

N.S.E.

THE MAY 1937

25^c

RADIO INDEX

The All-wave DX Log of the World



South American Stations
The New Television
Revised Frequency Checks
Most Complete Shortwave List

No. 109

The Frequency Checks

In order to include many of the new stations which have recently come on the air, the engineers of the Federal Communications Commission have revised their list of monthly frequency check broadcasts. The latest schedule, with times given in Eastern Standard, follows:

The Second Monday		
2:00-2:20	WLNH 1310	Laconia, N. H.
	WJBO 1420	Baton Rouge, La.
2:10-2:30	WBRB 1210	Red Bank, N. J.
	WBBB 1500	Selma, Ala.
2:20-2:40	WMAS 1420	Springfield, Mass.
	WIOD 1300	Miami, Fla.
2:30-2:50	WVRL 1500	Woodside, N. Y.
	WJBW 1200	New Orleans, La.
2:40-3:00	WOKO 1430	Albany, N. Y.
	WMBR 1370	Jacksonville, Fla.
2:50-3:10	WCAX 1200	Burlington, Vt.
	WOPI 1500	Bristol, Tenn.
3:00-3:20	KTRH 1290	Houston, Tex.
	WMBO 1310	Auburn, N. Y.
	WMSD 1420	Sheffield, Ala.
3:10-3:30	WOC 1370	Davenport, Ia.
	WCAD 1220	Canton, N. Y.
	WMFN 1210	Clarksdale, Miss.
3:20-3:40	KWLC 1270	Decorah, Ia.
	WMBQ 1500	Brooklyn, N. Y.
	WNBR 1430	Memphis, Tenn.
3:30-3:50	WFPW 1210	Fort Smith, Ark.
	WMFF 1310	Plattsburg, N. Y.
	WDBO 580	Orlando, Fla.
3:40-4:00	KABC 1420	San Antonio, Tex.
	WQDM 1390	St. Albans, Vt.
	WSMB 1320	New Orleans, La.
3:50-4:10	KADA 1200	Ada, Okla.
	WFAS 1210	White Plains, N. Y.
	WHEF 1500	Kosciusko, Miss.
4:00-4:20	KFDM 560	Beaumont, Tex.
	WCAP 1280	Asbury Park, N. J.
	KLS 1280	Oakland, Calif.
	WAGF 1370	Dothan, Ala.
4:10-4:30	KCRJ 1310	Jerome, Ariz.
	KMLB 1200	Monroe, La.
4:20-4:40	KLUF 1370	Galveston, Tex.
	WDEV 550	Waterbury, Vt.
	KGDM 1100	Stockton, Calif.
	WDNC 1500	Durham, N. C.
4:30-4:50	KROC 1310	Rochester, Minn.
	KGAR 1370	Tucson, Ariz.
	KALB 1420	Alexandria, La.
4:40-5:00	KOVC 1500	Valley City, N. D.
	WBNO 1200	New Orleans, La.
4:50-5:10	KEUB 1420	Price, Utah
	KRE 1370	Berkeley, Calif.
	WLAK 1310	Lakeland, Fla.
5:00-5:20	KBST 1500	Big Spring, Tex.
	KIEM 1450	Eureka, Calif.
	WFOY 1210	St. Augustine, Fla.
5:10-5:30	KDON 1210	Del Monte, Calif.
	WMIN 1370	St. Paul, Minn.
	WTAL 1310	Tallahassee, Fla.
5:20-5:40	KUMA 1420	Yuma, Ariz.
5:30-5:50	KFGQ 1370	Boone, Ia.
	KWG 1200	Stockton, Calif.
	WGCM 1210	Gulfpport, Miss.
5:40-6:00	KGMB 1320	Honolulu, T. H.

The Second Tuesday		
2:00-2:20	WBAX 1210	Wilkes Barre, Pa.
2:10-2:20	WDAS 1370	Philadelphia, Pa.
2:20-2:40	WBBL 1210	Richmond, Va.
2:30-2:50	WFBG 1310	Altoona, Pa.
2:40-3:00	WMBG 1210	Richmond, Va.
2:50-3:10	WBR 1310	Buffalo, N. Y.
3:00-3:20	KDAL 1500	Duluth, Minn.
	KFIZ 1420	Fond du Lac, Wis.
	WLVA 1200	Lynchburg, Va.
3:10-3:30	KPAC 1260	Port Arthur, Tex.
	WBTM 1370	Manitowoc, Wis.
	WOMT 1210	Danville, Va.
3:20-3:40	KCKN 1310	Kansas City, Kans.
	WKRC 550	Cincinnati, Ohio
	WHEC 1430	Rochester, N. Y.
3:30-3:50	WNAD 1010	Norman, Okla.
	WMBG 1420	Detroit, Mich.
	WRAK 1370	Williamsport, Pa.
3:40-4:00	KFVS 1210	Cape Girardeau, Mo.
	WTAD 900	Quincy, Ill.
	WJAC 1310	Johnstown, Pa.
3:50-4:10	WTAW 1120	College Station, Tex.
	WBNS 1430	Columbus, Ohio
	WBNY 1370	Buffalo, N. Y.
4:00-4:20	WCOL 1210	Columbus, Ohio
	KOOS 1200	Marshfield, Ore.
	WBRE 1310	Wilkes Barre, Pa.
4:10-4:30	KLPM 1240	Minot, N. Dak.
	WPAR 1420	Parkersburg, W. Va.
	KPQ 1500	Wenatchee, Wash.
	WPAY 1370	Portsmouth, Ohio
4:20-4:40	KRMD 1310	Shreveport, La.
	KFIO 1120	Spokane, Wash.
	WCLO 1200	Janesville, Wis.
4:30-4:50	WSYR 570	Syracuse, N. Y.
	KGCA 1270	Decorah, Ia.
	KORE 1420	Eugene, Ore.
	WJAY 610	Cleveland, Ohio
4:40-5:00	WNBZ 1500	Binghamton, N. Y.
	KTEM 1370	Temple, Tex.
	KGBU 900	Ketchikan, Alaska
	WGH 1310	Newport News, Va.
	WHBC 1200	Canton, Ohio
4:50-5:10	KGVO 1260	Missoula, Mont.
	KRLH 1420	Midland, Tex.
	WHK 1390	Cleveland, Ohio
	WWSW 1500	Pittsburgh, Pa.
5:00-5:20	KGXC 1450	Wolf Point, Mont.
	WSAY 1210	Rochester, N. Y.
	WSPD 1340	Toledo, Ohio
5:10-5:30	KAST 1370	Astoria, Ore.
	KNET 1420	Palestine, Tex.
	WAVE 940	Louisville, Ky.
5:20-5:40	KSMO 1370	Kansas City, Mo.
	KFJI 1210	Klamath Falls, Ore.
	WXYZ 1240	Detroit, Mich.
5:30-5:50	KIDW 1420	Lamar, Colo.
	WGAR 1450	Cleveland, Ohio
5:40-6:00	KQV 1380	Pittsburgh, Pa.
	WCAT 1200	Rapid City, S. Dak.
5:50-6:10	KLAH 1210	Crisbad, N. Mex.

The Second Wednesday		
2:00-2:20	WMFJ 1420	Daytona Beach, Fla.
2:10-2:30	WAIM 1200	Anderson, S. C.
2:20-2:40	KVOL 1310	Lafayette, La.
2:30-2:50	WHBQ 1370	Memphis, Tenn.
2:40-3:00	WKAQ 1240	San Juan, P. R.
2:50-3:10	WSJS 1310	Winston-Salem, N. C.
3:00-3:20	KABR 1420	Aberdeen, S. Dak.
	WFAM 1200	South Bend, Ind.
	WMFD 1370	Wilmington, N. C.

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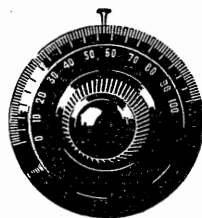
PAGE TAYLOR

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THIRTEENTH YEAR

NUMBER 109

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Closing The Mystery DX CONTEST

. . . . Announcing the Winners

AFTER nearly a month of careful checking, the books have been closed on the 1937 edition of the Mystery DX Contest. The determination of the ultimate winners was no easy task and the final decision was reached only after consideration of all pertinent factors.

In arriving at the final standings, it was necessary to triplecheck the entries. First of all, summary sheets were gone over and non-participating stations crossed out. Then the distances for all contest stations were confirmed—and points added or subtracted when necessary. Finally, the individual station reports were checked with the logs submitted by the broadcasters.

As was the case last year, contestants reported numerous stations which were not broadcasting for the contest. The list totaled no less than 64 different stations, and included all of the all-nighters as well as every station which transmitted a test or DX program on the three nights of the contest.

Most frequently reported of the non-participating stations was WKAR, which was claimed by 12 contestants. KGNO and KGCX were each reported 10 times. KGGM was next with 8 claims, CJCJ had 6, CFRN had 5 and KDFN had 4. Before definitely eliminating the claims from consideration, we checked with the stations and learned positively that they did not dedicate a program to the contest.

With the final returns in and all reports checked, it has been established that 36 stations actually broadcast for the contest:

February 20th

0200-0300	CJIC	890	Sault Ste. Marie, Ont.
	WHAM	1150	Rochester, N. Y.
	WRUF	830	Gainesville, Fla.
0300-0400	CFCO	630	Chatham, Ont.
	KMPC	710	Beverly Hills, Calif.
	KFSD	600	San Diego, Calif.
	KVOE	1500	Santa Ana, Calif.
	WEXL	1310	Royal Oak, Mich.
0400-0500	KFVD	1000	Los Angeles, Calif.



	KMO	1330	Tacoma, Wash.
0500-0600	WFBC	1300	Greenville, S. C.

February 21st

0200-0300	WAAW	660	Omaha, Neb.
	WBIG	1440	Greensboro, N. C.
0300-0400	KDB	1500	Santa Barbara, Calif.
	KDYL	1290	Hollywood, Calif.
	KFXM	1210	San Bernardino Calif.
	KGB	1330	San Diego, Calif.
	KUJ	1370	Walla Walla, Wash.
	KXA	760	Seattle, Wash.
0400-0500	CKOV	1200	Kelowna, B. C.
	KIRO	710	Seattle, Wash.
	KWSC	1220	Pullman, Wash.
	WAAF	920	Chicago, Ill.
	WPHR	880	Petersburg, Va.
0500-0600	KJBS	1070	San Francisco, Calif.
	WHA	940	Madison, Wis.
	WTRC	1310	Elkhart, Ind.

February 22nd

0200-0300	WFBR	1270	Baltimore, Md.
	WIBM	1370	Jackson, Mich.
0300-0400	WMMN	890	Fairmont, W. Va.
	WNBX	1260	Springfield, Vt.
	WOI	640	Ames, Iowa.
0400-0500	CMHJ	1160	Cienfuegos, Cuba.
	KFNF	890	Shenandoah, Iowa.
	KVI	570	Tacoma, Wash.
	WADC	1320	Akron, Ohio.

It will be noted that this list corresponds with that given last month, with the exception of six stations. After definitely agreeing to broadcast for the contest, KOMA, KXBY, KFVB and CKNX failed to put in an appearance. WSUI had transmitter difficulties on February 20th, preventing its program on that date, and was unable to contact us in time to schedule another hour. WSYR did not definitely agree to come on and its inclusion in the list last month was purely on the assumption that

it might broadcast at the last moment.

Distances Inaccurate

That many DXers still have need for a good map of the United States was shown when mileages were checked. It was here that the greatest number of points were subtracted—and only because contestants apparently did not know when a station was within 200 miles, or more than 2000 miles distant.

One listener in Missouri confidently claimed 2500 miles for stations heard on the Pacific Coast, while another in Detroit was positive that Chatham, Ont., was 350 miles away. Other cases, equally fantastic, could be cited, and rare indeed was the report which had all stations in the proper mileage classifications.

In checking all distances, the large Rand McNally map of the United States was considered as the final authority. It was essential that we have a standard method of measuring, and it was felt that this map was admirably suited for the purpose.

Whenever possible, contestants were given the benefit of any real doubt about distance, and it is believed that all entries received credit for every point actually earned. However, it was necessary to draw the line somewhere and, consequently, a tolerance of 15 to 20 miles was the absolute limit.

General Reception Poor

When the individual station reports were compared with the logs submitted by the broadcasters, it was demonstrated that general reception throughout the country had indeed been poor. Many contestants agreed that the week-end of the contest was the worst within memory and this fact was confirmed by the general quality of the reports.

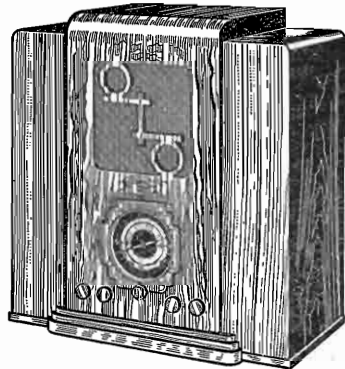
With this in mind, entries were judged with a degree of leniency. Reports from most of the distant sta-

tions were sketchy and lacking in detail, and yet full credit was given whenever possible. In a few cases, a correct time announcement or call letters in Morse code were accepted in lieu of a selection when granting the maximum number of points.

As might be expected in a contest of this type, a number of ties resulted among the winners. In breaking these ties—at least insofar as the awarding of prizes was concerned—two essential points were considered.

Naturally, the first of these was the general quality of all the reports. If one listener had clean-cut reports from all stations and consistently was able to list his three successive selections or 10 minutes of program, he was entitled to preference over the contestant who just qualified for points by the skin of his teeth.

The other point concerned strict adherence to the rules of the contest as set forth in preceding issues of RADEX and in the bulletin sent to all contestants. One of these rules definitely stated that the contestant should list the prizes in order of



The Midwest K-11 receiver, an 11-tube receiver that tunes from 150 kilocycles to 23 megacycles (13 to 2000 meters). This handsome radio set was given as second prize in the RADEX Mystery DX Contest. George Publow of Picton, Ontario was the lucky winner.

preference in the space provided on the summary sheet.

It was surprising to note the number of contestants who failed to do so, or merely stated: "Will take what comes. Report probably too poor for much of a prize. Headphones, aerial or RADEX subscription in order named." In such cases, the judges could not act as mind-readers and, all other things being equal, the contestant will have to "take what comes."

The Winners!

And so, after considering all of the factors involved in the final decisions, we come to the winners of the 1937 edition of the RADEX Mystery DX Contest.

In first place and the winner of the latest 23-tube Scott Full Range High Fidelity receiver, we find Floyd Biss, Brittmount, Minn. Scoring a total of 465 points on 24 stations heard, all but one of which fell in the 20-point "E" classification, Mr. Biss used an Airline receiver with an inverted-L aerial to demonstrate his right to be classed as a fortunate Scott owner. Having had this model Scott on test for the past winter, we can appreciate the full measure of radio enjoyment in store for him, and we wish him many miles of successful DXing. Incidentally, Mr. Biss claims the NNRC, NRC and CDXR as his radio alma maters.

In second place is George Publow, King St., Picton, Ontario, a member of the NNRC. With perfect reports from 22 stations, two of which were more than 2000 miles and one less than 200, Mr. Publow used a Masterpiece IV to score 450 points and win a Midwest Model K-11 receiver.

Third place was won by a West Coast contestant, Dale Smith, RFD 3, Box 536, Eugene, Ore., who scored 440 points on 16 20-point stations and four 2000-milers. A member of no radio club, Mr. Smith used an Atwater Kent Model 545 receiver with

a triangular antenna, and claimed the Hallicrafters Sky Buddy receiver as his prize.

Tied close behind were Arthur E. Forester, 1213 Bosart Ave., Indianapolis, Ind., and T. J. Sanders, Box 32 Bly, Ore. NNRC member Forester will soon have a pair of the famous Trimm Featherweight headphones to plug into his Majestic 344B. A member of no radio club, Mr. Sanders "hoped to place for a Perfect Phone Adapter" and that is just what he will be able to use on his Philco 16B.

Two Erie, Pa., members of the GCDXC, Harry M. Gordon and Harold Wagner, tied with NRC and CDXR member Arthur L. Robb, Topeka, Kans., with 430 points. Twelve tried and true National Union tubes will shortly grace the 12 sockets of Mr. Robb's Airline receiver, while the study and reference texts of the National Radio Institute should help Mr. Wagner know more about the workings of his Philco 34. Next time Mr. Gordon goes DXing on his Scott Allwave Deluxe, one of our World Globes will show how far he has traveled.

Next in line and tied at 420 points each are Frank W. Hoxie, South Orington, Maine, and Robert Patterson, Roanoke, Va. A member of the NNRC, Mr. Hoxie used a Philco 650X to win a set of six Arcturus tubes, while Mr. Patterson, a member of no club, will soon be hooking an RCA Spider Web antenna to his Philco 89L.

Close behind comes NNRC member Bireley Ross, Austin, Texas, whose Philco 116X won a year's subscription to RADEX for its skilled operator.

The final prize winners, all of whom tied at 400 points and were awarded a year's subscription to RADEX, are C. E. Fultz, Columbus, Ohio; Fred Van Voorhees, Miller Place, N. Y.; Frank Zavadil, Jr., St. Louis, Mo.; and Evelyn Warner,

Medford, Ore. Mr. Fultz is a member of the NNRC and operates a Midwest 18 receiver, while Mr. Van Voorhees gives credit to the UDXC and the Midwest K-11. Members of no radio clubs, Miss Warner DXes with a Grunow 1241 and Mr. Zavadi1 is another booster for the Philco 116X.

Place prizes of a year's subscription to RADEX go to Rulon Cloud, Norristown, Pa., a member of no radio club; Donald Hill, Broken Bow, Neb., NNRC; P. M. Dillingham, Luseland, Sask., CDXR; and to Nancy Lee Saxton, Chicago, Ill., NNRC.

Honorable Mention is an unsatisfactory term when there is no prize attached, but we cannot overlook a passing tribute to the tuning skill of E. L. Peters, Westport, N. S.; Jack Horner, Elizabethtown, Pa.; Owen E. Cummins, Fortville, Ind.; Howard C. Simpson, Concord, N. C.; Lemuel Cavileer, Haddon Heights, N. J.; Roy E. Dement, Plainview, Texas; Earl R. Roberts, Indianapolis, Ind.; Clark O. Wohlbers, Omaha, Neb.; Cecil F. Smith, Denison, Texas; and James E. Critchett, Lincoln, Neb. These contestants scored between 375 and 395 points and we only regret that there weren't enough prizes to go around.

We believe that readers will be interested to know that every step leading up to these final standings has been checked and approved by two men well known to most DXers—Samuel F. Owens, president of the old Atlantic Radio Club, and Alfred J. Stansfield, president of the Universal DX Club. They have seen the reports and have verified the points which have been awarded. They confirm our opinion that the prizes have been distributed exactly as merited.

The Verification Question

In view of the comment concerning the last-minute change in the

policy concerning verification of contest stations, perhaps a word of explanation might not be amiss.

The contest was not planned as a means of increasing a DXer's list of veries. If that had been the case, we would have lined up an entirely different group of stations—selecting those which are seldom heard and certainly not as easy to log. The whole idea was to build up a week-end of unusual dialing for the DXers—and we believe that we accomplished that purpose. Thus, since none of the contest stations would have been difficult to hear under respectable weather conditions, there should have been no great demand for verifications.

Thus, we started out to follow the precedent established last year—to have all requests for confirmations go direct to the stations themselves. However, a number of stations came right back and asked to be relieved of that responsibility. They were willing to go to the expense of putting on a broadcast for the contest, but felt that their obligation should cease at that point.

That put us on the proverbial spot. We couldn't come right out and say that such-and-such stations *would* verify, while certain others would not. We couldn't cut out the verification entirely, since some of the stations—such as CFCO, KVI, WFBC, WHAM and others—were perfectly willing to issue veries.

Finally we hit upon the idea of issuing the veries ourselves. The charge was tacked on for two reasons—first, to discourage requests and, second, to pay the expense of handling those which did come in.

We had some cards printed, and the call letters and locations of the various contest stations were lettered in. The listener who wanted but one confirmation, received a personal letter; the DXer wanting more than one verie, received cards for each station correctly reported.

Looking It Over

And so we come to a final survey of the contest. For the most part, we believe that it was rather a success, and scores of letters from contestants confirm this opinion. The DXers had a week-end of concentrated listening, and some very worthwhile prizes are going out to those who showed the best records.

Weather conditions throughout the country were not favorable to long distance listening, but this handicap failed to dampen the enthusiasm of the midnight marauders. And since poor reception prevailed practically everywhere, contestants listened on an equal basis.

While we cannot assume the responsibility for the tricks of Nature, we do believe that a possible repetition of the contest should be held at an earlier date—perhaps during the first week or two of January. Reception probably would be more favorable at that time.

When we worked out the new system of scoring, we were of the opinion that it would eliminate advantages of location. From the final results, we believe that such was the case. The fifteen prize winners were distributed over a wide area—coast to coast, border to border—and in no case was there a very large difference in the number of points scored.

After checking the reports, it is evident that it will be well to establish a future policy concerning the all-night stations. Last year, we had four broadcasts from these stations, and many contestants lost points through failure to dial the respective frequencies. This year, WEXL was the only all-nighter and contestants complained that the time spent dialing the other late stations was lost.

Perhaps it would be well to schedule no programs from stations
(Please turn to page 51)

Stations of Peru

We present herewith an official list of all the Peruvian broadcasting stations, through the courtesy of Sr. F. Pardo de Zela, Consul General of Peru, 21 West St., New York City. These stations appear in our list of the broadcasting stations of South America, so below we give only the call signs, locations, slogans and addresses.

OAX4A, "Radio Nacional," Peruvian Government, Avenida Petit-Thouars, Lima.

OAX4B, "Radio Grellaud," Rober-to Grellaud y Cia., Sen Abancay 915/23, Lima.

OAX4C, "Radio Landa," Maximo J. Landa, Sucre 409, Arequipa.

OAX4E, "Radio Goicochea," Ing. Juan P. Goicochea, Ocona 158, Lima.

OAX4F, "Radio Castellano," F. W. Castellano y Hno., Union 650, Lima.

OAX4H, "Radio Davila," Samuel Davila, Filipinas 154, Lima.

OAX4J, "Radio Internacional," Radio Internacional, S. A., Ed. Minería 605, Lima.

OAX4L, "Radio Miraflores," Radio Miraflores, S. A., Manco Capac 347, Miraflores, Lima.

OAX4O, "La Voz de la Capital," Gildred Corporation, Baquijano 790, Lima.

It is understood that most of these stations broadcast daily from at least 8 pm until at least 11 pm, EST.

KIDO, the Boise, Idaho station on 1350 kcs., will become an NBC outlet at about the same time that KOB in Albuquerque takes over the NBC programs. Both Red and Blue features will be carried.

The general call WOOL has been assigned to all the ships on the Great Lakes.

QUESTIONS of Vital Interest

• • • By the TECHNICAL EDITOR

Red Eye

I HAVE a RCA-Victor receiver, model 9T, and when I turn the set on the "Magic Eye" sets very red. Then I turn the set off as I am afraid something is wrong. Can you tell me what might be causing this trouble and how to fix it?

This is a question that seems to bother many readers and set owners. Since it may be caused by something seriously out of order in the set, other than the tube itself, it calls for some discussion this month.

The Magic Eye feature of the RCA-Victor line is a novel use of the cathode-ray tube in visual tuning. A visual-indicator tube, known as the 6E5, was originally designed as a visual-tuning indicator for radio receivers. The tube has a cone-shaped fluorescent target and a blade-like ray-control electrode; the latter connected to the plate. This fluorescent surface is made to resemble the human eye and is visible through a panel opening. When the "eye" is working properly it blinks forth with a green light that shows a fan-shaped shadow beneath its center. The opening or closing of this sector or shadow indicates the accuracy with which the set has been tuned. The bright pattern with its shadow is caused by electrons striking the coated target in the top of the tube.

Now, should the tube become defective, or if some part of the circuit in which the tube is connected fails, it may be that the tube will be given a higher voltage than it is designed to stand. In this case the tube will burn red. And, although the set may appear to operate about as well as ever it is not wise to continue the operation until repairs have been made or the tube replaced. While the tube can be tested like any radio

tube, it requires certain apparatus and not all service shops are so equipped.

A Bass Hum

I have a Philco No. 112 11-tube set that gives perfect reception with the exception of a loud bass hum on the strong stations, such as nearby WEAJ, WABC, etc. While I think this is heterodyning, I am not sure, and hope that you might be able to suggest some remedy.

The question of hum is a matter of much discussion among service men. But hum that accompanies loud nearby station reception often is quite easily located. In fact, it frequently is caused by vibration or resonance in the speaker and cabinet. We wonder whether you have loosened the screws that attach your set chassis down to the shelf in the cabinet over the loud speaker. These bolts enable the chassis to be freed of its support to some extent and prevent resonance and microphonic vibration and resulting hum.

On the other hand the speaker could be slightly out of adjustment, or the tone control defective enough to cause a rather severe bass tone which would turn to hum or resonance on very loud signals or impulses, such as the loud deep notes of a band. If the trouble were due to improper filtering in the power unit the hum would be present all the time on any station. And, it may be that there is some heterodyning causing the hum. This will occur when another station is operating only a few kilocycles from the one that is tuned in. However, the result is not so much of a hum as it is a whistle and wavering music or voice. Distortion is usually present. All this can be corrected by realigning the set, particularly in the i. f. cir-

cuits. The testing of the tubes is indicated, of course. Trouble in the audio circuit, especially in the coupling circuits, can give this trouble. We suggest that this is a case for a careful checking by a good service man. It should be an inexpensive and brief undertaking.

A Skipping Set

My set is an 11-tube Airline, and the one disadvantage is that it skips the bands between 16, 19, 25 and 49 meters. These bands, as just given, are marked on the dial by heavy lines. Because of this handicap my reception is limited to stations only on the heavy marks on the dials. How can I change the set to overcome this trouble? How can I attach a pair of headphones to this set?

We think this set is capable of tuning in any station all along the band that embraces that portion between 16 and 49 meters. The portions of the wave band you have observed marked with heavy lines or underscoring are where the important voice broadcasting stations are located, in this country and abroad. These heavy lines are merely aids to tuning. All stations between the heavy lines will be received just as well. However, because the heavy lines indicate where stations will be found, it also means that there are few if any stations along the band between the lines that can be received on that particular set. What voice stations happen to be there might be too weak or too far away to be heard. As a rule, however, the intermediate portions of the band are given over to code stations on land and ships at sea. Aviation also takes in part of the band. Remember, a set tunes in all frequencies between the two ends of the dial, and just because nothing is heard you must not assume that the set is dead at those spots. Short-wave broadcasting does not cover the entire band from end

to end at regularly spaced intervals as it does in the limited broadcast band, as only certain portions of the bands are allotted to different kinds of broadcasting or communication services.

Headphones can be attached to this set by the use of the Perfect Phone Adapters which you will find advertised in this magazine. However, you can locate the plate of the output power tube, or both tubes, if in pushpull, and run a well-insulated wire a very short distance away and then connect to each wire, if both are used, a heavy .0005 fixed condenser (500 volt). The phones or jack is connected between the two condensers. Or you may use one condenser and connect the headphones between it and the chassis. In this way only one tube (plate) is utilized. Turn the set down low so the speaker is almost quiet and the headphones will work nicely. However, we advise adapters as they are easy to install, and they are safe and simple to use.

Building Booster

I would like to build the signal booster that was described in RADEX some time ago. But, instead of the tubes required in your article, may I use a 77 or 78 as I could then get the right voltage from my set?

Radio tubes of the 77 and 78 types are very similar to 57s and 58s. However, the 70 series uses 6.3 volts on the filament while the 50 series utilizes 2.5 volts. It would be entirely possible to use the 77 or 78 tubes in place of the 57 or 58 in this booster circuit so as to benefit by the 6.3 volt filament supply in the receiver.

Philco Hums

There is a low-pitched hum in my Philco 14L receiver. It disappears when I disconnect the ground wire from the chassis. This hum also changes as the volume control posi-

tion changes. It disappears at the high volume end and the low volume end of the control movement. It has two peak positions between these ends.

It appears that hum of this kind is present in the audio system, and some perhaps in the filter system. This latter effect is brought out by the fact the hum disappears when the ground wire is removed. This is likely a straight a. c. hum through the power unit system. However, hum that is tunable, as well as that which can be eliminated by the volume control, usually occurs within the different circuits of the receiver. It could be caused by one of the tubes or a defective condenser, such as the coupling condenser in the audio circuit. We believe that a careful check by a competent service man can quickly and inexpensively cure this set of its trouble. Checking a radio set in this way is beyond the ability of the owner because certain instrumental equipment is quite necessary.

Replacing Speaker

I have a Philco 36-116B which has an 8-inch speaker. I would like to add a larger speaker in a separate cabinet. Is it possible to obtain field excitation from the set or must I have a separate supply? Is it possible to build a filter that will prevent bass notes from getting into the smaller speaker in the set?

Of course, you must realize that your set was built carefully to certain specifications. It has an output that is rated in watts (volts multiplied by milliamperes of plate current). The tube used for the power output has definite limitations, and it is very likely that all of its energy is consumed by the present sound or audio circuit.

While it is possible to utilize an additional loud speaker of large diameter and which will give greater emphasis to the deep, bass notes, provided its field is magnetized by



Ernie Smith, one of the announcers of WBIG, Greensboro, N. C. who was heard on the program broadcast by that station for the RAdEX Mystery DX Contest.

a separate source, it is not advisable in this case to do so. Certainly the field cannot be fed from a source that is capable of supplying only the needs of the set as it is. You must provide a quiet power source for this.

But as soon as you begin to cast around for ways to feed the voice coil, you meet with some trouble. The coil must have a certain a. c. resistance to match the output of the power transformer that feeds it. If it is less, or more, than the coil now in use, some of the current will be shunted off through the coil having the lowest resistance. If you place the two coils in series, you add to the impedance, and that does not help. Try finding a voice coil that closely matches the present coil. Using both speakers together at the same time prevents any attempt of filtering to keep all bass notes from the smaller speaker. The low frequencies can get through most any circuit; it's the high frequencies that can be choked back with greater

ease. A large speaker naturally aids the bass notes, while the small speaker accentuates the higher notes.

Using A Converter

My problem is that I have a RCA-Victor model 120 and a U. S. Apex short-wave converter. Please tell me how to use this converter with the receiver, or will it be necessary for me to make some changes in either the set or the converter? Advise me also about the proper aerial to use.

The use of the converter with any receiver is very simple. The output of the converter should be attached directly to the antenna terminal of the receiver. The broadcast receiver utilizes tubes that take 2.5 volts, and the converter with its type 27 and 24A tubes also uses 2.5 volts. The converter, therefore, could take its power supply from some over-powered receivers. However, since your converter's tubes take more than 3 amperes it could not be used with your receiver's power supply. This fact was recognized by the Apex builders, for a power pack and type 80 rectifier was built into the converter. So all that is necessary is to plug the converter in an electric outlet and attach its output to the receiver input. Ground wires are connected as indicated by the terminals on the sets. Set the radio receiver to a point around 500 meters, between stations where no sound is heard. Turn up the control for volume. Tune the converter slowly until a short-wave station is heard. Any type of antenna can be used; about 40 feet "L" type with a single wire. The doublet types are not satisfactory with this converter unless you use an universal transformer between the converter and the antenna twisted-wire leadin.

Ten Meter Antenna

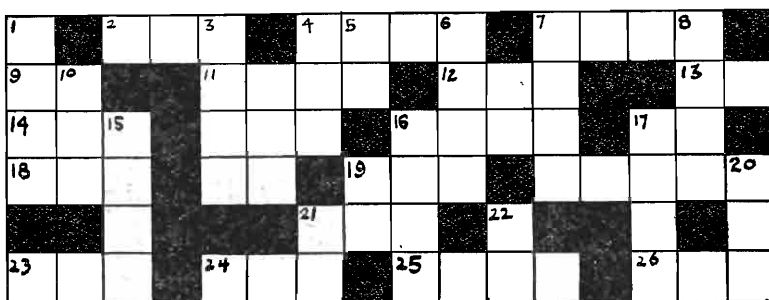
I have a new RCA set that operates down to 10 meters or less. I purchased a "fishpole" antenna that was 9 feet long, possibly iron. I con-

nected it to the A1 terminal. The fishpole was erected outside the window. A short leadin of about 2 feet was brought to the set. But I have not been able to hear anything except one or two 10-meter amateurs. Can you help me in my difficulty so I can get more pleasure out of the 10-meter band?

It has been found that a good half-wave doublet type of antenna is about the best there is for 5 and 10 meter work. And a horizontal antenna is most effective, according to general belief. But in the erection of this shortwave antenna, direction also is important. In this case you must use the two terminals on the set—A1 and A2 which are provided for connection to leadin of a doublet antenna.

A half-wave antenna on the 10-meter band means that the total length of the antenna (the two horizontal halves placed in line) must total exactly 5 meters or approximately 16½ feet. It is best to make this from some stiff aluminum rod or heavy bare copper wire (although aluminum is preferred). Cut two pieces, each 8'-1½" long. Attach them at the center to some sort of insulator (porcelain) so the ends are two inches apart. Support the antenna horizontal and broadside to the direction from which you wish to hear. Drop down from the center ends of the antenna halves two wires each 8'-1" long, placed two inches apart. Separate the two down-leads carefully with two or three insulators, so the leads hang vertical and even. Your antenna now resembles the letter T. This antenna may be placed at a convenient distance from the house and in the open so as not to be "shadowed" by nearby buildings, hills, or dense trees. From the ends of the vertical leads you can now attach two copper wires, about No. 14, and bring them to the house by using 2" trans-
(Please turn to page 79)

The RADEX Puzzle Page



The Call-O-Gram submitted to our readers this month was prepared by Raymond C. Corbett, 619 12th St., Sacramento, Calif. The definitions are given below and the solution will appear on this page in the June issue.

HORIZONTAL

2. Sister station of KEX.
4. Terre Haute.
7. Hotel Keystone.
9. Last two letters of a Texan.
11. Havana.
12. 1540 Broadway.
13. Last two letters of a 1000 watt Mexican.
14. First word of a slogan.
16. Kentucky.
17. Radio fans like this.
18. And they compile this.
19. Another word in a slogan.
21. Daytime in Missouri.
23. Listed on 1160 kcs.
24. Recently joined NBC in Calif.
25. Formerly 10-AT.
26. A MBS key station.

VERTICAL

1. 100 watts in Georgia.
3. In the "Old Line State."
4. Nation's Capital.
5. Last two letters of Springfield.
6. Divides time with WFAM.
7. An all-nighter.
8. Just 50 watts.
10. Central Broadcasting Co.
15. A Cuban (reversed).
16. 1200 kcs.
17. Brooklyn (in reverse).
19. Middle two letters of a health resort.
20. Germany on shortwaves.
21. First two letters of 25 U. S. stations.
22. Last two letters of a Westinghouse broadcaster.

The facilities of KALE and KFJR, Portland, Ore., have been combined, resulting in the deletion of KFJR. KALE, 1300 kcs., now operates on unlimited time.

Guess Again, DXers!

● ● ● By Moe Luff

1. What two stations have their cities represented in full in their call letters?
2. What station in New York City is paradoxical?
3. What do the call letters WIOD-WMBF stand for?
4. What is the only station having a written numeral in its call letters?
5. What do the following call letters represent?
WTHT, WSBT, WBEN, WESG, KPDN, WTMJ, CFPL, WTCN.
6. What do the call letters KASA represent?
7. What were the call letters of the stations located in these cities, in 1926? Big Bear Lake, Calif.? Holy City, Calif.? Takoma Park, Md.? Omro, Wis.?
8. Where was KYW located before moving to Philadelphia?
9. What call sign did WXYZ used to have, and what did the letters stand for?
10. What do the call letters WHJB stand for?

(Answers on Page 36)

WMAZ in Macon, Ga. (1180 kcs.) and WCOC, Meridian, Miss. (880 kcs.), have joined the Columbia Broadcasting System.

What About Reports?

● ● ● By Morton W. Blender
Chief Announcer, WCOP

AS YEARS go by, everyone seriously considers the activities of those vitally interested in and connected with radio. The DXer is one who, more than others, follows the changes and developments with the most interest. There is one good reason why he is so intensely alert to perceive changes in the world of broadcasting. For him, a verification card is at stake.

As one connected with a radio station, this business of verification cards and DX programs has become somewhat of a study, and I would like to record herewith some of the findings which have resulted from a perusal of reports and activities of DXers.

The most outstanding aspect of DXing today is the almost blind disregard for the station, its owners and engineers. This is particularly evident in broadcast band listening. On the short waves, there are considerably more listeners who realize that a short wave broadcaster wants to get out into the world. But, for the broadcast band listener, why must DXers submit reports which are contrary to all the teachings of the experienced old-timers?

I have in my possession thousands of reports that have been collected from many programs from this station and others. The good reports—those which mean something to the stations—can be counted on the fingers of two hands.

It is true that American broadcasting stations, as well as those of many other countries, are primarily interested in the "service area" covered by their signal. This is the area which will give results to the advertisers, or at least will give his product some listeners. Obviously, announcements in Los Angeles do not mean very much in Buffalo.

However, the situation on the broadcast band remains the same as on short waves. The engineer wants to know what happened to this or that DX program.

Most DX periods are arranged by Courtesy Programs Committee, and the time is generously given by the station managers or owners. DXers will always agree, when they read an article of expostulation such as this, that they owe a measure of thanks to the station which operates after regular hours for their particular benefit.

But what happens in practice? The stations usually receive a poor report, a tremendous list of musical selections—when only a few are needed; complimentary words inserted to make certain of a verie card; and little else. The technical report, if any, is hardly a true picture of what happened at the receiver.

All technical data on DX programs should be based on one system of codes—the R system for volume, the QSA system of readability, as well as information on fading, interference (QRM), atmospherics (QRN), local weather, temperature, antenna, ground, receiver (including make, model, number of tubes and unusual characteristics such as AVC, crystal, etc.), approximate distance from transmitter, and a general summary. There are DXers who take a few minutes more in making out their reports, in order to include an elaborate technical review of just what happened at their listening posts. Engineers appreciate this—and make no mistake about it!

Now look what happened when I announced several DX broadcasts from two different stations during 1935 and 1936. I received 4387 reports from the boys and girls. Of this tremendous total, only 88 gave a complete report of what they heard; 109 gave a rather sketchy

technical report; 354 gave a mere outline in a few words about our signal; and 820 said practically the same thing—"Your signal was fine." What about the rest? Just a long list of what they heard from the microphone! Is it possible that 2316 DXers, many of whom belong to established DX clubs, could have forgotten the principal portion of their reports? Or did they pass it by for reasons unknown?

The true DXer of today has to contend with the situation resulting from these conditions. Stations refuse DX programs. A few will not verify under any conditions. Some managers have taken a hostile attitude towards DXers and their clubs—and all with good reason. No one can blame a station staff for refusing to broadcast a DX period when the DXers return the favor as they do today. Instead of the type of response they want and which would repay them for their efforts, they get reports which are disheartening and inadequate. Too often the reports are too few in number, indicating lack of co-operation on the part of the DXer.

Another unfortunate case today is that of the DXer who insists on making out technical reports which are gross exaggerations of what really was heard. When a signal is coming in R6, why do these persons put R9 in their reports? When it was QSA3, why say QSA5? These reports are entirely misleading and are decidedly unfair to the station engineer.

The answer as to the "why" is obvious. For fear of losing a chance at a verie, the DXer doesn't want to report that a signal faded badly, that the quality was poor, or that the volume was never better than an R4 or 5.

The DXer should remember that the station engineer or manager will not refuse a verie or take on a grouch just because the signal re-

port was unfavorable. He should remember that a station in Boston cannot expect to be R9 on the West Coast, especially when it has low power. A report which gives false information makes a bad impression, particularly when other reports do not bear out the consistency of the data.

What about short waves? Even though veries from high frequency stations are a little more costly and listeners are a little more careful, the same conditions exist. Despite the fact that technical data is of vast importance to these stations, which are on the air for the distance they can cover with the utmost efficiency, poor reports are commonplace. I have a number of friends associated with foreign short wave broadcast stations, and letters from them indicate that the number of slipshod reports is astonishing. I find that even "fake" reports are received by these stations in numbers that make the situation rather serious.

The final result makes itself apparent. In the event that the tactics of DXers become more obnoxious to radio stations, the seekers of veries will soon find that the prized pasteboards will not be forthcoming. It does not take much for one engineer to convince another—and there you are! Radio clubs do their best to show why stations should broadcast special programs for the members, but what is their word when compared with the authoritative voice of an experienced engineer? The stations will be entirely justified in taking action against the DXer—and many of them have already.

Does this all sound rather deplorable? Rather threatening? Rather pessimistic? Most certainly it does! Only the DXers can remedy the faults that exist—and the future of DXing is entirely in their hands.

The short wave clubs, the BCB
(Please turn to Page 36)

SHORTWAVES from A to Z

Argentina

THERE is a new Argentine station in the neighborhood of 7 megs., but thus far the call letters and exact frequency are not known. It is owned by the Municipality of Vicente Lopez, a suburb of Buenos Aires, a fine residential district. Broadcasts commence daily at 1800 EST, and consist of talks and a few recordings.

LPI (or LPY), Correos y Telegrafos de Buenos Aires, is testing with telephony. The frequency, according to the announcer, is 11111 kcs.

Some Argentine stations, such as LSY, LSN and others, make occasional relays of musical programs. These are not broadcasts but point-to-point transmissions, and the purpose is to send important programs originating in Buenos Aires to distant cities in the interior, such as Tucuman, where there is no telephone link.

Australia

VK6ME is now working on 9590 kcs with 500 watts from 0600 to 0730 on Mondays, Wednesdays and Fridays. This broadcaster, located in Perth, Western Australia, is owned by Amalgamated Wireless, (A/sia), Ltd. (GCDXC).

Bolivia

The new Bolivian station on 6240 is CP1, "Radio Chuquisaca," located in the city of Sucre.

Canada

An official list of broadcasting stations has been received from Canada, and our lists are found to be in agreement, except for the following variations. VE9BK, Vancouver, on 4795 kcs., is not shown in the list. CFCX, Montreal, has 75 watts, and VE9DN, Drummondville, on 6005 kcs, uses 6000 watts. The Sydney, N. S. station on 6010 is given as VE9GA instead of CJCX. VE9BJ,

St. John, N. B., is shown on 6030 instead of 6090, and VE9CS, Vancouver, is listed on 6080 instead of 6090 kcs.

The evening transmissions of VE9CS, Vancouver, are from 2330 to 0200, EST, and this schedule should provide the best reception for eastern listeners. VE9CS, on 6080, is operated by the Standard Broadcasting System, Ltd., 1001-1004 Stock Exchange Bldg. (A. C. Tarr, 909 W. Lee St., Seattle, Wash.)

Canary Islands

According to the GCDXC, EAJ43, Santa Cruz, on 10370 kcs., transmits daily from 1800 to 2015, EST. Geo. Glass, 9284 Boleyn St., Detroit, Mich., reports it around 1900-2000, broadcasting an English program until 2000. A Spanish program follows. Reception is very good, R7, QSA5, through heavy QRM on the high frequency side. The address is P. O. Box 225.

China

XGOX, Nanking, is received well in Seattle every morning on 6848 kcs., on their new schedule which starts at 0615 EST. The signal has been much improved, both in modulation and in signal strength (A. C. Tarr).

Colombia

HJ4ABU is on the air daily except Sundays from 1900 to 2000 EST.

HJ4ABD, "La Voz de Catia," Medellin, has moved to 5970 kcs, but it has been heard as high as 5980, reports R. B. Oxrieder, 122 Hamilton Ave., State College, Pa.

Costa Rica

Mr. Oxrieder says the station reported as TIMS is really TILS.

"A station unlisted and unreported by anyone (including myself) is TIWX, which uses the choice wave of 9000 kcs with 50 watts," submits Samuel A. Meyer, 83 Canterbury Road, Rochester, N. Y. "I know of

the station's existence from reading an advertisement in a Costa Rican newspaper. TIWX is located in Heredia, home city of the famous TI4NRH.

Cuba

Programs from COCX are broadcast on weekdays from 0900 to 0200, EST, and on Sundays from 0900-1300 and 1900 to 2300.

CLA5, a government station, broadcasts simultaneously with CO3BG, Santiago de Cuba, both in the 14 meg. amateur band, near 2000 EST.

Dominican Republic

HIX, Trujillo City, has added some new frequencies and made changes in call signs. Call letters HIX are used on 800 kcs. HI1X is on 6340, HI2X on 11970 (announced as 11960), and HI3X is on 15270. HI1X and HI3X relay HIX on Sunday mornings and near noontime daily. HI1X and HI2X relay HIX on an evening schedule. (R. B. Oxrieder).

HIN, Trujillo, is reported on 12490 kcs. by Howard M. Phillips, 3907 20th St., N. E., Washington, D. C., and on 12410 kcs. by Wm. Buchanan, 189 Park St., Sydney, N. S.

HI1S has moved from Puerto Plata to Santiago de los Caballeros, and is now heard best around 1800. (Meyer.)

A new station, HI8Q, 6200 kcs., "Emisora Real," "La Voz de los Muchachos," is located in Trujillo. (Oxrieder).

Ecuador

On some evenings a powerful new station can be heard about seven to ten kcs. away from COCH and is often much interfered with by the Havana broadcaster. The call is understood by Samuel Meyer to be HCODA, and by R. B. Oxrieder as HC2RA. There is no doubt about the slogan, however. It is "La Voz del Alma," and the frequency is 9435 kcs generally. HC(20)DA is situated in Guayaquil.

HC2RL, Guayaquil, may be best heard on the Pacific Coast on Tues-

IF you are interested in television, you ought to understand radio. Mr. B. Francis Dashiell, the author of the Story of Television running currently in RADEX, has written a book called

The Beginners' Story of Radio

in which the fascinating story of radio is written in plain English so everyone can understand it.

This leatherette-bound book, illustrated with 63 diagrams, explains everything that takes place within a radio receiver.

**We will send you a copy for
only 35 cents.**

**The RADEX PRESS
Conneaut, Ohio**

days from 1800 to 2000 PST, on 6635 kcs. (A. C. Tarr).

Manuel Barbera has a card from J. Leonardo Ponce, P. O. Box 664, Quito, stating that his station, HC1PM, "El Palomar," works on 5725 kcs Saturday evenings from 2100 to 2300 EST.

Fiji

Anthony Tarr says the Suva station on 8719 announces as VPD2 instead of VPD3.

Germany

DJT is heard quite often in the late afternoons with DZH and DZC, sending programs to South and Central America. DJT uses 15360 kcs. (Oxrieder).

Great Britain

The Empire programs from Daventry are now transmitted on a revised schedule. The new transmitting time is shown below.

Transmission 1, 0000-0215

Transmission 2, 0545-0855

Transmission 3, 0915-1200

Transmission 4, 1220-1800

Transmission 5, 1820-2030

Transmission 6, 2100-2300

Bernard Ahman and Carroll Weyrich will monitor the transmissions of the British Empire transmitters on the first Saturday and Sunday of each month. Listeners desiring positive verifications of these stations should tune at the times shown below, and send their reports to Carroll Weyrich, 4310 Evans Chapel Road, Baltimore, Md. Reports should be in the mail within 24 hours after the close of the broadcasts, and contain the names of at least two musical selections transmitted, or an accurate description of talks. Attractive QSL cards with the call letters of the station in large red letters will be sent to all who report correctly, and submit five cents for each verification requested. The Editor has seen samples of the cards and believes they are well worth the small amount asked, which, incidentally, is less than the cost of an international Reply Coupon.

Transmissions will be monitored on May 1 and 2, and June 5 and 6. Saturdays, 0600-0700; 0900-1000; 1800-1900; 2100-2200. Sundays, 0300-0400; 1445-1545; 1600-1700.

Guatemala

TG2 in Guatemala City was heard on 6215 kcs. relaying TG1 one evening. Reports were requested, to be addressed to Director General of Electrical Communications. Mr. Oxrieder, who reports this catch, adds, "No, I didn't forget the letter after the number; calls given are correct."

Honduras

A. C. Tarr receives HRP1 on 6351 kcs and reports they sign off at 2200.

Hong Kong

ZBW now uses the 9525 kcs. frequency exclusively. (Tarr).

Hungary

From Mr. B. Marschalko, Engineer-in-Chief of the Hungarian station at Budapest, we received the new timeschedule for the shortwave transmissions from HAS3 and HAT4. HAS3, 15370 kcs, works on Sundays from 0900-1000 EST. HAT4, 9125 kcs, works on Sundays and Wednesdays from 1900-2000, and on Saturdays from 1800-1900. Reports on transmissions from these stations should be addressed to Radiolabor, Gyali-ut 22, Budapest.

Italy

A station has been heard announcing as "Radio Milan," but it is believed that it is located in Barcelona, Spain. See listing under "Spain" for further details.

Japan

The Japanese Embassy in Buenos Aires informs Manuel Barbera that JVN and JVJ broadcasts daily from 1600 to 1700 EST, in English, the programs being addressed to North and South America. The transmissions open with announcements in English and Japanese; news is given at 1605 in English. At 1615 Japanese music is played and at 1640 the news is read in Japanese. Programs terminate with the Japanese National Anthem, Kimigayo.

A good catch for DXers is J2AA, the Haneda Airdrome, Tokyo. It can be heard every night from 0200-0600, EST, giving weather reports. Two frequencies are used, 6500 and 9840, usually alternating from one night to the next. When on 9840 they frequently relay JVN. (Tarr).

Kenya

The Nairobi station, VQ7LO on 6059 kcs, is heard five days a week (daily except Saturday and Sunday), from 0545 to 0615. (GCDXC).

Martinique

"Radio Fort de France," Martinique, is reported by Wm. Buchanan on 9435 kcs, badly QRM'd by COCH.

Time Conversion Table

The time given throughout RADEX, unless otherwise specified, is Eastern Standard by the 24-hour clock. Our chart this month shows Mountain Standard Time converted to the EST 24-hour clock, and GMT.

MST	EST 24-hr. clock	GMT
10 p.m.	0000	0500
11 p.m.	0100	0600
Midn't	0200	0700
1 a.m.	0300	0800
2 a.m.	0400	0900
3 a.m.	0500	1000
4 a.m.	0600	1100
5 a.m.	0700	1200
6 a.m.	0800	1300
7 a.m.	0900	1400
8 a.m.	1000	1500
9 a.m.	1100	1600
10 a.m.	1200	1700
11 a.m.	1300	1800
Noon	1400	1900
1 p.m.	1500	2000
2 p.m.	1600	2100
3 p.m.	1700	2200
4 p.m.	1800	2300
5 p.m.	1900	2400
6 p.m.	2000	0100
7 p.m.	2100	0200
8 p.m.	2200	0300
9 p.m.	2300	0400

For times throughout the entire world consult the RADEX Time Converter.

Mexico

Two Mexican stations are heard working each other often at about 2100 EST. One is on 6710 and the other on 6720. Anthony Tarr requests the assistance of readers in identifying these strangers.

XBA, working on 6977 kcs, is operated by the Servicio Meteorologico Mexicano, at Tacubaya, D. F. Their schedule is generally 2245 to 2305 daily. (Meyer).

XEBM, Mazatlan, 15440 kcs, "El Pregonero del Pacifico," relays XELB, about four nights a week from 2000-2230. Address, Apartado 50. An interval signal of four chimes is used, and they sign off with a selection called "Quimbamba." (Tarr).

XEBQ, Mazatlan, 6030 kcs, "La Voz del Pacifico," also uses an interval signal of four chimes, and signs off with the "Luxemburg

March." They work with 50 watts power, daily from 2000 to 2400. Their address is Apartado 95. (Tarr).

XEBR, Hermosillo, has been heard on 11830, relaying XEBH, between 2300 and 2400 EST, by Sgt. A. W. Brummond, Box 56, Fort Douglas, Utah. Anthony Tarr reports them on 11820 with an R9 plus signal, from 2100 to 2400. 150 watts is used. The interval signal varies . . . it may be four chimes, either up or down the scale, or five chimes in varying sequence. At 2200 bugle calls are sounded, followed by news bulletins in Spanish. The address is Apartado 68.

XEBT, Mexico City, 6000 kcs, Apartado 69-44, transmits daily from 0800 to 0100. This one kilowatt station uses a cuckoo call for an interval signal, and signs off with Liebestraum.

XECR, Mexico City, the Mexican Government station, works on 7380. Programs are broadcast on Sundays only, from 1900 to 2000 EST, with 20kw. in the aerial.

XECU is no longer on 6115. Mr. Tarr says this Guadalajara station has moved to 6075 and uses a train whistle for identification, transmitting programs daily from 2000 to 2330. Reports are to be addressed to Av. Hidalgo 579.

"XEDQ is wandering around the dial like a drunken sailor," says Anthony Tarr. They have been heard between 9445 and 9480 kcs. Their four chimes are played in descending scale. The programs of XED are relayed daily from 2000 to 2400, signing off with "Jarabe Tapatio." Address, Apartado 197.

XEFT, the 20 watt Veracruz station on 9505 kcs, concludes their programs with the "Vals Poetico." Their address is Av. Independencia 28.

XEPW announces its frequency as 6130, but it is heard between 6110 and 6120, and occasionally goes as high as 6125. (Oxrieder).

XEWI, 11900 kcs, Apartado 2874, Mexico City, works on Monday, Wednesday and Friday from 2100 to 2400 and on Tuesdays and Thursdays from 1930 to 2400, with 250 watts power.

XEUW signs off with "La Golondrina," and programs are broadcast daily from 2000 to 2430. Their address is Av. Independencia 98, Veracruz.

XEUZ, "National Broadcasting Co. of Mexico," in Mexico City, works on 6120, relaying the programs of XEFO. Their programs, radiated with 5 kw power, are heard daily from 1800 to 0300, except on Sundays, when they sign off at midnight. All reports should be addressed to broadcast band station XEFO. They wish all listeners to become members of their radio friendship club. (Oxrieder; Tarr).

Netherland East Indies

YDE2, Solo, Java, on 4810 kcs, commences broadcasting at 0600 EST, when classical orchestral music usually is played. A little bit above them, on 4860, a Japanese 'phone station can be heard. (Tarr).

Netherlands

Experimental station PCJ has been transferred from Eindhovon to Huizen, Netherlands, and reports regarding reception are to be addressed to PCJ Studio, Hilversum. The revised broadcasting schedule for this station is now: Tues. 0430-0600 and Wed. 0800-1100 EST on 15220 kcs. On 9590 kcs. the programs are radiated on Tues. from 1330 to 1500 and on Wed. from 1900 to 2200 EST.

Norway

The operators of LKJ1, Jeloy, advise that the power will be raised from 1 to 5 kilowatts sometime this year. The Norwegian National Program is relayed every day from about 0500 to 0800, on 9530, and from 1100 to 1700 on 6130 kcs.

Alan H. Graham in the Australasian Radio World reports that in

the near future a number of new Norwegian transmitters will be on the air, including the following: LKC (9.5), LKD (9.5), LKE (9.5), LKJ (9.5), LKL (6), LKQ (11), LKU (11), LKV (15), LKW (18), LKX (18) and LKZ (21). The number in parentheses indicates the frequency band in which each station will be found.



Lucia Graeser has won a regular place as soprano soloist of the Sealtest Saturday Night Party heard weekly at 8 pm over the NBC-Red Network. Baritone Donald Dickson is often heard with her in duet numbers.

Panama

HP5I, the new station in Aguadulce, "La Voz del Interior," varies in frequency from 11896 to 11900 kcs. Broadcasts open and close with a typical native Panamanian song, "El Tambor de la Alegria," according to a card received by R. B. Oxrieder. Three notes on a gong on the hours and half hours help to identify the station. The operating schedule is from 1930 to 2130 EST.

"A new station on my dial is HP5I, on 11895 kcs," reports Samuel Meyer. "This station is inter-

ferred with by XEWI early in the evening. Incidentally, Aguadulce is a seaport on the western coast of Panama, with a population of 21,500."

Peru

We are indebted to Sr. F. Pardo de Zela, Consul General del Peru, 21 West St., New York City, for an official list of the Peruvian shortwave stations. This list, prepared by the Department of Radio of the Government of Peru, is accepted as authentic and our indices corrected in accordance with it, although it is a fact that most of these stations operate on frequencies varying more or less from their assigned channels.

OAX1A, Chiclayo, listed as 6150 kcs, actually works on 6164. They sign off at 2300. (Oxrieder).

OAX4D, Lima, is now on the air Wednesdays and Saturdays from 1900 to 2330.

All our readers report OAX4J, "Radio Internacional," but the government list gives this as OAX4I. This Lima station, 8350 kcs, works daily from 1200-1400 and 1800 to 2400, concluding their programs with the Peruvian National Anthem. An unusual amount of American phonograph recordings is played during the programs. (Oxrieder).

OAX4P, Huancayo, has moved to about 6000 kcs, no doubt to avoid interference from CXA4. Their programs commence at 1800.

OAX4Z, "Radio Nacional," Lima, relays OAX4A, signing off at 2330. (Oxrieder).

The owner of "Radio Universal," OAX5A and OAX5B, Ica, Peru, in a letter to our South American representative, states that his stations were off the air for a few days on account of repairs, but now they are back on their regular schedule, which is daily from 1200 to 1600, and 1900 to 2300, EST, and on Sundays and holidays from 1200 to 1600

only. The present frequency is 11796, but application has been made for an additional transmitter to work on 6000 kcs.

Mr. Oxrieder believes that the shortwave call of the Ica station is OAX5B, but it is given in the Peru list as OAX5A and the "B" call is on the broadcast band. The assigned frequency is 11800, but they move around between 11796 and 11807 kcs. The announcer says "La Voz de Ica."

Portugal

Weekly program folios from CSW, Emissora Nacional, Rua do Quelhas 2, Lisbon, disclose that they operate with a power of 5 kw, relaying but a small part of the program of their 629 kcs broadcasting station, the latter with a power of 20 kw. Operating hours for the s.w. station are daily, 1200-1800, EST, on 11040. During the last two hours of this transmission Aerial No. 2, directed towards Portuguese Colonies, is used. Programs are radiated on 9940 kcs. with Aerial No. 1 directed to Brazil, from 1800 to 2000. CSW has also been reported on 11840.

Siam

The Bangkok aircaster, HS8PJ, 19.020 megs, is well-heard in Detroit on their Monday transmissions. This station signs off at 1000. (G. K. Glass).

Spain

A "Phantom" station is reported by our Buenos Aires correspondent, announcing as "Radio Milan," claiming that it is the "Stazione del Partito Comunista Italiano." It is heard daily from 1715 to 1815, EST, on 10430 kcs (some reporters give 10650 as the frequency). The announcer begs the listeners to excuse them for not being able to give their exact location, for obvious reasons, but asks them to write to a certain address in Paris. It is believed this station is located in Barcelona.

Spanish Morocco

Radio Guardia Civil, Tetuan, Sp. Morocco, is heard on 6530. (Oxrieder).

Straits Settlements

"My best catch of the year has been ZHI in Singapore, heard on approximately 6000 kcs at 0730, giving news bulletins. It was not a strong signal, but as good as could be expected. They were still on the air at 0800." (A. C. Tarr).

Surinam

A station believed to be PZH, Paramaribo, was heard on 6788 kcs, speaking Dutch and Spanish, with an occasional English announcement. Reception was between 2000 and 2045 EST. (Oxrieder).

Switzerland

Jerome Roberts, 1573 Packard Ave., Racine, Wis., has a card from Geneva which gives the frequency of HBL as 9345 and 9595 kcs.

An announcement was heard from the League of Nations stations that their frequencies have been changed to HBP 11402 kcs, for South America, and HPL 14535 kcs for North America. It was also stated that in future their programs would not originate in Geneva, but in Basle.

Tahiti

FO8AA in Papeete, using a power of 200 watts, can be heard on 7100 kcs every Tuesday and Friday night from 2300 to 0045 or later the following morning. Although badly QRM'd by American CW amateurs they put a good signal into Seattle. Programs consist chiefly of selections by Hawaiian guitars and group singing. (Tarr).

Union of South Africa

ZTJ, Johannesburg, is on 6097 daily from 2315 until about 0015, except Saturdays. (GCDXC).

United States

The General Electric Co. has applied for a construction permit for a new international station to be

located near Belmont, Calif. The frequencies of 9530 and 15330 kcs are requested, as well as 20 kw power. The purpose of this application is to obtain further use of these channels which are now licensed to W2XAD and W2XAF at Schenectady, in order that satisfactory transmission may be made to the Far East.

The languages used regularly by W9XF, when signing off, are Russian, Japanese, Spanish, French, Swedish, Italian, German and English. (Weyrich).

Uruguay

Almost as soon as CXA2, Montevideo, came on the air, it was forced to discontinue broadcasting, due to some difficulty with the government. It was licensed for 6000 kcs. with 500 watts.

Venezuela

YV1RG. "Radio Valera," has moved from 6345 to 6225 kcs, but claims its frequency as 6230. (Oxrieder).

"I received a verification from YV1RH in Maracaibo, Venezuela," contributes A. E. Blick, 125 Tappin Ave., Toronto, Ont. "Every Thursday from 2200 to 2245 this station reads letters, thanks those who have written and invites others to write to them. From the verification card I learn that they relay YV1RF, 1120 kcs, and the owner is Nicolas Vale Quintero, Apartado 261. YV1RH is on 6360 kcs."

One of the best of the new stations is YV1RI, according to Samuel Meyer, Jr. "This station uses a frequency of about 6205 and has a good R9 signal, rivalling COCH in volume," he writes. YV1RI, Coro, claims to be on 6210 but is actually on 6205. (Oxrieder).

A letter from YV1RL to R. B. Oxrieder gives the following data: YV1RK, 1250 kcs., is not yet on the air. YV1RL, 5930 (but actually on 5937), with 300 watts in the antenna, employs the slogan "Ra-

dio Popular." The opening and closing selection is the "National Emblem March." Announcements are made every fifteen minutes in Spanish and every half hour in English. The owner is Mr. Jose A. Higuera M, a young and enterprising business man, P. O. Box 247, Maracaibo. Programs are radiated on weekdays from 1130 to 1330 and 1700 to 2200, and on Sundays from 0900 to 1500. This is Maracaibo time, which is 13 minutes 16 seconds faster than EST.

Strangers

"I heard a Cuban several times on about 12.5 megs. No call letters were heard but a bugle call was heard, a wedding march on an organ, and the location was given as Havana." Ollie A. Landgraf, 97 Park St., Chilton, Wis., would appreciate the help of our readers on this problem, and also would like to know what station he heard on 10.56 megs. between 1800 and 2300 EST, announcing in Spanish.

A mysterious station on 10430 kcs. is heard nightly by Anthony Tarr of Seattle, commencing their programs at midnight and signing off anywhere between 0030 and 0105. Announcements are made in a slight English accent, when readable, but generally the signal is very fluttery and hard to read. Once the announcer said, "This is shortwave station . . ." and at another time evidently it was being used as a commercial 'phone, for I heard, "OK, thank you, good bye." Music has been played at times, but sometimes the carrier is on the air for long periods without being modulated.

Another mystery station is reported by Mr. Tarr, this one on 12060 kcs. They are heard at 2245, when a man and a lady are heard talking, sometimes in French, sometimes in another language, believed to be Russian. After midnight they have been heard using inverted speech,

and they remain on the air until 0130 at least, as they fade out at about that time. Code station OXR interferes with it continuously.

Correspondents

Anthony Tarr, 909 W. Lee St., Seattle, Wash., wishes to correspond with SWL's.

"Please put my name in your columns for exchanging SWL cards," Wm. Buchanan, 189 Park St., Sydney, N. S., Canada.

"I would be pleased to hear from anyone using a Zenith 8-tube 1937 table model receiver. My best catches on this set have been JZJ Tokyo 11800 kcs., JZI Tokyo 9535, RAN Moscow 9600, several of the German stations, PCJ, 2RO, EAQ, Daventry, TPA4, Prague, ZBW in Hong Kong, Australians, Javans, all the Cubans and many other stations." Jerome Pickard, General Delivery, Dodge City, Kans.

"I would like to exchange SWL cards. I have been DXing for a year and am interested in the 'phone amateurs." Norman Glover, 305 S. 8th St., Ponca City, Okla.

"I am interested in SW broadcast DXing, ham 20-meter 'phone and broadcast band. I will SWL 100% with anyone anywhere." Henry C. Hendrickson, Jr., Route 1, McGregor, Iowa.

"I wish to exchange SWL cards with other listeners. I will send out my SWL the same day that I receive one. Especially would like to exchange with foreign listeners." Ollie Landgraf, 97 Park St., Chilton, Wis.

Boake Carter, Philco radio news commentator, established a new record in March when he completed fifty consecutive months of broadcasting over a nation-wide hookup on the Columbia System. This is the longest continuous program on the Columbia chain at the present time.

The New TELEVISION

• • • By B. FRANCIS DASHIELL

THE new television has been freed of all mechanical and moving parts. No longer the thin whirring disc of Nipkow is needed to create pictures by television. It is to two men, Dr. Vladimar K. Zworykin, of RCA, and Mr. Philo T. Farnsworth, that the new electronic television owes its start. Their pioneer work with the cathode ray tube and its application to television has eliminated all mechanical scanning and reproduction.

We have learned that a picture or view must be broken down from its two dimensions to a single dimension—that of length. This is accompanied in *any* television system by splitting the picture into many fine horizontal lines. The lights and shadows of the image, as cut into strips by the lines, are converted into electric currents having pulsations proportionate to the degree of illumination along the line. The scanning disc, or other mechanical "spot-light" motion, as we have seen, has been necessary to break down the picture into lines. But now we have no moving parts whatever.

The scanning unit in the studio or the reproducer in the home receiver, does not possess a single mechanical moving part. A simple camera-like unit, placed upon a tripod, is all that is needed to televise any subject or image of a distant scene. It does not even possess a clicking shutter like the camera we know so well. The picture signals are put on the air simultaneously with their associated sound waves; and in the home a silent, reproducing tube recreates the image while a loud speaker gives forth the accompanying sound.

Electronic Television

What, then, is electronic television? Many of us will feel that it must be some strange, mysterious force, so complicated in nature that none can understand its operation. And, perhaps at first glance it does seem to be so. But, if one chooses to study the subject diligently, the theory and practice of electronic television can be mastered by anyone. The subject, however, can only be discussed briefly in these papers, yet the reader will be given a working knowledge of the new television which has come to stay.

Instead of scanning the subject by means of a swiftly moving spot of light, scanning is accomplished by a flashing cathode ray or beam of electrons. An electron beam is a narrow pencil of negatively charged particles of electricity moving with a velocity of 30,000 miles a second. Most of us are familiar with the cathode ray in the form of the X-ray. A cathode always is the negative terminal of an electric source. From it a flow of negative electricity, or electrons, pours out into the circuit.

Opposite the cathode we find the anode or positive terminal. In our radio tubes the filament is the heated element that directly or indirectly emits a flow of electrons. It is the cathode. And, because *unlike* electric charges *attract* one another, the cloud of electrons flies toward the anode or positively charged plate of the tube, and the flow of current is established in the circuit.

The Cathode Ray

But the cathode ray tube, however, shoots a ray or beam of electrons in one direction. This may be likened to a garden hose that directs

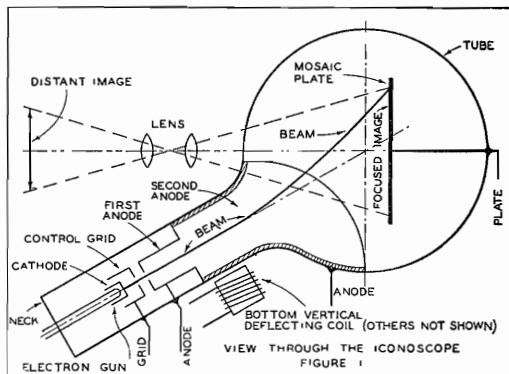
a stream of water at will. This ray is not only utilized to scan the image in the radio studio, but also to create the reassembled picture in the home receiver. Its movement is similar to the spot of light of the old television systems, for it sweeps across the image or reproducing screen in a series of instantly appearing lines.

We have seen that these lines should be close together if the picture is to have good definition. In printed pictures, such as the half tones in this magazine, the picture is resolved into a large number of tiny dots placed in close rows. The definition is indicated by the number of dots and rows to the square inch. Finer pictures require a large number of dots and close lines. Similarly, in television, when we speak of 30, 60, 120 or 240 line definition, we mean that the reproduced image is composed of that number of lines. And each line is broken up into several hundred "dots" or elements of illumination. For sufficient detail at least 240 lines is now regarded as the minimum.

When 360 lines across the image are used we obtain excellent definition, but it is now agreed that 441 lines provide perfection of reproduction, almost comparable to a photographic enlargement. The size of the reproduced picture usually is in the ratio of 3 to 4, and this is called the "aspect ratio." A succession of at least 24 of these complete pictures or frames each second is satisfactory. However, by a method known as "interlaced scanning," 48 frames a second can be obtained with an absence of flickering. All this requires many changes in the intensity of the beam shot from the tube; approximately 2,000,000 a second when a minimum number of lines is used.

Different Systems

In the United States three sys-



tems of modern electronic television are being developed in a big way. They are rather similar. Both the Farnsworth systems and the Philco Radio and Television Corporation appear to be co-operating. But the RCA system, invented by Dr. Zworykin and associates, stands alone. In Europe, where television is turning an inquiring eye toward America, the Farnsworth system is being tried by Baird and Fernseh, while RCA has patent connections with Marconi—E.M.I. and Telefunken.

It should be obvious to the reader that a brief explanation, such as this, cannot describe *every* television system. However, electronic television is basically uniform. They all use the cathode-ray tube at the transmitting point. RCA calls this tube the "Iconoscope," after the Greek word "icon," meaning image, and "scope," meaning "observe." It becomes, therefore, an "image observer." The Farnsworth engineers call their tube an "Image Dissector."

A second cathode ray tube is utilized at the receiving end. It reproduces transmitted pictures or scenes directly before the eyes of the observers at the receiver. In the RCA system this tube is called the "Kinescope," which means "observe motion." Likewise in the Farnsworth scheme, the receiving tube is given the name of "Oscil-light." Certain forms of the latter tubes are found in radio service shops as "oscillographs," and in

radio receivers as visual tuning units or "magic eyes."

The "Iconoscope"

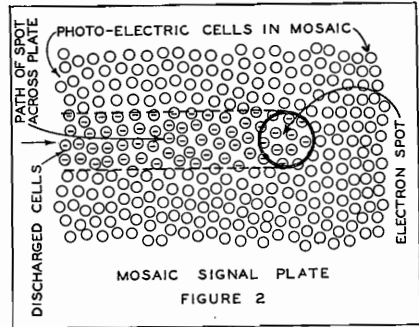
So let us, then, discuss the Iconoscope as an example of cathode ray tube and electron gun. It has taken ten years to bring this "electric eye" to its present state of development. The light-sensitive cell has made possible the Iconoscope. Then, in addition, the method of controlling the flow of electrons from the cathode, by a device known as the "electron gun," made possible not only the Iconoscope but also the Kinescope.

The Iconoscope is a large glass tube, 18 inches long and 8 inches in diameter at the bulge of its spherical body. It is evacuated of all air. It has a drawn-out stem, and within this neck is fitted the electron gun. A section through the Iconoscope is shown in Figure 1. In the sphere is a signal plate, supported so as to face the open end of the "gun," but mounted at an angle to it.

The important feature of the Iconoscope is its light-sensitive unit. This is commonly referred to as the "mosaic." This plate, about 3 by 4 inches, consists of hundreds of thousands of very tiny photo cells. The image to be transmitted is optically focused on this plate in the same manner that a photographer sees the picture on the ground-glass plate of his camera. A set of lenses are placed in position so as to focus the picture sharply upon the mosaic signal plate. The inclined position of the plate is necessary so as to allow the optical projection of the scene upon the mosaic. In this way any outdoor scene can be concentrated on the plate.

Mosaic Signal Plate

The mosaic plate consists of a very thin dielectric or insulator. Mica is excellent for this purpose. The back of the dielectric is coated



with thin metal to which one contact of the Iconoscope is made. The face of the mica is coated with a photo-electric element, such as silver oxide and caesium. When dry and evaporated this material consists of a smooth and glossy mass of minute silver globules that are rather uniformly distributed over the surface, yet they are completely isolated from each other. See Figure 2.

Each globule becomes one plate of a tiny electric condenser. The mica dielectric separates these from the second plate or sheet of metal on the back. Every one of these tiny condensers is capable of being electrically charged and discharged. These photo cells assume individual charges, depending upon the degree of illumination falling upon the plate from the lights and shadows of the optical image to be transmitted. If we discharge these condensers we obtain an electric current that is in proportion to the energy stored momentarily in the condensers. This, too, is in proportion to the illumination from the image in focus on the signal plate.

Passing a conductor across the plate, such as ruling it in fine parallel lines with a metal point, will scan the mosaic and its optical image, and discharge the condensers or cells so as to obtain an electric current that fluctuates in unison with the degree of light on each cell. But such mechanical ac-

tion is impracticable because it is slow and awkward.

The Scanning Beam

The charges on the cells or tiny condensers can be removed or discharged by scanning the signal plate with an electron beam shot from an "electron gun" located opposite the mosaic plate. See Figure 2. The gun is designed to emit a cathode ray having a diameter equal to the width of one line used for scanning the picture. If the plate is 3 inches high, this means that when 441 scanning lines are drawn across it, the diameter of the electron spot will be about $3/441$ of an inch.

This beam of electrons scans the mosaic plate in horizontal lines, from left to right, in the same manner that the reader scans the pages of this magazine. Its force and impact may be likened to a garden hose held in the hand so the stream of water from the nozzle will trace wet streaks across the side of a wall, beginning at the top and ending with the final parallel mark at the bottom. The electron beam moves across the plate and discharges all the charged cells that it touches along the line of travel. See Figure 2. When each cell has its individual charge removed there is a tiny impulse of current that is directly in proportion to the degree of illumination falling upon it.

When the beam reaches the edge of the plate at the right it quickly returns to the left and then traces a second line directly below the first. Then it returns again very quickly. As soon as the last line is traced across the bottom of the mosaic plate the beam is returned to the top to begin the second frame.

The "Electron Gun"

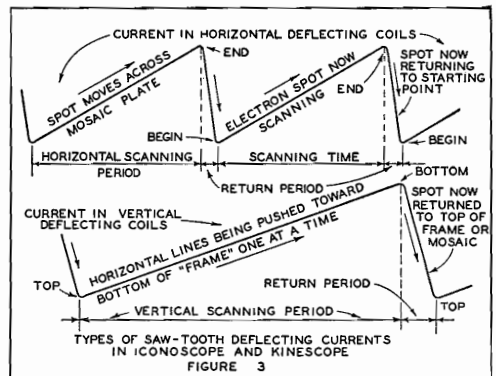
The term "electron gun" is quite new. It refers to that part of the cathode ray tube which emits the electron beam. The "gun" focuses and generates a spot of electrons,

either for scanning or for reproduction purposes. It has a width of one scanning line, usually about .008-inch in diameter. The gun has an indirectly heated cathode with a flat electron-emitting surface located at the top. See Figure 1. The cathode is placed in front of an aperture in a controlling element or grid. A negative bias on this grid will repel the beam or ray and extinguish it entirely. Or it varies the intensity of the flow of electrons in the Kinescope so that all shades of light will be created to reproduce the original image focused in the Iconoscope.

Beyond the masking aperture that shapes the beam is an anode. It has a positive charge, and tends to accelerate the speed of the negative electrons from the gun. Part of the inner surface of the tube is given a metallic coating so as to provide a second anode, and that tends to speed the beam still more. As a result of the electro-static field that exists in the space between two anodes having different potentials, there is created a sort of electric lens that helps to direct and focus the beam. This is a new branch of physics, and *electron optics* and the *electronic lens* are newcomers in the field of television.

Deflecting the Beam

It has long been known that a stream of electrons, whether flow-



ing silently or appearing in the hot, brilliant path of an electric arc, can be deflected from its normal direction by an external magnetic field. Bring one pole of a magnet close, and the ray will curve away from its straight path. The deflecting motion of the electron beam for scanning the mosaic signal plate of the Iconoscope or the viewing surface of the Kinescope, or kindred tubes, is accomplished by an electromagnetic or electro-static field. Four coils are placed about the neck of the tube. The upper and lower coils control the vertical movement of the beam, and the two side coils control the horizontal movement.

Electric impulses are fed into the two sets of coils. For instance, the coils that swing the beam across the plate while scanning horizontal lines, have "saw tooth" shaped electric currents flowing through them. See Figure 3. This current increases steadily (up the slope of one "tooth") and, as the magnetic field grows in strength, it pushes the electron beam across the plate from left (where no magnetic field exists) to right (where the maximum repelling effect is felt). Then (at the apex or point of the saw-tooth) the current in the coil drops suddenly back to zero (the bottom of the notch between the teeth) and the beam, freed of all deflecting pressure, flies back to its original starting point at the left of the plate.

At the same time, however, while the beam is passing back and forth across the signal plate, it is also being steadily pushed down toward the bottom of the plate by a similar type of "saw tooth" current flowing through the upper and lower deflecting coils. See Figure 3. When the current reaches full intensity at the zero or return point, the beam flies up to the top of the frame. Deflecting currents are obtained from tube circuits having

certain condenser capacities and established frequencies. The scanning or horizontal movement operates as high as 10,000 "saw teeth" (each representing one line) a second, while the vertical motion occurs 24 times a second, or one "saw tooth" (representing one frame) every 1/24th of a second.

The "Kinescope"

The Kinescope, or receiving tube, has an electron gun similar to that in the transmitting Iconoscope. But there is no signal plate. Instead, the upper end of the tube is about 10 inches in diameter, and permits of a picture about 6 by 9 inches to be reproduced. The flat end of the conical tube is covered on the inside with a translucent coating of zinc ortho-silicate phosphor. This provides a fluorescent screen that becomes luminous when struck with electrons from the gun.

The intensity of the electron beam from the gun is controlled by the grid aperture just as any radio tube is automatically controlled by the grid surrounding the cathode. But this intensity of electronic emission corresponds exactly to the degree of illumination falling upon the mosaic signal plate in the Iconoscope. The flying beam impinges upon the inner surface of the fluorescent screen which absorbs the electrical energy and thus emits light. And the many fine, horizontal lines, remaining visible on the screen for 1/24th of a second, reproduce the image that is being projected simultaneously on the mosaic of the Iconoscope studio camera at the broadcasting station. Since the fluorescent screen is very thin, a large portion of the light is transmitted outside the tube, and watchers gazing at the outer end will see the reproduced image.

The electron beam, sweeping the screen with 441 horizontal lines in 1/24th of a second, also reaches
(Please turn to page 51)

NOTES From The DX WORLD

• • • By CARLETON LORD

AS ANOTHER winter of DXing draws to a close, listeners in the Northern Hemisphere are turning from dial twisting to more seasonable interests. Headphones once more are relegated to the moth balls and the electric companies note the decrease in consumption of midnight oil.

Many DXers are not sorry to conclude their tuning activities for a few months, as the past winter was not kind to long distance reception. Early predictions of adverse conditions were fulfilled to the disgust of not a few static-drunk dialers, and attempts at real DX were blocked by weak signals and surges of atmospheric noises.

It was not a particularly good year for the midnight marauders and indeed it may be one to be remembered for its shortcomings, but we did have a lot of fun and most of us will be raring to go again in the fall.

And so, while there is a lull in actual tuning activities, the next few months offer an excellent opportunity to look ahead and make plans for the coming season. The DXer can well take advantage of the summer to follow up delinquent veries, check over his receiving equipment and, perhaps, erect a new aerial.

We of RADEX will as usual devote most of our time to preparations for next year. Possible improvements in make-up will be gone over in detail, ideas for new features will be discussed. The customary questionnaires will be sent to all North American stations, while the incoming data will be tabulated and made ready for the first fall issue.

Facing the radio clubs are a number of problems which should be



The "Human Chatterbox," Arlene Harriss, who threatens Floyd Gibbons' record as the fastest talker on the radio, is heard on Tuesday nights on the CBS with Al Pearce and His Gang.

discussed and settled during the off season. Some of these are simple questions of policy, while others are of considerable importance. All of them should receive the attention of members and officials alike.

Perhaps the most vital problem of all concerns the courtesy programs work. This has been a subject for discussion many times in the past and yet it remains one which today is more than ever in need of careful consideration. To say that the real future of organized DXing depends upon a satisfactory solution would not be a misstatement.

The question might have been let slide indefinitely but for the an-

nouncement last month that Emily Griswold would be unable to continue after this year as Operator of the ICCP Clearing House. This puts the problem squarely up to the radio club officials and it is for them to decide what course is to be followed.

The Clearing House has now been in operation for two winter seasons and it should now be possible to determine whether it has fulfilled the hopes of its sponsors. If it has succeeded in reducing the number of clashing special programs, then it has accomplished one essential purpose. If it has disclosed unsuspected weaknesses in the present system of club operations, it has been well worth the effort.

Should it be decided that the Clearing House system of scheduling programs leaves little to be desired, the clubs would do well to take immediate steps to insure its continuation. If necessary alterations and changes are apparent, then they should be put into effect. But the vital point is that some action should be taken, even if it is merely to renew the present agreement, select a new Clearing House Operator and make ready for next season.

It would be an easy matter just to let the question ride. DXing would then follow the path of least resistance and undoubtedly slide back to its former status of an unorganized hobby, replete with confusion and clashing programs. As things stand today, this would be DX suicide, pure and simple, and such a lapse should not be tolerated by those who have the interests of DXers at heart.

Co-operative Scheduling

In the January issue, Arthur R. Willis, of St. Thomas, Ont., put forth a suggestion which has met with the unqualified approval of many readers. He proposed that all Courtesy Programs Committees be combined into one organization which would function for the benefit

of all clubs. The members of such a combined committee would be assigned definite frequencies and it would naturally be impossible to have conflicting programs. As such, the scheme would thus eliminate the need of a Clearing House and might conceivably be the ultimate solution to the problem.

On the surface, the idea has many features to commend it, most important of which would be the reduction in the number of special programs during the course of a season. This would be a goal long advocated by RADEX from the standpoint of station and listener alike.

It has long been realized that the demands put upon stations have often been unreasonable. Program managers seldom can hope to grant requests for special programs from five or six different clubs, and yet to recognize one club brings additional demands from the others. Obviously, therefore, one central committee would reduce the demands upon each station and should materially increase the possibility of getting at least one special from a greater number of stations during the course of a season.

In the same vein, every station has the right to expect a reasonable response from each of its courtesy programs. By having its special broadcasts dedicated to all clubs, it would be assured of a potentially greater audience and a better response than on a dedication for a single club. Furthermore, with fewer programs to report, each listener would be more sure of getting off a card or letter of appreciation for each one heard.

Objections

Although no objections to the idea have been forthcoming as yet, it is not difficult to realize what they may be. As pointed out when the suggestion was first published, some clubs may protest that the scheme would rob them of their individu-

ality. That may be so, but might not the advantages to be obtained compensate for this loss?

Perhaps the most serious flaw would be the elimination of a certain degree of friendly rivalry between the clubs. While program scheduling is by no means the most important activity of a radio organization, it does provide the competition which is often necessary for the best interests of the hobby. Curtailment of this rivalry might do considerable harm.

These are, however, questions which must be discussed by club members and officials. Unquestionably they must receive their share of attention and, as we started out to say, the coming summer months provide an excellent opportunity to go over them in detail. We hope that some definite policy will have been decided upon before the fall season rolls around.

Dialing South America

"How are chances of giving us a revised list of the BCB Brazilians?" asks E. L. Peters, Box 65, Westport, N. S. "Many changes evidently have taken place and it is almost impossible to determine what station is being heard on a given frequency. PRA9 is using 1220 kcys., while PRE8 has been on 980 since about September 1st. There seems to have been a general reallocation of frequencies in that country and the identities of the others are almost as mysterious as your contest was supposed to be. All SA's on the broadcast band have been very active recently and the other night, between 1930 and 2030 AST, I found no less than 46 channels occupied by them. In arriving at this total, I checked all frequencies where Spanish was heard and eliminated all obvious Cubans and Mexicans. Two unlisted Colombians have recently been logged—HJ3ABX, Bogota, 1050 kcys, and HJ1ABJ, Santa Marta, 1150 kcys. Both of these announced

in English. The station on 1285 kcys is in Rio de Janeiro, Brazil, but I don't know his call. CX30 is the one which is heterodyning KSL on 1130. He runs until 0200 AST on Sundays, 0100 AST weekdays. His clock strikes on the hour and the time is one hour earlier than AST."

(A completely revised list of the South American broadcasting stations will be found in this issue of RADEX. Ed.)

"While checking over your February issue," reminds Richard W. Fales, Intervale Ave., Roslyn, N. Y., "I notice that you have left out a Cuban station which is being heard on 1160 kcys. This is CMKG of Santiago, where they are located in the Bacardi Building. Although I do not know the power, they operate daily from 1700 to 1800 and 2130 to 2230 EST and on Sundays from 0000 to 0100 EST. They operate in conjunction with their short wave station COKG on 6.20 megs."

"On March 3rd I completed my second year of DXing," reports Arthur Seidenschwartz, 2104 N. 64th St., Wauwatosa, Wis. "At that time the log stood at 653, but I am hoping to boost it a bit before the end of the season. I have a new Scott super and some of the better catches include KPPC, KGU, LR1, LR4, LR5, LS2, LS4 and 1YA. I also was able to tune in CJRM at noon. CMCD has been heard consistently of late between 942 and 945 kcys, while KFOR comes in strong Sunday mornings after 0100 EST with programs of the Mutual network."

Weather Spoils Reception

"As far as this part of the country is concerned," notes Robert Hough, 234 E. 63rd St., Apt. 4A, New York City, "the weather has been terrible. Stations which are usually easy to hear did not come in at all. Although I have received many Europeans during the past few years and as many as nine French stations in one night, not a single TA could be



Felix the Cat is not very distinct in this picture. This is the way he looked when transmitted with the early 60 line definition television, which has now been abandoned for the much improved 441 line system.

heard the past month. During the nights of the contest, such stations as KFI and KPO did not come in at all and KNX, while slightly better, was still very poor."

"For some unknown reason," states Anthony C. Tarr, 909 W. Lee St., Seattle, Wash., "I haven't been able to hear any East Coast stations this year. On the three nights of the Mystery DX contest, although I stayed up all night, I was unable to hear a single contest station outside of Washington, Oregon and California. On the first morning, however, I heard 2YA, 4QN, 5CK, 1YA, 2CO, 2NR, 3YA, 2BL, 4YA, 3GI, 2GZ, 2WL, 4BH, 4BC and 4AK. On the second morning, static was at a high level and the only new station heard well enough to report was 2UE. The third morning found conditions at their best and, in addition to the stations noted above, I heard 7NT, 5CL, 4QG, 2UW, 2CH, 3WR, 2KY, 2HD and 4MK. And yet on all three

mornings, not a single Eastern station could be heard for the contest. Figure it out if you like; I can't."

"Although my broadcast log stands at but 371," offers Harold Heckart, Drakeville, Iowa, "I expect to boost it to 500 before the end of the season. Some of the better catches to date include LR1, KGMB, KHBC, KINY, WPRP and others. I do not verify stations heard, as my DXing is primarily for my own pleasure and it is immaterial what someone else thinks of the probability of a catch."

On Getting Veries

"What's a fellow going to do about this verification system?" queries Jim Walker, Romney, W. Va. "You indicate in your listing the stations which will verify for return postage, yet just look at these which have not as yet done so for me: KSFO, WIP, KFAB, KSOO, WHN, WSAY, WPG, WHJB, WFBG and WLVA. Then you list the ones that aren't supposed to verify, and so far KDKA, KFRC, KSUN and several others have come through for me."

A number of readers have been complaining that WSAY was not living up to its announced promise to verify correct reports. William Vornkahl, Jr., Westport, Conn., decided to put WSAY in the WMFO-WJRD category and accordingly offered to print verie cards, which would be sent to all listeners who sent him a three-cent stamp and a correct report of a frequency check broadcast.

A recent NNRC bulletin, however, quotes a letter from WSAY which advises that a fire in the printer's shop destroyed the first batch of cards and that a second order is being run. Perhaps the cards will have been mailed out by the time this issue is released. At least, we hope so.

Regardless of the outcome, a word of thanks is due Mr. Vornkahl for his kind offer. And while on the subject of this voluntary monitor-

ing, thanks are also due Arthur E. Foerster, Carroll Weyrich and other DXers who have been issuing veries for stations which otherwise would have remained unconfirmed.

John H. Wheeler, 25 Denison Ave., Mystic, Conn., is of the same opinion and writes: "Orchids and roses to Arthur Foerster for his generous offer in the February RADEX regarding veries for WMFO and WJRD. DXing will surely live a long while with such fine fellows contributing their time and money for the benefit of others."

In the January issue, a reader reported that it was impossible to obtain verifications from KGKY, WMFO, WHJB, WJRD and KASA. At the time we remarked that verifications had been forthcoming from WMFO and WJRD. John E. Ott, 70-A Quad, Iowa City, Iowa, reports veries from KGKY, WHJB and WMFO and goes on to remark: "As I have been unable to verify some stations which are known to confirm reports, I have come to the conclusion that a person's success depends on the quality of his report and the chance that it will not be misplaced at the station."

"I have had very few stations which did not verify my reports," supplies Charles E. Roach, 816 N. 7th St., Camden, N. J., who also has verified WHJB and WMFO, "and I believe that the primary reason is that I send along a self-addressed, stamped envelope with my reports. All the station has to do is sign them and drop them in the mail."

It is now definitely known that WMFO and WJRD will not verify, but they have been taken care of by Mr. Foerster's generous co-operation. KASA makes no bones about the fact that it will ignore requests for confirmations, and listeners can only abide by that decision.

Bury Dead Veries

"I have always had a distaste for verifications from stations which

have been deleted or have changed their call," confides Julian Schaefer, 2036 W. 83rd St., Cleveland, Ohio. "Hence, I always throw them in the waste basket and report my log as having so many active stations verified. I was glad to note in the February issue that James Steel listed his catches as 'active stations.' Whoever he is, he is a man of my own heart. If some of the older DXers would subtract their deleted calls and veries, their totals wouldn't make the lists of the newer DXers look so small and would not tend to discourage the new listeners."

On the other side of the fence we find Moe Luff, 2039 Hughes Ave., Bronx, N. Y., who writes: "I think the best way to count verifications is by calls and locations, and to include stations which have been deleted or which changed calls. First of all, radio stations are required to announce call and location at regular intervals, so these two items go together. The station brings out a new letterhead or card if it changes either call or location, so why wouldn't that be a new verie to count? Certainly a DXer never had one like it before! And if the sta-



Felix sits around the NBC experimental television studio night and day, proud of the fact that he is the subject used most often for television experiments. He seems pleased at the clarity of this picture, transmitted by the improved 441 line system. The two pictures shown on this page show clearly the remarkable improvements that have been made in picture transmission.

tion goes out of existence, that doesn't alter the fact that it was once received and verified."

"Until this season," preambles Nancy Lee Saxton, 6039 Kenmore Ave., Apt. 44, Chicago, Ill., "I did all of my DXing in Joplin, Mo., where I lived for eight years. After listening here for a while, I find there is a great deal of difference in the locations. It seems to be very hard to get the small West Coast stations in Chicago, although it was formerly no trouble at all. Even so, I like this location much better—but then I would, as this is the old home town!"

Station Allocations

"In regard to your recent comments about station separation on the broadcast band," refer C. K. Koloa and William McCoy, Cayuga, Ind., "we believe that 10-kilocycles is not enough room between two adjacent channels. The modern receiver is not capable of separating stations as close together as they are today."

"In the event that the broadcast band is re-allocated," indicates Anthony S. Nichols, 204 N. Court St., Florence, Ala., "I think there should be two general classifications. In the first would be stations of 50 KW and up—and they should have a clear channel. All other stations should have no more than 100 watts—and they should be bunched together. At present, the stations with one, five and even ten kilowatts do not give good reception. Except in their own immediate areas, they interfere with one another—so why give them more than 100 watts?"

"Apparently the FCC uses a grab-bag system when selecting stations for various frequencies," complains Raymond C. Corbett, 619 Twelfth St., Sacramento, Calif. "They must reach in the hat and pull out a station and a frequency, regardless of consequences. For instance, KHUB in Watsonville and KROY at Sacra-

mento were assigned to the 1310 channel. When this took place, I began to feel sorry for the listeners who lived just outside these two towns. And now we find that the same frequency is going to be used by another new station in Santa Rosa. As all three are supposed to be daytime stations, there is no reason why they could not be assigned to one of scores of other channels where they would create no interference.

"KWG in Stockton has long been a favorite of local listeners, for it broadcasts many splendid programs. So the FCC decided to put KVCV of Redding on the same frequency, with the result that reception for valley listeners is ruined on both stations."

"After 12 years of using battery receivers, I have recently purchased a new 7-tube Stromberg Carlson AC model," announces R. A. Butts, Ellensburg, Wash., "and am fired with enthusiasm as I start my 13th season. In less than a month, this set has pulled in 326 stations, of which 17 were on short waves. Total mileage for this group is 512,983, which means an average of about 1573 per station. To reach my goal of 500 stations for the season, I still have to log 192 stations before spring and have no doubt but what I'll do it. Checking over my log for the past 12 years, I have tuned 602 different stations on the broadcast band with a total mileage of 1,014,439 and an average of 1685 miles per station."

Logs New Station

"On the morning of February 22nd," greets Howard E. Ziegler, Jr., 2 Cedar Lane, Merion, Pa., "I tuned in WFTC, Kinston, N. C., during a terrific storm. Although the static was very heavy, they came in very well, except for occasional fading. They verified my reception promptly for return postage. You haven't had

that information in your lists, so I just thought I'd let you know."

"My present log stands at 392 stations heard and 235 verified," avers Harold Tear, 1317 Thomas Ave., Roanoke, Va. "My best catches are WEXL, KGER, KTAR, KOL, KFVD, KFAC, LS2, CMCg, XEB, CMBY, XEZ and NAA. I am on the artist bureau of WDBJ of this city and have two programs a week. All of the station equipment is by RCA and they have just built beautiful new modernistic studios. The antenna is a 312 foot vertical radiator which puts a good R9 signal into most parts of Virginia and North Carolina."

"Will you advise your readers that we verify correct reports for return postage?" asks John Richards, Program Director of KEUB, Price, Utah. "Our regular monthly frequency check takes place on the second Monday of the month, between 0450 and 0510 EST. We have daily Transradio news broadcasts at 1145 and 1545 MST."

"Having never worked the frequency tests," advises Leonard Krier, Wheeler, Kans., "I made my first attempt between 0100 and 0400 CST the second Tuesday in March. During this period, I was able to hear 30 of the first 40 stations scheduled. The 1200 and 1210 channels were not cleared until after 0200, while 1310 was not cleared at all. WBNS and WCLO did no broadcasting at all—just let the transmitters run and gave their call letters several times. My object was to try for KGBU, but XERA and XENT blotted out this frequency."

When WRVA joins the CBS on June 29, WMBG in Richmond will affiliate with the NBC. WMBG has been granted permission to increase its power from 100 to 250 watts nights, and from 250 to 500 watts daytime.

Tuning the AMATEURS

• • • By B. L. Ahman, Jr.

Some very interesting letters have been received this month from our readers. Especially interesting was one sent by Elmer Rahmes, operator of W8JFC. He states he is primarily interested in 10-meters, and on reading his list of over 200 calls worked outside the United States our desire is whetted for 10-meter exploration.

We have been informed, via Nick Hock, that VP6TR states there are only five of the ten amateur stations in Barbados licensed to operate. Only VP6YB is licensed for 20-meters, and the other four for 40 meters. They are VP6TR, VP6MY, VP6NW and VP6FO. Unlicensed 'phones are 6MO, 40 cw and 20 'phone; 6HA, 40 only; 6WD, 40 only, and VP6RB and 6LN.

There are several Hong Kong stations, and one or two Japanese on 20 meters. Tune carefully and examine every suspicious noise. These stations come in at the same time as the Australians. In connection with this, we might say that usually QSL cards are received much more quickly from the hard-to-get stations, because easily heard stations are always swamped with mail and consequently are slow in replying.

Any number of Australian stations should be heard on any decent morning from 0230 until dawn, EST. If a "shush" or a weak voice is heard, one should leave the dial set, for the VK's fade back and forth very rapidly, sometimes from R0 to R9 within a second.

Apropos of nothing, the month's prize for amusing incidents goes to the Mexican ham with an American op, and the Venezuelan who hooked up in this fashion:

American: CQ, CQ, calling CQ.
Venezuelan: Llamada general, llamada general. How are you, OM?
American: OK OM. Can you speak English?

Venez.: No, I only know Spanish, no other English words.

American: Well, I can't speak Spanish.

Venez.: No speak English.

American: Well, then there's nothing to talk about. 73's OM.

Venez.: 73's. Muy buenos noches.

American: Calling CQ 20, calling CQ, CQ.

Venez: Llamada general, llamada general . . .

Some Rare Catches

Two recently widely heard amateurs on twenty from a rare country to log are:

VU7FY, O. A. F. Spindler, Coromandel P. O., Maysore State, South India.

VU2CQ, M. Mozoomder, Golab, Mohal, Flat 36, Tardeo, Bombay 7, India.

Carroll Weyrich says that the Hollanders and Belgian 'phones are packing an R9 wallop right now. Many have been heard recently.

The new Virgin Island ham, K4ENY, is located at the Marine Base at Charlotte Amalie, and in case you haven't heard, Charlotte Amalie is the new name for the city of St. Thomas.

"I have logged 61 different countries during the seven weeks I have had my new RCA 10-tube receiver," offers James L. Steele, Denville, N. J. "Twenty meters interests me particularly as DX can be had at all times. In this band 41 nations have been definitely logged, with Australia being the most frequently heard. All told, I have had 68 of the VK hams, the best being 2AZ (25 watts), 3AL (always an R9 signal), 4RG, 5AI, 6MW and 7NC. Other DX includes PK1MX, FT4AG, OE1CM, OQ5AA and VU2CQ. I would be in-

terested in hearing from other 20-meter fans who use an RCA receiver."

Most people DX for two reasons. First, to hear as many distant stations as possible, and second, to verify them. That being the case, the amateur bands should be considered as the productive field of the radio spectrum, for in these bands it is possible to hear stations in the most remote parts of the world. Amateur stations exist in some places where broadcasting stations never will be located. Baffin Land, Fanning Island, Gilbert and Ellice, Rarotonga, Tibet, Liberia and many other far-away places are to be logged. And verifications are nearly always received!

James B. Rowe, 833 1/2 Main St., Conneaut, Ohio, showed us his log of 20-meter amateurs heard for three evenings. The most consistent stations heard were VP9R, Bermuda, TI3AV Costa Rica, TI2DC Costa Rica, PA0WV, Amsterdam, Netherlands, G5JA Cambridge Great Britain, YV5AA Caracas, Venezuela, VO1I, St. John's, Nfld., G5NI, Birmingham, Gt. Britain, EI2J in Dublin, Ireland, and VE5TV in Baffin Land, Canada. All of these stations are received prior to 2300 EST nearly any evening, on the low frequency end of the band. Mr. Rowe's list included, in addition, several other Costa Ricans, many Cubans, Mexicans, Canadians and west coast United States stations.

Mr. H. Wilcox of Los Angeles airmails that he wants more news about foreign DX. Well, that's what we are here for, but we would like to hear from all the 20 meter addicts so we can get a good picture of amateur reception throughout the entire country. Special thanks this month go to E. Roberts, G. C. Shaffer, Bill Oldenwalder, NNRC and the UDXC, the latter two for bulletins on ham news.

Frequency Checks

(Continued from inside cover)

3:10-3:30	KLCN 1290	Blytheville, Ark.	4:40-5:00	KHSL 950	Chico, Calif.
	WPAX 1210	Thomasville, Ga.		KRRV 1310	Sherman, Tex.
3:20-3:40	KFPL 1310	Dublin, Tex.	4:50-5:10	WTMV 1500	East St. Louis, Ill.
	WKBN 570	Youngstown, Ohio		KERN 1370	Bakersfield, Calif.
	WRDW 1500	Augusta, Ga.	5:00-5:20	WHBF 1210	Rock Island, Ill.
3:30-3:50	KGBX 1230	Springfield, Mo.		WTRC 1310	Elkhart, Ind.
	WELL 1420	Battle Creek, Mich.	5:10-5:30	KTRB 740	Modesto, Calif.
	WQBC 1360	Vicksburg, Miss.		WVAE 1200	Hammond, Ind.
3:40-4:00	KFXJ 1220	Grand Junction, Colo.	5:20-5:40	WIBM 1370	Jackson, Mich.
	KPLC 1500	Lake Charles, La.	5:30-5:50	WALR 1210	Zanesville, Ohio
	WADC 1320	Akron, Ohio			The Second Friday
3:50-4:10	KARK 890	Little Rock, Ark.	2:00-2:20	WGNV 1210	Newburgh, N. Y.
	WGPC 1420	Albany, Ga.	2:10-2:30	WCNW 1500	Brooklyn, N. Y.
	WOSU 570	Columbus, Ohio	2:20-2:40	WGBB 1210	Freeport, N. Y.
4:00-4:20	KFJZ 1370	Fort Worth, Tex.	2:30-2:50	WABY 1370	Albany, N. Y.
	WHBU 1210	Anderson, Ind.	2:40-3:00	WNR1 1200	Newport, R. I.
	WJNO 1200	W. Palm Beach, Fla.	2:50-3:10	WSYB 1500	Rutland, Vt.
4:10-4:30	WBEO 1310	Marquette, Mich.	3:00-3:20	KICA 1370	Clovis, N. Mex.
	WCOC 880	Meridian, Miss.		WEBQ 1210	Harrisburg, Ill.
	WLB 1250	Minneapolis, Minn.	3:10-3:30	WABI 1200	Bangor, Me.
4:20-4:40	KSO 1430	Des Moines, Ia.		WACO 1420	Waco, Tex.
	WKEU 1500	Griffin, Ga.	3:20-3:40	WLBC 1310	Muncie, Ind.
	WMPC 1200	Lapeer, Mich.		WEW 760	St. Louis, Mo.
4:30-4:50	WEXL 1310	Royal Oak, Mich.		WIBX 1200	Utica, N. Y.
	WHLB 1370	Virginia, Minn.	3:30-3:50	WKBB 1500	East Dubuque, Ill.
4:40-5:00	KPLT 1500	Paris, Tex.		KUOA 1260	Fayetteville, Ark.
	WJMS 1420	Ironwood, Mich.		WAGM 1420	Presque Isle, Me.
	WJRD 1200	Tuscaloosa, Ala.		WEIDF 1370	Calumet, Mich.
4:50-5:10	KFXR 1310	Oklahoma City, Okla.	3:40-4:00	WJW 1210	Akron, Ohio
	WTAX 1210	Springfield, Ill.		WNBZ 1290	Saranac Lake, N. Y.
	WBIG 1440	Greensboro, N. C.	3:50-4:10	WJBK 1500	Detroit, Mich.
5:00-5:20	KFJB 1200	Marshalltown, Ind.		WMBH 1420	Joplin, Mo.
	WEOA 1370	Evansville, Ind.	4:00-4:20	WRDO 1370	Augusta, Me.
5:10-5:30	KPDN 1310	Pampa, Tex.		KIUL 1210	Garden City, Kans.
	WDZ 1020	Tuscola, Ill.		WCMI 1310	Ashland, Ky.
5:20-5:40	KELD 1370	Eldorado, Ark.	4:10-4:30	WTHT 1200	Hartford, Conn.
	WAYX 1200	Waycross, Ga.		WCAZ 1070	Carthage, Ill.
5:30-5:50	KDLR 1210	Devils Lake, N. D.	4:20-4:40	WNLC 1500	New London, Conn.
5:40-6:00	KRBC 1420	Abilene, Tex.		WMFG 1210	Hibbing, Minn.
			4:30-4:50	WTAQ 1330	Green Bay, Wis.
				KIUP 1370	Durango, Colo.
			4:40-5:00	WPAD 1420	Paducah, Ky.
				KNOW 1500	Austin, Tex.
			4:50-5:10	WEMP 1310	Milwaukee, Wis.
				KGDE 1200	Fergus Falls, Minn.
				WGRC 1370	New Albany, Ind.
			5:00-5:20	KIUN 1420	Pecos, Tex.
			5:10-5:30	KGEK 1200	Sterling, Colo.
			5:20-5:40	KMAC 1370	San Antonio, Tex.
			5:30-5:50	WIL 1200	St. Louis, Mo.
			5:40-6:00	KGFG 1370	Oklahoma City, Okla.
			5:50-6:10	KANS 1210	Wichita, Kans.
					The Second Saturday
2:00-2:20	WSVS 1370	Buffalo, N. Y.	2:00-2:20	WMFR 1200	High Point, N. C.
2:10-2:30	WKOK 1210	Sunbury, Pa.	2:10-2:30	WMFO 1370	Decatur, Ala.
2:20-2:40	WRAW 1310	Reading, Pa.	2:20-2:40	WSOC 1210	Charlotte, N. C.
2:30-2:50	WJTN 1210	Jamestown, N. Y.	2:30-2:50	WTJS 1310	Jackson, Tenn.
2:40-3:00	WTFL 1310	Philadelphia, Pa.	2:40-3:00	WSIX 1210	Nashville, Tenn.
2:50-3:10	WHIS 1410	Bluefield, W. Va.	2:50-3:10	WROL 1310	Knoxville, Tenn.
3:00-3:20	KGKO 570	Wichita Falls, Tex.	3:00-3:20	KOTN 1500	Pine Bluff, Ark.
	WCPO 1200	Cincinnati, Ohio		WQAM 560	Miami, Fla.
	WQAN 880	Scranton, Pa.	3:10-3:30	KWYO 1370	Sheridan, Wyo.
3:10-3:30	KFYO 1310	Lubbock, Tex.		WCLS 1310	Joliet, Ill.
	WGL 1370	Ft. Wayne, Ind.		WPRP 1420	Ponce, P. R.
	WLEU 1420	Erie, Pa.	3:20-3:40	KGCU 1240	Mandan, N. Dak.
3:20-3:40	KGFI 1500	Corpus Christi, Tex.		WHBY 1200	Green Bay, Wis.
	WIBU 1210	Poynette, Wis.		WNEL 1290	San Juan, P. R.
3:30-3:50	KGFL 1370	Roswell, N. Mex.	3:30-3:50	KXYZ 1440	Houston, Tex.
	WBCM 1410	Bay City, Mich.		WAML 1310	Laurel, Miss.
	WSAJ 1310	Grove City, Pa.		WKBV 1500	Richmond, Ind.
3:40-4:00	KGGM 1230	Albuquerque, N. Mex.	3:40-4:00	KRGV 1260	Weslaco, Tex.
	WJBC 1200	Bloomington, Ill.		WFOR 1370	Hattiesburg, Miss.
3:50-4:10	KGHF 1320	Pueblo, Colo.		WJBL 1200	Decatur, Ill.
	WHAT 1310	Philadelphia, Pa.	3:50-4:10	KNEL 1500	Brady, Tex.
	WLAP 1420	Lexington, Ky.		WEED 1420	Rocky Mount, N. C.
4:00-4:20	KGHI 1200	Little Rock, Ark.		WGBF 630	Evansville, Ind.
	KXO 1500	El Centro, Calif.	4:00-4:20	KFQD 780	Anchorage, Alaska
	WHDL 1400	Olean, N. Y.		KVSO 1210	Ardmore, Okla.
	WSMK 1380	Dayton, Ohio		WDFD 1310	Flint, Mich.
4:10-4:30	KGIW 1420	Alamosa, Colo.			
	KJBS 1070	San Francisco, Calif.			
	WJIM 1210	Lansing, Mich.			
4:20-4:40	KGKB 1500	Tyler, Tex.			
	KGU 750	Honolulu, T. H.			
	WBOW 1310	Terre Haute, Ind.			
4:30-4:50	KGKL 1370	San Angelo, Tex.			
	KSUN 1200	Lowell, Ariz.			
	WCBS 1420	Springfield, Ill.			

4:10-4:30	KONO	1370	San Antonio, Tex.
	KVOS	1200	Bellingham, Wash.
	WKBC	1500	Muskegon, Mich.
4:20-4:40	KRLC	1420	Lewiston, Idaho
	KTSM	1310	El Paso, Tex.
4:30-4:50	KOCA	1210	Kilgore, Tex.
	KUJ	1370	Walla Walla, Wash.
4:40-5:00	KCMC	1420	Texarkana, Ark.
	KRNR	1500	Roseburg, Ore.
4:50-5:10	KEEN	1370	Seattle, Wash.
	KWTN	1210	Watertown, S. Dak.
5:00-5:20	KGFF	1420	Shawnee, Okla.
	KIT	1310	Yakima, Wash.
5:10-5:30	KBTM	1200	Paragould, Ark.
	KRKO	1370	Everett, Wash.
5:20-5:40	KFRO	1370	Longview, Tex.
	KGEZ	1310	Kalispel, Mont.
5:30-5:50	KBIX	1500	Muskogee, Okla.
	KFXD	1200	Nampa, Idaho
5:40-6:00	KFJM	1410	Grand Forks, N. D.
	KXRO	1310	Aberdeen, Wash.
5:50-6:10	KGY	1210	Olympia, Wash.
6:00-6:20	KINY	1310	Juneau, Alaska
6:10-6:30	KMED	1410	Medford, Ore.

About Reports

(Continued from Page 13)

societies and the radio magazines are doing work in the right direction. You of RADEX continually publish articles on the *Methods of DXing*. You give instruction on the art of listening. The R and Q systems are completely described. The helps given in the station listings make DXing quite easy for those who would but read and absorb the information given by those experienced in the field. The DX clubs have report forms that are complete in every detail. Members are warned against unusual practices which work against DXing.

When DXers begin to realize the importance of co-operation with the station, when they appreciate the necessity of sending in accurate and consistent reports, then will both DXer and station feel the results of such conduct. The DXer can make out a report with a view to assisting the station in producing a better program for listeners all over the world. The point is—will he do it?

Having DXed actively for 12 years, I am not a total stranger to the wild and woolly frequency spectrum, and so this is being written from the standpoint of a DXer. It does not in any way state the policy

of WCOP with regard to DX programs.

Answers

(Questions on Page 11)

1. WACO, Texas, and Waycross (WAYX) Georgia.
2. WBNX, abbreviation of West Bronx, is located in the East Bronx, New York City.
3. Wonderful Isle of Dreams, Miami Beach, Fla.
4. WSIX, Nashville, Tenn.
5. WTHT, The Hartford Times. WSBT, South Bend Tribune. WBEN, Buffalo Evening News. WESG, Elmira Star Gazette. KPDN, Pampa Daily News. WTMJ, The Milwaukee Journal. CFPL, Free Press, London. WTCN, Twin City News.
6. CASA Grande Hotel, Elk City, Okla.
7. KFXB, KFQU, WBES and WJBR.
8. Chicago.
9. WGHP, George Harrison Phelps.
10. H. J. Brennan.

The Seattle Independent station, KIRO, will take CBS programs, commencing January 1, 1938, or earlier if arrangements can be made. KIRO will replace KOL as the CBS outlet in Seattle. The president of the station announced at the same time that a new transmitter will be purchased, new studios built, and a directional antenna installed. Application has been made for an increase in power from 1000 to 5000 watts.

* * *

Four new stations will be added to the Don Lee Network, and perhaps to the MBS. They are KIRO Seattle, KIEM Eureka, KVCV Redding and KHSL Chico.

* * *

From China comes the information that all Chinese stations are supposed to relay XGOA from midnight to 1 am. But do they?—



IF SOME of the reports received in the Mystery DX Contest may be considered typical of the DX mail sent to the stations, the broadcasting lads must get quite a few chuckles on the side.

Of course, it is admitted that weather conditions for the contest were pretty awful. Static and noise swallowed many an inoffensive signal, and a chap was lucky indeed if he was able to identify his three successive selections.

Even so, the composer himself might have wondered at the bizarre titles attached to some of the numbers played by the various stations. The immortal "Blue Danube Waltz," for instance, became the "Blue Daniel Waltz." From this, one might suspect that Daniel was blue because of the punk reception.

The same idea followed when "Sweet Mystery of Life" was reported as "Sweet Misery of Life." There seems to be no doubt but what many a blue contestant had a miserable night of listening.

Henry Busse has a swell record of "Riding To Glory On A Trumpet," but one DXer avowed that the steed was a "broncho." "New River Train" was transferred to the "Coo Coo Train" in all seriousness, while the number "High Hat, Piccolo and Cane" was twice reported to be "I've Got A Piccolo On A String."

After considerable research, "Main Line Casey" was translated into "Me And My Baby." A lettuce

leaf and a spot of French Dressing were probably used to transform "Solitude" into "Salitude." The "Sweetheart of Sigma Chi" was reported by one non-Greek as "Swede Heart of Sig Ma Ki." Good, old Radex Press received a report addressed to "Ray Teck's Express."

Not So Funny

One other phase of the contest reports, however, was not at all humorous. In fact, it demonstrated conclusively that DXers are still very careless when reporting to stations.

Five listeners in a Mid-Western city reported reception of KVI on its February 22nd broadcast between 0400 and 0500 EST. The signal strength was listed on the five reports as "R3," "Fair," "R4," "R5-7" and "R6." Fading was respectively given as "Little," "SSS," "SS," "SS," and "Every 3 minutes." Static was reported to be "XXX," "Heavy," "XX," "XXXX" and "None." Quality was observed as "Good," "QSA-3," "Fair," "QSA-4," and "QSA-5."

One cannot help but wonder at the reaction of KVI when those five reports are checked over. The difference between an R3 signal and one which was R5-7 is really tremendous, with the latter supposedly twice as strong. Even allowing for periods of fading, it is apparent that the two extremists had entirely different views of the R scale.

The variation on the question of

fading might conceivably be explained by the locations in the city, but there is no explanation as to why a station would be QSA-3 on one receiver and QSA-5 on another.

The matter of static will undoubtedly raise a few KVI eyebrows. It will be noted this varied from "Heavy" and "XXXX" down to "XX" and "None." Such a tremendous difference is as absurd as it is impossible to explain.

Other cases of contradicting reports from the same cities were observed in great number, and it is unnecessary to go into them in detail. They all bear out the original contention that many DXers are either very careless with their reports or they are ignorant of how to report what they hear. In either event, it is certainly time that they come down to earth and realize the unfavorable impressions which they are making.

There has been a great deal of talk in years past concerning the possible value of technical data to the various stations. Some listeners contend that the broadcasters don't care about reception information, and a few engineers have gone on record as being of the same opinion. However, the majority of those interested in this phase of radio agree that technical details can be of decided value to station officials.

Thus, it has been conceded time and again that reports should contain details about signal strength, quality, readability, interference, local weather, receiver used, fading, static, etc. The inclusion of this information with a report can do no harm, it certainly shows the desire to co-operate on the part of the DXer, and it may be quite helpful to the station.

Obviously it goes without saying that the information sent to the station should be accurate. The listener should be able to determine

whether a signal is R4 or R7, and he certainly should give the data just as he hears it. Stations are not interested in undeserved compliments, and nothing sours an engineer more than a report which has been made flattering in an attempt to wheedle a verification.

Inaccurate reports—whether resulting from carelessness or lack of knowledge—put the DX fraternity in a bad light with the broadcasters. Let's correct this evil before it is too late!

Cheese Champs

For some reason or other, nearly everyone has a secret desire to be champion of something. Be it the Frog Hollow Horseshoe League or the Podunk Husking Bee, most of us would like to be known as the absolute tops. Psychologists may have an explanation for this urge, but that's another story.

In many instances, championships are not difficult to establish. The boxer who can knock the tar out of everyone he meets, is champion until he gets licked. The golfer who breezes through major tournaments without defeat is rated as a champion. The tennis world acknowledged Fred Perry as the amateur king because the Englishman was able to trim the rest of the simon-pures.

DXing happens to be a sport in which it is difficult, if not impossible, to determine a champion. There are too many factors involved, too many varying conditions to consider, for anyone to single out a particular listener and say, "He's the champion DXer of the world."

Of course, that doesn't mean that we haven't had "champion DXers." There's one fellow, for instance, who got up early every morning for a year or so and dialed a couple of Aussie short waves. He got a letter from the stations saying that no one else had ever sent in so many reports. Accordingly, we are to be-

lieve that he is the champ. That anyone else—perhaps troubled with insomnia and having nothing better to do—could have done the same thing is beside the point.

From time to time, open competitions have been held to determine the champion of this-or-that. Even though the contestants listened under comparable conditions, which is highly improbable, the winner could only be classed as the chap who turned in the highest score.

Our own Mystery DX Contests have not attempted to designate a champion. The judges have merely determined the winners and this was considered ample recognition. Perhaps it would be possible to stretch a point and say that S. R. Lewis was champion North American DXer for the week-end of February 22-24, 1936 and that Floyd Biss won the same title for the week-end of February 20-22, 1937.

In the same vein, it would be possible to toss some posies at Arthur E. Foerster, Bireley Ross and Harry M. Gordon—all of whom placed among the winners in two straight Mystery DX Contests. For consistently excellent DXing, they deserve a world of praise, but it is doubtful if they would come out and claim to be champions of something-or-other.

And so, it might be a good idea to reserve championship recognitions for sports where there is some real basis for comparison. If we tried it in DXing, the delicate aroma of limberger might leave us with a cheese champ on our hands.

When someone does an exceptionally good bit of dialing, it is always interesting to know the receiver which was used. We note from the contest that Floyd Biss, Grand Prize winner, scored his points at the dial of an Airline receiver. George Publow, who placed second, used a Masterpiece IV.

Among the first 15 prize winners,

there were no less than six Philco receivers in use. The only other makes to be represented more than once were Midwest and Airline, each of which was used by two winners.

Going over the entries of all contestants, Philco again led the list with 45 owners. Next in line was RCA Victor with 31, and then came Scott with 16. The Hallicrafters models were represented by 14 contestants and Zenith chalked up a like number. The Sears Silver-tone appeared 12 times, while Grunow and Midwest each claimed 10 contestants.

Other receivers represented included: General Electric—9; Airline—7; Atwater Kent—6; Knight, Stewart Warner and Stromberg Carlson—5 each; Crosley, Sparton and Westinghouse—4 each; Emerson—3; American Bosch, Columbia, Grebe, Silver Masterpiece, Majestic, Packard Bell, and Silver Marshall—2 each; and Brunswick, Eilen, Erla, Empire, Fairbanks Morse, Fada, Gloritone, Hammarlund, Kennedy, National, Root, Sentinel and True-tone—one each. Seven receivers were home-made.

Add those up—if you're mathematically inclined—and you'll have the 238 entries which found their way into the hands of the judges. Find out what happened to the 213 forms which were ordered and never used, and you can be our reception prognosticator for next year!

Pictures of the Contest winners will appear in the Midsummer Edition of RADEX.

Ray H. Zorn, Troy Grove, Ill., has some DX literature, including a couple years' files of RADEX and the FCC's Bulletins, as well as a lot of miscellaneous magazines and old radio log and call books. He would like to see them placed in the hands of appreciative persons. Any of our readers who collect this kind of material should get in touch with Mr. Zorn.

New Station Addresses

Following are the names of owners and addresses of all the new radio stations licensed since last October, at which time RADEX published a complete listing of the addresses of the radio stations of North America.

CRCY, 1420, Canadian Broadcasting Corp., 805 Davenport Road, Toronto, Ont.

KAND, 1310, Navarro Broadcasting Ass'n., Corsicana, Texas.

KATE, 1200, Albert Lea Brdcastg. Corp., Albert Lea, Minn.

KAWM, 1500, A. W. Mills, Gallup, N. Mexico.

KDAL, 1500, Red River Brdcastg. Co., Inc., Duluth, Minn.

KELO, 1200, Sioux Falls Broadcast Ass'n., Inc., Sioux Falls, S. Dak.

KOAM, 790, Pittsburgh Brdcastg. Co., Pittsburgh, Kans.

KOKO, 1370, Southwest Brdcastg. Co., La Junta, Colo.

KPFA, 1210, Peoples Forum of the Air, Helena, Mont.

KRIS, 1330, Gulf Coast Brdcastg. Co., Corpus Christi, Texas.

KRMC, 1310, Roberts McNab Co., Jamestown, N. Dak.

KSJS, 1500, Salina Journal, Salina, Kans.

KSRO, 1310, Press Democrat Publishing Co., Santa Rosa, Calif.

KSUB, 1310, Johnson & Perry, El Escalante Hotel, Cedar City, Utah.

KTKC, 1190, Tulare-Kings Counties, Visalia, Calif.

KTMS, 1220, News Press Publishing Co., Santa Barbara, Calif.

KVGB, 1370 Ernest Edward Ruehlen, Great Bend, Kans.

KVOX, 1310, Robert K. Herbst, Moorhead, Minn.

KWNO, 1200, Winona Radio Service, Winona, Minn.

KWOS, 1310, Tribune Printing Co., Jefferson City, Mo.

KYCA, 1500, Southwest Brdcastg. Co., Prescott, Ariz.

WBHP, 1200, Wilton Harvey Polard, Huntsville, Ala.

WDSM, 1200, Fred A. Baxter, Superior, Wis.

WEAU, 1050, Central Brdcastg. Co., Eau Claire, Wis.

WFTC, 1200, Jonas Weiland, Kingston, N. C.

WGVA, 1050, Glenn Van Auken, Indianapolis, Ind.

WICA, 940, C. A. Rowley, Star-Beacon, Ashtabula, Ohio

WMBS, 1420, Fayette Brdcastg. Corp., Uniontown, Pa.

WNNY, 1420, Black River Valley Broadcast, Inc., Watertown, N. Y.

WOLS, 1200 O. Lee Stone, Florence, S. C.

WRD, 1500, Times Dispatch Publishing Co., Richmond, Va.

WSAU, 1370, Northern Brdcastg. Co., WAUSAU, Wis.

WSNJ, 1210, Eastern States Brdcastg. Corp., Bridgeton, N. J.

W3XJ, 1060, McNary & Chambers, College Park, Md.

... 950, Harold F. Grow & Edmund C. Shields, Saginaw, Mich.



The principals of one of radio's most popular dramatic shows, the First Nighter, are shown here. Cliff Soubier, Barbara Luddy and Don Ameche, are called upon to act in a new play every week—romances, tragedies, comedies, mysteries or melodramas—they are all the same to these versatile actors. The First Nighter is heard on Fridays at 10 pm on the NBC-Red.

Summer Program Changes

• • • By Betty

DANCING BANANAS: A new sophisticated program called "Coronet on the air" features Deems Taylor in the role of Master of Ceremonies, and Robert Armbruster's band. This program follows no set pattern and presents whatever mad-cap ideas in the realm of music and art that Mr. Taylor can concoct.

One of Mr. Taylor's vagaries is playing all four movements of Grieg's "Peer Gynt Suite" at once. His favorite exploit so far, however, was the presentation in music of a photograph of four bananas dancing on a piece of wallboard.

This program is on the NBC-Blue Friday nights at 9:30.

KING OF JAZZ: Paul Whiteman, with his orchestra and entertainers totalling thirty artists, is heard over the coast-to-coast Mutual Network on Friday nights. The programs originate at Chicago's Drake Hotel, and this marks his first appearance in that city since 1931, and his first appearance on the Mutual Chain.

When most of today's radio maestros were studying their A-B-C's this Denver-born musician was touring the hinterlands, blaring jazz in its earliest forms. Pioneer Paul was the first modern musician to crash the solid of Carnegie Hall, and the first to adopt dance arrangements of the classics.

TWIN STARS: Two veteran comedians, Victor Moore and Helen Broderick, with Buddy Roger's orchestra, are heard over 66 stations of the Columbia Broadcasting System on the "1937 Edition of Twin Stars." Their new time is 8 to 8:30 pm Sundays.

Victor Moore broke into the big time while playing at Hammerstein's in New York City in 1905,



When George Burns and Gracie Allen switched to the NBC, Ken Murray and his stooge, Oswald took over the Wednesday night spot. Assisting them are vocalists Tony Martin and Shirley Ross, while Lud Gluskin provides the dance music.

when George M. Cohan wrote the part of "Kid" Burns into his "Forty-Five Minutes from Broadway" especially to fit Moore's talents. Following this he scored in "Shorty McCabe" and "The Happiest Night of His Life." More recent hits have been "Of Thee I Sing," "Let 'em Eat Cake" and "Anything Goes."

Miss Broderick commenced her stage career at 14 as a chorus girl. For eight seasons she remained in the chorus line until her ability to make her sister chorines laugh backstage prompted a try-out as a comedienne back of the footlights. Her first starring vehicle on Broadway was "Fifty Million Frenchmen," which was followed by "The Band Wagon" and "As Thousands Cheer."

TIME MARCHES ON: The March of Time will go forward into the spring and summer over an augmented CBS network under a new sponsor. The new series will be

heard at the usual time of 10:30 pm on Thursdays.

This program is now in its seventh year on the air, and from the start it has set a high standard for realism in broadcasting. Each program requires the services of more than 20 actors, 19 musicians, eight production, service and sound-effects experts, and 11 editorial and research workers.

To give the cast and workers a rest, the March of Time will leave the air about the middle of July, resuming the series early in September under the auspices of Time and Life magazines.

THE BAMBINO: Babe Ruth, baseball's "Sultan of Swat," unleashes inside "dope" on his favorite sport and interviews its stars in a new twice-weekly radio series over the WABC-Columbia network on Wednesdays and Fridays from 10:30 to 10:45 pm.

An all-base ball feature, programs are comprised of topical Big League news and comments on the sport in general. The Babe gives intimate insights into the comparative strength of the major league teams and predicts winners, reviews important games, interviews players and dwells on interesting incidents in the different games and their decisive plays.

OH YEAH: "Oswald," Ken Murray's famous side-kick, made his professional debut playing the piano accordion, at which he is adept, as well as the clarinet and saxophone. This amazing person toured European concert fields for ten years as a musician, and four years ago wrote the score for a London Musical hit, "Night Shadows." On returning to America his old friend Ken Murray selected him as his stooge, and they have been inseparable ever since. His favorite sport is heckling Casey Stengel from the sidelines with his "Oh Yeah", and

his small toothbrush moustache is his pride and joy.

SIDELIGHTS: Richard Gordon, famous Sherlock Holmes of the air, is now playing the part of the doctor in Pepper Young's Family . . . Several New York music firms are republishing Franz Schubert's composition "The Bee" to meet the demand created as a result of the now famous Fred Allen-Jack Benny feud. . . . When Parkyakarkus rehearses for his appearance on the Al Jolson show he recites his lines in a polished Bostonian accent. The Greek dialect is added when he goes on the air. It's merely a dial act! . . . At one stage of his career Morton Downey sat in Paul Whiteman's orchestra pretending to play a French horn. The stunt was to amaze the customers by having so remarkable a singer step right out of the band. . . .

Norman Brokenshire, one of the most popular announcers on the air a few years ago, is now radio director of a New York advertising agency. He is heard over the air on WOR now on Sunday mornings.

* * *

Burns and Allen have shifted their network and time to 8 pm Mondays on the Red, and Ken Murray with "Oswald" are filling the time left vacant on the CBS, 8:30 pm Wednesdays.

* * *

Gracie Allen has a solution to the parking problems of the nation. She would simply pass a law prohibiting the parking of all cars until they were completely paid for.

* * *

Construction of the new Salt Lake City station, KUTA, has been suspended while its case is being determined by the Court of Appeals at Washington. KUTA had a construction permit for 1500 kcs.

The MONTH'S CHANGES in STATION DATA

This information is compiled just before we go to press, after the forms for most of the other pages are closed. Some very recent changes, received too late to index in this issue, are here included, and will be incorporated next month in our main indices.

Shortwaves

New	
.....	KAIA, Beverly Hills, Calif.
1642	WRDH, Houghton Heights, Mich.
1712	WPIA, Warren, R. I.
2414	KAPH, Stockton, Calif.
2442	WAMG, Kalamazoo, Mich.
2458	WAMN, Lorain, Ohio
2726	WAJU, Guayama, Puerto Rico
2726	WAJV, Mayaguez, Puerto Rico
6000	OAX5C, Ica, Peru
6030	XEBC, Mazatlan, Sin.
6080	OAX4Z, Lima, Peru
6118	ZEUZ, Mexico City, D. F.
6122	OAX4P, Huancayo, Peru
6122	OAX6A, Arequipa, Peru
6128	OAX7A, Cuzco, Peru
6200	H18Q, Trujillo, D. R.
6230	OAX4G, Lima, Peru
6500	J2AA, Tokyo, Japan
6977	XBA, Tacubaya, D. F.
9335	OAX4I, Lima, Peru
9355	WNK, Haleah, Fla.
9435	HC20DA, Guayaquil, Ecuador
9450	..... Fort de France, Martinique
9504	OLR3B, Prague, Czechoslovakia
9550	OLR3A, Prague, Czechoslovakia
9562	OAX4T, Lima, Peru
9590	W8XAL, Cincinnati, Ohio
9840	J2AA, Tokyo, Japan
11040	CSW, Lisbon, Portugal
11840	CSW, Lisbon, Portugal
11895	HP5I, Aguadulce, Panama
11900	OLR4D, Prague, Czechoslovakia
11970	H12X, Trujillo, D. R.
15320	OLR5B, Prague, Czechoslovakia
15270	H13X, Trujillo, D. R.

Calls

6010	OLR2A, Prague, Czechoslovakia
6030	OLR2B, Prague, Czechoslovakia
6115	OLR2C, Prague, Czechoslovakia
6340	H1IX, Trujillo, D. R., from HIX
11760	OLR3B, Prague, Czechoslovakia
11840	OLR4A, Prague, Czechoslovakia
11875	OLR4C, Prague, Czechoslovakia
15116	OLR5C, Prague, Czechoslovakia
15230	OLR5A, Prague, Czechoslovakia

Locations

9590	PCJ, Hulzen, Netherlands, from Hilversum
15220	PCJ, Hulzen, from Hilversum

Broadcast Band

New

940	WICA, Ashtabula, Ohio
1050	WGVA, Indianapolis, Ind.
1200	KATE, Albert Lea, Minn.
1200	KWNO, Winona, Minn.
1220	KTMS, Santa Barbara, Calif.
1370	KOKO, La Junta, Colo.
1420	WMBS, Uniontown, Pa.

Power

1450	CMHM, Cienfuegos, Cuba, 100 w.
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Location

1420	KCMC, Texarkana, Tex., from Ark.
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Call Letters

1370	KTOK, Oklahoma City, Okla., from KGFG
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Network

600	WICC, Bridgeport, Conn., new MBS
780	WEAN, Providence, R. I., new Blue
880	KFKA, Greeley, Colo., new MBS
880	WCOC, Meridian, Miss., new CBS
1160	WOWO, Fort Wayne, Ind., new Blue
1180	WMAZ, Macon, Ga., new CBS
1200	KADA, Ada, Okla., new MBS
1200	WBBZ, Ponca City, Okla., new MBS
1210	KASA, Elk City, Okla., new MBS
1210	KVSO, Ardmore, Okla., new MBS
1240	KTAT, Fort Worth, Texas, new MBS
1280	WRR, Dallas, Texas, new MBS
1320	KGMB, Honolulu, T. H., new MBS
1340	WSPD, Toledo, Ohio, Blue from CBS
1350	KIDO, Boise, Idaho, new NBC
1360	KCRC, Enid, Okla., new MBS
1370	KTKO, Oklahoma City, Okla., new MBS
1400	KHBC, Hilo, T. H., new MBS
1420	KGFF, Shawnee, Okla., new MBS
1420	WPAR, Parkersburg, W. Va., new CBS
1500	KBIX, Muskogee, Okla., new MBS

Owner

1210	KANS, Wichita, Kans., KANS Brdcastg. Co.
1310	KCKN, Kansas City, Kans., KCKN Brdcastg. Co.
1500	KRRR, Roseburg, Ore., News-Review Co.

Delete

1300	KFJR, Portland, Ore.
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Permit to Change Frequency

890	WILL, Urbana, Ill., to 580
950	KHSL, Chico, Calif., to 1260
1210	WMBG, Richmond, Va., to 1350
1310	KIT, Yakima, Wash., to 1250
1310	WOL, Washington, D. C., to 1230
1420	KRLC, Lewiston, Idaho, to 1390
1420	WJBO, Baton Rouge, La., to 1120

Permit to Change Power

560	KSFO, San Francisco, to 5 kw days
630	WGBF, Evansville, Ind., 1000 from 500
890	WILL, Urbana, Ill., 1000 from 250
1210	WJTN, Jamestown, N. Y., 100 from 50
1210	WMBG, Richmond, Va., 500 from 100
1310	KIT, Yakima, Wash., 250 from 100
1310	WOL, Washington, D. C., 1000 from 100
1420	KRLC, Lewiston, Idaho, 250 from 100
1420	WJBO, Baton Rouge, La., 500 from 100
1490	WCKY, Covington, Ky., 10000 from 5000

Permit to Change Location
560 KSFQ, San Francisco to Oakland, Calif.
880 WPHR, Petersburg, Va., to Richmond
(will be WRNL)
1450 WFTL, Athens, Ga., to Atlanta

Coronation Programs

Tentative plans have now been made for the transmission of programs from the Empire Broadcasting Station at Daventry on May 12 (Coronation Day). On this day, after the end of Transmission I, the normal system of program distribution by six transmissions will be replaced by five broadcasts known as A, B, C, D, and E. The following programs have now been arranged, but full details are at present lacking.

Transmission A

0415 EST A description of the processions from Buckingham Palace to Westminster Abbey.

0515, The Coronation Service.

0815, Description of the return of the procession.

0945, The Coronation Service, electrically recorded.

Transmission B

1320, A program entitled "The Empire's Homage," to which the Dominions and some of the Colonies will contribute.

1400, A message by H. M. King George VI.

Transmission C

1430, Coronation Service, electrically recorded.

1645, A description of the processions, electrically recorded.

Transmission D

1820, Coronation Service, electrically recorded.

2035, Description of the processions, electrical recording.

2150, "The Empire's Homage," electrically recorded.

2230, The King's Message, recorded.

Transmission E

2300, Coronation Service, recorded.

Most Distant Contestant

The most distant report on reception of a RADEX Mystery DX Contest program comes from Dunedin, New Zealand.

Mr. Alan Hutchison, 15 Embo St., Dunedin, writing under date of Feb. 22, reported to us his reception of WHA, Madison, Wisconsin, 940 kcs., which broadcast its program from 5 to 6 am on Feb. 21.

"This station was very difficult to log," Mr. Hutchison writes. "Interference from JOBK2, Osaka, Japan, on the same frequency increased the difficulty, so I consider I was fortunate to be able to read any of the program.

"Results obtained on the contest were disappointing, although I did log two new stations. The contest was held too late in the season for us, as the Australians are well in by sunset here (3 am in USA), and these stations cover the majority of frequencies.

"I hope next year you will give your New Zealand readers a chance to compete."

Mr. Hutchison's report, which we forwarded to WHA, included several announcements, almost verbatim, a piano solo, dance music, and a Fletcher Henderson recording.

Station News

DELEGATIONS from the United States, Canada, Cuba and Mexico met in Havana recently, at the invitation of the Cuban government, to consider a number of radio problems and to draw up treaties to be presented at a convention which will meet in Havana in November. The November convention will be attended by all the governments in the New World.

It is hoped something definite can be determined concerning the removal from the air of the Mexican border stations which interfere greatly

with United States and Canadian stations. Other problems which no doubt will receive the attention of the delegations will be a system of re-allocation among North American broadcasters to provide interference-free reception; frequency separation between channels on the broadcast band; allocation of stations in the international shortwave broadcasting bands, and the allocation of the ultra-high frequencies for television and broadcasting.

A number of good readers have taken the trouble to write us telling what they would like to see in RADEX. Letters of this kind are always welcome, and we are more than glad to give any good idea a trial. Already, in response to requests from readers, we have completely re-made our shortwave lists; we have added Canadian and Mutual network programs to our program listings; we are showing the month's changes in shortwave data as well as broadcast band changes; the puzzle page has been revived, and a monthly amateur column added. In the present issue we are pleased to call to our readers' attention several additional features, all suggested by good radio fans.

Most important is the completely new list of South American stations, which shows (believe it or not) 95 changes or additions to our former listing of these stations. The Brazilian stations underwent frequency revisions the first of the year, and the call letters of all the Venezuelan stations have been changed.

Commencing with this issue, at the request of a reader, we will show the addresses and the names of the owners of all the new radio stations as they come on the air, instead of waiting until we publish the complete listing of station addresses.

A roster of the DX Clubs is also presented this month. Secretaries of

all clubs are requested to check this information and to advise us of any changes that may occur so the list will be both complete and accurate.

Mr. Bill Bailey, Director of Publicity for stations WLW and WSAI, furnishes us with the schedule of news broadcasts transmitted by WLW Cincinnati, 700 kcs. News flashes are heard at 11 am and 11 pm on Sundays; at 7:45 am daily except Sunday, and at 11 pm daily except Saturday. Additional flashes are given at 10 am on Saturdays and at 12:05 am on Sundays. Lowell Thomas is also heard on his regular network broadcasts at 6:45 pm, EST, five days a week.

Information on Australian changes is received from the Postmaster General's Department, Melbourne:

New Licenses Granted

2BS, Bathurst Broadcasters, Ltd., Keppell St., Bathurst, NSW. 1500 kcs., 100 watts.

2NZ, Northern Broadcasters, Ltd., Invernell, NSW. Transmitter located at Little Plain, near Invernell. 1170 kcs., 2 kilowatts.

Alterations

3WR, Shepparton, changed to 3SR.
4TO, Townsville, changed from 1170 kcs to 1160 kcs.

Cancellation

2LV, Invernell, deleted. Replaced by 2NZ.

Ten more stations, including the eight stations of the Oklahoma Network, and two Texas broadcasters, have been added to the MBS coast-to-coast chain, bringing the total of stations on the MBS to 51.

The new stations include KTOK Oklahoma City, KCRC Enid, KGFF Shawnee, KBIX Muskogee, KADA Ada, KVSQ Ardmore, WBBZ Ponca City and KASA Elk City. The two Texans are KTAT at Fort Worth and WRR at Dallas.

The Story of XEWI

● ● ● *By Francisco C. Alvarado*

SHORTWAVE broadcasting station XEWI, popularly known as "My Voice to the World from Mexico," was inaugurated for service in September, 1935. It is owned and operated by the *Fraternidad de la Nueva Vida* (Fraternity of the New Life), which is the primary branch of the *Institucion Mundial de la Vida Impersonal*, and is located at the headquarters of the institute at No. 56 Mina St., in Mexico City.

This is what is known in Mexico as a cultural station, its broadcasts being limited to subjects of a cultural or educational nature, and it is prohibited from handling any commercial broadcasts or anything from which remuneration might be received. Actually, it is used for the purpose of broadcasting the transcendental teachings of the Brotherhood which sponsors it, and lectures are transmitted at present in five languages: English, Spanish, German, French and Esperanto. In the very near future it is hoped to add lectures in Polish, Swedish and Italian.

When first inaugurated the station was known as XEVI, corresponding very nicely to the initials of *Vida Impersonal* (The Impersonal Life), but on Feb. 1, as a result of the regulations of the International Radio Convention, the station was required to change to XEWI.

Good reports of reception have been received by this station from Australia, New Zealand and South America, as well as from all parts of the United States, Canada and England. At present the station operates with 250 watts but it is hoped in the near future to increase its output to one kilowatt. The actual frequency employed is 11900 kcs., corresponding to 25.19 meters.

The programs transmitted over XEWI, being of a philosophical na-

ture, are designed to be interesting and enlightening. Music of only the best kind is broadcast and the talks and lectures are of a kind that tends to serve as a guide to mankind to make the world a better place to live in.

Reports from our listeners are always appreciated. Our postal address is XEWI, Radio Estacion Cultural, Apartado 2874, Mexico City, D. F.

An All-Wave Station

● ● ● *By the Technical Editor*

THE only radio broadcasting station ever licensed to broadcast on *all* waves and frequencies in use today, is now operating continuously in Maryland.

Special experimental station, W3XFE, owned by the Carnegie Institution of Washington, transmits on all waves successively from 516 to 16,000 kilocycles. It requires 15 minutes to pass over this entire range of signals, and each signal consists of but five short clicks lasting one-half second.

The signals are fired upward into the stratosphere against the radio "ceiling". In this way the scientists are conducting their studies of the radio reflecting layers or "mirrors" and how the different wave lengths behave when turned loose.

The transmitter is automatically tuned so as to broadcast signals on all frequencies throughout the period of fifteen minutes. It then begins again and repeats the cycle. The short signals offer no interference to listeners for they occur only once every 15 minutes and last but half a second on any band to which the receiver happens to be tuned.

Furthermore, the set is attached to a special antenna so that the greater part of the signal energy is directed upward to the reflecting layer where it bounces back to earth

and is captured by a special receiver. The tuning of this set is carefully synchronized with the emitted signal, so the two work together. The received signals are recorded for future study. The waves go up at least 100 kilometers, so this makes the return path about 125 miles. While the transmitter and receiver are in the same building, they are in reality miles apart. It is expected that this unique broadcaster will provide much data that will bear upon some of the unknown things that affect radio reception, and permit of better radio in years to come.

"In a recent issue of RADEX I read a DXer's letter which states he has a 9-tube set which brings in German, Italian and South American stations with good volume, but that he would like to get more distance," recalls Charles D. Richardson, Jr., 713 Harbaugh St., Sewickley, Pa. "I am the owner of a 6-tube all-wave RCA-Victor which brings in stations from all parts of the world, regularly and with good volume. I think my reception disputes the claim that multi-tubed receivers are necessary to enjoy world-wide reception.

"On this receiver, which I have had for only three months, I have heard 104 shortwave stations, of which 70 are foreign. I get London, Berlin, Rome and Buenos Aires regularly with tremendous volume. London and Berlin are fully as loud as KDKA, our local station. Station 3ME in Melbourne, Australia is very well received near 0700 EST, and Hong Kong comes in on certain days. The Lisbon station CT1AA is also included among my catches.

Fibber McGee and Molly have moved from 8 to 8:30 pm Mondays into the spot vacated when Warden Lawes' 20,000 Years in Sing Sing left the air for the summer.

Statistics issued by the Canadian Broadcasting Corporation covering its program activities from November 2, when it assumed control of the national system, to March 1 reveal that the greatest amount of network broadcasting was devoted to musical programs, there having been 347 broadcasts of concert music and 113 broadcasts of vocal recitals. The total number of all musical programs, including symphonies, operas, and operettas, was 1,184. The statistics, which cover a four months' period, show that the CBC broadcast during that time 3356 programs and that the total number of broadcasting hours was 1,303.



Doris Hare, versatile comedienne from London, has become a regular NBC attraction. Her brand of tomfoolery moves back and forth between cockney and Mayfair, with a smattering of Broadway. Hear her at 7:15 pm on Wednesdays on the Blue Chain.

Vick's Open House with Nelson Eddy and Nadine Conner has signed off for the season, and the Twin Stars program with Victor Moore and Helen Broderick moved into the spot vacated by the Vicks program.

Announcing the New

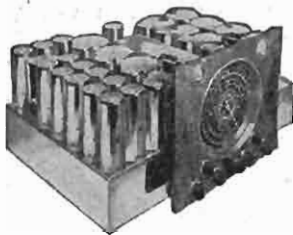


YOUR CHOICE OF FIFTEEN EXQUISITE CABINETS



SCOTT *Philharmonic*

30



TUBES

Clearer, MORE Powerful, FOREIGN Reception!

You'll find hearing the 30-tube Scott Philharmonic a *stirring* new musical experience. Scott Research Laboratories have accomplished in this new receiver standards of performance considered impossible by many radio engineers and masters of music. Eight startling improvements (patents applied for) are built into this new instrument. Now, perfect reproduction of the entire tonal range of the human ear is a reality. *Every tone*, from the very lowest to the highest, is captured with an almost uncanny realism that seems to bring you into the very presence of the musical rendition. New developments give more power, greater sensitivity and sharper selectivity. Again, Scott leadership as the World's Supreme Long Distance Receiver is established. The Philharmonic is custom built by hand and is guaranteed for 5 years.

A STUDY OF THE TECHNICAL DETAILS

A Comparison of Its Overall Fidelity, Selectivity, Sensitivity, Power Output, Tone Balance, 10,000 Cycle Attenuation, Loud Speaker Response, Noise Suppression, and Automatic Gain Control, as shown by proved Laboratory Curves (sent upon request) will prove conclusively that The Philharmonic:

1. Covers a *Greater Wave Length Range*. (3.75 to 2000 Meters.)
2. Has *Finer Tone and Higher Overall Fidelity*. (From 30 to 16,000 Cycles.)
3. Has a *Smoother and More Highly Perfected Continuously Variable High Fidelity Range*.
4. Has *Sharper and More Complete Attenuation* at 10,000 Cycles.
5. Has *Purer and More Perfect Fundamental Bass Response* which is Free from Cabinet Boom and Resonance.
6. Has *More Perfect Tonal Balance* at all degrees of Volume—giving the Same Perfect Reproduction of the Bass and Higher Frequencies at Low as well as High Volumes.
7. Has *Greater Pure Class A Output* with Less Harmonic Distortion.
8. Has *Smoother Loud Speaker Frequency Response* from 30 to 16,000 Cycles.
9. Has a *Higher Degree of Selectivity*, which is Continuously Variable from 2 to 16 Kc.
10. Has *More Perfect Automatic Gain Control Systems* on both R.F. and I.F. Amplifiers.
11. Has *More Usable Sensitivity*.
12. Will Give *Smoother and More Noise-Free Reception* of All Programs, Especially in Difficult Receiving Locations.
13. Has a *More Highly Developed and Distortionless Program Volume Range Expansion System*.
14. Will Give *More Perfect Reproduction from Phonograph Recordings*, Especially the Latest High Fidelity Records.
15. Will Eliminate Phonograph Needle Scratch at Low Volumes, *Without Affecting Reproduction of Low, Mid, or High Frequencies* in Any Way at Normal or High Volumes.
16. Is *Custom Built with Greater Precision*—And from Higher Quality Parts.
17. Has *More Advanced Engineering Features* Incorporated in Its Design.

More, WE BELIEVE, THAN ANY OTHER RADIO RECEIVER IN THE WORLD TODAY.

GET ALL THE STARTLING DETAILS • MAIL THE COUPON NOW!



E. H. SCOTT RADIO LABORATORIES, INC.
4424 N. RAVENSWOOD AVE., DEPT. 15H7, CHICAGO, U. S. A.

Please send details about the new Scott Philharmonic. (No dealers. Sold only direct from Scott Laboratories. 30-day free trial.)

Name.....

Address.....

THE BROADCASTING STATIONS OF SOUTH AMERICA

Compiled from official sources and checked by our South American representative. Brazilian information from "Antenna" of Rio de Janeiro and Argentine data from Asociacion de Broadcasters Argentinos.

ARGENTINA											
Bahia Blanca			Bauru			San Salvador			CB144A	1440	100
LU2	900	2000	PRG8	1440	250	PR4A	1090	50	CB144B	1440	100
LU7	1240	2000	Belem			PRF6	630	50	CB144C	1440	150
Buenos Aires			PRC5	670	100	PRF8	580	500	CB144D	1440	100
LRA	750	10000	Bello Horizonte			Santos			CB150	1500	10000
LR1	1070	50000	PRC7	690	250	PRB4	1450	1000	Talca		
LR2	910	12000	PRH6	1300	...	PRG5	580	750	CC143	1430	100
LR3	950	31000	PR13	880	...	Sao Paulo			Talcahuano		
LR4	990	16000	Blumenau			PR45	1260	500	CC84	840	100
LR5	830	29000	PRC4	1370	...	PR46	800	10000	Temuco		
LR6	870	26000	Camplinas			PRB6	1200	1000	CC58	580	500
LR7	750	15000	PRC9	1170	250	PRB9	1000	10000	CC137	1370	100
LR8	1150	7000	Campos			PRD9	1320	250	Valdivia		
LR9	1030	5000	PRF7	1460	...	PRE4	1340	...	CD132	1320	100
LR10	790	10250	Cruzeiro			PRE7	1410	5000	Valparaiso		
LS1	710	5000	PRG6	1440	250	PRF3	960	5000	CB68	680	1006
LS2	1190	30000	Curlyba			PRG2	1040	10000	CB76	760	10000
LS3	630	5000	PRB2	1480	250	PRG9	1100	500	CB84	840	1000
LS4	670	7000	Fortaleza			PRH3	1160	10000	CB90	900	1000
LS5	1110	5000	PRE9	1320	500	PRH4	1320	...	CB116	1160	1000
LS6	1350	6000	Franca			PRH9	840	...	CB120	1200	1000
LS7	1310	10000	PRB5	1480	50	Sorocaba			CB124	1240	250
LS8	1230	15000	Jaboticabal			PRD7	690	250	CB132	1320	1000
LS9	1270	6000	PRG4	1470	250	Uberaba			CB139	1390	1000
LS10	590	6000	Jahu			PRE5	1170	250			
Cordoba			PRG7	590	250	CHILE			Vina del Mar		
LV2	960	2000	Joao Pessoa			Antofagasta			CB64	640	1000
LV3	620	2000	.....	640	...	CA127	1270	100	CB111	1110	1000
Corrientes			Juiz de Fora			Concepcion			COLOMBIA		
LT7	1340	500	PRB3	620	250	CC64	640	100	Barranquilla		
La Plata			Marilla			CC117	1170	100	HJ1ABA	1330	100
LR11	1390	500	PR12	1370	...	CC141	1410	100	Bogota		
LS11	1440	700	Nietheroy			CC96	960	100	HJN	681	500
La Rioja			PRD8	1320	1000	Magallanes			HJ3ABD	1100	50
LV14	1240	500	PRE6	1170	...	CD103	1030	100	HJ3ABE	1200	1000
Mar del Plata			PRC3	580	250	CD111	1110	100	HJ3ABF	1005	2000
LU6	1300	500	Pernambuco			CD136	1360	100	HJ3ABK	1320	50
Mendoza			PR48	730	3000	Osorno			HJ3ABX	1050	....
LV6	690	500	Petropolis			CD112	1120	100	Call		
LV10	1210	500	PRD3	1480	250	CD121	1210	100	HJ5ABE	1500	....
Parana			Piracicaba			Quillota			Cartagena		
LT11	1470	500	PRD6	620	...	CB113	1130	100	HJ1ABM	1154	50
Resistencia			Pocos de Caldas			Rancagua			Medellin		
LT5	1160	500	PRH5	1450	...	CC109	1090	100	HJ4ABK	1230	300
Rosario			Porto Alegre			CC145	1450	100	Santa Marta		
LT1	780	5000	PRC2	680	3000	San Antonio			HJ1ABJ	1150	....
LT3	1080	4500	PRF9	1440	500	CB140	1400	100	ECUADOR		
LT8	840	500	PRH2	600	25000	San Felipe			Guyaquil		
San Juan			Ribeirao Preto			CB146	1460	100	HC2ET	1153	300
LV1	730	1000	PR47	670	50	Santiago			HC2JB	1250	30
LV5	1120	500	Rio Claro			CB57	570	5000	Quito		
Santa Fe			PRF2	1460	250	CB62	620	1000	HCJB	974	....
LT9	1200	500	Rio de Janeiro			CB73	730	1000	PARAGUAY		
LT10	1300	500	PR42	780	1500	CB78	780	1000	Asuncion		
Tucuman			PRB7	900	500	CB82	820	1000	ZP1	1135	1000
LV7	820	1000	PRC6	1160	1000	CB88	880	1000	ZP3	1000	300
BOLIVIA			PRC8	1360	1000	CB89	890	1000	ZP4	1275	150
La Paz			PRD2	1240	1000	CB93	930	2500	ZP5	1465	150
CPX	1300	5000	PRD5	1400	5000	CB97	970	1000	ZP7	1083	700
CP4	1040	10000	PRE2	1430	500	CB101	1010	1000	ZP9	898	1500
BRAZIL			PRE8	980	7000	CB106	1060	5000	Villarrica		
Araraquara			PRF4	940	10000	CB114	1140	5000			
PRD4	1090	250	PRG3	1280	10000	CB118	1180	10000			
			PRH8	1080	5000	CB125	1250	1000			
			Rio Preto			CB130	1300	1000			
			.....	690	...	CB134	1340	1000			
						CB138	1380	5000			

THE BROADCASTING STATIONS OF SOUTH AMERICA

PERU									
Arequipa		Durazno		CX28	1090	3000	CW31		1180 250
OAX6B	1405 60	CW25	1040 500	CX30	1130	500	San Jose		
Lima		Florida		CX32	1170	500	CW41		1360 50
OAX4A	850 10000	CW33	1200 75	CX34	1210	500	VENEZUELA		
OAX4B	1200 350	Lavelleja		CX36	1250	250	Barquisimeto		
OAX4C	1300 60	CW43	1400 100	CX38	1290	500	YV3RA 1270		
OAX4E	960 200	Mercedes		CX40	1330	500	Caracas		
OAX4F	1080 100	CW29	1120 500	CX42	1370	1000	YV5RA 960 5000		
OAX4H	1150 60	Montevideo		CX44	1410	200	YX5RB 1200		
OAX4J	1100 250	CX4	610 1000	CX46	1450	1500	YV5RE 1100		
OAX4L	1250 60	CX6	650 10000	CX48	1490	1500	YV5RG 1010		
OAX40	1000 190	CX8	690 500	Paysandu			YV5RQ 880		
URUGUAY		CX10	730 1000	CW35	1240	250	Maracaibo		
Canelones		CX12	770 1000	CW39	1320	100	YV1RF 1120		
CW47	1480 100	CX14	810 5000	Rivera			Maracay		
Colonia		CX16	850 10000	CW19A	1340	60	YV4RG 1153		
CW37	1490 25	CX18	890 1000	Rocha			Valencia		
		CX20	930 2000	CW19	1340	50	YV4RA 1350		
		CX22	970 250	Salto					
		CX24	1010 2500	CW23	820	250			
		CX26	1050 2000	CW27	680	250			

Closing the Contest

(Continued from Page 6)

which broadcast regularly during the hours of the contest. Listeners could refer to our time-on-the-air lists and stay away from the broadcasters found to have a daily schedule during these hours. This might be the logical sequence to the policy established this year, where no stations in the Pacific Time Zone were scheduled during the first hour each morning.

The future of the Mystery DX Contest rests in the hands of our readers. If our first two attempts have been successful and if DXers believe that the contest should be an annual event, a repetition would be assured. If readers feel that it is too complicated and that it cannot be planned for the benefit of everyone, it would be well to drop preparations before they are commenced.

But regardless of what the outcome may be, it is necessary that readers let us know their opinions. If we are to undertake plans for another contest, we must have evidence that such is the wish of the majority—and the only way we can know this is to have a pile of letters before us.

So the verdict is up to you and you and you! What do you think?

The New Television

(Continued from Page 26)

the bottom of the plate or screen in the same time. It must now return to the top position from which it starts anew to trace another series of parallel half-tone lines. Any such movement of the beam would show an undesirable light trace. But a synchronizing signal follows at the end of the frame every 1/24th of a second, and this negative bias, quickly applied to the control aperture and grid of the electron gun, extinguishes the beam during its return to the starting point and renders its path invisible.

Synchronization of the receiver is obtained through the two deflecting "saw tooth" frequencies that fade out at the end of each horizontal line and at the bottom of the frame. They are fed into the transmitter along with the picture signals from the Iconoscope, but do not interfere. They come at an instant when the picture is not being transmitted during the return of the beam to its starting point. Vertical synchronization operates the same way, as the impulses for that purpose come at the completion of the frame and while the beam is being returned to the top to begin a new frame. In this manner the repro-

duced picture is brought into step with the transmitter at the end of every horizontal line each 1/10,000th of a second, and at the end of every frame each 1/24th of a second!

(The next and concluding article of this series will discuss further the new electronic scanning, and give details and operation of television receivers.)

Roster of DX Clubs

All-Wave All-World DX Club 214 George St., Sydney, NSW, Australia. Life membership, 3/6.

Canadian DX Relay, C. Hesterman, 2014 Lorne Ave., Saskatoon, Sask., Canada. \$1 per year; bulletin twice monthly.

Chicago Short Wave Radio Club, Harold Wright, President. C. J. Hughes, Secretary. \$1 per year for 26 bulletins. New members receive a valuable bulletin explaining shortwave reception. P. O. Box 240, Chicago, Ill.

Globe Circlers' DX Club, Raphael Geller, President, 1652 Radcliff Ave., Bronx, N. Y.

International DXers' Alliance, Charles P. Morrison, President, Bloomington, Ill. \$1.00 per year (\$1.25 in foreign countries). Monthly magazine.

International Short Wave Club, A. J. Green, President, E. Liverpool, Ohio. \$1.00 per year for monthly shortwave magazine.

KDKA DX Club. No dues; no bulletins. Broadcasts every Saturday morning 0000-0030 by Ed Lips, over KDKA and W8XK.

Liga Colombiana Radio DXers Alliance, c/o Aurelio Linero, Apartado 330, Bogota, Colombia.

National Radio Club, Robert M. Weaver, Pres., 603 W. Market St., York, Pa. \$1.25 per year. Bulletin issued weekly during season, monthly from May to Sept.

Newark News Radio Club, Irving H. Potts, Pres., 215 Market St., Newark, N. J. \$2.00 per year,

weekly bulletin.

New Zealand DX Club, Box 1680, Wellington, N. Z. Annual fee about 60 cents. Official organ, the "N. Z. Radio Times," subscription, 24 cents per copy.

New Zealand DX Radio Association, P. O. Box 437, Dunedin Cl., New Zealand. Publishes "Tune In," a monthly magazine at \$1.56 per year. An entrance fee of 60 cents is required.

Phoenix Shortwave Listeners' Club, John Binder, Pres., 1025 N. 9th St., Phoenix, Ariz. \$1 per year for monthly bulletin.

Quixote Radio Club, Box 772, Santa Barbara, Calif. Active members receive the weekly bulletin "The Reporter" for 20 weeks for \$1, while inactive members receive 10 for \$1. Active members are required to submit one report weekly.

Radio Club de Cuba, Lealtad 136, Havana, Cuba.

Universal DX Club, Elbert Hoppenstedt, Pres., 345 Maple Ave., Oradell, N. J. "Universal News" semi-monthly.

Universal Radio DX Club, Charles C. Norton, Pres., 2018 Green St., San Francisco, Calif. \$1 per year, for weekly bulletin.

Ohio's first regional chain, known as the Buckeye Network, began operation on March 15. The stations are WHK and WJAY, Cleveland, WHKC Columbus and WKBN Youngstown.

* * *

The Toronto studios of the CBC announce a new program series to commence Tuesday, March 30, at 8:00 p. m. EST. The program, "Shadows of the Evening," will be devoted to the world's best loved ballads and songs of tender sentiment. An orchestra under the direction of Percy Faith will be featured and Billie Bell, the well known radio contralto, will be regularly heard as vocalist.

WHAT'S ON THE AIR TONIGHT

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

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

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

For Pacific Time subtract one hour from Mountain.

Due to change to Daylight Saving Time on April 25, some of the stations will be unable to carry particular features.

MONDAY

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

C — Pretty Kitty Kelly

KFAB KFH KLRA KMBC KMOX KOMA KRLL KRNT KSCJ KSL KTUL KWKH WABC WADC WBBM WBNS WCCO WDRC WEEL WFBM WGR WHEC WHIO WHK WIBX WJNS WJR WJSV WKBN WMAS WMBG WOC WREC WSPD WWSA

B — Lowell Thomas

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

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

C — Poetic Melodies; Jack Fulton

WABC WADC WBT WCAO WCAU WDRC WEAN WEEL WFBL WGR WHEC WHK WJAS WJR WJSV WKRC WOKO WSPD WTOC WWSA

R — Amos 'n' Andy

KYW WBN WCAE WCSH WFAF WEEL WFBR WGY WJAR WLW WRC WTAG WTIC

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

C — "Ma and Pa;" Skotch

WABC WADC WBIG WBNS WBT WCAO WCAU WDBJ WDRC WEEL WFBL WGR WHEC WHK WHP WIBX WJAS WMAS WMBG WNBW WOKO WORC WPRO WWSJ WWSA

B — Uncle Ezra's Radio Station

KPRC KTBS KTHS KVOO KYW WBAP WBN WCAE WCKY WCSH WDAF WFAF WEEL WFBR WGY WIRE WJAR WKY WMAQ WOAI WOOD WOW WRC WTAG WTAM WTIC

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

B — Lum and Abner

WBZ WBZA WENR WJZ WLW WMC WSM WSYR

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

C — Boake Carter

KMBC KMOX KOMA KRLL WABC

WBBM WBT WCAU WCCO WDRC WEAN WFBL WGR WHAS WHK WJAS WJR WJSV WKRC WNAK

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

C — Horace Heidt and Orchestra

KDB KERN KFAB KFBK KFHP KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KRLL KRNT KSL KTRH KTSK KTUL KVI KWG WABC WBBM WBRW WBT WCAO WCAU WCCO WDRC WFBL WFBM WGR WGST WHAS WHK WJAS WJR WJSV WKRC WLAC WMBR WNAC WNAK WOKO WREC WWL

R — Burns and Allen

Station list not available.

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

C — Pick and Pat

KFAB KMBC WABC WADC WBBM WBT WCAO WCAU WDRC WEAN WFBL WGR WGST WHEC WHK WHP WICC WJAS WJR WJSV WKRC WLBB WMAS WNAC WOKO WORC WSPD

R — Voice of Firestone

CFCF CRCT KFYP KPRC KSD KSTP KTBS KVOO KYW WAVE WBN WCAE WCSC WCSH WDAF WDAY WFAF WEBC WEEL WFAA WFCB WFBR WFLA WGY WHO WIBA WIOD WIRE WIS WJAR WJAX WJDX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WSMB WSOC WTAG WTAM WTAR WTIC WTMJ WWJ WNNC

B — Frank Munn; Abe Lyman

KDKA KOIL KSO KWK WBAL WBZ WBZA WCKY WEAN WEBR WFIL WGAR WHAM WICC WJZ WLS WMAL WMT WREN WSYR WXYZ

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

C — Lux Radio Theatre

CFRB CKAC KDB KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMJ KMOX KOIN KOL KOMA KRLL KRNT KSL KTRH KTSK KTUL KVI KWG

WABC WADC WBBM WBNS WBRW WBT WCAO WCAU WCCO WDAE WDBJ WDRC WEAN WFBL WFBM WGST WHAS WHEC WHK WICO WJNS WJAS WJR WJSV WKBW WKRC WLAC WNAK WNAK WOKO WORC WQAM WREC WWL

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

R — Phil Spitalny's Girl Orchestra

Station list not available

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

R — Contented Program

CFCF CRCT KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD KYW WBN WCAE WCSH WDAF WFAF WEEL WFBR WFLA WGY WHO WIOD WIS WJAR WJAX WKY WMAQ WMC WOAI WOW WPTF WRC WRVA WSB WSM WTAG WTAM WTAR WTIC WWJ WNNC

B — Richard Himber; Stuart Allen

KDKA KECA KEX KFSD KGA KGO KJR KLO KOIL KOS KVOO KWK WBAL WBZ WBZA WCKY WEAN WEBR WENR WFIL WGAR WHAM WICC WJZ WMAL WMT WREN WSYR WTCN WXYZ

C — Wayne King and Orchestra

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

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

C — Poetic Melodies; Jack Fulton

KERN KFAB KFBK KFPY KFRC KGB KHJ KLRA KLZ KMBC KMOX KOIN KOL KOMA KRLL KRNT KSL KTRH KTSK KVI WBBM WBRW WCCO WFBM WGST WLAC WREC WWL

R — Amos 'n' Andy

KDYL KFI KGW KHQ KOA KOMO KPO KPRC KSD WBAP WDAF WHO WKY WLW WMC WOAI WOW WSB WSM WSMB WTAM WWJ

TUESDAY

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

ED-7:00 p.m., E-6:00, C-5:00, M-4:00
C — Poetic Melodies, See Monday
R — Argos 'n' Andy, See Monday
B — Easy Aces
KDKA KDYL KFI KGW KHQ KOA
KOIL KOMO KPO KSO KWK WBAL
WBZ WBZA WKY WENR WFIL
WGAR WHAM WHIO WIRE WJZ
WMAL WMT WSYR WXYZ

ED-7:15 p.m., E-6:15, C-5:15, M-4:15
C — "Ma and Pa," See Mon.

ED-7:30 p.m., E-6:30, C-5:30, M-4:30
B — Lum and Abner, See Monday
C — Alexander Woollcott
KFAB KFH KLRA KMOX KRLD
KTRH KTSa KWKH WABC WADC
WALA WBBM WBNS WBRC WBT
WCAO WCAU WCCO WDAE WDBO
WDRC WEEI WFBL WFBM WGR
WGBT WHAS WHEC WHIO WHK
WIBM WISN WJAS WJR WJSV
WKRC WLAC WLZ WMAS WMBG
WMBR WOKO WORC WPRO WQAM
WREC WTOC WWL WVVa

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

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

R — Johnny with Russ Morgan
KFYR KPRC KSD KSTP KTBS
KTHS KVoo KYW WAVE WBAP
WBEN WCAE WCSH WDAF WDAY
WEAF WEBC WFBR WFLA WGY
WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WNAG WOW WPTF WRC
WRVA WSB WSM WSMB WSOB
WSUN WTAG WTAM WTAR WTTIC
WTMJ WWJ WWNC

B — Husbands and Wives
KDKA KECA KEX KFSD KGA KGO
KJR KLO KOIL KSO KVOD KWK
WABY WBAL WBZ WBZA WKY
WEAN WEBR WFIL WGAR WHAM
WICC WJZ WLS WMAL WMT
WREN WSYR WXYZ

ED-8:30 p.m., E-7:30, C-6:30, M-5:30
C — Al Jolson; Parkyakarkas
CFRB KFAB KFH KLRA KMBC
KMOX KOMA KRLD KRNT KTRH
KTSa KTUL WABC WADC WBBM
WBNS WBRC WBT WCAO WCAU
WCCO WDAE WDBJ WDRC WEEI
WFBL WFBM WGR WGST WHAS
WHEC WHIO WHK WIBX WJAS
WJR WJSV WKRC WLAC WMAS

WMBD WMBG WNAX WOKO
WORC WPRO WQAM WREB WWJ

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

B — Edgar Guest, It Can Be Done
KDKA KOIL KSO KWK WBAL
WBZ WBZA WFIL WGAR WHAM
WJZ WLS WLW WMAL WMT
WREN WSYR WXYZ

ED-9:00 p.m., E-8:00, C-7:00, M-6:00
C — Al Pearce and Gang

CFRB CKAC KFAB KFH KGKO
KLRA KMBC KMOX KOMA KRLD
KRNT KSCJ KTRH KTSa K'UL
KWKH WABC WACO WADC WALA
WBBM WBIG WBNS WBRC WBT
WCAO WCAU WCCO WDAE WDBJ
WDBO WDNC WDOD WDRC WEAN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WIBX
WICC WISN WJAS WJR WJSV
WKBB WKBN WKBW WKRC
WLAC WLZ WMAS WMBD WMBG
WMBR WMMN WNAC WNAX
WNBF WNOX WOC WOKO WORC
WOW WPG WQAM WREC WSBT
WSFA WSJS WSPD WTOC WWL

R — Vox Pop; Sidewalk Interviews
KSD KYW WBEN WCAE WKY
WCSH WDAF WEAF WEEI WFBR
WGY WHO WIRE WJAR WMAQ
WOW WRC WTAG WTAM WTTIC
WTMJ

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

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

C — Jack Oakie's College
KFAB KFH KFPY KGKO KLRA
KLZ KMBC KMOX KNX KOIN KOL
KOMA KRLD KRNT KSCJ KSPF
KSL KTRH KTSa KTUL KVI KVOR
KWKH WABC WACO WADC WALA
WBBM WBIG WBNS WBRC WBT
WCAO WCAU WCCO WDAE WDBJ
WDBO WDNC WDOD WDRC WEEI
WFBL WFBM WGST WHAS WHEC
WHIO WHK WHP WIBW WIBX
WISN WJAS WJR WJSV WKBW
WKBW WKRC WLAC WLZ WMAS
WMBD WMBG WMBR WNAX
WNBF WNOX WOC WOKO WORC
WOW WPG WPRO WQAM WREC
WSBT WSFA WSJS WTOC WWL

R — Fred Astaire; Johnny Green
CRCT KDYL KFI KFYR KGW
KHQ KOA KOMO KPO KPRC KSD
KSTP KTBS KTHS KVoo KYW

WAVE WBAP WBEN WCAE WKY
WCSH WDAF WDAY WEAF WEBC
WEEI WFBR WFLA WGY WHO
WIBA WIOD WIRE WIS WJAR
WJAX WJDX WKY WMAQ WMC
WOAI WOW WPTF WRC WRVA
WSM WSMB WSOB WTAG WTAM
WTAR WTTIC WTMJ WWJ WWNC

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

R — Jimmy Fidler Hollywood Gossip
KDYL KFI KGW KHQ KOA KOMO
KPO KSD KTAR KYW WBEN
WCAE WCSH WDAF WEAF WFBR
WGY WHO WJAR WLW WMAQ
WNAC WOOD WOW WRC WTAG
WTAM WTTIC WWJ

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

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

C — Al Jolson; Parkyakarkus
KFPY KGMB KLZ KNX KOIN
KOL KSFO KSL KVI

WEDNESDAY

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

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

ED-7:15 p.m., E-6:15, C-5:15, M-4:15
C — "Ma and Pa," See Monday
R — Uncle Ezra, See Monday

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

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

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

C — Cavalcade of America
KDB KERN KFAB KFBK KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KRLD KRNT
KSL KVI KWG WABC WBBM
WBNS WCAU WCCO WDRC WEAN
WFBL WFBM WGR WHAS WHEC
WHK WJAS WJR WJSV WKRC
WLAC WMBG WNAC WOKO WTOC
WWL

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

Wednesday (Continued)

B — Broadway Merry-go-Round
KDKA KOIL KSO KWK WBAL WBZ
WBZA WCKY WEAN WEBR WFIL
WGAR WHAM WICC WJZ WLS
WMAL WMT WREN WSYR WXYZ

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

C — Ken Murray; Tony Martin
CFRB CKAC KFAB KFH KIRA
KMBC KMOX KOMA KRLLD KRNT
KSCJ KTRH K TSA KTUL KWKH
WABC WADC WBBM WBNS WBRC
WBT WCAO WCAU WCCO WDAE
WDBJ WDBO WDRC WEEI WFBL
WFBM WGR WGST WHAS WHEC
WHIO WHK WHP WIBW WIBX
WJAS WJR WJSV WKRC WLAC
WLBZ WMAS WMBD WMBG
WMBR WNAX WNOX WQOW WORC
WOWO WPG WPRO WQAM WREC
WWL

R — Wayne King, See Tuesday

B — Ethel Barrymore, Drama
KDKA KOIL KSO KWK WBAL WBZ
WBZA WENR WFIL WGAR WHAM
WJZ WMAL WMT WREN WSAI
WSYR WXYZ

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

C — Kostelanetz; Lily Pons
KDB KERN KFAB KFBK KFH
KFPY KFRC KGB KGKO KGMB
KHJ KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KOMA KRLLD
KRNT KSCJ KSL KTRH K TSA
KTUL KVI KVOR KWG KWKH
WABC WACO WADC WALA WBBM
WBIG WBNS WBRC WBT WCAO
WCAU WCCO WCOA WDAE WDBG
WDBO WDNC WDOD WDRC WEAN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WIBX
WICC WISN WJAS WJR WJSV
WKHB WKBW WKRC WLAC WLBZ
WMAS WMBD WMBG WMBR
WNAC WNAX WNBW WNOX WOC
WOKO WORC WOWO WPG WQAM
WREC WSFA WSJS WSPD WTOC
WWL

R — Town Hall Tonight
KFYR KFRC KSD KSTP KTBS
KTBS KVOO KYW WAVE WBEN
WCAE WCHS WDAF WDAY WFAE
WIBC WEEI WFAA WFBW WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WQAI WOV WPTF WRC WSB
WSM WSMB WSOC WTAG WTAM
WTAR WTIC WTMJ WWJ WWNC

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

C — Jessica Dragonette
KDB KERN KFAB KFBK KFH
KFPY KFRC KGB KGMB KHJ
KLRA KLZ KMBC KMJ KMOX
KOIN KOL KOMA KRLLD KRNT
KSL KTRH K TSA KTUL KVI KWG
KWKH WABC WBBM WBNS WBRC
WBT WCAO WCAU WCCO WDAE
WDBJ WDBO WDRC WEAN WFBL
WFBM WGST WHAS WHEC WHK
WICC WISN WJAS WJR WJSA
WKBW WKRC WLAC WLBZ WMBG
WMBR WNAC WOKO WORC WOWO
WQAM WREC WTOC WWL

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

C — Crime Crusade; Phil Lord
KDB KERN KFAB KFBK KFH
KFPY KFRC KGB KHJ KLRA KLZ
KMBC KMJ KMOX KOIN KOL
KOMA KRLLD KRNT KSL KTRH
K TSA KTUL KVI KWG KWKH
WABC WACO WBBM WBNS WBRC
WBT WCAO WCAU WCCO WDAE
WDBJ WDBO WDRC WEAN WFBL
WFBM WGST WHAS WHEC WHK
WICC WISN WJAS WJR WJSV
WKBW WKRC WLAC WLBZ WMBG
WMBR WNAC WOKO WORC WOWO
WQAM WREC WTOC WWL

R — Your Hit Parade
KDYL KEX KFI KFYR KGHL
KGRH KGU KGW KHQ KOA KOMO
KPO KPRC KSD KSTP KTAR KTBS
KTBS KVOO KYW WAVE WCAE
WCSC WCHS WDAF WDAY WFAE
WIBC WEEI WFAA WFBW WFLA WGY
WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WNAC WQAI WOV WPTF
WRC WRVA WSB WSM WSMB
WSOC WSUN WSYR WTAG WTAM
WTAR WTIC WTMJ WWJ WWNC

B — Vic and Sade
KDKA KOIL KSO KWK WBAL
WBZ WBZA WCKY WEAN WEBR
WENR WFIL WGAR WHAM WICC
WJZ WMAL WMT WREN WSYR
WTCN WXYZ

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

C — Babe Ruth; Baseball Talks
Station list not available.

R — Gladys Swarthout
KDYL KFI KGW KHQ KOA KOMO
KPO KPRC KSD KSTP KTAR
KTBS KVOO KYW WAPI WAVE
WBEN WCAE WCHS WDAF WFAE
WFAA WFBW WFLA WGY WHO
WIBA WIOD WIRE WIS WJAR
WJAX WJDX WKY WMAQ WMC
WNAC WQAI WOV WPTF WRC
WRVA WSB WSM WSMB WSOC
WTAG WTAM WTAR WTIC WTMJ
WWJ WWNC

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

C — Poetic Melodies, See Monday
R — Amos 'n' Andy, See Monday

THURSDAY

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

C — Kitty Kelly, See Monday
B — Lowell Thomas, See Monday

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

C — Poetic Melodies, See Monday
R — Amos 'n' Andy, See Monday
B — Easy Aces, See Tuesday

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

C — "Ma and Pa," See Monday

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

C — Alexander Woolcott, See Tuesday
B — Lum and Abner, See Monday

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

C — Boake Carter, See Monday

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

C — A & P Bandwagon
KFAB KMBC KMOX KRLLD KRNT
KTRH WABC WADC WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCCO WDAE WDBJ WDRC WEEI
WFBL WFBM WGR WGST WHAS
WHEC WHK WHP WIBX WJAS
WJR WJSV WKBN WKRC WLBZ
WMAS WMBG WMBR WOC WOKO
WORC WPRO WQAM WTOC WWL
WWVA

R — Rudy Vallee's Variety Hour
CFWF CRCT KDYL KFI KFYR
KGFH KHQ KOA KOMO KPO KSD
KSTP KTAR KYW WBEN WCAE
WCHS WDAF WDAY WFAE WIBC
WEEI WFBW WGY WHO WJAR
WLW WMAQ WOV WRC WTAM
WTIC WTMJ WWJ

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

M — Guy Lombardo Orchestra
OKLW KDB KDON KPEL KFRC
KFXM KGB KGDM KHJ KPNC
KSO KVOE KWK KXO WABY WBAL
WFIL WGAR WKBW WMT WOL
WOR WSAI WSYR WWSW
Also on Canadian Network

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

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

R — Maxwell House Show Boat

KDYL KFI KFSD KFYR KGHL
KGRH KWK KHQ KOA KOMO KPO
KPRC KSD KSTP KTAR KTBS
KYW WAPI WAVE WBPB WBEN
WCAE WCHS WDAF WDAY WFAE
WIBC WEEI WFBW WFLA WGY
WHO WIBA WIOD WIRE WIS WJAR
WJAX WJDX WKY WMAQ WMC
WQAI WOV WPTF WRC WRVA
WSAI WSB WSM WSMB WSOC
WTAG WTAM WTAR WTIC WTMJ
WWJ WWNC

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

C — Your True Adventures
KFAB KFH KFPY KLRA KLZ
KMBC KMOX KNX KOIN KOL
KOMA KRLLD KRNT KSFQ KSL
KTRH K TSA KTUL KVI KWKH
WABC WBBM WBNS WBRC WBT
WCAO WCAU WCCO WDAE WDBJ
WDBO WDRC WEEI WFBL WFBM
WGST WHAS WHEC WHIO WHK

THURSDAY (Continued)

WISN WJAS WJR WJSV WKBW
WKRC WLAC WLBZ WMBG WMBR
WOKO WORC WPRO WQAM WREC
WTOC WWL

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

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

C — March of Time
KFAB KFPY KLZ KMBC KMOX
KNX KOIN KOL KOMA KRNT
KSFO KSL KVI WABC WBBM
WBNS WCAO WCAU WCCO WDRC
WEEI WFBL WFBM WGST WHAS
WHBC WHK WJAS WJR WJSV
WKBW WKRC WOKO WPRO WWL

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

C — Poetic Melodies, See Monday
R — Amos 'n' Andy, See Monday

FRIDAY

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

C — Kitty Kelly, See Monday
B — Lowell Thomas, See Monday

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

C — Mortimer Goetz, Sketch
WABC WADC WBT WCAO WCAU
WDRS WEAN WEEI WFBL WGSV
WHBC WHK WJAS WJR WJSV
WKRC WOKO WSPD WTOC WWVA

R — Amos 'n' Andy, See Monday

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

C — "Ma and Pa," See Monday
R — Uncle Ezra, See Monday

B — Stainless Show; Mario Cozzi

KDKA KECA KEK KFSD KGA KGO
KJR KLO KOIL KSO KVOD KWK
WBAL WBZ WBZA WEBR WENR
WFIL WGAR WHAM WJZ WMAL
WMT WSAI WSYR WXYZ

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

B — Lum and Abner, See Monday

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

C — Boake Carter, See Monday

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

C — Broadway Varieties
KDB KERN KFAB KFBC KFPY
KFRC KGB KHJ KLZ KMBC KMJ
KMOX KOIN KOL KOMA KRNT
KSL KVI KWG WABC WBBM

WBNS WBRC WBT WCAO WCAU
WCCO WDRC WEAN WFBL WFBM
WGR WGST WHAS WHK WJAS
WJR WJSV WKRC WMAS WMBG
WNAC WOKO WWL

R — Cities Service Concert

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

B — Irene Rich; Drama

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

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

B — Singin' Sam
KDKA KOIL KSO KWK WBAL
WBZ WBZA WFIL WGAR WHAM
WJZ WLS WMAL WMT WREN
WSYR WXYZ

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

C — Hal Kemp; Kay Thompson
KFAB KFH KGKO KLRA KMBC
KMOX KOMA KRLD KRNT KSCJ
KTRH KTSR KTUL KWKH WABC
WACO WADC WALA WBBM WBIG
WBNS WBRC WBT WCAO WCAU
WCCO WCOA WDAE WDBJ WDBO
WDNC WOOD WDRC WEEI WFBL
WFBM WFEA WGR WGST WHAS
WHBC WHIO WHK WHP WIBW
WIBX WISN WJAS WJR WJSV
WKBN WKRC WLAC WLBZ WMAS
WMBD WMBG WMBR WMMN
WNAX WNEF WNOX WOC WOKO
WORC WOWO WPG WPRO WQAM
WREC WSFA WSJS WSPD WTOC
WWL

B — Death Valley Days

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

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

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

R — Frank Munn; Bernice Claire

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

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

R — True Story Club

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

B — Coronet; Deems Taylor

Station list not available.

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

R — First Nighter; Drama

KDYL KFI KFJR KGW KHQ KOA
KOMO KPO KPRC KSD KSTP
KTBS KTHS KYW WAVE WBEN
WCAE WCSH WDAF WDAY WEAF
WIBC WEEI WFAA WFBR WFLA
WGY WHO WIBA WIOD WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WPTF WRC WRVA WSB
WSM WSMB WSOC WTAG WTAM
WTAR WTIC WTMJ WWJ WWNC

B — Jack Pearl; Morton Bowe

KDKA KECA KFSD KGA KGO
KJR KLO KOIL KSO KWK WABY
WBAL WBZ WBZA WCKY WOOL
WEAN WEBR WENR WFIL WFLA
WGAR WHAM WICC WIOD WIS
WJAX WJZ WMAL WMT WOOD
WPTF WREN WRVA WSOC WSUN
WSYR WTAR WWNC WXYZ

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

C — Babe Ruth, See Wednesday

R — Pontiac Varsity Show

KARK KDYL KFBC KFI KFJR
KGBX KGHK KGIR KGNC KGW
KHQ KMJ KOA KOMO KPO KPRC
KSD KSTP KTAR KTBS KTHS
KVOO KWG KYW WAPI WAVE
WBEN WCAE WCOC WCSH
WDAF WEAF WEBC WFAA WIBC
WFBR WFLA WGL WGY WHO
WIBA WIOD WIRE WIS WJAR
WJAX WJDX WKY WLW WMAQ
WMC WNAC WOAI WOOD WOW
WPTF WRVA WSB WSM WSMB
WSOC WSUN WTAG WTAM WTAR
WTIC WTMJ WWJ WWNC

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

C — Mortimer Goetz, Sketch

KERN KFAB KFBC KFPY KFRC
KGB KHJ KLRA KLZ KMBC KMOX
KOIN KOL KOMA KRLD KRNT
KSL KTRH KTSR KVI WBBM
WBRC WCCO WFBM WGST WLAC
WREC WWL

R — Amos 'n' Andy, See Monday

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

C — Hal Kemp; Kay Thompson

KFBB KFPY KGMB KGVO KSL
KNX KOH KOIN KOL KSFO KLN
KVI KVOR

SATURDAY

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

C — Saturday Swing Club

KFBB KFH KFPY KGKO KGVO
KLZ KNOW KOH KOL KOMA KRLD
KSCJ KSFO KSL KTRH KTSR KVI
KVOR KWKH WABC WACO WADC

SATURDAY (Continued)

WBG WBNS WBT WCAO WCAU
WCCO WDAE WDBO WDRC WDEB
WFBL WGR WHEC WHK WHF
WIBW WIBX WISN WJAS WLZ
WMAS WMBD WMBG WMBF WOC
WOKO WORC WPRO WSJS WVVA

ED-7:30 p.m., E-6:30, C-5:30, M-4:30**C — Carborundum Band**

KFAB KMBC KNOX WABC WBBM
WBT WCAU WCCO WHEC WEEI
WFBL WGR WHAS WHK WJAS
WJR WKRC

ED-8:00 p.m., E-7:00, C-6:00, M-5:00**C — Professor Quiz**

KFAB KFBB KFH KFPY KLRA
KLZ KMBC KMOX KNX KOIN KOL
KOMA KRLD KRNT KSFO KSL
KTRH KTSB KVI KWKH WABC
WBBM WBNS WBRC WBT WCAO
WCAU WCCO WDAE WDBO WDRC
WEEI WFBL WFBM WGR WHK
WHEC WHK WISN WJAS WJR
WJSV WKRC WLAC WLZ WMBG
WMBR WNOX WOKO WORC WPRO
WQAM WREC WWL WVVA

R — Saturday Night Party

KSD KYW WAPI WAVE WBEN
WCAE WCSC WCHS WDAF WEAJ
WFBW WFLA WGY WHO WIOD
WIS WJAR WJAX WJDX WMAQ
WMC WNAC WOV WPTF WRC
WSB WSMB WSOC WTSN WTAG
WTAM WTAR WTIC WWJ WWNC

B — Ed Wynn; Don Voorhees

KDKA KFYP KOIL KPRC KSO
KSTP KTBS KWK WABY WBAI
WBAP WBZ WBZA WCKY WDAY
WEBC WEBR WFIL WGAR WHAM
WIBA WIRE WJZ WKY WLS WMAL
WMT WOAI WREN WSYR WTMJ
WXYZ

ED-8:30 p.m., E-7:30, C-6:30, M-5:30**C — Phil Ducey; Russ Morgan**

KFAB KFH KMBC KMOX KRNT
WABC WADC WBBM WBLG WBNS
WBT WCAO WCAU WCCO WCOA
WDRC WEEI WFBL WFBM WGR
WGST WHAS WHEC WHIO WHK
WHP WISN WJAS WJR WJSV
WKRC WMBD WMBG WMBF WOC
WOKO WPRO WSBT WVVA

ED-9:00 p.m., E-8:00, C-7:00, M-6:00**C — Floyd Gibbons; Vincent Lopez**

KDB KERN KFAB KFBC KFPY
KFRC KGB KHJ KLRA KLZ KMBC
KMJ KMOX KOIN KOL KOMA
KRLD KRNT KSL KTRH KTSB
KVI KWG WABC WBBM WBNS
WBT WCAO WCAU WCCO WDAE
WDBO WDRC WEAN WFBL WFBM
WJAS WJR WJSV WKBC WKRC
WMBR WOKO WQAM WREC WSPD
WWL

R — Snow Village Sketches

KSD KKY WBEN WCAE WCSC
WDAF WEAJ WFBW WGY WJAR
WMAQ WNAC WOW WRC WTAG
WTAM WTIC WWJ

B — National Barn Dance

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

ED-9:30 p.m., E-8:30, C-7:30, M-6:30**C — Mary Eastman; Gus Haenschen**

KDB KERN KFAB KFBC KFH
KFPY KFRC KGB KGKO KHJ
KLRA KLZ KMBC KMJ KMOX
KOIN KOL KOMA KRLD KTRH
KTSB KTUL KVI KWG KWKH
WALA WBBM WBG WBNS WBRC
WBT WCAO WCOA WDAE WDBO
WDOD WEAN WFBL WFBM WGST
WHAS WHEC WHK WJAS WJR
WJSV WKBC WLAC WMBD WMBR
WNOX WOC WQAM WREC WSA
WSPD WTOC WWL WVVA

R — Shell Chateau

KDYL KFI KFSD KFYP KGHL
KGIR KGW KHQ KOA KOMO KPO
KSD KSTP KTAR KYW WBEN
WCAE WCSC WDAF WDAY WEAJ
WEBC WEEI WFBW WGY WIBA
WJAR WLW WMAQ WOW WRC
WTAG WTAM WTIC WTMJ WWJ

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

KERN KFAB KFBC KFH KFPY
KFRC KGB KGKO KGMB KHJ
KLRA KLZ KMBC KMJ KMOX
KOH KOIN KOL KOMA KRLD
KRNT KSCJ KSL KTRH KTSB
KTUL KVI KVOR KWG KWKH
WABC WACO WADC WALA WBBM
WBNS WBNS WBRC WBT WCAO
WCAU WCCO WCOA WDAE WDBJ
WDBO WDNC WDOD WDRC WEAN
WFBL WFBM WFEA WGST WHAS
WHEC WHK WHP WIBW WIBX
WICC WISN WJAS WJR WJSV
WKBC WKRC WLAC WLZ WMAS
WMBD WMBG WMBR WNAC
WNAX WNOX WOC WOKO WORC
WPG WQAM WREC WSBT WSA
WSJS WSPD WTOC WWL WVVA

ED-10:30 p.m., E-9:30, C-8:30, M-7:30**R — Irvin S. Cobb**

KDYL KFI KFYP KGHL KGIR
KGW KHQ KOA KOMO KPRC
KSD KSTP KTAR KTBS KTSH
KVOO KYW WAVE WBAP WBEN
WCAE WCSC WDAF WDAY WEAJ
WEBC WFBW WFLA WGY WIBA
WIOD WIS WJAR WJAX WJDX
WKY WMAQ WMC WNAC WOOD
WOW WPTF WSN WTVG WSB
WSMB WSOC WSUN WTAG WTAM
WTAR WTIC WTMJ WWJ WWNC

ED-11:00 p.m., E-10:00, C-9:00, M-8:00**CBC — The Northern Messenger**

CFAC CFCH CFCC CFJC CFPL
CFQC CHWK CJAT CJCA CJXC
CJKL CJOC CJRM CJRO CJRK
CKBI CKCK CKGB CKOC CKOV
CKPR CKCO CKTB CKX CKY

CRCK CHCM CRCO CRCS CRCT
CRVC CRWC CRX

B — National Barn Dance

KDYL KFI KFSD KFYP KGHL
KGIR KGW KGW KHQ KOA KOMO
KPO KSTP KTAR WDAY WEBC
WIBA WLW WTMJ

SUNDAY**ED-11:30 a.m., E-10:30, C-9:30, M-8:30****C — Major Bowes' "Family"**

CFRB KERN KFAB KFBC KFBC
KFH KFPY KFRC KGB KGVO
KMBC KOH KOL KRLD KSL KTRH
KTSB KVI KVOR KWG KWKH
WABC WACO WADC WALA WBNS
WBRC WCAO WCCO WDAE WDBJ
WDBO WDNC WESG WFBL WFEA
WHAS WHK WIBX WJAS WJR
WKRC WLZ WMBD WMBR
WMMN WOC WOKO WORC WPG
WQAM WSBT WSJS WSPD WTOC

B — Morton Bowe, Tenor

KOIL KPRC KSO KSTP KWK WAPI
WAVE WBAL WBZ WBZA WFIL
WIBA WJDX WJZ WLW WMAL
WMAQ WMC WMT WREN WSB
WSM WSMB WXYZ

ED-Neon, E-11:00 a.m., C-10:00, M-9:00**R — Paramount on Parade**
Station list not available**ED-12:30 p.m., E-11:30 a.m., C-10:30, M-9:30****C — Salt Lake Tabernacle Choir**

CFRB KFAB KFBB KFBC KFH
KFPY KFRC KGB KLZ KOH KOL
KRLD KSL KTRH KTSB KVI KVOR
KWG WABC WACO WADC WALA
WBNS WBNS WBRC WCAO WCCO
WDAE WDBJ WDBO WESG WFBL
WFEA WGR WHAS WICC WJAS
WJR WKRC WLZ WMBR WMMN
WOC WOKO WORC WQAM WSBT
WSJS WSPD WTOC

B — Radio City Music Hall

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

ED-1:00 p.m., E-Neon, C-11:00 a.m., M-10:00**C — Church of the Air**

KFBC KFH KFPY KFRC KGB
KHJ KMOX KOH KOL KOMA KRLD
KRNT KSCJ KSL KTRH KTSB KVI
KVOR KWG WABC WALA WBNS
WBT WCAO WCCO WDAE WDBJ
WDBO WDRC WESG WFBL WFBM
WGR WHAS WHP WIBX WJAS
WJSV WKBC WKRC WLAC WLZ
WMBR WMBF WOC WOKO WORC
WPG WQAM WREC WSBT WSJS
WSPD WTOC WVVA

SUNDAY (Continued)

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

B — Magic Key of RCA

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

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

C — Cook's Travelogue

CKAC WABC WBBM WBRC WBT WCAO WCAU WEEI WGST WJAS WJSV WLAC WREC WWL

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

C — New York Philharmonic

CFRB CKAC KERN KFAB KFBB KFBQ KFH KFPY KFRC KGB KGVO KLRA KLZ KMBC KNOW KOH KOL KRLD KSL KTRH K TSA KVI KVOR KWKH WABC WACO WADC WALA WBIG WBNS WBRC WCAO WCCO WDAE WDBJ WDBO WDNC WDDO WDRC WEAN WEEI WESG WFBL WFBM WFEA WHAS WHEC WHO WHK WIBX WICC WJAS WJR WKBW WKRC WLZ WMBD WMBG WMBR WMMN WOC WOKO WORC WQAM WSBT WSJS WSPD WTOC

Also on Canadian Network

M — Fr. Charles E. Coughlin

KOIL WAAB WBRY WCAU WDGW WEAN WFEA WHB WICG WJZ WKBW WLZ WLH WLHN WMCA WNEB WRDO WSAR WSPR WTHT

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

R — Grand Hotel; Drama

KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSD KSTP KYW WBEN WCAE WCSH WDAF WDAY WFAF WJAS WMAQ WNAO WOV WRC WSAI WTAG WTAM WTIC WWJ

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

R — Musical Camera; Willie Morris

DYL KFI KGW KHQ KOA KOMO KPO KYW WBEN WCAE WCSH WFAF WGY WJAR WLW WMAQ WRC WRC WSB WSMB WTAM WTIC WWJ

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

C — Your Unseen Friend; Drama

KFAB KLZ KMOX KSL KWKH WABC WADC WBBM WBNS WCAO WCAU WCOA WDAE WDBJ WDDO WDRC WEAN WEEI WESG WFBL WHAS WHEC WHK WHP WIBX WJAS WJR WKBW WKRC WLAC WLZ WMAS WMBG WMMN

WNOX WOKO WORC WOW WQAM WREC WSMK WSPD WWL WWVA

R — Marion Talley, Soprano

KDYL KFI KFYR KGW KHQ KOA KOMO KPO KSTP KYW WBEN WCAE WCKY WCSH WDAF WDAY WFAF WEEC WFBM WGY WIBA WIRE WJAR WMAQ WNAO WOV WRC WTAG WTAM WTIC WTMJ WWJ

B — We, The People; Phil Lord

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

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

C — Guy Lombardo and Orchestra

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

R — Smiling Ed McConnell

KDYL KFI KFYR KGIR KGW KHQ KOMO KPO KSTP KYW WBEN WCAE WCSH WDAF WDAY WFAF WEEC WFBM WGY WHO WIBA WJAR WLW WMAK WNAO WOV WRC WTAG WTAM WTIC WTMJ WWJ

B — Stoopnagle and Budd

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

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

C — Joe Penner; Jimmy Grier

KFAB KFPY KLZ KMBC KMOX KNX KOIN KOL KOMA KRLD KRNT KSFO KSL KTRH K TSA KVI WABC WBBM WBNS WBRC WBT WCAO WCAU WCCO WDAE WDRC WEEI WFBL WFBM WGST WHAS WHEC WHK WJAS WJR WJSV WKBW WKRC WMBG WMBR WOKO WORC WPRO WQAM WREC WWL

M — Ray Knight; Arnold Johnson

OKLW KHJ KWK WAAB WBAL WFIL WGAR WGN WLW WOR

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

C — Rubinoff and His Violin

KDB KERN KFAB KFBB KFBK KFH KFPY KFRC KGB KOGO KHJ KLRA KLZ KMJ KMOX KOH KOIN KOL KOMA KRLD KRNT KSCJ KSL KTRH K TSA KTUL KVI KVOR KWG KWKH WABC WACO WADC WALA WBBM WBIG WBNS WBRC WBT WCAO WCAU

WCCO WCOA WDAE WDBJ WDBO WDNC WDDO WDRC WEEI WFBL WFBM WFEA WGST WHAS WHEC WHK WHP WIBW WIBX WISN WJAS WJR WJSV WKBN WKBW WKRC WLAC WL BX WMAS WMBD WMBG WMBR WNAO WNOX WOC WOKO WORC WPG WQAM WREC WSBT W SFA WSJS WSMK WSPD WTOC WWL WWVA

R — A Tale of Today

WBEN WFAF WGY WJAR WMAQ WOV WRC WTAM

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

C — Columbia Workshop

KFAB KFBB KFH KFPY KGKO KGVO KNOW KOH KOIN KOL KOMA KRLD KRNT KSCJ KSPD KTRH K TSA KTUL KVI KVOR KWKH WABC WACO WADC WALA WBBM WBNS WBRC WBT WCAO WCCO WCOA WDAE WDBO WDNC WFBL WFBM WGR WGST WHEC WHIO WHK WHP WIBX WISN WJAS WJNO WKRC WLZ WMAS WMBG WMMN WNOX WOKO WORC WPG WREC WSBT WSJS WSPD WTOC

R — Jack Benny; Mary Livingstone

KSD KYA KYW WBEN WCAE WCSH WDAF WFAF WFBM WGY WHO WJAR WLW WMAQ WNAO WOV WRC WTAG WTAM WTIC WWJ

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

C — Phil Baker; Oscar Bradley

KLRA KLZ KRLD KTRH K TSA KTUL KWKH WABC WACO WADC WALA WBIG WBNS WBRC WBT WCAO WCAU WCOA WDAE WDBJ WDBO WDNC WDDO WDRC WEAN WFBL WFBM WFEA WGR WGST WHAS WHEC WHK WHP WIBX WICC WJAS WJR WJSV WKBN WKRC WLAC WLZ WMAS WMBR WNAO WNOX WOKO WOC WQAM WREC WSBT W SFA WSJS WSMK WSPD WTOC WWL WWVA

R — Fireside Recitals

KSD KYW WBEN WCAE WCSH WDAF WFAF WFBM WGY WIRE WJAR WMAQ WOV WRC WSAI WTAG WTAM WTIC WWJ

B — Ozzie Nelson; Bob Ripley

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

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

R — Sunset Dreams; Morin Sisters

CFCF CRCT KSD KYW WBEN WCAE WCSH WDAF WFAF WFBM WGY WHO WIRE WJAR WLW WMAQ WOAI WOOD WOV WRC WTAG WTAM WTIC WWJ

C — Victor Moore; Helen Broderick

KFAB KFH KFPY KLRA KLZ KMBC KMOX KNX KOIN KOL

SUNDAY (Continued)

KOMA KRLD KRNT KSCJ KSFJ
 KTRH KTRH KTSa KTUL KVI
 KWKH WABC WADC WBBM WBIG
 WBNS WBRC WBT WCAO WCAU
 WCOO WDAE WDBJ WDBO WDRC
 WEEI WFBL WFBM WGR WGST
 WHAS WHEC WHIO WHK WHP
 WBX WJAS WJR WJSV WKBN
 WKRC WLAC WLBZ WMAS WMBG
 WMBR WNAX WNBW WNOX WOKO
 WORC WPRO WQAM WREC WSBT
 WWL WWVA

R — Want to be an Actor?

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

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

C — Eddie Cantor; Bobby Breen

KFAB KFH KGKO KLRA KMBC
 KMOX KOMA KRLD KRNT KSCJ
 KTRH KTSa KTUL KWKH WABC
 WACO WADC WALA WBBM WBIG
 WBNS WBRC WBT WCAO WCAU
 WCOO WDAE WDBJ WDBO
 WDNC WDOD WDRC WEAN WFBL
 WFBM WFEA WGR WGST WHAS
 WHEC WHK WHP WIBW WIBX
 WICC WISN WJAS WJR WJSV
 WKBN WKRC WLAC WLBZ WMAS
 WMBD WMBR WMMN WNAX
 WNOX WOC WOKO WORC WQAM
 WREC WSBT WSFA WSJS WSMK
 WSPD WTOC WWL WWVA

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

B — Frank Parker; Shep Fields

KDKA KECA KFSD KGA KGHL
 KGIR KGO KJR KLO KOIL KSO
 KTRT KTRH KTSa KTUL KVI
 WABC WADC WALA WBBM WBIG
 WBNS WBRC WBT WCAO WCAU
 WCOO WDAE WDBJ WDBO
 WDNC WDOD WDRC WEAN WFBL
 WFBM WFEA WGR WGST WHAS
 WHEC WHK WHP WIBW WIBX
 WICC WISN WJAS WJR WJSV
 WKBN WKRC WLAC WLBZ WMAS
 WMBD WMBR WMMN WNAX
 WNOX WOC WOKO WORC WQAM
 WREC WSBT WSFA WSJS WSMK
 WSPD WTOC WWL WWVA

R — Manhattan Merry-Go-Round

CPCF KDYL KFI KFYR KGW
 KHQ KOA KOMO KPO KPRC KSD

KSTP KTBS KTHS KYW WAVE
 WBEN WCAE WKY WCHS WDAF
 WDAY WEAF WEBC WEEI WFAA
 WFBR WFLA WGY WHO WIBA
 WIOD WIRE WIS WJAR WJAX
 WJDX WKY WMAQ WMC WOAI
 WOW WPTF WRC WRVA WSB
 WSM WSMB WSOC WTAG WTAM
 WTAR WTIC WTMJ WWJ WWNC

C — Ford Sunday Evening Hour

CPRB CKAC KDB KERN KFAB
 KFBB KFH KFYR KFRC KGB
 KGKO KHJ KLRA KLZ KMBC
 KMJ KMOX KOH KOIN KOL KOMA
 KRLD KRNT KSCJ KSL KTRH
 KTSa KTUL KVI KFOR KWG
 KWKH WABC WACO WADC WA'LA
 WBBM WBIG WBNS WBRC WBT
 WCAO WCAU WCOO WDAE
 WDBJ WDBO WDNC WDOD WDRC
 WEAN WFBL WFBM WFEA WGR
 WGST WHAS WHEC WHK WHP
 WIBW WIBX WICC WISN WJAS
 WJR WJSV WKBN WKRC WL C
 WLBZ WMAS WMBD WMBR WN C
 WNAX WOC WOKO WORC WQAM
 WREC WSBT WSFA WSJS WSPD
 WTOC WWL WWVA

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

R — Album of Familiar Music

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

B — Walter Winchell

KDKA KECA KEX KFSD KGA
 KGHL KGIR KGO KJR KLO KOIL
 KSO KTRT KTRH KTSa KTUL
 KWKH WABC WACO WADC WA'LA
 WBBM WBIG WBNS WBRC WBT
 WCAO WCAU WCOO WDAE
 WDBJ WDBO WDNC WDOD WDRC
 WEAN WFBL WFBM WFEA WGR
 WGST WHAS WHEC WHK WHP
 WIBW WIBX WICC WISN WJAS
 WJR WJSV WKBN WKRC WL C
 WLBZ WMAS WMBD WMBR WN C
 WNAX WOC WOKO WORC WQAM
 WREC WSBT WSFA WSJS WSPD
 WTOC WWL WWVA

ED-10:00 p.m., E-9:00, C-8:30, M-7:00

C — Gillette Community Sing

CPRB CKAC KDB KERN KFAB
 KFBB KFH KFYR KFRC KGB
 KGKO KHJ KLZ KMBC KMJ KMOX
 KOH KOIN KOL KOMA KRLD

KRNT KSCJ KSL KTRH KTSa
 KTUL KVI KFOR KWG KWKH
 WABC WACO WADC WALA WBBM
 WBIG WBNS WBRC WBT WCAO
 WCAU WCOO WDAE WDBJ
 WDBO WDNC WDOD WDRC WEAN
 WFBL WFBM WFEA WGST WHAS
 WHEC WHK WHP WIBW WIBX
 WICC WISN WJAS WJR WJSV
 WKBN WKBW WKRC WLAC WLBZ
 WMAS WMBD WMBG WMBR
 WMMN WNAC WNAX WNOX WOC
 WOKO WORC WOWO WPG WQAM
 WREC WSBT WSFA WSJS WSMK
 WSPD WTOC WWL

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

C — Kaltenborn Edits the News

KFH KGKO KNOW KOH KOIN KOL
 KOMA KRLD KRNT KSCJ KSPD
 KTRH KTSa KTUL KVI KWKH
 WABC WACO WADC WALA WBIG
 WBNS WDAE WDBJ WDBO WDNC
 WDRC WEEI WFBL WHAS WHEC
 WHIO WHK WIBX WJAS WJNO
 WJSV WKBW WLBZ WMAS WMBR
 WMMN WNAX WNBW WNOX WOC
 WOKO WORC WOWO WPRO WQAM
 WREC WSBT WSFA WSJS WSPD
 WTOC

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

C — Eddie Cantor; Bobby Breen

KERN KFBB KFHK KFYR KFRC
 KGB KGVO KHJ KLZ KMJ KOH
 KOIN KOL KSL KVI KFOR

R — Sunset Dreams; Morin Sisters

KDYL KFI KFSD KGW KHQ KOA
 KOMO KPO KPRC KTRT KTRH
 KTSa WABC WADC WALA WBBM
 WBIG WBNS WBRC WBT WCAO
 WCAU WCOO WDAE WDBJ WDBO
 WDNC WDOD WDRC WEAN WFBL
 WFBM WFEA WGR WGST WHAS
 WHEC WHK WHP WIBW WIBX
 WICC WISN WJAS WJR WJSV
 WKBN WKRC WLAC WLBZ WMAS
 WMBD WMBR WMMN WNAX
 WNOX WOC WOKO WORC WQAM
 WREC WSBT WSFA WSJS WSMK
 WSPD WTOC WWL WWVA

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

B — Walter Winchell

KDYL KFI KFSD KGHL KGIR
 KGW KHQ KOA KOMO KPO KPRC
 KTRT KTRH KTSa KTUL KVI
 WABC WADC WALA WBBM WBIG
 WBNS WBRC WBT WCAO WCAU
 WCOO WDAE WDBJ WDBO
 WDNC WDOD WDRC WEAN WFBL
 WFBM WFEA WGR WGST WHAS
 WHEC WHK WHP WIBW WIBX
 WICC WISN WJAS WJR WJSV
 WKBN WKRC WLAC WLBZ WMAS
 WMBD WMBR WMMN WNAX
 WNOX WOC WOKO WORC WQAM
 WREC WSBT WSFA WSJS WSMK
 WSPD WTOC WWL WWVA

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

B — Frank Parker; Shep Fields

KPRC KTBS KTHS KVD WAPI
 WAVE WBAP WJDX WKY WMC
 WOAI WSB WSM WSMB

CLASSIFIED INDEX TO CHAIN PROGRAMS

Time in Eastern Standard

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

CONCERTS

Frank Black, 2 p.m. Sun., B
 Rosario Bourdon, 8 p.m. Fri., R
 Ford Concert, 9 p.m. Sun., C
 New York Philharmonic, 3 p.m. Sun., C

Radio City Music Hall, 12:30 p.m. Sun., B
 Don Voorhees, 8 p.m. Wed., C

DANCE BANDS

Victor Arden, 8 p.m. Fri., C

Ben Berne, 9 p.m. Tues., B
 Bunny Berigan, 7 p.m. Sat., C
 Oscar Bradley, 7:30 p.m. Sun., C
 Jimmie Dorsey, 10 p.m. Thurs., R
 Tommy Dorsey, 10 p.m. Fri., B
 Shep Fields, 9:00 and 11:30 p.m. Sun., B
 Lud Gluskin, 8:30 Wed., C
 Al Goodman, 9 and 11:15 p.m. Thurs., R
 Benny Goodman 9:30 p.m. Tues., C
 Johnny Green, 9:30 p.m. Tues., R
 Jimmy Grier, 6 p.m. Sun., C
 Gus Haenschen, 9:30 p.m. Sat., C
 Phil Harris, 7 and 11:30 p.m. Sun., R
 Horace Heidt, 8 p.m. Mon., C
 Richard Himber, 10 p.m. Mon., B
 Arnold Johnson, 6 p.m. Sun., M
 Hal Kemp, 8:30 and 11:30 p.m. Fri., C
 Henry King, 8:30 and 11:30 p.m. Wed., C
 Wayne King, 8:30 p.m. Tues. and Wed., R;
 10 p.m. Mon., C
 Andre Kostelanetz, 9 p.m. Wed., C
 Guy Lombardo, 5:30 p.m. Sun., C;
 8:30 Thurs., M
 Vincent Lopez, 9 p.m. Sat., C
 Abe Lyman, 8:30 p.m. Mon., B; 9 p.m. Fri., R;
 10 p.m. Wed., R
 Russ Morgan, 8:30 and 11:30 p.m. Sat., C;
 8 p.m. Tues., R
 Ozzie Nelson, 7:30 p.m. Sun., B
 Ray Noble, 8 p.m. Mon., R
 Raymond Paige, 9 p.m. Fri., C
 Jacques Renard, 8:30 and 11 p.m. Sun., C
 Joe Rines, 11:30 a.m. Sun., B
 Andy Sanella, 9 p.m. Sun., R
 Phil Spitalny, 9:30 Mon., R
 Rudy Vallee, 8 p.m. Thurs., R
 Peter Van Steeden, 9 p.m. Wed., R
 Don Voorhees, 5:30 p.m. Sun.; 8 p.m. Sat., B
 Victor Young, 8:30 and 11:30 p.m. Tues., C

DIALOG

Fred Allen, 9 p.m. Wed., R
 Amos 'n' Andy, 7 and 11 p.m. daily, except
 Sat. and Sun., R
 Phil Baker, 7:30 p.m. Sun., C
 Jack Benny, 7 and 11 p.m. Sun., R
 Milton Berle, 10 p.m. Sun., C
 Bob Burns, 10 p.m. Thurs., R
 Burns and Allen, 8 p.m. Mon., R
 Charles Butterworth, 9:30 Tues., R
 Judy Canova, 9:15 and 11:30 Sun., B
 Eddie Cantor, 8:30 and 11 p.m. Sun., C
 Irvin S. Cobb, 10:30 p.m. Sat., R
 Easy Aces, 7 p.m. Tues., Wed., Thurs., B
 Ray Knight, 6 p.m. Sun., M
 Beatrice Lillie, 8 p.m. Wed., B
 Lum and Abner, 7:30 p.m. daily except Sat.
 and Sun., B
 Victor Moore; Helen Broderick, 8 p.m. Sun., C
 Ken Murray, 8:30 Wed., C
 Jack Oakie, 9:30 p.m. Tues., C

Parkyakarkus, 8:30 Tues., C
 Jack Pearl, 10 p.m. Fri., B
 Joe Penner, 6 p.m. Sun., C
 Pick and Pat, 8:30 and 11:30 p.m. Mon., C
 Popeye the Sailor, 7:15 Mon., Wed., Fri., C
 Stoopnagle and Budd, 5:30 p.m. Sun., B
 Uncle Ezra's Radio Station; 7:15 p.m. Mon.,
 Wed., Fri., R
 Ed Wynne, 8 p.m. Sat., B

DRAMA

Ethel Barrymore, 8:30 p.m. Wed., B
 Columbia Workshop, 7 p.m. Sun., C
 Death Valley Days, 8:30 p.m. Fri., B
 First Nighter, 10 p.m. Fri., R
 Gang Busters, 10 p.m., Wed., C
 Grand Hotel, 8:30 p.m. Sun., R
 Hollywood Hotel, 9 p.m. Fri., C
 It Can Be Done, 8:30 Tues., B
 Phillips Lord, 10 p.m. Wed., C
 Lux Radio Theater, 9 p.m. Mon., C
 Ma and Pa, 7:15 p.m. Mon. through Fri., C
 One Man's Family, 8 p.m. Wed., R
 Pretty Kitty Kelly, 6:45 p.m. Mon. through
 Fri., C
 Irene Rich, 8 p.m. Fri., B
 Snow Village Sketches, 9 p.m. Sat., R
 Tale of Today, 6:30 p.m. Sun., R
 True Story Court, 9:30 p.m. Fri., R
 Vic and Sade, 10 p.m. Wed., B
 Your Unseen Friend, 5 p.m. Sun., C

POPULAR PROGRAMS

A & P Bandwagon, 8 p.m. Thurs., C
 Album of Familiar Music, 9:30 p.m. Sun., R
 Armco Band, 10 p.m. Tues., B
 Major Bowes, 11:30 a.m. Sun. and 9 p.m.
 Thurs., C
 Broadway Merry-go-Round, 8 p.m. Wed., B
 Carborundum Band, 7:30 p.m. Sat., C
 Cavalcade of America, 8 p.m. Wed., C
 Chesterfield Program, 9 p.m. Wed., C
 Cities Service Concert, 8 p.m. Fri., R
 Contented Program, 10 p.m. Mon., R
 Cook's Travelogues, 2:45 p.m. Sun., C
 Do You Want to be an Actor? 8 p.m. Sun., R
 Community Sing, 10 p.m. Sun., C
 Fireside Recitals, 7:30 p.m. Sun., R
 Fleischmann Variety Hour, 8 p.m. Thurs., R
 Hammerstein's Music Hall, 8 p.m. Tues., C
 Hit Parade, 10 p.m. Wed., R; 10 p.m. Sat., C
 Hollywood Hotel, 9 p.m. Fri., C
 Husbands and Wives, 8:00 p.m. Tues., B
 Magic Key of RCA, 2 p.m. Sun., B
 Manhattan Merry-Go-Round, 9 p.m. Sun., R
 March of Time, 10:30 p.m. Thurs., C
 Maxwell House Show Boat, 9 p.m. Thurs., R
 National Barn Dance, 9 and 11:30 p.m. Sat., B
 Packard Hour, 9:30 p.m. Tues., R

Palmolive Hour, 9:30 p.m. Wed., C
 Paramount on Parade, 12 noon Sun., R
 Al Pearce and His Gang, 9 p.m. Tues., C
 Pontiac Variety Show, 10:30 p.m. Fri., R
 Professor Quiz, 8 p.m. Sat., C
 Rubinoff, 6:30 p.m. Sun., C
 Shell Chateau, 9:30 p.m. Sat., R
 Studebaker Champions, 10 p.m. Mon., B
 True Adventures, 10 p.m., Thurs., C
 Voice of Firestone, 8:30 p.m. Mon., R
 Vox Pop, 9 p.m. Tues., R
 Waltz Time, 9 p.m. Fri., R
 Watch The Fun Go By, 9 p.m. Tues., C
 We, the People, 5 p.m. Sun., B

Dorothy Page, 10:30 p.m. Sat., R
 Frank Parker, 9:00 and 11:30 p.m. Sun., B
 Jan Pearce, 6:30 p.m. Sun., C
 Lily Pons, 9 p.m. Wed., C
 Carmella Ponselle, 8 p.m. Fri., C
 Virginia Rea, 6:30 p.m. Sun., C
 Martha Raye, 8:30 and 11:30 p.m. Tues., C
 Lanny Ross, 9 p.m. Thurs., R
 Shirley Ross, 8:30 p.m. Wed., C
 Singin' Sam, 8:15 Fri., B
 Kate Smith, 8 p.m. Thurs., C
 Margaret Speaks, 8:30 and 11:30 p.m. Mon., R
 Gladys Swarthout, 10:30 p.m. Wed., R
 Marion Talley, 10 p.m. Fri., R
 Conrad Thibault, 9:30 p.m. Tues., R
 Kay Thompson, 8:30 and 11:30 p.m. Fri., C
 Trudy Woods, 9:30 p.m. Tues., R

SINGERS

Stuart Allen, 10 p.m. Mon., B
 Fred Astaire, 9:30 p.m. Tues., R
 Gene Austin, 6 p.m. Sun., C
 Kenny Baker, 7 and 11:30 p.m. Sun., R
 Natalie Bodanya, 8:30 p.m. Mon., B
 Morton Bowe, 11:30 a.m. Sun., B;
 10 p.m. Fri., B
 Bobby Breen, 8:30 and 11 p.m. Sun., C
 Rachel Carlay, 9 p.m. Sun., R
 Bernice Claire, 9 p.m. Fri., R
 Mario Cozzi, 7:15 p.m. Fri., B
 Vivian Della Chiesa, 10 p.m. Mon., R
 Bing Crosby, 10 p.m. Thurs., R
 Gogo deLys, 5:30 p.m. Sun., B
 Edith Dick, 10 p.m. Sat., C
 Jessica Dragonette, 8 p.m. Fri., R: 9:30 p.m.
 Wed., C
 Phil Dusey, 8 and 11:30 p.m. Tues., R; 8:30
 Sat., C
 Deanna Durbin, 8:30 and 11 p.m. Sun., C
 Mary Eastman, 9:30 p.m. Sat., C
 Nick Foran, 8 p.m. Mon., R
 Jack Fulton, 7 and 11 p.m. Mon. thru Thurs., C
 Wendell Hall, 10 p.m. Sun., C
 Helen Jepson, 9 and 11:15 p.m. Thurs., R
 Al Jolson, 8:30 and 11:30 p.m. Tues., C
 Jones and Hare, 10 p.m. Sun., C
 Frances Langford, 9 p.m. Fri., C
 Shirley Lloyd, 7:30 p.m. Sun., B
 Lullaby Lady, 10 p.m. Mon., R
 Elizabeth Lennox, 8 p.m. Fri., C
 Fred MacMurray, 9 p.m. Fri., C
 Lucille Manners, 8 p.m. Fri., R
 Helen Marshall, 7:30 p.m. Sun., R
 Tony Martin, 8:30 and 11:30 p.m. Wed., C
 Ed McConnell, 5:30 p.m. Sun., R
 Lucy Monroe, 9:30 p.m. Sun., R
 Grace Moore, 9 p.m. Sat., C
 Morin Sisters, 7:45 and 11 p.m. Sun., R
 Willie Morris, 4:30 p.m. Sun., R
 Frank Munn, 9:30 p.m. Sun. and 9 p.m. Fri.,
 R; 8:30 p.m. Mon., B

TALKS

Boake Carter, 7:45 p.m. Mon. thru Fri., C
 Father Coughlin, 3:00 p.m. Sun., M
 Jimmy Fidler, 10:30 p.m. Tues., R
 Floyd Gibbons, 9 p.m. Sat., C; 10 p.m. Thurs., C
 Eddie Guest, 8:30 p.m. Tues., B
 H. V. Kaltenborn, 10:45 p.m. Sun., C
 Bob Ripley, 7:30 p.m. Sun., B
 Babe Ruth, 10:30 Wed. and Fri., C
 Sidewalk Interviews, 9 p.m. Tues., R
 Deems Taylor, 9:30 p.m. Fri., R
 Lowell Thomas, 6:45 p.m. Mon. thru Fri., B
 Trans-Atlantic Broadcast, 12:45 p.m. Sun., C
 Walter Winchell, 9:30 and 11:15 p.m. Sun., B
 Alexander Woolcott, 7:30 p.m. Tues. and
 Thurs., C

The new broadcast band station LS11, belonging to the Government of the Province of Buenos Aires, is now on the air on its assigned frequency of 1310 kcs. For the present time only 10 kw. power will be radiated, but it is hoped, by the operators, that this can be increased to 60 kw. by June. We understand that the Post Office Department, which controls radio matters in the Argentine, does not permit stations outside the Capital to use more than 2000 watts. The Governor of B. A. Province, however, has assumed superior authority and is making his radio laws to suit himself, claiming that the provinces are independent of the Federal Government.—*Simtonia.*

A Two Year Contest

Under the direction of Oliver Amlie, the International 6000-12500 Mile All Wave Club is sponsoring a "Round the World Champion DX Contest," in which prizes will be given to shortwave listeners, broadcast band tuners and amateurs. The winners in each class will be named the World's Champion DXer in his own class.

The prize list, incomplete at the present time, includes a 20-tube Masterpiece V, given by McMurdo Silver of Chicago, Ill. A Sky Buddy set has been donated by Hallcrafters, Inc. Burgess batteries, slide rules given by United Transformer Co., condensers provided by Newark Electric Co. and cash from the Hetro Electric Industries of Chicago are also included.

The Club will give to winners of first, second and third prizes, large certificates printed in colors and bearing in the upper right hand corner a picture of the winning receiver or transmitter. In the left corner will be the winner's picture, and flags of all nations will be seen in the center.

The first contest will take place throughout December, 1937 and end the last of January, 1938. The short-wave contest will be staged during June and July of 1938, and the amateurs will have their sixty days during August and September, 1938.

Further details will be published in RADEX from time to time, or information may be obtained by addressing Oliver Amlie, 56th City Line Ave., Overbrook, Philadelphia, Pa.

SHORT WAVE STATIONS BY FREQUENCIES

Frequencies are given in megacycles per second. Power is given in parentheses in kilowatts and decimals thereof. In our indices we show assigned frequencies. Actual frequencies on which stations are heard, when differing from those assigned, are shown in parentheses in kilocycles.

Abbreviations:

Ann: Announces
Add: Address
Int: Interval signal
s/o: Sign on and sign off
(*): Will not verify
Tr: Transmitter

NA: North America
SA: South America
CA: Central America
NYC: New York City
Aptdo: Apartado (Box No.)

- | | | | |
|-------|---|---|--|
| 4.002 | CT2AJ, Ponta Delgada, Azores. | 5.820 | TIGPH, San Jose, Costa Rica. "Alma Tica." Add: Aptdo 800. |
| 4.107 | HCJB, Quito, Ecuador. (.15). "La Voz de los Andes." Int: 4 strokes on Gong. Add: Clarence W. Jones, Casilla 691. | 5.850 | YV1RB, Maracaibo, Venez. "Ecos del Zulia." Relays YV1RA. s/o: "Strike Up the Band." Add: Aptdo 37. |
| 4.273 | RV15, Khabarovsk, USSR (Siberia). (20.) | 5.855 | HI1J, San Pedro de Macoris, D. R. (.04). s/o: "All I Do is Dream of You." Add: Aptdo 204. |
| 4.600 | HC2ET, Guayaquil, Ecuador. Int: 12 chimes. Add: Box 249. | 5.875 | HRN, Tegucigalpa, Honduras. (.4) (*). "La Voz de Honduras." |
| 4.795 | VE9BK, Vancouver, B. C. (.25). Add: 780 Beatty St. | 5.880 | YV3RE, Barquisimeto, Venez. "La Voz de Lara." Relays YV3RA. |
| 4.810 | YDE2, Solo, Java, N. E. I. (.2). Add: Solosche Radio Vereeniging. | 5.885 | HI9B, Santiago, D. R. Add: Hotel Mercedes. |
| 4.865 | YDG5, Batavia, Java, N.E.I. (.25). Batavia-sche Radio Vereeniging. | 5.905 | TIMS (or TILS?), Puntarenas, Costa Rica. |
| 5.415 | PMY, Bandoeng, Java, N.E.I. (.45). | 5.910 | HH2S, Port-au-Prince, Haiti (5925). Add: Boite 103 |
| 5.500 | TISHH, San Ramon, Costa Rica. (.2). "La Voz de S. R." | YV4RH, Valencia, Venez. (5918). "Radio Valencia." Relays YV4RE. | |
| 5.710 | YV2RA, San Cristobal, Venez. "La Voz de la Tachira." s/o: "El Capitan." TGS, Guatemala City, Guat. (.2) | 5.920 | XERV, Allente de Bravo, Mexico. |
| 5.720 | RV15, Khabarovsk, USSR. (Siberia) | 5.930 | YV1RL, Maracaibo, Venez. "Radio Popular." Relays YV1RM. |
| 5.725 | HC1PM, Quito, Ecuador. (5735) | 5.940 | TG2X, Guatemala City, Guat. (.2). Policia Nacional. |
| 5.758 | YNOP, Managua, Nicaragua. "Radiodifusora Bayer." | 5.950 | HJN, Bogota, Colombia. Add: Ministerio de Correos y Telegrafos. |
| 5.780 | OAX4D, Lima, Peru. "Radio Dusa, La Voz de Peru." s/o: In code. Add: All America Cables, Inc., Casilla 2336 | 5.970 | HJ4ABD, Medellin, Colombia. (also on 6138). "La Voz de Catia." |
| 5.800 | YV5RC, Caracas, Venez. (L). "Radio Caracas, la habla a la Nacion." Relays YV5RA. s/o: "March One BC." Add: Aptdo. 2009. | 5.980 | HJ2ABD, Bucaramanga, Colombia. (.67) (5987-5993). Add: Calle 2a No. 1285. |
| | | 5.996 | RV59, Moscow, USSR. (20.). Mme. Inna Marr, Petrovka 12. |

SHORTWAVE STATIONS BY FREQUENCIES

- 6.000 XEBT, Mexico City, D. F. (1.) Add: Apto 79-44.
- 6.005 CFCX, Montreal, P. Q. (.075). Relays CFCF. Add: Canadian Marconi Co., Ltd., Box 1690.
- HP5K, Colon, Panama. "La Voz de la Victor." Add: Apto 33.
- VE9DN, Montreal, P. Q. Relays CFCF irreg. See CFCX 6005 kcs.
- 6.010 VE9GA, Sydney, N. S. (1.) Relays CJCB. Add: N. Nathanson
- 6.015 **2.5** COCO, Havana, Cuba. (.3) Add: Box 98., OLR2A, Prague, Czecho. See 9.550 mags. VK9MI, M. V. Kanimbla. (.05). McIlwraith & McEachern, Ltd., Adelaide, Australia.
- VP3MR, Georgetown, British Gulana. (5980; 5975; 6017). "The Voice of Gulana"
- 6.012 HJ3ABH, Bogota, Colombia. (1.2) "La Voz de la Victor." Same call on BCB. s/o: "Russian Lullaby." Add: Apto 565
- 6.015 HI3U, Santiago de los Caballeros, D. R. (.025) (6017) "La Voz del Comercio." Add: Sr. F. Bertran.
- XEWI, Mexico City, D. F. (.4). "My Voice to the World from Mexico." Add: Apto 2874.
- 6.018 ZHI, Singapore, Straits Settlements. (.09). Add: 2 and 4 Orchard Road.
- 6.020 DJC, Berlin, Germany. (8.) Tr: Zeesen. Int: Music box tune. s/o: Two national anthems. Add: Reichs-Rundfunk-Gesellschaft, Haus des Rundfunk, Masurenallee, Berlin-Charlottenburg 9.
- XEUW, Veracruz, Ver. (.02). "El Eco de Sotavento desde Veracruz." Int: "Las Golondrinas." Three cents USA postage for veri. Add: Independencia 98.
- 6.025 HJ1ABJ, Santa Marta, Colombia. (.05) "La Voz de Santa Marta."
- 6.030 HJ4ABP, Medellin, Colombia. (1.) (6033) "Radio Philco".
- HP5B, Panama City, Panama. (.1) Add: Apto 910.
- 6.030 OLR2B, Prague, Czecho. See 9.550 mags.
- 6.035 CXA2, Montevideo, Uruguay. (.5). (6000). Tr: Sayago. Add: Rio Negro 1631.
- 6.040 PRA8, Pernambuco, Brazil. (3.) "A Voz do Norte." Add: Av. Cruz Cabuga 394.
- 2.9** W1XAL, Boston, Mass. (10.) "Dedicated to Enlightenment." Add: University Club.
- W4XB, Miami, Fla. (5.). Relays WIOD. Add: Isle of Dreams Brdcastg. Corp.
- YDA, Tandjong Priok, Java, N.E.I. (10.) s/o: "End of a Perfect Day." This is the Key Station for the NIROM Network.
- 6.042 HJ1ABG, Barranquilla, Colombia. (.15) "Emisora Atlantico". Same call on BCB. Add: Apto 445.
- 6.050 GSA, London, Gt. Britain. (20.). "A for Aerial." Tr: Daventry. Int: Bow Bells; time signal on even hours; Big Ben strikes hours irreg. preceded by Westminster Chimes. s/o: God Save the King. Add: British Broadcasting Corp., London W1.
- XEXF, Mexico City, D. F. (.6). Secretaria de Economia."
- 6.055 HJ3ABD, Bogota, Colombia (.05). "Colombia Broadcasting." Add: Apto 509.
- 6.060 VQ7LO, Nairobi, Kenya. Cable and Wireless, Ltd., Box 777.
- W3XAU, Philadelphia, Pa. (10.). Tr: Newton Square. Relays CBS-WCAU. Add: 1622 Chestnut St.
- W8XAL, Cincinnati, Ohio. (10.) Tr: Mason. Relays WLW-NBC. Add: Crosley Radio Corp., 1329 Arlington St.
- 6.070 CFRX, Toronto, Ont. (1.). Relays CFRB. Add: Rogers-Majestic Corp.
- HJ3ABF, Bogota, Colombia. (.05) (6068; 6073). "La Voz de Bogota". Ann: Estacion HKF. s/o: "Song of the Islands."
- YV1RD, Maracaibo, Venez. (6075). "Radio-difusora Maracaibo." Relays YV1RE.
- 6.075 XEBW, Guadalajara, Jal. (.045). Ramon Loreto.
- 6.080 DJM, Berlin, Germany. See DJC 6.020 mags. HP5F, Colon, Panama. (6074; 6078)
- W9XAA, Chicago, Ill. (20.). "The Voice of Labor." Tr: York Township. Relays NBC-WCFL. s/o: English, French, German, Norwegian, Polish, Russian, Spanish. This transmitter uses aerial directed to Central Europe. Add: Chicago Federation of Labor, 666 Lake Shore Drive.
- ZHJ, Penang, Straits Settlements. (.049). "J for Jubilee".
- 6.085 HJ5ABD, Cali, Colombia. "La Voz del Valle." Apto 270.
- 6.090 CRCX, Toronto, Ont. (1.) Relays CRC-CRCT HJ4ABC, Ibagu, Colombia, "Ecos de Combeima."
- VE9BJ, St. John, N. B. (.05) Admiral Beatty Hotel.
- VE9CS, Vancouver, B. C. (.01). Relays CKFC. Add: 1001-1004 Stock Exchange Bldg.
- XECU, Guadalajara, Jal. Add: Box 200.
- 6.092 OAX4Z, Lima, Peru. "Radiodifusora Oficial, Radio Nacional." Relays OAX4A.
- 6.095 JZH, Nazaki, Japan.
- 6.097 HJ4ABE, Medellin, Colombia. (1.) "La Voz de Antioquia." Relays HJ4ABK. Int: 3 chimes precede ann. Add: Emisora 4ABE.
- 6.100 W3XAL, New York, N. Y. (35.) Tr.: Bound Brook, N. J. Relays NBC-WJZ. Ann: Eng., French, German, Italian and Spanish. s/o: "The Star Spangled Banner." Add: NBC, Rockefeller Plaza, NYC.
- W9XF, Chicago, Ill. (5.) Tr: Downers Grove. Relays NBC-WENR. s/o: Eng., French, German, Italian, Japanese, Russian, Spanish, Swedish. Add: NBC, Inc., Merchandise Mart.
- Belgrade, Yugo-Slavia. (1.) "Radio Beograd".
- 6.108 HJ4ABB, Manizales, Colombia. "Radio Manizales."
- 6.110 GSL, London, Gt. Britain. "L for Liberty." See GSA 6.050 mags.
- 6.115 HJ1ABB, Barranquilla, Colombia. (.3) (6447). "La Voz de Barranquilla." Relays HJ1ABA. Int: 3 chimes. Add: Apto 715

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SHORTWAVE STATIONS BY FREQUENCIES

- OLR2C, Prague, Czechoslovakia. (35.). See 9.550 megs.
- 6.118 XEUZ, Mexico City, D. F. "Radio Nacionales." Relays XEFO
- 6.120 W2XE, New York, N. Y. (10.). Tr: Wayne, N. J. Relays CBS-WABC s/o: "The Star Spangled Banner." Add: CBS, 485 Madison Ave., NYC.
- XEFT, Veracruz, Ver. (.012). Jose Rodriguez Lopez.
- XEPW, Mexico City, D. F. "La Voz del Agulla Azteca desde Mexico." Relays XEJW.
- YDA5, Bandoeng, Java, N.E.I. (1.5). Add: NIROM (N. V. Nederlandsche Indische Radio Omroep Moatschappij), Tegallagah 0.23. Bandoeng.
- 6.122 HJ3ABX, Bogota, Colombia. "La Voz de Colombia." Same call on BCB.
- 6.125 CXA4, Montevideo, Uruguay. (1.). Add: Martin Flerro 2603.
- 3.6 — 6.130 COCD, Havana, Cuba. (.35). "La Voz del Aire." Int: 4 chimes. Relays CMCD. s/o: "Good Night Waltz." Add: Calle 25 y "G", Vedado.
- VE9HX, Halifax, N. S. Add: Box 998.
- VP3BG, Georgetown, British Guiana.
- 6.138 HJ4ABD, Medellin, Colombia. "La Voz de Catia." Also works on 5.970 megs.
- 3.8 — 6.140 W8XK, Pittsburgh, Pa. (40.). Tr: Saxonburg. "The World's Pioneer Radio Station." Relays NBC-KDKA. Add: Grant Bldg.
- 6.145 HJ4ABU, Pereira, Colombia. "La Voz de Pereira."
- 6.150 CB615, Santiago de Chile. "Radiodifusora Pilot." s/o: "Rhapsody in Blue." Add: Cia Internacional de Radio, Casilla 16-D.
- CJRO, Winnipeg, Man. (2.). James Richardson & Sons, 157 Royal Alexandra Hotel.
- 6.153 HI5N, Santiago, D. R. (.1). Sr. M. Smester.
- 6.156 YV5RD, Caracas, Venez. "Radiodifusora Venez." Relays YV5RB.
- 6.160 VPB, Colombo, Ceylon, (.3). Add: Central Telegraph Office.
- 6.164 OAX1B, Chiclayo, Peru. (.3). "La Voz de Chiclayo." Relays OAX1A. Add: Apto 9.
- 6.182 XEXA, Mexico City, D. F. (6174). Relays XEXM. S/o: "March of the Toys." Add: Secretaria de Educacion Publica.
- 6.190 HI1A, Santiago de los Caballeros, D. R. (.05). "La Voz del Yaque."
- 6.200 COKG, Santiago de Cuba, (.05). "Ask for Bacardi." Relays CMKG. Add: Sres. Grau y Caminero, Apto 137.
- HI8Q, Trujillo, D. R. (6198). "Emisora Carta Real, La Voz de los Muchachos."
- XEXS, Portable and Mobile in Mexico. (.1). Departamento de Salubridad Publica.
- 6.210 YV1RI, Coro, Venez. (.15) (6205). "La Voz de Coro."
- 6.230 YV1RG, Valera, Venez. (6225). "Radio Valera."
- 6.235 HRD, La Ceiba, Honduras. (.25). "La Voz de Atlantida."
- 6.243 HIN, Trujillo, D. R. (.75). s/o: National anthem. Add: Apto 604.
- 6.250 YV5RJ, Caracas, Venezuela. "La Voz de la Esfera." Relays YV5RI.
- 6.260 OAX4G, Lima, Peru. Relays OAX4E. Add: R. Grellaud y Cia.
- 6.270 YV5RP, Caracas, Venez. (1.2). "La Voz de Filco." Relays YV5RQ. Add: Apto 508.
- 6.280 COHB, Sancti-Spiritus, Cuba. (.15) (6281). Relays CMHB. Add: Apto 85.
- HIG, Trujillo, D. R. (.05). Int: a bawlin⁹ calf. Add: A. Cordero P.
- 6.300 YV4RD, Maracay, Venezuela. "La Voz de Aragua." Relays YV4RG.
- 6.315 HIZ, Trujillo, D. R. (.1). Add: Calle Duarte No. 68.
- 6.340 HI1X, Trujillo, D. R. (.5).
- 6.350 HRP1, San Pedro Sula, Honduras.
- 6.360 YV1RH, Maracaibo, Venezuela. "Ondas del Lago, Emisora Filco." Relays YV1RF.
- 6.380 YV5RF, Caracas, Venezuela. "Ecos del Caribe." Relays YV5RE.
- 6.385 WO9, Mitchell Field, L. I., N. Y. Army airport.
- 6.400 YV5RH, Caracas, Venezuela. "Ondas Populares." Relays YV5RG. Add: Apto 1931.
- 6.410 TIPG, San Jose, Costa Rica. (1.). "La Voz de la Victor." Add: Apto 224.
- 6.420 HI1S, Santiago de los Caballeros, D. R. (.02). "La Voz de la Hispaniola."
- 6.425 W2XGB, Hicksville, N. Y. (5.). Press Wire- less, Inc.
- W3XL, New York, N. Y. (100.). Tr: Bound Brook, N. J. NBC control station and cue station for nearly all special broadcasts. Add: NBC, 30 Rockefeller Plaza, NYC.
- 6.440 KUP, San Francisco, Calif Press at 2200 EST.
- 6.477 HI4V, San Francisco de Macoris, D. R. (.025). "La Voz de la Marina".
- 6.479 HI8A, Trujillo, D. R. "Fa Doc en el Aire."
- 6.490 Aeronautical point-to-point stations, Purple Chain: See 2.644 megs.
- 6.500 HI1, Trujillo, D. R. (.05).
- J2AA, Tokyo, Japan. Haneda Airdrome.
- YV1RM, Maracaibo, Venezuela. "Radiodifusora Maracaibo." Relays YV1RN.
- 6.510 Aeronautical point-to-point, Blue Chain: See 2.720 megs.
- 6.520 YV4RB, Valencia, Venez. "La Voz de Carabobo." Relays YV4RA. Add: Sres. Hermann y Williams Degwitz.
- Aeronautical point-to-point, Blue Chain: See 2.720 megs.
- 6.530 Aero. point-to-point, Blue Chain: See 2.720 megs.
- 6.534 EDR4, Palma, Majorca, Balearic Islands. (6565; 6583).
- 6.540 YN1GC, Managua, Nicaragua. "La Voz de los Lagos." Aero. point-to-point, Brown Chain: See 2.612 megs.
- 6.545 YV6RB, Bolivar, Venezuela. "La Voz de Ciudad." "Ecos del Orinoco." Relays YV6RA.
- 6.550 Aeronautical point-to-point, Brown Chain: See 2.612 megs.
- 6.555 HI4D, Trujillo, D. R. (.025). "La Voz de Quisqueya."

SHORTWAVE STATIONS BY FREQUENCIES

- 6.560 Aero. point-to-point, Brown Chain. See 2.612 megs.
- 6.570 Aircraft, Orange Chain. See 2.648 and 2.870 megs.
- 6.580 Aero. point-to-point, Orange Chain. See 2.648 megs.
- 6.590 Aeronautical Green Chain. See 2.608 and 2.854 megs.
- 6.600 Aero, point-to-point, Green Chain. See 2.608 megs.
- 6.615 Aeronautical: See 2,930 megs.
- 6.620 PRADO, Rio Bamba, Ecuador. (6618; 6625), "Estacion El Prado." Ann: Sometimes by a lady, Srta. Judy. Add: Apto 98.
- 7.5 — 6.630 HIT, Trujillo, D. R. (.2). "La Voz de la RCA-Victor." Add: Apto 1105.
- 6.635 HC2RL, Guayaquil, Ecuador. (6650; 6667), "Quinta Piedad." Add: Apto 759.
- 6.662 WXH, Ketchikan, Alaska. Phones Seattle.
- 6.672 YVQ, Maracay, Venez.
- 6.690 TIEP, San Jose, Costa Rica. "La Voz de los Isthmo". Add: Apto 257.
- 6.720 CFU, Rossland, B. C. Consolidated Mining & Smelting Co. of Canada, Ltd.
PMH, Bandoeng, Java, N.E.I. (1.5). See YDA5 6.120 megs.
- 6.730 HI3C, La Romana, D. R. "La Voz de la Feria."
- 6.750 JVT, Nazaki, Japan. (20.) Works U.S.A.
- 6.755 WOA, Lawrenceville, N. J. (*) Works London nights.
- 6.762 TDA, Shinkio, Manchukuo. (20.) Works San Francisco. Add: Manchukuo Telegraph and Telephone Co., Ltd.
- 6.775 HIH, San Pedro de Macoris, D. R. (.15). "La Voz de Higuamo."
- 6.785 WFD, New Orleans, La. Press in winter.
- 6.800 HI7P, Trujillo, D. R. (frequency drifts).
- 6.820 XGOX, Nanking, China. (.5).
- 6.860 KEL, Bolinas, Calif. (*). Works Manila.
- 6.905 GDS, Rugby, Gt. Britain. (15.) Works NYC nights. See GBW 14.440 megs.
- 6.950 GBY, Rugby, Gt. Britain. Works NYC Irreg. See GBW 14.440 megs.
- 6.977 XBA, Tacubaya, D. F. Servicio Meteorologico Mexicano.
- 7.000 PZH, Paramaribo, Surinam.
7.000 to
7.300 megs., Amateurs. United States and Canada use code only in this band. Most other countries use voice.
- 7.004 EA9AH, Tetuan, Spanish Morocco. Add: Apto 124.
- 7.100 F08AA, Papeete, Tahiti (.2). Radio Club Oceanien.
TI2RS, San Jose, Costa Rica. "Radio Athena."
- 7.200 YNAM, Managua, Nicaragua. (7180). "La Voz del Pacifico."
- 7.380 XECR, Mexico City, D. F. (20.). Ann: English and Spanish. Add: Departamento de Publicidad de la Secretaria de Relaciones Exteriores.
- 7.520 HCK, Quito, Ecuador.
KKH, Kahuku, Hawaii. (*). Phones Bolinas.
- 7.555 Lawrenceville, N. J. (20.) (*). Works London.
- 7.565 KWY, Dixon, Calif. (*).
..... Lawrenceville, N. J. (20.) (*). Works London and Paris.
- 7.570 TDG, Shinkio, Manchukuo. Works Berlin. Manchukuo Telegraph & Telephone Co., Ltd.
- 7.610 KWX, Dixon, Calif. (40.) (*).
- 7.620 IUB, Addis Ababa, Ethiopia.
- 7.700 Aeronautical point-to-point, daytime operation only, Brown Chain. See 2.612 megs.
- 7.715 KEE, Bolinas, Calif. (40.) (*).
- 7.797 HBP, Geneva, Switzerland. (20.) "Radio Nations." Tr: Prangins. Add: M. G. Gallarati, Information Section, League of Nations.
- 7.850 HC2J5B, Guayaquil, Ecuador. "Ecuador Radio." Int: one gong. Add: Juan S. Behr.
- 7.901 LSL1, Buenos Aires, Arg. Works Rio de J. nights. Cia. Internacional de Radio, S. A., Defensa 143.
- 7.920 GDP, Rugby, Gt. Britain. Works Australia. See GBW 14.440 megs.
- 7.968 HSJ, Bangkok, Siam. Post & Telegraph Dept.
- 7.970 XGL, Shanghai, China. See XOJ 15.800 megs.
- 8.015 Aeronautical point-to-point, daytime operation only, Blue Chain: See 2.730 megs.
- 8.050 WXA, Juneau, Alaska. Works WVD at 2400 EST.
- 8.070 Aero. point-to-point, Yellow Chain. See 2.640 megs.
- 8.075 IRF, Rome, Italy.
WEZ, Rocky Point, N. Y. (W2XBJ) (*). Works Paris.
- 8.095 VLK, Sydney, Australia.
- 8.130 Aero. point-to-point, daytime operation only: Green Chain, see 2.608 megs. Purple Chain, see 2.644 megs.
- 8.220 Aircraft, Orange Chain. See 2.648 and 2.870 megs. Clipper Service, see 2.986 megs.
- 8.360 WHD, New York, N. Y. Press at 0100 EST.
- 8.370 KFS, Palo Alto, Calif. Press at 0100 EST.
- 8.430 WSC, Tuckerton, N. J. Press at 2315 EST.
- 8.500 YNLG, Managua, Nicaragua. (.5). "Nicaragua Patria de Dario."
- 8.543 IBGI, S. S. Conte Verde. See ICEJ 8.770.
- 8.560 WOO, Ocean Gate, N. J. (20.) (*). Phones Ships. "Cast" frequency.
- 8.600 HPF4, Panama City, Panama. Works Hialeah nights.
- 8.620 WVD, Seattle, Wash. Works Alaska at 2400 EST. Alaskan Telephone Co., 517 Federal Office Bldg.
- 8.630 VOWQ, Northwest River, Labrador. Nfld. Skyways, Ltd.
- 8.665 CO9JQ, Camaguey, Cuba. (24). Add: Calle Gnri. Gomez 4.
- 8.680 GBC, Rugby, Gt. Britain. Works Ships Days. See GBW 14.440 megs.
- 8.690 VWZ, Kirkee, Poona, India. (10.). Assigned 8691, 8693, 8700 and 8708 kcs. also. Phones London. Add: Indian Radio & Cable Communication Co., Poona 6.
- 8.710 KBB, Manila, Philippine Isl. (*)

SHORTWAVE STATIONS BY FREQUENCIES

- 8.720 VPD2 (VPD32), Suva, Fiji. "Radio Suva." s/o: "God Save the King." Add: Amalgamated Wireless, Ltd.
- 8.730 GCI, Rugby, Gt. Britain. See GBW 14.440.
- 8.740 WXV, Fairbanks, Alaska.
- 8.770 ICEJ, S. S. Rex. Works IAC and WOO. Add: Italian Lines, 1 State St., NYC.
- 8.798 HKV, Bogota, Colombia. Add: Ministerio de Guerra.
- 8.810 FNSK, S. S. Normandie. Works Paris nights. Add: French Lines, Pier 88, North River, Foot of W. 48th St., NYC.
- IBLI, S. S. Conte di Savoia. Works IAC and WOO. See ICEJ 8.770 mgs.
- 8.830 British Ships. Work GBC and WOO. Add: International Marine Radio, Connaught House, 63 Aldwych, London WC2.
- GBTT, R. M. S. Queen Mary.
GBZW, S. S. Berengaria.
GDLJ, S. S. Homeric.
GFVV, S. S. Majestic.
GLRZ, S. S. Aquitania.
French Ships. For address see FNSK 8.810 mgs.
- FNSK, S. S. Normandie. Works WOO nights.
FNSM, S. S. Paris.
FNTQ, S. S. Ile de France.
Furness-Bermuda Lines. Work ZFA-B and WOO. (*)
- VQJM, S. S. Monarch of Bermuda.
VQJP, S. S. Queen of Bermuda.
German Ships. See 4.413 mgs.
DBER, S. S. Berlin.
DDCP, S. S. Cap Polonio.
DDFF, S. S. Reliance.
DDFT, S. S. Oceana.
DHAO, S. S. Hansa.
DHDL, S. S. Cap Arcona.
DHEY, S. S. Deutschland.
DHJZ, S. S. Hamburg.
DHRL, S. S. New York.
DOAH, S. S. Bremen.
DOAI, S. S. Europa.
- 8.840 ZMBJ, M. V. Amatea. Phones Australia and New Zealand. Add: United S.S. Co., Auckland, N. Z.
- 8.848 HCJB, Quito, Ecuador. (15) "La Voz de los Andes." Int: 4 strokes on gong. Add: Casilla 691.
- 9.010 KEJ, Bolinas, Calif. (*).
- 9.020 GCS, Rugby, Gt. Britain. (15.). Phones NYC nights. See GBW 14.440 mgs.
- 9.038 VWY, Kirkee, Poona, India. See VWZ 8.690.
- 9.040 TYA2, Pontoise, France. (10.). Works Algeria and ships. Add: Service de la T.S.F., 5 Rue Froidevaux, Paris XIV.
- 9.045 VWY, Kirkee, Poona, India. Add: See VWZ 8.690 mgs.
- 9.050 NPO, Cavite, Philippine Isl. Time signals at 1255 GMT.
- 9.125 HAT4, Budapest, Hungary. (20.). "Justice for Hungary." Tr: Szekesfehervar. Ann: English, French, Hungarian, usually by lady. s/o: National anthem. Add: Radiolabor, Kiserleti Allomas, Budapest IX, Gyali-ut 22.
- 9.168 YVR, Maracay, Venezuela.
- 9.180 ZSR, Klipheuvell, Union of S. Africa. Add: Box 962, Capetown.
- 9.250 NAA/NSS, Arlington, Va. Time signals at 0955 and 2155 EST.
- 9.280 GCB, Rugby, Gt. Britain. (15.). Works Canada nights. See GBW 14.440.
XGU, Shanghai, China. See XOJ 15.800.
- 9.285 XPC, Shanghai, China. See XOJ 15.800.
- 9.310 Aircraft, Orange Chain: See 2.648 mgs.
- 9.332 CGA4, Drummondville, P. Q. Phones London. See CFCX. 6.005 mgs.
- 9.335 OAX4J, Lima, Peru. (9328-9340). "Radio Internacional, La Voz de Lima." Relays OAX4I.
- 9.350 HS8PJ, Bangkok, Siam. Ann: "Happiness Siam Eight Progress Jubilee." Int: 3 chimes. Add: Post and Telegraph Dept.
- 9.415 PLV, Bandoeng, Java, N.E.I. (80.). Governements Radio-Dienst.
- 9.425 NAA/NSS, Arlington, Va. Time signals at 0055, 0155, 0255, 0355, 0755, 1155, 1355, 1555, 1755, 1855, 2355 EST.
- 9.428 COCH, Havana, Cuba. (15). General Electric Co. of Cuba, No. 2 "B" St., Vedado.
- 9.435 HC20DA, Guayaquil, Ecuador. "La Voz del Aire."
- 9.448 WES, Rocky Point, N. Y. (*).
- 9.450 TGWA, Guatemala City, Guat. (2). "Radio Nacional". Relays TGW. Add: Ministerio de Fomento. "Radio Fort de France," Martinique. Add: Boulanger Fils.
- 9.460 ICK, Tripoli. (2).
WKJ, New Brunswick, N. J. (*).
- XEFT, Veracruz, Ver. (02). "La Voz de Veracruz." Add: Av. Independencia 28.
- XGOX, Nanking, Kian-su, China. (5).
- 9.470 WET, Rocky Point, N. Y. (*). Works SA irreg.
- 9.475 EAH, Madrid, Spain. Ann: UGT1. (UGT for Union General de Tranajadores Network).
- 9.480 KES, Bolinas, Calif. (*).
- XEDQ, Guadalaajara, Jal. Int: 4 chimes in descending scale. Relays XED. Add: Apto 197.
- 9.490 OXY, Copenhagen, Denmark.
- XTV, Canton, China.
- 9.500 VK3ME, Melbourne, Australia (5.). Tr: Braybank. Add: Amalgamated Wireless (A/sia) Ltd., Box 1272L, Elizabeth St. P. O.
- HJ1ABE, Cartagena, Colombia. (18). "La Voz de los Laboratorios Fuentes." Add: Apto 31.
- PRF5, Rio de Janeiro, Brazil. (60.). "A Voz do Brasil." Add: Cia. Internacional do Brasil, Box 709.
- 9.504 OLR3B, Prague, Czecho. See 9.550.
- 9.510 GSB, London, Gt. Britain. (20.). "B for Broadcasting." See GSA 6.050 mgs.
- HJU, Buenaventura, Colombia. "La Voz del Pacifico". National Railroads of Colombia.
- 9.520 HJ4ABH, Armenia, Colombia. "La Voz de Armenia." Relays HJ4ABN.
- XEME, Merida, Yuc. (015). (8190). "La Voz de Yucatan desde Merida." Relays XEFC. Add: 59 No. 517.
- 9.525 ZBW3, Hong Kong. Add: Box 200.
- 9.530 LKJ1, Jeloj, Norway. (1.).
W2XAF, Schenectady, N. Y. (40.). Relays NBC-WGY. Programs commence with electrical discharge of 10,000,000 volts. Add: The General Electric Co.
- 9.535 JZI, Tokyo, Japan.
- 9.540 DJN, Berlin, Germany. See DJB, 15.200 mgs.
VPD2, Suva, Fiji. "Radio Suva." s/o: "God Save the King".
- 9.550 OLR3A, Prague, Czecho. (35.). "Radio Podebrady." Tr: Podebrady. Int: trumpet tune from New World Symphony. Add: Praha XII, Fochova Tr. 16.
- 9.560 DJA, Berlin, Germany. (8.). See DJB 15.200 mgs.

SHORTWAVE STATIONS BY FREQUENCIES

- 7.75
- 7.0
- 7.3
- 8.5
- 2.0
- 9.870 HJ1ABB, Barranquilla, Colombia. (.3) (Daytime only). "La Voz de Barranquilla." Relays HJ1ABA. Add: Apto 715.
- 9.565 VUB, Bombay, India. (4.5). Add: All India Radio, Irwin House, Sprott Road, Ballard Estate.
- YV3RB, ... Venezuela. "La Voz de Lara."
- 9.570 W1XK, Boston, Mass. (10.) (*) Tr: Millis. Relays NBC-WBZ-WBA.
- W8XK, Pittsburgh, Pa. (40.) (*). This frequency loaned to W1XK.
- 9.575 HJ2ABC, Cucuta, Colombia. (.25). "La Voz de Cucuta."
- 9.580 GSC, London, Gt. Britain. (.20.). "C for Corporation." See GSA 6.50 meg. 3LR, Melbourne, Australia. Tr: Lyndhurst.
- 9.585 VK2ME, Sydney, Australia. (.20.). "The Voice of Aust." Tr: Pennant Hills. Int: Laughing notes of kookaburra. Add: Amalgamated Wireless, (A/sia) Ltd., 47 York St.
- 9.590 PCJ, Huizen, Netherlands. "The Happy Station." Ann: Dutch, English, French, German, Malay, Portuguese, Spanish. s/o: National anthem. Add: N. V. Philips Radio, Hilversum.
- VK6ME, Perth, W. A., Australia. (.5). Amalgamated Wireless, (A/sia), Ltd.
- W3XAU, Philadelphia, Pa. (10.). Tr: Newton Square. Relays CBS-WCAU. Add: 1622 Chestnut St.
- W8XAL, Cincinnati, Ohio (under const.).
- 9.595 HBL, Geneva, Switzerland. (18.). "Radio Nations." Tr: Prangins. Add: M. G. Gallarati, Information Section, League of Nations.
- RAN, Moscow, USSR.
- 9.600 CB960, Santiago de Chile. "Radiodifusora Pilot." s/o: "Rhapsody in Blue." Add: Cia. Internacional de Radio, Casilla 16-D.
- 9.605 HP5J, Panama City, Panama. (1.). "La Voz de Panama." Add: Apto 867.
- 9.618 HJ1ABP, Cartagena, Colombia. (.75). "Radio Cartagena." Add: Apto 37.
- 9.635 I2RO, Rome, Italy. (.25.) Ann: "Radio Roma-Napoli," usually by a lady. Add: EIAR, Via Montello 5, Rome.
- 9.640 CQN, Macau, Portuguese China.
- 9.645 HH3W, Port-au-Prince, Hati. (.03). Add: Box A-117.
- 9.650 YDB, Sourabaya, Java, N.E.I. (1.) (9660).
- 9.660 LRX, Buenos Aires, Argentina. (5.). "Radio El Mundo." Relays LR1. Add: Calle Maipu 555.
- 9.665 CT1AA, Lisbon, Portugal. (2.). (9650; 9693; 9770). "Radio Coloniale." Int: 3 cuckoos. Add: Senhor Abilio Nunes dos Santos Jr., Av. Antonio Augusto d'Aguilar 144.
- 9.670 TI4NRH, Heredia, Costa Rica. (9695). Amando Cespedes Marin, Apto 40.
- 9.675 DZA, Berlin, Germany. See DJB 15.200 meg.
- 9.750 COCQ, Havana, Cuba. "de la RCA-Victor." Relays CMQ. s/o: "Siboney." Add: Calle 25 No. 445, Vedado.
- WOF, Lawrenceville, N. J. (*). Phones Paris.
- 9.840 J2AA, Tokyo, Japan. Haneda Airdrome.
- 9.860 EAQ, Madrid, Spain. (20.) (varies to 10060). "La Voz de Espana." Tr: Aranjuez Ann: English and Spanish. Broadcasts IBC programs from London. s/o: National anthem "Himno del Reigo." IBC programs s/o "Good Night Waltz." Add: Transradio Espanola, Apto 951.
- 9.870 WON, Lawrenceville, N. J. (20.) (*).
- 9.890 LSN2, Buenos Aires, Argentina. Works NYC nights. See LSL1, 7.901 meg.
- 9.940 CSW, Lisbon, Portugal. (5.). "Emisora Nacional." "CSW, Confidencia, Surety, Wisdom." Add: Rua do Quelhas.
- San Juan, Puerto Rico. (.4). Works Hialeah. Radio Corp. of Puerto Rico.
- 9.950 GCU, Rugby, Gt. Britain. (15.). Works NYC nights. See GBW 14.440 meg.
- 9.990 KAZ, Manila, Philippine Isl. (40.) (*).
- 10.000 WWV, Beltsville, Md. (1.). Standard frequency transmissions Wednesdays 1315-1415 EST.
- 10.042 DZB, Berlin, Germany. See DJB 15.200 meg.
- 10.055 SUV, Cairo, Egypt. (10.). Tr: Abu Zabal.
- ZFB, Hamilton, Bermuda. (1.5). (*) Tr: St. George. Works NYC days.
- 10.065 TDE, Shinkio, Manchukuo. Works Tokyo. Manchukuo Telegraph and Telephone Co., Ltd.
- 10.080 RIR, Tiflis, USSR.
- 10.105 TDB, Shinkio, Manchukuo. (20.). Works San Francisco. See TDE 10.065 meg.
- 10.125 Aeronautical point-to-point. Blue Chain. Daytime operation only. See 7.20 meg.
- 10.135 OPM, Leopoldville, Belgian Congo. Works ORK.
- 10.190 Aeronautical point-to-point, daytime only. Brown Chain. See 2.612 meg.
- 10.220 PSH, Rio de Janeiro, Brazil. (12.). Works LSX. Cia Radiotelegrafica Brasileira, Caixa Postal 500.
- 10.230 CED, Antofagasta, Chile. Cia. de Telefonos de Chile.
- 10.250 LSK3, Buenos Aires, Argentina (5.). Tr: Hurlingham. See LSL1, 7.901.
- 10.260 PMN, Bandoeng, Java, N.E.I. (1.5). Works VLJ. Gouvernements Radio-Dienst.
- 10.290 DZC, Berlin, Germany. See DJB 15.200 meg.
- 10.300 LSL2, Buenos Aires, Arg. Works London and Rio nights. See LSL1, 7.901.
- 10.310 PPM, Rio de Janeiro, Brazil.
- 10.330 ORK, Brussels, Belgium. (11.). Works Leopoldville and broadcasts. Tr: Ruyssede.
- 10.335 ZFD, Hamilton, Bermuda. (1.5) (*). Tr: St. George.
- 10.350 LSX, Buenos Aires, Argentina. (20.). Tr: Monte Grande. Add: Cia. Radiotelegrafica Arg. S. A., San Martin 329.
- 10.370 EAJ43, Tenorife, Canary Isl. Add: Apto 225.
- 10.400 KEZ, Belinas, Calif. (*).
- 10.420 XGW, Shanghai, China. See XOJ 15.800.
- 10.430 TYE3, Pontoise, France. Works NYC.
- 10.460 WFD, New Orleans, La. Press in summer time.
- 10.535 JIB, Taihoku, Taiwan. (6.). Tr: Chureki. Works Tokyo. Add: Kokusai Denwa Kaisha, Chureki Station, Chureki Gai, Shinchiku, Taiwan.
- 10.578 FYB, Pontoise, France. Time signals 1955 to 2000 GMT.
- 10.610 WEA, Rocky Point, N. Y. (40.) (*).
- 10.660 JVN, Tokyo, Japan. Tr: Nazaki.
- 10.670 CEC, Santiago de Chile. (4.). Tr: La Granja. Add: Cia. Internacional de Radio, Casilla 16-D.
- 10.740 JVM, Tokyo, Japan. (20.). Tr: Nazaki.
- 10.770 GCP, Rugby, Gt. Britain. (15.). Works Sydney. See GBW 14.440 meg.
- 10.840 KWV, Dixon, Calif. (20.) (*).
- 10.955 HS8PJ, Bangkok, Siam. (5.). Tr: Sala Daeng. Add: Radio Service, Post & Telegraph Dept.
- 10.990 ZLT, Wellington, New Zealand. Works Australia. Add: Post & Telegraph Dept.

SHORTWAVE STATIONS BY FREQUENCIES

- 11.000 PLP, Bandoeng, Java, N.E.I. (1.5). Gouvernements Radio-Dienst.
ZLT4, Wellington, New Zealand. See ZLT 10.990 megs.
- 11.018 GBTT, S. S. Queen Mary. See 8.830 megs.
- 11.040 CSW, Lisbon, Port. (5.). Works also on 9.940 and 11.840 megs.
- 11.280 HIN, Trujillo, D. R. (.75). s/o: National anthem. Add: Apto 604.
- 11.435 COCX, Havana, Cuba. "La Casa Lavin." (frequency varies widely). Relays CMX. Relays the 9 o'clock curfew cannon shot. Add: Box 32.
- 11.500 PMK, Bandoeng, Java, N.E.I.
- 11.540 XGR, Shanghai, China. Works England. See XOJ 15.800.
- 11.595 VRR4, Stoney Hill, Jamaica. Works Hialeah.
- 11.660 JVL, Tokyo, Japan. Tr: Nazaki.
- 11.670 PPQ, Rio de Janeiro, Brazil. Tr: Santa Cruz. Works Europe, SA, Rocky Point Irreg. Add: Cia. Radiotelegraphica Brasileira, Caixa Postal 500.
- 11.680 KIO, Kahuku, Hawaii. (*)
- 11.705 SM5SX, Stockholm, Sweden. (.5). Royal Technical University.
- 11.715 TPA4, Paris, France. Tr: Pontoise. "Radio Coloniale." Add: Ministere des Postes, Telegraphes et Telephones, 98 bis, Blvd. Haussmann.
- 11.720 CJRX, Winnipeg, Man. (2.). Add: James Richardson & Sons, 157 Royal Alexandra Hotel.
- 11.730 PHI, Hilversum, Netherlands. (23.6) (Winter frequency). PHOHI. See: PCJ 9.590 megs.
- 11.740 HP5L, David, Chiriquel, Panama. (.35). "Las Ondas del Barú." Add: Apto 129.
- 47.88 → 11.750 GSD, London, Gt. Britain. (20.). "D for Daventry." Tr: Daventry. Int: Bow Bells; time signal on even hours; Big Ben strikes hours irreg, preceded by Westminster chimes. s/o: God Save the King. Add: British Broadcasting Corp., London W1.
- 11.760 OLR4B, Prague, Czecho. See 15.230 megs.
- 51 → 11.770 DJD, Berlin, Germany. (8.). See DJB 15.200 megs.
- 11.780 OER2, Vienna, Austria. (1.5) (11778). "Radio Wien."
- 11.790 W1XAL, Boston, Mass. (10.). "Dedicated to Enlightenment." Add: Educational Director, University Club.
- 7.65 → 11.795 DJO, Berlin, Germany. See DJB 15.200 megs.
- 11.796 OAX5B, Ica, Peru. (11796-11807). "Radio Universal."
- 11.800 JZJ, Tokyo, Japan. Tr: Nazaki.
- 7.7 → 11.810 IZRO4, Rome, Italy. (25.). "Radio Roma-Napoli." Add: usually by a lady. Int: chirping of a bird. s/o: two national anthems, "Giovinezza" and "Marcia Reale." Add: Ente Italiano per le Audizioni Radiofoniche, Via Montello 5.
- 11.820 GSN, London, Gt. Britain. See GSD, 11.750 megs.
- XEBR, Hermosillo, Sonora. Relays XEBH. Add: Apto 68
- 11.830 W2XE, New York, N. Y. (10.). Tr: Wayne, N. J. Relays CBS-WABC. s/o: "Star Spangled Banner." Add: Columbia Broadcasting System, 485 Madison Ave., NYC.
- W9XAA, Chicago, Ill. (20.). This transmitter uses aerial directed to the Antipodes. For details see 6.080 megs.
- 11.840 CSW, Lisbon, Port. (5.). Works also on 9.940 and 11.040.
- OLR4A, Prague, Czecho. (35.). See 15.230.
- 11.855 DJP, Berlin, Germany. See DJB, 15.200 megs.
- 11.860 GSE, London, Gt. Britain. (20.). "E for Empire." See GSD 11.750 megs.
- YDB, Sourabaya, Java, N.E.I. (1.).
- 11.870 W8XK, Pittsburgh, Pa. See W8XK 15.210 megs.
- 11.875 OLR4C, Prague, Czecho. See 15.230.
- 11.880 TPA3, Paris, France. See TPA4 11.715 megs.
- 11.880 XEXA, Mexico City, D. F. (.1). Add: Secretaria de Educacion Publica.
- 11.895 HP5I, Aguadulce, Panama. "La Voz del Interior." Int: 3 notes on gong. s/o: "El Tambor de la Alegria."
- 11.900 OLR4D, Prague, Czecho. See 15.230.
- XEWI, Mexico City, D. F. (.25) "My Voice to the World from Mexico." Add: Apto 2874.
- 11.950 KKQ, Bolinas, Calif. (*) Relays programs to Hawaii.
- 11.955 IUC, Addis Ababa, Ethiopia.
- 11.970 H12X, Trujillo, D. R. (.5). J. R. Saladrin.
- 12.000 RNE, Moscow, USSR. (20.). Programs in English, Czech, Dutch, French, German, Hungarian, Russian, Spanish and Swedish. Int: Kremlin chimes on the hour. s/o: "Internationale." Add: Mme. Inna Marr, Solianka 12.
- 12.150 GBS, Rugby, Gt. Britain. (15.). Works NYC afternoons. See GBW 14.440 megs.
- 12.235 TFJ, Reykjavik, Iceland. (7.5). Icelandic State Brdcastg. Service, Box 547.
- 12.290 GBU, Rugby, Gt. Britain. Works NYC nights. See GBW 14.440 megs.
- 12.295 CB615, Santiago, Chile. "Radio Service." Aircraft and aero., Orange Chain. See 2.870 megs. Clipper Service, see 2.886 megs.
- 12.630 NAA/NSS, Arlington, Va. Time signals at 0955 EST.
- 12.830 CNR, Rabat, Morocco. (12.). Direction de l'Office des Postes, des Telegraphes et des Telephones.
- 12.840 WOO, Ocean Gate, N. J. (20.). (*) Works ships. "Boy" frequency.
- 12.885 NPG, San Francisco, Calif. Time signals at 1655 GMT.
- 13.040 German ships. See 4.413 megs.
DDBR, S. S. Berlin.
DDCP, S. S. Cap Polonia.
DDFF, S. S. Reliance.
DDFT, S. S. Oceana.
DHAO, S. S. Hansa.
DHDL, S. S. Cap Arcona.
DHEY, S. S. Deutschland.
DHJZ, S. S. Hamburg.
DHRL, S. S. New York.
DOAH, S. S. Bremen.
- 13.050 Italian ships: see 4.280 megs.
IBEJ, S. S. Conte Rosso.
IBGI, S. S. Conte Verde.
IBLI, S. S. Conte di Savoia.
ICEJ, S. S. Rex.
- 13.075 VPD, Suva, Fiji. s/o: "God Save the King." Add: Amalgamated Wireless, (A/sia) Ltd., Suva.
- 13.190 FNSK, S. S. Normandie. Works Paris afternoons. See FNSK 13.210 megs.
- 13.210 DOAI, S. S. Europa. (.07). See 4.413 megs.
FNSK, S. S. Normandie. Works WOO afternoons. Add: French Lines, Pier 88, North River, Foot of W. 48th St., NYC.
- 13.320 British Ships, see 8.830 megs.
GBZW, S. S. Berengaria.
GDLJ, S. S. Homeric.

SHORTWAVE STATIONS BY FREQUENCIES

	GFVW, S. S. Majestic. GLRZ, S. S. Aquitania.	14.940	HIR, Trujillo, D. R. Works WNC daily. HJA3, Barranquilla, Colombia. Works WNC
13.337	YVQ, Maracay, Venezuela. Works WNC days.	14.960	ROU, . . . USSR. YSL, San Salvador, El Salvador. Add: Telf grafos, Telefonos y Radio Nacionales.
13.380	IDU, Asmara, Eritrea. Works Rome.		
13.410	WCT, San Juan, Puerto Rico. (.4). Works WNC. Add: Radio Corp. of Puerto Rico.	14.970	LZA, Sofia, Bulgaria. "Radio Sofia."
13.530	TDH, Shinklo, Manchukuo. Works Berlin.	14.980	KAY, Manila, Philippine Isl. (*). Works Germany, England mornings; KWU nights.
13.585	GBB, Rugby, Gt. Britain. Works Canada and Egypt. See GBW 14.440 megs.	15.000	WWV, Beltsville, Md. Standard frequency transmissions.
13.635	SPW, Warsaw, Poland. Tr: Babice.	15.040	RKI, Moscow, USSR.
13.690	KKZ, Bollinas, Calif. (*). Works Asia.	15.055	WNC, Miami, Fla. (.4) (*). Tr: Hialeah. Works CA, SA and West Indies daily.
13.745	CGA2, Drummondville, P. Q. Works Ships.	15.080	RKI, Moscow, USSR. RV96, Moscow, USSR.
13.760	TYE2, Pontoise, France. (20.). Works NYC. Add: 79 Blvd. Haussmann, Paris.	15.110	DJL, Berlin, Germany. See DJB 15.200 megs.
13.780	KKW, Bollinas, Calif. (*).	15.116	OLR5C, Prague, Czechoslovakia. See 15.230.
13.820	SUZ, Cairo, Egypt. Tr: Abu Zabal. Phones Germany, England.	15.120	HVJ, Vatican City. (10.). Int: ticking of clock. Ann: "Laudatur Jesus Christus." Add: Pontificia Accademia Della Scienze, Roma-Castina Pio IV.
13.880	VJZ, Raboul, New Guinea.	15.140	GSF, London, Gt. Britain. (15.). "F for Fortune." See GSD 11.750 megs.
13.900	WQP, Rocky Point, N. Y. (*). Works Europe.	15.150	YDC, Bandoeng, Java, N.E.I. (3.).
13.980	TDC, Shinklo, Manchukuo. Works San Francisco.	15.160	JZK, Tokyo, Japan.
13.990	GBA2, Rugby, Gt. Britain. Works SA. See GBW 14.440 megs.	15.175	RV96, Moscow, USSR.
14.000 to		15.180	GSO, London, Gt. Britain. See GSD 11.750 megs.
14.400	Amateurs. Amateur 'phones are heard between 14.150 and 14.250 megs. Foreign amateurs usually work on the upper and lower edges of the band.	15.190	ZBW4, Hong Kong. (2.4). Add: Box 200.
14.440	GBW, Rugby, Gt. Britain. (15.). Works WMA, WMF. Uses Inverted Speech and sometimes a "wobulated carrier" as well. Add: G. P. O., Armour House, St. Martin's le Grande, London EC1.	15.200	DJB, Berlin, Germany. (8.). Tr: Zeesen. Int: Music box tune. s/o: Two national anthems. Add: Reichs-Rundfunk-Gesellschaft, Haus des Rundfunk, Masurenallee, Berlin-Charlottenburg 9. 3.6
14.460	DZH, Berlin, Germany. See DJB, 15.200 megs.	15.210	W8XK, Pittsburgh, Pa. (40.) (*). Tr: Saxonburg. Relays NBC-KDKA.
14.470	WMF, Lawrenceville, N. J. (*). Works Rugby.	15.220	PCJ, Huizen, Netherlands. See PCJ 9.590 megs.
14.480	YNA, Managua, Nicaragua. Works WNC daily.	15.230	OLR5A, Prague, Czechoslovakia. (35.) "Radio Podebrady." Tr: Podebrady. Int: trumpet tune from New World Symphony. Add: Praha XII, Fochova Tr. 16.
14.485	YSJ, San Salvador, El Salvador. Works WNC daily. Add: Telegrafos, Telefonos y Radio Nacionales. HRL5, La Lima, Honduras. Works WNC daily. HRM, Tegucigalpa, Honduras. Works WNC daily.	15.245	TPA2, Paris, France. See TPA4 11.715 megs.
14.500	LSM2, Buenos Aires, Arg. Works Madrid, Paris, Berlin, morning and evening. Add: Defensa 143.	15.250	W1XAL, Boston, Mass. (10.). "Dedicated to Enlightenment." Add: University Club.
14.530	LSN1, Buenos Aires, Arg. Works NYC morning and evening. Add: Defensa 143.	15.260	GSI, London, Gt. Britain. "I for Island." See GSD 11.750 megs. 3.7
14.545	HPF, Panama City, Panama. Works WNC daily. TGF, Guatemala City, Guat. Works WNC daily. TIU, Cartago, Costa Rica. Works WNC daily. Add: Cia. Radiografica Int. de C. R.	15.270	W2XE, New York, N. Y. See 11.830 megs.
14.590	WMN, Lawrenceville, N. J. (20.) (*). Works Rugby.	15.280	DJQ, Berlin, Germany. See DJB 15.200 megs. LRU, Buenos Aires, Argentina. "Radio El Mundo." Relays LRI. Add: Calle Maipu 555.
14.635	GBL, Rugby, Gt. Britain. Works Japan. See GBW 14.440 megs.	15.300	XEBM, Mazatlan, Sin. (.05). (15440). Ignacio L. Saiz.
14.640	JVH, Tokyo, Japan. (20.) Tr: Nazaki.	15.310	GSP, London, Gt. Britain. "P for Progress." See GSD 11.750 megs.
14.800	WQV, Rocky Point, N. Y. (*).	15.320	OLR5B, Prague, Czechoslovakia. See 15.230.
14.845	OCJ2, Lima, Peru. Phones SA.	15.330	W2XAD, Schenectady, N. Y. (25.). Relays NBC-WGY. See W2XAF 9.530 megs. 5.7
14.910	JVG, Tokyo, Japan.	15.340	DJR, Berlin, Germany. See DJE 17.760 megs.
14.915	LZA, Sofia, Bulgaria. s/o: national anthem.	15.355	KWU, Dixon, Calif. (15.). Works Hawaii, Philippines, Japan. Add: Trans-pacific Communication Co., 140 New Montgomery St., San Francisco.
14.930	HJB, Bogota, Colombia. Works WNC and SA daily.	15.360	DZG, Berlin, Germany. See DJE, 17.760 megs.

SHORTWAVE STATIONS BY FREQUENCIES

- 15.370 **HAS3**, Budapest, Hungary (20.). See HAT4 9.125 megs.
- 15.415 **KWO**, Dixon, Calif. (20.). Works N.E.I. and Japan nights. See KWU 15.355 megs.
- 15.800 **XOJ**, Shanghai, China. Chinese Gov't. Radio Administration, Sassoon House, Jinkee Road.
- 15.810 **LSL3**, Buenos Aires, Arg. Works London and Rio, morn. and evening. Add: Defensa 143.
- 15.905 **TDI**, Shinkio, Manchukuo. Works Berlin.
- 16.140 **GBX**, Rugby, Gt. Britain. Works SA. Uses inverted speech. Add: G.P.O., Armour House, St. Martins le Grand, London, ECL.
- 16.440 Aircraft and aeronautical, Orange Chain: See 2.870 megs. Clipper Service, see 2.986 megs.
- 16.460 **DHEY**, S. S. Deutschland. Works DAF, WOO. Add: North German Lloyd, Pier 4, Foot of 58th St., Brooklyn.
- 16.600 **DOAI**, S. S. Europa. See DHEY 16.460 megs.
- 16.765 **DHTY**, S. S. Resolute.
- 16.820 **NAA**, Arlington, Va. Time signals at 0955 EST.
- 17.080 **GBC**, Rugby, Gt. Britain. (5.). Works ships. See GBX 16.140 megs.
- 17.120 **WOO**, Ocean Gate, N. J. (20.) (*). Works ships. "Able" frequency.
- 17.225 **ICEJ**, S. S. Rex.
- 17.310 **W3XL**, New York, N. Y. (20.). See W3XAL 6.100 megs.
- 17.480 **VWY2**, Kirkee, Poona, India. Works GAU mornings. Indian Radio and Cable Communications Co., Ltd., Poona 6.
- 17.755 **ZBW5**, Hong Kong. (2.4) Add: Box 200.
- 17.760 **DJE**, Berlin, Germany. Tr: Zeesen. Int: music box tune. s/o: two national anthems. Add: Reichs-Rundfunk-Gesellschaft, Haus des Rundfunks, Masurenallee, Berlin-Charlottenburg 9.
- 17.775 **W2XE**, New York, N. Y. (10.) See 11.830 megs.
- 17.775 **PHI**, Hilversum, Netherlands. (23.6). Summer frequency. See PCJ 9.590 megs.
- 17.780 **W3XAL**, New York, N. Y. (35.). See 6.100 megs.
- W8XK**, Pittsburgh, Pa. (40.). (Not used at present).
- W9XAA**, Chicago, Ill. (5.) (Not used at present).
- W9XF**, Chicago, Ill. (10.) (Not used at present).
- 17.785 **JZL**, Tokyo, Japan.
- 17.790 **GSG**, London, Gt. Britain. (15.). "G for Greeting." Tr: Daventry. Int: Bow Bells; time signal on even hours; Big Ben strikes hours irreg. preceded by Westminster Chimes. s/o: "God Save the King." Add: British Brdcstg. Corp., London W1.
- 18.090 **TYE**, Pontoise, France. Works NYC. See TYE2, 13.760.
- 18.270 **IUD**, Addis Ababa, Ethiopia.
- 18.310 **GAS**, Rugby, Gt. Britain. Works NYC mornings. See GBX 16.140 megs.
- 18.350 **WLA**, Lawrenceville, N. J. (*). Works London mornings
- 18.620 **GAU**, Rugby, Gt. Britain. (15.). Works India, NYC and Capetown. See GBX 16.140 megs.
- 18.830 **PLE**, Bandoeng, Java, N.E.I. (40.). Works Dixon nights and Tokyo mornings. Governments Radio-Dienst.
- 19.140 **LSM3**, Buenos Aires, Arg. Works Madrid, Berlin, Paris, days. Add: Defensa 143.
- 19.480 **GAD**, Rugby, Gt. Britain. Works Kenya Colony. See GBX 16.140 megs.
- 19.630 **VQG**, Nairobi, Kenya Colony. Works London. Cable & Wireless, Ltd. Box 777
- 20.380 **GAA**, Rugby, Gt. Britain. (15.). See GBX 16.140 megs.
- 21.020 **LSN6**, Buenos Aires, Arg. Works NYC days. Defensa 143.
- 21.160 **LSL4**, Buenos Aires, Arg. Works London and Rio, days. Add: Defensa 143.
- 21.450 **OLR6A**, Prague, Czecho. See 15.230.
- 21.460 **WIXAL**, Boston, Mass. (10.) (Not used at present).
- 21.470 **GSH**, London, Gt. Britain. "H for Home." See GSG 17.790 megs.
- 21.480 **W2XAD**, Schenectady, N. Y. (Not used at present).
- 21.520 **JZM**, Tokyo, Japan.
- W2XE**, New York, N. Y. See 11.830 megs.
- 21.530 **GSJ**, London, Gt. Britain. "J for Justice." See GSG 17.790 megs.
- 21.540 **W8XK**, Pittsburgh, Pa. (*). Tr: Saxonburg. Relays NBC-KDKA. Westinghouse Electric & Mfg. Co.
- 25.950 **W4XH**, Spartanburg, S. C. (.05) (WSPA)
- W6XKG**, Los Angeles, Calif. (.1) (KGfJ)
- 26.100 **GSK**, London, Gt. Britain. "K for King." See GSG 17.790 megs.
- Charleston, W. Va. (.05) (WCHS)
- 26.400 **W9XAZ**, Milwaukee, Wis. (.5) (WTMJ)
- 28.000 to
- 30.000 Amateurs. Amateur 'phones are used between 28 and 29 megs.
- 30.100 Police Emergency Stations. experimental.
- 30.604 IAG, Golfo Aranci, Sardinia. (5.)
- 31.600 **W1XEQ**, Fairhaven, Mass. (.1) (WNBH).
- W1XER**, Boston, Mass. (.5) (WNAC)
- W1XKA**, Boston, Mass. (.05) (WBZ)
- W1XKB**, E. Springfield, Mass. (.5) (WBZA)
- W2XDG**, New York, N. Y. (5.) (WEAF-WJZ)
- W2XDV**, New York, N. Y. (WABC)
- W2XHG**, Bound Brook, N. J. (.15) (WJZ)
- W3XES**, Baltimore, Md. (.3) (WCAO)
- W3XEX**, Norfolk, Va. (.05) (WTAR)
- W3XEY**, Baltimore, Md. (.1) (WFBR)
- W3XKA**, Philadelphia, Pa. (.05) (KYW)
- W4XBW**, Chattanooga, Tenn. (.1) (WDOD)
- W4XCA**, Memphis, Tenn. (.25) (WMC)
- W5XAU**, Oklahoma City, Okla. (.1) (WKY)
- W6XAS**, San Francisco, Calif. (.01) (KJBS)
- W8XAI**, Rochester, N. Y. (.1) (WHAM)
- W8XH**, Buffalo, N. Y. (.1) (WBEN)
- W8XKA**, Pittsburgh, Pa. (.15) (KDKA)
- W8XWJ**, Detroit, Mich. (.1) (WWJ)
- W9XBS**, Chicago, Ill. (2.5) (WENR).
- W9XER**, Kansas City, Mo. (.05) (KMBC).
- W9XHW**, Minneapolis, Minn. (.05) (WCCO).
- W9XJL**, Superior, Wis. (.08) (WEBC).
- W9XOK**, St. Louis, Mo. (.1).
- W9XPD**, St. Louis, Mo. (.1) (KSD).
- 33.100 Police Emergency Stations.
- 35.600 High Frequency Broadcasting Stations. Same as 31.600 megs.
- 37.100 Police Emergency Stations.
- 38.600 High Frequency Brdcstg. Stations. Same as 31.600.
- 40.100 Police Emergency Stations.
- 41.000 High Frequency Brdcstg. Stations. Same as 31.600.
- 56.000 to
- 60.000 Amateurs. Amateur 'phones are heard in the entire band.
- 110.000 megs. to infinity. Amateurs.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KEY TO SYMBOLS

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

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|--|---|--|
| <p>Second Column Symbols</p> <p>a Verifies reception for return postage.
 b Verifies only occasionally.
 c Does not verify.
 d Verification 10c; letter 25c.
 h Sends own station stamp for 10c.
 i Sends own station stamp for 5c.
 j Sends own station stamp for postage.
 k Has no stamps.
 m Verifies for 5c.</p> | <p>n Weather or time only.
 z No information available.</p> <p>Fourth Column Symbols</p> <p>B National "Blue" network.
 C Columbia network.
 D Day time only.
 Dn Day time with occasional evening hours.
 F Canadian Brdestg. Corp.
 M Mutual Brdestg. Sys.
 N National "Red" and "Blue" networks.
 P Has construction permit only.</p> | <p>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.</p> <p>a-b-c. Small letters show stations using same transmitter.
 1-2-3. Figures denote stations sharing time.
 No information.</p> |
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540 kcys. (555.2)

CJRM ak 1000 F Regina, Sask.

550 kcys. (545.1)

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

560 kcys. (535.4)

KFDM	ak	500	(1)	Beaumont, Tex.
KLZ	ak	1000	C (5)	Denver, Colo.
KSFO	ak	1000	C	San Francisco, Cal.
KWFO	ak	5000	D	Springfield, Mo.
WFIL	ak	1000	BM	Philadelphia, Pa.
WIND	ak	1000	(5)	Gary, Ind.
WIS	ak	1000	N (5)	Columbia, S. C.
WOAM	ak	1000	C	Miami, Fla.
XEAO	ak	250		Mexicali, L. C.

570 kcys. (526.0)

CMCX	z	150		Havana, Cuba
KGKO	ak	250	C (1)	Y Wichita Falls, Tex.
KMTR	ak	1000		Hollywood, Calif.
KVI	ak	1000	C (5)	Tacoma, Wash.
WKBN	ak	500	1C	Youngstown, Ohio
WNCA	ak	1000		New York, N. Y.
WNAX	ak	1000	C (5)	Yankton, S. D.
WOSU	ak	750	1 (1)	Columbus, Ohio
WSYR	ak	1000	B	Syracuse, N. Y.
WWNC	ak	1000	N	Asheville, N. C.

580 kcys. (516.9)

CFPR	ak	50		Prince Rupert, B. C.
CHRC	ak	100	F	Quebec, Que.
CKCL	ag	100	F	Toronto, Ont.
CKUA	ak	500		Edmonton, Alta.
KMJ	ak	500	N (1)	Fresno, Calif.
KSAC	ak	500	2 (1)	Manhattan, Kans.

WCHS	ak	500	C (1)	Charleston, W. Va.
WDBO	ak	1000	C	Orlando, Fla.
WIBW	ak	1000	C2 (5)	Topeka, Kans.
WTAG	ak	1000	R	Worcester, Mass.
XELO	ak	5000		Piedras Negras, Coah.

590 kcys. (508.2)

KHO	ak	1000	R (2.5)	Spokane, Wash.
WEEI	ak	1000	C (5)	Boston, Mass.
WKZO	ak	1000	D	Kalamazoo, Mich.
WOW	ak	5000	R	Omaha, Nebr.

600 kcys. (499.7)

CFCF	ak	400	FN	Montreal, Que.
CJOR	ak	500		Vancouver, B. C.
CMW	ak	1400		Havana, Cuba
CRCW	ak	500	F (1)	Windsor, Ont.
KFSD	ak	1000	B	San Diego, Calif.
WCAO	ak	500	C (1)	Baltimore, Md.
WICC	ak	500	BM (1)	Bridgeport, Conn.
WMT	ak	1000	BM (5)	Cedar Rapids, Ia.
WREC	c	1000	C (5)	Memphis, Tenn.

610 kcys. (491.5)

KFRC	ck	1000	M (5)	San Francisco, Cal.
WDAF	ak	1000	R (5)	Kansas City, Mo.
WIP	ak	1000		Philadelphia, Pa.
WJAY	ak	500	D	Cleveland, Ohio
XEXM	ak	500		Mexico City, D. F.

620 kcys. (483.6)

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

630 kcys. (475.9)

CFCO	ak	100	F	Chatham, Ont.
CFCY	ak	1000	F	Charlottetown, P.E.I.
CJRO	ak	500	F (1)	Winnipeg, Man.
CKOV	ak	100	F	Kelowna, B. C.
KFRU	ak	500	1 (1)	Columbia, Mo.
KGFX	ak	200	D	Pierre, S. D.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

WGBF ak 500 1 NX ... Evansville, Ind.
 WMAL ak 250 B (5) Washington, D. C.
 WPRO ak 500 C (1) ... Providence, R. I.
 XEZ z 500 Merida, Yuc.

640 kcys. (468.5)

CMCB ak 150 Havana, Cuba
 KFI ak 50000 R ... Los Angeles, Calif.
 WGAN z 500 DP ... Portland, Me.
 WHKC ak 500 Columbus, Ohio
 WOI ak 5000 D ... Ames, Iowa
 XEBX z 250 Sabinas, Coah.

650 kcys. (461.3)

WSM ak 50000 NM ... Nashville Tenn.

660 kcys. (454.3)

WAAW ak 500 D ... Omaha, Neb.
 WEAF ak 50000 R ... New York, N. Y.
 XEAL z 1000 Mexico City, D. F.

670 kcys. (447.5)

WMAQ ak 50000 N ... Chicago, Ill.

680 kcys. (440.9)

CMCG ak 1000 Havana, Cuba
 KFEQ ak 2500 D ... St. Joseph, Mo.
 KFO ak 50000 R ... San Francisco, Cal.
 VAS akn 2000 685 Glace Bay, N. S.
 VOWR ck 500 681 St. John's, Nfld.
 WPTF ak 1000 N (5) Raleigh, N. C.

690 kcys. (434.5)

CFRB ak 10000 C ... Toronto, Ont.
 CJCJ ak 100 F ... Calgary, Alta.
 XET ak 500 Monterrey, N. L.

700 kcys. (428.3)

WLW ak 500000 NM Cincinnati, Ohio

710 kcys. (422.3)

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

720 kcys. (416.4)

WGN ak 50000 M Chicago, Ill.
 XEH ak 250 Monterrey, N. L.

730 kcys. (410.7)

CFPL ak 100 F London, Ont.
 CJCA ak 1000 F Edmonton, Alta.
 CKAC ak 5000 C Montreal, Que.
 CKPR ak 100 F Fort William, Ont.
 CMK ak 3000 Havana, Cuba
 XEBC ak 5000 Agua Caliente, L. C.
 XEPN ak 100000 Piedras Negras, Ch.

740 kcys. (405.2)

KMMJ ak 1000 D Clay Center, Neb.
 KTRB ak 250 D Modesto, Calif.
 WHEB ak 250 D Portsmouth, N. H.
 WSB ak 50000 N Atlanta, Ga.

750 kcys. (399.8)

CMCW dk 150 Havana, Cuba
 KGU aj 2500 N Honolulu, T. H.
 WJR ak 50000 C Detroit, Mich.
 XEAM ak 25 Matamoros, Tams.

760 kcys. (394.5)

CMHX ak 200 Cienfuegos, Cuba
 KXA ak 250 (5) Seattle, Wash.
 WBAL ak 2500 BMSy Baltimore, Md.
 WEW ak 1000 D St. Louis, Mo.
 WJZ ak 50000 BSY New York, N. Y.
 XEOK ak 2500 Tijuana, B. Cfa.

770 kcys. (389.4)

CMBS ak 150 Havana, Cuba
 KFAB ak 10000 CSy Lincoln, Neb.
 WBBM ae 50000 CSy Chicago, Ill.

780 kcys. (384.4)

CHWK dk 100 F Chilliwack, B. C.
 CKSO ak 1000 F Sudbury, Ont.
 CMJK ak 250 Camaguey, Cuba
 KEHE ak 1000 (5) Los Angeles, Calif.
 KFDY ak 1000 D Brookings, S. D.
 KFPD ck 250 Anchorage, Alaska
 KGHL ak 1000 N (5) Billings, Mont.
 WEAN ak 1000 MB Providence, R. I.
 WMC ak 1000 N (5) Memphis, Tenn.
 WTAR ak 500 NX (1) Norfolk, Va.
 XEL z 1000 Mexico City, D. F.

790 kcys. (379.5)

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

800 kcys. (374.8)

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

810 kcys. (370.2)

CMCF ak 600 Havana, Cuba
 WCCO ak 50000 C Minneapolis, Minn.
 WNYC ak 1000 D New York, N. Y.
 XEXC z 350 Aguascalientes, Ags.

820 kcys. (365.6)

OMHW ak 100 Cienfuegos, Cuba
 WHAS aj 50000 C Louisville, Ky.
 XEBG z 1000 Tijuana, B. Cfa.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

830 kcys. (361.2)

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

840 kcys. (356.9)

CFQC	ak	100	F	Saskatoon, Sask.
CRCT	ak	5000	FN	Toronto, Ont.
VOGY	ak	400		St. John's, Nfld.
XERA	ck	350000		Villa Acuna, Coah.

850 kcys. (352.7)

KIEV	ak	250	D	Glendale, Calif.
TIEP	z	500		San Jose, C. R.
WESG	ak	1000	CD	Elmira, N. Y.
WKAR	ak	1000	D	East Lansing, Mich.
WWL	ak	10000	C	New Orleans, La.

860 kcys. (348.6)

WABC	ak	50000	C	New York, N. Y.
WHB	ak	1000	DM	Kansas City, Mo.
XEMO	ak	5000		Tijuana, L. C.
XENO	z	50		Mexico City

870 kcys. (344.6)

WENR	ak	50000	Na	Chicago, Ill.
WLS	ak	50000	Na	Chicago, Ill.
XEFB	ak	200		Monterrey N. L.

880 kcys. (340.7)

CFJC	ak	100	F	Kamloops, B. C.
CMQ	ak	500		Havana, Cuba
CRCO	ak	1000	F	Ottawa, Ont.
KFKA	ak	500	2 (1) M	Greeley, Colo.
KLX	ak	1000		Oakland, Calif.
KPOF	ak	500	2	Denver, Colo.
WCOO	ak	500	(1) C	Meridian, Miss.
WGBI	ak	500	1	Scranton, Pa.
WPHR	ak	500	DY	Petersburg, Va.
WQAN	ak	250	1	Scranton, Pa.
WSUI	ak	500	(1)	Iowa City, Iowa

890 kcys. (336.9)

KARK	ak	500	(1) N	Little Rock, Ark.
KFNF	ak	500	2 (1)	Shenandoah, Iowa
KPPY	ak	1000	C (5)	Spokane, Wash.
KUSD	ak	500	2	Vermillion, S. D.
WBAA	ak	500	(1)	W. Lafayette, Ind.
WGST	ak	1000	C (5)	Atlanta, Ga.
WILL	ak	250	(1) XZ	Urbana, Ill.
WJAR	ak	1000	R	Providence, R. I.
WMMN	ak	500	C (1)	Fairmont, W. Va.
XEW	ak	50000		Mexico City, D. F.

900 kcys. (333.1)

KGBU	ak	500	X	Ketchikan, Alaska
KHJ	ak	1000	M (5)	Los Angeles, Calif.
KSEI	ak	250	(.5)	Pocatello, Idaho
WBEN	ak	1000	R (5)	Buffalo, N. Y.
WELI	ak	500	D	New Haven, Conn.
WFMD	ak	500	D	Frederick, Md.
WJAX	ak	1000	N (5)	Jacksonville, Fla.
WKY	ak	1000	N (5)	Oklahoma City, Okla.

WLBI	ak	2500	DX	Stevens Point, Wis.
WTAD	ak	1000	D	Quincy, Ill.

910 kcys. (329.6)

CJAT	ak	1000	F	Trail, B. C.
CKY	ak	15000	F	Winnipeg, Man.
CRCM	ak	5000	F	Montreal, Que.
XENT	ak	150000		Nuevo Laredo, Tams.

920 kcys. (325.9)

CMX	ak	1000		Havana, Cuba
HHK	ak	1000		Port-au-Prince, Haiti
KFEL	ak	500	aM	Denver, Colo.
KOMO	ak	1000	R (5)	Seattle, Wash.
KPRC	ak	1000	N (5)	Houston, Texas
KVOD	ak	500	aB	Denver, Colo.
WAAF	ak	1000	D	Chicago, Ill.
WORL	ak	500	D	Boston, Mass.
WPEN	ak	250	(.5) 1	Philadelphia, Pa.
WRAX	ak	250	1 (.5)	Philadelphia, Pa.
WSPA	ak	1000	D	Spartanburg, S. C.
WWJ	ak	1000	R (5)	Detroit, Mich.
XEAA	ak	200		Mexicall, L. C.

930 kcys. (322.4)

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

940 kcys. (319.0)

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

950 kcys. (315.6)

CJOC	ak	100	F	Lethbridge, Alta.	
CMCD	ak	250		Havana, Cuba	
CRCS	ak	100	F	Hollywood, Que.	
KFWB	ak	1000	(5)	Hollywood, Calif.	
KHSL	ak	250	Dz	Chico, Calif.	
KMBO	ak	1000	C (5)	Kansas City, Mo.	
WRC	ak	500	R (1)	Washington, D. C.	
		z	500	DP	Saginaw, Mich.

960 kcys. (312.3)

CFRN	ak	100	F	Edmonton, Alta.
CHNC	ak	1000	F	New Carlisle, Que.
XEAW	ck	50000		Reynosa, Tams.

970 kcys. (309.1)

CMBY	z	150		Havana, Cuba
KJR	ak	5000	B	Seattle, Wash.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

WCFL ak 5000 B Chicago, Ill.
 WBFG ak 100 D Glenside, Pa.

980 kcys. (306.0)

KDKA c 50000 B Pittsburgh, Pa.
 XEAC ak 250 Tijuana, B. Cfa.

990 kcys. (302.8)

WBZ c 50000 BSY Boston, Mass.
 WBZA c 1000 BSY Springfield, Mass.
 XEAF ak 750 Nogales, Sonora
 XEK ak 100 Mexico City, D. F.
 XES dk 250 Tampico, Tams.

1000 kcys. (299.8)

CMBZ ak 500 (1) Havana, Cuba
 KFVD ak 250 DnX Los Angeles, Calif.
 VOCM z 200 (1006) St. John's, Nfld.
 WHO ak 50000 R Des Moines, Iowa
 XEBI ak 25 Aguascalientes, Ags.
 XEBK ak 100 Nuevo Laredo, Tams.
 XEYS z 100 Portable in Mexico

1010 kcys. (296.9)

CHML ak 100 F Hamilton, Ont.
 CKOD ak 100 1 Vancouver, B. C.
 CKCK ak 500 F Regina, Sask.
 CKCO ak 100 F Ottawa, Ont.
 CKIC ak 50 Wolfville, N. S.
 CKWX ak 100 F I Vancouver, B. C.
 CMJA ak 300 Camaguey, Cuba
 KGGF ak 1000 2 Coffeyville, Kans.
 KQW ak 1000 San Jose, Calif.
 WHN ak 1000 (5) New York, N. Y.
 WNAD ak 1000 2 Norman, Okla.
 WNOX ak 1000 C (2) Knoxville, Tenn.
 XEU ak 250 Veracruz, Ver.

1020 kcys. (293.9)

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

1030 kcys. (291.1)

CFCN ak 10000 Calgary, Alta.
 CKLW ak 5000 M Windsor, Ont.
 CMCY ak 5000 Havana, Cuba
 XEB ak 10000 Mexico City, D. F.

1040 kcys. (288.3)

KRLD ak 10000 C Dallas, Texas
 KWJY ak 500 Portland, Ore.
 KYOS z 250 D Merced, Calif.
 W TIC ah 50000 R Hartford, Conn.

1050 kcys. (285.5)

CMKD ak 250 Santiago, Cuba
 CRCK ak 1000 F Quebec, Que.
 KFBI ak 5000 Dn Abilene, Kans.
 KNX ak 50000 C Los Angeles, Calif.
 WEAU z 1000 DP Eau Claire, Wis.
 WGVA z 1000 DP Indianapolis, Ind.

1060 kcys. (282.8)

KTHS ak 10000 N Hot Springs, Ark.
 VOAC z 40 1065 St. John's, Nfld.
 WBAL ak 10000 BM Baltimore, Md.
 WJAG ak 1000 D Norfolk, Neb.
 W3XJ z 100 P College Park, Md.
 XEAD ak 125 Guadalajara, Jal.
 XEMG z 100 Atcapotzala, D. F.
 z 100 P College Park, Md.

1070 kcys. (280.2)

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

1080 kcys. (277.6)

WBT ak 50000 C Charlotte, N. C.
 WCBD ak 5000 1Dn Chicago, Ill.
 WMB1 ak 5000 1Dn Chicago, Ill.
 XEBI z 20 Guzman, Jal.

1090 kcys. (275.1)

KMOX ak 50000 C St. Louis, Mo.
 XEAQ ak 1000 Rosarito, L. C.

1100 kcys. (272.6)

CMCJ ak 500 Havana, Cuba
 CRCV ak 5000 F Vancouver, B. C.
 KGDW ak 1000 DM Stockton, Calif.
 KWKH ak 10000 C Shreveport, La.
 WLWL ak 5000 I New York, N. Y.
 WPG ak 5000 IC Atlantic City, N. J.

1110 kcys. (270.1)

KSOO ak 2500 Dn Sioux Falls, S. D.
 WRVA ak 5000 CM Richmond, Va.

1120 kcys. (267.7)

CHLP ak 100 F Montreal, Que.
 CHSJ ak 500 F (1) St. John, N. B.
 CKOC ak 500 F (1) Hamilton, Ont.
 CKX ak 100 F Brandon, Man.
 CMGF dk 150 Matanzas, Cuba
 CMKM ak 200 Manzanillo, Cuba
 KFIO ak 100 D Spokane, Wash.
 KFSG ak 500 a (2.5) Los Angeles, Calif.
 KRKD ak 500 a (2.5) Los Angeles, Calif.
 KRSC ak 250 Seattle, Wash.
 WCOP ak 500 D Boston, Mass.
 WDEL ak 250 (.5) Wilmington, Del.
 WISN ak 250 (1) C Milwaukee, Wis.
 WTAW ak 500 College Station, Tex.

1130 kcys. (265.3)

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

1140 kcys. (263.0)

CMBG z 200 Havana, Cuba

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

<p>KV00 ak 2500 LN.....Tulsa, Okla. WAPI ak 5000 LN.....Birmingham, Ala. WSPR ak 500 DM....Springfield, Mass.</p>	<p>WAIM ak 100 WAYX ak 100 WBBZ ak 100 WBHP z 100 WBNO ak 100 WCAT ak 100 WCAX ak 100 WCLO ak 100 WCPO ak 100 WDSM z 100 WEST ak 100 WFAM ak 100 WFTC z 100 WBBC ak 100 WBYY ak 100 WBXX ak 100 WIL ak 100 WJBC ak 100 WJBL ak 100 WJBW ak 100 WJNO ak 100 WJRD c 100 WKBO ak 100 WLVA ak 100 WMFR ak 100 WMPC ak 100 WNRI ak 100 WOLS z 100 WRBL ak 100 WTHT ak 100 WWAE ak 100</p>	<p>XZ.....Anderson, S. C. Waycross, Ga. M.....Ponca City, Okla. P.....Huntsville, Ala. L.....New Orleans, La. D.....Rapid City, S. D. Burlington, Vt. (.25).....Janesville, Wis. (.25).....Cincinnati, Ohio P.....Superior, Wis. 3 (.25).....Easton, Pa. 8.....South Bend, Ind (.25)P.....Kinston, N. C. (.25).....Canton, Ohio (.25).....Green Bay, Wis. (.3) O.....Utica, N. Y. (.25).....St. Louis, Mo. 6(.25).....Bloomington, Ill. 6.....Decatur, Ill. 1.....New Orleans, La. C.....W. Palm Beach, Fla. D.....Tuscaloosa, Ala. 3 (.25).....Harrisburg, Pa. (.25).....Lynchburg, Va. D.....High Point, N. C. (.25).....Lapeer, Mich. (.25).....Newport, R. I. DP.....Florence, S. C. Columbus, Ga. DM.....Hartford, Conn. 8.....Hammond, Ind.</p>
II 50 kcys. (260.7) 		
<p>CMJF z 200.....Camaguey, Cuba WHAM ak 50000 B.....Rochester, N. Y. XEC ak 100.....Tijuana, B. Cfa. XEDW z 20.....Minatitlan, Ver.</p>		
II 60 kcys. (258.5) 		
<p>CMHJ ak 175.....Cienfuegos, Cuba CMKG z.....Santiago, Cuba WOWO c 10000 IB.....Fort Wayne, Ind. WWVA ak 5000 IC.....Wheeling, W. Va. XEAS ak 50.....Saltillo, Coah. XEBJ z 20.....Merida, Yuc. XEBZ ad 100.....Mexico City, D. F. XED ak 2500.....Guadalajara, Jal. XEP ak 500.....Juarez, Chih.</p>		
II 70 kcys. (256.3) 		
<p>CMBD ak 500.....Havana, Cuba WCAU ak 50000 C.....Philadelphia, Pa.</p>		
II 80 kcys. (254.1) 		
<p>CMJO ak 50.....Ciego de Avila, Cuba KEX ak 5000 2B.....Portland, Ore. KOB ak 10000 2 N Albuquerque, N. M. WDGY ak 1000 Dn (5).....Minneapolis, Minn. WINS ak 1000.....New York, N. Y. WMAZ ak 1000 C.....Macon, Ga. XEFA z 500.....Tacuba, D. F.</p>		
II 90 kcys. (252.0) 		
<p>CMKX z.....Santiago, Cuba KTKC z 250 DP.....Visalia, Calif. VONF ak 500 1195 St. John's, Nfld. WATR ak 100 D Waterbury, Conn. WOAI ak 50000 C San Antonio, Tex. WSAZ ak 1000 Huntington, W. Va.</p>		
II 200 kcys. (249.9) 		
<p>CHAB ak 100 F.....Moose Jaw, Sask. CKNX ak 50.....Wingham, Ont. CKTB ak 100 F.....St. Catharines, Ont. CMCO ad 250.....Havana, Cuba KADA ak 100 DM.....Ada, Okla. KATE z 100 DP.....Albert Lea, Minn. KBTM ak 100 D.....Jonesboro, Ark. KDNC z 100 P(.25) Lewiston, Mont. KELO z 100 P.....Sioux Falls, S. Dak. KFBJ ak 100 (.25) Marshalltown, Iowa KFXD ak 100 (.25).....Nampa, Idaho KFXJ ak 100 (.25) Grand Junc., Colo. KGDE ak 100 (.25) Fergus Falls, Minn. KGEK ak 100.....Sterling, Colo. KGFJ ak 100.....Los Angeles, Calif. KGHI ak 100 (.25) Little Rock, Ark. KMLB ak 100 (.25) Monroe, La. KOOS ak 250 D.....Marshallfield, Ore. KSUN c 100 (.25) Lowell, Ariz. KVCV z 100.....Redding, Calif. KVCE z 250 DP San Luis Obispo, Cal. KVOS dk 100.....Bellingham, Wash. KWG ak 100 N.....Stockton, Calif. KWNO z 100 DP.....Winona, Minn. WABI ak 100 (.25) Bangor, Maine</p>	<p>CJCS ak 50.....Stratford, Ont. CJCU z 50.....Aklavik, N. W. T. CKBI ak 100 F.....Prince Albert, Sask. CKCH ak 100 F.....Hull, Que. CKMC ak 50.....Cobalt, Ont. CMHI ak 150.....Santa Clara, Cuba KANS ak 100.....Wichita, Kans. KASA ck 100 M.....Elk City, Okla. KDLR ak 100.....Devils Lake, N. D. KDON z 100 M.....Monterrey, Calif. KFJI ak 100.....Klamath Falls, Ore. KFOR ak 100 CM(.25) Lincoln, Neb. KFPW ak 100.....Fort Smith, Ark. KFVS ak 100 6(.25) Cape Girardeau, Mo. KFXM ak 100 M9 San Bernardino, Calif. KGLO z 100.....Mason City, Iowa KGY ak 100.....Olympia, Wash. KIUL ak 100.....Garden City, Kans. KLAH ak 100.....Carlsbad, N. Mex. KOCA z 100.....Kilgore, Texas KPPA z 100 DP.....Helena, Mont. KPRO z 100 9.....Pasadena, Calif. KROY z 100 DP.....Sacramento, Calif. KVSO ak 100 M.....Ardmore, Okla. KWTN ak 100.....Watertown, S. D. TGW ak 10000.....Guatemala City WALE ak 100.....Zanesville, Ohio WBAX ak 100.....Wilkes Barre, Pa. WBBL ak 100 S.....Richmond, Va. WBLY ak 100 D.....Lima, Ohio WBRB ak 100 3.....Bed Bank, N. J. WCOL ak 100 N.....Columbus, Ohio WORW ak 100 4.....Chicago, Ill. WEBQ ak 100 6(.25) Harrisburg, Ill. WEDC ak 100 4.....Chicago, Ill. WFAS ak 100 3.....White Plains, N. Y. WFOY z 100.....St. Augustine, Fla. WGBB ak 100 3.....Freeport, N. Y. WGCM ak 100 (.25) Gulfport, Miss. WGNV ak 100 3.....Newburgh, N. Y. WHBF ak 100 (.25) Rock Island, Ill. WHBU ak 100 (.25) Anderson, Ind. WIBU ak 100 (.25) Poynette, Wis.</p>	
II 210 kcys. (247.8) 		

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

WJBY	ak	100	.....	Gadsden, Ala.
WJEM	ak	100	D	Hagerstown, Md.
WJMJ	z	100	(.25)	Lansing, Mich.
WJFN	ak	50	X	Jamestown, N. Y.
WJW	ak	100	(.25)	Akron, Ohio
WKOK	ak	100	.....	Sunbury, Pa.
WLMU	z	100	P	Middlesboro, Ky.
WMBG	ak	100	CXZ	Richmond, Va.
WMPG	ak	100	(.25)	Hibbing, Minn.
WMFN	ak	100	.....	Grenada, Miss.
WOMT	ak	100	.....	Manitowoc, Wis.
WPAX	ak	100	D	Thomasville, Ga.
WSAY	z	100	D	Rochester, N. Y.
WSBC	ak	100	4(.25)	Chicago, Ill.
WSIX	ak	100	.....	Nashville, Tenn.
WSNJ	z	100	DP	Bridgeton, N. J.
WSOC	ak	100	N(.25)	Charlotte, N. C.
WTAX	ak	100	.....	Springfield, Ill.
XEAT	ak	250	.....	Parral, Chih.
XEEL	ak	50	.....	Durango, Dgo.
XEFV	ak	100	.....	Juarez, Chih.
XETH	ak	100	.....	Puebla, Pue.
.....	z	100	F	Helena, Mont.

1220 kcys. (245.8)

CMJE	z	50	.....	Camaguey, Cuba
KFKU	ak	1000	a (5)	Lawrence, Kans.
KTMS	z	500	P	Santa Barbara, Calif.
KTW	ak	1000	S2	Seattle, Wash.
KWSC	ak	1000	2 (5)	Pullman, Wash.
WCAD	ak	500	D	Canton, N. Y.
WCAE	ak	1000	MR (5)	Pittsburgh, Pa.
WDAE	ak	1000	C (5)	Tampa, Fla.
WREN	ak	1000	Ba (5)	Lawrence, Kans.
XEBL	z	50	.....	Mazatlan, Sin.
XEDA	z	200	.....	Gra. Anaya, D. F.
XETF	ak	30	.....	Veracruz, Ver.

1230 kcys. (243.8)

KGBX	ak	500	.....	Springfield, Mo.
KGGM	ak	250	(.5)X	Albuquerque, N. M.
KYA	ak	1000	.....	San Francisco, Calif.
WFBM	ak	1000	C(5)	Indianapolis, Ind.
WNAC	ak	1000	R(5)	Boston, Mass.
XEFJ	ak	100	.....	Monterrey, N. L.

1240 kcys. (241.8)

CJCB	ak	1000	F	Sydney, N. S.
CMHB	z	50	.....	Sancti Spiritus, Cuba
KGCU	ak	250	1	Mandan, N. D.
KLPM	ak	250	1	Minot, N. D.
KTAT	ak	1000	M	Fort Worth, Texas
KTFI	ak	1000	.....	Twin Falls, Idaho
WKAQ	ak	1000	.....	San Juan, P. R.
WXYZ	ak	1000	B	Detroit, Mich.
XEKL	z	500	.....	Leon, Guan.
XELA	z	50	.....	Saltillo, Coah.

1250 kcys. (239.9)

CMKC	ak	150	.....	Sancti Spiritus, Cuba
KFKU	ak	1000	.....	Long Beach, Calif.
WAIR	z	250	DP	Winston-Salem
WCAL	ah	1000	2 (2.5)	Northfield, Minn.
WDSU	ak	1000	.....	New Orleans, La.
WHBI	ak	1000	1(2.5)	Newark, N. J.
WLB	ak	1000	2	Minneapolis, Minn.
WNEW	ak	1000	1(2.5)	New York, N. Y.
WTCN	ak	1000	2B (5)	Minneapolis, Minn.
XEXH	z	250	.....	San Luis Potosi, S.L.P.

1260 kcys. (238.0)

KGVO	ak	1000	C	Missoula, Mont.
KOIL	ak	1000	MB (2.5)	Omaha, Nebr.
KPAC	ak	500	D	Port Arthur, Texas
KRGV	ak	500	X	Weslaco, Texas
KUOA	ak	2500	D	Siloam Spgs., Ark.
KVOA	ak	1000	.....	Tucson, Ariz.
WHIO	ak	1000	C (5)	Dayton, Ohio
WNBX	ak	1000	.....	Springfield, Vt.
WTOC	ak	1000	C	Savannah, Ga.

1270 kcys. (236.1)

CMHD	dk	250	.....	Caibarien, Cuba
KGCA	ak	100	2D	Decorah, Iowa
KOL	ak	1000	C (5)	Seattle, Wash.
KVOR	ak	1000	C	Colorado, Sp'gs, Colo.
KWLC	ak	100	2D	Decorah, Iowa
WASH	ak	500	aN	Grand Rapids, Mich.
WFBR	ak	500	R (1)	Baltimore, Md.
WJDX	ak	1000	N (2.5)	Jackson, Miss.
WOOD	ak	500	aN	Grand Rapids, Mich.
XEXB	ak	50	.....	Jalapa, Ver.

1280 kcys. (234.2)

CMCU	ak	500	.....	Havana, Cuba
CMKO	z	.....	.....	Holguin, Cuba
KFBB	ak	1000	C (2.5)	Great Falls, Mont.
KLS	ak	250	.....	Oakland, Calif.
WCAM	ak	500	1	Camden, N. J.
WCAP	ak	500	1	Asbury Park, N. J.
WDOD	ak	1000	C (5)	Chattanooga, Tenn.
WIBA	ak	1000	N (5)	Madison, Wis.
WORC	ak	500	C	Worcester, Mass.
WRR	ak	500	M	Dallas, Texas
WENJ	ak	500	1	Trenton, N. J.
XEMX	z	1000	.....	Mexico City, D. F.

1290 kcys. (232.4)

KDYL	ak	1000	RX	Salt Lake City, Utah
KLCN	ak	100	D	Blytheville, Ark.
KTRH	ak	1000	C (5)	Houston, Texas
WEBC	ak	1000	N (5)	Duluth, Minn.
WJAS	ak	1000	C (5)	Pittsburgh, Pa.
WNBZ	ak	100	D	Saranac Lake, N. Y.
WNEL	ak	1000	(2.5)	San Juan, P. R.

1300 kcys. (230.6)

KALE	ak	500	C	Portland, Ore.
KFAC	ak	1000	.....	Los Angeles, Calif.
KFH	ak	1000	O	Wichita, Kans.
WBRR	ak	1000	1	Brooklyn, N. Y.
WEVD	ak	1000	1	New York, N. Y.
WFAB	ak	1000	1	New York, N. Y.
WFBC	ak	1000	(5) N	Greenville, S. C.
WHAA	ak	500	1X	Troy, N. Y.
WHBL	ak	250	.....	Sheboygan, Wis.
WIOD	ak	1000	N	Miami, Fla.

1310 kcys. (228.9)

CHCK	ak	50	.....	Charlottetown, P.E.I.
CJKL	ak	100	F	Kirkland Lake, Ont.
CJLS	ak	100	.....	Yarmouth, N. S.
CKCV	ak	100	F	Quebec, Que.
KAND	z	100	DP	Corsicana, Texas
KCKN	ak	100	.....	Kansas City, Kans.
KCRJ	ak	100	D	Jerome, Ariz.
KFPL	dk	100	(.25)	Dublin, Texas
KFXR	ak	100	(.25)	Oklahoma City, Okla.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KFYO	ak	100	(.25).....	Lubbock, Texas
KGEZ	ak	100	.....	Kalispel, Mont.
KGFW	ak	100	.....	Kearney, Nebr.
KHUB	z	250	DP.....	Watsonville, Calif.
KINY	ak	100	.....	Juneau, Alaska
KIT	ak	100	(.25).....	Yakima, Wash.
KMED	ck	100	YZ (.25).....	Medford, Ore.
KPDN	ak	100	D.....	Pampa, Texas
KRMC	z	100	1P (.25).....	Jamestown, N. D.
KRMD	ak	100	.....	Shreveport, La.
KROC	ak	100	.....	Rochester, Minn.
KRQA	ak	100	.....	Santa Fe, N. Mex.
KRRV	z	250	D.....	Sherman, Texas
KSRO	z	250	DP.....	Santa Rose, Calif.
KSUB	z	100	P.....	Cedar City, Utah
KTSM	ak	100	(.25).....	El Paso, Texas
KVOL	ak	100	.....	Lafayette, La.
KVOX	z	100	1P.....	Moorhead, Minn.
KWOS	z	100	D.....	Jefferson City, Mo.
KXRO	ak	100	.....	Aberdeen, Wash.
WAML	ak	100	.....	Laurel, Miss.
WBEO	ak	100	D.....	Marquette, Mich.
WBOW	ak	100	(.25) N	Terre Haute, Ind.
WBRE	ak	100	.....	Wilkes Barre, Pa.
WCLS	ak	100	.....	Joliet, Ill.
WCMJ	ak	100	(.25).....	Ashland, Ky.
WDAH	ak	100	S.....	El Paso, Texas
WEER	ak	100	B (.25).....	Buffalo, N. Y.
WEMP	ak	100	D.....	Milwaukee, Wis.
WEXL	ak	50	.....	Royal Oak, Mich.
WFBG	ak	100	3.....	Altoona, Pa.
WFDF	ak	100	.....	Flint, Mich.
WGH	ak	100	(.25).....	Newport News, Va.
WHAT	ak	100	4.....	Philadelphia, Pa.
WJAC	ak	100	3 (.25).....	Johnstown, Pa.
WLAJ	z	100	.....	Lakeland, Fla.
WLBC	ak	100	(.25).....	Muncie, Ind.
WLNH	ak	100	M.....	Laconia, N. H.
WMBO	ak	100	.....	Auburn, N. Y.
WMFP	ak	100	(.25).....	Plattsburg, N. Y.
WNBH	ak	100	M (.25)	New Bedford, Mass.
WOL	ak	100	XZ.....	Washington, D. C.
WRAW	ak	100	.....	Reading, Pa.
WBOL	ak	100	(.25).....	Knoxville, Tenn.
WSAJ	ak	100	.....	Grove City, Pa.
WSGN	ak	100	(.25).....	Birmingham, Ala.
WSJS	ak	100	C.....	Winston-Salem, N. C.
WTAL	ak	100	.....	Tallahassee, Fla.
WTFL	ak	100	4.....	Philadelphia, Pa.
WTJS	ak	100	(.25).....	Jackson, Tenn.
WTRC	ak	100	(.25).....	Elkhart, Ind.
XEAG	z	10	.....	Cordoba, Ver.
XECW	ak	10	.....	Mexico City, D. F.
XEFW	ak	250	.....	Tampico, Tams.
XETB	ak	125	.....	Torreón, Coah.
XEX	ak	125	.....	Monterrey, N. L.

1320 kcys. (227.1)

CMOX	ak	200	.....	Havana, Cuba
KGHF	am	500	B.....	Pueblo, Colo.
KGMB	ak	1000	CM.....	Honolulu, T. H.
KID	ak	500	(1).....	Idaho Falls, Idaho
KRNT	ak	500	C(1)X.....	Des Moines, Iowa
WADC	ak	1000	C(5).....	Akron, Ohio
WORK	ak	1000	.....	New York, Pa.
WSMB	ak	1000	N.....	New Orleans, La.

1330 kcys. (225.4)

CMHK	z	250	.....	Cruces, Cuba
KGB	ak	1000	M.....	San Diego, Calif.
KMO	ak	250	X.....	Tacoma, Wash.
KRIS	z	250	(.5)P.....	Corpus Christi, Tex.
KSCJ	ak	1000	C(5).....	Stout City, Iowa
WDRC	ak	1000	C(5).....	Hartford, Conn.

WSAI	ak	1000	MR(2.5).....	Cincinnati, Ohio
WTAQ	ak	1000	.....	Green Bay, Wis.

1340 kcys. (223.7)

CMAB	z	.....	.....	Pinar del Rio, Cuba
KMJL	z	75	.....	Camaguey, Cuba
KGDY	ak	250	D.....	Huron, S. D.
KGIR	ak	1000	N(2.5).....	Butte, Mont.
KGNO	ak	250	.....	Dodge City, Kans.
WCOA	ak	500	C.....	Pensacola, Fla.
WFEA	ak	500	NM(1).....	Manchester, N. H.
WSPD	ak	1000	B (5).....	Toledo, Ohio
XEFE	z	250	.....	Nuevo Laredo, Tams.
XEXD	z	350	.....	Jalapa, Ver.

1350 kcys. (222.1)

CMCA	ak	450	.....	Havana, Cuba
CMKW	z	.....	.....	Santiago, Cuba
KIDO	ak	1000	N (2.5).....	Boise, Idaho
KWK	ak	1000	M(5).....	St. Louis, Mo.
WAWZ	ak	500	1(1).....	Zarephath, N. J.
WBNX	ak	1000	1.....	New York, N. Y.

1360 kcys. (220.4)

CMJH	dk	50	.....	Ciego de Avila, Cuba
KCRC	ak	250	M.....	Enid, Okla.
KGER	ak	1000	.....	Long Beach, Calif.
WCSC	ak	500	(1)N.....	Charleston, S. C.
WFBL	ak	1000	C(5).....	Syracuse, N. Y.
WGES	ak	500	1(1).....	Chicago, Ill.
WQBC	ak	1000	D.....	Vicksburg, Miss.
WSBT	ak	500	1.....	South Bend, Ind.

1370 kcys. (218.8)

CKCW	ak	100	F.....	Moncton, N. B.
CMGE	ak	150	.....	Cardenas, Cuba
KAST	ak	100	D.....	Astoria, Ore.
KCMO	ak	100	.....	Kansas City, Mo.
KEEN	ak	100	1.....	Seattle, Wash.
KELD	z	100	.....	El Dorado, Ark.
KERN	ak	100	B.....	Bakersfield, Calif.
KFGQ	ak	100	D.....	Boone, Iowa
KFJZ	ak	100	(.25).....	Fort Worth, Texas
KFRQ	ak	100	D.....	Longview, Texas
KGAR	ak	100	(.25).....	Tucson, Ariz.
KGFL	ak	100	4.....	Roswell, N. M.
KGKL	ak	100	(.25).....	San Angelo, Texas
KICA	ak	100	4.....	Clovis, N. M.
KIUP	ak	100	.....	Durango, Colo.
KLUF	ak	100	.....	Galveston, Texas
KMAC	ak	100	5 (.25).....	San Antonio, Tex.
KOBH	ak	100	.....	Rapid City, S. Dak.
KOKO	z	100	P.....	La Junta, Colo.
KONO	ak	100	5.....	San Antonio, Tex.
KRE	ak	100	(.25).....	Berkeley, Calif.
KRKO	ak	50	1.....	Everett, Wash.
KSLM	ak	100	.....	Salem, Ore.
KTEM	z	100	D.....	Temple, Texas
KTOK	bk	100	M.....	Oklahoma City, Okla.
KUJ	ak	100	.....	Walla Walla, Wash.
KVGB	z	100	P.....	Great Bend, Kans.
KWYO	ak	100	(.25).....	Sheridan, Wyo.
WABY	ak	100	B.....	Albany, N. Y.
WAGF	ak	250	D.....	Dothan, Ala.
WATL	ak	100	(.25).....	Atlanta, Ga.
WBLL	z	100	DP.....	Clarksburg, W. Va.
WBNY	ak	100	2(.25).....	Buffalo, N. Y.
WBTM	ak	100	(.25).....	Danville, Va.
WCBM	ak	100	(.25).....	Baltimore, Md.
WDAS	ak	100	(.25).....	Philadelphia, Pa.
WDWS	ak	100	D.....	Champaign, Ill.

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

WEOA	z	100	(.25)	Evansville, Ind.	KABC	ak	100	(.25)	San Antonio, Texas
WFOR	ak	100		Hattiesburg, Miss.	KABR	ak	100		Aberdeen, S. Dak.
WGL	ck	100	C	Fort Wayne, Ind.	KALB	z	100	D	Alexandria, La.
WGRO	ak	250	D	New Albany, Ind.	KBBS	ak	100	4	Portland, Ore.
WHBQ	ak	100		Memphis, Tenn.	KCMC	ak	100		Texarkana, Texas
WHDF	ak	100	(.25)	Calumet, Mich.	KEUB	ak	100		Price, Utah
WHLB	ak	100		Virginia, Minn.	KFTZ	ak	100		Fond du Lac, Wis.
WIBM	ak	100	(.25)	Jackson, Mich.	KGFF	ak	100	M (.25)	Shawnee, Okla.
WLHJ	ak	100	M (.25)	Lowell, Mass.	KGGC	ak	100		San Francisco, Cal.
WMBR	ak	100	C (.25)	Jacksonville, Fla.	KGIW	ak	100	1	Alamosa, Colo.
WMFD	ak	100	D	Wilmington, N. C.	KIDW	ak	100	1	Lamar, Colo.
WMFO	ak	100	D	Decatur, Ala.	KIUN	ak	100		Pecos, Texas
WMIN	ak	100	(.25)	St. Paul, Minn.	KNET	z	100	D	Palestine, Texas
WOC	ak	100	C (.25)	Davenport, Iowa	KORE	ak	100		Eugene, Ore.
WPAY	ak	100		Portsmouth, Ohio	KRBC	ak	100	(.25)	Abilene, Tex.
WPRA	z	100	(.25)P	Mayaguez, P. R.	KRLC	ak	100	XZ	Lewiston, Idaho
WRAK	ak	100	(.25)	Williamsport, Pa.	KRLH	z	100	D	Midland, Tex.
WRDO	ak	100	M	Augusta, Maine	KUMA	ak	100		Yuma, Ariz.
WRJN	ak	100	(.25)	Racine, Wis.	KWBG	ak	100		Hutchinson, Kans.
WSAU	z	100	D	Wausau, Wis.	KXL	ak	100	4 (.25)	Portland, Ore.
WSVS	ak	50	D2	Buffalo, N. Y.	WACO	ak	100	C	Waco, Texas
XECZ	z	100		San Luis Potosi, S.L.P.	WAGM	ak	100		Presque Isle, Maine
XEI	ak	125		Morelia, Mich.	WAO	ak	100	D	Chattanooga, Tenn.
XELZ	z	100		Mexico City, D. F.	WAZL	ak	100	2	Hazleton, Pa.

1380 kcys. (217.3)

KOH	ak	500	C	Reno, Nev.	WHFC	ak	100	(.25)	Battle Creek, Mich.
KQV	ak	500	1C	Pittsburgh, Pa.	WGPO	ak	100		Albany, Ga.
WALA	af	500	C(1)	Mobile, Ala.	WHFO	ak	100	(.25)	Cicero, Ill.
WKBH	ak	1000		LaCrosse, Wis.	WILM	aj	100	2	Wilmington, Del.
WNBC	ak	250	D	New Britain, Conn.	WJBO	ak	100	XZ	Baton Rouge, La.
WSMK	ak	200	1C	Dayton, Ohio	WJBR	z	100	P	Gastonia, N. C.

1390 kcys. (215.7)

CGJK	ak	100	F	Yorkton, Sask.	WMBC	ak	100	(.25)	Springfield, Mass.
CMJC	z	150		Camaguey, Cuba	WMBH	ak	100	(.25)	Detroit, Mich.
KLRA	ak	1000	C(2.5)	Little Rock, Ark.	WMBS	z	250	DP	Jefferson, Mo.
KOY	ak	500	C(1)	Phoenix, Ariz.	WMFJ	ak	100		Daytona Beach, Fla.
WHK	ak	1000	C(2.5)	Cleveland, Ohio	WMSD	ak	100		Sheffield, Ala.
WQDM	d	1000	D	St. Albans, Vt.	WNNY	z	100	(.25)P	Watertown, N. Y.

1400 kcys. (214.2)

CMGO	ad	150		Matanzas, Cuba	WPAR	ak	100	C	Parkersburg, W. Va.
CMKR	z	100		Santiago, Cuba	WPRP	z	100	P(.25)	Ponce, P. R.
KHBC	z	250	M	Hilo, T. H.					
KLO	ak	500	B	Ogden, Utah					
KTUL	ak	500	C(1)	Tulsa, Okla.					
WARD	ak	500	2	Brooklyn, N. Y.					
WBBC	ak	500	2(1)	Brooklyn, N. Y.					
WHDL	ak	250	D	Olean, N. Y.					
WIRE	ak	1000	MR(5)	Indianapolis, Ind.					
WLTH	ak	500	2	Brooklyn, N. Y.					
WVFW	ak	500	2	Brooklyn, N. Y.					

1410 kcys. (212.6)

CKFO	ak	50	5	Vancouver, B. C.					
CKMO	ak	100	5F	Vancouver, B. C.					
CMOQ	ak	250		Havana, Cuba					
KFJM	ak	500	(1)	Grand Forks, N. D.					
KGNC	ak	1000	N(2.5)	Amarillo, Texas					
WNAB	ak	500	M	Boston, Mass.					
WBCM	ak	500		Bay City, Mich.					
WHIS	ak	500	(1)	Bluefield, W. Va.					
WROK	ak	500		Rockford, Ill.					
WSFA	ak	500	C(1)	Montgomery, Ala.					

1420 kcys. (211.1)

CKGB	ak	100	F	Timmins, Ont.					
CRCY	ak	100	F	Toronto, Ont.					

KABR	ak	100		Aberdeen, S. Dak.					
KALB	z	100	D	Alexandria, La.					
KBBS	ak	100	4	Portland, Ore.					
KCMC	ak	100		Texarkana, Texas					
KEUB	ak	100		Price, Utah					
KFTZ	ak	100		Fond du Lac, Wis.					
KGFF	ak	100	M (.25)	Shawnee, Okla.					
KGGC	ak	100		San Francisco, Cal.					
KGIW	ak	100	1	Alamosa, Colo.					
KIDW	ak	100	1	Lamar, Colo.					
KIUN	ak	100		Pecos, Texas					
KNET	z	100	D	Palestine, Texas					
KORE	ak	100		Eugene, Ore.					
KRBC	ak	100	(.25)	Abilene, Tex.					
KRLC	ak	100	XZ	Lewiston, Idaho					
KRLH	z	100	D	Midland, Tex.					
KUMA	ak	100		Yuma, Ariz.					
KWBG	ak	100		Hutchinson, Kans.					
KXL	ak	100	4 (.25)	Portland, Ore.					
WACO	ak	100	C	Waco, Texas					
WAGM	ak	100		Presque Isle, Maine					
WAO	ak	100	D	Chattanooga, Tenn.					
WAZL	ak	100	2	Hazleton, Pa.					
WCBS	ak	100		Springfield, Ill.					
WCHV	ak	100	3(.25)	Charlottesville, Va.					
WEED	ak	100	3(.25)	Rocky Mt., N. C.					
WELL	ak	100		Battle Creek, Mich.					
WGPO	ak	100		Albany, Ga.					
WHFC	ak	100	(.25)	Cicero, Ill.					
WILM	aj	100	2	Wilmington, Del.					
WJBO	ak	100	XZ	Baton Rouge, La.					
WJBR	z	100	P	Gastonia, N. C.					
WJMS	ak	100		Ironwood, Mich.					
WLAP	ak	100	(.25)	Lexington, Ky.					
WLEU	ak	100	C(2.5)	Erle, Pa.					
WMAS	ak	100	C(2.5)	Springfield, Mass.					
WMBC	ak	100	(.25)	Detroit, Mich.					
WMBH	ak	100	(.25)	Jefferson, Mo.					
WMBS	z	250	DP	Jefferson, Mo.					
WMFJ	ak	100		Daytona Beach, Fla.					
WMSD	ak	100		Sheffield, Ala.					
WNNY	z	100	(.25)P	Watertown, N. Y.					
WPAR	ak	100	(.25)	Paducah, Ky.					
WPRP	z	100	P(.25)	Parkersburg, W. Va.					

1430 kcys. (209.7)

CMJP	ak	75		Moron, Cuba					
KECA	ak	1000	(5)B	Los Angeles, Calif.					
KGNF	ak	1000	D	North Platte, Neb.					
KSO	ak	500	BM(1)	Des Moines, Iowa					
WBNS	ak	500	C(1)	Columbus, Ohio					
WHCC	ak	500	C(1)	Rockester, N. Y.					
WHP	ak	500	C(1)	Harrisburg, Pa.					
WNBR	ak	500	(1)	Memphis, Tenn.					
WOKO	ak	500	C(1)	Albany, N. Y.					

1440 kcys. (208.2)

CMOA	z	150		Havana, Cuba					
KDFN	ak	500		Casper, Wyo.					
KXYZ	ak	1000		Houston, Texas					
WBIG	ak	1000	C	Greensboro, N. C.					
WCBA	aj	500	a	Allentown, Pa.					
WMBD	ak	500	C(1)	Peoria, Ill.					
WSAN	aj	500	a	Allentown, Pa.					
XEFI	ak	250		Chihuahua, Chlh.					

1450 kcys. (206.8)

CFCT	ak	50		Victoria, B. C.					
CHGS	ak	50	F	Summerside, P.E.I.					
CMHM	z	100		Clenfuegos, Cuba					
KGCK	ak	1000		Wolf Point, Mont.					

NORTH AMERICAN B. C. STATIONS BY FREQUENCIES

KIEM	ak	500	.....	Eureka, Calif.
KTBS	ak	1000	N	Shreveport, La.
WGAR	ak	500	MB(1)	Cleveland, Ohio
WHOM	ak	250		Jersey City, N. J.
WSAB	ak	1000	M	Fall River, Mass.
WTFI	ak	500	Y	Athens, Ga.
XEF	ak	100		Juarez, Chih.

1460 kcys. (205.4)

CMKF	z	50	.....	Holguin, Cuba
KSTP	ak	10000	R (25)	St. Paul, Minn.
WJSV	ak	10000	C	Washington, D. C.

1470 kcys. (204.0)

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

1480 kcys. (202.6)

KOMA	ak	5000	C	Oklahoma City, Okla.
WKBW	ak	5000	C	Buffalo, N. Y.

1490 kcys. (201.2)

KFBK	ak	5000	N	Sacramento, Calif.
WCKY	ak	5000	BX	Covington, Ky.

1500 kcys. (199.9)

CMJC	ak	100	.....	Sault Ste. Marie, Ont.
CMCN	z	.....		Havana, Cuba
KAWM	z	100	P	Gallup, N. Mex.
KBIX	ak	100	M	Muskogee, Okla.
KBST	z	100		Big Spring, Tex.
KDAL	ak	100		Duluth, Minn.
KDB	ak	100	M(.25)	Santa Barbara, Cal.
KGFI	ak	100	(.25)	Corpus Christi, Tex.
KGKB	ak	100	(.25)	Tyler, Texas
KGKY	ak	100	(.25)	Scottsbluff, Neb.
KNEL	ak	100	D	Brady, Texas
KNOW	ak	100	C	Austin, Texas
KOTN	ak	100	D	Pine Bluff, Ark.
KOVC	ak	100		Valley City, N. Dak.
KPLC	ak	100	(.25)	Lake Charles, La.

KPLT	z	100	D	Paris, Texas
KPO	ak	100	(.25)	Wenatchee, Wash.
KENR	ak	100	(.25)	Roseburg, Ore.
KKROD	z	100	F	El Paso, Texas
KJSJS	z	100	F	Salina, Kans.
KTEP	z	100	F	El Paso, Texas
KUTA	z	100	F	Salt Lake City, Utah
KVOE	ak	100	M	Santa Ana, Calif.
KXO	ak	100		El Centro, Calif.
KYCA	z	100	(.25)P	Prescott, Ariz.
WCNW	ak	199	1 (.25)	Brooklyn, N. Y.
WDNC	ak	100	C	Durham, N. C.
WGAL	ak	100	(.25)	Lancaster, Pa.
WHBB	ak	100	D	Selma, Ala.
WHEF	ak	100	(.25)	Kosciusko, Miss.
WJBK	ak	100	(.25)	Detroit, Mich.
WKBB	ak	100	(.25)	E. DuBuque, Ill.
WKBV	ak	100	(.25)	Richmond, Ind.
WKBZ	ak	100	(.25)	Muskegon, Mich.
WKEU	ak	100	D	Griffin, Ga.
WMBQ	ak	100	1	Brooklyn, N. Y.
WMEX	ak	100	(.25)	Boston, Mass.
WNBF	ae	100	C	Binghamton, N. Y.
WNLC	ak	100	D	New London, Conn.
WQPI	ak	100		Bristol, Tenn.
WRDW	ak	100		Augusta, Ga.
WRGA	ak	100	(.25)	Rome, Ga.
WRTD	z	100	P	Richmond, Va.
WSYB	ak	100		Rutland, Vt.
WTMV	ak	100	(.25)	East St. Louis, Ill.
WWRL	ak	100	1 (.25)	Woodside, N. Y.
WWSW	ak	100	(.25)	Pittsburgh, Pa.

1510 kcys. (198.6)

CFRC	ak	100	F	Kingston, Ont.
CKCR	ak	100		Waterloo, Ont.

1530 kcys. (196.0)

KXBY	ak	1000	.....	Kansas City, Mo.
WBRY	ak	1000	M	Waterbury, Conn.

1550 kcys. (193.4)

KPMC	ak	1000	M	Bakersfield, Calif.
WQXR	ak	1000		New York, N. Y.

Questions of Interest

(Continued from page 10)

position blocks. This transposes the antenna leadin every two feet. If you wish to use the 5 meter end of the dial, as your set tunes to 60,000 kilocycles, you must cut the antenna and down-lead portions of the antenna to just half of the dimensions given for 10 meters. However, as you go lower into the ultra-short waves you reach what may be termed visual radio, and your distance is the horizon of the earth if there are no intervening buildings or hills. The ten-meter band is dif-

ferent, and fine DX work can be expected.

However, the ten meter band is mysteriously erratic. It might stay closed tightly for a long while and then suddenly open up for good reception. It seems to be a daytime band, starting up frequently after the sun has been several hours high. Also, few receivers that work all waves are highly efficient on 10 and 5 meters. The reason is obvious. Some, however, give satisfactory results, but slow and careful tuning is needed to reveal the 10 meter signals. This is radio's most critical tuning band.

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

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

ALABAMA	CALIFORNIA	Santa Barbara	FLORIDA	
Birmingham	Bakersfield	KDB 1500 100M	Clearwater	
WAPI 1140 5000 N	KERN 1370 100 B	KTMS 1220 500	WFLA 620 1000 N	
WBRC 930 1000 C	KPMC 1550 1000M	Santa Rosa	Daytona Beach	
WSGN 1310 100	Berkeley	KSRO 1310 250	WMFJ 1420 100	
Decatur	KRE 1370 100	Stockton	Gainesville	
WMFO 1370 100	Beverly Hills	KGDM 1100 1000M	WRUF 830 5000	
Dothan	KMPC 710 500	KWG 1200 100 N	Jacksonville	
WAGF 1370 250	Chico	Visalla	WJAX 900 1000 N	
Gadsden	KHSL 950 250	KTKC 1190 250	WMBR 1370 100 C	
WJBY 1210 100	El Centro	Watsonville	Lakeland	
Huntsville	KXO 1500 100M	KHUB 1310 250	WLAK 1310 100	
WBHP 1200 100	Eureka	COLORADO		
Mobile	KIEM 1450 500	Alamosa	WIOD 1300 1000 N	
WALA 1380 500 C	Fresno	KGIV 1420 100	WQAM 560 1000 C	
Montgomery	KMJ 580 500 N	Colorado Springs	WDBO 580 1000 C	
WSFA 1410 500 C	Glendale	KVOR 1270 1000 C	Pensacola	
WHBB 1500 100	KIEV 850 250	Denver	WCOA 1340 500 C	
Sheffield	Hollywood	KFEL 920 500M	St. Augustine	
WMSD 1420 100	KFWB 950 1000	KLZ 560 1000 C	WFOY 1210 100	
Tuscaloosa	KMTR 570 1000	KOA 830 50000 N	St. Petersburg	
WJRD 1200 100	Long Beach	KPOF 880 500	WSUN 620 1000 N	
ALASKA				
Anchorage	KFOX 1250 1000	KVOD 920 500 B	Tallahassee	
KFQD 780 250	KGER 1360 1000	Durango	WTAL 1310 100	
Juneau	Los Angeles	KIUP 1370 100	Tampa	
KINY 1310 100	KECA 1430 1000 B	Grand Junction	WDAE 1220 1000 C	
Ketchikan	KEHE 780 1000	KFKJ 1200 100	West Palm Beach	
KGBU 900 500	KFAC 1300 1000	Greeley	WJNO 1200 100 C	
ARIZONA				
Jerome	KFI 640 50000 R	KPKA 880 500M	GEORGIA	
KCRJ 1310 100	KFSG 1120 500	KOKO 1370 100	Albany	
Lowell	KPVD 1000 250	La Junta	WGPC 1420 100	
KSUN 1200 100	KGFJ 1200 100	Lamar	Athens	
Phoenix	KHJ 900 1000M	KIDW 1420 100	WTFI 1450 500	
KOY 1390 500 C	KNX 1050 50000	Pueblo	Atlanta	
KTAR 620 1000 N	KRRK 1120 500	KGHF 1320 500 B	WATL 1370 100	
Prescott	Merced	Sterling	WGST 890 1000 C	
KYCA 1500 100	KYOS 1040 250	KGEK 1200 100	WSB 740 50000 N	
Tucson	Modesto	CONNECTICUT		
KGAR 1370 100	KTRB 740 250	Bridgeport	Augusta	
KVOA 1260 1000	Monterrey	WICC 600 500M	WRDW 1500 100	
Yuma	KDON 1210 100M	Hartford	Columbus	
KUMA 1420 100	Oakland	WDRC 1330 1000 C	WRBL 1200 100	
ARKANSAS				
Blytheville	KLS 1280 250	WTIC 1040 50000 R	Griffin	
KLCN 1290 100	KLX 880 1000	WTHT 1200 100M	WKEU 1500 100	
El Dorado	KKROW 930 1000	New Britain	Macon	
KELD 1370 100	Pasadena	WNBC 1380 250	WMAZ 1180 1000 C	
Fort Smith	KPPC 1210 100	New Haven	Rome	
KFPW 1210 100	Redding	WELI 900 500	WRGA 1500 100	
Hot Springs	KVCV 1200 100	New London	Savannah	
KTHS 1060 10000 N	Sacramento	WNLC 1500 100	WTOC 1260 1000 C	
Jonesboro	KFBK 1490 5000 N	Waterbury	Thomasville	
KBTM 1200 100	KROY 1210 100	WATR 1190 100	WPAX 1210 100	
Little Rock	San Bernardino	WBRY 1530 1000M	Waycross	
KARK 890 500 N	KFKM 1210 100M	DELAWARE		
KGHI 1200 100	San Diego	Wilmington	HAWAII	
KLRA 1390 1000 C	KFSD 600 1000 R	WDEL 1120 250	Hilo	
Pine Bluff	KGB 1330 1000M	WILM 1420 100	KHBC 1400 250M	
KOTN 1500 100	San Francisco	DISTRICT OF COLUMBIA		
Siloam Springs	KFRG 610 1000M	Washington	KGMB 1320 1000 C	
KUOA 1260 2500	KGGC 1420 100	WJWS 1480 10000 C	KGU 750 2500 N	
IDAHO				
Boise				
KIDO 1350 1000 N				

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<p>Duluth KDAL 1500 100 WBEC 1290 1000 N Fergus Falls KGDE 1200 100 Hibbing WMFG 1210 100 Minneapolis WCCO 810 50000 C WDGY 1180 1000 WLB 1250 1000 WTCN 1250 1000 B Moorhead KVOX 1310 100 Northfield WCAL 1250 1000 Rochester KROC 1310 100 St. Paul KSTP 1460 10000 R WMLN 1370 100 Virginia WHLB 1370 100 Winona KWNO 1200 100</p> <hr/> <p style="text-align: center;">MISSISSIPPI</p> <hr/> <p>Grenada WMFN 1210 100 Gulfport WGCM 1210 100 Hattiesburg WFOR 1370 100 Jackson WJDX 1270 1000 N Kosciusko WHBF 1500 100 Laurel WAML 1310 100 Meridian WCOC 880 500 C Vicksburg WQBC 1360 1000</p> <hr/> <p style="text-align: center;">MISSOURI</p> <hr/> <p>Cape Girardeau KFVS 1210 100 Columbia KFRU 630 500 Jefferson City KWOS 1310 100 Joplin WMBH 1420 100 Kansas City KCMO 1370 100 KMBC 950 1000 C KXBY 1530 1000 WDAF 610 1000 R WB 860 1000M St. Joseph KFEQ 680 2500 St. Louis KFUO 550 500 KMOX 1090 50000 C KSD 550 1000 R KWK 1350 1000 B WEW 760 1000 WIL 1200 100 Springfield KGBX 1230 500 KWTO 560 5000</p>	<p style="text-align: center;">MONTANA</p> <hr/> <p>Billings KGHL 780 1000 N Butte KGIR 1340 1000 N Great Falls KFBF 1280 1000 C Helena KPFA 1210 100 KallsPELL KGEZ 1310 100 Lewistown KDNC 1200 100 Missoula KGVO 1260 1000 C Wolf Point KGCX 1450 1000</p> <hr/> <p style="text-align: center;">NEBRASKA</p> <hr/> <p>Clay Center KMMJ 740 1000 Kearney KGFW 1310 100 Lincoln KFAB 770 10000 C KFOR 1210 100 C Norfolk WJAG 1080 1000 North Platte KGNF 1430 1000 Omaha KOIL 1260 1000 B WAAW 660 500 WOW 590 5000 R Scottsbluff KGKY 1500 100</p> <hr/> <p style="text-align: center;">NEVADA</p> <hr/> <p>Reno KOH 1380 500 C</p> <hr/> <p style="text-align: center;">NEW HAMPSHIRE</p> <hr/> <p>Laconia WLNH 1310 100M Manchester WFEA 1340 500 N Portsmouth WHBB 740 250</p> <hr/> <p style="text-align: center;">NEW JERSEY</p> <hr/> <p>Asbury Park WCAP 1280 500 Atlantic City WPG 1100 5000 C Bridgeton WSNJ 1210 100 Camden WCAM 1280 500 Jersey City WAAT 940 500 WROM 1450 250 Newark WHBI 1250 1000 WNEW 1250 1000 WOR 710 50000M Red Bank WBRB 1210 100 Trenton WTNJ 1280 500 Zarephath WAWZ 1350 500</p>	<p style="text-align: center;">NEW MEXICO</p> <hr/> <p>Albuquerque KGBM 1230 250 KOB 1180 10000 N Carlsbad KLAH 1210 100 Clovis KICA 1370 100 Gallup KAWM 1500 100 Roswell KGFL 1370 100 Santa Fe KRQA 1310 100</p> <hr/> <p style="text-align: center;">NEW YORK</p> <hr/> <p>Albany WABY 1370 100 WOKO 1430 500 C Auburn WMBO 1310 100 Binghamton WNBF 1500 100 C Brooklyn WARD 1400 500 WBBC 1400 500 WBRR 1300 1000 WCNW 1500 100 WLTH 1400 500 WMBQ 1500 100 WVFW 1400 500 Buffalo WBEN 900 1000 R WBNI 1370 100 WEBR 1310 100 B WGR 550 1000 C WKBW 1480 5000 C WSVS 1370 50 Canton WCAD 1220 500 Elmira WESG 850 1000 C Freeport WGBB 1210 100 Jamestown WJTN 1210 50 Newburgh WGNV 1210 100 New York WABC 860 50000 C WBXN 1350 10000 WBOQ 860 50000 WEAF 660 50000 R WEVD 1300 1000 WFAB 1300 1000 WHN 1010 1000 WINS 1180 1000 WJZ 760 50000 B WLWL 1100 5000 WMCA 570 1000 WNEW 1250 1000 WNYC 810 100 WOV 1130 1000 WQXR 1550 1000 Olean WHDL 1400 250 Plattsburg WMFF 1310 250 Rochester WHAM 1150 50000 B WHEC 1430 500 C WSAY 1210 100</p>	<p>Saranac Lake WNBZ 1290 100 Schenectady WGY 790 50000 R Syracuse WFBL 1360 1000 C WSYR 570 1000 B Troy WHAZ 1300 500 Utica WIBX 1200 100 C Watertown WNNY 1420 100 White Plains WFAS 1210 100 Woodside WWRL 1500 100</p> <hr/> <p style="text-align: center;">NORTH CAROLINA</p> <hr/> <p>Asheville WWNC 570 100 N Charlotte WBT 1080 50000 C WSOC 1210 100 N Durham WDNC 1500 100 C Gastonia WJBR 1420 100 Greensboro WBIG 1440 1000 C High Point WMFR 1200 100 Kinston WFTC 1200 100 Raleigh WPIT 680 1000 N Rocky Mount WEED 1420 100 Wilmington WMFD 1370 100 Winston-Salem WAIR 1250 250 WSJS 1310 100 C</p> <hr/> <p style="text-align: center;">NORTH DAKOHA</p> <hr/> <p>Bismarck KFYR 550 1000 N Devils Lake KDLR 1210 100 Fargo WDAY 940 1000 N Grand Forks KFJM 1410 500 Jamestown KRMO 1310 100 Mandan KGOU 1240 250 Mtnot KLPM 1240 250 Valley City KOVO 1500 100</p> <hr/> <p style="text-align: center;">OHIO</p> <hr/> <p>Akron WADC 1320 1000 C WJW 1210 100 Ashtabula WICA 940 250 Canton WHBC 1200 100</p>
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NORTH AMERICAN B. C. STATIONS BY LOCATIONS

<p>Cincinnati</p> <p>WCPO 1200 100 WKRC 550 1000 C WLW 700 50000 N WSAI 1330 1000 R</p> <p>Cleveland</p> <p>WGAR 1450 500 B WHK 1390 1000 C WJAY 610 500 WTAM 1070 50000 R</p> <p>Columbus</p> <p>WBNS 1430 500 C WOOL 1210 100 N WHCO 640 500 WOSU 570 750</p> <p>Dayton</p> <p>WHIO 1260 1000 C WSMK 1380 200 C</p> <p>Lima</p> <p>WBLEY 1210 100</p> <p>Portsmouth</p> <p>WPAV 1370 100</p> <p>Toledo</p> <p>WSPD 1340 1000 B</p> <p>Youngstown</p> <p>WKBN 570 500 C</p> <p>Zanesville</p> <p>WALE 1210 100</p>	<p>KOIN 940 1000 C KWJJ 1040 500 KXL 1420 100</p> <p>Roseburg</p> <p>KRNR 1500 100 Salem</p> <p>KSLM 1370 100</p> <hr/> <p style="text-align: center;">PENNSYLVANIA</p> <hr/> <p>Allentown</p> <p>WCBA 1440 500 WSAN 1440 500</p> <p>Altoona</p> <p>WFBG 1310 100 Easton</p> <p>WEST 1200 100</p> <p>Erle</p> <p>WLEU 1420 100 Glenade</p> <p>WIBG 970 100 Greensburg</p> <p>WHJB 620 250 C Grove City</p> <p>WSAJ 1310 100 Harrisburg</p> <p>WHP 1430 500 C WKBO 1200 100</p> <p>Hazleton</p> <p>WAZL 1420 100 Johnstown</p> <p>WJAC 1310 100 Lancaster</p> <p>WGAL 1500 100 Philadelphia</p> <p>KYV 1020 10000 R WCAU 1170 50000 C WDAS 1370 100</p> <p>WFIL 560 1000 B WHAT 1310 100 WIP 610 1000 WPEN 920 250 WRAX 920 250 WTEL 1310 100</p> <p>Pittsburgh</p> <p>KDKA 980 50000 B KQV 1380 500 C WCAE 1220 1000 R WJAS 1290 1000 C WWSW 1500 100</p> <p>Reading</p> <p>WUEU 830 1000 WRAW 1310 100</p> <p>Scranton</p> <p>WGBI 880 500 WQAN 880 250</p> <p>Sunbury</p> <p>WKOK 1210 100 Unlontown</p> <p>WMBS 1420 250 Wilkes-Barre</p> <p>WBAX 1210 100 WBRE 1310 100</p> <p>Williamsport</p> <p>WRAK 1370 100 York</p> <p>WORK 1320 1000</p>	<p>San Juan</p> <p>WKAQ 1240 1000 WNEL 1290 1000</p> <hr/> <p style="text-align: center;">RHODE ISLAND</p> <hr/> <p>Newport</p> <p>WNRI 1200 100 Providence</p> <p>WEAN 780 1000M WJAR 890 1000 R WPRO 630 500 C</p> <hr/> <p style="text-align: center;">SOUTH CAROLINA</p> <hr/> <p>Anderson</p> <p>WAIM 1200 100 Charleston</p> <p>WCSC 1360 500 N Columbia</p> <p>WIS 560 1000 N Florence</p> <p>WOLS 1200 100 Greenville</p> <p>WFBC 1300 1000 N Spartanburg</p> <p>WSPA 920 1000</p> <hr/> <p style="text-align: center;">SOUTH DAKOTA</p> <hr/> <p>Aberdeen</p> <p>KABR 1420 100 Brookings</p> <p>KFDV 780 1000 Huron</p> <p>KGDY 1340 250 Pierre</p> <p>KGFX 630 200 Rapid City</p> <p>KOBH 1370 100 WCAT 1200 100</p> <p>Sioux Falls</p> <p>KELO 1200 100 KSOO 1110 2500 Vermillion</p> <p>KUSD 890 500 Watertown</p> <p>KWTN 1210 100 Yankton</p> <p>WNAX 570 1000 C</p>	<p>Amarillo</p> <p>KGNC 1410 1000 N Austin</p> <p>KNOW 1500 100 C Beaumont</p> <p>KFDM 560 500 Big Spring</p> <p>KBST 1500 100 Brady</p> <p>KNEL 1500 100 College Station</p> <p>WTAUV 1120 500 Corpus Christi</p> <p>KGFI 1500 100 KRIS 1330 250</p> <p>Coriscana</p> <p>KAND 1310 100 Dallas</p> <p>KRLD 1040 10000 C WFAA 800 50000 N WBR 1280 500M</p> <p>Dublin</p> <p>KFPL 1310 100 El Paso</p> <p>KROD 1500 100 KTSM 1310 100 WDAH 1310 100</p> <p>Fort Worth</p> <p>KFJZ 1370 100 KTAT 1240 1000M WBAP 800 50000 N</p> <p>Galveston</p> <p>KLUF 1370 100 Houston</p> <p>KPRC 920 1000 N KTRH 1290 1000 C KXYZ 1440 1000</p> <p>Kilgore</p> <p>KCOA 1210 100 Longview</p> <p>KFRO 1370 100 Lubbock</p> <p>KFYO 1310 100 Midland</p> <p>KRLH 1420 100 Palestine</p> <p>KNET 1420 100 Pampa</p> <p>KPDN 1310 100 Paris</p> <p>KPLT 1500 100 Pecos</p> <p>KIUN 1420 100 Port Arthur</p> <p>KPAC 1260 500 San Angelo</p> <p>KGKL 1370 100 San Antonio</p> <p>KABC 1420 100 KMAC 1370 100 KONO 1370 100</p> <p>KTSA 550 1000 C KOAI 1190 50000 C</p> <p>Sherman</p> <p>KRRV 1310 250 Temple</p> <p>KTEM 1370 100 Texarkana</p> <p>KOMC 1420 100 Tyler</p> <p>KGKB 1500 100 Waco</p> <p>WACO 1420 100 C Weslaco</p> <p>KRGV 1260 500</p>	
<p style="text-align: center;">OKLAHOMA</p> <hr/> <p>Ada</p> <p>KADA 1200 100M Ardmore</p> <p>KVSO 1210 100M Elk City</p> <p>KASA 1210 100M Enid</p> <p>KCRG 1360 250M Muskogee</p> <p>KBIX 1500 100M Norman</p> <p>WNAD 1010 1000 Oklahoma City</p> <p>KFKR 1310 100 KOMA 1480 5000 C KTKO 1370 100M WKY 900 1000 N</p> <p>Ponca City</p> <p>WBBZ 1200 100M Shawnee</p> <p>KGFF 1420 100M Tulsa</p> <p>KTUL 1400 500 C KVOO 1140 25000 N</p>	<p style="text-align: center;">OREGON</p> <hr/> <p>Astoria</p> <p>KAST 1370 100 Corvallis</p> <p>KOAC 550 1000 Eugene</p> <p>KORE 1420 100 Klamath Falls</p> <p>KFJI 1210 100 Marshfield</p> <p>KOOS 1200 250 Medford</p> <p>KMED 1310 100 Portland</p> <p>KALE 1300 500 C KBFS 1420 100 KEX 1180 5000 N KGW 620 1000 R</p>	<p style="text-align: center;">PUERTO RICO</p> <hr/> <p>Mayaguez</p> <p>WPRA 1370 100 Ponce</p> <p>WPRP 1420 100</p>	<p style="text-align: center;">TENNESSEE</p> <hr/> <p>Bristol</p> <p>WOPI 1500 100 Chattanooga</p> <p>WAPO 1420 100 WDOD 1280 1000 C</p> <p>Jackson</p> <p>WTJS 1310 100 Knoxville</p> <p>WNOX 1010 1000 C WROL 1310 100</p> <p>Memphis</p> <p>WHBQ 1370 100 WMC 780 1000 N WNBR 1430 500 WREC 600 1000 C</p> <p>Nashville</p> <p>WLAC 1470 5000 C WSIX 1210 100 WSM 650 50000 N</p>	<p style="text-align: center;">TEXAS</p> <hr/> <p>Abilene</p> <p>KRBC 1420 100</p>

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

Wichita Falls KGKO 570 250 C	KFPY 890 1000 C KGA 1470 5000 B KHQ 590 1000 R	CANADA		Chatham CFCO 630 100 F
UTAH	Tacoma KMO 1330 250 KVI 570 1000 C	ALBERTA		Cobalt CKMC 1210 50
Cedar City KSUB 1310 100	Walla Walla KUJ 1370 100	Calgary CFAC 930 100 F CFCN 1030 10000 CJCJ 690 100 F	Edmonton CFRN 960 100 F CJCA 730 1000 F CKUA 580 500	Fort William CKPR 730 100 F
Ogden KLO 1400 500 B	Wenatchee KPQ 1500 100	Lethbridge CJOC 950 100 F		Hamilton CHML 1010 100 F CKOC 1120 500 F
Price KEUB 1420 100	Yakima KIT 1310 100			Kingston CFRC 1510 100 F
Salt Lake City KDYL 1290 1000 R				Kirkland Lake CJKL 1310 100 F
KSL 1130 50000 C				London CFPL 730 100 F
KUTA 1500 100				North Bay CFCH 930 100 F
VERMONT	WEST VIRGINIA	BRITISH COLUMBIA		Ottawa CKCO 1010 100 F CRCO 880 1000 F
Burlington WCAX 1200 100	Bluefield WHIS 1410 500	Chilliwack CHWK 780 100 F		Prescott CFLO 930 100
Rutland WSYB 1500 100	Charleston WCHS 580 500 C	Kamloops CFJC 880 100 F		St. Catharines CKTB 1200 100 F
St. Albans WQDM 1390 1000	Clarksburg WBLK 1370 100	Kelowna CKOV 630 100 F		Sault Ste. Marie CJJC 1500 100
Springfield WNBX 1260 1000	Fairmont WMMN 890 500 C	Prince Rupert CFPR 580 50		Stratford CJCS 1210 50
Waterbury WDEV 550 500	Huntington WSAZ 1190 1000	Trail CJAT 910 1000 F		Sudbury CKSO 780 1000 F
VIRGINIA	Parkersburg WPAR 1420 100 C	Vancouver CJOR 600 500		Timmins CKGB 1420 100 F
Charlottesville WCHV 1420 100	Wheeling WWVA 1160 5000 C	CRCD 1010 100 CKFC 1410 50 CKMO 1410 100 F CKWX 1010 100 F CRCV 1100 5000 F		Toronto CFRB 690 10000 C CKCL 580 100 F CRCR 840 5000 N CRCY 1420 100 F
Danville WBTM 1370 100	WISCONSIN	Victoria CFCT 1450 50		Waterloo CKCR 1510 100
Harrisonburg WSVA 550 500	Eau Claire WEAU 1050 1000			Windsor CKLW 1030 5000M
Lynchburg WLVA 1200 100	Fond du Lac KFIZ 1420 100	MANITOBA		CRCW 600 500 F
Newport News WGH 1310 100	Green Bay WBBY 1200 100	Brandon CHK 1120 100 F		Wingham CKNX 1200 50
Norfolk WTAR 780 50 N	WTAQ 1330 1000	Winnipeg CJRC 630 500 F CKY 910 15000 F		PRINCE EDWARD ISLAND
Petersburg WPHR 880 500	Janesville WCLO 1200 100			Charlottetown CFCY 630 1000 F
Richmond WBBL 1210 100	LaCrosse WKBH 1380 1000	NEW BRUNSWICK		CHCK 1310 50
WMBG 1210 100 C	Madison WHA 940 5060	Fredericton CFNB 550 500 F		Summerside CHGS 1450 50 F
WRTD 1500 100	WIBA 1280 1000 N	Moncton CRCW 1370 100 F		QUEBEC
WRVA 1110 5000 C	Manitowoc WOMT 1210 100	St. John CHSJ 1120 500 F		Chicoutimi CRCS 950 100 F
Roanoke WDBJ 930 1000 C	Milwaukee WEMP 1310 100			Hull CKCH 1210 100 F
WASHINGTON	WISN 1120 250 C	N. W. TERRITORY		Montreal CFCF 600 400 N
Aberdeen KXRO 1310 100	WFMJ 620 1000 N	Aklavik CJCU 1210 50		CHLP 1120 100 F
Bellingham KVOS 1200 100	Poynette WBW 1210 100	NOVA SCOTIA		CKAC 730 5000 C
Everett KRKO 1370 50	Racine WRJN 1370 100	Glace Bay VAS 685 2000		CRCM 910 5000 F
Olympia KGY 1210 100	Sheboygan WBBL 1300 250	Halifax CHNS 930 1000 F		New Carlisle CHNC 960 1000 F
Pullman KWSC 1220 1000	Stevens Point WLBL 900 2500	Sydney CJCB 1240 1000 F		Quebec CHRC 580 100
Seattle KEEN 1370 100	Superior WDSM 1200 100	Wolfville CKVC 1010 50		CRCV 1310 100 F
KIRO 710 1000	Wausau WSAU 1370 100	Yarmouth CJLS 1310 100		CRCK 1050 1000 F
KJR 970 5000 B	WYOMING			SASKATCHEWAN
KOL 1270 1000 C	Casper KDFN 1440 500	ONTARIO		Moose Jaw CHAB 1200 100 F
KOMO 920 1000 R	Sheridan KWYO 1370 100	Branford CKPC 930 100 F		
KRSC 1120 250				
KTW 1220 1000				
KXA 760 250				
Spokane KFIO 1120 100				

NORTH AMERICAN B. C. STATIONS BY LOCATIONS

<p>Prince Albert CKBI 1210 100 F Regina CJRM 540 1000 CKCK 1010 500 F Saskatoon CFQC 840 1000 F Yorkton CJGX 1390 100 F</p> <hr/> <p style="text-align: center;">NEWFOUNDLAND</p> <hr/> <p>St. John's VOAC 1065 40 VOAS 940 100 VOCM 1006 200 VOGY 840 400 VONF 1195 500 VOWR 681 500</p>	<p>Gra. Anaya XEDA 1220 200</p> <p style="text-align: center;">Mexico City</p> <p>XEAL 660 1000 XEB 1030 10000 XEBZ 1160 100 XECVW 1310 10 XEFO 940 5000 XEJP 1130 100 XEK 990 100 XEL 780 1000 XELZ 1370 100 XEMX 1280 100 XENC 860 50 XEW 890 50000 XEXM 610 500 XEYO 940 500</p> <p style="text-align: center;">Tacuba</p> <p>XEFA 1180 500</p>	<p style="text-align: center;">PUEBLA</p> <hr/> <p style="text-align: center;">Puebla</p> <p>XETH 1210 100</p> <hr/> <p style="text-align: center;">SAN LUIS POTOSI</p> <hr/> <p style="text-align: center;">San Luis Potosi</p> <p>XECZ 1370 100 XEXH 1250 250</p> <hr/> <p style="text-align: center;">SINALOA</p> <hr/> <p style="text-align: center;">Mazatlan</p> <p>XEBL 1220 50</p> <hr/> <p style="text-align: center;">SONORA</p> <hr/> <p style="text-align: center;">Hermastillo</p> <p>XEBH 930 500</p> <p style="text-align: center;">Nogales</p> <p>XEAF 990 750</p> <hr/> <p style="text-align: center;">TAMAULIPAS</p> <hr/> <p style="text-align: center;">Matamoros</p> <p>XEAM 750 25 Neuva Laredo XEBK 1000 100 XEFE 1340 250 XENT 910 150000</p> <p style="text-align: center;">Reynosa</p> <p>XEAW 960 50000</p> <p style="text-align: center;">Tampico</p> <p>XEFW 1310 250 XES 990 250</p>	<p>CMJI 1130 150 CMJO 1180 50</p> <p style="text-align: center;">Clentfuegos</p> <p>CMHJ 1160 175 CMHM 1450 100 CMHW 320 100 CMHX 760 200</p> <p style="text-align: center;">Cruces</p> <p>CMHK 1330 250</p> <p style="text-align: center;">Havana</p> <p>CMBD 1170 500 CMBG 1140 200 CMBS 770 150 CMBX 1070 500 CMBY 970 150 CMBZ 1000 500 CMCA 1350 450 CMCB 640 150 CMCD 950 250 CMCF 810 600 CMCG 680 1000 CMCJ 1100 500 CMCN 1450 ... CMCO 1200 250 CMCQ 1410 250 CMCU 1280 500 CMCW 750 150 CMCX 570 150 CMCY 1030 5000 CMK 730 3000 CMOA 1440 150 CMOK 1470 150 CMOX 1320 200 CMQ 880 500 CMW 600 1400 CMX 920 1000</p> <p style="text-align: center;">Holguin</p> <p>CMFK 1460 250 CMKO 1280 ...</p> <p style="text-align: center;">Manzanillo</p> <p>CMKM 1120 200</p> <p style="text-align: center;">Matanzas</p> <p>CMGC 1400 150 CMGF 1120 150 CMGH 790 500</p> <p style="text-align: center;">Moron</p> <p>CMJP 1430 75</p> <p style="text-align: center;">Pinar del Rio</p> <p>CMAB 1340 ... Sagua la Grande CMHA 1070 50</p> <p style="text-align: center;">Sancti Spiritus</p> <p>CMHB 1240 50</p> <p style="text-align: center;">Santa Clara</p> <p>CMHI 1210 150</p> <p style="text-align: center;">Santiago</p> <p>CMKC 1250 150 CMKD 1050 250 CMKG 1160 ... CMKR 1400 100 CMKW 1350 ... CMKX 1190 ...</p>		
<p style="text-align: center;">COSTA RICA</p> <hr/> <p>San Jose TIEP 850 500</p>	<p style="text-align: center;">DURANGO</p> <hr/> <p>Durango XEE 1210 50</p>	<p style="text-align: center;">VERACRUZ</p> <hr/> <p style="text-align: center;">Cordoba</p> <p>XEAG 1310 10</p> <p style="text-align: center;">Jalapa</p> <p>XEXB 1270 250 XEXD 1340 350</p> <p style="text-align: center;">Minatitlan</p> <p>XEDW 1150 20</p> <p style="text-align: center;">Veracruz</p> <p>XETF 1220 30 XEU 1010 250</p>	<p style="text-align: center;">GUANAJUATO</p> <hr/> <p>Leon XEKL 1240 500</p>	<p style="text-align: center;">JALISCO</p> <hr/> <p>Guadalajara XEAD 1060 125 XED 1160 2500</p> <p style="text-align: center;">Guzman</p> <p>XEBA 1080 20</p>	<p style="text-align: center;">YUCATAN</p> <hr/> <p style="text-align: center;">Merida</p> <p>XEBJ 1160 20 XEFC 550 100 XEZ 630 500</p>
<p style="text-align: center;">MEXICO</p> <hr/> <p style="text-align: center;">AGUASCALIENTES</p> <hr/> <p>Aguascalientes XEBI 1000 25 XEXC 810 350</p>	<p style="text-align: center;">BAJA CALIFORNIA</p> <hr/> <p style="text-align: center;">Agua Caliente</p> <p>XEBC 730 5000</p> <p style="text-align: center;">Mexicall</p> <p>XEAA 920 200 XEAO 560 250</p> <p style="text-align: center;">Rosarito</p> <p>XEAG 1090 1000</p> <p style="text-align: center;">Tijuana</p> <p>XEAC 980 250 XEBG 820 1000 XEC 1150 100 XEMO 860 5000 XEOK 760 2500</p>	<p style="text-align: center;">CUBA</p> <hr/> <p style="text-align: center;">Calbarlen</p> <p>CMHD 1270 250</p> <p style="text-align: center;">Camaguey</p> <p>CMJA 1010 300 CMJC 1390 150 CMJE 1220 50 CMJF 1150 200 CMJK 780 250 CMJL 1340 100 CMJX 830 500</p> <p style="text-align: center;">Cardenas</p> <p>CMGE 1370 150 Ciego de Avila CMJH 1360 100</p>	<p style="text-align: center;">DOMINICAN REPUBLIC</p> <hr/> <p style="text-align: center;">Trujillo</p> <p>HIX 890 800</p>		
<p style="text-align: center;">COAHUILA</p> <hr/> <p>Piedras Negras XELO 580 50000 XEPN 730 100000</p> <p style="text-align: center;">Sabinas</p> <p>XEBX 640 250</p> <p style="text-align: center;">Saltillo</p> <p>XEAS 1160 50 XELA 1240 50</p> <p style="text-align: center;">Torreón</p> <p>XEBB 1310 125 Villa Acuna XERA 840 350000</p>	<p style="text-align: center;">MICHOACAN</p> <hr/> <p style="text-align: center;">Morella</p> <p>XEI 1370 125</p>	<p style="text-align: center;">NUEVO LEON</p> <hr/> <p style="text-align: center;">Monterrey</p> <p>XEFB 870 200 XEFJ 1230 100 XEH 720 250 XET 690 500 XEX 1310 125</p>	<p style="text-align: center;">HAITI</p> <hr/> <p style="text-align: center;">Port-au-Prince</p> <p>HHK 920 1000</p>		
<p style="text-align: center;">D. F.</p> <hr/> <p>Atzacapotzalco XEMG 1060 100</p>					

NORTH AMERICAN B. C. STATIONS BY CALLS

CFAC 930 100	CJKL 1310 100	CMBD 1170 500
Calgary, Alta.	Kirkland Lake, Ont.	Havana, Cuba
CFCF 600 400	CJLS 1310 100	CMBG 1140 200
Montreal, Que.	Yarmouth, N. S.	Havana, Cuba
CFCH 930 100	CJOC 950 100	CMBS 770 150
North Bay, Ont.	Lethbridge, Alta.	Havana, Cuba
CFCN 1030 10000	CJOR 600 500	CMBX 1070 500
Calgary, Alta.	Vancouver, B. C.	Havana, Cuba
CFCO 630 100	CJRC 630 500	CMBY 970 150
Chatham, Ont.	Winnipeg, Man.	Havana, Cuba
CFCT 1450 50	CJRM 540 1000	CMBZ 1000 500
Victoria, B. C.	Regina, Sask.	Havana, Cuba
CFCY 630 1000	CKAC 730 5000	CMCA 1350 450
Charlottetown, P.E.I.	Montreal, Que.	Havana, Cuba
CFJC 880 100	CKBI 1210 100	CMCB 640 150
Kamloops, B. C.	Prince Albert, Sask.	Havana, Cuba
CFLO 930 100	CKCD 1010 100	CMCD 950 250
Prescott, Ont.	Vancouver, B. C.	Havana, Cuba
CFNB 550 500	CKCH 1210 100	CMCF 810 600
Fredericton, N. B.	Hull, Que.	Havana, Cuba
CFPL 730 100	CKCK 1010 500	CMCG 680 1000
London, Ont.	Regina, Sask.	Havana, Cuba
CFPR 580 50	CKCL 580 100	CMCJ 1100 500
Prince Rupert, B. C.	Toronto, Ont.	Havana, Cuba
CFQC 840 1000	CKCO 1010 100	CMCN 1500 ...
Saskatoon, Sask.	Ottawa, Ont.	Havana, Cuba
CFRB 690 10000	CKCR 1510 100	CMCO 1200 250
Toronto, Ont.	Waterloo, Ont.	Havana, Cuba
CFBC 1510 100	CKCV 1310 100	CMCQ 1410 250
Kingston, Ont.	Quebec, Que.	Havana, Cuba
CFRN 960 100	CKOW 1370 100	CMCU 1280 500
Edmonton, Alta.	Moncton, N. B.	Havana, Cuba
CHAB 1200 100	CKFC 1410 50	CMCW 750 150
Moose Jaw, Sask.	Vancouver, B. C.	Havana, Cuba
CHCK 1310 50	CKGB 1420 100	CMCX 570 150
Charlottetown, P.E.I.	Timmins, Ont.	Havana, Cuba
CHGS 1450 50	CKIC 1010 50	CMCY 1030 5000
Summerside, P.E.I.	Wolfville, N. S.	Havana, Cuba
CHLP 1120 100	CKLW 1030 5000	CMGO 1400 150
Montreal, Que.	Windsor, Ont.	Matanzas, Cuba
CHML 1010 100	CKMC 1210 50	CMGE 1370 150
Hamilton, Ont.	Cobalt, Ont.	Cardenas, Cuba
CHNC 960 1000	CKMO 1410 100	CMGF 1120 150
New Carlisle, Que.	Vancouver, B. C.	Matanzas, Cuba
CHNS 930 1000	CKNX 1200 50	CMGH 790 500
Halifax, N. S.	Wingham, Ont.	Matanzas, Cuba
CHRC 580 100	CKOC 1120 500	CMHA 1070 50
Quebec, Que.	Hamilton, Ont.	Sagua la Grande, Cu.
CHSJ 1120 500	CKOV 630 100	CMHB 1240 50
St. John, N. B.	Kelowna, B. C.	Sancti Spiritus, Cuba
CHWK 780 100	CKPC 930 100	CMHD 1270 250
Chilliwack, B. C.	Brantford, Ont.	Caibarien, Cuba
CJAT 910 1000	CKPR 730 100	CMHI 1210 150
Trail, B. C.	Fort William, Ont.	Santa Clara, Cuba
CJCA 730 1000	CKSO 780 1000	CMHJ 1160 175
Edmonton, Alta.	Sudbury, Ont.	Cienfuegos, Cuba
CJCB 1240 1000	CKTB 1200 100	CMHK 1330 250
Sydney, N. S.	St. Catharines, Ont.	Cruces, Cuba
CJCJ 690 100	CKUA 580 500	CMHM 1450 100
Calgary, Alta.	Edmonton, Alta.	Cienfuegos, Cuba
CJCS 1210 50	CKWX 1010 100	CMHW 820 100
Stratford, Ont.	Vancouver, B. C.	Cienfuegos, Cuba
CJCU 1210 50	CKX 1120 100	CMHX 760 200
Aklavik, N. W. T.	Brandon, Man.	Cienfuegos, Cuba
CJGX 1390 100	CKY 910 15000	CMJA 1010 300
Yorkton, Sask.	Winnipeg, Man.	Camaguey, Cuba
CJIC 1500 100	CMAB 1340	CMJC 1390 150
S. Ste. Marie, Ont.	Pinar del Rio, Cuba	Camaguey, Cuba

NORTH AMERICAN B. C. STATIONS BY CALLS

OMJE 1220 50	HIK 800 800	KELO 1200 100
Camaguey, Cuba	Trujillo, D. R.	Sioux Falls, S. Dak.
OMJF 1150 200	KABC 1420 100	KERN 1370 100
Camaguey, Cuba	San Antonio, Texas	Bakersfield, Calif.
OMJH 1360 100	KABR 1420 100	KEUB 1420 100
Ciego de Avila, Cuba	Aberdeen, S. Dak.	Price, Utah
OMJI 1130 150	KADA 1200 100	KEX 1180 5000
Ciego de Avila, Cuba	Ada, Okla.	Portland, Ore.
OMJK 780 250	KALB 1420 100	KFAB 770 10000
Camaguey, Cuba	Alexandria, La.	Lincoln, Neb.
OMJL 1340 100	KALE 1300 500	KFAC 1300 1000
Camaguey, Cuba	Portland, Ore.	Los Angeles, Calif.
OMJO 1180 50	KAND 1310 100	KFBB 1280 1000
Ciego de Avila, Cuba	Corsicana, Texas	Great Falls, Mont.
OMJP 1430 75	KANS 1210 100	KFBI 1050 5000
Camaguey, Cuba	Wichita, Kans.	Abilene, Kans.
OMJX 830 500	KARK 890 500	KFBK 1490 5000
Camaguey, Cuba	Little Rock, Ark.	Sacramento, Calif.
OMK 730 3000	KASA 1210 100	KFDM 580 500
Havana, Cuba	Elk City, Okla.	Beaumont, Texas
OMKO 1250 150	KAST 1370 100	KFDY 780 1000
Santiago, Cuba	Astoria, Ore.	Brookings, S. D.
OMKD 1050 250	KATE 1200 100	KFEL 920 500
Santiago, Cuba	Albert Lea, Minn.	Denver, Colo.
OMKF 1460 250	KAWM 1500 100	KFEQ 680 2500
Holguin, Cuba	Gallup, N. Mex.	St. Joseph, Mo.
OMKG 1160 ...	KBIX 1500 100	KFGQ 1370 100
Santiago, Cuba	Muskogee, Okla.	Boone, Iowa
OMKM 1120 200	KBPS 1420 100	KFH 1300 1000
Manzanillo, Cuba	Portland, Ore.	Wichita, Kans.
OMKO 1280	KBST 1500 100	KFI 640 50000
Holguin, Cuba	Big Spring, Texas	Los Angeles, Calif.
OMKR 1400 100	KBTM 1200 100	KFIO 1120 100
Santiago, Cuba	Jonesboro, Ark.	Spokane, Wash.
OMKW 1350 ...	KCKN 1310 100	KFIZ 1420 100
Santiago, Cuba	Kansas City, Kans.	Fond du Lac, Wis.
OMKX 1190 ...	KCMO 1420 100	KFJB 1200 100
Santiago, Cuba	Texarkana, Texas	Marshalltown, Iowa
CMOA 1440 150	KCMO 1370 100	KFJI 1210 100
Havana, Cuba	Kansas City, Mo.	Klamath Falls, Ore.
CMOK 1470 150	KCRC 1360 250	KFJM 1410 500
Havana, Cuba	Enid, Okla.	Grand Forks, N. D.
CMOX 1320 200	KCRJ 1310 100	KFJZ 1370 100
Havana, Cuba	Jerome, Ariz.	Fort Worth, Texas
CMQ 880 500	KDAL 1500 100	KFFA 880 500
Havana, Cuba	Duluth, Minn.	Greeley, Colo.
CMW 600 1400	KDB 1500 100	KFKU 1220 1000
Havana, Cuba	Santa Barbara, Calif.	Lawrence, Kans.
CMX 920 1000	KDFN 1440 500	KFNF 890 500
Havana, Cuba	Casper, Wyo.	Shenandoah, Iowa
CRCK 1050 1000	KDKA 980 50000	KFOR 1210 100
Quebec, Que.	Pittsburgh, Pa.	Lincoln, Neb.
CRCM 910 5000	KDLR 1210 100	KFOX 1250 1000
Montreal, Que.	Devils Lake, N. D.	Long Beach, Calif.
CRCO 880 1000	KDNC 1200 250	KFFL 1310 100
Ottawa, Ont.	Lewistown, Mont.	Dublin, Texas
CRCS 950 100	KDON 1210 100	KFPW 1210 100
Chicoutimi, Que.	Monterrey, Calif.	Fort Smith, Ark.
CRCT 840 5000	KDYL 1290 1000	KFPY 890 1000
Toronto, Ont.	Salt Lake City, Utah	Spokane, Wash.
CRCV 1100 5000	KECA 1430 1000	KFQD 780 250
Vancouver, B. C.	Los Angeles, Calif.	Anchorage, Alaska
CRCW 600 500	KEEN 1370 100	KFRG 610 1000
Windsor, Ont.	Seattle, Wash.	San Francisco, Calif.
CROY 1420 100	KEHE 780 1000	KFRS 1370 100
Toronto, Ont.	Los Angeles, Calif.	Longview, Texas
HHK 920 1000	KELD 1370 100	KFRU 630 500
Port-au-Prince, Haiti	El Dorado, Ark.	Columbia, Mo.

NORTH AMERICAN B. C. STATIONS BY CALLS

KFSD 600 1000 San Diego, Calif.	KGHF 1320 500 Pueblo, Colo.	KIUN 1420 100 Pecos, Texas
KFSG 1120 500 Los Angeles, Calif.	KGHI 1200 100 Little Rock, Ark.	KIUP 1370 100 Durango, Colo.
KFUO 550 500 St. Louis, Mo.	KGHL 780 1000 Billings, Mont.	KJBS 1070 500 San Francisco, Calif.
KFVD 1000 250 Los Angeles, Calif.	KGIR 1340 1000 Butte, Mont.	KJR 970 5000 Seattle, Wash.
KFVS 1210 100 Cape Girardeau, Mo.	KGIW 1420 100 Alamosa, Colo.	KLAH 1210 100 Carlsbad, N. Mex.
KFWB 950 1000 Hollywood, Calif.	KGKB 1500 100 Tyler, Texas	KLCN 1290 100 Blytheville, Ark.
KFXD 1200 100 Nampa, Idaho	KGKL 1370 100 San Angelo, Texas	KLO 1400 500 Ogden, Utah
KFXJ 1200 100 Grand Junction, Colo.	KGKO 570 250 Wichita Falls, Texas	KLPM 1240 250 Minot, N. D.
KFXM 1210 100 San Bernardino, Calif.	KGKY 1500 100 Scottsbluff, Neb.	KLRA 1390 1000 Little Rock, Ark.
KFXB 1310 100 Oklahoma City, Okla.	KGLO 1210 100 Mason City, Iowa	KLS 1280 250 Oakland, Calif.
KFYO 1310 100 Lubbock, Texas	KGMB 1320 1000 Honolulu, T. H.	KLUF 1370 100 Galveston, Texas
KFYR 550 1000 Bismarck, N. D.	KGNC 1410 1000 Amarillo, Texas	KLX 880 1000 Oakland, Calif.
KGA 1470 5000 Spokane, Wash.	KGNF 1430 1000 North Platte, Neb.	KLZ 560 1000 Denver, Colo.
KGAR 1370 100 Tucson, Ariz.	KGNO 1340 250 Dodge City, Kans.	KMA 930 1000 Sherandoah, Iowa
KGB 1330 1000 San Diego, Calif.	KGO 790 7500 San Francisco, Calif.	KMAC 1370 100 San Antonio, Texas
KGBU 900 500 Ketchikan, Alaska	KGU 750 2500 Honolulu, T. H.	KMBC 950 1000 Kansas City, Mo.
KGBX 1230 500 Springfield, Mo.	KGVO 1260 1000 Missoula, Mont.	KMED 1310 100 Medford, Ore.
KGCA 1270 100 Decorah, Iowa	KGW 620 1000 Portland, Ore.	KMJ 580 500 Fresno, Calif.
KGCU 1240 250 Mandan, N. D.	KGY 1210 100 Olympia, Wash.	KMLB 1200 100 Monroe, La.
KGCX 1450 1000 Wolf Point, Mont.	KHBC 1400 250 Hilo, T. H.	KMMJ 740 1000 Clay Center, Neb.
KGDE 1200 100 Fergus Falls, Minn.	KHJ 900 1000 Los Angeles, Calif.	KMO 1330 250 Tacoma, Wash.
KGDM 1100 1000 Stockton, Calif.	KHQ 590 1000 Spokane, Wash.	KMOX 1090 50000 St. Louis, Mo.
KGDY 1340 250 Huron, S. D.	KHSL 950 250 Chico, Calif.	KMPK 710 500 Beverly Hills, Calif.
KGER 1360 1000 Long Beach, Calif.	KHUB 1310 250 Watsonville, Calif.	KMTR 570 1000 Hollywood, Calif.
KGEZ 1310 100 Kalispell, Mont.	KICA 1370 100 Clovis, N. M.	KNEL 1500 100 Brady, Texas
KGFF 1420 100 Shawnee, Okla.	KID 1320 500 Idaho Falls, Idaho	KNET 1420 100 Palestine, Texas
KGFI 1500 100 Corpus Christi, Tex.	KIDO 1350 1000 Boise, Idaho	KNOW 1500 100 Austin, Texas
KGfJ 1200 100 Los Angeles, Calif.	KIDW 1420 100 Lamar, Colo.	KNX 1050 50000 Los Angeles, Calif.
KGFL 1370 100 Roswell, N. M.	KIEM 1450 500 Eureka, Calif.	KOA 830 50000 Denver, Colo.
KGFW 1310 100 Kearney, Neb.	KIEV 850 250 Glendale, Calif.	KOAC 550 1000 Corvallis, Ore.
KGFX 630 200 Pierre, S. D.	KINY 1310 100 Juneau, Alaska	KOAM 790 1000 Pittsburg, Kans.
KGCC 1420 100 San Francisco, Calif.	KIRO 710 1000 Seattle, Wash.	KOB 1180 10000 Albuquerque, N. M.
KGGF 1010 1000 Coffeyville, Kans.	KIT 1310 100 Yakima, Wash.	KOBH 1370 100 Rapid City, S. Dak.
KGGM 1230 250 Albuquerque, N. M.	KIUL 1210 100 Garden City, Kans.	KOCA 1210 100 Kilgore, Texas

NORTH AMERICAN B. C. STATIONS BY CALLS

KOH 1380 500 Reno, Nev.	KRLH 1420 100 Midland, Texas	KTOK 1370 100 Oklahoma City, Okla.
KOIL 1260 1000 Omaha, Neb.	KRMC 1310 100 Jamestown, N. Dak.	KTRB 740 250 Modesto, Calif.
KOIN 940 1000 Portland, Ore.	KRMD 1310 100 Shreveport, La.	KTRH 1290 1000 Houston, Texas
KOKO 1370 100 La Junta, Colo.	KRNR 1500 100 Roseburg, Ore.	KTSA 550 1000 San Antonio, Texas
KOL 1270 1000 Seattle, Wash.	KRNT 1320 500 Des Moines, Iowa	KTSM 1310 100 El Paso, Texas
KOMA 1480 5000 Oklahoma City, Okla.	KROC 1310 100 Rochester, Minn.	KTUL 1400 500 Tulsa, Okla.
KOMO 920 1000 Seattle, Wash.	KROD 1500 100 El Paso, Texas	KTW 1220 1000 Seattle, Wash.
KONO 1370 100 San Antonio, Texas	KROW 930 1000 Oakland, Calif.	KUJ 1370 100 Walla Walla, Wash.
KOOS 1200 250 Marshfield, Ore.	KROY 1210 100 Sacramento, Calif.	KUMA 1420 100 Yuma, Ariz.
KORE 1420 100 Eugene, Ore.	KRQA 1310 100 Santa Fe, N. Mex.	KUOA 1260 2500 Siloam Springs, Ark.
KOTN 1500 100 Pine Bluffs, Ark.	KRRV 1310 250 Sherman, Texas	KUSD 890 500 Vermillion, S. Dak.
KOVC 1500 100 Valley City, N. Dak.	KRSC 1120 250 Seattle, Wash.	KUTA 1500 100 Salt Lake City, Utah
KOY 1390 500 Phoenix, Ariz.	KSAC 580 500 Manhattan, Kans.	KVCV 1200 100 Redding, Calif.
KPAC 1260 500 Port Arthur, Texas	KSCJ 1330 1000 Sioux City, Iowa	KVEC 1200 150 San Luis Obispo, Cal.
KPDN 1310 100 Pampa, Texas	KSD 550 1000 St. Louis, Mo.	KVGB 1370 100 Great Bend, Kans.
KPFA 1210 100 Helena, Mont.	KSEI 900 250 Pocatello, Idaho	KVI 570 1000 Tacoma, Wash.
KPLC 1500 100 Lake Charles, La.	KSFO 500 1000 San Francisco, Calif.	KVOA 1260 1000 Tucson, Ariz.
KPLT 1500 100 Paris, Texas	KSJS 1500 100 Salina, Kans.	KVOD 920 500 Denver, Colo.
KPMC 1550 1000 Bakersfield, Calif.	KSL 1130 50000 Salt Lake City, Utah	KVOE 1500 100 Santa Ana, Calif.
KPO 880 50000 San Francisco, Calif.	KSLM 1370 100 Salem, Ore.	KVOL 1310 100 Lafayette, La.
KPOF 880 500 Denver, Colo.	KSO 1430 500 Des Moines, Iowa	KVOO 1140 25000 Tulsa, Okla.
KPPC 1210 100 Pasadena, Calif.	KSOO 1100 2500 Sioux Falls, S. Dak	KVOR 1270 1000 Colorado Sprgs., Colo.
KPQ 1500 100 Wenatchee, Wash.	KSRO 1310 250 Santa Rosa, Calif.	KVOS 1200 100 Bellingham, Wash.
KPRC 920 1000 Houston, Texas	KSTP 1460 10000 St. Paul, Minn.	KVOX 1310 100 Moorhead, Minn.
KQV 1380 500 Pittsburgh, Pa.	KSUB 1310 100 Cedar City, Utah	KVSO 1210 100 Ardmore, Okla.
KQW 1010 1000 San Jose, Calif.	KSUN 1200 100 Lowell, Ariz.	KWBG 1420 100 Hutchinson, Kans.
KRBC 1420 100 Abilene, Texas	KTAR 620 1000 Phoenix, Ariz.	KWG 1200 100 Stockton, Calif.
KRE 1370 100 Berkeley, Calif.	KTAT 1240 1000 Fort Worth, Texas	KWJJ 1040 500 Portland, Ore.
KRGV 1260 500 Welasco, Texas	KTBS 1450 1000 Shreveport, La.	KWK 1350 1000 St. Louis, Mo.
KRIS 1330 250 Corpus Christi, Tex.	KTEM 1370 100 Temple, Texas	KWKH 1100 10000 Shreveport, La.
KRKD 1120 500 Los Angeles, Calif.	KTFI 1240 1000 Twin Falls, Idaho	KWLC 1270 100 Decorah, Iowa
KRKO 1370 50 Everett, Wash.	KTHS 1080 1000 Hot Springs, Ark.	KWNO 1200 100 Winona, Minn.
KRLC 1420 100 Lewiston, Idaho	KTCK 1190 250 Visalia, Calif.	KWOS 1310 100 Jefferson City, Mo.
KRLD 1040 10000 Dallas, Texas	KTMS 1220 500 Santa Barbara, Calif.	KWSC 1220 1000 Pullman, Wash.

NORTH AMERICAN B. C. STATIONS BY CALLS

KWTN 1210	100	WAIR 1250	250	WBNY 1370	100
Watertown, S. Dak.		Winston-Salem, N. C.		Buffalo, N. Y.	
KWTO 560	5000	WALA 1380	500	WBOQ 860	50000
Springfield, Mo.		Mobile, Ala.		New York, N. Y.	
KWYO 1370	100	WALB 1210	100	WBOW 1310	100
Sheridan, Wyo.		Zanesville, Ohio		Terre Haute, Ind.	
KXA 760	250	WAML 1310	100	WBRB 1210	100
Seattle, Wash.		Laurel, Miss.		Red Bank, N. J.	
KXBY 1530	1000	WAPI 1140	5000	WBBO 930	1000
Kansas City, Mo.		Birmingham, Ala.		Birmingham, Ala.	
KXL 1420	100	WFO 1420	100	WBRE 1310	100
Portland, Ore.		Chattanooga, Tenn.		Wilkes-Barre, Pa.	
KXO 1500	100	WARD 1400	500	WBRY 1530	1000
El Centro, Calif.		Brooklyn, N. Y.		Waterbury, Conn.	
KXRO 1310	100	WASH 1270	500	WBT 1080	50000
Aberdeen, Wash.		Grand Rapids, Mich.		Charlotte, N. C.	
KXYZ 1440	1000	WATL 1370	100	WBTM 1370	100
Houston, Texas		Atlanta, Ga.		Danville, Va.	
KYA 1230	1000	WATR 1190	100	WBZ 990	50000
San Francisco, Calif.		Waterbury, Conn.		Boston, Mass.	
KYCA 1500	100	WAVE 940	1000	WBZA 990	1000
Prescott, Ariz.		Louisville, Ky.		Springfield, Mass.	
KYOS 1040	250	WAWZ 1360	500	WCAD 1220	500
Merced, Calif.		Zarephath, N. J.		Canton, N. Y.	
KYW 1020	10000	WAYX 1200	100	WCAE 1220	1000
Philadelphia, Pa.		Waycross, Ga.		Pittsburgh, Pa.	
TGW 1210	10000	WAZL 1420	100	WCAL 1250	100
Guatemala, Gua.		Hazleton, Pa.		Northfield, Minn.	
TIEP 850	500	WBBA 890	500	WCAM 1280	500
San Jose, C. R.		West Lafayette, Ind.		Camden, N. J.	
VAS 685	2000	WBAL 760	2500	WCAO 600	500
Glace Bay, N. S.		Baltimore, Md.		Baltimore, Md.	
VOAC 1065	40	WBAL 1060	10000	WCAP 1280	500
St. John's, Nfld.		Baltimore, Md.		Asbury Park, N. J.	
VOAS 940	100	WBAP 800	50000	WCAT 1200	100
St. John's, Nfld.		Fort Worth, Texas		Rapid City, S. Dak.	
VOCM 1006	200	WBAX 1210	100	WCAU 1170	50000
St. John's, Nfld.		Wilkes-Barre, Pa.		Philadelphia, Pa.	
VOGY 840	400	WBBC 1400	500	WCAX 1200	100
St. John's, Nfld.		Brooklyn, N. Y.		Burlington, Vt.	
VONF 1195	500	WBBL 1210	100	WCAZ 1070	100
St. John's, Nfld.		Richmond, Va.		Carthage, Ill.	
VOWR 681	500	WBBM 770	50000	WCBA 1440	500
St. John's, Nfld.		Chicago, Ill.		Allentown, Pa.	
WAAB 1410	500	WBBR 1300	1000	WCBD 1080	5000
Boston, Mass.		Brooklyn, N. Y.		Chicago, Ill.	
WAAF 920	1000	WBBZ 1200	100	WCBM 1370	100
Chicago, Ill.		Ponca City, Okla.		Baltimore, Md.	
WAAT 940	500	WBCM 1410	500	WCBS 1420	100
Jersey City, N. J.		Bay City, Mich.		Springfield, Ill.	
WAAW 660	500	WBEN 900	1000	WCCO 810	50000
Omaha, Neb.		Buffalo, N. Y.		Minneapolis, Minn.	
WABC 860	50000	WBEO 1310	100	WCFL 970	5000
New York, N. Y.		Marquette, Mich.		Chicago, Ill.	
WABI 1200	100	WBHP 1200	100	WCBS 580	500
Bangor, Maine		Huntsville, Ala.		Charleston, W. Va.	
WABY 1370	100	WBIG 1440	1000	WCHV 1420	100
Albany, N. Y.		Greensboro, N. C.		Charlottesville, Va.	
WACO 1420	100	WBLK 1370	100	WCKY 1490	5000
Waco, Texas		Clarksburg, W. Va.		Covington, Ky.	
WADC 1320	1000	WBLY 1210	100	WCLO 1200	100
Akron, Ohio		Lima, Ohio		Janesville, Wis.	
WAGF 1370	250	WBNO 1200	100	WCLS 1310	100
Dothan, Ala.		New Orleans, La.		Joliet, Ill.	
WAGM 1420	100	WBNS 1430	500	WCMI 1310	100
Presque Isle, Me.		Columbus, Ohio		Ashland, Ky.	
WAIM 1200	100	WBNX 1350	1000	WCNW 1500	100
Anderson, S. C.		New York, N. Y.		Brooklyn, N. Y.	

NORTH AMERICAN B. C. STATIONS BY CALLS

WCOA 1340	500	WEEU 830	1000	WGCM 1210	100
Pensacola, Fla.		Reading, Pa.		Guilford, Miss.	
WCOG 880	500	WELI 900	500	WGES 1360	500
Meridian, Miss.		New Haven, Conn.		Chicago, Ill.	
WCOL 1210	100	WELL 1420	100	WGH 1310	100
Columbus, Ohio		Battle Creek, Mich.		Newport News, Va.	
WCOP 1120	500	WEMP 1310	100	WGL 1370	100
Boston, Mass.		Milwaukee, Wis.		Fort Wayne, Ind.	
WCPO 1200	100	WENR 870	50000	WGN 720	50000
Cincinnati, Ohio		Chicago, Ill.		Chicago, Ill.	
WORW 1210	100	WEOA 1370	100	WGNV 1210	100
Chicago, Ill.		Evansville, Ind.		Newburgh, N. Y.	
WCSC 1360	500	WESG 850	1000	WGPO 1420	100
Charleston, S. C.		Elmira, N. Y.		Albany, Ga.	
WCSS 940	1000	WEST 1200	100	WGR 550	1000
Portland, Me.		Easton, Pa.		Buffalo, N. Y.	
WDAE 1220	1000	WEVD 1300	1000	WGEC 1370	250
Tampa, Fla.		New York, N. Y.		New Albany, Ind.	
WDAF 610	1000	WEW 760	1000	WGST 890	1000
Kansas City, Mo.		St. Louis, Mo.		Atlanta, Ga.	
WDAH 1310	100	WEXL 1310	50	WGVA 1050	1000
El Paso, Texas		Royal Oak, Mich.		Indianapolis, Ind.	
WDAS 1370	100	WFAA 800	50000	WGY 790	50000
Philadelphia, Pa.		Dallas, Texas		Schenectady, N. Y.	
WDAY 940	1000	WFAB 1300	1000	WHA 940	5000
Fargo, N. Dak.		New York, N. Y.		Madison, Wis.	
WDBJ 930	1000	WEAM 1260	100	WHAM 1150	50000
Roanoke, Va.		South Bend, Ind.		Rochester, N. Y.	
WDBO 580	1000	WEAS 1210	100	WHAS 820	50000
Orlando, Fla.		White Plains, N. Y.		Louisville, Ky.	
WDEL 1120	250	WFBC 1300	1000	WHAT 1310	100
Wilmington, Del.		Greenville, S. C.		Philadelphia, Pa.	
WDEV 550	500	WFBG 1310	100	WHAZ 1300	500
Waterbury, Vt.		Altoona, Pa.		Troy, N. Y.	
WDGY 1180	1000	WFBL 1360	1000	WHB 860	1000
Minneapolis, Minn.		Syracuse, N. Y.		Kansas City, Mo.	
WDNC 1500	100	WFBM 1230	1000	WHBB 1500	100
Durham, N. C.		Indianapolis, Ind.		Selma, Ala.	
WDOD 1280	1000	WFBR 1270	500	WHBC 1200	100
Chattanooga, Tenn.		Baltimore, Md.		Canton, Ohio	
WDRC 1330	1000	WFDF 1310	100	WHBF 1210	100
Hartford, Conn.		Flint, Mich.		Rock Island, Ill.	
WDSM 1200	100	WFEA 1340	500	WHBI 1250	1000
Superior, Wis.		Manchester, N. H.		Newark, N. J.	
WDSU 1250	1000	WFIL 560	1000	WHBL 1300	250
New Orleans, La.		Philadelphia, Pa.		Sheboygan, Wis.	
WDWS 1370	100	WFLA 620	1000	WHBQ 1370	100
Champaign, Ill.		Clearwater, Fla.		Memphis, Tenn.	
WDZ 1020	250	WFMD 900	500	WHBU 1210	100
Tuscola, Ill.		Frederick, Md.		Anderson, Ind.	
WEAF 660	50000	WFOR 1370	100	WHBY 1200	100
New York, N. Y.		Hattiesburg, Miss.		Green Bay, Wis.	
WEAN 780	1000	WFOY 1210	100	WHDF 1370	100
Providence, R. I.		St. Augustine, Fla.		Calumet, Mich.	
WEAU 1050	1000	WFTC 1200	100	WHDH 830	1000
Eau Claire, Wis.		Kinston, N. C.		Boston, Mass.	
WEBC 1290	1000	WGAL 1500	100	WHDL 1400	250
Duluth, Minn.		Lancaster, Pa.		Olean, N. Y.	
WEBQ 1210	100	WGAN 640	500	WHBB 740	250
Harrisburg, Ill.		Portland, Me.		Portsmouth, N. H.	
WEBR 1310	100	WGAR 1450	500	WHCC 1430	500
Buffalo, N. Y.		Cleveland, Ohio		Rochester, N. Y.	
WEDC 1210	100	WGBB 1210	100	WHCF 1500	100
Chicago, Ill.		Freeport, N. Y.		Kosciusko, Miss.	
WEED 1420	100	WGBF 630	500	WHFC 1420	100
Rocky Mound, N. C.		Evansville, Ind.		Cicero, Ill.	
WEFI 590	1000	WGBI 880	500	WHIO 1260	1000
Boston, Mass.		Scranton, Pa.		Dayton, Ohio	

NORTH AMERICAN B. C. STATIONS BY CALLS

WHIS 1410 Bluefield, W. Va.	500	WJBK 1500 Detroit, Mich.	100	WLAP 1420 Lexington, Ky.	100
WHJB 620 Greensburg, Pa.	250	WJBL 1200 Decatur, Ill.	100	WLB 1250 Minneapolis, Minn.	1000
WHK 1390 Cleveland, Ohio	1000	WJBO 1420 Baton Rouge, La.	100	WLBC 1310 Muncie, Ind.	100
WHKC 640 Columbus, Ohio	500	WJBR 1420 Gastonia, N. C.	100	WLBL 900 Stevens Point, Wis.	2500
WHLB 1370 Virginia, Minn.	100	WJBW 1200 New Orleans, La.	100	WLBZ 620 Bangor, Me.	500
WHN 1010 New York, N. Y.	1000	WJBY 1210 Gadsden, Ala.	100	WLEU 1420 Erie, Pa.	100
WHO 1000 Des Moines, Iowa	50000	WJDJ 1270 Jackson, Miss.	1000	WLLH 1370 Lowell, Mass.	100
WHOM 1450 Jersey City, N. J.	250	WJEJ 1210 Hagerstown, Md.	100	WLMO 1210 Middlesboro, Ky.	100
WHP 1430 Harrisburg, Pa.	500	WJIM 1210 Lansing, Mich.	100	WLNH 1310 Laconia, N. H.	100
WIBA 1280 Madison, Wis.	1000	WJJD 1130 Chicago, Ill.	20000	WLS 870 Chicago, Ill.	50000
WIBG 970 Glenside, Pa.	100	WJMS 1420 Ironwood, Mich.	100	WLTH 1400 Brooklyn, N. Y.	500
WIBM 1370 Jackson, Mich.	100	WJNO 1200 W. Palm Beach, Fla.	100	WLVA 1200 Lynchburg, Va.	100
WIBU 1210 Poynette, Wis.	100	WJR 750 Detroit, Mich.	50000	WLW 700 Cincinnati, Ohio	500000
WIBW 580 Topeka, Kans.	1000	WJRD 1200 Tuscaloosa, Ala.	100	WLWL 1100 New York, N. Y.	5000
WIBX 1200 Utica, N. Y.	100	WJSV 1460 Washington, D. C.	10000	WMAL 630 Washington, D. C.	250
WICA 940 Ashtabula, Ohio	250	WJTN 1210 Jamestown, N. Y.	50	WMAQ 670 Chicago, Ill.	50000
WICC 600 Bridgeport, Conn.	500	WJW 1210 Akron, Ohio	100	WMAS 1420 Springfield, Mass.	100
WIL 1200 St. Louis, Mo.	100	WJZ 760 New York, N. Y.	50000	WMAZ 1180 Macon, Ga.	1000
WILL 890 Urbana, Ill.	250	WKAQ 1240 San Juan, P. R.	1000	WMBC 1420 Detroit, Mich.	100
WILM 1420 Wilmington, Del.	100	WKAR 850 East Lansing, Mich.	1000	WMBD 1440 Peoria, Ill.	500
WIND 560 Gary, Ind.	1000	WKBB 1500 East Dubuque, Ill.	100	WMBG 1210 Richmond, Va.	100
WINS 1180 New York, N. Y.	1000	WKBH 1380 LaCrosse, Wis.	1000	WMBH 1420 Joplin, Mo.	100
WIOD 1300 Miami, Fla.	1000	WKBN 570 Youngstown, Ohio	500	WMBI 1080 Chicago, Ill.	5000
WIP 610 Philadelphia, Pa.	1000	WKBO 1200 Harrisburg, Pa.	100	WMO 1310 Auburn, N. Y.	100
WIRE 1400 Indianapolis, Ind.	1000	WKBV 1500 Richmond, Ind.	100	WMBQ 1500 Brooklyn, N. Y.	100
WIS 560 Columbia, S. C.	1000	WKBW 1480 Buffalo, N. Y.	5000	WMBR 1370 Jacksonville, Fla.	100
WISN 1120 Milwaukee, Wis.	250	WKBZ 1500 Muskegon, Mich.	100	WMSB 1420 Uniontown, Pa.	250
WJAC 1310 Johnstown, Pa.	100	WKEU 1500 Griffin, Ga.	100	WMC 780 Memphis, Tenn.	1000
WJAG 1060 Norfolk, Neb.	1000	WKOK 1210 Sunbury, Pa.	100	WMCA 570 New York, N. Y.	1010
WJAR 890 Providence, R. I.	1000	WKRC 550 Cincinnati, Ohio	1000	WMEX 1500 Boston, Mass.	100
WJAS 1290 Pittsburgh, Pa.	1000	WKY 900 Oklahoma City, Okla.	1000	WMFD 1370 Wilmington, N. C.	100
WJAX 900 Jacksonville, Fla.	1000	WKZO 590 Kalamazoo, Mich.	1000	WMFF 1310 Plattsburg, N. Y.	250
WJAY 610 Cleveland, Ohio	500	WLAC 1470 Nashville, Tenn.	5000	WMFG 1210 Hibbing, Minn.	100
WJBC 1200 Bloomington, Ill.	100	WLAJ 1310 Lakeland, Fla.	100	WMFJ 1420 Daytona Beach, Fla.	100

NORTH AMERICAN B. C. STATIONS BY CALLS

WMFN 1210 100	WORC 1280 500	WROK 1410 500
Grenada, Miss.	Worcester, Mass.	Rockford, Ill.
WMFO 1370 100	WORK 1320 1000	WROL 1310 100
Decatur, Ala.	York, Pa.	Knoxville, Tenn.
WMFR 1200 100	WORL 920 500	WRR 1280 500
High Point, N. C.	Boston, Mass.	Dallas, Texas
WMIN 1370 100	WOSU 570 750	WRTD 1500 100
St. Paul, Minn.	Columbus, Ohio	Richmond, Va.
WMMN 890 500	WOV 1130 1000	WRUF 830 5000
Fairmont, W. Va.	New York, N. Y.	Gainesville, Fla.
WMPC 1200 100	WOW 590 5000	WRVA 1110 5000
Lapeer, Mich.	Omaha, Neb.	Richmond, Va.
WMSD 1420 100	WOWO 1160 10000	WSAI 1330 1000
Sheffield, Ala.	Fort Wayne, Ind.	Cincinnati, Ohio
WMT 600 1000	WPAD 1420 100	WSAJ 1310 100
Cedar Rapids, Iowa	Paducah, Ky.	Grove City, Pa.
WNAC 1230 1000	WPAR 1420 100	WSAN 1440 500
Boston, Mass.	Parkersburg, W. Va.	Allentown, Pa.
WNAD 1010 1000	WPAX 1210 100	WSAR 1450 1000
Norman, Okla.	Thomasville, Ga.	Fall River, Mass.
WNAX 570 1000	WPAY 1370 100	WSAU 1370 100
Yankton, S. D.	Portsmouth, Ohio	Wausau, Wis.
WNBC 1380 250	WPEN 920 250	WSAY 1210 100
New Britain, Conn.	Philadelphia, Pa.	Rochester, N. Y.
WNBF 1500 100	WPG 1100 5000	WSAZ 1190 1000
Binghamton, N. Y.	Atlantic City, N. J.	Huntington, W. Va.
WNBH 1310 100	WPHR 880 500	WSB 740 50000
New Bedford, Mass.	Petersburg, Va.	Atlanta, Ga.
WNBR 1430 500	WPRA 1370 100	WSBC 1210 100
Memphis, Tenn.	Mayaguez, P. R.	Chicago, Ill.
WNBX 1260 1000	WPRO 630 500	WSBT 1360 500
Springfield, Vt.	Providence, R. I.	South Bend, Ind.
WNBZ 1290 100	WPRP 1420 100	WSFA 1410 500
Saranac Lake, N. Y.	Ponce, P. R.	Montgomery, Ala.
WNEL 1290 1000	WPTF 680 1000	WSGN 1310 100
San Juan, P. R.	Raleigh, N. C.	Birmingham, Ala.
WNEW 1250 1000	WQAM 560 1000	WSIX 1210 100
New York, N. Y.	Miami, Fla.	Nashville, Tenn.
WNLC 1500 100	WQAN 880 250	WSJS 1310 100
New London, Conn.	Scranton, Pa.	Winston-Salem, N. C.
WNNY 1420 100	WQBC 1360 1000	WSM 650 50000
Watertown, N. Y.	Vicksburg, Miss.	Nashville, Tenn.
WNOX 1010 1000	WQDM 1390 1000	WSMB 1320 1000
Knoxville, Tenn.	St. Albans, Vt.	New Orleans, La.
WNRI 1200 100	WQXR 1550 1000	WSMK 1380 200
Newport, R. I.	New York, N. Y.	Dayton, Ohio
WNYC 810 1000	WRAK 1370 100	WSNJ 1210 100
New York, N. Y.	Williamsport, Pa.	Bridgeton, N. J.
WOAI 1190 50000	WRAW 1310 100	WSOC 1210 100
San Antonio, Texas	Reading, Pa.	Charlotte, N. C.
WOC 1370 100	WRAX 920 250	WSPA 920 1000
Davenport, Iowa	Philadelphia, Pa.	Spartanburg, S. C.
WOI 640 5000	WRBL 1200 100	WSPD 1340 1000
Ames, Iowa	Columbus, Ga.	Toledo, Ohio
WOKO 1430 500	WRC 550 500	WSPR 1140 500
Albany, N. Y.	Washington, D. C.	Springfield, Mass.
WOL 1310 100	WRDO 1370 100	WSUI 880 500
Washington, D. C.	Augusta, Me.	Iowa City, Iowa
WOLS 1200 100	WRDW 1500 100	WSUN 620 1000
Florence, S. C.	Augusta, Ga.	St. Petersburg, Fla.
WOMT 1210 100	WREC 600 1000	WSVA 550 500
Manitowoc, Wis.	Memphis, Tenn.	Harrisonburg, Va.
WOOD 1270 500	WREN 1220 1000	WSVS 1370 50
Grand Rapids, Mich.	Lawrence, Kans.	Buffalo, N. Y.
WOPI 1500 100	WRGA 1500 100	WSYB 1500 100
Bristol, Tenn.	Rome, Ga.	Rutland, Vt.
WOR 710 50000	WRJN 1370 100	WSYR 570 1000
Newark, N. J.	Racine, Wis.	Syracuse, N. Y.

NORTH AMERICAN B. C. STATIONS BY CALLS

WTAD 900 1000	Quincy, Ill.	XEAG 1310 10	Cordoba, Ver.	XEI 1370 125	Morella, Mich.
WTAG 580 1000	Worcester, Mass.	XEAL 660 1000	Mexico City, D. F.	XEJ 1020 1000	Juarez, Chih.
WTAL 1310 100	Tallahassee, Fla.	XEAM 750 25	Matamoros, Tams.	XEJP 1130 100	Mexico City, D. F.
WTAM 1070 50000	Cleveland, Ohio	XEAO 560 250	Mexicall, B. C.	XEK 990 100	Mexico City, D. F.
WTAQ 1330 1000	Green Bay, Wis.	XEAQ 1090 1000	Rosarito, L. C.	XEKL 1240 500	Leon, Guan.
WTAR 780 500	Norfolk, Va.	XEAS 1100 50	Saltillo, Coah.	XEL 780 1000	Mexico City, D. F.
WTAW 1120 500	College Station, Tex.	XEAT 1210 250	Paral, Chih.	XELA 1240 50	Saltillo, Coah.
WTAX 1210 100	Springfield, Ill.	XEAW 960 50000	Reynosa, Tams.	XELO 580 50000	Piedras Negras, Coah.
WTBO 800 250	Cumberland, Md.	XEB 1030 10000	Mexico City, D. F.	XELZ 1370 100	Mexico City, D. F.
WTCN 1250 1000	Minneapolis, Minn.	XEBA 1080 20	Guzman, Jal.	XEMG 1060 100	Atzacapotzalco, D. F.
WTEL 1310 100	Philadelphia, Pa.	XEBC 730 5000	Agua Caliente, L. C.	XEMO 860 5000	Tijuana, L. C.
WTFI 1450 500	Athens, Ga.	XEBG 820 1000	Tijuana, B. Cfa.	XEMX 1280 100	Mexico City, D. F.
WTHT 1200 100	Hartford, Conn.	XEBH 930 500	Hermosillo, Sonora	XENC 860 50	Mexico City, D. F.
WTIC 1040 50000	Hartford, Conn.	XEBJ 1160 20	Merida, Yuc.	XENT 910 150000	Nuevo Laredo, Tams.
WTJS 1310 100	Jackson, Tenn.	XEBK 1000 100	Nuevo Laredo, Tams.	XEOK 760 2500	Tijuana, L. C.
WFMJ 620 1000	Milwaukee, Wis.	XEBX 640 250	Sabinas, Coah.	XEOX 640 500	Saltillo, Coah.
WTMV 1500 100	East St. Louis, Ill.	XEBZ 1160 100	Mexico City, D. F.	XEP 1160 500	Juarez, Chih.
WTNJ 1290 500	Trenton, N. J.	XEO 1150 100	Tijuana, L. C.	XEPN 730 100000	Piedras Negras, Coah.
WTOC 1260 1000	Savannah, Ga.	XECW 1310 10	Mexico City, D. F.	XERA 840 350000	Villa Acuna, Coah.
WTRO 1310 100	Elkhart, Ind.	XECZ 1370 100	San Luis Potosi, S.L.P.	XES 990 250	Tampico, Tams.
WVFW 1400 500	Brooklyn, N. Y.	XED 1160 2500	Guadalajara, Jal.	XET 690 500	Monterrey, N. L.
WWAE 1200 100	Hammond, Ind.	XEDA 1220 200	Gra. Anaya, D. F.	XETB 1310 125	Torreon, Coah.
WWJ 920 1000	Detroit, Mich.	XEDW 1150 20	Minatitlan, Ver.	XETF 1220 30	Veracruz, Ver.
WWL 850 10000	New Orleans, La.	XEE 1210 50	Durango, Dgo.	XETH 1210 100	Puebla, Pue.
WWNC 570 1000	Asheville, N. C.	XEF 1450 100	Juarez, Chih.	XEU 1010 250	Veracruz, Ver.
WWRL 1500 100	Woodside, N. Y.	XEFA 1180 500	Tacuba, D. F.	XEW 890 50000	Mexico City, D. F.
WWSW 1500 100	Pittsburgh, Pa.	XEFB 870 200	Monterrey, N. L.	XEX 1310 125	Monterrey, N. L.
WWVA 1160 5000	Wheeling, W. Va.	XEFC 550 250	Merida, Yuc.	XEXB 1270 50	Jalapa, Ver.
WXYZ 1240 1000	Detroit, Mich.	XEFE 1340 250	Laredo, Tams.	XEXO 810 350	Aguascalientes, Ags.
W3XJ 1060 100	College Park, Md.	XEFI 1440 250	Chihuahua, Chih.	XEXD 1340 350	Jalapa, Ver.
XEAA 920 200	Mexicall, B. C.	XEFJ 1230 100	Monterrey, N. L.	XEXH 1250 250	San Luis Potosi, S.L.P.
XEAC 980 250	Tijuana, L. C.	XEFO 940 5000	Mexico City, D. F.	XEXM 610 500	Mexico City, D. F.
XEAD 1060 125	Guadalajara, Jal.	XEFV 1210 100	Juarez, Chih.	XEXS 1000 100	Portable in Mexico
XEAF 990 250	Nogales, Son.	XEFW 1310 250	Tampico, Tams.	XEYO 940 500	Mexico City, D. F.
		XEH 720 250	Monterrey, N. L.	XEZ 630 500	Merida, Yuc.

At DEADLINE . . .

Call letters WJOY have been assigned to the new station on 950 kcs. at Saginaw, Mich.

* * *

New police stations licensed are WRDH, Houghton Heights, Mich., of the Michigan State Police. New municipal stations are KADQ, Brea, Calif., WASC, Peru, Ind., and WASD, Madison, Wis.

* * *

A new station at Daventry, Great Britain, is GST, on 21550 kcs.

* * *

William Buchanan of Sydney, N. S., Canada, reports a new Spanish station, EAQ2, on 9475 kcs. The announcer stated they were on the air on Tuesdays and Fridays from 1400 to 1600 EST.

* * *

A new Bolivian station has just appeared. Its name is "Radio Chuquisaca," call letters being unknown at this time. It is heard on Sunday mornings in the 6 meg. band.

* * *

TYA2, a regional station of the French government, was heard on 9030 kcs. with music at 0200 EST.

* * *

Ronald Self of King Cove, Alaska, submits information on three Alaskan stations. KAEW, Umnak, KAJJ, Atka, and KAQF, Unalaska, each works on 2616, 5207 and 8070 kcs.

* * *

NBC has added two outlets to bring its total station strength to a new high of 121. The new territories served are Erie, Pa., with its station WLEU becoming an optional outlet of the Basic Blue Network, and station KANS in Wichita, Kans., which is now an optional outlet available to either the Red or the Blue Chain.

DON'T Miss THIS . . .

DAILY

1321, EST, News, 2RO, 9635 kcs.
1630, News, W1XAL, 11790 (except Sunday)
1800, News, W1XAL, 11790 (except Sunday)
1800, News, YV5RC, 5800
2010, News, GSB, 9510; GCS, 9580; GSD, 11750
2230, News, DJB, 15200; DJD, 11770
2240, News, GSB, 9510; GSC, 9580; GSD, 11750
2330, News, TPA4, 11720

EVERY SATURDAY

0000, KDKA Dx Club, KDKA, 980; W8XK, 6140
1400, Metropolitan Opera, W2XAD, 15330;
W2XAF, 9530; W3XAL, 17780
2200, American DXers' Program, HJ1ABP, 9600
2300, Northern Messenger, CJRO, 6150; CJRX, 11720

EVERY SUNDAY

0000, Far North Broadcasts, KDKA, 980;
W8XK, 6140

EVERY MONDAY

1900, 2RO Mall Bag, 2RO, 9635
1930, Modern Radio Course, W1XAL, 6040
2030, Code Practice Lessons, W1XAL, 6040
2045, Amateur Hour, YV5RC, 5800

EVERY MONDAY, WEDNESDAY, FRIDAY

1800, American Hour, 2RO, 9635

April 22

2345, "Count of Luxemburg," TPA4, 11720

April 26

1900, Ladies' Night, 2RO, 9635
1930, "Fading and Static," W1XAL, 6040

May 12

Coronation Ceremonies from Daventry

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Canadian Network Stations Mar. '37, p. 49

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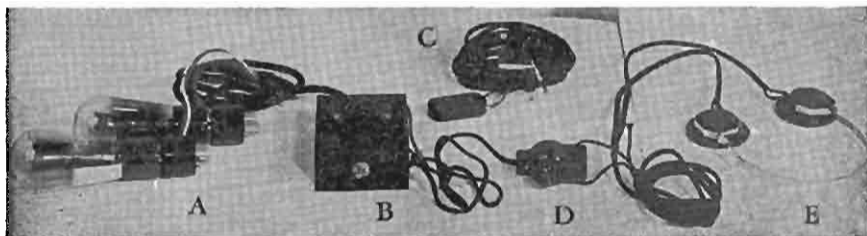
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Radio already gives jobs to more than 300,000 people. In 1935 over \$300,000,000 worth of sets, tubes and parts were sold—an increase of 20% over 1934! Over 1,100,000 auto Radios were sold in 1935, 25% more than in 1934! 22,000,000 homes are today equipped with radios, and every year millions of these sets go out of date and are replaced with newer models. Millions more need servicing, new tubes, repairs, etc. Broadcasting stations pay their employees (exclusive of artists) more than \$23,000,000 a year! And Radio

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Get Ready Now for Your Own Radio Business and for Jobs Like These

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