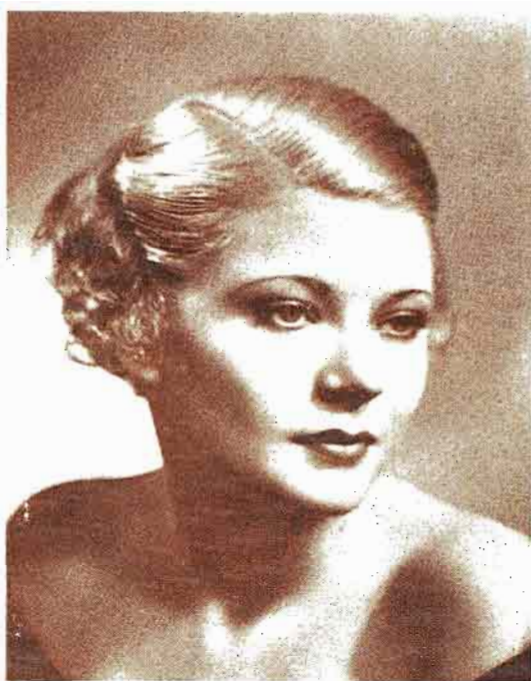


THE APRIL, 1935

RADIO IN DEX

THE ALL-WAVE RADIOMAGAZINE



25^c

Finding the Source of Radio Noises
Another Reallocation in Cuba
Congestion of the S. W. Bands
The Chain Programs for April
Receivers for the Short Waves

No. 88

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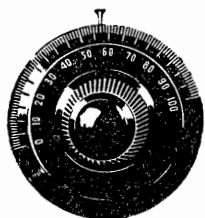
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RADIO INDEX

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Technical Editor

PAGE TAYLOR
Short Wave Editor

ELEVENTH YEAR

NUMBER 88

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With Ozzie Nelson's Orchestra on the NBC

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Published Monthly Excepting July and August
See Subscription Blank on Page 80

\$1.75 Per Year

25c Per Copy

THE RADEX PRESS INC.

705 Hanna Building,

Cleveland, Ohio, U. S. A.

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

Printed in the U. S. A.

Tracking RADIO Noise to its LAIR

• • • By B. FRANCIS DASHIELL

OF ALL the things that annoy the ears of radio listeners and DX enthusiasts, the noise of static interference is by far the worst. Mark Twain said we all talk about the weather but do nothing about it. If he were alive today he would say that we also talk about static. But this is something that engineers are learning how to control. For years they have struggled with the subject, and a justly deserved fortune awaits the man who succeeds fully in eliminating all static.

Radio manufacturers, engineers, scientists and electric power companies have joined forces in an effort to improve radio reception. In fact, the Radio Manufacturers' Association has set up an Interference Committee to map out programs of noise elimination. Investigations to reduce radio noises at their sources are now the purpose of another international organization. Reputable electrical manufacturers earnestly desire to prevent radio noises arising from the use of their products. Local, state and even the Federal government, have issued rules and regulations about static noises. Perhaps there are many of us who do not realize the magnitude of the causes of radio interferences, and often we are prone to blame our receivers or the electric lighting company.

What Is Static?

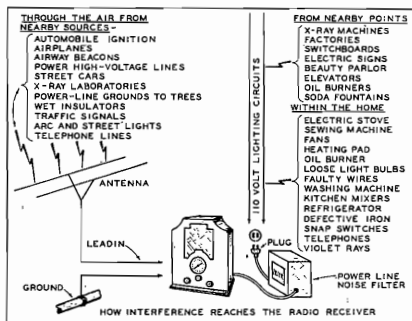
Radio noise is a very live and serious question. The increasing popularity of all-wave receivers calls for a determined effort to suppress interference. The short waves are susceptible to such interference, and quite often it is impossible to place the antenna beyond some far-reaching field of static. In such cases worthwhile noise reduction cannot be

secured by shielded leadins and other noise-reducing schemes.

Engineers now apply the word "static" to embrace the whole world of radio noises that are caused by electrical discharges and induction. In the early days of wireless static was thought to be only of atmospheric origin. Such static, called "atmospherics," followed the weather and seasons. We distinguish between this natural static and artificial static by calling the latter "man-made" static.

Atmospherics

Nature's static is caused by electricity in the air. Winds, heat and storm turbulence in the atmosphere are causes of natural static. These cause electrical charges which may become so intense that a great discharge occurs and we see lightning. Powerful static crashes are heard, and frequently the resulting induction from a nearby discharge may damage the receiver. Lightning arresters should always be installed during the summer months. The coming summer season will bring its quota of static. The warm rains, towering clouds, high humidity and thunderstorms of summer are accompanied by bombardments of static. Distant lightning can be heard hun-



dreds of miles by radio. Summer radio listeners must realize the grim fact that nothing can be done about natural static except the use of nearby powerful broadcasting stations so as to hold down the noise level. This natural static can be tracked to its lair, but all it does is to growl and scratch; it can never be tamed.

Inter-Station Noise

But "man-made" static presents a different problem. It can be located and tamed, although it may present obstacles hard to overcome. Suppose some strange noises appear in your receiver. First, you must make certain that the set itself is not causing the noise. To do this disconnect the antenna and ground. A short piece of wire placed between these terminals will prevent antenna pickup. Now, if the noise persists it is reasonable to think that the interference is caused by a defective receiver. This, then, is a job for the serviceman. Do not confuse static with the noise that is noticeable between stations when tuning a receiver. This is called "between-station" noise. It appears when the automatic volume control steps up the amplification rate and noise level when no signal is heard. Many modern receivers are equipped to suppress these inter-station noises.

Receiver Troubles

Some broken or defective part in the receiver will cause sharp noises, hum and clicks. One tiny break, or weak contact or a poor tube can spoil reception. Frequently a condenser or resistor breaks down. Anything that causes a steadily flowing electric current within the receiver to put on or off, or to change continually in strength, or oscillate, will cause noise. But we are not particularly concerned with internal or set noises; we now are searching for the sources of man-made static.

When the receiver is found not to be at fault, such as by investigation, checking or removal to some other locality where noise is not heard by

receivers of equal quality, we can assume that the noise comes into it by way of the power line furnishing the alternating current necessary to operate the set. This situation, of course, will not be encountered by battery receivers. But "B" batteries, however, get noisy as soon as a defective cell appears in the assembly.

The Power Line

Now a power line bringing current to the receiver is also a carrier of static noises. Frequently the listener can determine the type of interference because of the noise that is produced. For instance, if you live in an apartment house with elevators, you will hear one or more sharp clicks whenever the elevator switch is turned on. This is caused by the closing of the large automatic switches that control the motors. Then follows a slow, low-pitched whirring sound as the motors pick up speed. The whine quickly becomes steady, but stops instantly and simultaneously with another loud click when the switches break the motor circuit as the elevator comes to rest. More or less similar noises appear with the use of most machines powered with electric motors. All electric light or power switches cause static clicks.

The use of a.c. motors, with induction armatures, cannot possibly cause motor hum or whine in your radio. Unfortunately, these a.c. motors are not used exclusively throughout a.c. districts. In the d.c. districts static noises are even more difficult to handle. Most small household electrical devices use these quiet a.c. motors and only the clicks created by opening and closing the switches are heard. But when the motors use brushes and sparking commutators, they will cause no end of man-made static hums and steadily grinding sounds.

Noise Filters

When strange noises appear, and it is known that the receiver is in good condition and the antenna does not pick up interference, there is only

one thing to do — run down the source of the noise and cure it there. If some household device is at fault this task should be relatively easy. Listen carefully while each appliance is run for a short time. Listen also for the starting of elevators, dentists' machinery, doctors' X-rays, violet rays, vacuum cleaners, cash registers, refrigerators, oil burners, fans, kitchen mixers, etc., when it is *known* they are operating. Soon you will be able to center upon the particular device that causes the trouble.

A good filter in the power line between the radio set and the outlet in the room will in many cases, stop or reduce the intensity of the noise. The interference runs along the power line from the electrical unit to the receiver. If the filter device stops the noise then you will know it was coming into the set over the wires. The use of a good filter in every case where strange intermittent noises affect the receiver is strongly recommended. In the majority of cases these noises flow over the connecting power wires in the form of waves from sparking switches or motor brushes elsewhere along the wiring system. A filter will choke back these surges and prevent them from getting into the radio receiver.

Inside Sources

When the trouble is located at some bell, light, power device or switch contact in the same or immediately adjoining building, the proper correction is to choke the sparking *as its source* so as to prevent the resulting electrical surges from passing out in all directions along the connecting wires. Such sparks, too, will pass out for short distances through the air. Shielded antenna leads insulate the wires from the influence of spark waves. These surges carry a distance that is in proportion to the intensity of the sparks created; it is not unusual for them to run along hundreds of feet of wire and affect every radio in a certain

(Continued on page 47)



ON GUARD AGAINST ALL MAN-MADE INTERFERENCE RCA WORLD-WIDE ANTENNA

Eliminates the noisy interference of street cars, your neighbor's vacuum cleaner and other man-made noise in your foreign reception—gets more foreign stations! \$6, plus installation.

The DeLuxe RCA World-Wide Antenna keeps out "man-made static" on all programs — domestic and foreign. \$7.75, plus installation.

You will never know how good your radio is until you use an RCA World-Wide Antenna.

Ask your radio service engineer or dealer for a *Certified* Installation of the Noise Reducing RCA World-Wide Antenna, or write for booklet, "Antenna Facts".

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**WORLD-WIDE
ANTENNA
SYSTEM**

Dressing Room GOSSIP

• • • By "BETTY"

RAY NOBLE, celebrated London composer and conductor, has been known in this country for some time as the maker of scores of best selling phonograph records.

What is not so well known is the fact that he is the composer of many of the song hits which Americans sing and whistle, never dreaming that they originated across the Atlantic.

Morton Downey, singing in a London night club, heard the orchestra play a new number which seemed to him to be one of the sweetest he had ever heard. He wanted a theme song for his broadcasts in America and this song, he thought, was just the thing.

When he sailed for New York he carried a manuscript of the song with him, and when he arrived he arranged to have it published here. Within a month it had eclipsed the success of any song in many months, and it's still heard quite often on the networks. Written, both lyrics and music, by Ray Noble, it's called "Goodnight, Sweetheart."

The summer of 1933 saw another Noble hit which was featured by orchestras, from London to Los Angeles, "Love Is the Sweetest Thing." Now one of Ray Noble's best selling records, and one of his best selling tunes is "The Very Thought of You." A still newer Noble song which seems on the way to being a hit is "It's All Forgotten Now."

In England, several dozen Ray Noble compositions have been published, and with his coming to America many of these will be published and heard for the first time here.

In the United States for the past four months, Ray Noble has spent most of his time since his arrival in this country in Hollywood writing songs for forthcoming pictures. He is

the son of a distinguished English surgeon, a graduate of Cambridge University, and despite the fact that he has been prominent in musical circles for a number of years, still is only 28 years old.

Ray Noble and his orchestra may be heard each Wednesday at 10:30 p.m. EST, over the NBC (Red) network for the makers of Coty's perfumes.

* * *

Little Jackie Heller, son of a Jewish cantor, started his career as an entertainer while a newsboy in Pittsburgh. He sold his papers on street corners while strumming a ukulele. His first engagement in New York was at the late Texas Guinan's Club. Little Jackie is just sixty-one inches tall and 114 pounds in weight, and has won medals and cups for swimming, skating, boxing, basketball and baseball.

* * *

Don Bestor ran away from home at the age of 14 to join a repertoire company. In addition to pounding a piano in the orchestra pit he played parts in Uncle Tom's Cabin ranging all the way from Topsy to Uncle Tom himself. "Spats" is the nickname Don has won, thanks to Jack Benny. Don changes his spats three times a day, using a different type and color for morning, afternoon and evening wear. When he goes shopping for clothes, it is not unusual for him to purchase five or six suits at a time. Ties are his biggest weakness, and he was recently adjudged the best dressed man in radio.

* * *

Morton Downey, the Wallingford, Conn., boy who made good in the big city, filled many jobs before he found his niche as a radio singer. He was a factory hand, a truck driver, a phonograph salesman, an

insurance solicitor and a railroad candy "butcher," among other things. He was singing at club smokers when discovered by Paul Whiteman and engaged for the S. S. Leviathan orchestra which started him on his way to fame.

* * *

DeWolf Hopper, narrator of the Kansas City Philharmonic Orchestra concerts on NBC Sundays, will soon observe his 77th birthday. In his distinguished career of 56 years in the theatre Hopper has missed but two performances. He has never been sick a day in his life since he was 12 years old when he had typhoid fever.

* * *

Irving Kaufman, who is both "Lazy Dan" and "Mr. Jim" on the CBS Sunday series, "Lazy Dan," brought back a weird tale from Providence, R. I., recently. Irving was making a personal appearance in a theatre there. He was singing "Stars Fell on Alabama" when a piece of scenery fell, narrowly missing his head and striking him on the shoulder. On ascertaining that he had not suffered any fractures, Irving obliged his audience with another number—"I Saw Stars, I Heard a Birdie Sing."

* * *

Walter O'Keefe claims the long-distance championship for radio fans. He has a letter from one who is on a world cruise. The fan has refused to board any ship not equipped with a short-wave set and he is now in Far Eastern waters without having missed a Caravan broadcast. His letter to O'Keefe states that he is scheduled to return to New York on June 4th, and he requests that four tickets be left for him to see the Caravan program that same night. He gets them.

* * *

Roselle and Sonia are the pianists with Phil Spitalny's "Hour of Charm" orchestra of 32 girls over CBS on Thursday nights. And they're the only two who can "kill" a num-



Ravi Noble

ber after it has been once scheduled for a program. Phil has appointed them the two official critics—and if they don't like a song, it is not sung or played on the program.

* * *

If Jack Fulton hadn't sung to do a favor for a friend, he'd never have been a soloist on his own program. When he was in high school at Phillipsburg, Pa., a friend took sick and Jack volunteered to sing the lad's part in a high school operetta. The friend is now a real estate man—and Fulton, after eight years with Paul Whiteman, is a star in his own right.

* * *

Frank Perkins, composer of the hit number, "Stars Fell On Alabama," is now a full fledged member of Fred Waring's Pennsylvanians. Perkins has been orchestrating numbers for the Pennsylvanians for some time, but recently joined the orchestra as a xylophone and percussion instrument player.

CONGESTION

of the Short Wave Bands

• • • By PAGE TAYLOR

IT HAS often been mentioned that one of the many advantages of the high frequencies was the fact that more stations can transmit within a small space without interference than is possible on the broadcast band, but it is rapidly becoming evident that the limit has about been reached in the band from 6000 to 6150 kcs.

A separation of ten kilocycles between stations is theoretically sufficient, but suppose 5 kcs. is enough to separate each station in the 48-49 meter band. This will allow 30 stations to work simultaneously without interference. Actually, there are 33 "local" and "foreign local" stations working between 6000 and 6150 kcs. in the early evenings, along with several unidentified stations and a few assorted code transmitters. Moreover, more stations are coming. The melee on 49 meters is "just the beginning!" A new Venezuelan station is under construction; HJ4ABE has just added its 4000-watt voice to the swelling chorus, and Bridgetown, Barbados will soon join the 49'ers. This causes us to wonder what is going to happen to the overcrowded shortwave bands. Must they be extended or must an International Communications Commission be formed to bring order out of chaos as our Federal Radio Commission did with the broadcast band back in 1923?

Distance Doesn't Help

This, we grant, is a difficult problem to solve. On the broadcast band it can reasonably be assumed that a New York station will not bother one in San Francisco on the same frequency, but, on shortwaves, Berlin interferes with Panama City and Sydney, Australia heterodynes Boston, Massachusetts. With a good receiver it is

possible to separate most of the stations in the 49 meter band, but it is impossible to separate HP5B and YV6RV when they work at the same time on 6030 kcs, and the heterodyne note resulting from this interference makes good reception of DJC, COC, HJ1ABG, HJ4ABL and other stations nearly impossible. Most DX'ers, however, do not mind a little critical tuning as long as they have only broadcasting stations to contend with; the code stations which are chiselling in on the broadcasting bands are the bone of contention now.

The Code Station Nuisance

Mr. Eduardo Illera of HJ1ABG, and the English Editor of "La Nacion," Colombia's leading newspaper, suggests something be done to eliminate code stations from the s.w. broadcasting bands. Along with Mr. Illera's letter comes one from Capt. M. B. Foster of the S. S. "R. G. Stewart," which we are quoting in its entirety.

"I have just returned from a trip to Rio de Janeiro and wish to state that the 49 meter s.w. broadcast band seems to be all washed up as there is considerable interference from a telegraph station signing RTZ (Irkutsk, USSR). Sometime ago there was a Russian station interfering with W8XK with the call RKK. I wrote to KDKA about it and after a time RKK was not heard interfering, but now this new station RTZ is on the same spot that RKK used to use. I do not exaggerate any when I state that there is not one clear station in 49 meters. It is rapidly approaching a state where a shortwave set will be useless. I have a Hammerlund Pro, in perfect working condition so there is no question of selectivity. If there

is anything you can do towards having this situation cleared up it will be a benefit to all listeners."

RADEX is at a loss to know just what can be done. Protests can be made—have been made—but what good does it do to protest to a country like the Soviet Union? We can only suggest that listeners positively identify the offending stations and advise the broadcasters of the interference. If enough such letters are read by the broadcasters they can take action against offending stations, just as the Reichsrundfunkgesellschaft did when XEBT bothered DJC's transmissions.

That New Colombian

The new Colombian station reported in RADEX last month as HJ4ABM has definitely been identified as HJ4ABL, Radio Manizales, 6100 kcs. At the present time HJ4ABL announce their schedule as Saturday nights only, from 11 until about 11:30 p. m., EST., at which time they broad-



The "Lady in White," Miss Helen Marshall was picked from comparative obscurity to sing the leading soprano role in the *Swift Hour* by Sigmund Romberg. She was singing the leading role in a Columbia University production when Romberg spotted her.

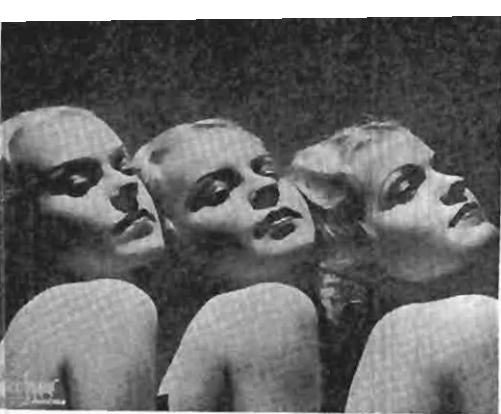
cast a program for English-speaking people, although announcements are made in Spanish, German and Dutch as well as English. HJ4ABL uses the slogan "Ecos del Occidente" (Echoes of the West) and was heard using an automobile horn a few times as an identification signal. HJ4ABL is anxious to receive reports, which should be addressed to Apartado 50, Manizales. QSL cards are being prepared.

We expected to have some official information concerning the new Venezuelan YV6RV for this number of the magazine in reply to our air mail letter and a couple of reports, but so far the station has not answered. If no reply is received in the next four weeks we will have to advise our readers that the station does not verify.

RV15 With R9

RADEX' premier aerial experimenter, Geo. W. Acker, 267 N. Lyman St., Wadsworth, Ohio, reports again. "Imagine my surprise this morning in finding RV15 with a good R9 signal," he writes. "Formerly I had only weak signals from this fellow. YDA, however, is the star station here. It is best from 6:30 to about 8 a. m. This morning they were playing piano-accordion music and I was pleased to hear the old familiar Blue Danube Waltz. I am still experimenting with aeri-als. A short while ago I strung all the wire I could put up into one long antenna, the result being 225 feet. Along with this there are two Lynch cages, 33 feet and 20 feet respectively, and three others, L-type, 225, 175 and 32 feet long respectively. When I am tuning on 11 and 12 megacycles I connect the 225-foot antenna to the aerial post of set, and the 175 foot antenna to the ground post. I have figured out different combinations for all the bands and am able to get tremendous volume on nearly all the stations."

"Since I installed the Perfect Phone Adapter I have had a lot of new stations that I never expected to hear," comments C. E. Dunlop, Box 171, Kirk-



The Sisters Downey, vocal trio with the Gus Arnheim band. Unlike most "Sisters", these girls are actually sisters. Left to right are Yvonne, 17; Irene, 19, and Dolores, 21.

land Lake, Ont. "For instance, the night I put it on I rolled around to the 49 meter band and the first thing I heard was 2RO Rome. I have also managed to get a lot of the South Americans and that is something! All told, I have run my shortwave log up to 45 stations in 16 countries, which I think is a very good record considering the interference I have to contend with." Mr. Dunlop would like correspondence, especially from Panama.

VIIY Pounds In

"Last year I had a Midwest 16 and on it was able to hear VK2ME, HC2RL and HJ1ABB. Early this year I got a Philco 16B and a 75-foot flat top aerial with a Philco transmission line," reports Phil Lockwood, Box 53, Santa Ynez, Calif. "On the Philco I have logged the following well enough to request verifications: GSD, daily 9 to 9:45 a. m., PST; COC like a local; COH with bad fading; GSB daily after 6:15 p. m., PST; JVT, always like a local, as early as 10:45 p. m. and holding on until 5 a. m.; and VIY. Ballan, Australia, which pounds in nearly every morning like a ton of bricks from 8-9 a. m."

The first to report the transmissions of HJ4ABE's new outfit is John A. Shanks, Russellville, Tenn. HJ4ABE has increased its power to 4000 watts, which makes it, we believe, the most

powerful of the South Americans. A broadcast band station HJ4ABK is relayed. This station is located in the Hotel Europa, Medellin, Colombia, and works on 5900 kcs.

"I have received a letter from HJ3ABH, Apartado Postale 565, La Voz de la Victor, Bogota, Colombia," says Mr. Shanks. "They say they will soon broadcast on a new transmitter on 6012 kcs. with 1600 watts in the aerial. HJ2ABC, La Voz de Cucuta, Colombia, is heard nightly until 8 p. m., CST, on about 51 meters. The Aussies 2ME, 3ME and 3LR are heard very well now and fading is slight; JVT and YDA are heard good to fair."

Canal Zone Station on 6.385

A new army airway station was recently discovered. This is WTR, Albrook Field, Canal Zone. WTR works, according to their announcements, on 6385 kcs., and seems to have a regular nightly schedule with VK1 at Selfridge Field, Mich. WTR is nearly always heterodyned with a new broadcaster in Nicaragua which has tentatively been identified as YN1CG, La Voz de los Lagos, at Managua. YN1CG is heard irregularly between 7 and 10:30 p. m., EST.

From the British Globe Circler we learn that Estacao Radio Difusora CR6AA, Caixa Postal 118, Lobito, Angola, Portuguese West Africa, is increasing its power. Reception of this station in the United States would be difficult on either of its two wavelengths, 20.8 and 41.8 meters.

Recording S. W. Programs

Guy R. Bigbee, Hq. Co., 2Bn., 66th Inf., Fort Benning, Ga., has attached a recording unit to his shortwave receiver, and, after figuring out a rather complicated hook-up, has made several good recordings of South American stations. Mr. Bigbee writes: "In future when I have trouble getting a verification from a station I am going to make a recording and send it to them. They surely ought to verify that!"

(Continued on page 51)

Letters to the EDITOR

IN SPITE of our many explanations, letters are constantly being received on this theme: "When will you again publish a list of the foreign stations on the broadcast band?" Let us say once more that these are now being published complete in our *DX Log of the World* in three lists—frequencies and wavelengths; countries, states and cities; and call letters. The *DX Log* also contains the short-wave stations of the world likewise listed three ways. This publication is issued quarterly and sells for only ten cents on the newsstands or 40c by the year postpaid to any part of the globe. RADEX is now and will be devoted entirely to the broadcasting stations of North America and those short-wave stations which are most regularly heard.

Everyone interested in hearing the foreign stations whether on the bcb. or sw. should have three things close at hand—a *DX Log of the World*, a RADEX Time Converting Dial and a world-globe. We can furnish them all, the first for ten cents, the second for a quarter and the third for \$3.95, all postpaid.

Their Time on the Air

We have now completed the hours on the air of the various North American stations. Sunday's appeared in October, Saturday's in November, Friday's in December, Thursday's in January, Wednesday's in February, and Tuesday's and Monday's in March. This feature will be resumed next October after a new check of schedules is made with the broadcasting stations.

The majority of the stations having more or less regular DX periods drop out after April first. Our DX calendar will therefore be discontinued until the beginning of the new season. In this issue we are giving a resume of these program periods. This should be saved as, of

course, some of the stations listed will continue their specials another month or two.

Orchids to the Amateurs

"I would like to express in my humble way, my compliments to the amateurs," submits Harry Hozey, 114 Penn. Ave., Colingswood, N. J. "I am not a ham but just a s. w. l. who thinks the ham is not getting the credit due him. Tuesday night, Feb. 12, when the ill-fated 'Macon' plunged into the Pacific Ocean off the coast of California, the amateurs on the 75 meter phone band did a wonderful job in making a contact between the East and the West coasts in order to get information about the crash through to Lakehurst, N. J. W2BYM in Lakehurst contacted W9MM in Converse, Ind., who with the help of W9HGM and W9EQC in Kansas City, cleared the way to the West Coast and made contact with W7BCU, Weiser, Idaho and W6CNE, Canogo Park, Calif. The latter sent the news out over the air as fast as he could get it. My sincere congratulations to you, amateurs above named and all the other fellows who helped out. These are the fellows who do things like this as well as helping make radio what it is today yet they are kicked all around the lot, so to speak. Why doesn't the FCC give them more channels to work on. The ham is so crowded on the s. w. band that it's just a mess of interference when he tries to get through. So I say 'Hats off to the amateurs; long may they QSO.'"

"Mike" Difficulties in France

From the bulletin of the CDXR we clip parts of a letter from Miss May Birkhead who has visited radio stations in France. "In French stations you never know when to begin or when to stop. That's because no two clocks in Paris ever give the same time. As you sit nervously by the

microphone you notice your watch says 2:30, the announcer's watch says 2:10, the studio clock says 1:45 and you're supposed to broadcast at 2 o'clock sharp. Finally a light flashes on, which is your signal to start but after two or three minutes all the studio attendants begin making wild gestures behind their windows. You don't know whether they are telling you to start or stop or talk louder or whether there's a fire! Then there's the matter of censorship. Every broadcast has to be written in both English and French and copies submitted to three French ministers at least 48 hours before the broadcast. All broadcasting is under the government control and they must see that nothing is said against government policies."

Code Lessons Broadcast

We are advised by W9XBY that they broadcast a series of lessons devoted to instruction in code each Monday, Wednesday and Friday evening at 5:30 CST. It is said that a beginner may thereby learn code sufficiently well to identify call-letters of all radio-telegraph stations, read messages sent between amateurs and stations whose operators are not too speedy. This feature is known as the "Dot-and-Dash Club of the Air." W9XBY devotes one-half hour each week to the broadcasting of DX tips and other information for s. w. and bcl. At present the time of this feature is Thursday mornings between midnight and 12:30 a. m. CST. This may be made a daily feature if DX fans show a sufficient interest.

Concerning 7UV

C. A. Cullinan, manager, chief announcer and emergency engineer of 7UV at Ulverstone, Tasmania, verifies the report submitted by Guy B. Welsh, 114 Brown St., Reynoldsville, Pa., and gives the following info in regard to his station. "Ulverstone lies about half way between Burnie and Devonport in the island state of Tasmania and almost due south of Mel-



Peggy Flynn, whose nonsensical chatters and singing are amusing high-lights of the "Penthouse Party" on the WJZ-NBC net Wednesdays at 8 p. m. EST. Starred on this program with Peggy Flynn are Mark Hellinger, Gladys Glad and Emil Coleman's orchestra.

bourne. The station is three miles from town on the top of the highest hill. The power is 300 watts into a T-type aerial about 100 feet high, all a. c. operated. Reports are regularly received from the USA. Station 7UV operates as follows on Eastern Australian Standard time (ten hours ahead of GMT). Weekdays 7:30-9 a. m. and 5:30-10:30 pm.; Sundays Noon to 2 p. m. and 5:30-10 p. m.; Saturdays 7:30-9 am. and noon to 11 p.m."

We have had many requests for information regarding W3XDD on 900. This has been reported in error as W3XBE and other calls. W3XDD is the Bell Telephone Laboratories, Inc., Whippany, N. J. It was granted a special experimental permit to work on 900, 560 and 1340 with 5000 watts from midnight to 6 a. m. It has been said that they are trying out a new transmitter built for some station on 900 kcs.

(Continued on page 57)

"And I Prefer the S. W."

• • • By Jack Watrous*

AFTER months of dragging out of bed at one, two or three a. m. to hear stations on the bcb, that I could not otherwise hear, I became convinced that this was not my field of DX. Call me lazy or what you will but I would rather wake up in the morn feeling in tip-top shape for a new day than all worn out and dreary-eyed from two or three hours over a set.

The s. w. DXers don't have to worry about lost sleep. Very few stations are on after 11 p. m. except for a few Japanese and some Aussies. The big thrills in s. w. come during the daylight hours. What DXers will forget the thrill when first he heard "London calling" or "Ici Paris" or "Radio Roma Napoli" in broad daylight?

The sporting element of mystery in the s. w. is another most appealing feature. The bcb. is all cut and dried. If you hear a Frenchman on 960, as Dr. Jacobs points out, it could only be PP. But supposing we hear a station on s. w. announcing in a foreign tongue. Immediately out come the logs and much figuring is done to see what station it is. If you can't find any near that frequency, then you stick it out. Very seldom, except for a few obscure SA's, will you fail to hear an announcement in some foreign tongue. That is part of the game in s. w. DX—you don't have it all figured out for you. You have to get busy and do a little brain work. Any experienced s. w. DXer can tell the difference between Spanish, Russian, German and French.

Dr. Jacobs likes to plan out his DX sessions. That is one thing a s. w. DXer never does. Conditions change so rapidly in the s. w. field that a station may be heard fine one night but the next may be completely out of the picture. Conditions on the

bcb. are about the same all winter—some super-nights, of course—but most nights are about alike. On s. w. you can figure on many changes. In summer the 16 and 19 m. bands are like locals in the daytime while the 25 and 31m. are fine at night. In the spring 31 m. perks up in the morning from 7 to 8:30 and in the evenings until 8:30 p.m. The fall and winter find 25 m. at its best around 9 a.m. and so it goes, constant changes all through the year giving plenty of variety which, to the s. w. fan as well as to everyone else, is the spice of life.

The s. w. are never dull. Stations come and go very frequently and just when one gets bored, up pops a new Cuban, a new Asiatic or a new European, like COH, YDA and HAT. In conclusion, I think that a lot more brain work is required in s. w. than in b.c. You have to figure out when to listen, what kind of equipment to listen with, and how to tune. Don't give up s. w., DXers. Stick it out for you'll find, as I and thousands of others have, that s. w. is the really thrilling branch of radio—the most alive and developing field there is.

*La Canada Road, San Mateo, Calif.

"I Like Them Both"

• • • By Mrs. L. R. Ledbetter*

ONCE I shared Dr. Jacob's idea on s. w. reception and its shortcomings when compared to that greatest of all radio thrills—hearing a foreign station on the broadcast band. Frankly, I wouldn't give my bcb. experiences for all the results I have had and expect to have on s. w. I claim that a good s. w. log is acquired only through skill, hard work and patience—and the use of good up-to-date station lists and schedules. Of these I know none better than the Quixote Reporter and RADEX.

My own recent experience prompts me to write in defense of short

waves rather than a mere urge to start an argument. For once I was as rabid a bcb. fan as it is possible to be. I verified 5CK, 3AR, 4RK, 4QG, 2NE, 2CO, 4BC, 4TO, 2YA, JOIK and PP. In addition, my log for January 21, 1934, shows 16 Japanese on the following frequencies: 590, 680, 710, 750, 770, 780, 790, 810, 830, 850, 870, 920, 970, 980, 1080 and 1175. On another date 19 of them were heard and, although these stations were always very consistent, this was truly the most remarkable reception period I've ever known for Japanese.

All this was incentive enough for me and I thought I was off to a good start. Then we moved and the light company ran a new high-power line within twenty feet of my front door eliminating all chance of decent reception on the bcb. I had never before realized the importance of a good location in addition to the other requirements necessary for this type of DX. I think few persons possess all these, namely, a sensitive receiver, good antenna system and location free from interference. We spent time and effort trying to combat this nuisance to no avail so I became disgusted and turned to the higher frequencies for consolation.

I have found short waves very sensible—when one considers sleep an important factor—though perhaps not quite so thrilling. I admit there is a great deal of inconsistency to be encountered but the s. w. fan knows when to listen for stations—how daylight, weather, and the Appleton and Heaviside layers affect reception. He does not tune for Japan on 15 megs. in the morning nor on seven megs. in the afternoon. He never expects good reception from London when their antenna is directed away from his own receiver. Good logs give these broadcasts and schedules and s. w. stations are willing to cooperate with clubs and listeners in most cases.

Then too, chances are about even in this field and the owner of a small set with headphones is as likely to

hear Java as the person equipped with a 16-tube outfit. There is less static and I have found noise-reducing antenna systems more effective than those developed for the bcb.

As for the statement that nothing is impossible on s. w., well, perhaps I still have a chance to hear HAS or HAT, RV59 and OXY. I hope so since I have covered the rest of the world fairly well. I have had DJA-B-C-D-E-N and DIQ; GSA-B-C-D-E-F and G; JVF-T-N-M and P; RV15, RKI and RNE; IRM, IRO and IRW; EAQ; CT1AA; ORK; PHI on 16 and 25 m. and PCJ; FYA on 19 and 25 m.; PLV; YDR; PRF5 and numerous BA's and other South Americans; and KFZ on three of its frequencies (poorly, I admit but *heard*). I have had, of course, the Australians, VK2ME, 3ME, 3LR and VLZ.

*605 Mattingly Street, Vicksburg, Miss.



Lois Bennet, soprano of the "Club Romance" on the Columbia Sundays from 8:30 to 9 p. m. EST. Lois started her professional career in Oklahoma City, toured in Gilbert and Sullivan light operas, vaudeville with Carrie Jacobs Bond and sang with the St. Louis Opera Company. Her talents now support Conrad Thibault and the Don Voorhees Orchestra.

The I. D. A. Department

• • • By JAMES T. SPALDING

FIRST reports of the annual IDA contest are now in. There is still plenty of time to enter this DX prize-event. These stragglers really mean little but we'll give them anyway. W. K. Walton of England with 43 veries and 2335 points is leading, closely followed by R. T. Coales, also of England, with 32 veries and 1725 points, and W. Reichardt of Massachusetts who has 1275 points. These positions are likely to change radically with each new report.

* * *

From the British Globe Circler, edited by our friend, C. K. McConnan, we learn that the London Chapter has more than doubled its membership since the charter was granted about two months ago. . . . Eleven new members from Europe . . . K. Judd of Orpington, Kent, is Director of Short Wave in Great Britain, a new department. From personal knowledge a good choice for director was made . . . Who needs the QRA of CR6AA? Address them "Estacao Radio Diffusora CR6AA, Caixa Postal 118, Lobita, Angola, Portuguese West Africa."

* * *

Anyone desiring a free copy of the IDA magazine, Globe Circler, write to the International DXers Alliance, Bloomington, Ill. It's a grand magazine and represents a real DXers' club.

* * *

The Chief Engineer of the new Panama station, HP5B, Sr. Linares Jr., will represent the IDA in Panama. HP5B answers reports promptly with a vfb QSL card.

* * *

For those who hear the great Ken-

tucky Derby and would like a remembrance, we have arranged to send a souvenir edition of a local paper containing rotogravure pictures of the race, crowds, winner, etc., as well as articles by all the leading turf writers. Cost, including postage, ten cents in the U. S. and ten pence for British and other foreign listeners. Send your request to the address given below before May 4th, if possible.

News from Members

We want to hear from every IDA member regardless of location and will appreciate news for this page.

C. K. McConnan sends some fine dope from England. GSL 6150 kcs. from 2 to 7 p. m. EST . . . CT1AA 5980 kcs. may be heard around 4:30 p. m. EST . . . CT1GO daily except Monday from 7:20 to 8:30 p. m. EST. This station was built and is operated entirely by the Portuguese Radio Club. "Mac" says this information is positive and they will verify with a nice QSL card . . . Several English lads in various parts of England, led by Robinson of Yorkshire, held an all-night watch of conditions on the b.c.b. and we hope to have a report of their valuable data next month . . . Those supplements to the GC which are printed in several districts, deserve great praise . . . The "Steam Roller," edited by R. H. Tomlinson in the 6th, the "Circlette" printed by Bill Ellis in California for the 2nd, and Pete Peters' "District 8 News" bring up to date DX conditions to members in those districts. Fine work . . .

Charlie Miller of Covington, Ky., visited R. Kure of Cincinnati recently. Friend Rudolph exhibited veries from 10-BQ, 10-AB, plenty of TA's and TP's and, to top it off, a veri-

from a Missouri station using *only two watts* Charlie will be released from the local "bug house" next week. He was in a weak condition anyway, having received veries from XECW, YV6RV, HCJB and HAS-3, all in one week! . . . We thought we were doing good with veries from WKAQ, TGX and the 15-watter in Texas, but now we want a DX lesson from Rudolph. How about it?

John Shanks of Tennessee, Joel Armantrout of Georgia and E. Peters of Nova Scotia, are having good DX on the TA's and TP's Capt. H. L. Hall of N. Y. C., Director of S. W., had a "hamogram" from VK3ZX, Australia, and they put on a DX for the S. W. Club of N. Y., who are affiliated with the IDA Hope everyone logged CX26 on their IDA special March 24th HAS-3, Budapest, sends a postcard view of Budapest to Charlie Miller, their QSL's not being ready HVJ send a fine photo of St. Peter's, Rome, with their aerial in the background, to us for a veri PRF5, Rio, is sending a nice card now Some of the English newspapers reported the Seth Parker SOS as a typically American publicity trick; they were quite put-out about it Well, it didn't go over so well here.

Our President informs me that our membership is increasing at the rate of two members a day and will shortly pass the 1000 mark! Two new Chapters are being organized in California, one in Beverly Hills-Hollywood, the other in Los Angeles proper. Stuart Walmsley is organizing the L. A. Chapter and Frank McMenamy is in charge of the other. Frank De Haven is giving splendid co-operation.

Listen to the KDKA and KFI DX news and support this fine work. Send them a report. . . . Let's have your letters, fellows, and until next month "Good DX vy 73" All reports to Jimmy Spalding, 2012 Alexander Ave., Louisville, Kentucky, USA.

"Something You've Longed For"

The "Lady Esther" Eliminator

How many times have you remarked to your wife, "I'd like to throttle that bird?" Here is a brand-new device utilizing the principle of our Perfect Phone Adapter. A small adapter to go under your power tube, a ten-foot cord with a small switch at the end which you can carry to your easy chair.

You are reading or playing cards or visiting with friends. You enjoy the background of music on the radio but suddenly a raucous voice breaks in with a long harangue. Just touch the switch with your finger and the blurb goes down the cold-water pipe.

The set is left operating but only at a whisper so, when the ballyhoo is over, another touch of the switch brings back the music at full volume.

Especially effective with comics. When you hear "This one is going to slay you, Graham," you touch the switch and the slaying is removed to the cellar. Or Joe Penner—you can play a game with Joe. When he says "Wanna buy" the game is to see if you can touch the switch before Joe says "duck."

And for crooners, the "Lady Esther" Eliminator is merciless—and yet merciful. Only one moan and then Silence.

Price \$1.50 postpaid

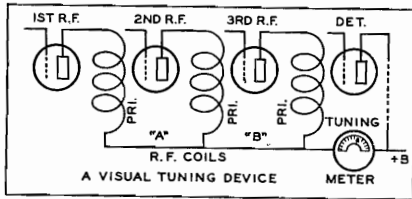
In ordering give make and model of set and list of tubes used. Positively cannot harm the set.

Radio Parts Co.

1401 Prospect Ave., Cleveland, O.

Helping Listeners Help Themselves

• • • By THE TECHNICAL EDITOR



I HAVE an All American "Mohawk" model H receiver. If it is possible I would like to add a visual tuning meter. Can a small milliammeter be used for this purpose and, if so, how must it be connected into the receiver?

The model H is an 8-tube tuned radio frequency receiver. A milliammeter tuning meter can be easily placed in this circuit. Such a device will undoubtedly aid in obtaining exact resonance in tuning. The meter, which should be a 0-15 milliamper direct-current meter, is placed in series with the radio-frequency plate supply lead as indicated by the diagram. It must be correctly connected into the circuit, for if it is reversed, the indicating needle will not move across the scale or dial. In other receivers having one or two r.f. stages or tubes the meter may be placed at points "A" or "B."

Short Wave Converter

I have built the short-wave converter shown in the June, 1933, issue of RADEX. But the connections to the socket of the 58 tube have puzzled me. Can you give me more comprehensive instructions?

For your further guidance the November, 1934, issue of RADEX, page 8, shows a similar converter with its tube socket connections indicated, together with certain improvements that will give better results. Some trouble was experienced

among our readers in connecting the cathode of the 58 tube. A comprehensive diagram of this socket was shown in the March, 1934, page 33, issue of RADEX. Reference to these items will give you all the additional information needed to clear up any doubts you may have in mind.

A.V.C. And Radiola 28

I requested a local radio service shop to install an automatic volume control in my Radiola 28. They have advised that it cannot be done. Is this a fact, or is it a case of not knowing how to do this job? If it is feasible will you please give directions.

The Radiola 28 receiver is not suitable for automatic volume control attachments because of its circuits that are limited to the use of type 99 tubes in the r.f. and detector sections. These, in turn, cannot be effectively controlled by their grid circuits. The success of an automatic volume control system depends to a very great extent upon the characteristics of the controlled tubes, otherwise they will not permit them to function properly in an a.v.c. circuit.

Even if it were possible to attach an automatic volume control to this receiver, the changes necessary would be very numerous and difficult. External batteries would also be needed to operate the control system.

Long Waves

I have an old Clarion 61 receiver. Can I get the long wave weather and aviation code and telephone broadcasts by means of an adapter or converter, or can actual changes be made within the set that will make long-wave reception possible?

It would be difficult to build a "long-wave" converter for use with

this particular set, but as you have indicated a willingness to change the receiver, it is possible to tune to longer wave lengths.

This set has two stages of radio-frequency amplification, a detector, and two power tubes in push-pull amplification.

There will be, therefore, three r.f. transformers. The first is the antenna selector coil, between the antenna and the type 24 first r.f. tube. The second coil is the first r.f. selector and is between the first r.f. tube and the type 24 second r.f. tube. The third coil is the second r.f. selector and is placed between the second r.f. tube and the type 24 detector tube.

Each of these transformers has two coils—a primary or short winding, and the secondary or long winding. One end of each secondary winding goes to the control-grid connection or cap of the following type 24 tube. All the secondary windings are identical in size and number of turns of wire. If you add, to the upper end, or grid connecting end, of each secondary winding, about 30 more turns of wire of the same size, you will increase the wave length to which the receiver will respond. In other words, all you need do is to make the secondary windings larger by about 30 turns. If space is limited it will be satisfactory to remove all of the present secondary winding and rewind it with slightly smaller wire so as to get about 100 turns in all on each tube. The tuning of the set will be changed, and the present shorter wave stations will drop off the low end of the dial and the present longer wave stations will move down from the high end of the dial to about the center. And the new longer wave stations will appear on the dial from its center to its upper end.

His Midwest 16 Hums

My Midwest 16 has developed a bad hum which I can only lower in in-

tensity by turning down the "Statomit" tube control. Can you advise me how to stop this annoyance?

It seems to us that the trouble is indicated as a fault in the automatic volume control. Hum as well as audio oscillation, motor-boating, etc., are quite often caused by open or high resistance grid circuits. This condition is accentuated if a gassy tube happens to be controlled by the a.v.c. circuit.

A very good method of testing for these open by-pass condensers or open resistors in the audio circuit is by the shunt method. Of course, if a condenser is shorted, the shunt method will have no effect as the bad condenser effects another short around the good, shunting condenser. You must examine and test the condensers and resistors in the a.v.c. portion of the circuit.

Sparton Oscillates

Oscillation appears over the broadcast band in my Sparton Jr., model 400 receiver, particularly between 540 and 1,200 kcs. What is wrong?

The causes of oscillation in any receiver may generally be associated with defective grounding and shielding, open or defective screen or plate bypass condensers, excessive screen or plate voltage, magnetic coupling of the output of any stage with its input, and other causes depending upon the circuit design.

Undoubtedly one of these troubles is responsible for the oscillation in your Sparton 400. Failure of the stage to oscillate above 1,200 kcs., may be attributed to an out-of-alignment condition above this frequency. Careful inspection and testing of the points mentioned should be made by a good serviceman.

This Crosley "Drums"

A drumming noise appears in my 1931 10-tube Crosley, but when I place a finger on the tube caps the noise stops. My local servicemen have been



Charles MacAlister, character actor, well known to NBC listeners for his human portrayals and contagious laugh. Charlie is famous with his fellow artists for his ability as a story-teller. On the "Carefree Carnival" Monday nights at 8:30 EST.

unable to locate the trouble. Can you help us out?

Your description indicates the Crosley 10-tube set is troubled with over-correct alignment of the intermediate-frequency amplifier which tends to cause unstable operation. This can be avoided by staggering the peak frequencies of the various tuned stages in the r.f. amplifier slightly *away* from the correct intermediate frequency originally set by the makers. Without knowing exactly the type of model we cannot tell you the listed i.f. of this set.

One other possibility of this trouble may be traced to an open grid in the i.f. amplifier or to a high resistance grid return connection together with a gassy i.f. tube. There are still other possibilities of the trouble, such as a microphonic tube, or plate-to-grid circuit feed-back brought about by

improper positions of some of the wiring, or poorly grounded shielding material.

Values Of Resistors

Please tell me the values of the resistors used in the tube adaptor shown in the November, 1934, issue of RADEX, for placing type 2A5 tubes in a type 47 socket.

The adaptor shown was the wiring arrangement of a commercial device that can be purchased on the market. However, one can be made and the two resistors form, in effect, a single resistor across the filament terminals of the 2A5 tube, and which is provided with a center-tap connection for the cathode element of the tube. This resistor may have about 60 ohms resistance. It is wire-wound. Or two 30-ohm resistances, in series, with the center-tap between, can be used. The capacity in watts must be low—less than 1/5th of a watt.

Cannot Do This

I wish to replace the 27A tube in my Crosley 764 neotrodyme receiver with a 24A. How shall I do this? Can this receiver be used in connection with a short-wave converter?

The 27 has a cathode, grid and plate. But the 24A has a cathode, grid, plate and a screen-grid element in addition. The control-grid is attached to the top of the 24A. In order to use 24As in place of 27s, different circuits, sockets, voltages, coils and grid leads will be required. This is impracticable in a set such as yours, which is neutralized and carefully balanced. You may, however, use 56s in place of the 27s.

Your set, which really is a tuned-radio-frequency circuit, should work nicely with a short-wave converter.

A Hard Job

Can I remove the coils in my Atwater Kent short-wave converter and replace them with plug-in coils so as to get down to 5 and 10 meters?

Of course, the coils can be removed and replaced with a plug-in

arrangement, but this calls for major wiring and parts replacement. All that you would gain from this change would be the ability to use a small set of coils so as to get down in the lower wave spectrum. Now reception on the 5 to 10 meters band is difficult for the best designed super-short-wave receivers. The converter would require a complete redesign in order to get the oscillator to work at the very high frequencies involved. However, if you wish to experiment in a crude manner you might try placing a switch in the present coils so as to cut out one or more turns of wire from the bottom to lower the natural point of resonance of the lowest wave-length coil now in the set. This will make the coils respond to a slightly lower wave length when this switch is closed so as to cut out one turn of wire. However, the scheme at its best is merely a cut-and-try proposition and hardly apt to succeed.

Baffle For Speaker

Will it be possible for me to place the loud speaker now in my Philco 16B receiver in a larger and separate cabinet by using a baffle? Please tell me how to do this.

The loud speaker can be removed and placed in a large cabinet on a baffle so as to get better tone and volume. By doing this you remove the vibration effects of the speaker from the radio cabinet and perhaps provide better operation and tone.

The new baffle should be a piece of "celotex" or similar composition board. It should be not less than 30 inches high and 24 inches wide. A circular opening is cut in the center with a diameter equal to that of the cone of the speaker. Set the baffle in a separate cabinet, on an inclined slope of about 15 degrees back from the vertical at the top, and you will get increased volume and an improvement of the low, bass notes.

Noises Rush By

My small a.c.-d.c. receiver has a

loud rushing noise. A new volume control failed to stop the noise. Then a new power transformer was put in. Now my serviceman has given up, and I hope that RADEX can help us.

We wonder if the serviceman got on the wrong track. The volume control replacement is understood, but we cannot fathom the reason for a new transformer when dealing with noises of this character. The trouble you have described is quite common among the smaller types of universal receivers. It is usually identified with resistors used in various vital places in the circuit because of a need for economy. Such cheap resistors are noisy under the smallest pretext. Sample resistors taken from such sets, when placed in an oscilloscope tester, show resistance variations taking place very rapidly and causing audio changes in potential—the characteristic rushing sounds. These troubles are caused by overloading of underrated resistors. A better make of resistors



Pat Barrett, vaudeville and radio veteran, is the NBC's "Uncle Ezra." Mondays, Wednesdays and Friday on the WEAf network.

will remedy the trouble. Be sure the values are true. When the value of the receiver justifies the replacing of all small resistor units with wire-wound or metallized units is worthwhile.

A Temperamental Set

My Crosley 157 receiver stops playing, but by turning the dial back and forth or the switch on and off, the set starts up again. Why is this?

Undoubtedly there is an open circuit in some vital part of the wiring of this receiver. The turning of the dial or the snapping of the switch will provide sufficient mechanical jar or impact that will temporarily repair the damage until heat again expands the part and opens the circuit.

Now it is impossible to say just where this defective connection might be, but we are suggesting both grid circuits and grid returns, as well as screen, plate and cathode circuits of all the tubes. In many cases a short-circuited bypass or filter condenser will temporarily heal or a resistor will become open. This trouble always calls for extensive testing as defects are hard to locate without testing every unit. Your serviceman has the proper devices to make this examination in a few minutes.

Philco's Shadow Tuning

I have a 1935 model 144 all-wave Philco. But its shadow tuning device will not work. The band stays narrow or full width without changing with the tuning of a station. Can you give me some pointers about adjusting the shadow bands?

The shadow tuning device used on the Philco receiver is simply a device like a sensitive meter with a metallic vane in the place of a needle. When the set is tuned to resonance, the plate current of the r.f. and i.f. tubes will be reduced somewhat, and the accuracy of tuning is thus measured by the thinness of the

shadow on the screen.

Now, when this vane fails to move so as to form a narrow slot with its resulting narrow shadow when stations are tuned in to resonance, it is an indication that the adjustment of the vane in the shadowgraph is incorrect. Or also that the automatic volume control is not working properly.

In nine cases out of ten the fault is in the shadowgraph. Simply remove the cover and adjust the vane so that it will turn or move easily when the set is tuned to resonance with some nearby powerful station. You can then observe with the eye while adjusting the vane to its maximum movement.

Short Wave Symbols

Reception Reports

- R1—The faintest signal that can be heard on headphones.
- R2—A weak headphone signal.
- R3—Audible but only partially readable.
- R4—A fair signal.
- R5—A good headphone or a weak speaker signal.
- R6—Fair speaker volume.
- R7—Strong volume.
- R8—Very strong volume.
- R9—Extremely strong, maximum volume.
- QSA1—Unintelligible.
- QSA2—Signals which can be understood only now and then.
- QSA3—Poor signals, understood with difficulty.
- QSA4—Good signals, quite easily understood.
- QSA5—Perfectly understandable.
- S—Slight fading.
- SS—Deep fading.
- SSS—Complete fadeout.
- R—Rapid fading.
- N—No fading.
- X—Slight static.
- XX—Rather bad static.
- XXX—Very heavy static.
- N—No static.

The Spanish Alphabet

A, pronounced ah; B, bay; C, say or thay*; D, day; E, ay; F, effay; G, hay; H, ah-hay; I, ee; J, ho-tah; K, kah; L, el-lay; M, em-may; N, en-nay; O, oh; P, pay; Q, koo; R, al-ray; S, ess-say; T, tay; U, oo; V, vay; W, doo-ble-vay; X, eckis, ay-kis, ek-key*; Y, yay, ee-grek, ee-gray-ye-ah*; 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 the various Spanish-speaking countries, which accounts for the difference in pronunciation of some of the letters. One, oo-no; Two, dose; Three, trace; Four, koo-at-tro; Five, thing-ko; Six, sase; Seven, sate; Eight, oh-cho; Nine, noo-ay-ve; Ten, diez.

Amateur Abbreviations

OM and YL are the abbreviations for "old man" and "young lady."

CQ is a general call to any station wishing to QSO.

A QSO is a communication between two stations.

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

K means "go ahead." Operator finishes his own part of a transmission and wishes the communicating station to reply, he terminates his own transmission by sending K in code, or, if using phone, says "K", or "dah dit dah" (the way K sounds in code), or he merely says "go ahead."

CUL means "see you later," or CU agn, "see you again."

QRA, a station's address.

QRM, interference from other stations, or local QRM can be interference caused by faulty electrical appliances nearby (man-made static).

QRN, Atmospherics, or natural static.

QRT, "quit."

QSA, The understandability of signals is expressed by the QSA Code, QSA1 being signals which are not at all intelligible and QSA5 being perfectly understandable signals.

QSB, fading.

R, The R Code describes the volume of signals, ranging from R1, the faintest signals which can be heard in the headphones, to R9, the very best signals on the loudspeaker.

A1, Continuous wave (code) emission.

A2, Interrupted continuous wave (code) emission.

A3, Voice emission.

CW, Continuous wave.

ICW, Interrupted continuous wave.

Condition A, Inverted modulation or "scrambled speech."

Condition B, Intelligible speech.

Symbols of Time

AST, Atlantic Standard Time.

EST, Eastern Standard Time (EDST, "daylight time").

CST, Central Standard Time (CDST, "daylight time").

MST, Mountain Standard Time.

PST, Pacific Standard Time (PDST, "daylight time").

JST, Japanese Standard Time.

EAST, Eastern Australia Standard Time.

CET, Central European Time.

MEZ, The German abbreviation for CET.

LST, Local Standard Time.

GMT, Greenwich Mean Time.

GST, Greenwich Summer Time.

Father Coughlin's Plans

ARRANGEMENTS to continue his broadcasts during the summer, instead of ending them on Easter Sunday as in the past, were announced Feb. 22 by Father Charles E. Coughlin, militant Detroit radio priest. The programs, however, will be for only half an hour instead of a full hour and will be broadcast beginning at midnight, e.s.t., with a repeat for Central and Far Western stations.

Temporarily titled a "Paul Revere" radio hour, because of the time element, the plans call for the same group of 27 stations now being used for the Sunday afternoon program, with other stations likely to be added. As in the past, Leo J. Fitzpatrick, general manager of WJR,

Detroit, key outlet, in handling station contacts and arrangements.

Decision to continue the broadcasts during the summer was reached because Father Coughlin feels that his new organization, the League for Social Justice, makes it necessary to have an unbroken series of weekly broadcasts. The present series of Sunday afternoon broadcasts (4 to 5 p. m., e.s.t.,) will end Easter Sunday and will be resumed by the middle of October. The use of the midnight facilities in no way will interfere with the continuation of the Sunday afternoon broadcasts for 1935-36, it was stated.

Father Coughlin announced that more than 8,000,000 people have joined his League of Social Justice, created several months ago as purely a radio membership venture. More than 200 secretaries, he said, are now employed to answer the mail, which averages 40,000 pieces daily.



Sherlock Holmes of Baker Street is given a realistic interpretation by Louis Hector Sundays at 9:45 p. m. EST. Joseph Bell stooges for Dr. Watson. This four-year-old mystery classic was previously on the air on Sunday afternoons.

Chalking up the NEW RECORDS

AS THE present DX season draws to a close, our readers are adding up their winter's catches and computing the standing of their logs. We are glad to give space to these summaries.

"Last season my log stood at 296 and now my total is 463," relates Clifford Van Tassell, 138 Washington Ave., Pleasantville, N. Y. "Of these 52 are outside the US. The Aussies, 4QG and 3LO, I positively identified last October. For a time in December and January, PP could be well heard almost any morning and, on January 8, I heard Radio Normandie for the first time. On the 14th I held this station until after 3:15. On January 15, shortly after 2 am. while listening to the Saar election results over PP, I turned to around 980 and heard the results in English by a woman speaker. This proved to be West Regional. My best station however, power considered, is VE9EK, with ten watts, heard on several occasions."

"My record looks a little dilapidated compared to some reports from California," modestly avers Don Martinez, 1469 26th Ave., San Francisco. "The receiver is an 8-tube Kennedy with a 2-tube converter. On the bcb I have managed to collect 255 verifications. Among them are KGBU, KGU, XGOA, JOAK-1, JOBK-1, JOCK-1, JOFK, JOGK, JOHK, JOIK, JOLK, JOQK, JOSK, 2CO, 2BL, 2YA, WKAQ and CMQ. I have reports out to others in Mexico and Japan and to 1YA. My latest catches have been XEG, XEFL, JODG, JOBG, MTAY and JOXK. On the s. w. I have done rather poorly, adding only EAQ, DJD, GSD, GSB, JVS, JVM, JVT, 2ME, eight SA's and 15 more in North America."

"My father and I do considerable DX work," says Leonard A. Lyon, Imperoyal, Halifax Co., Nova Scotia.

"With an 11-tube Philco, we have logged 535 stations. We have received 28 in Europe, 11 in South America, one or more in each of the 48 States, each Canadian province except B. C., Mexico, Newfoundland, Cuba, Puerto Rico and Haiti. As yet we have not reached beyond the Pacific."

Says Morton Meehan, 563 Adams Ave., Elizabeth, N. J., "I have been a DXer for 23 months with a five-tube radio. I have verified 289 stations and logged 450. On January 1, 1935, I started a new log with a Philco 16-B. In 43 days I have heard 253 bcb. stations, the best being LR5, YV1RC, KTAB, KMAC, KFJM, KONO, KFYO, WNEL, KGDY and WPFB. On the s. w. many SA's and Europeans have been heard. WESG changes frequencies like a Cuban. WOR will use 50,000 watts soon. WNEW expects to use 5000 watts daytime. I will answer all letters received from Philco 16B users."

"My interest in radio started in 1924 when home-built sets were the go," recalls Fred Baines, Sydney Mines, N. S. "I never really kept a log of stations but when I became interested in verifications, I started to keep a log. I have at present 70 s. w. stations verified with all continents heard but Asia. On the bcb. I have a total of 115 verifications. Some of my best are CMCY, KFI, KOA, KPO, KSL, KVOO, KWK, WSPD, XEAW, XEMO, XEPN."

"I have been DXing since August, 1933," observes Stanley A. Medvesek, Box 4, Slickville, Pa. "Am a member of the NNRC since last February. My set is a 5-tube Monarch midget. Aerial is 150 feet long attached to a tree about 70 feet high. My log totals 645 stations of which 125 were added this season. I have 46 in Canada, 19 in Cuba, 15 in Mexico, two in Puerto Rico, and one

each in Guatemala, Argentina and France."

"It never pays to give up in DX," concludes Frank Wheeler, 406 Eagle Point, Lakeside, Erie, Pa. "After trying for three years, I finally received a TP. This morning, Feb. 18, from 4:00 to 5:37 a. m. EST, I received 1YA, Auckland, N. Z. It came in R1 to R4, QSA1 to 3. I could not hear 1YA when I switched to my N-S aerial but it came in as loud as R4 on my E-W."

"TA's have been fairly good but I am so far south that it is very difficult to pick up any of them," points out Joel H. Armantrout, Fitzgerald, Ga. "However, I have identified Fecamp, P. P., 11MI, Frankfurt, EAJ7, NN, Copenhagen, LKO, and (I think) RW40. I hope to verify many more TP's this spring. I would appreciate hearing from anyone who knows the signs of the times on any North Africans."

A TA Tip

"Tell the DXers to try for Rennes, France, on 1040 after one a. m. EST. They don't begin their regular broadcast until after two a. m. but from one on they announce the station every five minutes in French." This tip is from Ed Olson, 36 Second St., Natick, Mass.

"My set is a Fada 25Z, 1928 model. In spite of a trolley passing in front of the house, I have heard Rennes, Hamburg, Bordeaux, PP and Fecamp. I still consider XEFV, 50 watts when heard, my best catch." This report is from Harold Mendler, 3154 Coney Island Ave., Brooklyn, N. Y., who is anxious to hear from other DXers. He promises to answer promptly.

Evan B. Roberts, Wenham Street, Danvers, Mass., submits a two-page list of the foreign stations which he has verified as a result of his reception on a Scott 12-tube receiver. From the first glance, it looks as though it would be pretty hard to get a singleton past this list.

"It is only recently that I became interested in s. w. reception. Any s. w. clubs will find me interested in joining. I would like to exchange letters with anyone who has an all-wave set. I will assure you that all letters will be answered." This is from Frank J. Hoffman, 3862 West Eud Ave., Chicago, Ill.

"Have a veri coming from LR4, my first 'other continent' station on the beb." mentions L. N. Henry, 5713 Darlington Road, Pittsburgh, Pa. "Would like to hear from other Midwest owners. Will answer all letters."

Station WBT has found their special Monday evening wrestling-match broadcasts so popular that they are using these programs to dedicate to DX clubs. On nights when there is no wrestling match, a studio program is used instead.

The WORK DX club broadcasts are now taking place every Friday night at 7:45-7 EST is the information that comes from the master of ceremonies, Robert H. Weaver, president of NRC.

"Sunday morning I heard the announcer at CJLS tell listeners they would send their new QSA card for reports on the broadcast," informs Fred Baines, Sydney Mines, Cape Breton, N. S. "My veries now stand at 121 on the bcb and 70 on sw."

"To date I have received 556 stations of which 421 are verified," proclaims J. Edward Diehm, Jr., 424 Walnut Street, Pottstown, Pa. "I am using a Zenith, 10-tube, all-wave model 880 and like it very much. Am using a HI-FI aerial. In all my DX I have failed to secure veries from but two stations reported as I write a very good letter of reception and always enclose postage."

"I now have a log of 550 beb. with 437 verified," relates Samuel A. Meyer, Jr., 83 Canterbury Road, Rochester, N. Y. "Good veries received recently are YV1RC, XEWZ, XEU, CMOX, KFPM, WNEL, PP and Radio-Normandie. Have reports out

to LR6, XEFZ, XELO, CMBX and CMCA. Did any readers hear the XEKL special DX for our Rochester DX Club on January 6th and 13th?"

"I haven't spent much time at DX but my log now stands at 260 on the bc. and 90 police stations," avers Robert L. Thayer, 2033 Hillsdale Ave., Dayton, Ohio. "My best catches are XEWZ and WNEL. My radio is a six-tube Philco 19. What station in Cuba is on 1025? I've distinctly heard 'Habana, Cuba,' twice and it's not on 1030 as CKLW and XEB cover this channel."

"I am a new radio fan, having had a set only since last Christmas," announces E. D. King, 412 Linden St., Morgantown, W. Va. "I have a 3-tube Kadette Jewel and have, so far, logged 65 stations including three in Mexico and one in Cuba. Would like to hear from any DXers who could advise me how to pull in these distant 150-watters every night."

THE MONTH'S CHANGES

NEW

765	XEOK	Tijuana, B. C., Mex.
1110	XELO	Piedras Negras, Coah., Mex.
1210	KIUL	Garden City, Kans.
1210	....	Ardmore, Okla.
1280	XEMX	Mexico City, Mex.
1310	WISC	Milwaukee, Wis.
1310	WMFP	Ashland, Ky.
1370	WMFO	Decatur, Ala.
1420	....	Hutchinson, Kans.
1420	....	Pecos, Texas
1500	WTMV	East St. Louis, Ill.
1500	....	St. Louis, Mo.
1500	....	Lake Charles, La.

FREQUENCIES

610	CMCQ	Havana, Cuba, from 680
850	WESG	Elmira, N. Y., from 1090
928	CMX	Havana, Cuba, from 905
1290	KTRH	Houston, Texas, from 1330

LOCATIONS

600	WMT	Cedar Rapids, Iowa, from Waterloo, Iowa
1210	WGCM	Mississippi City, from Gulfport, Miss.
1370	WHBD	Portsmouth, Ohio, from Mt. Orab, Ohio
1430	KRNT	Des Moines, Iowa, from Cedar Rapids Iowa

CALLS

1170	CMOA	Havana, Cuba, from COA
1200	WAIM	Anderson, S. C., from WMFM
1420	KABR	Aberdeen, S. D., from KABN

POWER

600	WICC	Bridgeport, Conn., 500 to 1000
680	WPTF	Raleigh, N. C., 5000 to 1000

DELETE

1200	WNBO	Washington, Pa.
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Stop the Press!

HO HUM. Another reallocation in Cuba! Through the kindness of George C. Nuhfer of Havana, we are just in receipt of an Official Bulletin of the Cuban Government giving changes in the Havana stations as of February 28, 1935. The bulletin is in Spanish and we have not yet had it translated. It contains two lists both evidently official and yet even these two lists do not agree!

It is too late to make these changes in our indices but we are giving them below for the benefit of our readers in identifying strange Cubans on new frequencies. We will not attempt to give the changes in power but the systematic thoroughness and methodical meticulousness of the radio authorities in Cuba is indicated by the number of watts assigned—195, 163, 171, 112, 126, 184, etc. That's getting radio down to a science.

CMAF 680 to 730	CMCO 1280 to 1110
CMBC 1035 to 940 or 1170	CMCQ 610 to 680
CMBD 1350 to 1170 or 1255	CMCR 1400 to 1410
CMBG 1150 to 1140	CMCU 1255 to 1280
CMBX 1435 to 880	CMCX 865 to 660
CMBN new on 660	CMCY 1100 to 1030
CMCA 1230 to 1350	CMK 725 to 1060
CMBC 1060 to 1230	CMOA 1175 to 790
CMCF 610 to 815	CMOK 1230 to 1470
CMCG 1125 to 1380	CMW 930 to 600
	CMX 928 to 910 or 920

Who Has a Singleton?

Is it possible that no other listener in North America has a verification from any of the stations listed below? Some of these Singletons have appeared now for three months and no one has eliminated them by producing a corresponding verification. If you have such verifications, please notify us in order that your name may appear as an eliminator. Do not forward veries to us but do not claim the station unless you possess a bona-fide verification.

SINGLETONS

ZTD, Durban, South Africa. Claimed by C. E. Lowe, Merced, Calif.

2ZP, Walros, New Zealand. Claimed by Charles Hesterman, Saskatoon, Sask.
 2YC, Wellington, N. Z. Claimed by Harold Alexson, Vancouver, B. C.
 2CA, Canberra, Australia. Claimed by W. Pollard, Victoria, B. C.
 JOBG, Maebashi, Japan. Claimed by R. W. Schofield, Missoula, Mont.
 VUG, Delhi, India. Claimed by Robert Slosson, Milwaukee, Wis.
 OER3, Vienna, Austria. Claimed by Lincoln A. Wood, Lynn, Mass.
 CX18, Montevideo, Uruguay. Claimed by Marvin D. Dixon, Shelby, N. C.
 LRS, Buenos Aires, Argentina. Claimed by Murray D. Bryce, Royal Oak, B. C.
 JQAK, Dalren, Manchuria. Claimed by Charles Hesterman, Saskatoon, Sask.
 2XN, Lismore, Australia. Claimed by Roy N. Licari, Allenwood, N. J.
 KZIB, Manila, P. I. Claimed by James Blase, Bronx, N. Y.

The following are submitted as singletons by John A. Shanks, Russellville, Tenn.: 4ZW, 4BK, 5AD, and 7ZL.
 The following by Karl J. Halpern, Brooklyn, N. Y.: 2AY, 2CH, 2NC, 2XN, 6ML, 6PR, 6WF, 1ZB, 1ZH, 1ZR, 2ZF, 2ZH, 2ZI, 2ZW, 3ZR, 4ZP.
 2GN, Goulburn, Ausl. Claimed by Guy B. Welsh, Reynoldsville, Pa.

The following are claimed by Kenneth Page, Silver Creek, N. Y.: 2HD, 2CO, VPN, VCX.
 By Joel Arnantrout, Fitzgerald, Ga.: 4RK and 4TO.

Eliminators

Langenburg, Germany, claimed by Ray La Rocque, eliminated by Ray E. Everly, Newton, Ill.; Kenneth Page, Silver Creek, N. Y., and P. J. Walsh, Sydney Mines, N. S.
 Evan B. Roberts, Wenham St., Danvers, Mass., eliminates the following: OKB, Copenhagen, 5CL, 3AR, 2FC, 2KO, 3LO and 7UV.
 Kenneth Page, Silver Creek, N. Y., eliminates CTIGL, 3HA, 2BL, 2UE and 5CK.

Previously Eliminated

2KY, 3KZ, SBH, SBA, HAL, 4BC, Trieste, JOLK, 3BO and 6PR.

The April DX Calendar

After April first, stations which have been broadcasting DX programs more or less regularly, begin to drop them for the summer. In place of the regular calendar, this month we are giving a resume of these stations and their regular periods. Readers should file this article for future reference as it will not appear again. The regular DX Calendar will be resumed at the beginning of the new season.

The frequency checks are scheduled for each month as shown in the March issue: the Canadian on the 19th and 20th of each month and the U. S. on the first seven days of each month.

April Specials

CHRC, Quebec, 580, 100, Sun. Apr. 7, 4:00-6:00 for CDXR

CMBS, Havana, Cuba, 775, 150, Sun. Apr. 7, 21, 1:00-2:00 for NRC
 CMHW, Cienfuegos, Cuba, 910, 100, Thurs. Apr. 4, 11, 18; Sun. Apr. 28, 12:00-4:00 for NRC
 CMJP, Moron, Cuba, 1360, 75, Fri. Apr. 5; Thurs. Apr. 25, 2:00-3:00 for NRC
 CMOX, Havana, Cuba, 1325, 200, Sat. Apr. 13, 1:00-5:00 for NRC
 CMW, Havana, Cuba, 930, 1400, Sat. Apr. 6, 1:00-2:00 for NRC
 CTIGL, Faredo, Portugal, 1031, 5000, Sun. Apr. 7, 12:01-2:30 for NNRC
 WEBW, Buffalo, N. Y., 1480, 5000, Mon. Apr. 22, 11:00-6:00
 TGX, Guatemala City, 1400, 150, Mon. Apr. 1, 1:00-4:00
 10-AK, Stratford, Ont., 1200, 15, April 14, 4:30-5:30

Regular DX Programs

CFCT, Victoria, B. C., 1450, 75, Every Sun. 3:00-5:00
 CFJC, Kamloops, B. C., 880, 100, Every Sun. 3:00-4:00
 CHWK, Chilliwack, B. C., 780, 100, 1st of each mo., 2:30-3:30
 CKBI, Prince Albert, Sask., 1210, 100, Last Sun. each mo. 2:30-4:30; 2nd Tues., 3:00-4:30
 CKOV, Kelowna, B. C., 630, 100, every Sun. 3:00-5:00
 CKWX, Vancouver, B. C., 1010, 100, every Thurs., 3:00-4:00
 CMBC, Havana, Cuba, 1035, 150, every Tues., 1:00-2:00
 CMCD, Havana, Cuba, 955, 250, every Sun., 12:00-3:00
 CMOX, Havana, Cuba, 1325, 200, 13th of each mo., 1:00-5:00
 KFH, Wichita, Kans., 1300, 1000, last Thurs., 3:15-3:45
 KFNF, Shenandoah, Iowa, 890, 500, 15th of each mo., 5:00-5:10
 KFYR, Bismarck, N. D., 550, 1000, 1st Wed., 1:00-2:00
 KGEK, Yuma, Colo., 1200, 100, last Sun., 2:00-3:00
 KGIR, Butte, Mont., 1360, 1000, last Sat., 12:00-8:00
 KOMA, Oklahoma City, 1480, 5000, Suns., 1:00-1:15
 KREG, Santa Ana, Calif., 1500, 100, 1st Thurs., 3:00-3:15
 KSO, Des Moines, Iowa, 1320, 250, third Wed., 3:00-3:30; 8th of each mo., 3:00-3:30
 KUJ, Walla Walla, Wash., 1st Mon., 3:45-4:00
 KVOA, Tucson, Ariz., 1260, 500, 1st Sun., 2:00-3:30
 KWTO, Springfield, Mo., 560, 1000, 3rd Wed. 2:00-2:30
 TGW, Guatemala City, 565, 10000, Suns., 2:00-6:00
 TGX, Guatemala City, 1400, 150, Sats., 1:00-3:00
 VOGY, St. John's, Newfoundland, 840, 400, every second Sun commencing with Apr. 14, 2:00-5:00
 WAVE, Louisville, Ky., 940, 1000, Mon. preceding 1st Sat. 2:00-2:15
 WCNW, Brooklyn, N. Y., 1500, 100, Mons. and Thurs., 12:00-3:00
 WDAY, Fargo, N. D., 940, 1000, 3rd Tues., 1:00-4:00
 WDNC, Durham, N. C., 1500, 100, 15th of each mo., 1:00-1:30
 WFBG, Altoona, Pa., 1310, 100, last Wed., 5:30-5:45
 WHBL, Sheboygan, Wis., 1410, 500, 1st Wed., 1:30-2:00
 WHEF, Kosciusko, Miss., 1500, 100, every Mon. and Wed., except first week each mo., 1:00-1:30
 WKY, Oklahoma City, 900, 100, 2nd Sat. each mo. 1:00-1:30
 WLAP, Lexington, Ky., 1420, 100, 30th each mo., 4:30-5:00
 WNEL, San Juan, P. R., 1290, 500, every Sat. 1:00-3:00
 WOOD and WASH, Grand Rapids, Mich., 1270, 500, Weds., 6:00-6:30
 WOPI, Bristol, Tenn., 1500, 100, 3rd Wed. 3:00-5:00
 WOS, Jefferson City, Mo., 630, 500, 2nd Sun., 3:00-4:00
 WRCK, Rockford, Ill., 1410, 500, 2nd, 3rd and 4th Wed., 2:00-2:30
 WSUI, Iowa City, Iowa, 880, 500, 1st Wed., 1:30-2:30; 1st Sat., 5:15-6:15
 WWAE, Hammond, Ind., 1200, 100, 1st Sat., 1:00-2:00
 XED, Guadalajara, Jal., 1160, 500, 24th each mo., 3:00-5:00
 XEMO, Tijuana, L. C., 865, 2500, Suns., 2:00-4:00

Where to Get the DAY'S NEWS

More radio listeners are interested in knowing where and when to tune in the news of the day, than in any other feature. Radio stations are invited to submit the hours of their daily or weekly news flashes or bulletins. A list of the news commentators will be found under "Talks" on page 62. Key: 1 Sunday, 2 Monday, 3 Tuesday, 4 Wednesday, 5 Thursday, 6 Friday, 7 Saturday.

Stations Using Eastern Time

- CFRB, Toronto, on 690**
 8:00-8:10 a.m. (234567)
 12:25-12:30 p.m. (234567)
 6:30-6:40 p.m. (234567)
 11:00-11:15 p.m. (1234567)
- CKLW, Windsor, on 1030**
 8:00-8:05 a.m. (1234567)
 10:00-10:05 a.m. (1234567)
 12:45-12:50 p.m. (1234567)
 5:55-6:00 p.m. (1234567)
 7:45-8:00 p.m. (123456)
 8:15-8:30 p.m. (246)
- KYV, Philadelphia, on 1020**
 6:15-6:30 p.m. (1234567)
 9:00-9:15 p.m. (1234567)
- WABC, New York, on 860**
 10:00-10:05 a.m. (234567)
 6:55-7:00 p.m. (234567)
 10:55-11:00 p.m. (1)
- WCAU, Philadelphia, on 1170**
 10:00-10:05 a.m. (234567)
 7:45-8:00 p.m. (234567)
 11:00-11:15 p.m. (234567)
- WCKY, Cincinnati, on 1490**
 10:45-10:50 a.m. (1234567)
 6:30-6:35 p.m. (1234567)
- WEAF, New York, on 660**
 10:00-10:05 a.m. (234567)
 11:00-11:05 a.m. (1)
 4:30-4:45 p.m. (1)
 6:30-6:35 p.m. (234567)
 6:45-7:00 p.m. (7)
 11:15-11:20 p.m. (1)
- WGY, Schenectady, on 790**
 6:30 p.m. (1234567)
- WHAM, Rochester, on 1150**
 10:30 p.m. (1234567)
 11:10 p.m. (4)
- WHEC, Rochester, on 1430**
 12:30 p.m. (234567)
 4:15 p.m. (234567)
 11:00 p.m. (1234567)
- WJR, Detroit, on 750**
 11:00-11:15 p.m. (2345)
 11:15-11:30 p.m. (6)
- WJZ, New York, on 760**
 10:45-10:50 a.m. (234567)
 11:00-11:05 a.m. (1)
 6:30-6:35 p.m. (234567)
 6:45-7:00 p.m. (23456)
- WLW, Cincinnati, on 700**
 9:55-10:00 a.m. (7)
 10:00 a.m. (4)
 10:40 a.m. (23456)
 11:00-11:05 p.m. (1234567)
- WOR, Newark, on 710**
 8:00-8:05 a.m. (234567)
 12:00-12:05 p.m. (234567)
 3:00-3:15 p.m. (1)
 5:05-5:10 p.m. (234567)
 11:00-11:05 p.m. (234567)
 11:00-11:15 p.m. (4)

WPG, Atlantic City, on 1100
 10:00 a.m. (1234567)

WRVA, Richmond, on 1110
 10:00 a.m. (2356)
 10:30 a.m. (7)

WTIC, Hartford, on 1040
 10:00-10:05 a.m. (234567)
 11:00-11:05 a.m. (4)
 6:00-6:30 p.m. (234567)
 11:30-11:35 p.m. (4)

Stations Using Central Time

CKY, Winnipeg, on 960
 1:00-1:05 p.m. (234567)
 4:15-4:30 p.m. (36)
 5:40-5:45 p.m. (234567)
 9:45-10:00 p.m. (1234567)

KFAB, Lincoln, on 770
 11:30-11:45 a.m. (234567)
 1:15-1:30 p.m. (234567)
 3:15-3:30 p.m. (23457)
 4:00-4:15 p.m. (234567)

KSTP, St. Paul, on 1460
 7:30-7:35 a.m. (234567)
 12:45-12:50 p.m. (234567)
 6:10-6:15 p.m. (234567)
 10:15-10:25 p.m. (1234567)

KTHS, Hot Springs, on 1060
 9:00-9:05 a.m. (234567)
 10:00 a.m. (4)

WBAP, Ft. Worth, on 800
 5:30 p.m. (234567)

WCCO, Minneapolis, on 810
 8:30 a.m. (234567)
 11:45 a.m. (234567)

WDAG, Amarillo, on 1410
 1:15-1:30 p.m. (234567)

WENR, Chicago, on 870
 5:30-5:45 p.m. (234567)

WGN, Chicago, on 720
 9:00-9:05 p.m. (1234567)

WHO, Des Moines, on 1000
 12:30 p.m. (7)
 12:45 p.m. (23456)
 6:30 p.m. (7)
 6:45 p.m. (23456)
 10:05 p.m. (234567)

WJJD, Chicago, on 1130
 6:00-6:30 a.m. (234567)
 12:50-1:00 p.m. (234567)

WLAC, Nashville, on 1470
 6:30-7:00 a.m. (234567)
 5:55-6:00 p.m. (234567)

WLS, Chicago, on 870
 7:00 a.m. (234567)
 8:30-8:45 a.m. (4)
 10:25 a.m. (234567)
 11:55 a.m. (234567)

WMAQ, Chicago, on 670
 5:30-5:45 p.m. (234567)

WOAI, San Antonio, on 1190
 9:00 a.m. (234567)
 10:05 a.m. (4)
 5:30 p.m. (234567)

WOWO, Ft. Wayne, on 1160
 12:15 p.m. (1234567)

W9XBY, Kansas City, on 1530
 6:00 & 9:00 p.m. (234567)

Stations Using Mountain Time

KFEL, Denver, on 920
 8:00 a.m. (1234567)
 12:00 noon (1234567)
 4:00 p.m. (1234567)
 7:00 p.m. (1234567)

KOB, Albuquerque, on 1180
 6:45 p.m. (234567)

KSL, Salt Lake City, on 1130
 8:00 a.m. (234567)
 4:55 p.m. (234567)

Stations Using Pacific Time

KECA, Los Angeles, on 1430
 12:15 p.m. (234567)
 6:15 p.m. (234567)

KFI, Los Angeles, on 640
 7:30 a.m. (234567)
 9:45 a.m. (234567)
 12:00 noon (234567)
 10:00 p.m. (234567)

KGO, San Francisco, on 790
 9:45-9:50 a.m. (5)
 9:55-10:00 a.m. (7)
 10:00-10:05 a.m. (2346)
 10:30-10:35 a.m. (7)
 9:30-9:35 p.m. (2)
 10:30-10:35 p.m. (3457)
 10:55-11:00 p.m. (6)
 11:00-11:05 p.m. (1)

KJR, Seattle, on 970
 9:30-10:45 a.m. (234567)
 6:00-6:15 p.m. (234567)
 9:00-9:15 p.m. (1234567)

KNX, Hollywood, on 1050
 9:45-10:00 a.m. (234567)
 12:00-12:15 p.m. (234567)
 6:00-6:15 p.m. (234567)
 9:00-9:15 p.m. (234567)

KPO, San Francisco, on 680
 9:00-9:15 a.m. (7)
 10:15-10:30 a.m. (246)
 12:00-12:15 p.m. (34567)
 4:45-5:00 p.m. (23456)
 10:55-11:00 p.m. (234567)
 11:00-11:05 p.m. (1)

WHAT'S ON THE AIR TONIGHT

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

COLUMBIA.....(C)	
Call	Dial

NATIONAL, Red (R)	
Call	Dial

NATIONAL, Blue (B)	
Call	Dial

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

RADEX is the only publication listing stations in alphabetical order for your convenience.

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

MONDAY

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

C — Buck Rogers; 25th Century
CKLW WAAB WABC WBNS WCAO
WCAU WFBL WHEC WHK WJAS
WJSV WKBW WKRC WOKO

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

C — The Shadow; Drama
WAAB WABC WCAO WCAU WDRC
WEAN WFBL WHEC WIBX WJSV
WKBW WOKO WORC

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

R — Billy Batchelor
WBEN WCAE WCSH WEAF WEEI
WFBR WFI WGY WJAR WRC
WTAG WTAM WTIC WWJ
B — Lowell Thomas
CFCF CRCT KDKA WBAL WBZ
WKY WFLA WGAR WHAM WIOD
WJAX WJR WJZ WLW WMAL
WRVA WSYR

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

C — Myrt and Marge
WABC WADC WBT WCAO WCAU
WDAE WDBO WEAN WFBL WGR
WJAS WJSV WKRC WNAC WOKO
WQAM WSPD WTOC WWVA

B — Amos 'n' Andy

CRCT KDKA WBAL WBZ
WKY WENR WFLA WGAR WHAM
WIOD WJR WJZ WLW WMAL
WPTF WRVA

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

B — Willard Robison; Mildred Bailey
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WKY WENR
WHAM WJR WJZ WMAL WSYR

R — Stories of Black Chamber

KYW WBEN WCAE WCSH WEAF
WEEI WGY WJAR WMAQ WRC
WSAI WTAG WTAM WTIC

E — 7:30 p.m., C-6:30, M-5:30, P-4:30

C — The O'Neills
WABC WCAO WCAU WDRC WFBL
WGR WHEC WHP WJAS WJSV
WMAS WOKO WORC WWVA

C — Buck Rogers; 25th Century

KMBC KMOX KRLL KTRH KTSa
WBBM WBT WCCO WDSU WFBS
WGST WHAS WMBG

B — Red Davis; Drama

KDKA KOIL KPRC KSO KSTP

KTBS KWCR KWK WAVE WBAL
WBZ WBZA WBC WENR WFLA
WHAM WIBA WIOD WIS WJAX
WJDX WJZ WKY WMAL WMC
WPTF WREN WRVA WSB WSM
WSMB WSYR WTAR WWNC

R — Easy Aces

KSO KYW WCAE WCSH WEAF
WGY WMAQ WOW WRC WSAI
WTAG WTAM WWJ

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

C — Boake Carter for Philco
CKLW KMBC KMOX WABC WBBM
WBT WCAO WCAU WCCO WGR
WHAS WHEK WJAS WJSV WNAC

B — Dangerous Paradise; Drama

KDKA KOIL KSO KTBS KVOO
KWCR KWK WBAL WBZ WBZA
WENR WFAA WGAR WHAM WJR
WJZ WKY WMAL WOAI WREN
WSB WSM WSBW WSYR

R — Uncle Ezra

KYW WBEN WCAE WCSH WDAF
WEAF WEEI WGY WJAR WMAQ
WOW WRC WSAI WTAG WTAM

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

R — Richard Himber and Orchestra
KPRC KSD KTBS KVOO WBAP
WBEN WCAE WCSH WDAF WEAF
WEEI WFAA WGY WHO WJAR
WKY WMAQ WOAI WOC WOW
WRC WSAI WTAG WTAM WTIC

B — Jan Garber and Orchestra

KDKA KDYL KFI KGO KGW KHQ
KOA KOIL KOMO KSO KWCR
KWK WBAL WBZ WBZA WGAR
WHAM WJR WJZ WKBW WLS WLW
WMAL WREN WSYR

C — Diane and Her Life Saver

CKLW KDB KERN KFPY KFRC
KGB KHJ KLZ KMBC KMJ KMOX
KSL KWG WABC WADC WBBM
WCAO WCAU WDRC WEAN WFBL
WFBS WGR WHAS WHK WJAS
WJSV WKRC WNAC WOKO WSPD

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

C — Edwin C. Hill

CKLW KMBC KMOX WABC WADC
WBBM WCAO WCAU WCCO WDRC
WEAN WFBL WFBS WGR WHAS
WHK WJAS WJSV WKRC WNAC
WOKO WSPD

C — Billy Batchelor

KDB KERN KFBK KFPY KFRC

KGB KHJ KMJ KOIN KOL KVI
KWG

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

C — Kate Smith's Star Revue

CKLW KFAB KFH KGKO KLRA
KMBC KMOX KOMA KRLL KTRH
KLSA KTUL WABC WADC WALA
WBBM WBNS WBRW WBT WCAO
WCAU WCCO WCOA WDAE WDBJ
WDRS WDSU WEAN WFBL WFBS
WFEA WGR WGST WHAS WHEC
WHK WIBW WIBX WICC WISN
WJAS WJSV WKRC WLAC WLBS
WMAS WMBG WMBR WMT WNAC
WNOX WNBW WOKO WORC WOWO
WQAM WREC WSBT WSFA WSPD

R — Voice of Firestone

CRCF CRCT KFYP KPRC KSD
KSTP KTBS KVOO KYW WAVE
WBEN WCAE WCSH WDAF WDAY
WEAF WBCB WEEI WFBR WFLA
WGY WHO WBA WIOB WIS WJAR
WJAX WJDX WKBW WKY WMAQ
WMC WOAI WOW WPTF WRC
WRVA WSB WSM WSBW WSOC
WTAG WTAM WTAR WTIC WTMJ
WWJ WWNC

B — Carefree Carnival

KDKA KDYL KFI EGW KHQ KOA
KOIL KOMO KPO KSO KWCR
WBZ WBZA WCKY WGAR WJR
WJZ WLIT WLS WMAL WREN
WSYR

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

C — Chesterfield Program

CKLW KDB KERN KFBK KFH
KFPY KPRC KGB KGMB KHJ
KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KOMA KRLL
KSCJ KSL KTRH KTSa KTUL
KVI KWG WABC WACO WADC
WALA WBBM WBG WBNS WBRW
WBT WCAO WCAU WCCO WDAE
WDBJ WDBO WDNC WDDO WDRS
WDSU WEAN WFBL WFBS WFEA
WGST WHAS WHEC WHK WHP
WIBW WICC WISN WJAS WJSV
WKBW WKBW WKRC WLAC WLWB
WLBS WMAS WMBD WMBG
WMBR WMT WNAC WNAX WOKO
WORC WOWO WPG WQAM WREC
WSFA WSJS WSPD WTIC

R — A & P Gypsies

KSD WBEN WCAE WCSH WDAF
WEAF WEEI WGY WHO WJAR
WLIT WMAQ WOC WOW WTAG
WTAM WTIC WWJ

MONDAY (Continued)

B — Sinclair Greater Minstrels
KDKA KFI KFSD KFYR KOA KOIL
KPO KPRC KSO KSTP KTAR KTBS
KTHS KYOO KWK WBAT WBZ
WBZA WDAO WERC WFAA WFLA
WGAR WHAM WIBA WIOD WIS
WJAX WJDX WJR WJZ WKY WLS
WLW WMC WOA1 WPTF WREN
WRVA WSB WSM WSMB WSOC
WTAR WTMJ WWNC

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — The Big Show
CKAC CKLW KFAB KLZ KMBC
KMOX KSL WABC WADC WBBM
WBNS WBT WCAO WCAU WCCO
WDRG WDSU WEAN WFBL WFBM
WHAS WHK WICC WJAS WJSV
WKBW WKRC WNAO WOKO
WOWO WREC WSPD

R — Otto Harbach Musical Show
KDYL KFI KFYR KGO KGW KHQ
KOA KOMO KPRC KSD KSTP
KTBS KVOO WBEA WCAE WCHS
WDAF WDAY WEAF WEBC WEEI
WFAA WFBR WFLA WGY WHO
WIBA WIOD WIS WJAR WJAX
WJDX WKY WLIT WLW WMAQ
WMC WOA1 WOC WOW WPTF WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAM WTMJ WWJ WWNC

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

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Wayne King and Orchestra
CKLW KDB KERN KFAB KFBK
KFPY KFCR KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KOMA
KRLD KSL KVI KWG WAAB WABC WADC
WBBM WBNS WCAO WCAU WCCO
WDRG WDSU WEAN WFBL WFBM
WHAS WHK WIBW WJAS WJSV
WKBW WKRC WOKO WSPD

R — Contented Program
CFCF CRCT KDYL KFI KFYR
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP WBEA WCAE WCHS
WDAF WEAF WEBC WEEI WFAA
WFBR WGY WHO WJAR WKY
WLIT WLW WMAQ WMC WOA1
WOC WOW WRC WSB WSM WTAG
WTAM WTIC WTMJ WWJ

B — Jackie Heller, Tenor
KDKA KOIL KSO KWCR WBAL
WBZ WBZA WCKY WENR WGAR
WHAM WJR WJZ WMAL WREN
WSYR

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — Lilac Time; Night Singer
CKLW KDB KERN KFBK KFPY
KFCR KGB KHJ KLZ KMJ KMOX
KOIN KOL KRLD KSL KVI WABC
WBBM WCAO WFBL WFBM WGR
WHAS WHK WJAS WJSV WKRC

E-11:00 p.m., C-10:00, M-9:00, P-8:00
C — Myrt and Marge
KDB KERN KFAB KFBK KFPY
KFCR KGB KHJ KLRA KLZ KMBC
KMJ KMOX KOIN KOL KOMA
KRLD KSL KTRH KVI KWG WALA
WBBM WBCO WDSU WFBM
WGST WHAS WLAC WREC WSFA
B — Amos 'n' Andy
KOIL KPRC KSTP KTHS KWK
WBAP WCKY WDAF WENR WFAA

WJR WKY WMC WOA1 WREN
WSB WSM WTMJ

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C — Glen Gray and Orchestra
KLRA WABC WALA WBRC WBT
WCAO WDAE WDBJ WDBO WDNC
WDOD WDRG WDSU WEAN WFEA
WJSV WLAC WLZB WMAS WMBG
WMBR WNAO WNOX WORC WPG
WQAM WREC WSFA WSJS WTOG

C — Edwin C. Hill
KDB KERN KFBK KFPY KFCR
KGB KHJ KLZ KMJ KOIN KOL
KSL KVI KWG

E-11:30 p.m., C-10:30, M-9:30, P-8:30
R — Voice of Firestone
KDYL KFI KFSD KGHL KGIR
KGU KGW KHQ KOA KOMO KPO
KTAR

C — Kate Smith's Star Revue
KDB KERN KFBK KFPY KFCR
KGB KHJ KLZ KMJ KOIN KOL
KSL KVI KWG

TUESDAY

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

E-6:30 p.m., C-5:30, M-4:30, P-3:30
C — Musical Appreciation Program
CKLW KLRA WABC WALA WBIG
WBRC WBT WCAO WDAE WDBJ
WDBO WDNC WDOD WDRG WDSU
WEAN WFEA WGLC WHEC WHK
WHP WJAS WJSV WKBW WKRC
WLAC WLW WLZB WMAS WMBG
WMBR WNOX WOKO WORC WQAM
WREC WSFA WSJS WSPD WTOG
WWVA

E-6:45 p.m., C-5:45, M-4:45, P-3:45
R — Billy Batchelor, See Monday

B — Lowell Thomas, See Monday

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

E-7:15 p.m., C-6:15, M-5:15, P-4:15
R — Whispering Jack Smith
KSD KYW WBEA WCHS WEAF
WFBR WJAR WMAQ WRC WSAI
WTAG WTAM WTIC

B — Morton Downey
KDKA KOIL KSO KWCR WBZ
WBZA WCKY WENR WFI WGAR
WHAM WJR WJZ WKBF WMAL
WREN

E-7:30 p.m., C-6:30, M-5:30, P-4:30
B — Household Musical Memories
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WENR WGAR
WHAM WJZ WMAL WENR WSYR

C — Buck Rogers, See Monday

R — Easy Aces, See Monday

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

E-8:00 p.m., C-7:00, M-6:00, P-5:00
C — Frank Munn; Gustav Haenschen
CKLW KMBC KMOX WABC WADC
WBBM WCAO WCAU WDRG WEAN
WFBL WFBM WGR WHAS WHK
WJAS WJSV WKRC WNAO WOKO

R — Leo Reisman and Orchestra
KPYR KPRC KSD KSTP KTBS
KVOO WAVE WBAP WBEA WCAE
WCHS WDAF WDAY WEAF WEBC
WEEI WFBR WFI WFLA WGY
WIBA WIOD WIS WJAR WJAX

WJDX WKBF WKY WMAQ WMC
WOC WOW WPTF WRC WSB WSM
WSMB WSOC WTAG WTAM WTAR
WTIC WTMJ WWJ WWNC

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

E-8:15 p.m., C-7:15, M-6:15, P-5:15
C — Billy Batchelor, See Monday

E-8:30 p.m., C-7:30, M-6:30, P-5:30
C — Abe Lyman; Vivienne Segal
CFRB CKLW KMBC KMOX WABC
WDRG WBBM WCAO WCAU WCCO
WDRG WEAN WFBL WFBM WGR
WHAS WHK WJAS WJSV WKRC
WNAO WOKO WOW WSPD

R — Wayne King and Orchestra
KPRC KSD KSTP WBEA WCAE
WCHS WDAF WEAF WEEI WFAA
WFI WGY WHO WJAR WKBF WKY
WMAQ WMC WOA1 WOC WOW
WRC WSAI WSB WSM WSMB
WTAG WTAM WTIC WTMJ WWJ
B — Lawrence Tibbett
CFCF CRCT KDKA KOIL KSO
KWCR WBAL WBZ WBZA WGAR
WHAM WJR WJZ WLS WMAL
WREN WSYR

E-9:00 p.m., C-8:00, M-7:00, P-6:00
C — Bing Crosby; Mills Bros.
CKLW KDB KERN KFBK KFPY
KFCR KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KRLD KSL
KTUL KVI KWG WABC WADC
WBBM WBT WCAO WCAU WCCO
WDRG WDSU WEAN WFBL WFBM
WGST WHAS WHK WJAS WJSV
WKBW WKRC WNAO WOKO
WOWO WREC WSPD

R — Ben Bernie and Orchestra
KPYR KOA KPRC KSD KSTP
KTBS WBAP WBEA WCAE WCHS
WDAY WEAF WEEI WFBR WFI
WGY WJAR WJDX WKY WMAQ
WMC WOA1 WOW WRC WSB WTAG
WTAM WTIC WTMJ WWJ

B — Grace Moore, Soprano
KDKA KDYL KFI KGW KHQ KOA
KOIL KPO KSO KWCR KWK WBAL
WBZ WBZA WCKY WFI WHAM
WJR WJZ WKBF WLS WMAL
WREN WSYR

E-9:30 p.m., C-8:30, M-7:30, P-6:30
C — Isham Jones and Orchestra
CKLW KDB KERN KFAB KFBK
KPH KFPY KFCR KGB KGKO
KHJ KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KOMA KRLD
KSCJ KSL KTRH KTSK KTUL KVI
KWG KWK WABC WACO WADC
WALA WBBM WBSO WBRC WBT
WCAO WCAU WCCO WDAE WDBJ
WDBO WDOD WDRG WDSU WEAN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WIBX
WICC WIND WISN WJAS WJSV
WKBW WKBW WKRC WLAC
WLW WMAS WMBD WMBG
WMBR WMT WNAO WNAO WNOX
WOKO WORC WOWO WPG WQAM
WREC WSFA WSJS WSMK WSPD

R — Ed Wynn; Eddie Duchin
KDYL KFI KFDK KFYR KGHL
KGIR KGO KGW KHQ KOA KOMO
KPRC KSD KSTP KTAR KTBS
KTHS KVOO WAVE WBAP WBEA
WCAE WCHS WDAF WDAY WEAF
WEBC WEEI WFBR WFI WFLA

TUESDAY (Continued)

WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKBF WKY WMAQ
WMC WOAI WOV WPTF WRC
WRVA WSB WSM WSWB WSOE
WTAG WTAM WVIC WTMJ WWJ
WWNC

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

C — Glen Gray; Walter O'Keefe
CKLW KFAB KFH KLRA KMBC
KMOX KOMA KRLD KSCJ KTRH
KTSa KTLU KWKH WABC WACO
WADC WALA WBBM WBIG WBNS
WBRC WBT WCAO WCAU WCCO
WDAE WDBJ WDBO WDNC WDOE
WDRC WDSU WEAN WFBL WFBM
WFEA WGST WHEC WHK WHP
WIBW WICC WISN WJAS WJSV
WKBN WKWB WKRC WLAC
WLWB WLWZ WMAS WMBD
WMBG WMBR WMT WNAC WNA3
WOKO WORC WOWO WPG WQAM
WREC WSEA WSJS WSPD WTOE

R — Palmolive Beauty Box

CFCF CRCT KDYL KFI KFSD
KFYR KGHK KGIR KGO KGW
KHQ KOA KOMO KPRC KSD KSTP
KTAR KTBS KV00 WAVE WBAF
WBEN WCAE WCSH WDAF WDAY
WEAF WECB WEEI WFBF WFLA
WGY WHO WIOD WIS WJAR WJAX
WJDX WKBF WKY WLW WMAQ
WMC WOAI WOC WOW WPTF
WRC WRVA WSB WSM WSWB
WSOE WTAG WTAM WTMJ WWJ
WWNC

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

C — Dobbsie's Ship of Joy
CKLW KDB KERN KFAB KFBC
KFPY KFRC KGB KHJ KLRA KLZ
KMJ KMOX KOIN KOL KRLD
KRNT KSL KTRH KTSa KTLU
KVI KWG WABC WBBM WBNS
WBRC WBT WCAO WCAU WCCO
WDRC WDSU WFBL WFBM WGR
WGST WHAS WHK WJAS WJSV
WKRC WLAC WMBG WMBR
WNAC WNA3 WOC WOKO WQAM
WREC

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

C — Voice of Crusaders
CKAC CKLW KFH KGB KGKO
KHJ KLRA KLZ KMBC KOH KOL
KOMa KRLD KTRH KTSa KVI
KVOR WABC WADC WALA WBBM
WBIG WBNS WBT WCAO WCCO
WDBJ WDBO WDNC WDOE WDRC
WEAN WFBL WFEA WGR WGST
WHAS WHEC WHK WHP WIBX
WICC WKBN WKRC WLAC WLWZ
WMBG WMBR WMT WNA3 WNOX
WOKO WORC WPG WQAM WREC
WSBT WSJS WSMK WSPD WTOE

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

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

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

C — Frank Dalley and Orchestra
CKAC CKLW KDB KFH KGKO
KLRA KLZ KOH KOMA KRLD
KTRH KTSa KVA WKBH WABC
WACO WADC WALA WBNS WBRC
WBT WCAO WDAE WDBJ WDBO
WDNC WDRC WDSU WEAN WFBL
WFEA WGLC WHEC WHK WHP
WIBW WJAS WJSV WKBW WKRC
WLAC WLWB WLWZ WMAS WMBG
WMBR WMT WNAC WNA3 WNOX
WOKO WORC WPG WQAM WSBT
WSEA WSJS WSPD WTOE WVA

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

C — Johnny Green and Orchestra
CFRB CKAC CKLW KFH KGKO
KLRA KLZ KMBC KOH KOMA
KRLD KSCJ KTRH KTSa KVOR
KWKH WABC WADC WBBM WBNS
WBRC WBT WCAO WCAU WDAE
WDBJ WDBO WDNC WDOE WDRC
WDSU WEAN WFBL WFEA WHEC
WHK WHP WIBW WICC WISN
WJAS WJSV WKBW WKRC WLAC
WLWB WLWZ WMAS WMBD
WMBR WMT WNAC WNA3 WNOX
WORC WPG WQAM WSBT WSEA
WSJS WSPD WTOE WVA

R — Leo Rolsman and Orchestra

KDYL KFI KFSD KGIR KGU KGW
KHQ KOA KOMO KPO KTAR

WEDNESDAY

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

C — Buck Rogers, See Monday

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

C — The Shadow, See Monday

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

R — Billy Batchelor, See Monday

B — Lowell Thomas, See Monday

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

C — Myrt and Marge, See Monday

B — Amos 'n' Andy, See Monday

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

B — Willard Robinson, See Monday

R — Black Chamber, See Monday

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

C — Buck Rogers, See Monday

B — Red Davis, See Monday

C — The O'Neill's, See Monday

R — Easy Aces, See Monday

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

C — Boake Carter, See Monday

B — Dangerous Paradise, See Monday

R — Uncle Ezra, See Monday

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

R — One Man's Family

CFCF CRCT KDYL KFI KFYR
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP KTAR KTBS KV00
WAVE WBAF WBEN WCAE WCKY
WCSH WDAF WDAY WEAF WECB
WEEI WFBF WFLA WGY WHO
WIBA WIOD WIS WJAR WJAX
WJDX WKY WLIT WMAQ WMC
WOAI WOC WOW WPTF WRC
WRVA WSAI WSB WSM WSWB
WTAG WTAM WVIC WTMJ WWJ
WWNC

B — Penthouse Party; Mark Hellinger

KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WENR
WGAR WHAM WJR WJZ WLIT
WMA3 WMBG WMBR WMT WNA3
WNOX WOKO WORC WPG WQAM
WREC WSBT WSJS WSMK WSPD
WTOE

C — Diane and Life Saver, See Monday

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

C — Edwin C. Hill, See Monday

C — Billy Batchelor, See Monday

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

C — Everett Marshall; Victor Arden
CKLW KDB KERN KFBC KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KOMA KRLD
KSL KVI KWG WABC WADC
WBBM WBT WCAO WCAU WDRC
WDSU WEAN WFBL WFBM WGR
WHAS WIBW WJAS WJSV WKRC

WLAC WNAC WOKO WOWO WSPD

B — Lanny Ross and Orchestra
KDKA KOIL KSO KWCR WBAL
WGAR WHAM WJR WJZ WLS
WMA3 WREN WSYR

R — Wayne King, See Tuesday

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

R — Fred Allen; Lonnie Hayton
KPRC KSD KSTP KTBS KV00
WBEN WCAE WCSH WDAF WEAF
WECB WEEI WFBF WGY WIOD
WIS WJAR WJAX WKY WLIT
WLW WMAQ WMC WOAI WOW
WPTF WRC WRVA WSB WSM
WSMB WTAG WTAM WVIC WTMJ
WWJ

B — Warden Lawes; Drama

KDKA KDYL KFI KGO KGW KHQ
KOA KOIL KOMO KSO KWCR
KWK WBAL WBZ WBZA WCKY
WGAR WHAM WJR WJZ WKBK
WLS WLW WMA3 WREN WSYR
C — Chesterfield Program, See Mon.

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

C — George and Gracie

CKLW KDB KERN KFBC KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KOMA KRLD
KSL KTRH KTSa KVI KWG WABC
WADC WBBM WBIG WBT WCAO
WCAU WCCO WDRC WDSU WEAN
WFBL WFBM WHK WJAS WJSV
WKBW WKRC WNAC WOKO WORC
WOWO WSPD

B — John Charles Thomas

KDKA KDYL KFI KGO KGW
KHQ KOA KOIL KOMO KSO KWCR
KWK WBAL WBZ WBZA WCKY
WENR WGAR WHAM WJR WJZ
WKBK WLW WMA3 WREN WSYR

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

C — Jack Pearl; Freddie Rich

CKLW KDB KERN KFAB KFBC
KFH KFPY KFRC KGB KGKO
KLZ KMBC KMJ KMOX KOIN
KOL KOMA KLRA KRLD KSCJ
KSL KTRH KTSa KTLU KVI
KWG KWKH WABC WALA WBBM
WBNS WBRC WBT WCAO WCAU
WCCO WDAE WDBJ WDBO WDOE
WDRC WDSU WEAN WFBL WFBM
WGST WHAS WHEC WHK WHP
WIBW WIBX WICC WJAS WJSV
WKBW WKRC WLAC WMAS
WMBD WMBG WMBR WMT WNAC
WNA3 WNBK WNOX WOC WOKO
WOWO WQAM WREC WSBT WSMK
WSPD WTOE

R — Guy Lombardo and Orchestra

KPRC KSD KTBS KTHS KV00
WAVE WBEN WCAE WCSH WDAF
WEAF WEEI WFAA WFBF WFLA
WGY WHO WIOD WIS WJAR WJAX
WJDX WKBK WKY WLIT WLW
WMAQ WMC WOAI WOC WOW
WPTF WRC WRVA WSB WSM
WSMB WTAG WTAM WVIC WWJ
WWNC

B — Jimmy Fidler, Hollywood Gossip

KDKA KDYL KFI KGW KHQ KOA
KOIL KOMO KPO KSO KWCR
WBAL WBZ WBZA WCKY WENR
WGAR WHAM WJR WJZ WLIT
WMA3 WREN WSYR

E-10:15 p.m., C-9:15, M-8:15, P-7:15

B — Madame Sylvia, Talks

KDKA KDYL KFI KGO KGW KHQ
KOA KOIL KOMO KSO KSTP KWCR
KWK WBAL WBZ WBZA WECB

WEDNESDAY (Continued)

WENR WRGA WHAM WJZ WMAL
WREN WRVA WSYR WTMJ

E-10:30 p.m., C-9:30, M-8:30, P-7:30
C — Howard Bartow; Mary Eastman
CFRB CKAC CKLW KDB KFH
KGKO KHJ KLRA KLZ KMBC
KOH KOMA KRLD KSCJ KTRH
KTSa KVOR KWKH WAAB WABC
WACO WADC WALA WBBM WBIG
WBRC WBT WCAO WCAU WDAE
WDDB WDBO WDNC WDOO WDRC
WDSU WEAN WFBL WFBM WFEA
WGLC WGR WHBC WHP WHW
WJVC WJW WJAS WJSV WKRC
WLAC WLWB WMAS WMBD
WMBR WMT WNOX WOKO WORC
WQAM WSBT WSFA WSJS WSPD
WTOC

R — Ray Noble and Orchestra
KDYL KFI KGW KHQ KOA KOMO
KPO KSD KYW WAPI WAVE WBEN
WCAE WCHS WEAF WEEL WFBF
WGY WHO WJAR WJDX WKBF
WLW WMAQ WMC WOV WRC
WSB WSM WSMB WTAG WTAM
WTIC WWJ

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

E-11:15 p.m., C-10:15, M-9:15, P-8:15
C — Leon Belasco and Orchestra
KLRA WABC WALA WBRC WBT
WCAO WCAU WDAE WDDB WDBO
WDNC WDOO WDRC WDSU WEAN
WFEA WJVS WLAC WLWB WMBR
WMAS WNOX WORC WPG WQAM
WSFA WSJS WTOC

C — Edwin C. Hill, See Monday

E-11:30 p.m., C-10:30, M-9:30, P-8:30
C — Ozzie Nelson and Orchestra
KLRA WABC WALA WBRC WBT
WCAO WCAU WDBJ WDBO WDNC
WDDB WDRC WDSU WEAN WFEA
WICC WJVS WJAS WLAC WLWB
WMAS WMBR WNOX WORC WPG
WQAM WSFA WSJS WTOC

C — Voice of Experience
KDB KERN KFBC KFPY KFRC
KGB KHJ KLZ KMJ KOIN KOL
KSL KVI KWG

B — Lanny Ross and Orchestra
KDYL KFI KFSD KGO KGW KHQ
KOA KOMO

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

THURSDAY

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

E-6:45 p.m., C-5:45, M-4:45, P-3:45
R — Billy Batchelor, See Monday

B — Lowell Thomas, See Monday

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

E-7:15 p.m., C-6:15, M-5:15, P-4:15
B — Gems of Melody
KDKA KOIL KSO KTBS KWCR
WBAL WBBZ WBZA WENR WHAM
WJZ WMAL WREN WSYR

R — Whispering Jack Smith, See Tues.

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

R — Mollo Minstrels
KSD KYW WBEN WCSH WDAF
WEAF WGY WHO WJAR WMAQ
WRC WSAI WTAG WTAM WWJ

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

B — Ruth Etting; Red Nichols
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WENR
WFIL WGAR WJZ WLS WMAL
WREN WSYR

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

R — Rudy Vallee and Orchestra
CFRC CRCT KDYL KFI KFYZ
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP KTAR KVOO WAPI
WBAP WBEN WCAE WCSH WDAY
WEAF WEBC WEEI WFBF WFI
WFLA WGY WHO WIOD WIS
WJAR WJAX WJDX WKY WLW
WMAQ WMC WOAI WOC WOV
WPTF WRC WRVA WSB WSM
WSMB WTAG WTAM WTIC WWJ
WWNC

C — Phil Spitalny's Girl Orchestra
CKLW KDB KERN KFAB KFBC
KFPY KFRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KSL KVI
KWG WABC WADC WBBM WCAO
WCAU WCCO WDRC WEAN WFBL
WFBM WGR WHAS WHK WJAS
WJSV WKRC WMAS WNOX WOKO
WSPD

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

C — Billy Batchelor, See Monday

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

CKLW KMBC KMOX WABC WADC
WBBM WCAO WCAU WDRC WEAN
WFBL WFBM WGR WHAS WHK
WJAS WJSV WKRC WNOX WOKO
WOW WSPD

B — Red Trails—Drama
KDKA KOIL KSO KWK WBAL
WBZ WBZA WCKY WFIL WGAR
WJR WJZ WLS WMAL WREN
WMT WSYR

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

C — Glen Gray; Walter O'Keefe
CKLW KFAB KFH KLRA KMBC
KMOX KOMA KRLD KSCJ KTRH
KTSa KTUL KWKH WABC WACO
WADC WALA WBBM WBIG WBNS
WBRC WBT WCAO WCAU WCOO
WDAE WDBJ WDBO WDDB WDRC
WDSU WEAN WFBL WFBM WFEA
WGST WHAS WHC WHK WHP
WIBW WICC WJVS WJAS WJSV
WKBW WKBW WKRC WLAC
WLWB WLWB WMAS WMBD
WMBG WMBR WMT WNOX WQAM
WRC WSCA WSJS WSPD WTOC

R — Maxwell House Show Boat
KDYL KFI KFSD KGHJ KGIR
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP KTAR KTBS WAPI
WAVE WBAP WBEN WCAE WCSH
WDAF WEAF WEEI WFBF WFI
WFLA WGY WHO WIOD WIS WJAR
WJAX WJDX WKBF WKY WLW
WMAQ WMC WOAI WOC WOV
WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WTIC WTMJ
WWJ WWNC

B — Death Valley Days; Drama
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WGAR WHAM
WJR WJZ WLS WLW WMAL WREN
WYSR

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

C — Fred Waring's Pennsylvanians
CFRB CKLW CFCM KDB KERN
KFAB KFBC KFH KFPY KFRC
KGB KGKO KHJ KLRA KLZ KMBC
KMJ KMOX KOH KOIN KOL KOMA
KRLD KSCJ KSL KTRH KTSa
KTUL KVI KVOR KWG WABC
WACO WADC WALA WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCCO WDAE WDBJ WDBO WDNC
WDOB WDRG WDSU WEAN WFBL
WFBM WFEA WGLC WGST WHAS
WHCC WHK WHP WIBW WICC
WJVS WJAS WJSV WKBW WKBW
WKRC WLAC WLWB WLWB WMAS
WMBD WMBG WMBR WMT WNOX
WNOX WNOX WOKO WORC WOV
WPG WQAM WREC WSFA WSJS
WSPD WTOC

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

R — Paul Whiteman's Music Hall
CFRC CRCT KDYL KFI KFYZ
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP KTAR KTBS KTHS
KVOO WAPI WAVE WBAP WBEN
WCAE WCHS WDAF WDAY WEAF
WEBC WEEI WFBF WFI WFLA
WGY WHO WBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WOAI WOC WOV WPTF
WRC WRVA WSB WSM WSMB
WTAG WTAM WTIC WTMJ WWJ
WWNC

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

C — Dobbie's Ship, See Tuesday

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

C — Voice of Crusaders, See Tuesday

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

C — Myrt and Marge, See Monday

B — Amos 'n' Andy, See Monday

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

C — Little Jack Little
CFRB CKAC CKLW KDB KFH
KGKO KLRA KLZ KOH KOMA
KRLD KSCJ KTRH KTSa KVOR
KWKH WABC WACO WADC WALA
WBBM WBNS WBRC WBT WCAO
WCCO WDAE WDBJ WDBO WDNC
WDOB WDRC WDSU WEAN WFBL
WFBM WFEA WGLC WHCC WHK
WHP WIBW WJVS WJAS WJSV
WKBW WKRC WLAC WLWB WLWB
WMAS WMBD WMT WNOX WNOX
WNOX WOKO WORC WPG WQAM
WSBT WSFA WSJS WSPD WTOC
WWVA

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

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

FRIDAY

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

C — Leon Navara and Orchestra
CKLW KFH KGKO KLZ KMBC
KOH KOMA KRLD KSCJ KSL
KTRH KVOR KWKH WAAB WABC
WADC WBBM WCAO WCAU WDNC

Receivers for the SHORT WAVES

• • • By F. FRANCIS DASHIELL

LONG before the broadcast band was established by governmental edict and squeezed between the limits of 200 and 550 meters, thousands of radio amateurs were shoved down into an unknown region below 200 meters where they were expected to die a natural death. But it was here that, much to the surprise of our radio fathers, these amateurs began to perform amazing stunts of world-wide transmission and reception. The short waves must have been good for something after all for soon the radio world began a stampede into that region which has never ceased. And the result was that the amateurs were again herded into their present narrow confines. Then broadcasting and entertainment radio reached a jealous hand into the already congested short waves. And now manufacturers of broadcast receivers, unable to abandon the old broadcast band, have added new circuits so as to cover the short waves. Thus we have the "all-wave" receiver.

But there is a certain class of manufacturers who do not include facilities for covering the standard broadcast band; they have designed

their sets to meet the special requirements of an overcrowded short-wave region. The all-wave feature is missing for these instruments are strictly short-wave receivers. While all-wave sets are excellent and remarkable performers and fully satisfy those listeners who do not have a desire to search the crowded, far-flung spaces for faint signals from mysterious stations, either in code or voice, the professional short-wave receivers provide DX thrills unknown to most of us.

The Comet "Pro"

Hammarlund engineers have been pioneering in radio parts and short-wave receivers for many years. The present Comet "Pro" is the latest of a long line of professional short-wave receivers. The year 1935 reveals three models of this famous instrument—the "Standard," the "Crystal" and the "A. V. C." The "Standard" is an eight-tube superheterodyne. The "Crystal" is essentially the "Standard" but with a crystal control added. The "A. V. C." is also similar to the "Standard" but employs an additional tube for automatic volume control. Because automatic volume control on short-wave receivers and weak signals can cause a great deal of noise at times, it is not a desirable feature under all conditions. Many short-wave listeners do not care for it. Even the "A. V. C." model has a switch to cut the control in or out at will.

Comet "Pros" are high-frequency superheterodynes designed to meet the exacting demands of professional operators, amateurs and advanced radio listeners interested in extremely sensitive and selective reception of both code and voice radio signals in the frequency range from 1,200 to 20,000 kilocycles. These receivers



The Hammarlund Comet "Pro"

operate on alternating current for it has been found possible to build an all a.c. set that is just as quiet as the finest battery set.

Plug-In Coils

Interchangeable plug-in coils are used to shift from one frequency range to another. Two coils—one r.f. and one oscillator—constitute a set. Four sets of coils are used to cover the entire wave band limits, as follows: 15 to 31 meters; 28 to 61 meters; 56 to 120 meters; and 115 to 250 meters. Special coils to cover the 8 to 16 meter range and the 250 to 550 meter range are also available. A complete set of tuning charts are furnished for the four standard coil sets and show the settings of the dials for any given frequency or wavelength. This facilitates perfect logging of elusive stations and eliminates guess work in locating the signals. This system brings in hundreds of stations that single-dial tuners cannot locate.

Plug-in coils still are regarded as having high electrical efficiency for the reason that all switches and sources of variable contact resistance are avoided. The arrangement of the tuning condensers is unique. The circuit not only gives band spreading action on the four amateur bands of 20, 40, 80 and 160 meters, but the same effect is obtainable throughout the entire range of 1,200 to 20,000 kilocycles. And the set may be tuned to any frequency within its limits without "image" interference.

The Tuned Circuits

An inspection of the tube diagram shows that the oscillator is electronically coupled. A type 58 tube is used, and its plate output is coupled to the grid of the first detector. This eliminates all interaction between these two circuits, even at the high 20 megacycle frequencies. The first detector is a type 57 screen-grid pentode tube which has high detector sensitivity. The two i.f. amplifying stages employ 58 variable-mu pentode tubes, and the i.f. coupling



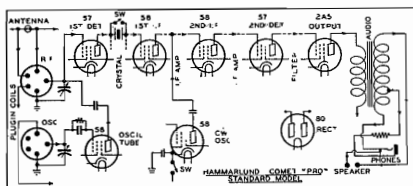
The Comet "Pro" Aboard the "Seth Parker"

transformers—peaked at 465 kcs.—are of the twin-coil tuned-plate, tuned-grid type. These transformers are highly efficient and are accurately centered within their shields. They provide practically all the selectivity in the set, and, therefore, have the condenser tuned primary and secondary coils which are so necessary for high grade superheterodyne performance.

Additional selectivity is obtained by inserting a quartz crystal and special filtering first i.f. transformer between the 57 first detector and 58 first i.f. tube. A quartz crystal affords a tremendous gain in selectivity. In the "Pro" the crystal resonates only at 465 kilocycles and provides from one to two kilocycle selectivity!

Speaker Or Phones

The second, or i.f. detector, is a 57 type tube. The output uses a 2A5 tube that is resistance-capacity coupled to the detector. The high amplification and great power handling abilities of this tube insure good loud speaker volume even on very weak distant signals. A phone jack is connected into the output so that



the insertion of a phone plug will break the circuit to the speaker terminals. The loud speaker, therefore, can be permanently connected to the receiver.

There is an intermittent beat oscillator which can be started and stopped by the toggle switch. It consists of a 58 tube which, like the high-frequency oscillator, is also electronically coupled to the grid of the second detector. This produces an audible beat with the incoming pure continuous-wave signals which are otherwise inaudible. When it is turned on, the beat oscillator produces a whistle whenever a carrier wave is crossed during the process of tuning. This effect instantly locates weak stations that would not be indicated on a visual tuning meter if such were used.



Radio Central in Kansas City

The National Receivers

"National" short-wave receivers are also made by an old and well-known pioneer of the early days of wireless. Like most precision-built, commercial and professional short-wave receivers they, too, use plug-in coils to cover small unit portions of the bands. The FB-7 and SW-58 "National" models appeal more strongly to average listeners than the larger and more business-like commercial receivers. The former model has seven tubes—one type 56, one type 57, two 58's, one 59 and two 24's.

These "National" sets do not have built-in power packs such as the Comet "Pro" just mentioned and the Hallicrafter "Super-Skyrider" that was described in the February issue of RADEX. Separate and perfectly filtered power units are provided. Model SW-58 is a five-tube receiver employing two 58's as r.f. amplifier and as detector; a type 56 for the first audio, and two -45's in the power output. The same set is also made for battery operation and uses 2-volt tubes—two 34's, one 30, and two 31's in the output. No power pack, of course, is necessary.

The FB-7 Model

The National FB-7 model is designed primarily for the experienced amateur operator and advanced DX listener. It has exceptional sensitivity, selectivity and stability throughout the crowded short waves. All circuits are individually filtered, including the oscillator. A crystal is available which may be added to the receiver at any time and when it is used the selectivity is said to be measured in cycles rather than kilocycles. Interference due to the heterodyning of adjacent signals is almost entirely eliminated. Tuning is strictly single-control and the calibration is permanent.

Plug-in coils fit into the front of the panel without disturbing the cabinet top and the shielding within. The windings are protected from damage by an outside sleeve of bakelite. Tuning curves for each set of coils are mounted on the front panel. A phone jack is located in the second detector output circuit and automatically cuts out the loud speaker. Band spread coils for the 20, 40, 80 and 160 meter amateur bands can be obtained separately, while the range from 1,500 to 34,000 kilocycles is covered by six pairs or sets of coils.

Don't be ignorant of the working of your radio set. Read about "The Beginner's Story of Radio" on the inside of front cover.

Listening In on Our Readers' Sets

PULL up your chairs and make yourselves comfortable. The monthly meeting of the RADEX Radio Club will now be opened. Has any member anything to offer for the good of the order? The first gentleman recognized is Manuel Alberto Cadilla, P. O. Box 337, San Juan, P. R., who as usual writes interestingly of radio in the islands:

"I have been able to set new records in my log for daylight reception and for exceeding in half a season what I did in the whole previous season. I added two new countries, Argentina and Uruguay. 'Iowa on the Air' did not go off as scheduled and I lost track of the stations, logging only six of them with KSO the worst for its power. WHAM comes in R9 but with a terrible whistle. WDAY came in fine. WNEL,

1290, 500 watts, is broadcasting from 1 to 3 a. m. EST every other Sunday morning (March 31, April 14, etc.) On January 20th, in less than half an hour I picked up two stations nearly ten thousand miles apart—Paris and KHQ, Spokane. Got a mystery station on 560 January 6th at 4:45 p. m. EST. broadcasting a baseball game. Announcements and talk was in Spanish and they announced themselves as H— somewhere in the Dominican Republic. WNEL is now signing on every morning at 7 a. m. AST and should be easy to hear over there at 6 a. m. EST. The only states missing in my log are Arizona, Delaware, DC., Idaho, Montana, Nevada, Vermont and Wyoming. DX after March 31, is impossible in Puerto Rico just as it is before October 1."

Covers the Whole Atlas

From what he calls "Receiving Station KPRX, C. D. Streuber, Burbank, Calif., sends a long report of his DX work on a specially constructed battery receiver using eight tubes with a superheterodyne circuit. On the s. w. he uses a Patterson PR10. "On the bcb I have logged stations in the following countries: Canada, Mexico, Alaska, Hawaii, Newfoundland, Cuba, Costa Rica, Venezuela, Chile, Uruguay, Argentina, Philippines, England, France, Finland, Germany, New Zealand, South Africa, Egypt, Japan, China, Siberia, Russia and Australia. I consider my five best on the bcb at TITV, San Jose, C. R., with 7½ watts; XLHJ, Shanghai, China, with 50 watts; ZTC, Capetown, S. Africa, with 1000 watts; YN, Lyons, France, with 15,000 watts; and VOGY, St. John's Nfld., with 400 watts.

"On the s. w. I have logged stations in all the above countries as well as in Nicaragua, Guatemala, Panama, Dominica, Canal Zone, Co-



Jimmie Fidler who retails the latest gossip from Hollywood Wednesdays at 10 p. m. EST. Fidler has been editor of screen magazines and has served as publicity agent for nearly 40 screen celebrities. He therefore knows his stuff.

lombia, Ecuador, Peru, Bolivia, Brazil, Little America, Kenya, Belgian Congo, Morocco, Iraq, Spain, Norway, Italy, Belgium, Switzerland, Holland, Denmark, Fiji, Java, Straits Settlement, Malaysia, Sumatra, Indo-China and India. My best on s. w. are OPL, Leopoldville, Belgian Congo; G5BJ, an amateur in South Yardley, England; G2CO, an amateur with 10 watts in Blyth, England; and ZHI, Singapore, Straits Settlement. My total foreign log on all waves is 450 stations."

From "The Sidewalks of N. Y."

Readers in large cities with their many obstacles to distant reception will be interested in the record of Carl Forestieri, 463 East 185th St., New York City, with his Atwater Kent 711. "I had a log of 724 bc stations when I started DX with this set and have logged 95 new ones in one year. I had none on the s.w. and now have heard 112 in 30 countries. Among my best bc. catches verified this year, I count the following; 2BL, 4QG, KGDM, LS2, TGW, YV1RC, XEK, XEMO, XETH, XEYZ, XFX, KXA, KLX, KTRB, KMJ, W6XAI, CX26, CT1GL, XEAL, XEBC, CFQC, KSEI and Rennes, Cologne, Breslau, Berlin. I have reports out to XEWZ, XEJ, XEU, KGU, CPX, 1YA and Bordeaux, Toulouse and Hamburg. I have completely verified 36 states with all states logged. Need about 45 to complete the states.

"My s. w. log includes GSA-B-C-D-E-F-G in England; DJA-B-C-D-N in Germany, 2RO, 1RA in Italy; PHI, PCJ, PCK in Holland; HBL-P in Switzerland; COC-H in Cuba; VK2ME-3ME-3LR in Australia; LSX-F-N in Argentina; RV59, RNE, RKI, RIM, in USSR; ORK in Belgium; OA4AC-D, OAX4B-C-D in Peru; TIEP, TIXGP, TIGPH in Costa Rica; HP5B in Panama; HAS-T in Hungary; EA8AB in Canary Island; JYS-JVN-T in Japan; YDA in Java; CT1AA in Portugal; Prado, HCJB, HC2RL-2ET in Ecuador; PRA3, PRF5, PSZ-K in Brazil; XEBT-XETE



Captain Tim Healy of the Ivory Stamp Club. In his broadcasts he tells the stories behind the stamps as well as tales from his own experiences as an intelligence officer in the Australian forces during the World War. On the NBC-WEAF net Mondays, Wednesdays and Fridays at 5:45 p. m. EST.

in Mexico, HJ1ABB-1ABG-1ABE-2ABA-3ABD - 3ABF - 3ABH - 4ABB - 4ABL-5ABD-5ABC-4ABE and HJN in Colombia; EAQ, FYA, seven Canadian, 4 DR., etc. So it seems that this AK in the City of New York performs OK."

Are Verifications Worth While?

The following letter came to us as something of a poser and, after thinking it over, we decided to refer it to our readers. It raises the whole question of verifications. Are they worth while? Can a fellow have just as much fun and thrill out of merely logging those stations whose call and location he hears clearly, or are written verifications an essential part of the DX game?

"Dear Sir: I send for every verification that I can and when my pop sees me writing out a dozen or so, he wants to know what's the sense of it all. He says it does no good to have a letter from a station saying that they were broadcasting that time and that they were glad that I heard the program. I'm quite at a loss to argue with him except to say

that it is an interesting hobby. He claims that it is a waste of stamps. I wish you could give me a good statement to rely on when he questions the sense of this correspondence." Now what can we tell Ken to tell his "Pop?"

A Five Year Old AK

A first report from a newcomer to the DX ranks comes from Joseph Mazel, Poquonock, Conn. "I am the owner of an Atwater Kent 55 which, although it is five years old, still has plenty of power pulling in those weak, distant stations. I have two aeriels, one N-S and one E-W. The latter is the better of the two. I use three grounds, one to a water-pipe, one to an iron pipe driven eight feet into the earth, and one consisting of an old gasoline tank filled with copper, charcoal and rock salt. This is buried about six feet underground. The two latter grounds are constantly watered. With this set-up I have no trouble receiving Chicago, Louisville, Nashville, Raleigh and Detroit all day long when weather conditions are favorable. The 100-watt West Coast stations have been coming through fine until the past few weeks. In the past month I have heard LR4, LS2, Fecamp and PP. LR5 has been coming through KOA at 8 p. m. EST many times with good volume. At present my log stands at 545 on the bcb. Recently received veries from WKAQ and TGW. What station is heard in the background of WLW?"

Uses a Comet Pro

"Now that I have joined the NNRC, I am definitely a bcb. DXer," announces Nicholas J. Hock, 20 Burnet Street, Newark, N. J. "KLZ offers a 15-minute talk on DX on the s. w. at 1:30 to 1:45 a. m. EST on Saturdays. W6XAI usually tests between 3 and 3:55 a. m. EST every Sunday morning. They send out very nice verification card. CMBX was received on 1440 and is usually on every Sunday morning as late as 4 a. m. EST. XEBC is received here

with excellent volume every Sunday morning around 2:30 EST. My present log stands at 526 heard and 454 verified. Of these 53 verified are 2000 miles away. My latest veries are PP, Radio Normandie, WFIL, KLZ, XEMO, CKY, W6XAI, W9XBY and many others. Since January 1 I have verified 93 stations (26 days). My receiver is a Comet Pro and I would like to hear from any Radexer using this receiver. My friend, Charles McMahon, 106 Houston St., Newark, would like to hear from users of the Philco 144 H or D. He will answer all letters".

Thanks W2XR

"I would like to mention the remarkable reception I am getting from a Gloritone 26, 5-tube set, using only a simple home-made, one-tube r. f. booster as a pre-amplifier," writes Charles G. Patterson, Russellville, Tenn. "The foreign stations I get most consistently are PP, 1YA, KGU. Sometimes 2BL is heard but at present is rather weak. I think I am hearing a French station on 695 but am not sure. The Japanese are not coming in very well. In tests given over W2XR and W9XBY, this receiver has given remarkable results. For instance, from a note of 27 cycles on the piano and a beat-note of 30 cycles on an audio oscillator, the speaker response has been almost a straight line. I hope all you Radexers will give W2XR a vote of thanks for its splendid and newer type of broadcasting."

Who is W0BU?

"I caught a station in Massachusetts signing off but so rapidly that I got little but the call letters, W0BU," reports F. W. Robinson, Marionville, Mo. "It came in a little below the second police wave band or about 2500 kcys." Can any of our readers give us the data on this station? Mr. Robinson goes on: "Possibly you will wonder how I get so low down with my little old Radiola 111, a two-tube affair which is supposed to reach only 1500 kcs.



As the culmination of a three-year air romance in the "Myrt and Marge" serial, Margie and Jack recently celebrated a script wedding. They are now beginning their marriage after a Florida honeymoon. In private life the "newlyweds" are Donna Damerel and Vinton Haworth. Mondays through Fridays from 7 to 7:15 p. m. EST in the East and from 10 to 10:15 p. m. EST for western listeners. A Columbia feature.

Well, it is this way. Just outside the window casing I have an aerial switch. When thrown this leaves me but about ten feet of lead-in. I connect this to the long-wave selective circuit condenser post and leave the link open. I get from TGW in the South to all over Canada in the North and from coast to coast. I have 742 stations on my log all in the bcb in RADEX plus about 300 police, airplanes, etc., and amateurs galore."

A Stranger on 650

"I would be very grateful if one of your readers would inform me as to what station on 650 was on the air Sunday morning, Jan. 27, from 1:30 till after 3:00 PST with the opera 'Die Walkure'", requests W. Russell Du Cette, 633 Fourth St. West, Seattle, Wash. "The parts identified were the announcement before the last act and the famous

'Ride of the Walkuries' at 1:55 p. m. PST. Static and fading made most of it inaudible though some was quite clear and strong. WSM is the only station on that frequency in the U. S. and I get them very strong in the evening until sign-off. My work requires me to awaken at 4:00 a. m. each day and this has brought me many opportunities for real DX work. My receiver is an 8-tube 1934 Sparton 78 with 60 feet of aerial and 150 feet of lead-in from the room of our 3-story apartment."

The New Mexican

"Station XELO, 660 or 665, located at Piedras Negras, Coah., has been heard regularly the past few days," reports Phil E. Lockwood, Box 53, Santa Ynez, Calif. "They announced last night, Feb. 11, that they had been on the air only five days and were at that time broadcasting with a power of between 15 and 20 kw." This is a new sister station of XEPN which is still on 590. Both have post office addresses across the river in Eagle Pass, Texas. Phil adds a postscript for s. w. listeners: "When tuning the s. w., if you cross anything that sounds as though it might be a carrier wave, hold it even though no signals can be heard. Some of my best catches have come out of a carrier that I have held. S. w. stations are funny that way—great on occasional silences."

DX in England

"Conditions during the past month have been terrible for bcb. reception," reports Robert Pybus, 4 Highfield Road, Chorlton-cum-Hardy, Manchester, England. "In my case, not even a solitary American relieved the monotony. S. w., on the other hand, have been very good with outstanding results from VK2ME whilst I logged 3LR for the first time. W3XAL is greatly missed now that it is on a curtailed schedule but I understand this is caused by the fact that they are rebuilding their transmitter and eventually hope to have a 60 per cent increase in power."

Reception during the hours of darkness has been very poor on s. w., the only exception being the reliable signals of PRF5 which come in at fine strength. No new European s. w. are in evidence at the present moment. The Rome stations on 49 m. being our only wanderer. Some nights they are on 49.3 as listed and on others they are below W8XK and YV3RC. I can just manage to separate them at about five k.c. though YV3RC suffers slightly. Last night Rome was on 6145 kcs. and interfered a bit with YV3RC. W8XK, by the way, is spoiled practically every night by RKK, telegraph station in Moscow which has settled on W8XK's wave length."

Fun with One Tube

"Since writing you last I have become re-interested in a 1923 battery set that is a mystery one tube getter," observes Jerome Shiltz, Republic, Ohio. "Starting December 4, 1934, I have recorded 41 states, five Canadian provinces and Mexico on this little set. I heard 14 Californians. My Midwest still pulls them in. I received a Panama station HP5B on 6.030 advertising a lottery December 27, I picked up Holland for the first time and on January 11, I got my first Russian, RNE. I now have 11 in England, four in Venezuela, three each in Italy, Germany, Colombia and Australia, two each in France, Argentina, Switzerland and Cuba, and one each in Spain, Portugal, Holland, Russia, Brazil, Panama and Cuba. Would like to hear from any other owners of Midwest 16-tube 1933 sets."

Drops Deleted Calls

"My bcb log, since May 19th, totals 490 stations listed in RADEX," finds Miss Margaret Hamilton, Coopersville, Mich. "The way I keep a log it is just as likely to grow smaller as to grow larger. If a station suspends operation, it goes out of the log. That is, I could list only the stations in the latest RADEX list. I'd like to get this log up to 500 before

I start a new one with the Patterson PR-12 which I have bought but which has not yet been delivered to me, but I don't see how I can. There can't be any late hours for me." Miss Hamilton says she does not make a practice of verifying but often notifies small, distant stations that she has heard them. They often reply with a verification for which she did not ask. Since reading our scolding for those who seek veries without sending return postage, she wonders if she comes within the 'chiseling' category. She certainly does not.

From an Experimenter

"I spend all my spare change on radio parts," admits H. Arbic, Acton, Ont. "I have just completed an audio amplifier using a 57 to drive a 2A5. I tested it out on a single 24 as a detector and XEBT was brought in R6. Then using the 24 with a 27 audio feeding the 57 to 2A5 and an 8-inch dynamic speaker, several R9 signals were brought in—hams and police and b.c. stations on 49 m. being the best. If anyone has a diagram of a two-tube r. f. a.—one that uses a 58 in a stage of t.r.f. and a 2A7 detector, I would like to have it. I think that would give me a good 5-tube receiver, my a. a. being a 3-tube affair. The greatest little 500-watter on the air is WNEL. On their morning tests they come through R8 as clear as a bell and as nice as a 50 k.w. There is not a scratch to mar their programs and the tone is swell. Sunday, January 27, I got KECA who has been dodging me for some time. This brings my total to 759. My receiver, a Rogers Majestic, is not as good on audio as it might be."

Doen't Like Arguments

"I honestly wish that you hadn't printed the article 'Suggesting a Uniform System of Logging,' in the March issue," protests Leo Shelly, 125 Lake Street, St. Catherines, Ont. "I do think that it would be fine if

FRIDAY (Continued)

WDRG WFBL WHEC WHK WISN
WJAS WJSV WKBW WLAC WLWB
WMT WOKO WORC WSPD

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

C — H. V. Kaitenborn
CKLW KFHH KGKO KLZ KMBC KOH
KOMA KRLD KSCJ KSL KTRH
KVOR KWKH WAAB WABC WBBM
WCAO WCAU WDNC WDRG WFBL
WGLC WHEC WHK WISN WJAS
WJSV WKBW WLAC WLWB WMT
WOKO WORC WSPD

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

R — Billy Batchelor, See Monday
B — Lowell Thomas, See Monday

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

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

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

B — Willard Robinson, See Monday
R — Black Chamber, See Monday

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

B — Red Davis, See Monday
C — The O'Neill's, See Monday

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

C — Boake Carter, See Monday
B — Dangerous Paradise, See Monday

R — Uncle Ezra, See Monday

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

R — Cities Service Concert
CRCT KDYL KOA KPRC KSD
KSTP KTBS KTHS KVOO KYW
WEAF WBEN WCAE WCBH WDAF
WEAF WBBM WEEI WFAA WFBM
WGY WHO WJAZ WKY WLIT
WQAI WOC WOW WRC WRVA
WSAI WTAG WTAM WTIC WWJ

B — Irene Rich; Drama

KDKA KOIL KSO KWCR WAVE
WBAL WBZ WBZA WHAM WJZ
WLS WML WMC WREN WSB
WSM WSYR

C — Mrs. Franklin D. Roosevelt

CFBR CKLW KDB KERN KFAB
KFBB KFH KFPY KFRC KGB
KHJ KLRA KLZ KMBC KMJ KMOX
KOLN KOL KOMA KRLD KSCJ
KSL KTRH KTSa KVI KWG WABC
WADC WBBM WBNS WBRM WBT
WCAO WCAU WCCO WDAE WDBJ
WDRG WDSU WEAN WFBL WFBM
WGR WGST WHAS WHEC WHK
WJAS WJSV WKRC WLAC WLWB
WMBG WMBR WNAC WNOX
WOKO WORC WQAM WREC WSPD

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

C — Edwin C. Hill, See Monday
C — Billy Batchelor, See Monday

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

C — True Story Court
CKLW KMBC WABC WADC WBBM
WCAO WCAU WCCO WDRG WEAN
WFBL WGR WHK WJAS WJSV
WKRC WNAC WOKO

B — Al Goodman and Orchestra

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

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

C — March of Time
CKLW KDB KERN KFBB KFPY

KFRC KGB KHJ KLZ KMJ KMOX
KOLN KOL KRLD KSL KVI KWG
WABC WADC WBBM WCAO WCAU
WCCO WDRG WDSU WEAN WFBL
WFBM WGST WHAS WHK WJAS
WJSV WKBW WKRC WNAC WOKO
WOW WSPD

R — Frank Munn; Abe Lyman

KSD WBEN WCAE WCBH WDAF
WEAF WEEI WFBM WGY WJAR
WLIT WLW WMAQ WOW WRC
WTAG WTAM WWJ

B — Beatrice Lillie

CFBC CRCT KDKA KDYL KFI
KGW KHQ KOA KOIL KOMO KPO
KPRC KSO KTHS KWCR KWK
WAPI WAVE WBAL WCKY WFLA
WGAR WHAM WIOD WIS WJAZ
WJDX WJZ WKY WLIT WLS WMAL
WMC WPTF WREN WSB WSMB
WSYR WTAR WUNC

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

C — Hollywood Hotel

CFRB CKAC CKLW KDB KERN
KFAB KFBB KFH KFPY KFRC
KGB KGKO KHJ KLRA KLZ KMBC
KMJ KMOX KOH KOLN KOL KOMA
KRLD KSCJ KSL KTRH KTSa
KTUL KVI KVOR KWG KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRM WBT WCAO
WCAU WCCO WDAE WDBJ WDBO
WDNC WDDO WDRG WDSU WEAN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WIBX
WICC WISN WJAS WJSV WKBH
WKBW WKRC WLAC WLWB WLWB
WMAS WMBD WMBG WMBR WMT
WNAC WNAX WNOX WOKO WORC
WOW WPG WQAM WREC WSBT
WSFA WJSV WSPD WTOC

R — Pick and Pat

KSD WBEN WCAE WCBH WDAF
WEAF WFBM WGY WHO WJAR
WLIT WMAQ WOC WOW WRC
WSAI WTAG WTAM WTIC WWJ

B — Armour Program; Phil Baker

KDKA KDYL KFI KGO KWG KHQ
KOA KOIL KOMO KPRC KSO
KSTP KTAR KWK WAPI WAVE
WBAL WBZ WBZA WBBM WENR
WFAA WFLA WGAR WHAM WIOD
WJAZ WJR WJZ WKY WMC WOAI
WREN WRVA WSB WSM WSMB
WTMJ WWNC

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

R — First Nighter; Drama

KDYL KFI KGO KWG KHQ KOA
KOMO KPRC KSD KSTP WBEN
WCAE WCBH WDAF WEAF WBBM
WEEI WFAA WFBM WGY WHO
WJAR WKY WLIT WLW WMAQ
WMC WOAI WOC WOW WRC WSB
WSM WSMB WTAG WTAM WTIC
WTMJ WWJ

B — Joe Cook; B. A. Rolfe

KDKA KOIL KSO KWCR WBY
WZLA WCKY WENR WFIL WFLA
WGAR WHAM WIOD WIS WJAZ
WJZ WMAL WPTF WREN WSOC
WSYR WTAR WWNC

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

C — Col. Stoopnagle and Budd

CKLW KGB KGKO KHJ KLRA
KMBC KOH KOL KOMA KRLD
KSCJ KVI KVOR KWKH WAAB
WABC WACO WBBM WBIG WBNS
WBT WCAO WCAU WCCO WCHS
WDBJ WDNC WDDO WDRG WDSU
WEAN WFBL WGR WHAS WHEC

WHP WICC WJAS WJSV WKRC
WLAC WMAS WMBD WMBG WMT
WNAC WNOX WOC WOKO WORC
WPG WGR WSBT WJSV WSPD

R — Coca Cola; Frank Black

CFBC CRCT KDYL KFI KFSB
KFYR KGHL KGIR KGI KGW
KHQ KOA KOMO KPO KSTP KTAR
KTBS KTHS KYW WAVE WCAE
WCBH WDAY WEAF WBBM WEEI
WFBM WFLA WGY WIBA WIS
WJAR WJAZ WJDX WKBW WLW
WMC WOW WPTF WRC WSB
WSMB WSOC WTAG WTAM WTAR
WTIC WTMJ WWJ WUNC

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

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

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

C — Ozzie Nelson and Orchestra

KLRA WABC WALA WBRM WBT
WCAO WDAE WDBO WDNC WDDO
WDRG WDSU WEAN WFEA WHK
WJSV WLAC WLWB WMAS WNAC
WNOX WORC WPG WQAM WSFA
WJSV WTOC

C — Edwin C. Hill, See Monday

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

B — Joe Cook; B. A. Rolfe

KDYL KFI KFSB KFYR KGHL
KGIR KGW KHQ KOA KOMO KPO
KPRC KTAR KTBS KTHS KVOO
WAVE WBAF WDAY WBBM WBA
WJDX WKY WMC WOAI WSB
WSM WSMB WTMJ

SATURDAY

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

C — Little Jack Little

CKAC CKLW KDB KERN KFBB
KFPY KFRC KGB KHJ KLRA KLZ
KMJ KMOX KOIN KOL KRLD
KSL KTRH KTSa KVI KWG WAAB
WABC WALA WBBM WBIG WBNS
WBRM WBT WCAO WCAU WCCO
WDAE WDBJ WDBO WDNC WDDO
WDSU WFBL WFBM WGR WGST
WHAS WHEC WHK WICC WJSV
WKRC WMBR WNOX WQAM
WREC WTOC

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

C — Benay Venuta, Songs

CKLW KFAB KMBC KMOX KTUL
WABC WBBM WBNS WBT WCAO
WCAU WCCO WFBL WFBM WGL
WHAS WHK WISN WJSV WKRC
WMT WNAC WOC WSPD

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

R — Thornton Fisher Sports News

KSD KYW WBEN WCAE WCBH
WEAF WEEI WFBM WGY WHO
WJAR WLW WMAQ WOW WRC
WTAG WTAM WTIC WWJ

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

C — Soconyland Sketches

WABC WDRG WEAN WGR WICC
WLWB WMAS WNAC WOKO WORC

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

R — Whispering Jack Smith, See Tues.

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

C — Victor Arden and Orchestra

CFRB CKAC CKLW WABC WBBM
WCAO WCAU WFBL WHK WJAS
WNAC WOKO

SATURDAY (Continued)

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

C — Roxy and His Gang

CFRB CKAC CKLW KDB KERN
KFBK KFPY KFRC KGB KHJ
KLRA KLZ KMBC KMJ KMOX
KOLN KOL KOMA KRLD KSL
KTRH KTSa KVI KWG WABC
WBMM WBRC WCAO WCAU WCCO
WDOD WDRC WDSU WEAN WFBL
WFBM WGR WGST WHAS WHK
WIBW WJAS WJSV WKRC WLAC
WMT WNAC WOKO WORC WREB
WSPD

R — Swift Hour; Sigmund Romberg
KDYL KFI KGO KGW KHQ KOA
KOMO KPRC KSD KSTP KTBS
WBAP WBEN WCAE WCHS WDAF
WEAF WEBC WEEI WFER WFI
WGY WIBA WJAR WKY WLW
WMAQ WOAI WOW WRC WTAG
WTAM WTIC WTMJ WWJ

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

C — St. Louis Blues

CKLW KDB KERN KFBK KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KRLD KSL KVI
KWG KWKH WABC WADC WBMM
WBT WCAO WCAU WCCO WDRC
WEAN WFBL WFBM WGR WHAS
WHK WJAS WJSV WKRC WNAC
WOKO WOWO WSPD

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

R — Songs You Love

KFYR KSD KSTP WBEN WCAE
WCHS WDAF WDAY WEAF WEBC
WEEI WFER WFI WGY WIBA
WJAR WLW WMAQ WOW WRC
WTAG WTAM WTIC WTMJ WWJ

B — Radio City; Frank Black

KDKA KDYL KFI KGW KHQ KOA
KOIL KOMO KPO KPRC KSO
KTBS KTHS KWK WAPI WAVE
WBAL WBAP WBZ WBZA WCKY
WFLA WGAR WHAM WIOD WIS
WJAX WJDX WJR WJZ WKY WLS
WMAL WMC WMT WPTF WREN
WRVA WSB WSBM WSYR WTAR
WWNC

C — Chesterfield Program, see Monday

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

C — Richard Himber and Orchestra
CKLW KFH KMBC KMOX WAAB
WABC WADC WBMM WBNS WBT
WCAO WCAU WCCO WDRC WDSU
WEAN WFBL WFBM WGST WHK
WJAS WJSV WKBW WKRC WOKO
WSBT WSPD

R — Gibson Family Musical

KDYL KFI KFYR KGO KGW KHQ
KOA KOMO KSD KSTP WBEN
WCAE WCHS WDAF WDAY WEAF
WEBC WEEI WFER WFI WGY
WIBA WJAR WLW WMAQ WOW
WRC WTAG WTAM WTIC WTMJ
WWJ

B — National Barn Dance

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

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

C — Minneapolis Symphony

CKLW KDB KERN KFAB KFBK
KFPY KFRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KOMA
KRLD KSL KVI KWG WAAB WABC

WADC WBMM WBT WCAO WCAU
WCCO WEAN WFBL WFBM WHAS
WHK WJAS WJSV WKBW WKRC
WLAC WMBG WOKO WORC WSPD

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

C — California Melodies

CFRB CKLW KDB KFH KGKO
KHJ KLRA KLZ KMBC KOH KOMA
KRLD KSCJ KTRH KTSa KFOR
KWKH WAAB WABC WACO WADC
WALA WBIG WBT WCAO WCAU
WCCO WDAE WDBJ WDBO WDNC
WDOD WDRC WDSU WEAN WFBL
WFBM WFEA WGLC WGR WHEC
WHP WIBW WICC WISN WJAS
WJSV WKRC WLAC WLWB WLZB
WMAS WMBD WMT WNAX WNOX
WOKO WORC WPG WQAM WSBT
WSFA WSJS WSPD WTOC WVVV

R — Let's Dance

KFYR KPRC KSD KTBS KTHS
KVOO KYW WAVE WBAP WBEN
WCAE WCHS WDAY WEAF WEBC
WEEI WFAA WFER WFLA WGY
WIBA WIOD WIS WJAR WJAX
WJDX WKY WLW WMAQ WMC
WOAI WOW WRC WSB WSBM
WTAG WTAM WTAR WTIC WTMJ
WWJ WWNC

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

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

B — National Barn Dance

KDYL KFI KGO KGW KHQ KOA
KOMO WAVE WJDX WLS WMC
WSB WSBM

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

C — Johnny Green and Orchestra

CKAC CKLW KLRA WAAB WABC
WBT WDAE WDBJ WDBO WDOD
WDRC WDSU WFBM WGLC WGR
WHEC WHP WIBW WJAS WJSV
WKRC WLAC WORC WQAM WSBT
WSFA WSJS WTOC

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

C — Cab Calloway and Orchestra

CKAC CKLW KDB KFH KGKO
KLRA KLZ KMBC KOH KOMA
KTRH KTSa KWKH WABC WBNS
WCAU WDBO WDNC WDOD WEAN
WFBL WFBM WGLC WHP WIBW
WICC WJSV WKBW WKRC WLAC
WLWB WNAC WNOX WOKO WPG
WQAM WSBT WTOC

SUNDAY

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

C — Salt Lake Tabernacle Choir

CKLW KFH KGKO KLRA KLZ
KOH KRLD KSCJ KSL KTRH
KTSa KWKH WABC WACO WADC
WALA WBMM WBMS WCCO WDAE
WDBO WDOD WDRC WDSU WEAN
WFBL WFBM WFEA WGLC WHK
WHP WIBW WICC WISN WJAS
WJSV WLAC WLWB WLZB WMAS
WMBD WMBR WMT WNAC WNAX
WNOX WOKO WORC WQAM WREB
WSFA WSPD

R — Major Bowes' Family

KDYL KFYR KOA KPRC KSTP
KTBS KVOO WAPI WCAE WDAF
WDAY WEAF WEBC WFAA WFER
WFLA WGY WHO WIOD WJAR
WJAX WKY WMAQ WMC WOAI

WOC WRC WRVA WSAI WSBM
WTAG WTAM WWNC

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

C — Tito Guizar

CKLW KMBC KMOX WABC WADC
WBMM WCAO WCAU WDRC WEAN
WFBL WFBM WGR WHAS WJAS
WJSV WKH WKRC WMAS WNAC
WOKO WORC WOWO WSPD

B — Radio City Symphony

CFRC CRCT KDKA KDYL KFI
KFYR KGO KGW KHQ KOA KOIL
KOMO KPRC KSO KVOO WAPI
WBAL WBZ WBZA WCKY WDAY
WEBC WGAR WHAM WIS WJDX
WJR WJZ WKY WMAL WOAI
WREN WSBM WSYR WWNC

E-1:00 p.m., C-12:00, M-11:00, P-10:00

C — Church of the Air

CFRB CKLW KFH KGKO KHJ
KLRA KLZ KOH KRLD KSCJ KSL
KTRH KTSa KWKH WAAB WABC
WACO WALA WBMM WBIG WBNS
WBT WCAO WCCO WDAE WDBJ
WDBO WDNC WDOD WDRC WDSU
WFBL WGLC WGR WHEC WHP
WIBW WJAS WJSV WKRC WLAC
WLWB WLZB WMBR WMT WNOX
WOKO WORC WPG WQAM WREB
WSBT WSFA WSJS WSPD WVVV

R — Dale Carnegie, Talks

WBEN WCAE WEAF WEEI WFER
WFI WGY WJAR WRC WSAI
WTAG WTAM WTIC WWJ

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

R — Miss Bab-o's Surprise

WBEN WCAE WCHS WDAF WEAF
WEEI WFER WFI WGY WJAR
WMAQ WOW WRC WSAI WTAG
WTAM WWJ

C — Cleveland Entertainers

CKLW KFAB KFH KLZ KMBC
KMOX KOMA KRLD KSCJ KSL
WABC WADC WBMM WBNS WBT
WCAU WCCO WDRC WFLB WFBM
WGR WHAS WHK WJAS WJSV
WOWO

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

C — Pat Kennedy; Art Kassel

CFRB CKLW KDB KERN KFBK
KFPY KFRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KRLD
KSL KVI KWG WABC WBMM
WBNS WCAO WCAU WCCO WDSU
WFBM WGR WGST WHAS WHK
WJAS WJSV WKRC WMT WOWO
WSPD

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

C — Lazy Dan, Minstrel Man

CKLW KDB KERN KFAB KFBK
KFPY KFRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KOMA
KRLD KSL KVI KWG WABC WADC
WBMM WBNS WBT WCAO WCAU
WCCO WDBJ WDRC WDSU WEAN
WFBL WFBM WJST WHAS WHEC
WHK WIBW WJAS WJSV WKBW
WKRC WLAC WMBG WMT WNAC
WOWO

B — Anthony Frome; 'oet Prince

KDKA KOIL KSO KWCR KWR
WBAL WBZ WBZA WENR WGAK
WJR WJZ WMAL WREN WSYR

R — Immortal Dramas

KDYL KFI KFYR KGHL 'GIR
KGW KHQ KOA KOMO KPO KSD
KSTP KTAR KVOO KYW WBEN
WCHS WDAY WEAF WEBC WEEI
WFER WGY WHO WIBA WIOD

SUNDAY (Continued)

WJAR WJAX WKY WMAQ WOV
WPTF WRC WSAI WTAG WTAM
WTAR WTIC WWJ WWCN

E-2:15 p.m., C-1:15, M-12:15, P-11:15
B — Becker's Chats About Dogs

KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WGAR WJR
WJZ WLS WMAL WREN WSYR

E-2:30 p.m., C-1:30, M-12:30, P-11:30
C — Hammerstein's Music Hall

CKLW KDB KERN KFAB KFBK
KFPY KFRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KOMA
KRLD KSL KVI KWG WABC
WADC WBBM WBT WCAO WCAU
WCCO WDBJ WDRC WDSU WEAN
WFBL WFBM WGST WHAS WHEC
WHK WIBW WJAS WJSV WKBW
WKRC WLAC WMBG WMT WNAC
WOWO

B — Lux Program; Dramas

KDKA KDYL KFI KFJR KGO
KGW KHQ KOA KOIL KOMO KPRC
KSO KSTP KTBS KTHS KVOO
KWCR KWK WBAL WBZ WBZA
WDAY WEBC WFAA WGAR WHAM
WIBA WJR WJZ WKY WLW WMAL
WOAI WPTF WREN WRVA WSYR
WTAR

R — Swift Garden; Mario Chamlee

KSD KYW WCAE WCSH WFAE
WEAF WEEL WFBR WGY WJAR WMAQ
WOW WRC WSAI WTAG WTAM
WWJ

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

C — N. Y. Philharmonic Symphony
CFRB CKAC CKLW KFH KGKO
KHJ KLRA KLZ KOH KRLLD KSCJ
KSL KTRH KTSR KVR KWKH
WABC WADC WALA WBIG WBSN
WBT WCAO WCAU WCCO WDAE
WDBJ WDBO WDNC WDOD WDRC
WDSU WEAN WFBL WFBM WFEA
WGLC WGR WHEC WHK WHP
WIBW WICC WISN WJAS WJSV
WKRC WLAC WLBW WLZB WMAS
WMBD WMBR WMT WNAC WOKO
WORC WQAM WREC WSBT WSPA
WSJS WSPD WTCC

R — Sally of The Talkies

WAPI WBSN WCAE WCSH WDAF
WEAF WEEL WFBR WGY WHO
WJAR WJDX WLIT WMAQ WMC
WOC WOW WRC WSAI WSB WSM
WSMB WTAG WTAM WWJ

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

R — Penthouse Serenade
KDYL KFI KGO KGW KHQ KOA
KOMO KSD WBSN WCAE WCSH
WDAF WEAF WEEL WFBR WGY
WHO WJAR WLIT WLW WMAQ
WOC WOW WRC WTAG WTAM
WTIC WWJ

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

Rev. Charles E. Coughlin
KSTP KWK WCAO WCAU WDRC
WEAN WFBL WFEA WGAR WGR
WHB WHO WICC WIND WJAS
WJDD WJR WLZB WLW WMAS
WNAC WNBH WOC WOKO WOL
WOR WORC

R — Rhythm Symphony

KDYL KFI KGW KOA KOMO KPO
KPRC KTBS WAPI WAVE WBPB
WBSN WCSH WDAF WEAF WEBC
WEEL WFBR WFLA WGY WIBA

WIOD WJAR WJAX WJDX WLIT
WMAQ WMC WOAI WPTF WRC
WRVA WSAI WSB WSM WSMB
WTAG WTAM WTIC WWJ

B — Jolly Coburn and Orchestra

KDKA KOIL KSO KWCR WBAL
WBZ WBZA WCKY WENR WFL
WJZ WKBF WMAL WREN WSYR

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

R — Harry Reser and Orchestra

CFCF CRCT KTBS KTHS KVOO
KYW WBAF WBSN WCAE WCSH
WDAF WEAF WEEL WFBR WGY
WJAR WKY WMAQ WOA WRC
WSAI WTAG WTAM WTIC WWJ

B — Morton Downey

KDKA KOIL KSO KWCR WBAL
WBZ WBZA WCKY WENR WHAM
WJZ WKBF WMAL WREN WSYR

E-4:45 p.m., C-3:45, M-2:45, P-1:45

R — Dream Drama

WBSN WCAE WCSH WDAF WFAE
WEEL WFBR WFI WGY WJAR
WMAQ WRC WSAI WTAG WTAM
WTIC WWJ

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

C — Freddy Martin and Orchestra

CKLW KFH KLRA KLZ KMBC
KMOX KOMA KRLLD KSL KTRH
KTSR KTUL WAAB WABC WADC
WBBM WBIG WBRC WBT WCAO
WCAU WCCO WDOD WDRC WDSU
WEAN WFBL WFBM WGR WGST
WHAS WHEC WHK WIBW WJAS
WJSV WKBW WKRC WLAC WLZB
WMAS WMBG WOKO WORC WQAM
WREC WSPD

R — Sentinels Serenade

CFCF CRCT KDYL KFI KFJR
KGO KGW KHQ KOA KOMO WAVE
WBSN WCAE WCSH WDAF WFAE
WEBC WEEL WFBR WFI WGY
WHO WIBA WJAR WKBW WMAQ
WMC WOC WOW WRC WSAI WSB
WSM WTAG WTAM WTIC WTMJ
WWJ

B — Roses and Drums

KDKA KOIL KPRC KSO KTHS
KWCR KWK WBAL WBPB WBZ
WBZA WENR WGAR WHAM WJR
WJZ WKY WLW WMAL WOAI
WREN WSYR

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

C — Frank Crumit; Julia Sandersen

CKLW KFH KMBC KMOX KOMA
KTUL WAAB WABC WADC WBSN
WCAO WCAU WDRC WDSU WEAN
WFBL WFBM WGR WHAS WHEC
WHK WIBX WICC WJSV WMAS
WOKO WORC WSPD WWVA

R — Tony Wons

CFCF CRCT KDYL KFI KFSD
KFJR KGW KHQ KOA KOMO KPO
KPRC KSD KSTP KTAR KTHS
KVOO KYW WAPI WAVE WBPB
WBSN WCAE WCSH WDAF WDAY
WEAF WEBC WEEL WFBR WGY
WHO WIBA WIOD WIS WJAR
WJAX WJDX WKBF WKY WMAQ
WMC WOAI WOW WPTF WRC
WRVA WSAI WSB WSMB WTAG
WTAM WTAR WTIC WTMJ WWJ
WWNC

B — Cook Travelogues

KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WCKY WENR
WFI WGAR WHAM WJR WJZ
WMAL WREN WSYR

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

B — Terhune Dog Drama

KDKA KDYL KFI KGO KGW KHQ
KOA KOIL KOMO KSO KWCR KWK
WBAL WBZ WBZA WENR WGAR
WHAM WJR WJZ WMAL WREN
WSYR

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

C — National Amateur Night

CFRB CKLW KDB KERN KFBK
KFPY KFRC KGB KHJ KLZ KMBC
KMJ KMOX KOIN KOL KRLD
KSL KVI KWG WAAB WABC
WBBM WBSN WBT WCAO WCAU
WCCO WDRC WDSU WFBL WFBM
WGST WHAS WHEC WHK WJAS
WJSV WKBW WKRC WOKO

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

C — Smilin' Ed McConnell

CKLW KDB KERN KFBK KFBK
KFPY KFRC KGB KHJ KLZ KMJ
KMOX KOIN KOL KRLLD KSL KVI
KWG WAAB WABC WBBM WBSN
WBRC WBT WCAU WCCO WDRC
WDSU WEAN WFBL WFBM WFEA
WGST WHAS WHK WHP WICC
WISN WJAS WJSV WKBW WKRC
WLAC WLW WLZB WORC WQAM
WREC WWVA

R — Armco Iron Master

KPRC KSD KTBS KVOO WBPB
WBSN WCAE WDAF WFAE WFBR
WGY WHO WKY WLIT WLW
WMAQ WOAI WOC WOW WRC
WTAM WWJ

B — Compana Grand Hotel

KDKA KDYL KFI KGO KGW KHQ
KOA KOIL KOMO KSO KSTP KWCR
KWK WBAL WBZ WBZA WEBC
WENR WGAR WHAM WJR WJZ
WMAL WREN WSYR WTMJ

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

C — Voice of Experience

CKLW KMBC KMOX WAAB WABC
WBBM WBT WCAO WCAU WCCO
WDRC WEAN WFBL WHAS WHK
WJAS WJSV WKBW WKRC WNAC
WOWO WWVA

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

B — Jack Benny; Don Bestor

KDKA KDYL KFI KGO KGW KHQ
KOA KOIL KOMO KPRC KSO KSTP
KWCR KWK WBAL WBPB WBZ
WBZA WEBC WGAR WHAM WIBA
WJDX WJR WJZ WKY WLW WLW
WMAL WMC WOAI WREN WSB
WSM WSMB WSYR WTMJ

C — Alexander Woolcott

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

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

B — Joe Penner; Ozzie Nelson

KDKA KDYL KFI KFJR KGO
KGW KHQ KOA KOIL KOMO KPRC
KSO KSTP KTAR KVOO KWCR
KWK WBAL WBZ WBZA WDAY
WEBC WFAA WFLA WGAR WHAM
WIBA WIOD WJAX WJDX WJR
WJZ WKY WLS WMAL WMC WOAI
WPTF WREN WRVA WSB WSM
WSMB WSYR WTMJ

C — Gulf Headliners

CKLW KLRA KRLLD KTRH KTSR
WABC WACO WADC WALA WBIG

SUNDAY (Continued)

WBNS WBRC WBT WCAO WCAU
WDAE WDBJ WDO WIOD WDRB
WDSU WEAN WFEA WGST WHAS
WHEC WHK WJAS WJVS WKRC
WLAC WLBZ WMAS WMBG WMBR
WNAC WNOX WORC WOWO WQAM
WREC WSPD WTOC

R — American Radiator Musical
WBEN WCAE WBSB WEAF WFBR
WGY WJAR WMAQ WOW WRC
WSAI WTAG WTAM WWJ

E-7:45 p.m., C-6:45, M-5:45, P-4:45
R — Fitch Program; Wendell Hall
CFCF KSD WBEN WCAE WBSB
WEAF WFBR WGY WHO WJAR
WKFB WLIT WMAQ WOC WOW
WRC WSAI WTAG WTAM WTIC
WWJ

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

CKLW KDB KERN KFAB KFBK
KFPY KFRC KGB KHJ KLRA KLZ
KMBC KMJ KMOX KOIN KOL
KOMA KRLD KSL KTRH K TSA
KTUL KVI KWG WAAB WABC
WADC WBBM WBRC WBT WCAO
WCAU WCCO WDRB WDSU WEAN
WFBL WFBM WGR WGST WHAS
WHK WJAS WJVS WKRC WOKO
WOWO WSPD

R — Chase and Sanborn Hour
CFCF CRCT KDYL KFI KFJR
KGO KGW KHQ KOA KOMO KPRC
KSD KSTP KTAR KYOO WAPI
WAVE WBEN WBZ WBZA WCAE
WCSH WDAF WDAY WEAF WEBC
WFAA WFBR WFLA WGY WHO
WIOD WIS WJAR WJAX WJDX
WKY WLIT WLW WMAQ WMC
WOAI WOC WOW WPTF WRC
WRVA WSB WSM WSMB WTAG
WTAM WTIC WTMJ WWJ WWCN

B — General Motors Symphony
KDKA KOIL KSO KWCR KWK
WBAL WBZ WBZA WENR WGAR
WHAM WJR WJZ WLS WREN
WSYR

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

CKLW KDB KERN KFAB KFBK
KFPY KFRC KGB KHJ KLRA KLZ
KMBC KMJ KMOX KOIN KOL
KOMA KRLD KSL KTRH K TSA
KTUL KVI KWG KWKH WABC
WBBM WBRC WBT WCAO WCAU
WCCO WDRB WDSU WEAN WFBL
WFBM WGR WGST WHAS WHK

WJAS WJVS WKRC WNAC WOKO
WOWO WREC WSPD

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

C — Ford Symphony
CFRB CKLW KDB KERN KFBK
KFBK KFPY KFRC KGB KGK
KHJ KLRA KLZ KMBC KMJ
KMOX KOH KOIN KOL KOMA
KRLD KSCJ KSL KTRH K TSA
KTUL KVI KVOR KWKH WABC
WACO WADC WALA WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCCO WDAE WDBJ WDO WDNB
WDOO WDRB WDSU WEAN WFBL
WFBM WFEA WGLC WGR WGST
WHAS WHEC WHK WHP WIBW
WIBX WICC WISN WJAS WJVS
WKBH WKBN WKRC WLAC
WLBW WLBZ WMAS WMBR WMT
WNAC WNAX WNOX WOKO WORC
WOWO WQAM WSBT WSFA WSJS
WSPD WTOC WWVA

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

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

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

R — Album of Familiar Music
CFCF CRCT KDYL KFI KGO
KGO KHQ KOA KOMO KPRC KSD
KSTP KVOO WBSN WCAE WBSH
WDAF WEAF WEEI WFAA WFBR
WFI WFLA WGY WHO WIOD WIS
WJAR WJAX WJDX WKY WMAQ
WMC WOAI WOC WOW WPTF
WRC WRVA WSAI WSB WSM
WSMB WTAG WTAM WTMJ WWJ
WWCN

B — Walter Winchell

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

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

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

WREN WSYR

E-10:00 p.m., C-9:00, M-8:00, P-7:00
C — Wayne King, See Monday

R — Pontiac Program; Jane Froman
KDYL KFI KFSD KFJR KGHE
KGIR KGO KGW KHQ KOA KOMS
KPRC KSTP KTAR KTBS KTRC
WAPI WAVE WBAF WBEN WCGO
WCSH WDAF WDAY WEAF WEBA
WEI WFBR WFI WFLA WLH
WHO WIBA WIOD WIS WJAY
WJAX WJDX WKBF WKY WLW
WMAQ WMC WOAI WOC WOW
WPTF WRC WRVA WSB WSM
WSMB WSOB WTAG WTAM WTIC
WTMJ WWJ WWCN

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

C — Dramatic Guild

CKAC CKLW KFH KGKO KHJ
KLRA KLZ KMBC KOH KRLD
KSCJ KTRH K TSA KVOR KWKH
WABC WACO WADC WALA WBIG
WBNS WBT WCAO WCAU WCCO
WDAE WDBJ WDO WDNB WDOO
WDRB WDSU WEAN WFBL WFBM
WFEA WGLC WGR WHEC WHP
WIBW WICC WISN WJAS WJVS
WKRC WLAC WLBW WLBZ WMAS
WMBD WMBR WMT WNAX WNOX
WOKO WORC WPG WQAM WREC
WSBT WSFA WSJS WSPD WTOC

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

C — Little Jack Little

CFRB CKAC CKLW KFH KGKO
KLRA KLZ KOH KRLD KSCJ
KTRH K TSA KVOR KWKH WABC
WACO WADC WBBM WBNS WBT
WCAO WCAU WCCO WDAE WDBJ
WDBO WDNB WDOO WDRB WDSU
WEAN WFBL WFEA WGLC WGR
WHEC WHK WHP WIBW WISN
WJAS WJVS WKRC WLAC WLBW
WLBZ WMAS WMBD WMBR WMT
WNAC WNAX WNOX WOKO WORC
WPG WQAM WREC WSBT WSFA
WSJS WSPD WTOC

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

B — Walter Winchell

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

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

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

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Standard

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

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

CONCERTS

Armco Iron Master, 6:30 p.m. Sunday, R
Chase and Sanborn, 8:00 p.m. Sunday, R
Ford Concert, 9:00 p.m. Sunday, C
General Motors Symphony, 8:00 p.m. Sunday, B
Andre Kostelanetz, 9:00 p.m. Mon., Wed. and Sat., C
Minneapolis Symphony, 10:00 p.m. Saturday, C
N. Y. Philharmonic, 3:00 p.m. Sunday, C

Radio City Music Hall, 12:30 p.m. Sunday, B
Swift Hour, 8:00 p.m. Saturday, R

DANCE BANDS

Victor Arden, 8:30 p.m. Wednesday; 7:30 p.m. Sat., C
Leon Belasco, 9:30 p.m. Friday, B; 11:30 p.m. Sunday;
11:15 p.m. Wed., C
Ben Bernie, 9:00 p.m. Tuesday, R
Don Bestor, 7:00 and 11:30 p.m. Sunday, B

Frank Black, 10:30 p.m. Sun.; 10:30 p.m. Fri., R; 9:00 p.m. Sat., B
 Cab Calloway, 12 Mid. Sat. and Sun., C
 Jolly Coburn, 4:00 p.m. Sunday, B
 Frank Dailey, 11:15 p.m. Tuesday, C
 Eddie Duchin, 9:30 p.m. Tuesday, R
 Jan Garber, 8:00 p.m. Monday, B
 Lud Gluskin, 9:30 p.m. Monday, C
 Al Goodman, 8:30 p.m. Friday, B; 9:30 p.m. Monday, R
 Glen Gray, 10:00 p.m. Tuesday; 9:00 and 11:30 p.m. Thursday; 11:15 p.m. Mon., C
 Johnny Green, 11:30 p.m. Tues. and Sat., C
 Lennie Hayton, 9:00 and 12:00 p.m. Wednesday, R
 Horace Heldt, 10:30 p.m. Tues. and Thurs., C
 Richard Himber, 8:00 p.m. Monday, R; 9:30 and 11:00 p.m. Saturday, C
 Isham Jones, 9:30 p.m. Tuesday, C
 Art Kassel, 1:45 p.m. Sunday, C
 Wayne King, 8:30 p.m. Tues. and Wed., R; 10:00 p.m. Sunday and Monday, C
 Let's Dance, 10:30 p.m. Saturday R
 Little Jack Little, 11:00 p.m. Sunday; 11:15 p.m. Thurs.; 6:00 p.m. Sat., C
 Guy Lombardo, 10:00 p.m. Wednesday, R
 Abe Lyman, 9:00 p.m. Friday, R; 8:30 p.m. Tuesday, C
 Freddy Martin, 5:00 p.m. Sunday, C
 Leon Navara, 6:00 p.m. Friday, C
 Ozzie Nelson, 7:30 p.m. Sunday, B; 11:30 p.m. Wed.; 11:15 p.m. Friday, C
 Red Nichols, 7:45 p.m. Thursday, B
 Ray Noble, 10:30 p.m. Wednesday, R
 Charles Previn, 9:00 p.m. Sunday, B
 Leo Reisman, 8:00 and 11:30 p.m. Tuesday, R
 Harry Reser, 4:30 p.m. Sunday, R
 Freddie Rich, 10:00 p.m. Wednesday, C
 Willard Robison, 7:15 p.m. Mon., Wed. and Fri., B
 B. A. Rolfe, 10:00 and 11:30 p.m. Friday, B
 Phil Spitalny, 8:00 p.m. Thursday, C
 Rudy Vallee, 8:00 p.m. Thursday, R
 Fred Waring, 9:30 p.m. Thursday, C
 Paul Whitman, 10:00 p.m. Thursday, R

DIALOG

Fred Allen, 9:00 and 12:00 p.m. Wednesday, R
 Ames 'n' Andy, 7:00 and 11:00 p.m. daily, except Sat. and Sun., B
 Phil Baker, 9:30 p.m. Friday, B
 Jack Benny, 7:00 and 11:30 p.m. Sunday, B
 Block and Sully, 9:30 p.m. Monday, C
 Eddie Cantor, 8:00 p.m. Sunday, C
 Joe Cook, 10:00 and 11:30 p.m. Friday, B
 Easy Aces, 7:30 p.m. Mon., Tues. and Wed., R
 George and Graetz, 9:30 p.m. Wednesday, C
 Lou Holtz, 10:00 p.m. Thursday, R
 Walter O'Keefe, 10:00 p.m. Tuesday; 9:00 and 11:30 p.m. Thursday, C
 Jack Pearl, 10:00 p.m. Wednesday, C
 Joe Penner, 7:30 p.m. Sunday, B
 Ray Perkins, 6:00 p.m. Sunday, C
 Pick and Pat, 9:30 p.m. Friday, R
 Stoopnagle and Budd, 10:30 p.m. Friday, C
 Uncle Ezra, 7:45 p.m. Mon.; Wed., Fri., R
 Ed Wynn, 9:30 p.m. Tuesday, R

DRAMA

Billy Batchelor, 6:45 p.m. daily, except Sat. and Sun., R; 8:15 p.m. daily, except Sat. and Sun., C
 Black Chamber, 7:15 p.m. Mon., Wed. and Fri., R
 Dangerous Paradise, 7:45 p.m. Mon., Wed. and Fri., B
 Red Davis, 7:30 p.m. Mon., Wed., and Fri., B
 Death Valley Days, 9:00 p.m. Thursday, B
 Dramatic Guild, 10:30 p.m. Sunday, C
 Dream Drama, 4:45 p.m. Sunday, R
 Eno Crime Clues, 8:00 p.m. Tuesday, B
 First Nighter, 10:00 p.m. Friday, R
 Grand Hotel, 6:30 p.m. Sunday, B
 Sherlock Holmes, 9:45 p.m. Sunday, B
 Immortal Dramas, 2:00 p.m. Sunday, R
 Warden Lawes, 9:00 p.m. Wednesday, B
 Lux Program, 2:30 p.m. Sunday, B
 Myrt and Marge, 7:00 and 11:00 p.m. daily, except Sat. and Sun., C
 One Man's Family, 8:00 p.m. Wednesday, R
 The O'Neills, 7:30 p.m., Mon., Wed., Fri., C

Princess Pat Players, 9:30 p.m. Monday, B
 Red Tralls, 8:30 p.m. Thursday, B
 Irene Rich, 8:00 p.m. Friday, B
 Buck Rogers, 6:00 and 7:30 p.m. Mon. to Thurs., Inc., C
 Roses and Drums, 5:00 p.m. Sunday, B
 Sally of the Talkies, 3:00 p.m. Sunday, R
 The Shadow, 6:30 p.m. Mon. and Wed., C
 Soconyland Sketches, 7:00 p.m. Saturday, C
 Terhune Dog Dramas, 5:45 p.m. Sunday, B
 True Story Court, 8:30 p.m. Friday, C

POPULAR PROGRAMS

A & P Gypsies, 9:00 p.m. Monday, R
 Album Familiar Music, 9:30 p.m. Sunday, R
 American Radiator Musical, 7:30 p.m. Sunday, R
 Miss Bab-o's Surprise, 1:30 p.m. Sunday, R
 Major Bowes, 11:30 a.m. Sunday, R
 California Melodies, 10:30 p.m. Saturday, C
 Carefree Carnival, 8:30 p.m. Monday, B
 Chesterfield Program, 9:00 p.m. Mon., Wed. and Sat., C
 Cities Service Concert, 8:00 p.m. Friday, R
 Club Romance, 8:30 p.m. Sunday, C
 Contented Program, 10:00 p.m. Monday, R
 Diane and Life Saver, 8:00 p.m. Mon. and Wed., C
 Dobbie's Ship of Joy, 10:30 p.m. Tues. and Thurs., C
 Fleischmann Variety, 8:00 p.m. Thursday, R
 Forum of Liberty, 8:30 p.m. Thursday, C
 Gems of Melody, 7:15 p.m. Thursday, B
 Gibson Family Musical, 9:30 p.m. Saturday, R
 Gulf Headliners, 7:30 p.m. Sunday, C
 Hammerstein's Music Hall, 2:30 p.m. Sunday, C
 Otto Harbaeh Musical Show, 9:30 p.m. Monday, R
 Hollywood Hotel, 9:30 p.m. Friday, C
 Household Musical, 7:30 p.m. Tuesday, B
 Lilac Time, 10:30 p.m. Monday, C
 Manhattan Merry-Go-Round, 9:00 p.m. Sunday, R
 March of Time, 9:00 p.m. Friday, C
 Maxwell House Show Boat, 9:00 p.m. Thursday, R
 Mollie Minstrels, 7:30 p.m. Thursday, R
 Music Appreciation, 6:30 p.m. Tuesday, C
 National Amateur Night, 6:00 p.m. Sunday, C
 National Barn Dance, 9:30 and 11:00 p.m. Saturday, B
 Palmolive Beauty Box, 10:00 p.m. Tuesday, R
 Penthouse Party, 8:00 p.m. Wednesday, B
 Penthouse Serenade, 3:30 p.m. Sunday, R
 Pontiac Program, 10:00 p.m. Sunday, R
 Rhythm Symphony, 4:00 p.m. Sunday, R
 Roxy and His Gang, 8:00 p.m. Saturday, C
 St. Louis Blues, 8:45 p.m. Saturday, C
 Sentinels Serenade, 5:00 p.m. Sunday, R
 Sinclair Minstrels, 9:00 p.m. Monday, B
 Songs You Love, 9:00 p.m. Saturday, R
 Swift Garden, 2:30 p.m. Sunday, R
 Voice of Firestone, 8:30 and 11:30 p.m. Monday, R
 Tony Wons, 5:30 p.m. Sunday, R

RELIGIOUS

Church of the Air, 1:00 p.m. Sunday, C
 Salt Lake Choir, 11:30 a.m. Sunday, C

SINGERS

Mildred Bailey, 7:15 p.m. Mon., Wed., Fri., B
 Lois Bennett, 8:30 p.m. Sunday, C
 Richard Bonelli, 9:00 p.m. Saturday, C
 Lucrezia Bori, 9:00 p.m. Monday, C
 Mario Chamlee, 2:30 p.m. Sunday, R
 Berniece Claire, 8:00 p.m. Tues., C; 9:00 p.m. Friday, R
 Mary Courtland, 8:45 p.m. Sat., C; 8:15 p.m. Friday, B
 Bing Crosby, 9:00 p.m. Tuesday, C
 Morton Downey, 4:30 p.m. Sunday; 7:15 p.m. Tuesday, B
 Mary Eastman, 10:30 p.m. Wednesday, C
 Ruth Etting, 7:45 p.m. Thursday, B
 Jane Froman, 10:00 p.m. Sunday, R
 Tito Gulzar, 12:30 p.m. Sunday, C
 Wendell Hall, 7:45 and 11:00 p.m. Sunday, R
 Annette Hanshaw, 10:00 p.m. Tuesday; 9:00 and 11:30 p.m. Thurs., C
 Jackie Heller, 10:00 p.m. Monday, B
 Helen Jepson, 10:00 p.m. Thursday, R
 Pat Kennedy, 1:45 p.m. Sunday, C
 Ralph Kirbery, 2:00 p.m. Sunday, R
 Lazy Dan, 2:00 p.m. Sunday, C
 Elizabeth Lennox, 8:30 p.m. Wednesday, C

Beatrice Lillie, 9:00 p.m. Friday, B
 Everett Marshall, 8:30 p.m. Wednesday C
 Maxine, 8:00 p.m. Thursday, C
 Mills Brothers, 9:00 p.m. Tuesday, C
 Grace Moore, 9:00 p.m. Tuesday, B
 Frank Munn, 9:30 p.m. Sunday; 9:00 p.m. Friday, R;
 8:00 p.m. Tuesday, C
 Joey Nash, 8:00 p.m. Mon., R; 9:30 and 11:00 p.m.
 Sat., C
 Gertrude Niesen, 9:30 p.m. Monday, C
 Donald Novis, 5:00 p.m. Sunday, C
 Frank Parker, 9:00 p.m. Monday, R; 7:00 and 11:30
 p.m. Sunday, B
 Pickens Sisters, 7:30 p.m. Sunday, C
 Lily Pons, 9:00 p.m. Wednesday, C
 Lanny Ross, 9:00 p.m. Thursday, R; 8:30 and 11:30
 p.m. Wednesday, B
 Sanderson-Crumlt, 5:30 p.m. Sunday, C
 Mme. Schumann-Helk, 5:00 p.m. Sunday, R
 Vivienne Segal, 8:30 p.m. Tuesday, C; 9:30 p.m. Sun-
 day, R
 Mary Small, 1:30 p.m. Sunday, R
 Smlin' Ed McConnell, 6:30 p.m. Sunday, C
 Kate Smith, 8:30 and 11:30 p.m. Monday, C
 Gladys Swarthout, 8:30 and 11:30 p.m. Monday; 10:00
 p.m. Tuesday, R
 Conrad Thibault, 9:00 p.m. Thurs., R; 8:30 p.m. Sun., C
 John Charles Thomas, 9:30 p.m. Wednesday, B
 Lawrence Tibbett, 8:30 p.m. Tuesday, B
 Vera Van, 5:00 p.m. Sunday, C
 Benay Venuta, 6:30 p.m. Saturday, C
 Whispering Jack Smith, 7:15 p.m. Tues., Thur. and Sat., R

TALKS

Becker's Dog Chats, 2:15 p.m. Sunday, B
 Dale Carnegie, 1:00 p.m. Sunday, R
 Boake Carter, 7:45 p.m. daily, except Sat. and Sun., C
 Cook Travelogues, 5:30 p.m. Sunday, B
 Rev. Charles E. Coughlin, 4:00 p.m. Sunday
 Jimmy Fidler, 10:00 p.m. Wednesday, B

Thornton Fisher, 6:45 p.m. Saturday, R
 Mark Hellinger, 8:00 p.m. Wednesday, B
 Edwin C. Hill, 8:15 and 11:15 p.m. Mon., Wed., Fri.;
 8:30 p.m. Thursday, C
 H. V. Kaltenborn, 6:30 p.m. Friday, C
 John B. Kennedy, 8:30 p.m. Tues; 10:30 p.m. Wed.;
 9:00 p.m. Sat., B
 Mrs. Franklin D. Roosevelt, 8:00 p.m. Friday, C
 Madame Sylvia, 10:15 p.m. Wednesday, B
 Lowell Thomas, 6:45 p.m. daily, except Sat. and
 Sun., B
 Voice of Crusaders, 10:45 p.m. Tues. and Thurs., C
 Voice of Experience, 6:45 p.m. Sunday; 11:30 p.m.
 Wednesday, C
 Walter Winchell, 9:30 and 11:15 p.m. Sunday, B
 Alexander Woolcott, 7:00 p.m. Sunday, C

When a singer graduates from the orchestra he usually throws away the violin or the saxophone. Not so Jimmy Melton. The tenor still has the sax which helped him pay his way through college, and he still plays it for his own amusement. With Hollywood beckoning, Jimmy has scaled his weight down to the most rigid cinema standards. He's now 25 pounds lighter. Jimmy has been asked to judge a contest to discover America's most perfect nose . . . He's waiting for it to turn up!

KEY TO SYMBOLS

As Shown in the Index by
 Frequencies and Dial Numbers

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

Second Column Symbols

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

Fourth Column Symbols

- A American Broadcasting System.

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

Time on the Air

The time is given in accordance with the "24-hour clock." Noon is always 12:00, but midnight may be either 0:00 or 24:00. To change to time of your own clock, subtract twelve. Thus, 18:00-24:00 is 6:00 p. m. to midnight. 23:00-0:30 is 11:00 p. m. to 12:30 a.m. A signifies Atlantic Standard Time (AST). E is Eastern Standard Time (EST). C is Central Standard Time (CST). P is Pacific Standard Time (PST). L is Local Standard Time (LST).

INDEX BY FREQUENCIES

540 kilocycles 555.2 meters

GJRM	ak	1000	F	Moose Jaw, Sask.
XEAF	z	250	.....	Nogales, Son.

550 kilocycles 545.1 meters

CFNB	ak	500	F	Fredericton, N. B.
KFUB	ae	500	2 (1)	St. Louis, Mo.
KFYR	ae	1000	N (5)	Bismarck, N. D.
KOAC	ak	1000	.....	Corvallis, Ore.
KSD	ak	1000	2R (5)	St. Louis, Mo.
KTSA	ak	1000	C (5)	San Antonio, Texas
TISO	ak	250	.....	San Jose, C. R.
WDEV	ae	500	D	Waterbury, Vt.
WGR	ae	1000	C	Buffalo, N. Y.
WKRC	ak	1000	C (2.5)	Cincinnati, Ohio
WVSA	z	500	DF	Staunton, Va.

560 kilocycles 535.4 meters

KFDM	ak	500	(1)	Beaumont, Texas
KLZ	ae	1000	C (2.5)	Denver, Colo.
KTAB	ak	1000	.....	San Francisco, Calif.
KWTO	ak	1000	D	Springfield, Mo.
TGW	ak	1000	565	Guatemala City
WFIL	ae	1000	B	Philadelphia, Pa.
WIND	ak	1000	(2.5) A	Gary, Ind.
WIS	ae	1000	N (2.5)	Columbia, S. C.
WQAM	ae	1000	C	Miami, Fla.
XEAO	ak	250	(.15)	Mexicali, B. C.

570 kilocycles 526.0 meters

KGKO	ak	500	C (1)	Wichita Falls, Texas
KMTR	ak	500	.....	Hollywood, Calif.
KVI	ak	1000	.....	Tacoma, Wash.
WKBN	ae	500	1C	Youngstown, Ohio
WMCA	ak	500	A	New York, N. Y.
WNAX	ak	1000	C (5)	Yankton, S. D.
WOSU	ak	750	1 (1)	Columbus, Ohio
WSYR	ak	250	B	Syracuse, N. Y.
WWNC	ae	1000	N	Asheville, N. C.

580 kilocycles 516.9 meters

CHRC	ak	100	F	Quebec, Que.
CKCL	ae	100	F	Toronto, Ont.
CKUA	ak	500	.....	Edmonton, Alta.
KMJ	ak	500	C	Fresno, Calif.
KSAC	ak	500	2 (1)	Manhattan, Kans.
WCHS	ak	500	(1)	Charleston, W. Va.
WDBO	ae	1000	C	Orlando, Fla.
WIBW	ak	1000	C2 (5)	Topeka, Kans.
WTAG	ae	500	R (1)	Worcester, Mass.

590 kilocycles 508.2 meters

KHQ	ak	1000	N (2.5)	Spokane, Wash.
WEEL	ak	1000	R	Boston, Mass.
WKZO	ae	1000	D	Kalamazoo, Mich.
WOW	ae	1000	R (5)	Omaha, Neb.
XEPN	ak	50000	.....	Piedras Negras, Coah.

600 kilocycles 499.7 meters

CFJC	ae	400	.....	Montreal, Que.
CJOR	ak	500	.....	Vancouver, B. C.
CRCW	z	1000	F	Windsor, Ont.
FQN	z	250	609	St. Pierre, Miquelon
KFSD	ae	1000	N	San Diego, Calif.
WCAC	ak	500	2	Storrs, Conn.
WCAO	ae	500	C (1)	Baltimore, Md.
WICC	ae	1000	2 C	Bridgeport, Conn.
WMT	af	1000	C (2.5)	Cedar Rapids, Iowa
WREC	ak	1000	C (2.5)	Memphis, Tenn.

Tracking Radio Noise

(Continued from page 5)

area. These unwanted currents can be absorbed at their source by means of large condensers. In ordinary cases small filters can be installed by anyone if the directions furnished with the devices are followed.

But more often than not the application of filtering condensers to industrial electrical machinery, particularly apartment elevators, large oil burners, etc., requires experienced electricians as well as the Underwriter's approval and inspection. This is the only way to combat such large problems to the ultimate satisfaction of all radio listeners in the vicinity of such annoyances. These cases should be corrected by the owners or the lighting company involved, once the cause has been tracked to its source and found to be a real nuisance. It is not our purpose to show how to connect noise-suppressing units to electrical machines. Complete instructions are furnished with each device, or an electrical serviceman should do the job.

Outside Sources

In addition to the clicking, crashing and whirring sounds caused by switches, motors and other mechanical apparatus, there is another type of interference. It falls within the category of buzzing, rushing and humming sounds, and is caused by battery charges, violet-ray or X-ray machines, electric signs, arc lights, automobile ignition systems, street cars and their buzzers, telephones, particularly the dial type, power lines, wet insulators on poles, high tension lines, defective switches and light-bulb sockets, broken or worn wiring, electric irons, and many other similar situations.

Locating the sources of man-made static within the home or in the homes of neighbors should not be a very difficult task. It means constant investigation while all the different devices that are known to exist are

INDEX BY FREQUENCIES

610 kilocycles 491.5 meters

GMC F	ak	250	.....	Havana, Cuba
GMC Q	z	1000	.....	Havana, Cuba
KFR C	ak	1000	C (5)	San Francisco, Calif.
WDA F	ak	1000	R (5)	Kansas City, Mo.
WIP	ae	1000	A	Philadelphia, Pa.
WJAY	ae	500	A	Cleveland, Ohio
XFX	ak	500	.....	Mexico City, D. F.

620 kilocycles 483.6 meters

KGW	ak	1000	N (5)	Portland, Ore.
KTAR	ae	1000	N	Phoenix, Ariz.
WFLA	ak	1000	Na	Clearwater, Fla.
WHJB	ak	250	(.5)	Greensburg, Pa.
WLBZ	ak	500	C (1)	Bangor, Maine
WSUN	ae	1000	Na (1)	St. Petersburg, Fla.
WTMJ	ae	1000	N (5.)	Milwaukee, Wis.

630 kilocycles 475.9 meters

CFCY	ae	1000	F	Char't'w'n, P.E.I.
CJGX	ak	500	F	Yorkton, Sask.
CKOV	ak	100	F	Kelowna, B. C.
CMBY	z	250	635	Havana, Cuba
KFRU	ak	500	1(1)	Columbia, Mo.
KGFX	ak	200	D	Pierre, S. D.
WGBF	ae	500	1	Evansville, Ind.
WMAL	ak	250	B (.5)	Washington, D. C.
WOS	ak	500	1D	Jefferson City, Mo.
WPRO	ak	250	A	Providence, R. I.
XEZ	z	500	..	Merida, Yuc.

640 kilocycles 468.5 meters

KFI	ak	50000	N	Los Angeles, Calif.
WAIU	ae	500	.....	Columbus, Ohio
WOI	ae	5000	D	Ames, Iowa
XEOX	ak	250	Saltillo, Coah.

650 kilocycles 461.3 meters

WSM	ae	50000	N	Nashville, Tenn.
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660 kilocycles 454.3 meters

WAAW	ak	500	D	Omaha, Neb.
WEAF	ak	50000	R	New York, N. Y.

670 kilocycles 447.5 meters

WMAQ	ck	50000	N	Chicago, Ill.
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680 kilocycles 440.9 meters

GMAF	ak	1000	Havana, Cuba
KFEQ	ae	2500	D	St. Joseph, Mo.
KPO	ak	50000	N	San Francisco, Calif.
RDN	z	500	.....	San Salvador, E. S.
VAS	ak	2000	685	Glace Bay, N. S.
VOWR	ck	500	681	St. John's, Nfld.
WPTF	ae	1000	DnN (5)	Raleigh, N. C.

690 kilocycles 434.5 meters

CFRB	ae	10000	C	Toronto, Ont.
CJ CJ	ak	100	F	Calgary, Alta.
NAA	ak	1000	.....	Arlington, Va.
XET	ck	500	Monterrey, N. L.

700 kilocycles 428.3 meters

WLW	ak	500000	N	Cincinnati, Ohio
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710 kilocycles 422.3 meters

KMPC	ae	500	Beverly Hills, Calif.
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operated—turned off and on while listening—until the one that causes the noise has been definitely located. The cure has already been indicated—repair and adjustment of the unit, and the attachment of a proper filtering appliance.

Automobile Interference

Short-wave receivers are highly susceptible to the weak sparks and waves emitted from automobiles, bells, buzzers and street cars. The question of the automobile ignition system is serious, but little can be done about it. The racing of the motors, sifting of speeds and pulling up nearby grades, all produce varying pitches of noise in the receiver. Every time an airplane passes overhead the static of its great motors rises in a steady crescendo and then quickly fades away.

Those automobile owners who have radio sets in their cars naturally do a good deed to all-wave set owners because, for their own protection, the sparking units of the motors are fitted with static suppressors. But unfortunately, not all cars are so equipped. The problem is well nigh hopeless, for the listener is unable to do anything about passing automobiles. A noise-reducing antenna helps to some extent by shielding the lead-in, but the antenna itself in most cases picks up much of the motor cars' sparking.

Running Down Static

Tracking static to its lair is not so difficult when tangible sources can be identified and located. And most of the foregoing kinds of interference from stationary electrical machines and units can be solved with a little patience and skill. In these cases, too, the mere application of a filtering unit on the incoming power line frequently quiets the noise. The outdoor static noises that blanket radio reception for a considerable distance around are the hardest to locate.

Some outside interferences, other than automobiles and street cars, are

INDEX BY FREQUENCIES

KPCB	ae	250	.....	Seattle, Wash.
TIFB	z	30	714	San Jose, C. R.
WOR	ak	5000	X	Newark, N. J.
XEN	ak	1000	711	Mexico City, D. F.

720 kilocycles 416.4 meters

CMK	ae	3150	725	Havana, Cuba
WGN	ck	50000	.....	Chicago, Ill.

730 kilocycles 410.7 meters

CFPL	ak	100	F	London, Ont.
CJCA	ah	1000	F	Edmonton, Alta.
CKAC	ak	5000	C	Montreal, Que.
XEBC	ak	5000	.....	Agua Caliente, L. C.

740 kilocycles 405.2 meters

KMMJ	ae	1000	D	Clay Center, Neb.
KTRB	ak	250	D	Modesto, Calif.
WHEB	ak	250	D	Portsmouth, N. H.
WSB	ah	50000	N	Atlanta, Ga.
XELC	z	100	.....	Mexico City, D. F.

750 kilocycles 399.8 meters

CMCW	dk	150	755	Havana, Cuba
KGU	aj	2500	N	Honolulu, T. H.
WJR	ak	10000	B	Detroit, Mich.

760 kilocycles 394.5 meters

KXA	ae	250	(.5)	Seattle, Wash.
WBAL	ae	10000	BSy	Baltimore, Md.
WEW	ae	1000	D	St. Louis, Mo.
WJZ	ck	50000	BSy	New York, N. Y.
XEOK	z	2500	765	Tijuana, L. C.

770 kilocycles 389.4 meters

CMBS	ak	150	775	Havana, Cuba
KFAB	ae	5000	CSy	Lincoln, Neb.
WBMM	ae	5000	CSy	Chicago, Ill.

780 kilocycles 384.4 meters

CHWK	ak	100	F	Chilliwack, B. C.
CKSO	z	1000	F	Sudbury, Ont.
KELW	ae	500	2	Burbank, Calif.
KFDY	ae	1000	D	Brookings, S. D.
KFQD	ck	250	.....	Anchorage, Alaska
KGHL	ak	1000	N (2.5)	Billings, Mont.
KTM	ak	500	2 (1)	Los Angeles, Calif.
WEAN	ae	500	C (.25)	Providence, R. I.
WMC	aj	1000	N (2.5)	Memphis, Tenn.
WTAR	ae	500	N (1)	Norfolk, Va.
XEYZ	z	10000	.....	Mexico City, D. F.

790 kilocycles 379.5 meters

CMJK	ak	150	.....	Camaguey, Cuba
KGO	ak	7500	N	San Francisco, Calif.
WGY	ak	50000	R	Schenectady, N. Y.

800 kilocycles 374.8 meters

TIGP	z	75	.....	San Jose, C. R.
WBAP	ak	50000	Na	Fort Worth, Tex.
WFAB	ak	50000	Na	Dallas, Tex.
WTBO	ae	250	D	Cumberland, Md.

810 kilocycles 370.2 meters

WCCO	ae	50000	C	Minneapolis, Minn.
WNYC	ak	1000	N	New York, N. Y.
XFC	z	350	.....	Aguaascalentes, Ags.

caused by electromagnetic induction from nearby high-tension power lines, overhead trolley wires, and telephone and street lighting lines. If a high-tension line is parallel to a nearby antenna system the hum of its induction cannot be avoided. The public utility owning the lines cannot prevent this radiation of an inductive field around its wires. Such an effect is one of nature's laws. Removal of the set and antenna to a point some distance away is the only solution.

Poor Insulation

But when outside wires are defective, or insulation is bad, serious leaks will occur. Wires passing through trees may become grounded when the branches rub on the wires, particularly in wet weather. These partial grounds, which spark, glow and hiss on rainy nights, are obviously the causes of much static. Broken insulators on the cross arms of poles cause similar noisy leaks when wet or moist. The repair crew of the power company involved will take care of these defects by trimming trees and making alterations as soon as notified for they represent serious power losses. Transformers placed on poles seldom cause radio trouble as their defects are immediately observed and rectified.

Street lamps that are loose; poor or loose grounding wires on poles or transformers; frayed or broken line connections; grounds to trees and poles; defective traffic lights; and all other outside power circuits, must be locked upon with suspicion when some unknown form of interference in a neighborhood cannot be traced to household or industrial activities. But finding the actual spot where the noise occurs is not such a simple job.

Around The Neighborhood

A canvassing of all radio set owners in the neighborhood should be made so as to segregate those who hear the noise loudest. It is now apparent that the noise comes from

INDEX BY FREQUENCIES

820 kilocycles 365.6 meters

WHAS	aj	5000	C	Louisville, Ky.
XETW	dk	500	.....	Mexico City, D. F.

830 kilocycles 361.2 meters

CMC	ae	500	835	Havana, Cuba
KOA	ak	5000	N	Denver, Colo.
TIVL	z	30	835	San Jose, C. R.
WEEU	ak	1000	D	Reading, Pa.
WHDH	ae	1000	Dn A	Boston, Mass.
WRUF	ae	5000	Dn	Gainesville, Fla.

840 kilocycles 356.9 meters

CFQC	ak	1000	F	Saskatoon, Sask.
CMO	z	5000	.....	Havana, Cuba
CRCT	ak	5000	F	Toronto, Ont.
VOGY	ak	400	.....	St. John's, Nfld.
XEP	z	500	.....	Mexico City, D. F.
XEXX	z	500	845	Mexico City, D. F.

850 kilocycles 352.7 meters

KIEV	aj	250	D	Glendale, Calif.
WESG	ak	1000	.....	Elmira, N. Y.
WWL	ae	10000	.....	New Orleans, La.
WWPA	z	250	DP	Clarion, Pa.

860 kilocycles 348.6 meters

CMCX	z	150	865	Havana, Cuba
WABC	ae	5000	C	New York, N. Y.
WHB	ae	1000	D	Kansas City, Mo.
XEMO	ak	2500	865	Tijuana, B. C.

870 kilocycles 344.6 meters

WENR	ak	5000	Na	Chicago, Ill.
WLS	ae	5000	Na	Chicago, Ill.

880 kilocycles 340.7 meters

CFJC	ak	100	F	Kamloops, B. C.
CRCO	ak	1000	F	Ottawa, Ont.
KFKA	ak	500	2 (1)	Greeley, Colo.
KLX	ae	1000	.....	Oakland, Calif.
KPOF	ak	500	2	Denver, Colo.
WCOC	ae	500	(1)	Meridian, Miss.
WGBI	ae	500	1	Scranton, Pa.
WPHR	z	500	D	Petersburg, Va.
WQAN	ae	250	1	Scranton, Pa.
WSUI	ae	500	(1)	Iowa City, Iowa

890 kilocycles 336.9 meters

CJIC	z	100	D	S. Ste. Marie, Ont.
KARK	ak	250	(.5)A	Little Rock, Ark.
KPNF	ak	500	2 (1)	Shenandoah, Iowa
KUSD	ae	500	2	Vermillion, S. D.
WBAA	ak	1000	D	W. Lafayette, Ind.
WGST	ae	250	C (1)	Atlanta, Ga.
WILL	ak	250	2 (1)	Urbana, Ill.
WJAR	ae	500	R	Providence, R. I.
WMMN	ae	250	(.5)	Fairmont, W. Va.
XEW	ak	5000	.....	Mexico City, D. F.

900 kilocycles 333.1 meters

KGa	ak	1000	N (2.5)	Spokane, Wash.
KGBU	ak	500	.....	Ketchikan, Alaska
KHJ	ae	1000	C (5)	Los Angeles, Calif
KSEI	ck	250	(.5)	Pocatello, Idaho
WBEN	ae	1000	R	Buffalo, N. Y.
WJAX	ae	1000	N	Jacksonville, Fla.
WKY	ae	1000	N	Oklahoma City, Ok.

this immediate area. Now, if a battery set, such as an old one-tube regenerative circuit, is carried about the neighborhood, it can be used as an interference locator. Of course, large radio service stations are equipped with practical interference meters and locators for just this purpose. If a small collection is taken up among the local radio sufferers it would be sufficient to pay for such a survey.

When a small home-made set is used to run down the source of static, it should be fitted with a piece of stiff wire extending upward about three feet from the set for an antenna. A short wire is soldered to a pointed copper rod so it can be pushed down into the earth for a ground. Earphones are used, and the volume is turned down so the interference can just barely be heard. By walking back and forth when carrying the set the sounds will increase or diminish, and it will not be long before the actual location of the source can be determined very closely. A very small loop antenna may also be effective through its directional operation. A final personal examination should now reveal the defective wires or machines that cause the trouble.

Seeking Cooperation

Power companies and industrial concerns are quite reasonable about cooperating in the matter of making repairs or installing filtering devices when advised that the nuisance is their own creation. However, in some places specific city ordinances prohibit interference with radio. A report to the local authorities will reveal whether or not such is in effect in your town. But when interference is caused by a neighbor's oil burner, your doctor's X-ray machine, a battery charger in some nearby garage, or some other appliance, it will be necessary to display considerable tact when seeking the cooperation that should be willingly given. The Government's Federal Communica-

INDEX BY FREQUENCIES

WLBL	ak	2500	D	Stevens Point, Wis.
WMFI	z	500	DP	New Haven, Conn.

910 kilocycles 329.6 meters

CJAT	ak	250	F	Trail, B. C.
CMHW	z	100	.....	Cienfuegos, Cuba
CRCM	ak	5000	F	Montreal, Que.
TIGR	z	75	911	San Jose, C. R.
XENT	ck	60000	.....	Nuevo Laredo, Tams.

920 kilocycles 325.9 meters

CMX	ae	1000	928	Havana, Cuba
HHK	ae	1000	.....	Port-au-Prince, Haiti
KFEL	ak	500	2	Denver, Colo.
KOMO	ak	1000	N	Seattle, Wash.
KPRC	ae	1000	N (5)	Houston, Texas
KVOD	ak	500	2	Denver, Colo.
WAAF	ak	500	D	Chicago, Ill.
WBSO	ae	500	D	Babson Park, Mass.
WPEN	ak	250	(.5) 1	Philadelphia, Pa.
WRAX	ak	250	1 (.5)	Philadelphia, Pa.
WSPA	ae	1000	D	Spartanburg, S. C.
WWJ	ak	1000	R (5)	Detroit, Mich.
XEAA	z	200	.....	Mexicali, B. C.
XEFE	z	250	.....	Nuevo Laredo, Tams.

930 kilocycles 322.4 meters

CFAC	ak	100	F	Calgary, Alta.
CFCH	ak	100	F	North Bay, Ont.
CFLC	ae	100	.....	Prestcott, Ont.
CHNS	ae	1000	F	Halifax, N. S.
CKPC	ae	100	F	Brantford, Ont.
CKPR	ak	100	F	Fort William, Ont.
CMJF	z	200	.....	Camaguey, Cuba
CMW	ak	1400	.....	Havana, Cuba
KGBZ	ak	1000	2 (2.5)	York, Neb.
KMA	ak	1000	2 (2.5)	Shenandoah, Iowa
KROW	ak	500	(1)	Oakland, Calif.
WBRC	ak	1000	C	Birmingham, Ala.
WDBJ	ae	1000	C	Roanoke, Va.

940 kilocycles 319.0 meters

CMKM	z	100	.....	Manzanillo, Cuba
KOIN	ak	1000	C (5)	Portland, Ore.
VOAS	ak	100	.....	St. John's, Nfld.
WAAT	ae	500	D	Jersey City, N. J.
WAVE	ak	1000	N	Louisville, Ky.
WCSE	ae	1000	R (2.5)	Portland, Maine
WDAY	ae	1000	N (5)	Fargo, N. D.
WHA	ak	2500	D	Madison, Wis.
XEFO	ak	5000	.....	Mexico City, D. F.

950 kilocycles 315.6 meters

CMCD	ah	500	955	Havana, Cuba
CMHD	dk	250	.....	Caibarien, Cuba
CRCS	ak	100	F	Chicoutimi, Que.
KFWB	ak	1000	(2.5)	Hollywood, Calif.
KHSL	z	250	DP	Chico, Calif.
KMBC	ae	1000	C (2.5)	Kansas City, Mo.
VONF	ak	5000	.....	St. John's, Nfld.
WRC	ae	500	R (1)	Washington, D. C.

960 kilocycles 312.3 meters

CKY	ak	15000	F	Winnipeg, Man.
CMJL	z	50	.....	Camaguey, Cuba
XEAM	z	50	.....	Nuevo Laredo, Tams.
XEAW	ak	10000	.....	Reynosa, Tams.

970 kilocycles 309.1 meters

CMGF	ak	100	971.5	Matanzas, Cuba
KJR	z	5000	N	Seattle, Wash.
WCFL	ae	1500	B	Chicago, Ill.
WBG	ak	100	D	Glenside, Pa.

tion Commission, Radio Division, through your local radio inspector, also has something to say about interference, and it can frequently advise and assist when widespread and stubborn cases cannot be remedied.

There are a number of suitable devices made for filtering radio noises from the power lines supplying the radio set. Any radio supply house or local service store can recommend and furnish the size and type needed. However, when placing filtering units so as to eliminate interference at the sources of static, much larger and special devices are required. An exhaustive and complete study of such radio interferences has been published by the Tobe Deutschmann Corporation — "Radio Noises and their Cure"—which can be procured for a nominal charge. Also, their engineers will be glad to assist any community to rid itself of unnecessary interference. Address them at Canton, Mass.

Short Wave Congestion

(Continued from page 10)

(We doubt that some of these South American chaps like PRF5, HJ3ABF or HC2ET would even acknowledge that courtesy! Ed.) Mr. Bigbee has verified the following stations so far: HJ5ABD, Daventry, PRA3, YV2RC, VK2ME, HI1A, HC2RL, LSL, XETE, YV3RC, TIEP, YV5RMO, HIX, HI4D, ORK, IRM, JVN, VK3LR, Zeesen, TIGPH . . . and many more, too numerous to mention. His letter continues, "On Saturday afternoon last I was merely running over the dials and heard a station announcing as VP1A. The musical selections were of a slightly oriental type but not exactly like Japanese music. They announced that they were testing with Java." We regret we cannot identify VP1A and wonder if readers can throw any light on this stranger. The international prefix VP1 is assigned to Zanzibar and

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980 kilocycles 303.9 meters

KDKA bk 50000 B Pittsburgh, Pa.

990 kilocycles 302.8 meters

WBZ ak 50000 B^{Sy} Boston, Mass.
 WBZA ak 1000 B^{Sy} Springfield, Mass.
 XEK ak 100 Mexico City, D. F.
 XES dk 250 Tampico, Tams.

1000 kilocycles 299.8 meters

CMBZ ak 1000 1005 Havana, Cuba
 KFVD ak 250 Dn Los Angeles, Calif.
 WHO ak 50000 R Des Moines, Iowa

1010 kilocycles 296.9 meters

CHML	ael	50	F	Hamilton, Ont.
CHWC	ak	500	3F	Regina, Sask.
CKCD	ak	100	.....	Vancouver, B. C.
CKCK	ak	500	3F	Regina, Sask.
CKCO	z	100	.....	Ottawa, Ont.
CKIC	ak	50	.....	Wolfville, N. S.
CKWX	ak	100	F	Vancouver, B. C.
CMJO	ak	50	.....	Ciego de Avila, Cuba
KGGF	ak	1000	2	Coffeyville, Kans.
KOW	ae	1000	.....	San Jose, Calif.
TIGA	z	30	1014	Cartago, C. R.
WHN	ae	1000	.....	New York, N. Y.
WNAD	ae	1000	2 (1)	Norman, Okla.
WNOX	ak	1000	C (2)	Knoxville, Tenn.

1020 kilocycles 293.9 meters

KYW ak 10000 R Philadelphia, Pa.
 XEJ ak 1250 Juarez, Chih.

1030 kilocycles 291.1 meters

CFCN	ak	10000	F	Calgary, Alta.
CKLW	ae	5000	C	Windsor, Ont.
CMBC	de	150	1035	Havana, Cuba
CMHI	ak	150	1037	Santa Clara, Cuba
CMKC	z	150	1034	Santiago, Cuba
XEB	ak	10000	.....	Mexico City, D. F.

1040 kilocycles 288.3 meters

CMGH	ak	15	.....	Matanzas, Cuba
KRLD	ae	10000	C	Dallas, Texas
KWJJ	ak	500	.....	Portland, Ore.
WKAR	ak	1000	D	East Lansing, Mich.
WTIC	ak	50000	R	Hartford, Conn.

1050 kilocycles 285.5 meters

CFCO	ak	100	F	Chatham, Ont.
CMJG	z	50	.....	Camaguey, Cuba
CRCK	z	1000	F	Quebec, Que.
KFBI	ak	5000	Dn	Abilene, Kans.
KNX	ak	50000	.....	Hollywood, Calif.

1060 kilocycles 282.8 meters

CMCB	ak	150	.....	Havana, Cuba
KTHS	ae	10000	N	Hot Springs, Ark.
WBAL	ae	10000	B	Baltimore, Md.
WJAG	ak	1000	D	Norfolk, Neb.
XEA	ak	125	.....	Guadalajara, Jal.

1070 kilocycles 280.2 meters

KJBS	ak	500	Dn	San Francisco, Calif.
WCAZ	dk	100	D	Carthage, Ill.

the Ellice Islands, but no VP1A is listed by Berne.

HAT Wants Reports

"I have a 16-tube Midwest, but I do not boast about the quantity of stations on my log; it is the quality of the stations I am proud of," admits Albert Steinmetz, 205 E. Main St., Norristown, Pa. "A year ago I picked up HAT at Budapest, Hungary, and, being an American-Hungarian, identification was easy. I wrote to them and have corresponded quite regularly with Mr. Marschalko, the Director of the shortwave stations. Mr. Marschalko tells me that HAT is on the air every Sunday evening from 8 to 9 p. m., EST on 5400 megas, or 55.56 meters. I was asked to advise my friends that they will send a unique verification card, written in English, to anyone reporting. The address following is sort of abbreviated but will reach them: Radiolabor, Budapest, Gyalı St. 22, Magyarorzag.

"The last Sunday morning I had a mysterious station just above VK2ME between 8 and 8:30 a. m., EST. It came in loudly but mixed up with plenty of noise. Oriental music was played, with tom-toms drumming and even the singing sounded like Chinese. I would like to hear from all Hungarian DX'ers. I'll write in English or Hungarian."

We are quite sure the mysterious station mentioned by Mr. Steinmetz was VUB at Bombay, India. This station is heard nearly every Sunday morning just before W1XAZ comes on the air.

The New XECW

We have learned from the Quixote Radio Club that a new Mexican station, XECW, dedicates a program to the Quixotistas usually on Saturday nights between 11 and 11:30 p. m., EST. XECW, del Caballero Santokan (The Knight of Santokan) works on 5980 kcs. with 10 watts power. The address, Calle del Bajio 120, Mexico City, Mexico.

A postal card from Charles Miller,

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WDZ	ak	100	D	Tuscola, Ill.
WTAM	ck	50000	R	Cleveland, Ohio

1080 kilocycles 277.6 meters

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

1090 kilocycles 275.1 meters

CMGI	z	30	1094	Colon, Cuba
KMOX	ak	50000	C	St. Louis, Mo.

1100 kilocycles 272.6 meters

CMCY	ak	500	.....	Havana, Cuba
CMHA	z	50	1103	Sagua la Grande, C.
CRCV	ak	1000	F	Vancouver, B. C.
KGDM	ak	1000	D	Stockton, Calif.
KWKH	ae	10000	C	Shreveport, La.
TIRCA	ak	500	.....	San Jose, C. R.
WLWL	ae	5000	1C	New York, N. Y.
WPG	ak	5000	1	Atlantic City, N. J.
XEFG	ak	250	1105	Mexico City, D. F.

1110 kilocycles 270.1 meters

KSOA	ak	2500	Dn	Stoux Falls, S. D.
WRVA	ae	5000	N	Richmond, Va.
XELO	z	10000	.....	Piedras Negras, Co.

1120 kilocycles 267.7 meters

CHLP	z	100	.....	Montreal, Que.
CHSJ	ae	100	F	St. John, N. B.
CKOC	ae	500	F (1)	Hamilton, Ont.
CKX	ak	150	F	Brandon, Man.
CMCG	z	150	1125	Havana, Cuba
CMHJ	ae	40	1125	Cienfuegos, Cuba
KFIO	ak	100	D	Spokane, Wash.
KFGS	ag	1000	a	Los Angeles, Calif.
KRKR	ae	1000	a (2.5)	Los Angeles, Calif.
KRSC	ck	100	D	Seattle, Wash.
WDEL	ak	250	(.5)	Wilmington, Del.
WISN	ak	250	(1)	Milwaukee, Wis.
WMFH	z	500	DP	Boston, Mass.
WTAW	ae	500	.....	College Station, Tex.

1130 kilocycles 265.3 meters

KSL	ae	50000	C	Salt Lake City, Utah
WJJD	ak	20000	Dn A	Chicago, Ill.
WOV	ag	1000	D	New York, N. Y.

1140 kilocycles 263.0 meters

KVOO	ak	25000	1N	Tulsa, Okla.
WAPI	ae	5000	1N	Birmingham, Ala.

1150 kilocycles 260.7 meters

CMBG	z	225	.....	Havana, Cuba
CMJH	ak	50	.....	Ciego de Avila, Cuba
WHAM	ae	50000	B	Rochester, N. Y.
XEH	ak	250	.....	Monterrey, N. L.
XEWZ	z	100	.....	Mexico City, D. F.

1160 kilocycles 258.5 meters

WOWO	ae	10000	1C	Fort Wayne, Ind.
WVVA	ak	5000	1C	Wheeling, W. Va.
XED	ck	500	...	Guadalajara, Jal.
XEFL	z	5000	P	Tijuana, B. C.
XEU	ak	250	.....	Veracruz, Ver.

309 View Place, Covington, Ky., reads, "I have received a verification from XECW, which is at Mexico City and works nightly on 5980 kcs. with 10 watts power. They call themselves 'del Caballero Santokan,' and the address is Calle del Bajio 120. They send a beautiful photo of Mt. Orizaba, which is one of the volcanoes which surround the valley in which the Federal District lies. Other new veries are DJN, HCJB and PRF5."

"The set I am using at present is a little one tube set tuning from 950 to 12,000 kcs," contributes Merton T. Meade, 819 Wyandotte St., Kansas City, Mo. "With this little set I heard KIIW and KIIY on an announced frequency of 2726 kcs. near 10:45 a.m., CST. These are in or near Los Angeles and are connected with some dam and aqueduct projects. VE9GW announces their frequency as 6090 instead of 6095 kcs. now. W9XAK, the television station at Manhattan, Kans., broadcasts on 2050 kcs. from 6:45 to 7:30 p. m. on Mondays and 8-9 p. m. on Wednesdays. Reports are invited whether or not the listener has scanning apparatus."

One in New Brunswick

"The other day we ran across a new station," announces Arthur Viner and John Markham, 5605 Woodlawn Ave., Chicago, Ill. "This was VE9AS, located on the campus of the University of New Brunswick, at Fredericton, New Brunswick. The frequency was given as 6425 kcs. and they requested that reports be sent to the Engineering Dept. of the University."

Fredericton, N. B., VE9AS, was also reported by Walter Snyder, 1401 Logan St., Grand Rapids, Mich. Mr. Snyder says VE9AS relays the programs of CFNB near 7:30 and later. Walter wishes to correspond with DX'ers in Michigan.

Some Brief Reports

"I do not have very much to report because the 49 meter band is so bad," regrets Wm. McDaniel, The Charleston

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1170 kilocycles 256.3 meters

CMJE	z	50	Carmaguey, Cuba
CMOA	z	500	1175	Havana, Cuba
WCAU	ae	50000	C	Philadelphia, Pa.

1180 kilocycles 254.1 meters

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

1190 kilocycles 252.0 meters

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

1200 kilocycles 249.9 meters

CHAB	ak	100	F	Moose Jaw, Sask.
CKTB	ak	100	F	St. Catharines, Ont.
CMCJ	ak	400	.....	Havana, Cuba
KADA	ak	100	D	Ada, Okla.
KBTM	ak	100	D	Jonesboro, Ark.
KFJB	ak	100	(.25)	Marshalltown, Iowa
KFXD	ae	100	(.25)	Nampa, Idaho
KFXJ	ak	100	(.25)	Grand Junction, Col.
KGDE	ak	100	(.25)	Fergus Falls, Minn.
KGEK	ak	100	.....	Sterling, Colo.
KGFJ	ae	100	.....	Los Angeles, Calif.
KGHI	ak	100	(.25)	Little Rock, Ark.
KMLB	ak	100	(.25)	Monroe, La.
KOOS	ae	100	(.25)	Marshfield, Ore.
KSUN	ck	100	D	Lowell, Ariz.
KVOS	ak	100	.....	Bellingham, Wash
KWG	ak	100	C	Stockton, Calif.
WABI	ak	100	.....	Bangor, Maine
WAIM	z	100	P	Anderson, S. C.
WBBZ	ak	100	.....	Ponca City, Okla.
WBNO	ck	100	1	New Orleans, La.
WCAT	ak	100	D	Rapid City, S. D.
WCAX	ak	100	.....	Burlington, Vt.
WCLO	ak	100	.....	Janesville, Wis.
WFAM	ak	100	8	South Bend, Ind.
WFBE	ak	100	(.25) A	Cincinnati, Ohio
WHBC	ak	100	2	Canton, Ohio
WHBY	ak	100	(.25)	Green Bay, Wis.
WIBX	ak	100	(.3) C	Utica, N. Y.
WIL	ak	100	(.25) A	St. Louis, Mo.
WJBC	ak	100	6	Bloomington, Ill.
WJBL	ae	100	6	Decatur, Ill.
WJBW	ak	100	1	New Orleans, La.
WKBO	ak	100	3 (.25)	Harrisburg, Pa.
WKJC	ae	100	3 (.25)	Lancaster, Pa.
WLVA	ak	100	(.25)	Lynchburg, Va.
WMPC	ak	100	.....	Lapeer, Mich.
WRBL	ak	100	.....	Columbus, Ga.
WWAE	ae	100	8	Hammond, Ind.
10-AK	ak	15	.....	Stratford, Ont.
10-BP	ak	25	.....	Wingham, Ont.

1210 kilocycles 247.8 meters

CHNC	ak	100	F	New Carlisle, Que.
CJCU	z	50	.....	Aklavik, N. W. T.
CKBI	ak	100	F	Prince Albert, Sask.
CKCH	ak	100	F	Hull, Que.
CKMC	ak	50	.....	Cobalt, Ont.
CMJI	ak	150	.....	Ciego de Avila, Cuba
KASA	ck	100	.....	Elk City, Okla.
KDLR	ak	100	.....	Devils Lake, N. D.
KFJI	ak	100	.....	Klamath Falls, Ore.
KFOR	ak	100	(.25)C	Lincoln, Neb.

Gazette, Charleston, W. Va. "I can hear DJC and GSA only about half the time. COC, HP5B and YV6RV, along with wireless signals, make it nearly impossible to get London and Berlin. Both the Australians are coming through fine now, VK2ME being slightly the better of the two."

"I have been a reader of RADEX for 8 years," boasts Chris Tom Banakas, 190 E. Calhoun Ave., Memphis, Tenn. "I have just gotten a new American Bosch receiver and am hearing VK3ME, JVT and CT1AA quite regularly. My old log, made on a Majestic 71, included 1302 BC and s.w. stations, but with the new radio I am beginning anew. I have a K-shaped aerial, (RCA-Victor)." Mr. Banakas wishes to hear from his old friends.

Daventry Every Night

"As a dial twister on shortwaves I wish to report good reception during the past two weeks," writes Cecil Dickenson, Chatham, Ontario. "Two of the best stations are COC, Havana, and 2RO Rome, with its American Hour. Germany is not as plain as it used to be, but faithful old Daventry rolls in every night like the old ton of bricks and is by far the pick of all the shortwaves. I have around 40 letters from the BBC acknowledging my regular reports on reception. The South Americans are a Jonah as far as I am concerned and my advice to other DX'ers is for them to save their reply coupons. COC sends a nice verification, though. My reception is accomplished on a Sparton 10-tube set with a 4-tube converter in connection with a DuoWa Doublet Balanced aerial, and with RADEX always handy."

31 m. Band Better; 49 m. Worse

"Well, here are a few signs that spring is just around the corner," prophesies Geo. Acker, Wadsworth, Ohio. "First of all, the 31 meter band is greatly improving, as is also 25 meters. Pontoise on 25 meters and GSD can now be heard fairly well

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KFPW	ak	100	Fort Smith, Ark.
KFVS	ae	100	6 (.25)	Cape Girardeau, Mo.
KFXM	ak	100	9	San Bernardino, Cal.
KG Y	ak	100	.....	Olympia, Wash.
KIEM	ak	100	.....	Eureka, Calif.
KIUL	z	100	P	Garden City, Kans.
KPPC	ak	50	9	Pasadena, Calif.
KWEA	z	100	.....	Shreveport, La.
KWFF	z	100	.....	Hilo, Hawaii
KWTN	ak	100	.....	Watertown, S. D.
WALR	ak	100	.....	Zanesville, Ohio
WBAX	ae	100	1	Wilkes Barre, Pa.
WBBL	ak	100	7S	Richmond, Va.
WBRB	ak	100	3	Red Bank, N. J.
WCBS	ak	100	2	Springfield, Ill.
WCOL	ak	100	A	Columbus, Ohio
WCRW	ae	100	4	Chicago, Ill.
WEBQ	ae	100	6 (.25)	Harrisburg, Ill.
WEDC	ae	100	4	Chicago, Ill.
WFAS	ak	100	3	White Plains, N. Y.
WGBB	ae	100	3	Freeport, N. Y.
WGCM	ae	100	(.25)	Mississippi City
WGN Y	ak	100	3	Chester, N. Y.
WHBF	ak	100	(.25) A	Rock Island, Ill.
WHBU	ak	100	(.25)	Anderson, Ind.
WIBU	ak	100	(.25)	Poynette, Wis.
WJBY	ak	100	.....	Gadsden, Ala.
WJ E J	ah	100	D	Hagerstown, Md.
WJIM	z	100	(.25)	Lansing, Mich.
WJW	ak	100	A	Akron, Ohio
WKOK	ak	100	1	Sunbury, Pa.
WMBG	ak	100	7C (.25)	Richmond, Va.
WMFG	z	100	P	Hibbing, Minn.
WMFN	z	100	P	Clarksdale, Miss.
WOC L	ak	50	.....	Jamestown, N. Y.
WOMT	ae	100	.....	Manitowoc, Wis.
WPAX	ae	100	D	Thomasville, Ga.
WSBC	ae	100	4	Chicago, Ill.
WSIX	ak	100	.....	Springfield, Tenn.
WSCC	ak	100	N (.25)	Charlotte, N. C.
WTAX	ak	100	2	Springfield, Ill.
XEE	z	50	.....	Durango, Dgo.
XEFV	ak	100	.....	Juarez, Chih.
XETH	ak	100	.....	Puebla, Pue.
.....	z	100	DP	Ardmore, Okla.

1220 kilocycles 245.8 meters

CMHK	z	50	1225	Cruces, Cuba
KFKU	ae	1000	a	Lawrence, Kas.
KTW	ak	1000	S2	Seattle, Wash.
KWSC	ae	1000	2 (2)	Pullman, Wash.
WCAD	ak	500	D	Canton, N. Y.
WCAE	ak	1000	R	Pittsburgh, Pa.
WDAE	ae	1000	C (2.5)	Tampa, Fla.
WREN	ak	1000	Ba (5)	Lawrence, Kas.
XETF	z	12	.....	Veracruz, Ver.

1230 kilocycles 243.8 meters

CJOC	ak	100	F	Lethbridge, Alta.
CMCA	z	150	2	Havana, Cuba
CMOK	z	25	.....	Havana, Cuba
KGBX	ak	500	.....	Springfield, Mo.
KGGM	ak	250	(.5)	Albuquerque, N. M.
KYA	ae	1000	N	San Francisco, Calif.
WFRM	ae	1000	C	Indianapolis, Ind.
WNAC	ak	1000	C (2.5)	Boston, Mass.
XEFJ	ak	100	.....	Monterrey, N. L.

1240 kilocycles 241.8 meters

CJCB	ak	1000	F	Sydney, N. S.
CMHB	z	30	1245	San Spiritus, Cuba
KGCU	ak	250	1	Mandan, N. D.
KLPM	ak	250	1	Minot, N. D.
KTAT	ak	1000	C	Fort Worth, Texas
KTFI	ae	1000	.....	Twin Falls, Idaho
WKAO	ae	1000	.....	San Juan, P. R.
WXYZ	ak	1000	.....	Detroit, Mich.
XEAI	z	100	.....	Mexico City, D. F.
XEKL	z	500	.....	Leon, Guan.
XELA	z	50	.....	Saltillo, Coah.

until about 5 p. m. The Australians have improved fully 75%. On the 49 meter band, the Europeans are terrible. GSA and Rome manage to come through occasionally but DJC is seldom heard. The infernal code which has always bothered GSD has moved a bit so it bothers DJD now. ORK's schedule is now 1:30 to 3 p. m., but is not very good."

"On Wednesday nights I usually listen to the Seth Parker, KNRA, direct, and last Wednesday heard it between 10:15 and 10:50 p. m., CST on 7600 kcs. in Communication with San Francisco," reports Wm. J. Wood, 817 Lake St., Oak Park, Ill. "Reception of this station has usually been good, but lately it is rather poor due to local QRM and QRN. I had to use phones with the Perfect Phone Adapter." Along with his letter Mr. Wood sends his log, which includes 37 shortwave phone stations and over 100 broadcasters. He would like to have s.w. fans drop in and look over his log and listen to his set, which is a G-E, K85 All Wave.

COC Has a Whole Deck

Station COC, P. O. Box 98, Havana, Cuba, has had 100 different verification cards made up so that anyone reporting their transmissions will receive a different card each time in reply. These QSL's are colored photographic post cards showing a hundred different views in and around Havana. Listeners are requested to report their reception to the station, but they are reminded that International Reply Coupons should be sent.

"I am now using a home-made shortwave receiver which I believe can run rings around most of the factory-built sets," from Charles Miller, 309 View Place, Covington, Ky. "I have heard such stations as YDA, Bandoeng, JVT at Nazaki, CP5 at La Paz, HAS3 and HAT at Budapest, and many others which are considered by DX'ers to be good catches. All continents except Africa have been heard

INDEX BY FREQUENCIES

1250 kilocycles 239.9 meters

CMCU	ak	150	1255	Havana, Cuba
KFOX	ak	1000		Long Beach, Calif.
WCAL	ah	1000	2 (2.5)	Northfield, Minn.
WDSU	ak	1000	C	New Orleans, La.
WHBI	ak	1000	1 (2.5)	Newark, N. J.
WLB	ak	1000	2	Minneapolis, Minn.
WNEW	ae	1000	1 (2.5)	Newark, N. J.
WTCN	ak	1000	2 (5)	Minneapolis, Minn.

1260 kilocycles 238.0 meters

CFRN	ak	100	.....	Edmonton, Alta.
KGVO	ak	1000	.....	Missoula, Mont.
KOIL	ak	1000	B (2.5)	Council Bluffs, Iowa
KPAC	ak	500	D	Port Arthur, Texas
KRGV	ak	500	.....	Weslaco, Texas
KUOA	ak	1000	D	Fayetteville, Ark.
KVOA	ak	500	.....	Tucson, Ariz
WHIO	ae	1000	R	Dayton, Ohio
WNBX	ak	1000	D	Springfield, Vt.
WTOC	ae	1000	C	Savannah, Ga.

1270 kilocycles 236.1 meters

CMCP	z	150	.....	Havana, Cuba
HIX	ak	1000	.....	Santo Domingo, D.R.
KGCA	ak	100	2D	Decorah, Iowa
KOL	ae	1000	C (2.5)	Seattle, Wash.
KVOR	ae	1000	C	Colorado Spgs., Colo.
KWLC	ak	100	2D	Decorah, Iowa
WASH	ak	500	a	Grand Rapids, Mich.
WBFR	ae	500	R	Baltimore, Md.
WJDX	ae	1000	N (2.5)	Jackson, Miss.
WOOD	ak	500	a	Grand Rapids, Mich.
XEG	z	500	.....	Ensenada, B. C.
XFB	ak	1000	.....	Jalapa, Ver.

1280 kilocycles 234.2 meters

CMCO	z	150	.....	Havana, Cuba
KFBB	ak	1000	(2.5)	Great Falls, Mont.
WCAM	ae	500	1	Camden, N. J.
WCAP	ae	500	1	Asbury Park, N. J.
WDOD	ae	1000	C (5)	Chattanooga, Tenn.
WIBA	ae	1000	N	Madison, Wis.
WORC	ak	500	C	Worcester, Mass.
WRR	ak	500	.....	Dallas, Texas
WTNJ	ak	500	1 A	Trenton, N. J.
XEMX	z	12	.....	Mexico City, D. F.

1290 kilocycles 232.4 meters

KDYL	ak	1000	N	Salt Lake City, Utah
KLCN	z	100	D	Blytheville, Ark.
KTRH	ak	500	C (2.5)	Houston, Texas
WEBC	ae	1000	N (2.5)	Superior, Wis.
WJAS	ak	1000	C (2.5)	Pittsburgh, Pa.
WNBZ	z	100	D	Saranac Lake, N. Y.
WNEL	ak	500		San Juan, P. R.

1300 kilocycles 230.6 meters

CMKJ	z	20	.....	Guantanamo, Cuba
HIZ	z	10	.....	Santo Domingo, D.R.
KALE	ak	500	3C	Portland, Ore.
KFAC	ak	1000	.....	Los Angeles, Calif.
KFH	ak	1000	C2	Wichita, Kans.
KFJR	ag	500	3	Portland, Ore.
VOAC	z	40	.....	St. John's, Nfld.
WBRR	ae	1000	1	Brooklyn, N. Y.
WEVD	ak	1000	1	New York, N. Y.
WFAB	ae	1000	1	New York, N. Y.
WFBC	ak	1000	(5)	Greenville, S. C.
WHAZ	ae	500	1	Troy, N. Y.
WIOD	ae	1000	N	Miami, Fla.

1310 kilocycles 228.9 meters

CHCK	ak	50	Charlottetown, P.E.I.
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on phone, and the only reason for this is that there is nothing on the Dark Continent coming in at present."

"I wonder if any readers have heard VK3ME testing on 12,000 kcs." questions Maurice Clark, 315 So. Riverside, Medford, Ore. "I have several times and with volume greater than some Coast stations. VK3ME generally signs off about 9 a. m., PST. I have a new Zenith 5-tube model 807 and, despite the fact I recently moved to the dead-est and noisiest spot in town, reception on both the BC band and s.w. is good. I would like to hear from some Zenith owners."

A Report From Australia

"I take great interest in shortwaves and prior to receiving your *DX Log of the World* I was not able to secure a list of s.w. stations that was at all reliable. Here in Australia we have but three regular shortwave broadcast stations," comments A. E. Billson, Oakdene, 27 Ador Ave., Rockdale, Sydney, Australia. "These three stations are VK2ME, VK3ME and VK3LR, 31.28, 31.55 and 31.3 meters respectively. The latter is the most constant, operating every evening from 6 to 11 p. m., Australian EST. VK2ME operates every Sunday, from 3 to 6 p. m., then 8 to 11 p. m. and 1 a. m. to 3 a. m. Monday morning. VK3ME broadcasts only on Wednesdays and Saturdays. Having only these stations, one naturally has to rely on overseas stations for his shortwave reception so one can quite understand what a blessing it is to have a reliable s. w. list."

"The location of station M36 mentioned in a recent RADEX is Athens, Ga. This appears to be a governmental forestry station. I heard them in communication with SP91, which is evidently a field station in Georgia. These were heard on about 2980 kcs. Tonight YV6RV at Valencia was heard on 6020 kcs. while HP5B was working on 6030 kcs. CT1AA has been heard testing recently on 5960 kcs." Thomas F. Waters, 728 Burr Oak St., Cincin-

INDEX BY FREQUENCIES

GJKL	z	100	.....	Kirkland Lake, Ont.
GJLS	z	100	.....	Yarmouth, N. S.
KCCV	ak	50	F	Quebec, Que.
KCRJ	ak	100	D	Jerome, Ariz.
KFBK	ak	100	C	Sacramento, Calif.
KFPL	dkh	100	.....	Dublin, Texas
KFFM	ae	15	.....	Greenville, Texas
KFXR	ak	100	(25)	Oklahoma City, Ok.
KFYO	ak	100	(25)	Lubbock, Texas
KGCX	ak	100	(25)	Wolf Point, Mont.
KGEZ	aj	100	.....	KallsPELL, Mont.
KGFW	ak	100	.....	Kearney, Neb.
KIT	ak	100	(25)	Yakima, Wash.
KIUJ	z	100	P	Santa Fe, N. Mex.
KMED	ck	100	(25)	Medford, Ore.
KRMD	ak	100	.....	Shreveport, La.
KTSM	ak	100	.....	El Paso, Texas
KXRO	ak	100	.....	Aberdeen, Wash.
WAML	ak	100	.....	Laurel, Miss.
WBEO	ae	100	.....	Marquette, Mich.
WBOW	ak	100	.....	Terre Haute, Ind.
WBRE	ak	100	.....	Wilkes Barre, Pa.
WCLS	ae	100	.....	Joliet, Ill.
WDAH	ak	100	S	El Paso, Texas
WEBR	ae	100	(25) A	Buffalo, N. Y.
WEXL	ak	50	.....	Royal Oak, Mich.
WFBG	ae	100	3	Altoona, Pa.
WFDF	am	100	.....	Flint, Mich.
WGH	ae	100	(25)	Newport News, Va.
WHAT	ak	100	4	Philadelphia, Pa.
WISC	z	100	DP	Milwaukee, Wis.
WJAC	ae	100	3	Johnstown, Pa.
WLBC	ak	50	6 (1)	Muncie, Ind.
WLNH	ak	100	D	Laconia, N. H.
WMBO	ak	100	.....	Auburn, N. Y.
WMFF	z	100	PD	Plattsburg, N. Y.
WMFP	z	100	DP	Ashland, Ky.
WNBH	ae	100	(25) C	New Bedford, Mass.
WOL	ae	100	(25) A	Washington, D. C.
WRAW	ak	100	.....	Reading, Pa.
WROL	ak	100	.....	Knoxville, Tenn.
WSAJ	ae	100	.....	Grove City, Pa.
WSGN	ak	100	(25)	Birmingham, Ala.
WSJS	ak	100	C	Winston-Salem, N. C.
WTEL	ah	100	4	Philadelphia, Pa.
WTJS	ak	100	(25)	Jackson, Tenn.
WTRC	ak	50	6 (1)	Elkhart, Ind.
XEAJ	z	15	.....	Cazaca, Camp.
XEC	z	50	.....	Tijuana, B. C.
XECW	z	10	.....	Mexico City, D. F.
XEFC	ak	100	.....	Merida, Yuc.
XEFW	ak	250	.....	Tampico, Tams.
XELM	z	15	.....	Mineral del Monte
XETB	z	125	.....	Torreon, Coah.
XEX	ak	125	.....	Monterrey, N. L.

1320 kilocycles 227.1 meters

CMCK	z	100	P	Havana, Cuba
CMOX	z	200	1325	Havana, Cuba
KGHF	ak	500	.....	Pueblo, Colo.
KGMB	ak	250	C	Honolulu, T. H.
KID	ae	250	(5)	Idaho Falls, Idaho
KSO	ak	500	B (1)	Des Moines, Iowa
WADC	ae	1000	C (2.5)	Akron, Ohio
WORK	ak	1000	.....	York, Pa.
WSMB	ak	500	N	New Orleans, La.

1330 kilocycles 225.4 meters

KGB	ag	1000	C (2.5)	San Diego, Calif.
KMO	ak	250	.....	Tacoma, Wash.
KSCJ	aj	1000	1C (2.5)	Stoux City, Iowa
WDRG	ae	1000	C (2.5)	Hartford, Conn.
WSAI	ak	1000	R (2.5)	Cincinnati, Ohio
WTAQ	ae	1000	1	Eau Claire, Wis.

1340 kilocycles 223.7 meters

KFPY	ak	1000	C	Spokane, Wash.
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nati, Ohio, is the reporter. Mr. Waters uses a Midwest RT-16.

Some Comments on Interference

Jasper Pollina, R. 1, Port Huron, Mich.: "I am not able to receive station 2RO any longer on their American Hour broadcast, station W3XAL on one side and VE9GW on the other squeezing the life right out of it. In the afternoons, on the 31 meter band, there is a strong code signal which starts out with the usual 'dah dit dah dit' business, then motorboats all afternoon."

P. N. Mainguy, 309 Strathearn Ave., Montreal West, P. Q.: "Have you received any complaints yet on a CW transmitter which comes on at about the time the British broadcast stations start on 31 meters and 49 meters? This particular station sends continuous wave which synchronizes with the British stations to an extent that it is very difficult to tune them in, or rather, to tune the CW out."

Geo. W. Acker, Wadsworth, Ohio: "I wonder if the FCC has actually given these infernal amateurs permission to work on the standard s.w. broadcast bands. For the past few months every station on the 25-meter band has been spoiled at some time or another by an amateur. The worst offenders are a group of hams in New England. There are also a few on 30 and 31 meters and a couple on 50 and 51 meters."

Letters to the Editor

(Continued from page 21)

"I have been watching the letters carefully and have not seen anyone list the French station, Lyon La Doua, Lyons, France, operating on 648 with 15 kw." comments Philip R. Nichols, P. O. Box 82, East Hartford, Conn. "I recently received a specific veri from the 'chef de la station' and I would like to enter this in your Singleton contest. Incidentally, the manager of Lyon La Doua advises they are working on a new

INDEX BY FREQUENCIES

KG DY	ak	250	D	Huron, S. D.
KG NO	ak	250	.....	Dodge City, Kans.
WCOA	ak	500	C	Pensacola, Fla.
WF EA	ae	500	C (1)	Manchester, N. H.
WSP D	ae	1000	C (2.5)	Toledo, Ohio
XFD	z	250	.....	Orizaba, Ver.

1350 kilocycles 222.1 meters

CMBD	z	150	.....	Havana, Cuba
KIDO	ak	1000	(2.5)	Boise, Idaho
KWK	ak	1000	B (5)	St. Louis, Mo.
WAWZ	ae	250	1 (5)	Zarephath, N. J.
WBNX	ae	250	1	New York, N. Y.

1360 kilocycles 220.4 meters

CMJF	ak	75	.....	Moron, Cuba
CMKF	z	30	1363	Holquin, Cuba
KG ER	ak	1000	.....	Long Beach, Calif.
KG IR	ak	1000	N (2.5)	Butte, Mont.
WC SC	ae	500	(1)	Charleston, S. C.
WF BL	ak	1000	C (5)	Syracuse, N. Y.
WG ES	ae	500	1	Chicago, Ill.
WQ BC	ak	1000	D	Vicksburg, Miss.
WS BT	ak	500	1	South Bend, Ind.

1370 kilocycles 218.8 meters

CKCW	z	100	F	Moncton, N. B.
CMGE	z	30	1375	Cardenas, Cuba
KCRC	ak	100	2 (2.5)	Enid, Okla.
KELD	z	100	P	El Dorado, Ark.
KERN	ak	100	.....	Bakersfield, Calif.
KFGO	ak	100	.....	Boone, Iowa
KFJM	ak	100	(.25)	Grand Forks, N. D.
KFJZ	ae	100	.....	Fort Worth, Texas
KFRO	z	100	DP	Longview, Texas
KG AR	ae	100	(.25)	Tucson, Ariz.
KGFG	bk	100	2	Oklahoma City, Ok.
KGFL	ak	100	4	Roswell, N. M.
KGKL	ak	100	(.25)	San Angelo, Texas
KIGA	ak	100	4	Clovis, N. M.
KLUF	z	100	(.25)	Galveston, Texas
KMAC	ak	100	5	San Antonio, Texas
KONO	ak	100	5	San Antonio, Texas
KRE	ak	100	(.25)	Berkeley, Calif.
KRKO	ak	50	1	Everett, Wash.
KSLM	z	100	D	Salem, Ore.
KUJ	ak	100	.....	Walla Walla, Wash.
KVL	ak	100	1	Seattle, Wash.
KWKC	z	100	.....	Kansas City, Mo.
KWYO	ak	100	.....	Sheridan, Wyo.
WABY	ak	100	A	Albany, N. Y.
WAGF	ak	100	(.25)	Dothan, Ala.
WB TM	ak	100	(.25)	Danville, Va.
WCBM	ae	100	(.25) A	Baltimore, Md.
WD AS	ae	100	(.25)	Philadelphia, Pa.
WGL	ak	100	C	Fort Wayne, Ind.
WHBD	ak	100	.....	Portsmouth, Ohio
WHBO	ak	100	.....	Memphis, Tenn.
WHDF	ak	100	(.25)	Calumet, Mich.
WIBM	ak	100	(.25)	Jackson, Mich.
WJTL	ae	100	.....	Atlanta, Ga.
WLLH	ak	100	(.25)	Lowell, Mass.
WMBR	ak	100	C	Jacksonville, Fla.
WMFD	z	100	DP	Wilmington, N. C.
WQ C	z	100	DP	Decatur, Ala.
WQ C	z	100	C	Davenport, Iowa
WQDM	ae	100	.....	Hattiesburg, Miss.
WRAK	ak	100	D	St. Albans, Vt.
WRDO	ak	100	(.25)	Williamsport, Pa.
WRJN	ak	100	.....	Augusta, Maine
WS VS	ak	100	.....	Racine, Wis.
WJNS	ak	50	D	Buffalo, N. Y.
XEFZ	ae	100	.....	Mexico City, D. F.
XEL	ak	125	.....	Morelia, Mich.
XEZZ	z	100	.....	San Luis Potosi, SLP

transmitter to be in operation in a few months to use 90 k. w. He is anxious that U. S. listeners report to him next fall on this new transmitter."

Who will be first to bring in the new "Farthest North" station, CJCJ on 1210, a permit for which has been issued by the Canadian Radio Commission? Two hundred miles above the Arctic Circle at Aklavik at the mouth of the MacKenzie River in the North West Territory, the world's most northerly broadcasting stations will shortly go on the air with 50 watts. Dr. J. A. Urquhart, chief medical health officer there for the Canadian government, is the licensee.

G. Morgan Spencer, 5800 Bryant Ave., South, Minneapolis, Minn., tells us he is to present a series of radio and DX talks over WTCN each Saturday night at 11:45 CST. Our readers in the North Central states will want to listen to this DX period.

Frank W. Hoxie, Box 15, South Orrington, Maine, reports hearing WNYC on regular daytime schedule on 570 kcs. instead of their assigned frequency of 810. Can anyone give us further light on this?

Our Readers' Sets

(Continued from page 19)

The New 1YA

"1YA, Auckland, N. Z., 650 kcs., can be heard almost every morning testing their new transmitter, coming in all the way from R2 to R8," contributes Fred Sanders, 355 Ellis Ave., Peshtigo, Wisc. "KGU, Honolulu, can also be heard until 3:30 a. m. CST. All DXers should be able to verify these two stations. There is a new Cuban station on 1450, CMBX, which comes in R8 but modulation is very poor. Announcements are in both English and Spanish. I wonder what the two stations—one on 1400 and the other on 1480—could be who broadcast on a chain,

INDEX BY FREQUENCIES

1380 kilocycles 217.3 meters

CMJC	z	150	1382	Camaguey, Cuba
KOH	ak	500	C	Reno, Nev.
KQV	ak	500	2A	Pittsburgh, Pa.
WALA	ae	500	C (1)	Mobile, Ala.
WKBH	ae	1000	.....	LaCrosse Wis.
WMFE	z	250	PD	New Britain, Conn.
WSMK	ak	200	C	Dayton, Ohio

1390 kilocycles 215.7 meters

CJRC	ck	100	F	Winnipeg, Man.
HH	ak	15	1395 San	Ped. de Macoris, DR
KLRA	ae	1000	C (2.5)	Little Rock, Ark.
KOY	ae	500	(1)	Phoenix, Ariz.
WHK	ae	1000	C (2.5)	Cleveland, Ohio

1400 kilocycles 214.2 meters

CMCR	z	150	.....	Havana, Cuba
KLO	ae	500	C	Ogden, Utah
KTUL	ak	500	C	Tulsa, Okla.
TGX	ak	150	.....	Guatemala City, Gt.
WARD	ak	500	2	Brooklyn, N. Y.
WBBC	ae	500	2 (1)	Brooklyn, N. Y.
WKBF	ak	500	N (1)	Indianapolis, Ind.
WLTH	ak	500	2	Brooklyn, N. Y.
WVFW	ak	500	2	Brooklyn, N. Y.

1410 kilocycles 212.6 meters

CKFC	ak	50	5	Vancouver, B. C.
CKMO	ag	100	5F	Vancouver, B. C.
KGRS	ae	1000	1 (2.5)	Amarillo, Texas
WAAB	ak	500	C	Boston, Mass.
WBCM	ae	500	.....	Bay City, Mich.
WDAG	ae	1000	1 (2.5)	Amarillo, Texas
WHBL	ae	500	4	Sheboygan, Wis.
WHIS	ak	250	2 (5)	Bluefield, W. Va.
WRBX	ae	250	2 (.5)	Roanoke, Va.
WROK	ak	500	4	Rockford, Ill.
WSFA	ak	500	C (1)	Montgomery, Ala.

1420 kilocycles 211.1 meters

CKGB	ak	100	.....	Timmins, Ont.
CKNC	ak	100	F	Toronto, Ont.
KABC	ak	100	.....	San Antonio, Texas
KABR	z	100	DP	Aberdeen, S. Dak.
KBPS	aj	100	4	Portland, Ore.
KCMC	ak	100	.....	Texarkana, Ark.
KFIZ	ak	100	.....	Fond du Lac, Wis.
KGFF	ak	100	.....	Shawnee, Okla.
KGGC	ak	100	.....	San Francisco, Cal.
KGIW	ak	100	1	Alamosa, Colo.
KGIX	ak	100	P (2.5)	Las Vegas, Nev.
KIDW	z	100	1	Lamar, Colo.
KORE	ae	100	.....	Eugene, Ore.
KRLC	z	100	P	Lewiston, Idaho
KUMA	ak	100	.....	Yuma, Ariz.
KXL	ae	100	4 (2.5)	Portland, Ore.
WACO	ak	100	C	Waco, Texas
WAGM	ae	100	.....	Presque Isle, Maine
WAZL	ak	100	2	Hazleton, Pa.
WEED	ak	100	3	Rocky Mount, N. C.
WEHC	ae	100	3 (2.5)	Charlottesville, Va.
WEHS	ak	100	a	Cicero, Ill.
WELL	ak	50	.....	Battle Creek, Mich.
WGPC	ak	100	.....	Albany, Ga.
WHDL	ak	100	D	Olean, N. Y.
WHFC	ae	100	a	Cicero, Ill.
WILM	aj	100	2	Wilmington, Del.
WJBO	z	100	D	Baton Rouge, La.
WJMS	ak	100	.....	Ironwood, Mich.
WKBI	ak	100	a	Cicero, Ill.
WLAP	ak	100	(2.5)	Lexington, Ky.
WLBFB	ak	100	.....	Kansas City, Kans.
WLEU	z	100	P (a25)	Erie, Pa.
WMAS	ak	100	C (2.5)	Springfield, Mass.
WMBC	ae	100	(2.5)	Detroit, Mich.
WMBH	ak	100	(2.5)	Joplin, Mo.
WMFJ	z	100	F	Daytona Beach, Fla.

both playing the same selections but no announcements. Also the station on 830 which has been coming in R7 the last few weeks. Could this last be a JO?

The following tips are submitted by Bill Pollard, 60 San Juan Ave., Victoria, B. C.: "KXA, Seattle, is now a daytime station with evening hours after WJZ signs off. Their week-day schedule is 6:30 a. m. to sunset and 10 p. m. to 1 a. m. PST. KPCB, Seattle, is a full-time station now. Their week-day schedule is 6:30 a. m. to 3 a. m. PST. Some mornings they go on at six. CRCV is using 500 watts. Their schedule is week days 5:30 p. m. to 10:30 p. m. PST. Sundays noon to 10:30 p. m. PST. The schedule of CKMO is 7 a. m. to 3 p. m. and 4:30 to 9 p. m. PST."

On the Long Waves

"You ask if any long-wave stations have been received," recalls A. D. Weatherall, Sub-postoffice No. 4, St. John, N. B. "So far I've brought in Davenport on 200 kcs., Paris on 214 and a couple of unidentified besides quite a number of weather stations. I receive the Europeans around 5 to 8 AST almost any evening. On the hcb, the SA stations are very easily picked up. Last night brought in PRA2 in Rio, Brazil. XEOX listed on 640 is heard on 660. My set is a GE M-106 10-tube 11-wave. Have received Australia of course but no Japanese. I use about 150 feet inverted L aerial. Our local CHSJ goes on the air regularly at 6 a. m. week days and Saturdays."

"Does DJC reach the West?" repeats Andrew Shassetz, Monarch, Wyo., referring to a recent inquiry in this magazine. "Yes, I held DJC on January 10th from 7:35 to 8:48 MST when they signed off. I do not get them every day but at times. I received them on February 12th for 15 or 20 minutes between 7:44 p. m.

INDEX BY FREQUENCIES

WNRA	ak	100	D	Muscle Shoals, Ala.
WPAD	ak	100	(.25)	Paducah, Ky.
WPRP	z	100	F (.25)	Ponce, P. R.
WWC	z	1000	P	Spartanburg, S. C.
XEAZ	z	7	.....	Guanajuato, Gto.
XEPF	ak	100	.....	Monterrey, N. L.
.....	z	100	P	Pecos, Texas
.....	z	100	P	Hutchinson, Kans.

1430 kilocycles

CMBX	ak	150	1435
KECA	ak	1000	(5)
KGNF	ak	1000	D
KRNT	ak	250	C (.5)
WBNS	ae	500	C (1)
WHEC	ae	500	C (1)
WHP	ak	500	C (1)
WNBR	ae	500	A (1)
WOKO	ae	500	C (1)

1440 kilocycles

KDFN	ak	500	.....
KLS	ae	250	D
KXYZ	ak	500	.....
WBIG	ae	500	C (1)
WBCA	aj	500	a
WMBD	ae	500	3C (1)
WSAN	aj	500	a
WTAD	ak	500	3
XEFI	ae	250	.....

1450 kilocycles

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

1460 kilocycles

KSTP	ae	10000	N (.25)
WJSV	ak	10000	C

1470 kilocycles

WLAC	ak	5000	C
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1480 kilocycles

KOMA	ak	5000	C
WKBW	ae	5000	C

1490 kilocycles

WCKY	ae	5000	B
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1500 kilocycles

CMCN	z	250	Havana, Cuba
KDB	ak	100	C	Santa Barbara, Calif.
KGFI	ak	100	(.25)	Corpus Christi, Tex.
KGFK	ak	100	.....	Moorhead, Minn.
KGKB	ak	100	.....	Tyler, Texas
KGKY	ck	100	(.25)	Scottsbluff, Neb.
KNOW	ak	100	.....	Austin, Texas
KOTN	ak	100	D	Pine Bluff, Ark.
KPJM	ak	100	.....	Prescott, Ariz.
KPO	ak	100	(.25)	Wenatchee, Wash.
KREG	ak	100	.....	Santa Ana, Calif.
KXO	ae	100	.....	El Centro, Calif.
WGNW	ak	100	i (.25)	Brooklyn, N. Y.
WDNC	ak	100	C	Durham, N. C.
WGAL	ae	100	(.25)	Lancaster, Pa.
WHEF	z	100	(.25)	Kosciusko, Miss.
WJBK	ae	100	(.25) A	Detroit, Mich.
WKBB	ae	100	(.25)	E. Dubuque, Ill.
WKBV	ak	100	(.25)	Richmond, Ind.
WKBZ	ak	100	(.25)	Muskegon, Mich.
WKEU	ak	100	.....	Griffin, Ga.
WMBQ	ae	100	i	Brooklyn, N. Y.

209.7 meters

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

208.2 meters

Casper, Wyo.	
Oakland, Calif.	
Houston, Texas	
Greensboro, N. C.	
Allentown, Pa.	
Peoria, Ill.	
Allentown, Pa.	
Quincy, Ill.	
Chihuahua, Chlh.	

206.8 meters

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

205.4 meters

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

204.0 meters

Nashville, Tenn.	
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202.6 meters

Oklahoma City, Ok.	
Buffalo, N. Y.	

201.2 meters

Covington, Ky.	
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199.9 meters

Havana, Cuba	
Santa Barbara, Calif.	
Corpus Christi, Tex.	
Moorhead, Minn.	
Tyler, Texas	
Scottsbluff, Neb.	
Austin, Texas	
Pine Bluff, Ark.	
Prescott, Ariz.	
Wenatchee, Wash.	
Santa Ana, Calif.	
El Centro, Calif.	
Brooklyn, N. Y.	
Durham, N. C.	
Lancaster, Pa.	
Kosciusko, Miss.	
Detroit, Mich.	
E. Dubuque, Ill.	
Richmond, Ind.	
Muskegon, Mich.	
Griffin, Ga.	
Brooklyn, N. Y.	

and 8:15." Mr. Shassets says Mr. Butcher must have overlooked him when making a census of the IDA members in Wyoming. His number is 410.

Mother and Son, DXers

"I am a radio bug and collect stamps," admits Wallace Howe, 3 Headley Terrace, Irvington, N. J. "My mother and I both DX. I am enclosing a list of my best catches and another of my mother's. I am eleven years old. I have had exactly 50 stations." We are sorry we do not have space in which to list the catches of this mother-and-son DX contest. But what a fine thing it is when a mother takes an interest in her son's good hobby.

"This has been one of the most successful seasons I have ever experienced in DX reception," thinks Carroll H. Weyrich, 4310 Evans Chapel Road, Baltimore, Md. "I have heard and verified 24 Europeans. I have increased my total verifications from 638 to 749. My ambition, now that the TA's have faded, is to receive just a few TP's farther than Hawaii. I have never had the pleasure of receiving verifications from 'down-under' and hope to land a few this season."

"I can't say enough for the NNRC," exclaims Nicholas J. Hock, 20 Burnet Street, Newark, N. J. "It sure is one fine club. I have been a member since January and I've had plenty of help from it on my DX travels. My log now stands at 506 verified including 57 2000 miles distant. I have changed my doublet aerial lead from the twisted type to the transposed. I am using it in connection with a Tobe filterizer and find

INDEX BY LOCATIONS

WMEX ak 100 (.25) A
WNBF ae 100 (.25) C
WOFI ae 100
WRDW ak 100
WRGA ak 100 (.25)
WSYB ak 100
WTMV z 100 P
WURL ak 100 1 (.25)
WWSW ae 100 (.25)
 z 100 P
 z 100 P

1510 kilocycles 198.6 meters

CFRC ak 100
CKCR ak 100

1530 kilocycles 196.0 meters

W1XBS z 1000 A
W9XBY z 1000

1550 kilocycles 193.4 meters

W2XR z 1000
W6XAI z 1000

that this combination works very well."

Reports for Newfoundland

"Not having see many reports from this country, I have finally made up my mind to do something about it," decides P. J. Walsh, 12 Flower Hill, St. John's Nfld. "My time for DX is limited to about five hours every night but, since September last, I have managed to log and positively identify on the bcb. USA 89, Canada 19, Mexico 5, Cuba 12, Puerto Rico 2, and Europe 51."

INDEX BY LOCATIONS

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

ALABAMA

Birmingham
WAPI 1140 5000 N
WBRC 930 1000 C
WSGN 1310 100
Decatur
WMFO 1370 100
Dethan
WAGF 1370 100
Gadsden
WJBY 1210 100
Mobile
WALA 1380 500 C
Montgomery
WSFA 1410 500 C
Muscle Shoals
WNRA 1420 100
ALASKA
Anchorage
KFOD 780 250
Ketchikan
KGBU 900 500
ARIZONA
Jerome
KCRJ 1310 100
Lowell
KSUN 1200 100
Phoenix
KOY 1390 500
KTAR 620 1000 N
Prescott
KPJM 1500 100
Tucson
KGAR 1370 100
KVOA 1260 500
Yuma
KUMA 1420 100
ARKANSAS
Blytheville
KLCN 1290 100
El Dorado
KELD 1370 100
Fayetteville
KUOA 1260 1000
Fort Smith
KPPW 1210 100
Hot Springs
KTHS 1060 10000 N

Jonesboro
KBTM 1200 100
Little Rock
KARK 890 250 A
KGHI 1200 100
KLRA 1390 1000 C
Pine Bluff
KOTN 1500 100
Texarkana
KCMC 1420 100
CALIFORNIA
Bakersfield
KERN 1370 100 C
W6XAI 1550 1000
Berkeley
KRE 1370 100
Beverly Hills
KMPC 710 500
Burbank
KELW 780 500
Chico
KHSL 950 250
El Centro
KXO 1500 100
Eureka
KIEM 1210 100
Fresno
KMJ 580 500 C
Glendale
KIEV 850 250
Hollywood
KFWB 950 1000
KMTR 570 1000
KNX 1050 50000
Long Beach
KFOX 1250 1000
KGER 1360 1000
Los Angeles
KECA 1430 1000
KFAG 1300 1000
KFI 640 50000 N
KFSG 1120 1000
KFVD 1000 250
KGFJ 1200 100
KHL 900 1000 C
KKRD 1120 1000
KTM 780 500
Modesto
KTRB 740 250

Oakland
KLS 1440 250
KLX 880 1000
KROW 930 1000
Pasadena
KPPC 1210 50
Sacramento
KFBK 1310 100 C
San Bernardino
KFXM 1210 100
San Diego
KFSB 600 1000 N
KGB 1330 1000 C
San Francisco
KFRC 610 1000 C
KGGC 1420 100
KGO 790 7500 N
KJBS 1070 500
KPO 680 50000 N
KTAB 560 1000
KYA 1230 1000 N
San Jose
KQW 1010 1000
Santa Ana
KREG 1500 100
Santa Barbara
KDB 1500 100 C
Stockton
KGDM 1100 1000
KWG 1200 100 C
COLORADO
Alamosa
KGIW 1420 100
Colorado Springs
KVOR 1270 1000 C
Denver
KFEL 920 500
KLZ 560 1000 C
KOA 830 50000 N
KPOF 880 500
KVOD 920 500
Grand Junction
KFXJ 1200 100
Greely
KFKA 880 500
Lamar
KIDW 1420 100
Pueblo
KGHB 1320 500

Sterling
KGKE 1200 100
CONNECTICUT
Bridgeport
WICC 600 1000 C
Hartford
WDRG 1330 1000 C
WTIC 1040 50000 R
New Britain
WMFE 1380 250
New Haven
WMFI 900 500
Storrs
WCAC 600 500
Waterbury
WATR 1190 100
W1XBS 1530 1000 A
DELAWARE
Wilmington
WDEL 1120 250 A
WILM 1420 100
DISTRICT OF COLUMBIA
Washington
WISV 1460 10000 C
WMAL 630 250 B
WOL 1310 100 A
WRC 950 500 R
FLORIDA
Clearwater
WFLA 620 1000 N
Daytona Beach
WMFJ 1420 100
Gainesville
WRUF 830 5000
Jacksonville
WJAX 900 1000 N
WMBR 1370 100 C
Miami
WIOD 1300 1000 N
WOAM 560 1000 C
Orlando
WDBO 580 1000 C
Pensacola
WCOA 1340 500 C
St. Petersburg
WSUN 620 1000 N

INDEX BY LOCATIONS

Tampa WDAE 1220 1000 C	Quincy WTAD 1440 500	Hutchinson ... 1420 100	Springfield WBZA 990 1000 B
GEORGIA	Rockford WROK 1410 500	Kansas City WLBK 1420 100	WMAS 1420 100 C
Albany WGPC 1420 100	Rock Island WHBF 1210 100 A	Lawrence KFku 1220 1000	Worcester WORC 1280 500 C
Athens ^s WTFI 1450 500	Springfield WCBS 1210 100	WREN 1220 1000 B	WTAG 500 500 R
Atlanta	WTAX 1210 100	Manhattan KSAC 580 500	MICHIGAN
WGST 890 500 C	Tuscola WDZ 1070 100	Tepeka WIBW 580 1000 C	Battle Creek WELL 1420 50
WJTL 1370 100	Urbana WILL 890 250	Wichita KFH 1300 1000 C	Bay City WBCM 1410 500
WSB 740 50000 N	Waukegan WCBD 1080 5000	KENTUCKY	Calumet WHDF 1370 100
Augusta	INDIANA	Ashland WMFP 1310 100	Detroit
WRDW 1500 100	Anderson WBHU 1210 100	Covington WCKY 1490 5000 B	WJBK 1500 100 A
Columbus	Elkhart WTRC 1310 50	Lexington WLAP 1420 100	WJR 750 10000 B
WRBL 1200 100	Evansville WGBF 630 500	Louisville WAVE 940 1000 N	WMBC 1420 100
Griffin	Fort Wayne WGL 1370 100 C	WHAS 820 50000 C	WWJ 920 1000 R
Macon	WOWO 1160 10000 C	Paducah WPAD 1420 100	WXYZ 1240 1000
WMAZ 1180 1000	WIND 560 1000 A	LOUISIANA	East Lansing WKAR 1040 1000
Rome	Hammond WWAE 1200 100	Baton Rouge WJBO 1420 100	Flint WFDF 1310 100
WRGA 1500 100	Indianapolis WFBI 1230 1000 C	Lake Charles ... 1500 100	Grand Rapids WASH 1270 500
Savannah	WKBF 1400 500 N	Monroe KMLB 1200 100	WOOD 1270 500
WTOC 1260 1000 C	Muncie WLBC 1310 50	New Orleans WBNO 1200 100	Ironwood WJMS 1420 100
Thomasville	Richmond WFBM 1500 100	WDSU 1250 1000 C	Jackson WIBM 1370 100
WPAX 1210 100	South Bend WFAM 1200 100	WJBW 1200 100	Kalamazoo WKZO 590 1000
HAWAII	Terre Haute WSPB 1360 500 C	WSMB 1320 500 N	Lansing WJIM 1210 100
Hilo KWVF 1210 100	WOWO 1160 10000 C	WWL 850 10000	Lapeer WMPD 1200 100
Honolulu	Gary WIND 560 1000 A	Shreveport KRMD 1310 100	Marquette WBOE 1310 100
KGMB 1320 250 C	Hammond WWAE 1200 100	KTBS 1450 1000 N	Muskegon WKWB 1500 100
KGU 750 2500 N	Indianapolis WFBI 1230 1000 C	KWEA 1210 100	Royal Oak WEXL 1310 50
IDAHO	WKBF 1400 500 N	KWKH 1100 10000 C	MINNESOTA
Boise	Muncie WLBC 1310 50	MAINE	Fergus Falls KGDE 1200 100
KIDO 1350 1000	Richmond WFBM 1500 100	Augusta WRDO 1370 100	Hibbing WMFG 1210 100
Idaho Falls	South Bend WFAM 1200 100	Bangor WABI 1200 100	Minneapolis WCCO 810 50000 C
KID 1320 250	Terre Haute WSPB 1360 500 C	WLBZ 620 500 C	WDGY 1180 1000
Lewiston	WOWO 1160 10000 C	Portland WCSH 940 1000 R	WLB 1250 1000
KRLC 1420 100	Gary WIND 560 1000 A	Presque Isle WAGM 1420 100	WTCN 1250 1000
Nampa	Hammond WWAE 1200 100	MARYLAND	Moorhead KGFK 1500 100
KFXD 1260 100	Indianapolis WFBI 1230 1000 C	Baltimore WBAL 1060 10000 B	Northfield WCAL 1250 1000
Pocatello	WKBF 1400 500 N	WCAO 600 500 C	St. Paul KSTP 1460 10000 N
KSEI 900 250	Muncie WLBC 1310 50	WCBM 1370 100 A	MISSISSIPPI
Twain Falls KTFI 1240 1000	Richmond WFBM 1500 100	WFBR 1270 500 R	Clarksdale WMPN 1210 100
ILLINOIS	South Bend WFAM 1200 100	Cumberland WTBO 800 250	Hattiesburg WPFB 1370 100
Bloomington	Terre Haute WSPB 1360 500 C	Hagerstown WJEJ 1210 100	Jackson WJDX 1270 1000 N
WJBC 1200 100	WOWO 1160 10000 C	MASSACHUSETTS	Kesckusko WHEF 1500 100
Carthage	Gary WIND 560 1000 A	Babson Park WBSO 920 500	Laurel WAML 1310 100
WCAZ 1070 100	Hammond WWAE 1200 100	Boston WAAB 1410 500 C	Meridian WCOG 880 500
Chicago	Indianapolis WFBI 1230 1000 C	WBZ 900 50000 B	Mississippi City WGMN 1210 100
WAAF 920 500	WKBF 1400 500 N	WEEI 590 1000 R	Vicksburg WQBC 1360 1000
WBBM 770 25000 C	Muncie WLBC 1310 50	WHDH 830 1000 A	MISSOURI
WCFL 970 1500 B	Richmond WFBM 1500 100	WMEX 1500 100 A	Cape Girardeau KFVS 1210 100
WCRW 1210 100	South Bend WFAM 1200 100	WMPH 1120 500	Columbia KFRU 630 500
WEDC 1210 100	Terre Haute WSPB 1360 500 C	WNAK 1230 1000 C	
WENR 870 50000 N	WOWO 1160 10000 C	Fall River WSAR 1450 250	
WGES 1360 500	Gary WIND 560 1000 A	Lowell WLLH 1370 100	
WGN 720 50000	Hammond WWAE 1200 100	New Bedford WNBH 1310 100 C	
WJND 1130 20000 A	Indianapolis WFBI 1230 1000 C		
WLS 870 50000 N	WKBF 1400 500 N		
WMAQ 670 50000 N	Muncie WLBC 1310 50		
WMBI 1080 5000	Richmond WFBM 1500 100		
WSBC 1210 100	South Bend WFAM 1200 100		
OHIO	Terre Haute WSPB 1360 500 C		
Cleves	WOWO 1160 10000 C		
WEHS 1420 100	Gary WIND 560 1000 A		
WHFC 1420 100	Hammond WWAE 1200 100		
WKBI 1420 100	Indianapolis WFBI 1230 1000 C		
DECATUR	WKBF 1400 500 N		
WJBL 1200 100	Muncie WLBC 1310 50		
East Dubuque	Richmond WFBM 1500 100		
WKBB 1500 100	South Bend WFAM 1200 100		
East St. Louis	Terre Haute WSPB 1360 500 C		
WTMV 1500 100	WOWO 1160 10000 C		
Harrisburg	Gary WIND 560 1000 A		
WEBQ 1210 100	Hammond WWAE 1200 100		
Joliet	Indianapolis WFBI 1230 1000 C		
WCLS 1310 100	WKBF 1400 500 N		
Peoria	Muncie WLBC 1310 50		
WMBD 1440 500 C	Richmond WFBM 1500 100		

INDEX BY LOCATIONS

Jefferson City WOS 630 500	WNEW 1250 1000 A WOR 710 5000	Troy WHAZ 1300 500	Norman WNAD 1010 1000
Joplin WMBH 1420 100	Red Bank WBRB 1210 100	Utica WIBX 1200 100 C	Oklahoma City KFXR 1310 100
Kansas City KMBC 950 1000 C	Trenton WTNJ 1280 500 A	White Plains WFAS 1210 100	KGFG 1370 100
KWKC 1370 100	Zarephath WAWZ 1350 250	Woodside WWRL 1500 100	KOMA 1480 5000 C
WDAF 610 1000 R	NEW MEXICO	NORTH CAROLINA	WKY 900 1000 N
WHB 860 1000	Albuquerque KGGM 1230 250	Anheville WWNG 570 1000 N	Ponca City WBBZ 1200 100
W9XBY 1530 1000	KOB 1180 10000	Charlotte WBT 1080 50000 C	Shawnee KGFF 1420 100
St. Joseph KFEO 680 2500	Clovis KICA 1370 100	WSOC 1210 100 N	Tulsa KTUL 1400 500 C
St. Louis KFUO 550 500	Roswell KGFL 1370 100	Durham WDNC 1500 100 C	KVOO 1140 25000 N
KMOX 1090 50000 C	Santa Fe KIUF 1310 100	Greensboro WBIG 1440 500 C	OREGON
KSD 550 1000 R	NEW YORK	Raleigh WPTF 680 1000 N	Corvallis KOAC 550 1000
KWK 1350 1000 B	Albany WABY 1370 100	Rocky Mount WEED 1420 100	Eugene KORE 1420 100
WEW 760 1000 A	WOKO 1430 500 C	Wilmington WMFD 1370 100	Klamath Falls KFJI 1210 100
WIL 1200 100 A	Auburn WMOB 1310 100	Winston-Salem WSJS 1310 100 C	Marshfield KOOS 1200 100
..... 1500 100	Binghamton WNBFB 1500 100 C	NORTH DAKOTA	Medford KMED 1310 100
Springfield KGBX 1230 500	Brooklyn WARD 1400 500	Bismarck KFYR 550 1000 N	Portland KALE 1300 500 C
KWTO 560 1000	WBBB 1400 500	Devils Lake KDLR 1210 100	KBPS 1420 100
MONTANA	WBBR 1300 1000	Fargo WDAY 940 1000 N	KEX 1180 5000 N
Billings KGHL 780 1000 N	WCNW 1500 100	Grand Forks KFJM 1370 100	KFJR 1300 500
Butte KGIR 1360 1000 N	WLTH 1400 500	Mandan KGCU 1240 250	KGW 620 1000 N
Great Falls KFBB 1280 1000	WMOQ 1500 100	Minot KLPB 1240 250	KOIN 940 1000 C
KallsPELL KGEZ 1310 100	WVFW 1400 500	OHIO	KWJF 1040 500
Missoula KGVO 1260 1000	Buffalo WBEN 900 1000 R	Akron WADC 1320 1000 C	KXL 1420 100
Well Point KGCX 1310 100	WBRB 1310 100 A	WJW 1210 100 A	Salem KSLM 1370 100
NEBRASKA	WGR 550 1000 C	Canton WHBC 1200 100	PENNSYLVANIA
Clay Center KMMJ 740 1000	WKBW 1480 5000 C	Cincinnati WFBE 1200 100 A	Allentown WCBA 1440 500
Kearney KGFV 1310 100	WWSV 1370 50	WKRC 550 1000 C	WSAN 1440 500
Lincoln KFAB 770 5000 C	Canton WCAD 1220 500	WLW 700 500000 N	Altoona WFBG 1310 100
KFOR 1210 100 C	Chester WGNV 1210 100	WSAI 1330 1000 R	Carlton WWPA 850 250
Norfolk WJAG 1060 1000	Elmira WESG 850 1000	Cleveland WGAR 1450 500 B	Erie WLEU 1420 100
North Platte KGNF 1430 1000	Freeport WGBB 1210 100	WKH 1390 1000 C	Glenside WIBG 970 100
Omaha WAAW 660 500	Jamestown WOCL 1210 50	WJAY 610 500 A	Greensburg WHJB 620 250
WOW 590 1000 R	Long Island City W2XR 1550 1000	WTAM 1070 50000 R	Grove City WSAJ 1310 100
Scottsbluff KGKY 1500 100	New York	Columbus WAIU 640 500	Harrisburg WHP 1430 500 C
Yerk KGBZ 930 1000	WABC 860 50000 C	WBN 1430 500 C	WKO 1200 100
NEVADA	WBNX 1350 250	WCOL 1210 100 A	Hazleton WAZL 1420 100
Las Vegas KGIX 1420 100	WBOQ 860 50000	WOSU 570 750	Johnstown WJAC 1310 100
Reno KOH 1380 500 C	WEAF 660 50000 R	Dayton WHIO 1260 1000 R	Lancaster WGAL 1500 100
NEW HAMPSHIRE	WEVD 1300 1000	WMSK 1380 200 C	Philadelphia KWJG 1200 100
Laconia WLNH 1310 100	WFAB 1300 1000	Portsmouth WHBD 1370 100	KYW 1020 10000 R
Manchester WFEA 1340 500 C	WHN 1010 1000	Toledo WSPD 1340 1000 C	WCAU 1178 50000 C
Portsmouth WHEB 740 250	WINS 1180 1000	Youngstown WKBN 570 500 C	WDAS 1370 100
NEW JERSEY	WJZ 760 50000 B	Zanesville WALR 1210 100	WFIL 560 1000 B
Asbury Park WCAP 1280 500	WLWL 1100 5000	OKLAHOMA	WHAT 1310 100
Atlantic City WPG 1100 5000 C	WMCA 570 500	Ada KADA 1200 100	WIP 610 1000 A
Camden WCAM 1280 500	WNYC 810 1000	Ardmore 1210 100	WPEN 920 250
Jersey City WAAT 940 500	WOV 1130 1000	Elk City KASA 1210 100	WRAX 920 250
WHOM 1450 250	Olean WHDL 1420 100	Enid KCRG 1370 100	WTEL 1310 100
Newark WHBI 1250 1000	Pittsburg WMFF 1310 100	Pittsburgh KDKA 980 50000 B	WWSW 1500 100
	Rochester WHAM 1150 50000 B		
	WHEC 1430 500 C		
	Saranac Lake WNBZ 1290 100		
	Schenectady WGY 790 50000 R		
	Syracuse WFBL 1360 1000 C		
	WSYR 570 250 B		

INDEX BY LOCATIONS

Reading
 WEUU 830 1000
 WRAW 1310 100
Scranton
 WGBI 880 500
 WQAN 880 250
Sunbury
 WKOK 1210 100
 Wilkes-Barre
 WBAX 1210 100
 WBRE 1310 100
 Williamsport
 WRAK 1370 100
York
 WORK 1320 1000
PORTO RICO
 Ponce
 WPRP 1420 100
 San Juan
 WKAQ 1240 1000
 WNEL 1290 500
RHODE ISLAND
 Providence
 WEAN 780 500 C
 WJAR 890 500 R
 WPRO 630 250 A
SOUTH CAROLINA
 Anderson
 WAIM 1200 100
 Charleston
 WCSC 1360 500
 Columbia
 WIS 560 1000 N
 Greenville
 WFBC 1300 1000
 Spartanburg
 WSPA 920 1000
 WWC 1420 1000
SOUTH DAKOTA
 Aberdeen
 KABR 1420 100
 Brookings
 KFDY 780 1000
 Huron
 KGDY 1340 250
 Pierre
 KGFY 630 200
 Rapid City
 WCAT 1200 100
 Sioux Falls
 KSOO 1110 2500
 Vermillion
 KUSD 890 500
 Watertown
 KWTN 1210 100
 Yankton
 WNAX 570 1000 C
TENNESSEE
 Bristol
 WOPI 1500 100
 Chattanooga
 WDOD 1280 1000 C
 Jackson
 WTJS 1310 100
 Knoxville
 WNOX 1010 1000 C
 WROL 1310 100
 Memphis
 WHBQ 1370 100
 WMC 780 1000 N
 WNRB 1430 500 A
 WREC 600 1000 C
 Nashville
 WLAC 1470 5000 C
 WSM 650 50000 N
 Springfield
 WSIX 1210 100
TEXAS
 Amarillo
 KGRS 1410 1000

WDAG 1410 1000
 Austin
 KNOW 1500 100
 Beaumont
 KFDM 560 500
 College Station
 WTAW 1120 500
 Corpus Christi
 KGFI 1500 100
 Dallas
 KRLD 1040 10000 C
 WFAA 800 50000 N
 WRR 1280 500
 Dublin
 KFPL 1310 100
 El Paso
 KTSM 1310 100
 WDAH 1310 100
 Fort Worth
 KFJZ 1370 100
 KTAT 1240 1000 C
 WBAP 800 50000 N
 Galveston
 KLUF 1370 100
 Greenville
 KFPM 1310 15
 Houston
 KPRC 920 1000 N
 KTRH 1290 1000 C
 KXYZ 1440 500
 Longview
 KFRO 1370 100
 Lubbock
 KFYO 1310 100
 Pecos
 1420 100
 Port Arthur
 KPAC 1260 500
 San Angelo
 KGKL 1370 100
 San Antonio
 KABC 1420 100
 KMAC 1370 100
 KONO 1370 100
 K TSA 550 1000 C
 WOA1 1190 50000 N
 Tyler
 KGKB 1500 100
 Waco
 WACO 1420 100 C
 Westaco
 KRGV 1260 500
 Wichita Falls
 KGKO 570 500 C
UTAH
 Ogden
 KLO 1400 500 C
 Salt Lake City
 KDYL 1290 1000 N
 KSL 1130 50000 C
VERMONT
 Burlington
 WCAX 1200 100
 Rutland
 WSYB 1500 100
 St. Albans
 WQDM 1370 100
 Springfield
 WNBX 1260 1000
 Waterbury
 WDEV 550 500
VIRGINIA
 Arlington
 NAA 690 1000
 Charlottesville
 WEHC 1420 100
 Danville
 WBTM 1370 100
 Lynchburg
 WLVA 1200 100

Newport News
 WGH 1310 100
Norfolk
 WTAR 780 500 N
Petersburg
 WPHR 880 500
Richmond
 WBBL 1210 100
 WMBG 1210 100 C
 WRVA 1110 5000 N
Roanoke
 WDBJ 930 1000 C
 WRBX 1410 250
 Staunton
 WSWA 550 500
WASHINGTON
 Aberdeen
 KXRO 1310 100
 Bellingham
 KVOZ 1200 100
 Everett
 KRKO 1370 50
 Olympia
 KGY 1210 100
 Pullman
 KWSC 1220 1000
 Seattle
 KJR 970 5000 N
 KOL 1270 1000 C
 KOMO 920 1000 N
 KPCB 710 250
 KRSC 1120 100
 KTW 1220 1000
 KVL 1370 100
 KXA 760 250
 Spokane
 KFIO 1120 100
 KFPY 1340 1000 C
 KGA 900 1000 N
 KHQ 590 1000 N
 Tacoma
 KMO 1330 250
 KVI 570 1000 C
 Walla Walla
 KUJ 1370 100
 Wenatchee
 KPO 1500 100
 Yakima
 KIT 1310 100
WEST VIRGINIA
 Bluefield
 WHIS 1410 250
 Charleston
 WCHS 580 500
 Fairmont
 WMMN 890 250
 Huntington
 WSAZ 1190 1000
 Wheeling
 WWVA 1160 5000 C
WISCONSIN
 Eau Claire
 WTAQ 1330 1000
 Fond du Lac
 KFIZ 1420 100
 Green Bay
 WHBY 1200 100
 Janesville
 WCLO 1200 100
 LaCrosse
 WKBH 1380 1000
 Madison
 WHA 940 2500
 WIBA 1280 1000 N
 Manitowoc
 WOMT 1210 100
 Milwaukee
 WISC 1410 100
 WISN 1130 250 C
 WTMJ 620 1000 N

Poynette
 WIBU 1210 100
Racine
 WRJN 1370 100
Sheboygan
 WHBL 1410 500
Stevens Point
 WLBL 900 2500
Superior
 WEBC 1290 1000 N
WYOMING
 Casper
 KDFN 1440 500
 Sheridan
 KWOY 1370 100
CANADA
ALBERTA
 Calgary
 CFAC 930 100 F
 CFCN 1030 10000 F
 CJCJ 690 100 F
 Edmonton
 CFRN 1260 100
 CJCA 730 1000 F
 CKUA 580 500
 Lethridge
 CJOC 1230 100 F
BRITISH COLUMBIA
 Chilliwack
 CHWK 780 100 F
 Kamloops
 CFJC 880 100 F
 Kelowna
 CKOV 630 100 F
 Trail
 CJAT 910 250 F
 Vancouver
 CJOR 600 500
 CKCD 1010 100
 CKFC 1410 50
 CKMO 1410 100 F
 CKWX 1010 100 F
 CRCV 1100 1000 F
 Victoria
 CFCT 1450 75
MANITOBA
 Brandon
 CKX 1120 100 F
 Winnipeg
 CJRC 1390 100 F
 CKY 960 15000 F
NEW BRUNSWICK
 Fredericton
 CFNB 550 500 F
 Moncton
 CKCW 1370 100 F
 St. John
 CHSJ 1120 100 F
N. W. TERRITORY
 Aklavik
 CJCU 1210 50
NOVA SCOTIA
 Glace Bay
 VAS 685 2000
 Halifax
 CHNS 930 1000 F
 Sydney
 CJCB 1240 1000 F
 Wolfville
 CKIC 1010 50
 Yarmouth
 CJLS 1310 100
ONTARIO
 Brantford
 CKPC 930 100 F
 Chatham
 CFCO 1050 100 F

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

NEWFOUNDLAND

St. John's

VOAC	1300 40
VOAS	940 100
VOGY	840 400
VONF	950 5000
VOWR	681 500

MIQUELON

St. Pierre

FQN	609 250
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CENTRAL AMERICA

COSTA RICA

Cartago

TIGA	1014 30
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San Jose

TICR	912 75
TIFB	714 30
TIGP	800 75
TIRCA	1100 500
TISO	550 250
TIVL	835 30

GUATEMALA

Guatemala City

TGW	565 10000
TGX	1400 150

EL SALVADOR

San Salvador

RDN	680 500
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MEXICO

AGUASCALIENTES

Aguascalientes

XFC	810 350
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BAJA CALIFORNIA

Agua Caliente

XEBC	730 5000
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Ensenada

XEG	1270 500
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Mexicali

XEAA	920 200
XEAO	560 250

Tijuana

XEC	1270 50
XEFL	1160 5000
XEMO	865 2500
XEOK	765 2500

CAMPECHE

Caxaca

XEAJ	1310 15
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CHIHUAHUA

Chihuahua

XEFI	1440 250
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Juarez

XEFV	1210 100
XEJ	1020 1250

COAHUILA

Piedras Negras

XELO	1110 10000
XEPN	590 50000

Saltito

XELA	1240 50
XEOX	640 250

Torreón

XETB	1310 125
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D. F.

Mexico City

XEAI	1240 100
XEB	1030 10000
XECW	1310 10
XEFA	1180 500
XEFG	1100 250
XEFO	940 5000
XEFZ	1370 100
XEK	990 100

XELC	740 100
XEMX	1280 12
XEN	710 1000
XEO	940 5000
XEP	840 500
XETW	820 500
XEW	890 50000
XEWZ	1150 100
XEXX	845 500
XEYZ	780 10000
XFX	610 1000

DURANGO

Durango

XEE	1210 50
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Mineral del Monte

XELM	1310 15
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GUANAJUATO

Guanajuato

XEAX	1420 7
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Leon

XEKL	1240 500
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JALISCO

Guadalajara

XEA	1060 125
XED	1160 500

MICHOACAN

Morelia

XEI	1370 125
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NUEVO LEON

Monterrey

XEFB	1420 100
XEFJ	1230 100
XEH	1150 250
XET	690 500
XEX	1310 125

PUEBLA

Puebla

XETH	1210 100
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SAN LUIS POTOSI

San Luis Potosi

XEZZ	1370 100
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SONORA

Nogales

XEAF	540 250
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TAMAULIPAS

Nuevo Laredo

XEAM	960 50
XEFE	920 250
XENT	910 60000

VERACRUZ

Reynosa

XEAW	960 10000
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Tampico

XEFW	1310 250
XEMA	1080 50
XES	990 250

VERACRUZ

Jalapa

XFB	1270 250
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Orizaba

XFD	1340 350
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Veracruz

XETF	1220 12
XEU	1160 250

YUCATAN

Merida

XEFC	1310 100
XEZ	630 500

WEST INDIES

CUBA

Calbarion

CMHD	950 250
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Camaguey

CMJC	1382 150
CMJE	1170 50
CMJF	930 200
CMJG	1050 50

CMJK	790 150
CMJL	960 50

Cardenas

CMGE	1375 30
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Ciego de Avila

CMJH	1150 50
CMJI	1210 150
CMJO	1010 50

Cienfuegos

CMHJ	1125 40
CMHW	910 100

Colon

CMGI	1094 30
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Cruces

CMHK	1225 50
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Guantanamo

CMKJ	1300 20
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Havana

CMAF	680 1000
CMBC	1035 150
CMBD	1350 150
CMBG	1150 225
CMBS	775 150
CMBX	1435 150
CMBY	635 250
CMBZ	1005 100
CMC	835 500
CMCA	1230 150
CMCB	1060 150
CMCD	955 250
CMCF	610 250
CMCG	1125 150
CMCJ	1200 400
CMCN	1500 250
CMCO	1280 150
CMCP	1270 150
CMCQ	610 1000
CMCR	1400 150
CMCU	1255 150
CMCV	755 150
CMCX	865 150
CMCY	1100 500
CMK	725 3150
CMOA	1175 500
CMOK	1230 250
CMOX	1325 200
CMQ	840 5000
CMW	930 1400
CMX	928 1000

Holguin

CMKF	1363 30
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Manzanillo

CMKM	940 100
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Matanzas

CMGF	971.5 100
CMGH	1040 15

Moron

CMJP	1360 75
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Sagua la Grande

CMHA	1103 50
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San Spiritus

CMHB	1245 30
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Santa Clara

CMHI	1037 150
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Santiago

CMKC	1034 150
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DOMINICAN REPUBLIC

San Pedro de Macoris

HHH	1395 15
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Santo Domingo

HJJ	1195 15
HIX	1270 1000
HIZ	1300 10

HAITI

Port-au-Prince

HHK	920 1000
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	CFAC	930	100	Calgary, Alta.
				Calgary Herald, Southam Bldg.
	CFCF	600	400	Montreal, Que.
				Mt. Royal Hotel
	CFCH	930	100	North Bay, Ont.
				Capitol Theatre Bldg.
	CFCN	1030	10000	Calgary, Alta.
				Toronto Gen. Trust Bldg.
	CFCO	1050	100	Chatham, Ont.
				Wm. Pitt Hotel
	CFCT	1450	75	Victoria, B. C.
				620 View St.
	CFCY	630	1000	Charlottetown, P.E.I.
				143 Great George St.
	CFJC	880	100	Kamloops, B. C.
				Wilcox-Hall Bldg.
	CFLC	930	100	Prescott, Ont.
				Hoy Bldg., 307 George St.
	CFNB	550	500	Fredericton, N. B.
				York St.
	CFPL	730	100	London, Ont.
				Richmond St.
	CFQC	840	1000	Saskatoon, Sask.
				216 First Ave., No.
	CFRB	690	10000	Toronto, Ont.
				37 Bloor St. W.
	CFRC	1510	100	Kingston, Ont.
				Queens University
	CFRN	1260	100	Edmonton, Alta.
				Birks Bldg.
	CHAB	1200	100	Moose Jaw, Sask.
				Grant Hall Hotel
	CHCK	1310	50	Charlottetown, P.E.I.
				36 Upper Hillsboro St.
	CHGS	1450	50	Summerside, P. E. I.
				190 Water St.
	CHLP	1120	100	Montreal, Que.
				Sun Life Bldg.
	CHML	1010	50	Hamilton, Ont.
				47 Main St. E.
	CHNC	1210	100	New Carlisle, Que.
				Gaspeian Radio Brdsg. Co.
	CHNS	930	1000	Halifax, N. S.
				Lord Nelson Hotel
	CHRC	580	100	Quebec, Que.
				CHRC, Ltd., Victoria Hotel
	CHSJ	1120	100	St. John, N. B.
				Admiral Beatty Hotel
	CHWC	1010	500	Regina, Sask.
				Kitchener Hotel
	CHWK	780	100	Chilliwack, B. C.
				Wellington Ave.
	CJAT	910	250	Trail, B. C.
				Kootenay Brdsg. Co.
	CJCA	730	500	Edmonton, Alta.
				10122-100A St.
	CJCB	1240	1000	Sydney, N. S.
				318 Charlotte St.
	CJJC	690	100	Calgary, Alta.
				New Albertan Bldg.
	CJCU	1210	50	Aklavik, N. W. T.
				Dr. J. A. Urquhart, Dept. of Interior
	CJGX	630	500	Yorkton, Sask.
				188 Grain Exchange Bldg. (Winnipeg)
	CJIC	890	100	S. Ste. Marie, Ont.
				Windsor Hotel
	CJKL	1310	100	Kirkland Lake, Ont.
				O. J. Thorpe
	CJLS	1310	100	Yarmouth, N. S.
				Laurie L. Smith, Grand Hotel
	CJOC	1230	100	Lethbridge, Alta.
				Marquis Hotel

	CJOR	600	500	Vancouver, B. C.
				G. C. Chandler, Hotel Grosvenor
	CJRC	1390	100	Winnipeg, Man.
				Royal Alexandra Hotel
	CJRM	540	1000	Moose Jaw, Sask.
				311 Main St. No.
	CKAC	730	5000	Montreal, Que.
				980 St. Catherine St. W.
	CKBI	1210	100	Prince Albert, Sask.
				Canada Bldg.
	CKCD	1010	100	Vancouver, B. C.
				142 Hastings St. W.
	CKCH	1210	100	Hull, Que.
				Standish Hall Hotel
	CKCK	1010	500	Regina, Sask.
				1853 Hamilton St.
	CKCL	580	100	Toronto, Ont.
				444 University Ave.
	CKCO	1010	100	Ottawa, Ont.
				272 Somerset St. W.
	CKCR	1510	100	Waterloo, Ont.
				24 King St. So.
	CKCV	1310	50	Quebec, Que.
				254 Ave. Marguerite
	CKCW	1370	100	Moncton, N. B.
				Moncton Brdsg. Co., Ltd.
	CKFC	1410	50	Vancouver, B. C.
				Hemlock & 12th Ave.
	CKGB	1420	100	Timmins, Ont.
				R. H. Thompson, Press Bldg.
	CKIC	1010	50	Wolfville, N. S.
				Acadia University
	CKLW	1030	5000	Windsor, Ont.
				Guaranty Trust Bldg.
	CKMC	1210	50	Cobalt, Ont.
				R. L. MacAdam
	CKMO	1410	100	Vancouver, B. C.
				1604 Bekins Bldg.
	CKNC	1420	100	Toronto, Ont.
				805 Davenport Road
	CKOC	1120	500	Hamilton, Ont.
				Wentworth Bldg.
	CKOV	630	100	Kelowna, B. C.
				Okanagan Broadcasters, Ltd., Box 243
	CKPC	930	100	Brantford, Ont.
				Arcade Bldg.
	CKPR	930	100	Fort William, Ont.
				Royal Edward Hotel
	CKSO	780	1000	Sudbury, Ont.
				W. E. Mason, Grand Theatre Bldg.
	CKTB	1200	100	St. Catharines, Ont.
				E. T. Sandell, Welland House
	CKUA	580	500	Edmonton, Alta.
				University of Alberta.
	CKWX	1010	100	Vancouver, B. C.
				Hotel Georgia
	CKX	1120	100	Brandon, Man.
				Rosser Ave.
	CKY	960	15000	Winnipeg, Man.
				Sherbrooke St.
	CMAF	680	1000	Havana, Cuba
				1 y 8 Rept. Miramar
	CMBC	1035	150	Havana, Cuba
				Domingo Fernandez, Maximo Gomez No. 139
	CMBD	1350	150	Havana, Cuba
				Luis Perez Garcia, Centre Galega
	CMBG	1150	225	Havana, Cuba
				John L. Stowers, Hospita l No. 100
	CMBS	775	150	Havana, Cuba
				Calzada y H. St., Vedado
	CMBX	1435	150	Havana, Cuba
				Alberto Alvarez, Belascoain No. 32

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CMBY 635 250 Havana, Cuba Infanta 132 esq. Jevellar	CMJK 790 150 Camaguey, Cuba Cla. Nacional de Radio, Finlay
CMBZ 1005 100 Havana, Cuba Manuely G. Salas, San Rafael No. 14	CMJL 960 50 Camaguey, Cuba Enrique Artime, Cuba No. 27
CMC 835 500 Havana, Cuba Agulla y Dragones	CMJO 1010 50 Ciego de Avila, Cuba Jose M. Rey, C. Central & Maceo
CMCA 1230 150 Havana, Cuba J. M. Gonzales, Gallano No. 102	CMJP 1360 75 Moron, Cuba Cesar Canall, Callejas No. 28
CMCB 1060 150 Havana, Cuba Metropolitan Bldg.	CMK 725 3150 Havana, Cuba Hote Plaza
CMCD 955 250 Havana, Cuba Calle G y 25, Vedado	CMKC 1034 150 Santiago, Cuba J. A. Saco, Alta 23
CMCF 610 250 Havana, Cuba Raoul Karman, P. O. Box 647	CMKF 1363 30 Holquin, Cuba Libertad esq. Arlas
CMCG 1125 150 Havana, Cuba Emilie Perera, San Miguel No. 62	CMKJ 1300 20 Guantanamo, Cuba Luis Morlote, East Giro 11
CMCJ 1200 400 Havana, Cuba Rafael Rodriguez, Estevez No. 4	CMKM 940 100 Manzanillo, Cuba Jesus Armeste, Merchant y P. Figuerado
CMCK 1320 100 Havana, Cuba Manuel Autran G. Vedado	CMOA 1175 500 Havana, Cuba Juan Fernandez, Aguilar 126, Altos
CMCN 1500 250 Havana, Cuba Reina y Ave. Buen Ritiroe, Mariano	CMOK 1230 250 Havana, Cuba Rafael Valdez, Marques Gonzales 52
CMCO 1280 150 Havana, Cuba Ass. Detes. del Comercio	CMOX 1325 200 Havana, Cuba 10 entre 17 y 19, Vedado
CMCP 1270 150 Havana, Cuba Calzada de Luyano No. 132	CMQ 840 5000 Havana, Cuba 25 Numero 445, Vedado
CMCQ 610 1000 Havana, Cuba Vista Alegre No. 80, Vibora	CMW 930 1400 Havana, Cuba Troncoso y Gil, Apdo. 1010
CMCR 1400 150 Havana, Cuba Milagros No. 35, Vibora	CMX 928 1000 Havana, Cuba Casa "Lavin," Ave. del a Republica 99A
CMCU 1255 150 Havana, Cuba San Francisco No. 13, Vibora	CRCK 1050 1000 Quebec, Que. Chateau Frontenac Hotej
CMCW 755 150 Havana, Cuba Galiano y San Lazaro Sts.	CRCM 910 5000 Montreal, Que. 1231 St. Catherine St. W.
CMCX 865 150 Havana, Cuba	CRCO 880 1000 Ottawa, Ont. Chateau Laurier Hotel
CMCY 1100 500 Havana, Cuba Manuel D. Autran, Calle G 215, Vedado	CRCS 950 100 Chicoutimi, Que. 4 Rue Larouche
CMGE 1375 30 Cardenas, Cuba Genaro Sebater, Cespedes No. 180	CRCT 840 5000 Toronto, Ont. 805 Davenport Road
CMGF 971.5 100 Matanzas, Cuba G. Betancourt No. 51	CRCV 1100 1000 Vancouver, B. C. C. N. R. Station Bldg.
CMGH 1040 15 Matanzas, Cuba B. Byrne No. 113	CRCW 600 1000 Windsor, Ont. Guaranty Trust Bldg.
CMGI 1094 30 Colon, Cuba Armando Llanaza, Marti No. 35	FQN 609 250 St. Pierre, Miq.
CMHA 1103 50 Sagua la Grande, Cuba Abelardo Menocal, Carrillo No. 1	HHK 920 1000 Port-au-Prince, Haiti Haitian Government
CMHB 1245 30 San Spiritus, Cuba Independencia No. 33	HIH 1395 15 San Pedro de M., D.R. Domingo Dominguez
CMHD 950 250 Calbarlen, Cuba Manuel Alvarez, M. Escobar 17	HIJ 1195 15 Santo Domingo, D. R. Tuto Baez, Hostos 34
CMHI 1037 150 Santa Clara, Cuba Lavis y Paz, Independencia No. 34	HIX 1270 1000 Santo Domingo, D. R. J. R. Saladin, Director General
CMHJ 1125 40 Cienfuegos, Cuba Romoualde Ugalde, Hotel Bristol	HIZ 1300 10 Santo Domingo, D. R. Abbes and Garcia
CMHK 1225 50 Cruces, Cuba Heredia No. 61	KABC 1420 100 San Antonio, Texas Texas Theatre Bldg.
CMHW 910 100 Cienfuegos, Cuba Arguelles No. 200	KABR 1420 100 Aberdeen, S. Dak. Aberdeen Broadcast Co.
CMJC 1382 150 Camaguey, Cuba Feliciano Isaac, Cisneros y G. Gomez	KADA 1200 100 Ada, Okla. C. C. Morris
CMJE 1170 50 Camaguey, Cuba Manuel Fernandez, Enos. Aguiere No. 2	KALE 1300 500 Portland, Ore. Kale, Inc., New Heathman Hotel
CMJF 930 200 Camaguey, Cuba John L. Stowers, Republica No. 88	KARK 890 250 Little Rock, Ark. N. S. L. Bldg.
CMJG 1050 50 Camaguey, Cuba Jose Antonio Lefran, Maceo No. 1	KASA 1220 100 Elk City, Okla. E. M. Woody, Casa Grande Hotel
CMJH 1150 50 Ciego de Avila, Cuba Luis Marauri, Vista Hermosa	KBPS 1420 100 Portland, Ore. E. 12th & Hoyt Sts.
CMJI 1210 150 Ciego de Avila, Cuba Gilberto Gessa Lopez, Independencia 95	KBTM 1200 100 Jonesboro, Ark. Jay P. Beard

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KCMC 1420 100 Texarkana, Ark. Box 865	KFOX 1250 1000 Long Beach, Calif. 220 E. Anaheim St.
KCRC 1370 100 Enid, Okla. Enid Radiophone Co., Oxford Hotel	KFPL 1310 100 Dublin, Texas C. C. Baxter, Box 176
KCRJ 1310 100 Jerome, Ariz. Chas. C. Robinson, Drawer D.	KFPM 1310 15 Greenville, Texas New Furniture Co.
KDB 1500 100 Santa Barbara, Calif. 15-17 E. Haley St.	KFPW 1210 100 Fort Smith, Ark. Goldman Hotel
KDFN 1440 500 Casper, Wyo. Donald Lewis Hathaway	KFPY 1340 1000 Spokane, Wash. Symons Bldg.
KDKA 980 50000 Pittsburgh, Pa. Hotel Wm. Penn	KFQD 780 250 Anchorage, Alaska 411-4th Ave.
KDLR 1210 100 Devils Lake, N. D. KDLR, Inc., 1025 3rd Street	KFRC 610 1000 San Francisco, Calif. 1000 Van Ness Ave.
KDYL 1290 1000 Salt Lake City, Utah Ezra Thompson Bldg.	KFRO 1370 100 Longview, Texas Voice of Longview
KECA 1430 1000 Los Angeles, Calif. 1000 S. Hope St.	KFRU 630 500 Columbia, Mo. KFRU, Inc., 9th and Elm Sts.
KELD 1370 100 El Dorado, Ark. T. H. Barton	KFSU 600 1000 San Diego, Calif. U. S. Grant Hotel
KELW 780 500 Burbank, Calif. 3702 Magnolia Park Blvd.	KFSG 1120 1000 Los Angeles, Calif. 1100 Glendale Blvd.
KERN 1370 100 Bakersfield, Calif. Elk's Club	KFUO 550 500 St. Louis, Mo. 801 De Mun St.
KEX 1180 5000 Portland, Ore. Oregonian Bldg.	KFVD 1000 250 Los Angeles, Calif. E. L. Cord, 645 S. Mariposa
KFAB 770 5000 Lincoln, Neb. Cornhusker Hotel	KFVS 1210 100 Cape Girardeau, Mo. Oscar C. Hirsch, Box 275
KFAC 1300 1000 Los Angeles, Calif. E. L. Cord, 645 So. Mariposa	KFWB 950 1000 Hollywood, Calif. Warner Bros. Motion Pictures, Inc.
KFBB 1280 1000 Great Falls, Mont. Buttrety Broadcast., Inc.	KFXD 1200 100 Nampa, Idaho Frank E. Hurt, 1024 12th Ave. S.
KFBI 1050 5000 Abilene, Kans. Box 345	KFXJ 1200 100 Grand Jct., Colo. Hillcrest Manor
KFBK 1310 100 Sacramento, Calif. Sacramento Bee	KFXM 1210 100 San Bernardino, Calif. California Hotel
KFDM 560 500 Beaumont, Texas Beaumont Hotel, P. O. Box 2950	KFXR 1310 100 Oklahoma City, Okla. 541 Hightower Bldg.
KFDY 780 1000 Brookings, S. D. South Dakota State College	KFYO 1310 100 Lubbock, Texas Kirksey Bros., Hotel Lubbock
KFEL 920 500 Denver, Colo. Albany Hotel	KFYR 550 1000 Bismarck, N. D. 320 Broadway
KFEQ 680 2500 St. Joseph, Mo. Schneider Bldg.	KGA 900 1000 Spokane, Wash. 1023 W. Riverside Ave.
KFGQ 1370 100 Boone, Iowa 924 W. 2nd St.	KGAR 1370 100 Tucson, Ariz. 142 S. 6th Ave.
KFH 1300 1000 Wichita, Kans. 124 1/2 S. Market St.	KGB 1330 1000 San Diego, Calif. 1012-1st St.
KFI 640 50000 Los Angeles, Calif. 1000 S. Hope St.	KGBU 900 500 Ketchikan, Alaska Mile 5, Wards Cove Rd.
KFIO 1120 100 Spokane, Wash. 213 Riverside Ave.	KGBX 1230 500 Springfield, Mo. KGBX, Inc., C. of C. Bldg.
KFIZ 1420 100 Fond du Lac, Wis. 18 W. 1st St.	KGBZ 930 1000 York, Neb. KGBZ Broadcasting Co., 715 Grant Ave.
KFJB 1200 100 Marshalltown, Iowa 1603 W. Main St.	KGCA 1270 100 Decorah, Iowa Charles W. Greenley, 201 Water St.
KFJI 1210 100 Klamath Falls, Ore. KFJI Broadcasters, Inc., Willard Hotel	KGCU 1240 250 Mandan, N. D. 404 W. Main St.
KFJM 1370 100 Grand Forks, N. D. University of North Dakota	KGCX 1310 100 Wolf Point, Mont. E. E. Krebsbach.
KFJR 1300 500 Portland, Ore. 622 Lumbermen's Bldg.	KGDE 1200 100 Fergus Falls, Minn. C. L. Jaren
KFJZ 1370 100 Fort Worth, Texas Texas Hotel	KGDM 1100 1000 Stockton, Calif. E. F. Pefter, 42 S. Calif. St.
KFKA 880 500 Greeley, Colo. Box 735	KGDY 1340 250 Huron, S. D. Voice of S. D., Inc., 347 Dakota Ave.
KFKU 1220 1000 Lawrence, Kans. University of Kansas	KGEK 1200 100 Sterling, Colo. Elmer G. Beehler, 109 W. 2nd St.
KFNF 890 500 Shenandoah, Iowa 407 Sycamore St.	KGER 1360 1000 Long Beach, Calif. 435 Pine Ave.
KFOR 1210 100 Lincoln, Neb. Howard Shuman, Hotel Lincoln	KGEZ 1310 100 Kallispell, Mont. Donald C. Treloar, Box 1

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KGFF 1420	100 Shawnee, Okla. 9th & Bell Sts.
KGFG 1370	100 Oklahoma City, Okla. Okla. Broadcasting Co., 1113 N. Broadway
KGFI 1500	100 Corpus Christi, Texas Eagle Broadcasting Co., Inc., P. O. Box 1508
KGfJ 1200	100 Los Angeles, Calif. Ben S. McGlashan, 1417 S. Figueroa
KGfK 1500	100 Moorhead, Minn. 722 Center Ave.
KGfL 1370	100 Roswell, N. M. KGfL, Inc., 507 N. Main St.
KGfW 1310	100 Kearney, Neb. Midway Hotel
KGfX 630	200 Pierre, S. D. Dana McNeil, 510 Summit Ave.
KGCC 1420	100 San Francisco, Calif. 230 Eddy St.
KGGF 1010	1000 Coffeyville, Kans. Coffeyville Journal Bldg.
KGGM 1230	250 Albuquerque, N. M. Franciscan Hotel
KGfH 1320	500 Pueblo, Colo. C. P. Ritchie, 113 Broadway
KGHI 1200	100 Little Rock, Ark. Arkansas Brdcstg. Co., Marion Hotel
KGHL 780	1000 Billings, Mont. 5th & N. Broadway
KGIR 1360	1000 Butte, Mont. KGIR, Inc., 121 W. Broadway
KGfW 1420	100 Alamosa, Colo. Leonard E. Wilson, 326 N. Commercial
KGfX 1420	100 Las Vegas, Nev. J. M. Heaton, Box 656
KGKB 1500	100 Tyler, Texas 115 S. College
KGKL 1370	100 San Angelo, Texas KGKL, Inc., St. Angelus Hotel
KGKO 570	500 Wichita Falls, Texas 9th St. & Indiana Ave.
KGKY 1500	100 Scottsbluff, Neb. Hilliard Co., Inc., 1517 1/2 Broadway
KGMB 1320	250 Honolulu, T. H. Honolulu Broadcasting Co., Box 2663
KGfN 1430	1000 North Platte, Neb. Great Plains Broadcasting Co., W. 12th St.
KGNO 1340	250 Dodge City, Kans. First Natl. Bank Bldg.
KG0 790	7500 San Francisco, Calif. 111 Sutter St.
KGfS 1410	1000 Amarillo, Texas E. B. Gish, Bellaire Park
KGU 750	2500 Honolulu, T. H. Kaplanian at South St.
KGVO 1260	1000 Missoula, Mont. Mosbys, Inc., 240 N. Higgins
KGW 620	1000 Portland, Ore. 325 Adler St.
KGy 1210	100 Olympia, Wash. KGy, Inc., 11th and Capitol Way
KHJ 900	1000 Los Angeles, Calif. 7th at Bixel
KHQ 590	1000 Spokane, Wash. Sprague Ave. & Post St.
KHSL 950	250 Chico, Calif. Golden Empire Brdcstg. Co.
KICA 1370	100 Clovis, N. M. Southwest Broadcasting Co.
KID 1320	250 Idaho Falls, Idaho Park Ave. & Broadway
KIDO 1350	1000 Boise, Idaho Hotel Bolse

KIDW 1420	100 Lamar, Colo. Lamar Broadcasting Co., Box 688
KfEM 1210	100 Eureka, Calif. Redwood Bdcstg. Co., Vance Hotel
KfEV 850	250 Glendale, Calif. Cannon System, Ltd., Glendale Hotel
KfIT 1310	100 Yakima, Wash. 109 1/2 E. Yakima Ave.
KfIUJ 1310	100 Santa Fe, N. Mex. J. H. Speck
KfIUL 1210	100 Garden City, Kans. Garden City Brdcstg. Co.
KfJBS 1070	500 San Francisco, Calif. 1380 Bush St.
KfJR 970	5000 Seattle, Wash. Skinner Bldg.
KfLKN 1290	100 Blytheville, Ark. C. L. Lintzenich, Main and Division St.
KfLO 1400	500 Ogden, Utah 406—25th St.
KfLPM 1240	250 Minot, N. D. John B. Cooley, Box 707
KfLRA 1390	1000 Little Rock, Ark. Arkansas Broadcasting Co., Box 650
KfLS 1440	250 Oakland, Calif. Warner Bros., 2201 Telegraph Ave.
KfLUF 1370	100 Galveston, Texas Geo. R. Clough, 3327 Ave. P.
KfLX 880	1000 Oakland, Calif. Tribune Tower
KfLZ 560	1000 Denver, Colo. Shirley-Savoy Hotel
KfMA 930	1000 Shenandoah, Iowa Earl E. May Seed & Nursery Co.
KfMAC 1370	100 San Antonio, Texas W. W. McAllister, Blue Bonnet Hotel
KfMBC 950	1000 Kansas City, Mo. Pickwick Hotel
KfMED 1310	100 Medford, Ore. Mrs. W. J. Virgin, Sparta Bldg.
KfMJ 580	500 Fresno, Calif. Van Ness & Calaveras Sts.
KfMLB 1200	100 Monroe, La. Francis Hotel
KfMMJ 740	1000 Clay Center, Neb. The M. M. Johnson Co.
KfMO 1330	250 Tacoma, Wash. KMO, Inc., Hotel Winthrop
KfMOX 1090	50000 St. Louis, Mo. 401 S. 12th St.
KfMPC 710	500 Beverly Hills, Calif. 9631 Wilshire Blvd.
KfMTR 570	1000 Hollywood, Calif. KMTR Radio Corp., 915 N. Formosa Ave.
KfNOW 1500	100 Austin, Texas Driskill Hotel
KfNX 1050	50000 Hollywood, Calif. West. Broadcast Co., Inc., 1558 N. Vine St.
KfOA 830	50000 Denver, Colo. General Electric Co., 1370 Krameria St.
KfOAC 550	1000 Corvallis, Ore. Oregon State Agricultural College
KfOB 1180	10000 Albuquerque, N. M. Albuquerque Journal, Box 667
KfOH 1380	500 Reno, Nev. 440 N. Virginia St.
KfOIL 1260	1000 Council Bluffs, Iowa Mona Motor Oil Co.
KfOIN 940	1000 Portland, Ore. KOIN, Inc., New Heathman Hotel
KfOL 1270	1000 Seattle, Wash. Northern Life Tower

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KOMA 1480 5000	Oklahoma City, Okla	KSTP 1460 10000	St. Paul, Minn.
Biltmore Hotel		St. Paul Hotel	
KOMO 920 1000	Seattle, Wash.	KSUN 1200 100	Lowell, Ariz.
Skinner Bldg.		Copper Electrical Co., Drawer C	
KONO 1370 100	San Antonio, Texas	KTAB 560 1000	San Francisco, Calif.
Mission Broadcast. Co., St. Anthony Hotel		5th & Mission Sts.	
KOOS 1200 100	Marshallfield, Ore.	KTAR 620 1000	Phoenix, Ariz.
H. H. Hanseth, Hall Bldg.		116 N. Central Ave.	
KORE 1420 100	Eugene, Ore.	KTAT 1240 1000	Fort Worth, Texas
733 Willamette St.		Ft. Worth Natl. Bank Bldg.	
KOTN 1500 100	Pine Bluff, Ark.	KTBS 1450 1000	Shreveport, La.
William H. Chaplin, Hotel Pines		Box 1642	
KOY 1390 500	Phoenix, Ariz.	KTF 1 1240 1000	Twin Falls, Idaho
621 N. Central Ave.		Radio Broadcasting Corp., Box 521	
KPAC 1260 500	Port Arthur, Texas	KTHS 1060 10000	Het Springs, Ark.
Port Arthur College		Chamber of Commerce, Box 886	
KPCB 710 100	Seattle, Wash.	KTM 780 500	Los Angeles, Calif.
Tower Bldg.		214 S. Vermont St.	
KPJM 1500 100	Prescott, Ariz.	KTRB 740 250	Modesto, Calif.
Scott & Sturm, P. O. Box 782		McTammany & Bates	
KPO 680 50000	San Francisco, Calif.	KTRH 1290 1000	Houston, Texas
111 Sutter St.		KTRH Broadcasting Co., Rice Hotel	
KPOF 880 500	Denver, Colo.	KTSA 550 1900	San Antonio, Texas
Pillar Of Fire, 1845 Champa St.		Southwest Broadcasting Co., Plaza Hotel	
KPPC 1210 80	Pasadena, Calif.	KTSM 1310 100	El Paso, Texas
585 E. Colorado St.		P. O. Box 1976	
KPQ 1500 100	Wenatchee, Wash.	KTUL 1400 500	Tulsa, Okla.
KPQ Bldg.		National Bank of Tulsa Bldg.	
KPRC 920 1000	Houston, Texas	KTW 1220 1000	Seattle, Wash.
2204 Shell Bldg.		77th Ave. & Spring St.	
KQV 1380 500	Pittsburgh, Pa.	KUJ 1370 100	Walla Walla, Wash.
KQV Broadcasting Co., Investment Bldg.		KUJ, Inc., Marcus Whitman Hotel	
KQW 1010 1000	San Jose, Calif.	KUMA 1420 100	Yuma, Ariz.
87 E. San Antonio St.		Dr. A. H. Schermann, Box 267	
KRE 1370 100	Berkeley, Calif.	KUOA 1260 1000	Fayetteville, Ark.
2345 Channing Way		KUOA, Inc., Washington Hotel	
KREG 1500 100	Santa Ana, Calif.	KUSD 890 500	Vermillion, S. D.
3rd & Sycamore Sts.		University of South Dakota	
KRGV 1260 500	Weslaco, Texas	KVI 570 1000	Tacoma, Wash.
KRGV Inc.		W. R. Rust Bldg.	
KRKD 1120 1000	Los Angeles, Calif.	KVL 1370 100	Seattle, Wash.
815 Spring Arcade Bldg.		KVL, Inc., 5th and Virginia St.	
KRKO 1370 50	Everett, Wash.	KVOA 1260 500	Tucson, Ariz.
Lee Mudgett, 2814 Rucker Ave.		Cons. Natl. Bank Bldg.	
KRLC 1420 100	Lewiston, Idaho	KVOD 920 500	Denver, Colo.
H. E. Studebaker		Continental Oil Bldg.	
KRLD 1040 10000	Dallas, Texas	KVOO 1140 25000	Tulsa, Okla.
KRLD Radio Corp., Adolphus Hotel		Wright Bldg.	
KRMD 1310 100	Shreveport, La.	KVOR 1270 1000	Colorado Spg., Colo.
Jefferson Hotel		Mining Exchange Bldg.	
KRNT 1430 250	Des Moines, Iowa	KVOS 1200 100	Bellingham, Wash.
Des Moines Register	Tribune	115 W. Magnolia St.	
KROW 930 1000	Oakland, Calif.	KWEA 1210 100	Shreveport, La.
1803 Franklin St.		Spring & Fannin Sts.	
KRSC 1120 100	Seattle, Wash.	KWFF 1210 100	Hilo, Hawaii
Radio Sales Corp., Washington Athletic Club		Hilo Broadcasting Co., Ltd.	
KSAC 580 500	Manhattan, Kans.	KWG 1200 100	Stockton, Calif.
State College of Agriculture		Medico-Dental Bldg.	
KSCJ 1330 1000	Sioux City, Iowa	KWJJ 1040 500	Portland, Ore.
Perkins Bros. Co., 415 Douglas St.		622 S. W. Salmon St.	
KSD 550 1000	St. Louis, Mo.	KWK 1350 1000	St. Louis, Mo.
12th & Olive Sts.		Thomas Patrick, Inc., Hotel Chase	
KSEI 900 250	Pocatello, Idaho	KWKC 1370 100	Kansas City, Mo
Radio Service Corp., 141 S. 6th Ave.		39th & Main Sts.	
KSL 1130 50000	Salt Lake City, Utah	KWKH 1100 10000	Shreveport, La.
Vermont Bldg.		Spring & Fannin Sts.	
KSLM 1370 100	Salem, Ore.	KWLC 1270 100	Decorah, Iowa
Oregon Radio, Inc.		Luther College	
KSO 1320 500	Des Moines, Iowa	KWSC 1220 1000	Pullman, Wash.
Des Moines Register & Tribune		State College of Washington	
KSOO 1110 2500	Sioux Falls, S. D.	KWTN 1210 100	Watertown, S. D.
Sioux Falls Brdest. Assn., Carpenter Hotel		Citizens Bank Bldg.	

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KWTO 560 1000	Springfield, Mo.
EGBX Inc.	
KWYO 1370 100	Shëridan, Wyo.
Big Horn Brdcastg. Co.	
KXA 760 250	Seattle, Wash.
American Radio Tel. Co., 218 Bigelow Bldg	
KXL 1420 100	Portland, Ore.
KKL Broadcasters, Multnomah Hotel	
KXO 1500 100	El Centro, Calif.
F. M. Bowles, Box 140	
KXRO 1310 100	Aberdeen, Wash.
KXRO, Inc., Hotel Morck.	
KXYZ 1440 1000	Houston, Texas
Fannin & Rusk Sts.	
KYA 1230 1000	San Francisco, Calif.
988 Market St.	
KYW 1020 10000	Philadelphia, Pa.
1622 Chestnut Street	
NAA 690 1000	Arlington, Va.
United States Navy	
RDN 680 500	San Salvador, E. S.
Republie of El Salvador	
TGW 565 10000	Guatemala, Gua.
Gobierno de Guatemala	
TGX 1400 150	Guatemala City
TICR 912 75	San Jose, C. R.
Government of Costa Rica	
TIFB 714 30	San Jose, C. R.
TIGA 1014 30	Cartago, C. R.
TIGP 800 75	San Jose, C. R.
Gonzalo Pinto H. Apt. 225	
TIRCA 1100 500	San Jose, C. R.
Perry Girton, Apt. 225	
TISO 550 250	San Jose, C. R.
P. F. Saborio, Apt. 1354	
TIVL 835 30	San Jose, C. R.
VAS 685 2000	Glace Bay, N. S.
Canadian Marconi Co., Ltd.	
VESEK 1185 10	Montmagny, Que.
J. A. Marquis, P. O. Box 52	
VOAC 1300 40	St. John's, Nfld.
VOAS 940 100	St. John's N. F.
Ayre & Sons, Ltd., Water St.	
VOGY 840 400	St. John's, N. F.
Newfoundland Hotel	
VONF 950 5000	St. John's N. F.
Dominion Broadcasting Co., Ltd., Box 135	
VOWR 681 500	St. John's, N. F.
Wesley United Church, Box 157	
WAAB 1410 500	Boston, Mass.
21 Brookline Ave.	
WAAF 920 500	Chicago, Ill.
836 Exchange Ave.	
WAAT 940 500	Jersey City, N. J.
Bremer Broadcasting Corp., 50 Journal Sq	
WAAW 660 500	Omaha, Neb.
Omaha Grain Exchange.	
WABC 860 50000	New York, N. Y.
485 Madison Ave.	
WABI 1200 100	Bangor, Maine
First Universalist Society Park St.	
WABY 1370 100	Albany, N. Y.
Strand Theatre Bldg.	
WACO 1420 100	Waco, Texas
Amicable Bldg.	
WADC 1320 1000	Akron, Ohio
Allen T. Simmons, P. O. Box 29	

WAGF 1370 100	Dothan, Ala.
Houston Hotel	
WAGM 1420 100	Presque Isle, Me.
Aroostook Broadcasting Corp., Main St.	
WAIM 1200 100	Anderson S. C.
Wilton E. Hall	
WAIU 640 500	Columbus, Ohio
Deshler-Wallick Hotel	
WALA 1380 500	Mobile, Ala.
Battle House	
WALR 1210 100	Zanesville, Ohio
First Trust & Savs. Bank Bldg.	
WAML 1310 100	Laurel, Miss.
Southland Radio Corp., Box 26	
WAPI 1140 5000	Birmingham, Ala.
Protective Life Bldg.	
WARD 1400 500	Brooklyn, N. Y.
427 Flatbush Ave., Ext.	
WASH 1270 500	Grand Rapids, Mich.
Grand Rapids Natl. Bank Bldg.	
WATR 1190 100	Waterbury, Conn.
WATR Co. Inc. 47 Grand St.	
WAVE 940 1000	Louisville, Ky.
WAVE, Inc., 1525 Brown Hotel	
WAWZ 1350 250	Zarephath, N. J.
Pillar of Fire.	
WAZL 1420 100	Hazleton, Pa.
Hazleton Broadcasting Service, Inc.	
WBAA 890 1000	West Lafayette, Ind.
Purdue University	
WBAL 1060 10000	Baltimore, Md.
Lexington Bldg., Amer. Radio News Corp.	
WBAP 800 50000	Fort Worth, Texas
Blackstone Hotel	
WBAX 1210 100	Wilkes-Barre, Pa.
John H. Stenger, Jr., 70 S. Main St.	
WBBC 1400 500	Brooklyn, N. Y.
552-54 Atlantic Ave.	
WBBL 1210 100	Richmond, Va.
1627 Monument Ave.	
WBBM 770 50000	Chicago, Ill.
WBBM Broadcasting Corp., Wrigley Bldg.	
WBBR 1300 1000	Brooklyn, N. Y.
124 Columbia Heights	
WBBZ 1200 100	Ponca City, Okla.
C. L. Carrell, 407 W. South Ave.	
WBCM 1410 500	Bay City, Mich.
James E. Davidson, Hotel Wenonah	
WBEN 900 1000	Buffalo, N. Y.
WBEN, Inc., Hotel Statler	
WBEO 1310 100	Marquette, Mich.
146 W. Washington St.	
WBIG 1440 500	Greensboro, N. C.
Box 408	
WBNO 1200 100	New Orleans, La.
Hotel New Orleans	
WBNS 1430 500	Columbus, O.
33 N. High St.	
WBNX 1350 250	New York, N. Y.
260 E. 161st St.	
WBOQ 860 50000	New York, N. Y.
Atlantic Broadcasting Corp.	
WBOW 1310 100	Terre Haute, Ind.
Banks of Wabash, Inc., 19 Beach Block	
WBRB 1210 100	Red Bank, N. J.
63 Broad St.	
WBRC 930 1000	Birmingham, Ala.
Bankhead Hotel	
WBRE 1310 100	Wilkes-Barre, Pa.
Louis G. Baltimore, 16 N. Main	
WBSO 920 500	Babson Park, Mass.
Drawer B	

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WBT 1080 50000	Charlotte, N. C.	WDAS 1370 100	Philadelphia, Pa.
Station WBT, Inc.,	Wilder Bldg.	WDAS Brdcastg. Co., Inc.,	Broadwood Hotel
WBTM 1370 100	Danville, Va.	WDAY 940 1000	Fargo, N. D.
Miller Bldg.		WDAY, Inc.,	Black Bldg., 118 Broadway
WBZ 990 50000	Boston, Mass.	WDBJ 930 1000	Roanoke, Va.
Hotel Bradford		Times World Corp.,	P. O. Box 150
WBZA 990 1000	Springfield, Mass.	WDBO 580 1000	Orlando, Fla.
Hotel Kimball		555 N. Orange Ave.	
WCAC 600 500	Storrs, Conn.	WDEL 1120 250	Wilmington, Del.
Connecticut State College		WDEL, Inc.,	10th and King Sts.
WCAD 1220 500	Canton, N. Y.	WDEV 550 500	Waterbury, Vt.
St. Lawrence University		Harry C. Whitehill,	Stowe St.
WCAE 1220 1000	Pittsburgh, Pa.	WDGY 1180 1000	Minneapolis, Minn.
6th Ave. & Smithfield St.		Dr. Geo. W. Young,	900 W. Broadway
WCAL 1250 1000	Northfield, Minn.	WDNC 1500 100	Durham, N. C.
St. Olaf College		Washington Duke Hotel	
WCAM 1280 500	Camden, N. J.	WDOD 1280 1000	Chattanooga, Tenn.
City of Camden, City Hall		WDOD Broadcasting Corp.,	Hotel Patten
WCAO 600 500	Baltimore, Md.	WDRC 1330 1000	Hartford, Conn.
811 W. Lanvale St.		WDRC, Inc.,	Corning Bldg., 11 Asylum St.
WCAP 1280 500	Asbury Park, N. J.	WDSU 1250 1000	New Orleans, La.
Convention Hall		WDSU Inc.,	Hotel Monteleone
WCAT 1200 100	Rapid City, S. D.	WDZ 1070 100	Tuscola, Ill.
South Dakota State School of Mines		James L. Bush,	Star Store Bldg.
WCAU 1170 50000	Philadelphia, Pa.	WEAF 660 50000	New York, N. Y.
WCAU Broadcasting Co.,	1622 Chestnut	30 Rockefeller Plaza	
WCAX 1200 100	Burlington, Vt.	WEAN 780 500	Providence, R. I.
203 College St.		New Crown Hotel	
WCAZ 1070 100	Carthage, Ill.	WEBC 1290 1000	Superior, Wis.
97 1/2 Adams St.		Spaulding Hotel,	Duluth, Minn.
WCBA 1440 500	Allentown, Pa.	WEBQ 1210 100	Harrisburg, Ill.
B. Bryan Musselman,	39-41 10th St.	100 E. Poplar St.	
WCBD 1080 5000	Waukegan, Ill.	WEBR 1310 100	Buffalo, N. Y.
75 E. Wacker Drive,	Chicago	Howell Broadcasting	Co., Inc., 735 Main
WCBM 1370 100	Baltimore, Md.	WEDC 1210 100	Chicago, Ill.
Keith Theatre Bldg.		Emil Denmark,	3860 Ogden Ave.
WCBS 1210 100	Springfield, Ill.	WEED 1420 100	Rocky Mount, N. C.
WCBS, Inc.,	208 1/2 S. 5th.	Wm. Avera Wynne,	Box 221
WCCO 810 50000	Minneapolis, Minn.	WEEI 590 1000	Boston, Mass.
Nicollet Hotel		182 Tremont St.	
WCFL 970 1500	Chicago, Ill.	WEEU 830 1000	Reading, Pa.
666 Lake Shore Drive		Berks Broadcasting Co.,	533 Penn.
WCHS 580 500	Charleston, W. Va.	WEHC 1420 100	Charlottesville, Va.
WOBU, Inc.,	Ruffner Hotel	7th & Main Sts.	
WCKY 1490 5000	Covington, Ky.	WEHS 1420 100	Cleora, Ill.
6th & Madison Sts.		WEHS, Inc.,	6138 W. Cermak Rd.
WCLO 1200 100	Janesville, Wis.	WELL 1420 50	Battle Creek, Mich.
200 E. Milwaukee St.		Enquirer News,	38 W. State St.
WCLS 1310 100	Joliet, Ill.	WENR 870 50000	Chicago, Ill.
WCLS, Inc.,	301 E. Jefferson St.	222 N. Bank Drive	
WCNW 1500 100	Brooklyn, N. Y.	WESG 850 1000	Elmira, N. Y.
Arthur Faske,	1625 Pitkin Ave.	Mark Twain Hotel	
WCOA 1340 500	Pensacola, Fla.	WEVD 1300 1000	New York, N. Y.
San Carlos Hotel		Jewish Daily Forward,	Hotel Claridge
WCOC 880 500	Meridian, Miss.	WEW 760 1000	St. Louis, Mo.
Box 603		St. Louis University,	221 N. Grand Blvd.
WCOL 1210 100	Columbus, Ohio	WEXL 1310 50	Royal Oak, Mich.
WCOL Inc.,	30 N. High St.	212 W. 6th St.	
WCRW 1210 100	Chicago, Ill.	WFAA 800 50000	Dallas, Texas
Clinton R. White,	2756 Pine Grove Ave.	Baker Hotel	
WCSC 1360 500	Charleston, S. C.	WFAB 1300 1000	New York, N. Y.
Francis Marion Hotel		Fifth Avenue Broadcasting Corp.	
WCSH 940 1000	Portland, Me.	WFAM 1200 100	South Bend, Ind.
579 Congress St.		South Bend Tribune,	225 W. Colfax Ave.
WDAE 1220 1000	Tampa, Fla.	WFAS 1210 100	White Plains, N. Y.
Tampa Times Co.,	Tampa Terrace	Hotel Roger Smith	
WDAF 610 1000	Kansas City, Mo.	WFBC 1300 1000	Greenville, S. C.
1729 Grand Ave.		Imperial Hotel	
WDAG 1410 1000	Amarillo, Texas	WFBE 1200 100	Cincinnati, Ohio
Box 306		WFBE, Inc.,	Hotel Sinton
WDAH 1310 100	El Paso, Texas	WFBG 1310 100	Altoona, Pa.
Box 1976		Gable Broadcasting Co.,	12th Av. & 13th St.

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WFBL 1360 1000	Syracuse, N. Y.	WHDF 1370 100	Calumet, Mich.
Onondaga Hotel		Box 643	
WFBM 1230 1000	Indianapolis, Ind.	WHDH 830 1000	Boston, Mass.
48 Monument Circle		Matheson Radio Co., 62 Boylston	
WFBZ 1270 500	Baltimore, Md.	WHDL 1420 100	Olean, N. Y.
7 St. Paul St.		Exchange Natl. Bank Bldg.	
WFDF 1310 100	Flint, Mich.	WHEB 740 250	Portsmouth, N. H.
Union Industrial Bldg.		Box 522, 39 Congress St.	
WFEA 1340 500	Manchester, N. H.	WHEC 1430 500	Rochester, N. Y.
Carpenter Hotel		WHEC, Inc., 40 Franklin St.	
WFIL 560 1000	Philadelphia, Pa.	WHEF 1500 100	Kosciusko, Miss.
WFIL Broadcasting Co., 801 Market		417 W. Adams St.	
WFLA 620 1000	Clearwater, Fla.	WHFC 1420 100	Cicero, Ill.
Box 119		WHFC, Inc., 6138 W. Cermak Road	
WGAL 1500 100	Lancaster, Pa.	WHIO 1260 1000	Dayton, Ohio
WGAL, Inc., 8 W. King St.		39 S. Ludlow St.	
WGAR 1450 500	Cleveland, Ohio	WHIS 1410 250	Bluefield, W. Va.
WGAR Broadcasting Co., Hotel Statler		Bland St.	
WGBB 1210 100	Freeport, N. Y.	WHJB 620 250	Greensburg, Pa.
H. H. Carman, 64 S. Grove St.		Penn-Albert Hotel, 128 Pa. Ave.	
WGFB 630 500	Evansville, Ind.	WHK 1390 1000	Cleveland, Ohio
519 Vine St.		1311 Terminal Tower	
WGBI 880 500	Scranton, Pa.	WHN 1010 1000	New York, N. Y.
116 N. Washington Ave.		1540 Broadway	
WGCM 1210 100	Mississippi City	WHO 1000 50000	Des Moines, Iowa
Great Southern Golf Club		Central Brdcastg. Co., 914 Walnut St.	
WGES 1360 500	Chicago, Ill.	WHOM 1450 250	Jersey City, N. J.
128 N. Crawford Ave.		2870 Boulevard	
WGH 1310 100	Newport News, Va.	WHP 1430 500	Harrisburg, Pa.
2813 Washington Ave.		WHP, Inc., 216 Locust St.	
WGL 1370 100	Fort Wayne, Ind.	WIBA 1290 1000	Madison, Wis.
F. C. Zieg, 213 W. Main St.		111 King St.	
WGN 720 50000	Chicago, Ill.	WIBG 970 100	Glenside, Pa.
WGN, Inc., Tribune Tower		WIBG, Inc., Keswick Bldg.	
WGNV 1210 100	Chester, N. Y.	WIBM 1370 100	Jackson, Mich.
Peter Goeliet (Orange County)		WIBM, Inc., 306 W. Michigan Ave.	
WGPC 1420 100	Albany, Ga.	WIBU 1210 100	Poynette, Wis.
Rylander Theatre Bldg.		Wm. C. Forrester, R. F. D. No. 3	
WGR 550 1000	Buffalo, N. Y.	WIBW 580 1000	Topeka, Kans.
Rand Bldg.		11th & Topeka Blvd.	
WGST 890 500	Atlanta, Ga.	WIBX 1200 100	Utica, N. Y.
Ansley Hotel		WIBX, Inc., 1st Natl. Bank Bldg.	
WGY 790 50000	Schenectady, N. Y.	WICC 600 1000	Bridgeport, Conn.
1 River Road		Southern Conn. Broadcasting Corp.	
WHA 940 2500	Madison, Wis.	WIL 1200 100	St. Louis, Mo.
University of Wisconsin		Melbourne Hotel	
WHAM 1150 50000	Rochester, N. Y.	WILL 890 250	Urbana, Ill.
100 Carison Road		University of Illinois	
WHAS 820 50000	Louisville, Ky.	WILM 1420 100	Wilmington, Del.
300 W. Liberty St.		920 King St.	
WHAT 1310 100	Philadelphia, Pa.	WIND 560 1000	Gary, Ind.
Public Ledger Bldg.		504 Broadway	
WHAZ 1300 500	Troy, N. Y.	WINS 1180 1000	New York, N. Y.
8th St.		110 E. 58th St., Hearst Radio, Inc	
WHB 860 1000	Kansas City, Mo.	WIOD 1300 1000	Miami, Fla.
WHB Broadcasting Co., Scarritt Bldg.		Herald Bldg., Metropolis Pub Co.	
WHBC 1200 100	Canton, Ohio	WIP 610 1000	Philadelphia, Pa.
Edw. P. Graham, 319 Tusc. St., W.		Gimbel Bldg.	
WHBD 1370 100	Portsmouth, Ohio	WIS 560 1000	Columbia, S. C.
F. P. Moler		Station WIS, Inc., 1811 Main St.	
WHBF 1210 100	Rock Island, Ill.	WISC 1310 100	Milwaukee, Wis.
Hotel Harms		Milwaukee Brdcastg. Co.	
WHBI 1250 1000	Newark, N. J.	WISN 1120 250	Milwaukee, Wis.
100 Shipman St.		123 W. Michigan St., Hearst Radio, Inc.	
WHBL 1410 500	Sheboygan, Wis.	WJAC 1310 100	Johnstown, Pa.
Press Publishing Co., Press Bldg.		WJAC, Inc., Locust St.	
WHBQ 1370 100	Memphis, Tenn.	WJAG 1060 1000	Norfolk, Neb.
Brdstg. Sta. WNBQ, Inc. Hotel Claridge		Norfolk Daily News	
WHBU 1210 100	Anderson, Ind.	WJAR 890 500	Providence, R. I.
Anderson Broadcasting Corp., Box 816		Outlet Co., Weybossett St.	
WHBY 1200 100	Green Bay, Wis.	WJAS 1290 1000	Pittsburgh, Pa.
WHBY, Inc., Beilin Bldg.		Chamber of Commerce Bldg.	

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WJAX 900 1000	Jacksonville, Fla.
City of Jacksonville	
WJAY 610 500	Cleveland, Ohio
1224 Huron Road	
WJBC 1200 100	Bloomington, Ill.
Kaskaskia Broadcasting Co.	
WJBK 1500 100	Detroit, Mich.
6559 Hamilton Ave.	
WJBL 1200 100	Decatur, Ill.
Gushard Bldg.	
WJBO 1420 100	Baton Rouge, La.
Baton Rouge Broadcasting Co., Inc.	
WJBW 1200 100	New Orleans, La.
C. C. Carlson, Godchaux Bldg.	
WJBY 1210 100	Gadsden, Ala.
Gadsden Broadcasting Co., 112 N. 8th St.	
WJDX 1270 1000	Jackson, Miss.
Lamar Life Bldg.	
WJEJ 1210 100	Hagerstown, Md.
Lovely Dame Bldg.	
WJIM 1210 100	Lansing, Mich.
Capital City Brdcastg. Co.	
WJJD 1130 20000	Chicago, Ill.
WJJD, Inc., 201 N. Wells St.	
WJMS 1420 100	Ironwood, Mich.
WJMS, Inc., St. James Hotel	
WJR 750 10000	Detroit, Mich.
WJR, Inc., Fisher Bldg.	
WJSV 1460 10000	Washington, D. C.
Earle Building	
WJTL 1370 100	Atlanta, Ga.
Oglethorpe University	
WJW 1210 100	Akron, Ohio
WJW, Inc., 41 S. High St.	
WJZ 760 50000	New York, N. Y.
80 Rockefeller Plaza	
WKAQ 1240 1000	San Juan, P. R.
Radio Corp. of Porto Rico, P. O. Box 858	
WKAR 1040 1000	East Lansing, Mich.
Michigan State College	
WKBB 1500 100	East Dubuque, Ill.
Richard W. Hoffman	
WKBF 1400 500	Indianapolis, Ind.
540 N. Meridian St.	
WKBH 1380 1000	LaCrosse, Wis.
WKBH, Inc., 409 Main St.	
WKBI 1420 100	Cicero, Ill.
WKBI, Inc., 6188 W. Cermak Road	
WKBN 570 500	Youngstown, Ohio
17 N. Champlon St.	
WKBO 1200 100	Harrisburg, Pa.
Penn Harris Hotel	
WKBV 1500 100	Richmond, Ind.
Knox Radio Corp., Box 308	
WKBW 1480 5000	Buffalo, N. Y.
Rand Bldg.	
WKBZ 1500 100	Muskegon, Mich.
Karl L. Ashbacher & Sons	
WKEU 1500 100	Griffin, Ga.
Radio Station WKEU, 906 Hill St.	
WKJC 1200 100	Lancaster, Pa.
16 W. King St.	
WKOK 1210 100	Sunbury, Pa.
1150 N. Front St.	
WKRC 550 1000	Cincinnati, Ohio
WKRC, Inc., Hotel Alms	
WKY 900 1000	Oklahoma City, Okla.
Plaza Court Bldg.	
WKZO 590 1000	Kalamazoo, Mich.
John E. Fetzer, Burdick Hotel	
WLAC 1470 5000	Nashville, Tenn.
159—4th Ave. No.	

WLAP 1420 100	Lexington, Ky.
Main & Esplanade	
WLB 1250 1000	Minneapolis, Minn.
University of Minnesota	
WLBC 1310 50	Muncie, Ind.
D. A. Burton, Anthony Bldg.	
WLBK 1420 100	Kansas City, Kans.
WLBK Broadcasting Co., Huron Bldg.	
WLBL 900 2500	Stevens Point, Wis.
Wisconsin Dept. of Agriculture and Markets	
WLBZ 620 500	Bangor, Me.
Maine Broadcasting Co., Inc., 100 Main	
WLEU 1420 100	Erie, Pa.
Leo J. Omellan	
WLLH 1370 100	Lowell, Mass.
Albert S. Moffat, Box D	
WLNH 1310 100	Laconia, N. H.
523 Main St.	
WLS 870 50000	Chicago, Ill.
1230 W. Washington Blvd.	
WLTH 1400 500	Brooklyn, N. Y.
305 Washington St.	
WLVA 1200 100	Lynchburg, Va.
915 Main St.	
WLW 700 50000	Cincinnati, Ohio
1329 Arlington St.	
WLWL 1100 5000	New York, N. Y.
415 W. 59th St.	
WMAL 630 250	Washington, D. C.
712—11th St., N. W.	
WMAQ 670 50000	Chicago, Ill.
Merchandise Mart	
WMAS 1420 100	Springfield, Mass.
WMAS, Inc., 70 Chestnut St.	
WMAZ 1180 1000	Macon, Ga.
211 Cotton Ave.	
WMBC 1420 100	Detroit, Mich.
7010 Woodward Ave.	
WMBD 1440 500	Peoria, Ill.
114 N. Madison St.	
WMBG 1210 100	Richmond, Va.
914 W. Broad St.	
WMBH 1420 100	Joplin, Mo.
1334 Roosevelt St.	
WMBI 1080 5000	Chicago, Ill.
153 Institute Place	
WMO 1310 100	Auburn, N. Y.
WMO, Inc., Metcalf Bldg.	
WMBQ 1500 100	Brooklyn, N. Y.
Paul J. Gollhofer, 95 Leonard St.	
WMBR 1370 100	Jacksonville, Fla.
F. J. Reynolds, Carling Hotel	
WMC 780 1000	Memphis, Tenn.
WMC, Inc., Hotel Gayoso	
WMCA 570 500	New York, N. Y.
1697 Broadway	
WMEX 1500 100	Boston, Mass.
The Northern Corp., Hotel Manger	
WMFD 1370 100	Wilmington, N. C.
Richard Austin Dunlea	
WMFE 1380 250	New Britain, Conn.
William J. Sanders	
WMFF 1310 100	Plattsburg, N. Y.
Plattsburg Broadcasting Corp.	
WMFG 1210 100	Hibbing, Minn.
Head of the Lakes Brdcastg. Co.	
WMFH 1120 500	Boston, Mass.
Joseph M. Kirby	
WMFI 900 500	New Haven, Conn.
Patrick J. Goode	
WMFJ 1420 100	Daytona Beach, Fla.
W. Wright Esch	

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WMFN 1210	100	Clarksdale, Miss. Attala Brdstg. Corp.
WMFO 1370	100	Decatur, Ala. James R. Doss, Jr.
WMFP 1310	100	Ashland, Ky. Ashland Brdstg. Co.
WMMN 890	250	Fairmont, W. Va. A. M. Rowe, Inc., 325 Main St.
WMPC 1200	100	Lapeer, Mich. 81 Liberty St.
WMT 600	1000	Cedar Rapids, Iowa Hotel Montrose
WNAC 1230	1000	Boston, Mass. 21 Brookline Ave.
WNAD 1010	1000	Norman, Okla. University of Oklahoma
WNAX 570	1000	Yankton, S. D. House of Gurney, Inc., 2nd and Capital St.
WNBf 1500	100	Binghamton, N. Y. Arlington Hotel
WNBH 1310	100	New Bedford, Mass. 251 Union St.
WNBK 1430	500	Memphis, Tenn. Memphis Broadcasting Co., Hotel DeVoy
WNB X1260	1000	Springfield, Vt. WNBX Broadcasting Corp., 39 Main St.
WNBZ 1290	100	Saranac Lake, N. Y. Smith & Mace, 70 Broadway
WNEL 1290	500	San Juan, P. R. Box 1252
WNEW 1250	1000	Newark, N. J. Wodaam Corp., 1060 Broad
WNOX 1010	1000	Knoxville, Tenn. WNOX, Inc., Hotel Andrew Johnson
WNRA 1420	100	Muscle Shoals, Ala. Kathyrn Jones, P. O. Box 486, Sheffield, Ala.
WNYC 810	1000	New York, N. Y. Centre & Duane Sts.
WOAI 1190	50000	San Antonio, Texas Southland Industries, Inc., 1038 Navarro
WOC 1370	100	Davenport, Iowa Palmer School of Chiropractic
WOCL 1210	50	Jamestown, N. Y. A. E. Newton, 840 N. Main St.
WOI 640	5000	Ames, Iowa Iowa State College
WOKO 1430	500	Albany, N. Y. WOKO, Inc., Hotel Ten Eyck
WOL 1310	100	Washington, D. C. American Broadcasting Co., Annapolis Hotel
WOMT 1210	100	Manitowoc, Wis. Francis M. Kadow, Box 326
WOOD 1270	500	Grand Rapids, Mich. Grand Rapids Natl. Bank Bldg.
WOPI 1500	100	Bristol, Tenn. 22nd & State Sts.
WOR 710	5000	Newark, N. J. 147 Market St.
WORC 1280	500	Worcester, Mass. Alfred F. Klein dienst, 60 Franklin St.
WORK 1320	1000	York, Pa. York Broadcasting Co., 15 S. Beaver St.
WOS 630	500	Jefferson City, Mo. State Highway Control, Capitol Bldg.
WOSU 570	750	Columbus, Ohio Ohio State University
WOV 1130	1000	New York, N. Y. 132 West 43rd St.
WOW 590	1000	Omaha, Neb. Woodmen of the World, 4th and Farnam
WOWO 1160	10000	Fort Wayne, Ind. Main Auto Supply Co., 213 W. Main

WPAD 1420	100	Paducah, Ky. 2201 Broadway
WPAX 1210	100	Thomasville, Ga. H. Wimpy, 135 E. Jackson St.
WPEN 920	250	Philadelphia, Pa. 22nd & Walnut Sts.
WPFB 1370	100	Hattiesburg, Miss. Geo. T. Bishop, Box 530
WPG 1100	5000	Atlantic City, N. J. Convention Hall
WPHR 880	500	Petersburg, Va. WLBG, Inc., Medical Arts Bldg.
WPRO 630	250	Providence, R. I. Cherry & Webb Brdstg. Co., 15 Chestnut
WPRP 1420	100	Ponce, P. R. Julio M. Conesa
WPTF 680	1000	Raleigh, N. C. 324 Fayetteville St.
WQAM 560	1000	Miami, Fla. Miami Brdstg. Co., Inc., 327 N. E. 1st Ave.
WQAN 880	250	Scranton, Pa. Scranton Times, 149 Penn Ave.
WQBC 1360	1000	Vicksburg, Miss. Delta Broadcasting Co., Hotel Vicksburg
WQDM 1370	100	St. Albans, Vt. 42 N. Main St.
WRAK 1370	100	Williamsport, Pa. WRAK, Inc., 244 W. 4th St.
WRAW 1310	100	Reading, Pa. Reading Broadcasting Co., 533 Penn St.
WRAX 920	250	Philadelphia, Pa. WRAX Broadcasting Co., 217 S. Broad St.
WRBL 1200	100	Columbus, Ga. Royal Theatre Bldg.
WRBX 1410	250	Roanoke, Va. P. O. Box 2389
WRC 950	500	Washington, D. C. National Press Bldg.
WRDO 1370	100	Augusta, Me. WRDO, Inc., Augusta House
WRDW 1500	100	Augusta, Ga. Augusta Brdstg. Co., 309 8th St.
WREC 600	1000	Memphis, Tenn. WREC, Inc., Hotel Peabody
WREN 1220	1000	Lawrence, Kans. Jenny Wren Co., 8th and Vermont St.
WRGA 1500	100	Rome, Ga. 10 Third Ave.
WRJN 1370	100	Racine, Wis. Racine Broadcasting Corp., Hotel Racine
WROK 1410	500	Rockford, Ill. 109 So. Water St.
WROL 1310	100	Knoxville, Tenn. Stuart Broadcasting Corp., 524 S. Gay
WRR 1280	500	Dallas, Texas City of Dallas, Southland Life Bldg.
WRUF 830	5000	Gainesville, Fla. State University
WRVA 1110	5000	Richmond, Va. Larus & Bros Co., Inc., 22nd and Gary St.
WSAI 1330	1000	Cincinnati, Ohio Crosley Radio Corp., 1329 Arlington
WSAJ 1310	100	Grove City, Pa. Grove City College, 418 Poplar St.
WSAN 1440	500	Allentown, Pa. WSAN, Inc., 39 10th St.
WSAR 1450	250	Fall River, Mass. Academy of Music Bldg.
WSAZ 1190	1000	Huntington, W. Va. WSAZ, Inc., P. O. Box 729
WSB 740	50000	Atlanta, Ga. Atlanta Journal, 7 N. Forsyth St.

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WSBC 1210 100 Chicago, Ill.
 Gene T. Dyer, 1258 S. Michigan Ave.
WSBT 1360 500 South Bend, Ind.
 South Bend Tribune, 225 W. Colfax Ave.
WFSA 1410 500 Montgomery, Ala.
 Jefferson Davls Hotel
WSGN 1310 100 Birmingham, Ala.
 R. B. Broyles, Tutwiler Hotel
WSIX 1210 100 Springfield, Tenn.
 638 Tire & Vulcanizing Co.
WSJS 1310 100 Winston-Salem, N. C.
 Winston-Salem Journal Co., 416 N. Marshall
WSM 650 50000 Nashville, Tenn.
 301-7th Ave. No.
WSMB 1320 500 New Orleans, La.
 WEMB, Inc., Malson Blanche Bldg.
WSMK 1380 200 Dayton, Ohio
 WSMK Inc., Loew Theatre Bldg.
WSOC 1210 100 Charlotte, N. C.
 WBOC, Inc., Box 730
WSPA 920 1000 Spartanburg, S. C.
 Virgil V. Evans, Ravenel and Avant St.
WSPD 1340 1000 Toledo, Ohio
 Toledo Broadcasting Co., 505 Jefferson
WSUI 880 500 Iowa City, Iowa
 State University of Iowa
WSUN 620 1000 St. Petersburg, Fla.
 Chamber of Commerce
WSVA 550 500 Staunton, Va.
 Marlon K. Gilliam
WSVS 1370 50 Buffalo, N. Y.
 666 E. Delavan Ave.
WSYB 1500 100 Rutland, Vt.
 Philip Weiss Music Co., 80 West St.
WSYR 570 250 Syracuse, N. Y.
 E. Onondaga & S. Warren Sts.
WTAD 900 500 Quincy, Ill.
 Illinois Brdstg. Corp., State and 6th
WTAG 530 500 Worcester, Mass.
 18 Franklin St.
WTAM 1070 50000 Cleveland, Ohio
 1367 E. 6th St.
WTAQ 1330 1000 Eau Claire, Wis.
 Gillette Rubber Co., Hotel Eau Claire
WTAR 780 500 Norfolk, Va.
 WTAR Radio Corp., Wainwright Bldg.
WTAW 1120 500 College Station, Tex.
 Agricultural and Mechanical College
WTAX 1420 100 Springfield, Ill.
 WTAX, Inc., 416 E. Capitol Ave.
WTBO 800 250 Cumberland, Md.
 Associated Brdstg. Corp., Box 794
WTCN 1250 1000 Minneapolis, Minn.
 Wesley Temple Bldg.
WTEL 1310 100 Philadelphia, Pa.
 Broad & Erie Ave.
WTFI 1450 500 Athens, Ga.
 133 E. Washington St.
WTIC 1040 50000 Hartford, Conn.
 26 Grove St.
WTJS 1310 100 Jackson, Tenn.
 Sun Publishing Co., Sun Bldg.
WTMJ 620 1000 Milwaukee, Wis.
 The Journal Co., 333 W. State St.
WTMV 1500 100 East St. Louis, Ill.
 Mississippi Valley Brdstg. Co.
WTNJ 1280 500 Trenton, N. J.
 Trenton Brdstg. Co., Stacy Trent Hotel
WTOC 1260 1000 Savannah, Ga.
 Savannah Brdstg. Co., De Soto Hotel
WTRC 1310 50 Elkhart, Ind.
 Truth Radio Corp., Hotel Elkhart

WVFW 1400 500 Brooklyn, N. Y.
 Paramount Brdstg. Co., 1 Nevins St.
WWAE 1200 100 Hammond, Ind.
 402 Hammond Bldg.
WWC 1420 1000 Spartanburg, S. C.
 Virgil V. Evans, Ravenel & Avant St.
WWJ 920 1000 Detroit, Mich.
 Evening News Assn., 616 Lafayette Blvd.
WWL 850 10000 New Orleans, La.
 Loyola University, Roosevelt Hotel
WWNC 570 1000 Asheville, N. C.
 Citizen Brdstg. Co., Inc., Flatiron Bldg.
WWPA 850 250 Clarion, Pa.

WWRL 1500 100 Woodside, N. Y.
 4130-58th St.
WWSW 1500 100 Pittsburgh, Pa.
 Hotel Schenley
WWVA 1160 5000 Wheeling, W. Va.
 Hawley Bldg.
WXYZ 1240 1000 Detroit, Mich.
 Madison Theatre Bldg.
W1XBS 1530 1000 Waterbury, Conn.
 61 Leavenworth St., Amer. Republican, Inc.
W2XR 1550 1000 Long Island City, N. Y.
 Scientific Brdstg. Serv., 41 Park Row, N. Y.
W6XA 11550 1000 Bakersfield, Calif.
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W9XB 1530 1000 Kansas City, Mo.
 First National Television Inc.
XEA 1060 125 Guadalajara, Jal.
 Alberto Palos Souza, Apdo. 197
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XEAF 540 250 Nogales, Son.
 Francisco G. Elias, Hotel Central
XEAI 1240 100 Mexico City, D. F.
 Carlos Gonzales Caballero, Insurgentes 366
XEAJ 1310 15 Cazaca, Cam.
 Enrique M. Cribuela, 3a, Guerrero 18
XEAM 960 50 Nuevo Laredo, Tams.
 Edificio Banco Longoria
XEAO 560 250 Mexicali, B. C.
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XEAW 960 10000 Reynosa, Tams.
 Internacional Broadcasting Co., S. A.
XEAZ 1420 7 Guanajuato, Gto.
 Antonio Zavala, Paseo de la Presa 85
XEB 1030 10000 Mexico City, D. F.
 El Buen Tono, S. A., Apdo. 79-44
XEBC 730 5000 Agua Caliente, B. C.
 Alberto V. Aldrete
XEC 1310 50 Tijuana, B. C.
 Luis F. Enciso, Teatro Zaragoza
XECW 1310 10 Mexico City, D. F.
 Maria Elena Bravode Cordero Ave. Juarez 104
XED 1160 500 Guadalajara, Jal.
 Cla. Radiofonografica, Apdo. 197
XEE 1210 50 Durango, Dgo.
 20 de Nov. 112 (Apdo. 148)
XEFA 1180 500 Mexico City, D. F.
 Eduardo Limon Segui, Meditarraneo 236
XEFB 1420 100 Monterrey, N. L.
 Jesus Quintanilla, P. O. Box 317
XEFC 1310 100 Merida, Yuc.
 J. Molina Font, Calle 59, 517
XEFE 920 250 Laredo, Tams.
 R. T. Carranza, Km. 4 Carretera Laredo Mt.
XEFG 1100 250 Mexico City, D. F.
 Ricardo Gonzales Montero, Tepic 48
XEFI 1440 250 Chihuahua, Chih.
 Feliciano Lopez Isles, Ap. 157

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

100 Best Shortwave Stations by Call Letters

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

Amateur phones are heard between 1.875 and 2.000 megs. 3.900 and 4.000 megs. 7.000 and 7.300 megs. (Foreign only). 14.150 and 14.250 megs.	COC, Havana, Cuba, 6.010. 8:30 a.m. to 12:30 p.m.; 4-7 p.m. Sat., 11:30-12:30.	DJB, Zeesen, Germany, 15.200. 3:45-7:15 a.m.
Broadcast Pickup stations: 1.606; 1.622; 1.646; 2.102; 2.150; 2.190; 2.390.	COH, Havana, Cuba, 9.500. 5-6; 8-9 p.m.	DJC, Zeesen, Germany, 6.020. Noon to 4:30 p.m.; 6:05-10:45 p.m.
CJRO, Middlechurch, Man., 6.150. Relays Canadian Radio Com. programs, 8-11 p.m. and 11:30 to midnight.	CP5, La Paz, Bolivia, 6.080. 8-9 p.m.	DJD, Zeesen, Germany, 11.760. Noon to 4:30 p.m.
CJRX, Middlechurch, Man., 11.720. Same schedule as CJRO, q. v.	CT1AA, Lisbon, Portugal, 9.600. Tues., Thurs., Sat., 4:30-7 p.m.	DJE, Zeesen, Germany, 17.760. Ir- regularly, Mornings.
	CT1GO, Lisbon, Portugal, 6.190. Sat., 8-9 p.m.; Tues, Thurs., 7:30-8:15 p.m. 12.330: Sat., Sun., 9-10 a.m.	DJN, Zeesen, Germany, 9.540. 3:45-7:15 a.m.; 8-11:30 a.m.; 5:15-10:45 p.m.
	DJA, Zeesen, Germany, 9.560. Daily, 8-11:30 a.m.; 5:15-9:15 p.m.	DJQ, Zeesen, Germany, 15.280. 12:30- 2 a.m.
		EAQ, Aranjuez, Spain, 9.862. 5:30- 7 p.m.; Sat. noon to 2 p.m.

AROUND *the* CLOCK

on the SHORT WAVES

MIDNIGHT TO NOON (EST)

GMT	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
MST	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
PST	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00
	COC DJQ VK2ME W8XK W9XF XEBT	DJQ VK2ME W9XF		DJB DJN GSD GSF RV15	DJB DJN GSD GSF JVT JVT RV15 VK2ME VK3LR	DJB DJN GSD GSF JVT JVU LKJ1 RNE RV15 VK2ME VK3LR VK3ME YDA	DJB DJN GSE GSF JVT JVU LKJ1 VK2ME VK3LR VK3ME YDA	GSE GSF Pont. Rabat RV15 VE9GW VK2ME VK3LR W1XAZ W8XK	DJA DJN GSF HAS3 PCJ PHI Pont. Rabat. VE9GW W1XAZ W8XK	DJA DJN GSB GSE PCJ PHI Pont. VE9GW W1XAZ W8XK	DJA DJN GSA GSB GSE HVJ PCJ PHI Pont. RNE VE9GW W1XAZ W8XK W3XAL	DJA DJN GSA GSB GSE Pont. Rabat. VE9GW W1XAZ W8XK W9XAA

NOON TO MIDNIGHT (EST)

GMT	17:00	18:00	19:00	20:00	21:00	22:00	23:00	24:00	1:00	2:00	3:00	4:00
AST	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00
EST	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00
CST	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00
MST	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00
PST	9:00	10:00	11:00	12:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00
	DJC DJD EAQ GSA Pont. VE9GW W1XAZ W2XE W3XAL W3XAU W3XL W8XK W9XAA	DJC DJD EAQ GSB GSD IRO Pont. VE9GW W1XAZ W3XAL W3XAU W3XL W8XK W9XAA XEBT	DJC DJD GSB GSD IRO Rabat ORP VE9GW W1XAZ W2XAD W3XAL W3XAU W3XL W8XK W9XAA XEBT	DJC DJD GSB GSD IRO Rabat ORP RV59 W1XAZ W2XE W3XAL W3XAU W3XL W8XK W9XAA XEBT	COC CT1AA DJC DJD GSA GSA GSD IRO LCL HBL HJ1ABB Pont. PRF5 Rabat RV59 VE9GW W2XE W1XAL W1XAZ W3XAL W3XAU W3XL W8XK W9XF W9XAA XEBT YV3RC	COC COH CT1AA DJA DJN DJC EAQ GSA GSC HC2RL HJ1ABB HJ1ABG HP5B HJ1ABB HJ2ABC IRA Pont Rabat RV59 VE9GW W1XAL W1XAZ W3XAL W3XAU W3XL W8XK W9XF W8XK W9XAA XEBT W9XF YV2RC YV3RC YV4RC YV5RMO	COC CT1AA DJA DJN GSA GSC HC2RL HJ1ABB HJ1ABG HP5B HJ1ABB HJ2ABC IRA Pont Rabat RV59 VE9GW W1XAL W1XAZ W3XAL W3XAU W3XL W8XK W9XF W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	DJA DJC DJN GSA GSC HC2RL HJ1ABB HJ1ABG HP5B HJ1ABB HJ2ABC IRA Pont Rabat RV59 VE9GW W1XAL W1XAZ W3XAL W3XAU W3XL W8XK W9XF W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRXC COH CP5 DJA DJN DJC HC2ET HC2RL HIX HJ1ABB HJ1ABB HP5B HJ1ABB TIEP TIXGP3 VE9GW W1XAL W1XAZ W3XAL W3XAU W3XL W8XK W9XF W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRXC DJN DJC HC2ET HC2RL HIX HJ1ABB HP5B OAX4D PRADO TIXGP3 VE9GW W1XAZ W2XAF W3XAL W3XAU W3XL W8XK W9XF W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRXC DJC DJN HC2RL HC2ET HP5B OAX4D PRADO TIXGP3 VE9GW W1XAZ W2XAF W3XAL W3XAU W3XL W8XK W9XF W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO	CJRO CJRXC COC DJC DJN HC2RL HC2ET HP5B OAX4D PRADO TIXGP3 VE9GW W1XAZ W2XAF W3XAL W3XAU W3XL W8XK W9XF W8XK W9XAA XEBT YV2RC YV3RC YV4RC YV5RMO

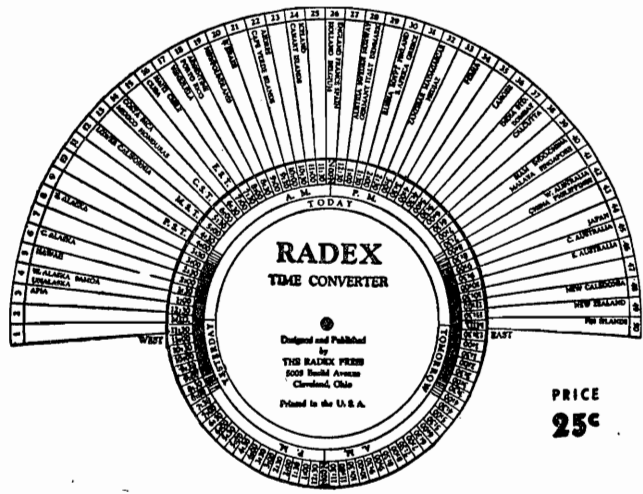
GBB, Rugby, England, 13.500. Phones Canada.
 GBS, Rugby, England, 12.150. Phones N.Y.
 GBU, Rugby, England, 12.240. Phones N.Y.
 GBW, Rugby, England, 14.440. Phones N. Y. 6-8 p.m.
 GSA, Daventry, England, 6.050. 10:45 a.m. to 12:45 p.m.; 4:30-5:45 p.m.; 6-8 p.m.
 GSB, Daventry, England, 9.510. 3-4 a.m.; 9:15 a.m. to noon; 1-5:45 p.m.
 GSC, Daventry, England, 9.580. 6-8 p.m.
 GSD, Daventry, England, 11.750. 3-5 a.m.; 1-4:30 p.m.
 GSE, Daventry, England, 11.860. 6-10:45 a.m.
 GSF, Daventry, England, 15.140. 6-9 a.m.
 HASS, Skekesehevar, Hungary, 15.370. Sun., 8-9 a.m.
 HAT, Skekesehevar, Hungary, 5.400. Sun., 8-9 p.m.
 HBL, Frangins, Switzerland, 9.595. Sat. 5:30-6:15 p.m.
 HBP, Frangins, Switzerland, 7.797. Sat. 5:30-6:15 p.m.
 HCJB, Quito, Ecuador, 8.200. 8:15-10:15 daily except Monday.
 HC2ET, Guayaquil, Ecuador, 4.600. Wed., 9:30-11 p.m.
 HC2RL, Guayaquil, Ecuador, 6.659. Tues. 9:14-11:14 p.m.; Sun. 5:45-7:45 p.m.
 HHH, San Pedro de Macoris, D. R., 6.810. 4-7:30 p.m.

HLX, Santo Domingo, D. R., 5.948. Tues. and Fri., 8-10 p.m.
 HHA, Santiago de los Caballeros D.R., 6.240. 7:30-9:30 p.m. daily.
 HI-4-D, Santo Domingo, D.R., 6.500. 4:40-7:40 p.m.
 HJA2, Bogota, Colombia, 5.825.
 HJA3, Barranquilla, Colombia, 12.830
 HJB, Bogota, Colombia, 14.930.
 HJN, Bogota, Colombia, 6.080.
 Tests irreg.
 HJABB, Barranquilla Colombia, 6.447. 5-10 p.m.
 HJABG, Barranquilla, Colombia 6.042. 7-10 p.m.
 HJABC, Cucuta, Colombia, 5.975. 6-9 p.m.
 HJABD, Bogota, Colombia, 7.406. "Colombia Broadcasting." 6-9 p.m. daily.
 HJABE, Medellin, Colombia, 5.900. 7-11 p.m.
 HJABL, "Ecos del Occidente," Manizales, Colombia, 6.100. Sat., 11-11:30 p.m.
 HJABD, Call, Colombia, 6.490. Thurs., Sat., Sun., 7-9 p.m.
 HPP, Panama City, Panama, 14.545. Phones Hialeah.
 HP5B, Panama City, Panama, 6.030. 7-10:30 p.m.
 HSJ, Bangkok, Slam, 7.980.
 HVJ, Vatican City, 15.120. 5-5:15 a.m. daily except Sunday. Occasionally from 10-10:30 a.m.
 IRA, Rome, Italy, 6.070. Mon., Wed., Fri., 6-7:30 p.m.
 IRE, Rome, Italy, 11.810.
 IRO, Rome, Italy, 9.780. 2:30-5 p.m.

daily; Mon., Wed., Fri., 7:45-9:15 p.m.
 ISS, Boiling Field, Va., 6.412.
 IZRO, Rome, Italy.
 5.550;
 5.725;
 6.980;
 9:30-4-7 p.m. Irreg.
 JVE, Nazaki, Japan, 15.660. Phones Java, nights.
 JVF, Nazaki, Japan, 15.620. Phones Dixon, 5-11 p.m.
 JVQ, Nazaki, Japan, 7.470. Phone. JVT, Nazaki, Japan, 6:750: 4-8 a.m.
 JVU, Nazaki, Japan, 5,790. 4-8 a.m.
 KAY, Manila, P. I., 14.980. Phones Dixon.
 KKH, Kahuku, T. H., 7.520. Phones Dixon.
 KKP, Kahuku, T. H., 18.030. Phones Dixon.
 KNRA, "Seth Parker", 6,160; 6,660; 6,670; 8,230; 8,820; 8,840; 13,200
 KWO, Dixon, Calif., 15,415. Phones Hawaii and Manila.
 KWU, Dixon, Calif., 15,355. Phones Japan.
 KWX, Dixon, Calif., 7,610. Phones Hawaii.
 LCL, Jeloy, Norway, 6,130. 11 a.m to 5 p.m.
 LKJ1, Jeloy, Norway, 9,540. 5-8 a.m.
 OAX4D, Lima, Peru, 5,780. Wed. and Sat., 9-11:30 p.m.
 ORK, Ruysselede, Belgium, 10,330. 1:30-3 p.m.
 PCJ, Hilversum, Netherlands, 15,220. Sun., 8-11 a.m.

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PHI, Hilversum, Netherlands, 11.725. 8-11 a.m.

Police Stations, on frequencies :1.596 ; 1.634 ; 1.642 1.658 1.666 1.674 ; 1.682 ; 1.706 1.712 2.382 2.406 ; 2.414 ; 2.416 2.422 2.430 ; 2.442 ; 2.450 ; 2.452 2.458 2.466 ; 2.474 ; 2.482 ; 2.490.

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

PRF5, Rio de Janeiro, Brazil, 9.505. 5:30-6:15 p.m.

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

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

RK1, Moscow, U.S.S.R., 7.520. Phones USA.

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

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

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

TGX, Guatemala City, Guatemala 5.937. Sun., 1-3 a.m.; other days, 8-12 p.m.

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

TIXGP3, San Jose, Costa Rica, 5.820. 7-10 p.m.

VE9GW, Bowmanville, Ont., 6.095. Sun., noon to 8 p.m.; Mon., Tues., Wed., 2-11 p.m.; Thur., Fri., Sat., 6 a.m. to 11 p.m.

VE9HX, Halifax, N. S., 6.110. 5-11 p.m.

VK1, Selfridge Field, Mich, 6.425.

VK2ME, Pennant Hills, Australia, 9.585. Mid. to 2 a.m. and 4:30-8:30 a.m., Sundays only.

VK3LR, Melbourne, Australia, 9.580. Daily exc. Sun. 4-8 a.m.

VK3ME, Braybank, Australia, 9.503. Wed., 5-6:30 a.m.; Sat. 6-7 a.m.

VUB, Bombay, India, 9.565. Testing Sunday, 7 a.m.

WOO, Ocean Gate, N. J., 4.273 ; 4.753 ; 8.560 ; 12.840. Phones Ships.

WIXAL, Boston, Mass., 6.040. Tues., Thurs., 7:30-9:30; Sunday, 5-7 p.m.

WIXAZ, Millis, Mass., 9.570. 6 a.m. to midnight.

W2XAD, Schenectady, N. Y., 15.340. 2:30-3:30 p.m.

W2XAF, Schenectady, N. Y., 9.530. 7:40-11 p.m.

W2XE, Wayne, N. J., 6.120. 6-11 p.m. 11.830. 3-5 p.m. 15.270. 11 a.m. to 1 p.m.

W3XAL, Boundbrook, N. J., 6.100. Mon., Wed., Sat., 5 p.m. to midnight. 17.780. Daily exc. Fri., 8 a.m. to 2 p.m.

W3XAU, Newton Sq., Pa., 6.060. 8 p.m. to 11 p.m. 9.590. Noon to 3 p.m.

W3XL, Boundbrook, N. J. 17.310. Fri., 11 a.m. to 5 p.m.

W8XAL, Mason, Ohio, 6.060. Irregular.

W8XK, Saxonburg, Pa., 6.140. 4:30 p.m. to 12:30 a.m. 11.870. 4:30-10 p.m. 15.210. 10 a.m. to 5:15 p.m. 21.540. 7 a.m. to 2 p.m.

W9XAA, Chicago, Ill., 6.080. Sun., 11:30 a.m. to 9 p.m.

Tues. Thur. Sat. 4-12 p.m. Mon., Wed. Fri. 4:30-7 p.m.

W9XF, Downer's Grove, Ill., 6.100. Daily exc. Sat. and Sun., 4:30. 8 p.m.; 9:30 p.m. to 2 a.m. Sunday, 4:30-7 p.m. and 9 p.m. to 2 a.m.

XEBT, Mexico City, D. F., 6.010. Relays XEB, 10 a.m. to 11 p.m.

XECW, del Caballero del Santokan, Mexico, D. F., 5.980. 11-12 p.m.

XGO, Shanghai, China, 7.575.

YDA, Bandung, Java, 6.116. A NIROM station.

YNA, Managua, Nicaragua, 14.480. Phones Hialeah.

YNLF, Managua, Nicaragua, 6.950. 7-8; 10-11 p.m.

YNICG, Managua, Nicaragua, "La Voz de los Lagos", 6.385. 7-10:30 p.m.

YVQ, Maracay, Venezuela, 6.672. Relays Caracas BC stations occasionally.

YVR, Maracay Venezuela, 9.168. Phones Madrid.

YV2RC, Caracas Venezuela, 6.112. 5:15-10 p.m.

YV3RC, Caracas, Venezuela, 6.150. 5-10 p.m.

YV4RC, Caracas, Venezuela, 6.375: 4:30-10:30 p.m.

YV5RMO, Maracaibo, Venezuela 5.850: 5:15-10:15 p.m.

YV6RV, Valencia, Venezuela, 6.030. "La Voz de Carabobo."

ZFB, St. George, Bermuda, 10.060.

ZFS, Nassau, Bahamas, 4.513.

The Cadena Indo-Americano includes stations: HJIABH, PRADO, TIEP, YNLF, YV4RC, YV5RMO.

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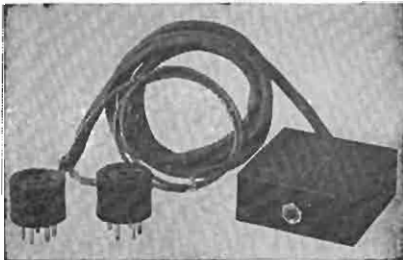
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*When ordering give make and model
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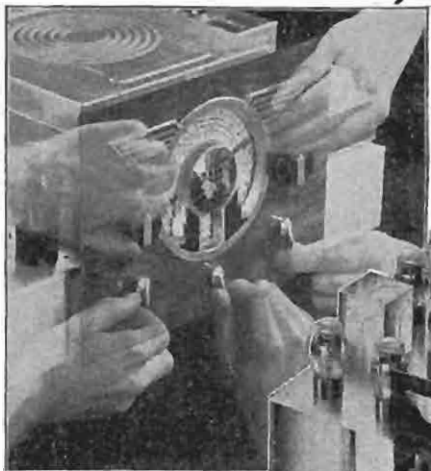
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