

MIDSUMMER 1938

25^c

RADIO IN INDEX

The All-wave Radio Log



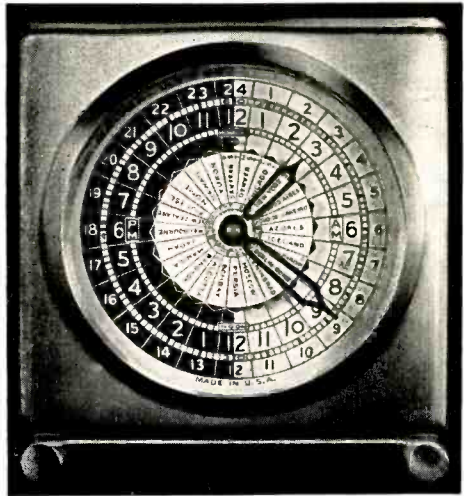
A Ten Meter Converter
Amateur News
Shortwave Station List
All the North American
Broadcasting Stations



No. 120

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THE RADEX PRESS

14717 Detroit Ave.,

Cleveland, Ohio

MIDSUMMER, 1938



RADIO INDEX



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Publisher

PAGE TAYLOR

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FOURTEENTH YEAR

NUMBER 120

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\$1.75 Per Year

25c Per Copy

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Published Monthly Excepting July and August

THE RADEX PRESS

14717 Detroit Avenue

Cleveland, Ohio

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

Printed in U. S. A.

Interested in 10 METERS?

• • • By B. FRANCIS DASHIELL

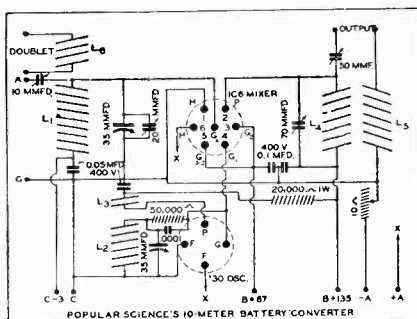
THE 10-meter radio band has become the most interesting portion of the ultra-short-wave spectrum. In this region, between 28 and 30 megacycles, remarkable radio transmissions are being accomplished. On the other hand, the band is erratic at times, being influenced by the things that affect radio reception, such as sun spots, magnetism, atmospheric disturbances, and what seems often to be the case, just plain, downright contrariness.

When the 10-meter band is working properly, and it is best in daytime, it is a thing of pleasure to the ardent radio fan who is equipped properly to enjoy its excellent DX properties. Unfortunately, few all-wave receivers are constructed so as to reach down into these very short waves. Most sets stop just below the 20-meter band, where remarkable results also are obtained.

Special Receivers

Unless one is the owner of a fine communications type receiver, such as many amateurs use, reception with all-wave sets even on 20 meters is limited to those stations having sufficient power to come through and overcome interference. There are many amateurs on these short-wave bands, and very selective tuning with band spreading is needed before the listener can log an imposing array of DX amateur calls. And even this much is impossible on 10 meters with practically all the receivers now sold to the average radio public. Only those very large sets with special ultra-high frequency bands, for 10 and 5 meters (28 to 56-60 megacycles), can provide a small portion of this additional entertainment feature.

Recently, some people began again to consider converters. These units were much in vogue a few years ago before the coming of the all-wave receiver. Converters enabled the owners of broadcast sets to pick up a number of short-wave stations, and for a while they did heroic service in thousands of homes. It was thought that the converter was not practicable for very short waves, but, with the newer tubes and careful construction, the revival of the converter should become popular.



The Converter

At last, after a period of experimenting, it has been found satisfactory to use a converter with an all-wave set. This little unit picks up the very short waves and converts them to a lower frequency that falls within the limits of some portion (usually a silent zone) of the tuning range of an ordinary all-wave receiver. Ten-meter converters are being made and satisfactorily used in many instances. There is no reason why converters should not be used extensively to open up the 10-meter band to those who heretofore have been un-

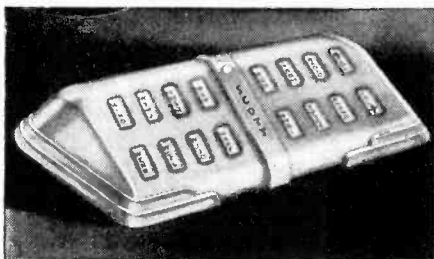
able to work in it.

Since the 10-meter band, because of its amazing low-power possibilities, is attracting amateurs as fast as they can arrange to work in it, it is rapidly filling up and already presents another problem of station interference when it is alive—frequently during the mornings. Therefore, a converter to operate in this band, must be carefully designed and assembled. Its operation, too, requires skill. These things, however, make it all the more interesting. Conversion on 10 meters is practical, for these signals will travel around the earth; but at half the wave length or twice the frequency, 5 meters or 56 megacycles, the problem is entirely changed. On 5 meters reception is limited to the visual horizon, the same as human seeing. Satisfactory converters for 5 meters have not been built, but there is no particular advantage to tuning to 5 meters—certainly, no DX thrills are involved!

Simple But Exacting

A number of converters have been described from time to time for the benefit of radio experimenters. Upon careful examination most of these have appeared to us to be too difficult for average construction. However, it is possible for anyone having some understanding of radio assembly to put together a small 10-meter converter. With this in mind, we are mentioning a simple two-volt, two-tube, 10 meter converter, which, it is believed, will interest most of our readers who care to experiment further in the realm of high frequencies. This converter operates on separate "A", "B" and "C" batteries, and does not require filtered current from a complicated power unit. Batteries also make for quiet operation. It can be used with any all-wave receiver capable of tuning to around 4.0 megacycles (4,000 kilocycles). The converter

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STUDIOS: Chicago, New York, Los Angeles, London

is connected to the receiver's antenna binding post and will cover the entire 28-megacycle band with ease.

Coils Easily Wound

This little converter was first described by Popular Science Monthly magazine, in the January, 1938, issue. The circuit used, together with a brief description, is reproduced herewith for the benefit of the readers of RADEX, through the courtesy of the Editor of POPULAR SCIENCE. But for the complete chassis layout, photographs, list of parts, and easily understood details, as described by Harry D. Hooton, W8KPX, the reader is advised to procure a copy of the issue in question.

The actual construction involves little expense with no complicated situations. All specifications should be carefully followed. As shown in the accompanying circuit diagram, several small stiff-wire, self-supporting coils are utilized. They are wound with enameled wire to $\frac{3}{8}$ -inch in diameter. Coil L_1 , which tunes the incoming signals, has 8 turns of No. 14 wire; L_2 , which is the oscillator, has $6\frac{1}{4}$ turns of No. 14; L_3 has 4 turns of No. 20; L_4 , the output coil, has 20 turns of No. 30, closely wound, but $1\frac{1}{2}$ -inch in diameter on a tube; L_5 , the output pick up coil, if the additional terminal is to be used for output to the all-wave receiver, has from 6 to 10 turns of No. 30, closely wound and beginning $\frac{1}{8}$ -inch from the plate end of coil L_4 ; and L_6 , which is used when a doublet antenna is utilized, has from 5 to 10 turns of No. 20, but wound in a direction opposite to L_4 , which is used with a single-wire antenna.

Keep the radio-frequency lead from the converter output to the receiver antenna terminal as short and straight as practicable. Perhaps it may require shielding (which must

be grounded), extending from the output coil to the receiver. Tune the all-wave set to a quiet spot adjacent to the 3,500 kcs. amateur band and set the volume control. Then tune the converter over the 10-meter band. Any antenna may be used with the converter, but often a good doublet will tend to eliminate much of the automobile ignition interference.

Play Ball!

The games of the major league baseball teams will be broadcast over the following stations:

Boston, Bees and Red Sox: WAAB, WBRY, WEAN, WFEA, WICC, WLBZ, WLLH, WLNH, WNBH, WNLC, WSAR, WSPR, WTHT.

Chicago Cubs, home and road games: WHO.

Chicago Cubs and White Sox, home games: WBBM, WIND, WJJD.

Detroit Tigers, all games: WASH, WBCM, WELL, WFDF, WIBM, WJIM, WKBZ, WKZO, WOOD, WWJ, WXYZ.

Cleveland Indians, all games: WCLE.

St. Louis Cards, home games: KBTM, WTAD.

St. Louis Cards and Browns, all games: KFAB, KMA, KMOX, KRNT, WMT, WNAX.

Washington Senators, all games: WJSV.

Philadelphia Athletics: WFIL.

Philadelphia Phillies, home games: WCAU.

Pittsburgh Pirates, road games: KDKA.

Cincinnati Reds, all games: WCPO, WHIO, WSAI.

A CHEERY LINE or Three

• • • By HEINZ MILARK WPSU-W2HQA

ACCORDING to the definitions in the Count De Veries article in the April RADEX, this is a letter to "pass the time of day with a cheery line or three."

First of all, I think that I ought to identify myself and indicate the kind of a DXer I am. As so many report, I DX for the pleasure of hearing new stations and to add them to an accumulative log which has increased very slowly from the time it was started back in 1932. Occasionally I spent a night at the set, but most of my listening was when I found the time—and that frequently was during the twilight hours. My biggest thrill is still the reception of the then low-powered KTFI, although veries from YV1BC take top honors on the broadcast band.

As I was still in high school when I started the hobby, veries were a drain on the pocketbook and I stopped that after a while. Then I bought a short wave converter and found DXing more pleasant in daytime than during chilly nights. Also there was less chance of being growled at when accidentally tuning across a local at 4 a.m. with the power set for a Pacific Coaster. In this manner, I stacked up a few foreign QSL's, which I found more expensive, and some amateur cards. Soon I became really interested, learned the code, and became one of the amateurs. Now I'm operator on the S. S. Gulfdisc, an oilcan running up and down the Atlantic Coast.

Since travelling, I have been unable to develop a system of logging my catches and putting a yardstick on them. So I have dropped all systems and just keep adding to the list which includes stations long



Paul Douglas, is heard six times a week on a fifteen minute program of sports comments over the Red Network. The program, known as the Chesterfield Daily Sports Column, is broadcast over fifty stations, Mondays through Saturdays, from 6:30 to 6:45 pm, EDT.

since departed from the world of radio.

During the past few years, I've noticed so many freaks in the reception of broadcast stations, that I've come to the conclusion that almost anything is possible. I have a verie from WCSH which was heard early one afternoon with WAAT going full blast just across the river, yet the Jersey City station was pushed aside and I had no trouble getting data on WCSH.

Out at sea, one notices that long distance daytime reception is sometimes excellent. I have heard WEAJ at high noon without any trouble when I was a thousand miles South of the station, yet a week later at the same spot I couldn't hear a

thing. Sometimes we can hear WLW from the New Jersey Coast continuously all the way to Northeastern Texas, and on other trips we have trouble getting them at all. I have heard KNX with an old worn-out Emerson midget in mid-summer static while at the dock in Venezuela, and then the next day had difficulty hearing local stations down there.

My new location at home is about a half mile from the transmitter of WEAJ, and it's one of the strangest locations I have yet come across. Time and again I have listened to WKAT completely pushing WWRL (supposedly a local) out of the picture, and yet I have still to hear KYW at that location. Almost any night the Cubans will push everything else off the dial, and those in the clear like CMCK and CMW are received just like WEAJ. But queerest of all is the fact that the receiver, an RME69, refuses to pick up the DJ-stations, and most of the GS-transmitters are weak, yet 2RO and IRF roar in.

On board here, with the newest in long wave receivers for ships, I get remarkable reception when static permits. The set has a tuned RF stage which makes all the difference in the world, a detector and two stages of audio, with all metal tubes being used. With this, I can hear 200-watt ship transmitters over a thousand miles away in the daytime. WPA (not a government project, but a coast station) at Port Arthur, Texas, can be heard with its two kilowatts 24 hours a day all the way from Texas to New York. And at that he is stronger 1500 miles away than when 550 miles distant.

For a while, I was always a jump ahead of RADEX when it came to the Cubans. Since we pass between Florida and Cuba, we get to a point where, with the exception of four U. S. stations, there's nothing on the dial but Havana.

Once, while passing close to Santiago de Cuba on the way up from Venezuela, there was only a short distance of water between us and the stations, but nary a one could be heard. But a few hundred miles further on, when we had put the island of Cuba between us and Santiago, they all came in in fine style.

The BC log stands at 518 this morning, which shows what the FCC frequency checks will do. Fifty-one stations in one night—and in between I logged over 60 different police broadcasters, including KTAP a new one at Texarkana. KLPW was testing most of the night on 1360. Had no luck with KGMB, and KORE was the last one on the list to come through.

Now it is time to sign off, so I'll say best 73 to you all.

Ed M. Vickers of Coral Gables, Fla. reports good reception of HJ1ABR on 1400 kcs. This station is located in Cartagena, Colombia, Post Office Box 47. They were heard at 1:30 am, EST.

The WCAU broadcasting Company announces that the schedule of their international shortwave station, W3XAU, has been changed. The hours during which this station works are shown here in Eastern Standard Time.

On 6060 kcs, W3XAU transmits on Wednesdays from noon until 9 pm. On Tuesdays, Fridays and Sundays, the hours are noon until 11 pm.

On its 9590 kcs. frequency, W3XAU transmits on Mondays, Thursdays and Saturdays from noon until midnight. On Tuesdays, Fridays and Sundays it transmits from 11 pm until midnight, and on Wednesdays from 9 pm until midnight.



AS FATHER TIME tears another month from the calendar and Old Man Static releases yet another barrage of noise to cloak those distant signals from attentive ears, listeners North of the Equator decide to call it a season.

The time for the annual summer hibernation of DXers affords an opportunity to balance the logs, to check lost sleep against verifications received, and to arrive at a possible profit of personal pleasure or benefit derived from a winter of dial twisting.

It is usually rather difficult to hang up the earphones for a period of four or five months, and yet experience has shown rather conclusively that a complete layoff will help you face the next season with fresh enthusiasm. Apparently it's the time-honored rest cure, good for the soul of the DXer, and as long as it assists in maintaining an interest in DXing, it's okay by me.

And still it is with decidedly mixed emotions that this old night owl realizes that another winter season has gone its way. It seems only a few weeks ago that we were greeting the first cool night of last Fall, and yet the records show that a mighty eventful season has come and gone.

Reception Not So Bad

Everything considered, reception wasn't at all bad. A lot of us had

been led to believe that the sunspot hokus pokus was going to make DXing plenty tough. To hear some of the lads moaning over their dials, one would have thought that reception would be limited to the 50-kilowatters within a hundred mile radius. But the reports of the past six months indicate that a lot of the boys got their share of some read DX.

Looking back over my own log, the 1937-38 season really got under way during the last week of September, when the first new catch was logged. During October a performance check was made on the Hallcrafters Super Sky rider communications receiver, and it was then that the stations began to roll in. Hundred-watters on the Pacific Coast put in their first appearance of the year, while the larger stations showed exceptional strength. Carriers from across the Pacific were heard, but no actual programs could be logged.

Early in November found the stations pounding in from all points of the compass. Static was diminishing in intensity and, on occasions, even became a negligible factor. Throughout the United States, dozens of newly-authorized stations ran DX programs and equipment tests. New broadcasters in Cuba and Mexico pushed signals through the barrier of domestic transmissions.

Along toward the middle of the

month—November 12th, to be exact—the first European of the new season was logged and Rennes was entered as a new addition to the log. Within 45 minutes on the same morning, seven other trans-Atlantic stations were heard. On subsequent mornings, many of the Germans were heard and frequently it was possible to hear as many as seven to ten Europeans during one session at the dials.

By this time, the Aussies and Zedders were showing their noses over the horizon. Old reliable 2YA was the first to be heard, and was soon followed by 1YA and 3YA. From Australia, 2NR was outstanding with a fine signal, and 2BL, 2CO and 3LO showed to advantage. KHBC continued to pound through with a potent wallop, easily leading the other two Hawaiian stations.

December found reception continuing to pick up at a very satisfactory rate. On one morning in particular, no less than 13 Europeans were logged between 2:30 and 3:15, and it was an odds-on bet that others could have been heard had there been time. French stations such as Fecamp, Rennes and Bordeaux showed the best signals I've ever heard from across the big ditch, while the fanfare from Poste Parisien was a treat for sore ears.

January and February found DX continuing in high gear, and many South and Central Americans were able to sneak through the domestic barrage. Pacific Coast stations were particularly strong and, for the first time in three or four years, it was possible to dial stations like KFT, KNX, KPO and KGO and really enjoy the programs. Even the little hundred-watters showed good S5 signals.

Looking back, the past season proved to be as good as any during the past seven years. The static

may have been a bit heavier on a few occasions, but the increased power of many stations more than compensated for that. And the frequent appearance of so-called "ideal DX mornings" found reception good enough for the average listener to go out and get himself a lot of stations.

In the light of my own experience, it seems likely that a lot of DXers paid too much attention to dismal prognostications and too little attention to actual dial twisting. If some listeners would forget about sunspots and all-nighters, and give their fingers and ears some exercise, chances are that they would have heard a lot of new stations.

Club Re-Organizations

The 1937-38 season found several administrative changes in some of the DX clubs. Some of the details are still a trifle vague, due to a lack of authoritative information, but there were at least two complete re-organizations of interest.

It was a little less than a year ago that the Globe Circlers DX Club announced the resignation of Raphael Geller, who had been acting as Editor since the previous resignation of William Wheatley. The administration of GCDXC affairs was taken over by Arthur J. Parfitt, of Cleveland, and Harry M. Gordon, of Erie, Pa.

At approximately the same time, Robert H. Weaver announced that he would be unable to continue his position as president of the National Radio Club, asked for volunteers to take over the operation of the club.

It wasn't long until NRC members were advised that their new president was Arthur Parfitt, of Cleveland, and that Bob Weaver would continue in the organization as vice-president. For a time, the NRC and GCDXC apparently were opera-



Mary Louise Quevli, NBC vocalist, is rapidly gaining recognition as one of the young artists destined for national stardom. In radio but a short time, the young soprano has won a large following. She is heard on Wednesdays during the Continental Varieties program, at 3 pm, EDST, on the Blue Network.

ted by the same Lake Erie group, and then the latter club returned to Brooklyn and its old editor Raphael Geller. Most recent changes in the NRC finds the resignation of Parfitt as president, and of Carl and Anne Eder as Secretary and Short Wave Editor respectively.

Teachers of story-writing technique contend that no character should enter a story without fulfilling some definite purpose, so it is now possible to go back three paragraphs, pick up Bill Wheatley and install him as editor of the UDXC bulletin, replacing Al Stansfield who continues as president.

I.C.C.P. Bogs Down

Another highlight of the past season, although of the kind about which one doesn't like to write, was the virtual demise of the Inter-Club Co-operation Plan.

When Emily Griswold retired as Clearing House Operator a year ago, the Plan appeared to be headed for the rocks. Although admittedly the most practical solution evolved to date, it was given haphazard support by some of the co-operating clubs. And so it was no great surprise that Miss Griswold's resignation was accepted by some officials as a good way of letting the Plan die a natural death.

UDXC's president Stansfield helped give the Plan a new lease on life by getting retiring NRC president Weaver to accept the responsibilities of Clearing House Operator, by persuading the various clubs to renew their pledges of co-operation and support.

But apparently this was merely a last gasp for breath. From mid-October to the first of February, reports of surprisingly-few programs were released by the Clearing House. Then a lapse of two weeks in which no reports were issued, another report dated February 20th, and since then complete silence.

With the Clearing House closed for reasons unknown, it is significant that no club has made any inquiries, made a move to install another Clearing House Operator, or showed any interest in a continuation of the Plan after February 20, 1938.

All of which would lead one to believe that the ICCP has served its purpose, and may now be considered a closed incident in DX history.

"Dear Listeners"

Short wave listeners of the world long have been aware of the increasing stream of propagandist broadcasts originating in European countries. Newspapers and magazines repeatedly have reported and editorialized what has become a gargantuan "war of the ether."

Early in March the Federal Gov-

ernment took first official cognizance of the situation, took steps to counteract the effects of German and Italian broadcasts to South America. Appointed by the President was an 11-man interdepartmental Committee, headed by FCC Chairman Frank McNinch, to study the subject of international broadcasts, to determine whether the United States should broadcast to South American countries.

Simultaneously, the British Broadcasting Corporation announced the construction of two new 40-KW transmitters at Daventry for Spanish broadcasts to Latin America.

And so the international radio war assumes new proportions, with the democracies pitted against the dictatorships, and no holds barred!

Soviet Russia, Fascist Italy and Nazi Germany didn't take long to realize the tremendous possibilities afforded by international short wave transmissions for the dissemination of their respective doctrines. Dictator Stalin quickly organized a group of stations ostensibly to cover the vast Russian territories, but slyly colored the news with Red propaganda. In no time at all, the Soviets were broadcasting in a score of languages, creating no little commotion in many countries. Hitler was so disturbed at this aerial invasion of the Reich that he forbade any one to listen to Moscow, and today many Germans are serving prison sentences for this offense.

American listeners have been affected but slightly by Soviet transmissions, as the stations lack sufficient power to provide reliable reception.

Fascist broadcasts have been aimed in many directions. Europe and North America soon found it easy to dial the Rome stations, which presented attractive programs with announcements in different languages. Reports from listeners were



The Easy Aces. Jane Ace, on the right, talks with Goodman Ace and "Marge" about their script. "Marge" is an accomplished writer as well as a fine actress.

encouraged and dialers began to like the sugar-coated Fascist pills. Even though they may have realized that they were being led by their ears, listeners tuned regularly to the Italian frequencies.

But it remained for Germany to show the world what real coverage meant. With super-power transmitters and arrow-like directional aerials, they bombarded every part of the globe. With a technique which could only be compared with that of the major networks, the programs were brilliantly arranged. As a result, the listener not only received a very fine signal, but he also heard a varied program of real merit. Of course, propaganda was cleverly woven into every broadcast, but the carefully-written talks by the foreign language announcers made pretty good listening.

Most Americans are familiar with the type of programs intended for consumption in English-speaking countries. Dedications to various organizations, salutes to individual states and cities—all have been intended to create good will.

Broadcasts of a slightly different color lately have been aimed at
(Please turn to page 95)

The Radio Codes EXPLAINED

• • • For New DXers

TUNING a radio set and logging elusive stations is considered as the most thrilling of all hobbies by most of the readers of this magazine, but there must be a large number of fans who are not deriving the fullest possible amount of pleasure from their sets, if we are to judge by a pile of letters that has accumulated during the past year.

A large portion of our mail consists of questions from readers who have just started to tune and who want to know what a kilocycle or GMT might be. All such queries are answered direct, but for the benefit of the dial twisters who have similar questions in their minds, we publish, once a year, an article designed to answer all these and similar questions.

While the design of the modern radio receiver is such that no previous experience or special skill is required for its proper operation, its full possibilities can be realized only by those who are familiar with the general characteristics of transmission on the higher frequencies. It should be understood that short-wave reception is not governed by fixed laws of nature but rather by flexible conditions over which man has no control, and that there can be no hard and fast rules for short-wave tuning. Nevertheless, certain general results have been observed, the most common observation being the condition known as "skip distance."

Transmitted signals of any wavelength are known to divide into two components, the "ground" wave and the "sky" wave. The former remains close to the earth's surface and provides reliable service only

over short distances from the broadcasting stations. The sky wave, however, travels into the higher layers of the atmosphere and is reflected back to the earth's surface at a considerable distance from the station. With shortwave signals the sky wave does not return within the area covered by the ground wave, and the region between the area covered by the ground wave and that covered by the sky wave is known as the skip distance, a dead-spot region within which reception is impossible or unsatisfactory.

Reception on six megacycles is most reliable when received from a distance of 300 miles or more, although good reception at much greater distances can be expected



Al Garr is the rising young tenor heard over the Columbia Network on the Phil Baker program. Al was born in Hong Kong, and reared in Charlotte, N. C.

when a large part of all of the path of transmission lies in darkness.

Stations near 9.5 megs. are most reliable when heard over distances greater than 800 miles. Good reception from distant stations in this band is possible both in the daytime and at night.

Stations at a distance of 1000 miles or more from the receiver come in well near 11 megs. This band is best during daylight hours but distant stations can be heard sometimes until midnight, especially in the summer time.

Around the 15 megacycle band stations situated at a distance of 1500 miles or greater will be found most satisfactory. These signals are generally heard in the daytime, but in the summer this band stays "open" until nearly midnight.

Wavelengths—Frequencies

The energy radiated from a radio station is emitted in the form of waves, similar to the ripples produced when a stone is thrown into a body of water. Each ripple is called a "wave" and the size of each ripple is called the "wavelength." Wavelengths are always measured in meters. Therefore, when a station is said to transmit on 200 meters, it is meant that each wavelength produced by that station is 200 meters long.

It is generally more convenient to classify stations by frequencies rather than by wavelengths. The number of times that a complete wave is produced within one second is the station's frequency. Frequencies are measured in kilocycles. A station that is operating on a frequency of 9000 kilocycles per second, is radiating 9000 complete wave forms within a second.

A megacycle is 1000 kilocycles. A frequency of 9000 kilocycles is equal to a frequency of 9 megacycles.

The abbreviations for these various forms of measurement are, the

Greek letter "L" (similar to an inverted Y) for wavelength. "Kcs." for "kilocycles per second." "Megs." for "megacycles per second."

In the RADEX shortwave indices, frequencies are given in megacycles per second. To convert these to kilocycles, change the period to a comma. Hence, 6.130 megs equals 6,130 kcs.

Power

The amount of power that a station uses is measured in watts. Stations with high power use the unit "kilowatt" (abbreviated kW) which is equal to 1000 watts.

Time

The 24-hour clock is used to indicate time in the RADEX indices. This system of indicating time is not at all complicated—instead of dividing the day into two twelve hour divisions, a. m. for the first section and p. m. for the second, the day is considered as 24 hours long, from midnight to midnight. The day commences at midnight, which is indicated by four cyphers (0000), and continues to the next midnight, which is 2400. Four digits are always shown, the first two digits representing hours and the last two digits, minutes. Thus, 1 a. m. is written 0100, 2 a. m. is 0200, 4:30 a. m. is 0430, etc. Noon is 1200 and 1 p. m. is 1300; 11 p. m. is 2300 and midnight is 2400 or 0000.

This may seem a bit confusing at first, but soon it becomes quite natural to think of 2 p. m. as 1400 or 10 p. m. as 2200.

Greenwich Mean Time (GMT) is the sun time at Greenwich, England, and has been universally adopted as International Time. The time at nearly every locality in the world is calculated to agree with GMT in minutes and seconds, but to differ in hours by whole numbers. As an example, the true sun time of New York City is 4 hours 56 min-

utes slower than Greenwich, but the standard time differs by exactly five hours.

Greenwich Mean Time is universally understood and local time should be converted to GMT when writing to foreign stations for verifications.

Radio Districts

The United States is divided into nine districts, and the district in which an amateur or experimental station is located is shown by the number which follows the W— or K— prefix. The districts are divided as follows:

First District (W1—) includes the states of Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island and Vermont.

Second District (W2—) includes, in the State of New York, the counties of Albany, Long Island, New York, Rensselaer, Schenectady and Staten Island, and, in the State of New Jersey, the counties of Bergen, Essex, Hudson, Middlesex, Monmouth, Ocean, Passaic and Union.

Third District (W3—) includes the States of Delaware, Maryland, Virginia, and the District of Columbia. In New Jersey, all the counties not included in the Second District, and in Pennsylvania, all the counties south of the Blue Mountains.

Fourth District (W4—) includes the States of Alabama, Florida, Georgia, North Carolina, South Carolina and Tennessee.

Fifth District (W5—) includes the States of Arkansas, Louisiana, Mississippi, New Mexico, Oklahoma and Texas.

Sixth District (W6—) includes the States of Arizona, California, Nevada and Utah.

Seventh District (W7—) includes the States of Idaho, Montana, Oregon, Washington and Wyoming.

Eighth District (W8—) includes the States of Ohio and West Vir-

ginia, all the counties in New York not in the Second District, all the counties in Pennsylvania not in the Third District, and the Lower Peninsula of Michigan.

Ninth District (W9—) includes the States of Colorado, Illinois, Indiana, Iowa, Kansas, Kentucky, Minnesota, Missouri, Nebraska, North Dakota, South Dakota, Wisconsin, and the Upper Peninsula of Michigan.

K4 includes Puerto Rico and the Virgin Islands.

K5 includes the Canal Zone.

K6 includes Guam, Hawaii and Samoa.

K7 includes Alaska.

International Prefixes

All the radio-using countries in the world are assigned, by International Treaty, a letter or a set of letters to be used as the initial letter in their call signs. A complete list of the International Prefixes will be given in RADEX next month, but here we give a short list of the most common assignments.

The letters K, N and W are assigned to the United States. Gt. Britain has the letter G, Germany uses D, Italy has I, Japan has J, and the letter F is used by France. All the other countries use groups of letters, as, for example, Mexico, China and Burma share the letter X, and Colombia, Haiti, Dominican Republic, Vatican State, Siam and others share the letter H. Watch for the complete list to appear next month.

The Spanish Alphabet

Familiarity with the pronunciation of the letters of the Spanish alphabet is essential if one is to identify the large number of Spanish-speaking stations on the air. It is given below:

A, Ah	F, Ef-fay
B, Bay	G, Hay
C, Say or thay	H, Ah-chay
D, Day	I, Ee
E, Ay	J, Ho-tah

K, Kah	S, Ess-say
L, El-lay	T, Tay
M, M-may	U, Oo
N, En-nay	V, Vay
O, Oh	W, Doo-ble-vay
P, Pay	X, Eckis; ay-kis; ek-key
Q, Koo	Y, Yay
R, Air-ray	Z, Zed.

These pronunciations are given the way they sound on the radio and may not agree with Spanish textbooks. Slightly different accents are heard in different countries, which accounts for the difference in pronunciation of some of the letters.

The Spanish numerals, also very important, are given below:

One, Oo-no	Six, sase
Two, Dose	Seven, Sate
Three, Trace	Eight, Oh-cho
Four, Koo-ah'trow	Nine, Noo-ay-ve
Five, Theeng-ko	Ten, Diez

Amateur Lingo

Radio amateurs have a lingo all their own and anyone who listens in very much should become familiar with some of the expressions used, such as "OM", meaning "Old man," or "YL," meaning "Young Lady." Amateurs must be good diplomats because every feminine operator is a "young lady" regardless of her age. An amateur's wife is his "XYL."

The most common term heard is "CQ," which is a general call to any station. "73" is the ham's way of saying "best regards" and "vy 73" is "very best regards."

To save the trouble of sending a lot of dots and dashes many words are shortened in code transmission, and these short forms are often seen in print. A few samples are "xmitter," "xmission," "xtal" for transmitter, transmission and crystal respectively. "DX," is a shortened form for "distance." The word "schedule" is often spelled "sked."

Your is "ur." Thanks is "tnx." Good is "gud." From is "de." And is "es." The letters "FB" mean "fine business," or, in other words, "very good," as a "FB receiver." "Hi" is a laugh in code. The seldom-heard "88" means "love and kisses."

An operator is an "op." His typewriter is a "mill." His transmitter is "junk" or a "rig." The aerial is a "Sky wire" and the aerial poles are "sticks." His hand is his "fist."

A QSO is communication between two stations.

A QSL is an acknowledgement, as a QSL card, which verifies reception of a transmission.

"CUL" means "See you later," and "CU agn" means "See you again."

A QRA is a station's address.

CW means "continuous wave" and ICW stands for "interrupted continuous wave." CW and ICW are two forms of code transmission.

Commercial operators use the symbol A1 for continuous wave, A2 for interrupted continuous wave, and A3 for voice emission. Condition "A" is inverted modulation or "scrambled speech," and Condition "B" is intelligible speech.

QSA and R Codes

The R code describes the volume with which a signal is heard.

- R1 is a signal that is barely perceptible.
- R2 is a very weak signal.
- R3 is a weak signal.
- R4 are signals of fair volume.
- R5 are fairly good signals.
- R6 are good signals.
- R7 are moderately strong signals.
- R8 are strong signals.
- R9 are extremely strong signals.

The QSA Code is used to describe the understandability of a station's signal.

- QSA1 is a signal that is unreadable.
- QSA2 is one that is barely perceptible. A word can be understood now and then.
- QSA3 is understandable with difficulty.
- QSA4 is a signal that can be understood with practically no difficulty.
- QSA5 is perfectly understandable.

Some persons describe radio signals further by employing the S and

X symbols, S to indicate fading and X to indicate static, in this manner:

S is slight fading.

SS is deep fading.

SSS is a complete fadeout.

R is rapid fading (fluttering).

X is slight static.

XX is bad static.

XXX is very heavy static.

The letter N indicates that either fading or static was not present.

These symbols are written like this:

(a) QSA5, R7/S/XX

(b) QSA4, R7/N/N

Example (a) means that the station had a perfectly understandable signal at moderately strong volume, with slight fading and bad static. Example (b) means the station was easily understandable at quite strong volume, no fading and no static being present.

Reply Coupons

When writing to foreign stations, an International Reply Coupon should be sent to pay return postage; pennies or stamps should never be sent because they are no good outside our own country. Reply Coupons cost nine cents each and can be purchased at any post office.

When buying Coupons be sure they are properly stamped. The postmark should be applied to the left side of the Coupon, above the words *Timbre du Bureau d'Origine*. They are void if not correctly stamped.

The new Laredo, Texas station on 1500 kcs, KPAB, is expected to come on the air about the first of June. Studios are in the Hamilton Hotel.

TIME CONVERTER

The RADEX Map of the World with Time Converting Dial is the most useful accessory any radio fan could have around. Just a twirl of the dial shows the correct time at any location in the world. No calculation is necessary; the dial does all the work.

**You Can't Get Along
Without It.**

The price is only

25c

(26c in Ohio)

From Singapore

Three stations in Singapore are operated by the British Malaya Broadcasting Corp., Ltd., on Thomson Road. In the broadcast band is ZHL on 1333 kcs, and on shortwaves are ZHO on 6012 and ZHP on 9530 kcs.

ZHO, with 400 watts power, relays ZHL on Mondays through Fridays, inclusive, from 5:40 to 9:40 a.m., on Saturdays from 5:40 to 9:15 a.m., and on Sundays from 5:40 to 7:40 a.m.

ZHP, also using 400 watts, relays ZHL on Wednesdays from 12:40 to 1:40 a.m.; on Saturdays from 12:25 to 1:40 a.m., and on Sundays from midnight (Saturday) to 1:10 a.m. All times are EST.

ZHL, on 1333 kcs with 2 kw power, transmits on Monday and Tuesday from 5:40 to 9:40 a.m.; on Wednesday from 12:40 to 1:40 a.m., and from 5:40 to 9:40 a.m.; on Thursdays and Fridays from 5:40 to 9:40 a.m.; on Saturdays from 12:25 to 1:40 a.m., from 5:40 to 9:15 a.m., and from 10:40 p.m. until 1:10 a.m. Sunday; and on Sundays from 5:40 to 7:40 a.m.

Some of Our Readers' TROUBLES

• • • *By the* TECHNICAL EDITOR

Local Interference

I HAVE a 1938 11-tube Super-Sky-rider and experience interference from WOR over the broadcast band. I took the set to my dealer but he has been unable to give any help. I was told to bypass the A. C. line to ground, but that was a failure. Then someone else told me that a high fidelity set that was sensitive was sure to have some local interference when the local ~~was~~ such a powerful station. I can also hear it where WEAJ comes in, but only when that station is on the air. The short aerial, which I am using, makes no difference.

It is true that a high fidelity radio receiver, when tuned to the broadcast band, lacks sharp sensitivity unless the "distance" switch is used. A broad band is necessary to pass all audio frequencies and, therefore, interference is to be expected from stations operating close to the one being received. When the interfering station is a very powerful one, then it is apt to be heard when stations from a distance, but adjacent on the dial, are tuned in. However, the interfering station should not be heard all over the broadcast band dial, and not at all on the short-wave dials. Sometimes, when a station is being heard, interference from a strong local will be picked up because of some combination of frequencies or harmonics that may exist at that particular setting. This matter of repeat or image frequencies as well as harmonics and interference could fill a thick volume, and can scarcely be scratched on the surface here.

Strong local stations, because of their great signal energy, force their way into the pre-selector stage

and first-detector of many receivers. The use of a short aerial seldom helps, for it will still bring in the local with a strength that remains proportionally balanced to distance signals.

In our opinion, a good wave trap usually offers the easiest solution to these vexing problems when the set itself is not at fault. Since station WOR operates on a frequency of 710 kilocycles, a good wave trap made to cover a band of from 500 to 800 kcs., or the long-wave half of the broadcast dial, should prevent this interference. There are standard wave-trap types with shielded coil circuit and screw-driver adjustment, as well as a good dual wave-trap having both series and parallel circuits and double knob adjustments. In either case, a trap is connected in series with the aerial leadin, and the adjustments tuned so that the interfering signal is heard at minimum intensity when the dial is tuned directly to that station. The trap, fully adjusted, is left in the aerial circuit and will not prevent the normal operation of the set at other frequencies.

More Pre-Selectors

I have a Zenith 9-tube, 1938 receiver, but wish to use a pre-selector. Can I make one from the parts and tubes in my old Crosley midget 4-tube set? Please give me a circuit using this old receiver.

We doubt whether the Zenith 9-tube set will be helped by using a pre-amplifier unit. The Zenith now has plenty of sensitivity and volume, and an additional pre-selecting stage or two, while increasing the strength of the signal passed into the set, will also raise the noise level to an unsatisfactory degree. We feel that this idea might not be so satis-

factory. Of course, you will get more and stronger signals with a pre-selector, but with this excellent receiver you now have very good sensitivity and volume.

The parts and tubes in the old Crosley might be made into a pre-selector. You could use the power unit to provide filament current and plate potential. The one stage of radio-frequency amplification and first detector would provide the signal amplification. But the circuit is such that everything would have to be altered, and there are no coils and tube arrangements that seem satisfactory. We think the idea not worth the while, for, after all, a pre-selector must be designed and arranged carefully for maximum signal pick up. Its present coils would tune the broadcast band only, while your receiver covers all waves.

Battery Sets

I have been trying to find some diagrams of battery operated broadcast receivers. Could you supply these? I am also interested in building a treasure locator that can be made of radio parts. Can you help me?

We might be able to help you out with copies of circuits, but there are many types of battery operated broadcast receivers. It might be that you are interested in small, simple sets, or complicated super-heterodyne receivers. The former are easier to construct. This magazine, as a rule, does not investigate or design such circuits; leaving that field to other more specialized publications. But with a little more data from you we shall be glad to recommend one and explain its assembly. In the meantime, however, we suggest that you examine Meissner's small booklet, "Build Your Own," which sells for about one-half dollar. Also, the more modern battery sets operate from a 6-volt storage battery and use a vibrator to create

high-potential alternating current for the set.

Several so-called treasure locators have been built and described from time to time. They usually operate with a small loop antenna and portable receiver fitted with a registering meter instead of headphones or speaker. Any mass of metal buried below the surface of the earth will cause the needle to take a dip. A portable transmitter also is necessary. Some devices have been fairly truthful in their response to buried metal, and even water pipes can be located. However, unless one knows that a considerable mass of treasure is buried in one spot, the device will indicate tin cans, pipes, and sewers, and keep you pretty busy digging, particularly in some localities. We suggest you write the Editors of a few of the popular scientific magazines for a list of articles appearing in their publications describing treasure locators.

"Wings" Receiver

I have a Goodyear "Wings" receiver. What is the best antenna to use with this set? Please tell me who made this set, and give their address.

If you live in a place where man-made electrical interference need not be considered, a noise-eliminating antenna system will not be required, although the set has a special connection for doublet antennas of that type. We believe that a single wire, No. 14 copper, about 40 feet in length, stretched tightly between two high supports, and with as short a leadin of the same size as may be practicable, soldered to one end of the flat top wire, will provide a very good antenna. A good ground, of course, must be used. See a recent article in RADEX on the location and use of grounds.

The "Wings" receiver is made by the Belmont Radio Corporation, 1257 Fullerton Avenue, Chicago, Ill.

These sets work very nicely, but tubes and battery require watching. Have the tubes tested and make sure the socket contacts are bright and tight whenever the set seems to weaken or give trouble. The 6-volt battery should register its full potential at all times.

Erratic Volume

When I touch the local-distance switch of my R. C. A. 46 receiver, the volume drops, but when I place my hand near the first R-F transformer the volume rises. This transformer is a new one, and the switch seems to test perfectly. Please tell me what is wrong.

There is a lack of properly balanced capacity and inductance in this circuit. When you replaced an old R-F transformer with the new one did you procure one of the proper size to match the rest of the set? Are all the contacts, soldered and otherwise, well made? We think the R-F stages require re-aligning if the coil winding and its connections are as they should be. The set can be realigned by adjusting the screws at the trimmers on the gang tuning condenser. Pick out a station between 600 and 700 kcs. and adjust the trimmers for maximum response. Adjust at the other end of the dial for a station near 1,500 kcs. Repeat this operation several times for perfection of alignment. Check the R-F tubes, and sometimes a type '35 tube used as replacement will improve reception. Failing in these things, the wiring of the circuit must be carefully checked for shorts or breaks. The local-distance switch also may be shorted in some way or improperly connected in the circuit.

Zenith Out of Line

On my Zenith 5-S-119, all short-wave stations sometimes vary as much as two divisions of the "second hand," and each shows almost the same amount of variation. This is not due to back lash or dial

trouble. Also, a few 31 meter stations come in again around 9.0 megacycles. Occasionally, when the power is on full, there is considerable vibration.

When there is a regular variation in dial readings, or all stations seem to be "off" an equal amount in their dial readings, it is reasonable to believe that the dial is out a small fraction, or that the alignment of the set is such as to make it appear that the dial is misplaced. Of course, the proper thing to do is to see a good service man and have the trouble remedied quickly and easily. A set of this type, without R-F amplification and only with detector tuning circuits, can get out of step by mechanical changes in tuning adjustments. This set has a wave trap (on rear of chassis) that may require adjusting. With a signal generator a known signal can be sent into the set and its misalignment noted. The generator, set at 1,400 kcs., is used to adjust band "A" by means of the trimmer located in front of the 6A8 tube. Adjust also the antenna trimmer on gang condenser. At 456 kcs. adjust the four I-F trimmers for highest reading on output meter. At 6.0 megacycles adjust oscillator trimmer on the gang for correct dial reading. This will locate the 6,000 kcs. point exactly on band "B." With signal generator at 18 megacycles, and set switched to band "C," adjust the short-wave trimmer in front right-hand corner next to oscillator coil. Then readjust the broadcast band "A" at 600 kcs., by using the padder trimmer at left of rear-half of tuning condenser for greatest output signal reading on the meter. Readjust broadcast trimmer at 1,400 kcs.

It is believed that a careful re-alignment will bring this set back to its proper dial readings, but the stations that are supposed to come in on 31 meters and then repeat on 9.00 megacycles might not be elim-

inated. If they are powerful stations this repeating might be difficult to eliminate if a careful readjustment does not remedy the trouble, because of the limited pre-selection facilities of this set.

All-Wave Antenna

Please tell me about my all-wave antenna used with my Zenith 1938, model 7-S-258. This antenna fails to work well on 16, 19, 25 and 49 meters. But it does bring in stations nicely on 31 meters. So I discarded the antenna and put up an aerial 125 feet long which works well on all wave lengths. Is the trouble in the set or antenna?

Certainly you have made a good test on this receiver, for if it brings in stations well on a long antenna, and not so good on the all-wave aerial, it proves that the set is satisfactory and that the all-wave antenna does not respond on all frequencies. Of course, the 31-meter band in the radio spectrum is one of the most popular on short waves for it gives the most consistent reception in day and night. The shorter bands, such as the 20 and 10-meter regions, are temperamental at times and cannot always be depended upon to bring in stations. Your tests might have happened at those times.

Usually, a single-wire antenna, from 40 to 60 feet in length, and as high as practicable, is sufficient for all wave lengths. The all-wave, however, is supposed to be scientifically cut to resonate at all frequencies or harmonics thereof, and, therefore, should pick up stations on all waves. The antenna design, however, is critical, and sometimes cannot be depended upon to work so well. You have not stated the type or make of antenna being used. For the Zenith, a doublet, each leg of which is 30 feet in length, with twisted noise-eliminating lead-in of any length, will be suitable. Set your all-wave up north and south,

or northeast by southwest, instead of east and west, for European reception. But the single-wire should be pointed directly toward the stations it is desired most to receive. The receiver is not at fault, as long as reception is good on the single-wire aerial.

Dial Reading

I would like to know how to read my dial. It goes from 1.7 megacycles to 6.00 megacycles. I understand the other dial, which runs in kilocycles, such as 550 to 1,700.

Radio dials are now graduated in kilocycles, but some years ago everything was in meters—the measure of wave length. Now the measure is by frequencies or number of waves per unit of time—a second. Because radio waves have high frequencies they are grouped into units of 1,000 cycles each. These are called kilocycles, and 550 kilocycles means 550,000 cycles. This makes an unwieldy number, so we say kilocycles instead. For low frequencies, such as our lighting current, we use cycles only, as—60-cycle alternating current (A. C.) Now, as we get into the shorter waves, the frequencies become very high, and if we used simply the term “kilocycles,” the number would again become unwieldy. So we group kilocycles together into a thousand each, and call the result megacycles. For instance, 2 megacycles is 2,000 kilocycles, or 2,000,000 cycles.

On your dial the longer waves, or lower frequencies, such as the broadcast band, will be given in full kilocycles, such as 550 to 1,700. Sometimes the last zero is dropped, and the dial will read from 55 to 170. A station that comes in on 1140 kilocycles will be found at that point on the dial, or perhaps at 114, as the case may be.

Now, on the short-wave dial, where the kilocycle figures would take up too much space, you will

find the graduations given in megacycles. A station at the high end of the dial (in meters) that operates on 1,700 kilocycles will be found on 1.7 megacycles, which is actually 1,7(00) kilocycles. At the other end of the dial, the 6.0 means 6 megacycles or 6,0(00) kilocycles. A station that is listed in RADEX as operating on 9.65 megacycles will be found at 9.65 on the short-wave dial, or at 9,650 kilocycles on a dial that is not graduated into megacycles.

Band Spreading

Can I replace the present I-F transformers in my Grunow 640 receiver with Meissner Band Expanding Iron-Core Transformers? I wish to use variable selectivity with this set so I can work on the congested amateur bands. Do you advise a Transfilter or crystal so that I can separate the code signals and pick some of them up for long distances? The chances of logging stations below 160 kcs., as the set is now, are just about nil. Will the same power supply in this set carry the load of an added beat oscillator and two-stage pre-selector?

Of course, in any case, the I-F transformers of a receiver can be replaced with more selective coils. After all, the I-F transformers are more or less the same in all makes and designs. But, when you speak of band spreading, you are getting into something different. Good band spreading consists, among other things, of breaking up the tuning circuits into smaller units covering less kilocycle ranges, so that the tuning condenser will have a wider movement between the coil limits. This tends to separate stations farther apart and thus permit congested stations to appear in the opened channel. For this kind of reception the I-F coils must be very sharply tuned for the prevention of interference. In your case the transformers must be peaked at 465, but some few of these models were

peaked at 490 kcs. instead.

The band spreading transformers of which you speak may not be the type for band spreading CW and short-wave work. A band expanding iron-core I-F transformer usually is a type required for broadcast reception, when a wide band with low selectivity permits most of the audio frequencies to pass by with what is termed high-fidelity reproduction. The change over from high-fidelity on the broadcast band to sharp CW on short-wave is accomplished electrically. The use of these coils will give selectivity that will bring in code signals on less than 200 meters. In addition to the type you mention the Miller Company has a variable-selectivity coil which also gives the high degree of selectivity necessary for good DX reception, and a band width great enough for the reception of high-fidelity programs from powerful broadcast stations. A simple electrical method of changing coupling does not require mechanical control of adjustment, other than a toggle or snap switch.

Other than improving the selectivity of your set with these types of coils, we cannot recommend other means of band spreading in the sense of providing wide tuning channels to separate congested short-wave stations. Such would require many circuit and unit alterations, and the effort would fail to produce the results desired by you. A crystal might be installed in the I-F circuit so as to get additional sharpness of tuning, but at considerable loss of fidelity on voice. It can be used in your set because of the 456 kilocycles intermediate frequency.

A one-tube beat oscillator, connected to this set, so that true CW signals can be read, will not greatly overload the power supply. It is likely that a two-tube pre-selector also will operate without too much drain, but the addition of both

units, or three tubes, will, in our opinion, prove to be too heavy a load on the limited resources of this receiver.

Unbalanced Set

I have a D-50 Lafayette receiver which has been rebalanced twice. It stays put about 3 or 3 days and the dial then goes off as badly as ever. The stations on the short-wave dial will move up or down, either way, as much as 15 kilocycles, all the time, making it necessary to keep the dial turning slowly one way or the other. Is there any device that I can use to keep this set in balance?

It is apparent that this receiver has a bad case of dial "creeping." Not that the dial actually moves, although that often is the case when the dial and driving mechanism is loose, but the frequency of the signal being received changes slightly either above or below the proper rating. It can not be said that such trouble is a fault of the receiver or its design, but is a defect that might come to any if certain situations arise. Frequency "shifting" may be due to the oscillator tube in your receiver, and replacement with a new oscillator, or combined oscillator and detector, might solve the entire problem. Shifting of this kind is more noticeable on the short waves than on broadcast waves because the former are sharper, and a slight frequency variation between the oscillator rating and the incoming signal will be registered as several divisions of the dial, particularly if the I-F transformers pass a broad signal, as they actually do in high-fidelity receivers.

Among other faults are the failure of a coil in the oscillator circuit; dampness in a coil which must be removed by careful drying; slipping oscillator tuning condenser; and defective or loose I-F transformer windings. Since trouble of this kind calls for careful servicing,

we suggest that you take the set to a good radio technician who has suitable measuring equipment, or communicate with the manufacturer with a view of obtaining factory examination, repair or replacement of the necessary parts.

Short Waves Dead

I have lots of trouble in getting anything at all on the short-wave band of my Stewart Warner model 147 all-wave set. The set has been looked over and found all o.k., but to me it does not bring in the short-wave stations. I have a good all-wave antenna and ground on the cold-water pipe. What is wrong?

Since the set has been examined and found to be in a satisfactory condition, we are inclined, as always, to wonder if the operator has had experience in picking up the short waves. It is much more difficult to tune in the short waves than the usual broadcast-band signals that are broader and easy to locate as the dial is turned. Then, too, short waves do not come through consistently well every day, and there may be times when you could not hear signals with a much more powerful receiver. However, sooner or later, one is certain to hit upon short-wave signals and begin to log them day after day.

Perhaps the most common failure of a set to pick up short waves is due to trouble in the oscillator circuit. Even if a set tests perfectly, unless the high frequencies are carefully checked, it will be dead on those frequencies where the oscillator fails to function and set up the beat or intermediate-frequency that causes the receiver to reproduce signals.

Failure of an oscillator on short waves may be due to the tube—and this is the first consideration. Although a tube will test o.k. it still may be failing on short waves. The contacts in the wave-changing switch will, if dirty, prevent the os-

illator from functioning properly. A worn or loose switch with imperfect contacts is worse. Clean and adjust the tension on the spring contacts. Shields on the oscillator and tuning coils, if loose or misplaced, will be at fault. Your service man should be able to examine all these units and remedy the faults. He also will be able to determine whether the oscillator functions as it should over all or just a part of the short-wave tuning range. By testing the tube, coils, shields, by-pass and grid condensers, certain resistors, connections and associated parts, he will soon locate the trouble.

Distorted Reception

Recently I purchased a new G. E. radio set, model F. E.-62, which has three bands. On the broadcast band I get good reception. There is a medium-wave band that always is noisy even when the other bands are not, and which never brings in any stations. What should I get on this band? On the short-wave band I do pretty well, but I would like to know what are c.w. signals and also the signals sound like voice but cannot be understood under any conditions.

The broadcast band is the longer wave band and is less selective but seriously crowded with stations. The longer the radio wave, the less selective it is. Therefore, there is apt to be more interference. Now, when two powerful stations are operating very close to one another, when the dial setting is about 10 kilocycles or less, the different wave frequencies of each interfere and set up "beats." This rising and falling heterodyne beat causes the interference that makes signals indistinguishable. Nothing can be done about it except the use of wave traps in the case of powerful nearby transmitters. Of another form of distorted voice we shall make mention later.

On your silent medium band you should find mostly amateur, police

and aviation signals, both voice and code. This band, as a rule, is a bit more noisy than the broadcast band, since its limits fall within the range of a considerable amount of static interference. However, if the band is inoperative but very noisy it indicates that something is wrong. The band is alive with signals all the time, and if you fail to pick them up it is time to look for trouble. A defective band switch can be the entire fault. It, too, will produce much noise. Clean the contacts, and increase the tension on the points so there can be no frying and grinding noise from this source. A defective oscillator tube, failing to oscillate on the frequencies in this particular band, can cause a dead portion to appear in one of the bands. It is not normal to have one dead band, and a good service man, if available, can remedy it. We suggest, however, that a substitution of the oscillator tube first be tried. Try two or three tubes before giving up the attempt *after* the switch has been cleaned and adjusted. By-pass condensers and resistors in the oscillator circuit must also be examined carefully.

The short-wave band often is the quietest band, since much static appears on longer wave lengths outside of this band. It is a selective band, and tuning is sharper. The 31-meter band usually is the most sensitive to normal radio reception. On this band you will hear many code signals—dashes and dot. They are the so-called C. W. signals—modulated, of course, so you can hear them. If you had a beat-oscillator unit attached you could hear additional C. W. signals. These are known as continuous-wave or C. W. Voice, too, is continuous wave, but is modulated with voice waves so you can hear it. A pure, continuous wave cannot be heard on the ordinary set. Now, on these short

(Please turn to page 31)

Final Meeting of the DX CLAN

• • • By CARLETON LORD

OF ALL the pranks played by radio for the mystification and diversion of its devotees, the vagaries of daytime reception stand well in the foreground. As unpredictable as a woman's mind, the radio waves keep listeners guessing constantly.

Ask the average DXer what he can expect to hear at mid-day, and he will probably indicate definite limits of reception by a rough circle at no great distance from his home. But for every instance where this rule holds good, another listener will be able to cite a case which will disprove the notion.

Of course, most listeners don't expect to dial great distances while the sun is shining. Broadcast band signals simply don't have the carrying power during the daytime. But it is frequently rather startling to observe the unusual catches which some DXers are able to log before sundown.

Cortlandt Parent, Jr., Peekskill, N. Y., brought up the subject in the April RADEX, and a number of other readers have since commented on their daytime dialing experiences.

"Yesterday afternoon," writes Leon Grossman, 52 O.K. Terrace, Rochester, N. Y., "I tried to see how many stations I could hear on the BCB. Besides WHAM, WHEC and WSAY here in Rochester, I heard WGR, WSYR, CKCL, WICC, WCLE, WPRO, WSM, CFRB, WLW, CKAC, WSB, WJR, WJZ, WCCO, WHAS, CBL, CBF, WDBJ, CRCY, WCFL, WCAU, CKTB, WMBO, WFBL, WBNY, WSVS, WKBW, WCKY and WBRY. All this was between 1 and 4:30 p. m."

"In reading over the article in the April RADEX," recalls A. M. Han-



Fanny Brice has scored an overnight hit on the NBC Good News broadcasts, with Baby Snooks, a mythical character which she created for the stage more than 17 years ago, and revived on the air.

kins, 1006 Ligonier St., Latrobe, Pa., "you mentioned unusual reception on the broadcast band in the daytime. The other day, between 12:15 and 2:30 p. m., I was able to dial 50 stations on my nine-tube 1938 Zenith receiver. These ranged all the way from East Coast stations in New York and vicinity to as far west as Des Moines, Iowa, and Southwest to Nuevo Laredo, Tamps. Some of the better catches included in the total were WSM, WPTF, XENT, WAVE, WRC, WHO, CKLW, WTIC, WBT, WXYZ, WBLK and WJSV."

Generally speaking, satisfactory daytime reception is limited to a maximum of a few hundred miles

for the most powerful stations, and at certain times of the year this range may be reduced by more than a half. Of course, it is frequently possible to tune transmitters at greater distances, but reception under average conditions is so poor that the dialing is wasted effort.

On a few rare afternoons, it is possible to reach out incredible distances and pull in acceptable signals from stations as much as a thousand miles away. Many a DXer has been amazed by healthy carriers from medium-power transmitters far beyond the normal daytime range, and even the small 100-watters have demonstrated their ability to push a signal a couple of hundred miles with fairly satisfactory results.

While there is apparently no way to establish an explanation for this phenomena, and certainly no way to predict when such rare conditions will exist, exist they do and the afternoon listeners frequently are able to reap a real harvest of DX catches.

Final Season Reports

As another DX season draws to a close, listeners are able to check back on their dialing during the winter months and compare their results with those of other years. Some DXers are able to show many new catches added to their logs during seven or eight months of activity, while others, having been less fortunate, can point to but a few rewards for countless hours spent at the dials.

When it comes to passing judgment on the past winter, listeners conform to usual habit by failing to agree in their verdicts. While perhaps a majority are of the opinion that the season was not very satisfactory, there are many who do not hesitate to sing the praises of general conditions.

One DXer who has plenty to show on the credit side of his DX ledger

is Philip Nichols, 83 Prospect St., East Hartford, Conn., who writes:

"In spite of predictions to the contrary, the past season has been the best in several years. Up to the middle of January, reception was fine, and since then there have been a few days when stations on the West Coast and in Hawaii were heard better than ever before. The mornings of January 3rd and 4th were the best for TA reception since the boom days of 1933. Stations like Eiffel Tower, Hilversum, and the usual run of French and German broadcasters could easily be heard. During the December frequency checks, reception from the West was wonderful, with all three Hawaiian stations showing exceptional strength and coasters like KPQ, KORE and KUJ being heard for the first time in several years.

"All in all, it has been a very successful season from all points of view, and I believe that it has renewed the interest of many old-timers. So far, I have added 65 veries to my collection, bringing the total to 935, and the season's goal of 950 is in sight. Next year, I hope to run it over the thousand mark."

"Sunspots or not, this has been the best DX year my ears have ever encountered," gloats Warren E. Winkley, Hughson, Calif. "Between September 8th and March 19th, exactly 290 new stations were heard on my four-tube Lafayette receiver, bringing my total to over 615. Some of the better verified catches of the year were HAL, Budapest, Hungary; WPRA, Mayaguez, P. R.; KINY, Juneau, Alaska; and WFOY, St. Augustine, Fla. The new 2ZB (1130 kcys.) in Wellington, N. Z., has been heard as soon as KSL signs off and is held until WJJD comes on three and three-quarters hours later. A new station in New Zealand on 1430 kcys. is also heard well. Just yes-

terday morning WPAR and WBLK—both 100-watters in West Virginia—were louder than reliable WHIS on their regular, early-morning schedules. WNEW and CKLW were quite loud, as were WAIR, WNAC and WJSV.

"Incidentally, after spending two years in hospitals and beds as an aftermath of pneumonia, I expect to open a radio repair shop here in the near future. Before I took up DXing, teaching was my aim, but now it's all radio. This town—450 population—is just eight and a half miles from Modesto, which is the second town in the United States on the basis of its per capita wealth. The farmers there are well-fixed financially and are able to pay as they go. A radio shop should go well there and I'm going into it just as soon as I finish my radio course."

Reception Erratic

"Reception here in Richmond has been rather erratic this season," relates James R. Fitzgerald, Jr., R. F. D. 4, Richmond, Va. "Interference has been heavy and signals weak. However, on the few nights when reception was good, it was really excellent. Reception from the South—including Mexico, South America and, of course, Cuba—has been good all winter, but signals from other directions were not so good. Many Cuban stations nightly cause interference with a number of our large broadcasters. Where once we enjoyed trouble-free reception, only a heterodyne greets us now. I certainly hope that somehow this condition will clear up, so we can again listen to our favorite broadcasts."

"Latest catches here are KOL, KLS, KJBS and CFAC," reports George Nahas, 147 Seeley St., Brooklyn, N. Y. "All but KJBS have verified, while other new veries include WJBO, WGPC, WOMI,

KWYO and CMBC. On its veries, CFAC advises that future DX programs will be broadcast from 2 to 3 a. m., EST, on Monday, Wednesday and Friday. Apparently the political broadcasts are not limited to this country, as on February 26th I heard CMX, CMCK, CMQ and CMBC hooked up for a spiel on Cuban politics. Also tied in were short-wavers COCM, COCQ and COCO."

"There is little in the way of DX news here," admits Samuel A. Meyer, 83 Canterbury Road, Rochester, N. Y. "My letter to XEJP, which I heard on 1120 and 1125, was returned marked in substance 'no such animal'. Apparently they have changed call or have been deleted, although I heard the call correctly and notice that Carroll Weyrich also reported hearing them. XEDF was not heard on their March 12 broadcast, although reception was A-1 and their 100 watts should have come through. XERB hashes with XEPN nowadays, and XEBG on 820 sometimes reaches R5-6 peaks around here. XERA is now signing off at 1 a. m., with XEPN closing down a half hour later. The last 30 minutes of the program usually consists of huapangos and sones huastecos, very good recorded typical Mexican folk music."

DX Resumes

Of particular interest to all DXers are the reports which record the progress which various listeners make along the midnight air lanes. The old timers relate new additions to their logs, advise of their success in reaching seasonal goals. Younger listeners report advances over shorter periods, and everyone is able to compare his progress with that of other DXers in the same relative classification.

When good reports of fine catches are sent in, the writers have rea-

son to be proud of their records. And the fellows who haven't done so well in any given year find worthy goals at which to shoot, frequently find in other reports the incentive to increase their own efforts.

"I have been a DXer since 1928," states John J. Oskay, R. F. D. 1, Box 85-V, Piscatawaytown, New Brunswick, N. J., "and RADEX sure has helped me to log many stations. I used to DX with a home-made one-tuber, and in one season heard 356 stations as far away as KFI and LR5. In 1935 I used a National SWDC34 and the next year a Hallcrafters Sky Chief. I now have a Sargent 11AA model, which is a five-tube TRF job which sure performs well. My BCB log to date shows 665 stations in 15 countries on three continents. All 48 states have been heard and I have 22 stations 2000 miles away, 37 over 3000 miles distant, and four which are more than 5000 miles over the horizon."

"I began DXing on January 5, 1935," admits Merlin N. Steen, R. F. D. 6, Decorah, Iowa, "with a six-tube Kolster receiver. My present log stands at 613 stations heard and 52 verified. Some of my best catches include CMOX, CMHJ, KLPM, KDLR, KPQ, KORE, WNEL, KRSC, WKAQ, XEMO, WFOY, WLAK, WILM, WAGM, WPRO, WCAX and KOH. I am interested in compiling a list of transmitter locations and the names of buildings in which studios are located."

"I started the extremely interesting hobby of DXing on October 23, 1936," advises Henry Dahl, 101 W. Philadelphia St., Detroit. "From that date until the 11th of the following April, I logged 154 stations. My little four-tube set then broke down and I gave up the hobby until March 5th of this year. Of course, my log is just a drop in the bucket compared with those of some listen-

ers, but I think I've had just as much enjoyment as many of the fellows with multi-tube monsters. Those big jobs can't help bringing in the distant stations, but I get fun out of working for mine. Although I have never heard a SA or a TA, I have received some fairly good catches which include KJBS, KFKA, KGCU, KEX, WTAW, WRR, KWYO, WJBY, CJRC, CMCD, CMBX, CMBZ, XEMO and KJR."

"My present receiver is a 1936 General Electric with seven metal tubes," relates John L. Tate, 612 Halifax St., Petersburg, Va., "and I think that it has given some very good results. I began my DXing in January of 1937 and to date I have heard 500 stations on the broadcast band. With the exception of TGW, all are in North America and the surrounding islands. My best catches are KDLR, KWTN, KCRJ, KID, KRMC, KABR and last, but by no means least, KXRO in Aberdeen, Wash."

"The Cubans and Mexicans really pack a wallop here. CMCB completely blots out everything on 1230 keys, while CMCO has no trouble getting out on the crowded 1200 channel. CBF is received with the volume of a small station on nights when XENT is going good."

Another DX Den

The May issue of RADEX carried a description of the DX den which George Nahas of Brooklyn, N. Y., is planning. At the time it was mentioned that the listener with facilities available for such a venture is indeed fortunate. Latest reader to be placed high on our list of DXers to be envied is E. M. Vickers, Box 121, Coral Gables, Fla.

"We recently bought a new home here in the Gables," he writes, "and plan to, move in about the second week in April. According to my present plans, this is going to be a DXer's paradise. We have a two-

room building at the back of the lot and it is going to be used for radio exclusively. I'll have room to stretch aerials 200 feet in one direction, 150 feet in another, and I'm sure going to have several of different types. At present I'm hard at work on the equipment which will be used—transmitter, receiver and so on. The biggest item is going to be a strictly broadcast band super with 2 RF stages and all the fixings."

"Here are a few schedules of stations in this territory," informs Clark Sudduth, 613 Spain St., Baton Rouge, La. "WJBO in this city broadcasts daily from 7:45 to 1 a. m., EST, daily, and has a special DX program from 3 to 5 a. m., EST, on the second and fourth Sundays of each month. KALB and KVOL broadcast from 7 a. m. to sunset daily and from 9 to 10 p. m. on the second and fourth Thursdays."

"I have just received a verie from TILS, San Jose, Costa Rico," exclaims Clifford Drain, 617 Camden St., Parkersburg, W. Va. "I heard this station last December 27th between 2 and 6 a. m., EST. Their correct frequency is 880 kcys. Late-ly I have heard CMHK, Cruces, Cuba, on 1330 kcys during the evening hours, as well as CMJC, Camaguey, Cuba, on 1390 kcys. Both verified promptly and the former appeared to be quite anxious to receive reports from other listeners."

"There is one Cuban which you haven't listed—CMJW in Camaguey on 1340 kcys. They sent me a nice verie and nearly knocked me over by enclosing an IRC coupon so I could write to them again. They list themselves as CMJW, 'La Voz Del Pueblo,' Apartado 322, Camaguey, Cuba, 1340 kcys, 300 watts."

"According to a correspondent living in Mexico City, there are two unlisted stations down there. One is XERC, Bolivar 52, Mexico City—the other XEFZ, Rosa 92-A, Mex-

ico City.

"Have been wondering if any of the RADEX family heard HJ1ABB, Barranquilla, Colombia, on 1080 kcys on February 20th or 27th between 2 and 3 a. m., EST. I heard them on two consecutive Sunday mornings. Also heard another SA on 1390 kcys at the same time, but wasn't able to get their call. The San Salvador station, YSS, is on 630 kcys—not 640. I heard them clearly between 2 and 2:30 a. m., EST, on the morning of February 14th."

Questions and Answers

"Has anyone reported on WHAL, the Saginaw, Mich., station on 950 kcys?" queries Edmund Osoke, 12217 Mendots St., Detroit. "Are they supposed to be on the air yet, or haven't you heard anything about them?"

"Can any Radexer help me identify a Mexican station on 870 kcys which I heard between 3 and 3:30 a. m., EST, March 12th?" asks Jack Welsh, Kingston, Ill. "Another mystery station is a Cuban on 1160 kcys which is heard frequently between 7 and 8 p. m., EST."

"Does anybody know how to get veries from WWJ and WALA?" questions Carl E. Sylvester, Box 213, Yale, Mich. "Although they state in their listing in RADEX that they will verify for return postage, repeated requests on my part have failed to get a response. A friend of mine has had the same trouble with WADC."

A number of DXers have gotten their WWJ veries after addressing their requests to Assistant Manager Ty Tyson. Out at WADC, Bob Wilson and Red Hageman usually are quite prompt in answering DX mail.

According to Clifford Drain, 617 Camden St., Parkersburg, W. Va., the Mexican heard by Jack Welsh on 730 and 980 kcys are respectively XERB at Rosarito Beach, B.Cfa. and XEAC, Tijuana, B.Cfa., while

Vincent C. Stason's unidentified Mexican on 1100 keys is XEL at Mexico City.

Station Data

"We note in the March issue of RADEX that the sign-on and sign-off times for our station are not correct," advises Ralph E. White, Manager, Station CFJC, Kamloops, B. C. "We sign on at 11 a. m., EST, and remain on the air until 1:30 a. m., EST."

"A recent letter from KOKO, La Junta, Colo., gives some information about this new station," notes A. J. Tait, Jr., 225 Jackson St., Pueblo, Colo. "They operate weekdays from 8 a. m. to 11:30 p. m., EST., and on Sundays from 1 to 5 p. m. with 100 watts power. The transmitter is RCA throughout, while a Blaw Knox vertical radiator is used. Correct reports are verified if return postage is enclosed, but they have no station stamps."

"Station WMAZ, Macon, Ga., is now using a new 5-KW transmitter," contributes Henry Dahl, 101 W. Philadelphia St., Detroit. "On an early-morning program on March 13th, they requested reception data on their broadcast. I wrote them a report and received a verification card in short order."

"Station CMHK is one Cuban which verifies promptly," postcards Richard Daneker, 136 E. Third St., Lansdale, Pa. "Their present schedule is 10 a. m. to 1 p. m. and 4 to 10 p. m., EST, daily. Their address is Apartado 79, Cruces, Cuba, and Virgilio Villanueva is the owner. At this writing, I have 415 veries from the United States and 60 more from 30 foreign countries on all continents. These were received during two years of DXing with a 6-tube Grunow receiver."

The new 1000 watt WRC transmitter is now in use, according to David Hill, 1516 Varnum St., N. W., Washington, D. C. David also in-

forms us that the Evening Star Newspaper Company will buy station WMAL. The present licensee is the M. A. Leese Radio Corp., and the operators are the National Broadcasting Company.

Two changes in Australian stations are reported by Alan Hutchison, 15 Embo St., Dunedin, New Zealand. 4SB in Kingaroy, Queensland, commenced transmitting on March 11, with two kilowatts power on 1060 kcs. Station 7DY, in Derby, Tasmania, changed its frequency from 1400 to 1390 kcs.

Mr. Hutchison advises also that 4YZ in Invercargill, New Zealand, 680 kcs., has a permit to increase power to 5000 watts. It is expected the high power will be in use by the first of August.

No Contest

The past season found RADEXers without a Mystery DX Contest to hold their interest during the mid-winter months. For the first time in three years, there was no opportunity to win a Scott, Hallicrafters or Midwest receiver, sets of tubes, headphones and other accessories.

When the 1937 contest closed, perhaps a score of listeners wrote in to advise that they hoped the competition would be repeated. Up to the past January, a dozen or so more made casual inquiries. After it was evident that there would be no contest, there were a few expressions of regret—five or six at the outside.

But while this lack of interest coincided with previously-formed conclusions, the real reason to discontinue the contest was the realization that it was quite impossible to devise a set of rules which would be acceptable to all contestants. Because of the vast size of this country, there was no apparent means by which all listeners could compete on equal terms. The most ingenious system of handicaps and qualifications would still be greeted by cries of favoritism to some other section

of the country. And unless contestants could be sure that they were competing on even footing, there is no sense in having a contest.

Equally disturbing were the results of the two contests which were held. One case in particular found two contestants in one town ending up with identical scores. Suspicious of such a coincidence, an investigation showed that each listener reported the same stations at the same time and with the same program details. Another coincidence, perhaps, but rather a strain on the imagination.

In another instance, it was learned that one contestant had employed the assistance of four members of his family, who tuned three receivers in shifts. Hardly a sporting way of competing, but there was no way of preventing it.

Perhaps the case which made the deepest impression was the one furnished by a fairly well-known DXer. A few weeks after the results of the 1936 contest had appeared, we received what appeared to be a very mild protest. Commenting on the contest in general, this DXer indicated that he was slightly bewildered by the manner in which the final standings and distribution of prizes had been determined. In his particular case, he had submitted an entry which merited a total of some 700 points. While he didn't intend to dispute the decision of the judges, he found it rather difficult to understand how twenty-two prize winners and twenty-six contestants receiving honorable mention had scores which stood between his 700 and the 765 total of Grand Prize Winner S. R. Lewis. It simply didn't add up.

Obviously, such a situation was not to our liking. A total of 700 points would have earned a second-place tie for this listener, giving him a chance at the Hallcrafters receiver.

To have overlooked his entry would have been most embarrassing for everyone concerned.

However, upon checking through the files for the contest, we located his summary sheet and found that he actually had reported on 25 stations, three of which had not participated in the contest. Thus, instead of the 700 points belatedly claimed, he had only entered sufficient material to merit 440 points. And this was substantiated by his own summary sheet. While the individual reports had been forwarded to the respective stations, this contestant apparently had forgotten that the summary sheets were intended for our permanent records—and maybe we weren't thankful for the happy thought which had made this handling a part of the contest set-up.

Scanning the AMATEUR BANDS

● ● ● *By B. L. Ahman, Jr.*

As another season approaches its end, for the broadcast band listener, the "ham hunters" begin to get ready for their big season. The past month has given us some very unusual reception, and many and varied are the stations heard here in the east. When an eastern listener waxes enthusiastic about reception, reception must be good.

Some of the most recent QSL's received were from GI5QX, GM2UU, and CT1QH.

GM2UU sends his old G2UU card, with a purple "M" rubber stamped over the call letters. GI5QX has a green and red card. G6WX in Coventry has an orange and black card showing the spires of Coventry at the left top, and Lady Godiva on the right center. A fine card!

Among the other amateur stations

heard this month were YR5AA, YR6AY, EI6G, EA8AF, OZ9Q, PAOUN, SM6WL, K4ENT, SV1KE, PAOAA, GW8HI, LU7BK and TI2FG.

TG1GC in Guatemala was heard calling Portugal a few weeks ago, in the middle of the band, at about 5 p.m., EST. Since then it has been reported to us that all the Guatemalan amateurs will use TG9-calls.

Julius Orosz of Cleveland now has a log of seventy countries, 542 stations. Julius would like to hear from other amateur tuners, through this column, in regards to the number of countries and stations heard. Some of his outstanding catches are FT4AN, LA1F, SP1DC, KA1ME, SM7YA, HB9J, ZE1JR, CN8AV and dozens of Australians.

The address of VP9L is Warwick East, Bermuda, we are informed by Kenneth D. Morey of Easthampton, Mass. The frequency of VP9L was given on his card as 14100 kcs, but we have heard this station in the middle, and at both ends of the 20 meter band, all in the same night.

Calls Heard

Some of our readers reported too late for us to include their calls in the Amateur Calls Heard Column. Earl Roberts, Shortwave Editor of the NNRC, report the following stations heard on his Super Skyriders: HH4AS, VP3NV, KA1ZL, SP2HH, IIP, OK1FF, GW5KJ, J2NF, J2MI, KA1ME, OZ5BW, ZL3DJ, FA3QV, LA3B and LA8C.

Fred Morris of Toronto, Ont., reports VP1DM, K4FAY, HK3LDC, VK3BZ, VK4VD, VR6AY, HR2A, VK2MO, VK2EA and VP6YB.

James Arp of Williamsport, Pa., has CN8AV, CN8CR, CT1QH, and many others. The most interesting call heard was ZA6AC, which some listeners are inclined to think is a bootlegger. The operator of ZA6AC announces as Albania.

From Robert Hatcher of 3221 Fifth Ave., Richmond, Va., comes

one of the most interesting letters we have seen for a long time. It reads:

"While running over the amateur band I heard a weak signal and set out to log it. When he signed, I was surprised to hear him say, 'This is ZC2OP in the Cocos Islands calling CO2EG on schedule.' This was at about 9:45 p.m., EST, and he came in at about QSA5, R6. I was so lost as to where to send my report that I wrote to CO2EG about this catch, and CO2EG wrote me back, saying, 'While ZC- are the call letters of the Cocos Islands in Asia, the operator of this station is on the Cocos Islands about 400 miles SSW from Costa Rica. The island is small and belongs to Costa Rica, and is supposed to use the call letters TI9-. The operators of this station are treasure hunters from Los Angeles, and this station is used mostly to contact California for information about the treasure work being done.'

"Since I logged him, his call has been changed to ZC2DP.

"In case someone needs a VP4, he ought to be on the look-out for VP4GA on the Island of Trinidad. This station belongs to Charles Cowden, Box 55, San Fernando, Trinidad. San Fernando is about 25 miles from Port of Spain. VP4GA has been heard here many times, near 11 p.m. to 1 a.m., EST. He will verify reports for an IRC.

"At 10:45 a.m. I heard SU8RB sending a message to W6PPK to forward to Hong Kong. SU8RB is a new station, and he verifies. Other good stations heard on 'phone were XU8RB at 7:20 a.m.; VS6AG at 9:12 a.m.; FN8B at 2 a.m.; and TG9AA at 7 p.m.

"The Albanian station ZA6AZ was heard at 1:50 p.m. on ten meters."

Addresses

We list below the call letters, the frequency and the address when known of every amateur station

mentioned in these columns. Addresses will not be repeated, however, so readers are urged to keep these columns for future reference.

(The letters LF, MF and HF in parentheses following the call letters of stations mentioned in this column indicate the Low Frequency, Middle Frequency and High Frequency portions of the 20 meter amateur band. Low Frequency stations are those on frequencies between 14,000 and 14,100. Middle Frequencies are from 14,100 through 14,300. High Frequencies are from 14,300 through 14,400. No attempt is made to show exact frequencies as they vary so greatly).

J2MI, Hiroshi Murai, 5-539 Arai-juka, Omori-ku, Tokyo, Japan.

SP1DC, Edward Kawczynski, Przemystowa 45, Lodz, Poland. (LF-HF)

SVIKE, C. Tavaniotis, 17a Bucharest St., Athens, Greece.

VK2EA, E. F. Fitzgerald, 25 Wallace St., Waverley, NSW, Australia.

VK3BZ, G. I. Morris, Boundary Road, Mordialloc, S12, Vic., Australia.

VK4VD, V. S. Bell, 200 West St., Rockhampton, Qsld, Australia.

ZE1JR, J. M. Davidson, Salisbury, Southern Rhodesia.

ZL3DJ, F. W. Walter, 99 Briggs Road, Mairihau, Christchurch, N. Z.

Readers' Troubles

(Continued from page 22)

waves, you will hear telephone conversations. But these are "scrambled" at the transmitting station before being shot across the sea. This makes the conversation unintelligible to listeners or "eavesdroppers" like ourselves, and the telephone calls are, therefore, absolutely private. At the receiving end the speech is automatically "unscrambled," and the listener hears normal conversation just like we do in any commercial telephone. It is very likely that the distorted signals you have been hearing are these radio telephone calls, in addition to the heterodyned signals described in the first paragraph.

The SWL Trading Post

James Arp, 208 Washington Blvd., Williamsport, Pa. (Exchange SWL Cards, and correspond with foreign listeners).

Bob Botzum, 633 Moss St., Reading, Pa. (SWL cards).

Stanley Brus, 1441 Bell Ave., No. Braddock, Pa. (SWL cards and picture post cards).

George G. Canapp, 1204 W. Fayette St., Baltimore, Md. (Correspondence).

James W. Cheeks, E. Sycamore St., Oxford, Ohio. (SWL cards).

Stan Clarke, 468 Bourgeois St., Montreal, P. Q., Canada. (Exchange cards with persons outside United States and Canada).

H. V. Gribble, Traffic Box 42, Minneapolis, Minn. (SWL cards).



The same cast of characters which launched the popular "One Man's Family" on the NBC in 1932, started its fourth year under the same sponsorship in March of 1938. More than 20,000,000 listeners hear this saga of an average American family each week. The photo shows Minetta Ellen (Funny Barbour) with Bernice Berwin (Hazel), left, Kathleen Wilson (Claudia), right, and Winifred Wolfe (Teddy) below.

Merton M. Hiatt, Box 7, Dryden, Wash. (SWL cards).

David Hill, 1516 Varnum St., N. W., Washington, D. C. (SWL cards).

Edward Hirsch, St. Albans, L. I., N. Y. (SWL cards).

Tom Hogg, Route 2, York Mills, Ont., Canada. (SWL cards).

Robert E. Lee Hunt, Sr., 1105 N. Harmon, Danville, Ind. (Correspondence).

C. H. Johnson, 1539 W. 12th St., Casper, Wyo. (SWL cards).

Bud Matheson, 1602 Roosevelt Ave., Indianapolis, Ind. (SWL cards).

Vincent Stasen, 5347 Priscilla St., Philadelphia, Pa. (SWL cards).

Meredith Stroh, 172 Queen St., N., Kitchener, Ont., Can. (SWL's).

William Wheatley, 130-30 90th Ave., Richmond Hill, N. Y. (SWL cards).

Luis Diez A., Box 21, Retalhuleu, Guatemala. (SWL cards and photos.)

Wm. Higgins, 7916 Tacoma St., Pittsburgh, Pa. (SWL cards.)

Tom Todd, 1317 S. E. Pine St., Portland, Ore. (SWL cards.)

Norman Glover, 305 S. Eighth St., Ponca City, Okla. (SWL cards.)

Amateur CALLS HEARD

The names and addresses of persons reporting stations shown in this list are indicated by small letters following the call signs. Key to the small letters is given at the end of the column.

28 Megacycles—Ten Meters

CNSAV (c); EI6G (c); EI9J (c); F:- 3GR (c); 3HA (v); 3HL (c); 8QD (c); 8RR (c); 8YZ (c); 8ZF (c); GM:- 5ST (c); 6RG (cv); 8RG (v); GW2UL (v); GW5KJ (v); G:- 2DH (c); 2IN (c); 2IT (v); 2SD (c); 2VG (v); 5BJ (c); 5BM (cv); 5BN (v); 5BU (v); 5CN (v); 5CY (v); 5JO (c); 5KH (cv); 5LJ (c); 5RV (cv); 5VM (cv); 5ZG (v); 6AG (v); 6BH (v); 6BW (cv); 6DL (c); 6GP (v);

6GS (cv); 6JW (v); 6LC (v); 6LK (cv); 6PC (v); 6PO (v); 6VX (v); 6WU (cv); 6VY (c); 6YR (c); 8BN (v); 8DM (cv); 8FZ (v); 8MU (cv); 8OZ (v); 8SA (cv); HI2K (v); HI7G (v); HK4EA (cv); IIIT (c); K4EZR (c); K4SA (c); K6:- ICL (v); MUL (v); MVV (v); OQM (o); PIR (cv); LU:- 1DA (c); 1DJ (c); 7AG (c); 9BV (c); ON:- 4BR (v); 4FE (v); 4PA (cv); 4ZA (c); PA0FB (v); 7G9AA (cv); TI2FG (cv); VK2GU (v); VP:- 3NY (v); 5GM (v); 6YB (cv); 9R (c); XE2XF (v); YR5AA (cv); ZE1JR (cv); ZS6AJ (c); ZS6T (c).

14 Megacycles—Twenty Meters

CE:- 1AH (abpq); 1AO (s); 1BE (z); 2ET (r); 3AA (abrA); CN:- 8AM (mE); 8AU (E); 8AV (ahmpqrCE); 8MB (E); 8MU (CE); CO:- 2WJ (A); 2JJ (v); 2JZ (n); 2LY (n); 2WM (nA); CT1:- AG (q); AY (qE); DA (E); QG (pqE); GH (eiqrE); CT2DC (E); CT3AN (s); CX2AK (apAE).

E

EA9AH (f); EI:- 2G (m); 2JK (s); 4L (E); 5G (s); 6G (kmpqrsuCE); 7F (s); 8M (q); 8N (h); ES5D (a); FA:- 3AM (i); 3HC (C); 3QV (E); 8IH (s); FT4AN (p); F:- 3CH (i); 3CP (prE); 3DI (q); 3GR (aeklmpqrzCE); 3HL (p); 3HZ (mpr); 3JB (q); 3KH (pE); 3LW (A); 3MF (e); 300 (hjkmpqrsCE); 8AM (hmpqsE); 8AT (s); 8BA (hr); 8CP (s); 8DC (m); 8DL (p); 8DR (y); 8GF (q); 8GM (h); 8GS (m); 8JI (E); 8JJ (f); 8JQ (qE); 8KI (ainpqrzCE); 8MA (e); 8NQ (s); 8OO (t); 8OZ (s); 8PU (E); 8QD (hpE); 8QH (E); 8RR (s); 8RZ (q); 8SI (q); 8UE (hpAE); 8VE (q); 8VJ (s); 8XN (qE); 8XT (rz); 8YZ (m); 8ZC (mE); 8ZF (kmpqzC).

G

GI:- 2AK (v); 2CC (hjprE); 5QX (kpqz); 8BA (j); 8JE (j); 8LW (j); GM:- 2DI (hpgqsC); 2MP (p); 2UU (adjhjkmpqrzCE); 5NW (k); 6BM (s); 6KO (s); 6NX (s); 6WD (jpsE); 6XI (s); 6CH (s); 8MN (qE); 8RG (s); 8RJ (z); GW:- 5GV (k); 5IJ (r); 6JW (gpC); 6WD (C); 8HI (z); G:- 2AI (hjmpqtuCE); 2AK (pqrACE); 2AV (A); 2BN (v); 2BO (j); 2BY (pr); 2CU (q); 2DS (hk); 2DV (kpsE); 2DZ (g); 2HA (qE); 2HK (qE); 2JG (js); 2LG (s); 2LK (A); 2MF (qE); 2OC (f); 2OS (p); 2PL (pC); 2PR (m); 2PU (fhpqzACDE); 2QN (s); 2QT (kmlAE); 2TR (ahipqrvtzAC); 2UQ (s); 2UT (hprtC); 2VD (s); 2XU (j); 2XV (ipqt); 2XY (kmpqA); 2ZT (s); 3BM (k); 3CP (ks); 3DO (C); 3DY (t); 4TK (j); 5AD (m); 5BD (k); 5BJ (himnqstuzE); 5BL (r); 5BM (E); 5DO (h); 5DR (pt); 5DT (uE); 5GS (jpa); 5IF (q); 5JM (s); 5KH (agjmpsCE); 5KI (E); 5LE (j); 5LK (kpr); 5LP (s); 5LU (pquvE); 5ML (agipqrE); 5NA (h); 5NI (ainpqrE); 5NL (f); 5NT (s); 5OA (f); 5PN (m); 5QI (pE); 5QN (hjnpqstuCE); 5RB (n); 5RU (j); 5RV (hprtC); 5Y (q); 5TO (p); 5TP (q); 5VM (h); 5WU (s); 5XI (p); 5XT (prt); 5YV (hprtCE); 5ZB (s); 5ZG (E); 5ZJ (p); 6AG (pqE); 6AH (p); 6AI (h); 6AN (h); 6BC (p); 6BK (s); 6BL (q); 6BV (m); 6BW (mqE); 6BX (E); 6BY (mnsE); 6CL (akpsu);

6DD (pq); 6DL (hqrE); 6DP (h); 6DT (ptuC); 6DX (s); 6FS (nq); 6GF (vzE); 6GH (s); 6GR (m); 6GS (s); 6HB (km); 6HL (s); 6HV (pqv); 6IF (m); 6IG (m); 6JF (mpqrE); 6JQ (j); 6JW (E); 6KG (t); 6KI (j); 6KL (E); 6KS (r); 6LF (j); 6LK (eghmpqrwACE); 6LL (E); 6LV (z); 6ML (mptuz); 6NF (ehjkpqrstC); 6OM (s); 6OY (s); 6RA (m); 6VE (j); 6VK (mp); 6VX (qE); 6VL (h); 6WU (qC); 6WX (ghqCE); 6WY (hqpqrstz); 6XN (hkm); 6XR (hmpqrstCE); 6ZI (hp).

G8-: BX (qE); BZ (j); CN (q); CS (m); DU (p); DW (p); FZ (p); GB (s); GM (mq); GP (ksv); GX (finAE); IG (hnprrv); KT (q); KV (s); KZ (qE); LD (j); MA (pqCE); MF (kqE); MN (h); MX (hpgzC); SNJ (p); 6OG (q); QH (puE); RX (sC); SA (f); SB (p); SJ (s); WF (E).

H-J

HB-: 2SP (s); 9BL (E); 9J (hp); HC-: 1FG (qrw); 1JB (adflrvwCEF); 1JW (abpqrszC); 1SE (E); 2HP (ab); 2LC (x); HH-: 2B (adhprvE); 2G (d); 2PB (apvE); 2S (r); 2U (r); 2X (adilmpqrrvACEF); 2XX (f); 3X (s); 4AS (afkrAC); 5PA (adhprvE); HI-: 1C (adAC); 1W (B); 2BZ (s); 2W (d); 3N (dhmqrvzEF); 4N (F); 4R (q); 5X (adimqtuvE); 5Z (F); 7G (qqr); 7I (agpq); 7O (q); HK-: 1AZ (v); 1BA (v); 1DG (abdpuvrE); 1GC (d); 1GL (a); 1JC (prz); 1KC (x); 1LZ (bz); 1PA (h); 1QS (F); 2LD (f); 3JB (vC); 3LDC (abdijlprvzCDE); 3LE (x); 3LR (m); 4AG (d); 5AR (mA); 5BB (v); HP1A (hi); HP2HP (C).

HR-: 1AT (p); 5C (jknqpswACEF); J-: 2AV (s); 2MI (a); 2NF (q).

K

KA-: 1CS (a); 1ME (alpqszC); 1ZL (ablzB); K4-: DDH (adE); EFG (r); EJJ (abdprstDEF); EMG (mns); ENY (apqtzE); FQA (F); EZR (f); FAY (ahipsuCE); SA (adlstuE); K6-: BJJ (pvB); BNR (airsv); CGK (ap); CMC (adx); GAS (ntC); GGF (a); JLV (p); KGA (bf); KRG (ay); LCV (v); LKN (s); MTE (b); MZK (t); NTV (x); NZQ (ahmrsDE); OQE (als); K7FBE (acs).

L-N

LA1F (akpqryE); LU-: 1BA (f); 1DA (ad); 1DJ (d); 1HI (w); 1QA (E); 2BG (pr); 3AC (r); 3BK (r); 3BV (r); 3AN (abprsvzC); 5CZ (E); 5DL (b); 6JA (s); 6KE (apqC); 7AG (arE); 9BV (abflpsE); NK1JN (r); NY2AE (abr).

O-P

OA-: 2B (l); 4AF (a); 4AL (aE); 4R (aA); ON-: 4AP (m); 4AW (s); 4BG (pqf); 4BR (qt); 4BZ (h); 4FE (s); 4GJ (h); 4MJ (q); 4PA (mprstCE); 4SS (mE); 4VK (pqtzC); 4WX (s); 4ZA (bhpsz); 4ZC (s); OQ5AA (E); OZ-: 2MR (s); 3U (q); 9Q (kmpqsZ). PA-: OEO (yE); OFB (jkpCE); OGM (s); OJR (s); OKU (s); OKZ (s); OMZ (mpuE); ONA (p); OQQ (s); OUN (ahkmpqrACE); OWF (qr); OXF (p); OZB (s); PK-: 1PK (a); 1ZZ (a); 2WL (a); PY-: 1GJ (ap); 1MU (p); 2AC (abp); 2AP (E); 2PC (a); 3BP (E); 5AK (m); 5AQ (abp).

S

SM-: 2VP (h); 5SD (ar); 7XE (q); 7YA (pq); SP-: 1DC (p); 2HH (aknr); SU-:

1CH (ajnpE); 1KG (q); 1RD (qC); SVIKE (apq).

T

TI-: 2AV (ahkmpqsWzC); 2FG (afhkmmprsvCF); 2HP (afprvC); 2KP (m); 2LR (eqA); 2PG (m); 2RC (akprsvACEF); 3AV (fkpr); 6AY (A); 7AC (g).

V

VE9AT (w); VI2PP (j); VK2-: ABD (ow); ABF (a); ABG (bdpAC); AC (m); ACO (d); ADE (abdnpstwB); ADK (b); ADS (s); ADT (bdmppsA); AEZ (p); AF (a); AGO (s); AHA (pA); AIB (s); AS (aA); AV (s); AZ (mw); BN (b); BQ (bdhw); BZ (abu); CD (a); CJ (adnpps); CP (a); CZ (q); DA (s); DE (h); DK (adpsu); EH (w); ES (a); FM (s); GU (adijnpqsuwzC); GV (s); HF (abpuw); HZ (s); 1Q (admnpsuwC); JO (a); JU (s); MB (s); MT (s); NP (s); NQ (s); NY (pqs); OG (a); OQ (aba); PK (s); QL (s); QP (s); RA (s); RK (s); RQ (s); SK (s); TC (ab); TF (s); TI (s); TT (s); UC (dlps); UD (h); UF (s); UR (s); UU (n); UZ (s); VA (ds); VB (d); VQ (s); VU (s); VV (abdpqstuwAC); VZ (s); WD (h); WS (a); XJ (a); YL (a); YW (dA); ZC (adnoAC); ZP (s).

VK3-: AV (s); BJ (w); BZ (pqv); GQ (ads); HJ (sB); IO (a); IT (w); IW (s); LI (b); LR (b); MX (npv); NP (ab); NS (s); OI (b); PX (p); PZ (n); QK (s); RW (d); TZ (dA); WA (B); XJ (abipvB); ZB (ds); ZC (a); ZJ (b); ZL (abdnprsvzC); 3ZX (b); ZZ (aux).

VK4-: AC (s); CD (abpq); DU (q); EC (w); GG (w); HN (e); JU (adsv); LW (aboq); RJ (w); TH (a); VD (bdipqsu); VJ (ab); WD (a); ZU (q).

VK5-: BF (bq); BV (s); LW (s); TR (bs); WD (abdlosv); WO (p); WR (s); ZF (s); VK6-: LF (s); MW (ap); WA (a); YZ (B); VK7CM (s); VK7QZ (s).

VO-: 1A (dmnqA); 1I (ap); 1M (q); 1S (m); 1X (mz); 1Y (q); 2Z (dE); 3X (m); 4A (mq); 6D (ahlmprvE); 6G (f); 6J (dn); VP-: 1BA (ap); 1DA (s); 1DM (yA); 1GN (v); 2AB (dfvA); 2AT (pAE); 2CD (y); 2DA (C); 3BG (C); 3MR (q); 4AG (e); 4GA (ahmnpzCE); 4TH (dE); 4TK (mv); 6FO (C); 6LR (s); 6MO (abpvzAC); 6MR (bhjppvE); 6PC (r); 6PR (d); 6TR (akuvE); 6YB (abdilmprvCE); 6YN (r); 7NA (adjvC); 7NT (s); 9AD (s); 9G (adfj); 9L (adfmjppqvC); 9R (abdkmpqrsvCEF); VR6AY (abefhjmoprstwxyzBC).

W-X

W1OXAB (ajmrvvC); XE-: 1AX (r); 1BT (i); 1CC (r); 1GJ (n); 1GK (n); 2BJ (n); 2FC (i); 3AR (i).

Y

YN-: 1OP (abdefhmpqryACE); 3DG (abjprAC); YR-: 5AA (jknmpqs); 5KW (q); 5RU (s); YU4VD (s); YU7AY (s); YV-: 1AA (dmxv); 1ABY (w); 1AG (ajruE); 1AP (adhjnpqrstwBCDE); 1AQ (adhjlpqsuzBCE); 1AT (rs); 2AK (s); 4AA (adhmnpqrsvCEF); 4AB (adnqrACE); 4ABG (E); 4AD (svE); 4AO (n); 5AA (fqE); 5ABA (av); 5ABF (dlkvvEF); 5ABQ (adpC); 5ABY (adelpqrsvEF); 5AC (a).

Z

ZE-: 1JA (c); 1JR (bp); ZS-: 1AN (s); 2N (apszC); 2X (E); 3F (mpE); 5CL (p); 5T (q); 6A (a); 6AJ (blvC); 6BT (m); 6CT (az); 6DW (azCE); ZU6AF (e).

- (a) Gail Beyer, 3226 Sunnyside Ave., Chicago, Ill.
- (b) Al Bettinger, 2465 N. 47th Ave., Omaha, Nebr.
- (c) Alan I. Breen, 68 Pine Hill Terrace, Dunedin, New Zealand.
- (d) Russell Geiger, Route 4, Youngstown, Ohio.
- (e) Helmut Giese, 225 Division, Pt. Washington, Wis.
- (f) Gilbert Harris, No. Adams, Mass.
- (g) David Hill, 1516 Varnum St., N. W., Washington, D. C.
- (h) Edward Hirsch, 188-01 Baisley Blvd., St. Albans, N. Y.
- (i) Tom Hogg, Route 2, York Mills, Ont.
- (j) Dan Hurley, 2524 N. 18th St., Philadelphia, Pa.
- (k) Geo. F. Kline, Jr., 230 Chatham St., Williamsport, Pa.
- (l) Carl Martin, 701 Kearney St., Atchison, Kans.
- (m) Kenneth Morey, 14 Lawndale St., Easthampton, Mass.
- (n) J. F. Morris, 18 Firstbrook Road, Toronto, Ont.
- (o) Martin Olthoff, 212 N. 16th St., Independence, Kans.
- (p) Julius Orosz, 3368 E. 146th St., Cleveland, Ohio.
- (q) P. L. Patrick, 343 Broadway, Cambridge, Mass.
- (r) Edgar D. Petrie, 62 Boulton Ave., Toronto, Ont.
- (s) Billy Snow, 302 Harrington St., Route 6, St. Joe, Mo.
- (t) Vincent Stasen, 5347 Priscilla St., Philadelphia, Pa.
- (u) Albert Steinmetz, 125 W. 27th St., Bayonne, N. J.
- (v) Bob Taglauer, 223 Orchard Road, Ft. Mitchell, Covington, Ky.
- (w) Tony Tarr, 909 W. Lee St., Seattle, Wash.
- (x) Clifton Tavener, Route 1, Rosenberg, Texas.
- (y) George W. Weaver, Box 391, Saxton, Pa.
- (z) Jack Welsh, Kingston, Ill.
- (A) Phillip Wharton, Box 413, Watford, Ont.
- (B) Hadley Wilcox, 623 W. 40th Place, Los Angeles, Calif.
- (C) Cyrus Will, 651 Brier St., Kenilworth, Ill.
- (D) Wm. Wood, Jr., Oak Park, Ill.
- (E) Nicholas Woytan, 309 S. Wilbur Ave., Syracuse, N. Y.
- (F) Francis Gmeiner, 661 E. 109th St., Cleveland, Ohio.

Station KZIB in Manila, 900 kcs with 1000 watts power, announces their schedule as 7 p.m. to midnight on Sundays through Fridays. On Saturdays they broadcast from 9 p.m. to 11 p.m., and on Sundays from 6 a.m. to 10 a.m. KZIB also operates experimental s.w. station on 49 meters (6 megs.).



"Lum and Abner," the famous Pine Ridge, Arkansas storekeepers and rural comedians. Chester Lauck and Norris Goff (with the mustache) play the roles of "Lum and "Abner," as well as the other characters heard in their programs.

The Stamp Corner

● ● ● By David Brockton Browne

AFTER frequent changes, the Post Office Department recently announced a revised program that your Stamp Editor has every reason to believe will be the final revision.

Inclusion of a White House stamp in the new regular series together with the addition of a 22-cent denomination—never before used—makes the series complete with a grand total of 32 stamps. All of these stamps will be issued to fill regular postal requirements.

The new 22 cent stamp will have as its central design a portrait of President Cleveland. The White House will be shown on the 4½ cent stamp previously announced for President Monroe's portrait.

Under the revised program, Presi-

dent Monroe will appear on the 5 cent stamp, which means that the entire Presidential list from the 4½ cent stamp to the 22 cent stamp will be advanced one denomination. This new arrangement is an ideal one in that it allows the majority of presidents to appear on the numerical value corresponding to their term of office. For example, Lincoln, the sixteenth President, will be shown on the 16 cent stamp, etc. Due to postage requirements it is not possible to follow this system with the higher values. All presidents appear in correct order of succession, however, regardless of whether their term of office and the denomination correspond numerically.

The complete program under the new schedule is listed in order that readers of The Stamp Corner may keep it for future reference.

Included in the Presidential series are: ½ cent Franklin, 1 cent Washington, 1½ cent Martha Washington, 2 cent John Adams, 3 cent Jefferson, 4 cent Madison, 4½ cent White House, 5 cent Monroe, 6 cent John Quincy Adams, 7 cent Jackson, 8 cent Van Buren, 9 cent William Henry Harrison, 10 cent Tyler, 11 cent Polk, 12 cent Taylor, 13 cent Fillmore, 14 cent Pierce, 15 cent Buchanan, 16 cent Lincoln, 17 cent Johnson, 18 cent Grant, 19 cent Hayes, 20 cent Garfield, 21 cent Arthur, 22 cent Cleveland, 24 cent Benjamin Harrison, 25 cent McKinley, 30 cent Theodore Roosevelt, 50 cent Taft, 1 dollar Wilson, 2 dollars Harding, 5 dollars Coolidge.

As no living Americans may appear on a U. S. postage stamp, Herbert Hoover and Franklin D. Roosevelt are not represented in this galaxy of our nation's chief executives.

By the time this month's Stamp Corner reaches you, three values of the series will have appeared. Namely; the 1 cent Washington on April 25th at Washington, D. C., the 1½ cent Martha Washington on May

5th also at Washington, D. C., and the ½ cent Franklin on May 19th at Philadelphia, Pa.

The remainder of the series is scheduled to appear intermittently throughout the remainder of this year commencing with the 2 cent stamp on June 3rd at Washington, D. C.—the city from whence probably most—if not all—of the balance of these stamps will make their first appearance.

The familiar oblong 6 cent airmail stamp has also been replaced since we were with each of you last month. The new regular airmail stamp is the same size as the current 10 cent special delivery stamp and is printed in bi-color, the border in blue and the central design in red. In the latter, an eagle is shown with outstretched wings, bearing in its talons a shield, olive wreath, and bundle of arrows.

The stamp, issued in connection with the National Air Mail Week celebration, symbolizing the 20th anniversary of air mail in the United States, was placed on sale May 14th at Dayton, Ohio; home of the Wright Brothers—builders of the first successful airplane, and at St. Petersburg, Fla.; where the first passenger flight was made.

We are reliably informed that a stamp commemorating the settling of the state of Delaware will be issued on June 27th. Dover, Delaware is almost a sure bet to be the official First Day City.

The stamp will be a 3 cent value, the same size as the Army and Navy stamps, purple in color, and will honor the tercentenary of the settling of what is now the State of Delaware by the Swedish pioneers.

First Day Covers

A first day cover is an envelope cancelled at the post office designated by the Post Office Department as the official city for initial sales

of a new postage stamp, and using only that stamp for postage on the cover.

First day covers have grown in popularity tremendously within the past few years—and each new stamp records at least 200,000 covers mailed on day of issue to collectors.

The method of securing these covers is as follows: Prepare a limited number of self-addressed covers, *not in excess of ten*, (any number from one to ten is acceptable) and send to the Postmaster of the official first day city, together with cash or postal money order remittance to cover *only* the cost of the stamps required for affixing. Postage stamps *positively* will not be accepted in payment.

Each cover should bear a penciled endorsement in the upper right hand corner to show the number of stamps to be attached thereto. 6¼ size envelopes are preferred for servicing, and space allowance should be made for affixing the stamps. For this reason, the address should be written or typed in the lower right hand corner. Unusual requests cannot be filled. For these events covers must reach the Postmaster in advance of the designated day of issue. Orders will be filled for only the stamp to be issued and only covers will be serviced — the Postmaster will not include mint stamps. All covers must bear at least first class (3c) postage thereon.

Collectors desiring first day covers of the John Adams 2 cent stamp—June 3rd, should follow the above instructions in sending covers to the Postmaster, Washington, D. C. To meet First Class postal requirements, collectors will have to enclose remittance at the rate of 4 cents per cover. (Two 2 cents stamps.)

New Foreign Issues

Commemorating the annexation of *Austria* by *Germany*, the Hitler government has issued a special 6

pfg. stamp showing the figures of two Storm Troupers supporting the Swastika flag.

Finland is releasing a stamp honoring the Tercentenary of the Colonization of the State of Delaware by the Swedes and Finns. The design will show two early Americans tussling with a large tree stump. In the lower right hand corner an Indian in war bonnet will appear.

A new stamp-issuing country will be *Sanjak of Alexandretta*. This territory has been separated from Syria, a French Mandate in Asia Minor, to satisfy Turkish claims of suzerainty. It will operate independently and Syrian stamps will be used, overprinted with the name of the new territory.

Canada will commemorate two events prominent in that dominion's history with the issue of two new stamps—both 10 cents in value. They honor the Canadians who gave their lives in the World War, depicting the Memorial Chapel in the Peace Tower of the Houses of Parliament at Ottawa; and the opening up of the Great West to settlement, as shown in the old Fort Garry Gate at Winnipeg.

Guiana Hobby Club

For our readers who are interested in contacting radio amateurs, D-X enthusiasts, stamp collectors, as well as in making friendships abroad, may we recommend the Guiana Hobby Club?

Founded in 1933, at Georgetown, British Guiana, the club is favorably known throughout the world for its reliability, integrity, and all-around excellence. With members in over 100 different countries at the present time, and over 50 various hobbies represented, it is not hard to find a person in the country of your choice who is interested in the same hobbies that you are—regardless of what that hobby may be.

The membership at present is
(Please turn to page 61)

The SHORTWAVE Listeners Report

Argentina

Station LRA, announcing as "Radio del Estado," in Buenos Aires, is now being heard on 9685 kcs. The programs commence at 6 p.m., EST, with a clock striking 7. (RX83 Canada).

Australia

The new address of VK3ME is Amalgamated Wireless, (A/sia), Ltd., Wireless House, 167 King St., Melbourne, Vic. (RX27 N. Y.)

VLR in Melbourne is putting through a fine signal on 9580 kcs, until about 8 a.m., EST. W1XK bothers it a little at times. There is also a faintly-heard station on 9590 which is believed to be VK6ME at Perth. (RX89 Ohio).

Brazil

PRA8 at Pernambuco has been heard in the evenings at about R4 strength, through interference caused by COCD in Havana. (RX120 Mich.)

Canada

VE9HX at Halifax, on 6120 kcs, relays the programs of CHNS. It has been heard at R4 in Detroit. The studios of this station are located in the Lord Nelson Hotel in Halifax, and the 500 watt transmitter is at Bedford, N. S. They verify for return postage, and send a station stamp for ten cents. (RX120 Mich.)

A Canadian reader reports VE9HX on 6130 kcs. The schedule is given as daily except Saturdays and Sundays from 7 a.m. to 11 p.m. EST, and on those two days they broadcast from noon until 11 p.m. (RX83 Can.)

CJCX at Sydney, N. S., using 1000 watts power, transmits on 6010 kcs, on Sundays only, from 10 to 11:30 a.m. EST. (RX83 Can.)

Channel Islands

Alderney Radio, Ltd., has been fined and its apparatus confiscated,

following a decision of the Royal Court of Guernsey. This station operated for a short while without the benefit of a license from the British Government. The operators stated that they were not subject to British laws. (RX47 England.)

Costa Rica

TI8WS at Puntarenas has moved to the 5770 kcs frequency. (Velasco)

Celebrating its Tenth Anniversary on the air, TI4NRH broadcast a special program every night during the month of May, addressing each program to a different radio club or magazine. Since this issue of RADEX will reach some of our readers in the latter part of May, we are listing below the program schedules from May 20th. Each program is radiated from 9 to 10 p.m., EST.

May 20, Mr. Jacob H. Borofsky.

May 21, Mr. William H. Reeks, and Miss Edith Reeks.

May 22, The Quixote Radio Club.

May 23, The Club de Ondas Cortas, of Havana.

May 24, The Newark News Radio Club.

May 25, To RADEX.

May 26, The Globe Circlers DX Club.

May 27, The British Short Wave League.

May 28, The Philatelic Society of Costa Rica.

May 29, American Radio Relay League.

May 30, The Radio Manufacturers Association.

May 31, To Radio Station WGY.

All reports on these programs will be acknowledged by a beautiful lithographed diploma, 11 by 16 inches in size. Instead of Reply Coupons, listeners are requested to send ten cents in coin for a veri. (CSWRC, RX100 Ohio, RX116 Mont., RX123 Tex.)

Czechoslovakia

The Prague shortwave stations advise that the following frequencies are available for use:

OLR2A, 6010 OLR4B, 11760
OLR2B, 6030 OLR5A, 15230
OLR3A, 9950 OLR5B, 15320
OLR4A, 11840 OK1MPT, 5145
(RX122 Ohio.)

OLR4A on 11840 is heard in Detroit with volume equal to that of WWJ. (RX120 Mich.)

Ecuador

HCETC at Quito has moved to 9350 kcs. (Velasco.)

HC1GQ, Quito, on 9175 kcs, is owned by the Guayaquil-Quito Railway Company. It is heard on Mondays, Wednesdays and Saturdays from 8 to 10:30 p.m. (RX73 Ohio.)

El Salvador

YSD, "Alma Cuscatleca," 7894 kcs. in San Salvador, E. S., now commences its broadcasts at 7 p.m., EST, with a program in English. The address is Director General, Radio Nacionales. (RX83 Can.)

Fiji

VPD2 at Suva is now heard well at 7 a.m. on 9540 kcs. They are requesting reports, which are to be sent to Amalgamated Wireless, Suva. (RX27 N. Y.)

France

The French stations now announce as "Paris Mondial" instead of "Radio Coloniale." "Paris Mondial" means, literally, "Paris Embracing the World." (RX100 Ohio.)

The call letters and schedules of the new Essarts station follow:

TPB3, 17765 kcs, 8:30 to 10 a.m.
TPB6, 15130 kcs, 6 to 8:15 p.m.
TPB7, 11885 kcs, 8:30 to 11 p.m.
TPB11, 9570 kcs, 1 to 4 a.m. and 10:15 a.m. to 5 p.m.

TPA2, 15243 kcs, 5 to 10 a.m.

TPA3, 11900 kcs, 1 to 4 a.m. and 10:15 a.m. to 5 p.m.

TPA4, 11718 kcs, 6 to 8:15 p.m. and 8:30 to 11 p.m.

(RX51 Mass; RX100 Ohio.)

Germany

DZH on 14480 kcs is heard on Saturdays at 5 p.m. with a program for Brazil (RX27 N.Y.)

Haiti

HH2X at Port au Prince has been received on 11780 from 7 to 10 p.m. HH3W on 9645 kcs is heard daily until about 9 p.m., when they sign off with a bugle call. (RX51 Mass.)

India

Verifications from the new Delhi station are signed by C. W. Goyder, of All India Radio, New Delhi, India. The frequency of VUD2 is given as 9590 kcs, and the schedule, 8 to 10:30 a.m., Indian Time, or 9:30 p.m. to midnight, EST. The verification also mentioned that there is a Bombay station on 9550 kcs, which broadcasts between 9 and 10:30 p.m., EST. Both these stations employ a power of ten kilowatts. (Velasco)

There is a new Indian station on 3300 kcs. It is VUB, Bombay, with 4500 watts of power. The schedule is daily from 7 a.m. to 12:30 p.m., EST. (RX47 England.)

Indo-China

"Radio Philco" in Saigon, on approximately 6220 kcs, is heard from 7:30 to 9:30 a.m., EST. It is best on the Pacific coast during the last half hour. A woman does the announcing, and they sign off with the "Marseillaise." (RX21 Wash.)

Italy

Station IRF, which relays the American Hour from the Roman stations, is owned by Italo Radio, whose address is 46/48 Via Calabria, Roma. They announce that all reports addressed to Italo Radio will be verified, but they are slow in replying. (RX49 Mass.)

Kwantung

A verification from JDY at Dairen gives the address as Shotokugai 3. Their power is 10 kilowatts, frequency 9925 kcs, and schedule, 7 to 8 a.m. A photograph of the building housing broadcast band station

JQAK was also sent. (RX83 Can., RX121 W. Va.)

Mexico

XETA on 11760 kcs, 1 kilowatt power, relays XET, Monterrey, daily from 1:30 to 3:30 p.m. The address of both stations is Apartado 203. (RX52 N. Y.)

Netherlands

The new schedule of the PHI and PCJ broadcasts:

For the Netherland Indies:

Station PHI2, 17770 kcs, Sunday 7:25 to 8:30 a.m., and Monday, Tuesday, Thursday, Friday, Saturday, 7:25 to 9:30 a.m.

For the Western Hemisphere:

Station PCJ, 9590 kcs, Wednesday and Sunday, 7:15 to 8:15 p.m.

Experimental Broadcasts:

Station PCJ, 9590 kcs, Monday 8:15 to 9:45 p.m.; Tuesday, 2:10 to 3:40 p.m.; Tuesday, 7 to 8:30 p.m.; Tuesday 8:45 to 10:15 p.m.

Station PCJ2, 15220 kcs, Tuesday 2 to 3:30 a.m.; Wednesday 9:30 to 11 a.m.

Poland

Warsaw is heard through SPW on 13635 kcs, from 5:45 to 8 p.m., on weekdays, and from 6 to 9 p.m. on Sundays. SPD on 11535 kcs is heard on the same schedule. It is reported that the programs commence with a few bars from the selection, "The Haunted Castle," and close with the hymn "Wszvstkie Nasze Dzienne Sprawy." ("All Our Daily Matters.") (RX51 Mass.)

Portugal

The Lisbon station CSW is now being heard with a very good signal, on a new frequency of 9790 kcs, between 6:30 and 8 p.m. (RX100 Ohio.)

Puerto Rico

An experimental station, K4XAO, at San Juan, has been heard on 17310 kcs, working with W4XAD every morning from 8:15 to 8:30 a.m. This station is owned by the University of Puerto Rico. (RX27 N. Y.)

St. Kitts

VP2LO has been heard testing between 12:30 and 1 a.m., EST. (RX121 W. Va.) VP2LO transmits on 6384 kcs.

Spain

EAJ43 at Teneriffe, in the Canary Islands, transmits on 10370 kcs from 8 to 10 p.m. (RX27 N. Y.)

EAQ has returned to the air with a greatly improved signal. It was heard near 3 a.m., but they announced that they transmit daily at 2:45 a.m., and again at 3:40 p.m. EAQ transmits on approximately 9855 kcs. (RX72 Ill.)

It is rumored that the station at Salamanca will be increased soon to 40 kilowatts. Listeners have sent contributions which amount to about \$40,000, and this money has been set aside for a new station. (RX118 Canada.)

EAJ43, Santa Cruz de Teneriffe, relays Salamanca at 9 p.m. on 10370 kcs. EA9AH at Tetuan, Spanish Morocco on 14030 kcs, continues to come through, but not as well as formerly. "Radio Malaga" at Malaga on 14450 kcs, transmits war news at 8:20 p.m., CST. (RX23 Minn.)

Union of South Africa

ZRH at Roberts Heights, and ZRK at Klipheuvell still come in on their midnight schedule, from 11:45 p.m. to 12:45 a.m. ZRH is on 9523 kcs and ZRK on 9609 kcs. (RX27 N. Y.)

U. S. S. R.

RNE announced that they transmit daily now from 10:15 to 11 p.m., EST. (RX114 Ohio)

RKI, Moscow, 7520 kcs, broadcasts daily from 7 to 9:15 p.m. (RX27 N. Y., RX100 Ohio.)

United States

W1XK, Boston, broadcasts a DX program, known as "Radio Around the Clock," under the direction of John K. Gowan, III, every Monday at 5:15 p.m. (RX83 Canada.)

Three forestry stations have been reported which can be added to our

s.w. index. They all work on 2385 kcs with 15 watts power. The stations are KNLF, Mt. Scott Ranger Station; KNLH, Lost Creek Ranger Station, and KNLG, all in Crater Lake National Park, Ore. (RX115 Calif.)

"I have heard WWMA on approximately 2710 kcs. It works 'phone from Detroit, Mich., with WWMC in Marine City, Mich., which is on the same frequency. WWMA also works with WWMP, which is at Rousses Point, on 2760 kcs." (RX124 Ill.)

There are two television stations on 2050 kcs. One is W9XG, at Purdue University, which transmits on Tuesdays from 7:30 to 8 p.m., CST, and on Thursdays from 8 to about 8:30 p.m. The other is W9XAK, at Manhattan, Kans., owned by the college there. It was heard on a Wednesday night near 7:30 to 8 p.m., CST. (RX124 Ill.)

The Reporters

RX21, Anthony Tarr, Seattle, Wash.

RX23, Carl and Ann Eder, Willmar, Minn.

RX27, Raphael Geller, Bronx, N. Y.

RX47, D. H. Dussek, Alton, Hants, Gt. Britain.

RX49, Kenneth Morey, Easthampton, Mass.

RX51, Gilbert L. Harris, No. Adams, Mass.

RX52, Samuel A. Meyer, Jr., Rochester, N. Y.

RX72, Gail T. Beyer, Chicago, Ill.

RX73, Mrs. Helen Lind, Lakewood, Ohio.

RX83, Wm. Snook, Dartmouth, N. S., Canada.

RX89, Russell E. Geiger, Youngstown, Ohio.

RX90, Charles Genan, Jamestown, N. Y.

RX100, Mary Eleanor O'Neill, Cleveland, Ohio.

RX114, W. E. Knouff, Cleveland, Ohio.

RX115, Maurice Clark, San Francisco, Calif.

RX116, Dwight Aitchison, Billings, Mont.

RX118, J. F. Morris, Toronto, Ont.

RX120, Edmund Ososke, Detroit, Mich.

RX121, Jim Walker, Romney, W. Va.

RX122, A. J. Parfitt, Cleveland, Ohio.

RX123, Cliff Tavener, Rosenberg, Texas.

Java Locals

D. H. Dussek of Alton, Hants, England, sent a booklet issued by the Netherlands Indies Broadcasting Co., Ltd., of Batavia, Java, which lists all the NIROM operated stations. They are:

YDA Batavia, 3040 kcs, 10 kw.

YDA Batavia, 6040 kcs, 10 kw.

YDB Sourabaya, 9610 kcs, 1 kw.

YDB Sourabaya, 15300 kcs, 1 kw.

YDC Bandoeng, 15150 kcs, 1.5 kw.

PLP Bandoeng, 11000 kcs, 1.5 kw.

PMN Bandoeng, 10260 kcs, 1.5 kw.

PMH Bandoeng, 6720 kcs, 1.5 kw.

YDA2 Batavia, 2385 kcs, 150 w.

YDD3 Batavia, 1585 kcs, 100 w.

YDA3 Buitenzorg, 1640 kcs, 25 w.

YDA4 Soekaboemi, 1550 kcs, 25 w.

YDA5 Bandoeng, 2415 kcs, 150 w.

YDD2 Bandoeng, 1630 kcs, 150 w.

YDA6 Cheribon, 2870 kcs, 150 w.

YDA7 Pekalongan, 3270 kcs, 15 w.

YDB2 Semarang, 2450 kcs, 150 w.

YDE3 Semarang, 2710 kcs, 25 w.

YDB4 Tjepoe, 1615 kcs, 15 w.

YDB7 Soerabaia, 1530 kcs, 150 w.

YDE4 Soerabaia, 3158 kcs, 150 w.

YDB6 Malang, 1570 kcs, 25 w.

YDB5 Solo, 1595 kcs, 25 w.

YDE2 Solo, 2500 kcs, 25 w.

YDB3 Djokjakarta, 1660 kcs, 25 w.

YDE5 Djokjakarta, 2350 kcs, 25 w.

Across the EDITOR'S Desk

EXAMINERS of the Federal Communications Commission have recommended the grant of construction permits to two applicants.

Y. W. Scarborough and J. W. Orvin, of Charleston, S. C., are the applicants for a new station to use 1210 kilocycles with 250 watts days and 100 watts nights, unlimited time.

Sherman V. Coultas, Milton Edge and Hobart Stephenson of Jacksonville, Ill., request permission to erect a new station to employ 1310 kcs, 100 watts unlimited time.

A change has been made in the special DX programs which are being broadcast by station KIDO, for the Before Breakfast DX Club. This thousand-watt station on 1350 kcs. will broadcast from 1 to 2 am, EST, on the mornings of June 5, July 3 and August 7.

New Clubs

Organization of the first Hungarian Radio Club in the United States is progressing nicely, despite the usual difficulties attendant upon the inauguration of a new venture. The organizers, led by Albert Steinmetz, were surprised to learn that the greatest obstacle in their way was the fact that the Hungarian shortwave stations are not receivable at the present time in good condition.

The members of the club, which is known as the Verhovay Short Wave Radio Club, have requested the Hungarian authorities to increase the power of the HAS- stations to 20 kilowatts, and one of their members has made a trip to Budapest to make the request in person.

All Hungarian DXers in the world are requested to communicate with Albert Steinmetz, 125 W. 27th St., Bayonne, N. J., concerning the club.



Marine Sullivan, whose swing interpretations of the old classics had more than a little to do with the touching off of the current "swing versus classic" fireworks, has become a member of the cast of the CBS Saturday Night Swing Club.

Under the direction of E. Leisering, Jr., a number of radio fans in the Brooklyn area have formed a radio club which will be devoted to DXing on the broadcast band, shortwaves, and ultra shortwaves. Membership in the club, known as the Band Spread Radio Club, is one dollar per year, and this fee includes a year's subscription to the club magazine, "The Band Spread," issued every three weeks.

Inquiries concerning the Band Spread Radio Club are to be addressed to Mr. E. Leisering, Jr., 782 E. 32nd St., Brooklyn, N. Y.

Below are printed a few excerpts gleaned from the first issue of "The Band Spread," a 32-page bulletin.

CFU, 5705 kcs, Rossland, B. C., Canada, broadcasts the latest news

daily from 8:30 to 8:45 pm, EST.

HI5P, Trujillo, Dominican Republic, on 6560 kcs, is now testing and will commence broadcasting on a regular schedule soon.

Several 25 kilowatt transmitters are under construction at Helsinki, Finland, and should be on the air soon.

A new transmitter at Kaunas, Lithuania, will soon be in operation. The call letters are LYZ on 6125 kcs. Other Lithuanian transmitters are shown in our shortwave list.

Robot Radio Tunes Automatically

The latest invention of E. H. Scott, of the E. H. Scott radio laboratories, is a self tuning radio. This new set, called the "Radio Robot," is operated by an electric clock. The outer rim of the clock is perforated at fifteen minute intervals and plugs, representing local radio stations, are placed in these holes at desired intervals.

Other plugs turn the set off at the desired time and a complete twenty-four hour program can be chosen at one time and will be reproduced without further adjustment of any kind.

Additional control, in case a pre-selected program does not meet with expectations, is achieved by a keyboard control placed within easy reach of an armchair. Buttons, the simplest mechanical form of control, select other local stations, turn the volume up or down, turn the set off or on, and also turn on the phonograph.

The uses of the new radio are manifold. Additional sound projectors and keyboards can be placed in various rooms of a home and operated at differing volumes . . . A microphone can be placed in the circuit to be used as a radio nurse in a sick room, or as a call system. With a volume control at his fingertips the listener may eliminate or tone down long commercial an-

nouncements increasing radio enjoyment considerably.

In Merrie England

Donald Young of 24 Montague Ave., Peterborough, England, writes an interesting letter about radio receivers and DX reception in his country.

"Here in England nearly every valve (tubes to us) in a radio receiver has a multiple function," he writes. "As they are required to do double duty they do not last as long as their American counterparts. The initial cost is also higher, so most of our sets do not have as many tubes as the average American set—the average here is about 5 tubes.

"Nearly all our receivers are superheterodynes, and most of the sets now on the market have automatic volume control, and three wave bands. The wave bands in use are 15 to 50 meters (shortwave), 200 to 500 meters (broadcast band) and 900 to 2000 meters (long waves).

"There are some American receivers which are assembled over here—Philco, Pilot, Ferguson, and others, and I have found that the American designed or built set has greater selectivity than an English one. We are just beginning to copy your automatic tuning, and no doubt it will be incorporated in our 1939 receivers.

"I live in the East Midlands of England, and can therefore get all the home stations at good signal strength, as well as many of the European stations. As far as America is concerned, the 19-20 meter band seems to yield the best results, and Schenectady is by far the best station."

From Europe we learn that CT1AA in Lisbon, Portugal, on 629 kcs., has increased power from 15 to 20 kilowatts.

Rome No. 1 increased its output from 100 to 120 kilowatts.

Bodo, Norway, has shifted its frequency from 850 to 823 kilocycles.

"Radio Normandie" at Fecamp, France, moved from 1113 to 1411 kilocycles.

Two new stations and a change in frequency are reported from Australia.

A new station in Young, NSW, has the call sign 2LF, on 1340 kcs. The power is 300 watts, and the address is Young Broadcasters, Ltd., Watson House, 9 Bligh St., Sydney.

In Derby, Tasmania is new station 7DY, on 1400 kcs, with 100 watts power. It is owned by the North East Tasmanian Radio Broadcasters, Pty., Ltd., Paterson St., Launceston, Tas.

Station 4ZR in Roma, Queensland, moved its frequency from 1450 to 1490 kcs. This 100 watt station is owned by the Maranoa Broadcasting Co., Pty., Ltd., Hawthorne Road, Roma.

Shortwave Report

From Pat Webb of 1526 Hicks Ave., San Antonio, Tex. comes an interesting report on shortwave stations. "I have heard VR6AY several times lately," Pat writes. "They are on almost every evening at irregular intervals, beginning sometimes as early as 7 pm, CST, and continuing as late as 10 o'clock. It is difficult to pick up VR6AY sometimes because their carrier is not on the air except when they are actually talking (controlled carrier). Two frequencies are usually employed, 17280 kcs, which they call No. 5, and 15330, which is their No. 4. The signals are quite strong, varying from R7 to R9.

"Praha is now using OLR5B on 15380 until 8 o'clock, and then they switch over to OLR4B on 11760 kcs.

"RK1 broadcasts programs with English announcements on 15040 kcs, from 6 to 8 pm, CST. This is the loudest signal I have heard from Moscow, but the quality does not seem to be very good.

"W2XAD broadcasts Latin-American programs on 9550 kcs, begin-

ning at 5:30 CST, in the evening. They carry the same sustaining programs as W2XAF, but when 2XAF has a commercial, 2XAD has its own program.

"The Press Wireless Stations have changed their schedule. They are on now from 11:30 to 12:30 noon, Monday through Friday. W2XGB at Hicksville, N. Y. puts a good signal into this area on 17310, but the Elgin station is barely heard."

The MONTH'S CHANGES in Station Data

		New
990	CMKL	Bayamo, Cuba. Cespedes 26
1210	KWJB	Globe, Ariz. Sims Broadcasting Co.
1210	.....	Rice Lake, Wis. Walter H. McGenty
1250	WKST	New Castle, Pa. Keystone Brdstg. Co.
1250	.....	St. Louis, Mo. Star-Times Pub. Co.
1370	WHLS	Port Huron, Mich. Port Huron Brdstg. Co.
1420	KGLU	Safford, Ariz. Gila Broadcasting Co.
1420	.....	Bozeman, Mont. Roberts McNab Co.
		Power
950	WRC	Washington, D. C., 1000 (5) from 500
1490	KFBK	Sacramento, Calif., 10,000 from 5000
		Network
570	KGKO	Wichita Falls, Tex., NBC from CBS
640	WHKC	Columbus, O., new MBS
1210	KPFA	Helena, Mont., new NBC
1310	CJLS	Yarmouth, N. S., new CBC
1370	KTOK	Oklahoma City, Okla., new NBC
1500	CJIC	Sault Ste. Marie, Ont., new CBC
		Owner
1200	WHBC	Ohio Brdstg. Co., 319 Tuscola St., W., Canton, O.
1200	WJNO	WJNO, Inc., Box 189, W. Palm Beach, Fla.
		Permit to Change Frequency
980	XEFE	Nuevo Laredo, Tams., to ?
1190	WATR	Waterbury, Conn., to 1290
1240	KJPM	Minot, N. Dak., to 1360
1250	WCAL	Northfield, Minn., to 760
1250	WLB	Minneapolis, Minn., to 760
1310	KINY	Juneau, T. A., to 1430
1310	WOL	Washington, D. C., to 1230
1420	KABR	Aberdeen, S. Dak., to 1390

Permit to Change Power	
570	CMCY Havana, Cuba, to 10,000
570	KGKO Wichita Falls, Tex., to 1000 (5)
590	WKZO Kalamazoo, Mich., to 250 (1)
760	KXA Seattle, Wash., to 1000
810	CMCF Havana, Cuba, to 5000
850	WWL New Orleans, La., to 50,000
880	CMW Havana, Cuba, to 5000
880	WCOF Meridian, Miss., to 1000
890	KFNF Shenandoah, Iowa, to 1000 (5)
890	WMMN Fairmont, W. Va., to 1000 (5)

900	KGBU Ketchikan, T. A., to 1000
920	CMX Havana, Cuba, to 5000
1000	CMBZ Havana, Cuba, to 5000
1110	CMCJ Havana, Cuba, to 5000
1110	KSOO Sioux Falls, S. Dak., to 5000
1170	CMBS Havana, Cuba, to 5000
1190	WATR Waterbury, Conn., to 250
1240	KLPM Minot, N. Dak., to 500 (1)
1250	KIT Yakima, Wash., to 500 (1)
1250	WCAL Northfield, Minn., to 5000
1250	WLB Minneapolis, Minn., to 5000

(Continued on page 61)

Geography Lesson

The National Geographic Society has compiled a list showing the English and local names of European countries, and their new map of Europe and the Mediterranean gives all place names in the local language. Using this information, we have made up a list of the European countries and their capital cities, giving the English and the local names. This list, used with the permission of the National Geographic Society, is given below:

COUNTRY		CAPITAL	
English	Local	English	Local
Albania	Shqipëria	Tirane	Tirane
Andorra	Andorra	Andorra	Andorra
Belgium	Belgique (French), or Belgie (Flemish)	Brussels	Bruxelles
Bulgaria	Bigariya	Sofia	Sofiya
Czechoslovakia	Ceskoslovensko	Prague	Praha
Danzig	Danzig	Danzig	Danzig
Denmark	Danmark	Copenhagen	Kobenhavn
Estonia	Eesti	Reval	Tallinn
Finland	Suomi	Helsingfors	Helsinki
France	France	Paris	Paris
Germany	Deutsches Reich	Berlin	Berlin
Great Britain	Great Britain	London	London
Greece	Hellas	Athens	Athens
Hungary	Magyarország	Budapest	Budapest
Iceland	Island	Reykjavik	Reykjavik
Ireland	Eire	Dublin	Balle Atha Cliath
Italy	Italia	Rome	Roma
Latvia	Latvija	Riga	Riga
Liechtenstein	Liechtenstein	.....	.....
Lithuania	Lietuva	Kovno	Kaunas
Luxembourg	Luxembourg	Luxembourg	Luxembourg
Monaco	Monaco	Monaco	Monaco
Netherlands	Nederland	The Hague	'sGravenhage
Norway	Norge	Amsterdam	Amsterdam
Poland	Polyska	Oslo	Oslo
Portugal	Portugal	Warsaw	Warszawa
Romania	Romania	Lisbon	Lisboa
Spain	Espana	Bucharest	Bucouresti
Sweden	Sverige	Madrid	Madrid
Switzerland	Helvetia, or Suisse, or Schweiz, or Svizzera	Stockholm	Stockholm
Turkey	Turkiye	Bern	Bern
Union of Soviet Socialist Republics	Soyuz Sovetskikh Sotsialisticheskikh Respublik	Angora	Ankara
Vatican City	Citta del Vaticano	Moscow	Moskva
Yugoslavia	Jugoslavija	Vatican City	Citta del Vaticano
		Belgrade	Beograd

NBC Shortwave Service

DURING the last six months of 1937, a total of 2697 letters from seventy-five different countries and possessions was received by W3XAL, international shortwave station of the National Broadcasting Company. These letters bore postmarks of countries in Europe, Africa, Asia, the Indian Ocean, the South Seas, Australia, and South and Central America. In fact, the mail box of the NBC International Division has become a veritable heaven-on-earth for stamp collectors.

Announcements and programs in French, German and Italian were started by W3XAL in July, 1937. For practically a year before this, the same service was being rendered in both Spanish and Portuguese. At present the International Division operates from 9 am to 1 am, EST, with an hour and a half of special programs for German-speaking listeners, two hours for the French, and one hour for the Italian. From 5 pm to 1 am, EST, programs in English, Spanish and Portuguese are broadcast, with one hour in Spanish especially for the Argentine, and one hour in Portuguese for Brazil.

As a result of this intensification of service, radio listeners in nearly every part of the world have written to NBC to express their appreciation. Many of the writers say that NBC's broadcasts are one of their greatest sources of entertainment and the best way to obtain news untouched by propaganda.

In one instance, word came to NBC from a Prince on the Ile Reunion in the Indian Ocean by way of an amateur radio operator in Scranton, Pa. According to the Pennsylvanian, Prince Vinh San of St. Denis, Reunion, enjoys the short-

waved programs of popular American music.

Each period of special broadcasts brings its response. The German period inspires letters from the Fatherland and in the colonies of Africa. A young man, writing from Wiesbaden in Germany, said that he not only had been improving his English by listening to W3XAL, but also was deriving great pleasure from "your dance music, particularly the new dance, 'Big Apple.'"

German listeners have also written from Sungu-Lukolela in the Belgian Congo, from Switzerland, Austria, The Netherlands, France, Palestine, Czechoslovakia, Denmark, Belgium, and many other places.

The French also are voluble in their appreciation of the special programs broadcast to them in Europe and in many of the out-of-the-way places of the world. A listener at Le Vesinet in France says, "I have the honor to write you to convey to you what great, what immense joy we experience; we listen to a French voice flung athwart space speaking to us of the great America, our only friend, our true friend, and I believe in saying this that I am very sincerely expressing the opinion of all the French." Other French letters come from Diego-Suarez in Madagascar, Beirut in Syria, Conakry in French Guinea, Morocco, Turkey, Mauritius Island, Mexico, Roumania, Senegal, Portuguese West Africa, French Sudan and French Equatorial Africa.

These letters show that radio listeners the world over are anxious to get American news and entertainment, and that our overseas friends in general like to hear popular American music—hill billy or swing type.

Frequency Check Schedule

THE Federal Communications Commission recently has adopted a new schedule for its monthly frequency checks. Reducing the periods for each station from 20 to 15 minutes, the FCC now has one or more broadcasters signing on every five minutes. A total of 335 stations is included in the schedule which is now in operation.

As in the past, the tests take place during the second week of each month. In June the schedule will commence on Wednesday the 8th, and continue through Tuesday the 14th.

All times listed are a. m., Eastern Standard.

Second Monday	
3:00-3:15	WABY 1370 Albany, N. Y.
3:05-3:20	WMA5 1420 Springfield, Mass.
3:10-3:25	WCAX 1200 Burlington, Vt.
3:15-3:30	WRDQ 1370 Augusta, Maine
3:20-3:35	WAGM 1420 Presque Isle, Me.
3:30-3:45	WQDM 1390 St. Albans, Vt.
3:35-3:50	WMEF 1310 Plattsburg, N. Y.
3:40-3:55	WABI 1200 Bangor, Maine
3:45-4:00	WCAD 1220 Canton, N. Y.
3:50-4:05	WLNH 1310 Iaconia, N. H.
3:55-4:10	WIBX 1200 Utica, N. Y.
4:00-4:15	WWRL 1500 Woodside, N. Y.
4:05-4:20	WMRO 1310 Auburn, N. Y.
4:10-4:25	WRRB 1210 Red Bank, N. J.
4:20-4:35	KVOX 1310 Moorhead, Minn.
4:25-4:40	KFPW 1210 Fort Smith, Ark.
4:30-4:45	WMIN 1370 St. Paul, Minn.
4:35-4:50	KNKT 1420 Palestine, Texas
4:40-4:55	WBBZ 1200 Ponca City, Okla.
4:45-5:00	KFPQ 1370 Boone, Iowa
4:50-5:05	KRRC 1420 Abilene, Texas
4:55-5:10	KGHI 1200 Little Rock, Ark.
5:00-5:15	KTFM 1370 Temple, Texas
5:05-5:20	KAHR 1420 Aberdeen, S. D.
5:10-5:25	KGEK 1200 Sterling, Colo.
5:15-5:30	KFJZ 1370 Fort Worth, Texas
5:20-5:35	WMBH 1420 Joplin, Mo.
5:25-5:40	WIL 1200 St. Louis, Mo.
5:30-5:45	WOC 1370 Davenport, Iowa
5:35-5:50	KABC 1420 San Antonio, Texas
5:40-5:55	KADA 1200 Ada, Okla.
5:45-6:00	KLUF 1370 Galveston, Texas
5:55-6:10	KHBC 1400 Hilo, Hawaii
6:00-6:15	KRE 1370 Berkeley, Calif.
6:05-6:20	KXO 1500 El Centro, Calif.
6:10-6:25	KWG 1200 Stockton, Calif.
6:15-6:30	KERN 1370 Bakersfield, Calif.
6:20-6:35	KUMA 1420 Yuma, Ariz.
6:25-6:40	KVCV 1200 Redding, Calif.
6:30-6:45	KIS 1280 Oakland, Calif.
6:35-6:50	KYOS 1040 Merced, Calif.
6:40-6:55	KSUN 1200 Lowell, Ariz.
6:45-7:00	KGDM 1100 Stockton, Calif.
6:50-7:05	KIEM 1450 Eureka, Calif.
6:55-7:10	KVEC 1200 San Luis Obispo, Calif.

Second Tuesday	
3:00-3:15	WSJS 1310 Winston-Salem, N. C.
3:05-3:20	WMFJ 1420 Daytona Beach, Fla.
3:10-3:25	WAIM 1200 Anderson, S. C.
3:15-3:30	WMFD 1370 Wilmington, N. C.
3:20-3:35	WEED 1420 Rocky Mount, N. C.
3:25-3:40	WJNO 1200 W. Palm Beach, Fla.
3:30-3:45	WRDW 1500 Augusta, Ga.
3:35-3:50	WICA 940 Ashtabula, Ohio
	WIOD 610 Miami, Fla.
3:40-3:55	WAYX 1200 Waycross, Ga.
	WBJY 1210 Lima, Ohio
3:45-4:00	WDNC 1500 Durham, N. C.
	WPAY 1370 Portsmouth, Ohio
3:50-4:05	WAIR 1250 Winston-Salem, N. C.
	WMBC 1420 Detroit, Mich.
3:55-4:10	WALR 1210 Zanesville, Ohio
	WMFR 1200 High Point, N. C.
4:00-4:15	WHBB 1500 Selma, Ala.
	WKRC 550 Cincinnati, Ohio
4:05-4:20	WCLE 610 Cleveland, Ohio
	WSMB 1320 New Orleans, La.
4:10-4:25	KALB 1210 Alexandria, La.
	WLBC 1310 Muncie, Ind.
4:15-4:30	KELD 1370 El Dorado, Ark.
	WOPI 1500 Bristol, Tenn.
	WWAE 1200 Hammond, Ind.
4:20-4:35	WACO 1420 Waco, Texas
	WBCM 1410 Bay City, Mich.
	WDBO 580 Orlando, Fla.
4:25-4:40	KXYZ 1440 Houston, Texas
	WCMI 1310 Ashland, Ky.
	WSIX 1210 Nashville, Tenn.
4:30-4:45	KGKL 1370 San Angelo, Tex.
	WHBY 1200 Green Bay, Wis.
	WHEF 1500 Koscusko, Miss.
4:35-4:50	KCMC 1420 Texarkana, Tex.
	WHK 1390 Cleveland, Ohio
4:40-4:55	KRGV 1260 Westlaco, Texas
	WADC 1320 Akron, Ohio
4:45-5:00	KTOE 1370 Oklahoma City, Okla.
	WJBK 1500 Detroit, Mich.
4:50-5:05	KGFF 1420 Shawnee, Okla.
4:55-5:10	KFVS 1210 Cape Girardeau, Mo.
5:00-5:15	KMAC 1370 San Antonio, Texas
5:05-5:20	KAND 1310 Corsicana, Texas
5:10-5:25	KLAH 1210 Carlisbad, N. Mex.
5:15-5:30	KIUP 1370 Durango, Colo.
5:20-5:35	KFNR 1310 Oklahoma City, Okla.
5:25-5:40	KDLR 1210 Devils Lake, N. D.
5:30-5:45	KICA 1370 Clovis, N. Mex.
5:35-5:50	KGMB 1320 Honolulu, Hawaii
5:40-5:55	KBTM 1200 Jonesboro, Ark.
5:45-6:00	KRMC 1370 Jamestown, N. D.
6:05-6:20	KORE 1420 Eugene, Ore.
6:10-6:25	KOOS 1200 Marshfield, Ore.
6:15-6:30	KAST 1370 Astoria, Ore.
6:20-6:35	KPQ 1500 Wenatchee, Wash.
6:25-6:40	KFND 1200 Nampa, Idaho
6:30-6:45	KUJ 1370 Walla Walla, Wash.
6:35-6:50	KRNR 1500 Roseburg, Ore.
6:40-6:55	KVOS 1200 Bellingham, Wash.
6:45-7:00	KEEN 1370 Seattle, Wash.
6:50-7:05	KMED 1410 Medford, Ore.
7:00-7:15	KRKO 1370 Everett, Wash.

Second Wednesday	
3:00-3:15	WTEL 1310 Philadelphia, Pa.
3:05-3:20	WNBF 1500 Binghamton, N. Y.
3:10-3:25	WLVA 1200 Lynchburg, Va.
3:15-3:30	WSAJ 1370 Grove City, Pa.
3:20-3:35	WWSW 1500 Pittsburgh, Pa.
3:25-3:40	WBAX 1210 Wilkes-Barre, Pa.
3:30-3:45	WHAT 1310 Philadelphia, Pa.
3:35-3:50	WRTD 1500 Richmond, Va.

3:40-3:55	WBBL	1210	Richmond, Va.
3:45-4:00	WBNY	1370	Buffalo, N. Y.
3:50-4:05	WHIS	1410	Bluefield, W. Va.
3:55-4:10	WKOK	1210	Sunbury, Pa.
4:00-4:15	WPBG	1310	Altoona, Pa.
4:05-4:20	WQAN	880	Scranton, Pa.
4:10-4:25	KWNO	1200	Winona, Minn.
	WIDL	1400	Olean, N. Y.
4:15-4:30	KRIS	1330	Corpus Christi, Tex.
	WBBR	1310	Buffalo, N. Y.
	WIRM	1370	Jackson, Mich.
4:20-4:35	KBST	1500	Big Spring, Texas
	WPAR	1420	Parkersburg, W. Va.
4:25-4:40	KSO	1430	Des Moines, Iowa
	WCIO	1200	Janesville, Wis.
4:30-4:45	KROC	1310	Rochester, Minn.
	WEOA	1370	Evansville, Ind.
4:35-4:50	KDAL	1500	Duluth, Minn.
	WELL	1420	Battle Creek, Mich.
4:40-4:55	WHBC	1200	Canton, Ohio
	WTAW	1120	College Station, Tex.
4:45-5:00	KRMD	1310	Shreveport, La.
	WSAU	1370	Wausau, Wis.
4:50-5:05	KNEL	1500	Brady, Texas
	WLAP	1420	Lexington, Ky.
4:55-5:10	KFDM	560	Baumont, Texas
	WFAM	1200	South Bend, Ind.
5:00-5:15	KPDN	1310	Pampa, Texas
5:05-5:20	KPLT	1500	Paris, Texas
	WCBS	1420	Springfield, Ill.
5:10-5:25	KGKO	570	Wichita Falls, Tex.
5:15-5:30	KFPL	1310	Dublin, Texas
	WDWS	1370	Champaign, Ill.
5:20-5:35	KAWM	1500	Galup, N. Mex.
	WPAD	1420	Paducah, Ky.
5:25-5:40	KGLO	1210	Mason City, Iowa
	WJBC	1200	Bloomington, Ill.
5:30-5:45	KRRV	1310	Sherman, Texas
	WGL	1370	Fort Wayne, Ind.
5:35-5:50	KCKY	1500	Scottsbluff, Neb.
5:40-5:55	WIBU	1210	Poynette, Wis.
Second Thursday			
3:00-3:15	WKAT	1500	Miami Beach, Fla.
3:05-3:20	WJRD	1200	Tuscaloosa, Ala.
3:10-3:35	WSOC	1210	Charlotte, N. C.
3:15-3:30	WAML	1310	Laurel, Miss.
3:20-3:35	WPRR	1370	Mayaguez, P. R.
3:25-3:40	WPAX	1210	Thomasville, Ga.
3:30-3:45	WQAM	560	Miami, Fla.
3:35-3:50	WPRP	1420	Ponce, P. R.
3:40-3:55	WFTC	1200	Klinton, N. C.
3:45-4:00	WKAQ	1240	San Juan, P. R.
3:50-4:05	WHIG	1440	Greensboro, N. C.
3:55-4:10	WFOY	1210	St. Augustine, Fla.
4:00-4:15	WAGF	1370	Dothan, Ala.
4:05-4:20	KPLC	1500	Lake Charles, La.
	WFDF	1310	Flint, Mich.
4:10-4:25	WSPD	1340	Toledo, Ohio
4:15-4:30	WCPO	1200	Cincinnati, Ohio
	WMFO	1370	Decatur, Ala.
4:20-4:35	KFIZ	1420	Fond du Lac, Wis.
	WKUE	1500	Griffin, Ga.
4:25-4:40	WGBF	630	Evansville, Ind.
	WGCM	1310	Mississippi City, Miss.
4:30-4:45	KPYO	1210	Lubbock, Texas
	WAVE	940	Louisville, Ky.
	WFOR	1370	Hattiesburg, Miss.
4:35-4:50	KFJM	1410	Grand Forks, N. D.
	WTMS	1430	Memphis, Tenn.
	WTMV	1500	East St. Louis, Ill.
4:40-4:55	KCCU	1240	Mandan, N. D.
	KQV	1360	Pittsburgh, Pa.
	WBHP	1200	Huntsville, Ala.
4:45-5:00	KWOS	1310	Jefferson City, Mo.
	WCOC	880	Meridian, Miss.
	WGRC	1370	New Albany, Ind.
4:50-5:05	KOTN	1500	Pine Bluff, Ark.
4:55-5:10	WEW	760	St. Louis, Mo.
	WJMS	1420	Ironwood, Mich.
5:00-5:15	KGHF	1320	Pueblo, Colo.
	WHDF	1370	Calumet, Mich.
5:05-5:15	KGFI	1500	Brownsville, Tex.
5:10-5:25	WTRC	1310	Elkhart, Ind.
5:15-5:30	KHBG	1210	Okmulgee, Okla.
5:20-5:35	KONO	1370	San Antonio, Tex.
5:25-5:40	KGKB	1500	Tyler, Texas
5:30-5:45	EASA	1210	Elk City, Okla.
5:35-5:50	KPRO	1370	Longview, Texas
5:40-5:55	KNOW	1500	Austin, Texas
5:45-6:00	WMFG	1210	Hibbing, Minn.
5:50-6:05	KRLH	1420	Midland, Texas
5:55-6:10	KCRJ	1310	Jerome, Ariz.
	KIUL	1210	Garden City, Kans.
	KVOA	1260	Tucson, Ariz.
6:05-6:20	KIUB	1310	Wasonville, Calif.
6:10-6:25	KGCC	1420	San Francisco, Calif.
6:15-6:30	KGAR	1370	Tucson, Ariz.
6:20-6:35	KSRO	1310	Santa Rosa, Calif.
6:25-6:40	KTRB	740	Modesto, Calif.
6:30-6:45	KJBS	1070	San Francisco, Calif.
6:35-6:50	KSUB	1310	Cedar City, Utah
6:40-6:55	KDON	1210	Monterey, Calif.
6:45-7:00	KGU	750	Honolulu, Hawaii
6:50-7:05	KHSL	1260	Chico, Calif.
6:55-7:10	KROY	1210	Sacramento, Calif.
Second Friday			
3:00-3:15	WWSV	1370	Buffalo, N. Y.
3:05-3:20	WJAC	1310	Johnstown, Pa.
3:10-3:25	WJTN	1210	Jamestown, N. Y.
3:15-3:30	WBLK	1370	Clarksburg, W. Va.
3:20-3:35	WLEU	1420	Erie, Pa.
3:25-3:40	WCAP	1280	Asbury Park, N. J.
	WSAY	1210	Rochester, N. Y.
3:30-3:45	WDEV	550	Waterbury, Vt.
	WGH	1310	Newport News, Va.
3:35-3:50	WCNW	1500	Brooklyn, N. Y.
	WMBS	1420	Uniontown, Pa.
3:40-3:55	WFAS	1210	White Plains, N. Y.
	WMBG	1350	Richmond, Va.
3:45-4:00	WOKO	1430	Albany, N. Y.
	WRAW	1310	Reading, Pa.
3:50-4:05	WDAS	1370	Philadelphia, Pa.
	WSYB	1500	Rutland, Vt.
3:55-4:10	WNHZ	1290	Saranac Lake, N.Y.
	WSYR	570	Syracuse, N. Y.
4:00-4:15	WBRE	1310	Wilkes-Barre, Pa.
4:05-4:20	WBTM	1370	Danville, Va.
	WNLC	1500	New London, Conn.
4:10-4:25	WGBB	1210	Freeport, N. Y.
	WHCC	1430	Rochester, N. Y.
4:15-4:30	WHTD	1200	Hartford, Conn.
4:20-4:35	WMBQ	1500	Brooklyn, N. Y.
	WRAK	1370	Williamsport, Pa.
4:25-4:40	WBOW	1310	Terre Haute, Ind.
	WGNV	1210	Newburgh, N. Y.
4:30-4:45	WJBL	1200	Decatur, Ill.
4:35-4:50	KATE	1420	Albert Lea, Minn.
	WKBB	1500	Dubuque, Iowa
4:40-4:55	KARK	890	Little Rock, Ark.
	WJMN	1210	Lansing, Mich.
4:45-5:00	WEXL	1310	Royal Oak, Mich.
	WHLB	1370	Virginia, Minn.
4:50-5:05	KIUN	1420	Pecos, Texas
4:55-5:10	KFJB	1200	Marshalltown, Iowa
5:00-5:15	KGGM	1230	Albuquerque, N. M.
	WBE0	1310	Marquette, Mich.
5:05-5:20	KGIW	1420	Alamosa, Colo.
	WKBV	1500	Richmond, Ind.
5:10-5:25	KGDE	1200	Fergus Falls, Minn.
	WHBF	1210	Rock Island, Ill.
5:15-5:30	KGFL	1370	Roswell, N. Mex.
	WEMP	1310	Millwaukee, Wis.
5:20-5:35	KEUB	1420	Price, Utah
5:25-5:40	WCAT	1200	Rapid City, S. D.
	WEBQ	1210	Harrisburg, Ill.
5:30-5:45	KWYO	1370	Sheridan, Wyo.
5:35-5:50	KIDW	1420	Lamar, Colo.
5:40-5:55	KFNJ	1200	Grand Junction, Colo.
5:45-6:00	KGBX	1230	Springfield, Mo.
5:50-6:05	KROA	1310	Santa Fe, N. Mex.
Second Saturday			
3:35-3:50	WKBB	1500	Muskogee, Mich.
3:40-3:55	WJW	1210	Akron, Ohio
3:45-4:00	WBNS	1430	Columbus, Ohio

3:50-4:05	WGAR	1450	Cleveland, Ohio	KVOL	1310	Lafayette, La.	
	WOLS	1200	Florence, S. C.	KBIX	1500	Muskogee, Okla.	
3:55-4:10	WCOL	1210	Columbus, Ohio	WBNO	1200	New Orleans, La.	
	WJAK	1310	Lakeland, Fla.	5:05-5:20	KPAC	1260	Port Arthur, Tex.
4:00-4:15	WCAZ	1070	Carthage, Ill.	5:10-5:25	KANS	1210	Wichita, Kans.
	WQBC	1360	Vicksburg, Miss.		WROL	1310	Knoxville, Tenn.
4:05-4:20	WJBO	1120	Baton Rouge, La.	5:15-5:30	KMLB	1200	Monroe, La.
	WSMK	1380	Dayton, Ohio		KTRH	1290	Houston, Texas
4:10-4:25	WOMT	1210	Manitowoc, Wis.	5:20-5:35	KLPM	1240	Minot, N. D.
	WTAL	1310	Tallahassee, Fla.	5:25-5:40	KVSO	1210	Ardmore, Okla.
4:15-4:30	WNEL	1290	San Juan, P. R.	5:30-5:45	KWLC	1270	Decorah, Iowa
	WOSU	570	Columbus, Ohio	5:35-5:50	KTSM	1310	El Paso, Texas
4:20-4:35	WDZ	1020	Tuscola, Ill.	5:40-5:55	KWTN	1210	Watertown, S. D.
	WMSD	1420	Muscle Shoals, Ala.	5:45-6:00	WLB	1250	Minneapolis, Minn.
4:25-4:40	WGTM	1310	Wilson, N. C.	5:50-6:05	KOBH	1370	Rapid City, S. D.
	WHBU	1210	Anderson, Ind.	5:55-6:10	KPFA	1210	Helena, Mont.
4:30-4:45	WJBN	1200	New Orleans, La.	6:00-6:15	KIT	1250	Yakima, Wash.
	WGBN	570	Youngstown, Ohio	6:05-6:20	KGBU	900	Ketchikan, Alaska
4:35-4:50	WGPC	1420	Albany, Ga.	6:10-6:25	KFJL	1210	Klamath Falls, Ore.
	WNAJ	1010	Norman, Okla.	6:15-6:30	KGEZ	1310	Kalspell, Mont.
	WXYZ	1240	Detroit, Mich.	6:20-6:35	KGVO	1260	Missoula, Mont.
4:40-4:55	KOVC	1500	Valley City, N. D.	6:25-6:40	KGY	1210	Olympia, Wash.
	WTAX	1210	Springfield, Ill.	6:30-6:45	KXRO	1310	Aberdeen, Wash.
	WTJS	1310	Jackson, Penn.	6:35-6:50	KGCX	1450	Wolf Point, Mont.
4:45-5:00	KLCN	1290	Blytheville, Ark.	6:40-6:55	KFIO	1120	Spokane, Wash.
	WMBR	1370	Jacksonville, Fla.	6:45-7:00	K1NY	1310	Juneau, Alaska
	WMPG	1200	Lapeer, Mich.	6:50-7:05	KFQD	780	Anchorage, Alaska
4:50-5:05	KGCA	1270	Decorah, Iowa	6:55-7:10	KRLC	1390	Lewiston, Idaho
4:55-5:10	KOCA	1210	Kilgore, Texas				

Universal DX

Club Corner

• • • By "Pooky"



"POOKY" says: "The wise man faces realities bravely. If he cannot reach the peak of the mountain, he does not refuse to enjoy the view from a lower level."

Every year, numerous newcomers to the ranks of DX-ers drop from sight, lose interest in the hobby, and the DX world hears of them no more. Why is this? Because they read of immense logs compiled by others, of unbelievable records attained, and of collections of verifications numbering in the thousands. And they say to themselves, "I could never catch up to them;

what is *my* modest log compared to theirs?" They do not stop to think that the man who reached the top of the mountain was an experienced climber, that he reached it in easy stages, that he had patience, perseverance, and persistence.

And if they never reach the top, what of it? Is not the view as enjoyable from a lower level? Can they not look about them and enjoy the company of others at the same height?

Think this over, you who have been with us for only a year or two. Was the past season disappointing? No more so for you than for many others! Look ahead—look toward the future, the next season, and advance in easy stages. Before long, you will approach the peak of the mountain, and you will realize that the splendor of the view gradually unfolding itself as you climbed was much better than it would have been had you been suddenly thrust to the summit.

Communications for "Pooky" should be addressed in care of Universal DX Club Headquarters, 345 Maple Avenue, Oradell, N. J. Letters which are accepted for publica-

tion in this column are eligible for one of the prizes listed in the September issue of RADEX.

The DX Reporter

THE DX program known as "The DX Reporter" has been a regular weekly feature of station WTAR, Norfolk, Va., for over two years. Under the direction of Lee Chadwick, this broadcast has shown a steady increase in popularity, and mail counts made in 1937 indicate that the "DX Reporter" polled ninth in appeal.

The "DX Reporter" features popular musical selections, as well as tips taken from the *Universalite*, official organ of the Universal Radio DX Club. A shortwave section was added recently in response to requests from followers of the program.

Offers of five issues of the club

bulletins are made occasionally, to check on the program's appeal, but its popularity was definitely proven when, in order to secure a better time for the feature, the schedule was changed from 1:45 pm, to a 9:45 am, spot. Since the time change was made too suddenly to announce in the local papers, a telephone operator was required most of the afternoon after two o'clock to give the tips individually to fans who phoned in because they had missed the programs that day.

All DX correspondence that is received by the station is handled by Lee Chadwick, and then passed on to the engineering department, headed by J. L. Grether, Technical Supervisor. Reports with postage enclosed are answered promptly, while those without return postage are answered only if the contents prove exceptionally interesting. Station stamps are available for the usual dime.

The SHORTWAVE STATIONS of the WORLD

Shortwave List Copyright 1938 by Page Taylor

In this index of the shortwave stations of the world, only stations which use voice are listed.

Frequencies are given in kilocycles per second. To change to megacycles, place a decimal point three digits to the left.

The studio locations are shown, and the location of the transmitter, when different from the studios, follows in parentheses.

Power is shown in watts, unless kilowatts (kw) is mentioned.

Following the power value, the symbols in parentheses indicate the type of station, as follows:

A—Airway	Em—Emergency
B—Broadcast	F—Forestry
C—Commercial	LH—Lighthouse
Phone	P—Police
CG—Coast Guard	R—Relay
E—Experimental	SS—Ship Phone

The word DRIFTS indicates that the

station is in the habit of shifting from its assigned frequency.

Abbreviations for identification aids are—Int. (Interval signal); s/o (sign-off); Ann (announcements); Add (Address); Hrs (Hours).

Du—Dutch	Jap—Japanese
Eng—English	Port—Portuguese
Fr—French	Ru—Russian
Ger—German	Sp—Spanish
It—Italian	

Unconfirmed stations, those under construction, and stations operating off their assigned frequencies, are given in *italics*.

****Asterisks indicate that the complete list of stations is given in another index.

All stations listed will verify for return postage unless otherwise noted. Return postage can be sent to foreign countries in the form of International Reply Coupons, available at any post office for nine cents each. (X) means the station will not verify.

9570	TPB11	Paris, France (Essarts). (B) "Paris Mondial." Add: Ministère des Postes, Télégraphes et Téléphones. Hrs: 1-4 a.m.; 10:15 a.m.-5 p.m.	JZJ	Tokyo, Japan. (Nazaki). 50 kw. (B). Ann: Chinese, Eng, Fr, Ger, Jap, Port, Sp. s/o: "Kimagayo." nat'l anthem. Add: Nippon Hoso Kyokai, Overseas Section, Broadcasting Corp. of Japan, Atako-Yama. Hrs: 12:30-1:30 a.m.; 7-7:30 a.m.; 8-9:30 a.m.; 4:30-5:30 p.m.; 6-6:30 p.m.			
11710	NEWB	Guadalajara, Jal. 15 w. (B). Add: Camara de Proprietarios de Guadalajara, Juarez 289.					
	YSM	San Salvador, E. S. Owner: Director, Radio Nacionales.					
11713	TPA4	Paris, France (Pontoise). (B). "Radio Coloniale." Add: Ministère des Postes, des Télégraphes et des Téléphones, 98 bis, Blvd. Haussmann. Hrs: 6-15 a.m.-1 p.m.	OEK#	Vienna, Austria. 1600 w. (B). "Radio Wien."			
11718	CR7BH	Lourenco Marques, Port. East Africa. 200 w. (B). Add: Cremio dos Radiofilos da Colonia de Mocambique, Caixa 594. Hrs: Sun. 5:30-7 a.m. Other days 4:30-6:30 a.m.	11805	OZF	Copenhagen, Denmark (Skamtebaek). (B). Add: Stratsradiofonien, Tordenskjoldsgade 3. Hrs: 6:30-9 p.m.		
11720	CJR.X	Winnipeg, Man. (Middlechurch). 2 kw. (B). Add: James Richardson & Sons, Ltd., 157 Royal Alexandra Hotel. Hrs: 6 p.m.-midnt.	11810	2RO4	Rome, Italy. 25 kw. (B). "Radio Roma-Napoli." Ann: usually by lady. s/o: two nat'l anthems, "Giovinezza" and "Marcha Reale." Add: EIAR, Via Montello 5. Hrs: 5 a.m.-12:20 p.m.		
11730	PBI	Hilversum, Netherlands. 23600 watts. (B). Ann: Du, Enc, Fr, Ger, Malay, Port, Sp. s/o: Nat'l anthem. Add: Philip's Omroep Holland-India, Emmasingel 29. Hrs: winter only.					
	WIXAL	Boston, Mass. (B). Add: Educational Director, University Club.					
11740	HP5L	David, Chiriqui, Panama 350 w. (B). "Las Ondas del Barú." Add: Leo Marohosky, Mgr., Apto 129.					
11750	GSD	London, Gt. Britain. (Davenport). 20 kw. (B). "D for Davenport." For details see GSB on 9510. Hrs: 2-4:15 a.m.; 8:55 a.m.-noon; 12:20-4 p.m.; 6-8:30 p.m.; 9:20-11:20 p.m.	W9XAA	Chicago, Ill. 20 kw. (B).			
	HVJ	Vatican City. (B). Int: ticking of clock. Ann: "Laudatur Jesus Christus." Add: Pontificia Accademia Della Scienze, Roma-Castina Pio IV.	11840	CSW KZRM	Lisbon, Portugal. 5 kw. (B). Manila, P. I. (B). Add: Erlanger & Gallinger, Inc., Regina Bldg., David St.		
11760	OLR4B	Prague, Czechoslovakia. 35 kw. (B).	OLR4A	Prague, Czecho-. (Podobradý). 35 kw. (B).			
	TGWA	Guatemala City, Guat. 10 kw. (B). "The Voice of Guat." Add: Ministerio de Fomento, Verifes FREE.	11845	Paris, France. (Essarts). (B). "Radio Coloniale."		
11765	XETA	Monterrey, N. L. 1 kw. (B). Add: El Prezonero del Norte, S. A., Edificio Reyes, Box 203. Hrs: noon-3:30 p.m.	11860	GSE	London, Gt. Britain. 20 kw (B). "E for Empire." For more details see GSB on 9510.		
11770	DJD	Berlin, Germany. (Zeesen). 50 kw. (B). For details see DJN on 9540. Hrs: 10:40 a.m.-4:30 p.m.; 4:50-10:45 p.m.	YDB	Sourabaya, Java, N.E.I. 1 kw. (B).			
11790	WIXAL	Boston, Mass. 20 kw. (B). "Dedicated to Enlightenment." Add: Educational Director, University Club.	11870	1QY W8XK	Rome, Italy. (E). (X) Pittsburgh, Pa. (Saxonsburg). 40 kw. (B). Relays NBC-KDKA. Add: Westinghouse Elec. & Mfg. Co., Grant Bldg.		
11795	DJO	Berlin, Germany. (Zeesen) (B). For details see DJN on 9540.	11875	OLR4C	Prague, Czechoslovakia. 35 kw. (B).		
11796	OAX5A	Ica, Peru. 100 w. (B). "Radio Universal." Add: J. Antonio Umbert F., Av. San Luis. Hrs: noon-4 p.m.; 7-11:30 p.m.	11880	XENA	Mexico City, D. F. 100 w. (B). Add: Secretaria de Educacion Publica, Argentina y L. G. Obregon.		
11800	COGF	Matanzas, Cuba. 1 kw. (B). Relays CMGE. Add: Cia. Panificadora de Matanzas, Calle Gral. Betancourt 51. Hrs: 1:30-4 p.m.; 6-10 p.m.	11885	TPB7	Paris, France (Essarts). (B). Hrs: 8:30-11 p.m.		
					11895	HP5I	Aguadulce, Panama. (B). "La Voz del Interior." Int: 3 strokes on gong. s/o: "El Tambor de la Alegria."
						XEXR	Mexico City, D. F. 100 w. (B). See XENA on 11880 for data.
					11900	CD1190	Valdivia, Chile. (B). "Radio Sur." Relays CD69. Add: C. Kahler y Cia, Ltda., Casilla 642. Hrs: 10 a.m.-1 p.m.; 7-10 p.m.
						OLR4D XEWI	Prague, Czecho-. 35 kw. (B). Mexico City, D. F. 400 w. (B). "My Voice to the World From Mexico." s/o: "Ah, Sweet

		Mystery of Life." add: Aptdo 2874. Hrs: 7:30 p.m.-midnt.	13410	HHS WCT	Port-au-Prince, Haiti. (C). San Juan, Puerto Rico. 400 w.
11955	IUC	Addis Ababa, Ethiopia. (C).			Add: Radio Corp. of P. R.
11960	H12X	Trujillo, D. R. 500 w. (B). Relays HIX. Owner: J. R. Saladin, Mgr., for Dominican Gov't. Hrs: Sun., 7:40-10:40 a.m.; Tues., Fri., 8-10 p.m.	13530	TDH	Shinkio, Manchukuo. (C). Manchukuo Teleg. & Teleph. Co., Ltd. Rugby, Gt. Britain. See GDP on 7920.
12000	RNE	Moscow, U.S.S.R. 20 kw. (B). Programs in Czech, Dutch, Eng, Fr, Ger, Hungarian, Ru, Sp, Swedish. Int: Kremlin chimes on even hours. s/o: "Internationale." Add: Sollanka 12.	13585	GBB	
12120	TPZ	Algiers, Algeria. (B and C). Add: L'Engineur en Chef des P. T. T., 137 Rue de Constantine, Alger.	13635	SPW	Warsaw, Poland. 10 kw. (B). Int: "The Haunted Castle." Add: Polskie Radio, 5 Mazowiecka St. Hrs: 6-7 p.m. (X) Bollnas, Calif. (C). Drummondville, P. Q. (SS).
12150	GBS	Rugby, Gt. Britain. 15 kw. (C). See GDP on 7920.	13690	KKZ	
12235	TFJ	Reykjavik, Iceland. 7500 w. (B). Add: Icelandic State Brdcstg. Service, Box 547. Hrs: Sun., 1:45-2:30 p.m.	13745	CGA2	
12290	GBU	Rugby, Gt. Britain. (C). See GDP on 7920.	13760	TYE2	Pontoise, France. 20 kw. (C). Add: Societe Francaise Radio-Electrique, 79 Blvd. Hausmann, Paris. (X) Bollnas, Calif. (C). Cairo, Egypt. (Abu Zabal). (C). Raboul, New Guinea. (C). (X) Rocky Point, N. Y. (C). Shinkio, Manchukuo. (C). Berlin, Germany. (Zeessen). (E). See DJN on 9540 kes.
12330	****	Pacific Alaska Airways	13780	KKW	
12330	****	Pan American Airways	13820	SUZ	
12500	HIN	Trujillo, D. R. 750 w. (B). s/o: Nat'l anthem. Add: Aptdo 604.	13880	VJZ	
12630	NAA	Arlington, Va. Time signals at 9:55 a.m.	13900	WQP	
12675	.....	Guayaquil, Ecuador. (B). "Radio Farib."	13980	TDC	
12680	.....	Duala, French Cameroons. (C)	13986	DJS	
12765	VP2LO	Basse-terre, St. Kitts, B.W.I. 500 w. (B)	13990	GBA2	
12830	CNR	Rabat, Morocco. 12 kw. (C). Add: Direction de l'Office des Postes, des Telegraphes et des Telephones.	14050	EA9A11	Tetuan, Sp. Morocco. 500 w. (B). Add: F. Diaz Gomez, Aptdo 124.
12840	WOO	(X) Ocean Gate, N. J. 20 kw. (SS)	14000		to
12862	W9XDH	Elgin, Ill. (Ex). Press Wireless. Inc.	14400		AMATEURS
12870	VVS	Mingaladon, Burma. 1500 w. (C). Add: Mingaladon Radio, 15th Mile, Promé Road, near Rangoon.	14420	HC1J18	Quito, Ecuador. (B). "Radio Rodante." Add: Clarence W. Jones, Castilla 601. Rugby, Gt. Britain. 15 kw. (C). Add: G.P.O. (Radio Section), Armour House, St. Martin's le Grand, London E.C1.
12885	NPQ	San Francisco, Calif. Time signals at 11:55 a.m.	14460	DZH	Berlin, Germany. (Zeessen). (E).
12998	TYCI	Ste. Assise, France. (C). L'Engineur en Chef, Directeur de Service de la Telegraphie sans Fil, 5 rue Froidvaux (14) Paris.	14470	WDO	(X) Ocean Gate, N. J. 20 kw. (C).
13040	.....	German Ships. Same as 8830 kes.	14480	WMF	(X) Lawrenceville, N. J. (C).
13050	.....	Italian Ships. IBEC, S. S. "Conte Rosso"; IBGT, S. S. "Conte Verde"; IBLI, S. S. "Conte di Savoia"; ICEJ, S. S. "Rex";	14485	YNA	Managua, Nicaragua. (C).
13075	VPD	Suva, Fiji. (B and C). "Radio Suva." s/o: "God Save The King." Add: Amalgamated Wireless, (A/sia) Ltd., Suva.	14485	HJA3	Bogota, Colombia. (C).
13190	FNSK	S. S. "Normandie." (SS). Add: French Lines, Pier 88, North River, Foot of W. 48th St., NYC.	14485	H1F	Panama City, Panama. (C).
13210	DOAI	S. S. "Europa." 70 w. (SS)	14485	HRL5	La Lima, Honduras. (C).
13210	FNSK	S. S. "Normandie." (SS). See FNSK on 13190 kes.	14485	HRM	Tegucigalpa, Honduras. (C).
13260	VVN	Fort Madras, India. 750 w. (C). Hrs: Works VVS 10 p.m.-7 a.m.	14485	YSJ	San Salvador, E. S. (C). Add: Telegrafos, Telefonos y Radio Nacionales.
	ZMBJ	T. S. S. "Awatea." (SS). Add: Union S. S. Co. of N. Z., Ltd.	14500	LSM2	Buenos Aires, Argentina. (C). Add: Cia. Internacional de Radio, S. A., Defensa 143.
13320	.....	British Ships. Same as 8830 kes.	14530	LSN1	Buenos Aires, Argentina. (C). Add: See LSM2 above.
13337	YVQ	Maracay, Venezuela. (C).	14535	HBJ	Geneva, Switzerland. (Prangins). (B and C). "Radio Nations." Add: Information Section, League of Nations.
13380	IDU	Asmara, Eritrea. (C)	14545	TGF TIU	Guatemala City, Guat. (C). Cartago, Costa Rica. (C). Add: Cia. Radiografica Internacional de C. R. (X) Lawrenceville, N. J. 20 kw. (C).
			14590	WMN	(X) Lawrenceville, N. J. 20 kw. (C).
			14635	GBL	Rugby, Gt. Britain. (C). See GBW on 14440 kes.
			14640	JVH	Nazaki, Japan. 20 kw. (C).
			14800	WQV	(X) Rocky Point, N. Y. (C).
			14845	OCJ2	Lima, Peru. (C).
			14900	LZA	Sofia, Bulgaria. 1500 w. (B). s/o: nat'l anthem.
			14910	JVG	Nazaki, Japan.
			14930	HJB PSE	Bogota, Colombia. (C). Rio de Janeiro, Brazil. (C).
			14940	HIR HJA3	Trujillo, Dominican Rep. (C). Barranquilla, Colombia. (C).
			14960	YSL	San Salvador, E. S. (C). Telegrafos, Telefonos y Radio Nacionales.

14980	KAY	(X) Manila, Philippine Isl. (C).							tune. s/o: "Horst Wessel Lied" and "Deutschlandlied." Add: Reichs-Rundfunk-Gesellschaft, Haus des Rundfunks, Masurenallee, Berlin-Charlottenburg 9.
15000	WWV	Beltsville, Md. Standard frequency transmissions irregularly.							Buenos Aires, Argentina. 5 kw. (B). "Radio El Mundo." Add: Calle Malpu 555.
15040	RKI	Moscow, U.S.S.R. (B). Add: Radio Centre, Solianka 12. Hrs: 7-9:15 p.m.			15290	LRU			<i>Kavanas, Lithuania.</i>
15055	WNC	(X) Hialeah, Fla. 400 w. (C).			15300	LYZL			London, Gt. Britain. (Davenport). 20 kw. (B). "P For Progress." Int: Bow Bells; Big Ben strikes hours, preceded by Westminster Chimes. s/o: "God Save The King." Add: British Brdcastg. Corp., London W1.
15080	RKI	Moscow, U.S.S.R. (C).			15310	GSP			Praha, Czechoslovakia. (Podebrady). 35 kw. (B). "Radio Podebrady." Add: Praha XII, Fochova Tr. 16.
15110	DJL	Berlin, Germany. (Zeesen). (B).			15330	W2XA1D			Schenectady, N. Y. 25 kw. (B). Relays NBC-WGY. Add: General Electric Co.
15116	OLR5C	Prague, Czechoslovakia. 35 kw. (B).				W6XBE			<i>Belmont, Calif. 20 kw. (B). General Elec. Co.</i>
15120	HVJ	Vatican City. 10 kw. (B). Int: ticking of clock. Ann: "Laudatur Jesus Christus." Add: Pontificia Accademia Della Scienze, Roma-Castina Pio IV. Hrs: 10:30-10:45 a.m.			15340	DJR			Berlin, Germany. (Zeesen). 50 kw. (B). See DJQ on 15310.
15130	TPB6	Paris, France. (Essarts). (B). "Paris Mondial".			15355	KWU			(X) Dixon, Calif. 15 kw. (C).
15140	G8F	London, Gt. Britain. (Davenport). 15 kw. (B). "F for Fortune." For more data see GSB on 9510 kes. Hrs: 2-4:15 a.m.; 5:45 a.m.-noon.			15360	DZG			Berlin, Germany. (Zeesen). (E). See DJQ on 15280.
15150	YDC	Bandoeing, Java, N.E.I. 3 kw. (B).			15370	HAS3			Budapest, Hungary. 20 kw. (B). "Justice for Hungary!" Ann: usually by lady, in Eng, Fr, Hungarian. s/o: Nat'l anthem. Add: Radiolabor, Kiserleti Allomas, Gyall-ut 22, Budapest IX. (X) Dixon, Calif. 20 kw. (C).
15155	SM5SX	Stockholm, Sweden. 500 w. (B). s/o: Nat'l anthem. Add: Telegrafverket Tjanstebrev Nr. 5. Hrs: Sun. 9 a.m.-5 p.m. Weekdays, 11 a.m.-5 p.m.			15415	KWO			<i>Mazatlan, Sin., Mexico. 50 kw. (B). "El Pregonero del Pacifico." Relays XEBL. Int: 4 chimes. s/o: "Quimbamba." Add: Difusora del Pacifico, S. A., Aptdo. 78.</i>
15160	JZK	Tokyo, Japan. (Nazaki). 50 kw. (B). See JZJ on 11800.			15440	XEBM			Shanghai, China. (C).
	XEWW	Mexico City, D. F. 10 kw. (B). "La Voz de la America Latina desde Mexico." Add: Aptdo 2516.			15800	XOJ			Buenos Aires, Argentina. (C).
15170	CXA14 TGWA	Montevideo, Uruguay. (B) Guatemala City, Guat. 10 kw. (B). "The Voice of Guat." Add: Ministerio de Fomento. Veries FREE.			15810	LSL3			Shinklo, Manchukuo. (C).
	.....	<i>Lima, Peru. (B). "Radio Nacional".</i>			15905	TD1			(X) Kahuku, Hawaii. 50 w. (C).
15180	G8O	London, Gt. Britain. (Davenport). "O For Ocean." For more data see GSB on 9510 kes.			16030	KKP1			Rugby, Gt. Britain. (C).
15200	DJB	Berlin, Germany. (Zeesen). 40 kw. (B). For more details see DJN on 9540 kes.			16140	GBX			****
15210	W8XK	Pittsburgh, Pa. (Saxonburg). 40 kw. (B). Relays NBC-KDKA. Add: Westinghouse Elec. & Mfg. Co., Grant Bldg.			16440	****			Pan American Airways
15220	PCJ	Huizen, Netherlands. 20 kw. (B). Ann: Dutch, Eng, Fr, Ger, Malay, Port, Sp. s/o: Nat'l anthem.			16460	DHEY			Pacific Alaska Airways
15230	OLR5A	Praha, Czechoslovakia. (Podebrady). 35 kw. (B). Add: Praha XII, Fochova Tr. 16.			16600	DOA1			S. S. "Deutschland." (SS).
15243	TPA2	Paris, France (Essarts). (B). "Paris Mondial." Add: Ministere des Postes, Telegraphes et Telephones, 98 bis Blvd. Hausmann, Paris. Hrs: 5-10 a.m.			16765	DHTY			S. S. "Europa." (SS).
15250	W1XAL	Boston, Mass. 20 kw (B). "Dedicated to Enlightenment." Add: Educational Director, University Club.			16820	NAA			S. S. "Resolute." (SS).
15260	GSI	London, Gt. Britain. (Davenport). (B). "I for Ireland." See GSB on 9510 for details.			17080	GBC			Arlington, Va. Time signals at 9:55 a.m. EST.
15270	H13X	Trujhlo, D. R. 500 w. (B). Relays HIX. Director: J. R. Saladin.			17120	WOO			Rugby, Gt. Britain. 5 kw. (C).
	W2XE	New York, N. Y. (Wayne, N. J.). 10 kw. (B). See W2XE on 11830 kes.			17225	ICEJ			(X) Rocky Point, N. Y. 20 kw. (SS).
15280	DJQ	Berlin, Germany. (Zeesen). 50 kw. (B). Int: music box			17280	FZE8			S. S. "Rex." (SS).
					17310	W2XGB			Djibouti, French Somaliland. Add: Chef de la Radiotelegrafique Djibouti. Hrs: First Thurs. each month, 8-8:30 a.m. Hicksville, N. Y. 5 kw. (E). Add: Press Wireless, Inc. New York, N. Y. (Bound Brook, N. J.). 20 kw. (E).
						W3XL			Buenos Aires, Arg. (C).
					17375	LSY			Kirkee, Poona, India. (C). Add: Indian Radio & Cable Communications Co., Ltd., Poona 6.
					17480	VWY2			Paramaribo, Surinam. (C).
					17640	PZF			<i>Shanghai, China. (C).</i>
					17650	XGM			Hong Kong. 2400 w. (B). Add: Box 200.
					17755	ZBW5			Berlin, Germany. (Zeesen.) 50 kw. (B). See DJQ on 15310.
					17760	DJE			New York, N. Y. (Wayne, N. J.). 10 kw. (B).
					17765	TPB3			Paris, France. (Essarts). (B). "Paris Mondial".

17770	PHI	Hilversum, Netherlands. 23600 w. (B). Ann: Dutch, Eng, Fr, Ger, Malay, Port, Sp. s/o: Nat'l anthem. Add: Philips Omroep Holland-Indie, Emmasingel 29, Eindhoven.			
17780	W3XAI	New York, N. Y. (Bound Brook, N. J.). 35 kw. (B). Relays NBC-WJZ. Ann: Eng, Fr, Ger, It, Span. s/o: "Star Spangled Banner." Add: NBC, Inc., Rockefeller Plaza. (X) Pittsburgh, Pa. (Saxenburg). 40 kw. (B).	21550	GST	London, Gt. Britain. (Daven-try). (B). "T for Transmitter." See GSP on 15310.
	W3XK	Chicago, Ill. 5 kw. (B).	25950	W4XH	Spartanburg, S. C. 50 w. (B). Relays WSPA.
	W3XAA	Chicago, Ill. (Downer's Grove). 10 kw.		W6XKG	Los Angeles, Calif. 100 w. (B). Relays KGJF.
	W9XF	Paris, France. (Essarts). (B). "Paris Mondial."		W9XUP	St. Paul, Minn. 1 kw. (B). Relays KSTP.
17785	JZL	Tokyo, Japan.	26050	****	High Frequency Broadcast.
17790	GSG	London, Gt. Britain. (Daven-try). 15 kw. (B). "G for Greet-ing." See GSP on 15310 for details.	26100	GSK	London, Gt. Britain. (Daven-try). (B). "K for King." See GSP on 15310.
17800	TGWA	Guatemala City, Guat. 10 kw. (B).		W9XJL	Superior, Wis. 80 w. (B). Re-lays WBCB.
18090	TYE	Pontlose, France. 20 kw. (C). See TYE2 on 13760.	26400	W9XAZ	Milwaukee, Wis. 500 w. (B). Relays WTMJ.
18270	IUD	Addis Ababa, Ethiopia. (C).	26500	****	High Frequency Broadcast
18310	GAS	Rukby, Gt. Britain. (C).	26550	W2XQO	Flushing, N. Y. 100 w. (B). Relays WMCA.
18350	WLA	(X) Lawrenceville, N. J. (C).	28000		AMATEURS
18385	FZS	Saigon, Fr. Indo-China. (C).	30100	****	Ultra High Freq. Police
18450	HBF	Geneva, Switzerland. (B). "Radio Nations."	30604	IAG	Golfo Arand, Sardinia. 5 kw.
18480	HBH	Geneva, Switzerland. (Pran-gins). (B). "Radio Nations."	31100	****	High Frequency Broadcast
18620	GAU	Rugby, Gt. Britain. (C).	31600	****	High Frequency Broadcast
18680	OCC2	Lima, Peru. (C). All America Cables, Inc., Casilla 2336.	****	****	High Frequency Police
18830	PLE	Bandoeng, Java, N.E.I. 40 kw. (C).	31900	****	High Frequency Police
18890	ZSS	Cape Town, Union of So. Africa (Kilpheuvel). (C). Add: Over-seas Communications of S. A., Ltd., Kodak House, Box 962, Rugby, Gt. Britain. (C).	33100	****	High Frequency Police
18970	GAQ	Bangkok, Siam. 5 kw. (B). Ann: Eng, Fr, Siamese. Int: 3 ascending chimes. Add: Post & Telegraph Dept.	34100	K6XCG	Manawahu, Hawaii. 150 w. (C). Mutual Telephone Co.
19020	H88PJ	(X) Dixon, Calif. 20 kw. (C).	34600	****	High Frequency Broadcast
19080	KNY	Buenos Aires, Argentina. (C).	35200	K6XCC	Waikiki, Hawaii. 150 w. (C). Mutual Tele. Co.
19140	LSN3	(X) Ocean Gate, N. J. 20 kw. (SS).	35600	.....	New York City Fire Boats, as follows:
19220	WDP	Rugby, Gt. Britain. (C).		W2XNA	"James Duane"
19480	GAD	Rugby, Gt. Britain. (C).		W2XNR	"Thomas Willett"
19520	IRW	Rome, Italy. (C).		W2XNC	"William Strog"
19630	VQG	Nairobi, Kenya. (C). Add: Cable & Wireless, Ltd., Box 777, Nauen, Germany. (C). Add: Berlin W66, Leipziger Str. 15		W2XND	"George McClellan"
20020	DFZ	Rugby, Gt. Britain. 15 kw. (C).		W2XNE	"William Gaynor"
20380	GAA	Buenos Aires, Arg. (C).		W2XNF	"John P. Mitchell"
21020	LSN6	Buenos Aires, Arg. (Hurling-ham). (C).		W2XNG	"Abram Hewitt"
21160	LSL4	Praha, Czechoslovakia. (B). Boston, Mass. 10 kw. (B).		W2XNH	"John Harvey"
21450	OLR6A	London, Gt. Britain (Daven-try). (B). "H For Home." See GSP on 15310.		W2XNI	"Cornelius Lawrence"
21460	W1XAL	Schenectady, N. Y. 50 kw. (B). General Elec. Co. Hrs: 8 a.m.-noon.		W2XNJ	Tender "Captain Connell"
21470	GSH	Nazaki, Japan	37100	****	High Frequency Police
	W2XE	New York, N. Y. (Wayne, N. J.). 10 kw. (B).	37600	****	High Frequency Broadcast
	W3XAU	Philadelphia, Pa. (Newton Square). (B).	38100	****	High Frequency Police
21530	GSJ	London, Gt. Britain. (Daven-try). (B). "J For Justice." See GSP on 15310.	38600	****	High Frequency Police
21540	W8XK	Pittsburgh, Pa. (Saxenburg). 40 kw. (B).	38900	****	High Frequency Broadcast
			39100	****	High Frequency Broadcast
			39300	****	High Frequency Broadcast
			39500	****	High Frequency Broadcast
			40100	****	High Frequency Police
			40300	****	High Frequency Broadcast
			40600	****	High Frequency Broadcast
			41000	****	High Frequency Police
			41800	.....	Lanai City, Hawaii. 50 w. (C). Mutual Telephone Co.
				****	High Frequency Broadcast
			56000		AMATEURS
			to		
			60000		
			86000		
			to	****	High Frequency Police
			400000		
			88000	****	High Frequency Broadcast
			110000		
			to		AMATEURS
			Infinity		
			123000	****	High Frequency Broadcast
			164000	****	High Frequency Broadcast
			205000	****	High Frequency Broadcast
			401000		
			and	****	High Frequency Police
			above		

WHAT'S ON THE AIR TONIGHT

Fill in the calls and frequencies of the stations through which you best receive the network programs. You can then turn quickly to the one that has the feature you want.

Network	Stations
Canadian (CBC)	
Columbia (C)	
Mutual (M)	
National Red (R)	
National Blue (B)	

Time: ED Eastern Daylight; E Eastern; C Central; M Mountain

While these programs are correct at the time of going to press, changes are made frequently.

MONDAY

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

C — Boake Carter
 KDAL KPAB KFH KGKO KGLO
 KLRA KMBC KMOX KNOW KOMA
 KRLD KRNT KSCJ KTRH KTSA
 KTUL KWKH WABC WADC WALA
 WBBM WBIG WBNS WBT WCAO
 WCAU WCOA WDAE WDBJ
 WDFB WFBM WGAR WGST
 WHAS WHIC WHIO WHJP
 WHSV WISN WJAX WJR WKBB
 WWSV WKBB WKBN WKWB WKRC
 WLAC WMBD WMBR WNAX
 WNOX WOC WOKO WORC WPRO
 WQAN WREC WRVA WTAQ WWL
 WWVA

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

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

C — Lum and Abner

KFAB KMBC KMOX KNOW KOMA
 KRLD KRNT KTRH KTSA KTUL
 WABC WBBM WBNS WBT WCAO
 WCAU WCOA WDAE WDBJ WDRB
 WDFB WFBM WGAR WGST
 WHAS WHIC WHIO WJR WJSV
 WKBB WKRC WLAC WMBR WOKO
 WPRO WQAN WREC WRVA

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

C — Andrew Sisters; Jack Fulton
 WABC WADC WBT WCAO WCAU
 WDRB WEAN WEEI WFBL WGR
 WHBC WHK WJAS WJR WJSV
 WKRC WOKO WSPD WTOC WWVA

R — Amos 'n' Andy

KSD KSTP KYW WBNB WCAE
 WCHS WFAF WFBR WGY WHO
 WJAX WLW WNAC WRC WTAG
 WTAM WTIC WWJ

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

R — Uncle Ezra's Radio Station
 KARK KFYP KGBX KGNC KPRC
 KSTP KTBS KTHS KV00 KYW
 WRAP WBNB WCAE WCKY WCOL
 WCHS WDAF WDAY WFAF WFCB
 WFAA WFBM WGBF WGY WHO
 WIRA WIRE WJAX WKY WMAQ
 WNAC WOAI WOV WWR
 WTAG WTAM WTIC WTMJ

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

C — Eddie Cantor; Deanna Durbin
 KDAL KPAB KFH KGKO KGLO
 KLRA KMBC KMOX KNOW KOMA
 KRLD KRNT KSCJ KTRH KTSA
 KTUL KWKH WABC WADC WALA
 WBBM WBIG WBNS WBT WCAO
 WCAU WCOO WCHS WDAE WDBJ
 WDBO WDNC WDDO WDRB WEEI
 WFOA WGST WFBL WGAR WGBI
 WGR WGST WHAS WHIC WHIO
 WHLB WHF WHW WIBW WISN
 WISN WJNO WJR WJSV WKBB
 WKBN WKRC WLAC WLBZ WMAS
 WMBD WMBR WMEC WMMN
 WNAX WNBW WNBX WNOX WNOY
 WOKO WORC WPRO WQAM WREC
 WRVA WSPA WTAQ WTOC WWL

M — The Lone Ranger

WFIL WNHF WSYR WOR WXYZ

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

C — Kay Thompson; R. Himber
 KDAL KGLO KLRA KMOX WAHC
 WADC WBRK WCAU WCCO WDRB
 WEEI WFBL WGAR WGR WHB
 WJAS WJR WKRC WLBZ WMAS
 WMEG WNAX WNBX WOC WOKO
 WORC WPRO

R — Burns and Allen

CRCT KYW WBNB WCAE WCSC
 WCHS WFAF WFBR WFLA WGY
 WHO WIOD WIRE WIS WJAX
 WJAX WLW WMAQ WNAC WPTF
 WRC WRVA WSOC WTAG WTAM
 WTAR WTIC WWJ

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

C — Pick and Pat
 KFAB KMBC WABC WADC WBBM
 WBT WCAO WCAU WDRB WEAN
 WFBM WGR WGST WHIC WHK
 WHF WHC WJAS WJR WJSV
 WKRC WLBZ WMAE WNAC WOKO
 WORC WSPD

R — Voice of Firestone

CFCF CRCT KFYP KPRC KSD
 CFTP KTBS KV00 KYW WAE
 WBNB WCAE WCSC WCHS WDAF
 WDAY WFAF WFCB WEEI WFAA
 WFCB WFBR WFLA WGY WHO
 WIRA WIOD WIRE WIS WJAX
 WJAX WJDX WKY WMAQ WMC
 WOAI WOV WPTF WRC WRVA
 WSB WSM WSMB WSOC WTAG
 WTAM WTAR WTIC WTMJ WWJ
 WYWC

B — Those We Love

KDKA KDYL KFI KHQ KOA KOIL
 KOMO KFO KSO KWK WABY

WBAL WBZ WBZA WCKY WEAN
 WEBR WFIL WHAM WHK WIBA
 WICC WJZ WIS WMAL WMT
 WREN WSPD WSYR WTAR WXYZ

ED-8:45 p.m., E-7:45, C-6:45, M-5:45

C — Boake Carter
 KFPY KGAR KIRO KLZ KNX
 KOIN KOY KSFO KSL KVI KFOR

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

C — Lux Radio Theater

CFRR CHAC KFAB KFH KFPY
 KLRA KLZ KMBC KMOX KNOW
 KNX KOH KOIN KOL KOMA
 KRLD KRNT KSFO KSL KTRH
 KTSA KTUL KVI WABC WADC
 WBBM WBNS WBRB WBT WCAO
 WCOA WDAE WDBJ WDRB WEEI
 WFBM WFBM WGAR WGST WHAS
 WHIC WHIO WIBX WISN WJAS
 WJR WJSV WKBB WKRC WLAC
 WMAS WMBD WNAX WOKO WORC
 WPRO WQAM WREC WRVA WWL
 Also on Canadian Network

R — Phil Spitalny's Girl Orchestra

CBL CBM KDYL KFI KGHL KGIR
 KGW KHQ KIDO KOA KOMO KPO
 KPRC KSD KSEI KSTP KTAR
 KV00 KYW WAVE WBNB WBRB
 WCAE WCHS WDAF WDEL WFAF
 WFAA WFBR WFLA WGY WHO
 WIBA WIOD WIRE WIS WJAX
 WJAX WKY WLW WMAQ WMBG
 WMC WNAC WOAI WOV WPTF
 WRC WSB WSM WSMB WSOC
 WTAG WTAM WTAR WTIC WTMJ
 WWJ

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

R — Contented Program

CFCF CRCT KDYL KFI KGW KHQ
 KOA KOMO KPO KPRC KSD KYW
 WBNB WCAE WCHS WDAF WFAF
 WEEI WFBR WFLA WGY WHO
 WIOD WIS WJAX WJAX WKY
 WMAQ WMC WOAI WOV WPTF
 WRC WRVA WSB WSM WTAG
 WTAM WTAR WTIC WWJ WWNC
 Also on Canadian Network

C — Wayne King and Orchestra

KDB KEIN KFAB KFBK KFPY
 KFRC KGB KHJ KLZ KMBC KMJ
 KMOX KOIN KOL KRNT KSL KVI
 KWG WAAB WABC WADC WBBM
 WBNB WBT WCAO WCAU WCCO
 WDRB WEAN WFBL WFBM WHAS

MONDAY (Continued)

WHK WBW WJAS WJR WJSV
WLBK WKRC WOKO WSPD WWL

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

C — Eddie Cantor; Deanna Durbin
KFPY KGAR KIRO KLZ KNX
KGIN KOY KSPD KSL KVI WFBM

R — Burns and Allen
KARK KDYL KFBK KFI KFYR
KFBK KGHL KGIR KGNK KGO
KGV KKH KML KOA KOMO KPO
KPRC KSD KSTP KTAR KTBS
KVOO KWG WAVE WDAF WDAY
WBCB WFAA WIBA WJDX WKY
WMC WOAI WOW WSB WSMB
WTMJ

M — The Lone Ranger

KDB KDON KPRC KFXM KGB
KGDH KHJ KPMC KVOE KVO
Available also to West Coast Section

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

C — Andrew Sisters; Jack Fulton
KERN KFAB KFBK KFPY KFRG
KGB KHJ KIRA KIZ KMBC KMGX
KGIN KOL KOMA KRLD KRLT
KSL KTRH KTSB KVI WBBM
WBRC WCCO WFBM WGST WLAC
WREC WWL

R — Amos 'n' Andy

KDYL KERN KFBK KFI KGW
KHQ KML KOA KOMO KPO KPRC
KSD KWG WDAF WFAA WFO
WIRE WKY WMAQ WMC WOAI
WOW WSB WSM WSMB

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

C — Pick and Pat
KFPY KGKO KLRA KLZ KMOX
KNX KOIN KOL KOMA KRLD
KRNT KSCJ KSPD KSL KTUL
KVI KWKH WACO WBCB WCCO
WFBM WHAS WLAC WREC

TUESDAY

ED-6:30 p.m., E-5:30, C-4:30, M-3:30
C — Boake Carter. See Monday

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

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
C — Jack Fulton. 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 WHIO WIRE WJZ
WMAL WMT WSYR WXXZ

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

C — Geo. McCall, Hollywood Talk
KFAB KFH KLRA KMOX KNOW
KOM A KRLD KRNT KTRH KTSB
KWKH WABC WADC WBBM WBNS
WBT WCAO WCAU WCCO WCHS
WDAE WDBO WDOD WDRC WEEI
WFBL WGAR WGBI WGST WHAS
WHBC WHIO WIBW WISN WJAS
WJR WJSV WKRC WLAC WNAS
WMHR WOC WOKO WORC WPRO
WQAM WREC WRVA WWL

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

C — Helen Menken, Drama
KFAB KFPY KIRO KIZ KMBC
KMOX KNX KOIN KRNT KSPD
KSL KVI WABC WBBM WCAO
WCAU WDRC WEEI WFBL WGAR
WGR WHAS WHBC WHIO WJAS
WJR WJSV WKRC WOKO WORC
WPRO

B — Dorothy Thompson; News
WBAL WBZ WHZA WENR WHAM
WJZ WSYR

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

R — Johnny with Russ Morgan
KFPY KPRC KSD KSTP KTBS
KTHS K'VOO KYW WAVE WBAP
WBEN WCAE WCSH WDAF WDAY
WEAF WECB WFBR WFLA WGY
WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WNAC WOW WPTF WRC
WRVA WSB WSM WSMB WSOC
WSDN WTAG WTAM WTAR WTIC
WTMJ WWJ WWNC

C — Edward Robinson; Claire Trevor

CHM CPRB KFAB KFH KFPY
KIRO KLRA KLZ KMBC KMOX
KNOW KNX KOIN KOMA KRLD
KRNT KSPD KSL KTRH KTSB
KTUL KVI WABC WADC WBBM
WBNS WBRB WBT WCAO WCAU
WCCO WDAE WDBJ WDRC WEEI
WFBL WFBM WGR WGR WGST
WHAS WHBC WHIO WIRN WISN
WJAS WJR WJSV WKRC WLAC
WMAS WMHD WNAS WOKO WORC
WPRO WQAM WREC WRVA WWL
Also on Canadian Network

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

C — Al Jolson; Parkyakarkus
CFBH CHCM KFAB KFH KLRA
KMBC KMOX KNOW KOMA KRLD
KRNT KTRH KTSB KTUL WABC
WADC WBBM WBNS WBRB WBT
WCAO WCAU WCCO WDAE WDBJ
WDRC WEEI WFBL WFBM WGR
WGR WGST WHAS WHBC WHIO
WIRN WISN WJAS WJR WJSV
WKRC WLAC WMAS WMHD WNAS
WOKO WORC WPRO WQAM WREC
WRVA WWL
Also on Canadian Network

R — Wayne King and Orchestra

KFYR KPRC KSD KSTP KTBS
KVOO KYW WAVE WDAF WBEN
WCAE WCKY WCSH WDAF WDAY
WEAF WECB WEEI WFBR WGY
WHBC WHIO WIRE WJAR
WJDX WKY WMAQ WMC WOAI
WOW WRC WSB WSM WSMB
WTAG WTAM WTIC WTMJ WWJ

ED-8:45 p.m., E-7:45, C-6:45, M-5:45

C — Boake Carter. See Monday

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

C — Al Pearce and Gang
CFBH CHAC KFAB KFH KGKO
KLRA KMBC KMOX KOMA KRLD
KRNT KSCJ KTRH KTSB KTUL
KWKH WABC WACO WADC WALA
WBBM WBIG WCCO WDAE WDBJ
WCAO WCAU WCCO WDAE WDBJ
WDBO WFBM WDOD WDRC WEA
WFBL WFBM WGR WGST WHAS
WHBC WHIO WIRN WIRN WISN
WJAS WJR WJSV WKRB WKRC
WLAC WLBB WMAS WMHD WMBG
WMBR WMNM WNAC WNAS
WNBF WNOX WOC WOKO WORC
WOW WPG WQAM WREC WSBT
WSPA WSJS WSPD WTOC WWL

R — Vox Pop; Sidewalk Interviews

KSD KYW WBEN WCAE WCKY
WCSH WDAF WEAF WEEI WFBR
WGY WHO WIRE WJAR WMAQ
WOW WRC WTAG WTAM WTIC
WWJ

B — Horace Heidt Orchestra

KANS KDKA KFI KPSD KGA KGO
KGW KJR KLO KOIL KPRC KSO
KTHS KVOD KWK WAVE WBAL
WBAP WBZ WBZA WEAN WEBR
WFIL WFLA WHAM WHK WICC
WIOD WIS WJAX WJZ WKY WLS
WLW WMAL WMC WMT WOA1
WPTF WREN WBS WSM WSMB
WSON WSPD WSUN WSYR WTAR
WTCN WXXZ

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

C — Benny Goodman's Orchestra

KFAB KFH KFPY KGKO KIRO
KLRA KLZ KMBC KMOX KNOW
KNX KOIN KOMA KOY KRLD
KRNT KSCJ KSPD KSL KTRH
KTSB KTUL KVI KVOI KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRB WBT WCAO
WCAU WCCO WCHS WDAE WDBJ
WDBO WDNC WDOD WDRC WEEI
WFBL WFBM WGR WGST WHAS
WHBC WHIO WHP WIBW WIPX
WISN WJAS WJR WJSV WKBB
WKBN WKBW WKRC WLAC WLBB
WMAS WMHD WMBR WNAS
WNBF WNOX WOC WOKO WORC
WPG WPRO WQAM WREC WRVA
WSBT WSPA WSJS WTOC WWL

R — Fibber McGee and Molly

CFCE CRCT KDYL KFI KGHL
KGW KHQ KOA KOMO KPO KPRC
KSD KSTP KTRH KTBS KVOO
KYW WAVE WBAP WBAF WCAE
WCOL WCSH WCSH WDAF WDEL
WEAF WECB WFBR WFLA WGY
WHO WIBA WIOD WIRE WIS
WJAR WJAX WKY WMAQ WMBG
WMC WNAC WOAI WOOD WOW
WRC WSB WSM WSMB WSOC
WTAG WTAM WTAR WTIC WTMJ
WWJ

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

C — Hal Kemp; Judy Starr

KFAB KMBC KMOX KRNT WABC
WBBM WBIG WBNS WBT WCAO
WCAU WCCO WDAE WDBJ WDBO
WDRC WEEI WFBL WFBM WGR
WGST WHAS WHBC WJAS WJNO
WJR WJSV WKBW WKRC WMBR
WMNM WOKO WORC WPG WPRO
WQAM WRVA WTOC

R — Believe It or Not—Ripley

KANS KARK DYL KFLD KERN
KFBK KFDH KFI KVI KGBX
KGNK KGW KHQ KML KOA KOMO
KPO KPRC KSD KSTP KTAR
KTBS KTSM KVOO KWG KYW
WAVE WBAP WBEN WBRB WBRB
WCAE WCOL WCSH WDAF WDAY
WDLA WEAF WECB WFCB WFBR
WFLA WGBF WGL WGY WHO
WIRA WIOD WIRE WIS WJAR
WJAX WKY WLW WMAQ WMBG
WMC WNAC WOAI WOOD WOK
WOW WPTF WRC WROL WSAI
WSB WSM WSMB WSOC WSPD
WSUN WTAG WTAM WTAR WTIC
WTMJ WWJ

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

R — Jimmy Fidler Hollywood Gossp

KDYL KFI KGW KHQ KOA KOMO
KPO KSD KTRH KYW WBEN
WCAE WCSH WDAF WEAF WFBR
WGY WHO WJAR WLW WMAQ
WNAC WOOD WOW WRC WTAG
WTAM WTIC WWJ

TUESDAY (Continued)

ED-10:45 p.m., E-9:45, C-8:45, M-7:45 R — Dale Carnegie; Winning Friends KDYL KFI KGW KHQ KOA KOMO KPO KSD KSTP KYW WBNB WCAE WCSH WDAF WDEL WDFW WFBW WGR WHO WIRE WJAR WLW WMAQ WNAC WOW WRC WTAG WTAM WTIC WWJ

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 R — Amos 'n' Andy, see Monday
C — Jack Fulton, see Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15 C — Geo. McCall, Hollywood Talk KFPY KIRO KIZ KMBC KNX KOIN KSFO KSL KVI

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C — Al Jolson; Parkyakarkus KFPY KIZ KNX KOIN KOL KSFO KSL KVI
Also on Canadian Network

ED-Midn't., E-11:00, C-10:00, M-9:00 C — Al Pearce and Gang KFBW KFPY KGVO KIZ KNX KOH KOIN KOL KOY KSFO KSL KVI KVOR

WEDNESDAY

ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — Boake Carter, see Monday

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

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

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

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 M — Lone Ranger, see Mon.

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — Cavalcade of America
KDB KERN KFAB KFBC KFPY KFCR KGB KHJ KLZ KMBC KMJ KMOX KOIN KOL KRLD KRNT KSL KVI KGW WABC WBBM WBNB WCAU WCCO WDRG WEAN WFBL WFBM WGR WHAS WHEC WHK WJAS WJR WJSV WKRC WLAC WMBG WNAC WOKO WTOG WWL

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

ED-8:30 p.m., E-7:30, C-6:30, M-5:30 C — Ben Bernie; Lew Lehr
KDAL KFAB KFBC KFH KFPY KGAR KGKO KGLO KIRO KLRA KIZ KMBC KMOX KNOW KNX KOH KOIN KOMA KOY KRLD KRNT KSCJ KSI KSL KTRH KTSa KTUL KVI KVOR KWKH

WAHC WACO WALA WBBM WBIG WBNS WBT WCAO WCAU WCCO WCHS WCOA WCOG WDAE WDBJ WDRO WDNC WDOF WDRG WDEEi WDEA WFBL WFBM WGAR WGBI WGST WHAS WHEC WHIO WHLW WHP WIBW WISB WISN WJAS WJNO WJR WJSV WKBW WKBH WKRB WKRC WLAC WLZ WMAS WMBD WMBR WMFG WMIN WNAK WNBW WNBX WNOX WOC WOKO WORC WPG WPRO WQAM WREC WRVA WSBT WSFA WSJS WTAQ WTOG WWL

B — Harriet Parsons
KDKA KECA KFEL KFSD KGA KGO KJR KLO KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WHAM WHK WICC WJZ WLS WMAL WMT WOWO WREN WSPD WYSR WXYZ

R — Tommy Dorsey Orchestra
KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD KSTP KTBS KYW WAVE WBNB WBRG WCAE WCSH WDAF WDEL WDFW WFLA WFBW WFLA WGY WHO WIOD WIRE WIS WJAR WJAX WKY WLW WMAQ WMBG WMC WNAC WOV WOW WPTF WRC WSB WSM WSMB WSUN WTAG WTAM WTAR WTIC WWJ WWNC

ED-8:45 p.m., E-7:45, C-6:45, M-5:45 C — Boake Carter, see Monday

ED-9:00 p.m., E-8:00, C-7:00, M-6:00 C — Chesterfield; Andre Kostelanetz
KDB KERN KFAB KFBC KFH KFPY KFCR KGB KGKO KGMB KHJ KLKA KIZ KMBC KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH KTSa KTUL KVI KVOR KGW KWKH WABC WACO WADC WALA WBBM WBGU WBNS WBRG WBT WCAO WCAU WCCO WCOA WDAE WDBG WDBO WDNC WDOF WDRG WEAN WFBL WFBM WFGA WGST WHAS WHC WHK WHP WIBW WIBX WICC WISN WJAS WJR WJSV WKBH WKWB WKRC WLAC WLZ WMAS WMBD WMBG WMBR WNAC WNAX WNBW WNOX WOC WOKO WORC WOWO WPG WQAM WREC WSFA WSJS WSPD WTOG WWL

R — Town Hall Tonight
KFPY KPRC KSD KSTP KTBS KTHS KVOO KYW WAVE WBNB WCAE WCSH WDAF WDAY WDFW WDEB WEEI WFLA WFBW 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

ED-10:00 p.m., E-9:00, C-8:00, M-7:00 C — Crime Crusade; Phil Lord
KDB KERN KFAB KFBC KFH KFPY KFCR KGB KHJ KLRA KIZ KMBC KMJ KMOX KOIN KOL KOMA KRLD KRNT KSL KTRH KTSa KTUL KVI KGW KWKH WABC WACO WBBM WBNB WBRG WBT WCAO WCAU WCCO WDAE WDBJ WDBO WDRG WEAN WFBL WFBM WGST WHAS WHEC WHK WICC WISN WJAS WJR WJSV WKRB WKRC WLAC WLZ WMBG

WMBR WNAC WOKO WORC WOWO WQAM WREC WTOG WWL

R — Kay Kyser Orchestra
KARK KDYL KERN KFBK KFI KFYR KGXK KGHL KGIR KGNC KGU KGW KHQ KDLO KMJ KOA KOB KOMO KPO KPRC KSD KSEI KSTP KTAR KTBS KTHS KTSM KWG KYW WAVE WBNB WBRG WCAE WCSH WCSI WDAF WDAY WDEL WDFW WDFW WFLA WFBW WGR WJAX WFLA WGL WGY WHO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WLW WMAQ WMBG WMC WNAC WOAI WOOD WORK WOW WPTF WRC WSB WSM WSMB WSOC WSUN WTAG WTAM WTAR WTIC WTMJ WWJ WWNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30 C — It Can Be Done

KFAB KMBC KMOX KRNT WABC WBBM WBNB WCAU WCHS WDRG WEEI WFBL WFBM WHAS WHEC WHIO WHBX WJAS WJR WKBW WMAS WNBW WOC WOKO WORC WPRO

M — Lone Ranger, see Mon.

ED-11:00 p.m., E-10:00, C-9:00, M-8:00 C — Jack Fulton, see Monday
R — Amos 'n' Andy, see Monday

ED-11:30 p.m., E-10:30, C-9:30, M-8:30 C — Ben Bernie; Lew Lehr
KARM KFBW KFPY KGAR KIRO KDLZ KNX KOH KOIN KOMA KOY KSFO KSL KVI

THURSDAY

ED-6:30 p.m., E-5:30, C-4:30, M-3:30 C — Boake Carter, see Monday

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

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

ED-7:15 p.m., E-6:15, C-5:15, M-4:15 C — Geo. McCall, see Tues.

ED-7:30 p.m., E-6:30, C-5:30, M-4:30 C — "We, The People."
KFAB KMBC KMOX KNOW KOMA KRLD KRNT KSCJ KTRH KTSa KTUL WABC WBBM WBNB WCAU WCAU WCCO WDAE WDBO WDRG WFBM WFBM WGR WGR WGST WHAS WHEC WHIO WHP WIBW WJAS WJR WJSV WKRC WMBD WMBR WOC WOKO WPRO WQAM

ED-8:00 p.m., E-7:00, C-6:00, M-5:00 C — Kate Smith; Jack Miller
CFRB CROM KDAL KFAB KFH KGKO KLRA KMBC KMOX KNOW KOMA KRLD KRNT KSCJ KTRH KTSa KTUL KWKH WABC WACO WADC WBBM WBNB WBRG WBT WCAU WCAU WCCO WDAE WDBJ WDBO WDOF WDRG WEEI WEOA WFBL WFBM WGAR WGR WGST WHAS WHEC WHIO WHP WIBW WISN WJAS WJR WJSV WKBN WKRC WLAC WLZ WMBD WMBR WNAK WNOX WOC WOKO WORC WPRO WQAM WRVA WREC WSFA WTAQ WWL

THURSDAY (Continued)

R — Rudy Vallee's Variety Hour
 CFCF CRCT KDYL KFI KFYR
 KGW KHQ KOA KOMO KPO KSD
 KSTP KTAR KYW WBNB WCAE
 WCSH WDAF WDAY WFAE WFCB
 WEEI WFRB WGY WHO WJAR
 WLW WMAQ WOV WRC WTAM
 WVIC WTMJ WWJ

B — The March of Time
 KDKA KECA KERN KFBK KFEL
 KPSD KGA KGO KJR KLO KMJ
 KOIL KSO KWG KWK KXYZ
 WABY WAGA WHAL WBZ WBZA
 WCKY WCOR WCSC WDSU WEAN
 WEBR WFIL WHAM WHK WICC
 WJZ WLS WMAL WMBG WMT
 WREN WSPD WSYR WXYZ

ED-8:45 p.m., E-7:45, C-6:45, M-5:45
C — Boake Carter, see Monday

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C — Major Bowes' Amateurs
 CFRB CKAC KDB KERN KFAB
 KFBK KFH KFPY KFRC KGB
 KGKO KLRA KLZ KMBC KMJ
 KMOX KOIN KOL KOMA KRLL
 KRNT KSCJ KSL KTRH K TSA
 KTUL KYI KVOR KWG KWKH
 WABC WACO WADC WALA WBBM
 WBIG WBNS WBRB WBT WCAO
 WCAU WCCO WCOA WDAE WDBJ
 WDBO WDNC WDDO WDRC WEAN
 WFBL WFBM WFEA WGST WHAS
 WHCC WHK WHF WJBW WIBX
 WICC WISN WJW JSJW
 WKBN WKBW WKRC WLAC WLZ
 WMAS WMBD WMBG WMBR
 WMNN WNAC WNAX WOC WOKO
 WORC WOV WPG WQAM WREC
 WSFA WSJS WSPD WTCO WWL

R — MGM Program
 CRCT KDYL KERN KFBK KFI
 KFYR KGHJ KGRN KGNC KGW
 KMJ KOA KOMO KPO KPRC KSD
 KSTP KTBS KWG KYW WAPI
 WAVE WBAF WBNB WCAE WCSH
 WDAF WDAY WFCB WFRB WFLA
 WGY WHO WIBA WIOD WIS WJAR
 WJAX WJDX WKY WLW WMAQ
 WMBG WMC WNAC WAI WOOD
 WOV WPTF WRC WSB WSM
 WSMB WSOC WSTN WTAG WTAM
 WTVR WTIC WTMJ WWJ WWNC

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
R — Bob Burns; Bing Crosby
 CFCF CRCT KDYL KFI KFYR
 KGW KHQ KOA KOMO KPO KPRC
 KSD KSTP KTAR KTBS KTHS
 KVVO KYW WAVE WBAF WBNB
 WCAE WCSH WDAF WDAY WFAE
 WFCB WEEI WFRB WFLA WGY
 WHO WIBA WIOD WIS WJAR
 WJAX WJDX WKY WLW WMAQ
 WMC WOI WOV WPTF WRC
 WRVA WWS WSM WSMB WSOC
 WTAG WTAM WTVR WTIC WTMJ
 WWJ WWNC

Also on Canadian Network

ED-11:00 p.m., E-10:00, C-9:00, M-8:00
C — Jack Fulton, see Monday
R — Amos 'n' Andy, see Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15
C — Kate Smith; Jack Miller
 KFBK KIPY KGVO KIRO KLZ
 KNX KOIN KOY KSFO KSL KYI
 KVOR

FRIDAY

ED-6:30 p.m., E-5:30, C-4:30, M-3:30
C — Boake Carter, see Monday

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

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
C — Jack Fulton, see Monday
R — Amos 'n' Andy, see Monday

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

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
M — Lone Ranger, see Mon.

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

ED-8:00 p.m., E-7:00, C-6:00, M-5:00
R — Cities Service Concert
 CRCT CFYR KOA KPRC KSD
 KSTP KTBS KTHS KVVO KYW
 WBAF WBNB WCAE WFSH WDAF
 WDAY WFAE WFCB WEEI WFAA
 WFRB WGY WHO WIBA WIOD
 WJAR WKY WMAQ WOI WOV
 WRC WRVA WSAI WTAG WTAM
 WVIC WTMJ WWJ

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C — Paul Whiteman; Deems Taylor
 CRCT CFYR KGKO KLRA KMBC
 KMOX KOMA KRLL KRNT KSCJ
 KTRH K TSA KTUL KWKH WABC
 WACO WADC WALA WBBM WBIG
 WBNS WBRB WBT WCAO WCAU
 WCCO WCOA WDAE WDBJ WDBO
 WDNC WDDO WDRC WEEI WFBL
 WFBM WFEA WGR WGST WHAS
 WHCC WHK WHF WJBW WIBX
 WIBG WHO WHK WHP WHB
 WJW WJW WJW WJW WJW
 WKBN WKRC WLAC WLZ WMAS
 WMBD WMBG WMBR WMNN
 WNAC WNAX WOC WOKO WORC
 WOV WPG WQAM WRC WREC
 WSFA WSJS WSPD WTCO WWL

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

ED-8:45 p.m., E-7:45, C-6:45, M-5:45
C — Boake Carter, see Monday

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
B — Tim and Irene; G. Olsen
 KDKA KFEL KLO KOIL KPRC
 KSO KTAR KTHS KVVO KWK
 WABY WAVE WHAL WBRB WBZ
 WBZA WCSC WEAN WFCB WEBR
 WFAA WFCB WFIL WFLA WHAM
 WHK WICC WIOD WIS WJAX
 WJDX WJZ WKY WLS WLW WMAL
 WMC WMT WOI WOV WPTF
 WREN WROL WRTP WSB WSM
 WSMB WSOC WSPD WSTN WSYR
 WTVR WTCN WWNC WXYZ

C — Hollywood Hotel
 CFRB CKAC KDB KERN KFAB
 KFBK KFH KFPY KFRC KGB
 KLJ KLRA KLZ KMBC KMJ KMOX
 KOIN KOL KOMA KRLL KRNT
 KSCJ KSL KTRH K TSA KTUL KYI
 KVOR KWG KWKH WABC WADC
 WBBM WBNS WBRB WBT WCAO

WCAU WCCO WDAE WDBJ WDBO
 WDRB WEAN WFBL WFBM WFEA
 WGST WHAS WHCC WHK WHP
 WIBW WIBX WICC WJAS WJR
 WJW WKBW WKRC WLAC WLZ
 WMAS WMBD WMBG WMBR
 WNAC WNAX WNOX WOKO WORC
 WPG WQAM WREC WSPD WWL

R — Frank Munn; Abe Lyman
 KSD KYW WBNB WCAE WCSH
 WDAF WFAE WEEI WFRB WGY
 WJAR WLW WMAQ WOV WRC
 WTAG WTAM WWJ

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
R — True Story Court
 KSD KYW WBNB WCAE WCSH
 WFAE WEEI WFRB WGY WHO
 WHIO WJAR WMAQ WOV WRC
 WTAG WTAM WVIC WWJ

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
C — Alice Corneet; Reed Kennedy
 KDAL KFAB KFBB KFH KFPY
 KGKO KGLO KGVO KLRA KLZ
 KMOX KNOW KNX KOH KOIN
 KOL KOMA KOY KRLL KRNT
 KSCJ KSFO KSL KTRH K TSA
 KTUL KYI KVOR KWKH WABC
 WACO WADC WALA WBBM WBIG
 WBNS WBRB WBT WCAO WCAU
 WCCO WCHS WCOA WCCO WDAE
 WDBJ WDBO WDNC WDDO WDRB
 WEEI WEOA WFBL WFBM WGAR
 WGBI WGST WHAS WHCC WHIO
 WHP WIBW WIBX WISN WJAS
 WJW WJR WJW WJW WJW
 WKRC WLAC WLZ WMAS WMBD
 WMBR WMNN WNBC WNOX WOC
 WOKO WORC WPAR WPG WPRO
 WQAM WREC WRVA WSBT WSFA
 WSJS WTCO WWL

CBC — Canada 1938
 CFB CBL CBM CBC CBR CBW
 CFCF CFCF CFCH CFNC CFPC
 CFYF CFJF CFNB CFPI CFQC
 CHAB CHNS CHRC CHSJ CHWK
 CJAT CJCA CJCB CJIC CJKL
 CJOC CKBI CKCK CKCW CKX
 CKYV CKOC CKPR CKSO CKX
 CKY

R — First Nighter; Drama
 KDYL KFI KFYR KGW KHQ KOA
 KOMO KPO KPRC KSD KSTP
 KTBS KTHS KYW WAVE WBNB
 WCAE WCSH WDAF WDAY WFAE
 WFCB WEEI WFAA WFRB WFLA
 WGY WHO WIBA WIOD WIS WJAR
 WJAX WJDX WKY WLW WMAQ
 WMC WPTF WRC WRVA WSB
 WSM WSMB WSOC WTAG WTAM
 WTVR WTIC WTMJ WWJ WWNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30
M — Lone Ranger, see Mon.

R — Jimmy Fidler
 KDYL KFI KGW KHQ KOA KOMO
 KPO KSD KSTP KYW WBNB
 WCAE WCSH WDAF WDEL WFAE
 WFRB WGY WIBA WRE WJAR
 WLW WMAQ WNAC WOV WRC
 WTAG WTAM WVIC WTMJ WWJ

ED-10:45 p.m., E-9:45, C-8:45, M-7:45
R — Dorothy Thompson — News
 KDYL KFI KGW KHQ KOA KOMO
 KPO KSD KSTP KYW WBNB WCAE
 WCSH WDAF WDEL WFAE WFRB
 WGY WIRE WJAR WLW WMAQ
 WNAC WOV WRC WTAG WTAM
 WVIC WWJ

FRIDAY (Continued)

ED-11:00 p.m., E-10:00, C-9:00, M-8:30
C — Jack Fulton, See Monday
R — Amos 'n' Andy, See Monday

ED-11:15 p.m., E-10:15, C-9:15, M-8:15
C — Boake Carter, See Monday

ED-11:30 p.m., E-10:30, C-9:30, M-8:30
C — Paul Whiteman; Deems Taylor
KFBB KPBY KGAR KGMB KGVO
KIRO KILZ KNX KOH KOIN KOY
KSFO KSL KVI KFOR

SATURDAY

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
C — Saturday Night Swing Club
Available to Columbia Network

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
C — Carborundum Band
KFAB KMBC KMON WABC WBBM
WBT WCAO WCAU WCCO WEEI
WFBL WGAR WGR WHAS WJAS
WJR WKRC WPRO

B — Uncle Jim's Question Bee
KDKA WBLZ WBZA WGY WHK
WJZ WMAQ

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C — Johnny Presents Russ Morgan
KFAB KFH KMBC KMON KRNT
WABC WADC WBBM WBIG WBNS
WBT WCAO WCAU WCCO WCOA
WDRC WEEI WFBL WFBM WGR
WGST WHAS WHIEC WHIO WHK
WHP WISN WJAS WJR WJSV
WKRC WMBD WMBG WNBW WOC
WOKO WPRO WSBT WYVA

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C — Prof. Quiz
KDB KERN KFAB KFBK KPBY
KPRC KGB KHJ KLRA KILZ KMBC
KMJ KMOX KOIN KOL KOMA
KRLD KRNT KSL KTRH KTSB
KVI KWG WABC WBBM WBNS
WBT WCAO WCAU WCCO WDAE
WDRO WDRC WEAN WFBL WFBM
WJAS WJR WJSV WKBW WKRC
WMBR WOKO WQAM WREC WSPD
WVLL

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

ED-9:30 p.m., E-8:30, C-7:30, M-6:30
C — Saturday Night Serenade
KFAB KFH KPBY KGKO KLRA
KLZ KMBC KMON KNOW KNX
KOIN KOL KOMA KRLD KSFO
KTRH KTSB KTUL KVI KWKH
WALA WBBM WBIG WBNS WBRC
WBT WCAO WCAU WCOA WDAE
WDRO WDOD WEEI WFBL WFBM
WGAR WGST WHAS WHIEC WJAS
WJR WJSV WKBW WLAC WMBD
WMBR WMMN WNOX WOC WQAM
WREC WRVA WSFA WTOC WWL
WYVA

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
C — Your Hit Parade

KERN KFAB KFBK KFH KPBY
KPRC KGB KGKO KGMB KIJ
KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KOMA KRLD
KRNT KSCJ KSL KTRH KTSB
KTUL KVI KFOR 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
WHIEC WHK WHP WIBW WIBX
WICC WISN WJAS WJR WJSV
WKBW WKRC WLAC WLBZ WMAS
WMBD WMBG WMBR WNAK
WNAX WNOX WOC WOKO WORC
WPG WQAM WREC WSBT WSFA
WSJS WSPD WTOC WWL WYVA

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

B — National Barn Dance
KDYL KEJ KESD KFYR KGIL
KGR KGU KGW KHQ KOA KOMO
KPO KSTP KTR AR DAY WEBB
WIBA WLW WTMJ

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

C — Johnny Presents Russ Morgan
KFBB KPBY KGVO KIRO KILZ
KNX KOIN KSFO KSL KVI KFOR

ED-Midn't., E-11:00, C-10:00, M-9:00

C — Professor Quiz
KFBB KPBY KIRO KNX KOH
KOIN KOY KSFO KSL KVI

SUNDAY

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

C — Major Bowes' "Family"
CFRB KERN KFAB KFBK KFH
KFI KPBY KPRC KGB KGVO
KMBC KOH KOL KRLD KSL KTRH
KTSB KVI KFOR KWG KWKH
WABC WACO WADC WALA WBNS
WBRD WCAO WCCO WDAE WDBJ
WDBO WDNC WESG WFBL WFEA
WHAS WHK WIBX WJAS WJR
WKRC WLZB WMBD WMBR
WMMN WOC WOKO WORC WPG
WQAM WSBT WSJS WSPD WTOC

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

C — Salt Lake Tabernacle Choir
CFRB KFAB KFBK KFBK KFH
KPBY KPRC KGB KILZ KOH KOL
KRLD KSL KTRH KTSB KVI KFOR
KWG WABC WACO WADC WALA
WBIG WBNS WBRC WCAO WCCO
WDAE WDBJ WDBO WESG WFBL
WFEA WGR WHAS WICC WJAS
WJR WKRC WLBC WMBR WMMN
WOC WOKO WORC WQAM WSBT
WSJS WSPD WTOC

ED-1:00 p.m., E-Noon, C-11:00 a.m., M-10:00

C — Church of the Air
KFBK KFH KPBY KPRC KGB
KHJ KMOX KOH KOL KOMA KRLD
KRNT KSCJ KSL KTRH KTSB KVI
KFOR KWG WABC WALA WBNS
WBT WCAO WCCO WDAE WDBJ
WDBO WDRC WESG WFBL WFBM

WGR WHAS WHP WIBX WJAS
WJSV WKBN WKRC WLAC WLZB
WMBR WNBW WOC WOKO WORC
WPG WQAM WREC WSBT WSJS
WSPD WTOC WYVA

ED-2:00 p.m., E-1:00, C-Noon, M-11:00 a.m.

B — Magic Key of RCA
CFCP CRBT KDKA KDYL KFI
KFYR KGU KGW KHQ KOA KOIL
KOMO KPO KPRC KSO KSTP KTBS
KTIS KYOO KWK WAPI WAVE
WBAL WBZ WBZA WCKY WDAY
WEEC 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

ED-3:00 p.m., E-2:00, C-1:00, M-Noon

R — The Radio News Reel
KSD KSTP KYW WBBN WCAE
WCSH WDAF WDEL WEAF WFBR
WGY WHO WIRE WJAR WMAQ
WNAC WOV WRC WSAI WTAG
WTAM WTIC WWJ

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

B — Smiling Ed McConnell
KDKA KFYR KOIL KSO KWK
WBAL WBZ WBZA WCKY WEAN
WBRB WENR WFIL WHAM WHK
WICC WJZ WMAL WMT WREN
WSPD WSYR WTCN WXYZ

ED-4:30 p.m., E-3:30, C-2:30, M-1:30

R — The World Is Yours; Drama
Available to Red Network

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

R — Marion Talley
KDYL KFI KGW KHQ KOA KOMO
KPO KSTP KYW WBBN WCAE
WCOL WESH WDAF WDEL WEAF
WEEC WFBZ WGY WHO WIBA
WEE WRVA WMAQ WNAC WOOD
WOW WVR WSAI WTAG WTAM
WTIC WTMJ WWJ

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

C — Guy Lombardo and Orchestra
KFH KMBC KMON KOMA KTUL
WAAB WABC WBNS WCAO WCAU
WDRC WEAN WFBL WFBM WGR
WHAS WHIEC WHK WIBX WICC
WJR WJSV WMAS WOKO WORC
WSPD WYVA

R — Mickey Mouse Theater
KANS KDYL KFI KGNC KGW
KHQ KOA KOMO KPO KPRC KSD
KSTP KYOO KYW WAVE WBAF
WBBN WBRD WCAE WESH WDAF
WDEL WEAF WEEC WFBZ WFBZ WFLA
WGY WHO WIBA WIOD WIRE
WIS WJAR WJAX WKY WLW
WMAQ WMBG WMC WNAC WOAI
WOOD WOV WPTF WRC WSB
WSM WSMB WSN WTAG WTAM
WTAR WTIC WTMJ WWJ

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

C — Joe Penner; Gene Austin
KFAB KPBY KGLO KILZ KMBC
KMON KNOW KNX KOIN KOI
KOMA KRLD KRNT KSPD KSI

SUNDAY (Continued)

KTRH KTSA KVI WABC WBBM
WRNS WRRC WCAO WCAU
WCOO WDAE WDBO WDRC WEEI
WFBL WFBM WGAR WGST WHAS
WHBC WJAS WJR WJSV WKWB
WKRC WOKO WORC WPRO WQAM
WREC WRVA

M — George Jessel; Tommy Tucker
To entire MBS and Michigan Net-
works

ED-6:30 p.m., E-5:30, C-4:30, M-3:30
R — A Tale of Today
WBEN WEAF WGY WJAR WMAQ
WOW WRC WTAM

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
R — Jack Benny; Mary Livingstone
KSD KYA KYW WBEN WCAE
WCSH WDAF WEAF WEHR WGY
WIO WJAR WLW WMAQ WNAO
WOW WRC WTAG WTAM WTIC
WWJ
Also on Canadian Network

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

B — Ozzie Nelson; Harriet Hilliard
KARK KDKA KECA KFEL KEX
KFSD KFYR KGA KGO KJR KLO
KOIL KPRC KSO KSTP KTAR
KTBS KTHS KVOO KWK WABY
WAPI WAVE WHAL WBAF WBBZ
WBZA WCKY WCOL WDAY WEAN
WEBC WEBR WFIL WFLA WHAM
WHK WIBA WICG WIOD WIS
WJAX WJDX WJZ WKY WLEU
WLS WMAL WMC WMT WQAI
WPTF WREN WRTD WSB WSM
WSMB WSOO WSUN WSYR WTAR
WTMJ WWNC WXYZ

ED-8:00 p.m., E-7:00, C-6:00, M-5:00
R — Don Ameche; Edgar Bergen
CFBC CRCT KDYL KFI KFYR
KGW KHQ KOA KOMO KPO KPRC
KSD KSTP KTAR KTBS KVOO
KYW WAVE WBEN WCAE WCSH

WDAF WDAY WEAF WEBC WFAA
WFBR WFLA WGY WHO WIBA
WIOD WIRE WIS WJAR WJAX
WJDX WKY WLW WMAQ WMC
WNAO WQAI WOV WPTF WRC
WRVA WSB WSM WSMB WSOO
WSUN WTAG WTAM WTAR WTIC
WTMJ WWJ WWNC
Also on Canadian Network

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

CFRB CKAC KDB KERN KFAB
KFBB KFH KFPY KFRC KGB
KGKO KHJ KLRA KIZ KMBC
KMJ KMOX KOH KOIN KOI KOMA
KRID KRNT KSCJ KSL KTRH
KTSA KTUL KVI KVOR KWG
KWKH WABC WACO WADC WALA
WBHM WRIG WBNS WBRC WBT
WCAO WCAU WCOO WCOA WDAE
WDBJ WDBO WDNC WDOB WDRC
WEAN WFBL WFBM WFEA WGR
WGST WHAS WHBC WHK WHP
WIBX WIBX WICC WISN WJAS
WJR WJSV WKBN WKRC WLAC
WLWB WMAS WMBD WMBR WNAC
WNAX WOC WOKO WORC WQAM
WREC WSBT WSFA WSJS WSPD
WTOC WWL WWVA

B — Tyrone Power; Drama
KDKA KECA KFSD KGA KGHL
KGIR KGO KJR KLO KOIL KSO
KTAR KWK WBAL WBBZ WBZA
WEBC WEBR WENR WFIL WGAR
WHAM WICC WJZ WLW WMAL
WMT WREN WSYR WXYZ

R — Manhattan Merry-Go-Round
CFBC KDYL KFI KFYR KGW
KHQ KOA KOMO KPO KPRC KSD
KSTP KTBS KTHS KYW WAVE
WHEN WCAE WCKY WCSH WDAF
WDAY WEAF WEBC WEEI WFAA
WFBR WFLA WGY WHO WIBA
WIOD WIRE WIS WJAR WJAX
WJDX WKY WMAQ WMC WQAI
WOW WPTF WRC WRVA WSB
WSM WSMB WSOO WTAG WTAM
WTAR WTIC WTMJ WWJ WWNC

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

CFBC CRCT KDYL KFI KFYR
KGW KHQ KOA KOMO KPO KPRC
KSD KSTP KTBS KYW WAPI
WAVE WBEN WCAE WCSH WDAF
WDAY WEAF WEBC WEEI WFAA
WFBR WFLA WGY WHO WIBA
WIOD WIS WJAR WJAX WJDX
WKY WMAQ WMC WQAI WOV
WPTF WRC WRVA WSAI WSB

WSM WSMB WSOO WTAG WTAM
WTAR WTMJ WWJ WWNC

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

ED-9:45 p.m., E-8:45, C-7:45, M-6:45
B — Irene Rich, Drama

KDKA KOIL KSO KWK WBAL
WBZ WBZA WCKY WEAN WEBR
WENR WFIL WHAM WHK WICC
WJZ WMAL WMT WREN WSPD
WSYR WTCN WXYZ

ED-10:00 p.m., E-9:00, C-8:00, M-7:00
R — Phil Spitalny Orch.

KDYL KFI KGHN KGW KHQ KOA
KPO KPRC KSD KSTP KTAR KTBS
KTHS KYW WAVE WBAF WBEN
WCAE WCSH WDAF WEAF WEBR
WFLA WGY WHO WIBA WIOD
WIRE WIS WJAR WJAX WJDX
WKY WMAQ WMC WNAO WQAI
WOOD WOW WPTF WRC WRVA
WSB WSM WSMB WSOO WTAG
WTAM WTAR WTIC WTMJ WWJ
WWNC

ED-10:30 p.m., E-9:30, C-8:30, M-7:30
B — Tyrone Power; Drama

KARK KPRC KTBS WAPI WAVE
WBAP WJDX WKY WMC WQAI
WSB WSM WSMB

ED-11:00 p.m., E-10:00, C-9:00, M-8:00
B — Irene Rich, Drama

KECA KERN KEX KFBB KFSD
KGA KGO KJR KLO KMJ KVOD
KWG WAPI WAVE WJDX WMC
WSB WSM WSMB

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

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

ED-11:30 p.m., E-10:30, C-9:30, M-8:30
R — Jack Benny-Mary Livingstone

KDYL KERN KFBB KFI KFSD
KGHL KGIR KGI KGW KHQ
KIDO KMJ KOA KOMO KPO KTAR
KWG

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Daylight

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

COMEDY

Fred Allen, 9:00 p.m. Wed., Red
Phil Baker, 7:30 p.m. Sun., CBS
Jack Benny-Mary Livingstone, 7 and 11:30 p.m. Sun.,
Red
Edgar Bergen-Charlie McCarthy, 8 p.m. Sun., Red
Fannie Brice, 9 p.m. Thurs., Red
Bob Burns, 10:00 p.m. Thurs., Red
Burns and Allen, 8 and 10:30 p.m. Mon., Red
Eddie Cantor, 7:30 and 10:30 p.m. Mon., CBS
Arlene Harris, 9 and 12 p.m. Tues., CBS

George Jessel, 6:00 p.m. Sun., MBS
Al Jolson, 8:30 and 11:30 p.m. Tues., CBS
Lew Lehr, 8:30 and 11:30 p.m. Wed., CBS
Parkyakarkus, 8:30 and 11:30 p.m. Tues., CBS
Al Pearce, 9 and 12 p.m. Tues., CBS
Joe Penner, 6:00 p.m. Sun., CBS
Joe Rines, 5:30 p.m. Sun., Red

CONCERTS

Frank Black, 2:00 p.m. Sun., Blue
Ford Sunday Evening Hour, 9:00 p.m. Sun., CBS
Andre Kostelanetz, 9:00 p.m. Wed., CBS

DANCE BANDS

Robert Armbruster, 8:00 p.m. Sun., Red
 Ben Bernie, 8:30 and 11:30 p.m. Wed., CBS
 Oscar Bradley, 7:30 p.m. Sun., CBS
 Don Donnie, 9 p.m. Sun., Red
 Tommy Dorsey, 8:30 p.m. Wed., Red
 Edgar Fairchild, 7:30 and 10:30 p.m. Mon., CBS
 Jan Garber, 8 and 10:30 p.m. Mon., Red
 Al Goodman, 10:00 p.m. Sat., CBS
 Benny Goodman, 9:30 p.m. Tues., CBS
 Gustav Haenschen, 9:30 p.m. Sun., Red; 10:00 p.m. Fri., CBS
 Phil Harris, 7 and 11:30 p.m. Sun., Red
 Horace Heldt, 9:00 p.m. Tues., Blue
 Richard Himber, 8 p.m. Mon., CBS
 Carl Hoff, 9 and 12 p.m. Tues., CBS
 Carl Hohengarten, 7 and 11 p.m. Mon. thru Fri., CBS
 Hal Kemp, 10 p.m. Tues., CBS
 Wayne King, 8:30 p.m. Tues., Red; 10 p.m. Mon., CBS
 Benny Kreuger, 8:30 p.m. Mon., CBS
 Kay Kyser, 10 p.m. Wed., Red
 Guy Lombardo, 5:30 p.m. Sun., CBS
 Abe Lyman, 9:00 p.m. Fri., Red
 Frankie Masters, 10:30 p.m. Wed., CBS
 Jack Miller, 8 and 11:15 p.m. Thurs., CBS
 Billy Mills, 9:30 p.m. Tues., Red
 Russ Morgan, 8:30 and 11:30 p.m. Sat., CBS; 8:00 p.m. Tues., Red
 Ozzie Nelson, 7:30 p.m. Sun., Blue
 George Olsen, 9 p.m. Fri., Blue
 Raymond Paige, 9:00 p.m. Fri., CBS
 Ben Pollack, 6 and 11 p.m. Sun., CBS
 B. A. Rolfe, 10 p.m. Tues., Red
 Seymour Simons, 6:30 p.m. Sun., CBS
 Harry Sosnik, 9 and 10:30 p.m. Sun., Blue
 Phil Spitalny, 10 p.m. Sun., Red
 Johnny Trotter, 10:00 p.m. Thurs., Red
 Tommy Tucker, 6:00 p.m. Sun., MBS
 Rudy Vallee, 8:00 p.m. Thurs., Red
 Peter Van Steeden, 9:00 p.m. Mon., Red
 Don Voorhees, 8:00 p.m. Wed., CBS
 Mark Warnow, 7:30 and 10:30 p.m. Thurs., CBS
 Paul Whiteman, 8:30 and 11:30 Fri., CBS
 Meredith Willson, 9:00 p.m. Thurs., Red
 Victor Young, 8:30 and 11:30 p.m. Tues., CBS

IALOG

Amos 'n' Andy, 7:00 and 11:00 p.m. Mon. through Fri., Red
 Easy Aces, 7:00 p.m. Tues., Wed., Thurs., Blue
 Fibber McGee and Molly, 9:30 p.m. Tues., Red
 Lum and Abner, 6:45 p.m. Mon., Wed., Fri., CBS
 Ken Murray, 9 p.m. Fri., CBS
 Pick and Pat, 8:30 and 11:30 p.m. Mon., CBS
 Stroud Twins, 8:00 p.m. Sun., Red
 Tim and Irene, 9 p.m. Fri., Blue

DRAMA

Don Ameche, 8 p.m. Sun., Red
 Campana's First Nighter, 10:00 p.m. Fri., Red
 Death Valley Days, 8:30 p.m. Fri., Blue
 Gang Busters, 10:00 p.m. Wed., CBS
 Eddie Guest, 10:30 p.m. Wed., CBS
 Hollywood Hotel, 9:00 p.m. Fri., CBS
 Hollywood Playhouse, 9:00 and 11:30 p.m. Sun., Blue
 Lone Ranger, 7:30 and 10:30 p.m. Mon., Wed., Fri., MBS
 Lux Radio Theater, 9:00 p.m. Mon., CBS
 Helen Menken, 7:30 p.m. Tues., CBS
 One Man's Family, 8:00 p.m. Wed., Red
 Tyrone Power, 9:00 and 10:00 p.m. Sun., Blue
 Irene Rich, 9:45 and 11:00 p.m. Sun., Blue
 Edward G. Robinson, 8:00 p.m. Tues., CBS
 A Tale of Today, 6:30 p.m. Sun., Red
 Those We Love, 8:30 p.m. Mon., Blue
 Claire Trevor, 8:00 p.m. Tues., CBS
 We, The People, 7:30 and 10:30 p.m. Thurs., CBS

POPULAR PROGRAMS

American Album of Familiar Music, 9:30 p.m. Sun., Red
 Believe It Or Not, 10 p.m. Tues., Red
 Major Bowes' Amateurs, 9:00 p.m. Thurs., CBS
 Major Bowes' Family, 11:30 a.m. Sun., CBS
 Carborundum Band, 7:30 p.m. Sat., CBS
 Cavalcade of America, 8:00 p.m. Wed., CBS
 Chase and Sanborn Hour, 8:00 p.m. Sun., Red
 Cities Service Concert, 8:00 p.m. Fri., Red
 Contented Program, 10:00 p.m. Mon., Red
 Death Valley Days, 8:30 p.m. Fri., Blue
 Gang Busters, 10:00 p.m. Wed., CBS
 Jack Haley's Variety Show, 8:30 p.m. Sat., Red
 Hour of Charm, 10 p.m. Sun., Red
 How To Win Friends and Influence People, 10:45 p.m. Tues., Red
 It Can Be Done, 10:30 p.m. Wed., CBS
 Jello Program, 7:00 and 11:30 p.m. Sun., Red
 Johnny Presents—, 8:00 p.m. Tues., Red; 8:30 and 11:30 p.m. Sat., CBS
 Just Entertainment, 7 and 11 p.m. Mon. thru Fri., CBS
 Kraft Music Hall, 10:00 p.m. Thurs., Red
 Magic Key of RCA, 2:00 p.m. Sun., Blue
 Manhattan Merry-Go-Round, 9:00 p.m. Sun., Red
 March of Time, 8:00 p.m. Thurs., Blue
 MGM Program, 9:00 p.m. Thurs., Red
 Mickey Mouse Theater, 5:30 p.m. Sun., Red
 National Barn Dance, 9:00 and 11:00 p.m. Sat., Blue
 Professor Quiz, 9:00 and 12:00 p.m. Sat., CBS
 Radio News Reel, 3:00 p.m. Sun., Red
 Royal Crown Revue, 9 p.m. Fri., Blue
 Salt Lake City Tabernaacle, 12:30 p.m. Sun., CBS
 Saturday Night Serenade, 9:30 p.m. Sat., CBS
 Saturday Night Swing Club, 7:00 p.m. Sat., CBS
 Kate Smith Hour, 8:00 and 11:15 p.m. Thurs., CBS
 Songshop, 10:00 p.m. Fri., CBS
 Station E-Z-R-A, 7:15 p.m. Mon., Wed., Fri., Red
 Swing School, 10:00 p.m. Tues., CBS
 Time To Shine, 10 p.m. Tues., CBS
 Town Hall Tonight, 9:00 p.m. Wed., Red
 True Story Court, 9:30 p.m. Fri., Red
 Uncle Jim's Question Bee, 7:30 p.m. Sat., Blue
 Vick's Open House, 7:00 p.m. Sun., CBS
 Voice of Firestone, 8:30 p.m. Mon., Red
 Vox Pop, 9:00 p.m. Tues., Red
 Waltz Time, 9:00 p.m. Fri., Red
 Watch the Fun go By, 9:00 and 12:00 p.m. Tues., CBS
 We, The People, 7:30 p.m. Thurs., CBS
 Your Hit Parade, 10:00 p.m. Sat., CBS
 You Said It, 8 p.m. Mon., CBS

SINGERS

Stuart Allen, 10:00 p.m. Sat., CBS
 Andrew Sisters, 7 and 11 p.m., Mon. thru Fri., CBS
 Gene Austin, 6:00 p.m. Sun., CBS
 Kenny Baker, 7:00 and 11:30 p.m. Sun., Red
 Henry Burr, 9:00 and 11:00 p.m. Sat., Blue
 Rachel Carlay, 9:00 p.m. Sun., Red
 John Carter, 8 p.m. Sun., Red
 Buddy Clark, 8:30 and 11:30 p.m. Wed., CBS
 Alice Cornett, 10:00 p.m. Fri., CBS
 Richard Crooks, 8:30 p.m. Mon., Red
 Bing Crosby, 10:00 p.m. Thurs., Red
 Jean Dickenson, 9:30 p.m. Sun., Red
 Deanna Durbin, 7:30 and 10:30 p.m. Mon., CBS
 Mary Eastman, 9:30 p.m. Sat., CBS
 Jack Fulton, 7:00 and 11:00 p.m. Mon. through Fri., CBS
 Paula Gayle, 6 and 11 p.m. Sun., CBS
 Freda Gibson, 10:00 p.m. Sat., CBS; 9 p.m. Fri., Blue
 Harriet Hilliard, 7:30 p.m. Sun., Blue
 Al Jolson, 8:30 and 11:30 p.m. Tues., CBS
 Alan Jones, 9 p.m. Thurs., Red
 Reed Kennedy, 10:00 p.m. Fri., CBS
 Dorothy Lamour, 8:00 p.m. Sun., Red
 Frances Langford, 9:00 p.m. Fri., CBS
 Pierre Le Krecun, 9:00 p.m. Sun., Red
 Lullaby Lady, 10:00 p.m. Mon., Red
 Lulu Belle, 9:00 and 11:00 p.m. Sat., Blue

Luella Manners, 8 p.m. Fri., Red
 Smiling Ed McConnell, 3:30 p.m. Sun., Blue
 Tony Martin, 8:00 and 10:30 p.m. Mon., Red
 Frank Munn, 9:30 p.m. Sun., Red; 9:00 p.m. Fri., Red
 Frank Parker, 9 p.m. Fri., CBS
 Jane Pickens, 8:30 and 11:30 p.m. Wed., CBS
 Martha Raye, 8:30 and 11:30 p.m. Tues., CBS
 Kate Smith, 8:00 and 11:15 p.m. Thurs., CBS
 Margaret Speaks, 8:30 p.m. Mon., Red
 Marion Talley, 5:00 p.m. Sun., Red
 Kay Thompson, 8 p.m. Mon., CBS

TALKS

Dale Carnegie, 10:45 p.m. Tues., Red
 Boake Carter, 6:30 and 8:45 p.m. daily, CBS
 Jimmy Fidler, 10:30 p.m. Tues., Fri., Red
 Gabriel Heatter, 7:30 and 10:30 p.m. Thurs., CBS
 John B. Kennedy, 8:00 p.m. Sun., Blue
 Geo. McCall, 7:15 and 11:15 p.m. Tues., Thurs., CBS
 Harriet Parsons, 8:30 p.m. Wed., Blue
 Robert L. Ripley, 10 p.m. Tues., Red
 Deems Taylor, 9:00 p.m. Wed., CBS; 8:30 and 11:30 p.m. Fri., CBS
 Lowell Thomas, 6:45 p.m. Mon. through Fri., Blue
 Dorothy Thompson, 10:45 p.m. Fri., Red; 7:30 p.m. Tues., Blue
 Walter Winchell, 9:30 and 11:15 p.m. Sun., Blue

Stamp Column

(Continued from page 36)

1200 and shows a healthy growth with each month. A printed, illustrated magazine, "Sunny Days" is issued quarterly containing regular departments on world-radio, stamp and cover collecting, motion pictures, post cards and match labels, as well as general hobby articles. Each September, a Year Book is published, reviewing the year's activities and containing a complete listing of the club membership arranged by country.

Membership is only \$1.00 per year which includes membership card and club number and subscription to the club magazine. For further information, membership enrollment blanks and prospectus', please send a stamped, addressed return envelope to David Brockton Browne, Stamp Editor, 550 E. Glenarm St., Pasadena, Calif., and details will be sent immediately without obligation.

If there are any questions about stamp and cover collecting or suggestions or opinions concerning this column, won't you write the Stamp

Editor a few lines? Remember this is YOUR column and we shall always be glad to be of service to our readers wherever possible. Cheerio and Good Luck!

Month's Changes

(Continued from page 44)

1260	CMED	Havana, Cuba, to 5000
1310	KINY	Juneau, T. A., to 250
1350	CMCA	Havana, Cuba, to 5000
1350	WAWZ	Zarephath, N. J., to 1000
1420	KABR	Aberdeen, S. Dak., to 500 (1)
1430	WBNS	Columbus, O., to 1000 (5)
1450	WGAR	Cleveland, O., to 1000 (5)
	Permit	to Change Location
570	KGKO	Wichita Falls, Tex., to Ft. Worth
1500	WKBB	E. Dubuque, Ill., to Dubuque, Iowa.

KGKO Moves

STATION KGKO, authorized by the FCC to move from Wichita Falls to Fort Worth, made the move on May 1st without losing a minute of broadcast time.

This station, situated in Wichita Falls for ten years, signed off on April 30. It is expected, however, that KGKO will continue to serve the Wichita Falls area from its new location. It transmits on 570 kes with 1000 watts night and 5000 watts days.

Sharon Gets Station

The Sharon Herald Broadcasting Co. of Sharon, Pa., has been granted a construction permit for a new station to employ 780 kes with 250 watts, daytime only.

The application of Allen Simmons, owner of WADC at Akron, Ohio, for a new station for Mansfield, Ohio, was refused at the same time, the FCC deciding that Sharon is in more need of a new station than the Ohio city.

NBC Adds

WMFF, on 1310 kes in Plattsburg, N. Y., was added to the Blue Network of the National Broadcasting Co.

KEY TO SYMBOLS

As shown in the Index by Frequencies and Dial Numbers

Frequency is given in kilocycles; wave lengths in meters. Night power is shown in watts in third column. Daytime power is shown in parentheses 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.
- 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 Brdestg. Corp.
- M Mutual Brdestg. Sys.
- 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.

The sign-on and sign-off time of stations is shown in Eastern Standard Time. "as" means "sunset."

540 kcys. (555.2)

CJRM ak 1000 F Regina, Sask.
ZNS ak 400 Nassau, Bahamas

550 kcys. (545.1)

CFNB ak 500 F (1) Fredericton, N. B.
KFUO ak 500 2 (1) St. Louis, Mo.
KFYR ak 1000 N (5) Bismarck, N. Dak.
KOAC ak 1000 Corvallis, Ore.
KSD ak 1000 2R (5) St. Louis, Mo.
KTSA ak 1000 C (5) San Antonio, Tex.
WDEV ak 500 D Waterbury, Vt.
WGR ak 1000 C (5) Buffalo, N. Y.
WKRC ak 1000 C (5) Cincinnati, Ohio
WSVA ak 500 D Harrisonburg, Va.
XEFC ak 100 Merida, Yuc.

560 kcys. (535.4)

KFDM ak 500 (1) N Beaumont, Texas
KLZ ak 1000 C (5) Denver, Colo.
KSFO ak 1000 C (5) San Francisco, Cal.
KWTO ak 5000 D Springfield, Mo.
WFIL ak 1000 BM Philadelphia, Pa.
WIND ak 1000 (5) Gary, Ind.
WIS ak 1000 N (5) Columbia, S. C.
WQAM ak 1000 C Miami, Fla.

570 kcys. (526.0)

CMGY ak 5000 X Havana, Cuba
KGKO ak 250 NXY(1) Wichita Falls, Tex.
KMTR ak 1000 Los Angeles, Calif.
KVI ak 1000 C (5) Tacoma, Wash.
WKBN ak 500 C1 Youngstown, Ohio
WMCA ak 1000 New York, N. Y.
WNAX ak 1000 C (5) Yankton, S. Dak.
WOSU ak 750 I (1) Columbus, Ohio
WSYR ak 1000 B (WSYU) Syracuse, N. Y.
WWNC ak 1000 N Asheville, N. C.

580 kcys. (516.9)

CFPR ak 50 Prince Rupert, B. C.
CHRC ak 100 Quebec, P. O.
CKCL ak 100 F Toronto, Ont.
CKUA ak 500 F Edmonton, Alta.
KMJ ak 1000 N Fresno, Calif.

Heard

Reported

Verified

Heard

Reported

Verified

KSAC	ak	500	2 (1)	Manhattan, Kans.
WCHS	ak	500	C (1)	Charleston, W. Va.
WDBO	ak	1000	C(5)	Orlando, Fla.
WIBW	ak	1000	2C (5)	Topeka, Kans.
WILL	ak	1000	D	Urbana, Ill.
WTAG	ak	1000	R	Worcester, Mass.
XELO	ak	10000	.....	Tijuana, B. Cfa.
XEMU	z	250	.....	Piedras Negras, Coah.

590 keys. (508.2)

KHQ	ak	1000	R (5)	Spokane, Wash.
WEEL	ak	1000	C (5)	Boston, Mass.
WKZO	ak	1000	BDX	Kalamazoo, Mich.
WOW	ak	1000	R (5)	Omaha, Nebr.

600 keys. (499.7)

CFCF	ak	500	BF	Montreal, P. O.
CJOR	ak	500	.....	Vancouver, B. C.
CMQ	ak	25000	.....	Havana, Cuba
FQN	ad	250	609	St. Pierre, Miquelon
KFSD	ak	1000	B	San Diego, Calif.
WCAO	ak	500	C (1)	Baltimore, Md.
WICC	ak	500	BM (1)	Bridgeport, Conn.
WMT	ak	1000	BM (5)	Cedar Rapids, Iowa
WREC	ak	1000	C (5)	Memphis, Tenn.
XEOJ	z	.....	.....	.....

610 keys. (491.5)

KFRC	c	1000	M (5)	San Francisco, Cal.
WCLE	ak	500	DM	Cleveland, Ohio.
WDAF	ak	1000	R (5)	Kansas City, Mo.
WIOD	ak	1000	N(WMBF)	Miami, Fla.
WIP	ak	1000	.....	Philadelphia, Pa.
XEXM	z	500	2	Mexico City, D. F.
XEYO	z	500	2	Mexico City, D. F.

620 keys. (483.6)

KGW	ak	1000	R (5)	Portland, Ore.
KTAR	ak	1000	N	Phoenix, Ariz.
TIPG	z	2000	625	San Jose, Costa Rica
WFLA	ak	1000	Na (5)	Tampa, Fla.
WHJB	ak	250	CD	Greensburg, Pa.
WLBZ	ak	500	CM (1)	Bangor, Maine
WSUN	ak	1000	Na (5)	St. Petersburg, Fla.
WTMJ	ak	1000	N (5)	Milwaukee, Wis.

630 keys. (475.9)

CFCO	ak	100	F	Chatham, Ont.
CFCY	ak	1000	F	Charlottetown, P.E.I.
CJRC	ak	500	F (1)	Winnipeg, Man.
CKOV	ak	100	F	Kelowna, B. C.
CMCD	ak	250	.....	Havana, Cuba
KFRU	ak	500	I (1)	Columbia, Mo.
KGFX	ak	200	D	Pierre, S. Dak.
WGBF	ak	500	NI (1)	Evansville, Ind.
WMAL	ak	250	B (5)	Washington, D. C.
WPRO	ak	500	C (1)	Providence, R. I.
XEZ	z	500	.....	Merida, Yuc.
.....	z	10000	P	Havana, Cuba

640 keys. (468.5)

KFI	ak	50000	R	Los Angeles, Calif.
WGAN	z	500	DP	Portland, Maine
WHKC	ak	500	M	Columbus, Ohio
WOI	ak	5000	D	Ames, Iowa
XEBX	z	250	.....	Sabinas, Coah.
YSS	ak	500	.....	San Salvador, E. S.

650 keys. (461.3)

TIJ	z	1000	.....	San Jose, C. R.
WSM	ak	50000	MN	Nashville, Tenn.

Heard

Reported

Verified

660 kcys. (454.3)

WAAW ak 500 D Omaha, Nebr.
 WEAF ak 50000 R New York, N. Y.
 XEAL z 1000 Mexico City, D. F.
 XEAO ak 250 Mexicali, B. Cfa.

670 kcys. (447.5)

WMAQ ak 50000 R Chicago, Ill.

680 kcys. (440.9)

CMBQ z 5000 P Havana, Cuba
 CMCG ak 1000 Havana, Cuba
 KFEO ak 2500 D St. Joseph, Mo.
 KPO ak 50000 R San Francisco, Cal.
 VAS akn 2000 685 Glace Bay, N. S.
 VOWR ck 500 681 St. John's, Nfld.
 WLAW ak 1000 D Lawrence, Mass.
 WPTF ak 5000 N Raleigh, N. C.

690 kcys. (434.5)

CFRB ak 10000 C Toronto, Ont.
 CJCJ ak 100 F Calgary, Alta.
 XET ak 5000 Monterrey, N. L.

700 kcys. (428.3)

WLW ak 500000 MN (W8XO) Cincinnati, O.

710 kcys. (422.3)

KIRO ak 1000 C Seattle, Wash.
 KMPC ak 500 Beverly Hills, Calif.
 WOR ak 50000 M Newark, N. J.

720 kcys. (416.4)

CMK ak 3000 Havana, Cuba
 WGN ak 50000 M Chicago, Ill.
 XEH ak 250 Monterrey, N. L.

730 kcys. (410.7)

GFPL ak 100 F London, Ont.
 CJCA ak 1000 F Edmonton, Alta.
 GKAC ak 5000 C Montreal, P. O.
 CKPR ak 100 F Fort William, Ont.
 CMCL z 10000 P Havana, Cuba
 XEPN ak 100000 Piedras Negras, Coah.
 XERB ak 100000 Rosarito Bch., B. Cfa.

740 kcys. (405.2)

KMMJ ak 1000 D Clay Cen ter, Nebr.
 KTRB ak 250 D Modesto, Calif.
 WHEB ak 250 D Portsmouth, N. H.
 WSB ak 50000 R Atlanta, Ga.

750 kcys. (399.8)

CMBL z 2500 Havana, Cuba
 KGU aj 2500 N Honolulu, Hawaii
 WJR ak 50000 C Detroit, Mich.
 XEAA ak 200 Mexicali, B. Cfa.
 XEAM z 25 Matamoros, Tams.

760 kcys. (394.5)

CMHX ak 200 Cienfuegos, Cuba

Heard

Reported

Verified

KXA ak 250 (.5)X Seattle, Wash.
 WBAL ak 2500 BMSy Baltimore, Md.
 WEW ak 1000 D St. Louis, Mo.
 WJZ ak 50000 BSy New York, N. Y.
 XEOK ak 2500 Tijuana, B. Cfa.

770 keys. (389.4)

CMBF z 10000 Havana, Cuba
 KFAB ak 10000 CSy Lincoln, Nebr.
 WBBM ak 50000 CSy Chicago, Ill.

780 keys. (384.4)

CHWK dk 100 F Chilliwack, B. C.
 CKSO ak 1000 F Sudbury, Ont.
 CMJK ak 250 Camaguey, Cuba
 KEHE ak 1000 (5) Los Angeles, Calif.
 KFDY ak 1000 D Brookings, S. Dak.
 KFOD ck 250 Anchorage, Alaska
 KGHL ak 1000 N (5) Billings, Mont.
 KWLK z 250 DP Longview, Wash.
 WEAN ak 1000 BM (5) Providence, R. I.
 WMC ak 1000 R (5) Memphis, Tenn.
 WTAR ak 1000 N Norfolk, Va.
 XEN ak 1000 Mexico City, D. F.

790 keys. (379.5)

CMGH ak 500 Matanzas, Cuba
 KGO ak 7500 B San Francisco, Cal.
 KOAM z 1000 DN Pittsburg, Kans.
 WGY ak 50000 R Schenectady, N. Y.

800 keys. (374.8)

HIX ak 800 Trujillo, D. R.
 WBAP ak 50000 Na Fort Worth, Texas
 WFAA ak 50000 Na Dallas, Texas
 WTBO ak 250 D Cumberland, Md.

810 keys. (370.2)

CMCF ak 600 X Havana, Cuba
 WCCO ak 50000 C Minneapolis, Minn.
 WNYC ak 1000 D New York, N. Y.
 XEBZ ad 100 Mexico City, D. F.
 XEDF z 100 Nuevo Laredo, Tams.

820 keys. (365.6)

CMHW ak 100 Santa Clara, Cuba
 WHAS ak 50000 C Louisville, Ky.
 XEBG z 1000 Tijuana, B. Cfa.

830 keys. (361.2)

CMJX ak 500 Camaguey, Cuba
 KOA ak 50000 R Denver, Colo.
 WEEU ak 1000 D Reading, Pa.
 WHDH ak 1000 Dn Boston, Mass.
 WRUF ak 5000 Dn Gainesville, Fla.

840 keys. (356.9)

CBL ak 50000 F Toronto, Ont.
 CFOG ak 1000 F Saskatoon, Sask.
 VOGY ak 400 St. John's, Nfld.
 XERA ck 250000 Villa Acuna, Coah.

850 keys. (352.7)

CMCM ak Havana, Cuba
 KIEV ak 250 D Glendale, Calif.
 WESG ak 1000 CD Elmira, N. Y.

Heard

Reported

Verified

WKAR ak 1000 D E. Lansing, Mich.
 WWL ak 10000 CX New Orleans, La.

860 kcys. (348.6)

WABC ak 50000 C (WBOQ) New York, N. Y.
 WIIB ak 1000 DM Kansas City, Mo.
 XEMO ak 5000 Tijuana, B. Cfa.
 XENC z 50 Mexico City, D. F.

870 kcys. (344.6)

WENR ak 50000 Ba Chicago, Ill.
 WLS ak 50000 Ba Chicago, Ill.
 XEFB ak 200 Monterrey, N. L.
 XEJW z 500 Mexico City, D. F.

880 kcys. (340.7)

CBO ak 1000 F Ottawa, Ont.
 CFJC ak 1000 F Kamloops, B. C.
 CMW ak 1400 X Havana, Cuba
 KFKA ak 500 2M (1) Greeley, Colo.
 KLX ak 1000 Oakland, Calif.
 KPOF ak 1000 2 Denver, Colo.
 TIEP ak 1000 San Jose, Costa Rica
 WCOC ak 500 CX (1) Meridian, Miss.
 WGBI ak 500 CI (1) Scranton, Pa.
 WOAN ak 500 1 (1) Scranton, Pa.
 WRNL ak 500 D Richmond, Va.
 WSUI ak 500 (1) Iowa City, Iowa

890 kcys. (336.9)

KARK ak 500 N (1) Little Rock, Ark.
 KFNF ak 500 2 (1)X Shenandoah, Iowa
 KFPY ak 1000 C (5) Spokane, Wash.
 KUSD ak 500 2 Vermillion, S. Dak.
 WBAA ak 500 (1) W. Lafayette, Ind.
 WGST ak 1000 C (5) Atlanta, Ga.
 WJAR ak 1000 R (5) Providence, R. I.
 WMMN ak 500 C (1)X Fairmont, W. Va.
 XEK ak 100 Mexico City, D. F.
 XEW ak 50000 Mexico City, D. F.

900 kcys. (333.1)

KGBU ak 500 X Ketchikan, Alaska
 KHJ ak 1000 M (5) Los Angeles, Calif.
 KSEI ak 250 (1)N Pocatello, Idaho
 WBEN ak 1000 R (5) Buffalo, N. Y.
 WELI ak 500 D New Haven, Conn.
 WFMD ak 500 D Frederick, Md.
 WJAX ak 1000 N (5) Jacksonville, Fla.
 WKY ak 1000 N (5) Oklahoma City, Ok.
 WLBL ak 5000 D Stevens Point, Wis.
 WTAD ak 1000 D Quincy, Ill.

910 kcys. (329.6)

CBF ak 50000 FN Montreal, P. Q.
 CKY ak 15000 F Winnipeg, Man.
 CJAT ak 1000 F Trail, B. C.
 XENT ak 150000 Nuevo Laredo, Tams.

920 kcys. (325.9)

CMX ak 1000 X Havana, Cuba
 KFEL ak 500 Ma Denver, Colo.
 KOMO ak 1000 R (5) Seattle, Wash.
 KPRC ak 1000 R (5) Houston, Texas
 KVOB ak 500 Ba Denver, Colo.
 WAAF ak 1000 D Chicago, Ill.
 WORL ak 500 D Boston, Mass.
 WPEN ak 1000 2 Philadelphia, Pa.

Heard

Reported

Verified

WRAX	ak	1000	2	Philadelphia, Pa.
WSPA	ak	1000	D	Spartanburg, S. C.
WWJ	ak	5000	R	Detroit, Mich.

930 kcs. (322.4)

CFAC	ak	1000	F	Calgary, Alta.
CFCH	ak	100	F	North Bay, Ont.
CFLC	ak	100	.....	Prescott, Ont.
CHNS	ak	1000	F	Halifax, N. S.
CKPC	ak	100	F	Brantford, Ont.
KMA	ak	1000	(5)	Shenandoah, Iowa
KROW	ak	1000	.....	Oakland, Calif.
WBRC	ak	1000	R(5)	Birmingham, Ala.
WDBJ	ak	1000	C(5)	Roanoke, Va.
XEBH	ak	500	.....	Hermosillo, Son.

940 kcs. (319.0)

KOIN	ak	1000	C(5)	Portland, Ore.
VOAS	ak	100	.....	St. John's, Nfld.
WAAT	ak	500	D	Jersey City, N. J.
WAVE	ak	1000	N	Louisville, Ky.
WCSS	ak	1000	R(2.5)	Portland, Maine
WDAY	ak	1000	N(5)	Fargo, N. Dak.
WHA	ak	5000	D	Madison, Wis.
WICA	ak	250	D	Ashtabula, Ohio
XEFO	ak	5000	.....	Mexico City, D. F.

950 kcs. (315.6)

CJOC	ak	100	F	Lethbridge, Alta.
CMBC	z	10000	.....	Havana, Cuba
CRCK	ak	1000	F	Quebec, P. Q.
KFWB	ak	1000	(5)	Hollywood, Calif.
KMBC	ak	1000	C(5)	Kansas City, Mo.
WHAL	z	500	DP	Saginaw, Mich.
WRC	ak	1000	R(5)	Washington, D. C.

960 kcs. (312.3)

CFRN	ak	100	F	Edmonton, Alta.
CHNC	ak	1000	F	New Carlisle, P. Q.
CMKS	z	.....	.....	Guantanamo, Cuba
GRCY	ck	100	F	Toronto, Ont.
XEAW	c	100000	.....	Reynosa, Tams.

970 kcs. (309.1)

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

980 kcs. (306.0)

KDKA	bk	50000	B	Pittsburgh, Pa.
XEAC	ak	1000	.....	Tijuana, B. Cfa.
XEFE	z	250	z	Nuevo Laredo, Tams.

990 kcs. (302.8)

CMKL	z	.....	.....	Bayamo, Cuba
WBZ	ak	50000	BSy	Boston, Mass.
WBZA	ak	1000	BSy	Springfield, Mass.
XEAF	ak	750	.....	Nogales, Son.
XES	ak	250	.....	Tampico, Tams.

1000 kcs. (299.8)

CMBZ	ak	500	(1) X	Havana, Cuba
KFVD	ak	1000	Dn	Los Angeles, Calif.
VOCM	z	200	1006	St. John's, Nfld.

Heard

Reported

Verified

WHO ak 5000 R Des Moines, Iowa
 XEBI ak 25 Aguascalientes, Ags.

1010 keys. (296.9)

CHML ak 100 F Hamilton, Ont.
 CKCD ak 100 1 Vancouver, B. C.
 CKCK ak 1000 F Regina, Sask.
 CKCO ak 100 F Ottawa, Ont.
 CKIC ak 50 Wolfville, N. S.
 CKWX ak 100 1 Vancouver, B. C.
 CMJA ak 300 Camaguey, Cuba
 KGGF ak 1000 2M Coffeyville, Kans.
 KOW ak 1000 M San Jose, Calif.
 WHN ak 1000 (5) New York, N. Y.
 WNAD ak 1000 2 Norman, Okla.
 WNOX ak 1000 C (5) Knoxville, Tenn.
 XEFQ ak 50 Cananea, Son.
 XEU ak 250 Veracruz, Ver.

1020 keys. (293.9)

KYW ak 10000 R Philadelphia, Pa.
 WDZ ak 250 D Tuscola, Ill.
 XEJ ak 1000 Juarez, Chih.

1030 keys. (291.1)

CFCN ak 10000 F Calgary, Alta.
 CJBR z 1000 F Rimouski, P. Q.
 CKLW ak 5000 M Windsor, Ont.
 CMCK ak 5000 Havana, Cuba
 XEB ak 10000 Mexico City, D. F.

1040 keys. (288.3)

KRLD ak 10000 C Dallas, Texas
 KWJJ ak 500 Portland, Ore.
 KYOS bk 250 D Merced, Calif.
 WTIC ah 50000 R Hartford, Conn.

1050 keys. (285.5)

CBM ak 5000 F Montreal, P. Q.
 CMKD ak 250 Santiago, Cuba
 HIT z 50 Trujillo, D. R.
 KFBI ak 5000 Dn Abilene, Kans.
 KNX ak 50000 C Los Angeles, Calif.
 WEAU z 1000 D Eau Claire, Wis.
 WGVA z 1000 DP Indianapolis, Ind.

1060 keys. (282.8)

KTHS ak 10000 N Hot Springs, Ark.
 VOAC z 40 1065 St. John's, Nfld.
 WBAL ak 10000 BM Baltimore, Md.
 WJAG ak 1000 D Norfolk, Nebr.
 W3XJ z 100 P College Park, Md.

1070 keys. (280.2)

CMBX ak 500 Havana, Cuba
 CMHA z 50 Sagua la Grande, Cuba
 KJBS ak 500 San Francisco, Calif.
 WCAZ ak 100 D Carthage, Ill.
 WTAM ak 50000 R Cleveland, Ohio

1080 keys. (277.6)

CMJO z 200 Camaguey, Cuba
 WBT ak 50000 C Charlotte, N. C.
 WCBF ak 5000 Dnl Chicago, Ill.
 WMBI ak 5000 Dnl Chicago, Ill.
 XEBA z 20 Guzman, Jal.
 XEBK ak 100 Nuevo Laredo, Tams.
 XEDP ak 500 Mexico City, D. F.

Heard

Reported

Verified

1090 kcys. (275.1)

KMOX ak 5000 C St. Louis, Mo.

1100 kcys. (272.6)

CBR ak 5000 F Vancouver, B. C.
 KGDM ak 1000 DM Stockton, Calif.
 KWKH ak 10000 C Shreveport, La.
 WBIL ak 5000 I New York, N. Y.
 WPG ak 5000 CI Atlantic City, N. J.
 XEL z 250 Mexico City, D. F.

1110 kcys. (270.1)

CMCJ ak 500 X Havana, Cuba
 KSOO ak 2500 DnNX Sioux Falls, S. Dak.
 WRVA ak 5000 CM Richmond, Va.

1120 kcys. (26 7)

CHLP ak 100 F Montreal, P. Q.
 CHSJ ak 500 F (1) St. John, N. B.
 CKOC ak 500 F (1) Hamilton, Ont.
 CKX ak 1000 F Brandon, Man.
 CMGF ak 250 Matanzas, Cuba.
 CMKM ak 200 Manzanillo, Cuba
 CRCS ak 100 F Chicoutimi, P. O.
 KFIO ak 100 D Spokane, Wash.
 KFSG ak 500 a (2.5) Los Angeles, Calif.
 KRKD ak 500 a (2.5) Los Angeles, Calif.
 KRSC ak 250 Seattle, Wash.
 KTBC z 1000 DP Austin, Texas
 WCOP ak 500 D Boston, Mass.
 WDEL ak 250 R (.5) Wilmington, Del.
 WISN ak 250 C (1) Milwaukee, Wis.
 WJBO ak 500 B Baton Rouge, La.
 WTAW ak 500 College Sta., Tex.

1130 kcys. (265.3)

CMJI ak 150 Ciego de Avila, Cuba
 KSL ak 50000 C Salt Lake City, Ut.
 WJJD ak 20000 Dn Chicago, Ill.
 WOV ak 1000 D New York, N. Y.
 XEJP z 100 Mexico City, D. F.

1140 kcys. (263.0)

GMCW dk 500 Havana, Cuba
 KVOO ak 25000 N1 Tulsa, Okla.
 WAPI ak 5000 CI Birmingham, Ala.
 WSPR ak 500 DM Springfield, Mass.

1150 kcys. (260.7)

CMJF z 200 Camaguey, Cuba
 WHAM ak 50000 B Rochester, N. Y.
 XEBP z 250 Durango, Dgo.
 XEC ak 100 Tijuana, B. Cfa.
 XEDW z 20 Minatitlan, Ver.

1160 kcys. (258.5)

CMHJ ak 175 Cienfuegos, Cuba
 CMKG z Santiago, Cuba
 WOWO ak 10000 B1 Fort Wayne, Ind.
 WWVA ak 5000 CI Wheeling, W. Va.
 XEAS ak 50 Saltillo, Coah.
 XED ak 2500 Guadalajara, Jal.
 XEFM z 20 Leon, Gto.
 XEP ak 500 Juarez, Chih.

Heard

Reported

Verified

1170 keys. (256.3)

CMBS	ak	150	X	Havana, Cuba
WCAU	ak	50000	C	Philadelphia, Pa.
XEXX	z	1000	.....	Mexico City, D. F.

1180 keys. (254.1)

CMJO	ak	50	.....	Ciego de Avila, Cuba
KEX	ak	5000	B2	Portland, Ore.
KOB	ak	10000	N2	Albuquerque, N. M.
WDGY	ak	1000	CDn(5)	Minneapolis, Minn.
WINS	ak	1000	.....	New York, N. Y.
WMAZ	ak	1000	C(5)	Macon, Ga.
XEFA	z	500	.....	Tacuba, D. F.

1190 keys. (252.0)

CMKX	z	.....	.....	Santiago, Cuba
KTKC	ak	250	D	Visalia, Calif.
VONF	ak	500	1195	St. John's, Nfld.
WATR	ak	100	DXZ	Waterbury, Conn.
WOAI	ak	50000	N	San Antonio, Tex.
WSAZ	ak	1000	.....	Huntington, W. Va.

1200 keys. (249.9)

CFGP	z	100	.....	Grande Prairie, Alta.
CHAB	ak	100	F	Moose Jaw, Sask.
CKNX	dk	100	.....	Wingham, Ont.
CKTB	ak	100	F	St. Catharines, Ont.
CMGO	ad	250	.....	Havana, Cuba
KADA	ak	100	DM	Ada, Okla.
KBTM	ak	100	D	Jonesboro, Ark.
KDNC	z	100	(.25) P	Lewistown, Mont.
KELO	z	100	N	Sioux Falls, S. Dak.
KFJB	ak	100	(.25)	Marshalltown, Ia.
KFXD	ak	100	(.25)	Nampa, Idaho
KFXJ	ak	100	(.25)	Grand Junc., Colo.
KGCI	z	100	DP	Coeur d'Alene, Idaho
KGDE	c	100	(.25)	Fergus Falls, Minn.
KGEK	ak	100	.....	Sterling, Colo.
KGfJ	ak	100	.....	Los Angeles, Calif.
KGHI	ak	100	(.25)	Little Rock, Ark.
KGVL	z	100	DP	Greenville, Texas
KMLB	ak	100	(.25)	Monroe, La.
KOOS	ak	100	(.25)	Marsh field, Ore.
KSUN	ak	100	(.25)	Lowell, Ariz.
KVCV	ak	100	.....	Redding, Calif.
KVEC	ak	250	D	San Luis Obispo, Calif.
KVOS	dk	100	M	Bellingham, Wash.
KWg	ak	100	N	Stockton, Calif.
KWNO	z	250	D	Winona, Minn.
WABI	ak	100	(.25)	Bangor, Maine
WAIM	ak	100	C	Anderson, S. C.
WAYX	ak	100	(.25)	Waycross, Ga.
WBBZ	ak	100	M (.25)	Ponca City, Okla.
WBHP	ak	100	.....	Huntsville, Ala.
WBNO	ak	100	2	New Orleans, La.
WCAT	ak	100	D	Rapid City, S. Dak.
WCAX	ak	100	(.25)	Burlington, Vt.
WCLO	ak	100	(.25)	Janesville, Wis.
WCPO	ak	100	(.25)	Cincinnati, Ohio
WDSM	z	100	P	Superior, Wis.
WEST	ak	100	3 (.25)	Easton, Pa.
WFAM	ak	100	4	South Bend, Ind.
WFTC	ak	100	(.25)	Kinston, N. C.
WHBC	ak	100	(.25)	Canton, Ohio
WHBY	ak	100	(.25)	Green Bay, Wis.
WIBX	ak	100	C (.25)	Utica, N. Y.
WIL	ak	100	(.25)	St. Louis, Mo.
WJBC	ak	100	5 (.25)	Bloomington, Ill.
WJBL	ak	100	5	Decatur, Ill.
WJBW	ak	100	2	New Orleans, La.
WJNO	ak	100	C (.25)	W. Palm Beach, Fla.
WJRD	ak	250	D	Tuscaloosa, Ala.
WKBO	ak	100	3 (.25)	Harrisburg, Pa.
WLVA	ak	100	(.25)	Lynchburg, Va.

Heard

Reported

Verified

WMFR	ak	100	D	High Point, N. C.
WMPC	ak	100	(.25)	Lapeer, Mich.
WOLS	z	100	D	Florence, S. C.
WRBL	ak	100	(.25)	Columbus, Ga.
WSAL	z	250	D	Salisbury, Md.
WTHT	ak	100	M	Hartford, Conn.
WTOL	ak	100	D	Toledo, Ohio
WWAE	ak	100	8	Hammond, Ind.
XEBU	z	50	.....	Chihuahua, Chih.

1210 kcys. (247.8)

CHLT	z	100	.....	Sherbrooke, P. O.
CJCS	ak	50	.....	Stratford, Ont.
CJCU	z	50	.....	Aklavik, N.W.T.
CKBI	ak	100	F	Prince Albert, Sask.
CKCH	ak	100	F	Hull, P. O.
CKMC	ak	50	.....	Cobalt, Ont.
CMHI	ak	150	.....	Santa Clara, Cuba
KALB	ak	100	(.25)	Alexandria, La.
KANS	ak	100	N	Wichita, Kans.
KASA	c	100	.....	Elk City, Okla.
KDLR	ak	100	.....	Devils Lake, N. D.
KDON	z	100	M	Monterey, Calif.
KFJI	ak	100	.....	Klamath Falls, Ore.
KFOR	ak	100	CM (.25)	Lincoln, Nebr.
KFPW	ak	100	.....	Fort Smith, Ark.
KFVS	ak	100	5 (.25)	Cape Girardeau, Mo.
KFXM	ak	100	M2	San Bernardino, Cal.
KGLO	z	100	C (.25)	Mason City, Iowa
KG Y	ak	100	M	Olympia, Wash.
KHBG	z	100	D	Okmulgee, Okla.
KIUL	ak	100	.....	Garden City, Kans.
KLAH	ak	100	.....	Carlsbad, N. Mex.
KOCA	ak	100	(.25)	Kilgore, Texas
KPFA	ak	100	N (.25)	Helena, Mont.
KPPC	ak	100	2	Pasadena, Calif.
KROY	ak	100	CD	Sacramento, Calif.
KVSO	ak	100	M (.25)	Ardmore, Okla.
KWJB	z	100	(.25)P	Globe, Ariz.
KWTN	ak	100	.....	Watertown, S. Dak.
WALR	ak	100	.....	Zanesville, Ohio
WBAX	ak	100	M	Wilkes-Barre, Pa.
WBBL	ak	100	S	Richmond, Va.
WBL Y	ak	100	D	Lima, Ohio
WBRB	ak	100	3	Red Bank, N. J.
WCOL	ak	100	N	Columbus, Ohio
WCRW	ak	100	4	Chicago, Ill.
WEBQ	ak	100	5 (.25)	Harrisburg, Ill.
WEDC	ak	100	4	Chicago, Ill.
WFAS	ak	100	3	White Plains, N. Y.
WFOY	ak	100	(.25)	St. Augustine, Fla.
WGBB	ak	100	3	Freeport, N. Y.
WGCM	ak	100	(.25)	Gulfport, Miss.
WGNY	ak	100	3	Newburgh, N. Y.
WGRM	ak	100	.....	Grenada, Miss.
WHAI	z	250	DP	Greenfield, Mass.
WHBF	ak	100	(.25)	Rock Island, Ill.
WHBU	ak	100	(.25)	Anderson, Ind.
WIBU	ak	100	(.25)	Poynette, Wis.
WJBY	ak	100	(.25)	Gadsden, Ala.
WJEJ	ak	50	Dn (.1)	Hagerstown, Md.
WJIM	z	100	(.25)	Lansing, Mich.
WJTN	ak	100	B (.25)	Jamestown, N. Y.
WJW	ak	100	(.25)	Akron, Ohio
WKOK	ak	100	.....	Sunbury, Pa.
WLMU	z	100	P (.25)	Middlesboro, Ky.
WMFG	ak	100	(.25)	Hibbing, Minn.
WOMT	ak	100	.....	Manitowoc, Wis.
WPAX	ak	100	D	Thomasville, Ga.
WSAY	z	100	D	Rochester, N. Y.
WSBC	ak	100	4 (.25)	Chicago, Ill.
WSIX	ak	100	(.25)	Nashville, Tenn.
WSNJ	z	100	D	Bridgeton, N. J.
WSOC	ak	100	N (.25)	Charlotte, N. C.
WTAX	ak	100	.....	Springfield, Ill.
XEAT	ak	250	.....	Parral, Chih.
XEE	ak	50	.....	Durango, Dgo.
XEFV	ak	100	.....	Juarez, Chih.
XETH	ak	100	.....	Puebla, Pue.
.....	z	100	DP	Rice Lake, Wis.

Heard

Reported

Verified

1220 kcys. (245.8)

CMJE	z	50	.....	Camaguey, Cuba
KFKU	ak	1000	a (5)	Lawrence, Kans.
KTMS	z	500	B	Santa Barbara, Cal.
KTW	ak	1000	S2	Seattle, Wash.
KWSC	ak	1000	2 (5)	Pullman, Wash.
WCAD	ak	500	D	Canton, N. Y.
WCAE	ak	1000	MR (5)	Pittsburgh, Pa.
WDAE	ak	1000	G (5)	Tampa, Fla.
WREN	ak	1000	Ba(5)	Lawrence, Kans.
XEBL	z	50	.....	Mazatlan, Sin.
XEDA	z	200	.....	Gral. Anaya, D. F.
XETF	ak	12	.....	Veracruz, Ver.

1230 kcys. (243.8)

CMCB	z	150	.....	Havana, Cuba
KGBX	ak	500	N	Springfield, Mo.
KGGM	ak	1000	.....	Albuquerque, N. M.
KYA	ak	1000	(5)	San Francisco, Cal.
WFBM	ak	1000	G (5)	Indianapolis, Ind.
WNAC	ak	1000	R (5)	Boston, Mass.
XEAZ	z	200	.....	Zacatecas, Zac.
XEG	z	250	.....	Monterrey, N. L.

1240 kcys. (241.8)

CJGB	ak	1000	F	Sydney, N. S.
CMHB	z	50	.....	Sancti Spiritus, Cuba
KGCU	ak	250	1	Mandan, N. Dak.
KLPM	ak	250	1XZ	Minot, N. Dak.
KTAT	ak	1000	M	Fort Worth, Texas
KTFI	ak	1000	.....	Twin Falls, Idaho
WKAQ	ak	1000	.....	San Juan, P. R
WXYZ	ak	1000	B	Detroit, Mich.
XEKL	z	500	.....	Leon, Guan.
XELA	z	50	.....	Saltillo, Coah.
XEME	z	50	.....	Merida, Yuc.

1250 kcys. (239.9)

CMKC	ak	150	.....	Santiago, Cuba
HRN	c	50	.....	Tegucigalpa, Hond.
KFOX	ak	1000	.....	Long Beach, Calif.
KIT	ak	250	X (.5)	Yakima, Wash.
KXOK	z	1000	P	St. Louis, Mo.
WAIR	ak	250	D	Winst.-Salem, N. C.
WCAL	ah	1000	2 XZ	Northfield, Minn.
WDSU	ak	1000	B	New Orleans, La.
WHBI	ak	1000	(2.5)	Newark, N. J.
WKST	z	250	DP	New Castle, Pa.
WLB	ak	1000	2XZ	Minneapolis, Minn.
WNEW	ak	1000	(2.5)	New York, N. Y.
WTCN	ak	1000	B (5)	Minneapolis, Minn.
XEAI	z	500	.....	Mexico City, D. F.
XEXH	z	250	.....	San Luis Pot., S.L.P.

1260 kcys. (238.0)

CMBD	ak	500	2X	Havana, Cuba
CMC	z	150	2	Havana, Cuba
KGVO	ak	1000	C	Missoula, Mont.
KHSL	ak	250	.....	Chico, Calif.
KOIL	ak	1000	BM(5)	Omaha, Nebr.
KPAC	ak	500	D	Port Arthur, Texas
KRGV	ak	1000	N	Weslaco, Texas
KUOA	ak	5000	D	Siloam Spgs., Ark.
KVOA	ak	1000	.....	Tucson, Ariz.
WHIO	ak	1000	C (5)	Dayton, Ohio
WNBX	ak	500	CM(1)	Springfield, Vt.
WTOC	ak	1000	C	Savannah, Ga.

1270 kcys. (236.1)

CMHD	dk	250	.....	Caibarien, Cuba
KCCA	ak	100	2D	Decorah, Iowa
KOL	ak	1000	M (5)	Seattle, Wash.
KVOR	ak	1000	C	Colo. Springs, Colo.
KWLC	ak	100	2D	Decorah, Iowa

Heard

Reported

Verified

WASH ak 500 DaN Grd. Rpd., Mich.
 WFBR ak 500 R (1) Baltimore, Md.
 WJDX ak 1000 R (5) Jackson, Miss.
 WOOD ak 500 Na Gd. Rapids, Mich.
 XEXB ak 250 Jalapa, Ver.
 XEXE z 17 Texcoco, D. F.

1280 keys. (234.2)

CMKO z Holguin, Cuba
 KFBB ak 1000 C (5) Great Falls, Mont.
 KLS ak 250 Oakland, Calif.
 WCAM ak 500 1 Camden, N. J.
 WCAP ak 500 1 Asbury Park, N. J.
 WDOD ak 1000 C (5) Chattanooga, Tenn.
 WIBA ak 1000 N (5) Madison, Wis.
 WORC ak 500 C Worcester, Mass.
 WRR ak 500 M Dallas, Texas
 WTNJ ak 500 1 Trenton, N. J.
 XEMX z 100 Mexico City, D. F.

1290 keys. (232.4)

CMCU ak 500 Havana, Cuba
 KDYL ak 1000 RX Salt Lake City, Ut.
 KLCN ak 100 D Blytheville, Ark.
 KTRH ak 1000 C (5) Houston, Texas
 WEBC ak 1000 N (5) Duluth, Minn.
 WJAS ak 1000 C (5) Pittsburgh, Pa.
 WNBZ ak 100 D Saranac Lake, N. Y.
 WNEL ak 1000 (2.5) San Juan, P. R.

1300 keys. (230.6)

HI7P ak 25 Trujillo, D. R.
 KALE ak 1000 M Portland, Ore.
 KFAC ak 1000 Los Angeles, Calif.
 KFH ak 1000 C (5) Wichita, Kans.
 TG1 ak 1305 Guatemala City, Guat.
 WBRR ak 1000 1 Brooklyn, N. Y.
 WEVD ak 1000 1 New York, N. Y.
 WFAB ak 1000 1 New York, N. Y.
 WFBC ak 1000 N (5) Greenville, S. C.
 WHAZ ak 1000 1 Troy, N. Y.
 WHBL ak 250 Sheboygan, Wis.

1310 keys. (228.9)

CHCK ak 50 Charlottetown, P.E.I.
 CJKL ak 100 F North Bay, Ont.
 CJLS ak 100 F Yarmouth, N. S.
 CKCV ak 100 F Quebec, P. Q.
 KAND z 100 D Corsicana, Tex.
 KARM ak 100 C Fresno, Calif.
 KCKN ak 100 Kansas City, Kans.
 KGRJ ak 100 (.25) Jerome, Ariz.
 KPPL dk 100 (.25) Dublin, Texas
 KFXR ak 100 (.25) Okla. City, Okla.
 KFYO ak 100 (.25) Lubbock, Texas
 KGEZ ak 100 Kalispell, Mont.
 KGFV ak 100 Kearney, Nebr.
 KHUB ak 250 D Watsonville, Calif.
 KINY ak 100 XZ Juneau, Alaska
 KPDN ak 100 D Pampa, Texas
 KRBA z 100 DP Lufkin, Texas
 KRMD ak 100 (.25) Shreveport, La.
 KRQC ak 100 (.25) Rochester, Minn.
 KROA ak 100 Santa Fe, N. Mex.
 KRRV z 250 D Sherman, Texas
 KSRO ak 250 D Santa Rosa, Calif.
 KSUB ak 100 Cedar City, Utah
 KTSM ak 100 N(.25) El Paso, Texas
 KVOL ak 100 Lafayette, La.
 KVOX z 100 (.25) Moorhead, Minn.
 KWOC z 100 DP Poplar Bluff, Mo.
 KWOS z 100 D Jefferson City, Mo.
 KXRO ak 100 M(.25) Aberdeen, Wash.
 WAML ak 100 (.25) Laurel, Miss.
 WBEO ak 100 D Marquette, Mich.

Heard

Reported

Verified

WBOW	ak	100	N (.25)	Terre Haute, Ind.
WBRE	ak	100	N	Wilkes-Barre, Pa.
WBRK	z	100	C (.25)	Pittsfield, Mass.
WCLS	ak	100		Joliet, Ill.
WCMI	ak	100	(.25)	Ashland, Ky.
WDAH	ak	100	S (.25)	El Paso, Texas
WEBR	ak	100	B (.25)	Buffalo, N. Y.
WEMP	ak	100	D	Milwaukee, Wis.
WEXL	ak	50		Royal Oak, Mich.
WFBG	ak	100	3	Altoona, Pa.
WFDL	ak	100		Flint, Mich.
WGAU	z	100	(.25)	Athens, Ga.
WGH	ak	100	(.25)	Newport News, Va.
WGTM	z	100	D	Wilson, N. C.
WHAT	ak	100	4	Philadelphia, Pa.
WJAC	ak	100	3 (.25)	Johnstown, Pa.
WLAK	z	100		Lakeland, Fla.
WLBC	ak	100	(.25)	Muncie, Ind.
WLNH	ak	100	M	Laconia, N. H.
WMBO	ak	100		Auburn, N. Y.
WMFF	ak	100	(.25)	Plattsburg, N. Y.
WNBH	ak	100	M (.25)	New Bedford, Mass.
WOL	ak	1000	MZ	Washington, D. C.
WRWA	ak	100		Reading, Pa.
WROL	ak	100	N(.25)	Knoxville, Tenn.
WSAJ	ak	100		Grove City, Pa.
WSGN	ak	100	B (.25)	Birmingham, Ala.
WSJS	ak	100	C	Winston-Salem, N. C.
WTAL	ak	100	(.25)	Tallahassee, Fla.
WTEL	ak	100	4	Philadelphia, Pa.
WTJS	ak	100	(.25)	Jackson, Tenn.
WTRC	ak	100	(.25)	Elkhart, Ind.
XEAC	z	10		Cordoba, Ver.
XEBO	z	25		Irapuato, Guan.
XEPW	ak	300		Tampico, Tams.
XETB	ak	125		Torreón, Coah.
XEX	ak	125		Monterrey, N. L.
XEXS	z	100		Mexico City, D. F.

1320 keys. (227.1)

CMOX	ak	200		Havana, Cuba
KGHF	ak	500	B	Pueblo, Colo.
KGMB	ak	1000	C M	Honolulu, Hawaii
KID	ak	500	(1)	Idaho Falls, Idaho
KRNT	ak	1000	C (5)	Des Moines, Iowa
WADC	ak	1000	C(5)	Akron, Ohio
WORK	ak	1000	N	York, Pa.
WSMB	ak	1000	R (5)	New Orleans, La.
XEAU	z			Tijuana, B. Cfa.

1330 keys. (225.4)

CMHK	z	250		Cruces, Cuba
KGB	ak	1000	M	San Diego, Calif.
KMO	ak	1000	M	Tacoma, Wash.
KRIS	z	500	N	Corpus Christi, Tex.
KSCJ	ak	1000	C (5)	Sioux City, Iowa
WDRC	ak	1000	C (5)	Hartford, Conn.
WSAI	ak	1000	MN(5)	Cincinnati, Ohio
WTAQ	ak	1000	C	Green Bay, Wis.

1340 keys. (223.7)

CMAB	z	300		Pinar del Rio, Cuba
CMJW	z	300		Camaguey, Cuba
KDTH	z	500	DP	Dubuque, Iowa
KGDY	ak	250	D	Huron, S. Dak.
KGIR	ak	1000	N (2.5)	Butte, Mont.
KGNO	ak	250		Dodge City, Kans.
WCOA	ak	500	C(1)	Pensacola, Fla.
WFEA	ak	500	MN(1)	Manchester, N. H.
WSPD	ak	1000	B (5)	Toledo, Ohio
XEAP	z	50		Obregon, Son.
XEBS	z	200		Mexico City, D. F.
XEDH	z	200		Villa Acuna, Coah.
XEXD	z	350		Jalapa, Ver.

1350 keys. (222.1)

CMCA	ak	450	X	Havana, Cuba
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Heard

Reported

Verified

CMKW	z	Santiago, Cuba
KIDO	ak	1000	N (2.5)	Boise, Idaho
KWK	ak	1000	BM(5)	St. Louis, Mo.
WAWZ	ak	500	1 (1)X	Zarephath, N. J.
WBNX	ak	1000	1	New York, N. Y.
WMBG	ak	500	R	Richmond, Va.

1360 kcys. (220.4)

CMJH	dk	50	.....	Ciego de Avila, Cuba
KCRC	ak	250	M	Enid, Okla.
KGER	ak	1000	.....	Long Beach, Calif.
WCSC	ak	500	N (1)	Charleston, S. C.
WFBL	ak	1000	C (5)	Syracuse, N. Y.
WGES	ak	500	1 (1)	Chicago, Ill.
WQBC	ak	1000	D	Vicksburg, Miss.
WSBT	ak	500	1	South Bend, Ind.

1370 kcys. (218.8)

CFAR	z	100	.....	Flin Flon, Man.
CKGW	ak	100	F	Moncton, N. B.
CMGE	ak	150	.....	Cardenas, Cuba
CAST	ak	100	D	Astoria, Ore.
KCMO	ak	100	.....	Kansas City, Mo.
KEEN	ak	100	3	Seattle, Wash.
KELD	z	100	.....	El Dorado, Ark.
KERN	ak	100	N	Bakersfield, Calif.
KFGO	ak	100	D	Boone, Iowa
KFJZ	ak	100	(.25)	Fort Worth, Texas
KFRQ	ak	250	D	Longview, Texas
KGAR	ak	100	C (.25)	Tucson, Arizona
KGFL	ak	100	4	Roswell, N. Mex.
KGKL	ak	100	(.25)	San Angelo, Texas
KICA	ak	100	4	Clovis, N. Mex.
KIUP	ak	100	.....	Durango, Colo.
KLUF	ak	100	.....	Galveston, Texas
KMAC	ak	100	5 (.25)	San Antonio, Tex.
KOBH	ak	100	(.25)	Rapid City, S. Dak.
KOKO	ak	100	.....	La Junta, Colo.
KONO	ak	100	5	San Antonio, Tex.
KRE	ak	100	(.25)	Berkeley, Calif.
KRKO	ak	50	3	Everett, Wash.
KRMC	z	100	(.25)	Jamestown, N. D.
KSLM	ak	100	M	Salem, Ore.
KTEM	ak	250	D	Temple, Texas
KTOK	bk	100	MN	Oklahoma City, Ok.
KUJ	ak	100	.....	Walla Walla, Wash.
KVGB	z	100	.....	Great Bend, Kans.
KVRS	z	100	(.25)P	Rock Springs, Wyo.
KWYO	ak	100	(.25)	Sheridan, Wyo.
WABY	ak	100	B(.25)	Albany, N. Y.
WAGF	ak	250	D	Dorhan, Ala.
WATL	ak	100	(.25)	Atlanta, Ga.
WBLK	ak	100	.....	Clarksburg, W. Va.
WBNY	ak	100	2 (.25)	Buffalo, N. Y.
WBTM	ak	100	(.25)	Danville, Va.
WCBM	ak	100	(.25)	Baltimore, Md.
WDAS	ak	100	(.25)	Philadelphia, Pa.
WDWS	ak	100	D	Champaign, Ill.
WEOA	ak	100	C(.25)	Evansville, Ind.
WFOR	ak	100	.....	Hattiesburg, Miss.
WGL	ak	100	N(.25)	Fort Wayne, Ind.
WGRC	ak	250	D	New Albany, Ind.
WHBQ	ak	100	.....	Memphis, Tenn.
WHDF	ak	100	(.25)	Calumet, Mich.
WHLB	ak	100	C(.25)	Virginia, Minn.
WHLS	z	250	DP	Port Huron, Mich.
WIBM	ak	100	(.25)	Jackson, Mich.
WLLH	ak	100	Sy	Lawrence, Mass.
WLLH	ak	100	MSy(.25)	Lowell, Mass.
WMBR	ak	100	C (.25)	Jacksonville, Fla.
WMFD	ak	100	D	Wilmington, N. C.
WMFO	ak	100	D	Decatur, Ala.
WMIN	ak	100	(.25)	St. Paul, Minn.
WOC	ak	100	C (.25)	Davenport, Iowa
WPAY	ak	100	.....	Portsmouth, Ohio
WPRA	z	100	(.25)	Mayaguez, P. R.
WRAK	ak	100	(.25)	Williamsport, Pa.
WRDO	ak	100	M	Augusta, Maine
WRJN	ak	100	(.25)	Racine, Wis.

Heard

Reported

Verified

WSAU ak 100
 WSVS ak 50 2D
 XECZ z 100
 XEI ak 125
 XELZ z 100
 z 100

Wausau, Wis.
 Buffalo, N. Y.
 San L. Pot., S.L.P.
 Morelia, Mich.
 Mexico City, D. F.
 Owen Sound, Ont.

1380 keys. (217.3)

CMCR z
 CMCX z 150
 KOH ak 500 C
 KOV ak 500 C1
 WALA ak 500 C (1)
 WKBH ak 1000 C
 WNBC ak 250 D
 WSMK ak 200 C 1

Havana, Cuba
 Havana, Cuba
 Reno, Nevada
 Pittsburgh, Pa.
 Mobile, Ala.
 La Crosse, Wis.
 New Britain, Conn.
 Dayton, Ohio

1390 keys. (215.7)

CJGX ak 100 F
 CMJC z 150
 KLRA ak 1000 C (5)
 KOY ak 1000 C
 KRLC ak 250
 WHK ak 1000 BM(2.5)
 WQDM dk 1000 D

Yorkton, Sask.
 Camaguey, Cuba
 Little Rock, Ark.
 Phoenix, Ariz.
 Lewiston, Idaho
 Cleveland, Ohio
 St. Albans, Vt.

1400 keys. (214.2)

CMGC ad 150
 CMKR z 100
 KHBC ak 250 CM
 KLO ak 500 B
 KTUL ak 500 C (1)
 WARD ak 500 2
 WBBC ak 500 2 (1)
 WHDL ak 250 D
 WIRE ak 1000 MR (5)
 WLTH ak 500 2
 WVFW ak 500 2

Matanzas, Cuba
 Santiago, Cuba
 Hilo, T. H.
 Ogden, Utah
 Tulsa, Okla.
 Brooklyn, N. Y.
 Brooklyn, N. Y.
 Olean, N. Y.
 Indianapolis, Ind.
 Brooklyn, N. Y.
 Brooklyn, N. Y.

1410 keys. (212.6)

CKFC ak 50 5
 CKMO ak 100 5
 CMCO ak 5000
 KFJM ak 500 (1)
 KGNC ak 1000 (2.5) N
 KMED ck 250 N
 WAAB ak 500 M (1)
 WBCM ak 500 (1)
 WHIS ak 500 (1)
 WROK ak 500 (1)
 WSFA ak 500 C (1)

Vancouver, B. C.
 Vancouver, B. C.
 Havana, Cuba
 Grand Forks, N. D.
 Amarillo, Texas
 Medford, Ore.
 Boston, Mass.
 Bay City, Mich.
 Bluefield, W. Va.
 Rockford, Ill.
 Montgomery, Ala.

1420 keys. (211.1)

CHLN z 100
 CKGB ak 100 F
 KABC ak 100 (.25)
 KABR ak 100 XZ
 KATE ak 250 D
 KBPS ak 100 4
 KCMC ak 100 (.25)
 KDNT z 100 DP
 KEUB ak 100
 KFAM z 100 P
 KFIZ ak 100
 KGFF ak 100 (.25) M
 KGGC ak 100
 KGIW ak 100 1
 KGLU z 100 P(.25)
 KIDW ak 100 1
 KIUN ak 100
 KLBM z 100 (.25) P
 KNET ak 100 D
 KORE ak 100 M
 KRBC ak 100 (.25)
 KRIC z 100 P
 KRLH ak 100 D
 KTRI z 100 (.25) P

Three Rivers, P. O.
 North Bay, Ont.
 San Antonio, Texas
 Aberdeen, S. D.
 Albert Lea, Minn.
 Portland, Ore.
 Texarkana, Tex.
 Denton, Tex.
 Price, Utah
 St. Cloud, Minn.
 Fond du Lac, Wis.
 Shawnee, Okla.
 San Francisco, Cal.
 Alamosa, Colo.
 Safford, Ariz.
 Lamar, Colo.
 Pecos, Texas
 La Grande, Ore.
 Palestine, Texas
 Eugene, Ore.
 Abilene, Texas
 Beaumont, Tex.
 Midland, Texas
 Sioux City, Iowa

Heard

Reported

Verified

KUMA	ak	100	....	Yuma, Ariz.
KWBG	ak	100	....	Hutchinson, Kans.
KXL	ak	100	4 (.25)	Portland, Ore.
WACO	ak	100	C	Waco, Texas
WAGM	ak	100	....	Presque Isle, Me.
WAPO	ak	100	(.25)	Chattanooga, Tenn.
WAZL	ak	100	2	Hazleton, Pa.
WCBS	ak	100	(.25)	Springfield, Ill.
WCHV	ak	100	3 (.25)	Charlottesville, Va.
WEED	ak	100	3 (.25)	Rocky Mount, N. C.
WELL	ak	100	....	Battle Creek, Mich.
WGPC	ak	100	....	Albany, Ga.
WHFC	ak	100	(.25)	Cicero, Ill.
WILM	aj	100	2	Wilmington, Del.
WJMS	ak	100	....	Ironwood, Mich.
WLAP	ak	100	(.25)	Lexington, Ky.
WLEU	ak	100	(.25) B	Erie, Pa.
WMAS	ak	100	C (.25)	Springfield, Mass.
WMBC	ak	100	(.25)	Detroit, Mich.
WMBH	ak	100	(.25)	Joplin, Mo.
WMBS	ak	250	D	Uniontown, Pa.
WMFJ	ak	100	....	Daytona Bch., Fla.
WMSD	ak	100	....	Sheffield, Ala.
WNNY	z	100	(.25) P	Watertown, N. Y.
WPAD	ak	100	(.25)	Paducah, Ky.
WPAR	ak	100	C	Parkersburg, W. V.
WPRP	z	100	(.25)	Ponce, Puerto Rico
.....	z	100	P(.25)	Bozeman, Mont.
.....	z	100	....	Kenora, Ont.

1430 keys. (209.7)

CMJP	ak	75	....	Moron, Cuba
KECA	ak	1000	(5) B	Los Angeles, Cal.
KGNF	ak	1000	D	North Platte, Neb.
KSO	ak	500	BM(2.5)	Des Moines, Iowa
WBNS	ak	1000	C(5)	Columbus, O. hio
WHEC	ak	500	C(1)	Rochester, N. Y.
WHP	ak	500	C(1)	Harrisburg, Pa.
WMPS	ak	500	(1) B	Memphis, Tenn.
WOKO	ak	500	C(1)	Albany, N. Y.

1440 keys. (208.2)

CMOA	z	150	....	Havana, Cuba
KDFN	ak	500	....	Casper, Wyo.
KELA	ak	500	M	Centralla, Wash.
KXYZ	ak	1000	B	Houston, Texas
WBIG	ak	1000	C	Greensboro, N. C.
WCBA	aj	500	a	Allentown, Pa.
WMBD	ak	1000	C(5)	Peoria, Ill.
WSAN	aj	500	Na	Allentown, Pa.
XEFI	ak	250	....	Chihuahua, Chih.

1450 keys. (206.8)

CFCT	ak	500	....	Victoria, B. C.
CHGS	ak	50	F	Summerside, P.E.I.
CMHM	z	100	....	Cienfuegos, Cuba
KGCX	ak	1000	....	Wolf Point, Mont.
KIEM	ak	500	M(1)	Eureka, Calif.
KTBS	ak	1000	N	Shreveport, La.
WAGA	ak	500	B(1)	Atlanta, Ga.
WGAR	ak	500	C(1)X	Cleveland, Ohio
WHOM	ak	250	....	Jersey City, N. J.
WSAR	ak	1000	M	Fall River, Mass.
XEF	ak	100	....	Juarez, Chih.

1460 keys. (205.4)

CMKF	z	250	....	Holguin, Cuba
KSTP	ak	10000	R(25)	St. Paul, Minn.
WJSV	ak	10000	C	Washington, D. C.

1470 keys. (204.0)

KGA	ak	5000	BM	Spokane, Wash.
WLAC	ak	5000	C	Nashville, Tenn.

1480 keys. (202.6)

KOMA	ak	5000	C	Oklahoma City, Ok.
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Heard

Reported

Verified

WHIP z 5000 D Hammond, Ind.
 WKBW ak 5000 C Buffalo, N. Y.

1490 keys. (201.2)

KFBK ak 1000 N Sacramento, Calif.
 WCKY ak 1000 N Covington, Ky.

1500 keys. (199.9)

CJIC ak 100 F S. S. Marie, Ont.
 KAWM z 100 Gallup, N. Mex.
 KBIX ak 100 M Muskogee, Okla.
 KBST z 100 Big Spring, Texas
 KDAL ak 100 C Duluth, Minn.
 KDB ak 100 M(.25) Santa Barbara, Cal.
 KGFI ak 100 (.25) Brownsville, Tex.
 KGKB ak 100 (.25) Tyler, Texas
 KGKY ak 100 (.25) Scottsbluff, Neb.
 KNEL ak 250 D Brady, Texas
 KNOW ak 100 C Austin, Texas
 KOTN ak 100 D Pine Bluff, Ark.
 KOVC ak 100 (.25) Valley City, N. D.
 KPAB z 100 (.25) P Laredo, Texas
 KPLC ak 100 (.25) Lake Charles, La.
 KPLT z 250 D Paris, Texas
 KPQ ak 100M(.25) Wenatchee, Wash.
 KRNR ak 100M(.25) Roseburg, Ore.
 KROD ak 100 P El Paso, Texas
 KSAL ak 100 (.25) Salina, Kans.
 KUTA z 100 P Salt Lake City, Ut.
 KVNU z 100 P Logan, Utah
 KVOE ak 100 M Santa Ana, Calif.
 KWEW z 100 DP Hobbs, N. Mex.
 KXO ak 100 El Centro, Calif.
 KYSM z 100 (.25)P Mankato, Minn.
 WC/NW ak 100 I(.25) Brooklyn, N. Y.
 WDNC ak 100 C Durham, N. C.
 WGAL ak 100 (.25) Lancaster, Pa.
 WGIL z 250 DP Galesburg, Ill.
 WHBB ak 100 Selma, Ala.
 WHEF ak 100 (.25) Kosciusko, Miss.
 WJBK ak 100 (.25) Detroit, Mich.
 WKAT z 100 Miami Beach, Fla.
 WKBB ak 100 (.25) C.Y.E. Dubuque, Ill.
 WKBV ak 100 (.25) Richmond, Ind.
 WKBZ ak 100 (.25) Muskegon, Mich.
 WKEU ak 100 D Griffin, Ga.
 WMBO ak 100 I Brooklyn, N. Y.
 WMEX ak 100 (.25) Boston, Mass.
 WNBK ak 100 C(.25) Binghamton, N. Y.
 WNLC ak 100 DM New London, Conn.
 WOMI ak 100 (.25) Owensboro, Ky.
 WOPI ak 100 Bristol, Tenn.
 WRDW ak 100 C(.25) Augusta, Ga.
 WRGA ak 100 (.25) Rome, Ga.
 WRTD ak 100 B Richmond, Va.
 WSYB ak 100 Rutland, Vt.
 WTMV ak 100 (.25) E. St. Louis, Ill.
 WWRL ak 100 I(.25) Woodside, N. Y.
 WWSW ak 100 (.25) Pittsburgh, Pa.

1510 keys. (198.6)

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

1520 keys. (197.3)

TGW ak 1000 Guatemala City, Guat.

1530 keys. (196.0)

KXBY ak 1000 Kansas City, Mo.
 WBRV ak 1000 M Waterbury, Conn.

1550 keys. (193.4)

KPMC ak 1000 M Bakersfield, Calif.
 WQXR ak 1000 New York, N. Y.

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, M Mutual.

ALABAMA	CALIFORNIA	COLORADO	DELAWARE																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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<tr><td colspan="4" style="text-align: center;">Montgomery</td></tr> <tr><td>WSFA</td><td>1410</td><td>500 C</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Selma</td></tr> <tr><td>WHBB</td><td>1500</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Sheffield</td></tr> <tr><td>WMSD</td><td>1420</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Tuscaloosa</td></tr> <tr><td>WJRD</td><td>1200</td><td>250</td><td></td></tr> </table>	ALABAMA				Birmingham				WAPI	1140	5000 C		WBRC	930	1000 R		WSGN	1310	100 B		Decatur				WMFO	1370	100		Dothan				WAGF	1370	250		Gadsden				WJBY	1210	100		Huntsville				WBHP	1200	100		Mobile				WALA	1380	500 C		Montgomery				WSFA	1410	500 C		Selma				WHBB	1500	100		Sheffield				WMSD	1420	100		Tuscaloosa				WJRD	1200	250		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="4" style="text-align: center;">CALIFORNIA</td></tr> <tr><td colspan="4" style="text-align: center;">Pine Bluff</td></tr> <tr><td>KOTN</td><td>1500</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Siloom Springs</td></tr> <tr><td>KUOA</td><td>1260</td><td>5000</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Bakersfield</td></tr> <tr><td>KERN</td><td>1370</td><td>100 N</td><td></td></tr> <tr><td>KPMC</td><td>1550</td><td>1000M</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Berkeley</td></tr> <tr><td>KRE</td><td>1370</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Beverly Hills</td></tr> <tr><td>KMPC</td><td>710</td><td>500</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Chico</td></tr> <tr><td>KHSL</td><td>1260</td><td>250</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">El Centro</td></tr> <tr><td>KXO</td><td>1500</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Eureka</td></tr> <tr><td>KIEM</td><td>1450</td><td>500M</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Fresno</td></tr> <tr><td>KARM</td><td>1310</td><td>100 C</td><td></td></tr> <tr><td>KMJJ</td><td>580</td><td>1000 N</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Glendale</td></tr> <tr><td>KIEV</td><td>850</td><td>250</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Hollywood</td></tr> <tr><td>KFWB</td><td>950</td><td>1000</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Long Beach</td></tr> <tr><td>KFOX</td><td>1250</td><td>1000</td><td></td></tr> <tr><td>KGER</td><td>1360</td><td>1000</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Los Angeles</td></tr> <tr><td>KECA</td><td>1430</td><td>1000 B</td><td></td></tr> <tr><td>KEHE</td><td>780</td><td>1000</td><td></td></tr> <tr><td>KFAC</td><td>1300</td><td>1000</td><td></td></tr> <tr><td>KFI</td><td>640</td><td>50000 R</td><td></td></tr> <tr><td>KFSG</td><td>1120</td><td>500</td><td></td></tr> <tr><td>KFVD</td><td>1000</td><td>1000</td><td></td></tr> <tr><td>KGFJ</td><td>1200</td><td>100</td><td></td></tr> <tr><td>KIJJ</td><td>900</td><td>1000M</td><td></td></tr> <tr><td>KMTR</td><td>570</td><td>1000</td><td></td></tr> <tr><td>KNX</td><td>1050</td><td>50000 C</td><td></td></tr> <tr><td>KRKD</td><td>1120</td><td>500</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Merced</td></tr> <tr><td>KYOS</td><td>1040</td><td>250</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Modesto</td></tr> <tr><td>KTRB</td><td>740</td><td>250</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Monterey</td></tr> <tr><td>KDON</td><td>1210</td><td>100M</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Oakland</td></tr> <tr><td>KLS</td><td>1280</td><td>250</td><td></td></tr> <tr><td>KLX</td><td>880</td><td>1000</td><td></td></tr> <tr><td>KROW</td><td>930</td><td>1000</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Pasadena</td></tr> <tr><td>KPPC</td><td>1210</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Redding</td></tr> <tr><td>KVCV</td><td>1200</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Sacramento</td></tr> <tr><td>KFBK</td><td>1490</td><td>10000 N</td><td></td></tr> <tr><td>KROY</td><td>1210</td><td>100 C</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">San Bernardino</td></tr> <tr><td>KFXM</td><td>1210</td><td>100M</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">San Diego</td></tr> <tr><td>KFSD</td><td>600</td><td>1000 B</td><td></td></tr> <tr><td>KGB</td><td>1330</td><td>1000M</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">San Francisco</td></tr> <tr><td>KERC</td><td>610</td><td>1000M</td><td></td></tr> <tr><td>KGGC</td><td>1420</td><td>100</td><td></td></tr> <tr><td>KGO</td><td>790</td><td>7500 B</td><td></td></tr> <tr><td>KJBS</td><td>1070</td><td>500</td><td></td></tr> <tr><td>KPO</td><td>680</td><td>50000 R</td><td></td></tr> </table>	CALIFORNIA				Pine Bluff				KOTN	1500	100		Siloom Springs				KUOA	1260	5000		Bakersfield				KERN	1370	100 N		KPMC	1550	1000M		Berkeley				KRE	1370	100		Beverly Hills				KMPC	710	500		Chico				KHSL	1260	250		El Centro				KXO	1500	100		Eureka				KIEM	1450	500M		Fresno				KARM	1310	100 C		KMJJ	580	1000 N		Glendale				KIEV	850	250		Hollywood				KFWB	950	1000		Long Beach				KFOX	1250	1000		KGER	1360	1000		Los Angeles				KECA	1430	1000 B		KEHE	780	1000		KFAC	1300	1000		KFI	640	50000 R		KFSG	1120	500		KFVD	1000	1000		KGFJ	1200	100		KIJJ	900	1000M		KMTR	570	1000		KNX	1050	50000 C		KRKD	1120	500		Merced				KYOS	1040	250		Modesto				KTRB	740	250		Monterey				KDON	1210	100M		Oakland				KLS	1280	250		KLX	880	1000		KROW	930	1000		Pasadena				KPPC	1210	100		Redding				KVCV	1200	100		Sacramento				KFBK	1490	10000 N		KROY	1210	100 C		San Bernardino				KFXM	1210	100M		San Diego				KFSD	600	1000 B		KGB	1330	1000M		San Francisco				KERC	610	1000M		KGGC	1420	100		KGO	790	7500 B		KJBS	1070	500		KPO	680	50000 R		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="4" style="text-align: center;">COLORADO</td></tr> <tr><td colspan="4" style="text-align: center;">Alamosa</td></tr> <tr><td>KGIW</td><td>1420</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Colorado Springs</td></tr> <tr><td>KVOR</td><td>1270</td><td>1000 C</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Denver</td></tr> <tr><td>KFEL</td><td>920</td><td>500M</td><td></td></tr> <tr><td>KLZ</td><td>560</td><td>1000 C</td><td></td></tr> <tr><td>KOA</td><td>830</td><td>50000 R</td><td></td></tr> <tr><td>KPOF</td><td>880</td><td>1000</td><td></td></tr> <tr><td>KVOD</td><td>920</td><td>500 B</td><td></td></tr> <tr><td colspan="4" style="text-align: 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B		Durango				KIUP	1370	100		Grand Junction				KFXJ	1200	100		Greeley				KFKA	880	500M		La Junta				KOKO	1370	100		Lamar				KIDW	1420	100		Pueblo				KGHF	1320	500 B		Sterling				KGEK	1200	100		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td colspan="4" style="text-align: center;">DELAWARE</td></tr> <tr><td colspan="4" style="text-align: center;">Wilmington</td></tr> <tr><td>WDEL</td><td>1120</td><td>250 R</td><td></td></tr> <tr><td>WILM</td><td>1420</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">DISTRICT OF COLUMBIA</td></tr> <tr><td colspan="4" style="text-align: center;">Washington</td></tr> <tr><td>WJSV</td><td>1460</td><td>10000 C</td><td></td></tr> <tr><td>WMAL</td><td>630</td><td>250 B</td><td></td></tr> <tr><td>WOL</td><td>1310</td><td>1000M</td><td></td></tr> <tr><td>WRC</td><td>950</td><td>1000 R</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">FLORIDA</td></tr> <tr><td colspan="4" style="text-align: center;">Daytona Beach</td></tr> <tr><td>WMFJ</td><td>1420</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Gainesville</td></tr> <tr><td>WRUF</td><td>830</td><td>5000</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Jacksonville</td></tr> <tr><td>WJAX</td><td>900</td><td>1000 N</td><td></td></tr> <tr><td>WMBR</td><td>1370</td><td>100 C</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Lakeland</td></tr> <tr><td>WLAK</td><td>1310</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Miami</td></tr> <tr><td>WIOD</td><td>610</td><td>1000 N</td><td></td></tr> <tr><td>WMBF</td><td>610</td><td>1000</td><td></td></tr> <tr><td>WQAM</td><td>560</td><td>1000 C</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Miami Beach</td></tr> <tr><td>WKAT</td><td>1500</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Orlando</td></tr> <tr><td>WDDB</td><td>580</td><td>1000 C</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Pensacola</td></tr> <tr><td>WCOA</td><td>1340</td><td>500 C</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">St. Augustine</td></tr> <tr><td>WFOY</td><td>1210</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">St. Petersburg</td></tr> <tr><td>WSUN</td><td>620</td><td>1000 N</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Tallahassee</td></tr> <tr><td>WTAL</td><td>1310</td><td>100</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">Tampa</td></tr> <tr><td>WDAE</td><td>1220</td><td>1000 C</td><td></td></tr> <tr><td>WFLA</td><td>620</td><td>1000 N</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">West Palm Beach</td></tr> <tr><td>WJNO</td><td>1200</td><td>100 C</td><td></td></tr> <tr><td colspan="4" style="text-align: center;">GEORGIA</td></tr> <tr><td colspan="4" style="text-align: center;">Athens</td></tr> 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NORTH AMERICAN B. C. STATIONS BY LOCATIONS

<p>Thomasville WPAX 1210 100 Waycross WAYX 1200 100</p> <hr/> <p>HAWAII</p> <p>Hilo KHBC 1400 250M Honolulu KGMB 1320 1000 C KGU 750 2500 N</p> <hr/> <p>IDAHO</p> <p>Boise KIDO 1350 1000 N Coeur d'Alene KGGI 1200 100 KID 1320 500 Lewiston KRLC 1390 250 Nampa KF XD 1200 100 Pocatello KSEI 900 250 N Twin Falls KTFI 1240 1000 N</p> <hr/> <p>ILLINOIS</p> <p>Bloomington WJBC 1200 100 Carthage WCAZ 1070 100 Champaign WDWS 1370 100 Chicago WAAF 920 1000 WBBM 770 50000 C WCBD 1080 5000 WCFL 970 5000 N WCRW 1210 100 WEDC 1210 100 WENR 870 50000 B WGES 1360 500 WGN 720 50000M WJJD 1130 20000 WLS 870 50000 B WMAQ 670 50000 R WMBI 1080 5000 WSBC 1210 100 Cicero WHFC 1420 100 Decatur WJBL 1200 100 East Dubuque WKBB 1500 100 C East St. Louis WTMV 1500 100 Galesburg WGIL 1500 250 Harrisburg WEBQ 1210 100 Joliet WGLS 1310 100 Peoria WMBD 1440 1000 C Quincy WTAD 900 1000</p>	<p>Rockford WROK 1410 500 Rock Island WIBF 1210 100 Springfield WCBS 1420 100 WTAX 1210 100 Tuscola WDZ 1020 250 Urbana WILL 580 1000</p> <hr/> <p>INDIANA</p> <p>Anderson WHBU 1210 100 Elkhart WTRC 1310 100 Evansville WEOA 1370 100 C WGFB 630 500 N Fort Wayne WGL 1370 100 N WOWO 1160 10000 B Gary WIND 560 1000 Hammond WHPP 1480 5000 WWAE 1200 100 Indianapolis WFBM 1230 1000 C WGYA 1050 1000 WIRE 1400 1000 R Muncie WLBC 1310 100 New Albany WGRC 1370 250 Richmond WKBV 1500 100 South Bend WFAM 1200 100 WSBT 1360 500 Terre Haute WBOW 1310 100 N West Lafayette WBAA 890 500</p> <hr/> <p>IOWA</p> <p>Ames WOI 640 5000 Boone KFGO 1370 100 Cedar Rapids WMT 600 1000 B Davenport WOC 1370 100 C Decorah KGCA 1270 100 KWLC 1270 100 Des Moines KRNT 1320 1000 C KSO 1430 500 B WHO 1000 50000 R Dubuque KDTH 1340 500 Iowa City WSUI 880 500</p>	<p>Marshalltown KFJB 1200 100 Mason City KGLO 1210 100 C Shenandoah KFNF 890 500 KMA 930 1000 Sioux City KSCJ 1360 1000 C KTRI 1420 100</p> <hr/> <p>KANSAS</p> <p>Abilene KFBI 1050 5000 Coffeyville KGGF 1010 1000M Dodge City KGNO 1340 250 Garden City KIUL 1210 100 Great Bend KVGB 1370 100 Hutchinson KWBG 1420 100 Kansas City KCKN 1310 100 Lawrence KFKU 1220 1000 WREN 1220 1000 B Manhattan KSAC 580 500 Pittsburg KOAM 790 1000 N Salina KSAL 1500 100 Topeka WIBW 580 1000 C Wichita KANS 1210 100 B KFH 1300 1000 C</p> <hr/> <p>KENTUCKY</p> <p>Ashland WCMI 1310 100 Covington WCKY 1490 10000 N Lexington WLAP 1420 100 Louisville WAVE 940 1000 N WHAS 820 50000 C Middlesboro WLMU 1210 100 Owensboro WOMI 1500 100 Paducah WPAD 1420 100</p> <hr/> <p>LOUISIANA</p> <p>Alexandria KALB 1210 100 Baton Rouge WJBO 1120 500 B Lafayette KVOL 1310 100</p>	<p>Lake Charles KPLC 1500 100 Monroe KMLB 1200 100 New Orleans WBNO 1200 100 WDSU 1250 1000 B WJBW 1200 100 WSMB 1320 1000 R WWL 850 10000 C Shreveport KRMD 1310 100 KTBS 1450 1000 N KWKH 1100 10000 C</p> <hr/> <p>MAINE</p> <p>Augusta WRDO 1370 100M Bangor WABI 1200 100 WLBZ 620 500 C Portland WCSH 940 1000 R WGAN 640 500 Presque Isle WAGM 1420 100</p> <hr/> <p>MARYLAND</p> <p>Baltimore WBAL 760 2500 B WBAL 1060 10000 B WCAO 600 500 C WCBM 1370 100 WFBR 1270 500 R College Park W3XJ 1060 100 Cumberland WTBO 800 250 Frederick WFMD 900 500 Hagerstown WJFJ 1210 50 Salisbury WSAL 1200 250</p> <hr/> <p>MASSACHUSETTS</p> <p>Boston WAAB 1410 500M WBZ 990 50000 B WCOP 1120 500 WEI 590 1000 C WHDH 830 1000 WMEX 1500 100 WNAC 1230 1000 R WORL 920 500 Fall River WSAR 1450 1000M Greenfield WHAI 1210 250 Lawrence WLAW 680 1000 WLLH 1370 100 Lowell WLLH 1370 100M New Bedford WNEH 1310 100M Pittsfield WBRK 1310 100 C</p>
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NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Springfield WBZA 990 1000 B WMAS 1420 100 C WSPR 1140 500 M Worcester WORC 1280 500 C WTAG 580 1000 R	St. Paul KSTP 1460 10000 R WMIN 1370 100 Virginia WHLB 1370 100 C Winona KWNO 1200 250	Wolf Point KGCX 1450 1000	Gallup KAWM 1500 100 Hobbs KWEW 1500 100 Roswell KGFL 1370 100 Santa Fe KRQA 1310 100
MICHIGAN	MISSISSIPPI	NEBRASKA	NEW YORK
Battle Creek WELL 1420 100 Bay City WBCM 1410 500 Calumet WHDF 1370 100 Detroit WJBK 1500 100 WJR 750 50000 C WMCB 1420 100 WWJ 920 5000 R WXYZ 1240 1000 B East Lansing WKAR 850 1000 Flint WFDF 1310 100 Grand Rapids WASH 1270 500 N WOOD 1270 500 N Ironwood WJMS 1420 100 Jackson WIBM 1370 100 Kalamazoo WKZO 590 1000 B Lansing WJIM 1210 100 Leapeer WMPG 1200 100 Marquette WBOE 1310 100 Muskegon WKBZ 1500 100 Port Huron WHLS 1370 250 Royal Oak WEXL 1310 50 Saginaw WHAL 950 500	Grenada WGRM 1210 100 Gulfport WGCM 1210 100 Hattiesburg WFOR 1370 100 Jackson WJDX 1270 1000 R Kosciusko WIEF 1500 100 Laurel WAML 1310 100 Meridian WCOC 880 500 C Vicksburg WQBC 1360 1000	Clay Center KMMJ 740 1000 Kearney KGFV 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1060 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500 WOW 590 1000 R Scottsbluff KGGY 1500 100	Albany WABY 1370 100 WOKO 1430 500 C Auburn WMB0 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBC 1400 500 WBRR 1300 1000 WCNW 1500 100 WLTH 1400 500 WMBQ 1500 100 WVFW 1400 500 Buffalo WBEN 900 1000 R WBNY 1370 100 WBR 1310 100 B WGR 550 1000 C WKBW 1480 5000 C WWSV 1370 50 Canton WCAD 1220 500 Elmira WESG 850 1000 C Freeport WGBB 1210 100 Jamestown WJTN 1210 100 B Newburgh WGNV 1210 100 New York WABC 860 50000 C WBIL 1100 5000 WBNS 1350 1000 WBOQ 860 50000 WEAF 660 50000 R WEVD 1300 1000 WFAB 1300 1000 WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WMCB 570 1000 WNEW 1250 1000 WNYC 810 1000 WOV 1130 1000 WQXR 1550 1000 Olean WHDL 1400 250 Plattsburg WMFF 1310 100 Rochester WHAM 1150 50000 B WHEC 1430 500 C WSAY 1210 100 Saranac Lake WNBS 1290 100 Schenectady WGY 790 50000 R Syracuse WFBL 1360 1000 C WSYR 570 1000 B
MINNESOTA	MISSOURI	NEVADA	
Albert Lea KATE 1420 250 Duluth KDAL 1500 100 C WBCB 1290 1000 N Fergus Falls KGDF 1200 100 Hibbing WMPG 1210 100 Mankato KYSM 1500 100 Minneapolis WCCO 810 50000 C WDGY 1180 1000 C WLB 1250 1000 WTCN 1250 1000 B Moorhead KVOX 1310 100 Northfield WCAL 1250 1000 Rochester KROC 1310 100 St. Cloud KFAM 1420 100	Cape Girardeau KFVS 1210 100 Columbia KPRU 630 500 Jefferson City KWOS 1310 100 Joplin WMBH 1420 100 Kansas City KCMO 1370 100 KMBC 950 1000 C KXBY 1530 1000 WDAF 610 1000 R WHB 860 1000 M Poplar Bluff KWOC 1310 100 St. Joseph KFEQ 680 2500 St. Louis KFUO 550 500 KMXX 1090 50000 C KSD 550 1000 R KWK 1350 1000 B KXOK 1250 1000 WEW 760 1000 WIL 1200 100 Springfield KGBX 1230 500 N KWTO 560 5000	Reno KOH 1380 500 C	
	MONTANA	NEW HAMPSHIRE	
	Billings KGHL 780 1000 N Bozeman Butte 1420 100 KGIR 1340 1000 N Great Falls KFBB 1280 1000 C Helena KPFA 1210 100 N Kalispell KGEZ 1310 100 Lewistown KDNC 1200 100 Missoula KGVO 1260 1000 C	Laconia WLNH 1310 100 M Manchester WFEA 1340 500 N Portsmouth WIEB 740 250	
		NEW JERSEY	
		Asbury Park WCAP 1280 500 Atlantic City WPG 1100 5000 C Bridgeton WSNJ 1210 100 Camden WCAM 1280 500 Jersey City WAAT 940 500 WHOM 1450 250 Newark WHBI 1250 1000 WOR 710 50000 M Red Bank WBRB 1210 100 Trenton WTNJ 1280 500 Whippany W3XDD 50000 Zarephath WAWZ 1350 500	
		NEW MEXICO	
		Albuquerque KGGM 1230 1000 KOB 1180 10000 N Carlsbad KLAH 1210 100 Clovis KICA 1370 100	

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<p>Troy WHAZ 1300 1000</p> <p>Utica WIBX 1200 100 C</p> <p>Watertown WNNY 1420 100</p> <p>White Plains WFAS 1210 100</p> <p>Woodside WWRL 1500 100</p>	<p>WSAI 1330 1000 N W8XO 700 500000</p> <p style="text-align: center;">Cleveland</p> <p>WCLE 610 500 M WGAR 1450 500 C WHK 1390 1000 B WTAM 1070 50000 R</p> <p style="text-align: center;">Columbus</p> <p>WBNS 1430 1000 C WCOL 1210 100 N WHKC 640 500 M WOSU 570 750</p> <p style="text-align: center;">Dayton</p> <p>WHIO 1260 1000 C WSMK 1380 200 C</p> <p style="text-align: center;">Lima</p> <p>WBLV 1210 100</p> <p style="text-align: center;">Portsmouth</p> <p>WPAY 1370 100</p> <p style="text-align: center;">Toledo</p> <p>WSPD 1340 1000 B WTOL 1200 100</p> <p style="text-align: center;">Youngstown</p> <p>WKBN 570 500 C Zanesville WALR 1210 100</p>	<p style="text-align: center;">Portland</p> <p>KALE 1300 1000 M KBPS 1420 100 KEX 1180 5000 B KGW 620 1000 R KOIN 940 1000 C KWJJ 1040 500 KXL 1420 100</p> <p style="text-align: center;">Roseburg</p> <p>KRRR 1500 100 M</p> <p style="text-align: center;">Salem</p> <p>KSLM 1370 100 M</p>	<p style="text-align: center;">York</p> <p>WORK 1320 1000 N</p>
NORTH CAROLINA	OKLAHOMA	PENNSYLVANIA	RHODE ISLAND
<p>Asheville WVNC 570 1000 N</p> <p>Charlotte WBT 1080 50000 C WSOC 1210 100 N</p> <p>Durham WDNC 1500 100 C</p> <p>Greensboro WBIG 1440 1000 C</p> <p>High Point WMPR 1200 100</p> <p>Kinston WUTC 1200 100</p> <p>Raleigh WPTE 680 5000 N</p> <p>Rocky Mount WEED 1420 100</p> <p>Wilmington WMFD 1370 100</p> <p>Wilson WGTM 1310 100</p> <p>Winston-Salem WAIR 1250 250 WSJS 1310 100 C</p>	<p style="text-align: center;">Ada</p> <p>KADA 1200 100 M</p> <p style="text-align: center;">Ardmore</p> <p>KVSO 1210 100 M</p> <p style="text-align: center;">Elk City</p> <p>KASA 1210 100</p> <p style="text-align: center;">Enid</p> <p>KCRC 1360 250 M</p> <p style="text-align: center;">Muskogee</p> <p>KBIX 1500 100 M</p> <p style="text-align: center;">Norman</p> <p>WNAD 1010 1000</p> <p style="text-align: center;">Oklahoma City</p> <p>KFXR 1310 100 KOMA 1480 5000 C KTOK 1370 100 M WKY 900 1000 N</p> <p style="text-align: center;">Okmulgee</p> <p>KHBB 1210 100</p> <p style="text-align: center;">Ponca City</p> <p>WBBZ 1200 100 M</p> <p style="text-align: center;">Shawnee</p> <p>KGFF 1420 100 M</p> <p style="text-align: center;">Tulsa</p> <p>KTUL 1400 500 C KVOO 1140 25000 N</p>	<p style="text-align: center;">Allentown</p> <p>WCBA 1440 500 WSAN 1440 500 N</p> <p style="text-align: center;">Altoona</p> <p>WFBG 1310 100</p> <p style="text-align: center;">Easton</p> <p>WEST 1200 100</p> <p style="text-align: center;">Erie</p> <p>WLEU 1420 100 B</p> <p style="text-align: center;">Glenside</p> <p>WIBG 970 100</p> <p style="text-align: center;">Greensburg</p> <p>WHJB 620 250 C</p> <p style="text-align: center;">Grove City</p> <p>WSAJ 1310 100</p> <p style="text-align: center;">Harrisburg</p> <p>WHP 1430 500 C WKBO 1200 100</p> <p style="text-align: center;">Hazleton</p> <p>WAZL 1420 100</p> <p style="text-align: center;">Johnstown</p> <p>WJAC 1310 100</p> <p style="text-align: center;">Lancaster</p> <p>WGAL 1500 100 New Castle WKST 1250 250</p> <p style="text-align: center;">Philadelphia</p> <p>KYW 1020 10000 R WCAU 1170 50000 C WDAS 1370 100 WFIL 560 1000 B WHAT 1310 100 WIP 610 1000 WPEN 920 1000 WRAX 920 1000 WTEL 1310 100</p> <p style="text-align: center;">Pittsburgh</p> <p>KDKA 980 50000 B KQV 1380 500 C WGAE 1220 1000 R WJAS 1290 1000 C WWSW 1500 100</p> <p style="text-align: center;">Reading</p> <p>WEEU 830 1000 WRAW 1310 100</p> <p style="text-align: center;">Scranton</p> <p>WGBI 880 500 WQAN 880 500</p> <p style="text-align: center;">Sunbury</p> <p>WKOK 1210 100 Uniontown WMBS 1420 250</p> <p style="text-align: center;">Wilkes-Barre</p> <p>WBAX 1210 100 M WBRE 1310 100 N</p> <p style="text-align: center;">Williamsport</p> <p>WRAC 1370 100</p>	<p style="text-align: center;">Providence</p> <p>WEAN 780 1000 M WJAR 890 1000 R WPRO 630 500 C</p>
NORTH DAKOTA	OREGON		SOUTH CAROLINA
<p>Bismarck KFYR 550 1000 N</p> <p>Devils Lake KDLR 1210 100</p> <p>Fargo WDAY 940 1000 N</p> <p>Grand Forks KFJM 1410 500</p> <p>Jamestown KRMC 1370 100</p> <p>Mandan KGCU 1240 250</p> <p>Minot KLPM 1240 250</p> <p>Valley City KOVC 1500 100</p>	<p style="text-align: center;">Astoria</p> <p>KAST 1370 100</p> <p style="text-align: center;">Corvallis</p> <p>KOAC 550 1000</p> <p style="text-align: center;">Eugene</p> <p>KORE 1420 100 M</p> <p style="text-align: center;">Klamath Falls</p> <p>KEFJ 1210 100</p> <p style="text-align: center;">La Grande</p> <p>KLBM 1420 100</p> <p style="text-align: center;">Marshfield</p> <p>KOOS 1200 100</p> <p style="text-align: center;">Medford</p> <p>KMED 1410 250 N</p>	<p style="text-align: center;">Allentown</p> <p>WCBA 1440 500 WSAN 1440 500 N</p> <p style="text-align: center;">Altoona</p> <p>WFBG 1310 100</p> <p style="text-align: center;">Easton</p> <p>WEST 1200 100</p> <p style="text-align: center;">Erie</p> <p>WLEU 1420 100 B</p> <p style="text-align: center;">Glenside</p> <p>WIBG 970 100</p> <p style="text-align: center;">Greensburg</p> <p>WHJB 620 250 C</p> <p style="text-align: center;">Grove City</p> <p>WSAJ 1310 100</p> <p style="text-align: center;">Harrisburg</p> <p>WHP 1430 500 C WKBO 1200 100</p> <p style="text-align: center;">Hazleton</p> <p>WAZL 1420 100</p> <p style="text-align: center;">Johnstown</p> <p>WJAC 1310 100</p> <p style="text-align: center;">Lancaster</p> <p>WGAL 1500 100 New Castle WKST 1250 250</p> <p style="text-align: center;">Philadelphia</p> <p>KYW 1020 10000 R WCAU 1170 50000 C WDAS 1370 100 WFIL 560 1000 B WHAT 1310 100 WIP 610 1000 WPEN 920 1000 WRAX 920 1000 WTEL 1310 100</p> <p style="text-align: center;">Pittsburgh</p> <p>KDKA 980 50000 B KQV 1380 500 C WGAE 1220 1000 R WJAS 1290 1000 C WWSW 1500 100</p> <p style="text-align: center;">Reading</p> <p>WEEU 830 1000 WRAW 1310 100</p> <p style="text-align: center;">Scranton</p> <p>WGBI 880 500 WQAN 880 500</p> <p style="text-align: center;">Sunbury</p> <p>WKOK 1210 100 Uniontown WMBS 1420 250</p> <p style="text-align: center;">Wilkes-Barre</p> <p>WBAX 1210 100 M WBRE 1310 100 N</p> <p style="text-align: center;">Williamsport</p> <p>WRAC 1370 100</p>	<p style="text-align: center;">Anderson</p> <p>WAIM 1200 100 C</p> <p style="text-align: center;">Charleston</p> <p>WCSC 1360 500 N</p> <p style="text-align: center;">Columbia</p> <p>WIS 560 1000 N</p> <p style="text-align: center;">Florence</p> <p>WOLS 1200 100</p> <p style="text-align: center;">Greenville</p> <p>WFBC 1300 1000 N</p> <p style="text-align: center;">Spartanburg</p> <p>WSPA 920 1000</p>
OHIO			SOUTH DAKOTA
<p>Akron WADC 1320 1000 C WJW 1210 100</p> <p>Ashtabula WICA 940 250</p> <p>Canton WHBC 1200 100</p> <p>Cincinnati WCPO 1200 100 WKRC 550 1000 C WLW 700 500000 N</p>			<p style="text-align: center;">Aberdeen</p> <p>KABR 1420 100</p> <p style="text-align: center;">Brookings</p> <p>KEDY 780 1000</p> <p style="text-align: center;">Huron</p> <p>KGDY 1340 250</p> <p style="text-align: center;">Pierre</p> <p>KGFX 630 200</p> <p style="text-align: center;">Rapid City</p> <p>KOBH 1370 100</p> <p style="text-align: center;">WCAT 1200 100</p> <p style="text-align: center;">Sioux Falls</p> <p>KELO 1200 100 N KSOO 1110 2500 N</p> <p style="text-align: center;">Vermillion</p> <p>KUSD 890 500</p> <p style="text-align: center;">Watertown</p> <p>KWTN 1210 100</p> <p style="text-align: center;">Yankton</p> <p>WNAX 570 1000 C</p>
			TENNESSEE
			<p style="text-align: center;">Bristol</p> <p>WOPI 1500 100</p> <p style="text-align: center;">Chattanooga</p> <p>WAPO 1420 100 WDDO 1280 1000 C</p> <p style="text-align: center;">Jackson</p> <p>WTJS 1310 100</p> <p style="text-align: center;">Knoxville</p> <p>WNOX 1010 1000 C WROL 1310 100 N</p> <p style="text-align: center;">Memphis</p> <p>WHBQ 1370 100 WMC 780 1000 R WMP5 1430 500 B WREC 600 1000 C</p>

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<p>Nashville WLAC 1470 5000 C WSIX 1210 100 WSM 650 50000 N</p> <hr/> <p style="text-align: center;">TEXAS</p> <hr/> <p>Abilene KRBC 1420 100</p> <p>Amarillo KGNC 1410 1000 N</p> <p>Austin KNOW 1500 100 C KTBC 1120 1000</p> <p>Beaumont KFDM 560 500 N KRIC 1420 100</p> <p>Big Spring KBST 1500 100</p> <p>Brady KNEL 1500 250</p> <p>Brownsville KGFI 1500 100</p> <p>College Station WTAW 1120 500</p> <p>Corpus Christi KRIS 1330 500 N</p> <p>Corsicana KAND 1310 100</p> <p>Dallas KRLD 1040 10000 C WFAA 800 50000 N WRR 1280 500M</p> <p>Denton KDNT 1420 100</p> <p>Dublin KFPL 1310 100</p> <p>El Paso KROD 1500 100 KTSM 1310 100 N WDAH 1310 100</p> <p>Fort Worth KFJZ 1370 100 KTAT 1240 1000M WBAP 800 50000 N</p> <p>Galveston KLUF 1370 100</p> <p>Greenville KGVJ 1200 100</p> <p>Houston KPRC 920 1000 R KTRH 1290 1000 C KXYZ 1440 1000 B</p> <p>Kilgore KOC A 1210 100</p> <p>Laredo KPAB 1500 100</p> <p>Longview KFRO 1370 250</p> <p>Lubbock KFYO 1310 100</p> <p>Lufkin KRBA 1310 100</p> <p>Midland KRLH 1420 100</p> <p>Palestine KNET 1420 100</p> <p>Pampa KPDN 1310 100</p> <p>Paris KPLT 1500 250</p> <p>Pecos KIUN 1420 100</p> <p>Port Arthur KPAC 1260 500</p>	<p>San Angelo KGKL 1370 100</p> <p>San Antonio KABC 1420 100 KMAC 1370 100 KONO 1370 100 K TSA 550 1000 C WOAI 1199 50000 N</p> <p>Sherman KRRV 1310 250</p> <p>Temple KTEM 1370 250</p> <p>Texarkana KCMC 1420 100</p> <p>Tyler KGKB 1500 100</p> <p>Waco WACO 1420 100 C</p> <p>Weslaco KRGV 1260 1000 N</p> <p>Wichita Falls KGKO 570 250 N</p> <hr/> <p style="text-align: center;">UTAH</p> <hr/> <p>Cedar City KSUB 1310 100</p> <p>Logan KVNU 1500 100</p> <p>Ogden KLO 1400 500 B</p> <p>Price KEUB 1420 100</p> <p>Salt Lake City KDYL 1290 1000 R KSL 1130 50000 C KUTA 1500 100</p> <hr/> <p style="text-align: center;">VERMONT</p> <hr/> <p>Burlington WCAX 1200 100</p> <p>Rutland WSYB 1500 100</p> <p>St. Albans WQDM 1390 1000</p> <p>Springfield WNBX 1260 500 C</p> <p>Waterbury WDEV 550 500</p> <hr/> <p style="text-align: center;">VIRGINIA</p> <hr/> <p>Charlottesville WCHV 1420 100</p> <p>Danville WB TM 1370 100</p> <p>Harrisonburg WSVA 550 500</p> <p>Lynchburg WLVA 1200 100</p> <p>Newport News WG H 1310 100</p> <p>Norfolk WTAR 780 1000 N</p> <p>Richmond WBBL 1210 100 WMBG 1350 500 R WRNL 880 500 WRTD 1500 100 B WRVA 1110 5000 C</p> <p>Roanoke WDBJ 930 1000 C</p> <hr/> <p style="text-align: center;">WASHINGTON</p> <hr/> <p>Aberdeen KXRO 1310 100M</p>	<p>Bellingham KVOS 1200 100M</p> <p>Centralia KELA 1440 500M</p> <p>Everett KRKO 1370 50</p> <p>Longview KWIK 780 250</p> <p>Olympia KGY 1210 100M</p> <p>Pullman KWSC 1220 1000</p> <p>Seattle KEEN 1370 100 KIRO 710 1000 C KJR 970 5000 B KOL 1270 1000M KOMO 920 1000 R KRSC 1120 250 KTW 1220 1000 KXA 760 250</p> <p>Spokane KFFO 1120 100 KFPY 890 1000 C KGA 1470 5000 B KHQ 590 1000 R</p> <p>Tacoma KMO 1330 1000M KVI 570 1000 C</p> <p>Walla Walla KUJ 1370 100</p> <p>Wenatchee KPQ 1500 100M</p> <p>Yakima KIT 1250 250M</p> <hr/> <p style="text-align: center;">WEST VIRGINIA</p> <hr/> <p>Bluefield WHIS 1410 500</p> <p>Charleston WGHS 580 500 C</p> <p>Clarksburg WBLK 1370 100</p> <p>Fairmont WMMN 890 500 C</p> <p>Huntington WSAZ 1190 1000</p> <p>Parkersburg WPAR 1420 100 C</p> <p>Wheeling WVVA 1160 5000 C</p> <hr/> <p style="text-align: center;">WISCONSIN</p> <hr/> <p>Eau Claire WEAU 1050 1000</p> <p>Fond du Lac KFIZ 1420 100</p> <p>Green Bay WBYY 1200 100 WTAQ 1330 1000 C</p> <p>Janesville WCLO 1200 100</p> <p>LaCrosse WKBB 1380 1000 C</p> <p>Madison WHA 940 5000 WIBA 1280 1000 N</p> <p>Manitowoc WOMT 1210 100</p> <p>Milwaukee WEMP 1310 100</p>	<p>WISN 1120 250 C WTMJ 620 1000 N Poynette WIBU 1210 100 Racine WRJN 1370 100 Rice Lake 1210 100 Sheboygan WHBL 1300 250 Stevens Point WLBL 900 5000 Superior WDSM 1200 100 Wausau WSAU 1370 100</p> <hr/> <p style="text-align: center;">WYOMING</p> <hr/> <p>Casper KDFN 1440 500</p> <p>Rock Springs KVRS 1370 100</p> <p>Sheridan KWYO 1370 100</p> <hr/> <p style="text-align: center;">BAHAMAS</p> <hr/> <p>Nassau ZNS 540 400</p> <hr/> <p style="text-align: center;">CANADA</p> <hr/> <p style="text-align: center;">ALBERTA</p> <hr/> <p>Calgary CFAC 930 1000 F CFCN 1030 10000 F GJ CJ 690 100 F</p> <p>Edmonton CFRN 960 100 F GJCA 730 1000 F CKUA 580 500 F</p> <p>Grande Prairie CFGP 1200 100</p> <p>Lethbridge CJOC 950 100 F</p> <hr/> <p style="text-align: center;">BRIT. COLUMBIA</p> <hr/> <p>Chilliwack CHWK 780 100 F</p> <p>Kamloops CFJC 880 1000 F</p> <p>Kelowna CKOV 630 100 F</p> <p>Prince Rupert CFPR 580 50</p> <p>Trail CJAT 910 1000 F</p> <p>Vancouver CBR 1100 5000 F CJOR 600 500 CKCD 1010 100 CKFC 1410 50 CKMO 1410 100 CKWX 1010 100</p> <p>Victoria CFCT 1450 500</p> <hr/> <p style="text-align: center;">MANITOBA</p> <hr/> <p>Brandon CKX 1120 1000 F Flin Flon CFAR 1370 100</p>
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NORTH AMERICAN B. C. STATIONS BY LOCATIONS

<p>Winnipeg CJK 630 500 F CKY 910 15000 F</p> <p>NEW BRUNSWICK</p> <p>Fredericton CFNB 550 500 F</p> <p>Moncton CKCW 1370 100 F</p> <p>St. John CHSJ 1120 500 F</p> <p>N. W. TERRITORY</p> <p>Aklavik CJCU 1210 50</p> <p>NOVA SCOTIA</p> <p>Glace Bay VAS 685 2000</p> <p>Halifax CHNS 930 1000 F</p> <p>Sydney CJGB 1240 1000 F</p> <p>Wolfville CKIC 1010 50</p> <p>Yarmouth CJLS 1310 100 F</p> <p>ONTARIO</p> <p>Brantford CKPC 930 100 F</p> <p>Chatham CFCO 630 100 F</p> <p>Cobalt CKMC 1210 50</p> <p>Fort William CKPR 730 100 F</p> <p>Hamilton CHML 1010 100 F CKOC 1120 500 F</p> <p>Kenora 1420 100</p> <p>Kingston CFRC 1510 100 F</p> <p>London CFPL 730 100 F</p> <p>North Bay CFCB 930 100 F</p> <p>CJKL 1310 100</p> <p>CKGB 1420 100</p> <p>Ottawa CBO 880 1000 F CKCO 1010 100 F</p> <p>Owen Sound 1370 100</p> <p>Prescott CFCL 930 100</p> <p>St. Catharines CKTB 1200 100 F</p> <p>Sault Ste. Marie CJJC 1500 100 F</p> <p>Stratford CJCS 1210 50</p> <p>Sudbury CKSO 780 1000 F</p> <p>Toronto CBL 840 50000 F CFRB 690 10000 C CKCL 580 100 F CKRC 960 100 F</p> <p>Waterloo CKCR 1510 100</p>	<p>Windsor CKLW 1030 5000 F</p> <p>Wingham CKNX 1200 100</p> <p>PRINCE EDWARD ISLAND</p> <p>Charlottetown CFCY 630 1000 F CHCK 1310 50</p> <p>Summerside CHGS 1450 50 F</p> <p>QUEBEC</p> <p>Chicoutimi CRCS 1120 100 F</p> <p>Hull CKKH 1210 100 F</p> <p>Montreal CBF 910 50000 N CBM 1050 5000 F CFCF 600 500 B CHLP 1120 100 F CKAK 730 5000 C</p> <p>New Carlisle CHNC 960 1000 F</p> <p>Quebec CHRC 580 100 CKCV 1310 100 F CRCK 950 1000 F</p> <p>Rimouski CJBR 1030 1000 F</p> <p>Sherbrooke CHLT 1210 100</p> <p>Three Rivers CHLN 1420 100</p> <p>SASKATCHEWAN</p> <p>Moose Jaw CHAB 1200 100 F</p> <p>Prince Albert CKBI 1210 100 F</p> <p>Regina CJRM 540 1000 F</p> <p>CKCK 1010 1000 F</p> <p>Saskatoon CFOC 840 1000 F</p> <p>Yorkton CJGK 1390 100 F</p> <p>COSTA RICA</p> <p>San Jose TIEP 880 1000 TIPI 625 2000 TIX 650 1000</p> <p>CUBA</p> <p>Bayamo CMKL 990</p> <p>Caibarien CMHD 1270 250</p> <p>Camaguey CMJA 1010 300 CMJC 1390 150 CMJE 1220 50 CMJF 1150 200 CMJK 780 250 CMJQ 1080 200 CMJW 1340 300 CMJX 830 500</p> <p>Cardenas CMGE 1370 150</p>	<p>Ciego de Avila CMJH 1360 50 CMJI 1130 150 CMJO 1180 50</p> <p>Cienfuegos CMHJ 1160 175 CMHM 1450 100 CMHX 760 200</p> <p>Cruces CMHK 1330 250</p> <p>Guantanamo CMKS 960</p> <p>Havana CMBC 950 10000 CMBD 1260 500 CMBF 770 10000 CMBL 750 2500 CMBQ 680 5000 CMBS 1170 150 CMBX 1070 500 CMBY 970 150 CMBZ 1000 500 CMC 1260 150 CMCA 1350 450 CMCB 1230 150 CMCD 630 250 CMCF 810 600 CMCG 680 1000 CMGJ 1110 500 CMKK 1030 5000 CMGL 730 10000 CMGM 850</p> <p>CMGO 1200 250</p> <p>CMCO 1410 5000</p> <p>CMGR 1380</p> <p>CMCQ 1290 500</p> <p>CMCW 1140 500</p> <p>CMCX 1380 150</p> <p>CMCY 570 5000</p> <p>CMK 720 3000</p> <p>CMOA 1440 150</p> <p>CMOX 1320 200</p> <p>CMO 600 25000</p> <p>CMW 880 1400</p> <p>CMX 920 1000</p> <p>..... 630 10000</p> <p>Holguin CMFK 1460 250 CMKO 1280</p> <p>Manzanillo CMKM 1120 200</p> <p>Matanzas CMGG 1400 150 CMGF 1120 250 CMGH 790 500</p> <p>Moron CMJP 1430 75</p> <p>Pinar del Rio CMAB 1340 300</p> <p>Sagua la Grande CMIA 1070 50</p> <p>Sancti Spiritus CMIB 1240 50</p> <p>Santa Clara CMHI 1210 150 CMHW 820 100</p> <p>Santiago CMKC 1250 150 CMKD 1050 250 CMKG 1160</p> <p>CMKR 1400 100</p> <p>CMKW 1350</p> <p>CMKX 1190</p>	<p>DOMINICAN REPUBLIC</p> <p>Trujillo HIT 1050 50 HIX 800 800 HI7P 1300 25</p> <p>EL SALVADOR</p> <p>San Salvador YSS 640 500</p> <p>GUATEMALA</p> <p>Guatemala City TGW 1520 1000 TGI 1305</p> <p>HONDURAS</p> <p>Tegucigalpa HRN 1250 50</p> <p>MEXICO</p> <p>AGUASCALIENTES</p> <p>Aguascalientes XEBI 1000 25</p> <p>BAJA CALIFORNIA</p> <p>Mexicali XEAA 750 200 XEAO 660 250</p> <p>Rosario Beach XERB 730 100000</p> <p>Tijuana XEAC 980 1000 XEAA 1320 XEBG 820 1000 XELO 1150 100 XELO 580 10000 XEMO 860 5000 XEOK 760 2500</p> <p>CHIHUAHUA</p> <p>Chihuahua XEBU 1200 50 XEFI 1440 250</p> <p>Juarez XEFV 1210 100 XEF 1450 100 XEJ 1020 1000 XEP 1160 500</p> <p>Parral XEAT 1210 250</p> <p>COAHUILA</p> <p>Piedras Negras XEMU 1200 50 XEPN 730 100000</p> <p>Sabinas XEBX 640 250</p> <p>Saltillo XEAS 1160 100 XELA 1240 50</p> <p>Torreón XETB 1310 125</p> <p>Villa Acuna XEDH 1340 200 XERA 840 250000</p> <p>D. F.</p> <p>Gral. Anaya XEDA 1220 200</p>
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NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Mexico City		Leon	SINALOA		VERACRUZ		
XEAI	1250 500	XEFM	1160 20	Matatlan		Cordoba	
XEAL	660 1000	XEKL	1240 500	XEBL	1220 50	XEAG	1310 10
XEB	1030 10000	JALISCO		SONORA		Jalapa	
XEBBS	1340 200	Guadalajara		Cananea		XEXB	1270 250
XEBZ	810 100	XED	1160 2500	XEFO	1010 50	XEXD	1340 350
XEDP	1080 500	Guzman		Hermosillo		Minatitlan	
XEFO	940 5000	XEBA	1080 20	XEBH	930 500	XEDW	1150 20
XEJP	1130 10 0	MICHOACAN		Nogales		Veracruz	
XEJW	870 500	Morelia		XEAF	990 750	XETF	1220 12
XEK	890 100	XEL	1370 125	Obregon		XEU	1010 250
XEL	1100 250	NUEVO LEON		XEAP	1340 50	YUCATAN	
XELZ	1370 100	Monterrey		TAMAULIPAS		Merida	
XEMX	1280 100	XEFB	870 200	Matamoros		XEFC	550 100
XEN	780 1000	XEG	1230 250	XEAM	750 25	XEME	1240 50
XENC	860 50	XEH	720 250	Nuevo Laredo		XEZ	630 500
XEW	890 50000	XET	690 5000	XEBK	1080 100	ZACATECAS	
XEXM	610 500	XEX	1310 125	XEDF	810 100	Zacatecas	
XEXS	1310 100	PUEBLA		XEFE	980 250	XEAZ	1230 200
XEXX	1170 1000	Puebla		XENT	910 150000	MIQUELON	
XEYO	610 500	XETH	1210 100	Reynosa		St. Pierre	
Tacuba		SAN LUIS POTOSI		XEAW	960 100000	FON	609 250
XEFA	1180 500	San Luis Potosi		Tampico		NEWFOUNDLAND	
Texcoco		XECZ	1370 100	XEFW	1310 300	St. John's	
XEXE	1270 17	XEXH	1250 250	XES	990 250	VOAC	1065 40
DURANGO						VOAS	940 100
Durango						VOCM	1006 200
XEBP	1150 250					VOGY	840 400
XEE	1210 50					VONF	1195 500
GUANAJUATO						VOWR	681 500
Irapuato							
XEBO	1310 25						

NORTH AMERICAN B. C. STATIONS BY CALLS

CBF	910	50000	CFNB	550	500	CHSJ	1120	500
Montreal, P. Q.			Fredericton, N. B.			St. John, N. B.		
CBL	840	50000	CFPL	730	100	CHWK	780	100
Toronto, Ont.			London, Ont.			Chilliwack, B. C.		
CBM	1050	5000	CFPR	580	50	CJAT	910	1000
Montreal, P. Q.			Prince Rupert, B. C.			Trall, B. C.		
CBO	880	1000	CFQC	840	1000	CJBR	1030	1000
Ottawa, Ont.			Saskatoon, Sask.			Rimouski, P. Q.		
CBR	1100	5000	CFRB	690	10000	CJCA	730	1000
Vancouver, B. C.			Toronto, Ont.			Edmonton, Alta.		
CFAC	930	1000	CFRC	1510	100	CJCB	1240	1000
Calgary, Alta.			Kingston, Ont.			Sydney, N. S.		
CFAR	1370	100	CFRN	960	100	CJ CJ	690	100
Film Flon, Man.			Edmonton, Alta.			Calgary, Alta.		
CFCF	600	500	CHAB	1200	100	CJCS	1210	50
Montreal, Que.			Moose Jaw, Sask.			Stratford, Ont.		
CFCH	930	100	CHCK	1310	50	CJCU	1210	50
North Bay, Ont.			Charlottetown, P.E.I.			Aklavik, N. W. T.		
CFCN	1030	10000	CHGS	1450	50	CJGX	1390	100
Calgary, Alta.			Summerside, P.E.I.			Yorkton, Sask.		
CFCO	630	100	CHLN	1420	100	CJIC	1500	100
Chatham, Ont.			Three Rivers, P. Q.			S. Ste. Marie, Ont.		
CFCT	1450	500	CHLP	1120	100	CJKL	1310	100
Victoria, B. C.			Montreal, Que.			North Bay, Ont.		
CFCY	630	1000	CHLT	1210	100	CJLS	1310	100
Charlottetown, P.E.I.			Sherbrooke, P. Q.			Yarmouth, N. S.		
CFGP	1200	100	CHML	1010	100	CJOC	950	100
Grande Prairie, Alta.			Hamilton, Ont.			Lethbridge, Alta.		
CFJC	880	1000	CHNC	960	1000	CJOR	600	500
Kamloops, B. C.			New Carlisle, Que.			Vancouver, B. C.		
CFLC	930	100	CHNS	930	1000	CJRC	630	500
Prescott, Ont.			Halifax, N. S.			Winnipeg, Man.		
			CHRC	580	100	CJRM	540	1000
			Quebec, Que.			Regina, Sask.		

NORTH AMERICAN B. C. STATIONS BY CALLS

CKAC 730 Montreal, Que.	5000	CMBY 970 Havana, Cuba	150	CMJH 1360 Ciego de Avila, Cuba	50
CKBJ 1210 Prince Albert, Sask.	100	CMCZ 1000 Havana, Cuba	500	CMJI 1130 Ciego de Avila, Cuba	150
CKCD 1010 Vancouver, B. C.	100	CMC 1260 Havana, Cuba	150	CMJK 780 Camaguey, Cuba	250
CKCH 1210 Hull, Que.	100	CMCA 1350 Havana, Cuba	450	CMJO 1180 Ciego de Avila, Cuba	50
CKCK 1010 Regina, Sask.	1000	CMCB 1230 Havana, Cuba	150	CMJP 1430 Camaguey, Cuba	75
CKCL 580 Toronto, Ont.	100	CMCD 630 Havana, Cuba	250	CMJQ 1080 Camaguey, Cuba	200
CKCO 1010 Ottawa, Ont.	100	CMCF 810 Havana, Cuba	600	CMJW 1340 Camaguey, Cuba	300
CKCR 1510 Waterloo, Ont.	100	CMCG 680 Havana, Cuba	1000	CMJX 830 Camaguey, Cuba	500
CKCV 1310 Quebec, Que.	100	CMCJ 1110 Havana, Cuba	500	CMK 720 Havana, Cuba	3000
CKCW 1370 Moncton, N. B.	100	CMCK 1030 Havana, Cuba	5000	CMKC 1250 Santiago, Cuba	150
CKFC 1410 Vancouver, B. C.	50	CMCL 730 Havana, Cuba	10000	CMKD 1050 Santiago, Cuba	250
CKGB 1420 North Bay, Ont.	100	CMCM 850 Havana, Cuba	.....	CMKF 1460 Holguin, Cuba	250
CKIC 1010 Wolfville, N. S.	50	CMCO 1200 Havana, Cuba	250	CMKG 1160 Santiago, Cuba	.....
CKLW 1030 Windsor, Ont.	5000	CMCQ 1410 Havana, Cuba	5000	CMKL 990 Bayamo, Cuba	.....
CKMC 1210 Cobalt, Ont.	50	CMCR 1380 Havana, Cuba	.....	CMKM 1120 Manzanillo, Cuba	200
CKMO 1410 Vancouver, B. C.	100	CMCU 1290 Havana, Cuba	500	CMKO 1280 Holguin, Cuba	.....
CKNX 1200 Wingham, Ont.	100	CMCW 1140 Havana, Cuba	500	CMKR 1400 Santiago, Cuba	100
CKOC 1120 Hamilton, Ont.	500	CMCX 1380 Havana, Cuba	150	CMKS 960 Guantanamo, Cuba	.....
CKOV 630 Kelowna, B. C.	100	CMCY 570 Havana, Cuba	5000	CMKW 1350 Santiago, Cuba	.....
CKPC 930 Brantford, Ont.	100	CMGC 1400 Matanzas, Cuba	150	CMKX 1190 Santiago, Cuba	.....
CKPR 730 Port William, Ont.	100	CMGE 1370 Cardenas, Cuba	150	CMOA 1440 Havana, Cuba	150
CKSO 780 Sudbury, Ont.	1000	CMGF 1120 Matanzas, Cuba	250	CMOX 1320 Havana, Cuba	200
CTB 1200 St. Catharines, Ont.	100	CMGH 790 Matanzas, Cuba	500	CMQ 600 Havana, Cuba	25000
CKUA 580 Edmonton, Alta.	500	CMHA 1070 Sagua la Grande, Cuba	50	CMW 880 Havana, Cuba	1400
CKWX 1010 Vancouver, B. C.	100	CMHB 1240 Sancti Spiritus, Cuba	50	CMX 920 Havana, Cuba	1000
CKX 1120 Brandon, Man.	1000	CMHD 1270 Caibarien, Cuba	250	CRCK 950 Quebec, Que.	1000
CKY 910 Winnipeg, Man.	15000	CMHI 1210 Santa Clara, Cuba	150	CRCS 1120 Chicoutimi, Que.	100
CMAB 1340 Pinar del Rio, Cuba	300	CMHJ 1160 Cienfuegos, Cuba	175	CRCY 960 Toronto, Ont.	100
CMBC 950 Havana, Cuba	10000	CMHK 1330 Cruces, Cuba	250	FQN 609 St. Pierre, Miquelon	250
CMBD 1260 Havana, Cuba	500	CMHM 1450 Cienfuegos, Cuba	100	HIT 1050 Trujillo, D. R.	50
CMBF 770 Havana, Cuba	10000	CMHW 820 Santa Clara, Cuba	100	HIX 800 Trujillo, D. R.	800
CMBL 750 Havana, Cuba	2500	CMHX 760 Cienfuegos, Cuba	200	H17P 1300 Trujillo, D. R.	25
CMBQ 680 Havana, Cuba	5000	CMJA 1010 Camaguey, Cuba	300	HRN 1250 Tegucigalpa, Honduras	50
CMBS 1170 Havana, Cuba	150	CMJC 1390 Camaguey, Cuba	150	KABC 1420 San Antonio, Texas	100
CMBX 1070 Havana, Cuba	500	CMJE 1220 Camaguey, Cuba	50	KABR 1420 Aberdeen, S. Dak.	100
		CMJF 1150 Camaguey, Cuba	200	KADA 1200 Ada, Okla.	100

NORTH AMERICAN B. C. STATIONS BY CALLS

KALB 1210	100	KERN 1370	100	KFSG 1120	500
Alexandria, La.		Bakersfield, Calif.		Los Angeles, Calif.	
KALE 1300	1000	KEUB 1420	100	KFOU 550	500
Portland, Ore.		Price, Utah		St. Louis, Mo.	
KAND 1310	100	KEX 1180	5000	KFVD 1000	1000
Corsicana, Texas		Portland, Ore.		Los Angeles, Calif.	
KANS 1210	100	KFAB 770	10000	KFVS 1210	100
Wichita, Kans.		Lincoln, Neb.		Cape Girardeau, Mo.	
KARK 890	500	KFAC 1300	1000	KFWB 950	1000
Little Rock, Ark.		Los Angeles, Calif.		Hollywood, Calif.	
KARM 1310	100	KFAM 1420	100	KFXD 1200	100
Fresno, Calif.		St. Cloud, Minn.		Nampa, Idaho	
KASA 1210	100	KFBB 1280	1000	KFXJ 1200	100
Elk City, Okla.		Great Falls, Mont.		Grand Junction, Colo.	
KASt 1370	100	KFBI 1050	5000	KFXM 1210	100
Astoria, Ore.		Abilene, Kans.		San Bernardino, Calif.	
KATE 1420	250	KFBK 1490	10000	KFXR 1310	100
Albert Lea, Minn.		Sacramento, Calif.		Oklahoma City, Okla.	
KAWM 1500	100	KFDM 560	500	KFYO 1310	100
Gallup, N. Mex.		Beaumont, Texas		Lubbock, Texas	
KBIX 1500	100	KFDY 780	1000	KFYR 550	1000
Muskogee, Okla.		Brookings, S. D.		Bismarck, N. D.	
KBPS 1420	100	KFEL 920	500	KG 1470	5000
Portland, Ore.		Denver, Colo.		Spokane, Wash.	
KBST 1500	100	KFEQ 680	2500	KGAR 1370	100
Big Spring, Texas		St. Joseph, Mo.		Tucson, Ariz.	
KBTM 1200	100	KFGQ 1370	100	KGB 1330	1000
Jonesboro, Ark.		Roone, Iowa		San Diego, Calif.	
KCKN 1310	100	KFH 1300	1000	KGBU 900	500
Kansas City, Kans.		Wichita, Kans.		Ketchikan, Alaska	
KCMC 1420	100	KFI 640	50000	KGBX 1230	500
Texarkana, Texas		Los Angeles, Calif.		Springfield, Mo.	
KCMO 1370	100	KFIO 1120	100	KCCA 1270	100
Kansas City, Mo.		Spokane, Wash.		Decorah, Iowa	
KCRC 1360	250	KFIZ 1420	100	KCCI 1200	100
Enid, Okla.		Fond du Lac, Wis.		Coeur d'Alene, Idaho	
KCRJ 1310	100	KFJB 1200	100	KCCU 1240	250
Jerome, Ariz.		Marshalltown, Iowa		Mandan, N. D.	
KDAL 1500	100	KFJI 1210	100	KCGX 1450	1000
Duluth, Minn.		Klamath Falls, Ore.		Wolf Point, Mont.	
KDB 1500	100	KFJM 1410	500	KGDE 1200	100
Santa Barbara, Calif.		Grand Forks, N. D.		Fergus Falls, Minn.	
KDFN 1440	500	KFJZ 1370	100	KGDM 1100	1000
Casper, Wyo.		Fort Worth, Texas		Stockton, Calif.	
KDKA 980	50000	KFKA 880	500	KGDY 1340	250
Pittsburgh, Pa.		Greeley, Colo.		Huron, S. D.	
KDLR 1210	100	KFKU 1220	1000	KGEK 1200	100
Devils Lake, N. D.		Lawrence, Kans.		Sterling, Colo.	
KDNC 1200	100	KFNF 890	500	KGER 1360	1000
Lewistown, Mont.		Shenandoah, Iowa		Long Beach, Calif.	
KDNT 1420	100	KFOR 1210	100	KGEZ 1310	100
Denton, Texas		Lincoln, Neb.		Kalispell, Mont.	
KDON 1210	100	KFOX 1250	1000	KGFF 1420	100
Monterey, Calif.		Long Beach, Calif.		Shawnee, Okla.	
KDTH 1340	500	KFPL 1310	100	KGFI 1500	100
Dubuque, Iowa		Dublin, Texas		Brownsville, Tex.	
KDYL 1290	1000	KFPW 1210	100	KGFJ 1200	100
Salt Lake City, Utah		Fort Smith, Ark.		Los Angeles, Calif.	
KECA 1430	1000	KFPY 890	1000	KGFL 1370	100
Los Angeles, Calif.		Spokane, Wash.		Roswell, N. M.	
KEEN 1370	100	KFQD 780	250	KGFW 1310	100
Seattle, Wash.		Anchorage, Alaska		Kearney, Neb.	
KEHE 780	1000	KFRC 610	1000	KGFX 630	200
Los Angeles, Calif.		San Francisco, Calif.		Pierre, S. D.	
KELA 1440	500	KFRO 1370	250	KGGC 1420	100
Centralia, Wash.		Longview, Texas		San Francisco, Calif.	
KELD 1370	100	KFRU 630	500	KGGF 1010	1000
El Dorado, Ark.		Columbia, Mo.		Coffeyville, Kans.	
KELO 1200	100	KFSD 600	1000	KGGM 1230	1000
Sioux Falls, S. Dak.		San Diego, Calif.		Albuquerque, N. M.	

NORTH AMERICAN B. C. STATIONS BY CALLS

KGHF 1320	500	KIUL 1210	100	KOCA 1210	100
Pueblo, Colo.		Garden City, Kans.		Kilgore, Texas	
KGHI 1200	100	KIUN 1420	100	KOH 1380	500
Little Rock, Ark.		Pecos, Texas		Reno, Nev.	
KGHL 780	1000	KIUP 1370	100	KOIL 1260	1000
Billings, Mont.		Durango, Colo.		Omaha, Neb.	
KGIR 1340	1000	KJBS 1070	500	KOIN 940	1000
Butte, Mont.		San Francisco, Calif.		Portland, Ore.	
KGIW 1420	100	KJR 970	5000	KOKO 1370	100
Alamosa, Colo.		Seattle, Wash.		La Junta, Colo.	
KGKB 1500	100	KLAH 1210	100	KOL 1270	1000
Tyler, Texas		Carlsbad, N. Mex.		Seattle, Wash.	
KGKL 1370	100	KLBM 1420	100	KOMA 1480	5000
San Angelo, Texas		La Grande, Ore.		Oklahoma City, Okla.	
KGKO 570	250	KLCN 1290	100	KOMO 920	1000
Wichita Falls, Texas		Blytheville, Ark.		Seattle, Wash.	
KGKY 1500	100	KLO 1400	500	KONO 1370	100
Scottsbluff, Neb.		Ogden, Utah		San Antonio, Texas	
KGLO 1210	100	KLPM 1240	250	KOOS 1200	100
Mason City, Iowa		Minot, N. D.		Marshfield, Ore.	
KGLU 1420	100	KLRA 1390	1000	KORE 1420	100
Safford, Ariz.		Little Rock, Ark.		Eugene, Ore.	
KGMB 1320	1000	KLS 1280	250	KOTN 1500	100
Honolulu, T. H.		Oakland, Calif.		Pine Bluff, Ark.	
KGNC 1410	1000	KLUF 1370	100	KOVC 1500	100
Amarillo, Texas		Galveston, Texas		Valley City, N. Dak.	
KGNF 1430	1000	KLX 880	1000	KOY 1390	1000
North Platte, Neb.		Oakland, Calif.		Phoenix, Ariz.	
KGNO 1340	250	KLZ 560	1000	KPAB 1500	100
Dodge City, Kans.		Denver, Colo.		Laredo, Texas	
KGO 790	7500	KMA 930	1000	KPAC 1260	500
San Francisco, Calif.		Shenandoah, Iowa		Port Arthur, Texas	
KGU 750	2500	KMAC 1370	100	KPDN 1310	100
Honolulu, T. H.		San Antonio, Texas		Pampa, Texas	
KGVL 1200	100	KMBC 950	1000	KPFA 1210	100
Greenville, Texas		Kansas City, Mo.		Helena, Mont.	
KGVO 1260	1000	KMED 1410	250	KPLC 1500	100
Missoula, Mont.		Medford, Ore.		Lake Charles, La.	
KGW 620	1000	KMJ 580	1000	KPLT 1500	100
Portland, Ore.		Fresno, Calif.		Paris, Texas	
KGY 1210	100	KMLB 1200	100	KPMC 1550	1000
Olympia, Wash.		Monroe, La.		Bakersfield, Calif.	
KHBC 1400	250	KMMJ 740	1000	KPO 680	50000
Hilo, T. H.		Clay Center, Neb.		San Francisco, Calif.	
KHBG 1210	100	KMO 1330	1000	KPOF 880	1000
Okmulgee, Okla.		Tacoma, Wash.		Denver, Colo.	
KHJ 900	1000	KMOX 1090	50000	KPPC 1210	100
Los Angeles, Calif.		St. Louis, Mo.		Pasadena, Calif.	
KHQ 590	1000	KMPC 710	500	KPQ 1500	100
Spokane, Wash.		Beverly Hills, Calif.		Wenatchee, Wash.	
KHSL 1260	250	KMTR 570	1000	KPRC 920	1000
Chico, Calif.		Los Angeles, Calif.		Houston, Texas	
KHUB 1310	250	KNEL 1500	250	KQV 1380	500
Watsonville, Calif.		Brady, Texas		Pittsburgh, Pa.	
KICA 1370	100	KNET 1420	100	KQW 1010	1000
Clovis, N. M.		Palesfine, Texas		San Jose, Calif.	
KID 1320	500	KNOW 1500	100	KRBA 1310	100
Idaho Falls, Idaho		Austin, Texas		Lufkin, Texas	
KIDO 1350	1000	KNX 1050	50000	KRBC 1420	100
Boise, Idaho		Los Angeles, Calif.		Abilene, Texas	
KIDW 1420	100	KOA 830	50000	KRE 1370	100
Lamar, Colo.		Denver, Colo.		Berkeley, Calif.	
KIEM 1450	500	KOAC 550	1000	KRGV 1260	1000
Eureka, Calif.		Corvallis, Ore.		Weslaco, Texas	
KIEV 850	250	KOAM 790	1000	KRIC 1420	100
Glendale, Calif.		Pittsburg, Kans.		Beaumont, Texas	
KINY 1310	100	KOB 1180	10000	KRIS 1330	500
Juneau, Alaska		Albuquerque, N. M.		Corpus Christi, Tex.	
KIRO 710	1000	KOBH 1370	100	KRKD 1120	500
Seattle, Wash.		Rapid City, S. Dak.		Los Angeles, Calif.	
KIT 1250	250				
Yakima, Wash.					

NORTH AMERICAN B. C. STATIONS BY CALLS

KRKO 1370 Everett, Wash.	50	KTTH 1060 Hot Springs, Ark.	10000	KWK 1350 St. Louis, Mo.	1000
KRLC 1390 Lewiston, Idaho	250	KTTC 1390 Visalia, Calif.	250	KWKH 1100 Shreveport, La.	10000
KRLD 1040 Dallas, Texas	10000	KTMS 1220 Santa Barbara, Calif.	500	KWLC 1270 Decorah, Iowa	100
KRLH 1420 Midland, Texas	100	KTOK 1370 Oklahoma City, Okla.	100	KWLK 780 Longview, Wash.	250
KRMC 1370 Jamestown, N. Dak.	100	KTRB 740 Modesto, Calif.	250	KWNO 1200 Winona, Minn.	250
KRMD 1310 Shreveport, La.	100	KTRH 1290 Houston, Texas	1000	KWOC 1310 Poplar Bluff, Mo.	100
KRNR 1500 Roseburg, Ore.	100	KTRI 1420 Sioux City, Iowa	180	KWOS 1310 Jefferson City, Mo.	100
KRNT 1320 Des Moines, Iowa	1000	KTSA 550 San Antonio, Texas	1000	KWSC 1220 Pullman, Wash.	1000
KROC 1310 Rochester, Minn.	100	KTSM 1310 El Paso, Texas	100	KWTN 1210 Watertown, S. Dak.	100
KROD 1500 El Paso, Texas	100	KTUL 1400 Tulsa, Okla.	500	KWTO 560 Springfield, Mo.	5000
KROW 930 Oakland, Calif.	1000	KTW 1220 Seattle, Wash.	1000	KWYO 1370 Sheridan, Wyo.	100
KROY 1210 Sacramento, Calif.	100	KUJ 1370 Walla Walla, Wash.	100	KXA 760 Seattle, Wash.	250
KRQA 1310 Santa Fe, N. Mex.	100	KUMA 1420 Yuma, Ariz.	100	KXBY 1530 Kansas City, Mo.	1000
KRRV 1310 Sherman, Texas	250	KUOA 1260 Siloam Springs, Ark.	5000	KXL 1420 Portland, Ore.	100
KRSC 1120 Seattle, Wash.	250	KUSD 890 Vermillion, S. Dak.	500	KXO 1500 El Centro, Calif.	100
KSAC 580 Manhattan, Kans.	500	KUTA 1500 Salt Lake City, Utah	100	KXOK 1250 St. Louis, Mo.	1000
KSAL 1500 Salina, Kans.	100	KVCV 1200 Redding, Calif.	100	KXRO 1310 Aberdeen, Wash.	100
KSCJ 1330 Sioux City, Iowa	1000	KVEC 1200 San Luis Obispo, Cal.	250	KXYZ 1440 Houston, Texas	1000
KSD 550 St. Louis, Mo.	1000	KVGB 1370 Great Bend, Kans.	100	KYA 1230 San Francisco, Calif.	1000
KSEI 900 Pocatello, Idaho	250	KVI 570 Tacoma, Wash.	1000	KYOS 1040 Merced, Calif.	250
KSFO 560 San Francisco, Calif.	1000	KVNU 1500 Logan, Utah	100	KYSM 1500 Mankato, Minn.	100
KSL 1130 Salt Lake City, Utah	50000	KVOA 1260 Tucson, Ariz.	1000	KYW 1020 Philadelphia, Pa.	10000
KSLM 1370 Salem, Ore.	100	KVOD 920 Denver, Colo.	500	TGW 1520 Guatemala City, Guat.	1000
KSO 1430 Des Moines, Iowa	500	KVOE 1500 Santa Ana, Calif.	100	TGI 1305 Guatemala City, Guat.	1000
KSOO 1110 Sioux Falls, S. Dak.	2500	KVOL 1310 Lafayette, La.	100	TIEP 880 San Jose, Costa Rica	1000
KSRO 1310 Santa Rosa, Calif.	250	KVOO 1140 Tulsa, Okla.	25000	TIPG 625 San Jose, Costa Rica	2000
KSTP 1460 St. Paul, Minn.	10000	KVOR 1270 Colorado Springs, Colo.	1000	TIX 650 San Jose, Costa Rica	1000
KSUB 1310 Cedar City, Utah	100	KVOS 1200 Bellingham, Wash.	100	VAS 685 Glance Bay, N. S.	2000
KSUN 1200 Lowell, Ariz.	100	KVOX 1310 Moorhead, Minn.	100	VOAC 1065 St. John's, Nfld.	40
KTAR 620 Phoenix, Ariz.	1000	KVRS 1370 Rock Springs, Wyo.	100	VOAS 940 St. John's, Nfld.	100
KTAT 1240 Fort Worth, Texas	1000	KVSO 1210 Ardmore, Okla.	100	VOCM 1006 St. John's, Nfld.	200
KTBC 1120 Austin, Texas	1000	KWBG 1420 Hutchinson, Kans.	100	VOGY 840 St. John's, Nfld.	400
KTBS 1450 Shreveport, La.	1000	KWEW 1500 Hobbs, N. Mex.	100	VONF 1195 St. John's, Nfld.	500
KTEM 1370 Temple, Texas	250	KWG 1200 Stockton, Calif.	100	VOWR 681 St. John's, Nfld.	500
KTFI 1240 Twin Falls, Idaho	1000	KWJB 1210 Globe, Ariz.	100	WAAB 1410 Boston, Mass.	500
		KWJJ 1040 Portland, Ore.	500		

NORTH AMERICAN B. C. STATIONS BY CALLS

WAAF 920	1000	WBBZ 1200	100	WCBD 1080	5000
Chicago, Ill.		Ponca City, Okla.		Chicago, Ill.	
WAAT 940	500	WBCM 1410	500	WCBM 1370	100
Jersey City, N. J.		Bay City, Mich.		Baltimore, Md.	
WAAW 660	500	WBEN 900	1000	WCBS 1420	100
Omaha, Neb.		Buffalo, N. Y.		Springfield, Ill.	
WABC 860	50000	WBEO 1310	100	WCCO 810	50000
New York, N. Y.		Marquette, Mich.		Minneapolis, Minn.	
WABI 1200	100	WBHP 1200	100	WCFL 970	5000
Bangor, Maine		J Huntsville, Ala.		Chicago, Ill.	
WABY 1370	100	WBIG 1440	1000	WCHS 580	500
Albany, N. Y.		Greensboro, N. C.		Charleston, W. Va.	
WACO 1420	100	WBIL 1100	5000	WCHV 1420	100
Waco, Texas		New York, N. Y.		Charlottesville, Va.	
WADC 1320	1000	WBLK 1370	100	WCKY 1490	10000
Akron, Ohio		Clarksburg, W. Va.		Covington, Ky.	
WAGA 1450	500	WBLY 1210	100	WCLE 610	500
Atlanta, Ga.		Lima, Ohio		Cleveland, Ohio	
WAGF 1370	250	WBNO 1200	100	WCLO 1200	100
Dothan, Ala.		New Orleans, La.		Janesville, Wis.	
WAGM 1420	100	WBNS 1430	1000	WCLS 1310	100
Presque Isle, Me.		Columbus, Ohio		Joliet, Ill.	
WAIM 1200	100	WBNX 1350	1000	WCMI 1310	100
Anderson, S. C.		New York, N. Y.		Ashland, Ky.	
WAIR 1250	250	WBNY 1370	100	WCNW 1500	100
Winston-Salem, N. C.		Buffalo, N. Y.		Brooklyn, N. Y.	
WALA 1380	500	WBOQ 860	50000	WCOA 1340	500
Mobile, Ala.		New York, N. Y.		Pensacola, Fla.	
WALR 1210	100	WBOW 1310	100	WCOC 880	500
Zanesville, Ohio		Terre Haute, Ind.		Meridian, Miss.	
WAML 1310	100	WBRB 1210	100	WCOL 1210	100
Laurel, Miss.		Red Bank, N. J.		Columbus, Ohio	
WAPI 1140	5000	WBRC 930	1000	WCOP 1120	500
Birmingham, Ala.		Birmingham, Ala.		Boston, Mass.	
WAPO 1420	100	WBRE 1310	100	WCPO 1200	100
Chattanooga, Tenn.		Wilkes-Barre, Pa.		Cincinnati, Ohio	
WARD 1400	500	WBRK 1310	100	WCRW 1210	100
Brooklyn, N. Y.		Pittsfield, Mass.		Chicago, Ill.	
WASH 1270	500	WBRV 1530	1000	WCSC 1360	500
Grand Rapids, Mich.		Waterbury, Conn.		Charleston, S. C.	
WATL 1370	100	WBT 1080	50000	WCSH 940	1000
Atlanta, Ga.		Charlotte, N. C.		Portland, Me.	
WATR 1190	100	WBTM 1370	100	WDAE 1220	1000
Waterbury, Conn.		Danville, Va.		Tampa, Fla.	
WAVE 940	1000	WBZ 990	50000	WDAF 610	1000
Louisville, Ky.		Boston, Mass.		Kansas City, Mo.	
WAWZ 1350	500	WBZA 990	1000	WDAH 1310	100
Zarephath, N. J.		Springfield, Mass.		El Paso, Texas	
WAYX 1200	100	WCAD 1220	500	WDAS 1370	100
Waycross, Ga.		Canton, N. Y.		Philadelphia, Pa.	
WAZL 1420	100	WCAE 1220	1000	WDAY 940	1000
Hazleton, Pa.		Pittsburgh, Pa.		Fargo, N. Dak.	
WBAA 890	500	WCAL 1250	1000	WDBJ 930	1000
West Lafayette, Ind.		Northfield, Minn.		Roanoke, Va.	
WBAL 760	2500	WCAM 1280	500	WBDO 580	1000
Baltimore, Md.		Camden, N. J.		Orlando, Fla.	
WBAL 1060	10000	WCAO 600	500	WDEL 1120	250
Baltimore, Md.		Baltimore, Md.		Wilmington, Del.	
WBAP 800	50000	WCAP 1280	500	WDEV 550	500
Fort Worth, Texas		Asbury Park, N. J.		Waterbury, Vt.	
WBAX 1210	100	WCAT 1200	100	WDGY 1180	1000
Wilkes-Barre, Pa.		Rapid City, S. Dak.		Minneapolis, Minn.	
WBBC 1400	500	WCAU 1170	50000	WDNC 1500	190
Brooklyn, N. Y.		Philadelphia, Pa.		Durham, N. C.	
WBBL 1210	100	WCAX 1200	100	WDDO 1280	1000
Richmond, Va.		Burlington, Vt.		Chattanooga, Tenn.	
WBMM 770	50000	WCAZ 1070	100	WDRG 1330	1000
Chicago, Ill.		Carthage, Ill.		Hartford, Conn.	
WBBR 1300	1000	WCBA 1440	500	WDSM 1200	100
Brooklyn, N. Y.		Allentown, Pa.		Superior, Wis.	

NORTH AMERICAN B. C. STATIONS BY CALLS

WDSU 1250 New Orleans, La.	1000	WFIL 560 Philadelphia, Pa.	1000	WHB 860 Kansas City, Mo.	1000
WDWS 1370 Champaign, Ill.	100	WFLA 620 Tampa, Fla.	1000	WHBB 1500 Selma, Ala.	100
WDZ 1020 Tuscola, Ill.	250	WFMD 960 Frederick, Md.	500	WHBC 1200 Canton, Ohio	100
WEAF 660 New York, N. Y.	50000	WFOR 1370 Hattiesburg, Miss.	100	WHBF 1210 Rock Island, Ill.	100
WEAN 780 Providence, R. I.	1000	WFOY 1210 St. Augustine, Fla.	100	WHBI 1250 Newark, N. J.	1000
WEAU 1050 Eau Claire, Wis.	1000	WFTC 1200 Kinston, N. C.	100	WHBL 1300 Sheboygan, Wis.	250
WEBC 1290 Duluth, Minn.	1000	WGAL 1500 Lancaster, Pa.	100	WHBQ 1370 Memphis, Tenn.	100
WEBQ 1210 Harrisburg, Ill.	100	WGAN 640 Portland, Me.	500	WHBU 1210 Anderson, Ind.	100
WEBR 1310 Buffalo, N. Y.	100	WGAR 1450 Cleveland, Ohio	500	WHBY 1200 Green Bay, Wis.	100
WEDC 1210 Chicago, Ill.	100	WGAUJ 1310 Athens, Ga.	100	WHDF 1370 Calumet, Mich.	100
WEED 1420 Rocky Mount, N. C.	100	WGBB 1210 Freeport, N. Y.	100	WHDH 830 Boston, Mass.	1000
WEEI 590 Boston, Mass.	1000	WGBF 630 Evansville, Ind.	500	WHDL 1400 Olean, N. Y.	250
WEEU 830 Reading, Pa.	1000	WGBI 880 Scranton, Pa.	500	WHEB 740 Portsmouth, N. H.	250
WELI 900 New Haven, Conn.	500	WGCM 1210 Gulfport, Miss.	100	WHEC 1430 Rochester, N. Y.	500
WELL 1420 Battle Creek, Mich.	100	WGES 1360 Chicago, Ill.	500	WHEF 1500 Kosciusko, Miss.	100
WEMP 1310 Milwaukee, Wis.	100	WGH 1310 Newport News, Va.	100	WHFC 1420 Cleero, Ill.	100
WENR 870 Chicago, Ill.	50000	WGIL 1500 Galesburg, Ill.	250	WHIO 1260 Dayton, Ohio	1000
WEOA 1370 Evansville, Ind.	100	WGL 1370 Fort Wayne, Ind.	100	WHIP 1480 Hammond, Ind.	5000
WESG 850 Elmira, N. Y.	1000	WGN 720 Chicago, Ill.	50000	WHIS 1410 Bluefield, W. Va.	500
WEST 1200 Easton, Pa.	100	WGNV 1210 Newburgh, N. Y.	100	WHJB 620 Greensburg, Pa.	250
WEVD 1300 New York, N. Y.	1000	WGPC 1420 Albany, Ga.	100	WHK 1390 Cleveland, Ohio	1000
WEW 760 St. Louis, Mo.	1000	WGR 550 Buffalo, N. Y.	1000	WHKC 640 Columbus, Ohio	500
WEXL 1310 Royal Oak, Mich.	50	WGRC 1370 New Albany, Ind.	250	WHLB 1370 Virginia, Minn.	100
WFAA 800 Dallas, Texas	50000	WGRM 1210 Grenada, Miss.	100	WHLS 1370 Port Huron, Mich.	250
WFAB 1300 New York, N. Y.	1000	WGST 890 Atlanta, Ga.	1000	WHN 1010 New York, N. Y.	1000
WFAM 1200 South Bend, Ind.	100	WGTM 1310 Wilson, N. C.	100	WHO 1000 Des Moines, Iowa	50000
WFAS 1210 White Plains, N. Y.	100	WGVA 1050 Indianapolis, Ind.	1000	WHOM 1450 Jersey City, N. J.	250
WFBC 1300 Greenville, S. C.	1000	WGY 790 Schenectady, N. Y.	50000	WHP 1430 Harrisburg, Pa.	500
WFBG 1310 Altoona, Pa.	100	WHA 940 Madison, Wis.	5000	WIBA 1280 Madison, Wis.	1000
WFBL 1360 Syracuse, N. Y.	1000	WHAI 1210 Greenfield, Mass.	250	WIBG 970 Glenside, Pa.	100
WFBM 1230 Indianapolis, Ind.	1000	WHAL 950 Saginaw, Mich.	500	WIBM 1370 Jackson, Mich.	100
WFBR 1270 Baltimore, Md.	500	WHAM 1150 Rochester, N. Y.	50000	WIBU 1210 Poynette, Wis.	100
WFDF 1310 Flint, Mich.	100	WHAS 820 Louisville, Ky.	50000	WIBW 580 Topeka, Kans.	1000
WFEA 1340 Manchester, N. H.	500	WHAT 1310 Philadelphia, Pa.	100	WIBX 1200 Utica, N. Y.	100
		WHAZ 1300 Troy, N. Y.	1000	WICA 940 Ashtabula, Ohio	250

NORTH AMERICAN B. C. STATIONS BY CALLS

WICC 600 Bridgeport, Conn.	500	WKAQ 1240 San Juan, P. R.	1000	WMAS 1420 Springfield, Mass.	100
WIL 1200 St. Louis, Mo.	100	WKAR 850 East Lansing, Mich.	1000	WMAZ 1180 Macon, Ga.	1000
WILL 580 Urbana, Ill.	1000	WKAT 1500 Miami Beach, Fla.	100	WMBC 1420 Detroit, Mich.	100
WILM 1420 Wilmington, Del.	100	WKBB 1500 East Dubuque, Ill.	100	WMBD 1440 Peoria, Ill.	1000
WIND 560 Gary, Ind.	1000	WKBH 1380 LaCrosse, Wis.	1000	WMBF 610 Miami, Fla.	1000
WINS 1180 New York, N. Y.	1000	WKBN 570 Youngstown, Ohio	500	WMBG 1350 Richmond, Va.	500
WIOD 610 Miami, Fla.	1000	WKBO 1200 Harrisburg, Pa.	100	WMBH 1420 Joplin, Mo.	100
WIP 610 Philadelphia, Pa.	1000	WKBV 1500 Richmond, Ind.	100	WMBI 1080 Chicago, Ill.	5000
WIRE 1400 Indianapolis, Ind.	1000	WKBW 1480 Buffalo, N. Y.	5000	WMBQ 1310 Auburn, N. Y.	100
WIS 560 Columbia, S. C.	1000	WKBZ 1500 Muskegon, Mich.	100	WMBQ 1500 Brooklyn, N. Y.	100
WISN 1120 Milwaukee, Wis.	250	WKEU 1500 Griffin, Ga.	100	WMBR 1370 Jacksonville, Fla.	100
WJAC 1310 Johnstown, Pa.	100	WKOK 1210 Sunbury, Pa.	100	WMBT 1420 Uniontown, Pa.	250
WJAG 1060 Norfolk, Neb.	1000	WKRC 550 Cincinnati, Ohio	1000	WMC 780 Memphis, Tenn.	1000
WJAR 890 Providence, R. I.	1000	WKST 1250 New Castle, Pa.	250	WMCA 570 New York, N. Y.	1000
WJAS 1290 Pittsburgh, Pa.	1000	WKY 900 Oklahoma City, Okla.	1000	WMEX 1500 Boston, Mass.	100
WJAX 900 Jacksonville, Fla.	1000	WKZO 590 Kalamazoo, Mich.	1000	WMFD 1370 Wilmington, N. C.	100
WJBC 1200 Bloomington, Ill.	100	WLAC 1470 Nashville, Tenn.	5000	WMFF 1310 Plattsburg, N. Y.	100
WJBK 1500 Detroit, Mich.	100	WLAK 1310 Lakeland, Fla.	100	WMFG 1210 Hibbing, Minn.	100
WJBL 1200 Decatur, Ill.	100	WLAP 1420 Lexington, Ky.	100	WMFJ 1420 Daytona Beach, Fla.	100
WJBO 1120 Baton Rouge, La.	500	WLAW 680 Lawrence, Mass.	1000	WMFO 1370 Decatur, Ala.	100
WJBW 1200 New Orleans, La.	100	WLB 1250 Minneapolis, Minn.	1000	WMFR 1200 High Point, N. C.	100
WJBY 1210 Gadsden, Ala.	100	WLBC 1310 Muncie, Ind.	100	WNIN 1370 St. Paul, Minn.	100
WJDX 1270 Jackson, Miss.	1000	WLBL 900 Stevens Point, Wis.	5000	WNMN 890 Fairmont, W. Va.	500
WJEJ 1210 Hagerstown, Md.	50	WLBZ 620 Bangor, Me.	500	WMPC 1200 Lapeer, Mich.	100
WJIM 1210 Lansing, Mich.	100	WLEU 1420 Erie, Pa.	100	WMPS 1430 Memphis, Tenn.	500
WJJD 1130 Chicago, Ill.	20000	WLLH 1370 Lawrence, Mass.	100	WMSD 1420 Sheffield, Ala.	100
WJMS 1420 Ironwood, Mich.	100	WLLH 1370 Lowell, Mass.	100	WMT 600 Cedar Rapids, Iowa	1000
WJNO 1200 W. Palm Beach, Fla.	100	WLMU 1210 Middlesboro, Ky.	100	WNAC 1230 Boston, Mass.	1000
WJR 750 Detroit, Mich.	50000	WLNH 1310 Laconia, N. H.	100	WNAD 1010 Norman, Okla.	1000
WJRD 1200 Tuscaloosa, Ala.	250	WLS 870 Chicago, Ill.	50000	WNAX 570 Yankee, S. D.	1000
WJSV 1460 Washington, D. C.	10000	WLTH 1400 Brooklyn, N. Y.	500	WNBC 1380 New Britain, Conn.	250
WJTN 1210 Jamestown, N. Y.	100	WLVA 1200 Lynchburg, Va.	100	WNBF 1500 Binghamton, N. Y.	100
WJW 1210 Akron, Ohio	100	WLW 700 Cincinnati, Ohio	500000	WNBH 1310 New Bedford, Mass.	100
WJZ 760 New York, N. Y.	50000	WMAL 630 Washington, D. C.	250	WNBX 1260 Springfield, Vt.	500
		WMAQ 670 Chicago, Ill.	50000		

NORTH AMERICAN B. C. STATIONS BY CALLS

WNBZ 1290 100	WPTF 680 5000	WSFA 1410 500
Saranac Lake, N. Y.	Raleigh, N. C.	Montgomery, Ala.
WNEL 1290 1000	WQAM 560 1000	WSGN 1310 100
San Juan, P. R.	Miami, Fla.	Birmingham, Ala.
WNEW 1250 1000	WQAN 880 500	WSIX 1210 100
New York, N. Y.	Seranton, Pa.	Nashville, Tenn.
WNLC 1500 100	WQBC 1360 1000	WSJS 1310 100
New London, Conn.	Vicksburg, Miss.	Winston-Salem, N. C.
WNNY 1420 100	WQDM 1390 1000	WSM 650 50000
Watertown, N. Y.	St. Albans, Vt.	Nashville, Tenn.
WNOX 1010 1000	WQXR 1550 1000	WSMB 1320 1000
Knoxville, Tenn.	New York, N. Y.	New Orleans, La.
WNYC 810 1000	WRAC 1370 100	WSMK 1380 200
New York, N. Y.	Williamsport, Pa.	Dayton, Ohio
WOAI 1190 50000	WRAP 1310 100	WSNJ 1210 100
San Antonio, Texas	Reading, Pa.	Bridgeton, N. J.
WOC 1370 100	WRAX 920 1000	WSOC 1210 100
Davenport, Iowa	Philadelphia, Pa.	Charlotte, N. C.
WOI 640 5000	WRBL 1200 100	WSPA 920 1000
Ames, Iowa	Columbus, Ga.	Spartanburg, S. C.
WOKO 1430 500	WRC 950 1000	WSPD 1340 1000
Albany, N. Y.	Washington, D. C.	Toledo, Ohio
WOL 1310 1000	WRDO 1370 100	WSPR 1140 500
Washington, D. C.	Augusta, Me.	Springfield, Mass.
WOLS 1200 100	WRDW 1500 100	WSU 880 500
Florence, S. C.	Augusta, Ga.	Iowa City, Iowa
WOMI 1500 100	WREC 600 1000	WSUN 620 1000
Owensboro, Ky.	Memphis, Tenn.	St. Petersburg, Fla.
WOMT 1210 100	WREN 1220 1000	WSVA 550 500
Manitowoc, Wis.	Lawrence, Kans.	Harrisonburg, Va.
WOOD 1270 500	WRGA 1500 100	WSVS 1370 50
Grand Rapids, Mich.	Rome, Ga.	Buffalo, N. Y.
WOPI 1500 100	WRJN 1370 100	WSYB 1500 100
Bristol, Tenn.	Racine, Wis.	Rutland, Vt.
WOR 710 50000	WRNL 880 500	WSYR 570 1000
Newark, N. J.	Richmond, Va.	Syracuse, N. Y.
WORC 1280 500	WROK 1410 500	WTAD 900 1000
Worcester, Mass.	Rockford, Ill.	Quincy, Ill.
WORK 1320 1000	WROL 1310 100	WTAG 580 1000
York, Pa.	Knoxville, Tenn.	Worcester, Mass.
WORL 920 500	WRR 1280 500	WTAL 1310 100
Boston, Mass.	Dallas, Texas	Tallahassee, Fla.
WOSU 570 750	WRTD 1500 100	WTAM 1070 50000
Columbus, Ohio	Richmond, Va.	Cleveland, Ohio
WOV 1130 1000	WRUF 830 5000	WTAQ 1330 1000
New York, N. Y.	Gainesville, Fla.	Green Bay, Wis.
WOW 590 1000	WRVA 1110 5000	WTAR 780 1000
Omaha, Neb.	Richmond, Va.	Norfolk, Va.
WOWO 1160 10000	WSAI 1330 1000	WTAW 1120 500
Fort Wayne, Ind.	Cincinnati, Ohio	College Station, Tex.
WPAD 1420 100	WSAJ 1310 100	WTAX 1210 100
Paducah, Ky.	Grove City, Pa.	Springfield, Ill.
WPAR 1420 100	WSAL 1200 250	WTBO 800 250
Parkersburg, W. Va.	Salisbury, Md.	Cumberland, Md.
WPAX 1210 100	WSAN 1440 500	WTGN 1250 1000
Thomasville, Ga.	Allentown, Pa.	Minneapolis, Minn.
WPAV 1370 100	WSAR 1450 1000	WTEL 1310 100
Portsmouth, Ohio	Fall River, Mass.	Philadelphia, Pa.
WPEN 920 1000	WSAU 1370 100	WTHH 1200 100
Philadelphia, Pa.	Wausau, Wis.	Hartford, Conn.
WPG 1100 5000	WSAY 1210 100	WTIC 1040 50000
Atlantic City, N. J.	Rochester, N. Y.	Hartford, Conn.
WPRA 1370 100	WSAZ 1190 1000	WTJS 1310 100
Mayaguez, P. R.	Huntington, W. Va.	Jackson, Tenn.
WPRO 630 500	WSB 740 50000	WTMJ 620 1000
Providence, R. I.	Atlanta, Ga.	Milwaukee, Wis.
WPRP 1420 100	WSBC 1210 100	WTMV 1500 100
Ponce, P. R.	Chicago, Ill.	East St. Louis, Ill.
	WSBT 1360 500	
	South Bend, Ind.	

NORTH AMERICAN B. C. STATIONS BY CALLS

WTNJ 1280 Trenton, N. J.	500	XEBL 1220 Mazatlan, Sin.	50	XEL 1100 Mexico City, D. F.	250
WTOC 1260 Savannah, Ga.	1000	XEBO 1310 Irapuato, Guan.	25	XELA 1240 Saltillo, Coah.	50
WTOL 1200 Toledo, Ohio	100	XEBP 1150 Durango, Dgo.	250	XELO 580 Tijuana, B. Cta.	10000
WTRC 1310 Elkhart, Ind.	100	XEBS 1340 Mexico City, D. F.	200	XELZ 1370 Mexico City, D. F.	100
WVFW 1400 Brooklyn, N. Y.	500	XEBU 1200 Chihuahua, Chih.	50	XEMO 860 Tijuana, L. C.	5000
WWAE 1200 Hammond, Ind.	100	XEBX 640 Sabinas, Coah.	250	XEMU 580 Piedras Negras, Coah.	250
WWJ 920 Detroit, Mich.	5000	XEBZ 810 Mexico City, D. F.	100	XEMX 1280 Mexico City, D. F.	100
WWL 850 New Orleans, La.	10000	XEC 1150 Tijuana, L. C.	100	XEN 780 Mexico City, D. F.	1000
WWNC 570 Asheville, N. C.	1000	XECZ 1370 San Luis Potosi, S.L.P.	100	XENC 860 Mexico City, D. F.	50
WWRL 1500 Woodside, N. Y.	100	XED 1160 Guadalajara, Jal.	2500	XENT 910 Nuevo Laredo, Tams.	150000
WWSW 1500 Pittsburgh, Pa.	100	XEDA 1220 Gral. Anaya, D. F.	200	XEOJ .....	.....
WWVA 1160 Wheeling, W. Va.	5000	XEDF 810 Nuevo Laredo, Tams.	100	XEOK 760 Tijuana, L. C.	2500
WXYZ 1240 Detroit, Mich.	1000	XEDH 1340 Villa Acuna, Coah.	200	XEP 1160 Juarez, Chih.	500
W3XDD	50000	XEDP 1080 Mexico City, D. F.	500	XEPN 730 Piedras Negras, Coah.	100000
Whippany, N. J.		XEDW 1150 Minatitlan, Ver.	20	XERA 840 Villa Acuna, Coah.	250000
W3XJ 1060 College Park, Md.	100	XEE 1210 Durango, Dgo.	50	XES 990 Tampico, Tams.	250
W8XO 700 Cincinnati, Ohio	500000	XEF 1450 Juarez, Chih.	100	XET 690 Monterrey, N. L.	5000
XEAA 750 Mexicali, B. C.	200	XEFA 1180 Tacuba, D. F.	500	XETB 1310 Torreon, Coah.	125
XEAC 980 Tijuana, L. C.	1000	XEFB 870 Monterrey, N. L.	200	XETF 1220 Veracruz, Ver.	12
XEAF 990 Nogales, Son.	750	XEFC 550 Merida, Yuc.	100	XETH 1210 Puebla, Pue.	100
XEAG 1310 Cordoba, Ver.	10	XEFE 980 Nuevo Laredo, Tams.	250	XEU 1010 Veracruz, Ver.	250
XEAI 1250 Mexico City, D. F.	500	XEFI 1440 Chihuahua, Chih.	250	XEW 890 Mexico City, D. F.	50000
XEAL 660 Mexico City, D. F.	1000	XEFM 1160 Leon, Gto.	20	XEX 1310 Monterrey, N. L.	125
XEAM 750 Matamoros, Tams.	25	XEFO 940 Mexico City, D. F.	5000	XEXB 1270 Jalapa, Ver.	250
XEAO 660 Mexicali, B. C.	250	XEFQ 1010 Cananea, Son.	50	XEXD 1340 Jalapa, Ver.	350
XEAP 1340 Obregon, Son.	50	XEFV 1210 Juarez, Chih.	100	XEXE 1270 Texcoco, D. F.	17
XEAS 1160 Saltillo, Coah.	100	XEFW 1310 Tampico, Tams.	300	XEXH 1250 San Luis Potosi, S.L.P.	250
XEAT 1210 Parral, Chih.	250	XEG 1230 Monterrey, N. L.	250	XEXM 610 Mexico City, D. F.	500
XEAU 1320 Tijuana, B. Cta.		XEH 720 Monterrey, N. L.	250	XEXS 1310 Mexico City, D. F.	100
XEAW 960 Reynosa, Tams.	100000	XEI 1370 Morelia, Mich.	125	XEXX 1170 Mexico City, D. F.	1000
XEB 1030 Mexico City, D. F.	10000	XEJ 1020 Juarez, Chih.	1000	XEYO 610 Mexico City, D. F.	500
XEBA 1080 Guzman, Jal.	20	XEJP 1130 Mexico City, D. F.	100	XEZ 630 Merida, Yuc.	500
XEBG 820 Tijuana, B. Cta.	1000	XEJW 870 Mexico City, D. F.	500	ZNS 540 Nassau, Bahamas	400
XEBH 930 Hermosillo, Sonora	500	XEK 890 Mexico City, D. F.	100	YSS 640 San Salvador, E. S.	500
XEBI 1000 Aguaascalientes, Ags.	25	XEKL 1240 Leon, Guan.	500		
XEBK 1080 Neuvo Laredo, Tams.	100				

Scrapbook

(Continued from page 10)

Latin American countries. With announcements in Portuguese and Spanish, German publicists extol the glories of their form of government, their achievements, and the advantages of trading exclusively with German concerns. To make sure that the messages of Hitler and Goebbels get across, translations are broadcast in the native tongue. German consuls take down the speech in shorthand, send it to the local press where it invariably is printed in full. It is claimed that the consul is authorized to pay advertising rates if necessary, but the speech must be printed in its entirety.

When Secretary of State Cordell Hull spoke recently on Latin American relations, American press services cabled a brief condensation to South America. Few papers gave more than half a column to the Hull

speech, but devoted a full page to a message from Goebbels the same week.

At DEADLINE . . .

NEW—Elmira, N. Y., 1200 kcs., 250 watts days. The Elmira Star-Gazette, Inc.

NEW—Jackson, Miss., 1420 kcs., 100 watts nights, 250 watts days. The Standard Life Insurance Co. of the South.

NEW—Youngstown, Ohio, 1420 kcs., 100 watts days. The Youngstown Vindicator.

NEW—WDAN, Danville, Ill., 1500 kcs., 250 watts days. The Danville Commercial News.

WDWS, Champaign, Ill., on 1370 kcs., has increased power to 100 watts nights, 250 watts days.

Ownership of KFXX, Oklahoma City, has been transferred to the Plaza Court Broadcasting Co.

Time Conversion Table

The time given in our indices is Eastern Standard by the 24-hour clock.

EST 24-hr. Clock	FST	CST	MST	PST	GMT
0000	Midn't	11 pm	10 pm	9 pm	0500
0100	1 am	Midn't	11 pm	10 pm	0600
0200	2 am	1 am	Midn't	11 pm	0700
0300	3 am	2 am	1 am	Midn't	0800
0400	4 am	3 am	2 am	1 am	0900
0500	5 am	4 am	3 am	2 am	1000
0600	6 am	5 am	4 am	3 am	1100
0700	7 am	6 am	5 am	4 am	1200
0800	8 am	7 am	6 am	5 am	1300
0900	9 am	8 am	7 am	6 am	1400
1000	10 am	9 am	8 am	7 am	1500
1100	11 am	10 am	9 am	8 am	1600
1200	Noon	11 am	10 am	9 am	1700
1300	1 pm	Noon	11 am	10 am	1800
1400	2 pm	1 pm	Noon	11 am	1900
1500	3 pm	2 pm	1 pm	Noon	2000
1600	4 pm	3 pm	2 pm	1 pm	2100
1700	5 pm	4 pm	3 pm	2 pm	2200
1800	6 pm	5 pm	4 pm	3 pm	2300
1900	7 pm	6 pm	5 pm	4 pm	2400
2000	8 pm	7 pm	6 pm	5 pm	0100
2100	9 pm	8 pm	7 pm	6 pm	0200
2200	10 pm	9 pm	8 pm	7 pm	0300
2300	11 pm	10 pm	9 pm	8 pm	0400
2400	Midn't	11 pm	10 pm	9 pm	0500

For times throughout the entire world consult the RADEX Time Converter.

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