers designed for all waves, were more or less in an experimental stage, and were subject to defects that the newer receivers do not now exhibit.

The Philco Company has worked out a simple method of overcoming the defect in the earlier model Philco 16 chassis, and all members of the Radio Manufacturer's Service have been furnished complete information. They suggest that the readers of RADEX, owning the sets in question, get in touch with any reputable service man. If the service man has not received the service data from the Philco factory, he is eligible to obtain it if he can show ownership of the proper testing equipment and is connected in some way with the service industry. By placing this restriction the Philco Company assures itself that

only capable men will work on their sets, and that defects, such as mentioned above, will be corrected quickly and inexpensively to Philco owners. The Technical Editor of RADEX concurs in this opinion, for certainly a properly equipped service man is the only source of correct and expert alterations, and the information that could be given through these pages would be useless to the average set owner.

In *the* Wee Hours

(*Continued from page* 28)

LR4, LS2, WHBB, WMSD, KLUF, KXYZ, WKZO, WFMD, KFOR and KROC. Will someone tell me how to get a verie from WJAY. Three years ago I sent them a report and three follow-ups, but nary a reply did I get. Sent them another on January 1st and am hoping for the best. Another black sheep is WKEU. I've been waiting over a year for this one."

Buying a New Set

(*Continued from page* 6)

speaker must be capable of reproducing all these vibrations. Some larger sets, utilize a station selecting tuning device which cuts down the width of the audio band passing through the tuning system of the receiver. This sharpens tuning by eliminating many adjacent interfering stations, but the fidelity of tone is reduced when the device is being used. However, for real DX work, this form of signal selectivity is valuable, and the loss of tone is compensated for by the sharpness of the signals.

Some sets use two and even three speakers. One is a large speaker for low notes and one is a smaller speaker for the higher notes. The Philco engineers have created a dual-purpose speaker which easily reproduces low notes at the rim of the cone and high notes toward the center. Most larger cabinets now use small speakers or vanes that throw the higher notes out toward either side of the front. This is because high notes do not spread out over the room as low notes do. High frequencies usually are directed straight ahead while low notes move about in all directions.

DXing *With The* NRC

● ● ● *By* J. WARREN ROUTZAHN, Secretary

MY DXING activities commenced in 1930 when I was using a 9-tube Temple receiver. At the time, I did not belong to any DX clubs, and just "fished" for the stations which I heard. Without the aid of club bulletins, I missed many of the specials which were on and my only foreign station was HJN, Bogota, Colombia, which I happened to pick up during a broadcast for the I.D.A.

I continued this type of DXing until October, 1933, when I bought a 10-tube Lafayette receiver, and scrapped my old log of 415 stations to begin again. At about this time, I began to receive bulletins from several well-known clubs and my log began to grow rapidly. I went after the frequency checks by staying up all night the first seven days of each month.

Even with this success at increasing my log, I did not hear any foreigners. In fact, I never tried for them, since I had the idea that my location was poor and I wouldn't hear them anyway.

In December of this year, Robert Weaver came to my home and told me about the National Radio Club and its activities. I had known that the club existed in my town, but never looked it up. Upon hearing that fellows were hearing foreigners and learning when and where to tune for them, I got up

the following morning and tuned in Poste Parisien. This, as my first European station, gave me a big thrill. I then got in touch with Mr. Weaver, looked over his fine collection of foreign verifications, and joined the NRC.

Being personally acquainted with the president of the club and having the opportunity to compare notes with other DXers, I found this hobby more interesting than ever before. I began to put more time at the radio and soon was hearing the foreign stations which I had never dreamed of. Verifications began to come in and I was soon praising my club for helping me get the most out of my DXing. I took an interest in club affairs and, before the end of the first season, I was honored with an appointment as club Secretary, a post I have held ever since.

This year, in addition to my duties as Secretary, I am serving on the CPC. This is an experience which every listener should try during his DX career. Writing to the stations gets one acquainted with the various officials and engineers, and you soon feel that they are old friends.

Working on the CPC shows the DXer the trouble and care which must be taken in arranging special programs. In view of the many dedications every week, listeners can appreciate the amount of work which is put in by the various Courtesy Programs Committees of the different clubs. The all-night stations are making it very difficult to arrange specials on the affected frequencies. All of these things are encountered on the CPC, and it is good experience for any DXer.

We are now practically through the current season, and I now have a total of 903 stations in my log. This is quite different from my old log, which was compiled without the assistance of a progressive radio club. My advice, therefore, is for all DXers to belong to at least one club and save many hours of fruitless fishing.

Inter-Club

And What It Means

Editor's Note: The December and February issues of RADEX were dedicated to the Newark News Radio Club and the International DXers Alliance. Carrying on, we are pleased to dedicate the April number to another progressive DX society, the National Radio Club, with the presentation of articles by some of its officers and members.

AS ONE of the founders of the Inter-Club Cooperation Plan, we of the National Radio Club believe that we are justified in expressing our views upon this matter.

From the very outset of our organization, we believed that something should be done to bring about a working agreement between the various clubs. We were determined that we would do our best to promote any plan which would, in our opinion, result in a different attitude between the radio clubs and their Courtesy Programs Committees.

During the first year of our existence, a very remarkable friendship sprang up between the NRC and the Globe Circlers Radio DX Club, at that time under the guidance of Hunt Von Gottschalck. Our clubs reached an agreement whereby we publicized each other's tips and did everything in our power to clear channels for our special DX programs. This arrangement proved mutually satisfactory to

Warren Routzahn

Cooperation

to the National Radio Club

By R. H. Weaver, President

both clubs and convinced us that we were on the right track.

The NRC stressed cooperation with all clubs during its first year and has continued to do so ever since. However, as most DXers are aware, there wasn't any organization in those days which could be compared to the ICCP under which all clubs are operating this season. Consequently, while we established many friendships with other clubs, we could only count on genuine cooperation from one other organization.

In the spring of 1934, we contacted the CPC Chairman of the CDXR, Elwin Bullard, relative to the possibility of cooperation with their club. While NRC and CDXR had been exchanging tips from week to week, announcements of specials had never been received far enough in advance to prevent clashing of programs. As a result, we tried out an arrangement similar to that which had been in effect between NRC and GCDXC, and found that it worked quite satisfactorily.

That summer, Mr. Bullard visited the writer and we discussed the possibilities of an inter-club cooperation plan. Upon his return to his home in Drummondville, Que., Mr. Bullard proceeded to draw up an agreement which was endorsed by several clubs and followed through during the 1934-35 season.

The results obtained from this experiment convinced us that we had the correct solution to the prevention of conflicting DX programs. Also, we believed that we had the necessary link to establish a chain of close friendship and cooperation between all clubs. After a few changes in the agreement, we were elated to find

Robert H. Weaver

that all clubs were organized for the current season.

With a few minor exceptions, the ICCP has made it possible to eliminate all conflicting programs this season. There is a true feeling of good fellowship between the clubs. Finally, the stations themselves have benefited, for at last they can put on a DX program without the fear of having it spoiled by two or three other stations on the same channel at the same time.

Therefore, we feel that the Inter-Club Cooperation Plan, as it has been in operation this season, will pave the way for the growth of DXing on a larger scale. We believe that many of the old-time DXers will return to the fold and that many stations, heretofore reluctant to cooperate with DX clubs, will transmit special programs of unusual interest. We are confident that the various DX clubs will grow more friendly in their relations and that petty quarrels will be a thing of the past.

The National Radio Club feels that at last it has seen the fulfillment of a long-hoped-for dream, and that the DX game has been aided tremendously by this universally accepted plan. We believe that it will mean the dawn of a new era for DXers everywhere.

The All-Night Station Menace

● ● ● *By* ALFRED W. OPPEL, NRC Associate Editor

AS WE all know to our dismay, there has been a tendency during the past few years for a decided increase in the numbers of all-night stations.

With a few possible exceptions, these twenty-four hour schedules are to be traced to what we term the depression. Stations which had operated at a profit during boom times, or at least earned their investment, have been forced to seek additional revenue elsewhere to combat decreased earnings.

The only solution, they deduced, was to increase their hours of operation. As a result of DX programs and transmitter tests, they realized that a vast audience — motorists, lunch wagons and all-night restaurants, taxi-drivers, night clubs, etc.—welcomed music from local and semi-distant stations. After receiving FCC sanction to operate from 18 to 24 hours daily, these stations immediately saw that the early-morning programs could be commercialized.

As a result, we find KTM, XERA, WHN, XEFL, KGFJ, WEDC, WNEW, KFAC, WEXL, KRE, KGGC, WJBK and others maintaining schedules most of the night. Forerunners of this aggregation were KTM, KGFJ and WEXL. It is unlikely that there is a DXer in this or adjoining countries who is not seriously affected by at least one of these stations when dialing for distant stations.

This condition is especially hard on the new DXer, since many comparatively easy stations are blocked. Even so, the old-timers who have these stations "in their baskets" are trying to log the new broadcasters and find the respective channels affected by the all-nighters.

It is unfortunate that this situation should reach its crest at the very

Alfred W. Oppel

time when inter-club cooperation has brought DXing to a new era. Consequently, it behooves DXers to make a concentrated move to combat the problem and the National Radio Club has gone on record as urging its members to bring the matter to the attention of the Federal Communications Commission, explaining their reaction to blocked channels and asking help in eliminating this condition by a possible segregation of all-night stations on special frequencies.

To complicate matters, there is much to be said in defense of most all-nighters, Mexicans excepted.

Several years ago, I visited a number of small mid-Western stations, one of which was the forerunner of this all-night movement. I asked the manager if it paid to broadcast after midnight, day after day, and he replied, "Definitely, yes!" He went on to point out that a staff of ten persons was existing by virtue of these late programs. If this broadcasting period were taken away from the station, competition

from larger near-by stations would put his organization out of business.

A glance at a list of all-night stations will show that all of them are in zones, or areas, where competition from larger stations is very keen.

An example of early-morning operation at a profit is that of WHN, which broadcasts from 11:30 PM to 4:30 AM daily. Just to keep this program on the air, it requires twenty-four employees: five clerks, twelve telephone operators, two alternating night managers, two engineers, an account service executive, a master of ceremonies and an all-night elevator operator. Add to this the weekly purchase of 200 new recordings, thirty telephone trunk lines used, and see a total of 182 telegrams and 20,252 phone calls received after midnight during November—and it looks as though these programs may be worth-while after all.

Concentrated complaints by the petition method may force the discontinuance of such a program, but how many listeners would care to be responsible for the loss of employment of all these people, merely because we want to hear another station on the 1010 kcys channel?

My personal experience and observations have shown that a number of DXers are inclined to be unreasonable in their demands from stations. They DEMAND verifications, without even enclosing return postage; they DEMAND that stations sign off for a period so that they can hear another program; they DEMAND the end of all-night broadcasting; in fact, they DEMAND the elimination of anything which interferes with their DXing pleasure.

If *requests* were written in a more diplomatic vein, I believe that listeners would find that a majority of the stations would be willing to cooperate in anything within reason. It is my belief that the only solution to the matter lies in a concentrated appeal by the entire DXing fraternity—under the guidance of their radio clubs—to the all-night stations, *requesting* that a certain period each week, or each month, be set aside for interference-free reception of stations on the same channels.

Already several stations have proven their willingness to cooperate in such a manner. WEDC, Chicago, stands by every Tuesday morning; WEXL, Royal Oak, Mich., has stood by for a number of specials, is silent on Sunday mornings and signs off at 04:00 EST weekdays; and WJBK, Detroit, has promised the NNRC to stand by for important specials on 1500 kcys. WSMK, Dayton, Ohio, left the air during its former all-night programs for a special NRC dedication, although they stated that they could not be expected to do this regularly, since they were losing revenue while they were off the air.

Tuning *the* Foreigners

●●● *By* Walter C. Birch

DURING the past few years, when the eyes of the radio world have been focussed on the amazing advances made in the field of short wave communication, the progress of the medium wave broadcasters has received but scant consideration, even from those well versed in other fields of radio.

In this locality, and northward to the Maritime Provinces, it is not unusual to hear of DXers who have verified 100 or more medium wave stations in Asia, Australia, New Zealand, North Africa, Europe and South America. I have never heard a complete explanation as to why we experience such marvelous reception, but it is my opinion that the low resistivity of the ground, as measured in meter-ohms, is one of the prime factors. And, of course, our geographical situation plays a very important part.

While reception from Australia and the Orient is highly seasonal and quite uncertain, reception from Europe is more or less of a certainty during

the fall and winter months. Often more than 40 of these T. A. transmitters can be logged during a 24-hour period.

However, our reception from South America is a year-round affair. In fact, quite a few of these stations are heard best during the summer months, at which time interference from U. S. stations to the West is usually at a minimum. As most of the S. A. stations operate on frequencies used by powerful U. S. broadcasters, it requires much patience to copy enough material to warrant asking for a verie. And next, try and get your reception verified! While many more S. A. stations are verifying this season, many stations evidently do not care for our reports.

Some of the larger stations usually are received well enough to enable me to enjoy them for their programs, as well as DX value. The last hour of the broadcast from LR5 is devoted to dance music by one of the leading South American bands, and most of the popular American music is featured along with a few Argentine numbers. During our summer months, LR5 broadcasts the performances of the Buenos Aires Symphony Orchestra on Saturday nights.

In my estimation, the finest South American programs are to be heard over the new Brazilian station PRF4. And, best of all, they carry but little advertising matter during the evening hours.

At present, the best Uruguayan transmitter is CX16, but the programs are nothing unusual. Pity the poor Uruguayan! His radio program usually carries about 4000 words of advertising each hour. However, the government owns two stations, CX6 and CX8, over which non-commercial programs are broadcast.

Under Uruguayan law, the owner of a theater is liable to a fine of 100 pesos if he refuses a broadcaster permission to carry any performance.

In an attempt to clear up the S.A. broadcast allocations, a South American Regional Conference on radio broadcasting was held in Buenos Aires in April, 1935. The decisions of this conference have caused quite a change in South American frequencies. While it is difficult to say how these re-allocations will affect our DX, we all hope for the best.

Beg Pardon.

In our roster of the DX Clubs published last month, we made several errors with respect to the Newark News Radio Club. Milton W. Fleischman is Secretary; the dues are $2.00 a year instead of $1.50; and the official organ is a weekly bulletin.

Newsy Notes

That old-time station, WOS, Jefferson City, Mo., is to go off the air in favor of a police shortwave station for which the same licensee, the Missouri State Highway Patrol, has been granted a permit.

KFRU, Columbia, Mo., will take over the time on 630 kcs. to be relinquished by WOS, sharing equally with WGBF. KFRU was sold recently to L. L. Hill, former Des Moines stockbroker.

WNBR has been sold to the Memphis Commercial Appeal which also operates WMC. WNBR may become a second NBC outlet in Memphis.

The NBC has signed up WFBC, Greenville, S. C., and WCSC, Charleston. The stations will carry both Red and Blue programs.

Highest billings in history were announced by NBC-Red and the CBS networks for January, 1936. The two chains divide over $3,700,000.00 between them for the month.

Paul J. Potter, speaker on Los Angeles stations on DX topics, died in February. He was 28.

Application for a new station in Birmingham was filed by the Birmingham News on Febuary 18. The paper asked for 500 watts night and 1,000 watts day on 590 kcs.

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-5:45 p.m., C-4:45, M-3:45, P-2:45
C — The Goldbergs
KFH KGKO KMBC KRLD KRNT KSCJ KTRH KTSA KVOR KWKH WAAB WABC WACO WBNS WBRC WBT WCAO WCCO WHAS WIBW WJAS WJR WKBW WKRC WMBD WOC WREC

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C — Buck Rogers 25th Century
KFAB KMBC KMOX KRLD KRNT WAAB WABC WBBM WCAO WCAU WCCO WFBL WHAS WHK WJAS WJR WJSV WKBW WKRC WOKO

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

E-6:45 p.m., C-5:45, M-4:45, P-3:45
B — Lowell Thomas
CRCT KDKA WBAL WBZ WBZA WFLA WIOD WJAX WJZ WLW WMAL WOOD WRVA WSYR WTAM WXYZ

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

C — Buck Rogers 25th Century
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

R — Amos 'n' Andy
CRCT KSD KYW WBEN WCAE WCSH WEAF WEEI WFBR WGY WJAR WLW WRC WTAG WTAM WTIC WWJ

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Ted Husing and Charioteers
CFRB KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG WABC WBBM WCAO WCAU WCCO WEAN WFBL WFBM WGR WJAS WJSV WKRC WNAC WOKO

R — Uncle Ezra's Radio Station
KYW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WHIO WIRE WJAR WMAQ WOW WRC WSAI WTAG WTAM

B — Ivory Stamp Club
KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WJZ WMAL WMT WSYR WXYZ

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

B — Lum and Abner
WBZ WBZA WENR WGAR WJZ WLW WSYR

R — Edwin C. Hill
KSD WCKY WCSH WEAF WHIO WIRE WMAQ

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

C — Goose Creek Parson
KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOIN KOL KSL KVI KWG

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 WCHS WCSC WDBJ WDNC WDOD WDRC WEAN WFBC WFBL WGR WHEC WHP WIBX WICC WJAS WJSV WLAC WLBZ WMAS WMBG WNAC WNBF WNOX WOKO WORC WPG WREC WSJS WWL WWVA

R — Hammerstein's Music Hall
KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WHO WHIO WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WWJ

B — Fibber McGee and Molly
KDKA KDYL KFI KFSD KFYR KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTBS KVOO WAVE WBAL WBZ WBZAWCKY WDAY WEBC WFAA WFIL WGAR WHAM WIBA WIRE WJDX WJZ WKY WLS WMAL WMC WMT WOAI WREN WSB WSM WSMB WSYR WTMJ WXYZ

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

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

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

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

R — A. & P. Gypsies
KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WGY WHO WHIO WIRE WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WWJ

B — Sinclair Greater Minstrels
KDKA KDYL KFYR KOA KOIL KPRC KSO KSTP KTBS KTHS

MONDAY (*Continued*)

KVOO KWK WBAL WBZ WBZA WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WIS WJAX WJDX WJZ WKY WLS WLW WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSUN WSYR WTAR WTMJ WWNC WXYZ

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

R—Sigmund Romberg; Deems Taylor
KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KTHS KVOO KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA WFBR WGY WHO WIBA WJAR WKY WLW WMAQ WOAI WOW WRC WTAG WTAM WTIC WTMJ WWJ

B — A Tale of Today
KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WJZ WMAL WMT WREN WSYR WXYZ

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

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

R — Contented Program
CFCF CRCT KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WFLA WGY WHO WIOD WIS WJAR WJAX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSAI WSB WSM WTAG WTAM WTAR WTIC WWJ WWNC

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

C — Public Opinion
CFRB CKAC KFH KFPY KLRA KRNT KSCJ KTRH KTSA KVOR KWKH WAAB WABC WACO WADC WALA WBIG WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WFBL WFBM WFEA WGR WHAS WHEC WHP WIBW WIBX WISN WJAS WJSV WKBN WKRC WLAC WLBZ WMAS WMBD WMBR WMMN WNAX WNOX WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSMK WSPD WTOC

C — Goose Creek Parson
KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOIN KOL KSL KVI KWG

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

C — Dance Orchestra
CFRB CKAC WAAB WABC WADC WCAO WCAU WDRC WFBL WFEA WHEC WHK WIBX WJAS WKBN WKBW WLBZ WMAS WOKO WORC WPG WSBT WSPD

C — Myrt and Marge
KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KSL KTRH KVI KWG WALA WBBM WBRC WCCO WFBM WGST WHAS WLAC WREC WSFA WWL

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

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

C — Singing Sam
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

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

C — Dance Orchestra
CFRB CKAC KLRA WAAB WABC WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WIBX WICC WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBG WMBR WNOX WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

C — Pick and Pat
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

R — Voice of Firestone
KDYL KFI KFSD KGHL KGIR KGU KGW KHQ KOA KOMO KPO KTAR

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

B — Helen Hayes; Drama
KDYL KFI KGW KHQ KOA KOMO KPO

TUESDAY

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

C — The Goldbergs, See Monday

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

C — Benay Venuta, Songs
KFH KGKO KLRA KLZ KMBC KOMA KRLD KRNT KSCJ KTRH KTSA KVOR KWKH WABC WACO WALA WBBM WBIG WBRC WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WESG WFBL WFEA WGR WGST WHEC WHP WIBX WJR WKBN WLAC WLBZ WMAS WMBD WMBG WMBR WNOX WOC WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC WWL

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

C — News of Youth
KMOX WAAB WABC WADC WALA WBBM WBNS WBRC WCAO WCAU WDBO WDRC WEAN WFBL WFEA WHP WICC WKBN WLBZ WMAS WMBG WMBR WOKO WORC WSBT WSFA WWVA

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

B — Lowell Thomas, See Monday

C — Renfrew of the Mounted
KFAB KFH KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTUL KWKH WABC WADC WBBM WBNS WCCO WDRC WFBM WHEC WIBX WICC WISN WJSV WKBN WKBW WMAS WMBG WNAC WNBH WREC WSMK WSPD WWVA

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

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

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

C — Krueger Musical Toast
WABC WBIG WBT WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFEA WGR WGST WIBX WICC WJSV WLBZ WMAS WMBG WMBR WNAC WNBF WNOX WOKO WORC WQAM WTOC

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

C — Kate Smith
KFAB KMBC KMOX KRLD KRNT KTRH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDRC WEAN WFBL WFBM WGR WGST WHAS WHK WISN WJAS WJR WJSV WKBN WKRC WLBZ WMAS WMBG WMBR WNAC WOKO WWL WWVA

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

C — Renfrew of the Mounted
KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOIN KOL KSL KVI KWG

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

C — Frank Munn; Lucy Monroe
KFAB KMBC KMOX KRNT WABC WADC WBBM WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHK WJAS WJR WJSV WKRC WNAC WOKO WSPD

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

B — Eno Crime Clues
KDKA KOIL KSO WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WLW WMAL WMT WREN WSYR WXYZ

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

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

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

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

C — Walter O'Keefe; Glen Gray
KFAB KFH KGKO KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KTUL KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WJAS WJR WJSV WKBN WKBW WKRC

TUESDAY (*Continued*)

WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNAX WNOX WOKO WORC WOWO WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL

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

B — Ben Bernie and Orchestra
KDKA KOIL KPRC KSO KTBS KTHS KVOO KWK WBAL WBAP WBZ WBZA WFIL WFLA WGAR WHAM WIOD WIS WJAX WJZ WKY WLS WLW WMAL WMT WOAI WPTF WREN WRVA WSOC WSYR WTAR WWNC WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — Fred Waring's Pennsylvanians
CFRB CKAC KFAB KFH KGKO KLRA KLZ KMBC KMOX KOH KOMA KRLD KSCJ KSL KTRH KTSA KTUL KVOR KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WCOA WCSC WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBH WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBR WNAC WNAX WNBF WNOX WOC WOKO WORC WOWO WPG WQAM WREC WSBT WSFA WSJS WSPD WTOC WWL

R — Texaco Fire Chief
KDYL KFI KFSD KFYR KGHL KGIR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KTHS KVOO KYW WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WLFA 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 WTIC WTMJ WWJ WWNC

B — Helen Hayes, Drama
KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WJZ WMAL WMT WREN WSYR WXYZ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Parties at Pickfair
KFAB KFH KLRA KLZ KMBC KMOX KOMA KRLD KRNT KSL KTRH KTSA KTUL KWKH WABC WACO WADC WBBM WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDOD WEAN WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WLAC WMBG WMBR WNAC WOKO WQAM WREC WTOC WWL

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

E-10:30 p.m., C-9:30, M-8:30, P-7:30
R—Jimmy Fidler; Hollywood Gossip
KDYL KFI KGW KHQ KOMO KPO KPRC KSD KTBS KTHS KYW WAPI WAVE WBEN WCAE WCKY WCSH WDAF WEAF WEEI WFAA WFBR WGY WJAR WJDX WKY WMC WOAI WOW WRC WSB WSM WSMB WTAG WTAM WTIC WWJ

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

C — Myrt and Marge, See Monday

R — Amos 'n' Andy, See Monday

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

C — Walter O'Keefe; Glen Gray
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOH KOIN KOL KSL KVI KVOR KWG

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

E-12:00 p.m., C-11:00, M-10:00, P-9:00
C — Fred Waring's Pennsylvanians
KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOH KOIN KOL KVI KWG

WEDNESDAY

E-5:45 p.m., C-4:45, M-3:45, P-2:45
C — The Goldbergs; See Monday

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
C — Myrt and Marge, See Monday

C — Buck Rogers, See Monday

R — Amos 'n' Andy, See Monday

B — Easy Aces, See Tuesday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Paris Night Life
KFAB KMOX KRNT WABC WBBM WBT WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WJAS WJSV WKRC WNAC WOKO WORC

R — Uncle Ezra, See Monday

B — Ivory Stamp Club, See Monday

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

R — Edwin C. Hill, See Monday

B — Lum and Abner, See Monday

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

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

R — One Man's Family
KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KVOO KYW WAVE WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFAA 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 WTIC WTMJ WWJ WWNC

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

R — Wayne King, See Tuesday

B — Armco Iron Master Program
KDKA KOIL KSO KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WLW WMAL WMT WREN WSYR WXYZ

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

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

B — Corn Cob Pipe Club
KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KSO KWK WBAL

Wednesday (*Continued*)

WBZ WBZA WCKY WFIL WGAR WHAM WHIO WIRE WJZ WLS WMAL WMT WREN WRVA WSYR WXYZ

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

B—Warden Lawes, Sing-Sing Drama
KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KSO KWK WBAL WBZ WBZA WCKY WENR WFIL WGAR WHAM WIRE WJZ WMAL WMT WREN WSYR WXYZ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Crime Crusade; Phil Lord
KFAB KLZ KMBC KMOX KOMA KRLD KRNT KSL KTRH KTSA KTUL KWKH WAAB WABC WBBM WBNS WBRC WBT WCAO WCAU WCBL WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WLAC WMBG WMBR WOKO WORC WOWO WQAM WREC WTOC WWL

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

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
C — Paris Night Life
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

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

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

E-12:00 p.m., C-11:00, M-10:00, P-9:00
R — Town Hall; Fred Allen
KDYL KFI KGW KHQ KOA KOMO KPO

THURSDAY

E-5:45 p.m., C-4:45, M-3:45, P-2:45
C — The Goldbergs, See Monday

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C — Vocals by Verrill
KFH KGKO KLRA KMBC KMOX KOMA KRLD KRNT KSCJ KTRH KTSA KVOR KWKH WAAB WABC WALA WBIG WBNS WBRC WBT WCAO WCAU WDAE WDBO WDNC WDOD WFBL WFBM WGST WHK WISN WJAS WJR WJSV WKBW WLAC WMBG WMBR WNOX WOKO WQAM WREC WSJS WTOC

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

E-6:45 p.m., C-5:45, M-4:45, P-3:45
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
B — Easy Aces, See Tuesday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Musical Toast, 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
C — Goose Creek Parson, see Monday

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Chrysler Airshow
KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSA KVI KWG KWKH WABC WBBM WBNS WBT WCAO WCAU WCCO WDAE WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WJAS WJR WJSV WKRC WMBR WNAC WOKO WQAM WWL

R — Rudy Vallee's Variety Hour
CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KTAR KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WHO WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B — Pittsburgh Symphony
KDKA KOIL KPRC KSO KTBS KWK WAPI WAVE WBAL WBAP WBZ WBZA WCKY WENR WFAA WFIL WFLA WGAR WHAM WIOD WIRE WIS WJAX WJDX WJZ WKY WLS WMAL WMC WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSUN WSYR WTAR WWNC WXYZ

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C — Walter O'Keefe, See Tuesday
R — Maxwell House Show Boat
KDYL KFI KFSD KFYR KGHL KGIR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KTBS KYW WAPI WAVE WBAP WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WFLA WGY WHO WHIO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSAI WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

B — Death Valley Days
KDKA KOIL KSO KWK WBAL WBZ WBZA WFIL WGAR WHAM WJZ WLS WLW WMAL WMT WREN WSYR WXYZ

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

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Horace Heidt and Orchestra
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KTRH KTSA KTUL KVI KWG WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDBO WDRC WFBL WFBM WGST WHAS WHK WISN WJAS WJR WJSV WKBW WKRC WLAC WMBG WNAC WNAX WOC WOKO WQAM WREC WWL

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

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

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

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

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Dance Orchestra
CFRB CKAC KLRA WAAB WABC WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC

THURSDAY (*Continued*)

WHK WIBX WICC WJAS WJR WJSV WKBN WKBW WKRC WLAC WLBZ WMAS WMBG WMBR WNOX WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

C — Walter O'Keefe, See Tuesday

FRIDAY

E-5:45 p.m., C-4:45, M-3:45, P-2:45
C — The Goldbergs, See Monday

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
C—Renfrew of Mounted, see Tuesday

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

C — Buck Rogers, See Monday

R — Amos 'n' Andy, See Monday

E-7:15 p.m., C-6:15, M-5:15, P-4:15
C — Lazy Dan, Minstrel Man

CKAC KFAB KMOX KOMA KRNT WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WGST WHAS WHK WJAS WJR WJSV WKRC WMAS WMBG WNAC WOKO WSPD WWL

R — Uncle Ezra, See Monday

B — Ivory Stamp Club, See Monday

E-7:30 p.m., C-6:30, M-5:30, P-4:30
R — Edwin C. Hill, See Monday

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

C—Renfrew of Mounted, see Tuesday

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Flying Red Horse Tavern

KFAB KFH KMBC KMOX KRNT WABC WADC WBBM WBNS WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WIBW WICC WJAS WJR WJSV WKRC WLBZ WMAS WMBD WNAC WOC WOKO WORC WSPD

R — Cities Service Concert

CRCT KOA KPRC KSD KSTP KTBS KTHS KYW WBEN WCAE WCSH WDAF WEAF WEBC WEEI WFAA WFBR WGY WHO WHIO WIOD WJAR WKY WMAQ WOAI WOW WRC WRVA WSAI WTAG WTAM WTIC WTMJ WWJ

B — Irene Rich; Drama

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

E-8:15 p.m., C-7:15, M-6:15, P-5:15
B — Wendell Hall

CFCF KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WFIL WGAR WHAM WIRE WJZ WLS WMAL WMT WOOD WREN WSYR WXYZ

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

KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KOMA KRNT KSL KVI KWG WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WGR WGST WHAS WHK WJAS WJR WJSV WKRC WMAS WMBG WNAC WOKO WSPD WWL

B — Red Nichols and Orchestra

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

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

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

R — Frank Munn; Bernice Claire

KSD KYW WBEN WCAE WCSH WDAF WEAF WEEI WFBR WGY WJAR WLW WMAQ WOW WRC WTAG WTAM WWJ

B — Al Pearce and his Gang

KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KSO KWK WBAL WBZ WBZA WCKY WFIL WGAR WHAM WHIO WIRE WJZ WLS WMAL WMT WREN WSYR WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30
R — True Story Court

KDYL KFI KFSD KGW KOA KOMO KPO KSD KTAR KYW WBEN WCAE WCSH WEAF WEEI WFBR WGY WHO WHIO WJAR WMAQ WOW WRC WTAG WTAM WTIC WWJ

B — Fred Waring's Pennsylvanians

KDKA KDYL KFYR KOA KOIL KPRC KSO KSTP KTBS KTHS KWK WAPI WAVE WBAL WBZ WBZA WCKY WDAY WEBC WENR WFAA WFIL WFLA WGAR WHAM WHIO WIBA WIOD WIRE WIS WJAX WJDX WJZ WKY WMAL WMC WMT WOAI WOOD WPTF WREN WRVA WSB WSM WSMB WSOC WSYR WTAR WTMJ WWNC WXYZ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Richard Himber and Orchestra

KFAB KFH KLZ KMBC KMOX KOMA KRLD KRNT KSL KTRH KTSA KTUL WAAB WABC WADC WBBM WBNS WCAO WCAU WCCO WDBJ WDRC WFBL WFBM WGST WHAS WHK WIBX WJAS WJR WJSV WKBW WKRC WOKO WORC WSBT WSPD

R — Campana's First Nighter

KDYL KFI KFSD KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KVOO KYW WBEN WCAE WCSH WDAF WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WIOD WJAR WJAX WKY WKLW WMAQ WMC WOAI WOW WRC WRVA WSB WSM WSMB WTAG WTAM WTIC WTMJ WWJ WWNC

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — Bruna Castagna, Contralto

KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KVI KWG WABC WADC WBBM WBNS WCAO WCAU WCCO WDAE WDBO WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WMBG WMBR WNAC WOKO WQAM WSPD WWL

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
C — Dance Orchestra

CFRB CKAC KLRA KSCJ WAAB WABC WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WFBL WFEA WGST WHEC WHK WIBX WISN WJAS WJR WKBW WLAC WLBZ WMAS WMBD WMBG WMBR WNAX WNOX WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSMK WSPD WTOC

C — Lazy Dan, Minstrel Man

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

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

CFRB CKAC KLRA WAAB WABC WADC WALA WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFBM WFEA WGST WHAS WHEC WHK WIBX WICC WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBG WMBR WNOX WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

E-12:00 p.m., C-11:00, M-10:00, P-9:00
B—Fred Waring's Pennsylvanians

KFI KFSD KGHL KGIR KGW KHQ KOMO KPO KTAR

C — Richard Himber and Orchestra

KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOIN KOL KVI KWG

SATURDAY

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C — Frederic William Wile

KFH KGKO KLRA KLZ KMBC KMOX KOMA KRLD KSCJ KSL KTRH KTSA KVOR KWKH WAAB WABC WACO WADC WALA WBBM WBIG WBRC WBT WCAO WCCO WDAE WDBJ WDBO WDNC WDOD WESG WFBL WFBM WGST WHEC WHK WIBW WIBX WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMBG WMBR WNOX WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

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

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

SATURDAY (*Continued*)

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C — Atlantic Family; Frank Parker
WABC WADC WBIG WBNS WBRE WBT WCAO WCAU WCBA WDAE WDBJ WDBO WDRC WEAN WFBG WFBL WGBI WGR WGST WHEC WHK WHP WIBX WICC WJAS WMAS WMBG WMBR WNAC WNBF WOKO WORC WORK WQAM WRAK WSJS WTOC WWVA

C — Jack Hylton and Orchestra
KFAB KFH KLZ KMOX KRNT KSCJ KVOR WBBM WCCO WFBM WGL WIBW WISN WJR WMBD WOC

E-7:45 p.m., C-6:45, M-5:45, P-4:45
C—Renfrew of Mounted, see Tuesday

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C—Ziegfeld Follies; Fannie Brice
CKAC CKCL KFAB KLZ KMBC KMOX KOMA KRLD KRNT KSL KTRH KTSA KTUL KWKH WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WJAS WJR WJSV WKRC WLAC WLBZ WMBG WMBR WNAC WOKO WORC WQAM WREC WTOC WWL

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

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C — Chesterfield, See Wednesday

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

E-9:30 p.m., C-8:30, M-7:30, P-6:30
R — Shell Chateau; Al Jolson
KDYL KFI KFSD KFYR KGHL KGIR KGW KHQ KOA KOMO KPO KSD KSTP KTAR KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WEEI WFBR WGY WIBA WJAR WLW WMAQ WOW WRC WTAG WTAM WTIC WTMJ WWJ

B — National Barn Dance
KDKA KOIL KPRC KSO KTBS KTHS KVOO KWK WAPI WAVE WBAL WBAP WBZ WBZA WFIL WGAR WHAM WIRE WJDX WJZ WKY WLS WMAL WMC WMT WOAI WOOD WREN WSB WSMB WSYR WXYZ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — California Melodies
CFRB CKAC KFH KGKO KLRA KLZ KMBC KMOX KOMA KSCJ KTRH KTSA KVOR KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDNC WEAN WFBL WFBM WFEA WHAS WHEC WHK WIBX WICC WISN WJAS WJR WJSV WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNOX WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSMK WSPD WTOC

E-10:30 p.m., C-9:30, M-8:30, P-7:30
R—George Olsen; Ethel Shutta
KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KYW WAVE WBEN WCAE WCKY WCSH WDAF WDAY WEAF WMBC WEEI WFBR WGY WHIO WIBA WIRE WJAR WJDX WMAQ WMC WOW WRC WSB WSMB WTAG WTAM WTIC WTMJ WWJ

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

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

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

E-12:00 p.m., C-11:00, M-10:00, P-9:00
C—Ziegfeld Follies; Fannie Brice
KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOIN KOL KVI KWG

SUNDAY

E-11:30 a.m., C-10:30, M-9:30, P-8:30
C — Salt Lake Tabernacle Choir
KFH KGKO KLRA KLZ KMBC KOMA KRLD KSCJ KSL KTRH KTSA KWKH WACO WADC WALA WBIG WBNS WBRC WBT WCCO WDBO WDNC WDOD WDRC WFBL WFBM WFEA WGST WHAS WIBW WIBX WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBD WMBR WNAC WNAX WNOX WOKO WORC WQAM WREC WSBT WSMK WSPD WTOC

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

E-12:30 p.m., C-11:30, M-10:30, P-9:30
B — Radio City Music Hall
CFCF CRCT KDKA KDYL KFI KFYR KGO KGW KHQ KOIL KOMO KPRC KSO KVOO WAPI WBAL WBZ WBZA WCKY WDAY WEBC WGAR WHAM WIS WJDX WJZ WKY WMAL WOAI WREN WSMB WSYR WWNC

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

E-1:00 p.m., C-12:00, M-11:00, P-10:00
C — Church of the Air
KFH KGKO KLRA KOMA KRLD KSCJ KSL KTRH KTSA KVOR KWKH WABC WACO WALA WBNS WBT WCAO WCCO WDAE WDBJ WDBO WDOD WESG WFBM WGR WHAS WHEC WIBW WIBX WJAS WJSV WKBN WKRC WLAC WLBZ WMBD WMBR WOC WOKO WORC WPG WQAM WREC WSBT WSJS WSPD

E-1:30 p.m., C-12:30, M-11:30, P-10:30
C — Musical Footnotes
KMBC KMOX KRNT WABC WBBM WBNS WCAU WCCO WHAS WHK WJAS WJR WJSV WKBW WKRC WREC

E-1:45 p.m., C-12:45, M-11:45, P-10:45
C — Kaltenborn Edits the News
CFRB KFH KFPY KGKO KHJ KLRA KLZ KMBC KMOX KRLD KRNT KSCJ KSL KTRH KTSA KVOR KWKH WAAB WABC WADC WALA WBIG WBRC WBT WCAU WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WESG WFBL WGST WHAS WHK WHP WIBW WIBX WISN WJAS WJR WKBN WKBW WKRC WLAC WLBZ WMAS WMBD WMBG WMBR WMMN WNAC WNOX WOC WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

E-2:00 p.m., C-1:00, M-12:00, P-11:00
C — Leslie Howard's Matinee
KFAB KLRA KLZ KMBC KMOX KOMA KRLD KRNT KSL KTRH KTUL WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WLAC WNAC WOKO WOWO WREC WWL

B — Magic Key of RCA
CFCF CRCT KDKA KDYL KFI KFYR KGU KGW KHQ KOA KOIL

SUNDAY (*Continued*)

KOMO KPO KPRC KSO KSTP KTBS KTHS KVOO KWK WAPI WAVE WBAL WBZ WBZA WCKY WDAY WEBC WENR WFAA WFIL WFLA WGAR WHAM WHIO WIBA WIOD WIRE WIS WJAX WJDX WJZ WKY WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSYR WTAR WTMJ WWNC WXYZ

E-2:30 p.m., C-1:30, M-12:30, P-11:30
C — Jose Manzanares and Orchestra
KFAB KMBC KMOX KOMA KRLD KRNT KTRH WABC WADC WBBM WBT WCAO WCAU WCCO WDAE WDRC WEAN WFBL WFBM WHAS WHK WISN WJAS WJR WJSV WKBW WKRC WMBR WNAC WOKO WQAM WREC WSPD WWL

E-3:00 p.m., C-2:00, M-1:00, P-12:00
C — Philharmonic Symphony
CFRB CKAC KFH KGKO KLRA KLZ KOMA KRLD KSCJ KSL KTRH KTSA KVOR KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCCO WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WESG WFBL WFBM WFEA WGST WHAS WHEC WHK WIBW WIBX WICC WISN WJAS WJR WKBN WKBW WKRO WLAC WLBZ WMAS WMBD WMBG WMBR WNAC WNOX WOC WOKO WORC WQAM WREC WSBT WSJS WSMK WSPD WTOC

R — Harry Reser and Orchestra
KSD KYW WBEN WCAE WCKY WCSH WDAF WEAF WEEI WFBR WGY WHIO WIRE WJAR WMAQ WOW WRC WTAG WTAM WTIC WWJ

B — Your English
KDKA KDYL KFI KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTHS KVOO KWK WAPI WAVE WBAL WBZ WBZA WDAY WEBC WENR WFAA WFIL WFLA WGAR WHAM WIOD WJAX WJZ WKY WLW WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSYR WXYZ

E-4:00 p.m., C-3:00, M-2:00, P-1:00
Rev. Charles E. Coughlin
KFEL KNX KSFO KSTP KVOD KWK WATR WCAO WCAU WDRC WEAN WFBL WFEA WGAR WGR WHB WHO WICC WISN WJAS WJJD WJR WLBZ WLLH WLW WMAS WNAC WNBH WOKO WOL WOR WORC WOW WRDO

E-5:00 p.m., C-4:00, M-3:00, P-2:00
C — Abe Lyman and Orchestra
CFRB KFAB KMBC KMOX KRNT WAAB WABC WADC WBBM WCAO WCAU WCCO WDRC WEAN WFBL WFBM WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WOKO WSPD

E-5:30 p.m., C-4:30, M-3:30, P-2:30
C — Frank Crumit; Julia Sanderson
KFH KMBC KMOX KOMA KTUL WAAB WABC WADC WBNS WCAO WCAU WDRC WEAN WFBL WFBM WGR WHAS WHEC WHK WIBX WICC WJR WJSV WMAS WOKO WORC WSPD WWL WWVA

C — Jose Manzanares and Orchestra
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

E-6:00 p.m., C-5:00, M-4:00, P-3:00
C — Phil Spitalny and Orchestra
KFAB KFH KFPY KFRC KGB KGKO KHJ KLRA KLZ KMBC KMOX KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSA KTUL KVI KVOR KWKH WAAB WABC WADC WBBM WBIG WBNS WBRC WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDOD WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBN WKRC WLAC WLBZ WMAS WMBR WNAC WNOX WOC WOKO WORC WPG WQAM WREC WTOC WWL WWVA

E-6:30 p.m., C-5:30, M-4:30, P-3:30
C — Smiling Ed McConnell
KDB KERN KFAB KFBK KFH KFPY KFRC KGB KHJ KLZ KMJ KMOX KOIN KOL KRLD KRNT KSL KVI KWG WAAB WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDBJ WDRC WEAN WFBL WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WLAC WWL WWVA

E-6:45 p.m., C-5:45, M-4:45, P-3:45
C — Voice of Experience
KMOX WAAB WABC WADC WBBM WBT WCAO WCAU WCCO WDRC WEAN WFBL WFBM WHAS WHEC WHK WJAS WJR WKBW WKRC WSPD WWVA

E-7:00 p.m., C-6:00, M-5:00, P-4:00
C — Eddie Cantor
KFAB KFH KLRA KLZ KMBC KMOX KOMA KRLD KRNT KTRH KTSA KTUL KWKH WABC WADC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDOD WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WICC WJAS WJR WJSV WKRC WLAC WNAC WOKO WOWO WREC WSPD WWL

B — Jack Benny; Johnny Green
CFCF CRCT KDKA KFYR KOIL KPRC KSO KSTP KTBS KVOO KWK WAVE WBAL WBZ WBZA WDAY WEBC WENR WFAA WFIL WFLA WGAR WHAM WIBA WIOD WIS WJAX WJDX WJZ WKY WLW WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSOC WSYR WTAR WTMJ WWNC WXYZ

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

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

B — Ozzie Nelson; Robt. L. Ripley
KDKA KDYL KFI KFYR KGW KHQ KOA KOIL KOMO KPO KPRC KSO KSTP KTAR KVOO KWK WBAL WBZ WBZA WCKY WDAY WEBC WFAA WFLA WGAR WHAM WIBA WIOD WJAX WJDX WJZ WKY WLS WMAL WMC WMT WOAI WPTF WREN WRVA WSB WSM WSMB WSYR WTMJ WWNC WXYZ

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

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C—World Dances; Lud Gluskin
KFAB KFH KFPY KLRA KLZ KMBC KMOX KOMA KRLD KRNT KTRH KTSA KTUL KWG KWKH WABC WADC WALA WBBM WBNS WBRC WBT WCAO WCAU WCCO WDOD WDRC WEAN WFBL WFBM WGR WGST WHAS WHEC WHK WHP WICC WJAS WJR WJSV WKRC WLAC WNAC WNAX WOC WOKO WOWO WREC WSPD WWL

R — Major Bowes' Amateur Hour
CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTAR KVOO KYW WAVE WBEN WBZ WBZA WCAE WCSH WDAF WDAY WEAF WEBC WFAA WFBR WFLA WGY WHO WIOD WIS WJAR WJAX WJDX WKY WLW WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

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

R — Manhattan Merry-Go-Round
CFCF KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCSH WDAF WDAY WEAF WEBC WFBR WGY WHO WHIO WIBA WJAR WMAQ WOW WRC WSAI WTAG WTAM WTIC WTMJ WWJ

B — Charles Previn; Olga Albani
KDKA KOIL KSO KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WLW WMAL WMT WREN WSYR WXYZ

E-9:30 p.m., C-8:30, M-7:30, P-6:30
R — Album of Familiar Music
CFCF CRCT KDYL KFI KFYR KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KYW WAPI WAVE WBEN WCAE WCSH WDAF

SUNDAY (*Continued*)

WDAY WEAF WEBC WEEI WFAA WFBR WFLA WGY WHO WHIO WIBA WIOD WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSAI WSB WSM WSMB WSOC WTAG WTAM WTAR WTMJ WWJ WWNC

B — Walter Winchell
KDKA KOIL KSO KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WLW WMAL WMT WREN WSYR WXYZ

E-9:45 p.m., C-8:45, M-7:45, P-6:45
B-Paul Whiteman's Musical Varieties
KDKA KOIL KSO KWK WBAL WBZ WBZA WENR WFIL WGAR WHAM WJZ WMAL WMT WREN WSAI WSYR WXYZ

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C—Freddie Rich and Orchestra
KDB KERN KFAB KFBK KFRC KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KSL KVI KWG WAAB WABC WADC WALA WBNS WCAO WCAU WCCO WDRC WFBL WFBM WHAS WHK WHP WIBW WJAS WJR WJSV WKBW WKRC WOC WOKO WSPD WWL

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

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — Understanding Opera
CFRB CKAC KGKO KLRA KOH KOMA KRLD KSL KTSA KTUL KWKH WABC WACO WADC WALA WBIG WBNS WBRC WBT WCAO WCAU WDAE WDBJ WDBO WDNC WDOD WDRC WEAN WFBL WFEA WGST WHEC WHP WIBX WICC WJAS WKBN WKBW WLAC WLBZ WMAS WMBG WMBR WMMN WNAC WOKO WORC WQAM WREC WSJS WSMK WTOC WWVA

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Eddie Cantor
KDB KERN KFBK KFPY KFRC KGB KHJ KMJ KOIN KOL KSL KVI KWG

R — The Melody Master
KYW WBEN WCAE WEAF WEEI WFBR WGY WJAR WMAQ WRC WTAG WTAM WTIC WWJ

R — Sunset Dreams; Morin Sisters
KDYL KFI KFSD KGW KHQ KOA KOMO KPO KPRC KTAR KTBS KTHS WBAP WDAF WKY

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

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Voice of Experience
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

B — Jack Benny; Johnny Green
KDYL KFI KFSD KGHL KGIR KGU KGW KHQ KOA KOMO KPO KTAR

B-Paul Whiteman's Musical Varieties
KECA KEX KFSD KGA KGO KJR KPRC KTBS KTHS WAPI WAVE WBAP WJDX WKY WMC WOAI WSB WSM WSMB

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

C — Leslie Howard; Drama
KDB KERN KFBK KFPY KFRC KGB KHJ KLZ KMJ KOIN KOL KSL KVI KWG

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

Armco Iron Master, 8:30 p.m. Wednesday, B
Ford Concert, 9:00 p.m. Sunday, C
General Motors Concert, 10:00 p.m. Sunday, R
Philharmonic Symphony, 3:00 p.m. Sunday, C
Pittsburgh Symphony, 8:00 p.m. Thurs., B
Radio City Music Hall, 12:30 p.m. Sunday, B
Understanding Opera, 10:30 p.m. Sun., C

DANCE BANDS

Victor Arden, 8:00 p.m. Thursday; 8:30 p.m. Friday, C
Ben Bernie, 9:00 p.m. Tuesday, B
Ray Block, 7:15 p.m. Tues. and Thurs., C
Jimmy Dorsey, 10:00 p.m. Thursday, R
Eddie Duchin, 9:30 p.m. Tues., R
Lud Gluskin, 8:00 p.m. Sunday, C
Al Goodman, 8:00 and 12:00 p.m. Sat., C
Benny Goodman, 10:00 p.m. Tuesday, R
Glen Gray, 9:00 and 11:30 p.m. Tuesday and Thursday, C
Johnny Green, 7:00 and 11:30 p.m. Sunday, B
Louis Gress, 7:00 p.m. Sunday, C
Lennie Hayton, 9:30 p.m. Thurs., C
Horace Heidt, 10:00 p.m. Thursday, C
Richard Himber, 5:45 p.m. Sun., R; 10 and 12 p.m. Fri., C
Carl Hoff, 8:00 p.m. Sat., R
Jack Hylton, 7:00 p.m. Sat., C
Hal Kemp, 7:30 p.m. Sunday, C
Wayne King, 10:00 p.m. Monday, C; 8:30 p.m. Tuesday and Wednesday, R
Benny Krueger, 8:30 p.m. Mon., C
Guy Lombardo, 8:00 p.m. Monday, C
Abe Lyman, 5:00 p.m. Sunday, C; 9:00 p.m. Friday, R
Al Lyons, 10:00 p.m. Tuesday, C
Jose Manzanares, 2:30 and 5:30 p.m. Sunday, C
Ozzie Nelson, 7:30 p.m. Sunday, B
Red Nichols, 8:30 p.m. Friday, B
Ray Noble, 9:30 p.m. Wednesday, C
George Olsen, 10:30 p.m. Saturday, R
Raymond Paige, 9:00 p.m. Friday, C
Charles Previn, 9:00 and 12:00 p.m. Sunday, B
Leo Reisman, 8:00 and 11:30 p.m. Tuesday, R
Harry Reser, 3:00 p.m. Sunday, R
Freddie Rich, 10:00 p.m. Sunday; 8:00 p.m. Friday, C
Phil Spitalny, 6:00 p.m. Sun., C
Rudy Vallee, 8:00 p.m. Thursday, R
Fred Waring, 9:30 and 12:00 p.m. Tuesday, C; 9:30 and 12:00 p.m. Friday, B
Paul Whiteman, 9:45 and 11:30 p.m. Sunday, B
Victor Young, 9:30 p.m. Saturday, R

DIALOG

Fred Allen, 9:00 and 12:00 p.m. Wednesday, R
Amos 'n' Andy, 7:00 and 11:00 p.m. daily, except Sat and Sun., 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 and 11:30 p.m. Wednesday, C
Eddie Cantor, 7:00 and 11:00 p.m. Sunday, C
Easy Aces, 7:00 p.m. Tues., Wed., and Thurs., B
Fibber McGee and Molly, 8:00 p.m. Monday, B
Lum and Abner, 7:30 p.m. daily, except Sat and Sun., B
Nine to Five, 7:15 p.m. Thursday B
Walter O'Keefe, 9:00 and 11:30 p.m. Tuesday and Thursday, C
Pick and Pat, 8:30 and 11:30 p.m. Monday, C
Ed. Wynn, 9:30 p.m. Thursday, C

DRAMA

Cavalcade of America, 8:00 p.m. Wednesday, C
Crime Crusade, 10:00 p.m. Wednesday, C
Death Valley Days, 9:00 p.m. Thursday, B
Eno Crime Clues, 8:00 p.m. Tuesday, B
First Nighter, 10:00 p.m. Friday, R
Goldbergs, 5:45 p.m. daily exc. Sat. and Sun., C
Helen Hayes, 12:00 mid. Monday, 9:30 p.m. Tues., B
Leslie Howard, 2:00 p.m. and 12 mid. Sunday, C
Warden Lawes, 9:30 p.m. Wednesday, B
Phillips Lord, 10:00 p.m. Wednesday, C
Lux Radio Theatre, 9:00 p.m. Monday, C
Myrt and Marge, 7:00 and 11:00 p.m. daily, except Sat. and Sun., C
News of Youth, 6:15 p.m. Tues., Thur., Sat., C
One Man's Family, 8:00 p.m. Wed., R
Parties at Pickfair, 10:00 p.m. Tues., C
Renfrew of the Mounted, 6:45 and 7:45 p.m. Tues., Fri., and Sat., C
Irene Rich, 8:00 p.m. Friday, B
Buck Rogers, 6:00 and 7:00 p.m. Mond., Wed., and Fri., C
A Tale of Today, 9:30 p.m. Mon., B
True Story Court, 9:30 p.m. Friday, R
Welcome Valley, 8:30 p.m. Tuesday, B

POPULAR PROGRAMS

A. & P. Gypsies, 9:00 p.m. Monday, R
Album of Familiar Music, 9:30 p.m. Sunday, R
Atlantic Family, 7:00 p.m. Saturday, C
Major Bowes, 11:30 a.m. and 8:00 p.m. Sunday, R
Broadway Varieties, 8:30 p.m. Friday, C
California Melodies, 10:00 p.m. Sat., C
Camel Program, 9:00 and 11:30 p.m. Tues. and Thurs, C
Chesterfield Program, 9:00 p.m. Wed. and Sat., C
Chevrolet Program, 9:00 p.m. Saturday, R
Cities Service Concert, 8:00 p.m. Friday, R
Contented Program, 10:00 p.m. Monday, R
Corn Cob Pipe Club, 9:00 p.m. Wednesday, B
Chrysler Airshow, 8:00 p.m. Thursday, C
Elgin Swing Time, 10:00 p.m. Tues., R
Evening in Paris, 8:30 p.m. Monday, B
Fireside Recitals, 7:30 p.m. Sunday, R
Fleischmann Variety Hour, 8:00 p.m. Thursday, R
Flying Red Horse Tavern, 8:00 p.m. Friday, C
Goose Creek Parson, 7:45 and 10:45 p.m. Mon., Thur., C
Hammerstein's Music Hall, 8:00 p.m. Monday, R
Hit Parade, 8:00 p.m. Saturday, R
Hollywood Hotel, 9:00 p.m. Friday, C
Krueger Musical, 7:15 p.m. Tuesday and Thursday, C
Magic Key of RCA, 2:00 p.m. Sunday, B
Manhattan Merry-Go-Round, 9:00 p.m. Sunday, R
Maxwell House Show Boat, 9:00 p.m. Thursday, R
Melody Master, 11:00 p.m. Sunday, R
Musical Footnotes, 1:30 p.m. Sunday, C
National Barn Dance, 9:30 and 11:00 p.m. Saturday, B
Paris Night Life, 7:15 and 11:15 p.m. Wednesday, C
Al Pearce and Gang, 9:00 p.m. Friday, B
Shell Chateau, 9:30 p.m. Saturday, R
Sinclair Minstrels, 9:00 p.m. Monday, B
Swift Studio Party, 9:30 p.m. Mon., R
Texaco Fire Chief, 9:30 p.m. Tuesday, R
Town Hall Tonight, 9:00 and 12:00 p.m. Wednesday, R
Uncle Ezra, 7:15 p.m. Mon., Wed., and Fri., R
Voice of Firestone, 8:30 and 11:30 p.m., Monday, R
Vox Pop, 9:00 p.m. Tuesday, R
Ziegfeld Follies, 8:00 p.m. Sat., C

SINGERS

Countess Olga Albani, 9:00 and 12:00 p.m. Sunday, B
Armida, 7:15 and 11:15 p.m., Wednesday, C
Connie Boswell, 9:30 p.m. Wednesday, C
Fannie Brice, 8:00 and 12:00 p.m. Sat., C
Bruna Castagna, 10:30 p.m. Fri., C
Patti Chapin, 8:00 and 12:00 p.m., Sat., C
Charlotteers, 7:15 p.m. Monday, C
Vivian Della Chiesa, 1:30 p.m. Sunday, C
Bernice Claire, 5:00 p.m. Sunday, C, and 9:00 p.m. Friday, R
Jerry Cooper, 7:15 p.m. Tuesday and Thursday, C
Bing Crosby, 10:00 p.m. Thursday, R
Crumit-Sanderson, 5:30 p.m. Sunday, C
Morton Downey, 10:30 p.m. Wed., C
Jessica Dragonette, 8:00 p.m. Friday, R
Phil Duey, 8:00 and 11:30 p.m. Tuesday, R
Mary Eastman, 10:45 p.m. Friday, C
Jack Fulton, 5:00 p.m. Sunday, R
Alexander Gray, 8:00 p.m. Thursday, C
Wendell Hall, 8:15 p.m. Friday, B
Al Jolson, 9:30 p.m. Saturday, R
Frances Langford, 9:00 p.m. Friday, C
La Prelle Bros., 8:30 p.m. Monday, C
Lazy Dan, 7:15 p.m. Friday, C
Pierre LeKreune, 7:15 and 11:15 p.m. Wed., C
Elizabeth Lennox, 8:30 p.m. Friday, C
Nino Martini, 9:00 p.m. Saturday, C
James Melton, 8:00 p.m. and 12:00 p.m. Sat., C
Luey Monroe, 8:00 p.m. Tuesday, C and 9:30p.m Sunday, 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
Donald Novis, 9:30 p.m. Tuesday, R
Frank Parker, 7:00 p.m. Saturday, C
Pickens Sisters, 8:30 p.m. Monday, B
Lily Pons, 9:00 p.m. Wednesday, C
Carmella Ponselle, 8:30 p.m. Friday, C
Dick Powell, 9:00 p.m. Friday, C
Eleanor Powell, 8:00 p.m. Friday, C
Virginia Rea, 9:00 p.m. Saturday, R
Lanny Ross, 9:00 p.m. Thursday, R
Fritzi Scheff, 8:00 p.m. Tuesday, C
Oscar Shaw, 8:30 p.m. Friday, C
Ethel Shutta, 10:30 p.m. Sat., R
Singin' Sam, 7:30 and 11:15 p.m. Monday, C
Smiling Ed McConnell, 6:30 p.m. Sunday, C
Kate Smith, 7:30 p.m. Tues., Wed., and Thurs., C
Oliver Smith, 5 p.m. Sunday, C
John Charles Thomas, 10:00 p.m. Wednesday, B
Benay Venuta, 6:00 p.m. Tuesday, C
Helen Ward, 10:00 p.m. Tues., R

TALKS

Boake Carter, 7:45 p.m. daily except Sat. and Sun., C
Rev. Charles E. Coughlin, 4:00 p.m. Sunday
Jimmy Fidler, 10:30 p.m. Tuesday, R
Edwin C. Hill, 7:30 p.m. Mon., Wed., Fri., R
Ted Husing, 7:15 p.m. Monday, C
Ivory Stamp Club, 7:15 p.m. Mon., Wed., and Fri., B
H. V. Kaltenborn, 1:45 p.m. Sun., C
Public Opinion, 10:45 p.m. Monday, C
Robert L. Ripley, 7:30 p.m. Sunday, B
Sidewalk Interviews, 9:00 p.m. Tuesday, R
Lowell Thomas, 6:45 p.m. daily except Sat. and Sun., B
Trans-Atlantic Broadcast, 12:45 p.m. Sunday, C
Voice of Experience, 6:45 and 11:30 p.m. Sunday, C
Frederic William Wile, 6:00 p.m. Saturday, C
Walter Winchell, 9:30 and 11:15 p.m. Sunday, B
Your English, 3:00 p.m. Sunday, B

LONG WAVE STATIONS BY FREQUENCIES

Kcys.	Meters	Power	Call	Location
155	1934	7.	LYT	Kovno, Lith.
158	1899	1.	.....	Julianhaab, Grn.
160	1874	7.5	PX2	Huizen, Neth.
		20.	.....	Brasov, Rum.
		50.	.....	Kootwijk, Neth.
166	1806	220.	OFB	Lahti, Finland.
172	1743	500.	RW1	Moscow, U.S.S.R.
182	1647	....	.....	DeBilt, Neth.
		75.	.....	Paris, France.
183	1638	16.	TFU	Reykjavik, Ice.
		1.	.....	Madrid, Spain.
185	1620	5.	TAL	Istanbul, Turkey.

LONG WAVE STATIONS BY FREQUENCIES

Kcys.	Meters	Power	Call	Location
188	1595	20.	RW14	Irkutsk, U.S.S.R.
191	1570	60.	.....	Berlin, Ger.
		60.	.....	Zeesen, Ger.
193	1553	5.	TAE	Angora, Turkey.
200	1499	150.	.....	Droitwich, G. B.
		.5	.....	Godhavn, Grn.
208	1441	60.	FLE	Paris, France.
		35.	RW10	Minsk, U.S.S.R.
		16.	TFU	Reykjavik, Ice.
216	1388	150.	SBG	Motala, Sweden.
218	1375	100.	RW76	Novorossisk, U.S.S.R.
224	1338	.125	KCDJ	Livingston, Mont.
		.5	SP1	Warsaw, Poland.
		150.	.....	Warsaw, Poland.
		1.2	WSG	LaCrosse, Wisc.
		1.2	WWAT	Birmingham, Ala.
		...	WWQ	Bellefonte, Pa.
227	1321	10.	RW62	Irkutsk, U.S.S.R.
230	1304	.8	KCAF	Albuquerque, N.Mex.
		1.2	KCAK	Shreveport, La.
		1.2	WWAR	Jackson, Mich.
		150.	.....	Luxembourg.
232	1292	20.	RW4	Kharkov, U.S.S.R.
236	1270	...	.....	U. S. Common Wave.
238	1260	10.	RW8	Baku, U.S.S.R.
		60.	.....	Kalundborg, Den.
242	1239	1.2	KCAO	El Paso, Texas.
		1.2	KCV	Oakland, Calif.
		...	.....	Harrisburg, Pa.
245	1224	100.	RW53	Leningrad, U.S.S.R.
248	1209	.05	CYW	Strathburn, Ont.
		1.2	KCAG	Amarillo, Texas.
		2.	VFT	Red Deer, Alta.
		.8	WFT	Spartanburg, S. C.
		1.2	WWBF	Mobile, Ala.
250	1205	2.	.....	Scheveningen, Neth.
254	1180	...	KCAV	Springfield, Mo.
		1.2	KCAW	San Antonio, Tex.
		1.2	KLK	Reno, Nevada.
		1.2	WWAP	Pittsburgh, Pa.
		1.2	WWBC	Titusville, Fla.
256	1170	25.	RW11	Tashkent, U.S.S.R.
260	1153	1.5	KCZ	Seattle, Wash.
		60.	LKO	Oslo, Norway.
		1.2	WNR	Richmond, Va.
		1.2	WWAQ	Jackson, Miss.
266	1127	1.2	KCAE	Winslow, Ariz.
		1.2	KCAQ	Minneapolis, Minn.
		1.2	KCX	Medford, Ore.
		1.2	WHZ	Atlanta, Ga.
		1.2	WSX	Boston, Mass.
		1.2	WWAB	Buffalo, N. Y.
270	1100	.5	.....	Godthaab, Grn.
271	1107	100.	RCZ	Moscow, U.S.S.R.
		100.	RW43	Moscow. U.S.S.R.
272	1102	1.2	KCAJ	Little Rock, Ark.
		1.2	KIS	Iowa City, Iowa.
		1.2	WWAF	Miami, Fla.
		1.2	WWX	Washington. D. C.
			.....	Burley, Idaho.
278	1078	...	KCCR	Fontana, Calif.
		...	.....	Acomita, N. Mex.
		...	.....	Bitter Creek, Wyo.
		...	.....	Canadian, Texas.
		...	.....	Daggett, Calif.
		...	.....	Hartford, Conn.
		...	.....	Maine, Ariz.
		...	.....	Mt. Shasta, Calif.
		...	.....	North Dalles, Wash.
		...	.....	Otto, N. Mex.
		...	.....	Palmdale, Calif.
		...	.....	Sherman Hill, Wyo.
		...	.....	York, Nebr.
284	1056	1.2	KCAC	Butte, Mont.
		1.2	KVM	North Platte, Nebr.
286	1048	35.	RW7	Tiflis, U.S.S.R.
290	1034	1.2	KCQ	St. Louis, Mo.
		1.2	KDN	Rock Springs, Wyo.
296	1013	1.2	KCAA	Tulsa, Okla.
302	993	1.2	KCAR	Pueblo, Colo.
309	970	2.	.....	Soro, Denmark.
310	968	10.	RW60	Alma Ata, U.S.S.R.
314	955	2.	VFR	Maple Creek, Sask.
		2.	VFU	London, Ont.
320	937	.05	CE32	Los Andes, Chile.
		1.2	KCAT	Milford, Utah.
		1.2	KJF	Omaha, Nebr.
		.15	WWIE	Goshen, Ind.
		...	WRW	Greensboro, N. C.
326	920	1.2	KCAP	Big Spring, Tex.
		1.2	KSG	Cheyenne, Wyo.
		2.	VFS	Lethbridge, Alta.
		.05	VXR	Jarvis, Ont.
		...	WWAU	Memphis, Tenn.
332	903	1.2	KCAU	Houston, Tex.
		1.2	KCY	Portland, Ore.
		1.5	VFN	St. Hubert, Que.
		2.	VFP	Forrest, Man.
		1.2	WBP	Key West, Fla.
		1.2	WEK	Wichita, Kans.
		1.2	WWAS	Cincinnati, O.
		1.2	WWAW	Charleston, S. C.
333	900	10.	RW19	Ashkhabad, U.S.S.R.
		1.	RW66	Krasnovarsk, USSR.
338	887	1.2	KCAM	Tucson, Ariz.
		1.2	KGD	Salt Lake City, Utah
		1.2	WWAG	New Orleans, La.
		.8	WWHS	Chattanooga, Tenn.
		1.2	WWU	Newark, N. J.
340	882	20.	RW3	Saratov, U.S.S.R.
344	872	1.2	KCS	Pasco, Wash.
		1.2	KCU	Fresno, Calif.
		1.2	WWAV	Jacksonville, Fla.
		1.2	WWO	Cleveland, Ohio.
350	857	1.2	KCAH	Kingman, Ariz.
		.05	KCCA	Oklahoma City
		1.2	KCR	Boise, Idaho.
		1.2	KDA	Chicago, Ill.
		10.	RW63	Verkhneoudinsk USR
		1.2	WWBI	Raleigh, N. C.
355	845	10.	LKI	Finnmark, Nor.
		20.	RW12	Rostov, U.S.S.R.
359	835	1.2	KCAD	Idaho Falls, Idaho.
		1.2	KRC	Kansas City, Mo.
360	834	18.	HAC	Budapest, Hung.
		18.	HAL2	Budapest, Hung.
364	824	2.	RW24	Smolensk, U.S.S.R.
365	821	1.2	KCAN	Fargo, N. D.
		.6	KCAS	Spokane, Wash.
		1.2	KKJ	Ft. Worth, Tex.
370	810	10.	RW21	Erivan, U.S.S.R.
371	808	.125	KCDH	Helena, Mont.
375	800	40.	RW5	Sverdlovsk, U.S.S.R.
385	779	1.2	WWAC	Nashville, Tenn.
		1.2	WWIF	Elmira, N. Y.
		...	.....	Ellensburg, Wash.
390	769	4.	RW27	Makhatch, U.S.S.R.
391	766	...	KOJ	Elko, Nev.
392	763	30.	.....	Banska Bystrica, Cz.
		.6	SBE	Boden, Sweden.
401	748	100.	RW49	Moscow, U.S.S.R.
		1.25	.....	Geneva, Switz.
414	726	10.	RW25	Voronezh, U.S.S.R.
		.6	SBF	Ostersund, Swe.
421	712	2.	RW47	Stalinabad, U.S.S.R.
436	688	10.	RW37	Oufa, U.S.S.R.
450	667	1.	RW83	Oiret Tura, U.S.S.R.
472	636	1.	RW41	Syktykvar. U.S.S.R.
		1.2	RW44	Omsk, U.S.S.R.
		1.	RW74	Tcheboksary, USSR.
477	629	20.	.....	Lisbon, Port.
510	588	.7	LKH	Hamar Norway.
519	578	.5	.....	Innsbruck, Aust.
527	569	10.	OFH	Viipuri, Fin.
		3.5	.....	Grenoble, France.
		5.25	.....	Ljubljana, Yugo.
531	565	5.	.....	Brese, Poland.
536	560	1.	I1BZ	Bolzano, Italy.
		16.	SP10	Wilna, Poland.

LONG WAVE STATIONS BY LOCATIONS

AUSTRIA

Innsbruck 519
Vienna 240

CANADA

ALBERTA

Lethbridge
VFS 326
Red Deer
VFT 248

MANITOBA

Forrest
VFP 332

ONTARIO

Jarvis
VXR 326
London
VFU 314
Strathburn
CYW 248

QUEBEC

St. Hubert
VFN 332

SASKATCHEWAN

Maple Creek
VFR 314

CHILE

Los Andes
CE32 320

EUROPE

CZECHO-SLAVAKIA

Banska Bystrica 392

DENMARK

Kalundborg 238
Soro 309

FINLAND

Lahti
OFB 166
Oleaborg
OFF 431
Viipuri
OFH 527

FRANCE

Grenoble 527
Paris
FLE 208
..... 182

GERMANY

Berlin 191

GREAT BRITAIN

Droitwich 200

GREENLAND

Godhavn 200
Godthaab 270
Julianhaab 158

HUNGARY

Budapest
HAC 360
HAL2 360

ICELAND

Reykjavik
TFU 208

ITALY

Bolzano
IIBZ 536

LITHUANIA

Kovno
LYU 155

LUXEMBOURG

Luxembourg 230

NETHERLANDS

De Bilt 182
Huizen
PX2 160
Kootwijk 160
Scheveningen 250

NORWAY

Finnmark
LKI 355
Hamar
LKH 510
Oslo
LKO 260

POLAND

Brese 531
Warsaw 224
SP1 224
Wilna
SP10 536

PORTUGAL

Lisbon 477

RUMANIA

Brasov 160

SPAIN

Madrid 183

SWEDEN

Boden
SBE 392
Motala
SBG 216
Ostersund
SBF 414

SWITZERLAND

Geneva 401

TURKEY

Angora
TAE 193
Istanbul
TAL 185

USSR

Alma Ata
RW60 310
Ashkhabad
RW19 333
Baku
RW8 238
Erivan
RW21 370
Iakutsk
RW14 188
RW62 227
Kharkov
RW4 232
Krasnovarsk
RW66 333
Leningrad
TW53 245
Makhatch
RW27 390
Minsk
RW10 208
Moscow
RCZ 271
RW1 172
RW49 401
RW43 271
Novorossisk
RW76 218
Oiret Tura
RW83 450
Omsk
RW44 472
Oufa
RW37 436
Rostov
RW12 355
Saratov
RW3 340
Smolensk
RW24 364
Stalinabad
RW47 421
Sverdlovsk
RW5 375
Syktykvar
RW41 472
Tashkent
RW11 256
Tcheboksary
RW74 472
Tiflis
RW7 286
Verkhneoudinsk
RW63 350
Voronezh
RW25 414

YUGOSLAVIA

Liubljana 527

UNITED STATES

ALABAMA

Birmingham
WWAT 224
Mobile
WWBF 248

ARIZONA

Kingman
KCAH 350
Tucson
KCAM 338
Winslow
KCAE 266

ARKANSAS

Little Rock
KCAJ 272

CALIFORNIA

Fontana
KCCR 278
Fresno
KCU 344
Oakland
KCV 242

COLORADO

Pueblo
KCAR 302

DISTRICT OF COLUMBIA

Washington
WWX 272

FLORIDA

Jacksonville
WWAV 344
Key West
WBP 332
Miami
WWAF 272
Titusville
WWBC 254

GEORGIA

Atlanta
WHZ 266

IDAHO

Boise
KCR 350
Idaho Falls
KCAD 359

ILLINOIS

Chicago
KDA 350

INDIANA

Goshen
WWIE 320

IOWA

Iowa City
KIS 272

KANSAS

Wichita
WEK 332

LOUISIANA

New Orleans
WWAG 338
Shreveport
KCAK 230

MASSACHUSETTS

Boston
WSX 266

MICHIGAN

Jackson
WWAR 230

MINNESOTA

Minneapolis
KCAQ 266

MISSISSIPPI

Jackson
WWAQ 260

MISSOURI

Kansas City
KRC 359
St. Louis
KCQ 290
Springfield
KCAV 254

MONTANA

Butte
KCAC 284
Helena
KCDH 371
Livingston
KCDJ 224

NEBRASKA

North Platte
KVM 284
Omaha
KJF 320

NEVADA

Elko
KOJ 391
Reno
KLK 254

NORTH CAROLINA

Greensboro
WRW 320
Raleigh
WWBI 350

N. DAKOTA

Fargo
KCAN 365

NEW JERSEY

Newark
WWU 338

N. MEXICO

Albuquerque
KCAF 230

NEW YORK

Buffalo
WWAB 266
Elmira
WWIF 385

OHIO

Cincinnati
WWAS 332
Cleveland
WWO 344

OKLAHOMA

Kingman
KCCA 350
Oklahoma City
KCCA 350
Tulsa
KCAA 296

OREGON

Medford
KCX 266
Pendleton
KCDU 344
Portland
KCY 332

PENNSYLVANIA

Bellefonte
WWQ 224
Pittsburgh
WWAP 254

SOUTH CAROLINA

Charleston
WWAW 332
Spartanburg
WFT 248

TENNESSEE

Chattanooga
WWHS 338

LONG WAVE STATIONS BY LOCATIONS

Memphis		**Big Spring**		**San Antonio**		**VIRGINIA**		**Seattle**		**WYOMING**	
WWAU	326	KCAP	326	KCAW	254			KCZ	260		
Nashville		**El Paso**		**UTAH**		**Richmond**		**Spokane**		**Cheyenne**	
WWAC	385	KCAO	242			WNR	260	KCAS	365	KSG	326
TEXAS		**Ft. Worth**		**Milford**		**WASHINGTON**		**WISCONSIN**		**Rock Spring**	
		KKJ	365	KCAT	320					KDN	290
Amarillo		**Houston**		**Salt Lake**		**Pasco**		**La Crosse**			
KCAG	248	KCAU	332	KGD	338	KCS	344	WSG	224		

LONG WAVE STATIONS BY CALLS

CE32	320	KCAQ	266	KDA	350	RW1	172	RW47	421	VFP	332	WWAQ	260
CYW	248	KCAR	302	KDN	290	RW3	340	RW49	401	VFR	314	WWAR	230
FLE	208	KCAS	365	KDG	338	RW4	232	RW53	245	VFS	326	WWAS	332
HAC	360	KCAT	320	KIS	272	RW5	375	RW60	310	VFT	248	WWAT	224
HAL2	360	KCAU	332	KJF	320	RW7	286	RW62	227	VFU	314	WWAU	326
HBZ	536	KCAV	254	KKJ	365	RW8	238	RW63	350	VXR	326	WWAV	344
KCAA	296	KCAW	254	KLK	254	RW10	208	RW66	333	WBP	332	WWAW	332
KCAC	284	KCCA	350	KOJ	391	RW11	256	RW74	472	WEK	332	WWBC	254
KCAD	359	KCCR	278	KRC	359	RW12	355	RW76	218	WFT	248	WWBF	248
KCAE	266	KCDH	371	KSG	326	RW14	188	RW83	450	WHZ	266	WWBI	350
KCAF	230	KCDJ	224	KVM	284	RW19	333	SBE	392	WNR	260	WWHS	338
KCAG	248	KCQ	290	LKH	510	RW21	370	SBF	414	WRW	320	WWIE	320
KCAH	350	KCR	350	LKI	355	RW24	364	SBG	216	WSG	224	WWIF	385
KCAJ	272	KCS	344	LKO	260	RW25	414	SP1	224	WSX	266	WWO	344
KCAK	230	KCU	344	LYT	155	RW27	390	SP10	536	WWAB	266	WWQ	224
KCAM	338	KCV	242	OFB	166	RW37	436	TAE	193	WWAC	385	WWU	338
KCAN	365	KCX	266	OFH	527	RW41	472	TAL	185	WWAF	272	WWX	272
KCAO	242	KCY	332	PX2	160	RW43	271	TFU	208	WWAG	338		
KCAP	326	KCZ	260	RCZ	271	RW44	472	VFN	332	WWAP	254		

Short Wave Stations By Frequencies

Police broadcasters shown in Italics. Time indicated is Eastern Standard.

1.510 megs. 198.56 m.

CJD, Campbell River, B. C. 300 W. Minister of Lands for B. C.

CJK, Knight Inlet, B. C. 100 W. Anglo British Columbia Packing Co., Ltd.

VAC, Cape Lazo, B. C. 50 W. Dominion Gov. Sun., 0610-0640; 1010-1040; 1710-1740. Other days 0500-1945.

VAF, Alert Bay, B. C. 50 watts. Dominion Gov.

YDA8, Tandjongpriok, N. E. I. 500 W. N. V. Nederlandsch Indische-Radio Omroep Moatschappij, Koningsplein W. 5, Batavia-Centrum, Java, N. E. I. Daily, 0530-1100; 1745-1845; 2230-0130.

1.520 megs. 197.25 m.

VIA, Adelaide, Australia. 175 w. Police

VKO, Sydney, Australia. 1.4 kW. Police.

1.530 megs. 195.96 m.

YDB7, Soerabaja, N. E. I. 75 watts. Address, see YDA8 above. Daily, 0530-1100; 1745-1845; 2230-0130.

1.540 megs. 194.69 m.

CJD, Campbell River, B. C. 300 watts. Minister of Lands for B. C.

VBY, Lunenburg, N. S. 100 watts. Lunenburg Sea Products, Ltd. (Station operated by Canadian Marconi).

1.550 megs. 193.43 m.

YDA4, Soekaboemi, N. E. I. 25 watts. For address and schedule see YDA8, 1.510 megs.

1.566 megs. 191.46 m.

WIED, Broadcast pickup. 50 watts. National Broadcasting Co., 30 Rockefeller Plaza, N. Y. City

WIEX, Broadcast pickup. 50 watts. Address, see WIED above.

1.570 megs. 190.96 m.

WPEQ, Baton Rouge, La. Police.

YDB6, Malang, N. E. I. 100 watts. For address and schedule see YDA8, 1.510 megs.

1.574 megs. 190.48 m.

KGPY, Shreveport, La. Police.

1.580 megs. 189.76 m.

CJM, Borden, P. E. I. 100 watts. Works ships. Canadian National Railway.

1.585 megs. 189.16 m.

YDD3, Batavia (C), Java, N. E. I. 50 watts. N. V. Nederlandsch Indische Radio Omroep Moatschappij, Koningsplein West 5, Batavia-Centrum, Java, N. E. I. 0530-1100; 1745-1845; 2230-0130.

1.595 megs. 187.98 m.

YDB5, Solo, N. E. I. 25 watts. For address and schedule see YDD3, 1.585 megs.

1.596 megs. 187.84 m.

CFC, Cub Lake, Sask. 100 watts. Dept. of Natural Resources, Govt. of the Province of Sask.

CGQ, Lac la Ronge, Sask. 100 watts. Address, see CFC above.

CGV, Emma Lake, Sask. 100 watts. Address CFC above.

CZJ, Isle-a-la-Crosse, Sask. 100 watts. Address CFC above.

VYP, Prince Albert, Sask. Address CFC above.

WPGG, Findlay, Ohio. 500 W. State of Ohio, Highway police.

WPGQ, Columbus, Ohio. 400 W.
WPHC, Massillon, Ohio. 400 W. State of Ohio, Dept. of Highways.
WPHK, Wilmington, Ohio. State of Ohio.
WPHT, Cambridge, Ohio.
WQFT, Portable in Ohio. 100 W.

1.606 megs. 186.69 m.

KGXW, Port Alexander, Alaska. Karl Hansen.
KNED, Broadcast pickup. 50 watts. (WBAP).
WHER, Broadcast pickup. (KDKA).
WIEO, Broadcast pickup. 50 watts. NBC, 30 Rockefeller Plaza, N. Y. City.
WIEW, Broadcast pickup. 20 watts. NBC.
WIEX, Broadcast pickup. National Broadcasting Co.
WMEF, Broadcast pickup. 150 W. National Broadcasting Co.
. . . . . , Funter Bay Camp, Alaska.

1.610 megs. 186.22 m.

WQPC, Chicago, Ill. 1 kw. State of Ill., Bureau of Police.
WQPD, DeQuoin, Ill. 1 kw. State of Ill., Bureau of Police.
WQPF, Effinghan, Ill. 1 kw. State of Ill., Bureau of Police.
WQPG, Sterling, Ill. 1 kw. State of Ill., Bureau of Police.
WQPP, Pontiac, Ill. 1 kw. State of Ill., Bureau of Police.
WQPS, Springfield, Ill. 1 kw. State of Ill., Bureau of Police.
. . . . . , Macomb, Ill.

1.615 megs. 185.65 m.

YDB4, Tjepoe, N. E. I. 25 W. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Koningsplein W. 5, Batavia-Centrum, Java, N. E. I. 0530-1100; 1745-1845; 2230-0130.

1.620 megs. 185.07 m.

CFD, Kenora, Ont. 150 W. Ontario Dept. of Lands and Forests.
CFJ, Red Lake, Ont. Address CFD above.
CFL, Tabouret, P. Q. 100 W. Laurentian Forest Protective Association, Ltd., 126 St. Peter St., Quebec, P. Q.
CFM, Manicouagan River Estuary, P. Q. 100 W. Address CFL above.
CZB, Bellevue, P. Q. 100 W. Address CFL above.
CZY, Riviere du Chef, P. Q. 100 W. Address CFL above.
CZZ, St. Felecien, P. Q. 100 W. Address CFL above.

1.622 megs. 184.85 m.

KGXU, Port Armstrong, Alaska. Buchan & Heinen.
KHP, Deep Cove, Alaska. (KIJV) Atlas Packing Co.
KIED, Broadcast pickup. (KFWB).
KIFI, Broadcast pickup. (WDGY).
KIJI, Port Conclusion, Alaska. Northwestern Herring Co.
KIJK, Washington Bay, Alaska. Storfold & Grondahl.
KIJO, Port Herbert, Alaska. P. H. Packing Co.
KIJS, Newport Walter, Alaska. Chatham Strait Fish Co.
KIJV, Deep Cove, Alaska. 50 watts. (KHP) Atlas Packing Co.
KIOG, Red Bluff, Alaska. 50 watts. Richmond Fisheries Co.
WIEH, Broadcast pickup. (WMCA).
WKEM, Broadcast pickup. (WINS).

1.630 megs. 183.94 m.

WEY, Boston, Mass. Marine Fire Station.
WKDT, Detroit, Mich. Marine Fire Station.
YDD2, Bandoeng, Java, N. E. I. 100 watts. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Tegallegain O. 23, Bandoeng. 0530-1100; 1745-1845; 2230-0130.

1.634 megs. 183.48 m.

WPHE, Marion County, Ind. 1 kW. Indiana State Police.
WPHS, Culver, Ind. 1 kW. Municipal police.
WPHU, Jasper, Ind. 1 kW. State of Ind., Dept. of Safety.
WQFE, Seymour, Ind. 1 kW. State of Ind., Dept. of Public Safety.
WQFW, Columbia City, Ind. 1 kW. State of Ind.
. . . . . , Indianapolis, Ind. 100 watts. State police.

1.640 megs. 182.82 m.

YDA3, Buitenszorg, N. E. I. 25 watts. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Koningsplein W. 5, Batavia-Centrum, Java, N. E. I. 0530-1100; 1745-1845; 2230-0130.

1.642 megs. 182.59 m.

WRDS, E. Lansing, Mich. 1 kW. night; 5 kW. day. State police.

1.646 megs. 182.15 m.

KNEC, Broadcast pickup. 40 w. KVI.
WIEK, Broadcast pickup. Columbia Broadcasting System, 485 Madison Ave. at 52nd St., N.Y. City.
WIEL, Broadcast pickup. Address WIEK above.
WLEB, Broadcast pickup. (WOKO).

1.650 megs. 181.71 m.

VBY, Lunenburg, N. S. Works ships. Lunenburg Sea Products Ltd. Operated by Canadian Marconi.

1.658 megs. 180.83 m.

KNHD, Redwood Falls, Minn. 400 w. State of Minn.
KSW, Berkeley, Calif. Municipal police.
WPGC, S. Schenectady, N. Y. 1 kW. night; 5 kW. day. State police.

1.660 megs. 180.62 m.

YDB3, Djokjokarta, N. E. I. 100 watts. N. V. Nederlandsch Indische Radio Omroep Moatschappij, Koningsplein W. 5, Batavia-Centrum, Java, N.E.I. 0530-1100; 1745-1845; 2230-0130.

1.666 megs. 179.96 m.

WMP, Framingham, Mass. 1 kW. State police.
WPEL, W. Bridgewater, Mass. 1 kW. State police.
WPEV, Portable in Mass. 50 watts. State police.
WPEW, Northampton, Mass. 1 kW. State police.
. . . . . , Nashville, Tenn. Municipal police.

1.668 megs. 179.75 m.

CFC, Cub Lake, Sask. Dept. of Natural Resources. Govt. of the Province of Saskatchewan.
CGQ, Lac la Ronge, Sask. Address CFC above.
CGV, Emma Lake, Sask. Address CFC above.
CZJ, Isle-a-la-Crosse, Sask. Address CFC above.
VYP, Prince Albert, Sask. Address CFC above.

1.674 megs. 179.10 m.

KGHK, Palo Alto, Calif. 20 watts. Municipal police.
KGZT, Santa Cruz, Calif. 100 watts.
KIUK, Jefferson City, Mo. State police.
WPSP, Harrisburg, Pa. 1 kW. State police.

1.682 megs. 178.25 m.

KACC, Fairfield, Iowa. 500 w. State of Iowa.
KACD, Atlantic, Iowa. 500 w. State of Iowa.

KGHO, Des Moines, Ia. State of Iowa, Bureau of Investigation.
KNFN, Waterloo, Iowa. 400 watts.
KNFO, Storm Lake, Iowa. 400 watts.
W8XA, Portable in Ohio. 50 watts. Dept. of Highways, Div. of State Highway Patrol.

1.692 megs. 177.19 m.
WQFT, Portable in Ohio. 100 w.

1.698 megs. 176.57 m.
KNGG, Phoenix, Ariz. 1 kW. Arizona State Highway Dept.

1.706 megs. 175.74 m.
KGPC, St. Louis, Mo. City of St. Louis.
WKDU, Cincinnati, Ohio. City of C.
WPET, Lexington, Ky. City of L.

1.712 megs. 175.13 m.
CMPN, Havana, Cuba Police.
CZG, Prince Rupert, B. C., 150 watts. B. C. Provincial police.
KGHY, Whittier, Calif. 50 watts. City of W.
KGJX, Pasadena, Calif. 400 watts. City of P.
KGPJ, Beaumont, Tex. 100 w. City of B.
KGPL, Los Angeles, Calif. City of Los A.
KGPQ, Honolulu, T. H. 500 w. City and County of H.
KGPR, Fort Worth, Texas. City of Ft. W.
KGZB, Houston, Tex. City of H.
KGZL, Shreveport, La. City of S.
KGZQ, Waco, Texas. City of W.
KGZY, San Bernardino, Calif. 50 watts. City of San B.
KNFJ, Pomona, Calif. 50 watts. City of P.
KNGE, Cleburne, Tex. 50 watts. City of C.
KNGL, Galveston, Tex. 50 watts. City of G.
KNHF, Denton, Texas. 50 w. City of D.
KVP, Dallas, Tex. 500 watts. City of D.
VYR, Montreal, P.Q. 400 watts. Police calls in French and English. City of M. Police Dept.
WAKF, Everett, Mass. 50 w. City of E.
WPDB, Chicago, Ill. City of C.
WPDC, Chicago, Ill. City of C.
WPDD, Chicago, Ill. City of C.
WPDU, Pittsburgh, Pa. City of P.
WPED, Arlington, Mass. Town of A.
WPEH, Somerville, Mass. City of S.
WPEI, E. Providence, R. I. E. Prov. Police Dept.
WPEJ, Brookline, Mass. City of B.
WPFA, Newton, Mass. City of N.
WPFN, Fairhaven, Mass. Address: City of New Bedford Police.
WPGF, Providence, R. I.
WPGV, Boston, Mass. 500 watts. City of B.
WPHG, Medford, Mass. 50 watts. City of M.
WQFL, Oak Park, Ill. 50 w. City of O. P.
WQFX, Waukegan, Ill. 100 w. Lake Co. Police

1.715 megs. to 2.000 megs. 174.82 m. to 149.91 meters Amateur Band. Phones in following countries work between 1.875 and 2.000 megs. (149.91 m. to 159.90 meters). Australia, Argentina, Canada, Ecuador, Estonia, Union of South Africa, United States of America.

1.840 megs. 162.95 m.
YDJ4, Cheribon, N. E. I. Batavia Radio Vereeniging.

1.850 megs. 162.06 m.
YDU5, Padang, Sumatra, N. E. I. Amateur Radio Omroep Padang.

1.860 megs. 161.19 m.
DK6, Semarang, N. E. I. Radio Vereeniging Midden Java. Heerenstraat 25.

1.880 megs. 159.47 m.
YDO9, Soerabaja, N. E. I. Owner: Holvast.

1.900 megs. 157.80 m.
YDG6, Batavia, N. E. I. Batavia Radio Vereeniging, Koningsplein Z12.

1.920 megs. 156.16 m.
YDH9, Buitenzorg, N.E.I. Batavia Radio Vereeniging.

1.940 megs. 154.55 m.
YDN2, Kediri, N. E. I. Owner: Goldberg.

1.960 megs. 152.97 m.
YDH8, Bandoeng, N. E. I. Owner: v. d. Heyden.

1.980 megs. 151.42 m.
YDO8, Soerabaja, N. E. I. Owner: Gazaliehuis.

2.020 megs. 148.43 m.
KNED, Broadcast pickup. 50 watts. (WBAP).
WIEO, Broadcast pickup. 50 watts. N. B. C., 30 Rockefeller Plaza, N. Y. City.
WMEF, Broadcast pickup. 150 watts. Address WIEO above.

2.050 megs. 146.25 m.
W9XAK, Manhattan, Kans. Television. Mon., 1945-2030. Wed. 2100-2200.

2.060 megs. 145.54 m.
KIFO, Broadcast pickup. 200 watts.
KIIQ, Broadcast pickup. (KMTR).
WNER, Broadcast pickup. 100 watts. (WAIU).

2.070 megs. 144.84 m.
YDO7, Soerabaja, N. E. I. Owner: v. Wingen.

2.090 megs. 143.45 m.
KNEC, Broadcast pickup. (KVI).
YDG5, Batavia, Java, N. E. I. Batavia Radio Vereeniging.

2.102 megs. 142.64 m.
KIGA, Broadcast pickup. (KSTP).
KIGW, Broadcast pickup.
KNED, Broadcast pickup. 50 watts. (WBAP).
WHER, Broadcast pickup. (KDKA).
WIEO, Broadcast pickup. 50 watts. Address WIEO, 2.020 megs.
WIEW, Broadcast pickup. Address WIEO, 2.020 megs.
WIEX, Broadcast pickup. Address, WIEO, 2.020 megs.
WJER, Broadcast pickup. (WTMJ).
WMEF, Broadcast pickup. 150 watts. Address WIEO, 2.020 megs.

2.110 megs, 142.09 m.
W1XH, Boston, Mass.
YD12, Soekaboemi, N. E. I., Batavia Radio Vereeniging.

2.150 megs. 139.45 m.
KIED, Broadcast pickup. (KFWB).
KIEO, Broadcast pickup. (KFSD).
KIFI, Broadcast pickup. (WDGY).
KIFT, Broadcast pickup. (KJBS).
KIIQ, Broadcast pickup. (KMTR).
WIEG, Broadcast pickup. (WMCA).
WKEM, Broadcast pickup. (WINS).
WLEZ, Broadcast pickup. (WJAG).

2.190 megs. 136.90 m.
KIIH, Broadcast pickup. (KFAB).
KNEC, Broadcast pickup. 40 w. (KVI).
WIEK, Broadcast pickup. Columbia Broadcasting System, 485 Madison Ave. at 52nd St., New York City.
WIEL, Broadcast pickup. Address WIEK above.

2.212 megs. 135.54 m.

VYZ, High Falls, P. Q. 50 watts. James McLaren Co., Ltd.

2.284 megs. 131.22 m.

CFT, Leamington, Ont. 14 watts. Dept. of Public Works.
CFX, Pelee Island, Ont. 22 watts. Dept. of Public Works.
CKB, Pictou, N. S. 15 watts. Dept. of Public Works.
CKO, Crane Island, P. Q. 15 watts. Dept. of Public Works.
CKP, Montmagny, P. Q. 15 watts. Dept. of Public Works.
CKU, Pictou Island, N. S. 15 watts. Dept. of Public Works.

2.290 megs. 130.93 m.

CFV, Namu, B. C. 100 watts. British Columbia Packers, Ltd.
CFW, Bones Bay, B. C. 100 watts. Canadian Fishing Co., Ltd.
CJE, Ceepeecee, B. C. 10 watts. Canadian Packing Corp.
CJX, Margaret Bay, B. C. Canadian Fishing Co., Ltd.
CZL, Humpback Bay, B. C. 100 watts. Chatham Sound Fishing & Packing Co., Ltd.
VFJ, Homalko, B. C. 100 watts. Homalko Logging Co., Ltd.

2.304 megs. 130.13 m.

KBAI, Ketchikan, Alaska. Forestry.
KMYA, Juneau, Alaska. Forestry.

2.318 megs. 129.34 m.

CYQ, Toronto, Ont., police. 400 w.

2.342 megs. 128.02 m.

CGZ, Vancouver, B. C. 400 w. Corp. of the City of V.

2.350 megs. 127.58 m.

VBQ, Halifax, N. S. 25 watts. Works ships in harbor.
YDE5, Djokjakarta, N. E. I. 25 watts. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Koningsplein W. 5, Batavia-Centrum, Java. 0530-1100; 1745-1845; 2230-0130.

2.366 megs. 126.72 m.

WAKC, Freehold, N. J. 100 w. Monmouth County Welfare House. Brier Hill Rd.

2.382 megs. 125.87 m.

KGHT, Brownsville, Tex. 25 watts. City of B.
KGHV, Corpus Christi, Texas. 50 watts. City of C. C.
KNFE, Duluth, Minn. City of D. Police.
KNHB, Green Bay, Wisc. 50 w. City of G. B.
WAKE, Oshkosh, Wisc. 100 w. Winnebago County Police.
WPDN, Auburn, N. Y. Police.
WPEA, Syracuse, N. Y. City of S. Police.
WPFM, Birmingham, Ala. 400 watts. City of B. Police.
WPGW, Mobile, Ala. 400 watts. City of M. Police.
. . . . . , Hibbing, Minn.

2.385 megs. 125.71 m.

YDA2, Batavia (C), Java, N. E. I. 150 watts. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Koningsplein W. 5, Batavia Centrum, Java, N.E.I. 0530-1100; 1745-1845; 2230-0130.

2.390 megs. 125.45 m.

CJW, Saint John, N.B. 15 watts. Dept. of Public Safety.
CJZ, Verdun, P.Q. 20 watts. City of V. Police.
WIED, Broadcast pickup. 50 watts. N. B. C., 30 Rockefeller Plaza, N. Y. City.
WIEX, Broadcast pickup. 50 watts. Address WIED above.

2.396 megs. 125.14 m.

VYW, Winnipeg, Man. 600 watts. Board of Police Commissioners. Tests 15, 35 and 55 minutes past each hour.

2.406 megs. 124.61 m.

KGHZ, Little Rock, Ark. City of L. R. Police.
KGPW, Salt Lake City, Utah. City of S. L. C. Police.
KNHE, Fort Smith, Ark. 50 w.

2.414 megs. 124.20 m.

KACE, Olympia, Wash. 50 w. City of O.
KACJ, Wenatchee, Wash. 250 w. Chelan County Police.
KACK, Bellingham, Wash. 50 w. City of B.
KGHS, Spokane, Wash. 100 w. City of S.
KGHW, Centralia, Wash. 50 watts. City of C. Police.
KGPA, Seattle, Wash. Seattle Police Dept.
KGPF, Santa Fe, N. Mex. 25 watts. Police.
KGPS, Bakersfield, Calif. City of B. Police.
KGZA, Fresno, Calif. 500 watts. City of F. Police.
KGZM, El Paso, Texas. City of E. P. Police.
KGZN, Tacoma, Wash. City of T. Police.
KGZO, Santa Barbara, Calif. City of S. B. Police.
KGZV, Aberdeen, Wash. 150 watts. City of A. Police.
KGZX, Albuquerque, N. Mex. City of A. Police.
KNFA, Clovis, N. Mex. 50 watts. City of C. Police.
KNFI, Mt. Vernon, Wash. 50 watts. Skagit County Police.
KNFP, Everett, Wash. 50 watts. City of E. Police.
KNGU, Yakima, Wash. 100 watts.
KNGY, Lodi, Calif. 50 w. City of L.
WCK, Detroit, Mich. D. City Police.
WMO, Highland Park, Mich. City of H. P. Police.
WPDA, Tulare, Calif. 150 watts.
WPDJ, Passaic, N. J.
WPDX, Detroit, Mich. City of D. Police.
WPDY, Atlanta, Ga. City of A. Police.
WPFH, Baltimore, Md. City of B. Police.
WPFI, Columbus, Ga. City of C. Police.
WPGH, Albany, N. Y. 300 watts. City of A. Police.
WPGJ, Utica, N. Y. 100 watts. City of U. Police.
WPGM, La Grange, Ga. 50 watts.
WQFB, Macon, Ga. 50 watts.
WQFJ, Oneonta, N. Y. 50 w. City of O.
WQFV, Augusta, Ga. 250 w. City Council of A.
WRDR, Grosse Pointe, Mich. Township of G. P.

2.415 megs. 124.15 m.

YDE4, Sourabaya, Java, N. E. I. 75 w. NIROM, Embong Malang 65

2.416 megs. 124.09 m.

CZG, Prince Rupert, B. C. 150 watts. B. C. Provincial Police.

2.422 megs. 123.79 m.

KACA, Atchison, Kans. 50 w. City of A.
KACI, Eureka, Calif. 100 w. Humboldt County Police.
KGPE, Kansas City, Mo. City of K.C. Police
KGPG, Vallejo, Calif. City of V. Police.
KGZC, Topeka, Kans. City of T. Police.

KNGF, Sacramento, Calif. 500 watts.
KNGV, Salina, Kans., 50 w. City of S.
WMJ, Buffalo, N. Y. City of B. Police, 757 E. Perry St.
WNFP, Niagara Falls, N. Y. 135 watts. City of N. F.
WPDR, Rochester, N. Y. City of R. Police.
WPDW, Washington, D. C. Municipal Police.
WPFU, Portland, Me. City of P. Police.
WPHB, Nashua, N. H. 50 watts. City of N. Police.

2.430 megs. 123.38 m.

KGPB, Minneapolis, Minn. 500 watts. City of M.
KGZJ, Phoenix, Ariz. Municipal Police.
KNGP, Shreveport, La. 100 watts.
WPDI, Columbus, Ohio. Franklin County Police.
WPDM, Dayton, Ohio. City of D. Police.
WPDS, St. Paul, Minn. City of S. P. Police.
WPEK, New Orleans, La. 250 watts. City of N. O. Police.
WPFD, Highland Park, Ill.
WPFK, Hackensack, N. J. Bergen County Police Dept.
WPGI, Portsmouth, Ohio. 50 watts. City of P. Police.
WPHO, Zanesville, Ohio. 50 watts.
WQFO, Lancaster, Ohio. 50 watts. City of L. Police.
. . . . . , Prescott, Ariz.

2.442 megs. 122.77 m.

KGHU, Austin Texas, 100 watts. City of A. Police.
KGPP, Portland, Ore. City of P. Police.
KGPX, Denver, Colo. City and County of D. Police.
KGZH, Klamath Falls, Ore. City of K. F. Police.
KGZR, Salem, Ore. 50 watts. City of S. Police.
KNHM, Fargo, N. Dak. 50 w. City of F.
WMDZ, Indianapolis, Ind. Municipal Police.
WPDE, Louisville, Ky. City of L. Police.
WPDF, Flint, Mich. City of F. Police.
WPDH, Richmond, Ind. City of R. Police.
WPDL, Lansing, Mich. City of L. Police.
WPEB, Grand Rapids, Mich. 500 watts. City of G. R.
WPES, Saginaw, Mich. City of S. Police.
WPFC, Muskegon, Mich. City of M. Police.
WPFE, Reading, Pa. City of R. Police.
WPFG, Jacksonville, Fla. City of J. Police.
WPFT, Lakeland, Fla. 50 watts. City of L. Police.
WPFX, Palm Beach, Fla. 50 watts. Town of P. B.
WPFY, Yonkers, N. Y. 400 watts. City of Y. Police.
WPFZ, Miami, Fla. 100 watts. City of M. Police.
WPGL, Binghamton, N. Y. 400 watts. City of B.
WPGP, Muncie, Ind. 100 watts. City of M. Police.
WPHM, Orlando, Fla. 50 watts. City of O. Police.
WQFM, Wilkes-Barre, Pa. 50 w. City of W-B.
WQFQ, Lafayette, Ind., 50 w. City of L.
. . . . . , Winter Haven, Pa.

2.450 megs. 122.38 m.

KACF, Chickasha, Okla., 50 w. City of C.
KACL, Altus, Okla. 50 w. City of A.
KACP, Ponca City, Okla. 50 w. City of P. C.
KGHN, Hutchinson, Kas. 50 w. City of H.
KGHP, Lawton, Okla. 50 w. City of L.
KGPH, Oklahoma City, Okla.
KGPO, Tulsa, Okla. City of Tulsa Police.
KGPZ, Wichita, Kans. 250 watts. City of W. Police.
KGZF, Chanute, Kans. City of C. Police.
KGZP, Coffeyville, Kans. City of C. Police.
KNGK, Duncan, Okla. 50 watts.
KNGM, Rapid City, S. Dak. 50 watts. City of R. C.
KNGO, Mobile in Airplane, Oklahoma State Police. 50 watts.
KNGT, Muskogee, Okla. 50 watts.
KNHC, Ada, Okla. 25 w. City of A.
WPDK, Milwaukee, Wisc. City of M. Police.
WPEE, Brooklyn, N. Y. City of New York Police.
WPEF, Bronx, N. Y. City of New York Police.
WPEG, New York, N. Y. City of N. Y. Police.
WPEP, Kenosha, Wisc. 100 watts. City and County of K. Police.
WPHF, Richmond, Va. 150 watts. City of R. Police.
WQFG, Roanoke, Va. 100 watts.
WQFH, Lynchburg, Va. 50 watts. City of L.
WQFI, Petersburg, Va. 50 w. City of P.
YDB2, Semarang, N. E. I. 150 watts. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Koningsplein West 5, Batavia-Centrum, Java, N. E. I. 0530-2100; 1745-1845; 2230-0130.
. . . . . , Milwaukee, Wis.

2.458 megs. 121.97 m.

KACM, Big Spring, Texas. 50 w. City of B. S.
KGHS, Spokane, Wash. 100 w. City of S. Police
KGZI, Wichita Falls, Tex. City of W. F. Police
KGZW, Lubbock, Tex. 150 w. City of L. Police
KNFB, Idaho Falls, Idaho. 500 watts.
KNGW, Brownwood, Tex. 50 watts.
WPDG, Youngstown, Ohio. 250 w. City of Y.
WPDO, Akron, Ohio. 250 w. City of A. Police.
WPDV, Charlotte, N. C. City of C. Police.
WPFS, Asheville, N. C. 200 watts. Buncombe County Police.
WPGD, Rockford, Ill. City of R. Police.
WPHD, Steubenville, Ohio. 100 watts.
WQFZ, Ottawa, Ill. 250 w. La Salle County Police.
WRBH, Cleveland, Ohio. City of C.

2.466 megs. 121.58 m.

KGOZ, Cedar Rapids, Iowa. 50 watts. City of C. R.
KGPD, San Francisco, Calif. City and County of S. F. Police.
KGPI, Omaha, Nebr. City of O. Police.
KGPK, Sioux City, Iowa. City of S. C. Police.
KGPM, San Jose, Calif.
KGPN, Davenport, Iowa. City of D. Police.
KGZG, Des Moines Iowa. City of D.M. Police.
WAKB, New London, Conn. 50 w. City of N.L.
WPEC, Memphis, Tenn. City of M. Police.
WPEM, Woonsocket, R. I. City of W. Police.
WPFV, Pawtucket, R. I. City of P. Police.
WPFW, Bridgeport, Conn. 50 w. City of B. Police.
WPGA, Bay City, Mich. City of B.C. Police.
WPGB, Port Huron, Mich. City of P.H. Police.
WPGK, Cranston, R.I. 50 w. City of C. Police.
WPGX, Worcester, Mass. 100 watts. City of W. Police.
WPHA, Fitchburg, Mass. 50 watts. City of F. Police.
WPHN, Tampa, Fla. 100 w. City of T. Police.
WPHP, Jackson, Mich. 50 w. City of J. Police.
WQFA, New Haven, Conn. 100 watts.
WQFC, Gainesville, Fla. 50 watts.
WQFK, Clearwater, Fla. 50 w. City of C.

2.474 megs. 121.19 m.

KGHG, Las Vegas, Nev. 50 watts.
KGHM, Reno, Nev. 50 w. City of R. Police.

KNFH, Garden City, Kans. 50 w. City of G. C.
KNGH, Dodge City, Kans. 50 watts.
WPDP, Philadelphia, Pa. City of P. Police.
WPFO, Knoxville, Tenn. City of K. Police.
WPFQ, Swarthmore, Pa. Borough of S. Police
WPFS, Asheville, N. C. 200 watts. Buncombe County Police.
WPGZ, Johnson City, Tenn. 50 w. City of J.C.
WPHY, Elizabethton, Tenn. 100 watts. Carter County Police.
WQFY, Mansfield, Ohio. 50 w. City of M.
WRDQ, Toledo, Ohio. 400 watts. City of T. Police.

2.482 megs. 120.80 m.

KGZE, San Antonio, Tex. City of S. A. and State of Texas Police.
WPGT, New Castle, Pa. 50 watts. City of N. C. Police.
WPHZ, Oil City, Pa. 50 watts. City of O. C. Police.
WQFF, Monessen, Pa. 50 watts.
. . . . . , Sharon, Pa.

2.490 megs. 120.41 m.

KGHA, Snowplow No. A232, 10 watts. State of Wash.
KGHB, Snowplow No. A227, 10 watts. State of Wash.
KGHC, Portable in Washington. 10 watts. State of W.
KGHD, Seattle, Wash. 50 w. State of Wash.
KGHE, Snoqualmie Pass, Wash. State of W., Highway & Police Dept.
KGHQ, Chinook Pass, Wash. 10 watts. State of W., Highway & Police.
KGHR, Portable in Wash. 10 watts. State of Wash.
KGHX, Santa Ana, Calif. 400 w. Orange County Police.
KGZD, San Diego, Calif. City of S. D. Police. Two transmitters, one 50 watts and another, 100 watts.
KGZU, Lincoln, Neb. City of L. Police.
KNFC, Pt. Angeles, Wash. State Highway.
KNFG, Olympia, Wash. 50 watts. State of W. Police.
KNFK, Bellingham, Wash. 50 watts. State of Wash.
KNFL, Shuksan Camp, Wash. 10 watts. State of Wash. Highways.
KNFM, Compton, Calif. 25 watts.
KNFR, Rotary Snow Plow. 10 watts. State of Wash., Highway and Police Dept.
KNFS, Rotary Snow Plow. 10 watts. State of Wash., Highway and Police Dept.
KNFU, Skykomish, Wash. 10 w. State of W.
KNFX, Ellenburg, Wash. 10 watts. Address KNFS above.
KNFY, Bear River Camp, Wash.
KNFZ, Hells Crossing Camp, Wash. 10 watts.
KNGA, Satus Pass Camp, Wash. 10 watts.
KNGB, Yakima, Wash. 50 watts.
KNGC, Vancouver, Wash. 50 watts.
KNGD, Walla Walla, Wash. 10 watts.
KNGJ, El Centro, Calif. 50 watts.
KNGN, Norfolk, Nebr. 25 watts.
KNGQ, Wenatchee, Wash. 50 watts. Address KNFS.
KNGR, Spokane, Wash. 50 w. Address KNFS.
KNGZ, Ephrata, Wash. 10 w. State of W.
WAKA, Huntington, Ind. 50 w. City of H.
WPDT, Kokomo, Ind. City of K. Police.
WPDZ, Fort Wayne, Ind. City of F.W. Police.
WPFP, Clarksburg, W. Va. City of C. Police.
WPGN, South Bend, Ind. 100 watts. City Of S. B. Police.
WPGO, Huntington, N. Y. 25 watts. Town of H. Police.
WPGS, Mineola, N. Y. County of Nassau Police.
WPHI, Charleston, W. Va. 50 watts. City of C. Police.
WPHJ, Fairmont, W. Va. 100 watts.
WPHQ, Parkersburg, W. Va. 50 watts. City of P. Police.

2.506 megs. 119.64 m.

KLH, San Rafael, Calif. Pacific Telephone & Telegraph Co.
WOU, Marshfield, Mass. Phones fishing vessels.

2.512 megs. 119.36 m.

KGM, Ketchikan, Alaska. Alaska Pacific Salmon Co.
KLB, Port Althorp, Alaska. Address KGM above.
KLC, Kako, Alaska. Address KGM above.
KLE, Rose Inlet, Alaska. Address KGM.
SHIPS owned by Alaska Pacific Salmon Co. as follows: KGJK, Jeannette E.; KGNM, Doris E.; KGNX, Yes Bay; WDEM, Wm. T. Muir; WFFR, Frances E.; WIDL, Leonine; WIDM, Sally S.; WIDN, Virginia E.; WNFM, Alco.

2.522 megs. 118.88 m.

KOW, Edmonds, Wash. Pacific Telephone & Telegraph Co.

2.538 megs. 118.13 m.

KDH, Port Alexander, Alaska. Karl Hansen.
KDK, Wrangell, Alaska. Works KIJB, KLA, KFF, KLD daily at 0130. Owner: A. R. Brueger.
KDV, Cordova (Eyak River), Alaska. Pioneer Sea Foods Co
WNFG, M. S. Arb No. 3. Owner: A. R. Bureger.

2.550 megs. 117.58 m.

WMES, Lorain, Ohio. 500 watts. Public Coastal Station. Lorain County Radio Corp.

2.566 megs. 116.84 m.

KFF, Union Bay, Alaska. Works KDK. Nakat Packing Corp.
KHV, Nakeen, Alaska. Nakat Packing Corp.
KLA, Waterfall, Alaska. Works KDK. Address above.
KLD, Hidden Inlet, Alaska. Works KDK. Address above.
KOU, Wilmington, Calif. Southern Calif. Telephone Co.
WLFP, M. S. "Alaskan". Works KDK. A number of Motorships owned by the Nakat Packing Corp. work on this frequency

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2.590 megs. 115.76 m.

WOX, St. George, Staten Island, N. Y. Harborphone, New York Telephone Co.

2.604 megs. 115.14 m.

KNIA, Glacier National Park, Montana.
KNKS, Yosemite National Park, Calif.
KNKU, Yosemite National Park, Calif.
KNKX, Deer Camp, Yosemite, Calif.
KNKY, Devil's Post Pile Nat'l Monument, Calif.
WVD, Seattle, Wash. 500 watts. Alaskan Telephone Co., 517 Federal Office Bldg., Seattle.
WXH, Ketchikan, Alaska. Works WVD.
WYBF, Napoleon, Mo. 500 watts. United States Army.

2.616 megs. 114.61 m.

KAEB, Hydaburg, Alaska. 40 w. Territory of A.
KAED, Angoon, Alaska. 40 w. Territory of A.
KAEF, Jack Wade, Alaska. 40 w. Territory of A.
KION, Tin City, Alaska. 200 w. American Tin Fields.
KIOX, Deering, Alaska. 40 w. Territory of A.
KIUQ, Igloo, Alaska. 50 w. H. H. Burkher.
KIUX, Wales, Alaska. 10 w. Carroll E. Black.
. . . . . , Kasilof, Alaska.
. . . . . , Kenai, Alaska.

2.632 megs. 113.91 m.

KGI, Nellie Juan, Alaska. (KIOD) Copper River Packing Co.
KGX, Port Wakefield, Alaska. (KIOC) Apex Fish Co.
KIJW, Shearwater Bay, Alaska. Kadiak Fisheries Co.
KIJX, Kadiak Island, Alaska. Kadiak Fisheries.
KIMA, Port Hobron, Alaska. American Pacific Whaling Co.
KIOC, Port Wakefield, Alaska. (KGX) Apex Fish Co.
KIOD, Nellie Juan, Alaska. 50 watts. Phones Anchorage and ships. Copper River Packing Co.
KIOH, Iron Creek (Raspberry Straits), Alaska. 50 watts. Southwestern Herring Co.
KIOI, Akutan, Alaska. 50 watts. American Pacific Whaling Co.
. . . . . , Funter Bay Camp, Alaska.

2.670 megs. 112.29 m.

NMC, Point Bonita, Calif. 200 watts. United States Coast Guard.
NMD, Cleveland, Ohio. 200 watts.
NMF, Winthrop, Mass. 200 watts. U. S. Coast Guard.
NMG, Mobile, Ala. U. S. Coast Guard.
NMN, Cape Henry, Va. 200 watts. U. S. Coast Guard.
NMP, Wilmette, Ill. 200 watts.
NMV, Fort Lauderdale, Fla. 200 watts. U. S. Coast Guard.
NMW, Grays Harbor, Wash. 200 watts.
NMY, Rockaway Point, N. Y. 200 watts. U. S. Coast Guard.
NOB, Buffalo, N. Y. 200 watts. U. S. Coast Guard.
NOF, St. Petersburg, Fla. 200 watts. U. S. Coast Guard.
NOG, Gloucester, Mass. 50 watts. U. S. Coast Guard Base 7.
NOJ. San Pedro, Calif. 200 watts. U. S. Coast Guard Base 17.
NOM, Miami, Fla.
NOP, Woods Hole, Mass. 50 watts. U. S. Coast Guard, Section Base 18.
NOR, Sault Ste. Marie, Mich. 200 watts.
NOU, New London, Conn. 200 watts. U. S. Coast Guard.
NOV, Cape May, N. J. 200 watts. U.S. Coast Guard.
NOY, Galveston, Texas. 200 watts.
NOZ, Port Townsend, Wash. 200 watts.
. . . . . , Yaquina Bay, Ore. U. S. C. G.

2.693 megs. 111.13 m.

NMD, Cleveland, Ohio. 200 watts.
NMP, Wilmette, Ill. 200 watts.
NOB, Buffalo, N. Y. 200 watts. U. S. Coast Guard.
NOR, Sault Ste. Marie, Mich. 200 watts.
. . . . . , Arena Cove, Calif. Works NMC, U. S. C. G.

2.710 megs. 110.63 m.

YDK5, Semarang, N. E. I. Radio Vereniging Midden-Java.

2.726 megs. 109.98 m.

KIIW, San Gabriel Dam No. 2, Calif. 200 watts. Los Angeles County Flood Control District, 205 S. Broadway, L. A.
KIIX, Tujunga Dam No. 1, Calif. Address KIIW above
KIIY, Los Angeles, Calif. 400 watts. Address KIIW above.
KINT, Portable, Los Angeles County, Calif. 50 watts. Address above.

2.728 megs. 109.90 m.

KIJY, Hood River, Ore. 100 watts. Special emergency station owned by Crag Rats, Inc., a mountain-climbing organization.
KIJZ, Portable in Oregon. See above.

2 730 megs. 109.82 m.

YDO6, Sourabaya, Java, N. E. I. Algemeene Radio-vereeniging Oost-Java, Lombokstraat 1.

2.738 megs. 109.50 m.

KLGK, M. S. La Merced. Alaska Southern Packing Co.
VGBQ, Yacht Seyelyn II. Capt. Paul F. Johnson.
WDDQ, "Zapora." Wills Navigation Co.
WDFL, "El Ferrito." Ben S. McGlashan, KGFJ, 1417 S. Figueroa, Los Angeles.
WIFI, S. S. Cadrew, In Seattle Harbor, Wash. Works ships in harbor. Owner, A. E. Griswold.
WLFJ, "Onawa." C. M. Poncin.
WLFQ, Yacht "HolJim." 40 w. J. V. Griffith, Tacoma, Wash.
WLFS, "Uganik." San Juan Fishing & Packing Co.
WOFM, "Principia." L. A. Macomber.
WOFW, Yacht "Gallant Lady." 40 w. M. C. Riggs, Tacoma, Wash.

2.750 megs. 109.03 m.

YDL6, Djokjakarta, N. E. I. Owner: v. Wingen.

2.760 megs. 108.63 m.

WIEO, Broadcast pickup. 50 watts. N. B. C., 30 Rockefeller Plaza, N. Y. City
WMEF, Broadcast pickup. 150 watts. Address WIEO above.

2.790 megs. 107.46 m.

YDJ3, Tegal, Java, N. E. I. van Wingen.
YDN3, Madioen, N. E. I. Owner: v. Wingen.

2.810 megs. 106.70 m.

YDQ6, Malang, N. E. I. Owner: v. Wingen.

2.830 megs. 105.94 m.

KNEC, Broadcast pickup. 40 w. (KVI).
KNEF, Broadcast pickup. 200 w. (KSL).
YDU4, Medan, Sumatra, N. E. I. Owner: Avrom.

2.850 megs. 105.20 m.

YDG4, Batavia, Java, N. E. I. Owner: Lindeteves Stokvis.

2.870 megs. 104.47 m.

YDA6, Cheribon, N. E. I. 15 watts.
YDJ5, Cheribon, Java, N.E.I. 15 w. Firma van Wingen

2.890 megs. 103.74 m.

YDK4, Magelang, Java, N.E.I. Firma van Wingen.

2.910 megs. 103.03 m.

YDE3, Semarang, N. E. I. 15 watts.
YDK3, Semarang, N. E. I. Owner: v. Wingen.

2.912 megs. 102.96 m.

KHW, Akutan, Alaska. American Pacific Whaling Co.
KHZ, Port Hobron, Alaska. Address KHW.

2.930 megs. 102.33 m.

WMEP, Suffield, Ohio. 400 watts.
WMEU, St. Petersburg, Fla. 400 watts.
WMEV, Opa Locka, Fla. (Goodyear Zeppelin Base). 400 watts.
YDO5. Soerabaja, N. E. I. Owner: Goldberg.

2.950 megs. 101.63 m.

YDQ5, Malang, N. E. I. Owner: Vis.

2.980 megs. 100.61 m.

CZA, Drummondville, P. Q. 4 kW. Phones ships. Canadian Marconi Co., Box 1690, Montreal, P. Q.

2.986 megs. 100.41 m.

KDX, M. S. LeMerced (vessel moored in vicinity of False Pass, Alaska). 50 watts. Alaska Southern Packing Co.
KGQ, Todd, Alaska. Peril Straits Packing Co.
KIJP, Uganik, Alaska. Works KIJR, KIJU. San Juan Fishing & Packing Co.

KIJR, Port San Juan, Alaska. Works KIJP, KIJU. Address KIJP.
KIJU, Todd, Alaska. Works KIJR, KIJP. Peril Straits Packing Co.
WNFJ, M. S. Sunset. Alaska Southern Packing Co. . . . . , Kenai, Alaska.

2.994 megs. 100.14 m.

KAEF, Jack Wade, Alaska. 40 w. Territory of A.
KDY, Pillar Bay, Alaska. Fidalgo Island Packing Co.
KIEJ, Poorman, Alaska. 50 watts. Owner: W. N. Growden.
KIIJ, Tanana, Alaska. Northern Commercial Co.
KIIK, Circle, Alaska. 50 watts. Phones Fairbanks, Anchorage, etc. Northern Commercial Co.
KIIL, Fort Yukon, Alaska. 50 watts. Phones WXP, Fairbanks, and WXE Anchorage. Northern Commercial Co.
KIIM, Hot Springs, Alaska. 50 watts. See KIIL above.
KIIN, Eagle, Alaska. 50 watts. See KIIL above.
KIIO, McGrath, Alaska. 50 watts. See KIIL above.
KIJB, Cape Pole, Alaska. 50 watts. A. R. Brueger.
KILY, Excursion Inlet, Alaska. 50 watts. Astoria & Puget Sound Canning Co.
KNBZ, Pillar Bay, Alaska. (KDY) Address KDY above.

2.998 megs. 100.00 m.

WXE, Anchorage, Alaska.

3.040 megs. 98.62 m.

CFQ, Edmonton, Alta. Edmonton Journal, Ltd.
CGE, Calgary, Alta. 100 watts. Calgary Herald, Ltd., Southam Bldg.
CKS, Portable. 100 watts. Calgary Herald; see above.
YDA, Tandjongpriok, N. E. I. 10 kW. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Koningsplein West 5, Batavia-Centrum, Java, N. E. I. 0530-1100; 1745-1845; 2230-0130.

3.070 megs. 97.66 m.

CJU, Winnipeg, Man. Canadian Airways, Ltd. (Western Lines), 60 Brock St., Winnipeg.
WKDL, Miami, Fla. (airway).
WMDU, San Juan, Puerto Rico. (airway).

3.093 megs. 96.94 m.

KAED, Angoon, Alaska. 40 w. Territory of A.
KIAP, Rose Inlet, Alaska. 100 watts. Alaska Pacific Salmon Co.
KIAW, Port Althorp, Alaska. Address KIAP above.
KIAY, Ketchikan, Alaska. Address KIAP above.
KIBA, Kake, Alaska. Address KIAP above.
KICI, View Cove, Dall Island, Alaska. 50 watts. Superior Portland Cement Co.
KIIP, Willow Creek Mines, Luckyshot, Alaska. 30 watts. Phones Anchorage. Owner: W. E. Dunkle.
KIKN, Eyak River, Alaska. 50 watts. Pioneer Sea Foods Co.
KIOM, Chevak, Alaska. 25 w. Geo. A. Sheppard.
KIUZ, Hoonah, Alaska. 40 w. Territory of A.

3.125 megs. 95.94 m.

SHIPS work between 3.125 and 3.147 megs. (95.27 to 95.94 meters).
A number of SHIPS are listed on 4.413 megs. and 4.430 megs. We do not know definitely which of these ships work also on 3.125-3.147 megs. Reports of actual reception from listeners are invited.

3.130 megs. 95.79 m.

YDH6, Bandoeng, N. E. I. Owner: Prot. Kerk.

3.150 megs. 95.18 m.

YDG3, Batavia, Java, N. E. I. Owner: Luyks.

3.152 megs. 95.12 m.

CGM, Montreal, P. Q. Canadian Marconi Co., Box 1690, M. Phones CGY.
CGY, Yamachiche, P. Q. Phones CGM. Address CGM above.

3.155 megs. 95.03 m.

KBCJ, San Francisco, Calif. Weather Bureau.

3.170 megs. 94.58 m.

YDO4, Soerabaja, N. E. I. Owner: Jarico.

3.190 megs. 93.99 m.

KIIJ, Tanana, Alaska. Northern Commercial Co.
KIIK, Circle, Alaska. 50 watts. Phones Fairbanks and Anchorage. Northern Commercial Co.
KIIL, Fort Yukon, Alaska. 50 watts. See KIIK above.
KIIM, Hot Springs, Alaska. 50 watts. See KIIK.
KIIN, Eagle, Alaska. 50 watts. See KIIK above.
KIIO, McGrath, Alaska. 50 watts. See KIIK above.
YDK2, Semarang, N. E. I. Owner: Wels.

3.200 megs. 93.69 m.

KBAL, North Bend, Wash. Forestry.
KBAP, Seattle, Wash. Forestry.
KBCC, Mt. Shasta, Calif. Forestry.

3.210 megs. 93.40 m.

YDL5, Djokjakarta, N. E. I. Owner: Helant Muller.

3.230 megs. 92.82 m.

YDQ4, Malang, N. E. I. Owner: Radinova.

3.250 megs. 92.25 m.

YDH5, Garoet, Java, N. E. I. Bandoeng Radio Vereeniging.

3.265 megs. 91.83 m.

KAEB, Hydaburg, Alaska. 40 w. Territory of A.
KIBZ, Waterfall, Alaska. Nakat Packing Corp.
KICE, Nakeen, Alaska. Nakat Packing Corp.
KICG, Union Bay, Alaska. Nakat Packing Corp.
KIDE, Hidden Inlet, Alaska. Nakat Packing Corp.
KIKY, Saldovia, Alaska. 40 watts. Adam W. Lipke.

3.270 megs. 91.69 m.

YDA7, Pekalongan, N. E. I. 15 watts.
YDJ2, Pekalongan, N. E. I. Owner: v. Wingen.

3.290 megs. 91.13 m.

YDO3, Soerabaja, N. E. I. Owner: Radio Electric.

3.300 megs. 90.85 m.

CZV, Waterloo Mine, B. C. Waterloo Gold Mines Ltd.
KBAT, Olympia, Wash. Forestry.
KBAU, Quilcene, Wash. Forestry.
KBCQ, Boise, Idaho. Forestry.
YDG7, Batavia, Java, N. E. I. Owner: Pianohandel Kok.

3.310 megs. 90.58 m.

YHD4, Bandoeng, Java, N. E. I. Owner: Luyks.

3.320 megs. 90.31 m.

YDM2, Tjopoe, N. E. I. Radio Vereeniging.

3.330 megs. 90.04 m.

YDV2, Bandjermasin, Borneo, N. E. I. Owner: Eureka.

3.340 megs. 89.77 m.

CGD, Drummondville, P. Q. Private station of Canadian Marconi Co., P. O. Box 1690, Montreal, P. Q.
CGM, Montreal, P. Q. Private CMC station. Address CGD above.

3.345 megs. 89.63 m.

SP33, Weaverville, Calif. Forestry.

3.350 megs. 89.50 m.

YDQ3, Malang, N. E. I., operated by Malangsche Radio Vereeniging. Owner: W. Lammerce, c/o Radio-Technisch Bureau Lammerce, Bromostraat 21a, Malang.

3.385 megs. 88.57 m.

KBAA, Portland, Ore. Forestry.
KBCA, Santa Barbara, Calif.
KBCB, Santa Barbara, Calif.
KBCG, Yreka, Calif.
KBCH, Oakland, Calif.

3.387 megs. 88.50 m.

KGYA, Longmire, Wash. Forestry station. Address Mr. R. D. Waterhouse, Mount Rainier National Park, Longmire.
KGYB, Longmire, Wash. Address KGYA above.
KGYC, Paradise Inn, Mt Rainier National Park, Longmire, Wash.
KGYD, Sunrise Lodge, Mt. Rainier Park, Longmire Wash.
KGYE, White River, Wash. Address KGYA above.
KGYF, Carbon River, Wash. Address KGYA above.
KGYG, Portable station of the Forestry Dept. of the State of Washington.
KGYH, same as KGYG above.
KGYI, Seattle, Wash. Forestry.
KNDI, Pt. Angeles, Wash.
KNDK, Mt. Olympus Natl. Mon., Wash. Forestry.
KNDL, Mt. Olympus Natl. Mon., Wash. Forestry.
KNDM, Mt. Olympus Natl. Mon., Wash.
KNDP, Anderson Park, Mt. Olympus Mon., Wash.
KNDS, Low Divide, Mt. Olympus Mon., Wash.
KNDT, Mt. Olympus Natl. Mon., Wash.
KNLS, Gobblers Knob, Mt. Rainier Park, Wash.
KNLT, Cataract Creek, Wash. Forestry.
KNLU, Tolmie Peak, Mt. Rainier Park, Wash.
KNLV, Fremont, Wash. Forestry.
KNLX, Shriners Peak, Mt. Rainier Natl. Park, Wash.

3.390 megs. 88.44 m.

YDQ2, Djember, N. E. I. Owner: v. Wingen.

3.410 megs. 87.92 m.

KBAO, Spokane, Wash.
KNKG, Ash Mt., Sequoia Natl. Park, Calif.
KNLO, Death Valley National Monument, Calif.
KNLP, Wild Rose Canyon, Death Valley, Calif.
KNLQ, Trona, Death Valley, Calif.
KNLR, Lone Pine, Death Valley, Calif.
WRJ, Poe Reef Lighthouse, Mich. Dept. of Commerce, Bureau of Lighthouses.
WST, Dry Tortugas Lighthouse, Fla. Address WRJ above.
WWAJ, Manitou Island Lighthouse, Mich. Address WRJ above.
WWAL, Passage Island Lighthouse, Mich. Address WRJ above.
WWAM, Rock of Ages Lighthouse, Mich. Address WRJ above.
WWAO, Huron Island Lighthouse, Mich. Address WRJ above.
WWE, Fourteen Foot Shoals Lighthouse, Mich. Address WRJ.
WWG, Cheboygan Range Lighthouse, Mich. Address WRJ above.
WWH, Stannard Rock Lighthouse, Mich. Address WRJ above.
WWHJ, Delaware Breakwater Station, Philadelphia, Pa. Address WRJ.
WWM, Marquette Lighthouse, Mich. Address same as WRJ above.
WWN, Detroit River Lighthouse, Mich. Address WRJ above.
WWR, Detroit, Michigan. Lighthouse station. Address WRJ.
WWZ, Key West, Fla. Lighthouse. Address WRJ above.
YDL4, Djokjakarta, N. E. I. Owner: Vadera.

3.423 megs. 87.59 m.

WOZ, New York, N. Y. American Telephone & Telegraph Co., 32 Sixth Ave., N. Y. City.

3.430 megs. 87.41 m.

YDO2, Soerabaja, N. E. I. Owner: Soekaradio.

3.445 megs. 87.03 m.

KBAM, Grants Pass, Ore. Forestry.
KBCD, North Fork, Calif. C. C. C. Co. 988.
KBCE, North Fork, Calif.
KBCF, North Fork, Calif.

3.450 megs. 86.90 m.

YDL3, Solo, N. E. I.

3.452 megs. 86.85 m.

CJU, Winnipeg, Man. Canadian Airways Ltd. (Western Lines), 60 Brock St., Winnipeg.

3.470 megs. 86.40 m.

YDG2, Batavia, Java, N. E. I. Owner: Batavia Radio Vereeniging.

3.490 megs. 85.91 m.

YDH3, Bandoeng, Java, N. E. I. Owner: de Kort.

3.493 megs. 85.83 m.

W7XK, Seattle, Wash. 80 watts. Northern Radio Co., Kulien Bldg.

AMATEURS WORK BETWEEN 3.500 and 4.000 megs. (74.96 to 85.56 meters). Phones between 3.900 and 4.000 megs.

3.750 megs. 79.95 m.

CT1CT, Lisbon, Portugal. 50 watts. "Radio Eddystone." Sr. Oscar G. Lomelino, Rua Gomez Friere 79, 2-D, Lisbon. Daily, 0900-1100.

3.800 megs. 78.90 m.

ZP11, Asuncion, Paraguay.

4.000 megs. 74.96 m.

CT2AJ, Ponta Delgada, Azores. 50 watts. Mr. H. E. J. Smith, St. Michael, Ponta Delgrada. Wed., Sat., 1700-1900.

4.098 megs. 73.16 m.

WND, Hialeah, Fla. 400 watts. Phones ZFS Nassau.

4.122 megs. 72.74 m.

AIRWAY GROUND STATIONS, as follows: WEEA Atlanta; WEEB, Baltimore; WEEC, Charleston; WEEF, Spartanburg, S. C. WEEH, McRae, Ga.; WEEJ, Jacksonville; WEEM, Miami; WEEN, Linden, N. J.; WEEO, Orlando; WEER, Richmond; WNEZ, Camden; WOER, Raleigh; WOES, Savannah; WOET, Charlotte; WOEV, Louisville.

4.124 megs. 72.70 m.

KIFM, Fairbanks, Alaska. Airway.

4.178 megs. 71.76 m.

WOO, Ocean Gate, N. J. 20 kW. Phones ships. American Telephone & Telegraph Co., Long Lines Dept., 32 Sixth Ave., N. Y. City.
WOY, Lawrenceville, N. J. 20 kW. Address WOO
W4XBG, Tavernier, Fla.

4.200 megs. 71.39 m.

YT2, Fort Lewis, Wash. Army Airway.

4.243 megs. 70.66 m.

W4XBH, Tavernier, Fla.

4.253 megs. 70.50 m.

WKF, Lawrenceville, N. J. A. T. & T. Address WOO above.

WOG, Ocean Gate, N. J.

4.273 megs. 70.16 m.

RV15, Khabarovsk, USSR (Siberia). 20 kW. "Far East Radio Station." Announcements in Russian, Chinese, English. Never verifies; mailing address unknown. Daily, 0300-0900.

4.276 megs. 70.11 m.

WIR, Rocky Point, N. Y. 30 kW. Works Port-au-Prince, Santo Domingo. Address R. C. A., Central Frequency Bureau, 66 Broad St., N. Y. C.

4.280 megs. 70.05 m.

These Ships work IAC and WOO. All owned by Italian Line 1 State St., N. Y. C.
IBEJ, S. S. Conte Rosso.
IBGI, S. S. Conte Verde.
IBLI, S. S. Conte di Savoia.
ICEJ, S. S. Rex.

4.295 megs. 69.81 m.

WTDV, St. Thomas, Virgin Islands. 250 watts. Mr. H. M. McKenzie.
WTDW, St. Croix, Virgin Islands. 250 watts.
WTDX, St. John, Virgin Islands. 250 watts.

4.320 megs. 69.40 m.

DAF, Norden, Germany. Phones ships. Hauptfunkstelle Norddeich, Norden-Land, Germany.
GDB (G6RX), Rugby, England. 15 KW. Engineer-in-Chief, GPO (Radio Section), Armour House, St. Martins Le Grand, London EC1, England.

4.348 megs. 68.92 m.

CGA9, Drummondville, P. Q. Canadian Marconi Co., Box 1690, Montreal, P. Q.

4.355 megs. 68.84 m.

IAC, Coltano, Italy. 56 kW. Phones ships. Radiomarittimo Coltano Radio IAC, Piza, Italy.

4.390 megs. 68.30 m.

FNSK, S. S. Normandie. Works Paris. French Lines, Pier 88, North River, Foot of W. 48th St., N. Y. C.

4.410 megs. 67.99 m.

FNSK, S. S. Normandie. Works WOO. Address 4390 megs.

4.413 megs. 67.94 m.

All these ships work with WOO. The German ships also work DAF; British ships with GBC:
DDBR, S. S. Berlin. North German Lloyd, Pier 42, North River. Foot of Morton St., N. Y. City.
DDCP, S. S. Cap Polonio.
DDFF, S. S. Reliance.
DDFT, S. S. Oceana.
DHAO, S. S. Hansa. Hamburg American Lines, Pier 86, North River, W. 46th St., N. Y. C.
DHDL, S. S. Cap Arcona.
DHEY, S. S. Deutschland.
DHJZ, S. S. Hamburg. Address DHAO above.
DHRL, S. S. New York. Address DHAO above.
DOAH, S. S. Bremen. North German Lloyd, Pier 4, Foot of 58th St., Brooklyn, N. Y.
DOAI, S. S. Europa. Address DOAH, above.
FNSM, S. S. Paris. French Lines, Pier 57, Hudson River, New York City.
FNTQ, S. S. Ile de France. Address FNSM above.
GFWV, S. S. Majestic. International Marine Radio Co., Ltd., Connaught House, 63 Aldwych, London WC2, England.
GMBJ, S. S. Empress of Britain.

4.415 megs. 67.91 m.

GBZW, S. S. Berengaria.
GLRZ, S. S. Aquitania.

4.430 megs. 67.68 m.

GBC, Rugby, England. Works ships. Address GDB 4.320 megs.
GDLJ, S. S. Homeric.
VQJM, S. S. Monarch of Bermuda.
VQJP, S. S. Queen of Bermuda.

4.436 megs. 67.59 m.

VDO, Vancouver, B. C. 400 w. North-West Telephone Co., 768 Seymour St.

4.465 megs. 67.14 m.

CFA2, Drummondville, P. Q. Canadian Marconi Co., Box 1690, Montreal, P. Q.

4.470 megs. 67.07 m.

YDB, Soerabaja, N. E. I. 1 kW.

4.490 megs. 66.78 m.

VDC, Calgary, Alta. Two Bros. Valley Gold Mines, Ltd.
VDV, Two Brothers Lake, B. C. Address VDC, Calgary.

4.505 megs. 66.55 m.

CGO, Ocean Falls, B. C. North-West Telephone Co.,
CZO, Prince George, B. C. Address CGO above.
CZP, Claydon Bay, B. C. Address CGO above.

4.512 megs. 66.44 m.

ZFS, Nassau, Bahamas. Works WNC Hialeah. Office of Supt. of Telegraphs, Central Bay St., Nassau N. P., Bahamas.

4.535 megs. 66.11 m.

WDG, Rocky Point N. Y. 40 kW. R. C. A., Central Frequency Bureau, 66 Broad St., N Y. C.

4.550 megs. 65.89 m.

WDN (W2XBJ), Rocky Point, N. Y. Address WDG, 4.535 megs.

4.580 megs. 65.46 m.

DJG, Zeesen, Germany. Reichs-Rundfunk-Gesellschaft, Haus des Rundfunks, Masurenallee, Berlin-Charlottenburg 9, Germany.

4.600 megs. 65.18 m.

HC2ET, Guayaquil, Ecuador. Interval sig.: 12 chimes. P. O. Box 249. Fri., Sat., 2130-2300.

4.610 megs. 65.05 m.

KMYA, Juneau, Alaska. Forestry.

4.710 megs. 63.66 m.

YDU2, Medan, Sumatra, N. E. I. Owner: Avrom.

4.753 megs. 63.08 m.

WOO Ocean Gate, N. J. Phones ships. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. C.
WOY, Lawrenceville, N. J. 20 kW. Address WOO above.

4.755 megs. 63.05 m.

CFU, Rossland, B. C. Consolidated Mining & Smelting Co.

4.785 megs. 62.66 m.

CZA, Drummondville, P. Q. Phones ships. Canadian Marconi, Box 1690, Montreal.

4.795 megs. 62.53 m.

VE9BK, Vancouver, B. C. 250 w. Radio Sales Service Ltd., 780 Beatty St.

4.810 megs. 62.33 m

YDE2, Solo, N. E. I. 100 watts.
YDL2, Solo, N. E. I. Owner: Solosche Radio Vereeniging.

4.820 megs. 62.20 m.

GDW, Rugby, England. Phones N. Y. Engineer-in-Chief, GPO, (Radio Section), Armour House, St. Martins Le Grand, London EC1.

4.840 megs. 61.95 m.

CZV, Waterloo Mines, B. C. Waterloo Gold Mines, Inc.

4.865 megs. 61.63 m.

CGT, Campbell River, B. C. North-West Telephone
VDO, Vancouver, B.C. 400 w. North-West Telephone Co., 768 Seymour St.

4.875 megs. 61.50 m.

RKF, Moscow, USSR. 20 kW.

4.975 megs. 60.27 m.

GBC, Rugby, England. 5 kW. Phones ships. Address GDW, 4.820 megs.

4.988 megs. 60.11 m.

WWAD, S. S. Violet. Works Lighthouses on Great Lakes.

5.000 megs. 59.96 m.

WWV, Beltsville, Md. 1 kW. Standard frequency service, Wed., 1430-1530. Nat'l Bureau of Standards, Washington, D. C.

5.015 megs. 59.78 m.

IS3, Bolling Field, Va. United States Army airport.

5.025 megs. 59.67 m.

ZFA, St. George (Hamilton) Bermuda. 1.5 kW. Phones WOB nights.

5.040 megs. 59.59 m.

RIR, Tiflis, USSR. 4 kW.

5.078 megs. 59.06 m.

WCN, Lawrenceville, N. J. Works GDW nites. AT&T, 32 Sixth Ave., N. Y. C.
W4XBI, Big Pine Key, Fla.

5.138 megs. 58.35 m.

KIIO, McGrath, Alaska. Northern Commercial Co.

5.140 megs. 58.33 m.

PMY, Bandoeng, N. E. I. 600 watts. Bandoeng Radio Vereeniging, Nillmy Bldg., Bandoeng. 0040-0240; 0640-0940.

5.198 megs. 57.68 m.

W4XBJ, Big Pine Key, Fla.

5.260 megs. 57.00 m.

YDU3, Medan, Sumatra, N. E. I. Owner: Meyer.

5.265 megs. 56.96 m.

WQN, Rocky Point, N. Y. Address WDG, 4.535 megs.

5.300 megs. 57.57 m.

ZFO, Cat Cay, Bahamas. 50 watts. Address ZFS, 4.512 megs.

5.375 megs. 55.78 m.

RSB, Stalinsk, USSR. 2 kW.

5.400 megs. 55.52 m.

CGP, Prince Rupert, B. C. North-West Telephone Co., 768 Seymour St., Vancouver.
CZQ, Anyox, B. C. Address CGP above.
HAT, Szekesfehervar, Hungary. 6 kW. "Justice for Hungary!" Announcements French, English, Hungarian by lady. Address: Magyar Kiralyi Postakiserleti Allomas, IX Kerulet Gyali Ut 22, Budapest, Hungary.
HJA7, Cucuta, Colombia. Colombian Petroleum Corporation.

5.405 megs. 55.47 m.

VXX, Sage Creek, B. C. N. W. Telephone Co., 768 Seymour St., Vancouver.
WKDL, Miami, Fla. Airways.
WMDU, San Juan, Puerto Rico. Airways.

5.415 megs. 55.37 m.

IAF, Fiumicino, Italy. 5 kW.

5.435 megs. 55.16 m.

LSH, Buenos Aires, Argentina. Compania Radiotelegrafica Arg., San Martin 301-329.

5.440 megs. 55.11 m.

RSN, Sverdlovsk, USSR. 10 kW.

5.490 megs. 54.61 m.

ROI, Sverdlovsk, USSR. 15 kW.

5.505 megs. 54.46 m.

WQN, Rocky Point, N. Y. Address WDG, 4.535 megs.

5.520 megs. 54.32 m.

TI5HH, San Ramon, Costa Rica. 200 w. "La Voz de San Ramon." Address Sres. Herrera. Daily 1530-1700; 2000-2130.

5.540 megs. 54.11 m.

VXU, Regina, Sask. Dept. of Natural Resources, Govt. of the Province of Sask.
VXV, Hudson Bay Junction, Sask. Address VXU
VXW, Portable. Address VXU above.

5.550 megs. 54.02 m.

I2RO, Rome Italy. Ente Italiano per le Audizioni Radiofoniche, Via Montello 5, Rome.

5.660 megs. 52.97 m.

CFD, Kenora, Ont. 150 watts. Ont. Dept. of Lands and Forests.
CFJ, Red Lake, Ont. Address CFD above.

5.705 megs. 52.55 m.

CFN, Slate Creek, B. C. Consolidated Mining & Smelting Co. of Canada, Ltd.
CFU, Rossland, B. C. Address CFN above.

5.710 megs. 52.51 m.

JDZ, Darien. Works JVU Nazaki.
TGS, Guatemala City, Guat. 200 w. "de la Casa Presidencial."

5.720 megs. 52.42 m.

YV10RSC, San Cristobal, Venezuela. "La Voz de Tachira." Jesus M. Diaz. Gonzalez.

5.725 megs. 52.37 m.

I2RO, Rome Italy. Address EIAR, 5.550 megs.

5.730 megs. 52.32 m.

JVV, Nazaki, Japan. Works JIA, JIB, JIC at Taiwan. Address: Kokusai-Denwa Kaisha, Ltd., Osaka Bldg., Kojimachiku, Tokyo.

5.764 megs. 52.09 m.

KZGF, Manila, P. I. Inter-Island phone. Philippine Long Distance Telephone Co.

5.780 megs. 51.87 m.

CMB2, Havana, Cuba. Cuba Transatlantic Radio Corp.
OAX4D, Lima, Peru. "Radio DUSA." Interval sig.: 2 cuckoos. "The Voice of Peru." Sign off: "A Perfect Day." All America Cables, Box 2336. Wed., Sat., 2100-2330.

5.790 megs. 51.78 m.

JVU, Nazaki, Japan. 10 kW. Works JZA-B-C. Address JVV, 5.730 megs.

5.795 megs. 51.74 m.

KZGH, Iloilo, P. I. (Iloilo Island). Inter-Island phone. Philippine Long Distance Tele. Co.

5.800 megs. 51.69 m.

YV2RC, Caracas, Venezuela. 1kW. "Broadcasting Caracas." "La Habla a la Nacion." Int sig: 4 chimes. sign off: "March 1BC" address: Apartado 2009.

5.810 megs. 51.60 m.

YV7RMO, Maracaibo, Venez. "Radiodifusora Maracaibo."

5.815 megs. 51.56 m.

HCK, Quito, Ecuador.

5.820 megs. 51.52 m.

CEC, La Granja (Santiago) Chile. Compania Internacional de Radio, Casilla 16-D, Santiago de Chile.

TIGPH, San Jose, Costa Rica. "Alma Tica."

5.825 megs. 51.47 m.

HJA2, Bogota, Colombia.

KZGG Cebu, Isl. of Cebu, P. I. Inter-Island phone. Phillippine Long Distance Telephone Co.

WQN, Rocky Point, N. Y. R. C. A., Central Frequency Bureau, 66 Broad St., New York City.

5.830 megs. 51.43 m.

CWD, Montevideo, (Cerrito), Uruguay. 1.5 kW.

JZC, Shinkio (Kanjoshi) Manchukuo. 20 kW. Works JVI, JVO, JVU. Address: Manchukuo Telephone & Telegraph Co., Ltd.

5.850 megs. 51.25 m.

WOB, Lawrenceville, N. J. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. C.

YV5RMO, Maracaibo, Venezuela. "Ecos del Caribe." (member Cadena Indo-Americana.) One gong precedes station announcement. Programs close with Blue Danube March. Address: Sr. Santiago M. Vegas, Apartado 214. Daily exc. Sun., 1130-1300; 1730-2130.

5.875 megs. 51.03 m.

HRN, Tegucigalpa, Honduras. 400 w. "La Voz de Honduras." Daily 2000-2200.

5.880 megs. 50.99 m.

ETG, Addis Ababa, Ethiopia. 3.5 kw. Frank Hammar, Chief Engineer, Box 283.

YV8RB, Barquisimeto, Venezuela. "La Voz de Lara."

5.890 megs. 50.90 m.

JIC, Taihoku (Chureki) Taiwan. Works JVG, JVL, JVV.

5.900 megs. 50.82 m.

HJ4ABE, Medellin, Colombia. 1 kW. (relays HJ4ABK) "La Voz de Antioquia." Owner: Jose M. Acevedo F. 3 chimes precede announcement.

5.940 megs. 50.47 m.

TG2X, Guatemala City, Guat. 200 w. "Policia Nacional."

5.965 megs. 50.26 m.

HI1J, San Pedro de Macoris, D. R. 40 w. s/o All I do is Dream of You. Fausto M. Donastorg, Aptdo. 204.

5.970 megs. 50.22 m.

HVJ, Vatican City. 10 kW. Interval sig: clock ticking for 10 minutes preceding xmission; bells of St. Peters at 3 o'clock. Announcement "Laudatur Jesus Chsistus". Talks as follows: Mon., Italian; Tues., English; Wed., Spanish; Thurs., French; Fri., German; Sat., Dutch; Sun., Latin. Address: Stazione Radio-Vatican, Pontificia Accademia Della Scienze, Roma-Castina Pio IV, Citta del Vaticano. Schedule: Sundays and holidays, 0500-0530. Daily, 1400-1415.

5.975 megs. 50.18 m.

HJ2ABC, Cucuta, Colombia. 250 watts. "La Voz de Cucuta." Interval sig: chimes C-D-E-F-C. Address, J. Alejandre Sanchez. Week days, 1100-1200; 1830-2100.

5.980 megs. 50.14 m.

HIX, Trujillo, D. R. Mr. J. R. Saladin, Director HIX. Tues., Fri., 2000-2200.

HJ2ABD, Bucaramanga, Colombia. 670 w. Sr. Hector McCormick, Calle 2a, No 1205.

XEVI, Mexico City, D. F. Apartado 2874.

5.995 megs. 50.01 m.

RPT, Tashkent, USSR. 1 kW.

WVD, Seattle, Wash. 500 watts. Phones Alaska. Alaskan Telephone Co, 517 Federal Office Bldg., Seattle.

5.996 megs. 50.00 m.

....., "Radio-Tananarive," Tananarive, Madagascar. Theme song: Ramona. 500 watts. Administration des Postes des Telegraphes et des Telephones. Sun., 0230-0400; daily exc. Sun. and Mon., 0300-0345.

RV59. Moscow, USSR. 20 kW. Kremlin chimes at 4 p.m. EST. sign off: l'Internationale. Add: Inna Marr, Central Radio Committee, Petrovka 12, Moscow.

6.000 megs. 49.97 m.

TGWA, Guatemala City, Guat. 300 w. "Radio Nacional" Relays TGW. address: Ministerio de Fomento.

XEBT, Mexico City, D. F. 1kW. Interval sig.: cuckoo, rooster, bugle. auto horn, fire bell. Relays XEB. Add: El Buen Tono S. A., Apartado 79-44. Daily 1000 to 0115.

XGOX, Nanking, China (proposed). Administration of Central Broadcasting Stations, Central Executive Committee of Kuomintang, Nanking.

ZEC, Salisbury, South. Rhodesia. 500 w.

6.005 megs. 49.93 m.

VE9DN, Drummondville P. Q. Canadian Marconi Co., P. O. Box 1690, Montreal.

VE9DR, Montreal, P. Q. Address VE9DN above.

6.006 megs. 49.92 m.

HJ1ABJ, Santa Marta, Colombia. 50 watts. "La Voz de Santa Marta." Member Cadena Indo-Americana. Sr. Julio A. Sanchez T.

6.010 megs. 49.89 m.

COCO, Havana, Cuba. 300 w. P. O. Box 98.

HJIABC, Quibdo, Colombia. 100 w. "La Voz del Chocо." Direccion de Educacion.

6.012 megs. 49.87 m.

HJ3ABH, Bogota, Colombia. 1.2 kW. "La Voz de la Victor." Member, Cadena Indo-Americana. Add: Manuel J. Gaitan, Almacenes Victor, Apartado 565. Sun., 1200-1400; 1600-2100. Other days, 1130-1400; 1800-2300.

6.020 megs. 49.80 m.

DJC, Zeesen, Germany. 8 kW. Programs close with "Deutschland Ueber alles" and "Horst Wessellied." Programs preceded by a music box tune, "Ever be True and Honest." Add: Reichs-Rundfunk-Gesellschaft, Haus des Rundfunks, Masurenallee, Berlin-Charlottenburg 9.

XEUW, Veracruz, Mexico. 50 w. "El eco de Sotavento des de Veracruz." Radiodifusora Comercial XEU, Independencia 98.

6.030 megs. 49.72 m.

HP5B, Panama City, Panama. 100 watts. "Estacion Miramar". Address: Estacion Radiodifusora Miramar de la Radio Panama S. A., Apartado 910. Daily, 1900-2200.

VE9CA, Calgary, Alta. 100 watts. "The Voice of the Prairie." Add: Voice of P., Ltd., Calgary. Thurs., 0900-0200; Sun., 1200-2400; other days, 0900-2400.

6.040 megs. 49.64 m.

PRA8, Pernambuco, Brazil. 3 kW. "A Vox do Norte." Radio Club Pernambuco, Ave. Cruz Cabaga 394.

W1XAL, Boston, Mass. Address: Educational Director, University Club, Boston. Tues., Thurs., 1930-2130; Sun., 1700-1900.

W4XB, Miami, Fla. (transmitter on Collins Island). 2500 watts. Relays WIOD. Isle of Dreams Broadcasting Co. Sun., 1130-1500; 1700-2400. Weekdays, 1200-1400; 1730-2400.

YDA, Tandjongpriok, N. E. I. 10 kW. Key Station, NIROM Network. N. V. Nederlandsche Indische Radio Omroep Moatschappij, Koningsplein West 5, Batavia-Centrum, Java, N. E. I. 0530-1100; 1745-1845; 2230-0130.

6.042 megs. 49.62 m.

HJ1ABG, Barranquilla, Colombia. 150 watts. "Emisora Atlantico." Member, Cadena Indo-Americana. Interval sig: 4-note chime. Address: Sr. Andres Jimeno, Apartado 445.

6.050 megs. 49.56 m.

GSA, Daventry, England. 20 kW. "A for Aerial." Interval sigs: Bow Bells and Big Ben. Sign off: God Save the King. British Broadcasting Corp., Broadcasting House, London W. 1, England.

6.060 megs. 49.48 m.

HJ4ABD, Medellin, Colombia. "La Voz de Catia."

OXY, Skamlebaek, Denmark (Copenhagen). 500 watts. Chimes at 6 p.m. EST. Add: Harold J. Rud, Press Secretary, Statsradiofonien, Heibergsgade 7, Copenhagen. Daily 1300-1830.

VQ7LO, Nairobi, Kenya Colony. Cable & Wireless Ltd. Box 777. Tues., 0300-0400; Mon., Wed., Fri., 0545-0615; Thurs., 0800-0900; Sat., 1100-1530; daily exc. Sat., 1100-1400.

W3XAU, Philadelphia (Newton Square), Pa. Relays WCAU, CBS, WCAU Building, 1622 Chestnut St. 2100-2300.

W8XAL, Cincinnati (Mason), Ohio. 10 kW. Relays NBC-WLW. Crosley Radio Corp., 1329 Arlington St. Daily exc. Sun., 0930-2000; Sun., 0800-2000; daily exc. Sat., 2300-0200; Sat., 2300-0300.

ZHI, Singapore, Straits Settlements. 180 watts. Technical Director, Radio Service Co. of Malaya, Broadcast House 2 and 4, Orchard Road. Sat., 2300-0130; Mon., Wed., Thurs., 0600-0830.

6.065 megs. 49.43 m.

HH2F, Port au Prince, Haiti.

6.070 megs. 49.39 m.

HH2S, Port au Prince, Haiti. Societe Haitienne de Radiodiffusion, Boite 103.

VE9CS, Vancouver, B. C. 2-10 watts. Radio Service Engineers Ltd., 734 Davie St. Daily 2000-2200.

6.072 megs. 49.37 m.

CQN, Macau. 500 watts. Ann: Portuguese and English. Mon., Fri., 0300-0500.

OER2, Vienna, Austria. 1.5 kW. Oesterr. Radioverkehrs A. G., Wien I, Johannesgasse 4b. Sat., 0900-1800; Sun., silent; other days, 0900-1700.

6.080 megs. 49.31 m.

CP5, La Paz, Bolivia. "Radio Illimani." Compania Radio Boliviana, Casilla 637. Daily, 2000-2100.

DJM, Zeesen, Germany. Address. DJC, 6.020 megs.

HJN, Bogota, Colombia. Sr. Luis Ramirez Arana, Jefe del Servicio de Inalambricos, Ministerio de Correos y Telegrafos.

HP5F, Colon, Panama.

W9XAA, Chicago, Ill. 500 watts. Relays NBC-WCFL. Daily exc. Sun., 0930-1800; Sun., 1130-2100. Mr. Maynard Marquardt, Chicago Federation of Labor, 666 Lake Shore Drive.

ZHJ, Penang, Straits Settlements. 49 watts. Hon. Secy., Penang Wireless Society, 40 Perak Road. Daily exc. Sun., 0640-0840.

6.085 megs. 49.27 m.

I2RO, Rome, Italy. Address EIAR, 5.550 megs.

6.090 megs. 49.23 m.

CRCX, Toronto, Ont. 1 kw. Relays Canadian Radio Commission-CRCT. Address: R. R. No. 4. Daily 1830-2330.

VE9BJ, St. John, N. B. 50 watts. C. A. Munro, Ltd. Canterbury Street.

6.100 megs. 49.16 m.

HJ4ABL, Manizales, Colombia. 150 watts. "L for Lady." "Ecos dei Occidente." Chimes at midnight. Apartado 50. Sat., 2300-0100.

W3XAL, Bound Brook, N. J. 20 kW. N.B.C., 30 Rockefeller Plaza, N. Y. C. Relays NBC-WJZ. s/o "Star Spangled Banner."

W9XF, Chicago (Downers Grove), Ill. 5 kW. Relays NBC-WENR, N. B. C., Merchandise Mart, Chicago.

ZTJ, Johannesburg, U. of So. Africa. 5 kW. African Brdcstg. Co., Box 4559, Johannesburg.

6.110 megs. 49.07 m.

CHNX, Halifax, N. S. Maritime Broadcasting Co., Ltd., Box 998.

GSL, Daventry, England. "L for Liberty." Int. sigs: Bow Bells and Big Ben. Sign off: God Save the King. Address GSA, 6.050 megs. Daily, 2200-2300.

HJ4ABB, Manizales, Colombia. 300 watts. "Radio Manizales." Sr. Ernesto Villegas.

6.112 megs. 49.05 m.

VUC, Calcutta, India. Indian State Broadcasting Service, 1 Garstin Place.

6.115 megs. 49.03 m.

HJ1ABE, Cartagena, Colombia. 180 watts. "La Voz de los Laboratorios Fuentes." Address: Laboratories Fuentes L., Apartado 31.

6.120 megs. 48.99 m.

W2XE, New York, N. Y. (Wayne, N. J.) 10 kW. Relays CBS-WABC. Columbia Broadcasting System, 485 Madison Ave. at 52nd St., N. Y. C. s/o Star Spangled Banner.

XEFT, Veracruz, Ver. 20 w. "La Voz de Veracruz." Jose Rodriguez Lopez, Manager, Av. Independencia 28.

YDA5, Bandeeng, Java, N. E. I. 1.5 kW. N. V. Nederlandsch Indische Radio Omroep Moatshappij, Tegallegah 0.23, Bandoeng. 0530-1100; 1745-1845; 2230-0130.

6.125 megs. 48.95 m.

ZGE, Kuala Lampur, Federated Malay States. 180 watts. Hon. Secy., the Malayan Amateur

Radio Society, Mercantile Bank Bldg., K. L. Sun., Tues., Fri., 0640-0840.

6.130 megs. 48.91 m.

COCD, Vedado, Havana, Cuba. 350 watts. "La Voz del Aire." Int. sig.: 4 chimes. Relays CMCD. Address: Hotel Palace, Calle 25 y G. Vedado, Havana. Sun., 1700-2300. Weekdays, 1100-2400.

LCL, Jeloy, Norway. Director General, Administration des Telegraphes du Royaume de Norvege, Oslo, Norway.

TGXA, Guatemala City, Guat. 20 w. Liberal Progresista.

XEOK, Tijuana, L. C., Mex. Relays XEOK. Carlos de la Sierra, Box 1441, San Diego, Calif.

6.132 megs. 48.89 m.

CT1GO, Parede, Portugal. Sun., 1130-1300; Sun., Tues., Wed., Thurs., Fri., 1920-2030.

6.135 megs. 48.87 m.

RKK, Moscow, USSR. 20 kW.

6.140 megs. 48.83 m.

W8XK, Pittsburgh (Saxonburg), Pa. 40 kW. Relays NBC-KDKA.

6.145 megs. 48.79 m.

....., Villejust, France. 120 kW. (Under constr.)

6.147 megs. 48.78 m.

ZEB, Bulawayo, South. Rhodesia. 500 w.

6.150 megs. 48.75 m.

CB615, Santiago, Chile. "Radiodifusora Pilot." s/o Rhapsody in Blue. Compania Internacional de Radio, Casilla 16-D.

CJRO, Winnipeg, Man. (Middlechurch). Relays CRC programs. James Richardson & Sons, Ltd., Royal Alexandria Hotel, Winnipeg. Daily, 2000-2400.

CO9GC, Santiago de Cuba. Relays CMKB. "Ask for Bacardi." Laboratorio Radio-electrico, Sres. Grau y Caminero, Apartado 137. Daily, 0930-1000; 1245-1330; 1530-1615.

CSL, Lisbon, Portugal.

HJ5ABC, Cali, Colombia.

YV3RC, Caracas, Venezuela. "Radiodifusora Venezuela YV3RC en Caracas." Bajos Pasaje Ramella. 1700-2200.

6.170 megs. 48.60 m.

HJ2ABA, Tunja, Colombia. 50 watts. "Ecos de Boyaca." Member: Cadena Indo-Americana. Sr. Pompelio Sanchez.

6.182 megs. 48.50 m.

XEXA, Mexico City, D. F. s/o March of the Toys. Secretaria de Educacion Publica.

6.185 megs. 48.48 m.

HI1A, Santiago de los Caballeros, D. R. "La Voz de Yaque."

6.200 megs. 48.36 m.

HJ3ABF, Bogota, Colombia. 50 watts. "La Voz de Bogota." Interval sig.: 6 chimes. Daily 1900-2300.

6.230 megs. 48.13 m.

OAX4G, Lima, Peru. Relays OAX4B. R. Grellaud y Cia.

6.285 megs. 47.70 m.

CZA, Drummondville, P. Q. Works ships.

6.300 megs. 47.59 m.

HJ1ABH, Cienaga, Colombia. 48 watts. Sergio Martinez Aparicio, Jr. Tues., Fri., 1945-2200.

YV12RM, Maracay, Venezuela. Luis y Victor Croquer.

6.315 megs. 47.48 m.

HIZ, Trujillo, D. R. 100 watts. "La Voz de los Muchachos." Frank Hatton, Calle Duarte No. 68. Sat., 2300-0100; daily exc. Sun., 1700-1800.

6.330 megs. 47.36 m.

JZG, Nazaki, Japan. 10 kW. Works ships. Kokusai-Denwa Kaisha, Ltd., Osaka Bldg., Kojimachiku, Tokyo.

6.356 megs. 47.17 m.

HRP1, San Pedro Sula, Honduras.

6.375 megs. 47.03 m.

YV4RC, Caracas, Venezuela. "Ecos del Avila." Member: Cadena Indo-Americana. Address: Estacion SAR, Este 10, Bis No. 71, Caracas. Daily, 1630-2230.

6.380 megs. 46.99 m.

HI3U, Santiago, D. R. "La Voz del Comercio."

6.385 megs. 46.94 m.

WO9, Mitchell Field, Mineola, Long Island. Army airport.

WTR, Albrook Field, Canal Zone. Army airport.

6.400 megs. 46.85 m.

YV9RC, Caracas, Venez. "Ondas Populares." Teatro Municipal, calle Este 8.

6.410 megs. 46.77 m.

TIPG (TI2PG), San Jose, Costa Rica. 1 kW. "La Voz de la Victor." Perry Girton, Apartado 224. Sun., 0600-0700; 1100-2230. Weekdays, 1100-1300; 1730-2230.

6.425 megs. 46.66 m.

CZG, Prince Rupert, B. C. B. C. Provincial Police.

VE9AS, Fredericton, N. B. Address, C/o Electrical Engineering Dept., University of New Brunswick.

VK1, Selfridge Field, Mt. Clemens, Mich. Army airport.

W3XL, Bound Brook, N. J. 100 kW. NBC Control station and cue station for nearly all special "stunt" broadcasts. Address NBC, 30 Rockefeller Plaza, N. Y. City.

W9XBS, Chicago (Downers Grove), Ill. 2.5 kw. NBC, Merchandise Mart.

W9XF, Chicago (Downers Grove), Ill. 2.5 kw. NBC.

6.440 megs. 46.56 m.

RTA, Novosibirsk, USSR. 15 kW.

6.445 megs. 46.52 m.

PD1, Maxwell Field, Montgomery, Ala. Army airport.

PE2, Wright Field, Dayton, Ohio. Army airport.

6.447 megs. 46.50 m.

HJ1ABB, Barranquilla, Colombia. 300 watts. "La Voz de Barranquilla." Relays HJ1ABA. Address: Elias J. Pellet B., Apartado 715. Daily, 1700-2200.

6.450 megs. 46.48 m.

HI4V, Trujillo, D. R. "La Voz de la Marina." Aptdo. 771.

HJ4ABC, Ibague, Colombia. "Ecos de Combeima." Mario M. Barrios, Aptdo. 39.

6.490 megs. 46.20 m.

HJ5ABD, Cali, Colombia. "La Voz del Valle." Apartado 270. Thurs., Sat., Sun., 1900-2100.

6.500 megs. 46.13 m.

HIL, Trujillo, D. R. Mr. J. C. Pellicer, Box 623.

HI4D, Trujillo, D. R. "La Voz de Quisqueya." 1300-1340; 1640-1940; daily exc. Sun.

6.520 megs. 45.98 m.
YV6RV, Valencia, Carabobo, Venezuela. "La Voz de Carabobo." Sres. Hermann y Williams Degwitz.

6.550 megs. 45.76 m.
TIRCC, San Jose, Costa Rica. 500 watts. "Radioemisora Catolica Costaricense." Box 1064.

6.610 megs. 45.36 m.
CWE, Cerrito (Montevideo) Uruguay. 1.5 kW.

6.615 megs. 45.32 m.
KIKL, Los Angeles, Calif.
WMEP, Suffield, Ohio. 400 watts. Airways.
WMEQ, Wheeling, Ill. Airways.
WMEU, St. Petersburg, Fla. 400 watts. Airways.
WMEV, Opa Locka, Fla. (Goodyear Zeppelin Base). 400 watts.
WNEK, Jackson Heights, L. I.

6.618 megs. 45.31 m.
WVD, Seattle, Wash. Phones Alaska. Alaskan Telephone Co., 517 Federal Office Bldg.

6.620 megs. 45.29 m.
PRADO, Riobamba, Ecuador. "Estacion El Prado." Member: Cadena Indo-Americana. Apartado 98. Thurs., 2100-2330 and other nights irregularly.

6.645 megs. 45.12 m.
FG7, Langley Field, Va. Army airport.
WYV, Patterson Field, Ohio. Army Airway.

6.650 megs. 45.09 m.
HC2RL, Guayaquil, Ecuador. "Quinta Piedad." Address: Dr. Roberto Levi, Apartado 759. Tues., 2114-2314; Sun. 1745-1945.
IAC, Coltano, Italy. 14 kW. Works ships. Address IAC, 4.355 megs.
This frequency has been assigned to certain SHIPS but it is not known whether or not voice is used. Reports from readers of actual VOICE reception are requested.

6.662 megs. 45.00 m.
WXH, Ketchikan, Alaska. Phones Seattle.

6.666 megs. 44.98 m.
ZP1O, Asuncion, Paraguay.

6.672 megs. 44.94 m.
YVQ, Maracay (Santa Rita), Venezuela. Address: Estados Unidos de Venez., Servicio Radiotelegrafico.

6.675 megs. 44.91 m.
DGK, Nauen, Germany. Address: Reichspostzentralamt, Telegraphentechnisches Reichsamt, Schoneberger Strasse 11-15, Berlin-Tempelhof.

6.690 megs. 44.82 m.
CGA6, Drummondville, P. Q. Address VE9DN, 6.005 megs.

6.710 megs. 44.68 m.
TIEP, San Jose, Costa Rica. "La Voz del Tropico." Sr. Eduardo Pinto Hernandez, Apartado 257. Member: Cadena Indo-Americana. Daily, 1900-2200.

6.718 megs. 44.62 m.
KBK, Manila, P. I. 50 kW. Radio Corp. of the Philippines, Plaza Moraga, Manila.
WDB, Rocky Point, N. Y. Works Havana. Radio Corp. of A., Central Frequency Bureau, 66 Broad St., N. Y. City.

6.720 megs. 44.62 m.
CFU, Rossland, B. C. Consolidated Mining & Smelting Co.

6.725 megs. 44.57 m.
WQO, Rocky Point, N. Y. Address WDB, 6.718 megs.

6.735 megs. 44.53 m.
KEQ, Kahuku, Oahu, Hawaii. Works California.

6.750 megs. 44.42 m.
JVT, Nazaki, Japan. 20 kW. Works Dixon and broadcasts. Address JZG, 6.330 megs.

6.755 megs. 44.38 m.
WOA, Lawrenceville, N. J. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. City.

6.760 megs. 44.35 m.
CJA6, Drummondville, P. Q. Address VE9DN, 6.005 megs.

6.790 megs. 44.16 m.
GDB, Rugby, England. Address GDW, 4.820 megs.

6.796 megs. 44.12 m.
HIH, San Pedro de Macoris, D. R. 150 w. "La Voz del Higuamo." Sr. Domingo Dominguez.

6.860 megs. 43.71 m.
KEL, Bolinas, Calif. RCA Communications, Inc. Pacific Division, 28 Geary St., San Francisco, Calif.

6.870 megs. 43.64 m.
RKF, Moscow, USSR. 20 kW.

6.880 megs. 43.58 m.
CGA7, Drummondville, P. Q. Address VE9DN, 6.005 megs.
RKF, Moscow, USSR. 20 kW.

6.900 megs. 43.45 m.
RKF, Moscow, USSR. 20 kW.

6.905 megs. 43.42 m.
GDS, Rugby, England. 15 kW. Phones N. Y. nights Address GDW, 4.820 megs.

6.935 megs. 43.23 m.
WEB, Rocky Point, N. Y. Works Paris. Address WDB, 6.718 megs.

6.950 megs. 43.13 m.
WKP, Rocky Point, N. Y. Address WDB, 6.718 megs.

6.990 megs. 42.89 m.
JVS, Nazaki, Japan. Works Shanghai. Address JZG, 6.330 megs.

7.000 megs. 7.300 m.
41.07 meters to 42.83 meters. Amateur Band. Foreign amateurs use phone in this band. USA, code only.

7.005 megs. 42.80 m.
HB9H, Berne, Switzerland. Swiss Shortwave Association, 30 Neuengasse, Berne. First Monday each month, 1500-1615.

7.080 megs. 42.35 m.
VP3MR, Georgetown, Br. Guiana. "The Voice of Guiana." Sun., 0745-1015; Mon., 1545-1645; Thurs., 1700-1845; Mon., Wed., Sat., 1845-1945.

7.090 megs. 42.29 m.
HKE, Bogota, Colombia. 138 watts. Observatorio Nacional de San Bartolome.

7.175 megs. 41.78 m.

CR6AA, Lobito, Portuguese West Africa. "Radio Eddystone." The Manica Trading Co., Ltd., Caixa Postal 118, Lobito.

7.220 megs. 41.53 m.

HAT2, Szekesferhervar, Hungary. 6 kW. "Justice for Hungary!" Announcements Hungarian, French, English by lady. Address: Magyar Kiralyi Postakiserleti Allomas, IX Kerulet Gyali Ut 22, Budapest.

7.225 megs. 41.50 m.

RPK, Moscow, USSR. 20 kW.

7.260 megs. 41.30 m.

RFF, Kharkov, USSR. 1kW.

7.275 megs. 41.23 m.

RTZ, Irkutsk, USSR. 15 kW.

7.280 megs. 41.18 m.

HJ1ABD, Cartagena, Colombia. 100 w. "Ondas de la Heroica." Int. sig., gong. s/o Stars and Stripes Forever. Ignacio de Villarreal, Apartado 252. Daily, 1945-2115.

7.370 megs. 40.68 m.

WJN, Rocky Point, N. Y. Address WDB, 6.718 megs.

7.380 megs. 40.63 m.

XECR, Mexico City, D. F. Announcements: Spanish, English. Address: Departamento de Publicidad de la Secretario de Relaciones Exteriores.

7.390 megs. 40.57 m.

HJ3ABD, Bogota, Colombia. 50 watts. "Colombia Broadcasting." Apartado 509. Daily, 1930-2300.

JVR, Nazaki, Japan. Works Hongkong. Address JZG, 6.330 megs.

ZLT2, Wellington, N. Z. 1 kW. Works VLJ. Address: Supt. of Post and Telegraphs, G. P. O.

7.400 megs. 40.51 m.

WEM, Rocky Point, N. Y. Works London, Honolulu. Address WDB, 6.718 megs.

7.465 megs. 40.16 m.

HJP, Bogota, Colombia. Works Hialeah nights.

7.470 megs. 40.14 m.

JVQ, Nazaki, Japan. 10 kW. Works PLE, PLV. Address JZG, 6.330 megs.

7.510 megs. 39.92 m.

JVP, Nazaki, Japan. 20 kW. Works Europe. Address JZG, 6.330 megs.

7.520 megs. 39.87 m.

KKH, Kahuku, Oahu, Hawaii. Works Dixon.
RKI, Moscow, USSR. 20 kW.

7.550 megs. 39.71 m.

CFQ, Edmonton, Alta. The E. Journal, Ltd.
CGE, Calgary, Alta. The Calgary Herald, Southam Bldg.
CKS, Portable. Address CGE above.
TI8WS, Puntarenas, Costa Rica. "Ecos del Pacifico." Aptdo. 75.

7.565 megs. 39.63 m.

KWY, Dixon, Calif. Address: Transpacific Communication Co., Ltd., 140 New Montgomery St., San Francisco.

7.575 megs. 39.58 m.

XGO, Shanghai, China. Chinese Govt. Radio Administration, Sassoon House, Jinkee Road.

7.610 megs. 39.40 m.

KWX (W6XN), Dixon, Calif. Address KWY, 7.565 megs.

7.620 megs. 39.35 m.

ETD, Addis Ababa, Ethiopia. 2 kW. Frank A. Hammar, Chief Wireless Engineer, Dept. of Communications.

7.626 megs. 39.32 m.

RIM, Tashkent, USSR. Works RKI. 20 kW.

7.680 megs. 39.04 m.

YBZ, Menado, Celebes, N. E. I. Works PNI, Macassar. Address: Mr. H. Van der Veen, Engineer-in-charge, Post-Telegraafen Telefoondienst, Bedrijf der Radiostations op Java, Bandoeng.

7.685 megs. 39.01 m.

HJA3, Barranquilla, Colombia.
TIR, Cartago, Costa Rica. Address: Compania Radiografica Internacional de C. R., San Jose.

7.715 megs. 38.86 m.

KEE, Bolinas, Calif. Address KEL, 6.860 megs.

7.740 megs. 38.74 m.

CEC, La Granja (Santiago) Chile. Address CEC, 5.820 megs.

7.797 megs. 38.47 m.

HBP, Prangins (Geneva) Switzerland. 20 kW. "Radio Nations." Works USA and broadcasts. Programs consist of talks in English, French, Spanish. Address: M. G. Gallarati, Information Section, League of Nations, Geneva. Sat., 1730-1815.

7.820 megs. 38.34 m.

OCO, Lima (Valverde), Peru.

7.830 megs. 38.29 m.

HC2JSB, Guayaquil, Ecuador. Interval sig.: one gong.

7.880 megs. 38.05 m.

JYR, Kemikawa-Cho, Chiba-Ken, Japan. 5 kW. Experimental.

7.900 megs. 37.95 m.

VE9EW, Toronto, Ont. J. E. Smith, 60 Rochester Ave.

7.920 megs. 37.86 m.

GCP, Rugby, England. Address GDW, 4.820 megs.

7.960 megs. 37.67 m.

VLZ (VK2ME), Pennant Hills (Sydney), N. S. W., Australia. 3.5 kW. Address: Amalgamated Wireless (A/sia) Ltd., 47 York St., Sydney.
XGL, Shanghia, China. Address: XGO, 7.575 megs.

7.968 megs. 37.63 m.

HSP, Bangkok, Siam. 20 kW. Address Post and Telegraph Dept.

7.980 megs. 37.57 m.

VLZ (VK2ME), Pennant Hills (Sydney), Australia. Address VLZ, 7.960 megs.

8.020 megs. 37.38 m.

HSJ, Bangkok, Siam. 20 kW. Address HSP, 7.968 megs.

8.035 megs. 37.31 m.

CNR, Rabat, Morocco. 12 kW. Phones Paris. Direction de l'Office des Postes, des Telegraphes et des Telephones du Maroc, Rabat.

8.050 megs. 37.24 m.
WXA, Juneau, Alaska. Works WVD at 2400.

8.070 megs. 37.15 m.
IRF, Rome, Italy. Works N. Y. Societe Italo Radio, Servizi Radioelectrici, Via Calabria No. 46-48, Roma 125, Italy.

8.075 megs. 37.13 m.
WEZ (W2XBJ), Rocky Point, N. Y. Works Paris.

8.095 megs. 37.04 m.
VLK, Pennant Hills (Sydney) Australia. Address VLZ, 7.960 megs.

8.120 megs. 36.92 m.
KTP, Manila, P. I. Phones Dixon near 1000. Address KBK, 6.718 megs.

8.180 megs. 36.65 m.
PSK, Rio de Janeiro (Marapicu) Brazil. Phones N. Y. and Buenos Aires. Companhia Radio Internacional do Brasil, Caixa Postal 709, Rio de Janeiro.

8.220 megs. 36.47 m.
WNED, Tampa, Fla. Pan American Airways, Inc.
ZSV, Walvis Bay, Union of South Africa. 1 kW.

8.225 megs. 36.45 m.
RRD, Moscow, USSR. 20 kW.

8.396 megs. 35.71 m.
HSP, Bangkok, Siam. 20 kW. Address HSP, 7.968 megs.

8.455 megs. 35.46 m.
CWF, Montevideo (Cerrito) Uruguay. 1.5 kW.

8.464 megs. 35.42 m.
DAF, Norden, Germany. Works ships. Address Hauptfunkstelle Norddeich, Norden-Land.

8.500 megs. 35.47 m.
JZF, Nazaki, Japan. 10 kW. Works ships. Address JZG, 6.330 megs.

8.515 megs. 35.21 m.
CZA, Drummondville, P. Q. Works ships. CMC, Box 1690, Montreal.
IAC, Coltano, Italy. 60 kw. Radio Marittimo Coltano, Piza.

8.560 megs. 35.03 m.
WOO, Ocean Gate, N. J. 20 kW. Works ships. American Telephone & Telegraph Co., Long Lines Dept., 32 Sixth Ave., N. Y. C.
WOY, Lawrenceville, N. J. 20 kW. Address WOO above.

8.565 megs. 35.00 m.
HAT3, Szekesfehervar, Hungary. 20 kW. "Justice for Hungary!" Announce in Hungarian, French, English by lady. Address HAT2, 7.220 megs.

8.575 megs. 34.96 m.
TYD2, Pontoise, France. Phones Rabat.
YCP, Balikpapan, N. E. I. 3 kW. Address YBZ, 7.680 megs.

8.620 megs. 34.78 m.
WVD, Seattle, Wash. Works Alaska at 2400. Alaskan Telephone Co., 517 Federal Office Bldg., Seattle.

8.625 megs. 34.76 m.
HC2CW, Guyaquil, Ecuador. "Ondas del Pacifico."

8.665 megs. 34.60 m.
CO9JQ, Camaguey, Cuba. 150 watts. Rafael Grimany, Calle General Gomez No. 4.

8.680 megs. 34.54 m.
GBC, Rugby, England. Works ships. Address GDW, 4.820 megs.

8.690 megs. 34.50 m.
VWZ, Kirkee, Poona, India. 10 kW. Works also on freqs. 8.691, 8.693, 8.700 megs. Phones London.

8.708 megs. 34.43 m.
VWZ, Kirkee, Poona, India. 10 kW. Phones London.

8.710 megs. 34.42 m.
CEC, La Granja, (Santiago) Chile. 800 watts. Address CEC, 5.820 megs.

8.750 megs. 34.26 m.
ZBW, Hong Kong, 500 w. The Secy., Hong Kong Brdcstg. Committee, P. O. Box 200.

8.770 megs. 34.19 m.
RSZ, Irkutsk, USSR. 15 kW. Tests with RNE.

8.775 megs. 34.16 m.
PNI, Macassar, Celebes, N. E. I. 3 kW. Phones Bandoeng. Address YBZ, 7.680 megs.

8.790 megs. 34.11 m.
HJA3, Barranquilla, Colombia.

8.810 megs. 34.03 m.
FNSK, S. S. Normandie. Works Paris nights. French Lines, Pier 88, North River, Foot of W. 48th St., N. Y. C.

8.830 megs. 33.95 m.
SHIPS. For address of these ships refer to 4.413 megs., 4.415 megs and 4.430 megs. All these ships work with WOO. The German ships work also DAF; British ships with GBC and CZA; Furness-Bermuda ships with ZFA-B.
DDBR, S. S. Berlin.
DDCP, S. S. Cap Polonio.
DDFF, S. S. Reliance.
DDFT, S. S. Oceana.
DHAO, S. S. Hansa
DHDL, S. S. Cap Arcona.
DHEY, S. S. Deutschland.
DHJZ, S. S. Hamburg.
DHRL, S. S. New York.
DOAH, S. S. Bremen.
DOAI, S. S. Europa.
FNSK, S. S. Normandie. Works WOO nights. Address 8.810 megs.
FNSM, S. S. Paris.
FNTQ, S. S. Ile de France.
GBZW, S. S. Berengaria.
GDLJ, S. S. Homeric.
GFWV, S. S. Majestic.
GLRZ, S. S. Aquitania.
GMBJ, S. S. Empress of Britain.
VQJM, S. S. Monarch of Bermuda.
VQJP, S. S. Queen of Bermuda.

8.900 megs. 33.69 m.
HCJB, Quito, Ecuador. 150 watts. "La Voz de los Andes." Interval sig.: 4 strokes on gong. Address Clarence W. Jones, Casilla 691
ZLS, Wellington, N. Z. Address Supt. of Post and Telegraphs, GPO.

8.930 megs. 33.57 m.
WAD, Rocky Point, N. Y. R. C. A., Central Frequency Bureau, 66 Broad St., N. Y. City.
WEC, Rocky Point, N. Y. Address WAD above.

8.940 megs. 33.54 m.

KZGG, Cebu, Island of Cebu, P. I. Inter-Island phone. Philippine Long Distance Telephone Co.

WKL, Rocky Point, N. Y. Address WAD, 8.930 megs.

8.950 megs. 33.50 m.

WEL, Rocky Point, N. Y. Address WAD, 8.930 megs.

8.975 megs. 33.41 m.

VWY, Kirkee, Poona, India. Phones London.

9.010 megs. 33.28 m.

KEJ, Bolinas, Calif. 20-40 kW. Address KEL, 6.860 megs.

9.020 megs. 33.24 m.

GCS, Rugby, England. 15 kW. Phones N. Y. night.

9.040 megs. 33.17 m.

TYA2, Pontoise, France. Phones Algeria.

9.050 megs. 33.13 m.

TFK, Reykjavik, Iceland. 8.5 kW.

9.120 megs. 32.88 m.

CP6, La Paz, Bolivia. "Illimani Radio." Compania Radio Boliviana, Casilla 637.

9.125 megs. 32.86 m.

HAT4, Szekesfehervar, Hungary. 20 kW. "Justice for Hungary!" Announce in Hungarian, French, English by lady. Address HAT2, 7.220 megs.

9.168 megs. 32.70 m.

YVR. Santa Rita, Maracay, Venezuela. Address YVQ, 6.672 megs.

9.170 megs. 32.70 m.

KZGF, Manila, P. I. Inter-Island phone.

WNA, Lawrenceville, N. J. Works London. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. City

9.180 megs. 32.66 m.

ZSR, Capetown (Klipheuval), Union of S. Af. Overseas Communication Co., Kodak House, Shortmarket St.

9.280 megs. 32.31 m.

GCB, Rugby, England. 15 kW. Phones Canada. Address Engineer-in-Chief, G.P.O. (Radio Section), Armour House, St. Martins le Grand, London EC1.

9.332 megs. 32.13 m.

CGA4, Drummondville, P. Q. Phones London. Address VE9DN, 6.005 megs.

9.415 megs. 31.84 m.

PLV, Bandoeng, Java, N. E. I. 80 kW. Works Dixon and JVB, JVE, JVQ. Address Mr. H. Van der Veen, Post-Telegraafen Telefoondienst, Bedrijf der Radiostations op Java, Bandoeng.

9.428 megs. 31.80 m.

COCH, Vedado, Havana, Cuba. Slogan: "Cuba, the Evergreen Land." Address: No. 2, B. Street. Daily 1000-1200; 1600-1800; 2100-2200; Relays CMCY Sunday, 1000-1100.

9.448 megs. 31.74 m.

WES, Rocky Point, N. Y. Address WAD, 8.930 megs.

9.450 megs. 31.73 m.

TG1X, Guatemala City, Guat. 200 watts. Ministerio de Fomento.

9.460 megs. 31.69 m.

WKJ, New Brunswick, N. J. Address WNA, 9.170 megs.

9.470 megs. 31.66 m.

WET, Rocky Point, N. Y. Works Buenos Aires, Caracas. Address WAD, 8.930 megs.

9.480 megs. 31.63 m.

KES, Bolinas, Calif. RCA Communications, Inc.

9.490 megs. 31.59 m.

KZGH, Iloilo, P. I. Inter-Island phone. Philippine Long Distance Telephone Co.

OXY, Copenhagen, Denmark. Not used at present.

VK3ME, Melbourne, Victoria, Australia (Braybank). 5 kW. Amalgamated Wireless (A/sia) Ltd., Box No. 1272L, Elizabeth St. P. O., Melbourne.

9.500 megs. 31.56 m.

HJU, Buenaventura, Colombia. National Railways.

XGOX, Nanking, China. See 6.000 megs.

9.505 megs. 31.54 m.

PRF5, Rio de Janeiro, Brazil. "Radio Journal." Program consists of talks in Portuguese, Spanish, English and sometimes French, German. Address: Director of the Imprensa Nacional. Daily, 1730-1815.

9.510 megs. 31.53 m.

GSB, Daventry, England. 20 kW. "B for Broadcasting." Interval sig.: Bow Bells and Big Ben. Sign off: God Save the King. Address GSA, 6.050 megs. Daily, 0115-0315; 1215-1500; 1515-1645.

9.520 megs. 31.49 m.

XEDQ, Guadalajara, Jal. Relays XED. Address Cia. Radiofonografica, Apartado 197. Daily, 0800-0900; 1200-2400.

9.530 megs. 31.46 m.

W2XAF, Schenectady, N. Y. 40 kW. Relays NBC-WGY. The General Electric Co., Schenectady. "The Voice of Electricity." Programs commence with electrical discharge of 10,000,000 Volts (man-made lightning). Sun., 1615-2400; Thurs., 1700-2300; other days, 1730-2300.

9.540 megs. 31.43 m.

DJN, Zeesen, Germany. 8 kW. Programs close with "Deutschland ueber alles" and "Horst Wessellied." Programs preceded by a music box tune, "Ever be True and Honest." Address DJC, 6.020 megs.

LKJ1, Jeloy, Norway. 500 watts. Address LCL, 6.130 megs. Daily, 0500-0800.

9.550 megs. 31.39 m.

HH2R, Port au Prince, Haiti.

9.560 megs. 31.36 m.

DJA, Zeesen, Germany. For details see DJN, 9.540 megs.

9.565 megs. 31.35 m.

VUB, Bombay, India. Indian State Broadcasting Service, Irwin House, Sprotts Road, Ballard Estate, Bombay. Sun., 0700-0900 approximately.

9.570 megs. 31.33 m.

W1XK, Millis (Boston), Mass. 10 kW. Relays WBZ-WBZA, NBC programs. "These are the New England Westinghouse stations WBZ, WBZA, W1XK."

W8XK, Pittsburgh (Saxonburg), Pa. This frequency loaned to W1XK.

9.575 megs. 31.31 m.

VUC, Calcutta, India. Refer to VUC, 6.112 megs.

9.580 megs. 31.30 m.

GSC, Daventry, England. 20 kW. "C for Corporation." For other details see GSB, 9.510 megs. Daily, 1800-2000; 2200-2300.

LRX, Buenos Aires, Argentina. "Radio El Mundo." Relays LR1. 5 kw.

VK3LR, Melbourne, Australia. Research Section, P. M. G. Dept., 61 Little Collins St., C1, Melbourne. Daily, 0400-0800.

9.585 megs. 31.28 m.

VK2ME, Sydney (Pennant Hills), Australia. 12 kW. "The Voice of Australia." Laughing notes of the kookaburra, the Laughing Jackass, various times during program. Sign off: God Save the King. Address: Amalgamated Wireless (A/sia) Ltd., 47 York St., Sydney. Sundays, 0100-0300; 0500-1100.

..... Villejust, France. 120 kW. (Under construction.)

9.590 megs. 31.26 m.

HP5J, Panama City, Panama. 1 kW. "La Voz de Panama." Manuel Diaz Doce, Apartado 867. Daily, 1145-1300; 1930-2200.

W3XAU, Philadelphia (Newton Square), Pa. Relays CBS-WCAU. 750 watts. Address W3XAU, 6.060 megs. Daily, 1200-2000.

9.595 megs. 31.25 m.

HBL, Prangins (Geneva), Switzerland. 18 kW. "Radio Nations." Works USA and broadcasts. Programs consist of talks in English, French, Spanish. Address HBP, 7.797 megs. Sat., 1730-1815.

HH3W, Port-au-Prince, Haiti.

9.600 megs. 31.23 m.

CB960, Santiago, Chile. "Radiodifusora Pilot." s/o Rhapsody in Blue. Compania Internacional de Radio, Casilla 16-D.

CT1AA, Lisbon, Portugal. 2kW. "Radio Colonial." Interval sig.: 3 cuckoos. Address: Senhor Abillo Nunes dos Santos, Jr., Av. Antonio d'Aguiar 144. Tues., Thurs., Sat., 1630-1900.

LQA, Buenos Aires, Argentina. Compania Internacional de Radio, Defensa 143, B. A.

9.609 megs. 31.20 m.

DGU, Nauen, Germany. Phones Egypt irreg. Address DGK, 6.675 megs.

9.635 megs. 31.12 m.

I2RO, Rome, Italy. Address Ente Italiano Audizioni Radiofoniche, Via Montello 5, Rome. American Hour broadcast Mon., Wed., Fri., 1800-1930.

9.675 megs. 30.99 m.

DJI, Zeesen, Germany.

9.710 megs. 30.88 m.

GCA, Rugby, England. 15 kW. Phones N. Y. and Buenos Aires. Address GCB, 9.280 megs.

9.750 megs. 30.75 m.

RKF, Moscow, USSR. 20 kW.

VLJ, Sydney (Pennant Hills), Australia. 3.5 kW. Phones Bandoeng. Address VK2ME, 9.585 megs.

WOF, Lawrenceville, N. J. Address WNA, 9.170 megs.

9.790 megs. 30.63 m.

GCW, Rugby, England. 15 kW. Phones N. Y. evenings. Address GCB, 9.280 megs.

9.830 megs. 30.50 m.

IRM, Rome, Italy. "Italo Radio"

9.840 megs. 30.47 m.

JYS, Kemikawa-Cho, Chiba-Ken, Japan. Experimental. 10 kW.

9.862 megs. 30.40 m.

EAQ, Madrid (Aranjuez), Spain. 20 kW. "La Voz de Espana." Transradio Espanola, S. A., Departamento de Radiodifusion Ibero-Americana, Apartado 951. Programs close with National Hymn, "Himno de Riego." Daily, 1730-1900; Sat., 1200-1400.

9.870 megs. 30.38 m.

WON, Lawrenceville, N. J. 20 kW. Works London. Add: WNA, 9.170.

9.895 megs. 30.30 m.

LSN, Buenos Aires (Hurlingham), Argentina. Works N. Y. Address LQA, 9.600 megs.

9.920 megs. 30.22 m.

JDY, Darien. Works JVU, Nazaki.

9.930 megs. 30.19 m.

HJY, Bogota, Colombia. Phones CEC, OCI evenings.

9.950 megs. 30.13 m.

GCU, Rugby, England. 15 kW. Works N. Y. nights. Address GCB, 9.280 megs.

9.990 megs. 30.01 m.

KAZ, Manila, P. I. 40 kW. Works Dixon. Radio Corp. of the Philippines, Plaza Moraga.

LSL, Buenos Aires, Argentina. Address LQA, 9.600 megs.

10.000 megs. 29.98 m.

WWV, Beltsville, Md. 20 kW. Standard Frequency Station. Dept. of Commerce, National Bureau of Standards, Washington, D. C. Tues., Fri., 1315-1415.

10.040 megs. 29.86 m.

HII, Trujillo, D. R. Cia. Dominicana de Telefonos, Aptdo. 577.

10.042 megs. 29.85 m.

DJJ, Zeesen, Germany.

10.055 megs. 29.82 m.

SUV, Cairo (Abu Zabal), Egypt, 10 kW. Marconi Radio Telegraph Co., of Egypt, S. A., Box 795, Cairo.

ZFB, Hamilton (St. George) Bermuda. 1.5 kW. Phones N. Y. days.

10.070 megs. 29.77 m.

EHY, Madrid (Pozuelo del Rey), Spain. Phones YVR afternoons. Compania Telefonica Nacional de Espana, S. A., Margall 2, Madrid.

10.080 megs. 29.74 m.

RIR, Tiflis, USSR. Works RIO. RNE mornings.

10.135 megs. 29.58 m.

OPM, Leopoldville, Belgian Congo. 12 kW. Works ORK. Address Leopoldville Radio Station.

10.160 megs. 29.51 m.

RIO, Baku, USSR. Works RIR, RNE mornings.

10.200 megs. 29.34 m.

PSH, Rio de Janeiro (Marapicu), Brazil. 12 kW. Works Buenos Aires. Cia. Radiotelegraphica Brasileira, Caixa Postal 500.

10.250 megs. 29.25 m.
LSL, Buenos Aires (Hurlingham), Argentina. 5 kW.

10.260 megs. 29.22 m.
PMN, Bandoeng, N. E. I. 3 kW. Works Sydney. Address PLV, 9.415.

10.285 megs. 29.15 m.
DIQ, Zeesen, Germany. Address DGK, 6.675 megs.

10.290 megs. 29.14 m.
HPC, Panama City, Panama.

10.330 megs. 29.02 m.
ORK, Brussels (Ruysselede), Belgium. 11 kW. Works OPM irregularly; broadcasts daily. Ann.: Radio I.N.R. Sign off: La Brabaconne. Address: Regie des Telegraphes et des Telephones, Direction des Radiocommunications, Bruxelles.

10.335 megs. 29.01 m.
ZFD, St. George, Bermuda. 1.5 kW. Address reports on special transmissions to Town Clerk, St. George.

10.350 megs. 28.97 m.
LSX, Buenos Aires (Monte Grande), Argentina. 20 kW. Transradio Internacional, Compania Radiotelegrafica Argentina S. A. San Martin 329.

10.370 megs. 28.91 m.
EHZ, El Tablero, Canaries. Works EHX.
WCG, Tuckerton, N. J.

10.375 megs. 28.89 m.
JVO, Nazaki, Japan. 10 kW. Works JZA, JZB, JZC, Harbin. Address JZG, 6.330 megs.

10.400 megs. 28.83 m.
KEZ, Bolinas, Calif. 40 kW. RCA Communications, Inc., Pacific Division, 28 Geary St., San Francisco, Calif.

10.410 megs. 28.80 m.
KET, Bolinas, Calif. 40 kW. Address KEZ, 10.400 megs
PDK, Kootwijk, Netherlands. 60 kW. Address Radiolaboratory, Neth. State Telegraphs, Parkstraat 29, S'Gravenhage.

10.420 megs. 28.77 m.
DZB, Zeesen, Germany.
XGW, Shanghai, China. 20 kW. Address XGO, 7.575 megs.

10.430 megs. 28.75 m.
YBG, Medan, Sumatra, N. E. I. 3 kW. Works Bandoeng. Director of Govt. Radio Service, Telegraaf en Telefoondienst, Serdangweg 2, Medan. Daily, 0430-0530; 2030-2300.

10.465 megs. 28.64 m.
WKC, Rocky Point, N. Y. 100 kW. Address WAD, 8.930 megs.

10.520 megs. 28.50 m.
CFA4, Drummondville, P.Q. CMC, Box 1696, Montreal
VLK, Pennant Hills (Sydney), Australia. 16 kW. Address VK2ME, 9.585 megs.

10.530 megs. 28.47 m.
GBX, Rugby, England. 8 kW. Address GCB, 9.280 megs.
JIB, Taihoku (Chureki), Taiwan. Works Tokyo. 6 kw. Kokusai Denwa Kaisha, Chureki Gai, Shinchiku, Taiwan.

10.550 megs. 28.42 m.
WOK, Lawrenceville, N. J. 20 kW. Address WNA, 9.170 megs.

10.610 megs. 28.25 m.
WEA, Rocky Point, N. Y. 40 kW. Address WAD, 8.930 megs.

10.620 megs. 28.23 m.
EHX, Madrid (Pozuelo del Rey), Spain.

10.660 megs. 28.13 m.
JVN, Nazaki, Ibaraki-Ken, Japan. 20 kW. Works Europe and broadcasts to America. Sign off: Japanese National Anthem. Address, see JZG. 6.330 megs. Mon., Thurs., 1600-1700; daily, 0000-0100.

10.670 megs. 28.10 m.
CEC, La Granja, (Santiago) Chile. 4 kW. Compania Internacional de Radio S. A. (Chile), Casilla 16-D, Santiago.
PLQ, Bandoeng, N. E. I. 60 kW.

10.675 megs. 28.09 m.
WNB, Lawrenceville, N. J. 500 watts. Phones Bermuda. Address, WNA, 9.170 megs.

10.740 megs. 27.92 m.
JVM, Nazaki, Ibaraki-Ken, Japan. 20 kW. Other details identical JVN, 10.660.

10.770 megs. 27.84 m.
GBP, Rugby, England. 15 kW. Address GCB, 9.280 megs.

10.840 megs. 27.66 m.
KWV, Dixon, Calif. 20 kW. Address: Transpacific Communication Co., Ltd., 140 New Montgomery St., San Francisco, Calif.

10.850 megs. 27.53 m.
DFL, Nauen, Germany.

10.960 megs. 27.36 m.
JZB, Shinkio (Kanjoshi) Manchukuo. 20 kW. Works JVI, JVO, JVU. Add: Manchukuo Telephone & Telegraph Co., Ltd., Shinkio.

11.000 megs. 27.26 m.
PLP, Bandoeng, Java, N. E. I. 3 kW.
XBJQ, Mexico City, Mexico. Relays XEW irreg. Int. sig.: 4 chimes. National Bank of Mexico, Box 2825.
ZLT4, Wellington, N. Z.

11.140 megs. 26.91 m.
XGB, Shanghai, China. 15 kW. (Existence doubtful).

11.370 megs. 26.38 m.
CWG, Cerrito (Montevideo), Uruguay. 1.5 kW.

11.495 megs. 26.08 m.
VIZ3, Rockbank (Melbourne), Australia. Tests with Canada. Address VK3ME, 9.503 megs.
VRR4, Stoney Hill, Jamaica. Works WNC.

11.660 megs. 25.71 m.
JVL, Nazaki, Japan. 10 kW. Works JIA, JIB, JIC Taiwan. Address JZG, 6.330 megs.

11.670 megs. 25.69 m.
PPQ, Rio de Janeiro (Sepetiba), Brazil. 5 kW. Address, see PSH, 10.220 megs.

11.680 megs. 25.67 m.
KIO, Kahuku, Oahu, Hawaii. Works Bolinas.

11.710 megs. 25.60 m.
HJ4ABA, Medellin, Colombia. "Ecos de la Montana"

11.720 megs. 25.58 m.
CJRX, Winnipeg, Man. (Middlechurch). James

Richardson & Sons, Royal Alexandra Hotel. Daily, 2000-2400.

..... , "Radio Coloniale," Pontoise, France. 15 kW. Address: Ministere des Postes, Telegraphes et Telephones, Direction de la Radiodiffusion, 98 bis, Blvd. Haussmann, Paris. Daily, 1900-2200; 2300-0100.

11.725 megs. 25.57 m.

PHI, Hilversum, Netherlands. 23.6 kW. (Winter frequency). Philips' Omroep Holland-Indie, Emmasingel 29, Eindhoven. Announces in Dutch, Malay, German, French, English, Spanish, Portuguese. Close: Dutch National Anthem.

11.750 megs. 25.52 m.

GSD, Daventry, England. 20 kW. "D for Daventry." Interval sig.: Bow Bells and Big Ben. Sign off: God Save the King. Address, see GSA, 6.050 megs. Daily, 0115-0315; 1215-1600; 1800-2000; 2200-2300.

11.770 megs. 25.47 m.

DJD, Zeesen, Germany. 8 kW. Programs preceded by a music box tune, "Ever be True and Honest." Address DJC, 6.020 megs.

11.790 megs. 25.43 m.

HH2T, Port-au-Prince, Haiti.
W1XAL, Boston, Mass. 5 kW.

11.800 megs. 25.37 m.

CO9WR, Sancti-Spiritus, Cuba. 150 watts. V. E. Weiss y O. Ramirez, Apartado 85.

11.810 megs. 25.39 m.

I2RO, Rome, Italy. Address I2RO, 9.630 megs.

11.830 megs. 25.34 m.

W2XE, New York, N. Y. (Wayne, N. J.) Relays CBS, WABC. 10 kW. Address W2XE, 6.120 megs.
W9XAA, Chicago, Ill.

11.845 megs. 25.31 m.

..... , Villejust, France. 120 kW. Under construction.

11.855 megs. 25.29 m.

DJP, Zeesen, Germany.

11.860 megs. 25.28 m.

GSE, Daventry, England. 20 kW. "E for Empire." Interval signal: Westminster Chimes and Big Ben. Sign off: God Save the King. Address: see GSA, 6.050 megs. Daily, 1100-1200.

11.870 megs. 25.25 m.

W8XK, Pittsburgh (Saxonburg), Pa. 40 kW. Relays NBC-KDKA.

11.880 megs. 25.24 m.

..... , "Radio Coloniale," Pontoise, France. 15 kW. Address, see 11.720 megs. Daily, 1115-1415; 1500-1800.

11.940 megs. 25.11 m.

FTA, Ste. Assise, France. Works Saigon. Societe Francaise Radio-Electrique, 79 Blvd. Haussmann, Paris VIII.

11.950 megs. 25.08 m.

KKQ, Bolinas, Calif. Address KEZ, 10.400 megs.

11.955 megs. 25.07 m.

ETB, Addis Ababa, Ethiopia. 2 kW. Frank A. Hammar, Chief Wireless Engineer, Dept. of Communications.

11.990 megs. 25.00 m.

FZS2, Saigon, French Indo-China. 15 kW. Phones Paris. Cie Generale de Telegraphie Sans Fil, Boite Postale 238.

12.000 megs. 24.99 m.

RNE, Moscow, U.S.S.R. 20 kW. Kremlin Chimes at 1600 EST. Programs in English, Russian, German, French, Czech, Hungarian, Dutch, Spanish, Swedish. Address: Mme. Inna Marr, Central Radio Committee, Petrovka 12, Moscow.

12.020 megs. 24.94 m.

JVK, Nazaki, Japan. Works Shanghai. Address JZG, 6.330 megs.

12.030 megs. 24.92 m.

HBO, Prangins, (Geneva), Switzerland. 20 kW. "Radio Nations." Address: see HBP, 7.797 megs.

12.035 megs. 24.91 m.

DJK, Nauen, Germany. 7.2 kW. Address DGK, 6.675 megs.

12.050 megs. 24.88 m.

PDV, Kootwijk, Netherlands. 60 kW. Address: PDK, 10.410 megs.

12.150 megs. 24.68 m.

GBS, Rugby, England. 15 kW. Phones N. Y. afternoons. Address: GCB, 9.280 megs.

12.215 megs. 24.55 m.

TYA, Paris, France. Phones Algeria. Address: FTA, 11.940 megs.

12.225 megs. 24.53 m.

TFJ, Reykjavik, Iceland. 8.5 kW. Icelandic State Brdcstg. Serv., Box 547.

12.240 megs. 24.49 m.

GBU, Rugby, England. Phones N. Y. Address: GCB, 9.280 megs.

12.250 megs. 24.48 m.

TYB, Pontoise, France. Works JVH and Ships.

12.260 megs. 24.46 m.

FTN, Ste. Assise, France. Address: FTA, 11.940 megs.

12.270 megs. 24.52 m.

JVJ, Nazaki, Japan. Works Hongkong. Address JZG, 6.330 megs.
RKK, Moscow, USSR. 20 kW.

12.325 megs. 24.33 m.

DAF, Norden, Germany. 5 kW. Phones ships, mornings. For address see DAF, 8.464 megs.

12.500 megs. 23.99 m.

RKF, Moscow, USSR. 20 kW.
ZSV, Walvis Bay, Union of South Africa. 1 kW.
CZA, Drummondville, P. Q. Works Ships. CMC, Box 1696, Montreal.

12.745 megs. 23.60 m.

DAF, Norden, Germany. 5 kW. Works ships. Address DAF, 8.464 megs.

12.780 megs. 23.46 m.

GBC, Rugby, England. 5 kW. Works ships. Address GCB, 9.280 megs.

12.795 megs. 23.45 m.

IAC, Caltano, Italy. 14 kW. Works ships. Address IAC, 4.355 megs.

12.830 megs. 23.36 m.

CNR, Rabat, Morocco. Works Paris. Address, CNR, 8.035 megs.

HJA3, Barranquilla, Colombia.

12.840 megs. 23.35 m.

WOO, Ocean Gate, N. J. 20 kW. Works ships. Address WNA, 9.170 megs.
WOY, Lawrenceville, N. J. 20 kW. Address WNA, 9.170 megs.

12.862 megs. 23.31 m.

WOEH, Broadcast pickup. NBC, 30 Rockefeller Plaza, NYC.

12.930 megs. 23.18 m.

WAW, Hialeah, Fla.

12.955 megs. 23.14 m.

GMBJ, S. S. Empress of Britain. Works WOO, IAC, DAF, GBC, CZA, etc.

13.020 megs. 23.03 m.

JZE, Nazaki, Japan. 10 kW. Works ships. Address, JZG, 6.330 megs.

13.040 megs. 22.99 m.

SHIPS. For address of these ships refer to 4413, 4415 and 4430 megs. All these ships work with WOO, and DAF.
DDBR, S. S. Berlin.
DDCP, S. S. Cap Polonio.
DDFF, S. S. Relianca.
DDFT, S. S. Oceana.
DHAO, S.S. Hansa.
DHDL, S. S. Cap Arcona.
DHEY, S. S. Deutschland.
DHJZ, S. S. Hamburg.
DHRL, S. S. New York.
DOAH, S. S. Bremen.

13.050 megs. 22.97 m.

These ships work with IAC and WOO. All owned by the Italian Line, 1 State St., N. Y. C.
IBEJ, S. S. Conte Rosso.
IBGI, S. S. Conte Verde.
IBLI, S. S. Conte di Savoia.
ICEJ, S. S. Rex.

13.075 megs. 22.93 m.

VPD, Suva, Fiji. "Radio Suva." Amalgamated Wireless, (A/sia) Ltd., Suva. Daily exc. Sunday. 0030-0130.

13.105 megs. 22.88 m.

IRJ, Rome, Italy.

13.140 megs. 22.82 m.

CWH, Montevideo (Cerrito), Uruguay. 1.5 kW.

13.190 megs. 22.73 m.

FNSK, S. S. Normandie. Works Paris afternoons. Address FNSK, 8.810 megs.

13.200 megs. 22.71 m.

CFU, Rossland, B. C. Consolidated Mining & Smelting Co.

13.210 megs. 22.70 m.

DOAI, S. S. Europa. 70 w. Works DAF-WOO.
FNSK, S. S. Normandie. Works WOO, afternoons. Address FNSK, 8.810 megs.

13.320 megs. 22.51 m.

GBZW, S. S. Berengaria.
GDLJ, S. S. Homeric.
GFWV, S. S. Majestic.
GLRZ, S. S. Aquitania.

13.337 megs. 22.48 m.

YVQ, Maracay (Santa Rita), Venezuela. Phones Hialeah days.

13.390 megs. 22.39 m.

WMA, Lawrenceville, N. J. Works London. Address WNA, 9.170 megs.

13.395 megs. 22.39 m.

FNSM, S. S. Paris.
FNTQ, S.S. Ile de France.

13.410 megs. 22.36 m.

WCT, San Juan, Puerto Rico. 400 w. Phones WNC. Radio Corp. of P. R.

13.415 megs. 22.35 m.

GCJ, Rugby, England. Works JVH, Nazaki. Address GCB 9.280 megs., 0300-0800.

13.435 megs. 22.31 m.

WEL, Rocky Point, N. Y. Phones London. Address WAD, 8.930 megs.

13.500 megs. 22.21 m.

GBB, Rugby, England. Phones Canada and Egypt days. Address: GCB, 9.280 megs.

13.560 megs. 22.11 m.

JVI, Nazaki, Japan. 10 kW. Works JZA, JZB, JZC Harbin. Address: Kokusai-Denwa Kaisha, Ltd., Osaka Bldg., Kojimachiku, Tokyo.

13.000 megs. 22.05 m.

JYK, Kemikawa-Cho, Chiba-Ken, Japan. Esperimental.

13.630 megs. 22.00 m.

SPW, Warsaw, Poland. 10 kW. Polskie Radjo, Spolka Akcyjna, Warszawa Ul, Mazowiecka 5.

13.690 megs. 21.90 m.

KKZ, Bolinas, Calif. Works Honolulu, Hsinking, New York. Address: KEZ, 10.400 megs.

13.745 megs. 21.81 m.

CGA2, Drummondville, P. Q. Canadian Marconi Co., Box 1690, Montreal, P. Q.

13.780 megs. 21.75 m.

KKW, Bolinas, Calif. Address: KEZ, 10.400 megs.

13.810 megs. 21.71 m.

HRM, Tela, Honduras. Tela Railroad Co.
SUZ, Carlo (Abu Zabal), Egypt. 10 kW. Uses any freq. between 13.810 and 13.830 megs. Address SUV, 10.055 megs.

13.870 megs. 21.61 m.

WIY, Rocky Point, N. Y. Address: WPE, 13.840 megs.

13.900 megs. 21.57 m.

WQP (W2XBJ), Rocky Point, N. Y. Address: WPE. 13.840 megs.

13.980 megs. 21.45 m.

LCO, Jeloy, Norway. 1kW. Address LCL, 6.130 megs.

13.984 megs. 21.44 m.

GBA, Rugby, England. Address GCB, 9.280 megs.

14.000 to 14.400 megs.
20.82 to 21.42 meters. AMATEURS. Phones work between 14.150 and 14.250 megs.

14.000 megs. 21.42 m.

HJSABE, Cali, Colombia. Apartado 50. Daily 1900-2200.

14.236 megs. 21.06 m.

HB9B, Berne, Switzerland. Swiss Shortwave Association, 30 Neuengasse, Berne. First Monday every month 1510-1615; 1800-1900.

14.290 megs. 20.99 m.

HB9AT, Berne, Switzerland. Address HB9B above. First Monday each month, 1800-1900.

14.400 megs. 20.82 m.

HB9J, Berne, Switzerland. Address HB9B above. First Monday each month, 1510-1615.

14.410 megs. 20.81 m.

DIP, Zeesen, Germany.

14.440 megs. 20.76 m.

GBW, Rugby, England. 15 kW. Address GCB, 9.280 megs.

14.470 megs. 20.72 m.

WMF, Lawrenceville, N. J. A. T. & T., Long Lines Dept., 32 Sixth Ave., N. Y. City.

14.480 megs. 20.70 m.

LSN, Buenos Aires (Hurlingham), Argentina, Phones N. Y. Address: Compania Internacional de Radio, Defensa 143.

YNA, Managua, Nicaragua. Phones Hialeah days.

14.535 megs. 20.63 m.

HBJ, Prangins (Geneva), Switzerland. 20 kW. "Radio Nations." Address: M. Gallarati, Information Section, League of Nations, Geneva.

14.545 megs. 20.69 m.

HPF, Panama City, Panama. Phones Hialeah days.

TGF, Guatemala City, Guat. Phones Hialeah days.

TIN, Cartago, Costa Rica. Phones Hialeah days. Compania Radiografica Internacional de C. R., San Jose.

TIU, Cartago, Costa Rica, See TIN above.

14.590 megs. 20.55 m.

WMN, Lawrenceville, N. J. 20 kW. Address WMF, 14.470 megs.

14.640 megs. 20.42 m.

JVH, Nazaki, Japan. 20 kW. Address JVI, 13.560 megs. Works GCJ, 0200-0600.

14.690 megs. 20.41 m.

PSF, Rio de Janeiro, Brazil. Phones Madrid and Buenos Aires. Companhia Radio Internacional do Brasil, Caixa Postal 709.

14.740 megs. 20.34 m.

IRG, Massawa, Eritrea.

14.790 megs. 20.27 m.

ROU, Omsk, USSR.

14.800 megs. 20.26 m.

WQV, Rocky Point, N. Y. 40 kW. Address WPE, 13.840 megs.

14.830 megs. 20.21 m.

WKU, Rocky Point, N. Y. 40 kW. Address WPE 13.840 megs.

14.845 megs. 20.20 m.

OCJ2, Lima (Valverde) Peru.

14.910 megs. 20.11 m.

JVG, Nazaki, Japan. 10 kW. Works JIA, JIB, JIC Taiwan. Address: JVI, 13.560 megs.

14.930 megs. 20.08 m.

HJB, Bogota, Colombia. Phones Hialeah, days.

14.935 megs. 20.07 m.

PSE, Rio de Janeiro, Brazil. Phones Buenos Aires and Madrid. Address: PSF, 14.690 megs.

14.980 megs. 20.01 m.

KAY, Manila, P. I. 40 kW. Radio Corp. of the Philippines, Plaza Moraga, Manila.

15.000 megs. 19.99 m.

WWV, Beltsville, Md. 1kW. National Bureau of Standards, Washington, D. C. Wed, 1200-1300.

15.040 megs. 19.93 m.

RKI, Moscow, USSR. 20 kW. Works RIM Tashkent.

15.055 megs. 19.91 m.

WNC, Hialeah, Fla. 400 watts. Works HJB, HJP, HPF, HRM, TGF, TIN, TIU, YNA, YVQ and ZFS daily; other S. Americans irregularly.

15.070 megs. 19.89 m.

PSD, Rio de Janeiro (Marapicu), Brazil. 12 kW. Works Madrid and Buenos Aires mornings. Address: PSF, 14.690 megs.

15.090 megs. 19.87 m.

RKI, Moscow, USSR. 20 kW. Works Rocky Point.

15.104 megs. 19.85 m.

RAU, Tashkent, USSR. Phones Moscow mornings.

15.120 megs. 19.83 m.

HVJ, Vatican City. 10 kW. Interval sig.: clock ticking for 10 minutes preceding transmission; bells of St. Peter's at 3 o'clock. Announcement: Laudatur Jesus Christus. Talks as follows: Mon., Italian; Tues., English; Wed., Spanish; Thurs., French; Fri., German; Sat., Dutch; Sun., Latin. Address: Stazione Radio-Vatican, Pontificia Accademia Della Scienze, Roma-Castina Pio IV, Citta del Vaticano. Schedule: 1000-1045.

15.140 megs. 19.80 m.

GSF, Daventry, England. 15 kW. "F for Fortune." Interval sig.: Westminster chimes and Big Ben. Sign off: God Save the King. Address, British Broadcasting Corp., Broadcasting House, London W.1. Daily, 0900-1200; daily exc. Sun., 0600-0845; Sun., 0630-0845

15.200 megs. 19.73 m.

DJB, Zeesen, Germany. 8 kW. Programs preceded by a music box tune, "Ever be True and Honest." Address DJC 6.020 megs.

15.210 megs. 19.71 m.

W8XK, Pittsburgh (Saxonburg), Pa. 40 kW. Relays NBC-KDKA.

15.220 megs. 19.70 m.

PCJ, Hilversum, Netherlands. Philips' Omroep Holland-Indie, Emmasingel 29, Eindhoven. Announcements in Dutch, English, French, German, Malay, Portuguese, Spanish. Sign off: Dutch National Anthem. Irregular in operation.

15.250 megs. 19.68 m.

LRU, Buenos Aires, Argentina. "Radio El Mundo." Relays LR1.

....., "Radio Coloniale," Pontoise, France. 12 kW. Address, see 11.720 megs. Daily, 0700-1100.

W1XAL, Boston, Mass. 5 kW.

15.260 megs. 19.65 m.

GSI, Daventry, England. "I for Island." For other details see GSF, 15.140 megs.

15.270 megs. 19.64 m.

W2XE, New York, N. Y. (Wayne, N. J.). 10 kW

Relays WABC-CBS. For address see 6.120 megs. Daily 1100-1300.

15.280 megs. 19.62 m.
DJQ, Zeesen, Germany.

15.295 megs. 19.60 m.
. . . . . , Villejust, France. 120 kW. Under construction.

15.300 megs. 19.60 m.
CP7, La Paz, Bolivia. Compania Radio Boliviana, Casilla 637.

15.330 megs. 19.56 m.
W2XAD, Schenectady, N. Y. 20 kW. The General Electric Co. Relays NBC-WGY. "The Voice of Electricity." Program commences with electrical discharge of 10,000,000 volts of man-made lightning. Sunday, 1030-1600; other days, 1400-1500.

15.340 megs. 19.55 m.
DJR, Zeesen, Germany.

15.350 megs. 19.53 m.
CT1AA, Lisbon, Portugal. 2kW. Int. Sig.: 3 cuckoos. Address CT1AA, 9.600 megs.

15.355 megs. 19.52 m.
KWU, Dixon, Calif. 20 kW. Address KWV, 10.840 megs

15.370 megs. 19.51 m.
HAS3, Szekesferhervar, Hungary. 20 kW. "Justice for Hungary!" Announce in Hungarian, French, English by lady. Address, see HAT2, 7.220 megs.

15.415 megs. 19.45 m.
KWO, Dixon, Calif. 20 kW. Address KWV, 10.840 megs

15.440 megs. 19.42 m.
PRADO, Riobamba, Ecuador. "Estacion El Prado." Apartado 98. This freq. used in summer only, Sundays, 1700-1800.

15.445 megs. 19.41 m.
WKW, Rocky Point, N. Y. Address WPE, 13.840.

15.475 megs. 19.37 m.
KKL, Bolinas, Calif. Address KEZ, 10.400 megs.

15.510 megs. 19.33 m.
JDX, Darien. Works JVU Nazaki.

15.620 megs. 19.19 m.
JVF, Nazaki, Japan. 20 kW. Works Dixon, nights. Address JVI, 13.560 megs.

15.660 megs. 19.15 m.
JVE, Nazaki, Japan. 10 kW. Works Bandoeng nights. Address JVI, 13.560 megs.

15.680 megs. 19.12 m.
JZA, Shinkio (Kanjoshi) Manchukuo. 20 kW. Works JVI, JVO, JVU. Add.: Manchukuo Telephone & Telegraph Co., Shinkio.

15.750 megs. 19.04 m.
JIA, Taihoku (Chureki) Taiwan. Works JVG, JVL, JVV.

15.760 megs. 19.02 m.
JYT, Kemikawa-Cho, Chiba-Ken, Japan. 5 kW.

15.860 megs. 18.90 m.
JVD, Nazaki, Japan. Works Shanghai. Address JVI, 13.560 megs.

15.865 megs. 18.89 m.
CEC, La Granja (Santiago), Chile. 800 watts. Phones Peru, afternoons. Address CEC, 10.670 megs.

15.880 megs. 18.88 m.
FTK, Ste. Assise, France. Phones Saigon. Address FTA, 11.940 megs.

15.950 megs. 18.80 m.
PLG, Bandoeng, Java, N. E. I.

15.970 megs. 18.77 m.
WKO, Rocky Point, N. Y. Address WPE, 13.840 megs.

16.030 megs. 18.71 m.
KKP, Kahuku, Oahu, Hawaii.

16.050 megs. 18.68 m.
JVC, Nazaki, Japan. Works Hongkong. Address JVI, 13.560 megs.

16.150 megs. 18.56 m.
GBX, Rugby, England. Phones Sydney. Address Engineer-in-chief, G.P.O. (Radio Section), Armour House, St. Martins le Grand, London EC1.

16.200 megs. 18.51 m.
FZR, Saigon, French Indo-china. Phones Paris. Address FZS2, 11.990 megs.

16.240 megs. 18.49 m.
KTO, Manila, P. I. Phones Dixon. Radio Corp. of the Philippines, Plaza Moraga, Manila.

16.270 megs. 18.48 m.
WLK, Lawrenceville, N. J. Works London. Address WMF, 14.470 megs.

16.380 megs. 18.30 m.
XGN, Shanghai, China. Address XGO, 7.575 megs.

16.460 megs. 18.22 m.
DHEY, S. S. Deutschland. Works WOO, DAF. Address, North German Lloyd, Pier 4, Foot of 58th St., Brooklyn, N. Y.

16.600 megs. 18.06 m.
DOAI, S. S. Europa. Phones WOO, DAF. Address DHEY above.

16.910 megs. 17.73 m.
JZD, Nazaki, Japan. 20 kW. Works ships. Address JVI, 13.560 megs.

17.080 megs. 17.55 m.
GBC, Rugby, England. 5 kW. Works ships. Address GBX, 16.150 megs.

17.120 megs. 17.51 m.
WOO, Ocean Gate, N. J. 20 kW. Works ships. Address WMF, 14.470 megs.
WOY, Lawrenceville, N. J. 20 kW. Address WMF. 14.470 megs.

17.260 megs. 17.37 m.
DAF, Norden, Germany, 5 kW. Works ships. Address DAF, 8.464 megs.

17.310 megs. 17.32 m.
CZA, Drummondville, P. Q. Works ships. Address CGA2, 13.745 megs.
W3XL, Bound Brook, N. J. 20 kW. National Broadcasting Co., 30 Rockefeller Plaza, N. Y. C.

17.480 megs. 17.15 m.
VWY, Kirkee, Poona, India. Phones London.

17.520 megs. 17.11 m.
DFB, Nauen, Germany. Works S. America mornings. Address DGK, 6.675 megs.

17.710 megs. 16.93 m.
CJA3, Drummondville, P. Q. Works London. Address CGA2, 13.745 megs.

17.740 megs. 16.90 m.
HSP, Bangkok, Siam. 20 kW. Post & Telegraph Dept.

17.760 megs. 16.88 m.
DJE, Zeesen, Germany. 5 kW.

17.765 megs. 16.88 m.
....., Villejust, France. 120 kW. Under construction.

17.775 megs. 16.87 m.
PHI, Hilversum, Netherlands. 23.6 kW. For details see PCJ, 15.220 megs. Mon., Thurs., Fri., 0730-0930; Sat., Sun., 0730-1030.

17.780 megs. 16.86 m.
W3XAL, Bound Brook, N. J. 14 kW. Relays WJZ-NBC programs. Address W3XL, 17.310 megs. s/o Star Spangled Banner.
W8XK, Pittsburgh (Saxonburg), Pa. 40 kW. Not used at present.
W9XAA, Chicago, Ill. Not used at present.

17.790 megs. 16.85 m.
GSG, Daventry, England. 15 kW. "G for Greeting." For other details see GSF, 15.140. Daily, 0900-1045; daily exc. Sun., 0600-0845; Sun., 0630-0845.

17.830 megs. 16.82 m.
PCV, Kootwijk, Netherlands. Works Java. mornings. Radiolaboratory Neth. State Telegraphs, Parkstraat 29, S'Gravenhage.

17.850 megs. 16.80 m.
PLF, Bandoeng, Java, N. E. I.

17.900 megs. 16.75 m.
WLL, Rocky Point, N. Y. 20 kW. Address WPE, 13.840 megs.

17.920 megs. 16.73 m.
WQF, Rocky Point, N. Y. 40 kW. Address WPE, 13.840 megs.

17.940 megs. 16.71 m.
WQB (W2XBJ), Rocky Point, N. Y. 40 kW. Address WPE, 13.840 megs.

18.020 megs. 16.64 m.
KQJ, Bolinas, Calif. 40 kW. Address KEZ, 10.400 megs.

18.115 megs. 16.55 m.
LSY3, Buenos Aires (Monte Grande), Argentina. Transradio Internacional, San Martin 329, B. A.

18.135 megs. 16.53 m.
PMC, Bandoeng, Java, N. E. I. 40 kW. Works Neth., 0330-0900. Address: Mr. H. Van der Veen Engineer in Charge, Post-Telegraaf-en Telefoondienst, Bedrijf der Radiostations op Java, Bandoeng.

18.180 megs. 16.49 m.
CGA, Drummondville, P. Q. Canadian Marconi Co., Box 1690, Montreal, P. Q.

18.190 megs. 16.48 m.
JVB, Nazaki, Japan. 10 kW. Works PLE, PLV. Address: Kokusai-Denwa Kaisha, Ltd., Osaka Bldg., Kojimachiku, Tokyo.

18.200 megs. 16.47 m.
GAW, Rugby, England. 15 kW. Works N. Y. Address: GBX, 16.150 megs.

18.270 megs. 16.41 m.
ETA. Addis Ababa, Ethiopia. 2 kW. Frank Hammar, Chief Engineer, Box 283.

18.296 megs. 16.39 m.
YVR, Maracay (Santa Rita), Venezuela. Works Berlin. Estados Unidos de Venezuela, Servicio Radiotelegrafico.

18.304 megs. 16.38 m.
GAS, Rugby, England. Works N. Y. mornings. Address: GBX, 16.150 megs.

18.330 megs. 16.36 m.
FTE, Ste. Assise, France. Societe Francaise Radio-Electrique, 79 Blvd. Haussmann, Paris VIII

18.342 megs. 16.35 m.
FZS, Saigon, French Indo-China. Works Paris. Address: FZS2, 11.990 megs.

18.350 megs. 16.34 m.
WLA, Lawrenceville, N. J. A. T. & T. Long Lines Dept., 32 Sixth Ave., N. Y. City.

18.400 megs. 16.29 m.
PCK, Kootwijk, Netherlands. Works Java. Address: PCV, 17.830 megs.

18.444 megs. 16.25 m.
HJY, Bogota, Colombia. Works CEC, LSR, OCI days.

18.450 megs. 16.25 m.
HBH, Prangins, Switzerland. 20 kW. Address: HBJ, 14.535 megs.

18.600 megs. 16.12 m.
PCM, Kootwijk, Netherlands. Address: PCV, 17.830 megs.

18.620 megs. 16.10 m.
GAU, Rugby, England. 15 kW. Address: GBX, 16.150 megs.

18.670 megs. 16.06 m.
OCI, Lima (Valverde), Peru. Works HJY, CEC, LSR, WNC days. Compania Peruana de Telefonos, Apartado 986, Lima.

18.830 megs. 15.92 m.
PLE, Bandoeng, Java, N. E. I. 40 kW. Works Dixon nights, Tokyo mornings. Address: PMC, 18.135 megs.

18.860 megs. 15.89 m.
WKM, Rocky Point, N. Y. 40 kW. Address: R. C. A., 66 Broad St., N. Y. City.

18.890 megs. 15.87 m.
ZSS, Capetown (Klipheuvel), Union of South Africa. 5kW. Works London. Overseas Communication Co., Kodak House, Shortmarket St., Capetown.

18.900 megs. 15.86 m.
WDS, Rocky Point, N. Y. Address WKM, 18.860 megs.

18.910 megs. 15.86 m.
JVA, Nazaki, Japan. 20 kW. Works Europe. Address JVB, 18.190.

18.920 megs. 15.84 m.
WQE, Rocky Point, N. Y. Address WKM, 18.860 megs.

SHORT WAVE STATIONS BY FREQUENCIES

18.950 megs. 15.82 m.
HBF, Prangins (Geneva), Switzerland. 20 kW. Address HBJ, 14.535 megs.

18.970 megs. 15.80 m.
GAQ, Rugby, England. Works Capetown 0800. Address GBX, 16.150 megs.

19.120 megs. 15.68 m.
LSM, Buenos Aires, Argentina. Works Europe.

19.200 megs. 15.62 m.
ORG, Brussels (Ruysselede), Belgium. 8 kW. Works Leopoldville. Address ORK, 10.330 megs.

19.220 megs. 15.60 m.
WKF, Lawrenceville, N. J. 20 kW. Address WLA, 18.350 megs.

19.270 megs. 15.57 m.
PPU, Rio de Janeiro, Brazil. Works Paris. 13.5 kW. Address: Cia Radiotelegraphica Brasileira, Caixa Postal 500, Rio de Janeiro.

19.345 megs. 15.50 m.
PMA, Bandoeng, Java, N. E. I. 40 kW. Address: PMC, 18.135 megs.

19.355 megs. 15.46 m.
FTM, Ste. Assise, France. Address: FTE, 18.330 megs.

19.520 megs. 15.36 m.
IRW, Rome, Italy. Works Argentina. 20 kW. Address: Societe Italo Radio, Servizi Radioelectrici, Via Calabria No. 46-48, Roma 125.

19.600 megs. 15.30 m.
LSF, Buenos Aires (Monte Grande), Argentina. 7 kW. Address: LSY3, 18.115 megs.

19.680 megs. 15.24 m.
CEC, La Granja (Santiago), Chile. 4 kW. Compania Internacional de Radio S. A. (Chile), Casilla 16-D, Santiago.

19.820 megs. 15.13 m.
WKN, Lawrenceville, N. J. Address: WLA, 18.350.

19.900 megs. 15.06 m.
LSG, Buenos Aires (Monte Grande), Argentina. 7 kW. Address: LSY3, 18.115 megs.

19.980 megs. 15.01 m.
KAX, Manila, P. I. Radio Corp. of the Philippines, Plaza Moraga, Manila.

20.020 megs. 14.98 m.
DHO, Nauen, Germany. 7.2 kW. Works S. America. Reichspost-zentralamt, Telegraphentechnisches Reichsamt, Schoneberger Strasse 11-15, Berlin-Tempelhof.

20.040 megs. 14.97 m.
OPL, Leopoldville, Belgian Congo. 9 kW. Works ORG.

20.100 megs. 14.91 m.
WQY, Rocky Point, N. Y. 40 kW. Address: WKM, 18.860 megs.

20.368 megs. 14.72 m.
GAA, Rugby, England. 15 kW. Address: GBX, 16.150 megs.

20.606 megs. 14.55 m.
PMB, Bandoeng, Java, N. E. I. Works PCK. Address: PMC, 18.135 megs.

21.020 megs. 14.27 m.
LSN, Buenos Aires (Hurlingham), Argentina. Works N. Y. Address: LSN, 14.480 megs.

21.060 megs. 14.24 m.
KWN, Dixon, Calif. 20 kW. Address KWV, 10.840 megs
WKA. Lawrenceville, N. J. 20 kW. Address: WLA, 18.350 megs.

21.070 megs. 14.23 m.
PSA, Rio de Janeiro (Marapicu), Brazil. 10 kW. Works N. Y. Address: PSF, 14.690 megs.

21.128 megs. 14.19 m.
LSM, Buenos Aires (Monte Grande), Argentina. Address: LSY3, 18.115 megs.

21.410 megs. 14.00 m.
WKK, Lawrenceville, N. J. Address: WLA, 18.250 megs.

21.460 megs. 13.97 m.
W1XAL, Boston, Mass. 5 kW.

21.470 megs. 13.96 m.
GSH, Daventry, England. "H for Home." Interval sig: Westminster Chimes and Big Ben. Sign off: God Save the King. Address: British Broadcasting Corp., Brdcsting. House, London W.1.

21.490 megs. 13.95 m.
....., Villejust, France. 120 kW. Under construction.

21.530 megs. 13.93 m.
GSJ, Daventry, England. "J for Justice." See GSH, 21.470 megs.

21.540 megs. 13.92 m.
W8XK, Pittsburgh (Saxonburg), Pa. 40 kW. Relays NBC-KOKA.

22.290 megs. 13.45 m.
GBU, Rugby, England, Works N. Y. Address: GBX, 16.150 megs.

26.100 megs. 11.49 m.
GSK, Daventry, England. "K for King." See GSH, 21.470 megs.

29.820 megs. 10.05 m.
IAF, Fiumicino, Italy, 5 kW.

30.604 megs. 9.80 m.
IAG, Golfo Aranci, Sardinia. 5 kW.

SHORT WAVE STATIONS BY LOCATIONS

ALASKA (K)

Akutan
KHW 2.912
KIOI 2.632
Anchorage
WXE 2.998

Angoon
KAED 2.616
KAED 3.093
Cape Pole
KIJB 2.994
Chevak
KIOM 3.093

Circle
KIIK 2.994
KIKK 3.190
Cordova
KDV 2.538
Deep Cove
KHP 1.622

KIJV 1.622
Eagle
KIIN 2.994
KIIN 3.190
Excursion Inlet
KILY 2.994

Eyak River
KIKN 3.093
Fairbanks
KIFM 4.124
False Pass
KDX 2.986

Fort Yukon
KIIL 2.994
KIIL 3.190
Hidden Inlet
KIDE 3.265
KLD 2.566

Hoonah
KIUZ 3.093
Hot Springs
KIIM 2.994
KIIM 3.190
Hydaburg
KAEB 2.616
KAEB 3.265
Igloo
KIUQ 2.616
Iron Creek
KIOH 2.632
Jack Wade
KAEF 2.616
KAEF 2.994
Juneau
KMYA 2.304
KMYA 4.610
WXA 8.050
Kadiak Island
KIJX 2.632
Kake
KIBA 3.093
KLC 2.512
Ketchikan
KBAI 2.304
KGM 2.512
KIAY 3.093
WXH 2.604
WXH 6.662
Luckyshot
KIIP 3.093
McGrath
KIIO 2.994
KIIO 3.190
KIIO 5.138
Nakeen
KHV 2.566
KICE 3.265
Nellie Juan
KGI 2.632
KIOD 2.632
Newport Walter
KIJS 1.622
Pillar Bay
KDY 2.994
KNBZ 2.994
Poorman
KIEJ 2.994
Port Alexander
KDH 2.538
KGXW 1.606
Port Althorp
KIAW 3.093
KLB 2.512
Port Armstrong
KGXU 1.622
Port Conclusion
KIJI 1.622
Port Herbert
KIJO 1.622
Port Hobron
KHZ 2.912
KIMA 2.632
Port San Juan
KIJR 2.986
P. Wakefield
KGX 2.632
KIOC 2.632
Red Bluff
KIOG 1.622
Rose Inlet
KIAP 3.093
KLE 2.512
Saldovia
KIKY 3.265
Shearwater Bay
KIJW 2.632
Tanana
KIIJ 2.994
KIIJ 3.190
Tin City
KION 2.616
Todd
KGQ 2.986
KIJU 2.986
Uganik
KIJP 2.986
Union Bay
KFF 2.566
KICG 3.265
View Cove
KICI 3.093
Washington Bay
KIJK 1.622
Waterfall
KIBZ 3.265
KLA 2.566
Wrangell
KDK 2.538

ARGENTINA (LOA-LVZ)

Buenos Aires
LQA 9.600
LRU 15.250
LRX 9.580
LSF 19.600
LSG 19.900
LSH 5.435
LSL 9.990
LSL 10.250
LSM 19.120
LSM 21.128
LSN 9.895
LSN 14.480
LSN 21.020
LSR 18.958
LSX 10.350
LSY3 18.115

AUSTRALIA (VHA-VMZ)

Adelaide
VIA 1.520
Fiskville
VIZ3 11.495
Melbourne
VK3LR 9.580
VK3ME 9.490
Sydney
VKO 1.520
VK2ME 9.585
VLJ 9.750
VLK 8.095
VLK 10.520
VLZ 7.960
VLZ 7.980

AUSTRIA (OAE-OEZ)

Vienna
OER2 6.072

AZORES (CT2-)

Ponta Delgada
CT2AJ 4.000

BAHAMAS (ZF-)

Cat Cay
ZFO 5.300
Nassau
ZFS 4.512

BELGIAN CONGO (OP-)

Leopoldville
OPL 20.040
OPM 10.135

BELGIUM (ONA-OTZ)

Brussels
ORG 19.200
ORK 10.330

BERMUDA (ZF-)

Hamilton
ZFA 5.025
ZFB 10.055
St. George
ZFD 10.335

BOLIVIA (CPA-CPZ)

La Paz
CP5 6.080
CP6 9.120
CP7 15.300

BRAZIL (PPA-PYZ)

Pernambuco
PRA8 6.040
Rio de Janeiro
PPQ 11.670
PPU 19.270
PRF5 9.505
PSA 21.070
PSD 15.070
PSE 14.935
PSF 14.690
PSH 10.220
PSK 8.180

BRITISH GUIANA (VP3)

Georgetown
VP3MR 7.080

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

ALBERTA

Calgary
CGE 3.040
CGE 7.550
VDC 4.490
VE9CA 6.030
Edmonton
CFQ 3.040
CFQ 7.550

BRITISH COLUMBIA

Alert Bay
VAF 1.510
Anyox
CZQ 5.400
Bones Bay
CFW 2.290
Campbell River
CGT 4.865
CJD 1.510
CJD 1.540
Cape Lazo
VAC 1.510
Ceepeecee
CJE 2.290
Claydon Bay
CZP 4.505
Homalko
VFJ 2.290
Humpback Bay
CZL 2.290
Knight Inlet
CJK 1.510
Margaret Bay
CJX 2.290
Namu
CFV 2.290
Ocean Falls
CGO 4.505
Prince George
CZO 4.505
Prince Rupert
CGP 5.400
CZG 1.712
CZG 2.416
CZG 6.425
Rossland
CFU 4.755
CFU 5.705
CFU 6.720
CFU 13.200
Sage Creek
VXX 5.405
Slate Creek
CFN 5.705
Two Brothers
VDV 4.490
Vancouver
CGZ 2.342
VDO 4.436
VDO 4.865
VE9BK 4.795
VE9CS 6.070
Waterloo Mine
CZV 3.300
CZV 4.840

MANITOBA

Winnipeg
CJRO 6.150
CJRX 11.720
CJU 3.070
CJU 3.452
VYW 2.396

NEW BRUNSWICK

Fredericton
VE9AS 6.425
St. John
CJW 2.390
VE9BJ 6.090

NOVA SCOTIA

Halifax
CHNX 6.110
VBQ 2.350
Lunenburg
VBY 1.540
VBY 1.650
Pictou
CKB 2.284
Pictou Island
CKU 2.284

ONTARIO

Kenora
CFD 1.620
CFD 5.660
Leamington
CFT 2.284
Pelee Island
CFX 2.284
Red Lake
CFJ 1.620
CFJ 5.660
Toronto
CRCX 6.090
CYQ 2.318
VE9EW 7.900

PRINCE EDWARD ISLAND

Borden
CJM 1.580

QUEBEC

Bellevue
CZB 1.620
Crane Island
CKO 2.284
Drummondville
CFA2 4.465
CFA4 10.520
CGA 18.180
CGA2 13.745
CGA4 9.332
CGA6 6.690
CGA7 6.880
CGA9 4.348
CGD 3.340
CJA3 17.710
CJA6 6.760
CZA 2.980
CZA 4.785
CZA 6.285
CZA 8.515
CZA 12.660
CZA 17.310
VE9DN 6.005
VE9DN 11.780
High Falls
VYZ 2.212
Manicouagan
CFM 1.620
Montmagny
CKP 2.284
Montreal
CGM 3.152
CGM 3.340
VE9DR 6.005
VYR 1.712
Riviere du Chef
CZY 1.620
St. Felecien
CZZ 1.620
Tabouret
CFL 1.620
Verdun
CJZ 2.390
Yamachiche
CGY 3.152

SASKATCHEWAN

Cub Lake
CFC 1.596
CFC 1.668
Emma Lake
CGV 1.596
CGV 1.668
Hudson Bay Junct.
VXV 5.540
Isle-a-la-Crosse
CZJ 1.593
CZJ 1.668
Lac la Ronge
CGQ 1.596
CGQ 1.668
Prince Albert
VYP 1.596
VYP 1.668
Regina
VXU 5.540

CANAL ZONE (W)

Albrook Field
WTR 6.385

CANARIES

El Tablero
EHZ 10.370

CHILE (CAA-CEZ)

Santiago
CB615 6.150
CB960 9.600
CEC 5.820
CEC 7.740
CEC 8.710
CEC 10.670
CEC 15.865
CEC 19.680

CHINA (XGA-XUZ)

Nanking
XGOX 6.000
XGOX 9.500
Shanghai
XGB 11.140
XGK 18.690
XGL 7.960
XGN 16.380
XGO 7.575
XGW 10.420

COLOMBIA (HJA-HKZ)

Barranquilla
HJA3 7.685
HJA3 8.790
HJA3 12.830
HJ1ABB 6.447
HJ1ABG 6.042
Bogota
HJA2 5.825
HJB 14.930
HJN 6.080
HJP 7.465
HJY 9.930
HJY 18.444
HJ3ABD 7.390
HJ3ABF 6.200
HJ3ABH 6.012
HKE 7.090
Bucaramanga
HJ2ABD 5.980
Buenaventura
HJU 9.060
Cali
HJ5ABC 6.150
HJ5ABD 6.490
HJ5ABE 14.000

Cartagena
HJ1ABD 7.280
HJ1ABE 6.115
Cienaga
HJ1ABH 6.300
Cucuta
HJA7 5.400
HJ2ABC 5.975
Ibague
HJ4ABC 6.450
Manizales
HJ4ABB 6.110
HJ4ABL 6.100
Medellin
HJ4ABA 11.710
HJ4ABD 6.060
HJ4ABE 5.900
Quibdo
HJ1ABC 6.010
Santa Marta
HJ1ABJ 6.006
Tunja
HJ2ABA 6.170

COSTA RICA (TIA-TIZ)

Cartago
TIN 14.545
TIU 14.545
TIR 7.685
Puntarenas
TI8WS 7.550
San Jose
TIEP 6.710
TIGPH 5.820
TIPG 6.410
TIRCC 6.550
San Ramon
TI5HH 5.520

CUBA (CLA-CMZ; COA-COZ)

Camaguey
CO9JQ 8.665
Havana
CMB2 5.780
CMPN 1.712
COCD 6.130
COCH 9.428
COCO 6.010
Sancti Spiritus
CO9WR 11.800
Santiago
CO9GC 6.150

DARIEN (J)

Darien
JDX 15.510
JDY 9.920
JDZ 5.710

DENMARK (OUA-OZZ)

Copenhagen
OXY 6.060
OXY 9.490

DOMINICAN REPUBLIC (HIA-HIZ)

San Pedro de Macoris
HIH 6.796
HI1J 5.965
Santiago
HI3U 6.380
Santiago de los Caballeros
HI-1-A 6.185
Trujillio
HII 10.040
HIL 6.500
HIX 5.980
HIZ 6.315
HI4D 6.500
HI4V 6.450

ECUADOR (HCA-HCZ)

Guayaquil
HC2CW 8.625
HC2ET 4.600
HC2JSB 7.830
HC2RL 6.650
Quito
HCJB 8.900
HCK 5.815
Riobamba
PRADO 6.620
PRADO 15.440

EGYPT (STA-SUZ)

Cairo
SUV 10.055
SUZ 13.810 to 13.830

ERITREA

Massawa
IRG 14.740

ETHIOPIA

Addis Ababa
ETA 18.270
ETB 11.955
ETD 7.620
ETG 5.880

FEDERATED MALAY STATES (ZG-)

Kuala Lampur
ZGE 6.125

FIJI (VPA-VSZ)

Suva
VPD 13.075

FRANCE (F;TYA-TZZ)

Pontoise
TYA 12.215
TYA2 9.040
TYB 12.250
TYD2 8.575
..... 11.720
..... 11.880
..... 15.250
Ste. Assise
FQO 12.160
FTA 11.940
FTE 18.330
FTI 9.840
FTK 15.880
FTM 19.355
FTN 12.260
Villejust
6.145; 9.585;
11.845; 15.295;
17.765; 21.490

FRENCH INDO-CHINA (F)

Saigon
FZR 16.200
FZS 18.342
FZS2 11.990

GERMANY (D)

Nauen
DFA 19.240
DFB 17.520
DFC 12.980
DFD 14.665
DFE 9.810
DFL 10.850
DGK 6.675
DGU 9.609
DHO 20.020
DJK 12.035
Norden
DAF 4.320
DAF 8.464
DAF 12.325
DAF 17.260
Zeesen
DIQ 10.285
DJA 9.560
DJB 15.200
DJC 6.020
DJD 11.770
DJE 17.760
DJG 4.580
DJI 9.675
DJJ 10.042
DJL 15.110
DJM 6.080
DJN 9.540
DJO 11.795
DJP 11.855
DJQ 15.280
DJR 15.340
DZB 10.420

GUATEMALA (TGA-TGZ)

Guatemala City
TGF 14.545
TGS 5.710
TGWA 6.000
TGXA 6.130
TG1X 9.450
TG2X 5.940

HAITI

Port au Prince
HH2F 6.065
HH2R 9.550
HH2S 6.070
HH2T 11.790
HH3W 9.595

HAWAII (K)

Honolulu
KGPQ 1.712
Kahuku
KEQ 6.733
KIO 11.680
KKH 7.520
KKP 16.030

HONDURAS (HRA-HRZ)

San Pedro Sula
HRP1 6.356
Tegucigalpa
HRN 5.875
Tela
HRM 13.810

HONKONG (Z)

Honkong
ZBW 8.750

HUNGARY (HAA-HAZ)

Budapest
HAS3 15.370
HAT 5.400
HAT2 7.220
HAT3 8.565
HAT4 9.125

ICELAND (TFA-TFZ)

Reykjavik
TFJ 12.225
TFK 9.050

INDIA (VTA-VWZ)

Bombay
VUB 9.565
Calcutta
VUC 6.112
VUC 9.575
Kirkee
VWY 8.975
VWY 17.480
VWZ 8.690
VWZ 8.693
VWZ 8.700
VWZ 8.708

ITALY (I)

Coltano
IAC 4.355
IAC 6.650
IAC 8.515
IAC 12.795
Fiumicino
IAF 5.415
IAF 29.820
Golfo Aranci
IAG 30.604
Rome
IRF 8.070
IRJ 13.105
IRM 9.823
IRW 19.520
I2RO 5.550
I2RO 5.725
I2RO 6.085
I2RO 9.635
I2RO 11.810

JAMAICA

Stoney Hill
VRR4 11.595

JAPAN (J)

Kemikawa-Cho
JYK 13.600
JYR 7.880
JYS 9.840
JYT 15.760
Nazaki
JVA 18.910
JVB 18.190
JVC 16.050
JVD 15.860
JVE 15.660
JVF 15.620
JVG 14.910
JVH 14.640
JVI 13.560
JVJ 12.270
JVK 12.020
JVL 11.660
JVM 10.740
JVN 10.660
JVO 10.375
JVP 7.510
JVQ 7.470
JVR 7.390
JVS 6.990
JVT 6.750
JVU 5.790
JVV 5.730
JZD 16.910
JZE 13.020
JZF 8.500
JZG 6.330

KENYA (VQ7-)

Nairobi
VQ7LO 6.060

MACAU

Macau
CQN 6.073

MADAGASCAR (F)

Tananarive
..... 5.996

MANCHUKUO (J)

Shinkio
JZA 15.680
JZB 10.960
JZC 5.830

MEXICO (XAA-XFZ)

Guadaljara
XEDQ 9.520
Mexico City
XBJQ 11.000
XEBT 6.000
XECR 7.380
XEVI 5.985
XEXA 6.182
Tijuana
XEOK 6.130
Veracruz
XEFT 6.120
XEUW 6.020

MOROCCO (CNA-CNZ)

Rabat
CNR 8.035
CNR 12.830

NETHERLANDS (PAA-PIZ)

Hilversum
PCJ 15.220
PHI 11.725
PHI 17.775
Kootwijk
PCK 18.400
PCM 18.600
PCV 17.830
PDK 10.410
PDV 12.050

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

Borneo
Bandjermasin
YDV2 3.330
Celebes
Macassar
PNI 8.775
Menado
YBZ 7.680
Java
Balikpapan
YCP 8.575
Bandoeng
PLE 18.830
PLF 17.850
PLG 15.950
PLP 11.000
PLQ 10.670
PLV 9.415
PMA 19.345
PMB 20.606
PMC 18.135
PMN 10.260
PMY 5.140
YDA5 6.120
YDD2 1.630
YDH3 3.490
YDH4 3.310
YDH6 3.130
YDH8 1.960
Batavia
YDA2 2.385
YDD3 1.585
YDG2 3.470
YDG3 3.150
YDG4 2.850
YDG5 2.090
YDG6 1.900
YDG7 3.300
Buitenzorg
YDA3 1.640
YDH9 1.920
Cheribon
YDA6 2.870
YDJ4 1.840
YDJ5 2.870
Djember
YDQ2 3.390
Djokjokarta
YDB3 1.660
YDE5 2.350
YDL4 3.410
YDL5 3.210
YDL6 2.750
Garoet
YDH5 3.250
Kediri
YDN2 1.940
Madioen
YDN3 2.790
Magelang
YDK4 2.890

Malang
YDB6 1.570
YDQ3 3.350
YDQ4 3.230
YDQ5 2.950
YDQ6 2.810
Pekalongan
YDA7 3.270
YDJ2 3.270
Samarang
YDB2 2.450
YDE3 2.910
YDK2 3.190
YDK3 2.910
YDK5 2.710
YDK6 1.860
Soekaboemi
YDA4 1.550
YDI2 2.110
Solo
YDB5 1.595
YDE2 4.810
YDL2 4.810
YDL3 3.450
Sourabaya
YDB 4.470
YDB7 1.530
YDE4 2.415
YDO2 3.430
YDO3 3.290
YDO4 3.170
YDO5 2.930
YDO6 2.730
YDO7 2.070
YDO8 1.980
YDO9 1.880
Tandjongpriok
YDA 3.040
YDA 6.040
YDA8 1.510
Tegal
YDJ3 2.790
Tjepoe
YDB4 1.615
YDM2 3.320
Sumatra
Medan
YBG 10.430
YDU2 4.710
YDU3 5.260
YDU4 2.830
Padang
YDU5 1.850

NEW ZEALAND (ZKA-ZMZ)

Wellington
ZLS 8.900
ZLT2 7.390
ZLT4 11.000

NICARAGUA (YNA-YNZ)

Managua
YNA 14.480

NORWAY (LAA-LNZ)

Jeloy
LCL 6.130
LCO 13.980
LKJ1 9.540

PANAMA (HPA-HPZ)

Colon
HP5F 6.080

Panama City
HPC 10.290
HPF 14.545
HP5B 6.030
HP5J 9.590

PARAGUAY (ZPA-ZPZ)

Asuncion
ZP10 6.666
ZP11 3.800

PERU (OAA-OCZ)

Lima
OAX4D 5.780
OAX4G 6.230
OCI 18.670
OCJ2 14.845

PHILIPPINE ISLANDS (K)

Cebu
KZGG 5.825
KZGG 8.940
Iloilo
KZGH 5.795
KZGH 9.490
Manila
KAX 19.980
KAY 14.980
KAZ 9.990
KBK 6.718
KTO 16.240
KTP 8.120
KZGF 5.765
KZGF 9.170

POLAND (SOA-SRZ)

Warsaw
SPW 13.630

PORTUGAL (CSA-CUZ)

Lisbon
CSL 6.150
CT1AA 9.600
CT1AA 15.350
CT1CT 3.750
Parede
CT1GO 6.132

PORT. W. AFRICA

Lobito
CR6AA 7.175

PUERTO RICO

San Juan
WCT 13.410
WMDU 3.070
WMDU 5.405

SIAM (HSA-HSZ)

Bangkok
HSJ 8.020
HSP 7.968
HSP 8.396
HSP 17.740

SOUTHERN RHODESIA (ZE-)

Bulawayo
ZEB 6.147
Salisbury
ZEC 6.000

SPAIN (EAA-EHZ)

Madrid
EAQ 9.862
EHY 10.070

STRAITS SETTLEMENTS (ZH-)

Penang
ZHJ 6.080
Singapore
ZHI 6.060

SWITZERLAND (HBA-HBZ)

Berne
HB9AT 14.290
HB9B 14.236
HB9H 7.005
HB9J 14.400
Geneva
HBF 18.950
HBH 18.450
HBJ 14.535
HBL 9.595
HBO 12.030
HBP 7.797

TAIWAN (J)

Taihoku
JIA 15.750
JIB 10.530
JIC 5.890

UNION OF SOCIALIST SOVIET REPUBLICS (R; U)

Baku
RIO 10.160
Irkutsk
RSZ 8.770
RTZ 7.275
Khabarovsk
RV15 4.273
Kharkov
RFF 7.260
Moscow
RKF 4.875
RKF 6.870
RKF 6.880
RKF 6.900
RKF 9.750
RKF 12.500
RKI 7.520
RKI 15.040
RKI 15.090
RKK 6.135
RKK 12.270
RNE 12.000
RPK 7.225
RRD 8.225
RV59 5.996
Novosibirsk
RTA 6.440
Omsk
ROU 14.790
Stalinsk
RSB 5.375
Sverdlovsk
ROI 5.490
RSN 5.440
Tachkent
RAU 15.104
RIM 7.626
RPT 5.995
Tiflis
RIR 5.040
RIR 10.080

UNION OF SOUTH AFRICA (ZSA-ZUZ)

Capetown
ZSR 9.180
ZSS 18.890
Johannesburg
ZTJ 6.100
Walvis Bay
ZSV 8.220
ZSV 12.500

UNITED KINGDOM (G; M)

Daventry
GSA 6.050
GSB 9.510
GSC 9.580
GSD 11.750
GSE 11.860
GSF 15.140
GSG 17.790
GSH 21.470
GSI 15.260
GSJ 21.530
GSK 26.100
GSL 6.110
Rugby
GAA 20.368
GAQ 18.970
GAS 18.304
GAU 18.620
GAW 18.200
GBA 13.984
GBB 13.500
GBC 4.430
GBC 4.975
GBC 8.680
GBC 12.780
GBC 17.080
GBP 10.770
GBS 12.150
GBU 12.240
GBU 22.290
GBW 14.440
GBX 10.530
GBX 16.150
GCA 9.710
GCB 9.280
GCJ 13.415
GCP 7.920
GCS 9.020
GCU 9.950
GCW 9.790
GDB 4.320
GDB 6.790
GDS 6.905
GDW 4.820

UNITED STATES (K; N; W)

ALABAMA

Birmingham
WPFM 2.382
Maxwell Field
PD1 6.445
Mobile
NMG 2.670
WPGW 2.382

ARIZONA

Phoenix
KNGG 1.698
KGZJ 2.430

ARKANSAS

Fort Smith
KNHE 2.406
Little Rock
KGHZ 2.406

CALIFORNIA

Bakersfield
KGPS 2.414
Berkeley
KSW 1.658
Bolinas
KEE 7.715
KEJ 9.010
KEL 6.860
KES 9.480
KET 10.410
KEZ 10.400
KKL 15.475
KKQ 11.950
KKW 13.780
KKZ 13.690
KQJ 18.020
Compton
KNFM 2.490
Death Valley
KNLO 3.410
KNLP 3.410
KNLQ 3.410
KNLR 3.410
Devils Post Pile
KNKY 2.604
Dixon
KWN 21.060
KWO 15.415
KWU 15.355
KWV 10.840
KWX 7.610
KWY 7.565
EL Centro
KNGJ 2.490
Eureka
KACI 2.422
Fresno
KGZA 2.414
Lodi
..... 2.414
Los Angeles
KGPL 1.712
KIIY 2.726
KIKL 6.615
Mt. Shasta
KBCC 3.200
North Fork
KBCD 3.445
KBCE 3.445
KBCF 3.445
Oakland
KBCH 3.385
Palo Alto
KGHK 1.674
Pasadena
KGJX 1.712
Point Bonita
NMC 2.670
Pomona
KNFJ 1.712
Sacramento
KNGF 2.422
San Bernardino
KGZY 1.712
San Diego
KGZD 2.490
San Francisco
KBCJ 3.155
KGPD 2.466
San Gabriel Dam
KIIW 2.726
San Jose
KGPM 2.466
San Pedro
NOJ 2.670
San Rafael
KLH 2.506
Santa Ana
KGHX 2.490
Santa Barbara
KBCA 3.385
KBCB 3.385
KGZO 2.414
Santa Cruz
KGZT 1.674
Sequoia Park
KNKG 3.410
Tujunga Dam
KIIX 2.726
Tulare
WPDA 2.414
Vallejo
KGPG 2.422
Whittier
KGHY 1.712
Wilmington
KOU 2.566
Yosemite
KNKS 2.604
KNKU 2.604
KNKX 2.604
Yreka
KBCG 3.385

COLORADO

Denver
KGPX 2.442

CONNECTICUT

Bridgeport
WPFW 2.466
New Haven
WQFA 2.466
New London
NOU 2.670
WAKB 2.466

DISTRICT OF COLUMBIA

Washington
WPDW 2.422

FLORIDA

Clearwater
WQFK 2.466
Dry Tortugas
WST 3.410

Ft. Lauderdale
NMV 2.670
Gainesville
WQFC 2.466
Hialeah
WND 4.098
WAW 12.930
WNC 15.055
Jacksonville
WPFG 2.442
Key West
WWZ 3.410
Lakeland
WPFT 2.442
Miami
NOM 2.670
WKDL 3.070
WKDL 5.405
WPFZ 2.442
W4XB 6.040
Opa Locka
WMEV 2.930
WMEV 6.615
Orlando
WPHM 2.442
Palm Beach
WPFX 2.442
St. Petersburg
NOF 2.670
WMEU 2.930
WMEU 6.615
Tampa
WPHN 2.466
WNED 8.220

GEORGIA

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

IDAHO

Boise
KBCQ 3.300
Idaho Falls
KNFB 2.458

ILLINOIS

Chicago
WPDB 1.712
WPDC 1.712
WPDD 1.712
W9XAA 6.080
W9XAA 11.830
W9XAA 17.780
W9XBS 6.425
W9XF 6.100
W9XF 6.425
Highland Park
WPFD 2.430
Oak Park
WQFL 1.712
Ottawa
WQFZ 2.458
Rockford
WPGD 2.458
Waukegan
WQFX 1.712
Wheeling
WMEQ 6.615
Wilmette
NMP 2.670
NMP 2.698

INDIANA

Columbia City
WQFW 1.634
Culver
WPHS 1.634
Fort Wayne
WPDZ 2.490
Huntington
WAKA 2.490
Indianapolis
WMDZ 2.442
..... 1.634
Jasper
WPHU 1.634
Kokomo
WPDT 2.490
Lafayette
WQFQ 2.442
Marion County
WPHE 1.634
Muncie
WPGP 2.442
Richmond
WPDH 2.442
Seymour
WQFE 1.634
South Bend
WPGN 2.490

IOWA

Atlantic
KACD 1.682
Cedar Rapids
KGOZ 2.466
Davenport
KGPN 2.466
Des Moines
KGHO 1.682
KGZG 2.466
Fairfield
KACC 1.682
Sioux City
KGPK 2.466
Storm Lake
KNFO 1.682
Waterloo
KNFN 1.682

KANSAS

Atchison
KACA 2.422
Chanute
KGZF 2.450
Coffeyville
KGZP 2.450
Dodge City
KNGH 2.474
Garden City
KNFH 2.474
Hutchinson
KGHN 2.450
Manhattan
W9XAK 2.050
Salina
KNGV 2.422
Topeka
KGZC 2.422
Wichita
KGPZ 2.450

KENTUCKY

Lexington
WPET 1.706
Louisville
WPDE 2.442

LOUISIANA

Baton Rouge
WPEQ 1.570
New Orleans
WPEK 2.430
Shreveport
KGPY 1.574
KGZL 1.712
KNGP 2.430

MAINE

Portland
WPFU 2.422

MARYLAND

Baltimore
WPFH 2.414
Beltsville
WWV 5.000
WWV 10.000
WWV 15.000

MASSACHUSETTS

Arlington
WPED 1.712
Boston
WEY 1.630
WPGV 1.712
W1XAL 6.040
W1XAL 11.790
W1XAL 15.250
W1XAL 21.460
W1XH 2.110
Brookline
WPEJ 1.712
Everett
WAKF 1.712
Fairhaven
WPFN 1.712
Fitchburg
WPHA 2.466
Framingham
WMP 1.666
Gloucester
NOG 2.670
Marshfield
WOU 2.506
Medford
WPHG 1.712
Millis
W1XK 9.570
Newton
WPFA 1.712
Northampton
WPEW 1.666
Somerville
WPEH 1.712
W. Bridgewater
WPEL 1.666
Winthrop
NMF 2.670
Woods Hole
NOP 2.670
Worcester
WPGX 2.466

MICHIGAN

Bay City
WPGA 2.466
Cheboygan Range
WWG 3.410
Detroit
WCK 2.414
WKDT 1.630
WPDX 2.414
WWN 3.410
WWR 3.410
E. Lansing
WRDS 1.642
Flint
WPDF 2.442
Fourteen Foot Shoals
WWE 3.410
Grand Rapids
WPEB 2.442
Grosse Pointe
WRDR 2.414
Highland Park
WMO 2.414
Huron Island
WWAO 3.410
Jackson
WPHP 2.466
Lansing
WPDL 2.442
Manitou Island
WWAJ 3.410
Marquette
WWM 3.410
Muskegon
WPFC 2.442
Passage Island
WWAL 3.410
Poe Reef
WRJ 3.410
Port Huron
WPGB 2.466
Rock of Ages
WWAM 3.410
Saginaw
WPES 2.442
Sault Ste. Marie
NOR 2.670
NOR 2.698
Selfridge Field
VK1 6.425
Stannard Rock
WWH 3.410

MINNESOTA

Duluth
KNFE 2.382
Minneapolis
KGPB 2.430
Redwood Falls
KNHD 1.658
St. Paul
WPDS 2.430

MISSOURI

Jefferson City
KIUK 1.674
Kansas City
KGPE 2.422
Napoleon
WYBF 2.604
St. Louis
KGPC 1.706

MONTANA

Glacier Nat'l Park
KNIA 2.604

NEBRASKA

Lincoln
KGZU 2.490
Norfolk
KNGN 2.490
Omaha
KGPI 2.466

NEVADA

Las Vegas
KGHG 2.474
Reno
KGHM 2.474

NEW HAMPSHIRE

Nashua
WPHB 2.422

NEW JERSEY

Bound Brook
W3XAL 6.100
W3XAL 17.780
W3XL 6.425
W3XL 17.310
Cape May
NOV 2.670
Freehold
WAKC 2.366
Hackensack
WPFK 2.430
Lawrenceville
WCN 5.078
WKA 21.060
WKF 4.253
WKF 19.220
WKK 21.410
WKN 19.820
WLA 18.350
WLK 16.270
WMA 13.390
WMF 14.470
WMN 14.590
WNA 9.170
WNB 10.675
WOA 6.755
WOB 5.850
WOF 9.750
WOK 10.550
WON 9.870
WOY 4.178
WOY 4.753
WOY 8.560
WOY 12.840
WOY 17.120
New Brunswick
WKJ 9.460
Ocean Gate
WOG 4.253
WOO 4.178
WOO 4.753
WOO 8.560
WOO 12.840
WOO 17.120
Passaic
WPDJ 2.414
Tuckerton
WCG 10.370
Wayne
W2XE 6.120
W2XE 11.830
W2XE 15.270

NEW MEXICO

Albuquerque
KGZX 2.414
Clovis
KNFA 2.414
Santa Fe
KGPF 2.414

NEW YORK

Albany
WPGH 2.414
Auburn
WPDN 2.382
Binghamton
WPGL 2.442
Bronx
WPEF 2.450
Brooklyn
WPEE 2.450
Buffalo
NOB 2.670
NOB 2.698
WMJ 2.422
Huntington
WPGO 2.490
Jackson Heights
WNEK 6.615
Mineola
WPGS 2.490
Mitchell Field
WO9 6.385
New York
WOZ 3.423
WPEG 2.450
Niagara Falls
WNFP 2.422
Oneonta
WQFJ 2.414
Rochester
WPDR 2.422
Rockaway Point
NMY 2.670
Rocky Point
WAD 8.930
WDB 6.718
WDG 4.535
WDN 4.550
WDS 18.900
WEA 10.610
WEB 6.935
WEC 8.930
WEL 8.950
WEL 13.435
WEM 7.400
WES 9.448
WET 9.470
WEZ 8.075
WIR 4.276
WIY 13.870
WJN 7.370
WKC 10.465
WKL 8.940
WKM 18.860
WKO 15.970
WKP 6.950
WKU 14.830
WKW 15.445
WLL 17.900
WQB 17.940
WQE 18.920
WQF 17.920
WQN 5.265
WQN 5.505
WQN 5.825
WQO 6.725
WQP 13.900
WQV 14.800
WQY 20.100
Schenectady
W2XAD 15.330
W2XAF 9.530
S. Schenectady
WPGC 1.658
St. George
WOX 2.590
Syracuse
WPEA 2.382

SHORT WAVE STATIONS BY LOCATIONS

Utica
WPGJ 2.414
Yonkers
WPFY 2.442

NORTH CAROLINA

Asheville
WPFS 2.458
WPFS 2.474
Charlotte
WPDV 2.458

NORTH DAKOTA

Fargo
KNHM 2.442

OHIO

Akron
WPDO 2.458
Cambridge
WPHT 1.596
Cincinnati
WKDU 1.706
W8XAL 6.060
Cleveland
NMD 2.670
NMD 2.698
WRBH 2.458
Columbus
WPDI 2.430
WPGQ 1.596
Dayton
WPDM 2.430
Findlay
WPGG 1.596
Lancaster
WQFO 2.430
Lorain
WMES 2.550
Mansfield
WQFY 2.474
Massillon
WPHC 1.596
Patterson Field
WYV 6.645
Portsmouth
WPGI 2.430
Steubenville
WPHD 2.458
Suffield
WMEP 2.930
WMEP 6.615
Toledo
WRDQ 2.474
Wilmington
WPHK 1.596
Wright Field
PE2 6.445
Youngstown
WPDG 2.458
Zanesville
WPHO 2.430

OKLAHOMA

Ada
KNHC 2.450
Altus
KACL 2.450
Chickasha
KACF 2.450
Duncan
KNGK 2.450
Lawton
KGHP 2.450
Muskogee
KNGT 2.450
Oklahoma City
KGPH 2.450
Ponca City
KACP 2.450
Tulsa
KGPO 2.450

OREGON

Grants Pass
KBAM 3.445
Hood River
KIJY 2.728
Klamath Falls
KGZH 2.442
Portland
KBAA 3.385
KGPP 2.442
Salem
KGZR 2.442

PENNSYLVANIA

Harrisburg
WPSP 1.674
Monessen
WQFF 2.482
New Castle
WPGT 2.482
Oil City
WPHZ 2.482
Philadelphia
WPDP 2.474
WWHJ 3.410
W3XAU 6.060
W3XAU 9.590
Pittsburgh
WPDU 1.712
W8XK 6.140
W8XK 9.570
W8XK 11.870
W8XK 15.210
W8XK 17.780
W8XK 21.540
Reading
WPFE 2.442
Swarthmore
WPFQ 2.474
Wilkes-Barre
WQFM 2.442

RHODE ISLAND

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

SOUTH DAKOTA

Rapid City
KNGM 2.450

TENNESSEE

Elizabethton
WPHY 2.474
Johnson City
WPGZ 2.474
Knoxville
WPFO 2.474
Memphis
WPEC 2.466

TEXAS

Austin
KGHU 2.442
Beaumont
KGPJ 1.712
Big Spring
KACM 2.458
Brownsville
KGHT 2.382
Brownwood
KNGW 2.458
Cleburne
KNGE 1.712
Corpus Christi
KGHV 2.382
Dallas
KVP 1.712
Denton
KNHF 1.712
El Paso
KGZM 2.414
Fort Worth
KGPR 1.712
Galveston
KNGL 1.712
NOY 2.670
Houston
KGZB 1.712
Lubbock
KGZW 2.458
San Antonio
KGZE 2.482
Waco
KGZQ 1.712
Wichita Falls
KGZI 2.458

UTAH

Salt Lake City
KGPW 2.406

VIRGINIA

Bolling Field
IS3 5.015
Cape Henry
NMN 2.670
Langley Field
FG7 6.645
Lynchburg
WQFH 2.450
Petersburg
WQFI 2.450
Richmond
WPHF 2.450
Roanoke
WQFG 2.450

WASHINGTON

Aberdeen
KGZV 2.414
Bear River Camp
KNFY 2.490
Bellingham
KACK 2.414
KNFK 2.490
Cataract Creek
KNLT 3.387
Centralia
KGHW 2.414
Chinook Pass
KGHQ 2.490
Edmonds
KOW 2.522
Ellenburg
KNFX 2.490
Ephrata
KNGZ 2.490
Everett
KNFP 2.414
Ft. Lewis
YT2 4.200
Fremont
KNLV 3.387
Grays Harbor
NMW 2.670
Helis Crossing Camp
KNFZ 2.490
Longmire
KGYA 3.387
KGYB 3.387
Mt. Olympus
KNDI 3.387
KNDK 3.387
KNDL 3.387
KNDM 3.387
KNDP 3.387
KNDS 3.387
KNDT 3.387
Mt. Rainier
KGYC 3.387
KGYD 3.387
KGYF 3.387
KNLS 3.387
KNLX 3.387
KNLU 3.387
Mt. Vernon
KNFI 2.414
North Bend
KBAL 3.200
Olympia
KACE 2.414
KBAT 3.300
KNFG 2.490
Pt. Angeles
KNFC 2.490
Port Townsend
NOZ 2.670
Quilcene
KBAU 3.300
Satus Pass Camp
KNGA 2.490
Seattle
KBAP 3.200
KGHD 2.490
KGPA 2.414
KGYI 3.387
WVD 2.604
WVD 5.995
WVD 6.618
WVD 8.620
W7XK 3.493
Shuksan Camp
KNFL 2.490
Skykomish
KNFU 2.490
Snoqualmie Pass
KGHE 2.490
Spokane
KBAO 3.410
KGHS 2.414
KNGR 2.490
Tacoma
KGZN 2.414
Vancouver
KNGC 2.490
Walla Walla
KNGD 2.490
Wenatchee
KACJ 2.414
KNGQ 2.490
White River
WGYE 3.387
Yakima
KNGB 2.490
KNGU 2.414

WEST VIRGINIA

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

WISCONSIN

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

URUGUAY (CVA-CXA)

Montevideo
CWD 5.830
CWE 6.610
CWF 8.455
CWG 11.370
CWH 13.140

VATICAN STATE (HVA-HVZ)

Vatican City
HVJ 5.970
HVJ 15.120

VENEZUELA (YVA-YWZ)

Barquisimeto
YV8RB 5.880
Caracas
YV2RC 5.800
YV3RC 6.150
YV4RC 6.375
YV9RC 6.400
Maracaibo
YV5RMO 5.850
YV7RMO 5.810
Maracay
YVQ 6.672
YVQ 13.337
YVR 9.168
YVR 18.296
YV12RM 6.300
San Cristobal
YV10RSC 5.720
Valencia
YV6RV 6.520

VIRGIN ISLANDS (W)

St. Thomas
WTDV 4.295
St. Croix
WTDW 4.295
St. John
WTDX 4.295

SHORT WAVE STATIONS BY CALLS

CB615	6.150	CFA2	4.465	CFL	1.620	CFU	6.720	CGA6	6.690	CGO	4.506
CB960	9.600	CFA4	10.520	CFM	1.620	CFU	13.200	CGA7	6.880	CGP	5.400
CEC	5 820	CFC	1.596	CFN	5.705	CFV	2.290	CGA9	4.348	CGQ	1.596
CEC	7.740	CFC	1.668	CFQ	3.040	CFW	2.290	CGD	3.340	CGQ	1.668
CEC	8.710	CFD	1.620	CFQ	7.550	CFX	2.284	CGE	3.040	CGT	4.865
CEC	10.670	CFD	5.660	CFT	2.284	CGA	18.180	CGE	7.550	CGV	1.596
CEC	15.865	CFJ	1.620	CFU	4.755	CGA2	13.745	CGM	3.152	CGV	1.668
CEC	19.680	CFJ	5.660	CFU	5.705	CGA4	9.332	CGM	3.340	CGY	3.152

CGZ	2.34$_2$		
CHNX	6.11$_0$		
CJA3	17.71$_0$		
CJA6	6.76$_0$		
CJD	1.51$_0$		
CJD	1.54$_0$		
CJE	2.29$_0$		
CJK	1.51$_0$		

CJM	1.580	DGK	6.675	GBC	8.680	HJA2	5.825	JVB	18.190	KET	10.410	KGZT	1.674
CJRO	5.150	DGU	9.609	GBC	12.780	HJA3	7.685	JVC	16.050	KEZ	10.400	KGZU	2.490
CJRX	11.720	DHAO	4.413	GBC	17.080	HJA3	8.790	JVD	15.860	KFF	2.566	KGZV	2.414
CJU	3.070	DHAO	8.830	GBP	10.770	HJA3	12.830	JVE	15.660	KGHA	2.490	KGZW	2.458
CJU	3.452	DHAO	13.040	GBS	12.150	HJA7	5.400	JVF	15.620	KGHB	2.490	KGZX	2.414
CJW	2.390	DHDL	4.413	GBU	12.240	HJB	14.930	JVG	14.910	KGHC	2.490	KGZY	1.712
CJX	2.290	DHDL	8.830	GBU	22.290	HJN	6.080	JVH	14.640	KGHD	2.490	KHP	1.622
CJZ	2.390	DHDL	13.040	GBW	14.440	HJP	7.465	JVI	13.560	KGHE	2.490	KHV	2.566
CKB	2.284	DHEY	4.413	GBX	10.530	HJU	9.060	JVJ	12.270	KGHG	2.474	KHW	2.912
CKO	2.284	DHEY	8.830	GBX	16.150	HJY	9.930	JVK	12.020	KGHK	1.674	KHZ	2.912
CKP	2.284	DHEY	13.040	GBZW	4.415	HJY	18.444	JVL	11.660	KGHM	2.474	KIAP	3.093
CKS	3.040	DHEY	16.460	GBZW	8.830	HJ1ABB	6.447	JVM	10.740	KGHN	2.450	KIAW	3.093
CKS	7.550	DHJZ	4.413	GBZW	13.320	HJ1ABC	6.010	JVN	10.660	KGHO	1.682	KIAY	3.093
CKU	2.284	DHJZ	8.830	GCA	9.710	HJ1ABD	7.280	JVO	10.375	KGHP	2.450	KIBA	3.093
CMB2	5.780	DHJZ	13.040	GCB	9.280	HJ1ABE	6.115	JVP	7.510	KGHQ	2.490	KIBZ	3.265
CMPN	1.712	DHO	20.020	GCJ	13.415	HJ1ABG	6.042	JVQ	7.470	KGHR	2.490	KICE	3.265
CNR	8.035	DHRL	4.413	GCP	7.920	HJ1ABH	6.300	JVR	7.390	KGHS	2.414	KICG	3.265
CNR	12.830	DHRL	8.830	GCS	9.020	HJ1ABJ	6.006	JVS	6.990	KGHT	2.382	KICI	3.093
COCD	6.130	DHRL	13.040	GCU	9.950	HJ2ABA	6.170	JVT	6.750	KGHU	2.442	KIDE	3.265
COCH	9.428	DHTY	4.413	GCW	9.790	HJ2ABC	5.975	JVU	5.790	KGHV	2.382	KIED	1.622
COCO	6.010	DHTY	8.830	GDB	4.320	HJ2ABD	5.980	JVV	5.730	KGHW	2.414	KIED	2.150
CO9GC	6.150	DHTY	13.040	GDB	6.790	HJ3ABD	7.390	JYK	13.600	KGHX	2.490	KIEJ	2.994
CO9JQ	8.665	DHTY	16.765	GDLJ	4.430	HJ3ABF	6.200	JYR	7.880	KGHY	1.712	KIEO	2.150
CO9WR	11.800	DIQ	10.285	GDLJ	8.830	HJ3ABH	6.012	JYS	9.840	KGHZ	2.406	KIFI	1.622
CP5	6.080	DJA	9.560	GDLJ	13.320	HJ4ABA	11.710	JYT	15.760	KGI	2.632	KIFI	2.150
CP6	9.120	DJB	15.200	GDS	6.905	HJ4ABB	6.110	JZA	15.680	KGIX	1.712	KIFM	4.124
CP7	15.300	DJC	6.020	GDW	4.820	HJ4ABC	6.450	JZB	10.960	KGM	2.512	KIFT	2.150
CQN	6.073	DJD	11.770	GFWV	4.413	HJ4ABE	5.900	JZC	5.830	KGOZ	2.466	KIGW	2.102
CRCX	6.090	DJE	17.760	GFWV	8.830	HJ4ABL	6.100	JZD	16.910	KGPA	2.414	KIIH	2.190
CR6AA	7.175	DJG	4.580	GFWV	13.320	HJ5ABC	6.150	JZE	13.020	KGPB	2.430	KIIJ	2.994
CSL	6.150	DJI	9.675	GLRZ	4.415	HJ5ABD	6.490	JZF	8.500	KGPC	1.706	KIIJ	3.190
CT1AA	9.600	DJJ	10.042	GLRZ	8.830	HJ5ABE	14.000	JZG	6.330	KGPD	2.466	KIIK	2.994
CT1AA	15.350	DJK	12.035	GLRZ	13.320	HKE	7.090	KACA	2.422	KGPE	2.422	KIIK	3.190
CT1CT	3.750	DJM	6.080	GMBJ	4.413	HPC	10.290	KACC	1.682	KGPF	2.414	KIIL	2.994
CT1GO	6.132	DJN	9.540	GMBJ	12.955	HPF	14.545	KACD	1.682	KGPG	2.422	KIIL	3.190
CT2AJ	4.000	DJO	11.795	GSA	6.050	HP5B	6.030	KACE	2.414	KGPH	2.450	KIIM	2.994
CWD	5.830	DJP	11.855	GSB	9.510	HP5F	6.080	KACF	2.450	KGPI	2.466	KIIM	3.190
CWE	6.610	DJQ	15.280	GSC	9.580	HP5J	9.590	KACI	2.422	KGPJ	1.712	KIIN	2.994
CWF	8.455	DJR	15.340	GSD	11.750	HRM	13.810	KACJ	2.414	KGPK	2.466	KIIN	3.190
CWG	11.370	DOAH	4.413	GSE	11.860	HRN	5.875	KACK	2.414	KGPL	1.712	KIIO	2.994
CWH	13.140	DOAH	8.830	GSF	15.140	HRP1	6.356	KACL	2.450	KGPM	2.466	KIIO	3.190
CYQ	2.318	DOAH	13.040	GSG	17.790	HSJ	8.020	KACM	2.458	KGPN	2.466	KIIO	5.138
CZA	2.980	DOAI	4.413	GSH	21.470	HSP	7.968	KACP	2.450	KGPO	2.450	KIIP	3.093
CZA	4.785	DOAI	8.830	GSI	15.260	HSP	8.396	KAEB	2.616	KGPP	2.442	KIIQ	2.150
CZA	6.285	DOAI	13.210	GSJ	21.530	HSP	17.740	KAEB	3.265	KGPQ	1.712	KIIW	2.726
CZA	8.515	DOAI	16.600	GSK	26.100	HVJ	5.970	KAED	2.616	KGPR	1.712	KIIX	2.726
CZA	12.660	DZB	10.420	GSL	6.110	HVJ	15.120	KAED	3.093	KGPS	2.414	KIIY	2.726
CZA	17.310	EAQ	9.862	HAS3	15.370	IAC	4.355	KAEF	2.616	KGPW	2.406	KIJB	2.994
CZB	1.620	EHY	10.070	HAT	5.400	IAC	6.650	KAEF	2.994	KGPX	2.442	KIJI	1.622
CZG	1.712	EHZ	10.370	HAT2	7.220	IAC	8.515	KAX	19.980	KGPY	1.574	KIJK	1.622
CZG	2.416	ETA	18.270	HAT3	8.565	IAC	12.795	KAY	14.980	KGPZ	2.450	KIJO	1.622
CZG	6.425	ETB	11.955	HAT4	9.125	IAF	5.415	KAZ	9.990	KGQ	2.986	KIJP	2.986
CZJ	1.596	ETD	7.620	HBF	18.950	IAF	29.820	KBAA	3.385	KGX	2.632	KIJR	2.986
CZJ	1.668	ETG	5.880	HBH	18.450	IAG	30.604	KBAI	2.304	KGXU	1.622	KIJS	1.622
CZL	2.290	FG7	6.645	HBJ	14.535	IBEJ	4.280	KBAL	3.200	KGXW	1.606	KIJU	2.986
CZO	4.505	FNSK	4.390	HBL	9.595	IBEJ	13.050	KBAM	3.445	KGYA	3.387	KIJV	1.622
CZP	4.505	FNSK	4.410	HBP	7.797	IBGI	4.280	KBAO	3.410	KGYB	3.387	KIJW	2.632
CZQ	5.400	FNSK	8.810	HBO	12.030	IBGI	13.050	KBAP	3.200	KGYC	3.387	KIJX	2.632
CZV	3.300	FNSK	8.830	HB9AT	14.290	IBLI	4.280	KBAT	3.300	KGYD	3.387	KIJY	2.728
CZV	4.840	FNSK	13.190	HB9B	14.236	IBLI	13.050	KBAU	3.300	KGYE	3.387	KIJZ	2.728
CZY	1.620	FNSK	13.210	HB9H	7.005	ICEJ	4.280	KBCA	3.385	KGYF	3.387	KIKL	6.615
CZZ	1.620	FNSM	4.413	HB9J	14.400	ICEJ	13.050	KBCB	3.385	KGYG	3.387	KIKN	3.093
DAF	4.320	FNSM	8.830	HCJB	8.900	IRF	8.070	KBCC	3.200	KGYH	3.387	KIKY	3.265
DAF	8.464	FNSM	13.395	HCK	5.815	IRG	14.740	KBCD	3.445	KGYI	3.387	KILU	2.150
DAF	12.325	FNTQ	4.413	HC2ET	4.600	IRJ	13.105	KCBE	3.445	KGZA	2.414	KILY	2.994
DAF	12.745	FNTQ	8.830	HC2JSB	7.830	IRM	9.830	KBCF	3.445	KGZB	1.712	KIMA	2.632
DAF	17.260	FNTQ	13.305	HC2RL	6.650	IRW	19.520	KBCG	3.385	KGZC	2.422	KINT	2.726
DDBR	4.413	FTA	11.940	HH2F	6.065	IS3	5.015	KBCH	3.385	KGZD	2.490	KIO	11.680
DDBR	8.830	FTK	15.880	HH2R	9.550	I2RO	5.550	KBCJ	3.155	KGZE	2.482	KIOC	2.632
DDBR	13.040	FZR	16.200	HH2S	6.070	I2RO	5.725	KBCQ	3.300	KGZF	2.450	KIOD	2.632
DDCP	4.413	FZS	18.342	HH3W	9.595	I2RO	6.085	KBK	6.718	KGZG	2.466	KIOG	1.622
DDCP	8.830	FZS2	11.990	HIH	6.796	I2RO	6.980	KDH	2.538	KGZH	2.442	KIOH	2.632
DDCP	13.040	GAA	20.368	HII	10.040	I2RO	9.635	KDK	2.538	KGZI	2.458	KIOI	2.632
DDFF	4.413	GAQ	18.970	HIL	6.500	I2RO	11.810	KDV	2.538	KGZJ	2.430	KIOM	3.093
DDFF	8.830	GAS	18.304	HIX	5.980	JDX	15.510	KDX	2.986	KGZL	1.712	KION	2.616
DDFF	13.040	GAU	18.620	HIZ	6.315	JDY	9.920	KDY	2.994	KGZM	2.414	KIUK	1.674
DDFT	4.413	GAW	18.200	HI1A	6.185	JDZ	5.710	KEE	7.715	KGZN	2.414	KIUQ	2.616
DDFT	8.830	GBA	13.984	HI1J	5.965	JIA	15.750	KEJ	9.010	KGZO	2.414	KIUZ	3.093
DDFT	13.040	GBB	13.500	HI3U	6.380	JIB	10.530	KEL	6.860	KGZP	2.450	KKH	7.520
DFB	17.520	GBC	4.430	HI4D	6.500	JIC	5.890	KEQ	6.733	KGZQ	1.712	KKL	15.475
DFL	10.850	GBC	4.975	HI4V	6.450	JVA	18.910	KES	9.480	KGZR	2.442	KKP	16.030

SHORT WAVE STATIONS BY CALLS

KKQ	11.950	KNKY	2.604	OXY	9.490	TI5HH	5.520	WEL	8.950	WNC	15.055	WPFI	2.414
KKW	13.780	KNLO	3.410	PCJ	15.220	TI8WS	7.550	WEL	13.435	WND	4.098	WPFK	2.430
KKZ	13.690	KNLP	3.410	PCK	18.400	TYA	12.215	WEM	7.400	WNED	8.220	WPFM	2.382
KLA	2.566	KNLQ	3.410	PCM	18.600	TYA2	9.040	WES	9.448	WNEI	1.622	WPFN	1.712
KLB	2.512	KNLR	3.410	PCV	17.830	TYB	12.250	WET	9.470	WNEI	2.150	WPFO	2.474
KLC	2.512	KNLS	3.387	PDK	10.410	TYD2	8.575	WEY	1.630	WNEK	6.615	WPFP	2.490
KLD	2.566	KNLT	3.387	PDV	12.050	VAC	1.510	WEZ	8.075	WNER	2.060	WPFQ	2.474
KLE	2.512	KNLU	3.387	PD1	6.445	VAF	1.510	WHER	2.102	WNFG	2.538	WPFS	2.458
KLGK	2.738	KNLV	3.387	PE2	6.445	VBQ	2.350	WHER	1.606	WNFJ	2.986	WPFS	2.474
KLH	2.506	KNLX	3.387	PHI	11.725	VBY	1.540	WIED	1.566	WNFP	2.422	WPFT	2.442
KMYA	2.304	KOU	2.566	PHI	17.775	VBY	1.650	WIED	2.390	WOA	6.755	WPFU	2.422
KMYA	4.610	KOW	2.522	PLE	18.830	VDC	4.490	WIEG	2.150	WOB	5.850	WPFV	2.466
KNBZ	2.994	KQJ	18.020	PLF	17.850	VDO	4.436	WIEH	1.622	WOEH	12.862	WPFW	2.466
KNDI	3.387	KSW	1.658	PLG	15.950	VDO	4.865	WIEK	1.646	WOF	9.750	WPFX	2.442
KNDK	3.387	KTO	16.240	PLP	11.000	VDV	4.490	WIEK	2.190	WOFW	2.738	WPFY	2.442
KNDL	3.387	KTP	8.120	PLQ	10.670	VE9AS	6.425	WIEL	1.646	WOG	4.253	WPFZ	2.442
KNDM	3.387	KVP	1.712	PLV	9.415	VE9BJ	6.090	WIEL	2.190	WOK	10.550	WPGA	2.466
KNDP	3.387	KWN	21.060	PMA	19.345	VE9BK	4.795	WIEO	1.606	WON	9.870	WPGB	2.466
KNDS	3.387	KWO	15.415	PMB	20.606	VE9CA	6.030	WIEO	2.020	WOO	4.178	WPGC	1.658
KNDT	3.387	KWU	15.355	PMC	18.135	VE9CS	6.070	WIEO	2.102	WOO	4.753	WPGD	2.458
KNEC	1.646	KWV	10.840	PMN	10.260	VE9DN	6.005	WIEO	2.760	WOO	8.560	WPGF	1.712
KNEC	2.090	KWX	7.610	PMY	5.140	VE9DR	6.005	WIEW	1.606	WOO	12.840	WPGG	1.596
KNEC	2.190	KWY	7.565	PNI	8.775	VE9EW	7.900	WIEW	2.102	WOO	17.120	WPGH	2.414
KNEC	2.830	KZGF	5.765	PPQ	11.670	VFJ	2.290	WIEX	1.566	WOU	2.506	WPGI	2.430
KNED	1.606	KZGF	9.170	PPU	19.270	VIA	1.520	WIEX	1.606	WOX	2.590	WPGJ	2.414
KNED	2.020	KZGG	5.825	PRADO	6.620	VIZ3	11.495	WIEX	2.102	WOY	4.178	WPGK	2.466
KNED	2.102	KZGG	8.940	PRADO	15.440	VKO	1.520	WIEX	2.390	WOY	4.753	WPGL	2.442
KNEF	2.830	KZGH	5.795	PRA8	6.040	VK1	6.425	WIFI	2.738	WOY	8.560	WPGM	2.414
KNFA	2.414	KZGH	9.490	PRF5	9.505	VK2ME	9.585	WIR	4.276	WOY	12.840	WPGN	2.490
KNFB	2.458	LCL	6.130	PSE	14.935	VK3LR	9.580	WIY	13.870	WOY	17.120	WPGO	2.490
KNFC	2.490	LCO	13.980	PSF	14.690	VK3ME	9.490	WJER	1.606	WOZ	3.423	WPGP	2.442
KNFE	2.382	LKJ1	9.540	PSH	10.220	VLJ	9.750	WJER	2.102	WO9	6.385	WPGQ	1.596
KNFG	2.490	LQA	9.600	PSK	8.180	VLK	8.095	WJN	7.370	WPDA	2.414	WPGS	2.490
KNFH	2.474	LRU	15.250	RAU	15.104	VLK	10.520	WKA	21.060	WPDB	1.712	WPGT	2.482
KNFI	2.414	LRX	9.580	RFF	7.260	VLZ	7.960	WKC	10.465	WPDC	1.712	WPGV	1.712
KNFJ	1.712	LSF	19.600	RIM	7.626	VLZ	7.980	WKDL	3.070	WPDD	1.712	WPGW	2.382
KNFK	2.490	LSG	19.900	RIO	10.160	VPD	13.075	WKDL	5.405	WPDE	2.442	WPGX	2.466
KNFL	2.490	LSH	5.435	RIR	5.040	VP3MR	7.080	WKDT	1.630	WPDG	2.458	WPGZ	2.474
KNFM	2.490	LSL	9.990	RIR	10.080	VQJM	4.430	WKDU	1.706	WPDH	2.442	WPHA	2.466
KNFN	1.682	LSL	10.250	RKF	4.875	VQJM	8.830	WKEM	1.622	WPDI	2.430	WPHB	2.422
KNFO	1.682	LSM	19.120	RKF	6.870	VQJP	4.430	WKEM	2.150	WPDJ	2.414	WPHC	1.596
KNFP	2.414	LSM	21.128	RKF	6.880	VQJP	8.830	WKF	4.253	WPDK	2.450	WPHD	2.458
KNFR	2.490	LSN	9.895	RKF	6.900	VQ7LO	6.060	WKF	19.220	WPDL	2.442	WPHE	1.634
KNFS	2.490	LSN	14.480	RKF	9.750	VRR4	11.595	WKJ	9.460	WPDM	2.430	WPHF	2.450
KNFU	2.490	LSN	21.020	RKF	12.500	VUB	9.565	WKK	21.410	WPDN	2.382	WPHG	1.712
KNFX	2.490	LSX	10.350	RKI	7.520	VUC	6.112	WKL	8.940	WPDO	2.458	WPHI	2.490
KNFY	2.490	LSY3	18.115	RKI	15.040	VUC	9.575	WKM	18.860	WPDP	2.474	WPHJ	2.490
KNFZ	2.490	NMC	2.670	RKI	15.090	VWY	8.975	WKN	19.820	WPDR	2.422	WPHK	1.596
KNGA	2.490	NMD	2.670	RKK	6.135	VWY	17.480	WKO	15.970	WPDS	2.430	WPHM	2.442
KNGB	2.490	NMD	2.698	RKK	12.270	VWZ	8.690	WKP	6.950	WPDT	2.490	WPHN	2.466
KNGC	2.490	NMF	2.670	RNE	12.000	VWZ	8.693	WKU	14.830	WPDU	1.712	WPHO	2.430
KNGD	2.490	NMG	2.670	ROI	5.490	VWZ	8.700	WKW	15.445	WPDV	2.458	WPHP	2.466
KNGE	1.712	NMN	2.670	ROU	14.790	VWZ	8.708	WLA	18.350	WPDW	2.422	WPHQ	2.490
KNGF	2.422	NMP	2.670	RPK	7.225	VXU	5.540	WLEB	1.646	WPDX	2.414	WPHS	1.634
KNGG	1.698	NMP	2.698	RPT	5.995	VXU	5.540	WLEZ	2.150	WPDY	2.414	WPHT	1.596
KNGH	2.474	NMV	2.670	RRD	8.225	VXW	5.540	WLFQ	2.738	WPDZ	2.490	WPHU	1.634
KNGJ	2.490	NMW	2.670	RSB	5.375	VXX	5.405	WLK	16.270	WPEA	2.382	WPHY	2.474
KNGK	2.450	NMY	2.670	RSN	5.440	VYP	1.596	WLL	17.900	WPEB	2.442	WPHZ	2.482
KNGL	1.712	NOB	2.670	RSZ	8.770	VYP	1.668	WMA	13.390	WPEC	2.466	WPSP	1.674
KNGM	2.450	NOB	2.698	RTA	6.440	VYR	1.712	WMDU	3.070	WPED	1.712	WQB	17.940
KNGN	2.490	NOF	2.670	RTZ	7.275	VYW	2.396	WMDU	5.405	WPEE	2.450	WQE	18.920
KNGO	2.450	NOG	2.670	RV15	4.273	VYZ	2.212	WMDZ	2.442	WPEF	2.450	WQF	17.920
KNGP	2.430	NOJ	2.670	RV59	5.996	WAD	8.930	WMEF	1.606	WPEG	2.450	WQFA	2.466
KNGQ	2.490	NOM	2.670	SPW	13.630	WAKA	2.490	WMEF	2.020	WPEH	1.712	WQFB	2.414
KNGR	2.490	NOP	2.670	SUV	10.055	WAKB	2.466	WMEF	2.102	WPEI	1.712	WQFC	2.466
KNGT	2.450	NOR	2.670	SUZ	13.810	WAKC	2.366	WMEF	2.760	WPEJ	1.712	WQFE	1.634
KNGU	2.414	NOR	2.698	TFK	9.050	WAKF	1.712	WMEP	2.930	WPEK	2.430	WQFF	2.482
KNGV	2.422	NOU	2.670	TFJ	12.225	WAW	12.930	WMEP	6.615	WPEL	1.666	WQFG	2.450
KNGW	2.458	NOV	2.670	TGF	14.545	WCG	10.370	WMEQ	6.615	WPEM	2.466	WQFH	2.450
KNGZ	2.490	NOY	2.670	TGS	5.710	WCK	2.414	WMES	2.550	WPEP	2.450	WQFI	2.450
KNHB	2.382	NOZ	2.670	TGWA	6.000	WCN	5.078	WMEU	2.930	WPEQ	1.570	WQFJ	2.414
KNHC	2.450	OAX4D	5.780	TGXA	6.130	WCT	13.410	WMEU	6.615	WPES	2.442	WQFK	2.466
KNHD	1.658	OAX4G	6.230	TG1X	9.450	WDB	6.718	WMEV	2.930	WPET	1.706	WQFL	1.712
KNHE	2.406	OCI	18.670	TG2X	5.940	WDDQ	2.738	WMEV	6.615	WPEV	1.666	WQFM	2.442
KNHF	1.712	OCJ2	14.845	TIEP	6.710	WDFL	2.738	WMF	14.470	WPEW	1.666	WQFO	2.430
KNHM	2.442	OER2	6.072	TIGPH	5.820	WDG	4.535	WMJ	2.422	WPFA	1.712	WQFQ	2.442
KNIA	2.604	OPL	20.040	TIN	14.545	WDN	4.550	WMN	14.590	WPFC	2.442	WQFT	1.596
KNKG	3.410	OPM	10.135	TIU	14.545	WDS	18.900	WMO	2.414	WPFD	2.430	WQFT	1.692
KNKS	2.604	ORG	19.200	TIPG	6.410	WEA	10.610	WMP	1.666	WPFE	2.442	WQFV	2.414
KNKU	2.604	ORK	10.330	TIR	7.685	WEB	6.935	WNA	9.170	WPFG	2.442	WQFW	1.634
KNKX	2.604	OXY	6.060	TIRCC	6.550	WEC	8.930	WNB	10.675	WPFH	2.414	WQFX	1.712

SHORT WAVE STATIONS BY CALLS

WQFY	2.474	WWH	3.410	W3XAU	6.060	XGK	18.690	YDE5	2.350	YDO2	3.430	YV9RC	6.400
WQFZ	2.458	WWHJ	3.410	W3XAU	9.590	XGL	7.960	YDG2	3.470	YDO3	3.290	YV10RSC	5.720
WQN	5.265	WWM	3.410	W3XL	6.425	XGN	16.380	YDG3	3.150	YDO4	3.170	YV12RM	6.300
WQN	5.505	WWN	3.410	W3XL	17.310	XGO	7.575	YDG4	2.850	YDO5	2.930	ZBW	8.750
WQN	5.825	WWR	3.410	W4XB	6.040	XGOX	6.000	YDG5	2.090	YDO6	2.730	ZEB	6.147
WQN	5.825	WWV	5.000	W7XK	3.493	XGOX	9.500	YDG6	1.900	YDO7	2.070	ZEC	6.000
WQO	6.725	WWV	10.000	W8XA	1.682	XGW	10.420	YDG7	3.300	YDO8	1.980	ZFA	5.025
WQP	13.900	WWV	15.000	W8XAL	6.060	YBG	10.430	YDH3	3.490	YDO9	1.880	ZFB	10.055
WQV	14.800	WWZ	3.410	W8XK	6.140	YBZ	7.680	YDH4	3.310	YDQ2	3.390	ZFD	10.335
WQY	20.100	WXA	8.050	W8XK	9.570	YCP	8.575	YDH5	3.250	YDQ3	3.350	ZFO	5.300
WRBH	2.458	WXE	2.998	W8XK	11.870	YDA	3.040	YDH6	3.130	YDQ4	3.230	ZFS	4.512
WRDQ	2.474	WXH	2.604	W8XK	15.210	YDA	6.040	YDH8	1.960	YDQ5	2.950	ZGE	6.125
WRDR	2.414	WXH	6.662	W8XK	17.789	YDA2	2.385	YDH9	1.920	YDQ6	2.810	ZHI	6.060
WRDS	1.642	WYBF	2.604	W8XK	21.540	YDA3	1.640	YD12	2.110	YDU2	4.710	ZHJ	6.080
WRJ	3.410	W1XAL	6.040	W9XAA	6.080	YDA4	1.550	YDJ2	3.270	YDU3	5.260	ZLR	7.390
WST	3.410	W1XAL	11.790	W9XAA	11.830	YDA5	6.120	YDJ3	....	YDU4	2.830	ZLS	8.900
WTDV	4.295	W1XAL	15.250	W9XAA	17.780	YDA6	2.870	YDJ4	1.840	YDU5	1.850	ZLT2	7.390
WTDW	4.295	W1XAL	21.460	W9XAK	2.050	YDA7	3.270	YDJ5	2.870	YDV2	3.330	ZLT4	11.000
WTDX	4.295	W1XH	2.110	W9XBS	6.425	YDA8	1.510	YDK2	3.190	YNA	14.480	ZSR	9.180
WTR	6.385	W1XK	9.570	W9XF	6.100	YDB	4.470	YDK3	2.910	YT2	4.200	ZSS	19.890
WVD	2.604	W2XAD	15.330	W9XF	6.425	YDB2	2.450	YDK4	2.890	YVQ	6.672	ZSV	8.220
WVD	5.995	W2XAF	9.530	XBJQ	11.000	YDB3	1.660	YDK5	2.710	YVQ	13.337	ZSV	12.500
WVD	6.618	W2XBJ	4.550	XEBT	6.000	YDB4	1.615	YDK6	1.860	YVR	9.168	ZTJ	6.100
WVD	8.620	W2XBJ	10.370	XECR	7.380	YDB5	1.595	YDL2	4.810	YVR	18.296	ZP10	6.666
WWAD	4.988	W2XBJ	13.900	XEDQ	9.520	YDB6	1.570	YDL3	3.450	YV2RC	5.800	ZP11	3.800
WWAJ	3.410	W2XBJ	17.940	XEFT	6.120	YDB7	1.530	YDL4	3.410	YV3RC	6.150		
WWAL	3.410	W2XE	6.120	XEOK	6.130	YDD2	1.630	YDL5	3.210	YV4RC	6.375		
WWAM	3.410	W2XE	11.830	XEUW	6.020	YDD3	1.585	YDL6	2.750	YV5RMO	5.850		
WWAO	3.410	W2XE	15.270	XEVI	5.985	YDE2	4.810	YDM2	3.320	YV6RV	6.520		
WWE	3.410	W3XAL	6.100	XEXA	6.182	YDE3	2.910	YDN2	1.940	YV7RMO	5.810		
WWG	3.410	W3XAL	17.780	XGB	11.140	YDE4	2.415	YDN3	2.790	YV8RB	5.880		

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

540 kcys. (555.2)

CJRM	ak	1000	F	Moose Jaw, Sask.

550 kcys. (545.1)

CFNB	ak	500	F (1)	Fredericton, N. B.
KFUO	ae	500	2 (1)	St. Louis, Mo.
KFYR	ae	1000	N (5)	Bismarck, N. D.
KOAC	ak	1000	....	Corvallis, Ore.
KSD	ak	1000	2R (5)	St. Louis, Mo.
KTSA	ak	1000	C (5)	San Antonio, Tex.
WDEV	ae	500	D	Waterbury, Vt.
WGR	ck	1000	C	Buffalo, N. Y.
WKRC	ak	1000	C	Cincinnati, Ohio
WSVA	ak	500	D	Harrisonburg, Va.

560 kcys. (535.4)

KFDM	ak	500	(1)	Beaumont, Tex.
KLZ	ae	1000	C	Denver, Colo.
KSFO	ak	1000	....	San Francisco, Cal.
KWTO	ak	5000	D	Springfield, Mo.
WFIL	ak	1000	B	Philadelphia, Pa.
WIND	ak	1000	(5)	Gary, Ind.
WIS	ae	1000	N (5)	Columbia, S. C.
WQAM	ae	1000	C	Miami, Fla.
XEAO	ak	250	(.15)	Mexicali, L. C.
XEFC	ak	100	....	Merida, Yuc.

570 kcys. (526.0)

KGKO	ak	250	C (1)	Wichita Falls, Tex.
KMTR	ak	1000	....	Hollywood, Calif.
KVI	ak	1000	C	Tacoma, Wash.
WKBN	ae	500	1C	Youngstown, Ohio
WMCA	ak	500	....	New York, N. Y.
WNAX	ak	1000	C (5)	Yankton, S. D.
WOSU	ak	750	1 (1)	Columbus, Ohio
WSYR	ak	250	BX	Syracuse, N. Y.
WWNC	ak	1000	N	Asheville, N. C.

580 kcys. (516.9)

CFPR	z	50	....	Prince Rupert, B.C.
CHRC	ak	100	F	Quebec, Que.
CJGX	ae	1000	F	Yorkton, Sask.
CKCL	ae	100	F	Toronto, Ont.
CKUA	ak	500	....	Edmonton, Alta.
KMJ	ak	1000	C	Fresno, Calif.
KSAC	ak	500	2 (1)	Manhattan, Kans.
WCHS	ak	500	(1)	Charleston, W. Va.
WDBO	ae	1000	C	Orlando, Fla.
WIBW	an	1000	C2 (5)	Topeka, Kans.
WTAG	ae	500	R	Worcester, Mass.

590 kcys. (508.2)

KHQ	ak	1000	N (2.5)	Spokane, Wash.
WEEI	ak	1000	R	Boston, Mass.
WKZO	ae	1000	DX	Kalamazoo, Mich.
WOW	ae	5000	R	Omaha, Nebr.
XEPN	ak	50000	..	Piedras Negras, Coah.

600 kcys. (499.7)

CFCF	ae	400	FN	Montreal, Que.
CJOR	ak	500	....	Vancouver, B. C.
CMW	ak	1000	....	Havana, Cuba
CRCW	ak	500	F (1)	Windsor, Ont.
FQN	z	250	609	St. Pierre, Miq.
KFSD	ae	1000	N	San Diego, Calif.
WCAC	ak	500	2	Storrs, Conn.
WCAO	ae	500	C (1)	Baltimore, Md.
WICC	ae	500	2 C (1)	Bridgeport, Conn.
WMT	ak	1000	B (2.5)	Cedar Rapids, Ia.
WREC	ak	1000	C (2.5)	Memphis, Tenn.

610 kcys. (491.5)

KFRC	ck	1000	C (5)	San Francisco, Cal.
WDAF	ak	1000	R (5)	Kansas City, Mo.
WIP	ae	1000	....	Philadelphia, Pa.
WJAY	ae	500	D	Cleveland, Ohio
XFX	ak	1000	....	Mexico City, D. F.

620 kcys. (483.6)

KGW	ak	1000	N (5)	Portland, Ore.
KTAR	ae	1000	N	Phoenix, Ariz.
WFLA	ae	1000	Na (5)	Clearwater, Fla.
WHJB	ak	250	D	Greensburg, Pa.
WLBZ	ak	500	C (1)	Bangor, Maine
WSUN	ae	1000	Na (5)	St. Petersburg, Fla.
WTMJ	ae	1000	N (5)	Milwaukee, Wis.

630 kcys. (475.9)

CFCO	ak	100	F	Chatham, Ont.
CFCY	ae	1000	F	Charlottetown, P.E.I.
CJRC	ak	500	F(1.)	Winnipeg, Man.
CKOV	ak	100	F	Kelowna, B. C.
KFRU	ak	500	1 (1)	Columbia, Mo.
KGFX	ak	200	D	Pierre, S. D.
WGBF	ak	500	1	Evansville, Ind.
WMAL	ak	250	B (.5)	Washington, D. C.
WOS	ak	500	1D	Jefferson City, Mo.
WPRO	ak	250	....	Providence, R. I.
XEZ	z	500	....	Merida, Yuc.

640 kcys. (468.5)

CMBY	z	150	....	Havana, Cuba
KFI	ah	50000	N	Los Angeles, Calif.
WAIU	ae	500	....	Columbus, Ohio
WOI	ae	5000	D	Ames, Iowa
XEOX	ak	500	....	Saltillo, Coah.

650 kcys. (461.3)

WSM	ae	50000	N	Nashville, Tenn.

660 kcys. (454.3)

WAAW	ak	500	D	Omaha, Neb.
WEAF	ak	50000	R	New York, N. Y.

670 kcys. (447.5)

WMAQ	ak	50000	N	Chicago, Ill.

680 kcys. (440.9)

CMCQ	z	250	....	Havana, Cuba
KFEQ	ak	2500	D	St. Joseph, Mo.
KPO	ak	50000	N	San Francisco, Cal.
RDN	z	500	....	San Salvador, E.S.
VAS	akn	2000	685	Glace Bay, N. S.
VOWR	ck	500	681	St. John's, Nfld.
WPTF	ae	5000	DnN	Raleigh, N. C.

690 kcys. (434.5)

CFRB	ak	10000	C	Toronto, Ont.
CJCJ	aj	100	F	Calgary, Alta.
NAA	akn	1000	....	Arlington, Va.
XET	ak	500	....	Monterrey, N. L.

700 kcys. (428.3)

WLW	ak	500000	N	Cincinnati, Ohio

710 kcys. (422.3)

KIRO	ae	500	....	Seattle, Wash.
KMPC	ak	500	....	Beverly Hills, Cal.
WOR	ak	50000	....	Newark, N. J.
XEN	ak	1000	....	Mexico City, D. F.

720 kcys. (416.4)

WGN	ak	50000	....	Chicago, Ill.

730 kcys. (410.7)

CFPL	ak	100	F	London, Ont.
CJCA	ah	1000	F	Edmonton, Alta.
CKAC	ck	5000	C	Montreal, Que.
CMK	ae	250	....	Havana, Cuba

740 kcys. (405.2)

KMMJ	ae	1000	D	Clay Center, Neb.
KTRB	ak	250	D	Modesto, Calif.
WHEB	ak	250	D	Portsmouth, N. H.
WSB	ah	50000	N	Atlanta, Ga.

750 kcys. (399.8)

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

760 kcys. (394.5)

CMHX	ak	500	(.15)	Cienfuegos, Cuba
KXA	ae	250	(.5)	Seattle, Wash.
WBAL	ae	2500	BSy	Baltimore, Md.
WEW	ae	1000	D	St. Louis, Mo.
WJZ	ak	50000	BSy	New York, N. Y.
XEOK	z	250	....	Tijuana, L. C.

770 kcys. (389.4)

CMBS	ak	150	....	Havana, Cuba
KFAB	ae	10000	CSy	Lincoln, Neb.
WBBM	ae	50000	CSy	Chicago, Ill.

780 kcys. (384.4)

CHWK	dk	100	F	Chilliwack, B. C.
CKSO	ak	1000	F	Sudbury, Ont.
CMJK	ak	250	....	Camaguey, Cuba
KELW	ak	500	2	Burbank, Calif.
KFDY	ae	1000	D	Brookings, S. D.
KFQD	ck	250	....	Anchorage, Alaska
KGHL	ak	1000	N (2.5)	Billings, Mont.
KTM	ak	500	2 (1)	Los Angeles, Calif.
WEAN	ae	500	C	Providence, R. I.
WMC	ak	1000	N (5.)	Memphis, Tenn.
WTAR	ae	500	N (1)	Norfolk, Va.
XEYZ	z	10000	....	Mexico City, D. F.

790 kcys. (379.5)

CMGH	z	....	....	Matanzas, Cuba
KGO	ak	7500	N	San Francisco, Cal.
WGY	ak	50000	R	Schenectady, N. Y.

800 kcys. (374.8)

HIX	ak	700	....	Trujillo, D. R.
WBAP	ak	50000	Na	Fort Worth, Tex.
WFAA	ak	50000	Na	Dallas, Tex.
WTBO	ak	250	D	Cumberland, Md.

810 kcys. (370.2)

CMCF	ak	250	815	Havana, Cuba
CMHW	ak	100	....	Cienfuegos, Cuba
WCCO	ae	50000	C	Minneapolis, Minn.
WNYC	ak	1000	D	New York, N. Y.
XFC	z	350	....	Aguascalientes, Ags.

820 kcys. (365.6)

WHAS	aj	50000	C	Louisville, Ky.
XEMZ	z	....	....	Coronado Isle, L. C.

830 kcys. (361.2)

KOA	ak	50000	N	Denver, Colo.
WEEU	ak	1000	D	Reading, Pa.
WHDH	ae	1000	Dn	Boston, Mass.
WRUF	ae	5000	Dn	Gainesville, Fla.

840 kcys. (356.9)

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

850 kcys. (352.7)

CMBN	z	150	....	Havana, Cuba
KIEV	ak	250	D	Glendale, Calif.
TIEP	z	500	....	San Jose, C. R.
WESG	ak	1000	C	Elmira, N. Y.
WKAR	ae	1000	D	East Lansing, Mich.
WWL	ae	10000	C	New Orleans, La.
XEFE	z	250	....	Nuevo Laredo

860 kcys. (348.6)

WABC	ak	50000	C	New York, N. Y.
WHB	ak	1000	D	Kansas City, Mo.
XEMO	ak	5000	....	Tijuana, L. C.

870 kcys. (344.6)

WENR	ak	50000	Na	Chicago, Ill.
WLS	ae	50000	Na	Chicago, Ill.

880 kcys. (340.7)

CFJC	ak	100	F	Kamloops, B. C.
CMQ	ak	500	....	Havana, Cuba
CRCO	ak	1000	F	Ottawa, Ont.
KFKA	ak	500	2 (1)	Greeley, Colo.
KLX	ae	1000	....	Oakland, Calif.
KPOF	ae	500	2	Denver, Colo.
WCOC	ae	500	(1)	Meridian, Miss.
WGBI	ae	500	1	Scranton, Pa.
WPHR	ak	500	D	Petersburg, Va.
WQAN	ae	250	1	Scranton, Pa.
WSUI	ae	500	(1)	Iowa City, Iowa

890 kcys. (336.9)

KARK	ak	250	(.5)	Little Rock, Ark.
KFNF	ak	500	2 (1)	Shenandoah, Iowa
KFPY	ak	1000	C	Spokane, Wash.
KUSD	ae	500	2	Vermillion, S. D.
WBAA	ak	1000	D	W. Lafayette, Ind.
WGST	ak	1000	C	Atlanta, Ga.
WILL	ak	250	2 (1)	Urbana, Ill.
WJAR	ae	500	R	Providence, R. I.
WMMN	ak	500	C(1)	Fairmount, W. Va.
XEW	ak	50000	....	Mexico City, D. F.

900 kcys. (333.1)

KGBU	ak	500	....	Ketchikan, Alaska
KHJ	ae	1000	C (5)	Los Angeles, Calif.
KSEI	ck	250	(.5)	Pocatello, Idaho
WBEN	ak	1000	R (5)	Buffalo, N. Y.
WELI	z	500	D	New Haven, Conn.
WFMD	ah	500	DP	Frederick, Md.
WJAX	aeh	1000	N (5)	Jacksonville, Fla.
WKY	ae	1000	N	Oklahoma City, Okla.
WLBL	ak	2500	D	Stevens Point, Wis.
WTAD	ak	500	D	Quincy, Ill.

910 kcys. (329.6)

CJAT	ak	250	F	Trail, B. C.
CRCM	ak	5000	F	Montreal, Que.
XENT	ak	150000	....	Nuevo Laredo, Tams.

920 kcys. (325.9)

CMX	ae	650	....	Havana, Cuba
HHK	ae	1000	....	Port-au-Prince, Haiti
KFEL	ak	500	a	Denver, Colo.
KOMO	ak	1000	N (5)	Seattle, Wash.
KPRC	ak	1000	N (5)	Houston, Texas
KVOD	ak	500	a	Denver, Colo.
WAAF	ak	1000	D	Chicago, Ill.
WORL	ae	500	D	Needham, Mass.
WPEN	ak	250	(.5) 1	Philadelphia, Pa.
WRAX	ak	250	1 (.5)	Philadelphia, Pa.
WSPA	ae	1000	D	Spartanburg, S. C.
WWJ	ak	1000	R (5)	Detroit, Mich.
XEAA	ak	200	....	Mexicali, L. C.

930 kcys. (322.4)

CFAC	ak	100	F	Calgary, Alta.
CFCH	ak	100	F	North Bay, Ont.
CFLC	ae	100	....	Prescott, Ont.
CHNS	ae	1000	F	Halifax, N. S.
CKPC	ae	100	F	Brantford, Ont.
CKPR	ak	100	F	Fort William, Ont.
KGBZ	ak	1000	2 (2.5)	York, Neb.
KMA	ak	1000	2 (2.5)	Shenandoah, Iowa
KROW	ak	1000	....	Oakland, Calif.
TIRH	z	50	....	San Jose, C. R.
WBRC	ak	1000	C	Birmingham, Ala.
WDBJ	ae	1000	C	Roanoke, Va.
XEBH	z	500	....	Hermosillo, Sonora

940 kcys. (319.0)

KOIN	ak	1000	C (5)	Portland, Ore.
VOAS	ak	100	....	St. John's, Nfld.
WAAT	ae	500	D	Jersey City, N. J.
WAVE	bk	1000	N	Louisville, Ky.
WCSH	ae	1000	R (2.5)	Portland, Maine
WDAY	ae	1000	N (5)	Fargo, N. D.
WHA	ak	2500	D	Madison, Wis.
XEFO	ak	5000	(XFO)	Mexico City, D. F.

950 kcys. (315.6)

CJOC	ak	100	F	Lethbridge, Alta.
CMCD	ak	250	....	Havana, Cuba
CRCS	ak	100	F	Chicoutimi, Que.
KFWB	ak	1000	(5)	Hollywood, Calif.
KHSL	ak	250	D	Chico, Calif.
KMBC	ae	1000	C (5)	Kansas City, Mo.
WRC	ak	500	R (1)	Washington, D. C.
YNVA	z	30	....	Managua, Nic.

960 kcys. (312.3)

CKY	ak	15000	F	Winnipeg, Man.
XEAW	ck	50000	....	Reynosa, Tams.

970 kcys. (309.1)

CMBC	dj	500	....	Havana, Cuba
KJR	ak	5000	N	Seattle, Wash.
WCFL	ae	5000	B	Chicago, Ill.
WIBG	ak	100	D	Glenside, Pa.

980 kcys. (306.0)

KDKA	ae	50000	B	Pittsburgh, Pa.

990 kcys. (302.8)

WBZ	ak	50000	BSy	Boston, Mass.
WBZA	ak	1000	BSy	Springfield, Mass.
XEAF	ak	500	....	Nogales, Sonora
XEK	ak	100	....	Mexico City, D. F.
XES	dk	250	....	Tampico, Tams.

1000 kcys. (299.8)

CMBZ	ak	250	....	Havana, Cuba
KFVD	ak	250	Dn	Los Angeles, Calif.
TIGH	z	500	....	San Jose, C. R.
WHO	ak	50000	R	Des Moines, Iowa
XEY	z	10	....	Merida, Yuc.

1010 kcys. (296.9)

CHML	ak	100	F	Hamilton, Ont.
CHWC	ak	500	3F	Regina, Sask.
CKCD	ak	100	....	Vancouver, B. C.
CKCK	ak	500	3F	Regina, Sask.
CKCO	ak	100	F	Ottawa, Ont.
CKIC	ak	50	....	Wolfville, N. S.
CKWX	ak	100	F	Vancouver, B. C.
CMJA	ak	300	....	Camaguey, Cuba
KGGF	ak	1000	2	Coffeyville, Kans.
KQW	ak	1000	....	San Jose, Calif.
TIGA	z	30	1014	Cartago, C. R.
WHN	ae	1000	(5)	New York, N. Y.
WNAD	ae	1000	2	Norman, Okla.
WNOX	ak	1000	C (2)	Knoxville, Tenn.
XEU	ak	250	....	Veracruz, Ver.

1020 kcys. (293.9)

KYW	ak	10000	R	Philadelphia, Pa.
WDZ	ak	250	D	Tuscola, Ill.
XEJ	ak	1000	....	Juarez, Chih.

1030 kcys. (291.1)

CFCN	ak	10000	....	Calgary, Alta.
CKLW	ag	5000	....	Windsor, Ont.
CMCY	ak	1000	....	Havana, Cuba
XEB	ak	10000	....	Mexico City, D. F.

1040 kcys. (288.3)

KRLD	ae	10000	C	Dallas, Texas
KWJJ	ak	500	....	Portland, Ore.
WTIC	ah	50000	....	Hartford, Conn.

1050 kcys. (285.5)

CMKD	ak	250	....	Santiago, Cuba
CRCK	ak	1000	F	Quebec, Que.
KFBI	ak	5000	Dn	Abilene, Kans.
KNX	ak	50000	....	Hollywood, Calif.
TIFA	z	75	....	San Jose, C. R.

1060 kcys. (282.8)

KTHS	ae	10000	N	Hot Springs, Ark.
VOAC	z	40	1065	St. John's, Nfld.
WBAL	ak	10000	B	Baltimore, Md.
WJAG	ak	1000	D	Norfolk, Neb.
XEA	ak	500	....	Guadalajara, Jal.

1070 kcys. (280.2)

CMHA	z	50	....	Sagua la Grande
KJBS	ak	500	Dn	San Francisco, Cal.
WCAZ	ak	100	D	Carthage, Ill.
WTAM	ak	50000	R	Cleveland, Ohio

1080 kcys. (277.6)

WBT	ak	50000	C	Charlotte, N. C.
WCBD	ak	5000	1Dn	Waukegan, Ill.
WMBI	ak	5000	1Dn	Chicago, Ill.

1090 kcys. (275.1)

KMOX	ak	50000	C	St. Louis, Mo.
XEAQ	ak	1000	....	Tijuana, L. C.

1100 kcys. (272.6)

CMCJ	ak	350	....	Havana, Cuba
CRCV	ak	500	F	Vancouver, B. C.
KGDM	ak	1000	D	Stockton, Calif.
KWKH	ae	10000	C	Shreveport, La.
WLWL	ae	5000	1	New York, N. Y.
WPG	ak	5000	1C	Atlantic City, N. J.
XEL	z	250	....	Mexico City, D. F.

1110 kcys. (270.1)

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

1120 kcys. (267.7)

CHLP	ak	100	F	Montreal, Que.
CHSJ	ae	500	F (1)	St. John, N. B.
CKOC	ae	500	F (1)	Hamilton, Ont.
CKX	ak	100	F	Brandon, Man.
CMGF	dk	100	....	Matanzas, Cuba
CMKM	ak	200	....	Manzanillo, Cuba
KFIO	ae	100	D	Spokane, Wash.
KFSG	ag	500	a (1)	Los Angeles, Calif.
KRKD	aj	500	a (2.5)	Los Angeles, Calif.
KRSC	ak	100	D	Seattle, Wash.
WCOP	ak	500	D	Boston, Mass.
WDEL	ak	250	(.5)	Wilmington, Del.
WISN	ak	250	(1)	Milwaukee, Wis.
WTAW	ae	500	....	College Station, Tex.

1130 kcys. (265.3)

CMJI	ak	50	....	Ciego de Avila, Cuba
KSL	ae	50000	C	Salt Lake City, Utah
WJJD	ak	20000	Dn	Chicago, Ill.
WOV	ag	1000	D	New York, N. Y.

1140 kcys. (263.0)

CMBG	z	200	....	Havana, Cuba
KVOO	ak	25000	1N	Tulsa, Okla.
WAPI	ae	5000	1N	Birmingham, Ala.
WSPR	z	500	P	Springfield, Mass.

1150 kcys. (260.7)

CMJF	z	200	....	Camaguey, Cuba
WHAM	ae	50000	B	Rochester, N. Y.
XED	ak	2500	1155	Guadalajara, Jal.
XEFL	z	500	....	Tijuana, L. C.
XEH	ak	250	....	Monterrey, N. L.
XEWZ	ak	100	....	Mexico City, D. F.

1160 kcys. (258.5)

CMHJ	z	100	....	Cienfuegos, Cuba
WOWO	ae	10000	1C	Fort Wayne, Ind.
WWVA	ak	5000	1C	Wheeling, W. Va.
XEAS	z	100	....	Saltillo, Coah.
XEC	z	30	....	Tijuana, L. C.
XESL	z	....	....	Tijuana, L. C.

1170 kcys. (256.3)

CMBD	z	150	....	Havana, Cuba
WCAU	ae	50000	C	Philadelphia, Pa.

1180 kcys. (254.1)

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

1190 kcys. (252.0)

CMKX	ak	75	....	Santiago, Cuba
HIJ	z	15	1195	Trujillo, D. R.
VONF	ak	500	1195	St. John's, Nfld.
WATR	ak	100	D	Waterbury, Conn.
WOAI	ak	50000	N	San Antonio, Tex.
WSAZ	ak	1000	....	Huntington, W. Va.

1200 kcys. (249.9)

CHAB	ak	100	F	Moose Jaw, Sask.
CKNX	ak	50	....	Wingham, Ont.
CKTB	ae	100	F	St. Catherines, Ont.
CMCO	ak	250	....	Havana, Cuba
KADA	ak	100	D	Ada, Okla.
KBTM	ak	100	D	Jonesboro, Ark.
KFJB	ak	100	(.25)	Marshalltown, Iowa
KFXD	ae	100	(.25)	Nampa, Idaho
KFXJ	ak	100	(.25)	Grand Junc., Colo.
KGDE	ak	100	(.25)	Fergus Falls, Minn.
KGEK	ak	100	....	Sterling, Colo.
KGFJ	ae	100	....	Los Angeles, Calif.
KGHI	ak	100	(.25)	Little Rock, Ark.
KMLB	ak	100	....	Monroe, La.
KSUN	ak	100	....	Lowell, Ariz.
KVOS	dk	100	....	Bellingham, Wash.
KWG	ak	100	C	Stockton, Calif.
WABI	ak	100	....	Bangor, Maine
WAIM	ak	100	....	Anderson, S. C.
WBBZ	ak	100	....	Ponca City, Okla.
WBNO	ak	100	1	New Orleans, La.
WCAT	ak	100	D	Rapid City, S. D.
WCAX	ak	100	....	Burlington, Vt.
WCLO	ak	100	....	Janesville, Wis.
WCPO	ak	100	(.25)	Cincinnati, Ohio
WEST	ae	100	3 (.25)	Easton, Pa.
WFAM	ak	100	8	South Bend, Ind.
WHBC	ak	100	(.25)	Canton, Ohio
WHBY	ak	100	(.25)	Green Bay, Wis.
WIBX	aej	100	(.3) C	Utica, N. Y.
WIL	ak	100	(.25)	St. Louis, Mo.
WJBC	ak	100	6	Bloomington, Ill.
WJBL	ak	100	6	Decatur, Ill.
WJBW	ak	100	1	New Orleans, La.
WJNO	z	100	P	W. Palm Beach, Fla.
WKBO	ak	100	3 (.25)	Harrisburg, Pa.
WLVA	ak	100	(.25)	Lynchburg, Va.
WMFR	ae	100	D	High Point, N. C.
WMPC	ak	100	(.25)	Lapeer, Mich.
WNRI	ak	100	(.25)	Newport, R. I.
WRBL	ak	100	....	Columbus, Ga.
WWAE	ae	100	8	Hammond, Ind.
WTHT	z	100	DP	Hartford, Conn.

1210 kcys. (247.8)

CJCS	z	50	....	Stratford, Ont.
CJCU	z	50	....	Aklavik, N. W. T.
CKBI	ak	100	F	Prince Albert, Sask.
CKCH	ak	100	F	Hull, Que.
CKMC	ak	50	....	Cobalt, Ont.
CMHI	ak	150	....	Santa Clara, Cuba
KASA	ck	100	....	Elk City, Okla.
KDLR	ak	100	....	Devils Lake, N. D.
KDON	z	100	....	Del Monte, Calif.
KFJI	ak	100	....	Klamath Falls, Ore.
KFOR	ae	100	(.25) C	Lincoln, Neb.
KFPW	ak	100	....	Fort Smith, Ark.
KFVS	ak	100	6(.25)	Cape Girardeau, Mo.
KFXM	ak	100	9	San Bernardino, Calif.
KGY	ak	100	....	Olympia, Wash.
KIUL	ak	100	....	Garden City, Kans.
KPPC	ak	50	9	Pasadena, Calif.
KVSO	ak	100	D	Ardmore, Okla.
KWTN	ak	100	....	Watertown, S. D.
TGW	ak	10000	....	Guatemala City
WALR	ak	100	....	Zanesville, Ohio
WBAX	ae	100	....	Wilkes Barre, Pa.
WBBL	ak	100	S	Richmond, Va.
WBRB	ak	100	3	Red Bank, N. J.
WCOL	ak	100	....	Columbus, Ohio
WCRW	ae	100	4	Chicago, Ill.
WEBQ	ae	100	6(.25)	Harrisburg, Ill.
WEDC	ae	100	4	Chicago, Ill.
WFAS	ak	100	3	White Plains, N. Y.
WGBB	ae	100	3	Freeport, N. Y.
WGCM	ae	100	(.25)	Gulfport, Miss.
WGNY	ak	100	3	Chester, N. Y.
WHBF	ak	100	(.25)	Rock Island, Ill.
WHBU	ak	100	....	Anderson, Ind.
WIBU	ak	100	(.25)	Poynette, Wis.
WJBY	ak	100	....	Gadsden, Ala.
WJEJ	ae	100	D	Hagerstown, Md.
WJIM	z	100	(.25)	Lansing, Mich.
WJW	ae	100	(.25)	Akron, Ohio
WKOK	ak	100	....	Sunbury, Pa.
WMBG	ak	100	C(.25)	Richmond, Va.
WMFG	z	100	....	Hibbing, Minn.
WMFN	ak	100	....	Clarksdale, Miss.
WOCL	ak	50	....	Jamestown, N. Y.
WOMT	ak	100	....	Manitowoc, Wis.
WPAX	ak	250	D	Thomasville, Ga.
WSAY	z	100	DP	Rochester, N. Y.
WSBC	ae	100	4	Chicago, Ill.
WSIX	ak	100	Y	Springfield, Tenn.
WSOC	ak	100	N(.25)	Charlotte, N. C.
WTAX	ak	100	....	Springfield, Ill.
XEE	z	50	....	Durango, Dgo.
XEFV	ak	100	....	Juarez, Chih.
XETH	ak	100	....	Puebla, Pue.

1220 kcys. (245.8)

CMJE	z	50	....	Camaguey, Cuba
KFKU	ae	1000	a(5)	Lawrence, Kans.
KTW	ak	1000	S2	Seattle, Wash.
KWSC	ae	1000	2(5)	Pullman, Wash.
WCAD	ak	500	D	Canton, N. Y.
WCAE	ak	1000	R(5)	Pittsburgh, Pa.
WDAE	ae	1000	C(2.5)	Tampa, Fla.
WREN	ak	1000	Ba(5)	Lawrence, Kas.
XETF	ak	12	....	Veracruz, Ver.

1230 kcys. (243.8)

CMCB	ak	150	....	Havana, Cuba
KGBX	ak	500	....	Springfield, Mo.
KGGM	ak	250	(.5)	Albuquerque, N.M.
KYA	ak	1000	N	San Francisco, Calif.

WFBM	ae	1000	C	Indianapolis, Ind.
WNAC	ak	1000	C(2.5)	Boston, Mass.
XEFJ	ak	100	....	Monterrey, N. L.
YNOP	z	100	....	Managua, Nic.

1240 kcys. (241.8)

CJCB	ak	1000	F	Sydney, N. S.
CMHB	z	50	....	Sancti Spiritus, Cuba
KGCU	ak	250	1	Mandan, N. D.
KLPM	ak	250	1	Minot, N. D.
KTAT	ak	1000	....	Fort Worth, Texas
KTFI	ae	1000	....	Twin Falls, Idaho
WKAQ	ae	1000	....	San Juan, P. R.
WXYZ	ak	1000	B	Detroit, Mich.
XEAI	z	100	....	Mexico City, D. F.
XEKL	z	500	....	Leon, Guan.

1250 kcys. (239.9)

CMCG	ak	250	1255	Havana, Cuba
CMKC	ak	150	....	Santiago, Cuba
KFOX	ae	1000	....	Long Beach, Calif.
WCAL	ah	1000	2(2.5)	Northfield, Minn.
WDSU	ak	1000	....	New Orleans, La.
WHBI	ak	1000	a(2.5)	Newark, N. J.
WLB	ak	1000	2	Minneapolis, Minn.
WNEW	ae	1000	a(2.5)	Newark, N. J.
WTCN	ak	1000	2(5)	Minneapolis, Minn.

1260 kcys. (238.0)

CFRN	ak	100	F	Edmonton, Alta.
KGVO	ak	1000	....	Missoula, Mont.
KOIL	ak	1000	B(2.5)	Council Bluffs, Ia.
KPAC	ak	500	D	Port Arthur, Texas
KRGV	ak	500	....	Weslaco, Texas
KUOA	ak	1000	D	Fayetteville, Ark.
KVOA	ak	500	....	Tucson, Ariz.
WHIO	ae	1000	R	Dayton, Ohio
WNBX	ak	1000	....	Springfield, Vt.
WTOC	ae	1000	C	Savannah, Ga.

1270 kcys. (236.1)

CMHD	dk	250	....	Caibarien, Cuba
KGGA	ak	100	2D	Decorah, Iowa
KOL	ae	1000	C(2.5)	Seattle, Wash.
KVOR	ae	1000	C	Colorado Sp'gs, Colo.
KWLC	ak	100	2D	Decorah, Iowa
WASH	ak	500	aN	Grand Rapids, Mich.
WFBR	ak	500	R	Baltimore, Md.
WJDX	ae	1000	N(2.5)	Jackson, Miss.
WOOD	ak	500	aN	Grand Rapids, Mich.
XEG	z	200	....	Ensenada, L. C.
XFB	ak	250	....	Jalapa, Ver.
YNLF	z	20	1275	Managua, Nic.

1280 kcys. (234.2)

CMCU	z	150	....	Havana, Cuba
KFBB	ae	1000	(2.5)	Great Falls, Mont.
WCAM	ae	500	1	Camden, N. J.
WCAP	ae	500	1	Asbury Park, N. J.
WDOD	ak	1000	C(5)	Chattanooga, Tenn.
WIBA	ae	1000	N(5)	Madison, Wis.
WORC	ak	500	C	Worcester, Mass.
WRR	ak	500	....	Dallas, Texas
WTNJ	ak	500	1	Trenton, N. J.
XEMX	z	12	....	Mexico City, D. F.

1290 kcys. (232.4)

KDYL	ak	1000	NX	Salt Lake City, Utah
KLCN	ak	100	D	Blytheville, Ark.
KTRH	ak	1000	C(5)	Houston, Texas
WEBC	ae	1000	N(5)	Superior, Wis.
WJAS	ak	1000	C(2.5)	Pittsburgh, Pa.
WNBZ	z	100	D	Saranac Lake, N. Y.
WNEL	ak	1000	(2.5)	San Juan, P. R.

1300 kcys. (230.6)

HIZ	z	10	....	Trujillo, D. R.
KALE	ak	500	3C	Portland, Ore.
KFAC	ak	1000	....	Los Angeles, Calif.
KFH	ak	1000	C	Wichita, Kans.
KFJR	ag	500	3	Portland, Ore.
WBBR	ae	1000	1	Brooklyn, N. Y.
WEVD	ak	1000	1	New York, N. Y.
WFAB	ae	1000	1	New York, N. Y.
WFBC	ak	1000	(5)	Greenville, S. C.
WHAZ	ae	500	1	Troy, N. Y.
WIOD	ak	1000	N	Miami, Fla.

1310 kcys. (228.9)

CHCK	ak	50	....	Charlottetown, P.E.I.
CJKL	ak	1000	....	Kirkland Lake, Ont.
CJLS	ak	500	....	Yarmouth, N. S.
CKCV	ak	100	F	Quebec, Que.
KCRJ	ak	100	D	Jerome, Ariz.
KFPL	dk	100	(.25)	Dublin, Texas
KFXR	ak	100	(.25)	Oklahoma City, Okl.
KFYO	dk	100	(.25)	Lubbock, Texas
KGCX	ak	100	(.25)	Wolf Point, Mont.
KGEZ	aj	100	....	Kalispell, Mont.
KGFW	ak	100	....	Kearney, Neb.
KINY	ak	100	....	Juneau, Alaska
KIT	ak	100	(.25)	Yakima, Wash.
KIUJ	ak	100	....	Santa Fe, N. Mex.
KMED	ck	100	(.25)	Medford, Ore.
KPDN	z	100	DP	Pampa, Texas
KRMD	ak	100	....	Shreveport, La.
KROC	z	100	....	Rochester, Minn.
KTSM	ak	100	....	El Paso, Texas
KVOL	ak	100	....	Lafayette, La.
KXRO	ak	100	....	Aberdeen, Wash.
WAML	ak	100	....	Laurel, Miss.
WBEO	ae	100	....	Marquette, Mich.
WBOW	ak	100	(.25)	Terre Haute, Ind.
WBRE	ak	100	....	Wilkes Barre, Pa.
WCLS	ak	100	....	Joliet, Ill.
WCMI	z	100	....	Ashland, Ky.
WDAH	ak	100	S	El Paso, Texas
WEBR	aeh	100	(.25)	Buffalo, N. Y.
WEMP	z	100	D	Milwaukee, Wis.
WEXL	ak	50	....	Royal Oak, Mich.
WFBG	ae	100	3	Altoona, Pa.
WFDF	mk	100	....	Flint, Mich.
WGH	aj	100	(.25)	Newport, News, Va.
WHAT	ak	100	4	Philadelphia, Pa.
WJAC	ae	100	3	Johnstown, Pa.
WLAK	z	100	P	Lakeland, Fla.
WLBC	ak	100	6(.25)	Muncie, Ind.
WLNH	ak	100	....	Laconia, N. H.
WMBO	ak	100	....	Auburn, N. Y.
WMFF	ak	250	D	Plattsburg, N. Y.
WNBH	ak	100	(.25)	New Bedford, Mass.
WOL	ak	100	....	Washington, D. C.
WRAW	ak	100	....	Reading, Pa.
WROL	ak	100	(.25)	Knoxville, Tenn.
WSAJ	ae	100	....	Grove City, Pa.
WSGN	ak	100	(.25)	Birmingham, Ala.
WSJS	ak	100	C	Winston-Salem, N.C.
WTAL	ak	100	....	Tallahassee, Fla.
WTEL	ce	100	4	Philadelphia, Pa.
WTJS	ak	100	(.25)	Jackson, Tenn.
WTRC	ak	100	6(.25)	Elkhart, Ind.
XECW	z	10	....	Mexico City, D. F.
XEFW	ak	250	....	Tampico, Tams.
XETB	ak	125	....	Torreon, Coah.
XEX	ak	125	....	Monterrey, N. L.
XFA	z	5	....	Aguascalientes, Ags.

1320 kcys. (227.1)

CMOX	ak	250	....	Havana, Cuba
KGHF	ak	500	....	Pueblo, Colo.
KGMB	ak	1000	C	Honolulu, T. H.
KID	ae	250	(.5)	Idaho Falls, Idaho
KRNT	ak	500	C(1)	Des Moines, Iowa
WADC	ae	1000	C(2.5)	Akron, Ohio
WORK	ak	1000	....	York, Pa.
WSMB	ak	500	N	New Orleans, La.

1330 kcys. (225.4)

CMHK	z	250	....	Cruces, Cuba
KGB	ag	1090	C(2.5)	San Diego, Calif.
KMO	ak	250	....	Tacoma, Wash.
KSCJ	aj	1000	1C(2.5)	Sioux City, Iowa
WDRC	ae	1000	C(.5)	Hartford, Conn.
WSAI	ak	1000	R(2.5)	Cincinnati, Ohio
WTAQ	ae	1000	1	Green Bay, Wis.

1340 kcys. (223.7)

CMJL	z	100	....	Camaguey, Cuba
HRN	z	50	....	Tegucigalpa, Hond.
KGDY	ak	250	D	Huron, S. D.
KGIR	ak	1000	N(2.5)	Butte, Mont.
KGNO	ak	250	....	Dodge City, Kans.
WCOA	ak	500	C	Pensacola, Fla.
WFEA	ae	500	C(1)	Manchester, N. H.
WSPD	ae	1000	C(2.5)	Toledo, Ohio
XFD	z	350	....	Jalapa, Ver.

1350 kcys. (222.1)

CMCA	z	250	....	Havana, Cuba
KIDO	ak	1000	(.25)	Boise, Idaho
KWK	ak	1000	B(5)	St. Louis, Mo.
WAWZ	ae	500	1(1)	Zarephath, N. J.
WBNX	ae	250	1	New York, N. Y.

1360 kcys. (220.4)

CMJH	dk	100	....	Ciego de Avila, Cuba
KCRC	ak	250	....	Enid, Okla.
KGER	ak	1000	....	Long Beach, Calif.
WCSC	ak	500	(1)	Charleston, S. C.
WFBL	ak	1000	C(5)	Syracuse, N. Y.
WGES	ae	500	1	Chicago, Ill.
WQBC	ak	1000	D	Vicksburg, Miss.
WSBT	ak	500	1	South Bend, Ind.

1370 kcys. (218.8)

CKCW	ak	100	F	Moncton, N. B.
CMGE	ak	50	....	Cardenas, Cuba
KAST	ak	100	D	Astoria, Ore.
KELD	z	100	....	El Dorado, Ark.
KERN	ak	100	....	Bakersfield, Calif.
KFGQ	ak	100	....	Boone, Iowa
KFJM	ak	100	(.25)	Grand Forks, N. D.
KFJZ	ae	100	....	Fort Worth, Texas
KFRO	ak	100	D	Longview, Texas
KGAR	ae	100	(.25)	Tucson, Ariz.
KGFG	bk	100	....	Oklahoma City, Okla.
KGFL	ak	100	4	Roswell, N. M.
KGKL	ak	100	(.25)	San Angelo, Texas
KICA	ak	100	4	Clovis, N. M.
KIUP	ak	100	....	Durango, Colo.
KLUF	z	100	(.25)	Galveston, Texas
KMAC	ak	100	5	San Antonio, Tex.
KONO	ak	100	5	San Antonio, Tex.
KRE	ak	100	(.25)	Berkeley, Calif.
KRKO	ak	50	1	Everett, Wash.
KSLM	ak	100	....	Salem, Ore.
KUJ	ak	100	....	Walla Walla, Wash.
KVL	ak	100	1	Seattle, Wash.
KWKC	ak	100	....	Kansas City, Mo.
KWYO	ak	100	....	Sheridan, Wyo.
WABY	aj	100	....	Albany, N. Y.
WAGF	ak	250	D	Dothan, Ala.
WATL	ak	100	....	Atlanta, Ga.
WBNY	z	100	2P(.25)	Buffalo, N. Y.
WBTM	ak	100	(.25)	Danville, Va.
WCBM	ae	100	(.25)	Baltimore, Md.
WDAS	ae	100	(.25)	Philadelphia, Pa.
WEOA	z	100	P	Evansville, Ind.
WGL	ae	100	C	Fort Wayne, Ind.
WHBQ	ak	100	....	Memphis, Tenn.
WHDF	ak	100	(.25)	Calumet, Mich.
WHLB	z	100	P	Virginia, Minn.
WIBM	ak	100	(.25)	Jackson, Mich.
WLLH	ak	100	(.25)	Lowell, Mass.
WMBR	ak	100	C(.25)	Jacksonville, Fla.
WMFD	ak	100	D	Wilmington, N. C.
WMFO	ak	100	D	Decatur, Ala.
WOC	ak	100	C(.25)	Davenport, Iowa
WPAY	ak	100	....	Portsmouth, Ohio
WPFB	ak	100	....	Hattiesburg, Miss.
WQDM	ae	100	....	St. Albans, Vt.
WRAK	ak	100	(.25)	Williamsport, Pa.
WRDO	ae	100	....	Augusta, Maine
WRJN	ak	100	(.25)	Racine, Wis.
WSVS	ak	50	D2	Buffalo, N. Y.
XEFZ	ak	100	....	Mexico City, D. F.
XEI	ak	125	....	Morelia, Mich.
XEZZ	z	100	....	San Luis Potosi, SLP.
.....	z	100	P	St. Paul, Minn.

1380 kcys. (217.3)

CMBX	ak	500	....	Havana, Cuba
KOH	ak	500	C	Reno, Nev.
KQV	ae	500	....	Pittsburgh, Pa.
WALA	af	500	C(1)	Mobile, Ala.
WKBH	ae	1000	....	LaCrosse, Wis.
WNBC	mk	250	D	New Britain, Conn.
WSMK	ak	200	C	Dayton, Ohio

1390 kcys. (215.7)

CMJC	z	150	....	Camaguey, Cuba
HIH	ak	15	1395	San Ped.de Macoris
KLRA	ae	1000	C(2.5)	Little Rock, Ark.
KOOS	ae	250	D	Marshfield, Ore.
KOY	ae	500	(1)	Phoenix, Ariz.
WHK	ae	1000	C(2.5)	Cleveland, Ohio

1400 kcys. (214.2)

CMGC	z	100	....	Matanzas, Cuba
CMKR	z	100	....	Santiago, Cuba
KLO	ak	500	N	Ogden, Utah
KTUL	ak	500	C(1)	Tulsa, Okla.
TGX	ak	250	....	Guatemala City, Gt.
WARD	ak	500	2	Brooklyn, N. Y.
WBBC	ae	500	2(1)	Brooklyn, N. Y.
WEGL	z	500	P	Brooklyn, N. Y.
WIRE	ak	500	R(1)	Indianapolis, Ind.
WLTH	ak	500	2	Brooklyn, N. Y.
WVFW	ak	500	2	Brooklyn, N. Y.

1410 kcys. (212.6)

CHNC	ak	500	F(1)	New Carlisle, Que.
CKFC	ak	50	5	Vancouver, B. C.
CKMO	ag	100	5F	Vancouver, B. C.
CMCR	z	150	....	Havana, Cuba
KGNC	ae	1000	(2.5)	Amarillo, Texas
WAAB	ak	500	C	Boston, Mass.
WBCM	ae	500	....	Bay City, Mich.
WHBL	ae	500	Z	Sheboygan, Wis.
WHIS	ak	250	(.5)	Bluefield, W. Va.
WROK	ak	500	....	Rockford, Ill.
WSFA	ak	500	C(1)	Montgomery, Ala.

1420 kcys. (211.1)

CKGB	ak	100	....	Timmins, Ont.
CMGI	z	50	....	Matanzas, Cuba
KABC	ak	100	(.25)	San Antonio, Texas
KABR	ak	100	....	Aberdeen, S. Dak.
KALB	z	100	D	Alexandria, La.
KBPS	aj	100	4	Portland, Ore.
KCMC	ak	100	....	Texarkana, Ark.
KFIZ	ak	100	....	Fond du Lac, Wis.
KGFF	ak	100	(.25)	Shawnee, Okla.
KGGC	ak	100	....	San Francisco, Cal.
KGIW	ak	100	1	Alamosa, Colo.
KHBC	z	100	....	Hilo, T. H.
KIDW	ak	100	1	Lamar, Colo.
KIUN	ak	100	....	Pecos, Texas
KNET	z	100	D	Palestine, Texas
KORE	ae	100	....	Eugene, Ore.
KRLC	ak	100	....	Lewiston, Idaho
KRLH	z	100	D	Midland, Tex.
KUMA	ak	100	....	Yuma, Ariz.
KWBG	ak	100	....	Hutchinson, Kans.
KXL	ak	100	4(.25)	Portland, Ore.
WACO	ak	100	C	Waco, Texas
WAGM	ae	100	....	Presque Isle, Maine
WAZL	ak	100	2	Hazleton, Pa.
WCBS	ak	100	....	Springfield, Ill.
WCHV	ak	100	3(.25)	Charlottesville, Va.
WEED	ak	100	3	Rocky Mount, N. C.
WEHS	ak	100	a	Cicero, Ill.
WELL	ak	100	....	Battle Creek, Mich.
WGPC	ak	100	....	Albany, Ga.
WHDL	ak	100	D	Olean, N. Y.
WHFC	ae	100	a	Cicero, Ill.
WILM	aj	100	2	Wilmington, Del.
WJBO	ak	100	....	Baton Rouge, La.
WJBR	z	100	P	Gastonia, N. C.
WJMS	ak	100	....	Ironwood, Mich.
WKBI	ak	100	a	Cicero, Ill.
WLAP	ak	100	(.25)	Lexington, Ky.
WLBF	ak	100	....	Kansas City, Kan.
WLEU	ak	100	(.25)	Erie, Pa.
WMAS	ak	100	C(.25)	Springfield, Mass.
WMBC	ae	100	(.25)	Detroit, Mich.
WMBH	ak	100	(.25)	Joplin, Mo.
WMFJ	ak	100	....	Daytona Beach, Fla
WMSD	ak	100	....	Sheffield, Ala.
WPAD	ak	100	(.25)	Paducah, Ky.
WPAR	ak	100	....	Parkersburg, W.Va.
WPRP	z	100	P(.25)	Ponce, P. R.
XEAZ	z	7	....	Guanajuato, Gto.
XEFB	ak	100	....	Monterrey, N. L.
.....	z	100	P	Price, Utah.

1430 kcys. (209.7)

CMJP	ak	100	....	Camaguey, Cuba
KECA	ah	1000	(5) N	Los Angeles, Calif.
KGNF	ak	1000	D	North Platte, Neb.
KSO	ak	500	B (1)	Des Moines, Iowa
WBNS	ae	500	C (1)	Columbus, Ohio
WHEC	ae	500	C (1)	Rochester, N. Y.
WHP	ak	500	C (1)	Harrisburg, Pa.
WNBR	ae	500	(1)	Memphis, Tenn.
WOKO	aj	500	C (1)	Albany, N. Y.

1440 kcys. (208.2)

CMOA	z	150	....	Havana, Cuba
HP50	z	25	....	Colon, Panama
KDFN	ak	500	....	Casper, Wyo.
KLS	ag	250	D	Oakland, Calif.
KXYZ	ak	1000	....	Houston, Texas
TIFS	z	7.5	(1441)	Cartago, C. R.
WBIG	ae	500	C (1)	Greensboro, N. C.
WCBA	aj	500	a	Allentown, Pa.
WMBD	ak	500	C (1)	Peoria, Ill.
WSAN	aj	500	a	Allentown, Pa.
XEFI	ae	250	....	Chihuahua, Chih.

1450 kcys. (206.8)

CFCT	ae	75	....	Victoria, B. C.
CHGS	ae	50	F	Summerside, P.E.I.
KIEM	ak	500	....	Eureka, Calif.
KTBS	ak	1000	N	Shreveport, La.
WGAR	ak	500	B (1)	Cleveland, Ohio
WHOM	ae	250	....	Jersey City, N. J.
WSAR	ae	1000	....	Fall River, Mass.
WTFI	ak	500	....	Athens, Ga.

1460 kcys. (205.4)

CMKF	z	50	....	Holguin, Cuba
KSTP	ak	25000	N	St. Paul, Minn.
WJSV	ak	10000	C	Washington, D. C.

1470 kcys. (204.0)

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

1480 kcys. (202.6)

KOMA	ak	5000	C	Oklahoma City, Okla.
WKBW	ck	5000	C	Buffalo, N. Y.

1490 kcys. (201.2)

KFBK	ak	5000	C	Sacramento, Calif.
WCKY	ae	5000	B	Covington, Ky.

1500 kcys. (199.9)

CJIC	ak	100	....	Sault Ste. Marie, Ont.
CMCN	z	150	....	Havana, Cuba
CMCX	z	150	....	Havana, Cuba
KBIX	z	100	P	Muskogee, Okla.
KDB	ak	100	C	Santa Barbara, Cal.
KGFI	ak	100	(.25)	Corpus Christi, Tex.
KGFK	ak	100	Y	Moorhead, Minn.
KGKB	ak	100	....	Tyler, Texas
KGKY	ak	100	(.25)	Scottsbluff, Neb.
KNEL	z	100	D	Brady, Texas
KNOW	ak	100	....	Austin, Texas
KOTN	ak	100	D	Pine Bluff, Ark.
KPLC	ak	100	....	Lake Charles, La.
KPQ	ak	100	(.25)	Wenatchee, Wash.
KVOE	ak	100	....	Santa Ana, Calif.
KRNR	z	100	D	Roseburg, Ore.
KXO	ae	100	....	El Centro, Calif.
WCNW	ak	100	1 (.25)	Brooklyn, N. Y.
WDNC	ae	100	C	Durham, N. C.
WGAL	ae	100	(.25)	Lancaster, Pa.
WHBB	z	100	D	Selma, Ala.
WHEF	ak	100	(.25)	Kosciusko, Miss.
WJBK	ae	100	(.25)	Detroit, Mich.
WKBB	ak	100	(.25)	E. Dubuque, Ill.
WKBV	ak	100	....	Richmond, Ind.
WKBZ	ak	100	(.25)	Muskegon, Mich.
WKEU	ak	100	D	Griffin, Ga.
WMBQ	ae	100	1	Brooklyn, N. Y.
WMEX	ak	100	(.25)	Boston, Mass.
WNBF	ae	100	C	Binghamton, N. Y.
WOPI	ae	100	....	Bristol, Tenn.
WRDW	ak	100	....	Augusta, Ga.
WRGA	ak	100	(.25)	Rome, Ga.
WSYB	ak	100	....	Rutland, Vt

WTMV	ak	100	....	East St. Louis, Ill.
WWRL	ak	100	1 (.25)	Woodside, N. Y.
WWSW	ae	100	(.25)	Pittsburgh, Pa.
.....	z	100	P	El Paso, Texas

1510 kcys. (198.6)

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

1530 kcys. (196.0)

W1XBS	z	1000	....	Waterbury, Conn.
W9XBY	ak	1000	....	Kansas City, Mo.

1550 kcys. (193.4)

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

KEY TO SYMBOLS

As Shown in the Index by Frequencies and Dial Numbers

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

Second Column Symbols

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

Fourth Column Symbols

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

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

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

ALABAMA

Birmingham			
WAPI	1140	5000	N
WBRC	930	1000	C
WSGN	1310	100	
Decatur			
WMFO	1370	100	
Dothan			
WAGF	1370	250	
Gadsden			
WJBY	1210	100	
Mobile			
WALA	1380	500	C
Montgomery			
WSFA	1410	500	C
Selma			
WHBB	1500	100	
Sheffield			
WMSD	1420	100	

ALASKA

Anchorage			
KFQD	780	250	
Juneau			
KINY	1310	100	
Ketchikan			
KGBU	900	500	

ARIZONA

Jerome			
KCRJ	1310	100	
Lowell			
KSUN	1200	100	
Phoenix			
KOY	1390	500	
KTAR	620	1000	N
Tucson			
KGAR	1370	100	
KVOA	1260	500	
Yuma			
KUMA	1420	100	

ARKANSAS

Blytheville			
KLCN	1290	100	
El Dorado			
KELD	1370	100	
Fayetteville			
KUOA	1260	1000	
Fort Smith			
KFPW	1210	100	
Hot Springs			
KTHS	1060	10000	N
Jonesboro			
KBTM	1200	100	
Little Rock			
KARK	890	250	
KGHI	1200	100	
KLRA	1390	1000	C
Pine Bluff			
KOTN	1500	100	
Texarkana			
KCMC	1420	100	

CALIFORNIA

Bakersfield			
KERN	1370	100	C
W6XAI	1550	1000	
Berkeley			
KRE	1370	100	
Beverly Hills			
KMPC	710	500	
Burbank			
KELW	780	500	
Chico			
KHSL	950	250	
Del Monte			
KDON	1210	100	
El Centro			
KXO	1500	100	
Eureka			
KIEM	1450	500	
Fresno			
KMJ	580	1000	C
Glendale			
KIEV	850	250	
Hollywood			
KFWB	950	1000	
KMTR	570	1000	
KNX	1050	50000	
Long Beach			
KFOX	1250	1000	
KGER	1360	1000	
Los Angeles			
KECA	1430	1000	N
KFAC	1300	1000	
KFI	640	50000	N
KFSG	1120	500	
KFVD	1000	250	
KGFJ	1200	100	
KHJ	900	1000	C
KRKD	1120	500	
KTM	780	500	
Modesto			
KTRB	740	250	
Oakland			
KLS	1440	250	
KLX	880	1000	
KROW	930	1000	
Pasadena			
KPPC	1210	50	
Sacramento			
KFBK	1490	5000	C
San Bernardino			
KFXM	1210	100	
San Diego			
KFSD	600	1000	N
KGB	1330	1000	C
San Francisco			
KFRC	610	100	C
KGGC	1420	100	
KGO	790	7500	N
KJBS	1070	500	
KPO	680	50000	N
KSFO	560	1000	
KYA	1230	1000	N
San Jose			
KQW	1010	1000	
Santa Ana			
KVOE	1500	100	
Santa Barbara			
KDB	1500	100	C
Stockton			
KGDM	1100	1000	
KWG	1200	100	C

COLORADO

Alamosa			
KGIW	1420	100	
Colorado Springs			
KVOR	1270	1000	C
Denver			
KFEL	920	500	
KLZ	560	1000	C
KOA	830	50000	N
KPOF	880	500	
KVOD	920	500	
Durango			
KIUP	1370	100	
Grand Junction			
KFXJ	1200	100	
Greeley			
KFKA	880	500	
Lamar			
KIDW	1420	100	
Pueblo			
KGHF	1320	500	

Sterling			
KGEK	1200	100	

CONNECTICUT

Bridgeport			
WICC	600	500	C
Hartford			
WDRC	1330	100	C
WTIC	1040	50000	R
WTHT	1200	100	
New Britain			
WNBC	1380	250	
New Haven			
WELI	900	500	
Storrs			
WCAC	600	500	
Waterbury			
WATR	1190	100	
W1XBS	1530	1000	

DELAWARE

Wilmington			
WDEL	1120	250	
WILM	1420	100	

DISTRICT OF COLUMBIA

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

FLORIDA

Clearwater			
WFLA	620	1000	N
Daytona Beach			
WMFJ	1420	100	
Gainesville			
WRUF	830	5000	
Jacksonville			
WJAX	900	1000	N
WMBR	1370	100	C
Lakeland			
WLAK	1310	100	
Miami			
WIOD	1300	1000	N
WQAM	560	1000	C
Orlando			
WDBO	580	1000	C
Pensacola			
WCOA	1340	500	C
St. Petersburg			
WSUN	620	1000	N
Tallahassee			
WTAL	1310	100	
Tampa			
WDAE	1220	1000	C
West Palm Beach			
WJNO	1200	100	

GEORGIA

Albany			
WGPC	1420	100	
Athens			
WTFI	1450	500	
Atlanta			
WATL	1370	100	
WGST	890	500	C
WSB	740	50000	N
Augusta			
WRDW	1500	100	
Columbus			
WRBL	1200	100	
Griffin			
WKEU	1500	100	
Macon			
WMAZ	1180	1000	
Rome			
WRGA	1500	100	
Savannah			
WTOC	1260	1000	C
Thomasville			
WPAX	1210	250	

HAWAII

Hilo			
KHBC	1420	100	
Honolulu			
KGMB	1320	1000	C
KGU	750	2500	N

IDAHO

Boise			
KIDO	1350	1000	
Idaho Falls			
KID	1320	250	
Lewiston			
KRLC	1420	100	
Nampa			
KFXD	1200	100	
Pocatello			
KSEI	900	250	
Twin Falls			
KTFI	1240	1000	

ILLINOIS

Bloomington			
WJBC	1200	100	
Carthage			
WCAZ	1070	100	
Chicago			
WAAF	920	1000	
WBBM	770	50000	C
WCFL	970	5000	B
WCRW	1210	100	
WEDC	1210	100	
WENR	870	50000	N
WGES	1360	500	
WGN	720	50000	
WJJD	1130	20000	
WLS	870	50000	N
WMAQ	670	50000	N
WMBI	1080	5000	
WSBC	1210	100	
Cicero			
WEHS	1420	100	
WHFC	1420	100	
WKBI	1420	100	
Decatur			
WJBL	1200	100	
East Dubuque			
WKBB	1500	100	
East St. Louis			
WTMV	1500	100	
Harrisburg			
WEBQ	1210	100	
Joliet			
WCLS	1310	100	
Peoria			
WMBD	1440	500	C
Quincy			
WTAD	900	500	
Rockford			
WROK	1410	500	
Rock Island			
WHBF	1210	100	
Springfield			
WCBS	1420	100	
WTAX	1210	100	
Tuscola			
WDZ	1020	250	
Urbana			
WILL	890	250	
Waukegan			
WCBD	1080	5000	

INDIANA

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

IOWA

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

KANSAS

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

KENTUCKY

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

LOUISIANA

Alexandria			
KALB	1420	100	
Baton Rouge			
WJBO	1420	100	
Lafayette			
KVOL	1310	100	
Lake Charles			
KPLC	1500	100	
Monroe			
KMLB	1200	100	
New Orleans			
WBNO	1200	100	
WDSU	1250	1000	
WJBW	1200	100	
WSMB	1320	500	N
WWL	850	10000	C
Shreveport			
KRMD	1310	100	
KTBS	1450	1000	N
KWKH	1100	1000	C

MAINE

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

MARYLAND

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

MASSACHUSETTS

Boston			
WAAB	1410	500	C

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

MICHIGAN

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

MINNESOTA

Fergus Falls			
KGDE	1200	100	
Hibbing			
WMFG	1210	100	
Minneapolis			
WCCO	810	50000	C
WDGY	1180	1000	
WLB	1250	1000	
WTCN	1250	1000	
Moorhead			
KGFK	1500	100	
Northfield			
WCAL	1250	1000	
Rochester			
KROC	1310	100	
St. Paul			
KSTP	1460	25000	N
.....	1370	100	
Virginia			
WHLB	1370	100	

MISSISSIPPI

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

MISSOURI

Cape Girardeau			
KFVS	1210	100	
Columbia			
KFRU	630	500	
Jefferson City			
WOS	630	500	
Joplin			
WMBH	1420	100	
Kansas City			
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	
Springfield			
KGBX	1230	500	
KWTO	560	5000	

MONTANA

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			
KGCX	1310	100	

NEBRASKA

Clay Center			
KMMJ	740	1000	
Kearney			
KGFW	1310	100	
Lincoln			
KFAB	770	10000	C
KFOR	1210	100	C
Norfolk			
WJAG	1060	1000	
North Platte			
KGNF	1430	1000	
Omaha			
WAAW	660	500	
WOW	590	5000	R
Scottsbluff			
KGKY	1500	100	
York			
KGBZ	930	1000	

NEVADA

Reno			
KOH	1380	500	C

NEW HAMPSHIRE

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

NEW JERSEY

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

NEW MEXICO

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

NEW YORK

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

NORTH CAROLINA

Asheville			
WWNC	570	1000	N
Charlotte			
WBT	1080	50000	C
WSOC	1210	100	N
Durham			
WDNC	1500	100	C
Gastonia			
WJBR	1420	100	
Greensboro			
WBIG	1440	500	C
High Point			
WMFR	1200	100	
Raleigh			
WPTF	680	5000	N
Rocky Mount			
WEED	1420	100	
Wilmington			
WMFD	1370	100	

Winston-Salem			
WSJS	1310	100	C

NORTH DAKOTA

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

OHIO

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

OKLAHOMA

Ada			
KADA	1210	100	
Ardmore			
KVSO	1200	100	
Elk City			
KASA	1210	100	
Enid			
KCRC	1360	250	
Muskogee			
KBIX	1500	100	
Norman			
WNAD	1010	1000	
Oklahoma			
KFXR	1310	100	
KGFG	1370	100	
KOMA	1480	5000	C
WKY	900	1000	N
Ponca City			
WBBZ	1200	100	
Shawnee			
KGFF	1420	100	
Tulsa			
KTUL	1400	500	C
KVOO	1140	25000	N

OREGON

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

PENNSYLVANIA

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

PUERTO RICO

Ponce			
WPRP	1420	100	
San Juan			
WKAQ	1240	1000	
WNEL	1290	1000	

RHODE ISLAND

Newport			
WNRI	1200	100	
Providence			
WEAN	780	500	C
WJAR	890	500	R
WPRO	630	250	

SOUTH CAROLINA

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

SOUTH DAKOTA

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

TENNESSEE

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

TEXAS

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

UTAH

Ogden			
KLO	1400	500	N
Price			
.....	1420	100	
Salt Lake City			
KDYL	1290	1000	N
KSL	1130	50000	C

VERMONT

Burlington			
WCAX	1200	100	

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

VIRGINIA

Arlington
NAA 690 1000
Charlottesville
WCHV 1420 100
Danville
WBTM 1370 100
Harrisonburg
WSVA 550 500
Lynchburg
WLVA 1200 100
Newport News
WGH 1310 100
Norfolk
WTAR 780 500 N
Petersburg
WPHR 880 500
Richmond
WBBL 1210 100
WMBG 1210 100 C
WRVA 1110 5000 N
Roanoke
WDBJ 930 1000 C

WASHINGTON

Aberdeen
KXRO 1310 100
Bellingham
KVOS 1200 100
Everett
KRKO 1370 50
Olympia
KGY 1210 100
Pullman
KWSC 1220 1000
Seattle
KIRO 710 500
KJR 970 5000 N
KOL 1270 1000 C
KOMO 920 1000 N
KRSC 1120 100
KTW 1220 1000
KVL 1370 100
KXA 760 250
Spokane
KFIO 1120 100
KFPY 890 1000 C
KGA 1470 5000 N
KHQ 590 1000 N
Tacoma
KMO 1330 250
KVI 570 1000 C
Walla Walla
KUJ 1370 100
Wenatchee
KPQ 1500 100
Yakima
KIT 1310 100

WEST VIRGINIA

Bluefield
WHIS 1410 250
Charleston
WCHS 580 500
Fairmont
WMMN 890 500 C
Huntington
WSAZ 1190 1000
Parkersburg
WPAR 1420 100
Wheeling
WWVA 1160 5000 C

WISCONSIN

Fond du Lac
KFIZ 1420 100
Green Bay
WHBY 1200 100
WTAQ 1330 1000
Janesville
WCLO 1200 100
LaCrosse
WKBH 1380 1000
Madison
WHA 940 2500
WIBA 1280 1000 N
Manitowoc
WOMT 1210 100
Milwaukee
WEMP 1310 100
WISN 1120 250 C
WTMJ 620 1000 N
Poynette
WIBU 1210 100
Racine
WRJN 1370 100
Sheboygan
WHBL 1410 500
Stevens Point
WLBL 900 2500
Superior
WEBC 1290 1000 N

WYOMING

Casper
KDFN 1440 500
Sheridan
KWYO 1370 100

CANADA

ALBERTA

Calgary
CFAC 930 100 F
CFCN 1030 10000
CJCJ 690 100 F
Edmonton
CFRN 1260 100 F
CJCA 730 1000 F
CKUA 580 500
Lethridge
CJOC 950 100 F

BRITISH COLUMBIA

Chilliwack
CHWK 780 100 F
Kamloops
CFJC 880 100 F
Kelowna
CKOV 630 100 F
Prince Rupert
CFPR 580 50
Trail
CJAT 910 250 F
Vancouver
CJOR 600 500
CKCD 1010 100
CKFC 1410 50
CKMO 1410 100 F
CKWX 1010 100 F
CRCV 1100 500 F
Victoria
CFCT 1450 75

MANITOBA

Brandon
CKX 1120 100 F
Winnipeg
CJRC 630 500 F
CKY 960 15000 F

NEW BRUNSWICK

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

N. W. TERRITORY

Aklavik
CJCU 1210 50

NOVA SCOTIA

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

ONTARIO

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

PRINCE EDWARD ISLAND

Charlottetown
CFCY 630 1000 F
CHCK 1310 50
Summerside
CHGS 1450 50 F

QUEBEC

Chicoutimi
CRCS 950 100 F
Hull
CKCH 1210 100 F
Montmagny
VE9EK 1185 10
Montreal
CFCF 600 400 N
CHLP 1120 100 F
CKAC 730 5000 C
CRCM 910 5000 F
New Carlisle
CHNC 1410 500 F
Quebec
CHRC 580 100 F
CKCV 1310 100 F
CRCK 1050 1000

SASKATCHEWAN

Moose Jaw
CHAB 1200 100 F
CJRM 540 1000 F
Prince Albert
CKBI 1210 100 F
Regina
CHWC 1010 500 F
CKCK 1010 500 F
Saskatoon
CFQC 840 1000 F
Yorkton
CJGX 580 100 F

NEWFOUNDLAND

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

MIQUELON

St. Pierre
FQN 609 250

CENTRAL AMERICA

COSTA RICA

Cartago
TIFS 1441 7.5
TIGA 1014 30
San Jose
TIEP 850 500
TIFA 1050 75
TIGH 1000 500
TIRH 930 50

GUATEMALA

Guatemala City
TGW 1210 10000

TGX	1400	250

HONDURAS

Tegucigalpa		
HRN	1340	100

NICARAGUA

Managua		
YNLF	1275	20
YNOP	1230	100
YNVA	950	30

PANAMA

Colon		
HP50	1440	25

EL SALVADOR

San Salvador		
RDN	680	500

MEXICO

AGUASCALIENTES

Aguascalientes		
XFA	1310	5
XFC	810	350

CHIHUAHUA

Chihuahua		
XEFI	1440	250
Juarez		
XEFV	1210	100
XEJ	1020	1000

COAHUILA

Piedras Negras		
XELO	1110	10000
XEPN	590	50000
Saltillo		
XEAS	1160	100
XEOX	640	500
Torreon		
XETB	1310	125
Villa Acuna		
XERA	840	250000

D. F.

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

DURANGO

Durango		
XEE	1210	50

GUANAJUATO

Guanajuato		
XEAZ	1420	7
Leon		
XEKL	1240	500

JALISCO

Guadalajara		
XEA	1060	500
XED	1155	2500

LOWER CALIFORNIA

Coronadolsland		
XEMZ	820	....
Ensenada		
XEG	1270	200
Mexicali		
XEAA	920	200
XEAO	560	250
Tijuana		
XEAQ	1090	1000
XEC	1160	30
XEFL	1150	500
XEMO	860	5000
XEOK	760	250
XESL	1160	....

MICHOACAN

Morelia		
XEI	1370	125

NUEVO LEON

Monterrey		
XEFB	1420	100
XEFJ	1230	100
XEH	1150	250
XET	690	500
XEX	1310	125

PUEBLA

Puebla		
XETH	1210	100

SAN LUIS POTOSI

San Luis Potosi		
XEZZ	1370	100

SONORA

Hermosillo		
XEBH	930	500
Nogales		
XEAF	990	500

TAMAULIPAS

Matamoros		
XEAM	750	7.5
Nuevo Laredo		
XEFE	850	250
XENT	910	150000
Reynosa		
XEAW	960	50000
Tampico		
XEFW	1310	250
XES	990	250

VERACRUZ

Jalapa		
XFB	1270	250
XFD	1340	350
Veracruz		
XETF	1220	12
XEU	1010	250

YUCATAN

Merida		
XEFC	560	100
XEY	1000	10
XEZ	630	500

WEST INDIES

CUBA

Caibarien		
CMHD	1270	250
Camaguey		
CMJA	1010	300
CMJC	1390	150
CMJE	1220	50
CMJF	1150	200
CMJK	780	250
CMJL	1340	100
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		
CMBC	970	500
CMBD	1170	150
CMBG	1140	200
CMBN	850	150
CMBS	770	150
CMBX	1380	500
CMBY	640	150
CMBZ	1000	250
CMCA	1350	250
CMCB	1230	150
CMCD	950	250
CMCF	815	250
CMCG	1255	250
CMCJ	1100	350
CMCN	1500	150
CMCO	1200	250
CMCQ	680	250
CMCR	1410	150
CMCU	1280	150
CMCW	750	150
CMCX	1500	150
CMCY	1030	1000
CMK	730	250
CMOA	1440	150
CMOK	1470	150
CMOX	1320	250
CMQ	880	500
CMW	600	1000
CMX	920	650
Holguin		
CMKF	1460	50
Manzanillo		
CMKM	1120	200
Matanzas		
CMGC	1400	100
CMGF	1120	100
CMGH	790	....
CMGI	1420	50
Sagua la Grande		
CMHA	1070	50
Sancti Spiritus		
CMHB	1240	50
Santa Clara		
CMHI	1210	150
Santiago		
CMKC	1250	150
CMKD	1050	250
CMKR	1400	100
CMKX	1190	75

DOMINICAN REPUBLIC

San Pedro de Macoris		
HIH	1395	15
Trujillo		
HIJ	1195	15
HIX	800	700
HIZ	1300	10

HAITI

Port-au-Prince		
HHK	920	1000

NORTH AMERICAN B. C. STATIONS BY CALLS

CFAC	930	100
Calgary, Alta.		
CFCF	600	400
Montreal, Que.		
CFCH	930	100
North Bay, Ont.		
CFCN	1030	10000
Calgary, Alta.		
CFCO	630	100
Chatham, Ont.		
CFCT	1450	75
Victoria, B. C.		
CFCY	630	1000
Charlottetown, P.E.I.		
CFJC	880	100
Kamloops, B. C.		
CFLC	930	100
Prescott, Ont.		
CFNB	550	500
Fredericton, N. B.		
CFPL	730	100
London, Ont.		
CFPR	580	50
Prince Rupert, B. C.		
CFQC	840	1000
Saskatoon, Sask.		
CFRB	690	10000
Toronto, Ont.		
CFRC	1510	100
Kingston, Ont.		
CFRN	1260	100
Edmonton, Alta.		
CHAB	1200	100
Moose Jaw, Sask.		
CHCK	1310	50
Charlottetown, P.E.I.		
CHGS	1450	50
Summerside, P.E.I.		
CHLP	1120	100
Montreal, Que.		
CHML	1010	100
Hamilton, Ont.		
CHNC	1410	500
New Carlisle, Que.		
CHNS	930	1000
Halifax, N. S.		
CHRC	580	100
Quebec, Que.		
CHSJ	1120	500
St. John, N. B.		
CHWC	1010	500
Regina, Sask.		
CHWK	780	100
Chilliwack, B. C.		
CJAT	910	250
Trail, B. C.		
CJCA	730	1000
Edmonton, Alta.		
CJCB	1240	1000
Sydney, N. S.		
CJCJ	690	100
Calgary, Alta.		
CJCS	1210	50
Stratford, Ont.		
CJCU	1210	50
Aklavik, N. W. T.		
CJGX	580	100
Yorkton, Sask.		
CJIC	1500	100
S. Ste. Marie, Ont.		
CJKL	1310	100
Kirkland Lake, Ont.		
CJLS	1310	100
Yarmouth, N. S.		
CJOC	950	100
Lethbridge, Alta.		
CJOR	600	500
Vancouver, B. C.		
CJRC	630	500
Winnipeg, Man.		
CJRM	540	1000
Moose Jaw, Sask.		
CKAC	730	5000
Montreal, Que.		
CKBI	1210	100
Prince Albert, Sask.		
CKCD	1010	100
Vancouver, B. C.		
CKCH	1210	100
Hull, Que.		
CKCK	1010	500
Regina, Sask.		
CKCL	580	100
Toronto, Ont.		
CKCO	1010	100
Ottawa, Ont.		
CKCR	1510	100
Waterloo, Ont		
CKCV	1310	100
Quebec, Que.		
CKCW	1370	100
Moncton, N. B.		
CKFC	1410	50
Vancouver, B. C.		
CKGB	1420	100
Timmins, Ont.		
CKIC	1010	50
Wolfville, N. S.		
CKLW	1030	5000
Windsor, Ont.		
CKMC	1210	50
Cobalt, Ont.		
CKMO	1410	100
Vancouver, B. C.		
CKNX	1200	50
Wingham, Ont		
CKOC	1120	500
Hamilton, Ont.		
CKOV	630	100
Kelowna, B. C.		
CKPC	930	100
Brantford, Ont.		
CKPR	930	100
Fort William, Ont.		
CKSO	780	1000
Sudbury, Ont.		
CKTB	1200	100
St. Catherines, Ont.		
CKUA	580	500
Edmonton, Alta.		
CKWX	1010	100
Vancouver, B. C.		
CKX	1120	100
Brandon, Man.		
CKY	960	15000
Winnipeg, Man.		
CMBC	970	500
Havana, Cuba		
CMBD	1170	150
Havana, Cuba		
CMBG	1140	200
Havana, Cuba		
CMBN	850	150
Havana, Cuba		
CMBS	770	150
Havana, Cuba		
CMBX	1380	500
Havana, Cuba		
CMBY	640	150
Havana, Cuba		
CMBZ	1000	250
Havana, Cuba		
CMCA	1350	250
Havana, Cuba		
CMCB	1230	150
Havana, Cuba		
CMCD	950	250
Havana, Cuba		
CMCF	815	250
Havana, Cuba		
CMCG	1255	250
Havana, Cuba		
CMCJ	1100	350
Havana, Cuba		
CMCN	1500	150
Havana, Cuba		
CMCO	1200	250
Havana, Cuba		
CMCQ	680	250
Havana, Cuba		
CMCR	1410	150
Havana, Cuba		
CMCU	1280	150
Havana, Cuba		
CMCW	750	150
Havana, Cuba		
CMCX	1500	150
Havana, Cuba		
CMCY	1030	1000
Havana, Cuba		
CMGC	1400	100
Matanzas, Cuba		
CMGE	1370	50
Cardenas, Cuba		
CMGF	1120	100
Matanzas, Cuba		
CMGH	790	....
Matanzas, Cuba		
CMGI	1420	50
Matanzas, Cuba		
CMHA	1070	50
Sagua la Grande, Cu.		
CMHB	1240	50
Sancti Spiritus, Cuba		
CMHD	1270	250
Caibarien, Cuba		
CMHI	1210	150
Santa Clara, Cuba		
CMHJ	1160	100
Cienfuegos, Cuba		
CMHK	1330	250
Cruces, Cuba		
CMHW	810	100
Cienfuegos, Cuba		
CMHX	760	500
Cienfuegos, Cuba		
CMJA	1010	300
Camaguey, Cuba		
CMJC	1390	150
Camaguey, Cuba		
CMJE	1220	50
Camaguey, Cuba		
CMJF	1150	200
Camaguey, Cuba		
CMJH	1360	100
Ciego de Avila, Cuba		

CMJI 1130 50
Ciego de Avila, Cuba
CMJK 780 250
Camaguey, Cuba
CMJL 1340 100
Camaguey, Cuba
CMJO 1180 50
Ciego de Avila, Cuba
CMJP 1430 100
Camaguey, Cuba
CMK 730 250
Havana, Cuba
CMKC 1250 150
Santiago, Cuba
CMKD 1050 250
Santiago, Cuba
CMKF 1460 50
Holguin, Cuba
CMKM 1120 200
Manzanillo, Cuba
CMKR 1400 100
Santiago, Cuba
CMKX 1190 75
Santiago, Cuba
CMOA 1440 150
Havana, Cuba
CMOK 1470 150
Havana, Cuba
CMOX 1320 250
Havana, Cuba
CMQ 880 500
Havana, Cuba
CMW 600 1000
Havana, Cuba
CMX 920 650
Havana, Cuba
CRCK 1050 1000
Quebec, Que.
CRCM 910 5000
Montreal, Que.
CRCO 880 1000
Ottawa, Ont.
CRCS 950 100
Chicoutimi, Que.
CRCT 840 5000
Toronto, Ont.
CRCV 1100 500
Vancouver, B. C.
CRCW 600 500
Windsor, Ont.
FQN 609 250
St. Pierre, Miq.
HHK 920 1000
Port-au-Prince, Haiti
HIH 1395 15
San Pedro de M., D.R.
HIJ 1195 15
Trujillo, D. R.
HIX 800 700
Trujillo, D. R.
HIZ 1300 10
Trujillo, D. R.
HP5O 1440 25
Colon, Panama
HRN 1340 100
Tegucigalpa, Hond.
KABC 1420 100
San Antonio, Texas
KABR 1420 100
Aberdeen, S. Dak.
KADA 1200 100
Ada, Okla.
KALB 1420 100
Alexandria, La.
KALE 1300 500
Portland, Ore.
KARK 890 250
Little Rock, Ark.
KASA 1210 100
Elk City, Okla.
KAST 1370 100
Astoria, Ore.
KBIX 1500 100
Muskogee, Okla.
KBPS 1420 100
Portland, Ore.
KBTM 1200 100
Jonesboro, Ark.
KCMC 1420 100
Texarkana, Ark.
KCRC 1360 250
Enid, Okla.
KCRJ 1310 100
Jerome, Ariz.
KDB 1500 100
Santa Barbara, Calif.
KDFN 1440 500
Casper, Wyo.
KDKA 980 50000
Pittsburgh, Pa.
KDLR 1210 100
Devils Lake, N. D.
KDON 1210 100
Del Monte, Calif.
KDYL 1290 1000
Salt Lake City, Utah
KECA 1430 1000
Los Angeles, Calif.
KELD 1370 100
El Dorado, Ark.
KELW 780 500
Burbank, Calif.
KERN 1370 100
Bakersfield, Calif.
KEX 1180 5000
Portland, Ore.
KFAB 770 10000
Lincoln, Neb.
KFAC 1300 1000
Los Angeles, Calif.
KFBB 1280 1000
Great Falls, Mont.
KFBI 1050 5000
Abilene, Kans.
KFBK 1490 5000
Sacramento, Calif.
KFDM 560 500
Beaumont, Texas
KFDY 780 1000
Brookings, S. D.
KFEL 920 500
Denver, Colo.
KFEQ 680 2500
St. Joseph, Mo.
KFGQ 1370 100
Boone, Iowa
KFH 1300 1000
Wichita, Kans.
KFI 640 50000
Los Angeles, Calif.
KFIO 1120 100
Spokane, Wash.
KFIZ 1420 100
Fond du Lac, Wis.
KFJB 1200 100
Marshalltown, Iowa
KFJI 1210 100
Klamath Falls, Ore.
KFJM 1370 100
Grand Forks, N. D.
KFJR 1300 500
Portland, Ore.
KFJZ 1370 100
Fort Worth, Texas
KFKA 880 500
Greeley, Colo.
KFKU 1220 1000
Lawrence, Kans.
KFNF 890 500
Shenandoah, Iowa
KFOR 1210 100
Lincoln, Neb.
KFOX 1250 1000
Long Beach, Calif.
KFPL 1310 100
Dublin, Texas
KFPW 1210 100
Fort Smith, Ark.
KFPY 890 1000
Spokane, Wash.
KFQD 780 250
Anchorage, Alaska
KFRC 610 1000
San Francisco, Calif.
KFRO 1370 100
Longview, Texas
KFRU 630 500
Columbia, Mo.
KFSD 600 1000
San Diego, Calif.
KFSG 1120 500
Los Angeles, Calif.
KFUO 550 500
St. Louis, Mo.
KFVD 1000 250
Los Angeles, Calif.
KFVS 1210 100
Cape Girardeau, Mo.
KFWB 950 1000
Hollywood, Calif.
KFXD 1200 100
Nampa, Idaho
KFXJ 1200 100
Grand Jct., Colo.
KFXM 1210 100
San Bernardino, Calif.
KFXR 1310 100
Oklahoma City, Okla.
KFYO 1310 100
Lubbock, Texas
KFYR 550 1000
Bismarck, N. D.
KGA 1470 5000
Spokane, Wash.
KGAR 1370 100
Tucson, Ariz.
KGB 1330 1000
San Diego, Calif.
KGBU 900 500
Ketchikan, Alaska
KGBX 1230 500
Springfield, Mo.
KGBZ 930 1000
York, Neb.
KGCA 1270 100
Decorah, Iowa

KGCU 1240 250
Mandan, N. D.

KGCX 1310 100
Wolf Point, Mont.

KGDE 1200 100
Fergus Falls, Minn.

KGDM 1100 1000
Stockton, Calif.

KGDY 1340 250
Huron, S. D.

KGEK 1200 100
Sterling, Colo.

KGER 1360 1000
Long Beach, Calif.

KGEZ 1310 100
Kalispell, Mont.

KGFF 1420 100
Shawnee, Okla.

KGFG 1370 100
Oklahoma City, Okla.

KGFI 1500 100
Corpus Christi, Texas

KGFJ 1200 100
Los Angeles, Calif.

KGFK 1500 100
Moorhead, Minn.

KGFL 1370 100
Roswell, N. M.

KGFW 1310 100
Kearney, Neb.

KGFX 630 200
Pierre, S. D.

KGGC 1420 100
San Francisco, Calif.

KGGF 1010 1000
Coffeyville, Kans.

KGGM 1230 250
Albuquerque, N. M.

KGHF 1320 500
Pueblo, Colo.

KGHI 1200 100
Little Rock, Ark.

KGHL 780 1000
Billings, Mont.

KGIR 1340 1000
Butte, Mont.

KGIW 1420 100
Alamosa, Colo.

KGKB 1500 100
Tyler, Texas

KGKL 1370 100
San Angelo, Texas

KGKO 570 250
Wichita Falls, Texas

KGKY 1500 100
Scottsbluff, Neb.

KGMB 1320 1000
Honolulu, T. H.

KGNC 1410 1000
Amarillo, Texas

KGNF 1430 1000
North Platte, Neb.

KGNO 1340 250
Dodge City, Kans.

KGO 790 7500
San Francisco, Calif.

KGU 750 2500
Honolulu, T. H.

KGVO 1260 1000
Missoula, Mont.

KGW 620 1000
Portland, Ore.

KGY 1210 100
Olympia, Wash.

KHBC 1420 100
Hilo, T. H.

KHJ 900 1000
Los Angeles, Calif.

KHQ 590 1000
Spokane, Wash.

KHSL 950 250
Chico, Calif.

KICA 1370 100
Clovis, N. M.

KID 1320 250
Idaho Falls, Idaho

KIDO 1350 1000
Boise, Idaho

KIDW 1420 100
Lamar, Colo.

KIEM 1450 500
Eureka, Calif.

KIEV 850 250
Glendale, Calif.

KINY 1310 100
Juneau, Alaska

KIRO 710 500
Seattle, Wash.

KIT 1310 100
Yakima, Wash.

KIUJ 1310 100
Santa Fe, N. Mex.

KIUL 1210 100
Garden City, Kans.

KIUN 1420 100
Pecos, Texas

KIUP 1370 100
Durango, Colo.

KJBS 1070 500
San Francisco, Calif.

KJR 970 5000
Seattle, Wash.

KLCN 1290 100
Blytheville, Ark.

KLO 1400 500
Ogden, Utah

KLPM 1240 250
Minot, N. D.

KLRA 1390 1000
Little Rock, Ark.

KLS 1440 250
Oakland, Calif.

KLUF 1370 100
Galveston, Texas

KLX 880 1000
Oakland, Calif.

KLZ 560 1000
Denver, Colo.

KMA 930 1000
Shenandoah, Iowa

KMAC 1370 100
San Antonio, Texas

KMBC 950 1000
Kansas City, Mo.

KMED 1310 100
Medford, Ore.

KMJ 580 1000
Fresno, Calif.

KMLB 1200 100
Monroe, La.

KMMJ 740 1000
Clay Center, Neb.

KMO 1330 250
Tacoma, Wash.

KMOX 1090 50000
St. Louis, Mo.

KMPC 710 500
Beverly Hills, Calif.

KMTR 570 1000
Hollywood, Calif.

KNEL 1500 100
Brady, Texas

KNET 1420 100
Palestine, Texas

KNOW 1500 100
Austin, Texas

KNX 1050 50000
Hollywood, Calif.

KOA 830 50000
Denver, Colo.

KOAC 550 1000
Corvallis, Ore.

KOB 1180 10000
Albuquerque, N. M.

KOH 1380 500
Reno, Nev.

KOIL 1260 1000
Council Bluffs, Iowa

KOIN 940 1000
Portland, Ore.

KOL 1270 1000
Seattle, Wash.

KOMA 1480 5000
Oklahoma City, Okla.

KOMO 920 1000
Seattle, Wash.

KONO 1370 100
San Antonio, Texas

KOOS 1390 250
Marshfield, Ore.

KORE 1420 100
Eugene, Ore.

KOTN 1500 100
Pine Bluffs, Ark.

KOY 1390 500
Phoenix, Ariz.

KPAC 1260 500
Port Arthur, Texas

KPDN 1310 100
Pampa, Texas

KPLC 1500 100
Lake Charles, La.

KPO 680 50000
San Francisco, Calif.

KPOF 880 500
Denver, Colo.

KPPC 1210 50
Pasadena, Calif.

KPQ 1500 100
Wenatchee, Wash.

KPRC 920 1000
Houston, Texas

KQV 1380 500
Pittsburgh, Pa.

KQW 1010 1000
San Jose, Calif.

KRE 1370 100
Berkeley, Calif.

KRGV 1260 500
Weslaco, Texas

KRKD 1120 500
Los Angeles, Calif.

KRKO 1370 50
Everett, Wash.

KRLC 1420 100
Lewiston, Idaho

KRLD 1040 10000
Dallas, Texas
KRLH 1420 100
Midland, Texas
KRMD 1310 100
Shreveport, La.
KRNR 1500 100
Roseburg, Ore.
KRNT 1320 500
Des Moines, Iowa
KROC 1310 100
Rochester, Minn.
KROW 930 1000
Oakland, Calif.
KRSC 1120 100
Seattle, Wash.
KSAC 580 500
Manhattan, Kans.
KSCJ 1330 1000
Sioux City, Iowa
KSD 550 1000
St. Louis, Mo.
KSEI 900 250
Pocatello, Idaho
KSFO 560 1000
San Francisco, Calif.
KSL 1130 50000
Salt Lake City, Utah
KSLM 1370 100
Salem, Ore.
KSO 1430 500
Des Moines, Iowa
KSOO 1110 2500
Sioux Falls, S. D.
KSTP 1460 25000
St. Paul, Minn.
KSUN 1200 100
Lowell, Ariz.
KTAR 620 1000
Phoenix, Ariz.
KTAT 1240 1000
Fort Worth, Texas
KTBS 1450 1000
Shreveport, La.
KTFI 1240 1000
Twin Falls, Idaho
KTHS 1060 10000
Hot Springs, Ark.
KTM 780 500
Los Angeles, Calif.
KTRB 740 250
Modesto, Calif.
KTRH 1290 1000
Houston, Texas
KTSA 550 1000
San Antonio, Texas
KTSM 1310 100
El Paso, Texas
KTUL 1400 500
Tulsa, Okla.
KTW 1220 1000
Seattle, Wash.
KUJ 1370 100
Walla Walla, Wash.
KUMA 1420 100
Yuma, Ariz.
KUOA 1260 1000
Fayetteville, Ark.
KUSD 890 500
Vermillion, S. D.
KVI 570 1000
Tacoma, Wash.

KVL 1370 100
Seattle, Wash.
KVOA 1260 500
Tucson, Ariz.
KVOD 920 500
Denver, Colo.
KVOE 1500 100
Santa Ana, Calif.
KVOL 1310 100
Lafayette, La.
KVOO 1140 25000
Tulsa, Okla.
KVOR 1270 1000
Colorado Spgs., Colo.
KVOS 1200 100
Bellingham, Wash.
KVSO 1210 100
Ardmore, Okla.
KWBG 1420 100
Hutchinson, Kans.
KWG 1200 100
Stockton, Calif.
KWJJ 1040 500
Portland, Ore.
KWK 1350 1000
St. Louis, Mo.
KWKC 1370 100
Kansas City, Mo.
KWKH 1100 10000
Shreveport, La.
KWLC 1270 100
Decorah, Iowa
KWSC 1220 1000
Pullman, Wash.
KWTN 1210 100
Watertown, S. D.
KWTO 560 5000
Springfield, Mo.
KWYO 1370 100
Sheridan, Wyo.
KXA 760 250
Seattle, Wash.
KXL 1420 100
Portland, Ore.
KXO 1500 100
El Centro, Calif.
KXRO 1310 100
Aberdeen, Wash.
KXYZ 1440 1000
Houston, Texas
KYA 1230 1000
San Francisco, Calif.
KYW 1020 10000
Philadelphia, Pa.
NAA 690 1000
Arlington, Va.
RDN 680 500
San Salvador, E. S.
TGW 1210 10000
Guatemala, Gua.
TGX 1400 250
Guatemala City
TIEP 850 500
San Jose, C. R.
TIFA 1050 75
San Jose, C. R.
TIFS 1441 7.5
Cartago, C. R.
TIGA 1014 30
Cartago, C. R.
TIGH 1000 500
San Jose, C. R.

TIRH 930 50
San Jose, C. R.
VAS 685 2000
Glace Bay, N. S.
VE9EK 1185 10
Montmagny, Que.
VOAC 1065 40
St. John's, Nfld.
VOAS 940 100
St. John's, Nfld.
VOGY 840 400
St. John's, Nfld.
VONF 1195 500
St. John's, Nfld.
VOWR 681 500
St. John's, Nfld.
WAAB 1410 500
Boston, Mass.
WAAF 920 1000
Chicago, Ill.
WAAT 940 500
Jersey City, N. J.
WAAW 660 500
Omaha, Neb.
WABC 860 50000
New York, N. Y.
WABI 1200 100
Bangor, Maine
WABY 1370 100
Albany, N. Y.
WACO 1420 100
Waco, Texas
WADC 1320 1000
Akron, Ohio.
WAGF 1370 250
Dothan, Ala.
WAGM 1420 100
Presque Isle, Me.
WAIM 1200 100
Anderson, S. C.
WAIU 640 500
Columbus, Ohio
WALA 1380 500
Mobile, Ala.
WALR 1210 100
Zanesville, Ohio
WAML 1310 100
Laurel, Miss.
WAPI 1140 5000
Birmingham, Ala.
WARD 1400 500
Brooklyn, N. Y.
WASH 1270 500
Grand Rapids, Mich.
WATL 1370 100
Atlanta, Ga.
WATR 1190 100
Waterbury, Conn.
WAVE 940 1000
Louisville, Ky.
WAWZ 1350 500
Zarephath, N. J.
WAZL 1420 100
Hazleton, Pa.
WBAA 890 1000
West Lafayette, Ind.
WBAL 760 2500
Baltimore, Md.
WBAL 1060 10000
Baltimore, Md.
WBAP 800 50000
Fort Worth, Texas

WBAX 1210 100
Wilkes-Barre, Pa.
WBBC 1400 500
Brooklyn, N. Y.
WBBL 1210 100
Richmond, Va.
WBBM 770 50000
Chicago, Ill.
WBBR 1300 1000
Brooklyn, N. Y.
WBBZ 1200 100
Ponca City, Okla.
WBCM 1410 500
Bay City, Mich.
WBEN 900 1000
Buffalo, N. Y.
WBEO 1310 100
Marquette, Mich.
WBIG 1440 500
Greensboro, N. C.
WBNO 1200 100
New Orleans, La.
WBNS 1430 500
Columbus, Ohio
WBNX 1350 250
New York, N. Y.
WBNY 1370 100
Buffalo, N. Y.
WBOQ 860 50000
New York, N. Y.
WBOW 1310 100
Terre Haute, Ind.
WBRB 1210 100
Red Bank, N. J.
WBRC 930 1000
Birmingham, Ala.
WBRE 1310 100
Wilkes-Barre, Pa.
WBT 1080 50000
Charlotte, N. C.
WBTM 1370 100
Danville, Va.
WBZ 990 50000
Boston, Mass.
WBZA 990 1000
Springfield, Mass.
WCAC 600 500
Storrs, Conn.
WCAD 1220 500
Canton, N. Y.
WCAE 1220 1000
Pittsburgh, Pa.
WCAL 1250 1000
Northfield, Minn.
WCAM 1280 500
Camden, N. J.
WCAO 600 500
Baltimore, Md.
WCAP 1280 500
Asbury Park, N. J.
WCAT 1200 100
Rapid City, S. D.
WCAU 1170 50000
Philadelphia, Pa.
WCAX 1200 100
Burlington, Vt.
WCAZ 1070 100
Carthage, Ill.
WCBA 1440 500
Allentown, Pa.
WCBD 1080 5000
Waukegan, Ill.

WCBM 1370 100
Baltimore, Md.
WCBS 1420 100
Springfield, Ill.
WCCO 810 50000
Minneapolis, Minn.
WCFL 970 5000
Chicago, Ill.
WCHS 580 500
Charleston, W. Va.
WCHV 1420 100
Charlottesville, Va.
WCKY 1490 5000
Covington, Ky.
WCLO 1200 100
Janesville, Wis.
WCLS 1310 100
Joliet, Ill.
WCMI 1310 100
Ashland, Ky.
WCNW 1500 100
Brooklyn, N. Y.
WCOA 1340 500
Pensacola, Fla.
WCOC 880 500
Meridian, Miss.
WCOL 1210 100
Columbus, Ohio
WCOP 1120 500
Boston, Mass.
WCPO 1200 100
Cincinnati, Ohio
WCRW 1210 100
Chicago, Ill.
WCSC 1360 500
Charleston, S. C.
WCSH 940 1000
Portland, Me.
WDAE 1220 1000
Tampa, Fla.
WDAF 610 1000
Kansas City, Mo.
WDAH 1310 100
El Paso, Texas
WDAS 1370 100
Philadelphia, Pa.
WDAY 940 1000
Fargo, N. D.
WDBJ 930 1000
Roanoke, Va.
WDBO 580 1000
Orlando, Fla.
WDEL 1120 250
Wilmington, Del.
WDEV 550 500
Waterbury, Vt.
WDGY 1180 1000
Minneapolis, Minn.
WDNC 1500 100
Durham, N. C.
WDOD 1280 1000
Chattanooga, Tenn.
WDRC 1330 1000
Hartford, Conn.
WDSU 1250 1000
New Orleans, La.
WDZ 1020 250
Tuscola, Ill.
WEAF 660 50000
New York, N. Y.
WEAN 780 500
Providence, R. I.

WEBC 1290 1000
Superior, Wis.
WEBQ 1210 100
Harrisburg, Ill.
WEBR 1310 100
Buffalo, N. Y.
WEDC 1210 100
Chicago, Ill.
WEED 1420 100
Rocky Mount, N. C.
WEEI 590 1000
Boston, Mass.
WEEU 830 1000
Reading, Pa.
WEGL 1400 500
Brooklyn, N. Y
WEHS 1420 100
Cicero, Ill.
WELI 900 500
New Haven, Conn.
WELL 1420 100
Battle Creek, Mich.
WEMP 1310 100
Milwaukee, Wis.
WENR 870 50000
Chicago, Ill.
WEOA 1370 100
Evansville, Ind.
WESG 850 1000
Elmira, N. Y.
WEST 1200 100
Easton, Pa.
WEVD 1300 1000
New York, N. Y.
WEW 760 1000
St. Louis, Mo.
WEXL 1310 50
Royal Oak, Mich.
WFAA 800 50000
Dallas, Texas
WFAB 1300 1000
New York, N. Y.
WFAM 1200 100
South Bend, Ind.
WFAS 1210 100
White Plains, N. Y.
WFBC 1300 1000
Greenville, S. C.
WFBG 1310 100
Altoona, Pa.
WFBL 1360 1000
Syracuse, N. Y.
WFBM 1230 1000
Indianapolis, Ind.
WFBR 1270 500
Baltimore, Md.
WFDF 1310 100
Flint, Mich.
WFEA 1340 500
Manchester, N. H.
WFIL 560 1000
Philadelphia, Pa.
WFLA 620 1000
Clearwater, Fla.
WFMD 900 500
Frederick, Md.
WGAL 1500 100
Lancaster, Pa.
WGAR 1450 500
Cleveland, Ohio
WGBB 1210 100
Freeport, N. Y.

WGBF	630	500	Evansville, Ind.
WGBI	880	500	Scranton, Pa.
WGCM	1210	100	Gulfport, Miss.
WGES	1360	500	Chicago, Ill.
WGH	1310	100	Newport News, Va.
WGL	1370	100	Fort Wayne, Ind.
WGN	720	50000	Chicago, Ill.
WGNY	1210	100	Chester, N. Y.
WGPC	1420	100	Albany, Ga.
WGR	550	1000	Buffalo, N. Y.
WGST	890	1000	Atlanta, Ga.
WGY	790	50000	Schenectady, N. Y.
WHA	940	2500	Madison, Wis.
WHAM	1150	50000	Rochester, N. Y.
WHAS	820	50000	Louisville, Ky.
WHAT	1310	100	Philadelphia, Pa.
WHAZ	1300	500	Troy, N. Y.
WHB	860	1000	Kansas City, Mo.
WHBB	1500	100	Selma, Alabama
WHBC	1200	100	Canton, Ohio
WHBF	1210	100	Rock Island, Ill.
WHBI	1250	1000	Newark, N. J.
WHBL	1410	500	Sheboygan, Wis.
WHBQ	1370	100	Memphis, Tenn.
WHBU	1210	100	Anderson, Ind.
WHBY	1200	100	Green Bay, Wis.
WHDF	1370	100	Calumet, Mich.
WHDH	830	1000	Boston, Mass.
WHDL	1420	100	Olean, N. Y.
WHEB	740	250	Portsmouth, N. H.
WHEC	1430	500	Rochester, N. Y.
WHEF	1500	100	Kosciusko, Miss.
WHFC	1420	100	Cicero, Ill.
WHIO	1260	1000	Dayton, Ohio
WHIS	1410	250	Bluefield, W. Va.
WHJB	620	250	Greensburg, Pa.
WHK	1390	1000	Cleveland, Ohio
WHLB	1370	100	Virginia, Minn.
WHN	1010	1000	New York, N. Y.
WHO	1000	50000	Des Moines, Iowa
WHOM	1450	250	Jersey City, N. J.
WHP	1430	500	Harrisburg, Pa.
WIBA	1280	1000	Madison, Wis.
WIBG	970	100	Glenside, Pa.
WIBM	1370	100	Jackson, Mich.
WIBU	1210	100	Poynette, Wis.
WIBW	580	1000	Topeka, Kans.
WIBX	1200	100	Utica, N. Y.
WICC	600	500	Bridgeport, Conn.
WIL	1200	100	St. Louis, Mo.
WILL	890	250	Urbana, Ill.
WILM	1420	100	Wilmington, Del.
WIND	560	1000	Gary, Ind.
WINS	1180	1000	New York, N. Y.
WIOD	1300	1000	Miami, Fla.
WIP	610	1000	Philadelphia, Pa.
WIRE	1400	500	Indianapolis, Ind.
WIS	560	1000	Columbia, S. C.
WISN	1120	250	Milwaukee, Wis.
WJAC	1310	100	Johnstown, Pa.
WJAG	1060	1000	Norfolk, Neb.
WJAR	890	500	Providence, R. I.
WJAS	1290	1000	Pittsburgh, Pa.
WJAX	900	1000	Jacksonville, Fla.
WJAY	610	500	Cleveland, Ohio
WJBC	1200	100	Bloomington, Ill.
WJBK	1500	100	Detroit, Mich.
WJBL	1200	100	Decatur, Ill.
WJBO	1420	100	Baton Rouge, La.
WJBR	1420	100	Gastonia, N. C.
WJBW	1200	100	New Orleans, La.
WJBY	1210	100	Gadsden, Ala.
WJDX	1270	1000	Jackson, Miss.
WJEJ	1210	100	Hagerstown, Md.
WJIM	1210	100	Lansing, Mich.
WJJD	1130	20000	Chicago, Ill.
WJMS	1420	100	Ironwood, Mich.
WJNO	1200	100	W. Palm Beach, Fla.
WJR	750	50000	Detroit, Mich.
WJSV	1460	10000	Washington, D. C.
WJW	1210	100	Akron, Ohio
WJZ	760	50000	New York, N. Y.
WKAQ	1240	1000	San Juan, P. R.
WKAR	850	1000	East Lansing, Mich.
WKBB	1500	100	East Dubuque, Ill.
WKBH	1380	1000	LaCrosse, Wis.
WKBI	1420	100	Cicero, Ill.
WKBN	570	500	Youngstown, Ohio
WKBO	1200	100	Harrisburg, Pa.
WKBV	1500	100	Richmond, Ind.
WKBW	1480	5000	Buffalo, N. Y.
WKBZ	1500	100	Muskegon, Mich.
WKEU	1500	100	Griffin, Ga.
WKOK	1210	100	Sunbury, Pa.
WKRC	550	1000	Cincinnati, Ohio
WKY	900	1000	Oklahoma City, Okla.
WKZO	590	1000	Kalamazoo, Mich.
WLAC	1470	5000	Nashville, Tenn.
WLAK	1310	100	Lakeland, Fla.
WLAP	1420	100	Lexington, Ky.
WLB	1250	1000	Minneapolis, Minn.
WLBC	1310	100	Muncie, Ind.
WLBF	1420	100	Kansas City, Kans.
WLBL	900	2500	Stevens Point, Wis.
WLBZ	620	500	Bangor, Me.
WLEU	1420	100	Erie, Pa.
WLLH	1370	100	Lowell, Mass.
WLNH	1310	100	Laconia, N. H.

WLS 870 50000
Chicago, Ill.

WLTH 1400 500
Brooklyn, N. Y.

WLVA 1200 100
Lynchburg, Va.

WLW 700 500000
Cincinnati, Ohio

WLWL 1100 5000
New York, N. Y.

WMAL 630 250
Washington, D. C.

WMAQ 670 50000
Chicago, Ill.

WMAS 1420 100
Springfield, Mass.

WMAZ 1180 1000
Macon, Ga.

WMBC 1420 100
Detroit, Mich.

WMBD 1440 500
Peoria, Ill.

WMBG 1210 100
Richmond, Va.

WMBH 1420 100
Joplin, Mo.

WMBI 1080 5000
Chicago, Ill.

WMBO 1310 100
Auburn, N. Y.

WMBQ 1500 100
Brooklyn, N. Y.

WMBR 1370 100
Jacksonville, Fla.

WMC 780 1000
Memphis, Tenn.

WMCA 570 500
New York, N. Y.

WMEX 1500 100
Boston, Mass.

WMFD 1370 100
Wilmington, N. C.

WMFF 1310 250
Plattsburg, N. Y.

WMFG 1210 100
Hibbing, Minn.

WMFJ 1420 100
Daytona Beach, Fla.

WMFN 1210 100
Clarksdale, Miss.

WMFO 1370 100
Decatur, Ala.

WMFR 1200 100
High Point, N. C.

WMMN 890 500
Fairmount, W. Va.

WMPC 1200 100
Lapeer, Mich.

WMSD 1420 100
Sheffield, Ala.

WMT 600 1000
Cedar Rapids, Iowa

WNAC 1230 1000
Boston, Mass.

WNAD 1010 1000
Norman, Okla.

WNAX 570 1000
Yankton, S. D.

WNBC 1380 250
New Britain, Conn.

WNBF 1500 100
Binghamton, N. Y.

WNBH 1310 100
New Bedford, Mass.

WNBR 1430 500
Memphis, Tenn.

WNBX 1260 1000
Springfield, Vt.

WNBZ 1290 100
Saranac Lake, N. Y.

WNEL 1290 1000
San Juan, P. R.

WNEW 1250 1000
Newark, N. J.

WNOX 1010 1000
Knoxville, Tenn.

WNRI 1200 100
Newport, R. I.

WNYC 810 1000
New York, N. Y.

WOAI 1190 50000
San Antonio, Texas

WOC 1370 100
Davenport, Iowa

WOCL 1210 50
Jamestown, N. Y.

WOI 640 5000
Ames, Iowa

WOKO 1430 500
Albany, N. Y.

WOL 1310 100
Washington, D. C.

WOMT 1210 100
Manitowoc, Wis.

WOOD 1270 500
Grand Rapids, Mich.

WOPI 1500 100
Bristol, Tenn.

WOR 710 50000
Newark, N. J.

WORC 1280 500
Worcester, Mass.

WORK 1320 1000
York, Pa.

WORL 920 500
Needham, Mass.

WOS 630 500
Jefferson City, Mo.

WOSU 570 750
Columbus, Ohio

WOV 1130 1000
New York, N. Y.

WOW 590 5000
Omaha, Neb.

WOWO 1160 10000
Fort Wayne, Ind.

WPAD 1420 100
Paducah, Ky.

WPAR 1420 100
Parkersburg, W. Va.

WPAX 1210 250
Thomasville, Ga.

WPAY 1370 100
Portsmouth, Ohio

WPEN 920 250
Philadelphia, Pa.

WPFB 1370 100
Hattiesburg, Miss.

WPG 1100 5000
Atlantic City, N. J.

WPHR 880 500
Petersburg, Va.

WPRO 630 250
Providence, R. I.

WPRP 1420 100
Ponce, P. R.

WPTF 680 5000
Raleigh, N. C.

WQAM 560 1000
Miami, Fla.

WQAN 880 250
Scranton, Pa.

WQBC 1360 1000
Vicksburg, Miss.

WQDM 1370 100
St. Albans, Vt.

WRAK 1370 100
Williamsport, Pa.

WRAW 1310 100
Reading, Pa.

WRAX 920 250
Philadelphia, Pa.

WRBL 1200 100
Columbus, Ga.

WRC 950 500
Washington, D. C.

WRDO 1370 100
Augusta, Me.

WRDW 1500 100
Augusta, Ga.

WREC 600 1000
Memphis, Tenn.

WREN 1220 1000
Lawrence, Kans.

WRGA 1500 100
Rome, Ga.

WRJN 1370 100
Racine, Wis.

WROK 1410 500
Rockford, Ill.

WROL 1310 100
Knoxville, Tenn.

WRR 1280 500
Dallas, Texas

WRUF 830 5000
Gainesville, Fla.

WRVA 1110 5000
Richmond, Va.

WSAI 1330 1000
Cincinnati, Ohio

WSAJ 1310 100
Grove City, Pa.

WSAN 1440 500
Allentown, Pa.

WSAR 1350 1000
Fall River, Mass.

WSAY 1210 100
Rochester, N. Y.

WSAZ 1190 1000
Huntington, W. Va.

WSB 740 50000
Atlanta, Ga.

WSBC 1210 100
Chicago, Ill.

WSBT 1360 500
South Bend, Ind.

WSFA 1410 500
Montgomery, Ala.

WSGN 1310 100
Birmingham, Ala.

WSIX 1210 100
Springfield, Tenn.

WSJS 1310 100
Winston-Salem, N. C.

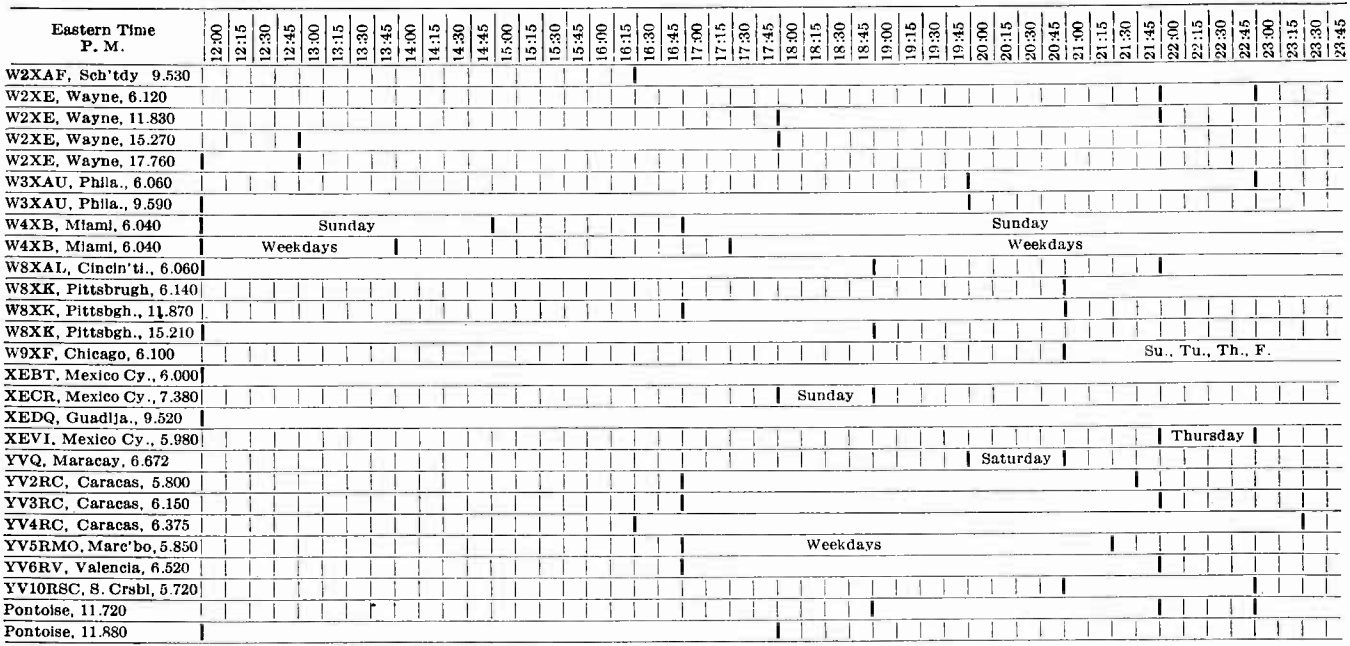
WSM 650 50000
Nashville, Tenn.

WSMB 1320 500
New Orleans, La.
WSMK 1380 200
Dayton, Ohio
WSOC 1210 100
Charlotte, N. C.
WSPA 920 1000
Spartanburg, S. C.
WSPD 1340 1000
Toledo, Ohio
WSPR 1140 500
Springfield, Mass.
WSUI 880 500
Iowa City, Iowa
WSUN 620 1000
St. Petersburg, Fla.
WSVA 550 500
Harrisonburg, Va.
WSVS 1370 50
Buffalo, N. Y.
WSYB 1500 100
Rutland, Vt.
WSYR 570 250
Syracuse, N. Y.
WTAD 900 500
Quincy, Ill.
WTAG 580 500
Worcester, Mass.
WTAL 1310 100
Tallahassee, Fla.
WTAM 1070 50000
Cleveland, Ohio
WTAQ 1330 1000
Green Bay, Wis.
WTAR 780 500
Norfolk, Va.
WTAW 1120 500
College Station, Tex.
WTAX 1210 100
Springfield Ill.
WTBO 800 250
Cumberland, Md.
WTCN 1250 1000
Minneapolis, Minn.
WTEL 1310 100
Philadelphia, Pa.
WTFI 1450 500
Athens, Ga.
WTHT 1200 100
Hartford, Conn.
WTIC 1040 50000
Hartford, Conn.
WTJS 1310 100
Jackson, Tenn.
WTMJ 620 1000
Milwaukee, Wis.
WTMV 1500 100
East St. Louis, Ill.
WTNJ 1280 500
Trenton, N. J
WTOC 1260 1000
Savannah, Ga.
WTRC 1310 100
Elkhart, Ind.
WVFW 1400 500
Brooklyn, N. Y.
WWAE 1200 100
Hammond, Ind.
WWJ 920 1000
Detroit, Mich.
WWL 850 10000
New Orleans, La.

WWNC 570 1000
Asheville, N. C.
WWRL 1500 100
Woodside, N. Y.
WWSW 1500 100
Pittsburgh, Pa.
WWVA 1160 5000
Wheeling, W. Va.
WXYZ 1240 1000
Detroit, Mich.
W1XBS 1530 1000
Waterbury, Conn.
W2XR 1550 1000
Long Island City, N. Y.
W6XAI 1550 1000
Bakersfield, Calif.
W9XBY 1530 1000
Kansas City, Mo.
XEA 1060 500
Guadalajara, Jal.
XEAA 920 200
Mexicali, B. C.
XEAF 990 500
Nogales, Son.
XEAI 1240 100
Mexico City, D. F.
XEAM 750 7.5
Matamoros, Tams.
XEAO 560 250
Mexicali, B. C.
XEAQ 1090 1000
Tijuana, L. C.
XEAS 1160 100
Saltillo, Coah.
XEAW 960 50000
Reynosa, Tams.
XEAZ 1420 7
Guanajuato, Gto.
XEB 1030 10000
Mexico City, D. F.
XEBH 930 500
Hermosillo, Sonora
XEC 1160 30
Tijuana, L. C.
XECW 1310 10
Mexico City, D. F.
XED 1155 2500
Guadalajara, Jal.
XEE 1210 50
Durango, Dgo.
XEFA 1180 500
Mexico City, D. F.
XEFB 1420 100
Monterrey, N. L.
XEFC 560 100
Merida, Yuc.
XEFE 850 250
Laredo, Tams.
XEFI 1440 250
Chihuahua, Chih.
XEFJ 1230 100
Monterrey, N. L.
XEFL 1150 500
Tijuana, L. C.
XEFO 940 5000
Mexico City, D. F.
XEFV 1210 100
Jaurez, Chih.
XEFW 1310 250
Tampico, Tams.
XEFZ 1370 100
Mexico City, D. F.

XEG 1270 200
Ensenada, B. C.
XEH 1150 250
Monterrey, N. L.
XEI 1370 125
Morelia, Mich.
XEJ 1020 1000
Juarez, Chich.
XEK 990 100
Mexico City, D. F.
XEKL 1240 500
Leon, Guan.
XEL 1100 250
Mexico City, D. F.
XELO 1110 10000
Piedras Negras, Coah.
XEMO 860 5000
Tijuana, L. C.
XEMX 1280 12
Mexico City, D. F.
XEMZ 820 ....
Coronado Isl., L. C.
XEN 710 1000
Mexico City, D. F.
XENT 910 150000
Nuevo Laredo, Tams.
XEOK 760 250
Tijuana, L. C.
XEOX 640 500
Saltillo, Coah.
XEPN 590 50000
Piedras Negras, Coah.
XERA 840 250000
Villa Acuna, Coah.
XES 990 250
Tampico, Tams.
XESL 1160 ....
Tijuana, L. C.
XET 690 500
Monterrey, N. L.
XETB 1310 125
Torreon, Coah.
XETF 1220 12
Veracruz, Ver.
XETH 1210 100
Puebla, Pue.
XEU 1010 250
Veracruz, Ver.
XEW 890 50000
Mexico City, D. F.
XEWZ 1150 100
Mexico City, D. F.
XEX 1310 125
Monterrey, N. L.
XEY 1000 10
Merida, Yuc.
XEYZ 780 10000
Mexico City, D. F.
XEZ 630 500
Merida, Yuc.
XEZZ 1370 100
San Luis Potosi, S.L.P.
XFA 1310 5
Aguascallentes, Ags.
XFB 1270 250
Jalapa, Ver.
XFC 810 350
Aguascallentes, Ags.
XFD 1340 350
Jalapa, Ver.

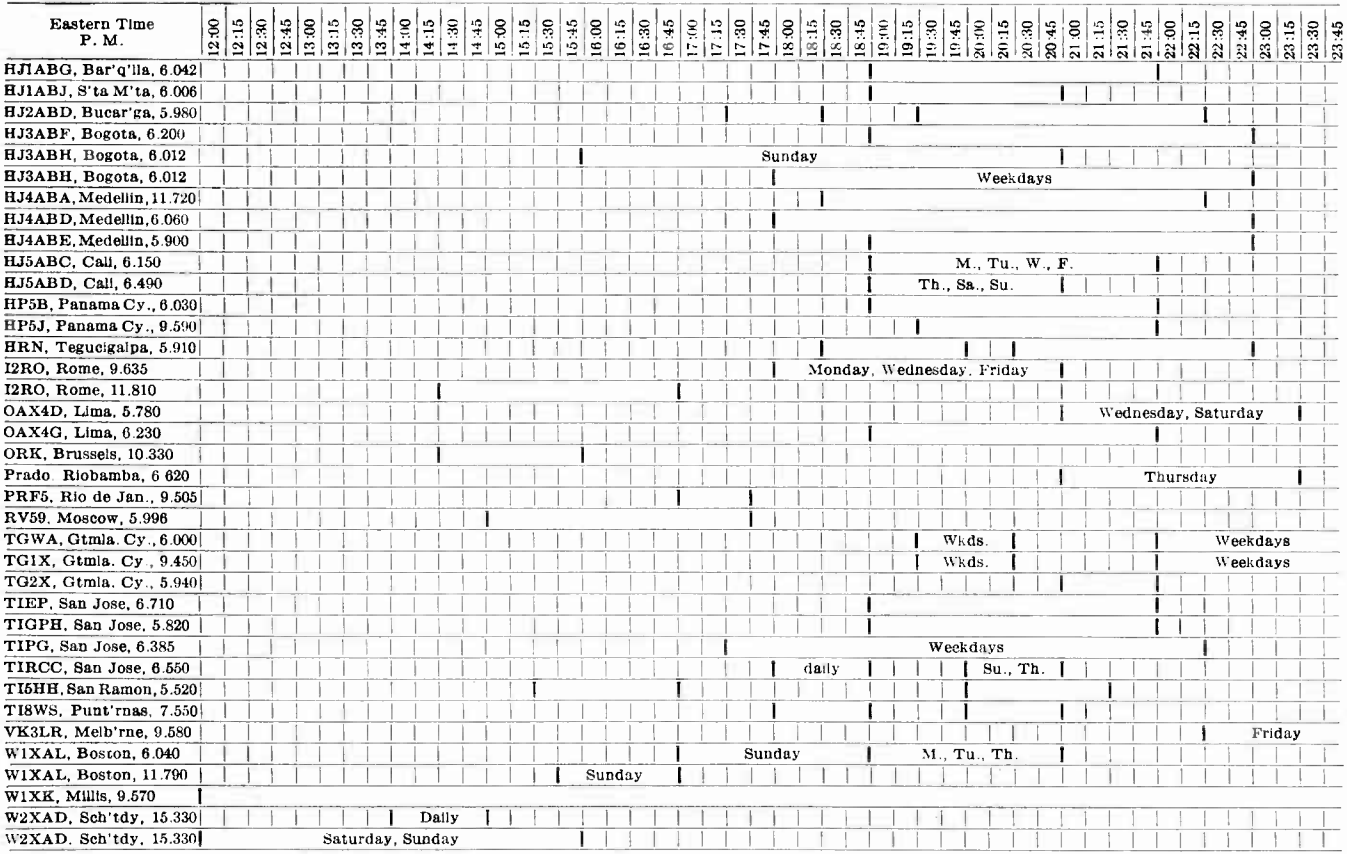
Continued on Page 112

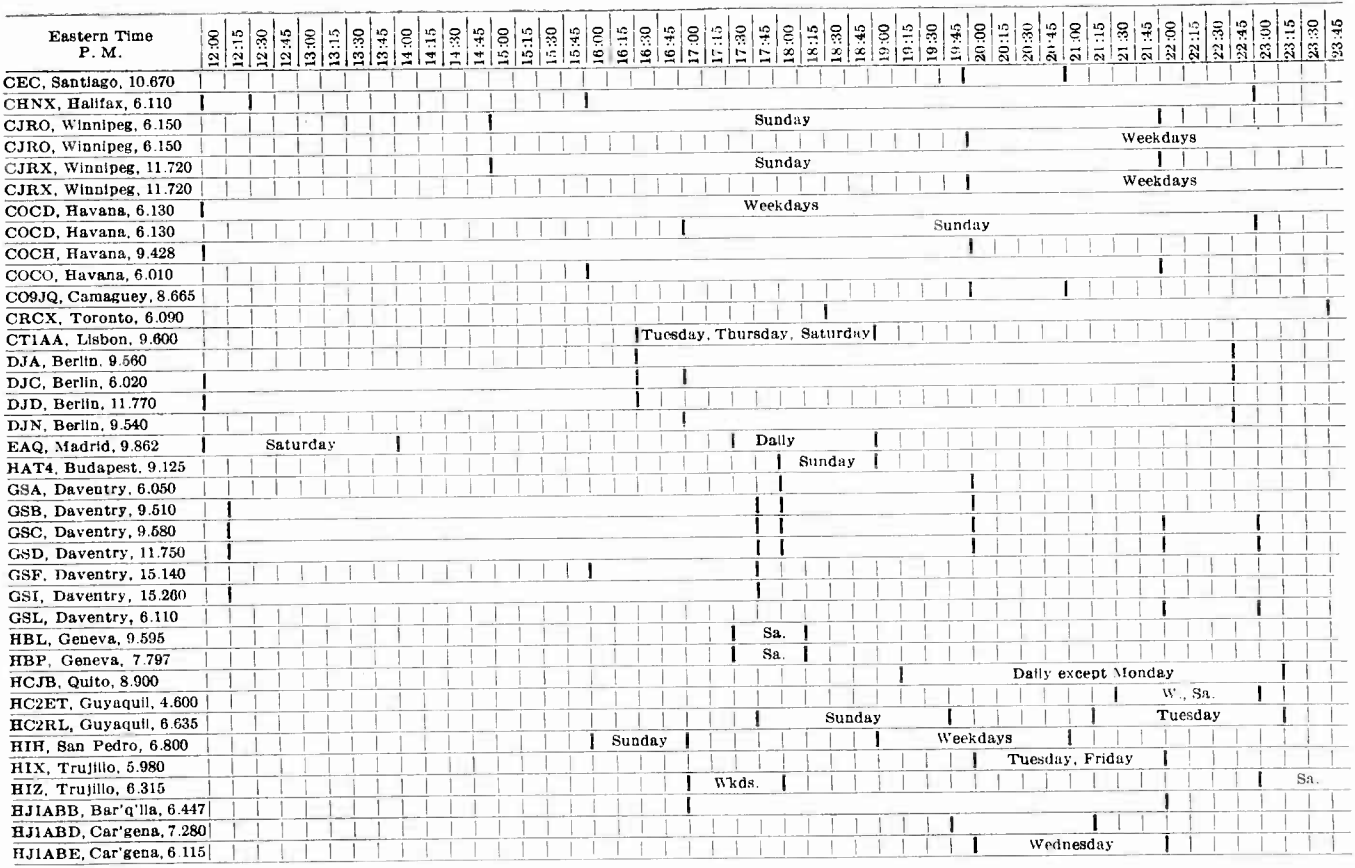


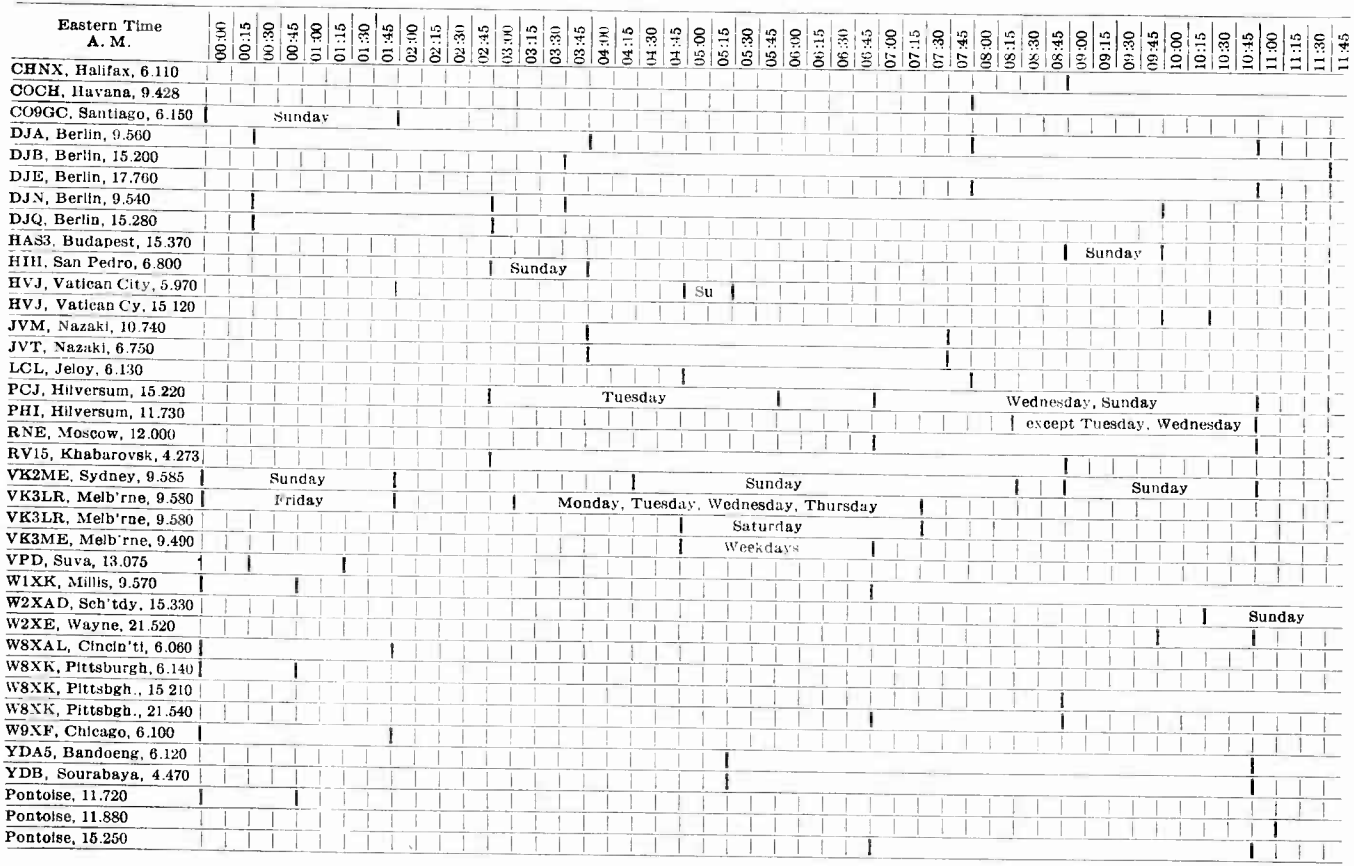
Hints on Tuning the Short Waves

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

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







AROUND THE CLOCK ON THE SHORTWAVES

The time is given by the 24-hour clock. Noon is always 12:00 but midnight may be either 00:00 or 24:00. To change time to your own clock, subtract twelve from p.m. hours. Thus, 18:00 is 6 p.m. and 23:00 is 11:00 p.m. The time lines used in charts are for Eastern Standard. Those living in other zones may clip out the lines below and paste them over the EST lines. The following strips are for Central Standard Time. For MST, start with 10:00 and 22:00. For PST with 09:00 and 21:00.

Central Time P. M.	Central Time P. M.	Central Time P. M.	Central Time A. M.
11:00	11:00	11:00	23:00
11:15	11:15	11:15	23:15
11:30	11:30	11:30	23:30
11:45	11:45	11:45	23:45
12:00	12:00	12:00	00:00
12:15	12:15	12:15	00:15
12:30	12:30	12:30	00:30
12:45	12:45	12:45	00:45
13:00	13:00	13:00	01:00
13:15	13:15	13:15	01:15
13:30	13:30	13:30	01:30
13:45	13:45	13:45	01:45
14:00	14:00	14:00	02:00
14:15	14:15	14:15	02:15
14:30	14:30	14:30	02:30
14:45	14:45	14:45	02:45
15:00	15:00	15:00	03:00
15:15	15:15	15:15	03:15
15:30	15:30	15:30	03:30
15:45	15:45	15:45	03:45
16:00	16:00	16:00	04:00
16:15	16:15	16:15	04:15
16:30	16:30	16:30	04:30
16:45	16:45	16:45	04:45
17:00	17:00	17:00	05:00
17:15	17:15	17:15	05:15
17:30	17:30	17:30	05:30
17:45	17:45	17:45	05:45
18:00	18:00	18:00	06:00
18:15	18:15	18:15	06:15
18:30	18:30	18:30	06:30
18:45	18:45	18:45	06:45
19:00	19:00	19:00	07:00
19:15	19:15	19:15	07:15
19:30	19:30	19:30	07:30
19:45	19:45	19:45	07:45
20:00	20:00	20:00	08:00
20:15	20:15	20:15	08:15
20:30	20:30	20:30	08:30
20:45	20:45	20:45	08:45
21:00	21:00	21:00	09:00
21:15	21:15	21:15	09:15
21:30	21:30	21:30	09:30
21:45	21:45	21:45	09:45
22:00	22:00	22:00	10:00
22:15	22:15	22:15	10:15
22:30	22:30	22:30	10:30
22:45	22:45	22:45	10:45

QUICK INDEX TO ALL STATION DATA

NORTH AMERICAN B. C. STATIONS BY CALLS

Continued from Page 106

XFO Mexico City, D. F.	940	5000	
XFX Mexico City, D. F.	610	1000	
YNLF Managua, Nicaragua	1275	20	
YNOP Managua, Nicaragua	1230	100	
YNVA Managua, Nicaragua	950	30	

RADEX Publications

THE one who enjoys Radio naturally desires to know something about its seemingly miraculous character. Practically all of the books on Radio are very technical in language and description. RADEX, therefore, commissioned its Technical Editor, B. Francis Dashiell, to write "The Beginners' Story of Radio" in the simplest possible words and terms. This we have published in book form. There are 96 pages profusely illustrated with simple pictures and diagrams, bound in handsome leatherette.

"The Beginners' Story of Radio" takes you on a tour through your own radio set, pointing out in language a young boy can understand, just what each part does and just what happens when you turn the dial. With this book available, no one can be excused for an ignorance of the elements of Radio.

Send for it today.

Price 50 cents postpaid.

THE RADEX Radio Map of the World, eleven by twenty-two inches in size, portrays the countries and principal cities of the world and shows their time zones. On the front cover is a dial marked with the hours of the day. You simply turn this dial to the hour in your zone and instantly the corresponding times for the whole world are shown. The hours where twilight, darkness and dawn occur are graphically shown. The dial also indicates where the time is yesterday, today or tomorrow. Thus if you set the dial for 3:00 a. m. in the Eastern Standard zone, the time is shown in Hawaii as 9:30 p. m. YESTERDAY. If set for 9:00 a. m. EST, the time in New Zealand is shown as 1:30 a. m. TOMORROW.

If you desire to hear a program in Germany which occurs at 6:00 a. m. their time, the dial shows that you must listen at midnight, EST. There are no mental calculations to make—no adding nor subtracting—the dial does it all.

The price of the Map of the World with Time-Converting Dial is only 25 cents postpaid.

IT IS so easy to forget to tune in a favorite program that we have prepared what we call the RADEX Radio "Slate." It consists of four pages of heavy Bristol board on which pencil entries may easily be made and erased. The eight columns are ruled into fifteen-minute periods with space for the program, the station and the dial number. All of the evening hours and those of Sunday afternoon are provided for. You merely enter the names of the programs you wish to hear, the station over which you receive it best and the dial number. The "Slate" then reminds you in the most convenient way possible, when and where to tune for the programs you do not want to miss.

Price, 10 cents each, two for 15 cents or four for 25 cents.

THE RADEX PRESS INC.

CONNEAUT, OHIO

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. 6DO, Washington, D. C.

J. E. SMITH, President,
National Radio Institute
Dept. 6DO, 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